```
> restart;
> read "C:\\Documents and Settings\\Manfred\\Desktop\\InvMaj.mpl";
```

Created: March 30, 2010

This is InvMaj

A Maple package that accompanies the article

The Number of Inversions and the Major Index of Permutations

are Asymptotically Joint-Independently-Normal

by Andrew Baxter and Doron Zeilberger

and also available from Baxter's Zeilberger's websites.

Please report bugs to zeilberg at math dot rutgers dot edu

The most current version of this package and paper

are available from

http://www.math.rutgers.edu/~zeilberg/ .

For a list of the procedures type ezra();, for help with

a specific procedure, type ezra(procedure_name); .

```
Warning, the protected name Chi has been redefined and unprotected
>
```

```
> ezra();
```

The main procedures are: Check1, Check2, FM8,FM8m, frs, MOP, G

```
> ezra(Check1);
```

Check1(L,n,i): verifies empirically (and hence rigorously), that the conjectured
expressions for the leading terms of the factorial moments about the mean satisfy the recurrences
that they are supposed to, regarding the first equation on p. 8 of the article
do: Check1(FM8m(n,i),n,i)

```
> ezra(Check2);
```

Check2(L,n,i): verifies empirically (and hence rigorously), that the conjectured
expressions for the leading terms of the factorial moments about the mean satisfy the recurrences
that they are supposed to, regarding the second equation on p. 8 of the article
do: Check2(FM8m(n,i),n,i)

```
> ezra(FM8);
```

FM8(n,i): pre-computed table of the factorial moments
about the means, as polynomial expressions in (n,i)
for the pair (inv,maj) defined over n-permutations
that end in i. The output is a list-of-lists, let's call
it L, such that L[r][s] gives the (r,s)-mixed-factorial-moment
about the mean for 1<=r,s<=8
Try:
FM8(n,i);

```
> ezra(FM8m);
```

FM8m(n,i): pre-computed table of the leading terms of the
factorial moments
about the means, as polynomial expressions in (n,i)

for the pair (inv,maj) defined over n-permutations
that end in i. The output is a list-of-lists, let's call
it L, such that L[r][s] gives the (r,s)-mixed-factorial-moment
about the mean for 1<=r,s<=8
Try:
FM8m(n,i);

```
> ezra(frs);
```

frs(r0,s0,n,i): The (r0,s0)-factorial moment of (inv,maj) over
n-permutations that end in i.
For example, try:
frs(2,2,n,i);

```
> ezra(MOP);
```

MOP(ope,p,q,N,I1,r,s,R,S,m0): inputs an operator
ope(n,i,p,q,N^(-1),I1^(-1)) such that a sequence of discrete
prob. gen. functions satisfies the recurrence
p_{n,i}(p,q)=ope(n,i,p,q,N^(-1),I1^(-1))p_{n,i}(p,q),
expressed in terms of the discrete variables n and i and
(negative) shift-operator
N^(-1) amd I1^(-1), and given symbols r and s, and respective
shift-operators R and S
and a pos. integer m0, outputs an operator, let's call it
Ope(r,s,n,i,N^(-1),I1^(-1),R^(-1),S^(-1))
such that the factorial moments f_{r,s}(n,i)
satisfy the recurrence, up to order m0 in R^(-1) and S^(-1)
f_{r,s}(n)=Ope(r,s,N^(-1),I1^(-1),R^(-1),S^(-1))f_{r,s}(n,i) .
For example, try:
*MOP(I1/q+(q^(n-1)-1)/(n-1)*p^(n/2-i)/q^(n/2)/N,p,q,N,I1,r,s,R,S,3);*

*MOP((p*q)^(n/2-i)/N/(n-1),p,q,N,I1,r,s,R,S,1);*

```
> ezra(G);
```

G(n,i,p,q) the prob. generating function
with variables p (for inv) and q(for maj)
for the pair (inv,maj) defined over n-permutations
that end in i. For example, try:
G(4,2,p,q);

```
>
```

Sample INPUT/OUTPUT from http://www.math.rutgers.edu/~zeilberg/mamarim/mamarimhtml/invmaj.html
Pre-computed table of all mixed-factorial moments FM(r,s)(n,i) (about the mean) of the pair of random variables (inv,maj) defined over the set of permutations of {1, ..., n} that end in i (for symbolic(!) n and i) but numeric r and s with 1 <= r,s, <= 8.

```
> print(`The following list of lists, let's call it L, is such that L[r][s] is the`):
  print(`mixed (r,s)-factorial moment about the mean of (inv,maj) defined over`):
  print(`permutations of {1, ..., n} that end in i `):
  lprint(FM8(n,i) ):
```

The following list of lists, let's call it L, is such that L[r][s] is the

mixed (r,s)-factorial moment about the mean of (inv,maj) defined over

permutations of {1, ..., n} that end in i

```
[[1/4-1/2*i+1/2*i^2+1/8*n-1/2*n*i+1/8*n^2, -1/4+1/2*i-1/2*i^2-1/8*n+1/2*n*i-1/8*n^2, 7/16-7/8*i+7/8*i^2+1/6*n-37
/48*n*i-5/48*n*i^2+31/192*n^2+1/6*n^2*i-1/16*n^2*i^2-1/48*n^3+1/48*n^3*i+1/24*n^3*i^2-1/192*n^4-1/24*n^4*i+1/96*
n^5, -9/8+9/4*i-9/4*i^2-1/4*n+13/8*n*i+5/8*n*i^2-7/32*n^2-n^2*i+3/8*n^2*i^2+1/8*n^3-1/8*n^3*i-1/4*n^3*i^2+1/32*n
^4+1/4*n^4*i-1/16*n^5, -763/96*i+419/1920*n+763/192-749/4608*n^4-283/80*n*i^2-46943/69120*n^3+97403/17280*n^2*i-
7255/3456*n^2*i^2+2209/3456*n^3*i+841/576*n^3*i^2-5027/3456*n^4*i+24391/69120*n^5+1831/34560*n^2+763/96*i^2-31/1
440*n^5*i^2+17/1080*n^6*i+5/864*n^6*i^2-5/864*n^7*i-19/3456*n^4*i^2+467/17280*n^5*i-2117/480*n*i+5/3456*n^8-17/4
320*n^7-89/23040*n^6, 1175/32*i+221/128*n+1345/1536*n^4+349/16*n*i^2+18143/4608*n^3-39803/1152*n^2*i+14675/1152*
n^2*i^2-3845/1152*n^3*i-1805/192*n^3*i^2+10735/1152*n^4*i-9991/4608*n^5+6089/2304*n^2-1175/32*i^2-1175/64+31/96*
n^5*i^2-17/72*n^6*i-25/288*n^6*i^2+25/288*n^7*i+95/1152*n^4*i^2-467/1152*n^5*i+477/32*n*i-25/1152*n^8+17/288*n^7
+89/1536*n^6, -81469/384*i-168781/7560*n+81469/768-14860751/241920*n*i-1194851/13824*n^2*i^2+38249741/161280*n^2
*i-2608649/38880*n^4*i+84672949/1244160*n^3*i^2-36464719/241920*n*i^2+22863641/1244160*n^3*i-1546801/414720*n^5*
i^2+140987/51840*n^6*i+3103/3072*n^6*i^2-2963869/2903040*n^7*i-44303/46080*n^4*i^2+243191/51840*n^5*i-4889/14515
20*n^8*i+1981/311040*n^9*i+15767/1451520*n^7*i^2+35/31104*n^9*i^2-259/34560*n^8*i^2-35/31104*n^10*i+81469/384*i^
2-13479517/483840*n^2-110008091/4354560*n^3-25256003/4976640*n^4+37097981/2488320*n^5+2920357/11612160*n^8-19580
51/2903040*n^7-553859/829440*n^6+24467/17418240*n^9+35/124416*n^11-1981/1244160*n^10, 141463/96*i+936181/4320*n-
141463/192+2621111/8640*n*i+2275217/3456*n^2*i^2-10532401/5760*n^2*i+21081347/38880*n^4*i-171996643/311040*n^3*i
^2+10110559/8640*n*i^2-32772887/311040*n^3*i+4265527/103680*n^5*i^2-387149/12960*n^6*i-25963/2304*n^6*i^2+119986
9/103680*n^7*i+13769/1280*n^4*i^2-336301/6480*n^5*i+4889/51840*n^8*i-13867/77760*n^9*i-15767/51840*n^7*i^2-245/7
776*n^9*i^2+1813/8640*n^8*i^2+245/7776*n^10*i-141463/96*i^2+4377487/17280*n^2+14047273/77760*n^3+39464621/124416
0*n^4-71528807/622080*n^5-1156357/414720*n^8+758531/103680*n^7+1522073/207360*n^6-24467/622080*n^9-245/31104*n^1
1+13867/311040*n^10], [-1/4+1/3*i-1/3*i^3+1/24*n-1/6*n*i+1/2*n*i^2+1/24*n^2-1/6*n^2*i, -1/3*i+1/72*n+17/144+151/
5184*n^4+11/12*n*i^2+83/864*n^3-2/3*i^3-1/2*n^2*i+3/4*n^2*i^2-1/4*n^3*i-1/432*n^5+403/5184*n^2+1/2*i^2+1/2*i^4-1
/4*n*i-n*i^3+1/1296*n^6, 11/12*i-3/8*n-1/36*n^3*i^3+1/24*n^2*i^3-77/864*n^4-35/8*n*i^2-31/96*n^3+37/12*i^3+293/1
44*n^2*i-113/48*n^2*i^2+5/6*n^3*i-1/16*n^3*i^2+1/144*n^4*i+1/96*n^5-515/864*n^2-5/2*i^2+1/24*n^4*i^2-1/72*n^5*i-
```

```
3/2*i^4+20/9*n*i+221/72*n*i^3-1/432*n^6-1/24, -11/2*i+210437/86400*n+247/320-97/8*n*i+1013/144*n^2*i^2-965/144*n
^2*i+23/144*n^4*i-5/24*n^3*i^2+49/3*n*i^2-359/144*n^3*i+1/8*n^5*i^2-1/24*n^6*i-29/144*n^4*i^2+5/144*n^5*i+51/4*i
^2+104993/34560*n^2+2805919/3110400*n^3+26087/115200*n^4-64699/1036800*n^5-29/86400*n^8+2771/518400*n^7+383/2304
0*n^6+1/15552*n^9-12*i^3+19/4*i^4-19/2*n*i^3+1/4*n^3*i^3+5/12*n^2*i^3-5/24*n*i^4-1/8*n^2*i^4+1/12*n^3*i^4-1/6*n^
4*i^3, 1681/48*i-46013/3456*n-535/64+265967/4320*n*i-15497/720*n^2*i^2+537019/25920*n^2*i-16309/10368*n^4*i+1338
5/3456*n^3*i^2-17671/288*n*i^2+367463/51840*n^3*i-4339/3456*n^5*i^2+22267/51840*n^6*i-31/1440*n^6*i^2+17/3240*n^
7*i+401/576*n^4*i^2+4121/51840*n^5*i-5/2592*n^8*i+5/864*n^7*i^2-200/3*i^2-167251/11520*n^2-1246187/622080*n^3-86
441/207360*n^4+1457/4608*n^5+199/51840*n^8-2839/51840*n^7-25937/207360*n^6-5/7776*n^9+2359/48*i^3-35/2*i^4+35347
/1080*n*i^3-467/288*n^3*i^3-28745/5184*n^2*i^3+25/12*n*i^4+5/4*n^2*i^4-5/6*n^3*i^4+8659/5184*n^4*i^3+31/2160*n^5
*i^3-5/1296*n^6*i^3, -3485/16*i+177199679/2540160*n+1043479/16128-180259/576*n*i+352979/5760*n^2*i^2-90433/1728*
n^2*i+10169/960*n^4*i-1208797/34560*n^3*i^2+76339/320*n*i^2-531451/34560*n^3*i+355673/34560*n^5*i^2-683/192*n^6*
i+509/3840*n^6*i^2+41/34560*n^7*i-2549/2304*n^4*i^2-6655/3456*n^5*i+329/8640*n^8*i-5/576*n^9*i-581/4320*n^7*i^2+
5/192*n^8*i^2+11563/32*i^2+2096051611/30481920*n^2-1077421/18289152*n^3-1589639549/2194698240*n^4-4666099/373248
0*n^5-32584687/731566080*n^8+9050077/20321280*n^7+4048625/4478976*n^6+419639/91445760*n^9-17/233280*n^11+84919/6
8584320*n^10-1759/8*i^3+2443/32*i^4+5/559872*n^12-91123/720*n*i^3+5659/576*n^3*i^3+213817/4320*n^2*i^3-1349/80*n
*i^4-11575/1152*n^2*i^4+1321/192*n^3*i^4-2977/216*n^4*i^3-17/320*n^5*i^3+329/2160*n^6*i^3-5/144*n^7*i^3+5/288*n^
6*i^4-19/1152*n^4*i^4-31/480*n^5*i^4, 783793/576*i-43800433/120960*n-43441/96+73913479/45360*n*i-21612329/241920
*n^2*i^2-382367/181440*n^2*i-231908233/3732480*n^4*i+6472613/23040*n^3*i^2-5472863/5760*n*i^2-72342749/3265920*n
^3*i-11573737/138240*n^5*i^2+3575317/124416*n^6*i+202499/414720*n^6*i^2-274459/362880*n^7*i-16463471/1244160*n^4
*i^2+7526897/373248*n^5*i-4444453/8709120*n^8*i+2376533/13063680*n^9*i+266867/138240*n^7*i^2-259/34560*n^9*i^2-7
78033/1451520*n^8*i^2+1981/933120*n^10*i-65877/32*i^2-9796439/30240*n^2+22720753/435456*n^3+80009011/4354560*n^4
+13554971/7464960*n^5+4292213/8709120*n^8-7588267/2177280*n^7-2429903/373248*n^6-507467/17418240*n^9+3031/186624
0*n^11-231073/8709120*n^10+629927/576*i^3-12663/32*i^4-35/186624*n^12+198151783/362880*n*i^3-112773469/1866240*n
^3*i^3-534373/1280*n^2*i^3+10829/80*n*i^4+30625/384*n^2*i^4-3647/64*n^3*i^4+23611189/207360*n^4*i^3-696503/62208
0*n^5*i^3-539699/207360*n^6*i^3+1571833/2177280*n^7*i^3-35/96*n^6*i^4+133/384*n^4*i^4+217/160*n^5*i^4+259/51840*
n^8*i^3-35/46656*n^9*i^3+35/31104*n^10*i^2-35/93312*n^11*i, -1264543/144*i+23208801713/12441600*n+430695181/1382
40-227622397/25920*n*i-186757801/181440*n^2*i^2+73333291/40320*n^2*i+469379567/1451520*n^4*i-153769831/68040*n^3
*i^2+14197601/3780*n*i^2+5031355513/6531840*n^3*i+3085079/4320*n^5*i^2-7445489/31104*n^6*i-1888987/77760*n^6*i^2
+3443/243*n^7*i+445123439/1866240*n^4*i^2-38379049/207360*n^5*i+8931983/1451520*n^8*i-7242163/2612736*n^9*i-5806
337/241920*n^7*i^2+423653/2177280*n^9*i^2+34997729/4354560*n^8*i^2-32623/725760*n^10*i+1202449/96*i^2+1072603024
13/72576000*n^2-950276533163/1567641600*n^3-6066074896633/31352832000*n^4+22989303067531/564350976000*n^5-153215
21071/2939328000*n^8+195228575711/7054387200*n^7+9058058120143/188116992000*n^6+87191774443/564350976000*n^9-311
833007/11287019520*n^11+25661587237/62705664000*n^10-222317/36*i^3+233425/96*i^4+39257599/23514624000*n^12-11845
4351/45360*n*i^3+90707723/233280*n^3*i^3+21888025/6048*n^2*i^3-13842323/12096*n*i^4-2297351/3456*n^2*i^4+1555706
29/311040*n^3*i^4-154835377/155520*n^4*i^3+4564313/155520*n^5*i^3+123347/3456*n^6*i^3-11846069/1088640*n^7*i^3+4
223/768*n^6*i^4-60263/11520*n^4*i^4-421853/20736*n^5*i^4-30271/181440*n^8*i^3+8393/116640*n^9*i^3-29729/466560*n
^10*i^2+3031/155520*n^11*i-1379/67184640*n^14+35/20155392*n^15+1614307/4408992000*n^13+35/5184*n^11*i^2-35/15552
*n^12*i+15767/362880*n^7*i^4-259/8640*n^8*i^4+35/7776*n^9*i^4-35/3888*n^10*i^3], [7/16-5/8*i-1/8*i^2+1/2*i^3+1/4
*i^4-1/12*n+23/48*n*i-29/48*n*i^2-1/2*n*i^3-17/192*n^2+1/6*n^2*i+3/16*n^2*i^2-1/48*n^3+1/48*n^3*i+1/24*n^3*i^2-1
/192*n^4-1/24*n^4*i+1/96*n^5, 9/8*i-7/12*n-i^5+5/2*n*i^4-9/4*n^2*i^3+37/864*n^4-49/48*n*i^2+67/288*n^3+3/2*i^3-7
/24*n^2*i+33/16*n^2*i^2-31/48*n^3*i+5/6*n^3*i^2-1/12*n^4*i-1/288*n^5-341/864*n^2-19/8*i^2+3/4*i^4+91/48*n*i-9/4*
n*i^3-1/432*n^6-1/24, -191/32*i+257/128*n+97/64-313/48*n*i-7397/1152*n^2*i^2+6461/1152*n^2*i-457/1152*n^4*i+31/6
```

4*n^3*i^2-221/48*n*i^2+1319/1152*n^3*i+1/96*n^5*i^2+1/144*n^6*i+1/288*n^6*i^2-1/288*n^7*i+715/1152*n^4*i^2-139/1
152*n^5*i+297/32*i^2+1937/2304*n^2-5501/4608*n^3+47/4608*n^4+253/4608*n^5+1/1152*n^8-1/576*n^7+71/4608*n^6-9/8*i
^3-59/16*i^4+439/48*n*i^3-85/48*n^3*i^3+19/24*n^2*i^3-167/96*n*i^4+89/32*n^2*i^4+1/48*n^3*i^4-1/24*n^4*i^3+3/4*i
^5+3/4*i^6-9/4*n*i^5, 413/16*i-2987/28800*n-4011/320-67/48*n*i-43/64*n^2*i^2-1677/64*n^2*i+841/192*n^4*i-349/24*
n^3*i^2+2105/48*n*i^2+327/64*n^3*i+3/32*n^5*i^2-11/96*n^6*i+1/8*n^6*i^2-315/64*n^4*i^2+175/192*n^5*i-307/16*i^2+
35257/11520*n^2+2665631/1036800*n^3-12679/12800*n^4-160751/345600*n^5-121/28800*n^8+2629/172800*n^7-373/7680*n^6
-1/5184*n^9-61/4*i^3+41/8*i^4-28/3*n*i^3+151/12*n^3*i^3+1153/48*n^2*i^3-1019/48*n*i^4-863/48*n^2*i^4-7/12*n^3*i^
4+17/48*n^4*i^3-3/8*n^5*i^3+5/12*n^4*i^4+8*i^5-9/2*i^6+167/12*n*i^5-1/6*n^3*i^5+1/4*n^2*i^5, -16895/384*i-4381/9
6*n+11695/256+37693/256*n*i+11349937/69120*n^2*i^2+2084771/69120*n^2*i-3004867/103680*n^4*i+43543423/414720*n^3*
i^2-1661947/11520*n*i^2-29220409/414720*n^3*i-15153/5120*n^5*i^2+20011/17280*n^6*i-3947/5120*n^6*i^2-7577/138240
*n^7*i+135349/5120*n^4*i^2-12913/3840*n^5*i-2597/69120*n^8*i+211/103680*n^9*i+12427/69120*n^7*i^2+5/10368*n^9*i^
2+13/34560*n^8*i^2-5/10368*n^10*i-20123/384*i^2-837421/23040*n^2+201227/13824*n^3+13456471/1658880*n^4+2334359/8
29440*n^5+5971/184320*n^8-2851/27648*n^7-44209/276480*n^6+1397/276480*n^9+5/41472*n^11-211/414720*n^10+7883/96*i
^3+12583/192*i^4-236689/1440*n*i^3-239639/3456*n^3*i^3-3356447/17280*n^2*i^3+91151/480*n*i^4+656765/6912*n^2*i^4
+721/1152*n^3*i^4+6275/3456*n^4*i^3+49223/17280*n^5*i^3-533/1080*n^6*i^3-5/864*n^7*i^3+5/1728*n^6*i^4-25759/6912
*n^4*i^4+2219/2880*n^5*i^4-595/8*i^5+185/8*i^6-3455/48*n*i^5+95/48*n^3*i^5-5/8*n^4*i^5-25/48*n*i^6-5/16*n^2*i^6+
5/24*n^3*i^6, -51113/128*i+152570933/423360*n-3749167/3840*n*i+4453/168-36678601/23040*n^2*i^2+5458891/7680*n^2*
i+2195633/13824*n^4*i-86326409/138240*n^3*i^2-406735/768*n*i^2+75437183/138240*n^3*i+31383/1024*n^5*i^2-15589/19
20*n^6*i+62717/46080*n^6*i^2+69719/46080*n^7*i-4969987/46080*n^4*i^2-2665/2304*n^5*i+371/576*n^8*i-1247/34560*n^
9*i-17699/5760*n^7*i^2+5/216*n^9*i^2-467/11520*n^8*i^2+5/1728*n^10*i+103195/128*i^2+799781173/5080320*n^2-727218
2761/30481920*n^3-1837931537/36578304*n^4-30071881/2488320*n^5-2058575/6096384*n^8+110773/211680*n^7+6220433/186
6240*n^6-1448707/24385536*n^9-989/622080*n^11+1510213/182891520*n^10+3077/32*i^3-56903/64*i^4-5/186624*n^12+6324
81/320*n*i^3+3972167/11520*n^3*i^3+6976109/5760*n^2*i^3-37483/30*n*i^4-1117181/2304*n^2*i^4+17981/576*n^3*i^4-98
713/2304*n^4*i^3-159631/11520*n^5*i^3+91027/11520*n^6*i^3+203/720*n^7*i^3-191/576*n^6*i^4+54379/2304*n^4*i^4-677
89/5760*n^5*i^4-5/64*n^8*i^3+8127/16*i^5-975/8*i^6+25/288*n^7*i^4+89219/240*n*i^5-537/32*n^3*i^5-11465/576*n^2*i
^5+5419/576*n^4*i^5+125/16*n*i^6+75/16*n^2*i^6-25/8*n^3*i^6+31/240*n^5*i^5-5/144*n^6*i^5, 7273363/1536*i-5671817
03/387072*n+56496151/30240*n*i-5627285/3072+6875805089/580608*n^2*i^2-850696337/90720*n^2*i-140609970211/2090188
80*n^4*i+7248511211/2177280*n^3*i^2+166841849/12096*n*i^2-62964043483/17418240*n^3*i-2367497/10368*n^5*i^2+62457
8723/14929920*n^6*i+449022877/14929920*n^6*i^2-2338853521/104509440*n^7*i+46459899331/209018880*n^4*i^2+59879882
05/41803776*n^5*i-102163249/13934592*n^8*i+44608871/69672960*n^9*i+21568399/580608*n^7*i^2-221653/435456*n^9*i^2
-12769987/69672960*n^8*i^2-246193/26127360*n^10*i-5645965/1536*i^2+480559393/1451520*n^2+71036539919/34836480*n^
3+113862008263/418037760*n^4+1508543363/167215104*n^5+765045383/209018880*n^8-594933653/418037760*n^7-2094938059
3/836075520*n^6+138139657/278691840*n^9+373697/20901888*n^11-18394261/167215104*n^10-2503043/384*i^3+6182347/768
*i^4+92467/52254720*n^12-3992106367/241920*n*i^3-1868649863/1244160*n^3*i^3-374207627/53760*n^2*i^3+3709804703/4
83840*n*i^4+336299327/138240*n^2*i^4-1190421221/2488320*n^3*i^4+56469407/124416*n^4*i^3+6573817/207360*n^5*i^3-1
9297183/207360*n^6*i^3-8687603/2903040*n^7*i^3+138169/30720*n^6*i^4-11248013/92160*n^4*i^4+110970317/829440*n^5*
i^4+493883/290304*n^8*i^3-44569/311040*n^9*i^3+701537/13063680*n^10*i^2-79921/6531840*n^11*i+35/1492992*n^14-125
3/7464960*n^13-210231/64*i^5+44401/64*i^6-7/34560*n^11*i^2+1253/1866240*n^12*i-6369913/2903040*n^7*i^4+15491/691
20*n^8*i^4+35/62208*n^9*i^4-35/31104*n^10*i^3-641739/320*n*i^5+98791/768*n^3*i^5+392707/1280*n^2*i^5-27027/256*n
^4*i^5-6909/80*n*i^6-118825/2304*n^2*i^6+13447/384*n^3*i^6-7147/3840*n^5*i^5+49/40*n^6*i^5-133/2304*n^4*i^6+35/5
76*n^6*i^6-217/960*n^5*i^6+35/373248*n^12*i^2-35/373248*n^13*i-35/192*n^7*i^5, -2921607/128*i-14155606973/414720
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*n^4*i-63328502063/4354560*n^3*i^2-18507998623/120960*n*i^2+8019946507/362880*n^3*i+556682251/414720*n^5*i^2-168
091951/1866240*n^6*i-431954327/746496*n^6*i^2+1418751023/5225472*n^7*i+13215236567/7464960*n^4*i^2-78764615171/5
2254720*n^5*i+243082393/3483648*n^8*i-34072433/3483648*n^9*i-57248939/145152*n^7*i^2+12422087/1741824*n^9*i^2+25
0323487/17418240*n^8*i^2+2064163/26127360*n^10*i-6752029/384*i^2-1078553409839/72576000*n^2-6928896068737/522547
200*n^3-4513757898889/3483648000*n^4+108287468341169/188116992000*n^5-147040901741/3919104000*n^8-59200871767/47
02924800*n^7+4975269649157/62705664000*n^6-613183113343/188116992000*n^9-827446177/3762339840*n^11+28704741463/2
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3*i^3+1131922859/30240*n^2*i^3-623599537/13440*n*i^4-2761989163/241920*n^2*i^4+1103767241/207360*n^3*i^4-8036729
99/207360*n^4*i^3+474997/1280*n^5*i^3+34577537/34560*n^6*i^3+55121/4480*n^7*i^3-7109371/207360*n^6*i^4+267460303
/622080*n^4*i^4-10872671/7680*n^5*i^4-12261719/483840*n^8*i^3+2902663/725760*n^9*i^3-2943293/1866240*n^10*i^2+48
08483/13063680*n^11*i-13321/22394880*n^14-35/6718464*n^15+13893211/2939328000*n^13+516343/24*i^5-69727/16*i^6-91
7/34560*n^11*i^2-15799/933120*n^12*i+4397689/120960*n^7*i^4-1110049/181440*n^8*i^4-203/1296*n^9*i^4+7343/51840*n
^10*i^3+346251049/30240*n*i^5-150303199/155520*n^3*i^5-146223/40*n^2*i^5+19164019/17280*n^4*i^5+8869/10*n*i^6+30
2575/576*n^2*i^6-35329/96*n^3*i^6+748591/51840*n^5*i^5-418739/17280*n^6*i^5+931/576*n^4*i^6-245/144*n^6*i^6+1519
/240*n^5*i^6+245/46656*n^12*i^2+35/23328*n^13*i+910333/181440*n^7*i^5-35/1728*n^11*i^3+175/7776*n^10*i^4-35/3888
*n^9*i^5+259/4320*n^8*i^5], [28/15*i+2/15*n-1/18*n^3*i^3-1/5*i^5+1/2*n*i^4-9/8-1/4*n^2*i^3-23/1440*n^4+7/6*n*i^2
+53/360*n^3-7/6*i^3-143/360*n^2*i-11/24*n^2*i^2-1/20*n^3*i-7/24*n^3*i^2+77/360*n^4*i-5/144*n^5+377/1440*n^2+1/2*
i^2+1/12*n^4*i^2-1/36*n^5*i-i^4-289/180*n*i+65/36*n*i^3, -73/15*i+155717/86400*n+247/320-1963/360*n*i-4727/720*n
^2*i^2+1397/240*n^2*i-11/48*n^4*i+161/120*n^3*i^2-59/10*n*i^2+377/720*n^3*i+1/8*n^5*i^2-1/24*n^6*i+55/144*n^4*i^
2-1/48*n^5*i+101/12*i^2+24161/34560*n^2-3276641/3110400*n^3+1229/38400*n^4-7099/1036800*n^5-29/86400*n^8+2771/51
8400*n^7+383/23040*n^6+1/15552*n^9-1/3*i^3-73/12*i^4+109/9*n*i^3-85/36*n^3*i^3-19/12*n^2*i^3-5/8*n*i^4+127/24*n^
2*i^4+1/12*n^3*i^4-1/6*n^4*i^3+6/5*i^5+5/3*i^6-5*n*i^5, 298/15*i+168253/28800*n-4011/320-9301/720*n*i-46301/1440
*n^2*i^2-16607/2160*n^2*i-4037/1728*n^4*i-725/576*n^3*i^2+8009/240*n*i^2+20879/1728*n^3*i+367/576*n^5*i^2+53/864
0*n^6*i-5/144*n^6*i^2+23/1080*n^7*i+793/144*n^4*i^2-7187/8640*n^5*i-1/432*n^8*i+1/144*n^7*i^2-61/8*i^2+34793/115
20*n^2-3285289/1036800*n^3+7067/345600*n^4+43043/115200*n^5-163/86400*n^8-2251/172800*n^7-341/69120*n^6-1/5184*n
^9-421/24*i^3-19/4*i^4+4327/180*n*i^3-649/48*n^3*i^3+84253/4320*n^2*i^3-169/6*n*i^4+709/48*n^2*i^4+521/48*n^3*i^
4-3451/864*n^4*i^3-1/72*n^5*i^3-1/216*n^6*i^3+1/24*n^4*i^4+241/20*i^5+i^6-167/24*n*i^5-1/60*n^3*i^5-599/40*n^2*i
^5+21/2*n*i^6-3*i^7, 57/2*i-12715609/216000*n+10167/80*n*i+327953/1440*n^2*i^2+324011/19200-9103/45*n^2*i+3553/1
08*n^4*i-187567/1728*n^3*i^2+138721/720*n*i^2-186913/8640*n^3*i-14417/8640*n^5*i^2-757/2160*n^6*i+2509/2880*n^6*
i^2-1681/8640*n^7*i-20671/576*n^4*i^2+20617/4320*n^5*i+7/432*n^8*i-1/144*n^9*i+1/216*n^7*i^2+1/48*n^8*i^2-827/8*
i^2-100335953/25920000*n^2+18803441/388800*n^3-3434110771/373248000*n^4-85793207/31104000*n^5+1141207/124416000*
n^8+12667/138240*n^7-102297809/933120000*n^6+21139/15552000*n^9-31/777600*n^11+217423/233280000*n^10-49*i^3+1399
/8*i^4+1/186624*n^12-4403/12*n*i^3+16979/144*n^3*i^3+1427/12*n^2*i^3-1573/90*n*i^4-17897/96*n^2*i^4-1807/48*n^3*
i^4+311/24*n^4*i^3-313/144*n^5*i^3-1/3*n^6*i^3-1/36*n^7*i^3+1/72*n^6*i^4+1421/288*n^4*i^4+31/36*n^5*i^4-24*i^5-8
1/2*i^6+421/3*n*i^5-539/60*n^3*i^5+3341/60*n^2*i^5-5/6*n^4*i^5-1483/36*n*i^6+121/12*n^2*i^6+5/18*n^3*i^6+12*i^7+
3/2*i^8-6*n*i^7, -41311/60*i-169477/2700*n+9548659/14400*n*i+77277/320*n^2*i^2+371387/960+405110437/259200*n^2*i
-633774791/3110400*n^4*i+403079/405*n^3*i^2-1501393/480*n*i^2-760027213/1555200*n^3*i-447659/13824*n^5*i^2+54355
61/518400*n^6*i-735557/69120*n^6*i^2+562661/518400*n^7*i+22496521/207360*n^4*i^2-2493467/311040*n^5*i-319573/103
6800*n^8*i+52753/1555200*n^9*i+83239/69120*n^7*i^2-361/51840*n^9*i^2+973/11520*n^8*i^2+571/155520*n^10*i+1341/32
*i^2-22831331/81000*n^2-228398807/1555200*n^3+1616282339/18662400*n^4+83762351/6220800*n^5+196627/6220800*n^8-40
9291/518400*n^7-80124173/46656000*n^6-2803/6220800*n^9-1/311040*n^11-373721/46656000*n^10+161041/96*i^3-14403/16
*i^4-5/93312*n^12+991919/960*n*i^3-145634203/311040*n^3*i^3-19587205/10368*n^2*i^3+2087333/1440*n*i^4+7864961/86

40*n^2*i^4-116107/3456*n^3*i^4+5070097/103680*n^4*i^3+145669/3840*n^5*i^3-7339/20736*n^6*i^3-51427/51840*n^7*i^3
+12757/4320*n^6*i^4-17101/216*n^4*i^4-82151/17280*n^5*i^4-13/25920*n^8*i^3-5/7776*n^9*i^3+5/5184*n^10*i^2-5/1555
2*n^11*i-29057/80*i^5+260*i^6+5/864*n^7*i^4-1440203/1800*n*i^5+54773/480*n^3*i^5-19237/1728*n^2*i^5+73219/8640*n
^4*i^5+1135/36*n*i^6-885/8*n^2*i^6-395/72*n^3*i^6-14969/3600*n^5*i^5-1/432*n^6*i^5+35/12*n^4*i^6-25/2*i^7-15*i^8
+745/12*n*i^7-5/6*n^3*i^7+5/4*n^2*i^7, -3473/16*i+896086180259/203212800*n-30483499/1920*n*i-1234199089/86400*n^
2*i^2-787112231/322560-136042537/172800*n^2*i+1362782647/2073600*n^4*i-424445701/86400*n^3*i^2+4558069/288*n*i^2
+223782235/41472*n^3*i+18266603/34560*n^5*i^2-18944333/172800*n^6*i+8727023/172800*n^6*i^2+48289/11520*n^7*i+950
229217/2073600*n^4*i^2-452637407/2073600*n^5*i+906287/230400*n^8*i-586943/2073600*n^9*i-7604611/345600*n^7*i^2+2
689/7680*n^9*i^2-336073/230400*n^8*i^2-18043/207360*n^10*i+717741/64*i^2+1535236708711/508032000*n^2-59676042298
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54619/58786560*n^7+19178143247227/438939648000*n^6-103645400057/1316818944000*n^9+347955521/131681894400*n^11+38
69117891/48771072000*n^10-220267/16*i^3-41585/64*i^4+5713009/54867456000*n^12+1213183/120*n*i^3-1381333/25920*n^
3*i^3+3470383/270*n^2*i^3-15024095/1152*n*i^4-53046103/34560*n^2*i^4+41754463/23040*n^3*i^4-14048921/11520*n^4*i
^3-3533651/11520*n^5*i^3+1638121/34560*n^6*i^3+429949/34560*n^7*i^3-2529469/69120*n^6*i^4+50657819/69120*n^4*i^4
-485411/13824*n^5*i^4-14381/17280*n^8*i^3-1367/25920*n^9*i^3-1499/103680*n^10*i^2+883/103680*n^11*i-173/22394880
*n^14+5/6718464*n^15+8467153/41150592000*n^13+35763/8*i^5-14335/16*i^6+5/1152*n^11*i^2-5/3456*n^12*i+67633/34560
*n^7*i^4+2989/17280*n^8*i^4+5/1728*n^9*i^4-5/864*n^10*i^3+175379/80*n*i^5-584173/576*n^3*i^5-519001/288*n^2*i^5-
503/36*n^4*i^5+76093/72*n*i^6+1560865/1728*n^2*i^6+8665/288*n^3*i^6+155431/2880*n^5*i^5-527/144*n^6*i^5-70835/17
28*n^4*i^6+25/432*n^6*i^6+599/144*n^5*i^6-25/144*n^7*i^5-270*i^7+915/8*i^8-965/2*n*i^7+55/4*n^3*i^7-35/4*n^2*i^7
-15/16*n^2*i^8-25/16*n*i^8+5/8*n^3*i^8-5/2*n^4*i^7, 13401241/180*i-393705981089/9676800*n+61422272167/518400*n*i
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/223948800*n^5*i-29315509091/783820800*n^8*i+356870533/58060800*n^9*i+63628235903/261273600*n^7*i^2-287470319/34
836480*n^9*i^2+881243/12441600*n^8*i^2+2131434653/1567641600*n^10*i-54635627/384*i^2-794551850633/72576000*n^2+5
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6620957/8164800*n^3*i^3-475342723169/10886400*n^2*i^3+4031225963/60480*n*i^4-1543398949/60480*n^2*i^4-653448575/
31104*n^3*i^4+2080007691329/156764160*n^4*i^3+170375419/124416*n^5*i^3-38373179183/55987200*n^6*i^3-258995701/31
10400*n^7*i^3+120068741/414720*n^6*i^4-6315492641/1244160*n^4*i^4+384207251/414720*n^5*i^4+1322020579/52254720*n
^8*i^3+3012731/3265920*n^9*i^3+145751/373248*n^10*i^2-596329/3499200*n^11*i+1883/22394880*n^14-35/2239488*n^15-1
252963/326592000*n^13-28145197/960*i^5-36603/16*i^6-1597/653184*n^11*i^2+616103/32659200*n^12*i-31600801/580608*
n^7*i^4-6555133/1451520*n^8*i^4+261569/311040*n^9*i^4-2465537/9797760*n^10*i^3+7887519511/604800*n*i^5+240801690
11/3110400*n^3*i^5+83560043/3840*n^2*i^5-190293131/345600*n^4*i^5-2167249/160*n*i^6-6485087/960*n^2*i^6+105413/1
152*n^3*i^6-484238471/1036800*n^5*i^5+5958977/69120*n^6*i^5+37541/96*n^4*i^6-623/160*n^6*i^6-518231/5760*n^5*i^6
-889/466560*n^12*i^2+2513/2799360*n^13*i+23151433/3628800*n^7*i^5+7/25920*n^11*i^3+35/31104*n^10*i^4-7/15552*n^9
*i^5-104741/86400*n^8*i^5+58359/16*i^7-6615/8*i^8+52388/15*n*i^7-4949/32*n^3*i^7-12215/576*n^2*i^7+315/16*n^2*i^
8+525/16*n*i^8-105/8*n^3*i^8+30373/576*n^4*i^7-35/559872*n^14*i+217/240*n^5*i^7-35/279936*n^12*i^3+35/186624*n^1
3*i^2+245/288*n^7*i^6-35/144*n^6*i^7, -648836407/720*i+572570492201/5184000*n-88809921131/1814400*n*i-2704855445
77/453600*n^2*i^2+325951667153/921600+254664258239/194400*n^2*i-2246761221283/24494400*n^4*i+1649928627583/65318
40*n^3*i^2-705471603677/362880*n*i^2-2078827856561/32659200*n^3*i+4412466032189/156764160*n^5*i^2-2959843697/559

87200*n^6*i-1770478516619/261273600*n^6*i^2+59111224523/29030400*n^7*i+965254460167/6220800*n^4*i^2-965532080344
7/261273600*n^5*i+2246549881/9331200*n^8*i-3350016841/29030400*n^9*i-813086577791/391910400*n^7*i^2+6409336523/5
2254720*n^9*i^2+32368349/113400*n^8*i^2-1135263211/78382080*n^10*i+461612885/576*i^2-6863086173912181/5225472000
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382080000*n^9-116261053819/895795200000*n^11+245164760120377/22574039040000*n^10+22478429/36*i^3-379662937/576*i
^4-387972808291/2708884684800*n^12+23679576821/18144*n*i^3-1361151936701/4082400*n^3*i^3-162695480671/680400*n^2
*i^3-1370712671/90720*n*i^4+777295256579/1814400*n^2*i^4+621348155669/3265920*n^3*i^4-26673782315/244944*n^4*i^3
+32376940163/13063680*n^5*i^3+12041169799/1749600*n^6*i^3+2237646973/32659200*n^7*i^3-14461874377/9331200*n^6*i^
4+221618668231/8709120*n^4*i^4-10743733343/933120*n^5*i^4-1451159851/3265920*n^8*i^3+19594123/13063680*n^9*i^3-1
32018559/12441600*n^10*i^2+812466701/261273600*n^11*i+1969777357/5643509760000*n^14-1613951/97977600000*n^15+529
0357909/89579520000*n^13+1601127/20*i^5+12047939/144*i^6-19727849/24494400*n^11*i^2-2843833/13996800*n^12*i+1935
9619/20160*n^7*i^4+444866467/8709120*n^8*i^4-29749619/1306368*n^9*i^4+74433671/9797760*n^10*i^3-3775896821/12600
*n*i^5-1708940623/32400*n^3*i^5-6062092247/30240*n^2*i^5+7714186163/777600*n^4*i^5+11539547251/90720*n*i^6+12649
06727/25920*n^2*i^6-2066624449/466560*n^3*i^6+276867449/86400*n^5*i^5-72633019/51840*n^6*i^5-32557931/10368*n^4*
i^6+3880361/51840*n^6*i^6+211857409/155520*n^5*i^6+248387/1632960*n^12*i^2-83/2016*n^13*i-59864879/604800*n^7*i^
5-520927/1632960*n^11*i^3+784607/1088640*n^10*i^4-3577/2592*n^9*i^5+30795109/907200*n^8*i^5-70637/2*i^7+97321/16
*i^8-1509263/60*n*i^7+218197/144*n^3*i^7+172291/120*n^2*i^7-164185/576*n^2*i^8-4767/10*n*i^8+18487/96*n^3*i^8-46
55/6*n^4*i^7+889/233280*n^14*i-14959/720*n^5*i^7-2891/349920*n^12*i^3-11977/1399680*n^13*i^2-14347157/544320*n^7
*i^6+189/20*n^6*i^7-91/44789760*n^17+16223437/282175488000*n^16+35/241864704*n^18-217/240*n^5*i^8-35/36*n^7*i^7+
35/144*n^6*i^8+4151/2592*n^8*i^6-175/3888*n^10*i^5+175/11664*n^9*i^6+35/46656*n^12*i^4+9947/233280*n^11*i^4-35/2
3328*n^13*i^3+35/31104*n^14*i^2-35/93312*n^15*i-133/576*n^4*i^8], [-727/96*i-301/1920*n+763/192+3293/480*n*i+445
7/3456*n^2*i^2+28523/17280*n^2*i-3203/3456*n^4*i+1013/576*n^3*i^2-2257/720*n*i^2-647/3456*n^3*i+23/480*n^5*i^2+1
7/1080*n^6*i+5/864*n^6*i^2-5/864*n^7*i-2587/3456*n^4*i^2+2867/17280*n^5*i-71/32*i^2-36329/34560*n^2-58463/69120*
n^3+883/4608*n^4+9991/69120*n^5+5/3456*n^8-17/4320*n^7-89/23040*n^6+15/4*i^3+35/8*i^4-175/24*n*i^3+5/8*n^3*i^3+2
5/18*n^2*i^3-505/144*n*i^4+5/16*n^2*i^4+5/72*n^3*i^4-5/36*n^4*i^3+3/2*i^5+1/6*i^6-1/2*n*i^5, 2255/96*i-6161/3456
*n-535/64+16471/1440*n*i+9931/3456*n^2*i^2-488543/17280*n^2*i-1285/3456*n^4*i-1285/192*n^3*i^2+2891/60*n*i^2+176
87/3456*n^3*i-139/240*n^5*i^2+487/4320*n^6*i+205/864*n^6*i^2-25/864*n^7*i-1985/3456*n^4*i^2+8893/17280*n^5*i-292
3/96*i^2-21041/34560*n^2+1145929/622080*n^3+39113/69120*n^4-6467/41472*n^5+11/5760*n^8-767/51840*n^7-4903/69120*
n^6-5/7776*n^9-61/4*i^3+195/8*i^4-293/9*n*i^3+47/36*n^3*i^3+449/16*n^2*i^3-475/16*n*i^4-1465/144*n^2*i^4+125/24*
n^3*i^4+1/16*n^4*i^3-5/8*n^5*i^3+25/36*n^4*i^4+8*i^5-15/2*i^6+151/9*n*i^5-5/18*n^3*i^5-23/2*n^2*i^5+28/3*n*i^6-8
/3*i^7, -14729/384*i-9845/192*n+11695/256+1248341/11520*n*i+1846405/13824*n^2*i^2-3208753/23040*n^2*i+1205419/51
840*n^4*i-59421641/414720*n^3*i^2+1092229/11520*n*i^2+9588491/414720*n^3*i+944437/138240*n^5*i^2-8219/17280*n^6*
i+1847/3072*n^6*i^2-20297/138240*n^7*i+240761/46080*n^4*i^2-227/64*n^5*i-599/23040*n^8*i+211/103680*n^9*i+2897/2
3040*n^7*i^2+5/10368*n^9*i^2+113/34560*n^8*i^2-5/10368*n^10*i-5953/128*i^2-77573/23040*n^2+86727/2560*n^3-225797
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/414720*n^10-329/48*i^3+12845/96*i^4-19717/72*n*i^3+98821/1728*n^3*i^3+43967/192*n^2*i^3-32773/288*n*i^4-595795/
3456*n^2*i^4+33541/576*n^3*i^4-18205/576*n^4*i^3-7625/1728*n^5*i^3-65/144*n^6*i^3-5/432*n^7*i^3+5/864*n^6*i^4+70
625/3456*n^4*i^4+115/144*n^5*i^4+9/2*i^5-175/3*i^6+4117/24*n*i^5-1123/24*n^3*i^5-547/12*n^2*i^5-2/3*n^4*i^5+689/
72*n*i^6+1357/24*n^2*i^6+2/9*n^3*i^6+3*i^7+35/4*i^8-35*n*i^7, -85937/192*i-13119727/43200*n+5741093/5760*n*i+138
74821/6912*n^2*i^2+371387/960+22768973/34560*n^2*i+2101967/17280*n^4*i+9211367/23040*n^3*i^2-13830923/5760*n*i^2
-20370557/23040*n^3*i-383839/69120*n^5*i^2-8959/2880*n^6*i+87995/13824*n^6*i^2-2681/7680*n^7*i-22913969/69120*n^

4*i^2+93067/2880*n^5*i+6001/34560*n^8*i+103/5760*n^9*i+7897/34560*n^7*i^2+65/1728*n^9*i^2-973/5760*n^8*i^2-5/172
8*n^10*i-65779/192*i^2-299349161/1296000*n^2+4627063/38880*n^3+558204653/18662400*n^4-96793361/6220800*n^5-57985
1/6220800*n^8+10567/34560*n^7+55519867/46656000*n^6-184351/6220800*n^9-101/311040*n^11-22421/46656000*n^10+38137
/24*i^3-3055/16*i^4-5/93312*n^12-47507/48*n*i^3+1403189/1728*n^3*i^3-1755037/864*n^2*i^3+28471/12*n*i^4-1141075/
1728*n^2*i^4-485639/864*n^3*i^4+276793/1728*n^4*i^3-47797/1728*n^5*i^3-7511/1728*n^6*i^3+23/108*n^7*i^3+145/216*
n^6*i^4+80525/1728*n^4*i^4+4405/216*n^5*i^4-5/48*n^8*i^3-10141/12*i^5+373/3*i^6+25/216*n^7*i^4+545/24*n*i^5-355/
36*n^3*i^5+178787/216*n^2*i^5-12079/216*n^4*i^5-10121/18*n*i^6-2207/36*n^2*i^6+3289/36*n^3*i^6-133/72*n^5*i^5-5/
108*n^6*i^5+14/9*n^4*i^6+436/3*i^7-45/2*i^8+1235/18*n*i^7-4/9*n^3*i^7-521/6*n^2*i^7+45*n*i^8-10*i^9, -6003167/15
36*i+1593007751/276480*n-1027221013/69120*n*i-41048536093/2073600*n^2*i^2-4297613/3072+10318820981/691200*n^2*i-
78346674941/29859840*n^4*i+153542873/17280*n^3*i^2-38852461/5760*n*i^2+1901640461/1555200*n^3*i-1175320969/24883
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^9*i^2+30308479/9953280*n^8*i^2+1973/4665600*n^10*i+65626825/4608*i^2+811802081/1036800*n^2-97595944259/24883200
*n^3+341765651237/298598400*n^4+1809381361/23887872*n^5+97523573/149299200*n^8-2645042399/298598400*n^7-42941539
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4+12847/8294400*n^12+97515253/3456*n*i^3-115831645/13824*n^3*i^3-138250735/20736*n^2*i^3-23397103/6912*n*i^4+589
879643/41472*n^2*i^4-37190717/248832*n^3*i^4+30549587/31104*n^4*i^3+5774939/10368*n^5*i^3+586405/10368*n^6*i^3-4
57045/41472*n^7*i^3+1319699/82944*n^6*i^4-117869617/82944*n^4*i^4-6281093/27648*n^5*i^4-10693/20736*n^8*i^3-1363
/10368*n^9*i^3+811123/18662400*n^10*i^2-178123/18662400*n^11*i+25/1492992*n^14-161/1492992*n^13+356911/96*i^5+75
0013/288*i^6+19/62208*n^11*i^2+161/373248*n^12*i+199627/41472*n^7*i^4+4513/20736*n^8*i^4+25/31104*n^9*i^4-25/155
52*n^10*i^3-4888259/480*n*i^5+7682023/3456*n^3*i^5-34861447/17280*n^2*i^5+1756927/3456*n^4*i^5+1762201/720*n*i^6
-20992585/10368*n^2*i^6-1291169/1728*n^3*i^6-224371/17280*n^5*i^5-27041/2160*n^6*i^5+211451/10368*n^4*i^6+155/25
92*n^6*i^6+67469/4320*n^5*i^6+25/373248*n^12*i^2-25/373248*n^13*i-155/864*n^7*i^5-5255/6*i^7-200*i^8+8875/9*n*i^
7-695/18*n^3*i^7+12505/18*n^2*i^7+925/24*n^2*i^8-3275/9*n*i^8+175/72*n^3*i^8-175/18*n^4*i^7+325/4*i^9+15/4*i^10-
75/4*n*i^9, 52569091/512*i-198570049393/40642560*n-616175557/23040*n*i-6810700949/138240*n^2*i^2-24373402553/138
240*n^2*i+25114116377/1990656*n^4*i-2723235923/64512-42236494451/414720*n^3*i^2+1188704609/3840*n*i^2+3252370697
9/414720*n^3*i+1453150631/207360*n^5*i^2-6295332137/4976640*n^6*i+1046619649/995328*n^6*i^2-58285931/4976640*n^7
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20*n^7*i^2+2929837/829440*n^9*i^2-102282527/3317760*n^8*i^2-142733/497664*n^10*i-120590141/1536*i^2+7516520183/3
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7/82944*n^3*i^4-9209163359/414720*n^4*i^3-7786021/1536*n^5*i^3+12727121/69120*n^6*i^3+6513059/34560*n^7*i^3-1377
3671/27648*n^6*i^4+1084914679/82944*n^4*i^4+18499703/27648*n^5*i^4-32291/5120*n^8*i^3-232379/207360*n^9*i^3-9268
7/622080*n^10*i^2+73901/622080*n^11*i-779/4478976*n^14-25/3359232*n^15+12601763/16460236800*n^13+554127/16*i^5-2
766269/96*i^6-2257/41472*n^11*i^2+77/31104*n^12*i-104489/4608*n^7*i^4+8683/1152*n^8*i^4+845/10368*n^9*i^4+2119/2
0736*n^10*i^3+29004803/360*n*i^5-565439687/25920*n^3*i^5-292371529/8640*n^2*i^5-846889/384*n^4*i^5+506811/40*n*i
^6+388181657/17280*n^2*i^6+5727353/1728*n^3*i^6+4402607/5760*n^5*i^5+619181/5760*n^6*i^5-2987423/3456*n^4*i^6+16
3067/4320*n^6*i^6-191287/1080*n^5*i^6+925/124416*n^12*i^2-25/124416*n^13*i-390407/17280*n^7*i^5-25/1152*n^11*i^3
+125/5184*n^10*i^4-25/2592*n^9*i^5-157/432*n^8*i^5-2067/2*i^7+5925/2*i^8-4555999/360*n*i^7+20351/24*n^3*i^7-1329
955/432*n^2*i^7-2575/4*n^2*i^8+4975/3*n*i^8-625/12*n^3*i^8+61013/432*n^4*i^7-13001/360*n^5*i^7+35/108*n^7*i^6-5/

54*n^6*i^7+75/4*n^4*i^8-1525/4*i^9-225/4*i^10+875/3*n*i^9+25/4*n^2*i^9-25/6*n^3*i^9, -6196018147/18432*i-4488320
7815/72576*n+24153649039579/11612160*n*i+13784041812253/5443200*n^2*i^2-4561240933807/58060800*n^2*i+32446450893
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9861/1045094400*n^3*i-5040259040250809/75246796800*n^5*i^2+45472375858853/4702924800*n^6*i+25253538401387/250822
65600*n^6*i^2-157772136655081/75246796800*n^7*i-2971200310892809/12541132800*n^4*i^2+3734576195405303/7524679680
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40*n^5*i^7-301/7776*n^12*i^3+31854853/2351462400*n^13*i^2+17183731/2177280*n^7*i^6-8953/432*n^6*i^7+175/53747712
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*i^7-132972553/1728*n^2*i^8-6418867/72*n*i^8-297185/144*n^3*i^8-38106929/25920*n^4*i^7+83515457/1175731200*n^14*
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84*n^6*i^7-119/1679616*n^17+16726613/28217548800*n^16-175/120932352*n^18-184387/288*n^5*i^8+3702029/34020*n^7*i^
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8*n^6*i^9], [12991/336*i-587/2688*n-1175/64-121369/3360*n*i-6427/1440*n^2*i^2-560453/60480*n^2*i+102905/24192*n^
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20*n*i^3-177/32*n^3*i^3-12737/1728*n^2*i^3+545/24*n*i^4-145/48*n^2*i^4-55/48*n^3*i^4+3307/1728*n^4*i^3-23/240*n^
5*i^3-5/432*n^6*i^3+5/24*n^4*i^4-41/4*i^5-2*i^6+137/24*n*i^5-1/12*n^3*i^5-3/8*n^2*i^5+1/2*n*i^6-1/7*i^7, -42811/
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+1139/11520*n^7*i+195605/16128*n^4*i^2-130763/40320*n^5*i+43/2880*n^8*i-5/576*n^9*i+469/4320*n^7*i^2+5/192*n^8*i
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^6*i^4-1933/384*n^4*i^4+3157/1440*n^5*i^4-167/2*i^5+187/12*i^6+11/6*n*i^5-251/24*n^3*i^5+1517/24*n^2*i^5-25/12*n
^4*i^5-4931/72*n*i^6+577/24*n^2*i^6+25/36*n^3*i^6+162/7*i^7+17/4*i^8-17*n*i^7, -15697/448*i-3303299/846720*n-121
7659/20160*n*i+4453/168+16053521/16128*n^2*i^2+104570939/120960*n^2*i+340337387/2903040*n^4*i+226438873/483840*n
^3*i^2-21742151/13440*n*i^2-500073703/725760*n^3*i+97207/9216*n^5*i^2+22207/7680*n^6*i-2719/1024*n^6*i^2+224971/
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3+1188325007/1451520*n^3*i^3-506066371/241920*n^2*i^3+1059287/480*n*i^4-666677/1152*n^2*i^4-685087/1152*n^3*i^4+
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2*n^4*i^4+103051/5760*n^5*i^4-113/17280*n^8*i^3-5/5184*n^9*i^3+5/3456*n^10*i^2-5/10368*n^11*i-11227/16*i^5+959/4
*i^6+5/288*n^7*i^4-9433/48*n*i^5-11195/96*n^3*i^5+607469/576*n^2*i^5-46819/576*n^4*i^5-6141/8*n*i^6-83/12*n^2*i^
6+1367/8*n^3*i^6-301/48*n^5*i^5-1/144*n^6*i^5+53/12*n^4*i^6+1382/7*i^7-165/4*i^8+7573/84*n*i^7-53/42*n^3*i^7-521

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18464*n^15+8467153/41150592000*n^13+2852*i^5+31141/8*i^6+5/1152*n^11*i^2-5/3456*n^12*i+43913/34560*n^7*i^4+6239/
17280*n^8*i^4+5/1728*n^9*i^4-5/864*n^10*i^3-81221/6*n*i^5+957029/288*n^3*i^5+574169/144*n^2*i^5-48521/72*n^4*i^5
-3077/72*n*i^6-3782561/864*n^2*i^6+83299/144*n^3*i^6-46699/288*n^5*i^5-401/72*n^6*i^5+340951/864*n^4*i^6+25/216*
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4*n^2*i^8-1513/12*n*i^8+4/3*n^3*i^8-16/3*n^4*i^7+62*i^9+45*i^10-225*n*i^9, 20738499/256*i+681920292947/40642560*
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+35/124416*n^11-1981/1244160*n^10+7385/96*i^3+8659/64*i^4-19243/96*n*i^3+162211/3456*n^3*i^3+747551/17280*n^2*i^
3-14189/90*n*i^4+169799/6912*n^2*i^4+16051/1152*n^3*i^4-67571/3456*n^4*i^3+4249/3456*n^5*i^3+763/2160*n^6*i^3-35
/864*n^7*i^3+35/1728*n^6*i^4-28189/6912*n^4*i^4+161/960*n^5*i^4+595/8*i^5+469/24*i^6-2569/48*n*i^5+91/48*n^3*i^5
+133/24*n^2*i^5-7/24*n^4*i^5-1211/144*n*i^6+7/16*n^2*i^6+7/72*n^3*i^6+5/2*i^7+1/8*i^8-1/2*n*i^7, 300223/384*i+65
56463/30240*n-43441/96-66867763/241920*n*i-55446437/69120*n^2*i^2-68970179/161280*n^2*i+40690721/622080*n^4*i+23
1604421/1244160*n^3*i^2+381064681/241920*n*i^2+13962113/248832*n^3*i+13826989/414720*n^5*i^2+197137/51840*n^6*i+
405929/138240*n^6*i^2-910297/580608*n^7*i-3526331/27648*n^4*i^2-860677/103680*n^5*i-16697/725760*n^8*i+39347/311
040*n^9*i-131311/725760*n^7*i^2+1085/15552*n^9*i^2-427/768*n^8*i^2-35/3888*n^10*i-66459/128*i^2+30836587/725760*
n^2-44720693/622080*n^3+1914472751/26127360*n^4-22185437/829440*n^5+926609/4354560*n^8-142589/362880*n^7+3308351
/1866240*n^6-128713/2488320*n^9+259/207360*n^11-373151/26127360*n^10-28227/32*i^3+29687/192*i^4-35/186624*n^12+1
657129/2880*n*i^3-283117/11520*n^3*i^3+910087/3456*n^2*i^3-816907/720*n*i^4+1385335/2304*n^2*i^4-7385/216*n^3*i^
4-246871/6912*n^4*i^3-88297/3840*n^5*i^3+58649/6912*n^6*i^3+7/20*n^7*i^3+1631/576*n^6*i^4+12439/256*n^4*i^4-5210
17/17280*n^5*i^4-35/192*n^8*i^3+9359/16*i^5+1981/24*i^6+175/864*n^7*i^4-181951/360*n*i^5+18389/288*n^3*i^5-24174
5/1728*n^2*i^5+47971/1728*n^4*i^5+44443/144*n*i^6-34741/144*n^2*i^6+707/36*n^3*i^6-133/20*n^5*i^5-35/432*n^6*i^5
+49/9*n^4*i^6-823/6*i^7-469/8*i^8+7499/36*n*i^7-14/9*n^3*i^7-197/4*n^2*i^7+123/4*n*i^8-41/6*i^9, 951431/1536*i+1
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60*n^5*i^2-308316377/2985984*n^6*i+105629281/14929920*n^6*i^2+214323797/14929920*n^7*i+39881028739/209018880*n^4
*i^2+72721614113/209018880*n^5*i+4457707/69672960*n^8*i+1227887/7741440*n^9*i-1188377/69120*n^7*i^2+1567249/4354
560*n^9*i^2+41333717/69672960*n^8*i^2-2325361/26127360*n^10*i+1267297/512*i^2+501342199/1451520*n^2-49272148729/
34836480*n^3+271439605783/418037760*n^4-162587324273/836075520*n^5-68642977/209018880*n^8-991327637/418037760*n^
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3651/768*i^4+92467/52254720*n^12+140764147/11520*n*i^3-3156925771/414720*n^3*i^3+6034469/1536*n^2*i^3-59618219/4
608*n*i^4+2042774617/138240*n^2*i^4-1512261917/829440*n^3*i^4+339017401/207360*n^4*i^3-319379/4608*n^5*i^3+24289
3/4608*n^6*i^3+229747/138240*n^7*i^3-4119269/276480*n^6*i^4-252858869/276480*n^4*i^4+1680041/55296*n^5*i^4-17262

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n^13+407575/64*i^5+287917/192*i^6+287/311040*n^11*i^2+1253/1866240*n^12*i+180173/15360*n^7*i^4+16541/69120*n^8*i
^4+35/20736*n^9*i^4-35/10368*n^10*i^3-8917013/960*n*i^5+7959427/2304*n^3*i^5-9867109/3840*n^2*i^5-42329/256*n^4*
i^5+284977/60*n*i^6-30603517/6912*n^2*i^6-202657/1152*n^3*i^6-382039/11520*n^5*i^5-13027/480*n^6*i^5+1885751/691
2*n^4*i^6+119/1728*n^6*i^6+94969/2880*n^5*i^6+35/373248*n^12*i^2-35/373248*n^13*i-119/576*n^7*i^5-14809/8*i^7-13
501/32*i^8+113075/48*n*i^7-27455/48*n^3*i^7+4709/6*n^2*i^7+36623/64*n^2*i^8-139153/192*n*i^8+491/96*n^3*i^8-491/
24*n^4*i^7+1725/8*i^9+455/8*i^10-2275/8*n*i^9, 10431441/256*i-67563734729/9676800*n+1548209867/80640*n*i-3937529
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+15189599473/80640*n*i^2+12663660991/145152*n^3*i-6785599519/829440*n^5*i^2+249813347/311040*n^6*i-83176901/4976
64*n^6*i^2-1324986263/17418240*n^7*i+1490280767123/34836480*n^4*i^2-8834473397/34836480*n^5*i+27955315/2322432*n
^8*i-1133393/3870720*n^9*i+7591223/241920*n^7*i^2+13343087/5806080*n^9*i^2+21027589/11612160*n^8*i^2-542149/3483
648*n^10*i-47887393/768*i^2+67822500883/8064000*n^2+959266710317/174182400*n^3-23505904680137/3483648000*n^4+160
930682740139/62705664000*n^5-16114533457/2612736000*n^8+185030435857/3135283200*n^7-10582836226357/20901888000*n
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12*i^2-35/31104*n^13*i-19691/640*n^7*i^5-35/1152*n^11*i^3+175/5184*n^10*i^4-35/2592*n^9*i^5-9401/8640*n^8*i^5-22
8247/12*i^7+68101/16*i^8-405325/72*n*i^7-65627/24*n^3*i^7+5552905/216*n^2*i^7+2875/32*n^2*i^8-430877/32*n*i^8+11
585/4*n^3*i^8-481727/216*n^4*i^7-2119/36*n^5*i^7+49/54*n^7*i^6-7/27*n^6*i^7+251/8*n^4*i^8+16499/6*i^9-4039/12*i^
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4+342256453/1105920*n^9*i^4-342947693/33177600*n^10*i^3-17931612031/2304*n*i^5-1257724241749/414720*n^3*i^5+1952
684378689/86400*n^2*i^5-12947163002669/4976640*n^4*i^5-3781517395/288*n*i^6-24339524489/17280*n^2*i^6+7248830842
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^7*i^5-1827191/6220800*n^11*i^3-12441569/6220800*n^10*i^4-4711945/82944*n^9*i^5-1771904407/1658880*n^8*i^5+82872
981/32*i^7-128512099/128*i^8+2727228293/960*n*i^7-43291531351/103680*n^3*i^7-60805375973/17280*n^2*i^7+459237752
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/3840*n^5*i^7-4323463/4147200*n^12*i^3+270475661/1567641600*n^13*i^2+114583721/69120*n^7*i^6-58522469/34560*n^6*
i^7-119/5971968*n^17-562603/4702924800*n^16-175/80621568*n^18+9243031/3840*n^5*i^8-3756451/4320*n^7*i^7+2271599/
1920*n^6*i^8+1501241/4320*n^8*i^6-10361449/777600*n^10*i^5+133091/5760*n^9*i^6+17255/248832*n^12*i^4+2818193/622
080*n^11*i^4+10283/248832*n^13*i^3-88109/2985984*n^14*i^2+36631/8957952*n^15*i-90067739/1536*n^4*i^8-22421731/96
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i^10+655585/144*n^3*i^10-175/1119744*n^16*i+5075/2239488*n^15*i^2-14131381/3456*n^4*i^9-1333979/1440*n^5*i^9+875
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n^16*i^2-43413330437/219469824000*n^17*i+8732693372291/777600*n^4*i^10+19778749219/419904000*n^13*i^5+4573234179
7/4389396480*n^14*i^4+2542153555673/1007769600*n^11*i^6+391579627/83980800*n^12*i^6+3530507059/204120*n^9*i^8-86
108332747/12247200*n^10*i^7-12894290547781/52254720*n^8*i^8+1382898581341/3265920*n^7*i^9-72178034297/155520*n^6
*i^10-1487174070847/777600*n^5*i^10+151600463/108*n^4*i^11+32462071985/7776*n^2*i^12+5934172391/405*n*i^12+15466
59347/503884800*n^15*i^4+7615105/362797056*n^18*i-574301839/6046617600*n^17*i^2-16548037/755827200*n^16*i^3-4153
50509/432*n^3*i^12-6175960/3*i^13+215985*i^14+53886083/6046617600*n^18*i^2-10339087/2015539200*n^19*i-12760580/9
*n*i^13+78280037/1007769600*n^16*i^4+299418911/6298560*n^13*i^6-74242891/4199040*n^14*i^5-22596497/540*n^6*i^11-
929571307/7776*n^4*i^12+23518354253/13996800*n^10*i^8-12443753/174960*n^12*i^7+42779308333/907200*n^7*i^10-49563
5/1679616*n^15*i^5+304045/18*n^3*i^13-781579/167961600*n^17*i^3-2126405213/3499200*n^11*i^7-773606869/349920*n^9
*i^9+2039726087/6480*n^5*i^11-18757449043/544320*n^8*i^9+2924075/6*n^2*i^13+19320*i^15+25303567/7836416409600*n^
22-2107/26121388032*n^23+1225/313456656384*n^24+315/2*i^16-27881/11337408*n^18*i^3-878395/6*n*i^14+18767/6046617
6*n^20*i-16807/45349632*n^19*i^2+19355/279936*n^12*i^8+7158613/116640*n^11*i^8-19355/69984*n^13*i^7-1225/6046617
6*n^21*i+715645/1679616*n^14*i^6+37093/5038848*n^17*i^4-22295/3*n^4*i^13+1225/20155392*n^20*i^2+6125/2519424*n^1
5*i^6-1260*n*i^15+6265/2*n^2*i^14+3185/3*n^3*i^14+75273947/3240*n^5*i^12+67319/11664*n^9*i^10+1225/30233088*n^18
*i^4-1225/15116544*n^19*i^3-336595/11664*n^10*i^9+206045/1944*n^6*i^12-206045/324*n^7*i^11+314146441/194400*n^8*
i^10-6125/839808*n^16*i^5]]
>
```

Sample INPUT/OUTPUT from http://www.math.rutgers.edu/~zeilberg/mamarim/mamarimhtml/invmaj.html
Pre-computed table of all leading terms of the mixed-factorial moments FM(r,s)(n,i) (about the mean) of the pair of random variables (inv,maj) defined over the set of permutations of {1, ..., n} that end in i (for symbolic(!) n and i) but numeric r and s with 1 <= r,s, <= 8.

```
> print(`The following list of lists, let's call it L, is such that L[r][s] is the`):
  print(`the leading-terms of the`):
  print(`mixed (r,s)-factorial moment about the mean of (inv,maj) defined over`):
  print(`permutations of {1, ..., n} that end in i `):
  lprint(FM8m(n,i) ):
```

The following list of lists, let's call it L, is such that L[r][s] is the

the leading-terms of the

mixed (r,s)-factorial moment about the mean of (inv,maj) defined over

permutations of {1, ..., n} that end in i

```
[[1/8*(2*i-n)^2, -1/8*(2*i-n)^2, 1/96*n^3*(2*i-n)^2, -1/16*n^3*(2*i-n)^2, 5/3456*n^6*(2*i-n)^2, -25/1152*n^6*(2*
i-n)^2, 35/124416*n^9*(2*i-n)^2, -245/31104*n^9*(2*i-n)^2], [-1/6*i*(2*i-n)*(i-n), 1/1296*n^6, -1/432*n^3*(12*i^
3-18*n*i^2+6*n^2*i+n^3), 1/15552*n^9, -5/7776*n^6*(3*n^2*i-9*n*i^2+6*i^3+n^3), 5/559872*n^12, -35/186624*n^9*(4*
i^3-6*n*i^2+2*n^2*i+n^3), 35/20155392*n^15], [1/96*n^3*(2*i-n)^2, -1/432*n^6, 1/1152*n^6*(2*i-n)^2, -1/5184*n^9,
5/41472*n^9*(2*i-n)^2, -5/186624*n^12, 35/1492992*n^12*(2*i-n)^2, -35/6718464*n^15], [-1/36*n^3*i*(2*i-n)*(i-n),
1/15552*n^9, -1/5184*n^6*(n^3+12*n^2*i-36*n*i^2+24*i^3), 1/186624*n^12, -5/93312*n^9*(12*i^3-18*n*i^2+6*n^2*i+n^
3), 5/6718464*n^15, -35/2239488*n^12*(n^3+4*n^2*i+8*i^3-12*n*i^2), 35/241864704*n^18], [5/3456*n^6*(2*i-n)^2, -5
/7776*n^9, 5/41472*n^9*(2*i-n)^2, -5/93312*n^12, 25/1492992*n^12*(2*i-n)^2, -25/3359232*n^15, 175/53747712*n^15*
(2*i-n)^2, -175/120932352*n^18], [-5/864*n^6*i*(2*i-n)*(i-n), 5/559872*n^12, -5/186624*n^9*(n^3+36*i^3-54*n*i^2+
18*n^2*i), 5/6718464*n^15, -25/3359232*n^12*(n^3+9*n^2*i+18*i^3-27*n*i^2), 25/241864704*n^18, -175/80621568*n^15
*(12*i^3-18*n*i^2+6*n^2*i+n^3), 175/8707129344*n^21], [35/124416*n^9*(2*i-n)^2, -35/186624*n^12, 35/1492992*n^12
*(2*i-n)^2, -35/2239488*n^15, 175/53747712*n^15*(2*i-n)^2, -175/80621568*n^18, 1225/1934917632*n^18*(2*i-n)^2, -
1225/2902376448*n^21], [-35/23328*n^9*i*(2*i-n)*(i-n), 35/20155392*n^15, -35/6718464*n^12*(n^3+24*n^2*i+48*i^3-7
2*n*i^2), 35/241864704*n^18, -175/120932352*n^15*(n^3+12*n^2*i-36*n*i^2+24*i^3), 175/8707129344*n^21, -1225/2902
376448*n^18*(n^3+8*n^2*i-24*n*i^2+16*i^3), 1225/313456656384*n^24]]
>
```

Sample INPUT/OUTPUT from http://www.math.rutgers.edu/~zeilberg/mamarim/mamarimhtml/invmaj.html
The first 20 generating functions (weight-enumerators) for the pair (inv,maj) defined over permutations.

```
> for i from 1 to 20 do
  print(`The bi-variate generating function (in p,q)`):
  print(` for (inv,maj) for permutations`):
  print(`of length`, i, `is: `):
  print(F(i+1,i+1,p,q) ):
  od:
```

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 1, *is:*

$$1$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 2, *is:*

$$1 + p\,q$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 3, *is:*

$$p^2 q^2 + p^3 q^3 + p^2 q + p\,q^2 + 1 + p\,q$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 4, *is:*

$$2\,p^3 q^3 + 2\,p^4 q^4 + p^5 q^4 + p^4 q^5 + p^5 q^5 + p^6 q^6 + p^4 q^2 + p^5 q^3 + p^2 q^3 + q^4 p^3 + p^3 q^5 + p^3 q^2 + p^4 q^3 + p^3 q + 2\,p^2 q^2 + p\,q^3 + q^4 p^2 + p^2 q + p\,q^2 + 1 + p\,q$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 5, *is:*

$$1 + p\,q + 3\,p^3\,q^3 + p^3\,q + 2\,p^2\,q^2 + p\,q^2 + p^2\,q + 2\,p^4\,q^2 + 3\,p^5\,q^3 + q^4\,p + p\,q^3 + 2\,q^4\,p^2 + 3\,p^4\,q^3 + 2\,p^3\,q^2 + q^7\,p^3 + 3\,p^6\,q^4 + 4\,p^6\,q^5$$
$$+ 3\,p^7\,q^6 + 6\,p^5\,q^5 + 2\,q^6\,p^3 + 4\,p^6\,q^6 + 4\,p^5\,q^4 + 4\,p^4\,q^5 + q^5\,p^2 + 2\,p^6\,q^3 + p^5\,q^2 + 4\,p^4\,q^4 + 3\,p^3\,q^5 + 3\,q^4\,p^3 + p^4\,q + 2\,p^2\,q^3 + 2\,p^6\,q^8$$
$$+ 2\,p^8\,q^7 + 3\,p^7\,q^7 + p^8\,q^4 + p^8\,q^5 + p^9\,q^6 + p^5\,q^8 + p^4\,q^8 + 4\,p^5\,q^6 + 3\,q^7\,p^5 + p^7\,q^3 + p^6\,q^2 + 3\,q^6\,p^4 + 2\,p^7\,q^4 + 3\,p^7\,q^5 + 2\,p^8\,q^6 + 2\,q^7\,p^4$$
$$+ q^6\,p^2 + p^9\,q^9 + p^{10}\,q^{10} + p^8\,q^9 + p^9\,q^8 + 2\,p^8\,q^8 + p^7\,q^9 + p^9\,q^7 + 2\,p^7\,q^8 + p^6\,q^9 + 3\,p^6\,q^7$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 6, *is:*

$$1 + p\,q + 4\,p^3\,q^3 + p^3\,q + 2\,p^2\,q^2 + p\,q^2 + p^2\,q + p^{14}\,q^{10} + 4\,p^{12}\,q^{11} + 5\,p^{10}\,q^{12} + p^8\,q^{13} + p^{13}\,q^7 + 2\,p^{13}\,q^9 + p^{13}\,q^8 + 3\,p^4\,q^2 + 5\,p^5\,q^3$$
$$+ q^4\,p + p\,q^3 + 3\,q^4\,p^2 + 4\,p^4\,q^3 + 2\,p^3\,q^2 + 4\,q^7\,p^3 + 8\,p^6\,q^4 + 11\,p^6\,q^5 + 14\,p^7\,q^6 + p^{13}\,q^{14} + 2\,p^{13}\,q^{13} + 11\,p^5\,q^5 + 5\,q^6\,p^3 + 15\,p^6\,q^6$$
$$+ 2\,p^{13}\,q^{12} + p^{14}\,q^{11} + 7\,p^5\,q^4 + 7\,p^4\,q^5 + 2\,q^5\,p^2 + 5\,p^6\,q^3 + 2\,p^5\,q^2 + 7\,p^4\,q^4 + 5\,p^3\,q^5 + 4\,q^4\,p^3 + q^5\,p + p^{11}\,q^{14} + 2\,p^{12}\,q^{13} + p^4\,q$$
$$+ 2\,p^2\,q^3 + 13\,p^6\,q^8 + 2\,q^8\,p^3 + 2\,q^9\,p^3 + 15\,p^8\,q^7 + 17\,p^7\,q^7 + q^7\,p^2 + 6\,p^8\,q^4 + 9\,p^8\,q^5 + 10\,p^9\,q^6 + 2\,p^8\,q^3 + p^7\,q^2 + 9\,p^5\,q^8 + 6\,p^4\,q^8$$
$$+ 11\,p^5\,q^6 + p^5\,q + 12\,q^7\,p^5 + 4\,p^7\,q^3 + 2\,p^6\,q^2 + 8\,q^6\,p^4 + 7\,p^7\,q^4 + 12\,p^7\,q^5 + 13\,p^8\,q^6 + p^{14}\,q^{13} + p^{14}\,q^{12} + 7\,q^7\,p^4 + 2\,q^6\,p^2 + p^{12}\,q^{14}$$
$$+ p^{14}\,q^{14} + p^{15}\,q^{15} + 15\,p^9\,q^9 + 11\,p^{10}\,q^{10} + 14\,p^8\,q^9 + 7\,q^9\,p^5 + 7\,q^{10}\,p^6 + 14\,p^9\,q^8 + 3\,q^9\,p^4 + 17\,p^8\,q^8 + 13\,p^7\,q^9 + 7\,p^9\,q^5 + 7\,p^{10}\,q^6$$
$$+ 13\,p^9\,q^7 + 3\,p^9\,q^4 + 15\,p^7\,q^8 + 10\,p^6\,q^9 + 3\,q^{11}\,p^6 + 2\,q^{10}\,p^4 + 4\,q^{10}\,p^5 + 12\,p^{10}\,q^8 + 9\,p^{10}\,q^7 + 11\,p^{10}\,q^9 + 7\,p^{11}\,q^{10} + 6\,q^{11}\,p^7 + 6\,p^{11}\,q^7$$
$$+ 8\,p^{11}\,q^9 + 5\,p^{12}\,q^{10} + 7\,q^{11}\,p^8 + 7\,p^{11}\,q^8 + 3\,p^{11}\,q^6 + 2\,p^{10}\,q^4 + 4\,p^{10}\,q^5 + 9\,q^{10}\,p^7 + 2\,p^9\,q^3 + p^8\,q^2 + q^8\,p^2 + p^4\,q^{11} + 2\,p^6\,q^{12} + 2\,p^5\,q^{11}$$
$$+ 8\,p^9\,q^{11} + 12\,p^8\,q^{10} + 2\,p^7\,q^{12} + 7\,p^{10}\,q^{11} + 11\,p^9\,q^{10} + 4\,p^{12}\,q^8 + 2\,p^{12}\,q^6 + p^{11}\,q^4 + 2\,p^{11}\,q^5 + 2\,p^{12}\,q^7 + 5\,p^{12}\,q^9 + 2\,p^{13}\,q^{10} + 2\,p^{10}\,q^{13}$$
$$+ 14\,p^6\,q^7 + 2\,p^9\,q^{13} + p^{10}\,q^{14} + 3\,p^{11}\,q^{13} + 4\,p^{12}\,q^{12} + 3\,p^{13}\,q^{11} + 4\,p^{11}\,q^{12} + 7\,p^{11}\,q^{11} + 5\,p^9\,q^{12} + p^7\,q^{13} + 4\,p^8\,q^{12}$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 7, *is:*

$$1 + 9\,p^9\,q^{16} + 6\,p^{10}\,q^{17} + 22\,p^{14}\,q^{16} + p\,q + 6\,p^{17}\,q^{10} + 3\,p^{16}\,q^7 + 9\,p^{16}\,q^9 + 2\,q^{17}\,p^8 + 4\,p^{18}\,q^{18} + 3\,p^{17}\,q^{19} + 9\,p^{11}\,q^{17} + 5\,p^{18}\,q^{17}$$
$$+ 7\,p^{15}\,q^{18} + 4\,p^3\,q^3 + 6\,p^{16}\,q^8 + p^{12}\,q^3 + 3\,p^{15}\,q^6 + 3\,p^{14}\,q^5 + 18\,p^{15}\,q^{16} + 30\,p^{14}\,q^{15} + p^3\,q + 2\,p^2\,q^2 + p\,q^2 + p^2\,q + 11\,p^{12}\,q^{17}$$
$$+ 38\,p^{14}\,q^{10} + 67\,p^{12}\,q^{11} + 64\,p^{10}\,q^{12} + 32\,p^8\,q^{13} + 12\,p^{13}\,q^6 + 4\,p^{12}\,q^4 + 9\,p^{12}\,q^5 + 21\,p^{13}\,q^7 + 43\,p^{13}\,q^9 + 32\,p^{13}\,q^8 + p^{14}\,q^4 + 12\,q^{13}\,p^6$$

$$+ 3 p^4 q^2 + 6 p^5 q^3 + q^4 p + p q^3 + 3 q^4 p^2 + 5 p^4 q^3 + p^{16} q^6 + p^{15} q^5 + 15 p^{16} q^{16} + 13 p^{13} q^{17} + 2 p^3 q^2 + 2 p^{18} q^{10} + p^{17} q^7 + 4 p^{17} q^9$$
$$+ 2 p^{17} q^8 + 7 q^7 p^3 + 12 p^6 q^4 + 18 p^6 q^5 + 30 p^7 q^6 + p^{20} q^{16} + 2 p^{10} q^{18} + 7 p^{18} q^{14} + 3 p^{18} q^{11} + 3 p^{19} q^{15} + 6 p^{18} q^{13} + 5 p^{18} q^{12}$$
$$+ 6 p^{16} q^{18} + 44 p^{13} q^{14} + 53 p^{13} q^{13} + 21 q^{14} p^8 + 13 q^{14} p^7 + 15 p^5 q^5 + 29 q^{14} p^9 + 25 q^{15} p^{10} + 7 q^6 p^3 + 25 p^6 q^6 + 57 p^{13} q^{12}$$
$$+ 43 p^{14} q^{11} + 10 p^5 q^4 + 10 p^4 q^5 + 3 q^5 p^2 + 7 p^6 q^3 + 3 p^5 q^2 + 8 p^4 q^4 + 6 p^3 q^5 + 5 q^4 p^3 + q^5 p + 43 p^{11} q^{14} + 57 p^{12} q^{13} + p^4 q$$
$$+ 2 p^2 q^3 + 33 p^6 q^8 + 6 q^8 p^3 + 5 q^9 p^3 + 44 p^8 q^7 + 30 p^{15} q^{11} + 40 p^7 q^7 + 2 q^7 p^2 + 13 p^8 q^4 + 22 p^8 q^5 + 33 p^9 q^6 + 6 p^8 q^3 + 2 p^7 q^2$$
$$+ 22 p^5 q^8 + 13 p^4 q^8 + 18 p^5 q^6 + p^5 q + 22 q^7 p^5 + 7 p^7 q^3 + 3 p^6 q^2 + 5 p^{17} q^{18} + 3 p^{16} q^{19} + 12 q^6 p^4 + 13 p^7 q^4 + 22 p^7 q^5 + 33 p^8 q^6$$
$$+ 44 p^{14} q^{13} + 46 p^{14} q^{12} + p^{16} q^{20} + q^6 p + 13 q^7 p^4 + 3 q^6 p^2 + 46 p^{12} q^{14} + 40 p^{14} q^{14} + 25 p^{15} q^{15} + 19 q^{15} p^9 + 14 q^{16} p^{10} + 12 q^{15} p^8$$
$$+ 3 q^{14} p^5 + q^{14} p^4 + 66 p^9 q^9 + 73 p^{10} q^{10} + 57 p^8 q^9 + 21 q^9 p^5 + 30 q^{10} p^6 + 57 p^9 q^8 + 11 q^9 p^4 + 53 p^8 q^8 + 46 p^7 q^9 + 3 p^{11} q^{18}$$
$$+ 21 p^9 q^5 + 30 p^{10} q^6 + p^{11} q^{19} + 5 p^{12} q^{18} + 46 p^9 q^7 + 11 p^9 q^4 + 44 p^7 q^8 + 33 p^6 q^9 + 30 p^{15} q^{14} + 18 p^{16} q^{15} + 33 p^{15} q^{12} + 33 p^{15} q^{13}$$
$$+ 2 p^{13} q^{19} + 6 p^{13} q^{18} + 10 p^{17} q^{16} + 7 q^{14} p^6 + 6 q^{13} p^5 + 3 q^{15} p^6 + 7 q^{15} p^7 + 3 q^{10} p^3 + p^{19} q^{20} + 2 p^{19} q^{19} + 2 p^{19} q^{18} + 25 q^{11} p^6$$
$$+ 9 q^{10} p^4 + 18 q^{10} p^5 + p^{17} q^{20} + 2 p^{19} q^{14} + p^{19} q^{11} + p^{20} q^{15} + 2 p^{19} q^{13} + p^{19} q^{12} + 57 p^{10} q^8 + 43 p^{10} q^7 + 67 p^{10} q^9 + 71 p^{11} q^{10} + p^{18} q^9$$
$$+ p^{18} q^{20} + p^{20} q^{20} + p^{21} q^{21} + 18 q^{16} p^{11} + 38 q^{11} p^7 + 21 q^{16} p^{12} + 7 p^{14} q^{18} + 6 p^{18} q^{16} + 12 p^{17} q^{15} + 22 p^{16} q^{13} + 21 p^{16} q^{12} + 22 p^{16} q^{14}$$
$$+ 3 p^{19} q^{16} + p^{12} q^{19} + p^{20} q^{19} + p^{20} q^{17} + p^{20} q^{18} + 2 p^{18} q^{19} + 18 p^{16} q^{11} + 30 q^{15} p^{11} + q^9 p^2 + 38 p^{11} q^7 + 64 p^{11} q^9 + 64 p^{12} q^{10}$$
$$+ 52 q^{11} p^8 + 13 p^{14} q^{17} + 12 p^{15} q^{17} + 52 p^{11} q^8 + 25 p^{11} q^6 + 9 p^{10} q^4 + 18 p^{10} q^5 + 14 p^{16} q^{10} + 43 q^{10} p^7 + 7 p^{15} q^7 + 19 p^{15} q^9$$
$$+ 12 p^{15} q^8 + p^6 q + 5 p^9 q^3 + 2 p^8 q^2 + 2 q^8 p^2 + 2 p^{11} q^3 + p^{10} q^2 + 7 p^{14} q^6 + 6 p^{13} q^5 + 2 p^{13} q^4 + 4 q^{12} p^4 + q^{17} p^7 + 2 q^{11} p^3 + q^{10} p^2$$
$$+ q^{15} p^5 + q^{16} p^6 + 10 p^{16} q^{17} + 6 p^4 q^{11} + 19 p^6 q^{12} + 14 p^5 q^{11} + 64 p^9 q^{11} + 57 p^8 q^{10} + 33 p^{12} q^{15} + 2 q^{13} p^4 + 9 q^{12} p^5 + q^{12} p^3$$
$$+ 29 p^7 q^{12} + 71 p^{10} q^{11} + 67 p^9 q^{10} + 3 p^{10} q^3 + p^9 q^2 + 43 p^{12} q^8 + 19 p^{12} q^6 + 6 p^{11} q^4 + 14 p^{11} q^5 + 29 p^{12} q^7 + 55 p^{12} q^9 + 52 p^{13} q^{10}$$
$$+ 52 p^{10} q^{13} + 4 p^9 q^{17} + 22 p^{13} q^{16} + 2 p^{14} q^{19} + p^{15} q^{20} + 30 p^6 q^7 + 3 p^{15} q^{19} + 33 p^{13} q^{15} + 43 p^9 q^{13} + 38 p^{10} q^{14} + 11 p^{17} q^{12}$$
$$+ 13 p^{17} q^{14} + 9 p^{17} q^{11} + 7 p^{18} q^{15} + 13 p^{17} q^{13} + 6 p^8 q^{16} + 3 p^7 q^{16} + 13 p^{14} q^7 + 29 p^{14} q^9 + 21 p^{14} q^8 + 25 p^{15} q^{10} + p^9 q^{18} + 57 p^{11} q^{13}$$
$$+ 66 p^{12} q^{12} + 57 p^{13} q^{11} + 67 p^{11} q^{12} + 3 p^{19} q^{17} + 8 p^{17} q^{17} + 73 p^{11} q^{11} + 55 p^9 q^{12} + 21 p^7 q^{13} + 43 p^8 q^{12}$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 8, *is:*

$$1 + 2 p^{18} q^{26} + 91 p^{21} q^{19} + 103 p^{21} q^{17} + 43 p^{22} q^{21} + 76 p^{21} q^{20} + 31 p^{13} q^{22} + 119 p^9 q^{16} + 131 p^{10} q^{17} + 352 p^{14} q^{16} + p q + 131 p^{17} q^{10}$$

$$+ 43 p^{16} q^{7} + 119 p^{16} q^{9} + q^{17} p^{4} + 8 q^{18} p^{6} + 5 q^{17} p^{5} + 54 q^{17} p^{8} + 3 p^{26} q^{23} + 218 p^{18} q^{18} + 198 p^{17} q^{19} + p^{22} q^{27} + 98 p^{21} q^{18}$$
$$+ 182 p^{11} q^{17} + 5 p^{25} q^{24} + 242 p^{18} q^{17} + 255 p^{15} q^{18} + 4 p^{3} q^{3} + 78 p^{16} q^{8} + 4 p^{12} q^{3} + p^{11} q^{2} + 31 p^{15} q^{6} + 19 p^{14} q^{5} + 355 p^{15} q^{16}$$
$$+ 382 p^{14} q^{15} + p^{3} q + 2 p^{2} q^{2} + p q^{2} + 98 p^{18} q^{21} + p^{2} q + p^{13} q^{25} + 37 p^{18} q^{23} + 227 p^{12} q^{17} + 97 q^{21} p^{16} + 242 p^{14} q^{10} + 305 p^{12} q^{11}$$
$$+ 259 p^{10} q^{12} + 137 p^{8} q^{13} + 51 p^{13} q^{6} + 14 p^{12} q^{4} + 30 p^{12} q^{5} + 90 p^{13} q^{7} + 197 p^{13} q^{9} + 137 p^{13} q^{8} + 3 p^{23} q^{26} + 7 p^{14} q^{4} + 5 p^{24} q^{25}$$
$$+ 51 q^{13} p^{6} + 60 p^{19} q^{22} + 19 p^{14} q^{23} + 3 p^{4} q^{2} + 7 p^{5} q^{3} + 38 p^{23} q^{19} + 36 p^{23} q^{17} + 17 p^{24} q^{21} + 34 p^{23} q^{20} + 60 q^{21} p^{13} + 3 p^{24} q^{26} + p^{26} q^{27}$$
$$+ p^{24} q^{27} + q^{4} p + p q^{3} + 3 q^{4} p^{2} + 4 p^{15} q^{4} + 11 q^{20} p^{8} + 5 p^{4} q^{3} + 3 p^{13} q^{3} + 22 p^{16} q^{6} + 14 p^{15} q^{5} + 344 p^{16} q^{16} + 272 p^{13} q^{17} + 2 p^{3} q^{2}$$
$$+ 37 p^{23} q^{18} + 95 p^{18} q^{10} + 30 p^{17} q^{7} + 90 p^{17} q^{9} + 54 p^{17} q^{8} + 9 q^{7} p^{3} + 43 p^{22} q^{14} + 26 p^{23} q^{15} + 31 p^{22} q^{13} + 13 p^{22} q^{11} + 15 p^{6} q^{4}$$
$$+ 23 p^{6} q^{5} + 43 p^{7} q^{6} + 3 p^{19} q^{6} + 2 p^{18} q^{5} + 43 q^{21} p^{12} + 75 q^{21} p^{14} + 51 q^{22} p^{15} + 148 p^{20} q^{16} + p^{26} q^{16} + 10 p^{21} q^{9} + 22 p^{22} q^{12}$$
$$+ 95 p^{10} q^{18} + 242 p^{18} q^{14} + 131 p^{18} q^{11} + 197 p^{19} q^{15} + 209 p^{18} q^{13} + 174 p^{18} q^{12} + p^{17} q^{4} + p^{15} q^{3} + 17 p^{21} q^{10} + 4 p^{20} q^{7} + 11 p^{20} q^{8}$$
$$+ 15 p^{22} q^{24} + 259 p^{16} q^{18} + 382 p^{13} q^{14} + 384 p^{13} q^{13} + 30 q^{21} p^{11} + 60 p^{22} q^{16} + 123 q^{14} p^{8} + 75 q^{14} p^{7} + 30 p^{16} q^{23} + 43 p^{14} q^{22}$$
$$+ 18 p^{5} q^{5} + 78 p^{20} q^{12} + 38 p^{19} q^{9} + 177 q^{14} p^{9} + 209 q^{15} p^{10} + 14 p^{16} q^{24} + 8 q^{6} p^{3} + 34 p^{6} q^{6} + 355 p^{13} q^{12} + 298 p^{14} q^{11} + 11 p^{5} q^{4}$$
$$+ 11 p^{4} q^{5} + 3 q^{5} p^{2} + 8 p^{6} q^{3} + 3 p^{5} q^{2} + 9 p^{4} q^{4} + 7 p^{3} q^{5} + 5 q^{4} p^{3} + q^{5} p + 298 p^{11} q^{14} + 355 p^{12} q^{13} + 123 p^{20} q^{14} + 54 p^{20} q^{11}$$
$$+ 90 p^{21} q^{15} + 99 p^{20} q^{13} + p^{4} q + 2 p^{2} q^{3} + 8 q^{23} p^{12} + 54 p^{6} q^{8} + 22 p^{12} q^{22} + 9 q^{8} p^{3} + 9 q^{9} p^{3} + 76 p^{8} q^{7} + 272 p^{15} q^{11} + 2 q^{21} p^{7}$$
$$+ 10 q^{21} p^{9} + 8 q^{22} p^{10} + 62 p^{7} q^{7} + 3 q^{7} p^{2} + 20 p^{8} q^{4} + 34 p^{8} q^{5} + 60 p^{9} q^{6} + 4 q^{21} p^{8} + q^{20} p^{6} + 7 p^{14} q^{24} + 54 p^{20} q^{22} + 9 p^{8} q^{3} + 3 p^{7} q^{2}$$
$$+ 34 p^{5} q^{8} + 4 p^{25} q^{16} + 20 p^{4} q^{8} + 4 p^{26} q^{22} + 23 p^{5} q^{6} + 10 q^{19} p^{7} + 36 q^{18} p^{8} + 4 q^{20} p^{7} + p^{5} q + 30 q^{7} p^{5} + 9 p^{7} q^{3} + 4 p^{6} q^{2} + 242 p^{17} q^{18}$$
$$+ 201 p^{16} q^{19} + 15 q^{6} p^{4} + 17 p^{7} q^{4} + 30 p^{7} q^{5} + 54 p^{8} q^{6} + 17 q^{18} p^{7} + 20 q^{20} p^{9} + 17 q^{21} p^{10} + 382 p^{14} q^{13} + 352 p^{14} q^{12} + 148 p^{16} q^{20}$$
$$+ 34 p^{22} q^{22} + 13 q^{17} p^{6} + 3 q^{19} p^{6} + 2 q^{18} p^{5} + q^{6} p + 17 q^{7} p^{4} + 4 q^{6} p^{2} + 352 p^{12} q^{14} + 398 p^{14} q^{14} + 384 p^{15} q^{15} + 2 p^{26} q^{25} + p^{25} q^{27}$$
$$+ p^{27} q^{27} + p^{28} q^{28} + 153 q^{15} p^{9} + 174 q^{16} p^{10} + 99 q^{15} p^{8} + q^{12} p^{2} + 19 q^{14} p^{5} + 7 q^{14} p^{4} + 155 p^{9} q^{9} + 218 p^{10} q^{10} + 3 q^{13} p^{3} + 121 p^{8} q^{9}$$
$$+ 38 q^{9} p^{5} + 65 q^{10} p^{6} + 121 p^{9} q^{8} + p^{17} q^{26} + 3 p^{12} q^{24} + 2 p^{10} q^{23} + p^{27} q^{26} + 78 q^{20} p^{12} + 123 q^{20} p^{14} + 90 q^{21} p^{15} + 19 q^{9} p^{4} + 102 p^{8} q^{8}$$
$$+ 91 p^{7} q^{9} + 131 p^{11} q^{18} + 38 p^{9} q^{5} + 65 p^{10} q^{6} + 90 p^{11} q^{19} + 174 p^{12} q^{18} + 38 p^{19} q^{23} + 10 p^{15} q^{24} + 91 p^{9} q^{7} + 19 p^{9} q^{4} + 54 q^{20} p^{11}$$
$$+ 76 p^{7} q^{8} + 60 p^{6} q^{9} + p^{23} q^{27} + 99 q^{20} p^{13} + 382 p^{15} q^{14} + 355 p^{16} q^{15} + 323 p^{15} q^{12} + 366 p^{15} q^{13} + 2 p^{21} q^{7} + 36 p^{17} q^{23} + 4 p^{21} q^{8}$$
$$+ 8 p^{23} q^{12} + 8 p^{22} q^{10} + 153 p^{13} q^{19} + 18 p^{23} q^{23} + 17 p^{21} q^{24} + 209 p^{13} q^{18} + 305 p^{17} q^{16} + 43 q^{14} p^{6} + 26 q^{13} p^{5} + 3 q^{22} p^{9} + q^{22} p^{8}$$
$$+ 14 p^{23} q^{13} + p^{20} q^{6} + p^{19} q^{5} + 3 p^{22} q^{9} + 5 p^{23} q^{11} + 19 p^{24} q^{18} + 19 p^{23} q^{14} + 10 p^{24} q^{15} + p^{25} q^{14} + p^{26} q^{17} + p^{27} q^{21} + 3 p^{26} q^{20} + 2 p^{26} q^{19}$$
$$+ 8 p^{25} q^{22} + 9 p^{19} q^{25} + 16 p^{24} q^{17} + 9 p^{25} q^{21} + 20 p^{24} q^{20} + 19 p^{24} q^{19} + 31 q^{15} p^{6} + 60 q^{15} p^{7} + 7 q^{10} p^{3} + 121 p^{19} q^{20} + 155 p^{19} q^{19}$$

$$+ 178\, p^{19}\, q^{18} + 63\, q^{11}\, p^{6} + 43\, p^{21}\, q^{22} + 19\, q^{10}\, p^{4} + 37\, q^{10}\, p^{5} + 5\, q^{23}\, p^{11} + p^{14}\, q^{25} + 146\, p^{17}\, q^{20} + 177\, p^{19}\, q^{14} + 90\, p^{19}\, q^{11} + 137\, p^{20}\, q^{15}$$
$$+ 153\, p^{19}\, q^{13} + 119\, p^{19}\, q^{12} + 139\, p^{10}\, q^{8} + 98\, p^{10}\, q^{7} + 178\, p^{10}\, q^{9} + 242\, p^{11}\, q^{10} + 60\, p^{19}\, q^{10} + 17\, p^{18}\, q^{7} + 60\, p^{18}\, q^{9} + 36\, p^{18}\, q^{8}$$
$$+ 139\, p^{18}\, q^{20} + 102\, p^{20}\, q^{20} + 62\, p^{21}\, q^{21} + 13\, p^{17}\, q^{6} + 8\, p^{16}\, q^{5} + 60\, q^{22}\, p^{16} + 4\, p^{25}\, q^{25} + 227\, q^{16}\, p^{11} + 103\, p^{17}\, q^{21} + 4\, p^{13}\, q^{24} + 103\, q^{11}\, p^{7}$$
$$+ 283\, q^{16}\, p^{12} + 3\, p^{21}\, q^{26} + 3\, p^{20}\, q^{26} + p^{21}\, q^{27} + 242\, p^{14}\, q^{18} + 259\, p^{18}\, q^{16} + 314\, p^{17}\, q^{15} + 323\, p^{16}\, q^{13} + 283\, p^{16}\, q^{12} + p^{27}\, q^{25} + 352\, p^{16}\, q^{14}$$
$$+ 201\, p^{19}\, q^{16} + 119\, p^{12}\, q^{19} + 121\, p^{20}\, q^{19} + p^{25}\, q^{13} + 2\, p^{26}\, q^{18} + q^{19}\, p^{5} + 146\, p^{20}\, q^{17} + 139\, p^{20}\, q^{18} + 178\, p^{18}\, q^{19} + 227\, p^{16}\, q^{11} + 7\, p^{25}\, q^{23}$$
$$+ 272\, q^{15}\, p^{11} + 2\, q^{9}\, p^{2} + q^{14}\, p^{3} + q^{15}\, p^{3} + 103\, p^{11}\, q^{7} + 198\, p^{11}\, q^{9} + 259\, p^{12}\, q^{10} + 146\, q^{11}\, p^{8} + 298\, p^{14}\, q^{17} + 314\, p^{15}\, q^{17} + 146\, p^{11}\, q^{8}$$
$$+ 63\, p^{11}\, q^{6} + 19\, p^{10}\, q^{4} + 37\, p^{10}\, q^{5} + 174\, p^{16}\, q^{10} + 98\, q^{10}\, p^{7} + 60\, p^{15}\, q^{7} + 153\, p^{15}\, q^{9} + 99\, p^{15}\, q^{8} + 65\, p^{18}\, q^{22} + p^{6}\, q + 9\, p^{9}\, q^{3} + 3\, p^{8}\, q^{2}$$
$$+ 3\, q^{8}\, p^{2} + q^{7}\, p + p^{27}\, q^{23} + 6\, p^{11}\, q^{3} + 2\, p^{10}\, q^{2} + 14\, p^{13}\, q^{23} + 13\, p^{11}\, q^{22} + 43\, p^{14}\, q^{6} + 26\, p^{13}\, q^{5} + 10\, p^{13}\, q^{4} + p^{7}\, q + 16\, p^{17}\, q^{24} + p^{16}\, q^{26}$$
$$+ 6\, p^{17}\, q^{25} + 3\, p^{15}\, q^{25} + q^{11}\, p^{2} + 4\, p^{16}\, q^{25} + 14\, q^{12}\, p^{4} + 30\, q^{17}\, p^{7} + 6\, q^{11}\, p^{3} + 2\, q^{10}\, p^{2} + 3\, q^{16}\, p^{4} + 8\, q^{16}\, p^{5} + 4\, q^{15}\, p^{4} + 14\, q^{15}\, p^{5}$$
$$+ 22\, q^{16}\, p^{6} + 15\, p^{24}\, q^{22} + 7\, p^{18}\, q^{25} + 305\, p^{16}\, q^{17} + 20\, q^{19}\, p^{8} + p^{27}\, q^{24} + 16\, p^{4}\, q^{11} + 60\, p^{6}\, q^{12} + 36\, p^{5}\, q^{11} + 198\, p^{9}\, q^{11} + 139\, p^{8}\, q^{10}$$
$$+ 9\, p^{20}\, q^{25} + 323\, p^{12}\, q^{15} + 10\, q^{13}\, p^{4} + 30\, q^{12}\, p^{5} + 97\, p^{21}\, q^{16} + 4\, q^{12}\, p^{3} + 65\, p^{22}\, q^{18} + p^{12}\, q^{2} + 97\, p^{7}\, q^{12} + 242\, p^{10}\, q^{11} + 178\, p^{9}\, q^{10}$$
$$+ 7\, p^{10}\, q^{3} + 2\, p^{9}\, q^{2} + 23\, p^{23}\, q^{22} + 148\, p^{12}\, q^{8} + 60\, p^{12}\, q^{6} + 16\, p^{11}\, q^{4} + 36\, p^{11}\, q^{5} + 97\, p^{12}\, q^{7} + 201\, p^{12}\, q^{9} + 255\, p^{13}\, q^{10} + 60\, p^{22}\, q^{19}$$
$$+ 63\, p^{22}\, q^{17} + 30\, p^{23}\, q^{21} + 54\, p^{22}\, q^{20} + 91\, p^{19}\, q^{21} + 30\, p^{21}\, q^{23} + 9\, p^{24}\, q^{24} + 255\, p^{10}\, q^{13} + 90\, p^{9}\, q^{17} + 323\, p^{13}\, q^{16} + 177\, p^{14}\, q^{19}$$
$$+ 137\, p^{15}\, q^{20} + 76\, p^{20}\, q^{21} + 43\, p^{6}\, q^{7} + 7\, p^{24}\, q^{14} + 3\, p^{25}\, q^{15} + 6\, p^{25}\, q^{17} + 3\, p^{26}\, q^{21} + 9\, p^{25}\, q^{20} + 9\, p^{25}\, q^{19} + 197\, p^{15}\, q^{19} + 2\, p^{26}\, q^{26}$$
$$+ 3\, p^{26}\, q^{24} + 366\, p^{13}\, q^{15} + 14\, p^{24}\, q^{16} + 197\, p^{9}\, q^{13} + 242\, p^{10}\, q^{14} + 36\, p^{20}\, q^{10} + 10\, p^{19}\, q^{7} + 20\, p^{19}\, q^{8} + 34\, p^{20}\, q^{23} + 227\, p^{17}\, q^{12}$$
$$+ 298\, p^{17}\, q^{14} + 182\, p^{17}\, q^{11} + 255\, p^{18}\, q^{15} + 272\, p^{17}\, q^{13} + 20\, p^{20}\, q^{24} + p^{9}\, q^{23} + 78\, p^{8}\, q^{16} + 43\, p^{7}\, q^{16} + 3\, p^{16}\, q^{4} + p^{14}\, q^{3} + 75\, p^{14}\, q^{7}$$
$$+ 177\, p^{14}\, q^{9} + 123\, p^{14}\, q^{8} + p^{22}\, q^{8} + 3\, p^{24}\, q^{12} + 2\, p^{23}\, q^{10} + 209\, p^{15}\, q^{10} + 60\, p^{9}\, q^{18} + 314\, p^{11}\, q^{13} + 344\, p^{12}\, q^{12} + 314\, p^{13}\, q^{11} + 305\, p^{11}\, q^{12}$$
$$+ 20\, p^{20}\, q^{9} + 43\, p^{21}\, q^{12} + 198\, p^{19}\, q^{17} + 23\, p^{22}\, q^{23} + 11\, p^{24}\, q^{23} + 284\, p^{17}\, q^{17} + 11\, p^{23}\, q^{24} + 4\, p^{22}\, q^{26} + 7\, p^{23}\, q^{25} + 9\, p^{21}\, q^{25} + 8\, p^{22}\, q^{25}$$
$$+ 19\, p^{19}\, q^{24} + 60\, q^{19}\, p^{10} + 38\, q^{19}\, p^{9} + 36\, q^{20}\, p^{10} + 2\, p^{19}\, q^{26} + 8\, p^{18}\, q^{6} + 5\, p^{17}\, q^{5} + 63\, q^{22}\, p^{17} + 75\, p^{21}\, q^{14} + 51\, p^{22}\, q^{15} + 60\, p^{21}\, q^{13}$$
$$+ 30\, p^{21}\, q^{11} + 30\, p^{23}\, q^{16} + 284\, p^{11}\, q^{11} + 19\, p^{18}\, q^{24} + 26\, p^{15}\, q^{23} + p^{27}\, q^{22} + 201\, p^{9}\, q^{12} + 90\, p^{7}\, q^{13} + 148\, p^{8}\, q^{12} + q^{24}\, p^{11} + 4\, p^{24}\, q^{13}$$
$$+ p^{23}\, q^{9} + p^{24}\, q^{11} + 7\, p^{25}\, q^{18} + 2\, p^{25}\, q^{26}$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 9, *is:*

$$
\begin{aligned}
1 &+ 565\, p^{18} q^{26} + 21\, q^{28} p^{12} + 61\, q^{28} p^{14} + 42\, q^{29} p^{15} + 4\, q^{26} p^{8} + q^{26} p^{7} + q^{28} p^{9} + 7\, p^{33} q^{23} + 69\, p^{28} q^{30} + 2125\, p^{21} q^{19} + 1936\, p^{21} q^{17} \\
&+ 214\, p^{26} q^{14} + 299\, p^{27} q^{17} + 310\, p^{28} q^{21} + 459\, p^{27} q^{20} + 418\, p^{27} q^{19} + 1761\, p^{22} q^{21} + 2084\, p^{21} q^{20} + 722\, p^{13} q^{22} + 83\, p^{20} q^{30} + 459\, p^{9} q^{16} \\
&+ 636\, p^{10} q^{17} + 1846\, p^{14} q^{16} + 10\, p^{33} q^{25} + 12\, p^{33} q^{27} + 4\, p^{34} q^{28} + 2\, p^{32} q^{16} + 175\, p^{27} q^{15} + 15\, q^{29} p^{13} + 190\, p^{24} q^{29} + 2\, q^{31} p^{14} \\
&+ 321\, p^{28} q^{22} + p\, q + 636\, p^{17} q^{10} + 163\, p^{16} q^{7} + 459\, p^{16} q^{9} + 8\, q^{17} p^{4} + 53\, q^{18} p^{6} + 27\, q^{17} p^{5} + 106\, p^{22} q^{30} + 253\, q^{17} p^{8} + 10\, q^{28} p^{11} \\
&+ 37\, q^{28} p^{13} + 144\, p^{26} q^{13} + 362\, p^{27} q^{18} + 651\, p^{26} q^{23} + 2528\, p^{18} q^{18} + 2381\, p^{17} q^{19} + 486\, p^{22} q^{27} + 2073\, p^{21} q^{18} + 10\, q^{25} p^{8} + 905\, p^{11} q^{17} \\
&+ q^{31} p^{13} + 750\, p^{25} q^{24} + 35\, p^{20} q^{31} + p^{29} q^{35} + 7\, p^{33} q^{31} + p^{35} q^{33} + 2468\, p^{18} q^{17} + 2073\, p^{15} q^{18} + 4\, p^{3} q^{3} + 288\, p^{16} q^{8} + 9\, p^{12} q^{3} + 2\, p^{11} q^{2} \\
&+ 96\, p^{15} q^{6} + 50\, p^{14} q^{5} + 25\, q^{30} p^{16} + 2084\, p^{15} q^{16} + 1761\, p^{14} q^{15} + 3\, q^{29} p^{11} + p^{3} q + 2\, p^{2} q^{2} + p\, q^{2} + 42\, p^{29} q^{15} + 25\, q^{25} p^{9} \\
&+ 2073\, p^{18} q^{21} + p^{2} q + 120\, q^{27} p^{14} + 91\, q^{28} p^{15} + 242\, p^{13} q^{25} + 19\, p^{18} q^{31} + 103\, p^{28} q^{29} + 56\, p^{23} q^{31} + 98\, p^{26} q^{30} + 56\, p^{31} q^{26} + 5\, p^{27} q^{9} \\
&+ 10\, p^{28} q^{11} + 1446\, p^{18} q^{23} + 23\, p^{32} q^{23} + 1210\, p^{12} q^{17} + 85\, p^{27} q^{30} + 1728\, q^{21} p^{16} + 693\, p^{14} q^{10} + 750\, p^{12} q^{11} + 585\, p^{10} q^{12} + 316\, p^{8} q^{13} \\
&+ 67\, p^{19} q^{30} + 111\, p^{13} q^{6} + 26\, p^{12} q^{4} + 58\, p^{12} q^{5} + 198\, p^{13} q^{7} + 469\, p^{13} q^{9} + 316\, p^{13} q^{8} + 651\, p^{23} q^{26} + 20\, p^{14} q^{4} + 750\, p^{24} q^{25} \\
&+ 96\, p^{21} q^{30} + 111\, q^{13} p^{6} + 1849\, p^{19} q^{22} + 722\, p^{14} q^{23} + 2\, p^{30} q^{12} + p^{29} q^{10} + 3\, p^{32} q^{17} + 4\, p^{33} q^{21} + 12\, p^{32} q^{20} + 8\, p^{32} q^{19} + 5\, p^{33} q^{22} \\
&+ 2\, p^{31} q^{14} + 62\, p^{16} q^{29} + 56\, p^{26} q^{31} + 3\, q^{25} p^{7} + q^{23} p^{5} + 2\, q^{24} p^{6} + p^{23} q^{34} + 2\, p^{33} q^{20} + p^{33} q^{19} + p^{34} q^{22} + 10\, p^{25} q^{33} + 26\, p^{27} q^{32} \\
&+ 26\, p^{31} q^{30} + 35\, p^{29} q^{31} + 10\, p^{33} q^{29} + 2\, p^{20} q^{33} + 26\, p^{24} q^{32} + 9\, p^{24} q^{33} + 27\, p^{25} q^{32} + 28\, p^{26} q^{32} + 40\, p^{30} q^{30} + p^{34} q^{23} + 23\, p^{23} q^{32} \\
&+ 43\, p^{28} q^{31} + 20\, p^{32} q^{29} + 3\, p^{25} q^{7} + 43\, p^{21} q^{31} + 16\, p^{30} q^{15} + 78\, p^{29} q^{29} + 28\, p^{32} q^{26} + p^{28} q^{9} + 3\, p^{29} q^{11} + 112\, p^{18} q^{29} + 111\, p^{23} q^{30} \\
&+ 35\, p^{31} q^{29} + 3\, p^{34} q^{27} + p^{35} q^{28} + 3\, p^{4} q^{2} + 7\, p^{5} q^{3} + 1536\, p^{23} q^{19} + 1308\, p^{23} q^{17} + 1238\, p^{24} q^{21} + 1556\, p^{23} q^{20} + 926\, q^{21} p^{13} + 7\, q^{24} p^{7} \\
&+ 585\, p^{24} q^{26} + 315\, p^{26} q^{27} + 431\, p^{24} q^{27} + q^{4} p + p\, q^{3} + 3\, q^{4} p^{2} + 15\, p^{15} q^{4} + 129\, q^{20} p^{8} + 5\, p^{4} q^{3} + 7\, p^{13} q^{3} + 83\, p^{16} q^{6} + 43\, p^{15} q^{5} \\
&+ 2258\, p^{16} q^{16} + 1536\, p^{13} q^{17} + 2\, p^{3} q^{2} + p^{22} q^{34} + 7\, p^{23} q^{33} + 4\, p^{21} q^{33} + 5\, p^{22} q^{33} + 1446\, p^{23} q^{18} + p^{13} q^{2} + 565\, p^{18} q^{10} + 140\, p^{17} q^{7} \\
&+ 418\, p^{17} q^{9} + 253\, p^{17} q^{8} + 27\, q^{26} p^{10} + 10\, q^{7} p^{3} + 233\, q^{27} p^{16} + 957\, p^{22} q^{14} + 926\, p^{23} q^{15} + 722\, p^{22} q^{13} + 344\, p^{22} q^{11} + 16\, p^{6} q^{4} \\
&+ 26\, p^{6} q^{5} + 53\, p^{7} q^{6} + 37\, p^{19} q^{6} + 19\, p^{18} q^{5} + 676\, q^{21} p^{12} + 1198\, q^{21} p^{14} + 1198\, q^{22} p^{15} + 1996\, p^{20} q^{16} + 387\, p^{26} q^{16} + 175\, p^{21} q^{9} \\
&+ 515\, p^{22} q^{12} + 565\, p^{10} q^{18} + 1776\, p^{18} q^{14} + 819\, p^{18} q^{11} + 1936\, p^{19} q^{15} + 1446\, p^{18} q^{13} + 1123\, p^{18} q^{12} + 2\, q^{16} p^{3} + 8\, p^{17} q^{4} + 4\, p^{15} q^{3} \\
&+ 295\, p^{21} q^{10} + 62\, p^{20} q^{7} + 129\, p^{20} q^{8} + 1170\, p^{22} q^{24} + 2315\, p^{16} q^{18} + 1405\, p^{13} q^{14} + 1250\, p^{13} q^{13} + 464\, q^{21} p^{11} + 1433\, p^{22} q^{16} \\
&+ 321\, q^{14} p^{8} + 194\, q^{14} p^{7} + p^{8} q + 1126\, p^{16} q^{23} + 957\, p^{14} q^{22} + 19\, p^{5} q^{5} + 839\, p^{20} q^{12} + 299\, p^{19} q^{9} + 486\, q^{14} p^{9} + 703\, q^{15} p^{10} \\
&+ 839\, p^{16} q^{24} + 9\, q^{6} p^{3} + 40\, p^{6} q^{6} + 1057\, p^{13} q^{12} + 924\, p^{14} q^{11} + 12\, p^{5} q^{4} + 12\, p^{4} q^{5} + 3\, q^{5} p^{2} + 9\, p^{6} q^{3} + 3\, p^{5} q^{2} + q^{27} p^{8} + 163\, p^{20} q^{29} \\
&+ 9\, p^{4} q^{4} + 7\, p^{3} q^{5} + 5\, q^{4} p^{3} + q^{5} p + 924\, p^{11} q^{14} + 1057\, p^{12} q^{13} + 1433\, p^{20} q^{14} + 588\, p^{20} q^{11} + 1477\, p^{21} q^{15} + 1126\, p^{20} q^{13} + p^{4} q
\end{aligned}
$$

$$+ 2 p^{2} q^{3} + 370 q^{23} p^{12} + 11 q^{27} p^{10} + 5 q^{27} p^{9} + 4 q^{28} p^{10} + 9 q^{22} p^{6} + 69 p^{6} q^{8} + 515 p^{12} q^{22} + 11 q^{8} p^{3} + 12 q^{9} p^{3} + 103 p^{8} q^{7}$$
$$+ 960 p^{15} q^{11} + 42 q^{21} p^{7} + 175 q^{21} p^{9} + 214 q^{22} p^{10} + 78 p^{7} q^{7} + 4 q^{7} p^{2} + 24 p^{8} q^{4} + 43 p^{8} q^{5} + 85 p^{9} q^{6} + 129 q^{28} p^{16} + 198 p^{29} q^{23}$$
$$+ 91 q^{21} p^{8} + 25 q^{20} p^{6} + 515 p^{14} q^{24} + 1846 p^{20} q^{22} + 11 p^{8} q^{3} + 4 p^{7} q^{2} + 43 p^{5} q^{8} + 588 p^{25} q^{16} + 24 p^{4} q^{8} + 693 p^{26} q^{22} + 26 p^{5} q^{6}$$
$$+ 87 q^{19} p^{7} + 213 q^{18} p^{8} + 62 q^{20} p^{7} + p^{5} q + 35 q^{7} p^{5} + 10 p^{7} q^{3} + 4 p^{6} q^{2} + 2468 p^{17} q^{18} + 2195 p^{16} q^{19} + 16 q^{6} p^{4} + 20 p^{7} q^{4} + 35 p^{7} q^{5}$$
$$+ 69 p^{8} q^{6} + 112 q^{18} p^{7} + 233 q^{20} p^{9} + 295 q^{21} p^{10} + 1405 p^{14} q^{13} + 1170 p^{14} q^{12} + 1996 p^{16} q^{20} + 1612 p^{22} q^{22} + 67 q^{17} p^{6} + 5 q^{18} p^{4}$$
$$+ 37 q^{19} p^{6} + 19 q^{18} p^{5} + q^{6} p + 20 q^{7} p^{4} + 4 q^{6} p^{2} + 1170 p^{12} q^{14} + 1612 p^{14} q^{14} + 1963 p^{15} q^{15} + 502 p^{26} q^{25} + 379 p^{25} q^{27} + 252 p^{27} q^{27}$$
$$+ 144 p^{28} q^{28} + 486 q^{15} p^{9} + 685 q^{16} p^{10} + 310 q^{15} p^{8} + 2 q^{12} p^{2} + 50 q^{14} p^{5} + 20 q^{14} p^{4} + 47 q^{24} p^{9} + 37 q^{23} p^{8} + 15 q^{23} p^{7} + 252 p^{9} q^{9}$$
$$+ 410 p^{10} q^{10} + 7 q^{13} p^{3} + 87 p^{17} q^{29} + 186 p^{8} q^{9} + 51 q^{9} p^{5} + 98 q^{10} p^{6} + 186 p^{9} q^{8} + 479 p^{17} q^{26} + 252 p^{12} q^{24} + 144 p^{10} q^{23} + 315 p^{27} q^{26}$$
$$+ 418 q^{27} p^{19} + 299 q^{27} p^{17} + 2 q^{22} p^{5} + 4 q^{23} p^{6} + 839 q^{20} p^{12} + 1433 q^{20} p^{14} + 1477 q^{21} p^{15} + 26 q^{9} p^{4} + 7 q^{29} p^{12} + 26 q^{29} p^{14} + 144 p^{8} q^{8}$$
$$+ 131 p^{7} q^{9} + 819 p^{11} q^{18} + 51 p^{9} q^{5} + 98 p^{10} q^{6} + 713 p^{11} q^{19} + 1123 p^{12} q^{18} + 1536 p^{19} q^{23} + 676 p^{15} q^{24} + 131 p^{9} q^{7} + 26 p^{9} q^{4}$$
$$+ 588 q^{20} p^{11} + 91 p^{28} q^{15} + 178 p^{25} q^{29} + 103 p^{7} q^{8} + 85 p^{6} q^{9} + 469 p^{23} q^{27} + 1126 q^{20} p^{13} + 1761 p^{15} q^{14} + 2084 p^{16} q^{15} + 1238 p^{15} q^{12}$$
$$+ 1513 p^{15} q^{13} + 7 p^{24} q^{7} + 42 p^{21} q^{7} + 1308 p^{17} q^{23} + 91 p^{21} q^{8} + 370 p^{23} q^{12} + 5 p^{18} q^{4} + 2 p^{16} q^{3} + 214 p^{22} q^{10} + 1308 p^{13} q^{19}$$
$$+ 1250 p^{23} q^{23} + 4 q^{21} p^{5} + 26 p^{32} q^{24} + 4 p^{30} q^{13} + 19 p^{31} q^{18} + 1238 p^{21} q^{24} + 37 p^{23} q^{8} + 157 p^{25} q^{12} + 90 p^{24} q^{10} + 1446 p^{13} q^{18}$$
$$+ 11 q^{26} p^{9} + 2334 p^{17} q^{16} + 106 q^{14} p^{6} + 56 q^{13} p^{5} + 120 q^{22} p^{9} + 61 q^{22} p^{8} + 535 p^{23} q^{13} + 25 p^{20} q^{6} + 13 p^{19} q^{5} + 120 p^{22} q^{9}$$
$$+ 242 p^{23} q^{11} + 1123 p^{24} q^{18} + 722 p^{23} q^{14} + 676 p^{24} q^{15} + 344 p^{25} q^{14} + 295 p^{26} q^{15} + 479 p^{26} q^{17} + 486 p^{27} q^{21} + 685 p^{26} q^{20}$$
$$+ 636 p^{26} q^{19} + 924 p^{25} q^{22} + 905 p^{19} q^{25} + 992 p^{24} q^{17} + 960 p^{25} q^{21} + 1251 p^{24} q^{20} + 1210 p^{24} q^{19} + 96 q^{15} p^{6} + 182 q^{15} p^{7} + 362 q^{27} p^{18}$$
$$+ 459 q^{27} p^{20} + 310 q^{28} p^{21} + 11 q^{10} p^{3} + 2334 p^{19} q^{20} + 2455 p^{19} q^{19} + 2468 p^{19} q^{18} + 107 q^{11} p^{6} + 1761 p^{21} q^{22} + 28 q^{10} p^{4} + 56 q^{10} p^{5}$$
$$+ 242 q^{23} p^{11} + 344 p^{14} q^{25} + 2195 p^{17} q^{20} + 1630 p^{19} q^{14} + 713 p^{19} q^{11} + 1728 p^{20} q^{15} + 1308 p^{19} q^{13} + 992 p^{19} q^{12} + 230 p^{10} q^{8}$$
$$+ 156 p^{10} q^{7} + 16 q^{21} p^{6} + 8 q^{20} p^{5} + 26 q^{22} p^{7} + q^{17} p^{3} + 315 p^{10} q^{9} + 502 p^{11} q^{10} + 479 p^{19} q^{10} + 112 p^{18} q^{7} + 362 p^{18} q^{9} + 213 p^{18} q^{8}$$
$$+ 2315 p^{18} q^{20} + 2258 p^{20} q^{20} + 1963 p^{21} q^{21} + 67 p^{17} q^{6} + 35 p^{16} q^{5} + 1433 q^{22} p^{16} + 632 p^{25} q^{25} + 951 q^{16} p^{11} + 1936 p^{17} q^{21}$$
$$+ 370 p^{13} q^{24} + 178 q^{11} p^{7} + 1251 q^{16} p^{12} + 703 p^{21} q^{26} + 685 p^{20} q^{26} + 486 p^{21} q^{27} + 4 q^{31} p^{15} + 1776 p^{14} q^{18} + 2315 p^{18} q^{16}$$
$$+ 2125 p^{17} q^{15} + 1556 p^{16} q^{13} + 1251 p^{16} q^{12} + 379 p^{27} q^{25} + 1846 p^{16} q^{14} + 2195 p^{19} q^{16} + 992 p^{12} q^{19} + 2334 p^{20} q^{19} + 242 p^{25} q^{13}$$
$$+ 47 p^{24} q^{9} + 96 p^{25} q^{11} + 565 p^{26} q^{18} + 13 q^{19} p^{5} + 2195 p^{20} q^{17} + 2315 p^{20} q^{18} + 2468 p^{18} q^{19} + 951 p^{16} q^{11} + 854 p^{25} q^{23} + q^{18} p^{3}$$
$$+ 2 q^{20} p^{4} + 960 q^{15} p^{11} + 3 q^{19} p^{4} + q^{8} p + 3 q^{9} p^{2} + q^{13} p^{2} + 5 q^{14} p^{3} + 4 q^{15} p^{3} + 178 p^{11} q^{7} + 379 p^{11} q^{9} + 585 p^{12} q^{10} + 268 q^{11} p^{8}$$

$$+ 1849\, p^{14} q^{17} + 2125\, p^{15} q^{17} + 268\, p^{11} q^{8} + 107\, p^{11} q^{6} + 28\, p^{10} q^{4} + 56\, p^{10} q^{5} + 685\, p^{16} q^{10} + 156\, q^{10} p^{7} + 182\, p^{15} q^{7} + 486\, p^{15} q^{9}$$
$$+ 310\, p^{15} q^{8} + 1776\, p^{18} q^{22} + p^{6} q + 12\, p^{9} q^{3} + 4\, p^{8} q^{2} + 4\, q^{8} p^{2} + q^{7} p + 469\, p^{27} q^{23} + 10\, p^{11} q^{3} + 3\, p^{10} q^{2} + 535\, p^{13} q^{23} + 344\, p^{11} q^{22}$$
$$+ 106\, p^{14} q^{6} + 56\, p^{13} q^{5} + 23\, p^{13} q^{4} + p^{7} q + 25\, q^{27} p^{11} + 992\, p^{17} q^{24} + 387\, p^{16} q^{26} + 713\, p^{17} q^{25} + 464\, p^{15} q^{25} + 2\, q^{11} p^{2} + 588\, p^{16} q^{25}$$
$$+ 26\, q^{12} p^{4} + 140\, q^{17} p^{7} + q^{14} p^{2} + 10\, q^{11} p^{3} + 3\, q^{10} p^{2} + 12\, q^{16} p^{4} + 35\, q^{16} p^{5} + 156\, p^{29} q^{26} + 15\, q^{15} p^{4} + 43\, q^{15} p^{5} + 83\, q^{16} p^{6}$$
$$+ 1170\, p^{24} q^{22} + 819\, p^{18} q^{25} + 2334\, p^{16} q^{17} + 2\, p^{20} q^{4} + p^{18} q^{3} + 10\, p^{25} q^{8} + 47\, p^{27} q^{12} + 27\, p^{26} q^{10} + 87\, p^{29} q^{17} + 96\, p^{30} q^{21} + 163\, p^{29} q^{20}$$
$$+ 140\, p^{29} q^{19} + 106\, p^{30} q^{22} + 61\, p^{28} q^{14} + 170\, q^{19} p^{8} + 431\, p^{27} q^{24} + 27\, p^{4} q^{11} + 113\, p^{6} q^{12} + 59\, p^{5} q^{11} + 268\, p^{28} q^{25} + 379\, p^{9} q^{11}$$
$$+ 230\, p^{8} q^{10} + 951\, p^{20} q^{25} + 12\, p^{27} q^{33} + 12\, p^{31} q^{32} + 16\, p^{30} q^{32} + 4\, p^{29} q^{34} + 9\, p^{30} q^{33} + 11\, p^{28} q^{33} + 10\, p^{29} q^{33} + 25\, p^{25} q^{9} + 52\, p^{26} q^{11}$$
$$+ 1238\, p^{12} q^{15} + 59\, p^{31} q^{25} + 51\, p^{31} q^{27} + 24\, p^{32} q^{28} + 23\, q^{13} p^{4} + 58\, q^{12} p^{5} + 1728\, p^{21} q^{16} + 9\, q^{12} p^{3} + 1776\, p^{22} q^{18} + 2\, p^{12} q^{2}$$
$$+ 190\, p^{7} q^{12} + 502\, p^{10} q^{11} + 315\, p^{9} q^{10} + 11\, p^{10} q^{3} + 3\, p^{9} q^{2} + 298\, p^{24} q^{28} + 62\, p^{29} q^{16} + 1405\, p^{23} q^{22} + 298\, p^{12} q^{8} + 113\, p^{12} q^{6}$$
$$+ 27\, p^{11} q^{4} + 59\, p^{11} q^{5} + 190\, p^{12} q^{7} + 431\, p^{12} q^{9} + 651\, p^{13} q^{10} + 1849\, p^{22} q^{19} + 1630\, p^{22} q^{17} + 1513\, p^{23} q^{21} + 1846\, p^{22} q^{20} + 8\, p^{31} q^{16}$$
$$+ 2125\, p^{19} q^{21} + 1513\, p^{21} q^{23} + 186\, p^{28} q^{27} + 103\, p^{29} q^{28} + 916\, p^{24} q^{24} + 651\, p^{10} q^{13} + 418\, p^{9} q^{17} + 1556\, p^{13} q^{16} + 2\, p^{34} q^{25}$$
$$+ 1630\, p^{14} q^{19} + 1728\, p^{15} q^{20} + 2084\, p^{20} q^{21} + 53\, p^{6} q^{7} + 321\, q^{28} p^{22} + 515\, p^{24} q^{14} + 464\, p^{25} q^{15} + 713\, p^{25} q^{17} + 703\, p^{26} q^{21} + 951\, p^{25} q^{20}$$
$$+ 905\, p^{25} q^{19} + 144\, q^{26} p^{13} + 1936\, p^{15} q^{19} + 316\, p^{28} q^{23} + 131\, p^{27} q^{29} + 56\, p^{31} q^{23} + 13\, p^{17} q^{31} + 230\, p^{26} q^{28} + 410\, p^{26} q^{26} + 585\, p^{26} q^{24}$$
$$+ 59\, p^{25} q^{31} + 1513\, p^{13} q^{15} + 839\, p^{24} q^{16} + 90\, q^{24} p^{10} + 469\, p^{9} q^{13} + 27\, p^{32} q^{25} + 26\, p^{32} q^{27} + 11\, p^{33} q^{28} + 693\, p^{10} q^{14} + 387\, p^{20} q^{10}$$
$$+ 87\, p^{19} q^{7} + 170\, p^{19} q^{8} + 1556\, p^{20} q^{23} + 96\, q^{25} p^{11} + 52\, q^{26} p^{11} + 157\, q^{25} p^{12} + 230\, p^{28} q^{26} + 1210\, p^{17} q^{12} + 1849\, p^{17} q^{14} + 905\, p^{17} q^{11}$$
$$+ 2073\, p^{18} q^{15} + 1536\, p^{17} q^{13} + 90\, q^{26} p^{12} + 1251\, p^{20} q^{24} + 78\, p^{9} q^{23} + 53\, p^{18} q^{30} + 288\, p^{8} q^{16} + 163\, p^{7} q^{16} + 52\, q^{25} p^{10} + 12\, p^{16} q^{4}$$
$$+ 5\, p^{14} q^{3} + 194\, p^{14} q^{7} + 486\, p^{14} q^{9} + 321\, p^{14} q^{8} + 26\, p^{22} q^{7} + 61\, p^{22} q^{8} + 252\, p^{24} q^{12} + 144\, p^{23} q^{10} + 703\, p^{15} q^{10} + 362\, p^{9} q^{18}$$
$$+ 854\, p^{11} q^{13} + 916\, p^{12} q^{12} + 58\, p^{31} q^{24} + 2\, p^{24} q^{6} + p^{23} q^{5} + 15\, p^{29} q^{13} + 53\, p^{30} q^{18} + 15\, p^{23} q^{7} + 854\, p^{13} q^{11} + 750\, p^{11} q^{12} + 233\, p^{20} q^{9}$$
$$+ 676\, p^{21} q^{12} + p^{19} q^{33} + 20\, p^{22} q^{32} + 2381\, p^{19} q^{17} + p^{26} q^{7} + 1405\, p^{22} q^{23} + 295\, q^{26} p^{15} + 233\, p^{27} q^{16} + 1057\, p^{24} q^{23} + 2455\, p^{17} q^{17}$$
$$+ 214\, q^{26} p^{14} + 175\, q^{27} p^{15} + 194\, q^{29} p^{22} + 98\, p^{30} q^{26} + 11\, p^{26} q^{9} + 25\, p^{27} q^{11} + p^{27} q^{8} + 7\, p^{29} q^{12} + 4\, p^{28} q^{10} + 13\, p^{31} q^{17} + 15\, p^{32} q^{21}$$
$$+ 35\, p^{31} q^{20} + 27\, p^{31} q^{19} + 20\, p^{32} q^{22} + 9\, p^{30} q^{14} + 3\, p^{19} q^{4} + p^{17} q^{3} + 21\, p^{24} q^{8} + 90\, p^{26} q^{12} + 52\, p^{25} q^{10} + 1057\, p^{23} q^{24} + 693\, p^{22} q^{26}$$
$$+ 854\, p^{23} q^{25} + 960\, p^{21} q^{25} + 924\, p^{22} q^{25} + 2\, q^{30} p^{12} + 26\, p^{30} q^{31} + 9\, p^{33} q^{30} + 107\, p^{30} q^{25} + 85\, p^{30} q^{27} + 43\, p^{31} q^{28} + 53\, p^{30} q^{29}$$
$$+ 107\, p^{25} q^{30} + 3\, p^{17} q^{32} + 170\, p^{28} q^{17} + 182\, p^{29} q^{21} + 288\, p^{28} q^{20} + 253\, p^{28} q^{19} + 194\, p^{29} q^{22} + 120\, p^{27} q^{14} + 316\, p^{23} q^{28} + p^{30} q^{35}$$
$$+ 4\, p^{34} q^{29} + 129\, p^{28} q^{16} + 198\, q^{29} p^{23} + 1210\, p^{19} q^{24} + 479\, q^{19} p^{10} + 299\, q^{19} p^{9} + 387\, q^{20} p^{10} + 636\, p^{19} q^{26} + 27\, p^{19} q^{31} + 51\, p^{27} q^{31}$$

$$+ 53 p^{29} q^{30} + 53 p^{18} q^{6} + 27 p^{17} q^{5} + 1630 q^{22} p^{17} + 25 p^{30} q^{16} + 4 p^{31} q^{15} + 11 p^{33} q^{26} + 9 p^{32} q^{32} + 4 p^{30} q^{34} + 7 p^{31} q^{33} + 170 q^{28} p^{17}$$
$$+ 213 q^{28} p^{18} + 288 q^{28} p^{20} + 182 q^{29} p^{21} + q^{29} p^{10} + 298 p^{28} q^{24} + 1198 p^{21} q^{14} + 1198 p^{22} q^{15} + 926 p^{21} q^{13} + 464 p^{21} q^{11} + 1126 p^{23} q^{16}$$
$$+ 78 q^{27} p^{13} + 253 q^{28} p^{19} + 190 p^{29} q^{24} + 2 p^{25} q^{34} + 24 p^{28} q^{32} + 19 p^{31} q^{31} + 2 p^{24} q^{34} + 9 p^{33} q^{24} + p^{31} q^{13} + 5 p^{32} q^{18} + 3 p^{26} q^{34}$$
$$+ 16 p^{32} q^{30} + 4 p^{28} q^{34} + 3 p^{27} q^{34} + p^{28} q^{35} + 632 p^{11} q^{11} + 1123 p^{18} q^{24} + 113 p^{30} q^{24} + 4 p^{23} q^{6} + 2 p^{22} q^{5} + 37 p^{28} q^{13} + 112 p^{29} q^{18}$$
$$+ 9 p^{22} q^{6} + 4 p^{21} q^{5} + 12 p^{32} q^{31} + 11 p^{26} q^{33} + 20 p^{29} q^{32} + 926 p^{15} q^{23} + 4 p^{26} q^{8} + 21 p^{28} q^{12} + 11 p^{27} q^{10} + 37 p^{30} q^{17} + 43 p^{31} q^{21}$$
$$+ 83 p^{30} q^{20} + 67 p^{30} q^{19} + 50 p^{31} q^{22} + 26 p^{29} q^{14} + 486 p^{27} q^{22} + 47 q^{27} p^{12} + 78 p^{27} q^{13} + 213 p^{28} q^{18} + 431 p^{9} q^{12} + 198 p^{7} q^{13}$$
$$+ 298 p^{8} q^{12} + 50 p^{22} q^{31} + 21 q^{24} p^{8} + 157 q^{24} p^{11} + 4 p^{13} q^{30} + 16 p^{15} q^{30} + 156 p^{26} q^{29} + 4 p^{34} q^{30} + 2 p^{34} q^{24} + p^{33} q^{18} + 3 p^{34} q^{26}$$
$$+ 370 p^{24} q^{13} + 16 p^{21} q^{6} + 8 p^{20} q^{5} + 78 p^{23} q^{9} + 157 p^{24} q^{11} + 819 p^{25} q^{18} + p^{35} q^{31} + 2 p^{33} q^{34} + 3 p^{32} q^{34} + 2 p^{34} q^{34} + p^{35} q^{34} + 2 p^{34} q^{33}$$
$$+ p^{33} q^{35} + p^{35} q^{35} + p^{36} q^{36} + p^{31} q^{35} + p^{14} q^{2} + 5 p^{18} q^{32} + p^{35} q^{30} + 3 p^{34} q^{31} + 3 p^{31} q^{34} + 4 p^{33} q^{33} + p^{35} q^{32} + 5 p^{32} q^{33} + 5 p^{33} q^{32}$$
$$+ 3 p^{34} q^{32} + p^{34} q^{35} + p^{32} q^{35} + 111 p^{30} q^{23} + p^{18} q^{33} + 15 p^{21} q^{32} + 8 p^{19} q^{32} + 58 p^{24} q^{31} + 12 p^{20} q^{32} + p^{35} q^{29} + 502 p^{25} q^{26} + 8 p^{16} q^{31}$$
$$+ 9 p^{14} q^{30} + 113 p^{24} q^{30} + 140 p^{19} q^{29} + 268 p^{25} q^{28} + 186 p^{27} q^{28} + 2 p^{16} q^{32} + 178 p^{29} q^{25} + 37 q^{30} p^{17} + 131 p^{29} q^{27} + 69 p^{30} q^{28}$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 10, *is:*

$$1 + 336 p^{38} q^{31} + 246 p^{38} q^{34} + 202 p^{38} q^{35} + 101 p^{39} q^{36} + 350 p^{38} q^{30} + 316 p^{38} q^{32} + 347 p^{38} q^{29} + 9252 p^{18} q^{26} + q^{21} p^{3} + 760 q^{28} p^{12}$$
$$+ 1876 q^{28} p^{14} + 1988 q^{29} p^{15} + 789 p^{36} q^{24} + 334 p^{35} q^{18} + 970 p^{36} q^{26} + 108 q^{26} p^{8} + 40 q^{26} p^{7} + 105 q^{28} p^{9} + 19 q^{25} p^{6} + 2 q^{26} p^{5}$$
$$+ 2913 p^{33} q^{23} + 7122 p^{28} q^{30} + 83 p^{24} q^{39} + 64 p^{23} q^{39} + 309 p^{35} q^{37} + 561 p^{34} q^{36} + p^{16} q^{39} + 3 p^{17} q^{39} + 15529 p^{21} q^{19} + 11965 p^{21} q^{17}$$
$$+ 3172 p^{26} q^{14} + 6186 p^{27} q^{17} + 9992 p^{28} q^{21} + 10703 p^{27} q^{20} + 9252 p^{27} q^{19} + 2 p^{26} q^{42} + 17922 p^{22} q^{21} + 16809 p^{21} q^{20} + 4193 p^{13} q^{22}$$
$$+ 5331 p^{20} q^{30} + 1020 p^{9} q^{16} + 1625 p^{10} q^{17} + 5244 p^{14} q^{16} + 3408 p^{33} q^{25} + 3499 p^{33} q^{27} + 2408 p^{34} q^{28} + 867 p^{32} q^{16} + 3529 p^{27} q^{15}$$
$$+ 867 q^{29} p^{13} + 43 q^{28} p^{8} + 9951 p^{24} q^{29} + 28 p^{40} q^{24} + 6 p^{39} q^{18} + 48 p^{40} q^{26} + 38 p^{41} q^{33} + 7 p^{38} q^{16} + 31 p^{41} q^{30} + 28 p^{41} q^{29} + 36 p^{41} q^{32}$$
$$+ 246 p^{34} q^{38} + 595 q^{31} p^{14} + 10971 p^{28} q^{22} + p\, q + q^{27} p^{5} + 1625 p^{17} q^{10} + 347 p^{16} q^{7} + 1020 p^{16} q^{9} + 22 q^{17} p^{4} + 149 q^{18} p^{6} + 69 q^{17} p^{5}$$
$$+ 6978 p^{22} q^{30} + 616 q^{17} p^{8} + 433 q^{28} p^{11} + 1226 q^{28} p^{13} + 2158 p^{26} q^{13} + 7695 p^{27} q^{18} + 15433 p^{26} q^{23} + 12008 p^{18} q^{18} + 11483 p^{17} q^{19}$$
$$+ 12990 p^{22} q^{27} + 13850 p^{21} q^{18} + 154 q^{25} p^{8} + 2408 p^{11} q^{17} + 18 q^{31} p^{9} + 364 q^{31} p^{13} + 178 q^{30} p^{11} + p^{9} q + 16809 p^{25} q^{24} + 3877 p^{20} q^{31}$$
$$+ 1574 p^{29} q^{35} + 2475 p^{33} q^{31} + 1341 p^{35} q^{24} + 622 p^{34} q^{18} + 1579 p^{35} q^{26} + 965 p^{35} q^{33} + 10703 p^{18} q^{17} + 7684 p^{15} q^{18} + 4 p^{3} q^{3}$$

$$+ 625\, p^{16}\, q^{8} + 13\, p^{12}\, q^{3} + 3\, p^{11}\, q^{2} + 181\, p^{15}\, q^{6} + 86\, p^{14}\, q^{5} + 1988\, q^{30}\, p^{16} + 6363\, p^{15}\, q^{16} + 4585\, p^{14}\, q^{15} + 290\, q^{29}\, p^{11} + p^{3}\, q + 2\, p^{2}\, q^{2}$$
$$+ p\, q^{2} + 1988\, p^{29}\, q^{15} + 333\, q^{25}\, p^{9} + 13850\, p^{18}\, q^{21} + p^{2}\, q + 2481\, q^{27}\, p^{14} + 2698\, q^{28}\, p^{15} + 2700\, p^{13}\, q^{25} + p^{39}\, q^{44} + p^{38}\, q^{44} + 5\, p^{20}\, q^{40}$$
$$+ p^{44}\, q^{37} + 2481\, p^{18}\, q^{31} + 8439\, p^{28}\, q^{29} + 5776\, p^{23}\, q^{31} + 8049\, p^{26}\, q^{30} + 12\, p^{37}\, q^{42} + 21\, p^{38}\, q^{41} + 17\, p^{39}\, q^{41} + 43\, p^{39}\, q^{39} + 27\, p^{40}\, q^{39}$$
$$+ 2\, p^{31}\, q^{43} + 20\, p^{40}\, q^{40} + 161\, q^{38}\, p^{23} + q^{35}\, p^{10} + 65\, q^{36}\, p^{16} + 420\, p^{37}\, q^{24} + 166\, p^{36}\, q^{18} + 547\, p^{37}\, q^{26} + 28\, p^{24}\, q^{40} + p^{21}\, q^{41} + 19\, p^{23}\, q^{40}$$
$$+ p^{42}\, q^{44} + p^{44}\, q^{44} + p^{45}\, q^{45} + p^{40}\, q^{44} + p^{43}\, q^{44} + p^{41}\, q^{44} + 3\, p^{40}\, q^{43} + 6357\, p^{31}\, q^{26} + 166\, p^{27}\, q^{9} + 433\, p^{28}\, q^{11} + 2\, p^{22}\, q^{41} + 48\, p^{26}\, q^{40}$$
$$+ 181\, p^{30}\, q^{39} + 12990\, p^{18}\, q^{23} + 4193\, p^{32}\, q^{23} + 28\, p^{29}\, q^{41} + 83\, p^{33}\, q^{40} + 80\, p^{37}\, q^{39} + 6\, p^{27}\, q^{6} + 2\, p^{26}\, q^{5} + 3366\, p^{12}\, q^{17} + 7684\, p^{27}\, q^{30}$$
$$+ 2\, p^{43}\, q^{42} + p^{44}\, q^{40} + 7\, p^{40}\, q^{42} + 9\, p^{41}\, q^{41} + 5\, p^{42}\, q^{41} + 3\, p^{43}\, q^{40} + 9951\, q^{21}\, p^{16} + 37\, p^{25}\, q^{40} + 1324\, p^{14}\, q^{10} + 1298\, p^{12}\, q^{11} + 965\, p^{10}\, q^{12}$$
$$+ 516\, p^{8}\, q^{13} + 4409\, p^{19}\, q^{30} + 174\, p^{13}\, q^{6} + 38\, p^{12}\, q^{4} + 83\, p^{12}\, q^{5} + 316\, p^{13}\, q^{7} + 797\, p^{13}\, q^{9} + 11\, p^{42}\, q^{38} + 885\, p^{36}\, q^{25} + 35\, p^{30}\, q^{9}$$
$$+ 105\, p^{31}\, q^{11} + 516\, p^{13}\, q^{8} + 15433\, p^{23}\, q^{26} + 35\, p^{14}\, q^{4} + 2\, q^{40}\, p^{19} + 177\, p^{29}\, q^{39} + 163\, p^{28}\, q^{39} + 242\, p^{25}\, q^{38} + 420\, p^{24}\, q^{37} + 281\, p^{38}\, q^{33}$$
$$+ 143\, p^{35}\, q^{16} + 2\, q^{37}\, p^{13} + 12\, q^{37}\, p^{15} + 7\, q^{38}\, p^{16} + 16809\, p^{24}\, q^{25} + 6194\, p^{21}\, q^{30} + 174\, q^{13}\, p^{6} + 15433\, p^{19}\, q^{22} + 5226\, p^{14}\, q^{23} + 202\, p^{35}\, q^{38}$$
$$+ 25\, p^{27}\, q^{7} + 43\, p^{28}\, q^{8} + 338\, p^{30}\, q^{12} + 143\, p^{29}\, q^{10} + 1226\, p^{32}\, q^{17} + 2174\, p^{33}\, q^{21} + 2700\, p^{32}\, q^{20} + 2158\, p^{32}\, q^{19} + 2553\, p^{33}\, q^{22}$$
$$+ 595\, p^{31}\, q^{14} + p^{25}\, q^{42} + 86\, p^{31}\, q^{40} + 22\, p^{28}\, q^{41} + 48\, p^{40}\, q^{37} + 144\, p^{34}\, q^{39} + 10\, p^{41}\, q^{25} + 3\, p^{39}\, q^{17} + 7\, p^{40}\, q^{21} + p^{38}\, q^{14} + 5\, p^{40}\, q^{20}$$
$$+ 2\, p^{40}\, q^{19} + 2\, p^{41}\, q^{22} + 4\, p^{41}\, q^{23} + 18\, p^{41}\, q^{27} + 5\, p^{42}\, q^{28} + 2\, p^{38}\, q^{15} + 121\, p^{37}\, q^{38} + 2774\, p^{16}\, q^{29} + 6357\, p^{26}\, q^{31} + 63\, q^{25}\, p^{7} + 13\, q^{23}\, p^{5}$$
$$+ 32\, q^{24}\, p^{6} + 1906\, p^{23}\, q^{34} + 202\, p^{31}\, q^{12} + 87\, p^{30}\, q^{10} + 760\, p^{33}\, q^{17} + 1367\, p^{34}\, q^{21} + 1770\, p^{33}\, q^{20} + 1397\, p^{33}\, q^{19} + 1651\, p^{34}\, q^{22}$$
$$+ 364\, p^{32}\, q^{14} + 3408\, p^{25}\, q^{33} + 4737\, p^{27}\, q^{32} + 4585\, p^{31}\, q^{30} + 5244\, p^{29}\, q^{31} + 3149\, p^{33}\, q^{29} + 1770\, p^{20}\, q^{33} + 4550\, p^{24}\, q^{32} + 3196\, p^{24}\, q^{33}$$
$$+ 4756\, p^{25}\, q^{32} + 4835\, p^{26}\, q^{32} + 5514\, p^{30}\, q^{30} + 1906\, p^{34}\, q^{23} + 21\, p^{41}\, q^{38} + 38\, p^{38}\, q^{40} + 35\, p^{35}\, q^{41} + 48\, p^{37}\, q^{40} + 3\, p^{33}\, q^{43} + 2\, p^{32}\, q^{43}$$
$$+ 3\, p^{34}\, q^{43} + 4\, p^{36}\, q^{43} + 4\, p^{35}\, q^{43} + p^{36}\, q^{44} + 17\, p^{41}\, q^{39} + 14\, p^{35}\, q^{42} + 5\, p^{37}\, q^{43} + 11\, p^{38}\, q^{42} + 14\, p^{36}\, q^{42} + 4193\, p^{23}\, q^{32} + 5772\, p^{28}\, q^{31}$$
$$+ 4140\, p^{32}\, q^{29} + 63\, p^{25}\, q^{7} + 1579\, q^{35}\, p^{26} + 1341\, q^{35}\, p^{24} + 12\, p^{40}\, q^{41} + 12\, p^{41}\, q^{40} + 4\, p^{43}\, q^{38} + p^{37}\, q^{44} + 9\, p^{42}\, q^{39} + 4\, p^{38}\, q^{43} + 9\, p^{39}\, q^{42}$$
$$+ 5\, p^{41}\, q^{42} + 3\, p^{43}\, q^{41} + 4\, p^{39}\, q^{43} + p^{44}\, q^{39} + 4\, p^{42}\, q^{42} + 678\, p^{36}\, q^{33} + 4591\, p^{21}\, q^{31} + 1389\, p^{30}\, q^{15} + 7470\, p^{29}\, q^{29} + 4835\, p^{32}\, q^{26}$$
$$+ 105\, p^{28}\, q^{9} + 290\, p^{29}\, q^{11} + 4762\, p^{18}\, q^{29} + 7578\, p^{23}\, q^{30} + 5244\, p^{31}\, q^{29} + 86\, p^{40}\, q^{31} + 79\, p^{40}\, q^{34} + 70\, p^{40}\, q^{35} + 30\, p^{41}\, q^{36} + 2448\, p^{34}\, q^{27}$$
$$+ 517\, p^{33}\, q^{16} + 1625\, p^{35}\, q^{28} + 176\, p^{37}\, q^{37} + q^{40}\, p^{18} + 3\, p^{4}\, q^{2} + 7\, p^{5}\, q^{3} + 14892\, p^{23}\, q^{19} + 10971\, p^{23}\, q^{17} + 16827\, p^{24}\, q^{21} + 16467\, p^{23}\, q^{20}$$
$$+ 4550\, q^{21}\, p^{13} + 89\, q^{24}\, p^{7} + 15529\, p^{24}\, q^{26} + 12993\, p^{26}\, q^{27} + 13850\, p^{24}\, q^{27} + q^{4}\, p + p\, q^{3} + 3\, q^{4}\, p^{2} + 31\, p^{15}\, q^{4} + 492\, q^{20}\, p^{8} + 5\, p^{4}\, q^{3}$$
$$+ 12\, p^{13}\, q^{3} + 177\, p^{16}\, q^{6} + 84\, p^{15}\, q^{5} + 7470\, p^{16}\, q^{16} + 4513\, p^{13}\, q^{17} + 2\, p^{3}\, q^{2} + 1651\, p^{22}\, q^{34} + 2913\, p^{23}\, q^{33} + 2174\, p^{21}\, q^{33} + 2553\, p^{22}\, q^{33}$$
$$+ 12990\, p^{23}\, q^{18} + 2\, p^{13}\, q^{2} + 1635\, p^{18}\, q^{10} + 338\, p^{17}\, q^{7} + 1041\, p^{17}\, q^{9} + 616\, p^{17}\, q^{8} + 473\, q^{26}\, p^{10} + 11\, q^{7}\, p^{3} + 4762\, q^{27}\, p^{16} + 5776\, p^{22}\, q^{14}$$

$$+ 6978\, p^{23}\, q^{15} + 4193\, p^{22}\, q^{13} + 1906\, p^{22}\, q^{11} + 17\, p^{6}\, q^{4} + 27\, p^{6}\, q^{5} + 59\, p^{7}\, q^{6} + 126\, p^{19}\, q^{6} + 57\, p^{18}\, q^{5} + 3196\, q^{21}\, p^{12} + 6151\, q^{21}\, p^{14}$$
$$+ 7578\, q^{22}\, p^{15} + 10037\, p^{20}\, q^{16} + 5888\, p^{26}\, q^{16} + 789\, p^{21}\, q^{9} + 2913\, p^{22}\, q^{12} + 1635\, p^{10}\, q^{18} + 6168\, p^{18}\, q^{14} + 2448\, p^{18}\, q^{11} + 8049\, p^{19}\, q^{15}$$
$$+ 4737\, p^{18}\, q^{13} + 3499\, p^{18}\, q^{12} + 6\, q^{16}\, p^{3} + 22\, p^{17}\, q^{4} + 9\, p^{15}\, q^{3} + 1341\, p^{21}\, q^{10} + 242\, p^{20}\, q^{7} + 492\, p^{20}\, q^{8} + 17663\, p^{22}\, q^{24} + 9246\, p^{16}\, q^{18}$$
$$+ 3156\, p^{13}\, q^{14} + 2617\, p^{13}\, q^{13} + 2140\, q^{21}\, p^{11} + 9583\, p^{22}\, q^{16} + 572\, q^{14}\, p^{8} + 336\, q^{14}\, p^{7} + p^{8}\, q + 290\, q^{34}\, p^{16} + 760\, q^{33}\, p^{17} + 338\, q^{33}\, p^{15}$$
$$+ 517\, q^{33}\, p^{16} + 8908\, p^{16}\, q^{23} + 5776\, p^{14}\, q^{22} + 20\, p^{5}\, q^{5} + 3408\, p^{20}\, q^{12} + 970\, p^{19}\, q^{9} + 893\, q^{14}\, p^{9} + 1463\, q^{15}\, p^{10} + 8038\, p^{16}\, q^{24} + 9\, q^{6}\, p^{3}$$
$$+ 43\, p^{6}\, q^{6} + 2073\, p^{13}\, q^{12} + 1848\, p^{14}\, q^{11} + 12\, p^{5}\, q^{4} + 12\, p^{4}\, q^{5} + 3\, q^{5}\, p^{2} + 9\, p^{6}\, q^{3} + 3\, p^{5}\, q^{2} + 7\, q^{24}\, p^{5} + 69\, q^{27}\, p^{8} + 2\, q^{23}\, p^{4} + 6988\, p^{20}\, q^{29}$$
$$+ 9\, p^{4}\, q^{4} + 7\, p^{3}\, q^{5} + 5\, q^{4}\, p^{3} + q^{5}\, p + 1848\, p^{11}\, q^{14} + 2073\, p^{12}\, q^{13} + 6367\, p^{20}\, q^{14} + 2308\, p^{20}\, q^{11} + 7995\, p^{21}\, q^{15} + 4756\, p^{20}\, q^{13} + q^{24}\, p^{4}$$
$$+ p^{4}\, q + 2\, p^{2}\, q^{3} + 2553\, q^{23}\, p^{12} + 334\, q^{27}\, p^{10} + 166\, q^{27}\, p^{9} + 228\, q^{28}\, p^{10} + 64\, q^{22}\, p^{6} + 80\, p^{6}\, q^{8} + 2913\, p^{12}\, q^{22} + 12\, q^{8}\, p^{3} + 14\, q^{9}\, p^{3}$$
$$+ 121\, p^{8}\, q^{7} + 2093\, p^{15}\, q^{11} + 204\, q^{21}\, p^{7} + 789\, q^{21}\, p^{9} + 1180\, q^{22}\, p^{10} + 89\, p^{7}\, q^{7} + 4\, q^{7}\, p^{2} + 27\, p^{8}\, q^{4} + 48\, p^{8}\, q^{5} + 101\, p^{9}\, q^{6} + 3722\, q^{28}\, p^{16}$$
$$+ 4\, q^{22}\, p^{4} + 9583\, p^{29}\, q^{23} + 420\, q^{21}\, p^{8} + 106\, q^{20}\, p^{6} + 4591\, p^{14}\, q^{24} + 16923\, p^{20}\, q^{22} + 12\, p^{8}\, q^{3} + 4\, p^{7}\, q^{2} + 48\, p^{5}\, q^{8} + 6988\, p^{25}\, q^{16}$$
$$+ 27\, p^{4}\, q^{8} + 14892\, p^{26}\, q^{22} + 27\, p^{5}\, q^{6} + 6\, q^{21}\, p^{4} + 283\, q^{19}\, p^{7} + 594\, q^{18}\, p^{8} + 242\, q^{20}\, p^{7} + p^{5}\, q + 38\, q^{7}\, p^{5} + 11\, p^{7}\, q^{3} + 4\, p^{6}\, q^{2}$$
$$+ 10703\, p^{17}\, q^{18} + 9776\, p^{16}\, q^{19} + 17\, q^{6}\, p^{4} + 21\, p^{7}\, q^{4} + 38\, p^{7}\, q^{5} + 80\, p^{8}\, q^{6} + 312\, q^{18}\, p^{7} + 885\, q^{20}\, p^{9} + 1341\, q^{21}\, p^{10} + 3156\, p^{14}\, q^{13}$$
$$+ 2475\, p^{14}\, q^{12} + 10037\, p^{16}\, q^{20} + 18426\, p^{22}\, q^{22} + 163\, q^{17}\, p^{6} + 238\, q^{36}\, p^{19} + 105\, q^{36}\, p^{17} + q^{15}\, p^{2} + 18\, q^{18}\, p^{4} + 126\, q^{19}\, p^{6} + 57\, q^{18}\, p^{5}$$
$$+ q^{6}\, p + 21\, q^{7}\, p^{4} + 4\, q^{6}\, p^{2} + 2475\, p^{12}\, q^{14} + 3886\, p^{14}\, q^{14} + 5514\, p^{15}\, q^{15} + 15102\, p^{26}\, q^{25} + 13648\, p^{25}\, q^{27} + 12008\, p^{27}\, q^{27} + 9682\, p^{28}\, q^{28}$$
$$+ 976\, q^{15}\, p^{9} + 1574\, q^{16}\, p^{10} + 604\, q^{15}\, p^{8} + 3\, q^{12}\, p^{2} + 86\, q^{14}\, p^{5} + 35\, q^{14}\, p^{4} + 436\, q^{24}\, p^{9} + 278\, q^{23}\, p^{8} + 125\, q^{23}\, p^{7} + 334\, p^{9}\, q^{9}$$
$$+ 601\, p^{10}\, q^{10} + 12\, q^{13}\, p^{3} + 3722\, p^{17}\, q^{29} + 236\, p^{8}\, q^{9} + 60\, q^{9}\, p^{5} + 125\, q^{10}\, p^{6} + 236\, p^{9}\, q^{8} + 7512\, p^{17}\, q^{26} + 2174\, p^{12}\, q^{24} + 991\, p^{10}\, q^{23}$$
$$+ 6\, q^{39}\, p^{18} + 12993\, p^{27}\, q^{26} + 9252\, q^{27}\, p^{19} + 6186\, q^{27}\, p^{17} + 19\, q^{22}\, p^{5} + 45\, q^{23}\, p^{6} + 3408\, q^{20}\, p^{12} + 6367\, q^{20}\, p^{14} + 7995\, q^{21}\, p^{15} + 30\, q^{9}\, p^{4}$$
$$+ 517\, q^{29}\, p^{12} + 1344\, q^{29}\, p^{14} + 176\, p^{8}\, q^{8} + 162\, p^{7}\, q^{9} + 2448\, p^{11}\, q^{18} + 60\, p^{9}\, q^{5} + 125\, p^{10}\, q^{6} + 2425\, p^{11}\, q^{19} + 3499\, p^{12}\, q^{18} + 14892\, p^{19}\, q^{23}$$
$$+ 6194\, p^{15}\, q^{24} + 162\, p^{9}\, q^{7} + 30\, p^{9}\, q^{4} + 2308\, q^{20}\, p^{11} + 2698\, p^{28}\, q^{15} + 10037\, p^{25}\, q^{29} + 121\, p^{7}\, q^{8} + 101\, p^{6}\, q^{9} + 13646\, p^{23}\, q^{27}$$
$$+ 4756\, q^{20}\, p^{13} + 4585\, p^{15}\, q^{14} + 6363\, p^{16}\, q^{15} + 2834\, p^{15}\, q^{12} + 3688\, p^{15}\, q^{13} + 89\, p^{24}\, q^{7} + 204\, p^{21}\, q^{7} + 10971\, p^{17}\, q^{23} + 420\, p^{21}\, q^{8}$$
$$+ 2553\, p^{23}\, q^{12} + 18\, p^{18}\, q^{4} + 6\, p^{16}\, q^{3} + 1180\, p^{22}\, q^{10} + 4835\, p^{13}\, q^{19} + 18426\, p^{23}\, q^{23} + 28\, q^{21}\, p^{5} + 4550\, p^{32}\, q^{24} + 19\, p^{25}\, q^{6} + 7\, p^{24}\, q^{5}$$
$$+ 575\, p^{30}\, q^{13} + 2481\, p^{31}\, q^{18} + 16827\, p^{21}\, q^{24} + 278\, p^{23}\, q^{8} + 1770\, p^{25}\, q^{12} + 810\, p^{24}\, q^{10} + 4737\, p^{13}\, q^{18} + 238\, q^{26}\, p^{9} + 8439\, p^{17}\, q^{16}$$
$$+ 183\, q^{14}\, p^{6} + 88\, q^{13}\, p^{5} + 670\, q^{22}\, p^{9} + 352\, q^{22}\, p^{8} + 3755\, p^{23}\, q^{13} + 106\, p^{20}\, q^{6} + 48\, p^{19}\, q^{5} + 670\, p^{22}\, q^{9} + 1651\, p^{23}\, q^{11} + 12005\, p^{24}\, q^{18}$$
$$+ 5226\, p^{23}\, q^{14} + 6194\, p^{24}\, q^{15} + 3877\, p^{25}\, q^{14} + 4409\, p^{26}\, q^{15} + 7512\, p^{26}\, q^{17} + 12005\, p^{27}\, q^{21} + 12555\, p^{26}\, q^{20} + 10952\, p^{26}\, q^{19}$$

$$+ 16467\, p^{25}\, q^{22} + 12555\, p^{19}\, q^{25} + 9992\, p^{24}\, q^{17} + 15554\, p^{25}\, q^{21} + 15554\, p^{24}\, q^{20} + 13881\, p^{24}\, q^{19} + 181\, q^{15}\, p^{6} + 350\, q^{15}\, p^{7} + 7695\, q^{27}\, p^{18}$$
$$+ 10703\, q^{27}\, p^{20} + 9992\, q^{28}\, p^{21} + 347\, p^{29}\, q^{38} + q^{16}\, p^{2} + 14\, q^{10}\, p^{3} + 15102\, p^{19}\, q^{20} + 14256\, p^{19}\, q^{19} + 12993\, p^{19}\, q^{18} + 144\, q^{11}\, p^{6}$$
$$+ 17922\, p^{21}\, q^{22} + 35\, q^{10}\, p^{4} + 70\, q^{10}\, p^{5} + 40\, p^{19}\, q^{38} + 1651\, q^{23}\, p^{11} + 3877\, p^{14}\, q^{25} + 11895\, p^{17}\, q^{20} + 6357\, p^{19}\, q^{14} + 2425\, p^{19}\, q^{11}$$
$$+ 8138\, p^{20}\, q^{15} + 4835\, p^{19}\, q^{13} + 3501\, p^{19}\, q^{12} + 283\, p^{26}\, q^{38} + 309\, p^{10}\, q^{8} + 202\, p^{10}\, q^{7} + 83\, q^{21}\, p^{6} + 37\, q^{20}\, p^{5} + 161\, q^{22}\, p^{7} + 5\, q^{17}\, p^{3}$$
$$+ 439\, p^{10}\, q^{9} + 774\, p^{11}\, q^{10} + 1579\, p^{19}\, q^{10} + 312\, p^{18}\, q^{7} + 1018\, p^{18}\, q^{9} + 594\, p^{18}\, q^{8} + 13648\, p^{18}\, q^{20} + 16212\, p^{20}\, q^{20} + 17656\, p^{21}\, q^{21}$$
$$+ 163\, p^{17}\, q^{6} + 76\, p^{16}\, q^{5} + 9583\, q^{22}\, p^{16} + 16212\, p^{25}\, q^{25} + 2276\, q^{16}\, p^{11} + 11965\, p^{17}\, q^{21} + 3233\, p^{13}\, q^{24} + 246\, q^{11}\, p^{7} + 35\, q^{30}\, p^{9}$$
$$+ 3149\, q^{16}\, p^{12} + 13881\, p^{21}\, q^{26} + 12555\, p^{20}\, q^{26} + 12005\, p^{21}\, q^{27} + 925\, q^{31}\, p^{15} + 6168\, p^{14}\, q^{18} + 9246\, p^{18}\, q^{16} + 7122\, p^{17}\, q^{15} + 4140\, p^{16}\, q^{13}$$
$$+ 3149\, p^{16}\, q^{12} + 13648\, p^{27}\, q^{25} + 5244\, p^{16}\, q^{14} + 9776\, p^{19}\, q^{16} + 3501\, p^{12}\, q^{19} + 15102\, p^{20}\, q^{19} + 2700\, p^{25}\, q^{13} + 436\, p^{24}\, q^{9} + 1100\, p^{25}\, q^{11}$$
$$+ 9252\, p^{26}\, q^{18} + 48\, q^{19}\, p^{5} + 2\, q^{19}\, p^{3} + 11895\, p^{20}\, q^{17} + 13648\, p^{20}\, q^{18} + 12993\, p^{18}\, q^{19} + 2276\, p^{16}\, q^{11} + 16923\, p^{25}\, q^{23} + 3\, q^{18}\, p^{3}$$
$$+ 10\, q^{20}\, p^{4} + 2093\, q^{15}\, p^{11} + 13\, q^{19}\, p^{4} + q^{8}\, p + 4\, q^{9}\, p^{2} + 23\, q^{37}\, p^{16} + 3\, q^{33}\, p^{9} + 2\, q^{32}\, p^{8} + 2\, q^{13}\, p^{2} + 10\, q^{14}\, p^{3} + 9\, q^{15}\, p^{3} + 246\, p^{11}\, q^{7}$$
$$+ 561\, p^{11}\, q^{9} + 965\, p^{12}\, q^{10} + 380\, q^{11}\, p^{8} + 5772\, p^{14}\, q^{17} + 7122\, p^{15}\, q^{17} + 380\, p^{11}\, q^{8} + 144\, p^{11}\, q^{6} + 35\, p^{10}\, q^{4} + 70\, p^{10}\, q^{5} + 1574\, p^{16}\, q^{10}$$
$$+ 202\, q^{10}\, p^{7} + 350\, p^{15}\, q^{7} + 976\, p^{15}\, q^{9} + 604\, p^{15}\, q^{8} + 13646\, p^{18}\, q^{22} + p^{6}\, q + 14\, p^{9}\, q^{3} + 5\, p^{8}\, q^{2} + 5\, q^{8}\, p^{2} + q^{7}\, p + 13646\, p^{27}\, q^{23}$$
$$+ 14\, p^{11}\, q^{3} + 4\, p^{10}\, q^{2} + 3755\, p^{13}\, q^{23} + 1906\, p^{11}\, q^{22} + 183\, p^{14}\, q^{6} + 88\, p^{13}\, q^{5} + 36\, p^{13}\, q^{4} + p^{7}\, q + 622\, q^{27}\, p^{11} + 9992\, p^{17}\, q^{24} + 5888\, p^{16}\, q^{26}$$
$$+ 8828\, p^{17}\, q^{25} + 5331\, p^{15}\, q^{25} + 3\, q^{11}\, p^{2} + 6988\, p^{16}\, q^{25} + 38\, q^{12}\, p^{4} + 572\, p^{37}\, q^{31} + 380\, p^{37}\, q^{34} + 309\, p^{37}\, q^{35} + 162\, p^{38}\, q^{36} + 604\, p^{37}\, q^{30}$$
$$+ 516\, p^{37}\, q^{32} + 625\, p^{37}\, q^{29} + 338\, q^{17}\, p^{7} + 2\, q^{14}\, p^{2} + 14\, q^{11}\, p^{3} + 4\, q^{10}\, p^{2} + 28\, q^{16}\, p^{4} + 76\, q^{16}\, p^{5} + 9776\, p^{29}\, q^{26} + 31\, q^{15}\, p^{4} + 84\, q^{15}\, p^{5}$$
$$+ 177\, q^{16}\, p^{6} + 17663\, p^{24}\, q^{22} + 10703\, p^{18}\, q^{25} + 8439\, p^{16}\, q^{17} + q^{9}\, p + 10\, p^{20}\, q^{4} + 3\, p^{18}\, q^{3} + 154\, p^{25}\, q^{8} + 1049\, p^{27}\, q^{12} + 473\, p^{26}\, q^{10}$$
$$+ 3722\, p^{29}\, q^{17} + 6194\, p^{30}\, q^{21} + 6988\, p^{29}\, q^{20} + 5888\, p^{29}\, q^{19} + 6978\, p^{30}\, q^{22} + 1876\, p^{28}\, q^{14} + 547\, q^{19}\, p^{8} + 13850\, p^{27}\, q^{24} + 36\, p^{4}\, q^{11}$$
$$+ 164\, p^{6}\, q^{12} + 79\, p^{5}\, q^{11} + 11895\, p^{28}\, q^{25} + 561\, p^{9}\, q^{11} + 309\, p^{8}\, q^{10} + 14192\, p^{20}\, q^{25} + 3499\, p^{27}\, q^{33} + 3156\, p^{31}\, q^{32} + 3688\, p^{30}\, q^{32}$$
$$+ 2276\, p^{29}\, q^{34} + 2834\, p^{30}\, q^{33} + 3366\, p^{28}\, q^{33} + 3149\, p^{29}\, q^{33} + 333\, p^{25}\, q^{9} + 841\, p^{26}\, q^{11} + 2834\, p^{12}\, q^{15} + 6367\, p^{31}\, q^{25} + 6168\, p^{31}\, q^{27}$$
$$+ 4513\, p^{32}\, q^{28} + 32\, p^{21}\, q^{39} + 36\, q^{13}\, p^{4} + 83\, q^{12}\, p^{5} + 9951\, p^{21}\, q^{16} + 13\, q^{12}\, p^{3} + 13646\, p^{22}\, q^{18} + 3\, p^{12}\, q^{2} + 281\, p^{7}\, q^{12} + 774\, p^{10}\, q^{11}$$
$$+ 439\, p^{9}\, q^{10} + 14\, p^{10}\, q^{3} + 4\, p^{9}\, q^{2} + 11965\, p^{24}\, q^{28} + 2774\, p^{29}\, q^{16} + 18310\, p^{23}\, q^{22} + 454\, p^{12}\, q^{8} + 164\, p^{12}\, q^{6} + 36\, p^{11}\, q^{4} + 79\, p^{11}\, q^{5}$$
$$+ 281\, p^{12}\, q^{7} + 678\, p^{12}\, q^{9} + 1147\, p^{13}\, q^{10} + 15433\, p^{22}\, q^{19} + 11627\, p^{22}\, q^{17} + 17663\, p^{23}\, q^{21} + 16923\, p^{22}\, q^{20} + 1344\, p^{31}\, q^{16} + 25\, q^{27}\, p^{7}$$
$$+ 15529\, p^{19}\, q^{21} + 17663\, p^{21}\, q^{23} + 10703\, p^{28}\, q^{27} + 8439\, p^{29}\, q^{28} + 17656\, p^{24}\, q^{24} + 1147\, p^{10}\, q^{13} + 1041\, p^{9}\, q^{17} + 4140\, p^{13}\, q^{16}$$
$$+ 2308\, p^{34}\, q^{25} + 6357\, p^{14}\, q^{19} + 8138\, p^{15}\, q^{20} + 16809\, p^{20}\, q^{21} + 59\, p^{6}\, q^{7} + 10971\, q^{28}\, p^{22} + 4591\, p^{24}\, q^{14} + 5331\, p^{25}\, q^{15} + 8828\, p^{25}\, q^{17}$$

$$+ 13881\, p^{26} q^{21} + 14192\, p^{25} q^{20} + 12555\, p^{25} q^{19} + 2158\, q^{26} p^{13} + 8049\, p^{15} q^{19} + 11627\, p^{28} q^{23} + 9246\, p^{27} q^{29} + 5776\, p^{31} q^{23}$$
$$+ 1876\, p^{17} q^{31} + 11483\, p^{26} q^{28} + 14256\, p^{26} q^{26} + 15529\, p^{26} q^{24} + 6367\, p^{25} q^{31} + 3688\, p^{13} q^{15} + 8038\, p^{24} q^{16} + 810\, q^{24} p^{10} + 797\, p^{9} q^{13}$$
$$+ 4756\, p^{32} q^{25} + 4737\, p^{32} q^{27} + 3366\, p^{33} q^{28} + 1324\, p^{10} q^{14} + 1487\, p^{20} q^{10} + 283\, p^{19} q^{7} + 547\, p^{19} q^{8} + 16467\, p^{20} q^{23} + 236\, p^{36} q^{37}$$
$$+ 439\, p^{35} q^{36} + 7\, p^{21} q^{40} + 1100\, q^{25} p^{11} + 841\, q^{26} p^{11} + 1770\, q^{25} p^{12} + 11483\, p^{28} q^{26} + 3366\, p^{17} q^{12} + 5772\, p^{17} q^{14} + 2408\, p^{17} q^{11}$$
$$+ 7684\, p^{18} q^{15} + 4513\, p^{17} q^{13} + 1397\, q^{26} p^{12} + 15554\, p^{20} q^{24} + 555\, p^{9} q^{23} + 26\, q^{34} p^{12} + 9\, q^{35} p^{12} + 3\, q^{34} p^{10} + 87\, q^{35} p^{15} + 46\, q^{35} p^{14}$$
$$+ 35\, q^{36} p^{15} + 125\, q^{38} p^{22} + 43\, q^{37} p^{17} + 69\, q^{37} p^{18} + 154\, q^{37} p^{20} + 7\, q^{36} p^{13} + 108\, q^{37} p^{19} + 3529\, p^{18} q^{30} + 625\, p^{8} q^{16} + 347\, p^{7} q^{16}$$
$$+ 629\, q^{25} p^{10} + 28\, p^{16} q^{4} + 10\, p^{14} q^{3} + 336\, p^{14} q^{7} + 893\, p^{14} q^{9} + 572\, p^{14} q^{8} + 161\, p^{22} q^{7} + 352\, p^{22} q^{8} + 2174\, p^{24} q^{12} + 991\, p^{23} q^{10}$$
$$+ 1463\, p^{15} q^{10} + 1018\, p^{9} q^{18} + 1585\, p^{11} q^{13} + 1682\, p^{12} q^{12} + 115\, q^{32} p^{12} + 46\, q^{31} p^{10} + 6151\, p^{31} q^{24} + 32\, p^{24} q^{6} + 13\, p^{23} q^{5} + 867\, p^{29} q^{13}$$
$$+ 3529\, p^{30} q^{18} + 125\, p^{23} q^{7} + 1585\, p^{13} q^{11} + 1298\, p^{11} q^{12} + 885\, p^{20} q^{9} + 3196\, p^{21} q^{12} + 1397\, p^{19} q^{33} + 3755\, p^{22} q^{32} + 211\, q^{32} p^{13}$$
$$+ 106\, p^{39} q^{25} + 3\, p^{33} q^{9} + 10\, p^{34} q^{11} + p^{31} q^{7} + 2\, p^{32} q^{8} + 9\, p^{35} q^{12} + 3\, p^{34} q^{10} + 43\, p^{37} q^{17} + 89\, p^{38} q^{21} + 18\, p^{36} q^{14} + 63\, p^{38} q^{20}$$
$$+ 40\, p^{38} q^{19} + 45\, p^{39} q^{22} + 64\, p^{39} q^{23} + 149\, p^{39} q^{27} + 69\, p^{40} q^{28} + 7\, p^{36} q^{13} + 35\, p^{36} q^{15} + 11483\, p^{19} q^{17} + 40\, p^{26} q^{7} + 18310\, p^{22} q^{23}$$
$$+ 4409\, q^{26} p^{15} + 4762\, p^{27} q^{16} + 17922\, p^{24} q^{23} + 9682\, p^{17} q^{17} + 991\, q^{35} p^{22} + 3172\, q^{26} p^{14} + 3529\, q^{27} p^{15} + 8908\, q^{29} p^{22} + 8049\, p^{30} q^{26}$$
$$+ 238\, p^{26} q^{9} + 622\, p^{27} q^{11} + 69\, p^{27} q^{8} + 517\, p^{29} q^{12} + 228\, p^{28} q^{10} + 1876\, p^{31} q^{17} + 3233\, p^{32} q^{21} + 3877\, p^{31} q^{20} + 3172\, p^{31} q^{19}$$
$$+ 3755\, p^{32} q^{22} + 925\, p^{30} q^{14} + 7\, q^{29} p^{7} + 87\, q^{30} p^{10} + 23\, q^{29} p^{8} + 3\, q^{28} p^{6} + 13\, q^{28} p^{7} + 65\, q^{29} p^{9} + 13\, p^{19} q^{4} + 5\, p^{17} q^{3} + 214\, p^{24} q^{8}$$
$$+ 1397\, p^{26} q^{12} + 629\, p^{25} q^{10} + 17922\, p^{23} q^{24} + 14892\, p^{22} q^{26} + 16923\, p^{23} q^{25} + 15554\, p^{21} q^{25} + 16467\, p^{22} q^{25} + 893\, p^{36} q^{31} + 561\, p^{36} q^{34}$$
$$+ 439\, p^{36} q^{35} + 236\, p^{37} q^{36} + 976\, p^{36} q^{30} + 797\, p^{36} q^{32} + 1020\, p^{36} q^{29} + 338\, q^{30} p^{12} + 4585\, p^{30} q^{31} + 2834\, p^{33} q^{30} + 8138\, p^{30} q^{25}$$
$$+ 7684\, p^{30} q^{27} + 5772\, p^{31} q^{28} + 841\, q^{34} p^{19} + 6363\, p^{30} q^{29} + 1487\, p^{35} q^{25} + 166\, q^{36} p^{18} + 333\, q^{36} p^{20} + 214\, q^{37} p^{21} + q^{31} p^{7} + 202\, q^{31} p^{12}$$
$$+ 364\, q^{32} p^{14} + 8138\, p^{25} q^{30} + 1226\, p^{17} q^{32} + 334\, q^{35} p^{18} + 555\, q^{36} p^{22} + 54\, q^{34} p^{13} + 204\, p^{38} q^{24} + 69\, p^{37} q^{18} + 283\, p^{38} q^{26} + 3\, p^{28} q^{6}$$
$$+ p^{27} q^{5} + 164\, p^{39} q^{33} + 65\, p^{36} q^{16} + 181\, p^{39} q^{30} + 177\, p^{39} q^{29} + 174\, p^{39} q^{32} + 25\, p^{18} q^{38} + 797\, p^{32} q^{36} + 312\, p^{27} q^{38} + 492\, p^{25} q^{37}$$
$$+ 547\, p^{26} q^{37} + 454\, p^{33} q^{37} + 183\, p^{39} q^{31} + 144\, p^{39} q^{34} + 125\, p^{39} q^{35} + 60\, p^{40} q^{36} + 4887\, p^{28} q^{17} + 8038\, p^{29} q^{21} + 8828\, p^{28} q^{20}$$
$$+ 7512\, p^{28} q^{19} + 8908\, p^{29} q^{22} + 2481\, p^{27} q^{14} + 11627\, p^{23} q^{28} + 63\, p^{20} q^{38} + 83\, p^{39} q^{24} + 25\, p^{38} q^{18} + 126\, p^{39} q^{26} + p^{29} q^{6} + 83\, p^{40} q^{33}$$
$$+ 23\, p^{37} q^{16} + 84\, p^{40} q^{30} + 76\, p^{40} q^{29} + 88\, p^{40} q^{32} + 1463\, p^{30} q^{35} + 13\, q^{38} p^{17} + q^{38} p^{14} + 13\, p^{28} q^{7} + 23\, p^{29} q^{8} + 115\, p^{32} q^{12} + 46\, p^{31} q^{10}$$
$$+ 433\, p^{34} q^{17} + 810\, p^{35} q^{21} + 202\, p^{33} q^{14} + 2276\, p^{34} q^{29} + 3722\, p^{28} q^{16} + 9583\, q^{29} p^{23} + 13881\, p^{19} q^{24} + 1367\, q^{34} p^{21} + 1100\, q^{34} p^{20}$$
$$+ 810\, q^{35} p^{21} + 1579\, q^{19} p^{10} + 970\, q^{19} p^{9} + 1487\, q^{20} p^{10} + 10952\, p^{19} q^{26} + 3172\, p^{19} q^{31} + 6168\, p^{27} q^{31} + 6363\, p^{29} q^{30} + 149\, p^{18} q^{6}$$

$$+ 69 p^{17} q^{5} + 11627 q^{22} p^{17} + 12 p^{26} q^{6} + 5 p^{25} q^{5} + 970 q^{36} p^{26} + 789 q^{36} p^{24} + 1988 p^{30} q^{16} + 5 q^{31} p^{8} + 105 q^{34} p^{14} + 925 p^{31} q^{15}$$
$$+ 3501 p^{33} q^{26} + 65 p^{29} q^{9} + 178 p^{30} q^{11} + 149 p^{27} q^{39} + 281 p^{33} q^{38} + 2617 p^{32} q^{32} + 2093 p^{30} q^{34} + 2475 p^{31} q^{33} + 492 p^{37} q^{25} + 18 p^{31} q^{9}$$
$$+ 54 p^{32} q^{11} + 885 q^{36} p^{25} + 1018 q^{36} p^{27} + 616 q^{37} p^{28} + 228 q^{35} p^{17} + 57 q^{33} p^{12} + 23 q^{32} p^{10} + 670 q^{36} p^{23} + 2 q^{30} p^{7} + q^{29} p^{6} + q^{20} p^{3}$$
$$+ 4887 q^{28} p^{17} + 6186 q^{28} p^{18} + 8828 q^{28} p^{20} + 8038 q^{29} p^{21} + 35 p^{41} q^{31} + 36 p^{41} q^{34} + 35 p^{41} q^{35} + 14 p^{42} q^{36} + 121 p^{38} q^{37} + 143 q^{29} p^{10}$$
$$+ 6 q^{27} p^{6} + 11965 p^{28} q^{24} + 6151 p^{21} q^{14} + 7578 p^{22} q^{15} + 4550 p^{21} q^{13} + 2140 p^{21} q^{11} + 8908 p^{23} q^{16} + 1668 q^{27} p^{13} + 7512 q^{28} p^{19}$$
$$+ 9951 p^{29} q^{24} + 2308 p^{25} q^{34} + 4513 p^{28} q^{32} + 3886 p^{31} q^{31} + 2140 p^{24} q^{34} + 3196 p^{33} q^{24} + 364 p^{31} q^{13} + 1668 p^{32} q^{18} + 4 p^{23} q^{41}$$
$$+ 6 p^{24} q^{41} + p^{24} q^{42} + 10 p^{25} q^{41} + 13 p^{26} q^{41} + 84 p^{30} q^{40} + 18 p^{27} q^{41} + 76 p^{29} q^{40} + 2425 p^{26} q^{34} + 3688 p^{32} q^{30} + 2408 p^{28} q^{34}$$
$$+ 2448 p^{27} q^{34} + 1625 p^{28} q^{35} + 1031 p^{11} q^{11} + 12005 p^{18} q^{24} + 7995 p^{30} q^{24} + 45 p^{23} q^{6} + 19 p^{22} q^{5} + 1226 p^{28} q^{13} + 4762 p^{29} q^{18} + p^{15} q^{2}$$
$$+ 64 p^{22} q^{6} + 28 p^{21} q^{5} + 3156 p^{32} q^{31} + 3501 p^{26} q^{33} + 4140 p^{29} q^{32} + 6978 p^{15} q^{23} + 6 p^{21} q^{4} + 2 p^{19} q^{3} + 108 p^{26} q^{8} + 760 p^{28} q^{12}$$
$$+ 334 p^{27} q^{10} + 2698 p^{30} q^{17} + 4591 p^{31} q^{21} + 5331 p^{30} q^{20} + 4409 p^{30} q^{19} + 5226 p^{31} q^{22} + 1344 p^{29} q^{14} + 12990 p^{27} q^{22} + 57 p^{27} q^{40}$$
$$+ 629 q^{35} p^{20} + 436 q^{36} p^{21} + 5 p^{43} q^{37} + 14 p^{34} q^{42} + 6 p^{41} q^{24} + p^{40} q^{18} + 13 p^{41} q^{26} + 13 p^{42} q^{33} + p^{39} q^{16} + 9 p^{42} q^{30} + 6 p^{42} q^{29}$$
$$+ 12 p^{42} q^{32} + 7 p^{29} q^{7} + 12 p^{30} q^{8} + 57 p^{33} q^{12} + 23 p^{32} q^{10} + 228 p^{35} q^{17} + 436 p^{36} q^{21} + 105 p^{34} q^{14} + 473 q^{35} p^{19} + 26 q^{33} p^{11}$$
$$+ 1100 p^{34} q^{20} + 841 p^{34} q^{19} + 991 p^{35} q^{22} + 1180 p^{35} q^{23} + 1635 p^{35} q^{27} + 1041 p^{36} q^{28} + 7 q^{32} p^{9} + 1049 q^{27} p^{12} + 575 q^{32} p^{15}$$
$$+ 1668 p^{27} q^{13} + 6186 p^{28} q^{18} + 80 p^{39} q^{37} + 164 p^{33} q^{39} + 13 p^{22} q^{40} + 143 q^{35} p^{16} + 178 q^{34} p^{15} + 678 p^{9} q^{12} + 316 p^{7} q^{13} + 454 p^{8} q^{12}$$
$$+ 516 p^{32} q^{37} + 893 p^{31} q^{36} + 2 p^{23} q^{4} + p^{21} q^{3} + 333 p^{36} q^{20} + 238 p^{36} q^{19} + 278 p^{37} q^{22} + 352 p^{37} q^{23} + 594 p^{37} q^{27} + 338 p^{38} q^{28}$$
$$+ 54 p^{34} q^{13} + 178 p^{34} q^{15} + 5 q^{37} p^{14} + 2 q^{38} p^{15} + 23 q^{35} p^{13} + 9 q^{33} p^{10} + 10 q^{34} p^{11} + 3 q^{35} p^{11} + 54 q^{32} p^{11} + 350 p^{30} q^{38} + 5226 p^{22} q^{31}$$
$$+ 214 q^{24} p^{8} + 1367 q^{24} p^{11} + 89 p^{38} q^{38} + 70 p^{35} q^{40} + 27 p^{41} q^{37} + 59 p^{39} q^{38} + 45 p^{22} q^{39} + 3 p^{27} q^{42} + p^{29} q^{43} + 9 p^{30} q^{42} + 5 p^{28} q^{42}$$
$$+ 6 p^{29} q^{42} + 31 p^{30} q^{41} + 35 p^{31} q^{41} + 10 p^{31} q^{42} + 36 p^{32} q^{41} + 38 p^{33} q^{41} + 79 p^{34} q^{40} + 625 q^{37} p^{29} + 575 p^{13} q^{30} + 1389 p^{15} q^{30}$$
$$+ 9776 p^{26} q^{29} + 105 q^{31} p^{11} + 37 p^{40} q^{25} + 3 p^{35} q^{11} + 3 p^{36} q^{12} + p^{35} q^{10} + 13 p^{38} q^{17} + 32 p^{39} q^{21} + 5 p^{37} q^{14} + 19 p^{39} q^{20} + 12 p^{39} q^{19}$$
$$+ 13 p^{40} q^{22} + 19 p^{40} q^{23} + 57 p^{40} q^{27} + 22 p^{41} q^{28} + 2 p^{37} q^{13} + 12 p^{37} q^{15} + 12 q^{30} p^{8} + 106 p^{25} q^{39} + 1020 q^{36} p^{29} + 18 q^{36} p^{14}$$
$$+ 2093 p^{34} q^{30} + 336 p^{31} q^{38} + 126 p^{26} q^{39} + 115 q^{33} p^{13} + 89 p^{21} q^{38} + 242 p^{38} q^{25} + 7 p^{32} q^{9} + 26 p^{33} q^{11} + 204 p^{24} q^{38} + 278 p^{22} q^{37}$$
$$+ 352 p^{23} q^{37} + 622 q^{34} p^{18} + 69 p^{28} q^{40} + 162 p^{36} q^{38} + 183 p^{31} q^{39} + 174 p^{32} q^{39} + 2140 p^{34} q^{24} + 211 p^{32} q^{13} + 1049 p^{33} q^{18} + 10 p^{42} q^{31}$$
$$+ 14 p^{42} q^{34} + 14 p^{42} q^{35} + 4 p^{43} q^{36} + 454 p^{37} q^{33} + 290 p^{34} q^{16} + 678 p^{33} q^{36} + 338 p^{28} q^{38} + 594 p^{27} q^{37} + 380 p^{34} q^{37} + 575 p^{32} q^{15}$$
$$+ 2425 p^{34} q^{26} + 3 q^{36} p^{12} + 59 p^{38} q^{39} + p^{42} q^{25} + 3 p^{42} q^{27} + p^{41} q^{21} + 3233 p^{24} q^{13} + 83 p^{21} q^{6} + 37 p^{20} q^{5} + 555 p^{23} q^{9} + 1367 p^{24} q^{11}$$

$$+ 10703\, p^{25}\, q^{18} + 202\, q^{33}\, p^{14} + 1324\, p^{35}\, q^{31} + 1298\, p^{33}\, q^{34} + 1585\, p^{32}\, q^{34} + 1031\, p^{34}\, q^{34} + 774\, p^{35}\, q^{34} + 1298\, p^{34}\, q^{33} + 965\, p^{33}\, q^{35}$$
$$+ 601\, p^{35}\, q^{35} + 334\, p^{36}\, q^{36} + 1324\, p^{31}\, q^{35} + 2\, p^{14}\, q^{2} + 2\, p^{30}\, q^{7} + 5\, p^{31}\, q^{8} + 26\, p^{34}\, q^{12} + 9\, p^{33}\, q^{10} + 105\, p^{36}\, q^{17} + 214\, p^{37}\, q^{21} + 46\, p^{35}\, q^{14}$$
$$+ p^{24}\, q^{4} + 154\, p^{37}\, q^{20} + 108\, p^{37}\, q^{19} + 125\, p^{38}\, q^{22} + 161\, p^{38}\, q^{23} + 312\, p^{38}\, q^{27} + 163\, p^{39}\, q^{28} + 23\, p^{35}\, q^{13} + 87\, p^{35}\, q^{15} + 12\, q^{26}\, p^{6} + 5\, q^{25}\, p^{5}$$
$$+ 1668\, p^{18}\, q^{32} + 1463\, p^{35}\, q^{30} + 1848\, p^{34}\, q^{31} + 1848\, p^{31}\, q^{34} + 1682\, p^{33}\, q^{33} + 1147\, p^{35}\, q^{32} + 2073\, p^{32}\, q^{33} + 2073\, p^{33}\, q^{32} + 1585\, p^{34}\, q^{32}$$
$$+ 774\, p^{34}\, q^{35} + 1147\, p^{32}\, q^{35} + p^{42}\, q^{24} + 2\, p^{42}\, q^{26} + 3\, p^{43}\, q^{33} + p^{43}\, q^{30} + p^{43}\, q^{29} + 2\, p^{43}\, q^{32} + 60\, p^{36}\, q^{40} + 12\, p^{42}\, q^{37} + 38\, p^{40}\, q^{38}$$
$$+ 12\, p^{32}\, q^{42} + 36\, p^{34}\, q^{41} + 2\, p^{43}\, q^{31} + 3\, p^{43}\, q^{34} + 4\, p^{43}\, q^{35} + p^{44}\, q^{36} + p^{30}\, q^{43} + 7578\, p^{30}\, q^{23} + 1049\, p^{18}\, q^{33} + 3233\, p^{21}\, q^{32} + 2158\, p^{19}\, q^{32}$$
$$+ 6151\, p^{24}\, q^{31} + 2700\, p^{20}\, q^{32} + 1574\, p^{35}\, q^{29} + 19\, q^{39}\, p^{20} + 12\, q^{39}\, p^{19} + 15102\, p^{25}\, q^{26} + 1344\, p^{16}\, q^{31} + 925\, p^{14}\, q^{30} + 572\, p^{31}\, q^{37}$$
$$+ 976\, p^{30}\, q^{36} + 433\, q^{34}\, p^{17} + 7995\, p^{24}\, q^{30} + 316\, p^{32}\, q^{38} + 5888\, p^{19}\, q^{29} + 11895\, p^{25}\, q^{28} + 10703\, p^{27}\, q^{28} + 867\, p^{16}\, q^{32} + 10037\, p^{29}\, q^{25}$$
$$+ p^{16}\, q^{2} + 4\, p^{22}\, q^{4} + p^{20}\, q^{3} + 629\, p^{35}\, q^{20} + 473\, p^{35}\, q^{19} + 555\, p^{36}\, q^{22} + 670\, p^{36}\, q^{23} + 1018\, p^{36}\, q^{27} + 616\, p^{37}\, q^{28} + 1487\, q^{35}\, p^{25}$$
$$+ 1635\, q^{35}\, p^{27} + 1041\, q^{36}\, p^{28} + 1180\, q^{35}\, p^{23} + 604\, q^{37}\, p^{30} + 115\, p^{33}\, q^{13} + 338\, p^{33}\, q^{15} + 2698\, q^{30}\, p^{17} + 9246\, p^{29}\, q^{27} + 7122\, p^{30}\, q^{28}$$
$$+ 88\, p^{32}\, q^{40} + 101\, p^{36}\, q^{39} + 125\, p^{35}\, q^{39} + 27\, p^{37}\, q^{41} + 13\, p^{33}\, q^{42} + 27\, p^{39}\, q^{40} + 30\, p^{36}\, q^{41} + 7\, p^{42}\, q^{40} + p^{44}\, q^{38} + 4\, p^{43}\, q^{39} + p^{44}\, q^{41}$$
$$+ 2\, p^{42}\, q^{43} + 3\, p^{41}\, q^{43} + 2\, p^{43}\, q^{43} + p^{44}\, q^{43} + p^{44}\, q^{42}$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 11, *is:*

$$1 + 934\, q^{42}\, p^{19} + 44089\, p^{38}\, q^{31} + 39470\, p^{38}\, q^{34} + 36186\, p^{38}\, q^{35} + 26068\, p^{39}\, q^{36} + 43578\, p^{38}\, q^{30} + 43551\, p^{38}\, q^{32} + 42021\, p^{38}\, q^{29}$$
$$+ 54068\, p^{18}\, q^{26} + 3\, q^{21}\, p^{3} + 5183\, q^{28}\, p^{12} + 12919\, q^{28}\, p^{14} + 16603\, q^{29}\, p^{15} + p^{10}\, q + 42592\, p^{36}\, q^{24} + 13229\, p^{35}\, q^{18} + 55212\, p^{36}\, q^{26}$$
$$+ 563\, q^{26}\, p^{8} + 231\, q^{26}\, p^{7} + 800\, q^{28}\, p^{9} + 103\, q^{25}\, p^{6} + 20\, q^{26}\, p^{5} + 4584\, q^{44}\, p^{30} + 68825\, p^{33}\, q^{23} + 143652\, p^{28}\, q^{30} + 4092\, q^{44}\, p^{29}$$
$$+ 17124\, p^{24}\, q^{39} + 13964\, p^{23}\, q^{39} + 44022\, p^{35}\, q^{37} + 57810\, p^{34}\, q^{36} + 1243\, p^{16}\, q^{39} + 2003\, p^{17}\, q^{39} + 57810\, p^{21}\, q^{19} + 39470\, p^{21}\, q^{17}$$
$$+ 16003\, p^{26}\, q^{14} + 39553\, p^{27}\, q^{17} + 89279\, p^{28}\, q^{21} + 78977\, p^{27}\, q^{20} + 64654\, p^{27}\, q^{19} + 7151\, p^{26}\, q^{42} + 83541\, p^{22}\, q^{21} + 67087\, p^{21}\, q^{20}$$
$$+ 12749\, p^{13}\, q^{22} + 61657\, p^{20}\, q^{30} + 1682\, p^{9}\, q^{16} + 2942\, p^{10}\, q^{17} + 10307\, p^{14}\, q^{16} + 89018\, p^{33}\, q^{25} + 104054\, p^{33}\, q^{27} + 93809\, p^{34}\, q^{28}$$
$$+ 13964\, p^{32}\, q^{16} + 21129\, p^{27}\, q^{15} + 7151\, q^{29}\, p^{13} + 353\, q^{28}\, p^{8} + 124294\, p^{24}\, q^{29} + 11711\, p^{40}\, q^{24} + 3059\, p^{39}\, q^{18} + 16603\, p^{40}\, q^{26} + 17\, p^{30}\, q^{6}$$
$$+ 18155\, p^{41}\, q^{33} + 2003\, p^{38}\, q^{16} + 17137\, p^{41}\, q^{30} + 16003\, p^{41}\, q^{29} + 18251\, p^{41}\, q^{32} + 39470\, p^{34}\, q^{38} + 7648\, q^{31}\, p^{14} + 104054\, p^{28}\, q^{22} + p\, q$$
$$+ 13\, q^{27}\, p^{5} + 2942\, p^{17}\, q^{10} + 555\, p^{16}\, q^{7} + 1682\, p^{16}\, q^{9} + 41\, q^{17}\, p^{4} + 277\, q^{18}\, p^{6} + 120\, q^{17}\, p^{5} + 89018\, p^{22}\, q^{30} + 1070\, q^{17}\, p^{8} + 3007\, q^{28}\, p^{11}$$

$$+ 8397\, q^{28}\, p^{13} + 10689\, p^{26}\, q^{13} + 51365\, p^{27}\, q^{18} + 123279\, p^{26}\, q^{23} + 33591\, p^{18}\, q^{18} + 32349\, p^{17}\, q^{19} + 108429\, p^{22}\, q^{27} + 48455\, p^{21}\, q^{18}$$
$$+ 675\, q^{25}\, p^{8} + 4477\, p^{11}\, q^{17} + 340\, q^{31}\, p^{9} + 4751\, q^{31}\, p^{13} + 1964\, q^{30}\, p^{11} + p^{9}\, q + 131396\, p^{25}\, q^{24} + 53952\, p^{20}\, q^{31} + 81675\, p^{29}\, q^{35}$$
$$+ 106235\, p^{33}\, q^{31} + 53952\, p^{35}\, q^{24} + 17362\, p^{34}\, q^{18} + 68646\, p^{35}\, q^{26} + 73304\, p^{35}\, q^{33} + 28152\, p^{18}\, q^{17} + 18097\, p^{15}\, q^{18} + 4\, p^{3}\, q^{3}$$
$$+ 1005\, p^{16}\, q^{8} + 17\, p^{12}\, q^{3} + 4\, p^{11}\, q^{2} + 269\, p^{15}\, q^{6} + 120\, p^{14}\, q^{5} + 20415\, q^{30}\, p^{16} + 13174\, p^{15}\, q^{16} + 8522\, p^{14}\, q^{15} + 2471\, q^{29}\, p^{11} + p^{3}\, q$$
$$+ 2\, p^{2}\, q^{2} + p\, q^{2} + 16603\, p^{29}\, q^{15} + 1399\, q^{25}\, p^{9} + 48455\, p^{18}\, q^{21} + p^{2}\, q + 14562\, q^{27}\, p^{14} + 18969\, q^{28}\, p^{15} + 11605\, p^{13}\, q^{25} + 5496\, q^{44}\, p^{33}$$
$$+ 5467\, q^{44}\, p^{35} + 3342\, q^{45}\, p^{36} + 4994\, q^{44}\, p^{31} + 5555\, q^{44}\, p^{34} + 5311\, q^{44}\, p^{32} + 3967\, p^{39}\, q^{44} + 4477\, p^{38}\, q^{44} + 729\, q^{40}\, p^{16} + 396\, q^{39}\, p^{14}$$
$$+ 4029\, p^{20}\, q^{40} + 4909\, p^{44}\, q^{37} + 32553\, p^{18}\, q^{31} + 150166\, p^{28}\, q^{29} + 92223\, p^{23}\, q^{31} + 135176\, p^{26}\, q^{30} + 3526\, p^{43}\, q^{25} + 5183\, p^{43}\, q^{27}$$
$$+ 2014\, p^{42}\, q^{21} + 2776\, p^{43}\, q^{24} + 4336\, p^{43}\, q^{26} + 5496\, p^{44}\, q^{33} + 4584\, p^{44}\, q^{30} + 4092\, p^{44}\, q^{29} + 5311\, p^{44}\, q^{32} + 4994\, p^{44}\, q^{31} + 5555\, p^{44}\, q^{34}$$
$$+ 5467\, p^{44}\, q^{35} + 3342\, p^{45}\, q^{36} + 10191\, p^{37}\, q^{42} + 12102\, p^{38}\, q^{41} + 10307\, p^{39}\, q^{41} + 16324\, p^{39}\, q^{39} + 13174\, p^{40}\, q^{39} + 8040\, p^{31}\, q^{43}$$
$$+ 10769\, p^{40}\, q^{40} + 19853\, q^{38}\, p^{23} + 14\, q^{33}\, p^{7} + 155\, q^{35}\, p^{10} + 4469\, q^{36}\, p^{16} + 32553\, p^{37}\, q^{24} + 9746\, p^{36}\, q^{18} + 43049\, p^{37}\, q^{26} + 1943\, q^{46}\, p^{37}$$
$$+ 681\, q^{41}\, p^{17} + 1096\, q^{41}\, p^{18} + 594\, q^{42}\, p^{18} + 1679\, q^{41}\, p^{19} + 2452\, q^{41}\, p^{20} + 11711\, p^{24}\, q^{40} + 3440\, p^{21}\, q^{41} + 9413\, p^{23}\, q^{40} + 2330\, p^{42}\, q^{44}$$
$$+ 1389\, p^{44}\, q^{44} + 753\, p^{45}\, q^{45} + 3425\, p^{40}\, q^{44} + 1828\, p^{43}\, q^{44} + 2866\, p^{41}\, q^{44} + 4821\, p^{40}\, q^{43} + 124294\, p^{31}\, q^{26} + 996\, p^{27}\, q^{9} + 3007\, p^{28}\, q^{11}$$
$$+ 4643\, p^{22}\, q^{41} + 16603\, p^{26}\, q^{40} + 33096\, p^{30}\, q^{39} + 54469\, p^{18}\, q^{23} + 80726\, p^{32}\, q^{23} + 16003\, p^{29}\, q^{41} + 24848\, p^{33}\, q^{40} + 22928\, p^{37}\, q^{39}$$
$$+ 57\, p^{27}\, q^{6} + 20\, p^{26}\, q^{5} + 6492\, p^{12}\, q^{17} + 141028\, p^{27}\, q^{30} + 3177\, p^{43}\, q^{42} + 3425\, p^{44}\, q^{40} + 6530\, p^{40}\, q^{42} + 6839\, p^{41}\, q^{41} + 5306\, p^{42}\, q^{41}$$
$$+ 4821\, p^{43}\, q^{40} + 31178\, q^{21}\, p^{16} + 14136\, p^{25}\, q^{40} + 1982\, p^{14}\, q^{10} + 1828\, p^{12}\, q^{11} + 1309\, p^{10}\, q^{12} + 698\, p^{8}\, q^{13} + 49121\, p^{19}\, q^{30} + 229\, p^{13}\, q^{6}$$
$$+ 47\, p^{12}\, q^{4} + 104\, p^{12}\, q^{5} + 418\, p^{13}\, q^{7} + 1100\, p^{13}\, q^{9} + 9037\, p^{42}\, q^{38} + 49121\, p^{36}\, q^{25} + 469\, p^{30}\, q^{9} + 1515\, p^{31}\, q^{11} + 698\, p^{13}\, q^{8}$$
$$+ 123279\, p^{23}\, q^{26} + 49\, p^{14}\, q^{4} + 2816\, q^{40}\, p^{19} + 396\, q^{41}\, p^{16} + 31605\, p^{29}\, q^{39} + 29434\, p^{28}\, q^{39} + 28333\, p^{25}\, q^{38} + 32553\, p^{24}\, q^{37}$$
$$+ 41967\, p^{38}\, q^{33} + 6263\, p^{35}\, q^{16} + 594\, q^{37}\, p^{13} + 1889\, q^{37}\, p^{15} + 2003\, q^{38}\, p^{16} + 7\, q^{34}\, p^{7} + 2\, q^{33}\, p^{6} + 2\, q^{22}\, p^{3} + q^{23}\, p^{3} + 131396\, p^{24}\, q^{25}$$
$$+ 75124\, p^{21}\, q^{30} + 229\, q^{13}\, p^{6} + 62607\, p^{19}\, q^{22} + 18251\, p^{14}\, q^{23} + 9\, p^{31}\, q^{6} + 3179\, q^{45}\, p^{37} + 1964\, p^{44}\, q^{25} + 3007\, p^{44}\, q^{27} + 1101\, p^{43}\, q^{21}$$
$$+ 1515\, p^{44}\, q^{24} + 2471\, p^{44}\, q^{26} + 3333\, p^{45}\, q^{33} + 2630\, p^{45}\, q^{30} + 2306\, p^{45}\, q^{29} + 3160\, p^{45}\, q^{32} + 2923\, p^{45}\, q^{31} + 3420\, p^{45}\, q^{34} + 3428\, p^{45}\, q^{35}$$
$$+ 2008\, p^{46}\, q^{36} + 1835\, q^{46}\, p^{38} + 130\, p^{37}\, q^{11} + 168\, p^{38}\, q^{12} + 49\, p^{37}\, q^{10} + 198\, p^{39}\, q^{13} + 36186\, p^{35}\, q^{38} + 179\, p^{27}\, q^{7} + 353\, p^{28}\, q^{8}$$
$$+ 3526\, p^{30}\, q^{12} + 1301\, p^{29}\, q^{10} + 19853\, p^{32}\, q^{17} + 47785\, p^{33}\, q^{21} + 45987\, p^{32}\, q^{20} + 35932\, p^{32}\, q^{19} + 58145\, p^{33}\, q^{22} + 7648\, p^{31}\, q^{14}$$
$$+ 5911\, p^{25}\, q^{42} + 25070\, p^{31}\, q^{40} + 14562\, p^{28}\, q^{41} + 18097\, p^{40}\, q^{37} + 31178\, p^{34}\, q^{39} + 9373\, p^{41}\, q^{25} + 223\, p^{36}\, q^{11} + 293\, p^{37}\, q^{12} + 91\, p^{36}\, q^{10}$$
$$+ 2003\, p^{39}\, q^{17} + 5532\, p^{40}\, q^{21} + 681\, p^{38}\, q^{14} + 4029\, p^{40}\, q^{20} + 2816\, p^{40}\, q^{19} + 4643\, p^{41}\, q^{22} + 6059\, p^{41}\, q^{23} + 12919\, p^{41}\, q^{27} + 9605\, p^{42}\, q^{28}$$

$$+ 354\, p^{38}\, q^{13} + 1204\, p^{38}\, q^{15} + 28152\, p^{37}\, q^{38} + 23672\, p^{16}\, q^{29} + 9\, q^{31}\, p^{6} + 124294\, p^{26}\, q^{31} + 289\, q^{25}\, p^{7} + q^{18}\, p^{2} + 51\, q^{23}\, p^{5} + 132\, q^{24}\, p^{6}$$
$$+ 57071\, p^{23}\, q^{34} + 2776\, p^{31}\, q^{12} + 1011\, p^{30}\, q^{10} + 15920\, p^{33}\, q^{17} + 38874\, p^{34}\, q^{21} + 38115\, p^{33}\, q^{20} + 29485\, p^{33}\, q^{19} + 47785\, p^{34}\, q^{22}$$
$$+ 6059\, p^{32}\, q^{14} + 89018\, p^{25}\, q^{33} + 118099\, p^{27}\, q^{32} + 131396\, p^{31}\, q^{30} + 134356\, p^{29}\, q^{31} + 110325\, p^{33}\, q^{29} + 38115\, p^{20}\, q^{33} + 92223\, p^{24}\, q^{32}$$
$$+ 79285\, p^{24}\, q^{33} + 102666\, p^{25}\, q^{32} + 111483\, p^{26}\, q^{32} + 138678\, p^{30}\, q^{30} + 57071\, p^{34}\, q^{23} + 12102\, p^{41}\, q^{38} + 15664\, p^{38}\, q^{40} + 16671\, p^{35}\, q^{41}$$
$$+ 18097\, p^{37}\, q^{40} + 8581\, p^{33}\, q^{43} + 8408\, p^{32}\, q^{43} + 8538\, p^{34}\, q^{43} + 7840\, p^{36}\, q^{43} + 8289\, p^{35}\, q^{43} + 5252\, p^{36}\, q^{44} + 10307\, p^{41}\, q^{39}$$
$$+ 11992\, p^{35}\, q^{42} + 7232\, p^{37}\, q^{43} + 9037\, p^{38}\, q^{42} + 11205\, p^{36}\, q^{42} + 80726\, p^{23}\, q^{32} + 134094\, p^{28}\, q^{31} + 123279\, p^{32}\, q^{29} + 289\, p^{25}\, q^{7}$$
$$+ 68646\, q^{35}\, p^{26} + 53952\, q^{35}\, p^{24} + 8522\, p^{40}\, q^{41} + 8522\, p^{41}\, q^{40} + 6492\, p^{43}\, q^{38} + 4909\, p^{37}\, q^{44} + 7788\, p^{42}\, q^{39} + 6492\, p^{38}\, q^{43} + 7788\, p^{39}\, q^{42}$$
$$+ 5306\, p^{41}\, q^{42} + 3978\, p^{43}\, q^{41} + 5676\, p^{39}\, q^{43} + 3967\, p^{44}\, q^{39} + 4182\, p^{42}\, q^{42} + 62607\, p^{36}\, q^{33} + 3\, q^{37}\, p^{8} + 66351\, p^{21}\, q^{31} + 14136\, p^{30}\, q^{15}$$
$$+ 148243\, p^{29}\, q^{29} + 111483\, p^{32}\, q^{26} + 800\, p^{28}\, q^{9} + 2471\, p^{29}\, q^{11} + p^{23}\, q^{3} + 594\, p^{42}\, q^{18} + 396\, p^{41}\, q^{16} + 1835\, p^{46}\, q^{38} + 1304\, p^{46}\, q^{41}$$
$$+ 895\, p^{46}\, q^{43} + 1100\, p^{46}\, q^{42} + 1682\, p^{46}\, q^{39} + q^{38}\, p^{8} + 14\, q^{40}\, p^{11} + 42\, q^{40}\, p^{12} + 354\, q^{42}\, p^{17} + 2630\, q^{45}\, p^{30} + 10\, q^{39}\, p^{10} + 1964\, q^{44}\, p^{25}$$
$$+ 1515\, q^{44}\, p^{24} + 2471\, q^{44}\, p^{26} + 3007\, q^{44}\, p^{27} + 1962\, q^{45}\, p^{28} + 3333\, q^{45}\, p^{33} + 3428\, q^{45}\, p^{35} + 2008\, q^{46}\, p^{36} + 2923\, q^{45}\, p^{31} + 3420\, q^{45}\, p^{34}$$
$$+ 3160\, q^{45}\, p^{32} + 293\, q^{43}\, p^{18} + 198\, q^{42}\, p^{16} + 43049\, p^{18}\, q^{29} + 102666\, p^{23}\, q^{30} + 215\, q^{41}\, p^{15} + 482\, q^{43}\, p^{19} + 134356\, p^{31}\, q^{29} + 25070\, p^{40}\, q^{31}$$
$$+ 23851\, p^{40}\, q^{34} + 22314\, p^{40}\, q^{35} + 15378\, p^{41}\, q^{36} + 89279\, p^{34}\, q^{27} + 11043\, p^{33}\, q^{16} + 78977\, p^{35}\, q^{28} + 33591\, p^{37}\, q^{37} + 215\, q^{40}\, p^{14}$$
$$+ 101\, q^{40}\, p^{13} + 1889\, q^{40}\, p^{18} + 3\, p^{4}\, q^{2} + 7\, p^{5}\, q^{3} + 66155\, p^{23}\, q^{19} + 43551\, p^{23}\, q^{17} + 94107\, p^{24}\, q^{21} + 78102\, p^{23}\, q^{20} + 12526\, q^{21}\, p^{13}$$
$$+ 348\, q^{24}\, p^{7} + 134356\, p^{24}\, q^{26} + 150166\, p^{26}\, q^{27} + 134094\, p^{24}\, q^{27} + q^{4}\, p + p\, q^{3} + 3\, q^{4}\, p^{2} + 47\, p^{15}\, q^{4} + 1106\, q^{20}\, p^{8} + 5\, p^{4}\, q^{3} + 16\, p^{13}\, q^{3}$$
$$+ 280\, p^{16}\, q^{6} + 124\, p^{15}\, q^{5} + 16324\, p^{16}\, q^{16} + 9037\, p^{13}\, q^{17} + 2\, p^{3}\, q^{2} + 47785\, p^{22}\, q^{34} + 68825\, p^{23}\, q^{33} + 47785\, p^{21}\, q^{33} + 58145\, p^{22}\, q^{33}$$
$$+ 54469\, p^{23}\, q^{18} + 3\, p^{13}\, q^{2} + 3179\, p^{18}\, q^{10} + 578\, p^{17}\, q^{7} + 1835\, p^{17}\, q^{9} + 1070\, p^{17}\, q^{8} + 2306\, q^{26}\, p^{10} + 11\, q^{7}\, p^{3} + 29434\, q^{27}\, p^{16}$$
$$+ 18155\, p^{22}\, q^{14} + 25274\, p^{23}\, q^{15} + 12749\, p^{22}\, q^{13} + 5496\, p^{22}\, q^{11} + 17\, p^{6}\, q^{4} + 28\, p^{6}\, q^{5} + 62\, p^{7}\, q^{6} + 262\, p^{19}\, q^{6} + 112\, p^{18}\, q^{5} + 8538\, q^{21}\, p^{12}$$
$$+ 17612\, q^{21}\, p^{14} + 24848\, q^{22}\, p^{15} + 28880\, p^{20}\, q^{16} + 31605\, p^{26}\, q^{16} + 1979\, p^{21}\, q^{9} + 8581\, p^{22}\, q^{12} + 3179\, p^{10}\, q^{18} + 13829\, p^{18}\, q^{14}$$
$$+ 4909\, p^{18}\, q^{11} + 20365\, p^{19}\, q^{15} + 10191\, p^{18}\, q^{13} + 7232\, p^{18}\, q^{12} + 12\, q^{16}\, p^{3} + 41\, p^{17}\, q^{4} + 14\, p^{15}\, q^{3} + 3420\, p^{21}\, q^{10} + 550\, p^{20}\, q^{7}$$
$$+ 1106\, p^{20}\, q^{8} + 106235\, p^{22}\, q^{24} + 22928\, p^{16}\, q^{18} + 5306\, p^{13}\, q^{14} + 4182\, p^{13}\, q^{13} + 5555\, q^{21}\, p^{11} + 32840\, p^{22}\, q^{16} + 813\, q^{14}\, p^{8} + 472\, q^{14}\, p^{7}$$
$$+ p^{8}\, q + 8464\, q^{34}\, p^{16} + 15920\, q^{33}\, p^{17} + 7342\, q^{33}\, p^{15} + 11043\, q^{33}\, p^{16} + 33734\, p^{16}\, q^{23} + 18155\, p^{14}\, q^{22} + 20\, p^{5}\, q^{5} + 8289\, p^{20}\, q^{12}$$
$$+ 2008\, p^{19}\, q^{9} + 1304\, q^{14}\, p^{9} + 2325\, q^{15}\, p^{10} + 33829\, p^{16}\, q^{24} + 9\, q^{6}\, p^{3} + 44\, p^{6}\, q^{6} + 3177\, p^{13}\, q^{12} + 2866\, p^{14}\, q^{11} + 12\, p^{5}\, q^{4} + 12\, p^{4}\, q^{5}$$
$$+ 3\, q^{5}\, p^{2} + 9\, p^{6}\, q^{3} + 3\, p^{5}\, q^{2} + 39\, q^{24}\, p^{5} + 452\, q^{27}\, p^{8} + 11\, q^{23}\, p^{4} + 68646\, p^{20}\, q^{29} + 9\, p^{4}\, q^{4} + 7\, p^{3}\, q^{5} + 5\, q^{4}\, p^{3} + q^{5}\, p + 2866\, p^{11}\, q^{14}$$

$$+ 3177\, p^{12} q^{13} + 16671\, p^{20} q^{14} + 5467\, p^{20} q^{11} + 23851\, p^{21} q^{15} + 11992\, p^{20} q^{13} + 8\, q^{24} p^{4} + p^{4} q + 2\, p^{2} q^{3} + 8408\, q^{23} p^{12} + 1962\, q^{27} p^{10}$$
$$+ 996\, q^{27} p^{9} + 1625\, q^{28} p^{10} + 191\, q^{22} p^{6} + 86\, p^{6} q^{8} + 8581\, p^{12} q^{22} + 13\, q^{8} p^{3} + 15\, q^{9} p^{3} + 133\, p^{8} q^{7} + 3425\, p^{15} q^{11} + 513\, q^{21} p^{7}$$
$$+ 1979\, q^{21} p^{9} + 3333\, q^{22} p^{10} + 95\, p^{7} q^{7} + 4\, q^{7} p^{2} + 28\, p^{8} q^{4} + 51\, p^{8} q^{5} + 112\, p^{9} q^{6} + 26744\, q^{28} p^{16} + 16\, q^{22} p^{4} + 111483\, p^{29} q^{23}$$
$$+ 1057\, q^{21} p^{8} + 244\, q^{20} p^{6} + 17909\, p^{14} q^{24} + 73304\, p^{20} q^{22} + 13\, p^{8} q^{3} + 4\, p^{7} q^{2} + 51\, p^{5} q^{8} + 33096\, p^{25} q^{16} + 28\, p^{4} q^{8} + 110325\, p^{26} q^{22}$$
$$+ 28\, p^{5} q^{6} + 20\, q^{21} p^{4} + 576\, q^{19} p^{7} + 1112\, q^{18} p^{8} + 550\, q^{20} p^{7} + p^{5} q + 39\, q^{7} p^{5} + 11\, p^{7} q^{3} + 4\, p^{6} q^{2} + 28152\, p^{17} q^{18} + 26068\, p^{16} q^{19}$$
$$+ 17\, q^{6} p^{4} + 22\, p^{7} q^{4} + 39\, p^{7} q^{5} + 86\, p^{8} q^{6} + 583\, q^{18} p^{7} + 2017\, q^{20} p^{9} + 3420\, q^{21} p^{10} + 5306\, p^{14} q^{13} + 3978\, p^{14} q^{12} + 28880\, p^{16} q^{20}$$
$$+ 92811\, p^{22} q^{22} + 281\, q^{17} p^{6} + 13529\, q^{36} p^{19} + q^{31} p^{5} + 5\, q^{32} p^{6} + 3\, q^{30} p^{5} + 6742\, q^{36} p^{17} + 2\, q^{15} p^{2} + 37\, q^{18} p^{4} + 262\, q^{19} p^{6} + 112\, q^{18} p^{5}$$
$$+ q^{6} p + 22\, q^{7} p^{4} + 4\, q^{6} p^{2} + 3978\, p^{12} q^{14} + 6839\, p^{14} q^{14} + 10769\, p^{15} q^{15} + 142837\, p^{26} q^{25} + 143652\, p^{25} q^{27} + 153264\, p^{27} q^{27}$$
$$+ 153264\, p^{28} q^{28} + 1505\, q^{15} p^{9} + 2654\, q^{16} p^{10} + 915\, q^{15} p^{8} + 4\, q^{12} p^{2} + 120\, q^{14} p^{5} + 49\, q^{14} p^{4} + 1587\, q^{24} p^{9} + 894\, q^{23} p^{8} + 409\, q^{23} p^{7}$$
$$+ 392\, p^{9} q^{9} + 753\, p^{10} q^{10} + 16\, q^{13} p^{3} + 32499\, p^{17} q^{29} + 272\, p^{8} q^{9} + 65\, q^{9} p^{5} + 142\, q^{10} p^{6} + 272\, p^{9} q^{8} + 42021\, p^{17} q^{26} + 8040\, p^{12} q^{24}$$
$$+ 3160\, p^{10} q^{23} + 3059\, q^{39} p^{18} + 150166\, p^{27} q^{26} + q^{10} p + 64654\, q^{27} p^{19} + 39553\, q^{27} p^{17} + 64\, q^{22} p^{5} + 160\, q^{23} p^{6} + 8289\, q^{20} p^{12}$$
$$+ 16671\, q^{20} p^{14} + 23851\, q^{21} p^{15} + 33\, q^{9} p^{4} + 4336\, q^{29} p^{12} + 11154\, q^{29} p^{14} + 196\, p^{8} q^{8} + 181\, p^{7} q^{9} + 4909\, p^{11} q^{18} + 65\, p^{9} q^{5} + 142\, p^{10} q^{6}$$
$$+ 5252\, p^{11} q^{19} + 7232\, p^{12} q^{18} + 66155\, p^{19} q^{23} + 25070\, p^{15} q^{24} + 181\, p^{9} q^{7} + 33\, p^{9} q^{4} + 5467\, q^{20} p^{11} + 18969\, p^{28} q^{15} + 135176\, p^{25} q^{29}$$
$$+ 133\, p^{7} q^{8} + 112\, p^{6} q^{9} + 122131\, p^{23} q^{27} + 11992\, q^{20} p^{13} + 8522\, p^{15} q^{14} + 13174\, p^{16} q^{15} + 4821\, p^{15} q^{12} + 6530\, p^{15} q^{13} + 348\, p^{24} q^{7}$$
$$+ 513\, p^{21} q^{7} + 43551\, p^{17} q^{23} + 1057\, p^{21} q^{8} + 8408\, p^{23} q^{12} + 37\, p^{18} q^{4} + 12\, p^{16} q^{3} + 3333\, p^{22} q^{10} + 11205\, p^{13} q^{19} + 109749\, p^{23} q^{23}$$
$$+ 77\, q^{21} p^{5} + 92223\, p^{32} q^{24} + 103\, p^{25} q^{6} + 39\, p^{24} q^{5} + 5911\, p^{30} q^{13} + 32553\, p^{31} q^{18} + 94107\, p^{21} q^{24} + 894\, p^{23} q^{8} + 7489\, p^{25} q^{12}$$
$$+ 2923\, p^{24} q^{10} + 10191\, p^{13} q^{18} + 1196\, q^{26} p^{9} + 19617\, p^{17} q^{16} + 253\, q^{14} p^{6} + 114\, q^{13} p^{5} + 1886\, q^{22} p^{9} + 987\, q^{22} p^{8} + 12670\, p^{23} q^{13}$$
$$+ 244\, p^{20} q^{6} + 102\, p^{19} q^{5} + 1886\, p^{22} q^{9} + 5311\, p^{23} q^{11} + 55676\, p^{24} q^{18} + 18251\, p^{23} q^{14} + 25070\, p^{24} q^{15} + 1204\, q^{40} p^{17} + 17137\, p^{25} q^{14}$$
$$+ 22926\, p^{26} q^{15} + 42021\, p^{26} q^{17} + 93809\, p^{27} q^{21} + 81675\, p^{26} q^{20} + 67423\, p^{26} q^{19} + 109560\, p^{25} q^{22} + 68645\, p^{19} q^{25} + 44089\, p^{24} q^{17}$$
$$+ 96305\, p^{25} q^{21} + 81225\, p^{24} q^{20} + 68201\, p^{24} q^{19} + 269\, q^{15} p^{6} + 520\, q^{15} p^{7} + 51365\, q^{27} p^{18} + 78977\, q^{27} p^{20} + 89279\, q^{28} p^{21}$$
$$+ 42021\, p^{29} q^{38} + 2\, q^{16} p^{2} + 16\, q^{10} p^{3} + 52032\, p^{19} q^{20} + 45644\, p^{19} q^{19} + 38962\, p^{19} q^{18} + 172\, q^{11} p^{6} + 83541\, p^{21} q^{22} + 39\, q^{10} p^{4}$$
$$+ 79\, q^{10} p^{5} + 6742\, p^{19} q^{38} + 5311\, q^{23} p^{11} + 17137\, p^{14} q^{25} + 36186\, p^{17} q^{20} + 15378\, p^{19} q^{14} + 5252\, p^{19} q^{11} + 22314\, p^{20} q^{15} + 11205\, p^{19} q^{13}$$
$$+ 7840\, p^{19} q^{12} + 32499\, p^{26} q^{38} + 365\, p^{10} q^{8} + 235\, p^{10} q^{7} + 218\, q^{21} p^{6} + 90\, q^{20} p^{5} + 464\, q^{22} p^{7} + 10\, q^{17} p^{3} + 535\, p^{10} q^{9} + 1010\, p^{11} q^{10}$$
$$+ 3342\, p^{19} q^{10} + 583\, p^{18} q^{7} + 1943\, p^{18} q^{9} + 1112\, p^{18} q^{8} + 44022\, p^{18} q^{20} + 59873\, p^{20} q^{20} + 75839\, p^{21} q^{21} + 281\, p^{17} q^{6} + 123\, p^{16} q^{5}$$

$$+ 32840\, q^{22}\, p^{16} + 138678\, p^{25}\, q^{25} + 3967\, q^{16}\, p^{11} + 39470\, p^{17}\, q^{21} + 12271\, p^{13}\, q^{24} + 296\, q^{11}\, p^{7} + 469\, q^{30}\, p^{9} + 5676\, q^{16}\, p^{12} + 96191\, p^{21}\, q^{26}$$
$$+ 81675\, p^{20}\, q^{26} + 93809\, p^{21}\, q^{27} + 11711\, q^{31}\, p^{15} + 13829\, p^{14}\, q^{18} + 22928\, p^{18}\, q^{16} + 15664\, p^{17}\, q^{15} + 7788\, p^{16}\, q^{13} + 5676\, p^{16}\, q^{12}$$
$$+ 143652\, p^{27}\, q^{25} + 10307\, p^{16}\, q^{14} + 26068\, p^{19}\, q^{16} + 7840\, p^{12}\, q^{19} + 52032\, p^{20}\, q^{19} + 11605\, p^{25}\, q^{13} + 1587\, p^{24}\, q^{9} + 4584\, p^{25}\, q^{11}$$
$$+ 54068\, p^{26}\, q^{18} + 3179\, p^{45}\, q^{37} + 15\, q^{37}\, p^{9} + 102\, q^{19}\, p^{5} + 6\, q^{19}\, p^{3} + 36186\, p^{20}\, q^{17} + 44022\, p^{20}\, q^{18} + 38962\, p^{18}\, q^{19} + 3967\, p^{16}\, q^{11}$$
$$+ 121503\, p^{25}\, q^{23} + 8\, q^{18}\, p^{3} + q^{17}\, p^{2} + 26\, q^{20}\, p^{4} + 3425\, q^{15}\, p^{11} + 31\, q^{19}\, p^{4} + q^{8}\, p + 5\, q^{9}\, p^{2} + 3059\, q^{37}\, p^{16} + q^{27}\, p^{4} + 156\, q^{33}\, p^{9}$$
$$+ 87\, q^{32}\, p^{8} + 25\, q^{32}\, p^{7} + 3\, q^{13}\, p^{2} + 15\, q^{14}\, p^{3} + 14\, q^{15}\, p^{3} + 296\, p^{11}\, q^{7} + 707\, p^{11}\, q^{9} + 1309\, p^{12}\, q^{10} + 469\, q^{11}\, p^{8} + 12102\, p^{14}\, q^{17}$$
$$+ 15664\, p^{15}\, q^{17} + 469\, p^{11}\, q^{8} + 172\, p^{11}\, q^{6} + 39\, p^{10}\, q^{4} + 79\, p^{10}\, q^{5} + 2654\, p^{16}\, q^{10} + 235\, q^{10}\, p^{7} + 520\, p^{15}\, q^{7} + 1505\, p^{15}\, q^{9} + 915\, p^{15}\, q^{8}$$
$$+ 52022\, p^{18}\, q^{22} + p^{6}\, q + 15\, p^{9}\, q^{3} + 5\, p^{8}\, q^{2} + 5\, q^{8}\, p^{2} + q^{7}\, p + 122131\, p^{27}\, q^{23} + 17\, p^{11}\, q^{3} + 5\, p^{10}\, q^{2} + 12670\, p^{13}\, q^{23} + 5496\, p^{11}\, q^{22}$$
$$+ 253\, p^{14}\, q^{6} + 114\, p^{13}\, q^{5} + 48\, p^{13}\, q^{4} + p^{7}\, q + 3561\, q^{27}\, p^{11} + 44089\, p^{17}\, q^{24} + 31605\, p^{16}\, q^{26} + 43578\, p^{17}\, q^{25} + 24279\, p^{15}\, q^{25} + 4\, q^{11}\, p^{2}$$
$$+ 33096\, p^{16}\, q^{25} + 47\, q^{12}\, p^{4} + 55676\, p^{37}\, q^{31} + 48455\, p^{37}\, q^{34} + 44022\, p^{37}\, q^{35} + 32349\, p^{38}\, q^{36} + 55526\, p^{37}\, q^{30} + 54469\, p^{37}\, q^{32}$$
$$+ 54068\, p^{37}\, q^{29} + 578\, q^{17}\, p^{7} + 3\, q^{14}\, p^{2} + 17\, q^{11}\, p^{3} + 5\, q^{10}\, p^{2} + 46\, q^{16}\, p^{4} + 123\, q^{16}\, p^{5} + 143414\, p^{29}\, q^{26} + 47\, q^{15}\, p^{4} + 124\, q^{15}\, p^{5}$$
$$+ 280\, q^{16}\, p^{6} + 106235\, p^{24}\, q^{22} + 55526\, p^{18}\, q^{25} + 19617\, p^{16}\, q^{17} + q^{9}\, p + 26\, p^{20}\, q^{4} + 8\, p^{18}\, q^{3} + 675\, p^{25}\, q^{8} + 6018\, p^{27}\, q^{12} + 2306\, p^{26}\, q^{10}$$
$$+ 32499\, p^{29}\, q^{17} + 75124\, p^{30}\, q^{21} + 68646\, p^{29}\, q^{20} + 55212\, p^{29}\, q^{19} + 89018\, p^{30}\, q^{22} + 12919\, p^{28}\, q^{14} + 1122\, q^{19}\, p^{8} + 57\, q^{35}\, p^{9}$$
$$+ 134094\, p^{27}\, q^{24} + 43\, p^{4}\, q^{11} + 203\, p^{6}\, q^{12} + 93\, p^{5}\, q^{11} + 141028\, p^{28}\, q^{25} + 707\, p^{9}\, q^{11} + 365\, p^{8}\, q^{10} + 91\, q^{36}\, p^{10} + 31\, q^{36}\, p^{9} + 49\, q^{37}\, p^{10}$$
$$+ 82427\, p^{20}\, q^{25} + 104054\, p^{27}\, q^{33} + 116882\, p^{31}\, q^{32} + 121503\, p^{30}\, q^{32} + 96191\, p^{29}\, q^{34} + 109560\, p^{30}\, q^{33} + 108429\, p^{28}\, q^{33} + 110325\, p^{29}\, q^{33}$$
$$+ 1399\, p^{25}\, q^{9} + 4092\, p^{26}\, q^{11} + 4821\, p^{12}\, q^{15} + 115390\, p^{31}\, q^{25} + 130683\, p^{31}\, q^{27} + 122131\, p^{32}\, q^{28} + 8464\, p^{21}\, q^{39} + 48\, q^{13}\, p^{4} + 104\, q^{12}\, p^{5}$$
$$+ 31178\, p^{21}\, q^{16} + 17\, q^{12}\, p^{3} + 52022\, p^{22}\, q^{18} + 4\, p^{12}\, q^{2} + 356\, p^{7}\, q^{12} + 1010\, p^{10}\, q^{11} + 535\, p^{9}\, q^{10} + 16\, p^{10}\, q^{3} + 5\, p^{9}\, q^{2} + 130683\, p^{24}\, q^{28}$$
$$+ 23672\, p^{29}\, q^{16} + 100513\, p^{23}\, q^{22} + 583\, p^{12}\, q^{8} + 203\, p^{12}\, q^{6} + 43\, p^{11}\, q^{4} + 93\, p^{11}\, q^{5} + 356\, p^{12}\, q^{7} + 895\, p^{12}\, q^{9} + 1636\, p^{13}\, q^{10}$$
$$+ 62607\, p^{22}\, q^{19} + 41967\, p^{22}\, q^{17} + 89770\, p^{23}\, q^{21} + 73304\, p^{22}\, q^{20} + 17124\, p^{31}\, q^{16} + 179\, q^{27}\, p^{7} + 57810\, p^{19}\, q^{21} + 89770\, p^{21}\, q^{23}$$
$$+ 152691\, p^{28}\, q^{27} + 150166\, p^{29}\, q^{28} + 125466\, p^{24}\, q^{24} + 1636\, p^{10}\, q^{13} + 1835\, p^{9}\, q^{17} + 7788\, p^{13}\, q^{16} + 75124\, p^{34}\, q^{25} + 15378\, p^{14}\, q^{19}$$
$$+ 22314\, p^{15}\, q^{20} + 67087\, p^{20}\, q^{21} + 62\, p^{6}\, q^{7} + 104054\, q^{28}\, p^{22} + 17909\, p^{24}\, q^{14} + 24279\, p^{25}\, q^{15} + 43578\, p^{25}\, q^{17} + 96191\, p^{26}\, q^{21}$$
$$+ 82427\, p^{25}\, q^{20} + 68645\, p^{25}\, q^{19} + 10689\, q^{26}\, p^{13} + 20365\, p^{15}\, q^{19} + 118099\, p^{28}\, q^{23} + 148539\, p^{27}\, q^{29} + 92223\, p^{31}\, q^{23} + 24058\, p^{17}\, q^{31}$$
$$+ 148539\, p^{26}\, q^{28} + 148243\, p^{26}\, q^{26} + 134356\, p^{26}\, q^{24} + 115390\, p^{25}\, q^{31} + 6530\, p^{13}\, q^{15} + 33829\, p^{24}\, q^{16} + 2923\, q^{24}\, p^{10} + 1100\, p^{9}\, q^{13}$$
$$+ 102666\, p^{32}\, q^{25} + 118099\, p^{32}\, q^{27} + 108429\, p^{33}\, q^{28} + 1982\, p^{10}\, q^{14} + 3428\, p^{20}\, q^{10} + 576\, p^{19}\, q^{7} + 1122\, p^{19}\, q^{8} + 78102\, p^{20}\, q^{23}$$

$$+ 38962\, p^{36}\, q^{37} + 52032\, p^{35}\, q^{36} + 5532\, p^{21}\, q^{40} + 4584\, q^{25}\, p^{11} + 4092\, q^{26}\, p^{11} + 7489\, q^{25}\, p^{12} + 148539\, p^{28}\, q^{26} + 6492\, p^{17}\, q^{12}$$
$$+ 12102\, p^{17}\, q^{14} + 4477\, p^{17}\, q^{11} + 18097\, p^{18}\, q^{15} + 9037\, p^{17}\, q^{13} + 6805\, q^{26}\, p^{12} + 81225\, p^{20}\, q^{24} + 1756\, p^{9}\, q^{23} + 1101\, q^{34}\, p^{12} + 745\, q^{35}\, p^{12}$$
$$+ 249\, q^{34}\, p^{10} + 4029\, q^{35}\, p^{15} + 2452\, q^{35}\, p^{14} + 2816\, q^{36}\, p^{15} + 15920\, q^{38}\, p^{22} + 4707\, q^{37}\, p^{17} + 6910\, q^{37}\, p^{18} + 13229\, q^{37}\, p^{20} + 934\, q^{36}\, p^{13}$$
$$+ 9746\, q^{37}\, p^{19} + 37942\, p^{18}\, q^{30} + 1005\, p^{8}\, q^{16} + 555\, p^{7}\, q^{16} + 2630\, q^{25}\, p^{10} + 46\, p^{16}\, q^{4} + 15\, p^{14}\, q^{3} + 472\, p^{14}\, q^{7} + 1304\, p^{14}\, q^{9} + 813\, p^{14}\, q^{8}$$
$$+ 464\, p^{22}\, q^{7} + 987\, p^{22}\, q^{8} + 8040\, p^{24}\, q^{12} + 3160\, p^{23}\, q^{10} + 2325\, p^{15}\, q^{10} + 1943\, p^{9}\, q^{18} + 2330\, p^{11}\, q^{13} + 2457\, p^{12}\, q^{12} + 2118\, q^{32}\, p^{12}$$
$$+ 756\, q^{31}\, p^{10} + 104466\, p^{31}\, q^{24} + 132\, p^{24}\, q^{6} + 51\, p^{23}\, q^{5} + 7151\, p^{29}\, q^{13} + 37942\, p^{30}\, q^{18} + 409\, p^{23}\, q^{7} + 2330\, p^{13}\, q^{11} + 1828\, p^{11}\, q^{12}$$
$$+ 2017\, p^{20}\, q^{9} + 8538\, p^{21}\, q^{12} + 29485\, p^{19}\, q^{33} + 68825\, p^{22}\, q^{32} + 3693\, q^{32}\, p^{13} + 20415\, p^{39}\, q^{25} + 156\, p^{33}\, q^{9} + 551\, p^{34}\, q^{11} + 42\, p^{31}\, q^{7}$$
$$+ 87\, p^{32}\, q^{8} + 745\, p^{35}\, q^{12} + 249\, p^{34}\, q^{10} + 4707\, p^{37}\, q^{17} + 12366\, p^{38}\, q^{21} + 1679\, p^{36}\, q^{14} + 5\, p^{25}\, q^{4} + 9300\, p^{38}\, q^{20} + 6742\, p^{38}\, q^{19}$$
$$+ 11043\, p^{39}\, q^{22} + 13964\, p^{39}\, q^{23} + 26744\, p^{39}\, q^{27} + 21129\, p^{40}\, q^{28} + 934\, p^{36}\, q^{13} + 2816\, p^{36}\, q^{15} + 32349\, p^{19}\, q^{17} + 231\, p^{26}\, q^{7}$$
$$+ 100513\, p^{22}\, q^{23} + 22926\, q^{26}\, p^{15} + 29434\, p^{27}\, q^{16} + 116882\, p^{24}\, q^{23} + 23847\, p^{17}\, q^{17} + 38115\, q^{35}\, p^{22} + 16003\, q^{26}\, p^{14} + 21129\, q^{27}\, p^{15}$$
$$+ 97427\, q^{29}\, p^{22} + 135176\, p^{30}\, q^{26} + 1196\, p^{26}\, q^{9} + 3561\, p^{27}\, q^{11} + 452\, p^{27}\, q^{8} + 4336\, p^{29}\, q^{12} + 1625\, p^{28}\, q^{10} + 24058\, p^{31}\, q^{17} + 57071\, p^{32}\, q^{21}$$
$$+ 53952\, p^{31}\, q^{20} + 42592\, p^{31}\, q^{19} + 68825\, p^{32}\, q^{22} + 9373\, p^{30}\, q^{14} + 95\, q^{29}\, p^{7} + 1011\, q^{30}\, p^{10} + 264\, q^{29}\, p^{8} + 40\, q^{28}\, p^{6} + 133\, q^{28}\, p^{7}$$
$$+ 625\, q^{29}\, p^{9} + 31\, p^{19}\, q^{4} + 10\, p^{17}\, q^{3} + 790\, p^{24}\, q^{8} + 6805\, p^{26}\, q^{12} + 2630\, p^{25}\, q^{10} + 116882\, p^{23}\, q^{24} + 110325\, p^{22}\, q^{26} + 121503\, p^{23}\, q^{25}$$
$$+ 96305\, p^{21}\, q^{25} + 109560\, p^{22}\, q^{25} + 68201\, p^{36}\, q^{31} + 57810\, p^{36}\, q^{34} + 52032\, p^{36}\, q^{35} + 38962\, p^{37}\, q^{36} + 68645\, p^{36}\, q^{30} + 66155\, p^{36}\, q^{32}$$
$$+ 67423\, p^{36}\, q^{29} + 3526\, q^{30}\, p^{12} + 131396\, p^{30}\, q^{31} + 109560\, p^{33}\, q^{30} + 223\, q^{36}\, p^{11} + 126434\, p^{30}\, q^{25} + 141028\, p^{30}\, q^{27} + 134094\, p^{31}\, q^{28}$$
$$+ 5\, q^{25}\, p^{4} + 23480\, q^{34}\, p^{19} + 142837\, p^{30}\, q^{29} + 61657\, p^{35}\, q^{25} + 9746\, q^{36}\, p^{18} + 18129\, q^{36}\, p^{20} + 17362\, q^{37}\, p^{21} + 17\, q^{30}\, p^{6} + 5\, q^{29}\, p^{5}$$
$$+ 42\, q^{31}\, p^{7} + 2776\, q^{31}\, p^{12} + 6059\, q^{32}\, p^{14} + 126434\, p^{25}\, q^{30} + 19853\, p^{17}\, q^{32} + 13229\, q^{35}\, p^{18} + 3\, q^{26}\, p^{4} + 29485\, q^{36}\, p^{22} + 2014\, q^{34}\, p^{13}$$
$$+ 24058\, p^{38}\, q^{24} + 6910\, p^{37}\, q^{18} + 32499\, p^{38}\, q^{26} + 40\, p^{28}\, q^{6} + 13\, p^{27}\, q^{5} + 32840\, p^{39}\, q^{33} + 4469\, p^{36}\, q^{16} + 33096\, p^{39}\, q^{30} + 31605\, p^{39}\, q^{29}$$
$$+ 33734\, p^{39}\, q^{32} + 4707\, p^{18}\, q^{38} + 66155\, p^{32}\, q^{36} + 36302\, p^{27}\, q^{38} + 37942\, p^{25}\, q^{37} + 43049\, p^{26}\, q^{37} + 52022\, p^{33}\, q^{37} + 33829\, p^{39}\, q^{31}$$
$$+ 31178\, p^{39}\, q^{34} + 28880\, p^{39}\, q^{35} + 20365\, p^{40}\, q^{36} + 36302\, p^{28}\, q^{17} + 82931\, p^{29}\, q^{21} + 74554\, p^{28}\, q^{20} + 60486\, p^{28}\, q^{19} + 97427\, p^{29}\, q^{22}$$
$$+ 14562\, p^{27}\, q^{14} + 1405\, q^{42}\, p^{20} + 1556\, q^{43}\, p^{22} + 3693\, q^{42}\, p^{23} + 2014\, q^{42}\, p^{21} + 2780\, q^{42}\, p^{22} + 118099\, p^{23}\, q^{28} + 9300\, p^{20}\, q^{38}$$
$$+ 17124\, p^{39}\, q^{24} + 4707\, p^{38}\, q^{18} + 23672\, p^{39}\, q^{26} + 26\, p^{29}\, q^{6} + 8\, p^{28}\, q^{5} + 24848\, p^{40}\, q^{33} + 3059\, p^{37}\, q^{16} + 24279\, p^{40}\, q^{30} + 22926\, p^{40}\, q^{29}$$
$$+ 25274\, p^{40}\, q^{32} + 82427\, p^{30}\, q^{35} + 3143\, q^{38}\, p^{17} + 681\, q^{38}\, p^{14} + 133\, p^{28}\, q^{7} + 264\, p^{29}\, q^{8} + 2118\, p^{32}\, q^{12} + 756\, p^{31}\, q^{10} + 12366\, p^{34}\, q^{17}$$
$$+ 30701\, p^{35}\, q^{21} + 4643\, p^{33}\, q^{14} + 96191\, p^{34}\, q^{29} + 26744\, p^{28}\, q^{16} + 111483\, q^{29}\, p^{23} + 68201\, p^{19}\, q^{24} + 38874\, q^{34}\, p^{21} + 30701\, q^{34}\, p^{20}$$

$$+ 30701\, q^{35}\, p^{21} + 3342\, q^{19}\, p^{10} + 2008\, q^{19}\, p^{9} + 3428\, q^{20}\, p^{10} + 67423\, p^{19}\, q^{26} + 42592\, p^{19}\, q^{31} + 130683\, p^{27}\, q^{31} + 142837\, p^{29}\, q^{30}$$
$$+ 277\, p^{18}\, q^{6} + 120\, p^{17}\, q^{5} + 41967\, q^{22}\, p^{17} + 79\, p^{26}\, q^{6} + 29\, p^{25}\, q^{5} + 55212\, q^{36}\, p^{26} + 42592\, q^{36}\, p^{24} + 20415\, p^{30}\, q^{16} + 131\, q^{31}\, p^{8}$$
$$+ 3440\, q^{34}\, p^{14} + 11711\, p^{31}\, q^{15} + 97427\, p^{33}\, q^{26} + 625\, p^{29}\, q^{9} + 1964\, p^{30}\, q^{11} + 26744\, p^{27}\, q^{39} + 41967\, p^{33}\, q^{38} + 109749\, p^{32}\, q^{32}$$
$$+ 96305\, p^{30}\, q^{34} + 106235\, p^{31}\, q^{33} + 37942\, p^{37}\, q^{25} + 340\, p^{31}\, q^{9} + 1125\, p^{32}\, q^{11} + 49121\, q^{36}\, p^{25} + 60486\, q^{36}\, p^{27} + 51365\, q^{37}\, p^{28}$$
$$+ 9300\, q^{35}\, p^{17} + 1556\, q^{33}\, p^{12} + 546\, q^{32}\, p^{10} + 35932\, q^{36}\, p^{23} + 64\, q^{30}\, p^{7} + 26\, q^{29}\, p^{6} + 4\, q^{20}\, p^{3} + 36302\, q^{28}\, p^{17} + 47624\, q^{28}\, p^{18}$$
$$+ 74554\, q^{28}\, p^{20} + 82931\, q^{29}\, p^{21} + 17909\, p^{41}\, q^{31} + 17612\, p^{41}\, q^{34} + 16671\, p^{41}\, q^{35} + 11205\, p^{42}\, q^{36} + 28152\, p^{38}\, q^{37} + 1301\, q^{29}\, p^{10}$$
$$+ 57\, q^{27}\, p^{6} + 130683\, p^{28}\, q^{24} + 17612\, p^{21}\, q^{14} + 24848\, p^{22}\, q^{15} + 12526\, p^{21}\, q^{13} + 5555\, p^{21}\, q^{11} + 33734\, p^{23}\, q^{16} + 9605\, q^{27}\, p^{13}$$
$$+ 60486\, q^{28}\, p^{19} + 124294\, p^{29}\, q^{24} + 75124\, p^{25}\, q^{34} + 122131\, p^{28}\, q^{32} + 125466\, p^{31}\, q^{31} + 66351\, p^{24}\, q^{34} + 411\, q^{40}\, p^{15} + 79285\, p^{33}\, q^{24}$$
$$+ 4751\, p^{31}\, q^{13} + 27185\, p^{32}\, q^{18} + 6059\, p^{23}\, q^{41} + 7648\, p^{24}\, q^{41} + 4751\, p^{24}\, q^{42} + 9373\, p^{25}\, q^{41} + 11154\, p^{26}\, q^{41} + 24279\, p^{30}\, q^{40}$$
$$+ 12919\, p^{27}\, q^{41} + 22926\, p^{29}\, q^{40} + 82931\, p^{26}\, q^{34} + 121503\, p^{32}\, q^{30} + 93809\, p^{28}\, q^{34} + 89279\, p^{27}\, q^{34} + 78977\, p^{28}\, q^{35} + 1389\, p^{11}\, q^{11}$$
$$+ 55676\, p^{18}\, q^{24} + 115390\, p^{30}\, q^{24} + 160\, p^{23}\, q^{6} + 64\, p^{22}\, q^{5} + 8397\, p^{28}\, q^{13} + 43049\, p^{29}\, q^{18} + 2\, p^{15}\, q^{2} + 191\, p^{22}\, q^{6} + 77\, p^{21}\, q^{5}$$
$$+ 116882\, p^{32}\, q^{31} + 97427\, p^{26}\, q^{33} + 123279\, p^{29}\, q^{32} + 25274\, p^{15}\, q^{23} + 20\, p^{21}\, q^{4} + 6\, p^{19}\, q^{3} + 563\, p^{26}\, q^{8} + 5183\, p^{28}\, q^{12} + 1962\, p^{27}\, q^{10}$$
$$+ 28333\, p^{30}\, q^{17} + 66351\, p^{31}\, q^{21} + 61657\, p^{30}\, q^{20} + 49121\, p^{30}\, q^{19} + 79285\, p^{31}\, q^{22} + 11154\, p^{29}\, q^{14} + 108429\, p^{27}\, q^{22} + 18969\, p^{27}\, q^{40}$$
$$+ 23973\, q^{35}\, p^{20} + 23480\, q^{36}\, p^{21} + 8\, q^{28}\, p^{5} + q^{24}\, p^{3} + 3526\, q^{43}\, p^{25} + 2776\, q^{43}\, p^{24} + 4336\, q^{43}\, p^{26} + 6018\, q^{43}\, p^{28} + 5183\, q^{43}\, p^{27}$$
$$+ 3561\, q^{44}\, p^{28} + 7232\, p^{43}\, q^{37} + 12526\, p^{34}\, q^{42} + 7648\, p^{41}\, q^{24} + 1889\, p^{40}\, q^{18} + 11154\, p^{41}\, q^{26} + 12749\, p^{42}\, q^{33} + 1243\, p^{39}\, q^{16}$$
$$+ 11605\, p^{42}\, q^{30} + 10689\, p^{42}\, q^{29} + 12670\, p^{42}\, q^{32} + 95\, p^{29}\, q^{7} + 191\, p^{30}\, q^{8} + 1556\, p^{33}\, q^{12} + 546\, p^{32}\, q^{10} + 9300\, p^{35}\, q^{17} + 23480\, p^{36}\, q^{21}$$
$$+ 3440\, p^{34}\, q^{14} + 18129\, q^{35}\, p^{19} + 806\, q^{33}\, p^{11} + 30701\, p^{34}\, q^{20} + 23480\, p^{34}\, q^{19} + 38115\, p^{35}\, q^{22} + 45987\, p^{35}\, q^{23} + 74554\, p^{35}\, q^{27}$$
$$+ 64654\, p^{36}\, q^{28} + 235\, q^{32}\, p^{9} + 6018\, q^{27}\, p^{12} + 9413\, q^{32}\, p^{15} + 9605\, p^{27}\, q^{13} + 47624\, p^{28}\, q^{18} + 22928\, p^{39}\, q^{37} + 32840\, p^{33}\, q^{39} + 7342\, p^{22}\, q^{40}$$
$$+ 6263\, q^{35}\, p^{16} + 5532\, q^{34}\, p^{15} + 895\, p^{9}\, q^{12} + 418\, p^{7}\, q^{13} + 583\, p^{8}\, q^{12} + 54469\, p^{32}\, q^{37} + 68201\, p^{31}\, q^{36} + p^{17}\, q^{2} + 11\, p^{23}\, q^{4} + 3\, p^{21}\, q^{3}$$
$$+ 18129\, p^{36}\, q^{20} + 13529\, p^{36}\, q^{19} + 22052\, p^{37}\, q^{22} + 27185\, p^{37}\, q^{23} + 47624\, p^{37}\, q^{27} + 39553\, p^{38}\, q^{28} + 2014\, p^{34}\, q^{13} + 5532\, p^{34}\, q^{15}$$
$$+ 293\, q^{37}\, p^{12} + 1096\, q^{37}\, p^{14} + 1204\, q^{38}\, p^{15} + 16\, q^{35}\, p^{8} + 3\, q^{35}\, p^{7} + 354\, q^{38}\, p^{13} + 130\, q^{37}\, p^{11} + 1405\, q^{35}\, p^{13} + 376\, q^{33}\, p^{10} + 551\, q^{34}\, p^{11}$$
$$+ 362\, q^{35}\, p^{11} + 1125\, q^{32}\, p^{11} + 43578\, p^{30}\, q^{38} + 79285\, p^{22}\, q^{31} + 790\, q^{24}\, p^{8} + 4994\, q^{24}\, p^{11} + 23847\, p^{38}\, q^{38} + 22314\, p^{35}\, q^{40} + 13829\, p^{41}\, q^{37}$$
$$+ 19617\, p^{39}\, q^{38} + 11043\, p^{22}\, q^{39} + 8397\, p^{27}\, q^{42} + 6805\, p^{29}\, q^{43} + 11605\, p^{30}\, q^{42} + 9605\, p^{28}\, q^{42} + 10689\, p^{29}\, q^{42} + 17137\, p^{30}\, q^{41}$$
$$+ 17909\, p^{31}\, q^{41} + 12271\, p^{31}\, q^{42} + 18251\, p^{32}\, q^{41} + 18155\, p^{33}\, q^{41} + 23851\, p^{34}\, q^{40} + 54068\, q^{37}\, p^{29} + 5911\, p^{13}\, q^{30} + 14136\, p^{15}\, q^{30}$$

$$+ 143414\, p^{26}\, q^{29} + 1515\, q^{31}\, p^{11} + 14136\, p^{40}\, q^{25} + 97\, p^{34}\, q^{9} + 362\, p^{35}\, q^{11} + 25\, p^{32}\, q^{7} + 53\, p^{33}\, q^{8} + 482\, p^{36}\, q^{12} + 155\, p^{35}\, q^{10}$$
$$+ 3143\, p^{38}\, q^{17} + 8464\, p^{39}\, q^{21} + 1096\, p^{37}\, q^{14} + 6263\, p^{39}\, q^{20} + 4469\, p^{39}\, q^{19} + 7342\, p^{40}\, q^{22} + 9413\, p^{40}\, q^{23} + 18969\, p^{40}\, q^{27} + 14562\, p^{41}\, q^{28}$$
$$+ 594\, p^{37}\, q^{13} + 1889\, p^{37}\, q^{15} + 191\, q^{30}\, p^{8} + 20415\, p^{25}\, q^{39} + 67423\, q^{36}\, p^{29} + 31\, q^{34}\, p^{8} + 97\, q^{34}\, p^{9} + 1679\, q^{36}\, p^{14} + 96305\, p^{34}\, q^{30}$$
$$+ 44089\, p^{31}\, q^{38} + 23672\, p^{26}\, q^{39} + 2780\, q^{33}\, p^{13} + 12366\, p^{21}\, q^{38} + 28333\, p^{38}\, q^{25} + 235\, p^{32}\, q^{9} + 806\, p^{33}\, q^{11} + 24058\, p^{24}\, q^{38}$$
$$+ 22052\, p^{22}\, q^{37} + 27185\, p^{23}\, q^{37} + 17362\, q^{34}\, p^{18} + 21129\, p^{28}\, q^{40} + 32349\, p^{36}\, q^{38} + 33829\, p^{31}\, q^{39} + 33734\, p^{32}\, q^{39} + 66351\, p^{34}\, q^{24}$$
$$+ 3693\, p^{32}\, q^{13} + 22052\, p^{33}\, q^{18} + 12271\, p^{42}\, q^{31} + 12526\, p^{42}\, q^{34} + 11992\, p^{42}\, q^{35} + 7840\, p^{43}\, q^{36} + 52022\, p^{37}\, q^{33} + 8464\, p^{34}\, q^{16}$$
$$+ 62607\, p^{33}\, q^{36} + 39553\, p^{28}\, q^{38} + 47624\, p^{27}\, q^{37} + 48455\, p^{34}\, q^{37} + 9413\, p^{32}\, q^{15} + 82931\, p^{34}\, q^{26} + 482\, q^{36}\, p^{12} + 53\, q^{33}\, p^{8} + 1010\, p^{45}\, q^{44}$$
$$+ 535\, p^{46}\, q^{45} + 2325\, p^{45}\, q^{40} + 19617\, p^{38}\, q^{39} + 5911\, p^{42}\, q^{25} + 1204\, p^{40}\, q^{17} + 396\, p^{39}\, q^{14} + 2452\, p^{41}\, q^{20} + 1679\, p^{41}\, q^{19} + 2780\, p^{42}\, q^{22}$$
$$+ 3693\, p^{42}\, q^{23} + 8397\, p^{42}\, q^{27} + 6018\, p^{43}\, q^{28} + 729\, p^{39}\, q^{15} + 3440\, p^{41}\, q^{21} + 12271\, p^{24}\, q^{13} + 218\, p^{21}\, q^{6} + 90\, p^{20}\, q^{5} + 1756\, p^{23}\, q^{9}$$
$$+ 4994\, p^{24}\, q^{11} + 55526\, p^{25}\, q^{18} + 4643\, q^{33}\, p^{14} + 81225\, p^{35}\, q^{31} + 83541\, p^{33}\, q^{34} + 89770\, p^{32}\, q^{34} + 75839\, p^{34}\, q^{34} + 67087\, p^{35}\, q^{34}$$
$$+ 83541\, p^{34}\, q^{33} + 73304\, p^{33}\, q^{35} + 59873\, p^{35}\, q^{35} + 45644\, p^{36}\, q^{36} + 81225\, p^{31}\, q^{35} + 3\, p^{14}\, q^{2} + 64\, p^{30}\, q^{7} + 131\, p^{31}\, q^{8} + 1101\, p^{34}\, q^{12}$$
$$+ 376\, p^{33}\, q^{10} + 6742\, p^{36}\, q^{17} + 17362\, p^{37}\, q^{21} + 2452\, p^{35}\, q^{14} + 8\, p^{24}\, q^{4} + 2\, p^{22}\, q^{3} + 13229\, p^{37}\, q^{20} + 9746\, p^{37}\, q^{19} + 15920\, p^{38}\, q^{22}$$
$$+ 19853\, p^{38}\, q^{23} + 36302\, p^{38}\, q^{27} + 29434\, p^{39}\, q^{28} + 1405\, p^{35}\, q^{13} + 4029\, p^{35}\, q^{15} + 79\, q^{26}\, p^{6} + 29\, q^{25}\, p^{5} + 27185\, p^{18}\, q^{32} + 82427\, p^{35}\, q^{30}$$
$$+ 94107\, p^{34}\, q^{31} + 94107\, p^{31}\, q^{34} + 92811\, p^{33}\, q^{33} + 78102\, p^{35}\, q^{32} + 100513\, p^{32}\, q^{33} + 100513\, p^{33}\, q^{32} + 89770\, p^{34}\, q^{32} + 67087\, p^{34}\, q^{35}$$
$$+ 78102\, p^{32}\, q^{35} + 4751\, p^{42}\, q^{24} + 1096\, p^{41}\, q^{18} + 7151\, p^{42}\, q^{26} + 8581\, p^{43}\, q^{33} + 729\, p^{40}\, q^{16} + 7489\, p^{43}\, q^{30} + 6805\, p^{43}\, q^{29} + 8408\, p^{43}\, q^{32}$$
$$+ 20365\, p^{36}\, q^{40} + 10191\, p^{42}\, q^{37} + 15664\, p^{40}\, q^{38} + 12670\, p^{32}\, q^{42} + 17612\, p^{34}\, q^{41} + 8040\, p^{43}\, q^{31} + 8538\, p^{43}\, q^{34} + 8289\, p^{43}\, q^{35}$$
$$+ 5252\, p^{44}\, q^{36} + 7489\, p^{30}\, q^{43} + 168\, q^{38}\, p^{12} + 102666\, p^{30}\, q^{23} + 22052\, p^{18}\, q^{33} + 57071\, p^{21}\, q^{32} + 35932\, p^{19}\, q^{32} + 104466\, p^{24}\, q^{31}$$
$$+ 45987\, p^{20}\, q^{32} + 8\, q^{36}\, p^{8} + 81675\, p^{35}\, q^{29} + 6263\, q^{39}\, p^{20} + 69\, q^{38}\, p^{11} + 4469\, q^{39}\, p^{19} + 142837\, p^{25}\, q^{26} + 17124\, p^{16}\, q^{31} + 9373\, p^{14}\, q^{30}$$
$$+ 55676\, p^{31}\, q^{37} + 68645\, p^{30}\, q^{36} + 1301\, q^{45}\, p^{26} + 756\, q^{45}\, p^{24} + 34\, q^{44}\, p^{16} + 168\, q^{43}\, p^{17} + 42\, q^{43}\, p^{15} + 88\, q^{43}\, p^{16} + 12366\, q^{34}\, p^{17}$$
$$+ 115390\, p^{24}\, q^{30} + 2942\, p^{45}\, q^{38} + 1982\, p^{45}\, q^{41} + 1309\, p^{45}\, q^{43} + 1636\, p^{45}\, q^{42} + q^{36}\, p^{7} + 6\, q^{38}\, p^{9} + 106\, q^{41}\, p^{14} + 47\, q^{41}\, p^{13} + 2306\, q^{45}\, p^{29}$$
$$+ 34\, q^{39}\, p^{11} + q^{34}\, p^{6} + 1125\, q^{44}\, p^{23} + 745\, q^{43}\, p^{20} + 806\, q^{44}\, p^{22} + 1101\, q^{43}\, p^{21} + 43551\, p^{32}\, q^{38} + 55212\, p^{19}\, q^{29} + 141028\, p^{25}\, q^{28}$$
$$+ 2118\, q^{43}\, p^{23} + 152691\, p^{27}\, q^{28} + 13964\, p^{16}\, q^{32} + 135176\, p^{29}\, q^{25} + 2\, p^{16}\, q^{2} + 16\, p^{22}\, q^{4} + 4\, p^{20}\, q^{3} + 23973\, p^{35}\, q^{20} + 18129\, p^{35}\, q^{19}$$
$$+ 29485\, p^{36}\, q^{22} + 35932\, p^{36}\, q^{23} + 60486\, p^{36}\, q^{27} + 51365\, p^{37}\, q^{28} + 61657\, q^{35}\, p^{25} + 74554\, q^{35}\, p^{27} + 64654\, q^{36}\, p^{28} + 45987\, q^{35}\, p^{23}$$
$$+ 55526\, q^{37}\, p^{30} + 2780\, p^{33}\, q^{13} + 7342\, p^{33}\, q^{15} + 28333\, q^{30}\, p^{17} + 88\, q^{39}\, p^{12} + 24\, q^{38}\, p^{10} + 198\, q^{39}\, p^{13} + 729\, q^{39}\, p^{15} + 148539\, p^{29}\, q^{27}$$

$$+ 143652\, p^{30} q^{28} + q^{28} p^{4} + 25274\, p^{32} q^{40} + 26068\, p^{36} q^{39} + 28880\, p^{35} q^{39} + 1943\, p^{46} q^{37} + 13829\, p^{37} q^{41} + 12749\, p^{33} q^{42}$$
$$+ 13174\, p^{39} q^{40} + 15378\, p^{36} q^{41} + 3\, p^{26} q^{4} + 5\, p^{29} q^{5} + 6530\, p^{42} q^{40} + 4477\, p^{44} q^{38} + 5676\, p^{43} q^{39} + 2866\, p^{44} q^{41} + 3177\, p^{42} q^{43}$$
$$+ 3978\, p^{41} q^{43} + 2457\, p^{43} q^{43} + 1828\, p^{44} q^{43} + 2330\, p^{44} q^{42} + p^{18} q^{2} + 57\, p^{35} q^{9} + 14\, p^{33} q^{7} + 31\, p^{34} q^{8} + 707\, p^{46} q^{44} + 365\, p^{47} q^{45}$$
$$+ 1505\, p^{46} q^{40} + 681\, p^{41} q^{17} + 215\, p^{40} q^{14} + 1405\, p^{42} q^{20} + 934\, p^{42} q^{19} + 1556\, p^{43} q^{22} + 2118\, p^{43} q^{23} + 3561\, p^{44} q^{28} + 411\, p^{40} q^{15}$$
$$+ 2654\, p^{45} q^{39} + 6\, q^{42} p^{12} + q^{41} p^{10} + 18\, q^{42} p^{13} + 376\, q^{45} p^{22} + 4\, q^{40} p^{10} + 2\, q^{39} p^{9} + 223\, q^{44} p^{19} + 17\, q^{41} p^{12} + 47\, q^{42} p^{14} + 49\, q^{45} p^{18}$$
$$+ 156\, q^{46} p^{22} + 551\, q^{44} p^{21} + 362\, q^{44} p^{20} + 249\, q^{45} p^{21} + 625\, q^{46} p^{26} + 340\, q^{46} p^{24} + 5\, q^{44} p^{14} + 469\, q^{46} p^{25} + 800\, q^{46} p^{27} + 24\, q^{45} p^{17}$$
$$+ q^{43} p^{12} + 235\, q^{46} p^{23} + 2942\, p^{38} q^{45} + 1682\, p^{39} q^{46} + 155\, q^{45} p^{20} + 91\, q^{45} p^{19} + 101\, q^{42} p^{15} + 14\, q^{44} p^{15} + q^{42} p^{11} + 563\, q^{47} p^{29}$$
$$+ 5\, q^{41} p^{11} + 6\, q^{43} p^{13} + 130\, q^{44} p^{18} + 17\, q^{43} p^{14} + 69\, q^{44} p^{17} + 1011\, q^{45} p^{25} + 1625\, q^{45} p^{27} + 996\, q^{46} p^{28} + 546\, q^{45} p^{23} + 1196\, p^{29} q^{46}$$
$$+ 790\, p^{31} q^{47} + 1399\, p^{30} q^{46} + 5\, p^{32} q^{6} + 1011\, p^{45} q^{25} + 1625\, p^{45} q^{27} + 551\, p^{44} q^{21} + 756\, p^{45} q^{24} + 1301\, p^{45} q^{26} + 1886\, p^{46} q^{33}$$
$$+ 1399\, p^{46} q^{30} + 1196\, p^{46} q^{29} + 1756\, p^{46} q^{32} + 1587\, p^{46} q^{31} + 1979\, p^{46} q^{34} + 2017\, p^{46} q^{35} + 1122\, p^{47} q^{36} + 69\, p^{38} q^{11} + 88\, p^{39} q^{12}$$
$$+ 24\, p^{38} q^{10} + 101\, p^{40} q^{13} + p^{24} q^{3} + 293\, p^{43} q^{18} + 198\, p^{42} q^{16} + 1070\, p^{47} q^{38} + 813\, p^{47} q^{41} + 583\, p^{47} q^{43} + 698\, p^{47} q^{42} + 1005\, p^{47} q^{39}$$
$$+ 1112\, p^{47} q^{37} + p^{27} q^{4} + 3\, p^{30} q^{5} + 31\, p^{36} q^{9} + 7\, p^{34} q^{7} + 16\, p^{35} q^{8} + 469\, p^{47} q^{44} + 235\, p^{48} q^{45} + 915\, p^{47} q^{40} + 354\, p^{42} q^{17} + 106\, p^{41} q^{14}$$
$$+ 745\, p^{43} q^{20} + 482\, p^{43} q^{19} + 806\, p^{44} q^{22} + 1125\, p^{44} q^{23} + 1962\, p^{45} q^{28} + 215\, p^{41} q^{15} + 2654\, p^{39} q^{45} + 1505\, p^{40} q^{46} + 894\, p^{32} q^{47}$$
$$+ 1587\, p^{31} q^{46} + 2325\, p^{40} q^{45} + 1304\, p^{41} q^{46} + 2\, q^{46} p^{16} + 31\, q^{46} p^{19} + 6\, q^{46} p^{17} + 4\, q^{45} p^{15} + q^{45} p^{14} + 3\, q^{47} p^{18} + 16\, q^{47} p^{20} + 8\, q^{47} p^{19}$$
$$+ 15\, q^{46} p^{18} + 57\, q^{46} p^{20} + 31\, q^{47} p^{21} + q^{44} p^{13} + 97\, q^{46} p^{21} + 10\, q^{45} p^{16} + 42\, q^{48} p^{24} + 53\, q^{47} p^{22} + 87\, q^{47} p^{23} + 675\, q^{47} p^{30} + 1756\, p^{32} q^{46}$$
$$+ 1057\, p^{34} q^{47} + 1886\, p^{33} q^{46} + 131\, p^{24} q^{47} + 133\, p^{27} q^{48} + 191\, p^{25} q^{47} + 264\, p^{26} q^{47} + 987\, p^{33} q^{47} + 2\, p^{33} q^{6} + 469\, p^{46} q^{25} + 800\, p^{46} q^{27}$$
$$+ 249\, p^{45} q^{21} + 340\, p^{46} q^{24} + 625\, p^{46} q^{26} + 987\, p^{47} q^{33} + 675\, p^{47} q^{30} + 563\, p^{47} q^{29} + 894\, p^{47} q^{32} + 790\, p^{47} q^{31} + 1057\, p^{47} q^{34}$$
$$+ 1106\, p^{47} q^{35} + 576\, p^{48} q^{36} + 34\, p^{39} q^{11} + 42\, p^{40} q^{12} + 10\, p^{39} q^{10} + 47\, p^{41} q^{13} + 130\, p^{44} q^{18} + 88\, p^{43} q^{16} + 578\, p^{48} q^{38} + 472\, p^{48} q^{41}$$
$$+ 356\, p^{48} q^{43} + 418\, p^{48} q^{42} + 555\, p^{48} q^{39} + 583\, p^{48} q^{37} + p^{28} q^{4} + p^{31} q^{5} + 15\, p^{37} q^{9} + 3\, p^{35} q^{7} + 8\, p^{36} q^{8} + 296\, p^{48} q^{44} + 142\, p^{49} q^{45}$$
$$+ 520\, p^{48} q^{40} + 168\, p^{43} q^{17} + 47\, p^{42} q^{14} + 362\, p^{44} q^{20} + 223\, p^{44} q^{19} + 376\, p^{45} q^{22} + 546\, p^{45} q^{23} + 996\, p^{46} q^{28} + 101\, p^{42} q^{15} + 1982\, p^{41} q^{45}$$
$$+ 1100\, p^{42} q^{46} + 1106\, p^{35} q^{47} + 1979\, p^{34} q^{46} + 179\, p^{28} q^{48} + 353\, p^{27} q^{47} + 64\, q^{48} p^{25} + q^{48} p^{19} + 95\, q^{48} p^{26} + q^{49} p^{21} + q^{47} p^{17} + 3\, q^{48} p^{20}$$
$$+ 1636\, p^{42} q^{45} + 895\, p^{43} q^{46} + 1122\, p^{36} q^{47} + 2017\, p^{35} q^{46} + 452\, p^{28} q^{47} + 348\, p^{31} q^{48} + 1112\, p^{37} q^{47} + 231\, p^{29} q^{48} + 25\, p^{23} q^{48}$$
$$+ 289\, p^{30} q^{48} + 17\, p^{25} q^{49} + 14\, p^{22} q^{48} + 7\, p^{21} q^{48} + p^{34} q^{6} + 191\, p^{47} q^{25} + 353\, p^{47} q^{27} + 97\, p^{46} q^{21} + 131\, p^{47} q^{24} + 264\, p^{47} q^{26}$$
$$+ 464\, p^{48} q^{33} + 289\, p^{48} q^{30} + 231\, p^{48} q^{29} + 409\, p^{48} q^{32} + 348\, p^{48} q^{31} + 513\, p^{48} q^{34} + 550\, p^{48} q^{35} + 262\, p^{49} q^{36} + 14\, p^{40} q^{11} + 17\, p^{41} q^{12}$$

$$+ 4 p^{40} q^{10} + 18 p^{42} q^{13} + 49 p^{45} q^{18} + 34 p^{44} q^{16} + 281 p^{49} q^{38} + 253 p^{49} q^{41} + 203 p^{49} q^{43} + 229 p^{49} q^{42} + 280 p^{49} q^{39} + 277 p^{49} q^{37}$$
$$+ 6 p^{38} q^{9} + p^{36} q^{7} + 3 p^{37} q^{8} + 172 p^{49} q^{44} + 79 p^{50} q^{45} + 269 p^{49} q^{40} + 69 p^{44} q^{17} + 17 p^{43} q^{14} + 155 p^{45} q^{20} + 91 p^{45} q^{19} + 156 p^{46} q^{22}$$
$$+ 235 p^{46} q^{23} + 452 p^{47} q^{28} + 42 p^{43} q^{15} + 1309 p^{43} q^{45} + 707 p^{44} q^{46} + 409 p^{32} q^{48} + 1070 p^{38} q^{47} + 26 p^{26} q^{49} + 9 q^{49} p^{24} + 5 q^{49} p^{23}$$
$$+ 2 q^{49} p^{22} + 1010 p^{44} q^{45} + 535 p^{45} q^{46} + 1005 p^{39} q^{47} + 915 p^{40} q^{47} + 464 p^{33} q^{48} + 513 p^{34} q^{48} + 550 p^{35} q^{48} + 103 p^{30} q^{49} + 79 p^{29} q^{49}$$
$$+ 57 p^{28} q^{49} + 3 p^{25} q^{50} + 40 p^{27} q^{49} + 64 p^{48} q^{25} + 133 p^{48} q^{27} + 31 p^{47} q^{21} + 42 p^{48} q^{24} + 95 p^{48} q^{26} + 191 p^{49} q^{33} + 103 p^{49} q^{30}$$
$$+ 79 p^{49} q^{29} + 160 p^{49} q^{32} + 132 p^{49} q^{31} + 218 p^{49} q^{34} + 244 p^{49} q^{35} + 102 p^{50} q^{36} + 5 p^{41} q^{11} + 6 p^{42} q^{12} + p^{41} q^{10} + 6 p^{43} q^{13} + 15 p^{46} q^{18}$$
$$+ 10 p^{45} q^{16} + 120 p^{50} q^{38} + 120 p^{50} q^{41} + 104 p^{50} q^{43} + 114 p^{50} q^{42} + 123 p^{50} q^{39} + 112 p^{50} q^{37} + 2 p^{39} q^{9} + p^{38} q^{8} + 93 p^{50} q^{44} + 39 p^{51} q^{45}$$
$$+ 124 p^{50} q^{40} + 24 p^{45} q^{17} + 5 p^{44} q^{14} + 57 p^{46} q^{20} + 31 p^{46} q^{19} + 53 p^{47} q^{22} + 87 p^{47} q^{23} + 179 p^{48} q^{28} + 14 p^{44} q^{15} + 392 p^{46} q^{46}$$
$$+ 813 p^{41} q^{47} + 576 p^{36} q^{48} + 132 p^{31} q^{49} + 5 p^{26} q^{50} + q^{50} p^{24} + 272 p^{47} q^{46} + 698 p^{42} q^{47} + 583 p^{37} q^{48} + 583 p^{43} q^{47} + 578 p^{38} q^{48}$$
$$+ 160 p^{32} q^{49} + 555 p^{39} q^{48} + 244 p^{35} q^{49} + 218 p^{34} q^{49} + 39 p^{31} q^{50} + 191 p^{33} q^{49} + 29 p^{30} q^{50} + p^{27} q^{51} + 20 p^{29} q^{50} + 8 p^{27} q^{50}$$
$$+ 13 p^{28} q^{50} + 17 p^{49} q^{25} + 40 p^{49} q^{27} + 7 p^{48} q^{21} + 9 p^{49} q^{24} + 26 p^{49} q^{26} + 64 p^{50} q^{33} + 29 p^{50} q^{30} + 20 p^{50} q^{29} + 51 p^{50} q^{32} + 39 p^{50} q^{31}$$
$$+ 77 p^{50} q^{34} + 90 p^{50} q^{35} + 31 p^{51} q^{36} + p^{42} q^{11} + p^{43} q^{12} + p^{44} q^{13} + 3 p^{47} q^{18} + 2 p^{46} q^{16} + 41 p^{51} q^{38} + 49 p^{51} q^{41} + 47 p^{51} q^{43} + 48 p^{51} q^{42}$$
$$+ 46 p^{51} q^{39} + 37 p^{51} q^{37} + 43 p^{51} q^{44} + 16 p^{52} q^{45} + 47 p^{51} q^{40} + 6 p^{46} q^{17} + p^{45} q^{14} + 16 p^{47} q^{20} + 8 p^{47} q^{19} + 14 p^{48} q^{22} + 25 p^{48} q^{23}$$
$$+ 57 p^{49} q^{28} + 4 p^{45} q^{15} + 181 p^{48} q^{46} + 469 p^{44} q^{47} + 520 p^{40} q^{48} + 262 p^{36} q^{49} + 51 p^{32} q^{50} + p^{28} q^{51} + 112 p^{49} q^{46} + 365 p^{45} q^{47}$$
$$+ 272 p^{46} q^{47} + 472 p^{41} q^{48} + 418 p^{42} q^{48} + 277 p^{37} q^{49} + 356 p^{43} q^{48} + 281 p^{38} q^{49} + 64 p^{33} q^{50} + 280 p^{39} q^{49} + 269 p^{40} q^{49} + 112 p^{37} q^{50}$$
$$+ 20 p^{34} q^{51} + 102 p^{36} q^{50} + 77 p^{34} q^{50} + 90 p^{35} q^{50} + 3 p^{29} q^{51} + 5 p^{30} q^{51} + 8 p^{31} q^{51} + p^{31} q^{52} + 11 p^{32} q^{51} + 16 p^{33} q^{51} + 3 p^{50} q^{25}$$
$$+ 8 p^{50} q^{27} + p^{49} q^{21} + p^{50} q^{24} + 5 p^{50} q^{26} + 16 p^{51} q^{33} + 5 p^{51} q^{30} + 3 p^{51} q^{29} + 11 p^{51} q^{32} + 8 p^{51} q^{31} + 20 p^{51} q^{34} + 26 p^{51} q^{35} + 6 p^{52} q^{36}$$
$$+ 10 p^{52} q^{38} + 15 p^{52} q^{41} + 17 p^{52} q^{43} + 16 p^{52} q^{42} + 12 p^{52} q^{39} + 8 p^{52} q^{37} + 17 p^{52} q^{44} + 5 p^{53} q^{45} + 14 p^{52} q^{40} + p^{47} q^{17} + 3 p^{48} q^{20}$$
$$+ p^{48} q^{19} + 2 p^{49} q^{22} + 5 p^{49} q^{23} + 13 p^{50} q^{28} + 65 p^{50} q^{46} + 196 p^{47} q^{47} + 296 p^{44} q^{48} + 253 p^{41} q^{49} + 120 p^{38} q^{50} + 26 p^{35} q^{51} + p^{32} q^{52}$$
$$+ 33 p^{51} q^{46} + 133 p^{48} q^{47} + 86 p^{49} q^{47} + 235 p^{45} q^{48} + 181 p^{46} q^{48} + 133 p^{47} q^{48} + 203 p^{43} q^{49} + 229 p^{42} q^{49} + 123 p^{39} q^{50} + 172 p^{44} q^{49}$$
$$+ 124 p^{40} q^{50} + 31 p^{36} q^{51} + 142 p^{45} q^{49} + 120 p^{41} q^{50} + 114 p^{42} q^{50} + 104 p^{43} q^{50} + 37 p^{37} q^{51} + 41 p^{38} q^{51} + 46 p^{39} q^{51} + 12 p^{39} q^{52}$$
$$+ 47 p^{40} q^{51} + 49 p^{41} q^{51} + 3 p^{34} q^{52} + 2 p^{33} q^{52} + 4 p^{35} q^{52} + p^{37} q^{53} + 10 p^{38} q^{52} + 6 p^{36} q^{52} + 8 p^{37} q^{52} + p^{51} q^{27} + 2 p^{52} q^{33} + p^{52} q^{32}$$
$$+ p^{52} q^{31} + 3 p^{52} q^{34} + 4 p^{52} q^{35} + p^{53} q^{38} + 3 p^{53} q^{41} + 4 p^{53} q^{43} + 3 p^{53} q^{42} + 2 p^{53} q^{39} + p^{53} q^{37} + 4 p^{53} q^{44} + p^{54} q^{45} + 2 p^{53} q^{40} + p^{51} q^{28}$$
$$+ 15 p^{52} q^{46} + 51 p^{50} q^{47} + 95 p^{48} q^{48} + 112 p^{46} q^{49} + 93 p^{44} q^{50} + 14 p^{40} q^{52} + 48 p^{42} q^{51} + p^{38} q^{53} + 5 p^{53} q^{46} + 28 p^{51} q^{47} + 13 p^{52} q^{47}$$

$$+ 62 p^{49} q^{48} + 39 p^{50} q^{48} + 22 p^{51} q^{48} + 86 p^{47} q^{49} + 62 p^{48} q^{49} + 44 p^{49} q^{49} + 65 p^{46} q^{50} + 47 p^{43} q^{51} + 79 p^{45} q^{50} + 28 p^{50} q^{49} + 51 p^{47} q^{50}$$
$$+ 43 p^{44} q^{51} + 15 p^{41} q^{52} + 39 p^{48} q^{50} + 28 p^{49} q^{50} + 39 p^{45} q^{51} + 33 p^{46} q^{51} + 28 p^{47} q^{51} + 22 p^{48} q^{51} + 17 p^{43} q^{52} + 16 p^{42} q^{52} + 17 p^{44} q^{52}$$
$$+ 5 p^{46} q^{53} + 13 p^{47} q^{52} + 16 p^{45} q^{52} + 15 p^{46} q^{52} + 2 p^{40} q^{53} + 3 p^{42} q^{53} + 3 p^{41} q^{53} + 4 p^{43} q^{53} + 5 p^{45} q^{53} + 4 p^{44} q^{53} + p^{45} q^{54} + 2 p^{39} q^{53}$$
$$+ p^{54} q^{46} + 5 p^{53} q^{47} + 11 p^{52} q^{48} + 17 p^{51} q^{49} + 20 p^{50} q^{50} + 17 p^{49} q^{51} + 5 p^{47} q^{53} + 11 p^{48} q^{52} + p^{46} q^{54} + p^{54} q^{47} + 4 p^{53} q^{48} + p^{54} q^{48}$$
$$+ 4 p^{53} q^{49} + 9 p^{52} q^{49} + p^{54} q^{49} + 12 p^{51} q^{50} + 7 p^{52} q^{50} + 3 p^{53} q^{50} + 9 p^{49} q^{52} + 12 p^{50} q^{51} + 9 p^{51} q^{51} + p^{54} q^{50} + 7 p^{50} q^{52} + 5 p^{52} q^{51}$$
$$+ 4 p^{48} q^{53} + 3 p^{53} q^{51} + p^{54} q^{51} + 5 p^{51} q^{52} + 2 p^{53} q^{52} + 4 p^{52} q^{52} + p^{54} q^{52} + 3 p^{50} q^{53} + 2 p^{52} q^{53} + 3 p^{51} q^{53} + 2 p^{53} q^{53} + p^{54} q^{53}$$
$$+ 4 p^{49} q^{53} + p^{49} q^{54} + p^{48} q^{54} + p^{52} q^{54} + p^{54} q^{54} + p^{55} q^{55} + p^{50} q^{54} + p^{53} q^{54} + p^{51} q^{54} + p^{47} q^{54}$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 12, *is:*

$$1 + 1183 p^{47} q^{16} + 39515 q^{42} p^{19} + 69 p^{40} q^{61} + 1032981 p^{38} q^{31} + 1152038 p^{38} q^{34} + 1150795 p^{38} q^{35} + 1034022 p^{39} q^{36} + 959327 p^{38} q^{30}$$
$$+ 1091588 p^{38} q^{32} + 873682 p^{38} q^{29} + 177491 p^{18} q^{26} + 8 q^{21} p^{3} + 17452 q^{28} p^{12} + 44846 q^{28} p^{14} + 65111 q^{29} p^{15} + 11211 q^{55} p^{40}$$
$$+ 11500 q^{55} p^{41} + 11370 q^{55} p^{43} + p^{10} q + 521000 p^{36} q^{24} + 117556 p^{35} q^{18} + 737437 p^{36} q^{26} + 1559 q^{26} p^{8} + 659 q^{26} p^{7} + 2716 q^{28} p^{9}$$
$$+ 11535 q^{55} p^{42} + 6269 q^{56} p^{45} + 10957 q^{55} p^{44} + 277 q^{25} p^{6} + 69 q^{26} p^{5} + 335967 q^{44} p^{30} + 164 p^{38} q^{60} + 866 p^{43} q^{59} + 547294 p^{33} q^{23}$$
$$+ 1128607 p^{28} q^{30} + 5930 q^{51} p^{24} + 4094 q^{51} p^{23} + 862 q^{52} p^{21} + 103 p^{32} q^{59} + 294275 q^{44} p^{29} + 343449 p^{24} q^{39} + 273302 p^{23} q^{39}$$
$$+ 1238905 p^{35} q^{37} + 1324097 p^{34} q^{36} + 24466 p^{16} q^{39} + 38389 p^{17} q^{39} + 141713 p^{21} q^{19} + 88575 p^{21} q^{17} + 1147 p^{54} q^{25} + 46252 p^{26} q^{14}$$
$$+ 135971 p^{27} q^{17} + 392791 p^{28} q^{21} + 305359 p^{27} q^{20} + 239556 p^{27} q^{19} + 286532 p^{26} q^{42} + 239880 p^{22} q^{21} + 172720 p^{21} q^{20}$$
$$+ 26588 p^{13} q^{22} + 1043 p^{46} q^{15} + 507 p^{46} q^{14} + 11293 q^{51} p^{26} + 1406 q^{52} p^{22} + 18893 q^{54} p^{40} + 312698 p^{20} q^{30} + 2309 p^{9} q^{16}$$
$$+ 5447 p^{38} q^{56} + 4309 p^{10} q^{17} + 16106 p^{14} q^{16} + 25066 p^{53} q^{36} + 104 q^{55} p^{22} + 779540 p^{33} q^{25} + 1019951 p^{33} q^{27} + 1091588 p^{34} q^{28}$$
$$+ 78791 p^{32} q^{16} + 17746 p^{52} q^{30} + 14300 p^{52} q^{29} + 11293 p^{51} q^{26} + 3604 p^{42} q^{57} + 68361 p^{27} q^{15} + 27076 q^{29} p^{13} + 1236 q^{28} p^{8}$$
$$+ 14300 q^{52} p^{29} + 695074 p^{24} q^{29} + 286532 p^{40} q^{24} + 57754 p^{39} q^{18} + 428050 p^{40} q^{26} + 101 p^{30} q^{6} + 779540 p^{41} q^{33} + 31000 p^{38} q^{16}$$
$$+ 626551 p^{41} q^{30} + 560421 p^{41} q^{29} + 738726 p^{41} q^{32} + 1152038 p^{34} q^{38} + 3192 p^{50} q^{21} + 5930 p^{51} q^{24} + 8323 p^{51} q^{25} + 36963 q^{31} p^{14}$$
$$+ 3117 p^{51} q^{56} + 5677 p^{50} q^{55} + 480477 p^{28} q^{22} + p q + 51 q^{48} p^{13} + 344 q^{49} p^{16} + 320 q^{48} p^{15} + 55 q^{27} p^{5} + 4309 p^{17} q^{10} + 744 p^{16} q^{7}$$
$$+ 2309 p^{16} q^{9} + 600 q^{51} p^{19} + 60 q^{17} p^{4} + 414 q^{18} p^{6} + 171 q^{17} p^{5} + 492167 p^{22} q^{30} + 7205 p^{50} q^{23} + 1518 q^{17} p^{8} + 10057 q^{28} p^{11}$$

$$+ 28622\, q^{28}\, p^{13} + p^{31}\, q^{4} + 2180\, p^{49}\, q^{19} + 4903\, p^{50}\, q^{22} + p^{20}\, q^{2} + 1258\, p^{48}\, q^{17} + 3556\, p^{49}\, q^{20} + 8323\, q^{51}\, p^{25} + 30202\, p^{26}\, q^{13}$$
$$+ 182984\, p^{27}\, q^{18} + 513294\, p^{26}\, q^{23} + 67368\, p^{18}\, q^{18} + 65145\, p^{17}\, q^{19} + 461437\, p^{22}\, q^{27} + 113438\, p^{21}\, q^{18} + 6\, q^{57}\, p^{22} + 16\, q^{57}\, p^{23}$$
$$+ 1688\, q^{25}\, p^{8} + 18893\, p^{54}\, q^{40} + 11262\, p^{52}\, q^{28} + 17471\, p^{54}\, q^{44} + 10371\, p^{55}\, q^{45} + 6707\, p^{11}\, q^{17} + 1751\, q^{31}\, p^{9} + 18325\, p^{54}\, q^{39}$$
$$+ 16261\, p^{54}\, q^{37} + 22782\, q^{31}\, p^{13} + 8309\, q^{30}\, p^{11} + p^{9}\, q + 18339\, p^{54}\, q^{43} + 18907\, p^{54}\, q^{42} + 17452\, p^{54}\, q^{38} + 19068\, p^{54}\, q^{41} + 541224\, p^{25}\, q^{24}$$
$$+ 20245\, p^{53}\, q^{34} + 22782\, p^{53}\, q^{35} + 15018\, p^{53}\, q^{32} + 12521\, p^{53}\, q^{31} + 303450\, p^{20}\, q^{31} + 8611\, p^{52}\, q^{27} + 17644\, p^{53}\, q^{33} + 1136922\, p^{29}\, q^{35}$$
$$+ 1377953\, p^{33}\, q^{31} + 574765\, p^{35}\, q^{24} + 133103\, p^{34}\, q^{18} + 803438\, p^{35}\, q^{26} + 1377953\, p^{35}\, q^{33} + 16\, q^{59}\, p^{28} + 29\, q^{59}\, p^{29} + 45\, q^{59}\, p^{30}$$
$$+ 11262\, q^{52}\, p^{28} + 2410\, q^{53}\, p^{25} + 14\, p^{35}\, q^{6} + 53976\, p^{18}\, q^{17} + 32048\, p^{15}\, q^{18} + p^{11}\, q + 4\, p^{3}\, q^{3} + 1363\, p^{16}\, q^{8} + 20\, p^{12}\, q^{3} + 5\, p^{11}\, q^{2}$$
$$+ 343\, p^{15}\, q^{6} + 147\, p^{14}\, q^{5} + 91104\, q^{30}\, p^{16} + 21327\, p^{15}\, q^{16} + 12783\, p^{14}\, q^{15} + 9251\, q^{29}\, p^{11} + p^{3}\, q + 2\, p^{2}\, q^{2} + p\, q^{2} + 3\, q^{34}\, p^{5} + 14\, q^{35}\, p^{6}$$
$$+ 65111\, p^{29}\, q^{15} + 3472\, q^{25}\, p^{9} + 113438\, p^{18}\, q^{21} + p^{2}\, q + 45958\, q^{27}\, p^{14} + 67326\, q^{28}\, p^{15} + 30152\, p^{13}\, q^{25} + 443178\, q^{44}\, p^{33}$$
$$+ 484240\, q^{44}\, p^{35} + 397049\, q^{45}\, p^{36} + 375727\, q^{44}\, p^{31} + 467737\, q^{44}\, p^{34} + 412119\, q^{44}\, p^{32} + 461437\, p^{39}\, q^{44} + 480477\, p^{38}\, q^{44}$$
$$+ 18851\, q^{40}\, p^{16} + 8611\, q^{39}\, p^{14} + 94936\, p^{20}\, q^{40} + 490786\, p^{44}\, q^{37} + p^{50}\, q^{12} + p^{49}\, q^{11} + 5\, p^{54}\, q^{17} + 241\, p^{60}\, q^{40} + 6\, q^{46}\, p^{10} + 171156\, p^{18}\, q^{31}$$
$$+ 1086125\, p^{28}\, q^{29} + 590249\, p^{23}\, q^{31} + 929157\, p^{26}\, q^{30} + 167\, p^{61}\, q^{47} + 169\, p^{61}\, q^{48} + 14\, p^{31}\, q^{60} + 183010\, p^{43}\, q^{25} + 273302\, p^{43}\, q^{27}$$
$$+ 80333\, p^{42}\, q^{21} + 144461\, p^{43}\, q^{24} + 226176\, p^{43}\, q^{26} + 443178\, p^{44}\, q^{33} + 335967\, p^{44}\, q^{30} + 294275\, p^{44}\, q^{29} + 412119\, p^{44}\, q^{32}$$
$$+ 375727\, p^{44}\, q^{31} + 467737\, p^{44}\, q^{34} + 484240\, p^{44}\, q^{35} + 397049\, p^{45}\, q^{36} + 695074\, p^{37}\, q^{42} + 769645\, p^{38}\, q^{41} + 725744\, p^{39}\, q^{41} + 3661\, p^{57}\, q^{44}$$
$$+ 885944\, p^{39}\, q^{39} + 809696\, p^{40}\, q^{39} + 447\, p^{58}\, q^{33} + 269\, p^{60}\, q^{53} + 26\, p^{52}\, q^{16} + 470301\, p^{31}\, q^{43} + 744562\, p^{40}\, q^{40} + 1559\, p^{40}\, q^{58}$$
$$+ 322895\, q^{38}\, p^{23} + 328\, p^{36}\, q^{59} + 6855\, q^{54}\, p^{31} + 147\, q^{33}\, p^{7} + 1631\, q^{35}\, p^{10} + 46190\, q^{36}\, p^{16} + 29\, p^{37}\, q^{7} + 20\, p^{61}\, q^{61} + p^{65}\, q^{59} + 5\, p^{58}\, q^{64}$$
$$+ 462804\, p^{37}\, q^{24} + 101770\, p^{36}\, q^{18} + 663574\, p^{37}\, q^{26} + 316086\, q^{46}\, p^{37} + 159\, p^{54}\, q^{21} + 310\, p^{55}\, q^{24} + 22758\, q^{41}\, p^{17} + 35100\, q^{41}\, p^{18}$$
$$+ 26310\, q^{42}\, p^{18} + 52144\, q^{41}\, p^{19} + 74687\, q^{41}\, p^{20} + 4\, p^{59}\, q^{64} + 3\, p^{61}\, q^{64} + 2\, p^{63}\, q^{64} + 3\, p^{62}\, q^{64} + 2\, p^{64}\, q^{64} + p^{65}\, q^{64} + 4\, p^{60}\, q^{64} + 17\, p^{62}\, q^{60}$$
$$+ 286532\, p^{24}\, q^{40} + 103686\, p^{21}\, q^{41} + 226176\, p^{23}\, q^{40} + 415\, p^{47}\, q^{60} + 414\, p^{48}\, q^{60} + 364435\, p^{42}\, q^{44} + 281711\, p^{44}\, q^{44} + 205860\, p^{45}\, q^{45}$$
$$+ 434955\, p^{40}\, q^{44} + 323679\, p^{43}\, q^{44} + 401999\, p^{41}\, q^{44} + 513294\, p^{40}\, q^{43} + 32\, p^{44}\, q^{10} + 114\, p^{47}\, q^{13} + 665\, p^{50}\, q^{18} + 3422\, p^{57}\, q^{46}$$
$$+ 936813\, p^{31}\, q^{26} + 3019\, p^{27}\, q^{9} + 10057\, p^{28}\, q^{11} + 139626\, p^{22}\, q^{41} + 428050\, p^{26}\, q^{40} + 849630\, p^{30}\, q^{39} + 14880\, q^{54}\, p^{36} + 8309\, q^{55}\, p^{36}$$
$$+ 13303\, q^{54}\, p^{35} + 9997\, q^{54}\, p^{33} + 11672\, q^{54}\, p^{34} + 8388\, q^{54}\, p^{32} + 36\, p^{60}\, q^{33} + 57\, p^{62}\, q^{53} + p^{54}\, q^{16} + 144081\, p^{18}\, q^{23} + 573651\, p^{32}\, q^{23}$$
$$+ 560421\, p^{29}\, q^{41} + 900761\, p^{33}\, q^{40} + 1000888\, p^{37}\, q^{39} + 200\, p^{27}\, q^{6} + 69\, p^{26}\, q^{5} + 9964\, p^{12}\, q^{17} + 18325\, q^{54}\, p^{39} + 3\, p^{64}\, q^{62} + 7\, p^{61}\, q^{63}$$
$$+ 5\, p^{63}\, q^{62} + p^{65}\, q^{61} + 2\, p^{64}\, q^{63} + 4\, p^{63}\, q^{63} + p^{65}\, q^{63} + p^{65}\, q^{62} + 5\, p^{62}\, q^{63} + 5\, p^{64}\, q^{58} + 11\, p^{63}\, q^{59} + 1034022\, p^{27}\, q^{30} + 3\, p^{61}\, q^{32} + p^{60}\, q^{27}$$

$$+ 2 p^{61} q^{31} + 18 p^{62} q^{41} + 9 p^{61} q^{34} + 15 p^{61} q^{35} + 424474 p^{43} q^{42} + 434955 p^{44} q^{40} + 593132 p^{40} q^{42} + 608847 p^{41} q^{41} + 541224 p^{42} q^{41}$$
$$+ 513294 p^{43} q^{40} + 67259 q^{21} p^{16} + 1581 p^{54} q^{56} + 2975 p^{53} q^{55} + 354192 p^{25} q^{40} + 2561 p^{14} q^{10} + 2258 p^{12} q^{11} + 1581 p^{10} q^{12}$$
$$+ 838 p^{8} q^{13} + 63 p^{59} q^{60} + 45 p^{60} q^{60} + 68 p^{57} q^{61} + 2 p^{48} q^{64} + 3 p^{50} q^{64} + 4 p^{52} q^{64} + 3 p^{51} q^{64} + 4 p^{53} q^{64} + 5 p^{55} q^{64} + 5 p^{54} q^{64} + p^{55} q^{65}$$
$$+ 2 p^{49} q^{64} + 29 p^{62} q^{58} + 139 p^{58} q^{59} + 98 p^{59} q^{59} + 239883 p^{19} q^{30} + 269 p^{13} q^{6} + 54 p^{12} q^{4} + 118 p^{12} q^{5} + 497 p^{13} q^{7} + 1344 p^{13} q^{9}$$
$$+ 61 p^{56} q^{23} + 17452 q^{54} p^{38} + 9251 q^{55} p^{37} + 25066 q^{53} p^{36} + 671976 p^{42} q^{38} + 626551 p^{36} q^{25} + 2072 p^{30} q^{9} + 7329 p^{31} q^{11} + 118 p^{57} q^{60}$$
$$+ 89 p^{58} q^{60} + 6 p^{64} q^{56} + 16261 q^{54} p^{37} + 22782 q^{53} p^{35} + 909 p^{47} q^{59} + 132 p^{61} q^{44} + 2 p^{56} q^{19} + 6 p^{57} q^{22} + 838 p^{13} q^{8} + 513294 p^{23} q^{26}$$
$$+ 61 p^{14} q^{4} + 395 p^{49} q^{60} + 6 p^{61} q^{33} + 20 p^{63} q^{53} + 36 p^{62} q^{44} + p^{58} q^{22} + 66925 q^{40} p^{19} + 14097 q^{41} p^{16} + 769398 p^{29} q^{39} + 682870 p^{28} q^{39}$$
$$+ 1801 p^{42} q^{58} + 491094 p^{25} q^{38} + 462804 p^{24} q^{37} + 1131785 p^{38} q^{33} + 54462 p^{35} q^{16} + 2 p^{51} q^{13} + 17 p^{54} q^{18} + 8 p^{52} q^{15} + 328 p^{59} q^{36}$$
$$+ 2 p^{52} q^{14} + 44 p^{27} q^{58} + 74 p^{28} q^{58} + 72 p^{31} q^{59} + 114 p^{29} q^{58} + 172 p^{30} q^{58} + 97 p^{40} q^{9} + 44 p^{39} q^{8} + 255 p^{59} q^{56} + 8079 q^{37} p^{13}$$
$$+ 23987 q^{37} p^{15} + 31000 q^{38} p^{16} + 103 q^{34} p^{7} + 36 q^{33} p^{6} + 320 q^{51} p^{18} + 5 q^{22} p^{3} + 4 q^{23} p^{3} + 9593 p^{55} q^{46} + 111 p^{42} q^{10} + 541224 p^{24} q^{25}$$
$$+ 397049 p^{21} q^{30} + 1774 p^{47} q^{58} + 269 q^{13} p^{6} + 162636 p^{19} q^{22} + 41859 p^{14} q^{23} + 73 p^{31} q^{6} + 398710 q^{45} p^{37} + 139626 p^{44} q^{25}$$
$$+ 212011 p^{44} q^{27} + 60643 p^{43} q^{21} + 109303 p^{44} q^{24} + 174134 p^{44} q^{26} + 350459 p^{45} q^{33} + 259910 p^{45} q^{30} + 226026 p^{45} q^{29}$$
$$+ 323485 p^{45} q^{32} + 292933 p^{45} q^{31} + 372279 p^{45} q^{34} + 388176 p^{45} q^{35} + 312698 p^{46} q^{36} + 3472 p^{41} q^{57} + 6283 p^{40} q^{56} + 313689 q^{46} p^{38}$$
$$+ 2080 p^{37} q^{11} + 3225 p^{38} q^{12} + 913 p^{37} q^{10} + 31 p^{42} q^{9} + 13 p^{41} q^{8} + 4687 p^{39} q^{13} + 1150795 p^{35} q^{38} + 578 p^{27} q^{7} + 1236 p^{28} q^{8}$$
$$+ 14880 p^{30} q^{12} + 4905 p^{29} q^{10} + 114327 p^{32} q^{17} + 350459 p^{33} q^{21} + 289077 p^{32} q^{20} + 218463 p^{32} q^{19} + 443178 p^{33} q^{22} + 36963 p^{31} q^{14}$$
$$+ 233588 p^{25} q^{42} + 803438 p^{31} q^{40} + 491094 p^{28} q^{41} + 395 p^{60} q^{49} + 904312 p^{40} q^{37} + 1043778 p^{34} q^{39} + 291082 p^{41} q^{25} + 2730 p^{36} q^{11}$$
$$+ 4256 p^{37} q^{12} + 1243 p^{36} q^{10} + 38389 p^{39} q^{17} + 130405 p^{40} q^{21} + 11262 p^{38} q^{14} + 94936 p^{40} q^{20} + 66925 p^{40} q^{19} + 139626 p^{41} q^{22}$$
$$+ 183010 p^{41} q^{23} + 421640 p^{41} q^{27} + 402965 p^{42} q^{28} + 6231 p^{38} q^{13} + 19142 p^{38} q^{15} + 395 p^{53} q^{21} + 760 p^{54} q^{24} + 1086125 p^{37} q^{38}$$
$$+ 95120 p^{16} q^{29} + 73 q^{31} p^{6} + 936813 p^{26} q^{31} + 741 q^{25} p^{7} + 2 q^{18} p^{2} + 118 q^{23} p^{5} + 318 q^{24} p^{6} + 512164 p^{23} q^{34} + 13303 p^{31} q^{12}$$
$$+ 4339 p^{30} q^{10} + 104243 p^{33} q^{17} + 323485 p^{34} q^{21} + 270041 p^{33} q^{20} + 202611 p^{33} q^{19} + 412119 p^{34} q^{22} + 33327 p^{32} q^{14} + 779540 p^{25} q^{33}$$
$$+ 1043778 p^{27} q^{32} + 1308356 p^{31} q^{30} + 1238905 p^{29} q^{31} + 1231887 p^{33} q^{29} + 34 p^{62} q^{57} + 52 p^{58} q^{61} + 16 p^{63} q^{57} + 270041 p^{20} q^{33}$$
$$+ 687966 p^{24} q^{32} + 660313 p^{24} q^{33} + 807063 p^{25} q^{32} + 927330 p^{26} q^{32} + 1269223 p^{30} q^{30} + 512164 p^{34} q^{23} + 769645 p^{41} q^{38}$$
$$+ 863968 p^{38} q^{40} + 820294 p^{35} q^{41} + 904312 p^{37} q^{40} + 547294 p^{33} q^{43} + 512164 p^{32} q^{43} + 573651 p^{34} q^{43} + 595879 p^{36} q^{43}$$
$$+ 590249 p^{35} q^{43} + 492167 p^{36} q^{44} + 725744 p^{41} q^{39} + 159 p^{51} q^{17} + 507 p^{52} q^{20} + 703270 p^{35} q^{42} + 590613 p^{37} q^{43} + 671976 p^{38} q^{42}$$

$$+ 705825\, p^{36}\, q^{42} + 343\, p^{51}\, q^{60} + 375\, p^{50}\, q^{60} + 167\, p^{47}\, q^{61} + 42\, p^{62}\, q^{56} + 573651\, p^{23}\, q^{32} + 1150795\, p^{28}\, q^{31} + 1246791\, p^{32}\, q^{29}$$
$$+ 89\, p^{60}\, q^{58} + 52\, p^{61}\, q^{58} + 741\, p^{25}\, q^{7} + 803438\, q^{35}\, p^{26} + 574765\, q^{35}\, p^{24} + 671164\, p^{40}\, q^{41} + 671164\, p^{41}\, q^{40} + 574345\, p^{43}\, q^{38}$$
$$+ 490786\, p^{37}\, q^{44} + 637307\, p^{42}\, q^{39} + 574345\, p^{38}\, q^{43} + 637307\, p^{39}\, q^{42} + 541224\, p^{41}\, q^{42} + 471494\, p^{43}\, q^{41} + 548250\, p^{39}\, q^{43} + 69\, p^{50}\, q^{15}$$
$$+ 2072\, p^{57}\, q^{36} + 26\, p^{50}\, q^{14} + 461437\, p^{44}\, q^{39} + 484310\, p^{42}\, q^{42} + 84\, p^{56}\, q^{61} + 57\, p^{53}\, q^{62} + 17\, p^{50}\, q^{63} + 63\, p^{60}\, q^{59} + 47\, p^{55}\, q^{62} + 42\, p^{56}\, q^{62}$$
$$+ 34\, p^{57}\, q^{62} + 29\, p^{58}\, q^{62} + 40\, p^{59}\, q^{61} + 102\, p^{55}\, q^{61} + 61\, p^{52}\, q^{62} + 118\, p^{54}\, q^{61} + 1315119\, p^{36}\, q^{33} + 114\, q^{37}\, p^{8} + 20\, p^{53}\, q^{63} + 19\, p^{52}\, q^{63}$$
$$+ 20\, p^{54}\, q^{63} + 6\, p^{56}\, q^{64} + 16\, p^{57}\, q^{63} + 19\, p^{55}\, q^{63} + 17\, p^{56}\, q^{63} + 153\, p^{56}\, q^{60} + 40\, p^{61}\, q^{59} + 54\, p^{54}\, q^{62} + 19\, p^{51}\, q^{63} + 388176\, p^{21}\, q^{31}$$
$$+ 61705\, p^{30}\, q^{15} + 1156500\, p^{29}\, q^{29} + 927330\, p^{32}\, q^{26} + 2716\, p^{28}\, q^{9} + 9251\, p^{29}\, q^{11} + 4\, p^{23}\, q^{3} + 26310\, p^{42}\, q^{18} + 14097\, p^{41}\, q^{16}$$
$$+ 313689\, p^{46}\, q^{38} + 273395\, p^{46}\, q^{41} + 226372\, p^{46}\, q^{43} + 251321\, p^{46}\, q^{42} + 305359\, p^{46}\, q^{39} + 74\, q^{38}\, p^{8} + 747\, q^{40}\, p^{11} + 1682\, q^{40}\, p^{12}$$
$$+ 16787\, q^{42}\, p^{17} + 259910\, q^{45}\, p^{30} + 3661\, p^{44}\, q^{57} + 446\, q^{39}\, p^{10} + 139626\, q^{44}\, p^{25} + 109303\, q^{44}\, p^{24} + 174134\, q^{44}\, p^{26} + 212011\, q^{44}\, p^{27}$$
$$+ 192356\, q^{45}\, p^{28} + 350459\, q^{45}\, p^{33} + 388176\, q^{45}\, p^{35} + 312698\, q^{46}\, p^{36} + 292933\, q^{45}\, p^{31} + 372279\, q^{45}\, p^{34} + 323485\, q^{45}\, p^{32}$$
$$+ 19109\, q^{43}\, p^{18} + 10255\, q^{42}\, p^{16} + 1014\, p^{52}\, q^{58} + 838\, p^{53}\, q^{58} + 866\, p^{48}\, q^{59} + 816\, p^{49}\, q^{59} + 17\, p^{63}\, q^{56} + p^{27}\, q^{3} + 183808\, p^{18}\, q^{29}$$
$$+ 595879\, p^{23}\, q^{30} + q^{27}\, p^{3} + 8323\, q^{41}\, p^{15} + 29148\, q^{43}\, p^{19} + 1238905\, p^{31}\, q^{29} + 803438\, p^{40}\, q^{31} + 927330\, p^{40}\, q^{34} + 936813\, p^{40}\, q^{35}$$
$$+ 818128\, p^{41}\, q^{36} + 581\, p^{52}\, q^{59} + 977953\, p^{34}\, q^{27} + 71087\, p^{33}\, q^{16} + 1032981\, p^{35}\, q^{28} + 1156500\, p^{37}\, q^{37} + 63\, p^{52}\, q^{17} + 6420\, q^{40}\, p^{14}$$
$$+ 3408\, q^{40}\, p^{13} + 45635\, q^{40}\, p^{18} + 3\, p^{4}\, q^{2} + 7\, p^{5}\, q^{3} + 182901\, p^{23}\, q^{19} + 110630\, p^{23}\, q^{17} + 306031\, p^{24}\, q^{21} + 226372\, p^{23}\, q^{20} + 5677\, p^{55}\, q^{50}$$
$$+ 24518\, q^{21}\, p^{13} + 805\, q^{24}\, p^{7} + 593132\, p^{24}\, q^{26} + 809696\, p^{26}\, q^{27} + 637307\, p^{24}\, q^{27} + q^{4}\, p + p\, q^{3} + 3\, q^{4}\, p^{2} + 61\, p^{15}\, q^{4} + 6707\, p^{55}\, q^{49}$$
$$+ 1862\, q^{20}\, p^{8} + 5\, p^{4}\, q^{3} + 20\, p^{13}\, q^{3} + 375\, p^{16}\, q^{6} + 159\, p^{15}\, q^{5} + 27496\, p^{16}\, q^{16} + 14286\, p^{13}\, q^{17} + 7717\, p^{55}\, q^{48} + 2\, p^{3}\, q^{2} + 412119\, p^{22}\, q^{34}$$
$$+ 547294\, p^{23}\, q^{33} + 350459\, p^{21}\, q^{33} + 443178\, p^{22}\, q^{33} + 8710\, p^{55}\, q^{47} + 144081\, p^{23}\, q^{18} + 4\, p^{13}\, q^{2} + 4898\, p^{18}\, q^{10} + 816\, p^{17}\, q^{7} + 2642\, p^{17}\, q^{9}$$
$$+ 1518\, p^{17}\, q^{8} + 6283\, q^{26}\, p^{10} + 3586\, p^{45}\, q^{57} + 6543\, p^{44}\, q^{56} + q^{32}\, p^{4} + 11\, q^{7}\, p^{3} + 32\, q^{56}\, p^{22} + 97968\, q^{27}\, p^{16} + 38954\, p^{22}\, q^{14}$$
$$+ 59781\, p^{23}\, q^{15} + 26588\, p^{22}\, q^{13} + 10957\, p^{22}\, q^{11} + 17\, p^{6}\, q^{4} + 28\, p^{6}\, q^{5} + 63\, p^{7}\, q^{6} + 3263\, p^{40}\, q^{57} + 1184\, p^{56}\, q^{55} + 4309\, p^{49}\, q^{56}$$
$$+ 7717\, p^{48}\, q^{55} + 2258\, p^{55}\, q^{54} + 415\, p^{19}\, q^{6} + 169\, p^{18}\, q^{5} + 2975\, p^{55}\, q^{53} + p^{26}\, q^{3} + 2\, p^{35}\, q^{5} + 3717\, p^{50}\, q^{56} + 6707\, p^{49}\, q^{55} + 497\, p^{55}\, q^{25}$$
$$+ 16284\, q^{21}\, p^{12} + 35477\, q^{21}\, p^{14} + 55008\, q^{22}\, p^{15} + 58879\, p^{20}\, q^{16} + 96657\, p^{26}\, q^{16} + 3586\, p^{21}\, q^{9} + 17471\, p^{22}\, q^{12} + 4898\, p^{10}\, q^{18}$$
$$+ 23660\, p^{18}\, q^{14} + 7717\, p^{18}\, q^{11} + 37927\, p^{19}\, q^{15} + 16888\, p^{18}\, q^{13} + 11660\, p^{18}\, q^{12} + 17\, q^{16}\, p^{3} + 60\, p^{17}\, q^{4} + 19\, p^{15}\, q^{3} + 6269\, p^{21}\, q^{10}$$
$$+ 924\, p^{20}\, q^{7} + 1862\, p^{20}\, q^{8} + 364435\, p^{22}\, q^{24} + 42189\, p^{16}\, q^{18} + 7417\, p^{13}\, q^{14} + 5654\, p^{13}\, q^{13} + 3785\, p^{55}\, q^{52} + 10371\, q^{21}\, p^{11} + 75304\, p^{22}\, q^{16}$$
$$+ 1014\, q^{14}\, p^{8} + 581\, q^{14}\, p^{7} + p^{8}\, q + 4704\, p^{55}\, q^{51} + 62910\, q^{34}\, p^{16} + 104243\, q^{33}\, p^{17} + 46725\, q^{33}\, p^{15} + 71087\, q^{33}\, p^{16} + 218\, p^{53}\, q^{20}$$

$$+ 82533\, p^{16}\, q^{23} + 38954\, p^{14}\, q^{22} + 25\, p^{46}\, q^{11} + 38\, p^{47}\, q^{12} + 20\, p^{5}\, q^{5} + 14890\, p^{20}\, q^{12} + 3213\, p^{19}\, q^{9} + 1649\, q^{14}\, p^{9} + 3117\, q^{15}\, p^{10}$$
$$+ 88734\, p^{16}\, q^{24} + 9\, q^{6}\, p^{3} + 45\, p^{6}\, q^{6} + 4161\, p^{13}\, q^{12} + 3785\, p^{14}\, q^{11} + 12\, p^{5}\, q^{4} + 12\, p^{4}\, q^{5} + 3\, q^{5}\, p^{2} + 9\, p^{6}\, q^{3} + 3\, p^{5}\, q^{2} + 100\, q^{24}\, p^{5}$$
$$+ 1398\, q^{27}\, p^{8} + 29\, q^{23}\, p^{4} + 316086\, p^{20}\, q^{29} + 9\, p^{4}\, q^{4} + 7\, p^{3}\, q^{5} + 5\, q^{4}\, p^{3} + q^{5}\, p + 3785\, p^{11}\, q^{14} + 4161\, p^{12}\, q^{13} + 31688\, p^{20}\, q^{14}$$
$$+ 9593\, p^{20}\, q^{11} + 49656\, p^{21}\, q^{15} + 22113\, p^{20}\, q^{13} + 2\, q^{35}\, p^{5} + 24\, q^{24}\, p^{4} + p^{4}\, q + 2\, p^{2}\, q^{3} + 18339\, q^{23}\, p^{12} + 5899\, q^{27}\, p^{10} + 3019\, q^{27}\, p^{9}$$
$$+ 5447\, q^{28}\, p^{10} + 380\, q^{22}\, p^{6} + 89\, p^{6}\, q^{8} + q^{55}\, p^{17} + 185\, q^{56}\, p^{25} + 446\, q^{56}\, p^{27} + 240\, q^{57}\, p^{28} + 61\, q^{56}\, p^{23} + 356\, q^{57}\, p^{29} + 243\, q^{58}\, p^{31}$$
$$+ 499\, q^{57}\, p^{30} + 17471\, p^{12}\, q^{22} + 13\, q^{8}\, p^{3} + 16\, q^{9}\, p^{3} + 139\, p^{8}\, q^{7} + 4704\, p^{15}\, q^{11} + 926\, q^{21}\, p^{7} + 3586\, q^{21}\, p^{9} + 6543\, q^{22}\, p^{10} + 98\, p^{7}\, q^{7}$$
$$+ 4\, q^{7}\, p^{2} + 29\, p^{8}\, q^{4} + 52\, p^{8}\, q^{5} + 118\, p^{9}\, q^{6} + 97500\, q^{28}\, p^{16} + 36\, q^{22}\, p^{4} + 128\, p^{37}\, q^{60} + 590613\, p^{29}\, q^{23} + 726\, p^{35}\, q^{58} + 1435\, p^{34}\, q^{57}$$
$$+ 275\, p^{52}\, q^{19} + 664\, p^{53}\, q^{22} + 1900\, q^{21}\, p^{8} + 414\, q^{20}\, p^{6} + 44145\, p^{14}\, q^{24} + 199878\, p^{20}\, q^{22} + 13\, p^{8}\, q^{3} + 4\, p^{7}\, q^{2} + 52\, p^{5}\, q^{8} + 4898\, p^{48}\, q^{56}$$
$$+ 8710\, p^{47}\, q^{55} + 93477\, p^{25}\, q^{16} + 862\, p^{52}\, q^{21} + 1632\, p^{53}\, q^{24} + 29\, p^{4}\, q^{8} + 434955\, p^{26}\, q^{22} + 28\, p^{5}\, q^{6} + 6675\, p^{42}\, q^{56} + 58\, q^{57}\, p^{25}$$
$$+ 160\, q^{57}\, p^{27} + 6\, q^{56}\, p^{20} + 2\, q^{56}\, p^{19} + 2\, q^{53}\, p^{15} + 3\, q^{55}\, p^{18} + 6\, q^{33}\, p^{5} + 665\, q^{50}\, p^{18} + 41\, q^{21}\, p^{4} + 909\, q^{19}\, p^{7} + 1664\, q^{18}\, p^{8} + 11\, q^{55}\, p^{19}$$
$$+ 55\, q^{55}\, p^{21} + 25\, q^{55}\, p^{20} + 14\, q^{56}\, p^{21} + 97\, q^{57}\, p^{26} + 31\, q^{57}\, p^{24} + 924\, q^{20}\, p^{7} + p^{5}\, q + 40\, q^{7}\, p^{5} + 11\, p^{7}\, q^{3} + 4\, p^{6}\, q^{2} + 3019\, p^{39}\, q^{57}$$
$$+ 53976\, p^{17}\, q^{18} + 50383\, p^{16}\, q^{19} + 17\, q^{6}\, p^{4} + 22\, p^{7}\, q^{4} + 40\, p^{7}\, q^{5} + 89\, p^{8}\, q^{6} + 866\, q^{18}\, p^{7} + 3422\, q^{20}\, p^{9} + 6269\, q^{21}\, p^{10} + 4\, q^{29}\, p^{4}$$
$$+ 7417\, p^{14}\, q^{13} + 5399\, p^{14}\, q^{12} + 58879\, p^{16}\, q^{20} + 4\, p^{40}\, q^{7} + 281711\, p^{22}\, q^{22} + 395\, q^{17}\, p^{6} + 143325\, q^{36}\, p^{19} + 15\, q^{31}\, p^{5} + 53\, q^{32}\, p^{6}$$
$$+ 21\, q^{30}\, p^{5} + 69811\, q^{36}\, p^{17} + 3\, q^{15}\, p^{2} + 58\, q^{18}\, p^{4} + 415\, q^{19}\, p^{6} + 169\, q^{18}\, p^{5} + q^{6}\, p + 22\, q^{7}\, p^{4} + 159\, q^{51}\, p^{17} + 4\, q^{6}\, p^{2} + 3\, p^{34}\, q^{5}$$
$$+ 5399\, p^{12}\, q^{14} + 9894\, p^{14}\, q^{14} + 16764\, p^{15}\, q^{15} + 671164\, p^{26}\, q^{25} + 725744\, p^{25}\, q^{27} + 885944\, p^{27}\, q^{27} + 1025950\, p^{28}\, q^{28} + q^{20}\, p^{2} + 6\, q^{44}\, p^{9}$$
$$+ 665\, q^{48}\, p^{16} + 2\, q^{30}\, p^{4} + 1731\, p^{51}\, q^{21} + 3236\, p^{52}\, q^{24} + 1983\, q^{15}\, p^{9} + 3717\, q^{16}\, p^{10} + 1185\, q^{15}\, p^{8} + 5\, q^{12}\, p^{2} + 147\, q^{14}\, p^{5} + 61\, q^{14}\, p^{4}$$
$$+ q^{31}\, p^{4} + 3604\, q^{24}\, p^{9} + 1869\, q^{23}\, p^{8} + 866\, q^{23}\, p^{7} + 432\, p^{9}\, q^{9} + 863\, p^{10}\, q^{10} + 655\, p^{56}\, q^{28} + 926\, p^{59}\, q^{45} + 1801\, p^{58}\, q^{42} + 1236\, p^{58}\, q^{38}$$
$$+ 1869\, p^{58}\, q^{43} + 1058\, p^{58}\, q^{37} + 1398\, p^{58}\, q^{39} + 20\, q^{13}\, p^{3} + 134367\, p^{17}\, q^{29} + 293\, p^{8}\, q^{9} + 10168\, p^{53}\, q^{30} + 6420\, p^{52}\, q^{26} + 8079\, p^{53}\, q^{29}$$
$$+ 68\, q^{9}\, p^{5} + 153\, q^{10}\, p^{6} + 293\, p^{9}\, q^{8} + 132891\, p^{17}\, q^{26} + 166\, q^{50}\, p^{16} + 344\, q^{50}\, p^{17} + 18907\, p^{12}\, q^{24} + 6666\, p^{10}\, q^{23} + 57754\, q^{39}\, p^{18}$$
$$+ 809696\, p^{27}\, q^{26} + q^{10}\, p + 14880\, p^{54}\, q^{36} + 58\, q^{41}\, p^{9} + 239556\, q^{27}\, p^{19} + 135971\, q^{27}\, p^{17} + 132\, q^{22}\, p^{5} + 348\, q^{23}\, p^{6} + 600\, p^{47}\, q^{15}$$
$$+ 275\, p^{47}\, q^{14} + 14890\, q^{20}\, p^{12} + 31688\, q^{20}\, p^{14} + 49656\, q^{21}\, p^{15} + 7205\, q^{50}\, p^{23} + 34\, q^{9}\, p^{4} + 16261\, q^{29}\, p^{12} + 42867\, q^{29}\, p^{14} + 209\, p^{8}\, q^{8}$$
$$+ 193\, p^{7}\, q^{9} + 7717\, p^{11}\, q^{18} + 5486\, p^{54}\, q^{30} + 3408\, p^{53}\, q^{26} + 4256\, p^{54}\, q^{29} + 114\, q^{53}\, p^{19} + 68\, p^{9}\, q^{5} + 153\, p^{10}\, q^{6} + 8710\, p^{11}\, q^{19}$$
$$+ 11660\, p^{12}\, q^{18} + 2\, q^{47}\, p^{10} + 182901\, p^{19}\, q^{23} + 63623\, p^{15}\, q^{24} + 193\, p^{9}\, q^{7} + 34\, p^{9}\, q^{4} + 2180\, q^{49}\, p^{19} + 9593\, q^{20}\, p^{11} + 67326\, p^{28}\, q^{15}$$
$$+ 801100\, p^{25}\, q^{29} + 139\, p^{7}\, q^{8} + 118\, p^{6}\, q^{9} + 548250\, p^{23}\, q^{27} + 9\, q^{36}\, p^{6} + 29\, q^{37}\, p^{7} + 22113\, q^{20}\, p^{13} + 12783\, p^{15}\, q^{14} + 21327\, p^{16}\, q^{15}$$

$$+ 665\, p^{48}\, q^{16} + 6791\, p^{15}\, q^{12} + 9482\, p^{15}\, q^{13} + 9\, q^{32}\, p^{5} + 805\, p^{24}\, q^{7} + 926\, p^{21}\, q^{7} + 110630\, p^{17}\, q^{23} + 1900\, p^{21}\, q^{8} + 9\, p^{36}\, q^{6} + 9997\, p^{54}\, q^{33}$$
$$+ 16\, q^{38}\, p^{7} + 18339\, p^{23}\, q^{12} + 58\, p^{18}\, q^{4} + 17\, p^{16}\, q^{3} + 6543\, p^{22}\, q^{10} + 2642\, p^{57}\, q^{49} + 2309\, p^{57}\, q^{50} + 3408\, q^{53}\, p^{26} + 8388\, p^{54}\, q^{32}$$
$$+ 4687\, p^{53}\, q^{27} + 6855\, p^{54}\, q^{31} + 813\, p^{55}\, q^{57} + p^{35}\, q^{62} + 19557\, p^{13}\, q^{19} + 374623\, p^{23}\, q^{23} + 11500\, p^{55}\, q^{41} + 11672\, p^{54}\, q^{34} + 13303\, p^{54}\, q^{35}$$
$$+ 11535\, p^{55}\, q^{42} + 10057\, p^{55}\, q^{38} + 11370\, p^{55}\, q^{43} + 3192\, q^{50}\, p^{21} + 9251\, p^{55}\, q^{37} + 10739\, p^{55}\, q^{39} + 2080\, q^{55}\, p^{29} + 147\, q^{21}\, p^{5}$$
$$+ 687966\, p^{32}\, q^{24} + 277\, p^{25}\, q^{6} + 100\, p^{24}\, q^{5} + 25066\, p^{30}\, q^{13} + 171156\, p^{31}\, q^{18} + 2730\, q^{55}\, p^{30} + 6231\, p^{53}\, q^{28} + 6269\, p^{56}\, q^{45} + 10957\, p^{55}\, q^{44}$$
$$+ 306031\, p^{21}\, q^{24} + 1869\, p^{23}\, q^{8} + 19068\, p^{25}\, q^{12} + 6675\, p^{24}\, q^{10} + 16888\, p^{13}\, q^{18} + 3263\, q^{26}\, p^{9} + 34466\, p^{17}\, q^{16} + 310\, q^{14}\, p^{6} + 135\, q^{13}\, p^{5}$$
$$+ 3661\, q^{22}\, p^{9} + 1911\, q^{22}\, p^{8} + 28297\, p^{23}\, q^{13} + 414\, p^{20}\, q^{6} + 167\, p^{19}\, q^{5} + 11211\, p^{55}\, q^{40} + 3661\, p^{22}\, q^{9} + 11370\, p^{23}\, q^{11} + 157552\, p^{24}\, q^{18}$$
$$+ 41859\, p^{23}\, q^{14} + 63623\, p^{24}\, q^{15} + 688\, p^{49}\, q^{17} + 2001\, p^{50}\, q^{20} + 29932\, q^{40}\, p^{17} + 45602\, p^{25}\, q^{14} + 68016\, p^{26}\, q^{15} + 132891\, p^{26}\, q^{17}$$
$$+ 379886\, p^{27}\, q^{21} + 291789\, p^{26}\, q^{20} + 230477\, p^{26}\, q^{19} + 1183\, p^{50}\, q^{19} + 2709\, p^{51}\, q^{22} + 4094\, p^{51}\, q^{23} + 401999\, p^{25}\, q^{22} + 217636\, p^{19}\, q^{25}$$
$$+ q^{19}\, p^{2} + 320\, p^{48}\, q^{15} + 140\, p^{48}\, q^{14} + 119895\, p^{24}\, q^{17} + 335407\, p^{25}\, q^{21} + 251321\, p^{24}\, q^{20} + 201443\, p^{24}\, q^{19} + 8309\, p^{55}\, q^{36} + 343\, q^{15}\, p^{6}$$
$$+ 668\, q^{15}\, p^{7} + 182984\, q^{27}\, p^{18} + 305359\, q^{27}\, p^{20} + 392791\, q^{28}\, p^{21} + q^{26}\, p^{3} + 873682\, p^{29}\, q^{38} + 2\, q^{43}\, p^{8} + 2\, q^{25}\, p^{3} + 4625\, p^{52}\, q^{25}$$
$$+ 44\, q^{39}\, p^{8} + 9\, q^{39}\, p^{7} + 97\, q^{40}\, p^{9} + q^{39}\, p^{6} + 26\, q^{40}\, p^{8} + 3\, q^{16}\, p^{2} + 17\, q^{10}\, p^{3} + 120774\, p^{19}\, q^{20} + 100714\, p^{19}\, q^{19} + 81970\, p^{19}\, q^{18} + 4\, q^{40}\, p^{7}$$
$$+ 189\, q^{11}\, p^{6} + 239880\, p^{21}\, q^{22} + 42\, q^{10}\, p^{4} + 84\, q^{10}\, p^{5} + 102504\, p^{19}\, q^{38} + 11370\, q^{23}\, p^{11} + 16\, p^{38}\, q^{7} + 45602\, p^{14}\, q^{25} + 76767\, p^{17}\, q^{20}$$
$$+ 27667\, p^{19}\, q^{14} + 8710\, p^{19}\, q^{11} + 43840\, p^{20}\, q^{15} + 19557\, p^{19}\, q^{13} + 13305\, p^{19}\, q^{12} + 11\, q^{47}\, p^{11} + 585451\, p^{26}\, q^{38} + 403\, p^{10}\, q^{8} + 255\, p^{10}\, q^{7}$$
$$+ 399\, q^{21}\, p^{6} + 157\, q^{20}\, p^{5} + 902\, q^{22}\, p^{7} + 16\, q^{17}\, p^{3} + 599\, p^{10}\, q^{9} + 1184\, p^{11}\, q^{10} + 5428\, p^{19}\, q^{10} + 866\, p^{18}\, q^{7} + 2941\, p^{18}\, q^{9} + 1664\, p^{18}\, q^{8}$$
$$+ 97539\, p^{18}\, q^{20} + 146125\, p^{20}\, q^{20} + 205860\, p^{21}\, q^{21} + 111\, q^{42}\, p^{10} + 395\, p^{17}\, q^{6} + 165\, p^{16}\, q^{5} + 75304\, q^{22}\, p^{16} + 608847\, p^{25}\, q^{25}$$
$$+ 2245\, q^{48}\, p^{18} + 114\, q^{47}\, p^{13} + 600\, q^{47}\, p^{15} + 1258\, q^{48}\, p^{17} + 14\, q^{45}\, p^{10} + 507\, q^{46}\, p^{14} + 1043\, q^{46}\, p^{15} + 83\, q^{46}\, p^{12} + 159\, q^{45}\, p^{12}$$
$$+ 1731\, q^{51}\, p^{21} + 5677\, q^{16}\, p^{11} + 88575\, p^{17}\, q^{21} + 8611\, q^{52}\, p^{27} + 4625\, q^{52}\, p^{25} + 6420\, q^{52}\, p^{26} + 2171\, q^{52}\, p^{23} + 1632\, q^{53}\, p^{24} + 3236\, q^{52}\, p^{24}$$
$$+ 2\, p^{30}\, q^{4} + 29474\, p^{13}\, q^{24} + 330\, q^{11}\, p^{7} + 2072\, q^{30}\, p^{9} + 679\, p^{58}\, q^{54} + 330\, p^{59}\, q^{55} + 8338\, q^{16}\, p^{12} + 61\, p^{43}\, q^{10} + 360334\, p^{21}\, q^{26}$$
$$+ 291789\, p^{20}\, q^{26} + 379886\, p^{21}\, q^{27} + 218\, p^{46}\, q^{13} + 1258\, p^{49}\, q^{18} + 5906\, p^{56}\, q^{46} + 57393\, q^{31}\, p^{15} + 23660\, p^{14}\, q^{18} + 42189\, p^{18}\, q^{16} + 2\, q^{38}\, p^{6}$$
$$+ 69\, q^{51}\, p^{16} + 26\, q^{50}\, p^{14} + 2\, q^{41}\, p^{7} + 285\, q^{44}\, p^{12} + 61\, q^{43}\, p^{10} + 1344\, p^{57}\, q^{53} + 26487\, p^{17}\, q^{15} + 11773\, p^{16}\, q^{13} + 8338\, p^{16}\, q^{12}$$
$$+ 4339\, q^{56}\, p^{36} + 3505\, q^{55}\, p^{31} + 6302\, q^{55}\, p^{34} + 4361\, q^{55}\, p^{32} + 725744\, p^{27}\, q^{25} + 58\, p^{41}\, q^{9} + 26\, p^{40}\, q^{8} + 16106\, p^{16}\, q^{14} + 50383\, p^{19}\, q^{16}$$
$$+ 6\, q^{42}\, p^{8} + 13305\, p^{12}\, q^{19} + 5315\, q^{55}\, p^{33} + 7329\, q^{55}\, p^{35} + 120774\, p^{20}\, q^{19} + 30152\, p^{25}\, q^{13} + 3604\, p^{24}\, q^{9} + 11500\, p^{25}\, q^{11} + 177491\, p^{26}\, q^{18}$$
$$+ 63\, q^{49}\, p^{14} + 688\, q^{49}\, p^{17} + 398710\, p^{45}\, q^{37} + 356\, q^{37}\, p^{9} + 167\, q^{19}\, p^{5} + 12\, q^{19}\, p^{3} + 3556\, q^{49}\, p^{20} + 1258\, q^{49}\, p^{18} + 76767\, p^{20}\, q^{17}$$

$$+ 97539\, p^{20}\, q^{18} + 81970\, p^{18}\, q^{19} + 395\, q^{45}\, p^{13} + 5677\, p^{16}\, q^{11} + 218\, q^{53}\, p^{20} + 1071\, q^{53}\, p^{23} + 395\, q^{53}\, p^{21} + 664\, q^{53}\, p^{22} + 285\, q^{54}\, p^{22}$$
$$+ 471494\, p^{25}\, q^{23} + 14\, q^{18}\, p^{3} + 2\, q^{17}\, p^{2} + 49\, q^{20}\, p^{4} + 4704\, q^{15}\, p^{11} + 53\, q^{19}\, p^{4} + q^{8}\, p + 5\, q^{9}\, p^{2} + 38261\, q^{37}\, p^{16} + 897\, p^{57}\, q^{32} + 446\, p^{56}\, q^{27}$$
$$+ 683\, p^{57}\, q^{31} + 1688\, p^{58}\, q^{41} + 1435\, p^{57}\, q^{34} + 1751\, p^{57}\, q^{35} + p^{39}\, q^{6} + 9\, q^{27}\, p^{4} + 1157\, q^{33}\, p^{9} + 582\, q^{32}\, p^{8} + 197\, q^{32}\, p^{7} + 38\, q^{47}\, p^{12}$$
$$+ 4\, q^{13}\, p^{2} + 1983\, p^{57}\, q^{51} + 1649\, p^{57}\, q^{52} + 19\, q^{14}\, p^{3} + 19\, q^{15}\, p^{3} + 330\, p^{11}\, q^{7} + 813\, p^{11}\, q^{9} + 1581\, p^{12}\, q^{10} + 529\, q^{11}\, p^{8} + 19743\, p^{14}\, q^{17}$$
$$+ 26487\, p^{15}\, q^{17} + 275\, q^{47}\, p^{14} + 13\, q^{41}\, p^{8} + 529\, p^{11}\, q^{8} + 189\, p^{11}\, q^{6} + 42\, p^{10}\, q^{4} + 84\, p^{10}\, q^{5} + 3717\, p^{16}\, q^{10} + 255\, q^{10}\, p^{7} + 668\, p^{15}\, q^{7}$$
$$+ 1983\, p^{15}\, q^{9} + 1185\, p^{15}\, q^{8} + 1526\, q^{55}\, p^{28} + 3\, p^{57}\, q^{21} + 6\, p^{58}\, q^{24} + 129215\, p^{18}\, q^{22} + 3213\, p^{57}\, q^{47} + 2941\, p^{57}\, q^{48} + 12521\, q^{53}\, p^{31} + p^{6}\, q$$
$$+ 16\, p^{9}\, q^{3} + 5\, p^{8}\, q^{2} + 5\, q^{8}\, p^{2} + q^{7}\, p + 760\, q^{54}\, p^{24} + 1682\, q^{54}\, p^{26} + 3225\, q^{54}\, p^{28} + 2362\, q^{54}\, p^{27} + 1147\, q^{54}\, p^{25} + 548250\, p^{27}\, q^{23}$$
$$+ 6231\, q^{53}\, p^{28} + 17746\, q^{52}\, p^{30} + 8079\, q^{53}\, p^{29} + 4687\, q^{53}\, p^{27} + 10168\, q^{53}\, p^{30} + 4256\, q^{54}\, p^{29} + 1058\, p^{37}\, q^{58} + 4903\, q^{50}\, p^{22} + 55\, q^{45}\, p^{11}$$
$$+ 188\, q^{43}\, p^{11} + 25\, q^{46}\, p^{11} + 159\, q^{49}\, p^{15} + 32\, q^{44}\, p^{10} + 218\, q^{46}\, p^{13} + 140\, q^{48}\, p^{14} + 19\, p^{11}\, q^{3} + 6\, p^{10}\, q^{2} + 28297\, p^{13}\, q^{23} + 10957\, p^{11}\, q^{22}$$
$$+ 51\, q^{53}\, p^{18} + 275\, q^{52}\, p^{19} + 507\, q^{52}\, p^{20} + 2709\, q^{51}\, p^{22} + 16\, q^{43}\, p^{9} + 2405\, q^{57}\, p^{37} + 63\, q^{52}\, p^{17} + 140\, q^{52}\, p^{18} + 104\, q^{44}\, p^{11} + 310\, p^{14}\, q^{6}$$
$$+ 135\, p^{13}\, q^{5} + 57\, p^{13}\, q^{4} + 118\, p^{61}\, q^{54} + 47\, p^{62}\, q^{55} + 157\, p^{61}\, q^{46} + 20245\, q^{53}\, p^{34} + p^{7}\, q + 28\, q^{51}\, p^{15} + 668\, p^{59}\, q^{51} + 581\, p^{59}\, q^{52} + 6\, p^{44}\, q^{9}$$
$$+ 2\, p^{43}\, q^{8} + 10739\, q^{27}\, p^{11} + 1058\, p^{57}\, q^{54} + 529\, p^{58}\, q^{55} + 119895\, p^{17}\, q^{24} + 3\, q^{45}\, p^{9} + 96657\, p^{16}\, q^{26} + 127500\, p^{17}\, q^{25} + 66454\, p^{15}\, q^{25}$$
$$+ 4\, p^{29}\, q^{4} + 5\, q^{11}\, p^{2} + 24\, p^{60}\, q^{32} + 9\, p^{59}\, q^{27} + 14\, p^{60}\, q^{31} + 86\, p^{61}\, q^{41} + 53\, p^{60}\, q^{34} + 73\, p^{60}\, q^{35} + 93477\, p^{16}\, q^{25} + 17471\, q^{54}\, p^{44} + 54\, q^{12}\, p^{4}$$
$$+ 18907\, q^{54}\, p^{42} + 18339\, q^{54}\, p^{43} + 19068\, q^{54}\, p^{41} + 17644\, q^{53}\, p^{33} + 1136922\, p^{37}\, q^{31} + 1246791\, p^{37}\, q^{34} + 1238905\, p^{37}\, q^{35}$$
$$+ 1128607\, p^{38}\, q^{36} + 1061615\, p^{37}\, q^{30} + 1194466\, p^{37}\, q^{32} + 972668\, p^{37}\, q^{29} + 3225\, p^{54}\, q^{28} + 3586\, p^{57}\, q^{45} + 6675\, p^{56}\, q^{42} + 5447\, p^{56}\, q^{38}$$
$$+ 6666\, p^{56}\, q^{43} + 4905\, p^{56}\, q^{37} + 5899\, p^{56}\, q^{39} + 816\, q^{17}\, p^{7} + 4\, q^{14}\, p^{2} + 19\, q^{11}\, p^{3} + 6\, q^{10}\, p^{2} + 2001\, q^{50}\, p^{20} + 1183\, q^{50}\, p^{19} + 5486\, q^{54}\, p^{30}$$
$$+ 15018\, q^{53}\, p^{32} + 4361\, p^{55}\, q^{32} + 2362\, p^{54}\, q^{27} + 3505\, p^{55}\, q^{31} + 6532\, p^{56}\, q^{41} + 6302\, p^{55}\, q^{34} + 7329\, p^{55}\, q^{35} + 63\, q^{16}\, p^{4} + 165\, q^{16}\, p^{5}$$
$$+ 904312\, p^{29}\, q^{26} + 61\, q^{15}\, p^{4} + 159\, q^{15}\, p^{5} + 375\, q^{16}\, p^{6} + 4\, p^{37}\, q^{6} + 5315\, p^{55}\, q^{33} + 22\, q^{49}\, p^{13} + 3\, q^{48}\, p^{11} + 344\, p^{49}\, q^{16} + 4\, q^{37}\, p^{6}$$
$$+ 200\, p^{39}\, q^{60} + 318\, p^{42}\, q^{60} + 277\, p^{41}\, q^{60} + 41\, p^{38}\, q^{61} + 241\, p^{40}\, q^{60} + 364435\, p^{24}\, q^{22} + 168803\, p^{18}\, q^{25} + 34466\, p^{16}\, q^{17} + 17\, q^{48}\, p^{12} + q^{9}\, p$$
$$+ 49\, p^{20}\, q^{4} + 14\, p^{18}\, q^{3} + 1688\, p^{25}\, q^{8} + 18325\, p^{27}\, q^{12} + 6283\, p^{26}\, q^{10} + 134367\, p^{29}\, q^{17} + 397049\, p^{30}\, q^{21} + 316086\, p^{29}\, q^{20}$$
$$+ 244386\, p^{29}\, q^{19} + 492167\, p^{30}\, q^{22} + 44846\, p^{28}\, q^{14} + 1774\, q^{19}\, p^{8} + 6283\, p^{56}\, q^{40} + 683\, q^{35}\, p^{9} + 637307\, p^{27}\, q^{24} + 4309\, p^{56}\, q^{49}$$
$$+ 3717\, p^{56}\, q^{50} + 47\, p^{4}\, q^{11} + 232\, p^{6}\, q^{12} + 102\, p^{5}\, q^{11} + 769645\, p^{28}\, q^{25} + 813\, p^{9}\, q^{11} + 403\, p^{8}\, q^{10} + 188\, p^{55}\, q^{23} + 1243\, q^{36}\, p^{10} + 499\, q^{36}\, p^{9}$$
$$+ 913\, q^{37}\, p^{10} + 273395\, p^{20}\, q^{25} + 1019951\, p^{27}\, q^{33} + 1379686\, p^{31}\, q^{32} + 1324097\, p^{30}\, q^{32} + 1194466\, p^{29}\, q^{34} + 1315119\, p^{30}\, q^{33}$$
$$+ 1131785\, p^{28}\, q^{33} + 1231887\, p^{29}\, q^{33} + 3472\, p^{25}\, q^{9} + 11211\, p^{26}\, q^{11} + 6543\, p^{56}\, q^{44} + 5899\, p^{39}\, q^{56} + 6791\, p^{12}\, q^{15} + 5428\, q^{56}\, p^{47}$$

$$+ 9593\, q^{55} p^{46} + 820294\, p^{31} q^{25} + 1048713\, p^{31} q^{27} + 1152038\, p^{32} q^{28} + q^{44} p^{8} + 160253\, p^{21} q^{39} + 9\, p^{32} q^{5} + 26\, q^{52} p^{16} + 57\, q^{13} p^{4}$$
$$+ 118\, q^{12} p^{5} + 67259\, p^{21} q^{16} + 20\, q^{12} p^{3} + 129215\, p^{22} q^{18} + 5\, p^{12} q^{2} + 344\, p^{50} q^{17} + 1043\, p^{51} q^{20} + 408\, p^{7} q^{12} + 1184\, p^{10} q^{11} + 599\, p^{9} q^{10}$$
$$+ 5\, q^{49} p^{12} + 17\, p^{10} q^{3} + 5\, p^{9} q^{2} + 2037\, p^{56} q^{53} + 671976\, p^{24} q^{28} + 95120\, p^{29} q^{16} + 165\, p^{61} q^{50} + 74\, p^{58} q^{28} + 147\, p^{61} q^{45} + 318\, p^{60} q^{42}$$
$$+ 164\, p^{60} q^{38} + 348\, p^{60} q^{43} + 128\, p^{60} q^{37} + 200\, p^{60} q^{39} + 323679\, p^{23} q^{22} + 679\, p^{12} q^{8} + 232\, p^{12} q^{6} + 47\, p^{11} q^{4} + 102\, p^{11} q^{5} + 1581\, p^{56} q^{54}$$
$$+ 813\, p^{57} q^{55} + 683\, p^{31} q^{57} + 408\, p^{12} q^{7} + 1058\, p^{12} q^{9} + 2037\, p^{13} q^{10} + 162636\, p^{22} q^{19} + 99975\, p^{22} q^{17} + 273801\, p^{23} q^{21} + 199878\, p^{22} q^{20}$$
$$+ 2037\, p^{53} q^{56} + 3785\, p^{52} q^{55} + 85523\, p^{31} q^{16} + 578\, q^{27} p^{7} + 141713\, p^{19} q^{21} + 5428\, p^{56} q^{47} + 31\, q^{42} p^{9} + 4898\, p^{56} q^{48} + 273801\, p^{21} q^{23}$$
$$+ 950550\, p^{28} q^{27} + 1086125\, p^{29} q^{28} + 484310\, p^{24} q^{24} + q^{50} p^{12} + 7\, q^{50} p^{13} + 2037\, p^{10} q^{13} + 897\, p^{32} q^{57} + 582\, p^{34} q^{58} + 1157\, p^{33} q^{57}$$
$$+ 2642\, p^{9} q^{17} + 11773\, p^{13} q^{16} + 738726\, p^{34} q^{25} + 27667\, p^{14} q^{19} + 43840\, p^{15} q^{20} + 172720\, p^{20} q^{21} + 600\, p^{51} q^{19} + 1406\, p^{52} q^{22}$$
$$+ 474\, q^{54} p^{23} + 63\, p^{6} q^{7} + 480477\, q^{28} p^{22} + 338\, q^{58} p^{32} + 44145\, p^{24} q^{14} + 66454\, p^{25} q^{15} + 127500\, p^{25} q^{17} + 360334\, p^{26} q^{21}$$
$$+ 273395\, p^{25} q^{20} + 217636\, p^{25} q^{19} + 30202\, q^{26} p^{13} + 37927\, p^{15} q^{19} + 1526\, p^{55} q^{28} + 1900\, p^{58} q^{45} + 3604\, p^{57} q^{42} + 2716\, p^{57} q^{38}$$
$$+ 3677\, p^{57} q^{43} + 2405\, p^{57} q^{37} + 3019\, p^{57} q^{39} + 188\, q^{55} p^{23} + 159\, q^{54} p^{21} + 83\, q^{54} p^{20} + 574345\, p^{28} q^{23} + 3117\, p^{56} q^{51} + 1000888\, p^{27} q^{29}$$
$$+ 2\, q^{52} p^{14} + 913\, q^{56} p^{29} + 590249\, p^{31} q^{23} + 123032\, p^{17} q^{31} + 863968\, p^{26} q^{28} + 2561\, p^{56} q^{52} + 744562\, p^{26} q^{26} + 593132\, p^{26} q^{24}$$
$$+ 820294\, p^{25} q^{31} + q^{49} p^{11} + 9482\, p^{13} q^{15} + 88734\, p^{24} q^{16} + 6675\, q^{24} p^{10} + 1344\, p^{9} q^{13} + 807063\, p^{32} q^{25} + 1043778\, p^{32} q^{27}$$
$$+ 1131785\, p^{33} q^{28} + 2561\, p^{10} q^{14} + 5906\, p^{20} q^{10} + 909\, p^{19} q^{7} + 1774\, p^{19} q^{8} + 226372\, p^{20} q^{23} + 1208114\, p^{36} q^{37} + 1308356\, p^{35} q^{36}$$
$$+ 130405\, p^{21} q^{40} + 11500\, q^{25} p^{11} + 11211\, q^{26} p^{11} + 19068\, q^{25} p^{12} + 863968\, p^{28} q^{26} + 490\, p^{38} q^{59} + 9964\, p^{17} q^{12} + 19743\, p^{17} q^{14}$$
$$+ 6707\, p^{17} q^{11} + 32048\, p^{18} q^{15} + 14286\, p^{17} q^{13} + 18893\, q^{26} p^{12} + 251321\, p^{20} q^{24} + 3677\, p^{9} q^{23} + 6\, p^{46} q^{10} + 22\, p^{49} q^{13} + 140\, p^{52} q^{18}$$
$$+ 3\, q^{57} p^{21} + q^{58} p^{22} + 2\, q^{58} p^{23} + 6\, q^{58} p^{24} + 9\, q^{59} p^{27} + 13\, q^{58} p^{25} + 26\, q^{58} p^{26} + 8388\, q^{34} p^{12} + 6855\, q^{35} p^{12} + 2093\, q^{34} p^{10}$$
$$+ 34997\, q^{35} p^{15} + 21463\, q^{35} p^{14} + 29292\, q^{36} p^{15} + 252552\, q^{38} p^{22} + 58554\, q^{37} p^{17} + 86155\, q^{37} p^{18} + 168851\, q^{37} p^{20} + 10168\, q^{36} p^{13}$$
$$+ 122583\, q^{37} p^{19} + 179123\, p^{18} q^{30} + 2941\, p^{48} q^{57} + 69\, q^{50} p^{15} + p\, q^{11} + 1363\, p^{8} q^{16} + 744\, p^{7} q^{16} + 6532\, q^{25} p^{10} + 63\, p^{16} q^{4} + 19\, p^{14} q^{3}$$
$$+ 1862\, p^{46} q^{58} + 581\, p^{14} q^{7} + 1649\, p^{14} q^{9} + 1014\, p^{14} q^{8} + 1183\, q^{47} p^{16} + 2093\, p^{56} q^{32} + 1092\, p^{55} q^{27} + 1631\, p^{56} q^{31} + 3472\, p^{57} q^{41}$$
$$+ 3162\, p^{56} q^{34} + 3739\, p^{56} q^{35} + 2\, p^{38} q^{6} + 902\, p^{22} q^{7} + 1911\, p^{22} q^{8} + 18907\, p^{24} q^{12} + 6666\, p^{23} q^{10} + 3117\, p^{15} q^{10} + 2941\, p^{9} q^{18}$$
$$+ 2975\, p^{11} q^{13} + 3125\, p^{12} q^{12} + 11672\, q^{32} p^{12} + 3739\, q^{31} p^{10} + 408\, p^{59} q^{54} + 189\, p^{60} q^{55} + 703270\, p^{31} q^{24} + 318\, p^{24} q^{6} + 118\, p^{23} q^{5}$$
$$+ 27076\, p^{29} q^{13} + 179123\, p^{30} q^{18} + 1185\, p^{58} q^{51} + 1014\, p^{58} q^{52} + 375\, p^{60} q^{50} + 866\, p^{23} q^{7} + 2975\, p^{13} q^{11} + 2258\, p^{11} q^{12} + 2171\, p^{52} q^{23}$$
$$+ 3422\, p^{20} q^{9} + 16284\, p^{21} q^{12} + 924\, p^{59} q^{46} + 16\, p^{43} q^{9} + 6\, p^{42} q^{8} + 202611\, p^{19} q^{33} + 467737\, p^{22} q^{32} + 20245\, q^{32} p^{13} + 147\, p^{59} q^{33}$$

$$+ 135\, p^{61}\, q^{53} + 7\, p^{53}\, q^{16} + 421640\, p^{39}\, q^{25} + 1157\, p^{33}\, q^{9} + 4361\, p^{34}\, q^{11} + 261\, p^{31}\, q^{7} + 582\, p^{32}\, q^{8} + 6855\, p^{35}\, q^{12} + 2093\, p^{34}\, q^{10}$$
$$+ 58554\, p^{37}\, q^{17} + 192356\, p^{38}\, q^{21} + 17746\, p^{36}\, q^{14} + 18\, p^{25}\, q^{4} + 142577\, p^{38}\, q^{20} + 102504\, p^{38}\, q^{19} + 212011\, p^{39}\, q^{22} + 273302\, p^{39}\, q^{23}$$
$$+ 594040\, p^{39}\, q^{27} + 585451\, p^{40}\, q^{28} + 10168\, p^{36}\, q^{13} + 29292\, p^{36}\, q^{15} + 65145\, p^{19}\, q^{17} + 659\, p^{26}\, q^{7} + 323679\, p^{22}\, q^{23} + 68016\, q^{26}\, p^{15}$$
$$+ 97968\, p^{27}\, q^{16} + 424474\, p^{24}\, q^{23} + 43710\, p^{17}\, q^{17} + 375727\, q^{35}\, p^{22} + 240\, p^{57}\, q^{28} + 399\, p^{60}\, q^{45} + 805\, p^{59}\, q^{42} + 490\, p^{59}\, q^{38} + 866\, p^{59}\, q^{43}$$
$$+ 410\, p^{59}\, q^{37} + 578\, p^{59}\, q^{39} + 1184\, p^{55}\, q^{56} + 2258\, p^{54}\, q^{55} + 46252\, q^{26}\, p^{14} + 68361\, q^{27}\, p^{15} + 490786\, q^{29}\, p^{22} + 929157\, p^{30}\, q^{26}$$
$$+ 3263\, p^{26}\, q^{9} + 10739\, p^{27}\, q^{11} + 1398\, p^{27}\, q^{8} + 16261\, p^{29}\, q^{12} + 5447\, p^{28}\, q^{10} + 123032\, p^{31}\, q^{17} + 372279\, p^{32}\, q^{21} + 303450\, p^{31}\, q^{20}$$
$$+ 231174\, p^{31}\, q^{19} + 467737\, p^{32}\, q^{22} + 40228\, p^{30}\, q^{14} + 410\, q^{29}\, p^{7} + 4339\, q^{30}\, p^{10} + 1058\, q^{29}\, p^{8} + 164\, q^{28}\, p^{6} + 490\, q^{28}\, p^{7} + 2405\, q^{29}\, p^{9}$$
$$+ 2561\, p^{52}\, q^{56} + 4704\, p^{51}\, q^{55} + 53\, p^{19}\, q^{4} + 16\, p^{17}\, q^{3} + 1801\, p^{24}\, q^{8} + 18893\, p^{26}\, q^{12} + 6532\, p^{25}\, q^{10} + 424474\, p^{23}\, q^{24} + 434955\, p^{22}\, q^{26}$$
$$+ 471494\, p^{23}\, q^{25} + 335407\, p^{21}\, q^{25} + 401999\, p^{22}\, q^{25} + 1227062\, p^{36}\, q^{31} + 1324097\, p^{36}\, q^{34} + 1308356\, p^{36}\, q^{35} + 1208114\, p^{37}\, q^{36}$$
$$+ 1152441\, p^{36}\, q^{30} + 1282382\, p^{36}\, q^{32} + 1061615\, p^{36}\, q^{29} + 3677\, p^{43}\, q^{57} + 14880\, q^{30}\, p^{12} + 1308356\, p^{30}\, q^{31} + 1315119\, p^{33}\, q^{30}$$
$$+ 2730\, q^{36}\, p^{11} + 818128\, p^{30}\, q^{25} + 1034022\, p^{30}\, q^{27} + 1150795\, p^{31}\, q^{28} + 18\, q^{25}\, p^{4} + 184174\, q^{34}\, p^{19} + 1208114\, p^{30}\, q^{29} + 687038\, p^{35}\, q^{25}$$
$$+ 101770\, q^{36}\, p^{18} + 195842\, q^{36}\, p^{20} + 226026\, q^{37}\, p^{21} + 101\, q^{30}\, p^{6} + 31\, q^{29}\, p^{5} + 261\, q^{31}\, p^{7} + 13303\, q^{31}\, p^{12} + 33327\, q^{32}\, p^{14}$$
$$+ 818128\, p^{25}\, q^{30} + 114327\, p^{17}\, q^{32} + 117556\, q^{35}\, p^{18} + 14\, q^{26}\, p^{4} + 335967\, q^{36}\, p^{22} + 15018\, q^{34}\, p^{13} + 402965\, p^{38}\, q^{24} + 86155\, p^{37}\, q^{18}$$
$$+ 585451\, p^{38}\, q^{26} + 164\, p^{28}\, q^{6} + 55\, p^{27}\, q^{5} + 1019951\, p^{39}\, q^{33} + 46190\, p^{36}\, q^{16} + 6\, p^{33}\, q^{61} + 849630\, p^{39}\, q^{30} + 769398\, p^{39}\, q^{29}$$
$$+ 977953\, p^{39}\, q^{32} + 71397\, p^{18}\, q^{38} + 1282382\, p^{32}\, q^{36} + 682870\, p^{27}\, q^{38} + 560421\, p^{25}\, q^{37} + 663574\, p^{26}\, q^{37} + 1231887\, p^{33}\, q^{37}$$
$$+ 920393\, p^{39}\, q^{31} + 1043778\, p^{39}\, q^{34} + 1048713\, p^{39}\, q^{35} + 929157\, p^{40}\, q^{36} + 136412\, p^{28}\, q^{17} + 398710\, p^{29}\, q^{21} + 313689\, p^{28}\, q^{20}$$
$$+ 244197\, p^{28}\, q^{19} + 490786\, p^{29}\, q^{22} + 45958\, p^{27}\, q^{14} + 22\, p^{59}\, q^{62} + 28\, p^{60}\, q^{61} + 5\, p^{57}\, q^{64} + 13\, p^{58}\, q^{63} + 22\, p^{62}\, q^{59} + 57313\, q^{42}\, p^{20}$$
$$+ 83301\, q^{43}\, p^{22} + 144461\, q^{42}\, p^{23} + 80333\, q^{42}\, p^{21} + 109303\, q^{42}\, p^{22} + 2\, p^{63}\, q^{41} + 574345\, p^{23}\, q^{28} + 142577\, p^{20}\, q^{38} + 1363\, p^{50}\, q^{58}$$
$$+ 343449\, p^{39}\, q^{24} + 71397\, p^{38}\, q^{18} + 505854\, p^{39}\, q^{26} + 128\, p^{29}\, q^{6} + 41\, p^{28}\, q^{5} + 900761\, p^{40}\, q^{33} + 38261\, p^{37}\, q^{16} + 737437\, p^{40}\, q^{30}$$
$$+ 663574\, p^{40}\, q^{29} + 858916\, p^{40}\, q^{32} + 1227062\, p^{30}\, q^{35} + 47954\, q^{38}\, p^{17} + 2730\, p^{55}\, q^{30} + 1682\, p^{54}\, q^{26} + 2080\, p^{55}\, q^{29} + 11262\, q^{38}\, p^{14}$$
$$+ 490\, p^{28}\, q^{7} + 1058\, p^{29}\, q^{8} + 11672\, p^{32}\, q^{12} + 3739\, p^{31}\, q^{10} + 93094\, p^{34}\, q^{17} + 292933\, p^{35}\, q^{21} + 29391\, p^{33}\, q^{14} + 1194466\, p^{34}\, q^{29}$$
$$+ 54\, p^{62}\, q^{54} + 19\, p^{63}\, q^{55} + 49\, p^{62}\, q^{46} + 2072\, p^{36}\, q^{57} + 1236\, p^{38}\, q^{58} + 891\, p^{36}\, q^{58} + 1751\, p^{35}\, q^{57} + 1688\, p^{41}\, q^{58} + 6666\, p^{43}\, q^{56}$$
$$+ 2716\, q^{57}\, p^{38} + 1243\, p^{56}\, q^{30} + 747\, p^{55}\, q^{26} + 913\, p^{56}\, q^{29} + 1398\, p^{39}\, q^{58} + 2\, p^{47}\, q^{10} + 7\, p^{50}\, q^{13} + 51\, p^{53}\, q^{18} + 2642\, p^{49}\, q^{57} + p^{32}\, q^{4}$$
$$+ 4905\, p^{37}\, q^{56} + 97500\, p^{28}\, q^{16} + 590613\, q^{29}\, p^{23} + 8\, q^{52}\, p^{15} + 38\, q^{54}\, p^{19} + 201443\, p^{19}\, q^{24} + 924\, p^{46}\, q^{59} + 1631\, q^{56}\, p^{31} + 3162\, q^{56}\, p^{34}$$

$$+ 2093\, q^{56} p^{32} + 323485\, q^{34} p^{21} + 247535\, q^{34} p^{20} + 292933\, q^{35} p^{21} + 2410\, p^{53} q^{25} + 380\, p^{60} q^{44} + 5428\, q^{19} p^{10} + 3213\, q^{19} p^{9}$$
$$+ 5906\, q^{20} p^{10} + 747\, q^{55} p^{26} + 1092\, q^{55} p^{27} + 2597\, q^{56} p^{33} + 3739\, q^{56} p^{35} + 230477\, p^{19} q^{26} + 231174\, p^{19} q^{31} + 1048713\, p^{27} q^{31}$$
$$+ 1208114\, p^{29} q^{30} + 22\, q^{53} p^{17} + 1243\, q^{56} p^{30} + 497\, q^{55} p^{25} + 310\, q^{55} p^{24} + 414\, p^{18} q^{6} + 171\, p^{17} q^{5} + 99975\, q^{22} p^{17} + 241\, p^{26} q^{6}$$
$$+ 86\, p^{25} q^{5} + 737437\, q^{36} p^{26} + 521000\, q^{36} p^{24} + 3422\, p^{46} q^{57} + 91104\, p^{30} q^{16} + 726\, q^{31} p^{8} + 1559\, p^{58} q^{40} + 25416\, q^{34} p^{14} + 11\, p^{55} q^{19}$$
$$+ 32\, p^{56} q^{22} + 57393\, p^{31} q^{15} + 900761\, p^{33} q^{26} + 2405\, p^{29} q^{9} + 8309\, p^{30} q^{11} + 3263\, p^{57} q^{40} + 594040\, p^{27} q^{39} + 1131785\, p^{33} q^{38}$$
$$+ 1185\, p^{51} q^{58} + 28\, p^{51} q^{15} + 891\, p^{58} q^{36} + 8\, p^{51} q^{14} + 1411291\, p^{32} q^{32} + 1282382\, p^{30} q^{34} + 1377953\, p^{31} q^{33} + 560421\, p^{37} q^{25}$$
$$+ 1751\, p^{31} q^{9} + 6302\, p^{32} q^{11} + 626551\, q^{36} p^{25} + 849630\, q^{36} p^{27} + 873682\, q^{37} p^{28} + 81511\, q^{35} p^{17} + 9997\, q^{33} p^{12} + 3162\, q^{32} p^{10}$$
$$+ 423323\, q^{36} p^{23} + 805\, p^{42} q^{59} + 380\, p^{44} q^{60} + 328\, q^{30} p^{7} + 128\, q^{29} p^{6} + 9\, q^{20} p^{3} + 55\, p^{45} q^{11} + 83\, p^{46} q^{12} + 136412\, q^{28} p^{17}$$
$$+ 185188\, q^{28} p^{18} + 313689\, q^{28} p^{20} + 398710\, q^{29} p^{21} + 687038\, p^{41} q^{31} + 807063\, p^{41} q^{34} + 820294\, p^{41} q^{35} + 705825\, p^{42} q^{36}$$
$$+ 1086125\, p^{38} q^{37} + 4905\, q^{29} p^{10} + 200\, q^{27} p^{6} + 1774\, p^{58} q^{47} + 1664\, p^{58} q^{48} + 9\, p^{39} q^{7} + 2597\, p^{56} q^{33} + 166\, p^{50} q^{16} + 671976\, p^{28} q^{24}$$
$$+ 35477\, p^{21} q^{14} + 55008\, p^{22} q^{15} + 24518\, p^{21} q^{13} + 10371\, p^{21} q^{11} + 82533\, p^{23} q^{16} + 29710\, q^{27} p^{13} + 244197\, q^{28} p^{19} + 232\, p^{60} q^{54}$$
$$+ 102\, p^{61} q^{55} + 414\, p^{60} q^{46} + 695074\, p^{29} q^{24} + 738726\, p^{25} q^{34} + 1152038\, p^{28} q^{32} + 1356270\, p^{31} q^{31} + 622068\, p^{24} q^{34} + 2309\, p^{50} q^{57}$$
$$+ 11293\, q^{40} p^{15} + 17\, p^{48} q^{12} + 11\, p^{47} q^{11} + 660313\, p^{33} q^{24} + 22782\, p^{31} q^{13} + 160535\, p^{32} q^{18} + 183010\, p^{23} q^{41} + 233588\, p^{24} q^{41}$$
$$+ 186066\, p^{24} q^{42} + 291082\, p^{25} q^{41} + 354192\, p^{26} q^{41} + 737437\, p^{30} q^{40} + 421640\, p^{27} q^{41} + 663574\, p^{29} q^{40} + 858916\, p^{26} q^{34}$$
$$+ 1324097\, p^{32} q^{30} + 1091588\, p^{28} q^{34} + 977953\, p^{27} q^{34} + 1032981\, p^{28} q^{35} + 7\, q^{53} p^{16} + 188\, p^{43} q^{11} + 285\, p^{44} q^{12} + 1671\, p^{11} q^{11}$$
$$+ 157552\, p^{18} q^{24} + 705825\, p^{30} q^{24} + 348\, p^{23} q^{6} + 132\, p^{22} q^{5} + 28622\, p^{28} q^{13} + 183808\, p^{29} q^{18} + 3\, p^{15} q^{2} + 380\, p^{22} q^{6} + 147\, p^{21} q^{5}$$
$$+ 1379686\, p^{32} q^{31} + 900761\, p^{26} q^{33} + 1246791\, p^{29} q^{32} + 59781\, p^{15} q^{23} + 41\, p^{21} q^{4} + 12\, p^{19} q^{3} + 1559\, p^{26} q^{8} + 17452\, p^{28} q^{12}$$
$$+ 5899\, p^{27} q^{10} + 129766\, p^{30} q^{17} + 388176\, p^{31} q^{21} + 312698\, p^{30} q^{20} + 239883\, p^{30} q^{19} + 484240\, p^{31} q^{22} + 42867\, p^{29} q^{14} + 902\, p^{44} q^{59}$$
$$+ 461437\, p^{27} q^{22} + 902\, p^{59} q^{44} + 505854\, p^{27} q^{40} + 6532\, p^{41} q^{56} + 222356\, q^{35} p^{20} + 259910\, q^{36} p^{21} + 41\, q^{28} p^{5} + 3\, q^{24} p^{3} + 183010\, q^{43} p^{25}$$
$$+ 144461\, q^{43} p^{24} + 226176\, q^{43} p^{26} + 322895\, q^{43} p^{28} + 273302\, q^{43} p^{27} + 252552\, q^{44} p^{28} + 590613\, p^{43} q^{37} + 655\, q^{56} p^{28} + 17\, q^{54} p^{18}$$
$$+ 687966\, p^{34} q^{42} + 233588\, p^{41} q^{24} + 45635\, p^{40} q^{18} + 354192\, p^{41} q^{26} + 660313\, p^{42} q^{33} + 24466\, p^{39} q^{16} + 521000\, p^{42} q^{30} + 462804\, p^{42} q^{29}$$
$$+ 622068\, p^{42} q^{32} + 410\, p^{29} q^{7} + 891\, p^{30} q^{8} + 9997\, p^{33} q^{12} + 3162\, p^{32} q^{10} + 81511\, p^{35} q^{17} + 259910\, p^{36} q^{21} + 25416\, p^{34} q^{14} + 1518\, p^{58} q^{49}$$
$$+ 1363\, p^{58} q^{50} + 164195\, q^{35} p^{19} + 5315\, q^{33} p^{11} + 247535\, p^{34} q^{20} + 184174\, p^{34} q^{19} + 375727\, p^{35} q^{22} + 470301\, p^{35} q^{23} + 920393\, p^{35} q^{27}$$
$$+ 959327\, p^{36} q^{28} + 3213\, p^{47} q^{57} + 1435\, q^{32} p^{9} + 18325\, q^{27} p^{12} + 399\, p^{45} q^{60} + 52281\, q^{32} p^{15} + 29710\, p^{27} q^{13} + 185188\, p^{28} q^{18}$$

$$+ 1000888\, p^{39} q^{37} + 909\, p^{59} q^{47} + 866\, p^{59} q^{48} + 1157\, p^{57} q^{33} + 69\, p^{51} q^{16} + 1019951\, p^{33} q^{39} + 14\, p^{56} q^{21} + 31\, p^{57} q^{24} + 174134\, p^{22} q^{40}$$
$$+ 599\, p^{56} q^{57} + 679\, p^{54} q^{58} + 153\, p^{60} q^{56} + 54462\, q^{35} p^{16} + 40845\, q^{34} p^{15} + p^{19} q^{2} + 1058\, p^{9} q^{12} + 497\, p^{7} q^{13} + 679\, p^{8} q^{12}$$
$$+ 1194466\, p^{32} q^{37} + 1227062\, p^{31} q^{36} + 2\, p^{17} q^{2} + 29\, p^{23} q^{4} + 8\, p^{21} q^{3} + 195842\, p^{36} q^{20} + 143325\, p^{36} q^{19} + 294275\, p^{37} q^{22}$$
$$+ 373617\, p^{37} q^{23} + 769398\, p^{37} q^{27} + 780349\, p^{38} q^{28} + 15018\, p^{34} q^{13} + 40845\, p^{34} q^{15} + 4256\, q^{37} p^{12} + 14300\, q^{37} p^{14} + 19142\, q^{38} p^{15}$$
$$+ 243\, q^{35} p^{8} + 72\, q^{35} p^{7} + 6231\, q^{38} p^{13} + 2080\, q^{37} p^{11} + 12521\, q^{35} p^{13} + 2597\, q^{33} p^{10} + 4361\, q^{34} p^{11} + 3505\, q^{35} p^{11} + 6302\, q^{32} p^{11}$$
$$+ 38\, p^{54} q^{19} + 104\, p^{55} q^{22} + 959327\, p^{30} q^{38} + 147\, p^{33} q^{59} + 2\, p^{25} q^{59} + 197\, p^{34} q^{59} + 261\, p^{35} q^{59} + 447\, q^{58} p^{33} + 484240\, p^{22} q^{31}$$
$$+ 1071\, p^{53} q^{23} + 1801\, q^{24} p^{8} + 11535\, q^{24} p^{11} + 1025950\, p^{38} q^{38} + 936813\, p^{35} q^{40} + 801100\, p^{41} q^{37} + 497\, p^{59} q^{53} + 950550\, p^{39} q^{38}$$
$$+ 60\, p^{62} q^{49} + 6\, p^{56} q^{20} + 13\, p^{58} q^{25} + 212011\, p^{22} q^{39} + 343449\, p^{27} q^{42} + 373617\, p^{29} q^{43} + 521000\, p^{30} q^{42} + 402965\, p^{28} q^{42}$$
$$+ 462804\, p^{29} q^{42} + 1649\, p^{52} q^{57} + 599\, p^{57} q^{56} + 103\, p^{59} q^{32} + 44\, p^{58} q^{27} + 72\, p^{59} q^{31} + 277\, p^{60} q^{41} + 197\, p^{59} q^{34} + 261\, p^{59} q^{35}$$
$$+ 626551\, p^{30} q^{41} + 687038\, p^{31} q^{41} + 574765\, p^{31} q^{42} + 738726\, p^{32} q^{41} + 779540\, p^{33} q^{41} + 927330\, p^{34} q^{40} + 972668\, q^{37} p^{29}$$
$$+ 25066\, p^{13} q^{30} + 61705\, p^{15} q^{30} + 904312\, p^{26} q^{29} + 7329\, q^{31} p^{11} + 354192\, p^{40} q^{25} + 897\, p^{34} q^{9} + 3505\, p^{35} q^{11} + 197\, p^{32} q^{7} + 447\, p^{33} q^{8}$$
$$+ 5486\, p^{36} q^{12} + 1631\, p^{35} q^{10} + 47954\, p^{38} q^{17} + 160253\, p^{39} q^{21} + 14300\, p^{37} q^{14} + 117657\, p^{39} q^{20} + 83850\, p^{39} q^{19} + 174134\, p^{40} q^{22}$$
$$+ 226176\, p^{40} q^{23} + 505854\, p^{40} q^{27} + 491094\, p^{41} q^{28} + 8079\, p^{37} q^{13} + 23987\, p^{37} q^{15} + 891\, q^{30} p^{8} + 421640\, p^{25} q^{39} + 348\, p^{43} q^{60}$$
$$+ 55\, p^{39} q^{61} + 63\, p^{62} q^{50} + 16\, p^{59} q^{28} + 41\, p^{62} q^{45} + 100\, p^{61} q^{42} + 41\, p^{61} q^{38} + 118\, p^{61} q^{43} + 31\, p^{61} q^{37} + 55\, p^{61} q^{39} + 1061615\, q^{36} p^{29}$$
$$+ 338\, q^{34} p^{8} + 897\, q^{34} p^{9} + 17746\, q^{36} p^{14} + 232\, p^{54} q^{60} + 310\, p^{52} q^{60} + 169\, p^{48} q^{61} + 293\, p^{57} q^{58} + 118\, p^{60} q^{57} + 209\, p^{58} q^{58}$$
$$+ 1282382\, p^{34} q^{30} + 1032981\, p^{31} q^{38} + 505854\, p^{26} q^{39} + 17644\, q^{33} p^{13} + 192356\, p^{21} q^{38} + 491094\, p^{38} q^{25} + 1435\, p^{32} q^{9} + 5315\, p^{33} q^{11}$$
$$+ 402965\, p^{24} q^{38} + 294275\, p^{22} q^{37} + 373617\, p^{23} q^{37} + 133103\, q^{34} p^{18} + 585451\, p^{28} q^{40} + 1128607\, p^{36} q^{38} + 920393\, p^{31} q^{39}$$
$$+ 977953\, p^{32} q^{39} + 1664\, p^{48} q^{58} + 1344\, p^{53} q^{57} + 622068\, p^{34} q^{24} + 20245\, p^{32} q^{13} + 147588\, p^{33} q^{18} + 1983\, p^{51} q^{57} + 863\, p^{56} q^{56}$$
$$+ 338\, p^{58} q^{32} + 160\, p^{57} q^{27} + 243\, p^{58} q^{31} + 741\, p^{59} q^{41} + 582\, p^{58} q^{34} + 726\, p^{58} q^{35} + 574765\, p^{42} q^{31} + 687966\, p^{42} q^{34} + 703270\, p^{42} q^{35}$$
$$+ 595879\, p^{43} q^{36} + 1231887\, p^{37} q^{33} + 62910\, p^{34} q^{16} + 1315119\, p^{33} q^{36} + 780349\, p^{28} q^{38} + 769398\, p^{27} q^{37} + 1246791\, p^{34} q^{37}$$
$$+ 52281\, p^{32} q^{15} + 858916\, p^{34} q^{26} + 5486\, q^{36} p^{12} + 447\, q^{33} p^{8} + 14\, p^{45} q^{10} + 51\, p^{48} q^{13} + 320\, p^{51} q^{18} + 239880\, p^{45} q^{44} + 172720\, p^{46} q^{45}$$
$$+ 360334\, p^{45} q^{40} + 950550\, p^{38} q^{39} + 233588\, p^{42} q^{25} + 29932\, p^{40} q^{17} + 8611\, p^{39} q^{14} + 74687\, p^{41} q^{20} + 52144\, p^{41} q^{19} + 109303\, p^{42} q^{22}$$
$$+ 144461\, p^{42} q^{23} + 343449\, p^{42} q^{27} + 322895\, p^{43} q^{28} + 14923\, p^{39} q^{15} + 499\, p^{57} q^{30} + 297\, p^{56} q^{26} + 356\, p^{57} q^{29} + 103686\, p^{41} q^{21} + p^{55} q^{17}$$
$$+ 69\, p^{61} q^{40} + 53\, p^{62} q^{47} + 58\, p^{62} q^{48} + 29474\, p^{24} q^{13} + 399\, p^{21} q^{6} + 157\, p^{20} q^{5} + 3677\, p^{23} q^{9} + 11535\, p^{24} q^{11} + 168803\, p^{25} q^{18}$$

$$+ 29391\, q^{33}\, p^{14} + 1299666\, p^{35}\, q^{31} + 1416761\, p^{33}\, q^{34} + 1396383\, p^{32}\, q^{34} + 1411291\, p^{34}\, q^{34} + 1379686\, p^{35}\, q^{34} + 1416761\, p^{34}\, q^{33}$$
$$+ 3\, p^{32}\, q^{61} + 1518\, p^{49}\, q^{58} + 135\, p^{53}\, q^{61} + 16\, p^{49}\, q^{63} + 61\, p^{51}\, q^{62} + 5\, p^{64}\, q^{54} + p^{65}\, q^{55} + p^{64}\, q^{46} + 6\, p^{33}\, q^{5} + 171\, p^{61}\, q^{49} + 343\, p^{60}\, q^{51}$$
$$+ 310\, p^{60}\, q^{52} + 3\, p^{45}\, q^{9} + p^{44}\, q^{8} + 1377953\, p^{33}\, q^{35} + 1356270\, p^{35}\, q^{35} + 1269223\, p^{36}\, q^{36} + 1299666\, p^{31}\, q^{35} + 10739\, q^{55}\, p^{39} + 4\, p^{14}\, q^{2}$$
$$+ 328\, p^{30}\, q^{7} + 726\, p^{31}\, q^{8} + 8388\, p^{34}\, q^{12} + 2597\, p^{33}\, q^{10} + 69811\, p^{36}\, q^{17} + 226026\, p^{37}\, q^{21} + 21463\, p^{35}\, q^{14} + 24\, p^{24}\, q^{4} + 5\, p^{22}\, q^{3}$$
$$+ 168851\, p^{37}\, q^{20} + 122583\, p^{37}\, q^{19} + 252552\, p^{38}\, q^{22} + 322895\, p^{38}\, q^{23} + 682870\, p^{38}\, q^{27} + 682870\, p^{39}\, q^{28} + 12521\, p^{35}\, q^{13} + 34997\, p^{35}\, q^{15}$$
$$+ 241\, q^{26}\, p^{6} + 86\, q^{25}\, p^{5} + 160535\, p^{18}\, q^{32} + 9\, p^{30}\, q^{60} + 4\, p^{26}\, q^{59} + 1227062\, p^{35}\, q^{30} + 1350641\, p^{34}\, q^{31} + 1350641\, p^{31}\, q^{34}$$
$$+ 1430120\, p^{33}\, q^{33} + 1350641\, p^{35}\, q^{32} + 1416761\, p^{32}\, q^{33} + 1416761\, p^{33}\, q^{32} + 1396383\, p^{34}\, q^{32} + 1379686\, p^{34}\, q^{35} + 1350641\, p^{32}\, q^{35}$$
$$+ 25\, p^{55}\, q^{20} + 58\, p^{57}\, q^{25} + 186066\, p^{42}\, q^{24} + 35100\, p^{41}\, q^{18} + 286532\, p^{42}\, q^{26} + 547294\, p^{43}\, q^{33} + 18851\, p^{40}\, q^{16} + 423323\, p^{43}\, q^{30}$$
$$+ 373617\, p^{43}\, q^{29} + 512164\, p^{43}\, q^{32} + 929157\, p^{36}\, q^{40} + 695074\, p^{42}\, q^{37} + 863968\, p^{40}\, q^{38} + 622068\, p^{32}\, q^{42} + 807063\, p^{34}\, q^{41}$$
$$+ 470301\, p^{43}\, q^{31} + 573651\, p^{43}\, q^{34} + 590249\, p^{43}\, q^{35} + 492167\, p^{44}\, q^{36} + 423323\, p^{30}\, q^{43} + 3225\, q^{38}\, p^{12} + 595879\, p^{30}\, q^{23} + 147588\, p^{18}\, q^{33}$$
$$+ 372279\, p^{21}\, q^{32} + 218463\, p^{19}\, q^{32} + 703270\, p^{24}\, q^{31} + 289077\, p^{20}\, q^{32} + 330\, p^{55}\, q^{59} + 269\, p^{53}\, q^{60} + 193\, p^{59}\, q^{57} + 497\, p^{53}\, q^{59}$$
$$+ 1869\, p^{43}\, q^{58} + 172\, q^{36}\, p^{8} + 415\, p^{60}\, q^{47} + 414\, p^{60}\, q^{48} + 1136922\, p^{35}\, q^{29} + 117657\, q^{39}\, p^{20} + 1526\, q^{38}\, p^{11} + 83850\, q^{39}\, p^{19} + 45\, p^{59}\, q^{30}$$
$$+ 26\, p^{58}\, q^{26} + 29\, p^{59}\, q^{29} + 61\, p^{62}\, q^{51} + 61\, p^{62}\, q^{52} + 16\, p^{57}\, q^{23} + 3\, p^{55}\, q^{18} + 2\, p^{53}\, q^{15} + 101\, p^{60}\, q^{36} + 86\, p^{41}\, q^{61} + 432\, p^{57}\, q^{57}$$
$$+ 671164\, p^{25}\, q^{26} + 85523\, p^{16}\, q^{31} + 40228\, p^{14}\, q^{30} + 1136922\, p^{31}\, q^{37} + 1152441\, p^{30}\, q^{36} + 130405\, q^{45}\, p^{26} + 80333\, q^{45}\, p^{24} + 1058\, p^{54}\, q^{57}$$
$$+ 31\, p^{37}\, q^{61} + p^{34}\, q^{62} + 21\, p^{36}\, q^{61} + 9\, p^{34}\, q^{61} + 15\, p^{35}\, q^{61} + 4903\, q^{44}\, p^{16} + 12034\, q^{43}\, p^{17} + 4094\, q^{43}\, p^{15} + 7205\, q^{43}\, p^{16} + 395\, p^{45}\, q^{13}$$
$$+ 2245\, p^{48}\, q^{18} + 5\, p^{49}\, q^{12} + 3\, p^{48}\, q^{11} + 816\, p^{59}\, q^{49} + 28\, p^{61}\, q^{60} + p^{56}\, q^{65} + 13\, p^{63}\, q^{58} + p^{65}\, q^{56} + 5\, p^{64}\, q^{57} + 4\, p^{43}\, q^{63} + 3\, p^{42}\, q^{63}$$
$$+ 5\, p^{44}\, q^{63} + p^{46}\, q^{64} + 12\, p^{47}\, q^{63} + 8\, p^{45}\, q^{63} + 9\, p^{46}\, q^{63} + 255\, p^{56}\, q^{59} + 403\, p^{56}\, q^{58} + 529\, p^{55}\, q^{58} + 84\, p^{61}\, q^{56} + 16\, p^{63}\, q^{49} + 2\, p^{59}\, q^{25}$$
$$+ 93094\, q^{34}\, p^{17} + 3\, p^{64}\, q^{51} + 4\, p^{64}\, q^{52} + 2\, p^{62}\, q^{36} + 705825\, p^{24}\, q^{30} + 392791\, p^{45}\, q^{38} + 335407\, p^{45}\, q^{41} + 273801\, p^{45}\, q^{43} + 306031\, p^{45}\, q^{42}$$
$$+ 45\, q^{36}\, p^{7} + 240\, q^{38}\, p^{9} + 4625\, q^{41}\, p^{14} + 2410\, q^{41}\, p^{13} + 226026\, q^{45}\, p^{29} + 1092\, q^{39}\, p^{11} + 24\, q^{34}\, p^{6} + 83301\, q^{44}\, p^{23} + 42742\, q^{43}\, p^{20}$$
$$+ 61799\, q^{44}\, p^{22} + 60643\, q^{43}\, p^{21} + 926\, p^{45}\, q^{59} + 1091588\, p^{32}\, q^{38} + 244386\, p^{19}\, q^{29} + 769645\, p^{25}\, q^{28} + 22\, p^{53}\, q^{17} + 111238\, q^{43}\, p^{23}$$
$$+ 950550\, p^{27}\, q^{28} + 78791\, p^{16}\, q^{32} + 801100\, p^{29}\, q^{25} + 659\, p^{59}\, q^{40} + 3\, p^{16}\, q^{2} + 36\, p^{22}\, q^{4} + 9\, p^{20}\, q^{3} + 222356\, p^{35}\, q^{20} + 164195\, p^{35}\, q^{19}$$
$$+ 335967\, p^{36}\, q^{22} + 423323\, p^{36}\, q^{23} + 849630\, p^{36}\, q^{27} + 873682\, p^{37}\, q^{28} + 687038\, q^{35}\, p^{25} + 920393\, q^{35}\, p^{27} + 959327\, q^{36}\, p^{28}$$
$$+ 470301\, q^{35}\, p^{23} + 189\, p^{55}\, q^{60} + 68\, p^{61}\, q^{57} + 139\, p^{59}\, q^{58} + 1061615\, q^{37}\, p^{30} + 17644\, p^{33}\, q^{13} + 46725\, p^{33}\, q^{15} + 129766\, q^{30}\, p^{17} + 3\, p^{64}\, q^{50}$$
$$+ 3\, p^{63}\, q^{42} + 4\, p^{63}\, q^{43} + p^{63}\, q^{39} + p^{63}\, q^{40} + p^{64}\, q^{47} + 2\, p^{64}\, q^{48} + 2362\, q^{39}\, p^{12} + 655\, q^{38}\, p^{10} + 1911\, p^{58}\, q^{44} + 4687\, q^{39}\, p^{13} + 14923\, q^{39}\, p^{15}$$

$$+ 5906\, q^{56} p^{46} + 10371\, q^{55} p^{45} + 1000888\, p^{29} q^{27} + 1128607\, p^{30} q^{28} + 159\, p^{49} q^{15} + 4339\, p^{56} q^{36} + 63\, p^{49} q^{14} + 7\, q^{28} p^{4} + 17\, p^{63} q^{50}$$
$$+ 2\, p^{60} q^{28} + 8\, p^{63} q^{45} + 24\, p^{62} q^{42} + 7\, p^{62} q^{38} + 29\, p^{62} q^{43} + 4\, p^{62} q^{37} + 9\, p^{62} q^{39} + 14\, p^{62} q^{40} + 12\, p^{63} q^{47} + 14\, p^{63} q^{48} + p^{65} q^{60}$$
$$+ 9\, p^{63} q^{60} + 3\, p^{64} q^{61} + 9\, p^{60} q^{63} + 9\, p^{62} q^{62} + 4\, p^{64} q^{60} + 4\, p^{64} q^{59} + p^{65} q^{57} + p^{57} q^{65} + p^{60} q^{65} + p^{59} q^{65} + p^{63} q^{65} + p^{65} q^{65} + p^{66} q^{66}$$
$$+ p^{61} q^{65} + p^{64} q^{65} + p^{62} q^{65} + p^{58} q^{65} + 858916\, p^{32} q^{40} + 1034022\, p^{36} q^{39} + 1048713\, p^{35} q^{39} + 414\, p^{46} q^{60} + 668\, p^{51} q^{59} + 36\, p^{44} q^{62}$$
$$+ 316086\, p^{46} q^{37} + 801100\, p^{37} q^{41} + 114\, p^{53} q^{19} + 285\, p^{54} q^{22} + 660313\, p^{33} q^{42} + 809696\, p^{39} q^{40} + 818128\, p^{36} q^{41} + 14\, p^{26} q^{4} + 31\, p^{29} q^{5}$$
$$+ 593132\, p^{42} q^{40} + 480477\, p^{44} q^{38} + 548250\, p^{43} q^{39} + 401999\, p^{44} q^{41} + 424474\, p^{42} q^{43} + 471494\, p^{41} q^{43} + 374623\, p^{43} q^{43}$$
$$+ 323679\, p^{44} q^{43} + 364435\, p^{44} q^{42} + 2\, p^{18} q^{2} + 683\, p^{35} q^{9} + 147\, p^{33} q^{7} + 338\, p^{34} q^{8} + 4\, q^{60} p^{29} + 2\, q^{60} p^{28} + q^{60} p^{27} + 199878\, p^{46} q^{44}$$
$$+ 141713\, p^{47} q^{45} + 291789\, p^{46} q^{40} + 22758\, p^{41} q^{17} + 6420\, p^{40} q^{14} + 57313\, p^{42} q^{20} + 39515\, p^{42} q^{19} + 83301\, p^{43} q^{22} + 111238\, p^{43} q^{23}$$
$$+ 252552\, p^{44} q^{28} + 11293\, p^{40} q^{15} + 379886\, p^{45} q^{39} + 760\, q^{42} p^{12} + 185\, q^{41} p^{10} + 1632\, q^{42} p^{13} + 44445\, q^{45} p^{22} + 297\, q^{40} p^{10} + 160\, q^{39} p^{9}$$
$$+ 20820\, q^{44} p^{19} + 1147\, q^{41} p^{12} + 3236\, q^{42} p^{14} + 9153\, q^{45} p^{18} + 30990\, q^{46} p^{22} + 44445\, q^{44} p^{21} + 30990\, q^{44} p^{20} + 31626\, q^{45} p^{21}$$
$$+ 94936\, q^{46} p^{26} + 57313\, q^{46} p^{24} + 1406\, q^{44} p^{14} + 74687\, q^{46} p^{25} + 117657\, q^{46} p^{27} + 5562\, q^{45} p^{17} + 474\, q^{43} p^{12} + 42742\, q^{46} p^{23}$$
$$+ 392791\, p^{38} q^{45} + 1862\, p^{58} q^{46} + 305359\, p^{39} q^{46} + 21725\, q^{45} p^{20} + 14408\, q^{45} p^{19} + 5930\, q^{42} p^{15} + 2709\, q^{44} p^{15} + 310\, q^{42} p^{11}$$
$$+ 122583\, q^{47} p^{29} + 497\, q^{41} p^{11} + 1071\, q^{43} p^{13} + 13472\, q^{44} p^{18} + 2171\, q^{43} p^{14} + 8321\, q^{44} p^{17} + 103686\, q^{45} p^{25} + 160253\, q^{45} p^{27}$$
$$+ 142577\, q^{46} p^{28} + 60643\, q^{45} p^{23} + 744\, p^{59} q^{50} + 168851\, p^{29} q^{46} + 111\, q^{56} p^{24} + 5\, q^{54} p^{17} + q^{54} p^{16} + 297\, q^{56} p^{26} + 164195\, p^{31} q^{47}$$
$$+ 195842\, p^{30} q^{46} + 165\, p^{50} q^{61} + 408\, p^{54} q^{59} + 2\, p^{41} q^{63} + 53\, p^{32} q^{6} + 103686\, p^{45} q^{25} + 160253\, p^{45} q^{27} + 44445\, p^{44} q^{21} + 80333\, p^{45} q^{24}$$
$$+ 130405\, p^{45} q^{26} + 270041\, p^{46} q^{33} + 195842\, p^{46} q^{30} + 168851\, p^{46} q^{29} + 247535\, p^{46} q^{32} + 222356\, p^{46} q^{31} + 289077\, p^{46} q^{34}$$
$$+ 303450\, p^{46} q^{35} + 239883\, p^{47} q^{36} + 1526\, p^{38} q^{11} + 2362\, p^{39} q^{12} + 655\, p^{38} q^{10} + 3408\, p^{40} q^{13} + 3\, p^{24} q^{3} + 19109\, p^{43} q^{18} + 10255\, p^{42} q^{16}$$
$$+ 244197\, p^{47} q^{38} + 217636\, p^{47} q^{41} + 182901\, p^{47} q^{43} + 201443\, p^{47} q^{42} + 239556\, p^{47} q^{39} + 838\, p^{58} q^{53} + 244386\, p^{47} q^{37} + 9\, p^{27} q^{4}$$
$$+ 21\, p^{30} q^{5} + 499\, p^{36} q^{9} + 103\, p^{34} q^{7} + 243\, p^{35} q^{8} + 162636\, p^{47} q^{44} + 113438\, p^{48} q^{45} + 230477\, p^{47} q^{40} + 16787\, p^{42} q^{17} + 4625\, p^{41} q^{14}$$
$$+ 42742\, p^{43} q^{20} + 29148\, p^{43} q^{19} + 61799\, p^{44} q^{22} + 83301\, p^{44} q^{23} + 192356\, p^{45} q^{28} + 8323\, p^{41} q^{15} + 379886\, p^{39} q^{45} + 291789\, p^{40} q^{46}$$
$$+ 184174\, p^{32} q^{47} + 222356\, p^{31} q^{46} + 104\, p^{44} q^{11} + 159\, p^{45} q^{12} + 157\, p^{46} q^{61} + 29\, p^{43} q^{62} + p^{40} q^{63} + 360334\, p^{40} q^{45} + 273395\, p^{41} q^{46}$$
$$+ 2001\, q^{46} p^{16} + 9594\, q^{46} p^{19} + 3556\, q^{46} p^{17} + 1731\, q^{45} p^{15} + 862\, q^{45} p^{14} + 3750\, q^{47} p^{18} + 9594\, q^{47} p^{20} + 6150\, q^{47} p^{19} + 5999\, q^{46} p^{18}$$
$$+ 14737\, q^{46} p^{20} + 14408\, q^{47} p^{21} + 664\, q^{44} p^{13} + 2\, p^{36} q^{62} + 4\, p^{37} q^{62} + 7\, p^{38} q^{62} + 9\, p^{39} q^{62} + 21725\, q^{46} p^{21} + 3192\, q^{45} p^{16}$$
$$+ 26310\, q^{48} p^{24} + 20820\, q^{47} p^{22} + 29148\, q^{47} p^{23} + 143325\, q^{47} p^{30} + 744\, p^{50} q^{59} + 172\, p^{58} q^{30} + 97\, p^{57} q^{26} + 114\, p^{58} q^{29} + 159\, p^{61} q^{51}$$

$$+ 147\, p^{61}\, q^{52} + 1911\, p^{44}\, q^{58} + 1900\, p^{45}\, q^{58} + 247535\, p^{32}\, q^{46} + 218463\, p^{34}\, q^{47} + 270041\, p^{33}\, q^{46} + 39515\, p^{24}\, q^{47} + 57754\, p^{27}\, q^{48}$$
$$+ 52144\, p^{25}\, q^{47} + 66925\, p^{26}\, q^{47} + 202611\, p^{33}\, q^{47} + 36\, p^{33}\, q^{6} + 74687\, p^{46}\, q^{25} + 117657\, p^{46}\, q^{27} + 31626\, p^{45}\, q^{21} + 57313\, p^{46}\, q^{24}$$
$$+ 94936\, p^{46}\, q^{26} + 202611\, p^{47}\, q^{33} + 143325\, p^{47}\, q^{30} + 122583\, p^{47}\, q^{29} + 184174\, p^{47}\, q^{32} + 164195\, p^{47}\, q^{31} + 218463\, p^{47}\, q^{34}$$
$$+ 231174\, p^{47}\, q^{35} + 179123\, p^{48}\, q^{36} + 1092\, p^{39}\, q^{11} + 1682\, p^{40}\, q^{12} + 446\, p^{39}\, q^{10} + 2410\, p^{41}\, q^{13} + 13472\, p^{44}\, q^{18} + 7205\, p^{43}\, q^{16}$$
$$+ 185188\, p^{48}\, q^{38} + 168803\, p^{48}\, q^{41} + 144081\, p^{48}\, q^{43} + 157552\, p^{48}\, q^{42} + 182984\, p^{48}\, q^{39} + 183808\, p^{48}\, q^{37} + 7\, p^{28}\, q^{4} + 15\, p^{31}\, q^{5}$$
$$+ 356\, p^{37}\, q^{9} + 72\, p^{35}\, q^{7} + 172\, p^{36}\, q^{8} + 129215\, p^{48}\, q^{44} + 88575\, p^{49}\, q^{45} + 177491\, p^{48}\, q^{40} + 12034\, p^{43}\, q^{17} + 3236\, p^{42}\, q^{14} + 30990\, p^{44}\, q^{20}$$
$$+ 20820\, p^{44}\, q^{19} + 44445\, p^{45}\, q^{22} + 60643\, p^{45}\, q^{23} + 142577\, p^{46}\, q^{28} + 5930\, p^{42}\, q^{15} + 335407\, p^{41}\, q^{45} + 251321\, p^{42}\, q^{46} + 231174\, p^{35}\, q^{47}$$
$$+ 289077\, p^{34}\, q^{46} + 71397\, p^{28}\, q^{48} + 83850\, p^{27}\, q^{47} + 35100\, q^{48}\, p^{25} + 3750\, q^{48}\, p^{19} + 45635\, q^{48}\, p^{26} + 9\, p^{60}\, q^{30} + 4\, p^{59}\, q^{26} + 4\, p^{60}\, q^{29}$$
$$+ 19\, p^{63}\, q^{51} + 19\, p^{63}\, q^{52} + 2\, p^{58}\, q^{23} + 21\, p^{61}\, q^{36} + 293\, p^{58}\, q^{57} + 5562\, q^{49}\, p^{21} + 2180\, q^{47}\, p^{17} + 5999\, q^{48}\, p^{20} + 578\, p^{39}\, q^{59} + 659\, p^{40}\, q^{59}$$
$$+ 741\, p^{41}\, q^{59} + 403\, p^{58}\, q^{56} + 306031\, p^{42}\, q^{45} + 226372\, p^{43}\, q^{46} + 239883\, p^{36}\, q^{47} + 303450\, p^{35}\, q^{46} + 474\, p^{54}\, q^{23} + 102504\, p^{28}\, q^{47}$$
$$+ 117556\, p^{31}\, q^{48} + 244386\, p^{37}\, q^{47} + 86155\, p^{29}\, q^{48} + 19109\, p^{23}\, q^{48} + 101770\, p^{30}\, q^{48} + 22758\, p^{25}\, q^{49} + 13472\, p^{22}\, q^{48} + 9153\, p^{21}\, q^{48}$$
$$+ 12\, p^{62}\, q^{61} + 7\, p^{63}\, q^{61} + 11\, p^{59}\, q^{63} + 17\, p^{60}\, q^{62} + 12\, p^{61}\, q^{62} + 24\, p^{34}\, q^{6} + 52144\, p^{47}\, q^{25} + 83850\, p^{47}\, q^{27} + 21725\, p^{46}\, q^{21} + 39515\, p^{47}\, q^{24}$$
$$+ 66925\, p^{47}\, q^{26} + 147588\, p^{48}\, q^{33} + 101770\, p^{48}\, q^{30} + 86155\, p^{48}\, q^{29} + 133103\, p^{48}\, q^{32} + 117556\, p^{48}\, q^{31} + 160535\, p^{48}\, q^{34} + 171156\, p^{48}\, q^{35}$$
$$+ 129766\, p^{49}\, q^{36} + 747\, p^{40}\, q^{11} + 1147\, p^{41}\, q^{12} + 297\, p^{40}\, q^{10} + 1632\, p^{42}\, q^{13} + 9153\, p^{45}\, q^{18} + 4903\, p^{44}\, q^{16} + 136412\, p^{49}\, q^{38}$$
$$+ 127500\, p^{49}\, q^{41} + 110630\, p^{49}\, q^{43} + 119895\, p^{49}\, q^{42} + 135971\, p^{49}\, q^{39} + 134367\, p^{49}\, q^{37} + 240\, p^{38}\, q^{9} + 45\, p^{36}\, q^{7} + 114\, p^{37}\, q^{8}$$
$$+ 99975\, p^{49}\, q^{44} + 67259\, p^{50}\, q^{45} + 132891\, p^{49}\, q^{40} + 8321\, p^{44}\, q^{17} + 2171\, p^{43}\, q^{14} + 21725\, p^{45}\, q^{20} + 14408\, p^{45}\, q^{19} + 30990\, p^{46}\, q^{22}$$
$$+ 42742\, p^{46}\, q^{23} + 102504\, p^{47}\, q^{28} + 4094\, p^{43}\, q^{15} + 273801\, p^{43}\, q^{45} + 199878\, p^{44}\, q^{46} + 133103\, p^{32}\, q^{48} + 244197\, p^{38}\, q^{47} + 29932\, p^{26}\, q^{49}$$
$$+ 16787\, q^{49}\, p^{24} + 12034\, q^{49}\, p^{23} + 8321\, q^{49}\, p^{22} + 41\, p^{45}\, q^{62} + 49\, p^{46}\, q^{62} + 53\, p^{47}\, q^{62} + 58\, p^{48}\, q^{62} + p^{65}\, q^{58} + 171\, p^{49}\, q^{61} + p^{62}\, q^{34}$$
$$+ p^{62}\, q^{35} + 4\, p^{64}\, q^{53} + 5\, p^{63}\, q^{44} + 101\, p^{36}\, q^{60} + 147\, p^{45}\, q^{61} + 24\, p^{42}\, q^{62} + 132\, p^{44}\, q^{61} + 100\, p^{42}\, q^{61} + 118\, p^{43}\, q^{61} + p^{39}\, q^{63} + 14\, p^{40}\, q^{62}$$
$$+ 18\, p^{41}\, q^{62} + 239880\, p^{44}\, q^{45} + 172720\, p^{45}\, q^{46} + 2\, p^{41}\, q^{7} + 239556\, p^{39}\, q^{47} + 230477\, p^{40}\, q^{47} + 147588\, p^{33}\, q^{48} + 160535\, p^{34}\, q^{48}$$
$$+ 171156\, p^{35}\, q^{48} + 69811\, p^{30}\, q^{49} + 58554\, p^{29}\, q^{49} + 47954\, p^{28}\, q^{49} + 14097\, p^{25}\, q^{50} + 38389\, p^{27}\, q^{49} + 35100\, p^{48}\, q^{25} + 57754\, p^{48}\, q^{27}$$
$$+ 14408\, p^{47}\, q^{21} + 26310\, p^{48}\, q^{24} + 45635\, p^{48}\, q^{26} + 104243\, p^{49}\, q^{33} + 69811\, p^{49}\, q^{30} + 58554\, p^{49}\, q^{29} + 93094\, p^{49}\, q^{32} + 81511\, p^{49}\, q^{31}$$
$$+ 114327\, p^{49}\, q^{34} + 123032\, p^{49}\, q^{35} + 91104\, p^{50}\, q^{36} + 497\, p^{41}\, q^{11} + 760\, p^{42}\, q^{12} + 185\, p^{41}\, q^{10} + 1071\, p^{43}\, q^{13} + 5999\, p^{46}\, q^{18} + 3192\, p^{45}\, q^{16}$$
$$+ 97500\, p^{50}\, q^{38} + 93477\, p^{50}\, q^{41} + 82533\, p^{50}\, q^{43} + 88734\, p^{50}\, q^{42} + 97968\, p^{50}\, q^{39} + 95120\, p^{50}\, q^{37} + 160\, p^{39}\, q^{9} + 74\, p^{38}\, q^{8} + 75304\, p^{50}\, q^{44}$$

$$+ 49656\, p^{51} q^{45} + 96657\, p^{50} q^{40} + 5562\, p^{45} q^{17} + 1406\, p^{44} q^{14} + 14737\, p^{46} q^{20} + 9594\, p^{46} q^{19} + 20820\, p^{47} q^{22} + 29148\, p^{47} q^{23}$$
$$+ 71397\, p^{48} q^{28} + 2709\, p^{44} q^{15} + 146125\, p^{46} q^{46} + 217636\, p^{41} q^{47} + 179123\, p^{36} q^{48} + 81511\, p^{31} q^{49} + 18851\, p^{26} q^{50} + 10255\, q^{50} p^{24}$$
$$+ 24\, p^{32} q^{60} + 73\, p^{35} q^{60} + 53\, p^{34} q^{60} + 2\, p^{31} q^{61} + 36\, p^{33} q^{60} + 120774\, p^{47} q^{46} + 201443\, p^{42} q^{47} + 183808\, p^{37} q^{48} + 182901\, p^{43} q^{47}$$
$$+ 185188\, p^{38} q^{48} + 93094\, p^{32} q^{49} + 182984\, p^{39} q^{48} + 123032\, p^{35} q^{49} + 114327\, p^{34} q^{49} + 54462\, p^{31} q^{50} + 104243\, p^{33} q^{49} + 46190\, p^{30} q^{50}$$
$$+ 14923\, p^{27} q^{51} + 38261\, p^{29} q^{50} + 24466\, p^{27} q^{50} + 31000\, p^{28} q^{50} + p^{47} q^{64} + 193\, p^{57} q^{59} + 2\, p^{64} q^{49} + 22758\, p^{49} q^{25} + 38389\, p^{49} q^{27}$$
$$+ 9153\, p^{48} q^{21} + 16787\, p^{49} q^{24} + 29932\, p^{49} q^{26} + 71087\, p^{50} q^{33} + 46190\, p^{50} q^{30} + 38261\, p^{50} q^{29} + 62910\, p^{50} q^{32} + 54462\, p^{50} q^{31}$$
$$+ 78791\, p^{50} q^{34} + 85523\, p^{50} q^{35} + 61705\, p^{51} q^{36} + 310\, p^{42} q^{11} + 474\, p^{43} q^{12} + 664\, p^{44} q^{13} + 3750\, p^{47} q^{18} + 2001\, p^{46} q^{16} + 67326\, p^{51} q^{38}$$
$$+ 66454\, p^{51} q^{41} + 59781\, p^{51} q^{43} + 63623\, p^{51} q^{42} + 68361\, p^{51} q^{39} + 65111\, p^{51} q^{37} + 55008\, p^{51} q^{44} + 35477\, p^{52} q^{45} + 68016\, p^{51} q^{40}$$
$$+ 3556\, p^{46} q^{17} + 862\, p^{45} q^{14} + 9594\, p^{47} q^{20} + 6150\, p^{47} q^{19} + 13472\, p^{48} q^{22} + 19109\, p^{48} q^{23} + 47954\, p^{49} q^{28} + 1731\, p^{45} q^{15}$$
$$+ 97539\, p^{48} q^{46} + 162636\, p^{44} q^{47} + 177491\, p^{40} q^{48} + 129766\, p^{36} q^{49} + 62910\, p^{32} q^{50} + 19142\, p^{28} q^{51} + 10057\, q^{55} p^{38} + 1043\, q^{51} p^{20}$$
$$+ 76767\, p^{49} q^{46} + 141713\, p^{45} q^{47} + 120774\, p^{46} q^{47} + 168803\, p^{41} q^{48} + 157552\, p^{42} q^{48} + 134367\, p^{37} q^{49} + 144081\, p^{43} q^{48}$$
$$+ 136412\, p^{38} q^{49} + 71087\, p^{33} q^{50} + 135971\, p^{39} q^{49} + 132891\, p^{40} q^{49} + 95120\, p^{37} q^{50} + 52281\, p^{34} q^{51} + 91104\, p^{36} q^{50} + 78791\, p^{34} q^{50}$$
$$+ 85523\, p^{35} q^{50} + 23987\, p^{29} q^{51} + 29292\, p^{30} q^{51} + 34997\, p^{31} q^{51} + 21463\, p^{31} q^{52} + 40845\, p^{32} q^{51} + 46725\, p^{33} q^{51} + 14097\, p^{50} q^{25}$$
$$+ 24466\, p^{50} q^{27} + 5562\, p^{49} q^{21} + 10255\, p^{50} q^{24} + 18851\, p^{50} q^{26} + 46725\, p^{51} q^{33} + 29292\, p^{51} q^{30} + 23987\, p^{51} q^{29} + 40845\, p^{51} q^{32}$$
$$+ 34997\, p^{51} q^{31} + 52281\, p^{51} q^{34} + 57393\, p^{51} q^{35} + 40228\, p^{52} q^{36} + 44846\, p^{52} q^{38} + 45602\, p^{52} q^{41} + 41859\, p^{52} q^{43} + 44145\, p^{52} q^{42}$$
$$+ 45958\, p^{52} q^{39} + 42867\, p^{52} q^{37} + 38954\, p^{52} q^{44} + 24518\, p^{53} q^{45} + 46252\, p^{52} q^{40} + 2180\, p^{47} q^{17} + 5999\, p^{48} q^{20} + 3750\, p^{48} q^{19}$$
$$+ 8321\, p^{49} q^{22} + 12034\, p^{49} q^{23} + 31000\, p^{50} q^{28} + 58879\, p^{50} q^{46} + 100714\, p^{47} q^{47} + 129215\, p^{44} q^{48} + 127500\, p^{41} q^{49} + 97500\, p^{38} q^{50}$$
$$+ 57393\, p^{35} q^{51} + 25416\, p^{32} q^{52} + 43840\, p^{51} q^{46} + 81970\, p^{48} q^{47} + 65145\, p^{49} q^{47} + 113438\, p^{45} q^{48} + 97539\, p^{46} q^{48} + 81970\, p^{47} q^{48}$$
$$+ 110630\, p^{43} q^{49} + 119895\, p^{42} q^{49} + 97968\, p^{39} q^{50} + 99975\, p^{44} q^{49} + 96657\, p^{40} q^{50} + 61705\, p^{36} q^{51} + 88575\, p^{45} q^{49} + 93477\, p^{41} q^{50}$$
$$+ 88734\, p^{42} q^{50} + 82533\, p^{43} q^{50} + 65111\, p^{37} q^{51} + 67326\, p^{38} q^{51} + 68361\, p^{39} q^{51} + 45958\, p^{39} q^{52} + 68016\, p^{40} q^{51} + 66454\, p^{41} q^{51}$$
$$+ 33327\, p^{34} q^{52} + 29391\, p^{33} q^{52} + 36963\, p^{35} q^{52} + 27076\, p^{37} q^{53} + 44846\, p^{38} q^{52} + 40228\, p^{36} q^{52} + 42867\, p^{37} q^{52} + 14923\, p^{51} q^{27}$$
$$+ 29391\, p^{52} q^{33} + 2\, p^{25} q^{3} + 25416\, p^{52} q^{32} + 21463\, p^{52} q^{31} + 33327\, p^{52} q^{34} + 36963\, p^{52} q^{35} + 28622\, p^{53} q^{38} + 30152\, p^{53} q^{41}$$
$$+ 28297\, p^{53} q^{43} + 29474\, p^{53} q^{42} + 29710\, p^{53} q^{39} + 27076\, p^{53} q^{37} + 26588\, p^{53} q^{44} + 16284\, p^{54} q^{45} + 30202\, p^{53} q^{40} + 19142\, p^{51} q^{28}$$
$$+ 31688\, p^{52} q^{46} + 50383\, p^{50} q^{47} + 67368\, p^{48} q^{48} + 76767\, p^{46} q^{49} + 75304\, p^{44} q^{50} + 46252\, p^{40} q^{52} + 63623\, p^{42} q^{51} + 28622\, p^{38} q^{53}$$

$$+ 22113\, p^{53} q^{46} + 37927\, p^{51} q^{47} + 27667\, p^{52} q^{47} + 53976\, p^{49} q^{48} + 42189\, p^{50} q^{48} + 32048\, p^{51} q^{48} + 65145\, p^{47} q^{49} + 53976\, p^{48} q^{49}$$
$$+ 43710\, p^{49} q^{49} + 58879\, p^{46} q^{50} + 59781\, p^{43} q^{51} + 67259\, p^{45} q^{50} + 34466\, p^{50} q^{49} + 50383\, p^{47} q^{50} + 55008\, p^{44} q^{51} + 45602\, p^{41} q^{52}$$
$$+ 42189\, p^{48} q^{50} + 34466\, p^{49} q^{50} + 49656\, p^{45} q^{51} + 43840\, p^{46} q^{51} + 37927\, p^{47} q^{51} + 32048\, p^{48} q^{51} + 41859\, p^{43} q^{52} + 44145\, p^{42} q^{52}$$
$$+ 38954\, p^{44} q^{52} + 22113\, p^{46} q^{53} + 27667\, p^{47} q^{52} + 35477\, p^{45} q^{52} + 31688\, p^{46} q^{52} + 30202\, p^{40} q^{53} + 29474\, p^{42} q^{53} + 30152\, p^{41} q^{53}$$
$$+ 28297\, p^{43} q^{53} + 24518\, p^{45} q^{53} + 26588\, p^{44} q^{53} + 16284\, p^{45} q^{54} + 29710\, p^{39} q^{53} + 83\, p^{54} q^{20} + 185\, p^{56} q^{25} + 14890\, p^{54} q^{46}$$
$$+ 19557\, p^{53} q^{47} + 23660\, p^{52} q^{48} + 26487\, p^{51} q^{49} + 27496\, p^{50} q^{50} + 26487\, p^{49} q^{51} + 19557\, p^{47} q^{53} + 23660\, p^{48} q^{52} + 14890\, p^{46} q^{54}$$
$$+ 410\, p^{37} q^{59} + 55\, p^{55} q^{21} + 111\, p^{56} q^{24} + 159\, p^{51} q^{61} + 147\, p^{52} q^{61} + 14\, p^{48} q^{63} + 60\, p^{49} q^{62} + 63\, p^{50} q^{62} + 20\, p^{63} q^{54} + 5\, p^{64} q^{55}$$
$$+ 9\, p^{63} q^{46} + 13305\, p^{54} q^{47} + 16888\, p^{53} q^{48} + 11660\, p^{54} q^{48} + 14286\, p^{53} q^{49} + 19743\, p^{52} q^{49} + 9964\, p^{54} q^{49} + 21327\, p^{51} q^{50}$$
$$+ 16106\, p^{52} q^{50} + 11773\, p^{53} q^{50} + 19743\, p^{49} q^{52} + 21327\, p^{50} q^{51} + 16764\, p^{51} q^{51} + 8338\, p^{54} q^{50} + 16106\, p^{50} q^{52} + 12783\, p^{52} q^{51}$$
$$+ 16888\, p^{48} q^{53} + 9482\, p^{53} q^{51} + 6791\, p^{54} q^{51} + 12783\, p^{51} q^{52} + 7417\, p^{53} q^{52} + 9894\, p^{52} q^{52} + 5399\, p^{54} q^{52} + 11773\, p^{50} q^{53}$$
$$+ 7417\, p^{52} q^{53} + 9482\, p^{51} q^{53} + 5654\, p^{53} q^{53} + 4161\, p^{54} q^{53} + 14286\, p^{49} q^{53} + 9964\, p^{49} q^{54} + 11660\, p^{48} q^{54} + 5399\, p^{52} q^{54} + 3125\, p^{54} q^{54}$$
$$+ 1671\, p^{55} q^{55} + 8338\, p^{50} q^{54} + 4161\, p^{53} q^{54} + 6791\, p^{51} q^{54} + 13305\, p^{47} q^{54} + 8\, q^{51} p^{14} + 2\, q^{51} p^{13}$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 13, *is:*

$$1 + 32188\, p^{47} q^{16} + 383048\, q^{42} p^{19} + 275050\, p^{40} q^{61} + 9355115\, p^{38} q^{31} + 12374093\, p^{38} q^{34} + 13173250\, p^{38} q^{35} + 13753239\, p^{39} q^{36}$$
$$+ 8257380\, p^{38} q^{30} + 10430506\, p^{38} q^{32} + 7169587\, p^{38} q^{29} + 405112\, p^{18} q^{26} + 14\, q^{21} p^{3} + 39349\, q^{28} p^{12} + 104266\, q^{28} p^{14} + 164840\, q^{29} p^{15}$$
$$+ 2105369\, q^{55} p^{40} + 2211204\, q^{55} p^{41} + 2331858\, q^{55} p^{43} + p^{10} q + 2914170\, p^{36} q^{24} + 506627\, p^{35} q^{18} + 4454497\, p^{36} q^{26} + 6352\, p^{52} q^{69}$$
$$+ 6500\, p^{60} q^{68} + 3043\, q^{26} p^{8} + 1311\, q^{26} p^{7} + 6068\, q^{28} p^{9} + 2287680\, q^{55} p^{42} + 1810896\, q^{56} p^{45} + 2341714\, q^{55} p^{44} + 529\, q^{25} p^{6}$$
$$+ 151\, q^{26} p^{5} + 5522341\, q^{44} p^{30} + 335362\, p^{38} q^{60} + 723597\, p^{43} q^{59} + 2316988\, p^{33} q^{23} + 4881530\, p^{28} q^{30} + 347239\, q^{51} p^{24}$$
$$+ 246782\, q^{51} p^{23} + 82618\, q^{52} p^{21} + 183802\, p^{32} q^{59} + 4664074\, q^{44} p^{29} + 2\, p^{73} q^{39} + 8\, p^{74} q^{47} + 4\, p^{73} q^{40} + 22\, p^{74} q^{50} + 17\, p^{73} q^{43}$$
$$+ 11\, p^{73} q^{42} + 2557266\, p^{24} q^{39} + 1974553\, p^{23} q^{39} + 13092788\, p^{35} q^{37} + 12142611\, p^{34} q^{36} + 156819\, p^{16} q^{39} + 247240\, p^{17} q^{39} + q^{47} p^{7}$$
$$+ 19\, q^{49} p^{9} + 511\, q^{52} p^{13} + 264023\, p^{21} q^{19} + 154545\, p^{21} q^{17} + q^{68} p^{24} + 11\, q^{68} p^{26} + 188557\, p^{54} q^{25} + 95275\, p^{26} q^{14} + 318915\, p^{27} q^{17}$$
$$+ 1109504\, p^{28} q^{21} + 786175\, p^{27} q^{20} + 596429\, p^{27} q^{19} + 3186182\, p^{26} q^{42} + 501872\, p^{22} q^{21} + 333744\, p^{21} q^{20} + 43752\, p^{13} q^{22}$$

$$+ 23464\, p^{46}\, q^{15} + 12327\, p^{46}\, q^{14} + 637041\, q^{51}\, p^{26} + 124715\, q^{52}\, p^{22} + 2711534\, q^{54}\, p^{40} + 966410\, p^{20}\, q^{30} + 2835\, p^{9}\, q^{16} + 1368882\, p^{38}\, q^{56}$$
$$+ 5530\, p^{10}\, q^{17} + 21647\, p^{14}\, q^{16} + 2522556\, p^{53}\, q^{36} + 41353\, q^{55}\, p^{22} + 3569894\, p^{33}\, q^{25} + 5103398\, p^{33}\, q^{27} + 6157917\, p^{34}\, q^{28}$$
$$+ 252992\, p^{32}\, q^{16} + 1284807\, p^{52}\, q^{30} + 1037527\, p^{52}\, q^{29} + 637041\, p^{51}\, q^{26} + 1320868\, p^{42}\, q^{57} + 152516\, p^{27}\, q^{15} + 82\, p^{38}\, q^{71} + 66193\, q^{29}\, p^{13}$$
$$+ 2787\, q^{28}\, p^{8} + 228\, p^{73}\, q^{58} + 228\, p^{73}\, q^{59} + 1037527\, q^{52}\, p^{29} + 2344054\, p^{24}\, q^{29} + 2375423\, p^{40}\, q^{24} + 375949\, p^{39}\, q^{18} + 3785179\, p^{40}\, q^{26}$$
$$+ 300\, p^{30}\, q^{6} + 10417737\, p^{41}\, q^{33} + 176138\, p^{38}\, q^{16} + 7229425\, p^{41}\, q^{30} + 6192990\, p^{41}\, q^{29} + 9372528\, p^{41}\, q^{32} + 12374093\, p^{34}\, q^{38}$$
$$+ 12\, p^{71}\, q^{34} + 50\, p^{72}\, q^{41} + 11\, q^{52}\, p^{10} + 154080\, p^{50}\, q^{21} + 347239\, p^{51}\, q^{24} + 476082\, p^{51}\, q^{25} + 106155\, q^{31}\, p^{14} + 350\, p^{71}\, q^{67} + 447\, p^{51}\, q^{72}$$
$$+ 59\, p^{47}\, q^{73} + 161\, q^{70}\, p^{36} + 1278783\, p^{51}\, q^{56} + 1752240\, p^{50}\, q^{55} + 1408607\, p^{28}\, q^{22} + p\, q + 3045\, q^{48}\, p^{13} + 17482\, q^{49}\, p^{16} + 12941\, q^{48}\, p^{15}$$
$$+ 12\, p^{31}\, q^{70} + 131\, q^{27}\, p^{5} + 5530\, p^{17}\, q^{10} + 899\, p^{16}\, q^{7} + 2835\, p^{16}\, q^{9} + 46207\, q^{51}\, p^{19} + 77\, q^{17}\, p^{4} + 535\, q^{18}\, p^{6} + 214\, q^{17}\, p^{5}$$
$$+ 1630439\, p^{22}\, q^{30} + 326162\, p^{50}\, q^{23} + 1907\, q^{17}\, p^{8} + 22481\, q^{28}\, p^{11} + 65456\, q^{28}\, p^{13} + 8\, p^{31}\, q^{4} + p^{43}\, q^{74} + 86071\, p^{49}\, q^{19} + 227554\, p^{50}\, q^{22}$$
$$+ 5949\, p^{42}\, q^{68} + 2\, p^{20}\, q^{2} + 22445\, p^{51}\, q^{67} + 12239\, p^{52}\, q^{68} + 3008\, p^{43}\, q^{69} + 42183\, p^{48}\, q^{17} + 134490\, p^{49}\, q^{20} + 476082\, q^{51}\, p^{25}$$
$$+ 61070\, p^{26}\, q^{13} + 441751\, p^{27}\, q^{18} + 1404730\, p^{26}\, q^{23} + 108489\, p^{18}\, q^{18} + 105185\, p^{17}\, q^{19} + 1278783\, p^{22}\, q^{27} + 204340\, p^{21}\, q^{18}$$
$$+ 3106\, q^{56}\, p^{18} + 16797\, q^{57}\, p^{22} + 228\, q^{55}\, p^{14} + 1567\, q^{56}\, p^{17} + 47\, q^{54}\, p^{12} + 26308\, q^{57}\, p^{23} + 3096\, q^{25}\, p^{8} + 1398\, p^{70}\, q^{63} + 1907\, p^{70}\, q^{61}$$
$$+ 1653\, p^{70}\, q^{62} + 2711534\, p^{54}\, q^{40} + 821500\, p^{52}\, q^{28} + 2951025\, p^{54}\, q^{44} + 2316988\, p^{55}\, q^{45} + 8736\, p^{11}\, q^{17} + 4996\, q^{31}\, p^{9} + 2557266\, p^{54}\, q^{39}$$
$$+ 2172628\, p^{54}\, q^{37} + 64562\, q^{31}\, p^{13} + 21502\, q^{30}\, p^{11} + p^{9}\, q + 2954316\, p^{54}\, q^{43} + 2914170\, p^{54}\, q^{42} + 2375423\, p^{54}\, q^{38} + 2832045\, p^{54}\, q^{41}$$
$$+ 1471967\, p^{25}\, q^{24} + 1971407\, p^{53}\, q^{34} + 2248246\, p^{53}\, q^{35} + 1441182\, p^{53}\, q^{32} + 1200224\, p^{53}\, q^{31} + 1003845\, p^{20}\, q^{31} + 637041\, p^{52}\, q^{27}$$
$$+ 1700142\, p^{53}\, q^{33} + 4023\, p^{45}\, q^{69} + p^{54}\, q^{10} + 267\, p^{69}\, q^{34} + 750\, p^{70}\, q^{41} + 7264169\, p^{29}\, q^{35} + 8502082\, p^{33}\, q^{31} + 2954316\, p^{35}\, q^{24}$$
$$+ 525225\, p^{34}\, q^{18} + 4470350\, p^{35}\, q^{26} + 11020109\, p^{35}\, q^{33} + 63855\, q^{59}\, p^{28} + 437\, q^{58}\, p^{17} + 1866\, q^{59}\, p^{20} + 86071\, q^{59}\, p^{29} + 9389\, q^{59}\, p^{23}$$
$$+ 113272\, q^{59}\, p^{30} + 12857\, q^{60}\, p^{25} + 5750\, q^{59}\, p^{22} + 3368\, q^{59}\, p^{21} + 821500\, q^{52}\, p^{28} + 263261\, q^{53}\, p^{25} + 96\, p^{35}\, q^{6} + 84175\, p^{18}\, q^{17}$$
$$+ 47159\, p^{15}\, q^{18} + p^{11}\, q + 4\, p^{3}\, q^{3} + 2358\, p^{69}\, q^{63} + 3344\, p^{69}\, q^{61} + 2835\, p^{69}\, q^{62} + 1653\, p^{16}\, q^{8} + 22\, p^{12}\, q^{3} + 6\, p^{11}\, q^{2} + 401\, p^{15}\, q^{6}$$
$$+ 168\, p^{14}\, q^{5} + 252305\, q^{30}\, p^{16} + 29437\, p^{15}\, q^{16} + 16706\, p^{14}\, q^{15} + 22171\, q^{29}\, p^{11} + 585\, p^{40}\, q^{70} + p^{3}\, q + 2\, p^{2}\, q^{2} + p\, q^{2} + 24\, q^{34}\, p^{5}$$
$$+ 96\, q^{35}\, p^{6} + 164840\, p^{29}\, q^{15} + 6342\, q^{25}\, p^{9} + 204340\, p^{18}\, q^{21} + p^{2}\, q + 100447\, q^{27}\, p^{14} + 159780\, q^{28}\, p^{15} + 57604\, p^{13}\, q^{25} + 8283593\, q^{44}\, p^{33}$$
$$+ 10019605\, q^{44}\, p^{35} + 9799202\, q^{45}\, p^{36} + 6426887\, q^{44}\, p^{31} + 9181521\, q^{44}\, p^{34} + 7355989\, q^{44}\, p^{32} + 12219232\, p^{39}\, q^{44} + 11890236\, p^{38}\, q^{44}$$
$$+ 1772\, p^{66}\, q^{68} + 137320\, q^{40}\, p^{16} + 55589\, q^{39}\, p^{14} + 716444\, p^{20}\, q^{40} + 11400059\, p^{44}\, q^{37} + 531\, p^{50}\, q^{12} + 301\, p^{49}\, q^{11} + 4463\, p^{54}\, q^{17}$$
$$+ 414723\, p^{60}\, q^{40} + 384\, q^{46}\, p^{10} + 534325\, p^{18}\, q^{31} + 4432728\, p^{28}\, q^{29} + 2168807\, p^{23}\, q^{31} + 3639936\, p^{26}\, q^{30} + 16\, p^{58}\, q^{75} + 75\, p^{59}\, q^{74}$$

$$+ 78\, p^{60}\, q^{74} + 228\, p^{59}\, q^{73} + 374427\, p^{61}\, q^{47} + 368064\, p^{61}\, q^{48} + 91952\, p^{31}\, q^{60} + 2248246\, p^{43}\, q^{25} + 3554779\, p^{43}\, q^{27} + 795552\, p^{42}\, q^{21}$$
$$+ 1733362\, p^{43}\, q^{24} + 2855335\, p^{43}\, q^{26} + 8283593\, p^{44}\, q^{33} + 5522341\, p^{44}\, q^{30} + 4664074\, p^{44}\, q^{29} + 7355989\, p^{44}\, q^{32} + 6426887\, p^{44}\, q^{31}$$
$$+ 9181521\, p^{44}\, q^{34} + 10019605\, p^{44}\, q^{35} + 9799202\, p^{45}\, q^{36} + 1762\, p^{57}\, q^{18} + 581\, p^{55}\, q^{15} + 1417\, p^{55}\, q^{71} + 30492\, p^{63}\, q^{33} + 3106\, p^{60}\, q^{22}$$
$$+ 7052\, p^{61}\, q^{25} + 17409\, p^{67}\, q^{56} + 10411\, p^{67}\, q^{60} + 15736\, p^{67}\, q^{57} + 3463\, p^{67}\, q^{65} + 1772\, p^{68}\, q^{66} + 13040951\, p^{37}\, q^{42} + 14052576\, p^{38}\, q^{41}$$
$$+ 14268464\, p^{39}\, q^{41} + 1383847\, p^{57}\, q^{44} + 14693508\, p^{39}\, q^{39} + 14586034\, p^{40}\, q^{39} + 340669\, p^{58}\, q^{33} + 365524\, p^{60}\, q^{53} + 5662\, p^{52}\, q^{16}$$
$$+ 7107494\, p^{31}\, q^{43} + 14536788\, p^{40}\, q^{40} + 232\, p^{70}\, q^{37} + 300\, p^{72}\, q^{48} + 575\, p^{71}\, q^{45} + 49\, p^{68}\, q^{28} + 128\, p^{44}\, q^{72} + 380\, q^{57}\, p^{16} + 4859\, p^{69}\, q^{58}$$
$$+ 113\, q^{56}\, p^{14} + 943\, q^{58}\, p^{18} + 3459\, q^{58}\, p^{20} + 1866\, q^{58}\, p^{19} + 14706\, q^{59}\, p^{24} + 859374\, p^{40}\, q^{58} + 2105369\, q^{38}\, p^{23} + 383048\, p^{36}\, q^{59}$$
$$+ 902281\, q^{54}\, p^{31} + 6564\, p^{64}\, q^{66} + 3463\, p^{65}\, q^{67} + 575\, q^{33}\, p^{7} + 6910\, q^{35}\, p^{10} + 211596\, q^{36}\, p^{16} + 225\, p^{37}\, q^{7} + 25\, p^{53}\, q^{11} + 113\, p^{56}\, q^{14}$$
$$+ 77\, p^{55}\, q^{13} + 1912\, p^{69}\, q^{64} + 47\, p^{54}\, q^{12} + 2\, p^{43}\, q^{6} + 3103\, p^{70}\, q^{54} + 1891\, p^{70}\, q^{46} + 1417\, p^{71}\, q^{55} + 65940\, p^{61}\, q^{61} + 28408\, p^{65}\, q^{59}$$
$$+ 48939\, p^{58}\, q^{64} + 2832045\, p^{37}\, q^{24} + 481330\, p^{36}\, q^{18} + 4373418\, p^{37}\, q^{26} + 9372528\, q^{46}\, p^{37} + 4\, p^{75}\, q^{52} + 3\, p^{75}\, q^{51} + p^{75}\, q^{48} + 3\, p^{74}\, q^{45}$$
$$+ 4\, p^{76}\, q^{63} + 4\, p^{76}\, q^{62} + 3\, p^{76}\, q^{61} + 34\, p^{74}\, q^{52} + 27\, p^{74}\, q^{51} + 8\, p^{72}\, q^{37} + 12\, p^{74}\, q^{48} + 33\, p^{73}\, q^{45} + p^{70}\, q^{28} + 2\, p^{70}\, q^{29} + 23\, p^{75}\, q^{63}$$
$$+ 22\, p^{75}\, q^{62} + 21\, p^{75}\, q^{61} + 39743\, p^{54}\, q^{21} + 92137\, p^{55}\, q^{24} + 190057\, q^{41}\, p^{17} + 294225\, q^{41}\, p^{18} + 253819\, q^{42}\, p^{18} + 440276\, q^{41}\, p^{19}$$
$$+ 638669\, q^{41}\, p^{20} + 586\, p^{58}\, q^{72} + 41141\, p^{59}\, q^{64} + 27391\, p^{61}\, q^{64} + 16706\, p^{63}\, q^{64} + 21647\, p^{62}\, q^{64} + 12584\, p^{64}\, q^{64} + 9219\, p^{65}\, q^{64}$$
$$+ 33923\, p^{60}\, q^{64} + 63812\, p^{62}\, q^{60} + 4351\, p^{65}\, q^{31} + p^{36}\, q^{4} + 11752\, p^{68}\, q^{49} + 2375423\, p^{24}\, q^{40} + 900621\, p^{21}\, q^{41} + 1823632\, p^{23}\, q^{40}$$
$$+ 534325\, p^{47}\, q^{60} + 521402\, p^{48}\, q^{60} + 12142611\, p^{42}\, q^{44} + 11232601\, p^{44}\, q^{44} + 9976963\, p^{45}\, q^{45} + 12374093\, p^{40}\, q^{44} + 11765630\, p^{43}\, q^{44}$$
$$+ 12348094\, p^{41}\, q^{44} + 13173250\, p^{40}\, q^{43} + 827\, p^{44}\, q^{10} + 4351\, p^{47}\, q^{13} + 38783\, p^{50}\, q^{18} + 1365665\, p^{57}\, q^{46} + 2008\, p^{64}\, q^{27} + 6029\, p^{65}\, q^{32}$$
$$+ 3908682\, p^{31}\, q^{26} + 6265\, p^{27}\, q^{9} + 22481\, p^{28}\, q^{11} + 1237061\, p^{22}\, q^{41} + 3785179\, p^{26}\, q^{40} + 8017775\, p^{30}\, q^{39} + 494\, p^{61}\, q^{72} + 224\, p^{57}\, q^{73}$$
$$+ 40\, p^{53}\, q^{74} + 1956269\, q^{54}\, p^{36} + 1484200\, q^{55}\, p^{36} + 1733362\, q^{54}\, p^{35} + 1294938\, q^{54}\, p^{33} + 1510926\, q^{54}\, p^{34} + 1090737\, q^{54}\, p^{32}$$
$$+ 146297\, p^{60}\, q^{33} + 191133\, p^{62}\, q^{53} + 2236\, p^{54}\, q^{16} + 283063\, p^{18}\, q^{23} + 2258510\, p^{32}\, q^{23} + 100\, p^{67}\, q^{27} + 384\, p^{68}\, q^{32} + 119\, p^{71}\, q^{39}$$
$$+ 249\, p^{72}\, q^{47} + 166\, p^{71}\, q^{40} + 400\, p^{72}\, q^{50} + 378\, p^{71}\, q^{43} + 295\, p^{71}\, q^{42} + 6192990\, p^{29}\, q^{41} + 10910750\, p^{33}\, q^{40} + 14268464\, p^{37}\, q^{39}$$
$$+ 447\, p^{27}\, q^{6} + 151\, p^{26}\, q^{5} + 2835\, p^{62}\, q^{69} + 3051\, p^{55}\, q^{70} + 581\, q^{55}\, p^{15} + 25\, q^{53}\, p^{11} + 155\, q^{54}\, p^{13} + 4\, p^{53}\, q^{10} + 827\, p^{68}\, q^{34} + 2080\, p^{69}\, q^{41}$$
$$+ 11581\, p^{68}\, q^{54} + 9738\, p^{68}\, q^{46} + 6005\, p^{69}\, q^{55} + 38735\, q^{63}\, p^{34} + 30492\, q^{63}\, p^{33} + 48216\, q^{63}\, p^{35} + 39938\, q^{64}\, p^{37} + 82738\, q^{63}\, p^{38}$$
$$+ 58814\, q^{63}\, p^{36} + 70410\, q^{63}\, p^{37} + 75\, p^{48}\, q^{73} + 596\, p^{56}\, q^{72} + 595\, p^{57}\, q^{72} + 1223\, p^{59}\, q^{71} + 1392\, p^{44}\, q^{70} + 13230\, p^{12}\, q^{17} + 2557266\, q^{54}\, p^{39}$$
$$+ 21647\, p^{64}\, q^{62} + 37684\, p^{61}\, q^{63} + 29437\, p^{63}\, q^{62} + 19350\, p^{65}\, q^{61} + 16706\, p^{64}\, q^{63} + 22471\, p^{63}\, q^{63} + 12093\, p^{65}\, q^{63} + 15466\, p^{65}\, q^{62}$$

$$+ 29437\, p^{62} q^{63} + 48939\, p^{64} q^{58} + 57813\, p^{63} q^{59} + 401\, p^{63} q^{72} + 4251087\, p^{27} q^{30} + 6045\, p^{58} q^{21} + 14706\, p^{59} q^{24} + 71830\, p^{61} q^{32}$$
$$+ 27645\, p^{60} q^{27} + 55683\, p^{61} q^{31} + 194597\, p^{62} q^{41} + 112271\, p^{61} q^{34} + 136297\, p^{61} q^{35} + 12822786\, p^{43} q^{42} + 12374093\, p^{44} q^{40}$$
$$+ 13815871\, p^{40} q^{42} + 14076528\, p^{41} q^{41} + 13676474\, p^{42} q^{41} + 13173250\, p^{43} q^{40} + 114000\, q^{21} p^{16} + 867228\, p^{54} q^{56} + 1227052\, p^{53} q^{55}$$
$$+ 3028950\, p^{25} q^{40} + 318\, p^{66} q^{27} + 1092\, p^{67} q^{32} + 3005\, p^{14} q^{10} + 2576\, p^{12} q^{11} + 1772\, p^{10} q^{12} + 938\, p^{8} q^{13} + 136740\, p^{59} q^{60}$$
$$+ 108489\, p^{60} q^{60} + 154545\, p^{57} q^{61} + 107178\, p^{48} q^{64} + 104266\, p^{50} q^{64} + 95275\, p^{52} q^{64} + 100447\, p^{51} q^{64} + 88913\, p^{53} q^{64} + 73734\, p^{55} q^{64}$$
$$+ 81652\, p^{54} q^{64} + 48775\, p^{55} q^{65} + 106527\, p^{49} q^{64} + 95817\, p^{62} q^{58} + 216392\, p^{58} q^{59} + 173860\, p^{59} q^{59} + 718791\, p^{19} q^{30} + 298\, p^{13} q^{6}$$
$$+ 58\, p^{12} q^{4} + 127\, p^{12} q^{5} + 550\, p^{13} q^{7} + 1518\, p^{13} q^{9} + 41353\, p^{56} q^{23} + 2375423\, q^{54} p^{38} + 1658314\, q^{55} p^{37} + 2784\, p^{63} q^{26} + 1312\, p^{62} q^{23}$$
$$+ 4557\, p^{64} q^{29} + 2\, p^{39} q^{5} + 6533\, p^{64} q^{30} + 943\, p^{60} q^{20} + 2522556\, q^{53} p^{36} + 13491488\, p^{42} q^{38} + 3637792\, p^{36} q^{25} + 5421\, p^{30} q^{9}$$
$$+ 20534\, p^{31} q^{11} + 204340\, p^{57} q^{60} + 168831\, p^{58} q^{60} + 65473\, p^{64} q^{56} + 2172628\, q^{54} p^{37} + 2248246\, q^{53} p^{35} + 741821\, p^{47} q^{59}$$
$$+ 359724\, p^{61} q^{44} + 5750\, p^{56} q^{19} + 16797\, p^{57} q^{22} + 938\, p^{13} q^{8} + 1404730\, p^{23} q^{26} + 70\, p^{14} q^{4} + 501042\, p^{49} q^{60} + 90729\, p^{61} q^{33}$$
$$+ 132474\, p^{63} q^{53} + 1312\, p^{55} q^{16} + 238626\, p^{62} q^{44} + 3368\, p^{57} q^{19} + 10074\, p^{58} q^{22} + 497628\, q^{40} p^{19} + 118170\, q^{41} p^{16} + 6930744\, p^{29} q^{39}$$
$$+ 5889775\, p^{28} q^{39} + 2236\, p^{62} q^{24} + 468\, p^{60} q^{19} + 183\, p^{58} q^{16} + 401\, p^{72} q^{63} + 451\, p^{72} q^{62} + 494\, p^{72} q^{61} + 968826\, p^{42} q^{58}$$
$$+ 3420502\, p^{25} q^{38} + 2832045\, p^{24} q^{37} + 11448471\, p^{38} q^{33} + 226448\, p^{35} q^{16} + 852\, p^{51} q^{13} + 8342\, p^{54} q^{18} + 2784\, p^{52} q^{15} + 383048\, p^{59} q^{36}$$
$$+ 1261\, p^{52} q^{14} + 152\, p^{48} q^{10} + 74025\, p^{27} q^{58} + 101009\, p^{28} q^{58} + 145831\, p^{31} q^{59} + 134490\, p^{29} q^{58} + 175061\, p^{30} q^{58} + 2933\, p^{70} q^{51}$$
$$+ 1568\, p^{68} q^{36} + 3043\, p^{70} q^{52} + 1013\, p^{40} q^{9} + 441\, p^{39} q^{8} + 858\, p^{61} q^{21} + 315985\, p^{59} q^{56} + 6005\, p^{55} q^{69} + 40871\, q^{37} p^{13} + 121044\, q^{37} p^{15}$$
$$+ 176138\, q^{38} p^{16} + 471\, q^{34} p^{7} + 163\, q^{33} p^{6} + 19\, p^{49} q^{9} + 6\, p^{48} q^{8} + 27645\, q^{51} p^{18} + 13202\, p^{66} q^{38} + 206\, p^{59} q^{17} + 10728\, p^{66} q^{37}$$
$$+ 11227\, p^{68} q^{48} + 17815\, p^{67} q^{45} + 3082\, p^{64} q^{28} + 2\, q^{43} p^{6} + 11\, q^{22} p^{3} + 9\, q^{23} p^{3} + 9392\, p^{57} q^{68} + 5421\, p^{48} q^{69} + 750\, p^{41} q^{70}$$
$$+ 2258510\, p^{55} q^{46} + 471\, p^{44} q^{71} + 1568\, p^{42} q^{10} + 7667\, p^{67} q^{39} + 10539\, p^{68} q^{47} + 9239\, p^{67} q^{40} + 12112\, p^{68} q^{50} + 14452\, p^{67} q^{43}$$
$$+ 12675\, p^{67} q^{42} + 12269\, p^{68} q^{51} + 8545\, p^{66} q^{36} + 12239\, p^{68} q^{52} + 1471967\, p^{24} q^{25} + 1269134\, p^{21} q^{30} + 1003845\, p^{47} q^{58} + p^{56} q^{11}$$
$$+ 6\, p^{59} q^{14} + 4\, p^{58} q^{13} + 298\, q^{13} p^{6} + 6649\, p^{66} q^{35} + 16179\, p^{67} q^{44} + 11999\, p^{68} q^{53} + 315985\, p^{19} q^{22} + 73734\, p^{14} q^{23} + 249\, p^{31} q^{6}$$
$$+ 10417737\, q^{45} p^{37} + 1971407\, p^{44} q^{25} + 3151833\, p^{44} q^{27} + 691214\, p^{43} q^{21} + 1510926\, p^{44} q^{24} + 2518092\, p^{44} q^{26} + 7440690\, p^{45} q^{33}$$
$$+ 4891695\, p^{45} q^{30} + 4111204\, p^{45} q^{29} + 6577550\, p^{45} q^{32} + 5720308\, p^{45} q^{31} + 8283593\, p^{45} q^{34} + 9079104\, p^{45} q^{35} + 8778518\, p^{46} q^{36}$$
$$+ 24\, p^{51} q^{10} + 5061\, p^{66} q^{34} + 10928\, p^{67} q^{41} + 1261725\, p^{41} q^{57} + 1599374\, p^{40} q^{56} + 9857866\, q^{46} p^{38} + 10928\, p^{37} q^{11} + 18830\, p^{38} q^{12}$$
$$+ 5019\, p^{37} q^{10} + 553\, p^{42} q^{9} + 232\, p^{41} q^{8} + 30688\, p^{39} q^{13} + 7667\, q^{67} p^{39} + 187\, p^{54} q^{73} + 27\, p^{51} q^{74} + 170\, p^{53} q^{73} + 151\, p^{52} q^{73}$$

$$+ 131\, p^{51}\, q^{73} + 17815\, q^{67}\, p^{45} + 13173250\, p^{35}\, q^{38} + 1653\, p^{62}\, q^{70} + 1234\, p^{27}\, q^{7} + 2787\, p^{28}\, q^{8} + 38671\, p^{30}\, q^{12} + 11752\, p^{29}\, q^{10}$$
$$+ 375100\, p^{32}\, q^{17} + 1385084\, p^{33}\, q^{21} + 1027147\, p^{32}\, q^{20} + 754030\, p^{32}\, q^{19} + 1810896\, p^{33}\, q^{22} + 106155\, p^{31}\, q^{14} + 3\, p^{71}\, q^{32}$$
$$+ 2522556\, p^{25}\, q^{42} + 8766471\, p^{31}\, q^{40} + 5213946\, p^{28}\, q^{41} + 501042\, p^{60}\, q^{49} + 14052576\, p^{40}\, q^{37} + 12219232\, p^{34}\, q^{39} + 2785841\, p^{41}\, q^{25}$$
$$+ 12675\, p^{36}\, q^{11} + 21862\, p^{37}\, q^{12} + 5949\, p^{36}\, q^{10} + 247240\, p^{39}\, q^{17} + 1003114\, p^{40}\, q^{21} + 63859\, p^{38}\, q^{14} + 716444\, p^{40}\, q^{20} + 497628\, p^{40}\, q^{19}$$
$$+ 1237061\, p^{41}\, q^{22} + 1658314\, p^{41}\, q^{23} + 4311763\, p^{41}\, q^{27} + 4795090\, p^{42}\, q^{28} + 35722\, p^{38}\, q^{13} + 108432\, p^{38}\, q^{15} + 58159\, p^{53}\, q^{21}$$
$$+ 133711\, p^{54}\, q^{24} + 14276426\, p^{37}\, q^{38} + 246229\, p^{16}\, q^{29} + 249\, q^{31}\, p^{6} + 3908682\, p^{26}\, q^{31} + 1370\, q^{25}\, p^{7} + 3\, q^{18}\, p^{2} + 203\, q^{23}\, p^{5} + 563\, q^{24}\, p^{6}$$
$$+ 2341714\, p^{23}\, q^{34} + 37426\, p^{31}\, q^{12} + 11227\, p^{30}\, q^{10} + 370157\, p^{33}\, q^{17} + 1383847\, p^{34}\, q^{21} + 1035249\, p^{33}\, q^{20} + 755044\, p^{33}\, q^{19}$$
$$+ 1820071\, p^{34}\, q^{22} + 103542\, p^{32}\, q^{14} + 3569894\, p^{25}\, q^{33} + 4875046\, p^{27}\, q^{32} + 6706086\, p^{31}\, q^{30} + 6005897\, p^{29}\, q^{31} + 6806127\, p^{33}\, q^{29}$$
$$+ p^{71}\, q^{31} + 16\, p^{74}\, q^{49} + 23\, p^{75}\, q^{64} + 114000\, p^{62}\, q^{57} + 295\, p^{42}\, q^{71} + 128735\, p^{58}\, q^{61} + 1156\, p^{43}\, q^{70} + 81888\, p^{63}\, q^{57} + 1035249\, p^{20}\, q^{33}$$
$$+ 2815909\, p^{24}\, q^{32} + 2904195\, p^{24}\, q^{33} + 3443547\, p^{25}\, q^{32} + 4133960\, p^{26}\, q^{32} + 6128811\, p^{30}\, q^{30} + 2341714\, p^{34}\, q^{23} + 14052576\, p^{41}\, q^{38}$$
$$+ 14422523\, p^{38}\, q^{40} + 12285466\, p^{35}\, q^{41} + 14052576\, p^{37}\, q^{40} + 9079104\, p^{33}\, q^{43} + 8098014\, p^{32}\, q^{43} + 10019605\, p^{34}\, q^{43} + 11652733\, p^{36}\, q^{43}$$
$$+ 10887992\, p^{35}\, q^{43} + 10768503\, p^{36}\, q^{44} + 14268464\, p^{41}\, q^{39} + 15771\, p^{51}\, q^{17} + 52869\, p^{52}\, q^{20} + 11652733\, p^{35}\, q^{42} + 12285466\, p^{37}\, q^{43}$$
$$+ 13491488\, p^{38}\, q^{42} + 12420044\, p^{36}\, q^{42} + 441751\, p^{51}\, q^{60} + 474164\, p^{50}\, q^{60} + 374427\, p^{47}\, q^{61} + 133175\, p^{62}\, q^{56} + 107\, p^{73}\, q^{67}$$
$$+ 2258510\, p^{23}\, q^{32} + 5292535\, p^{28}\, q^{31} + 6442052\, p^{32}\, q^{29} + 168831\, p^{60}\, q^{58} + 128735\, p^{61}\, q^{58} + 2\, p^{72}\, q^{35} + 40\, p^{74}\, q^{53} + 24\, p^{73}\, q^{44}$$
$$+ 881\, p^{67}\, q^{69} + 1017\, p^{61}\, q^{71} + 1370\, p^{25}\, q^{7} + 4470350\, q^{35}\, p^{26} + 2954316\, q^{35}\, p^{24} + 14276426\, p^{40}\, q^{41} + 14276426\, p^{41}\, q^{40}$$
$$+ 12761194\, p^{43}\, q^{38} + 11400059\, p^{37}\, q^{44} + 13753239\, p^{42}\, q^{39} + 12761194\, p^{38}\, q^{43} + 13753239\, p^{39}\, q^{42} + 13676474\, p^{41}\, q^{42}$$
$$+ 13092788\, p^{43}\, q^{41} + 13061308\, p^{39}\, q^{43} + 6404\, p^{50}\, q^{15} + 795552\, p^{57}\, q^{36} + 3082\, p^{50}\, q^{14} + 12219232\, p^{44}\, q^{39} + 13341058\, p^{42}\, q^{42}$$
$$+ 182057\, p^{56}\, q^{61} + 191133\, p^{53}\, q^{62} + 159780\, p^{50}\, q^{63} + 136740\, p^{60}\, q^{59} + 152802\, p^{55}\, q^{62} + 133175\, p^{56}\, q^{62} + 114000\, p^{57}\, q^{62}$$
$$+ 95817\, p^{58}\, q^{62} + 105185\, p^{59}\, q^{61} + 210685\, p^{55}\, q^{61} + 208549\, p^{52}\, q^{62} + 239565\, p^{54}\, q^{61} + 11326531\, p^{36}\, q^{33} + 4944\, p^{65}\, q^{66} + 2576\, p^{66}\, q^{67}$$
$$+ 750\, q^{37}\, p^{8} + p^{64}\, q^{18} + 72089\, p^{64}\, q^{41} + 23\, p^{75}\, q^{65} + 6\, p^{76}\, q^{66} + 20\, p^{75}\, q^{60} + 14\, p^{75}\, q^{57} + 48\, p^{74}\, q^{54} + 6\, p^{74}\, q^{46} + 9\, p^{75}\, q^{55} + 741\, p^{66}\, q^{70}$$
$$+ 641\, p^{68}\, q^{69} + 443\, p^{66}\, q^{71} + 38735\, p^{63}\, q^{34} + 48216\, p^{63}\, q^{35} + 57604\, p^{65}\, q^{53} + 93980\, p^{64}\, q^{44} + 132474\, p^{53}\, q^{63} + 143266\, p^{52}\, q^{63}$$
$$+ 120483\, p^{54}\, q^{63} + 65473\, p^{56}\, q^{64} + 81888\, p^{57}\, q^{63} + 107788\, p^{55}\, q^{63} + 94768\, p^{56}\, q^{63} + 242710\, p^{56}\, q^{60} + 105185\, p^{61}\, q^{59} + 172348\, p^{54}\, q^{62}$$
$$+ 152516\, p^{51}\, q^{63} + 47559\, q^{64}\, p^{38} + 63859\, q^{64}\, p^{40} + 80048\, q^{64}\, p^{42} + 72089\, q^{64}\, p^{41} + 87426\, q^{64}\, p^{43} + 99410\, q^{64}\, p^{45} + 93980\, q^{64}\, p^{44}$$
$$+ 59133\, q^{65}\, p^{45} + 55589\, q^{64}\, p^{39} + 1326535\, p^{21}\, q^{31} + 167416\, p^{30}\, q^{15} + 4983487\, p^{29}\, q^{29} + 4133960\, p^{32}\, q^{26} + 6068\, p^{28}\, q^{9} + 22171\, p^{29}\, q^{11}$$

$$+ 9 p^{23} q^{3} + 253819 p^{42} q^{18} + 118170 p^{41} q^{16} + 9857866 p^{46} q^{38} + 10494672 p^{46} q^{41} + 10165821 p^{46} q^{43} + 10405355 p^{46} q^{42} + 149 p^{73} q^{65}$$
$$+ 58 p^{74} q^{66} + 222 p^{73} q^{60} + 224 p^{73} q^{57} + 10215185 p^{46} q^{39} + 585 q^{38} p^{8} + 6230 q^{40} p^{11} + 13202 q^{40} p^{12} + 162377 q^{42} p^{17}$$
$$+ 4891695 q^{45} p^{30} + 1383847 p^{44} q^{57} + 3367 q^{39} p^{10} + 1971407 q^{44} p^{25} + 1510926 q^{44} p^{24} + 2518092 q^{44} p^{26} + 3151833 q^{44} p^{27}$$
$$+ 3393569 q^{45} p^{28} + 7440690 q^{45} p^{33} + 9079104 q^{45} p^{35} + 8778518 q^{46} p^{36} + 5720308 q^{45} p^{31} + 8283593 q^{45} p^{34} + 6577550 q^{45} p^{32}$$
$$+ 215132 q^{43} p^{18} + 6068 p^{50} q^{69} + 99917 q^{42} p^{16} + 711138 p^{52} q^{58} + 632798 p^{53} q^{58} + 718791 p^{48} q^{59} + 686000 p^{49} q^{59} + 94768 p^{63} q^{56}$$
$$+ 3 p^{27} q^{3} + 501042 p^{18} q^{29} + 2051294 p^{23} q^{30} + 3 q^{27} p^{3} + 9242 q^{63} p^{29} + 12941 q^{63} p^{30} + 9091 q^{64} p^{31} + 12327 q^{64} p^{32} + 21048 q^{64} p^{34}$$
$$+ 16290 q^{64} p^{33} + 26592 q^{64} p^{35} + 21413 q^{65} p^{37} + 32919 q^{64} p^{36} + 25872 q^{65} p^{38} + 35722 q^{65} p^{40} + 45943 q^{65} p^{42} + 40871 q^{65} p^{41}$$
$$+ 50807 q^{65} p^{43} + 55247 q^{65} p^{44} + 33427 q^{66} p^{45} + 30688 q^{65} p^{39} + 35663 q^{66} p^{46} + 39310 q^{66} p^{49} + 38671 q^{66} p^{48} + 37576 q^{66} p^{52}$$
$$+ 33647 q^{66} p^{54} + 18942 q^{67} p^{55} + 39349 q^{66} p^{50} + 35840 q^{66} p^{53} + 38754 q^{66} p^{51} + 37426 q^{66} p^{47} + 2 p^{76} q^{58} + 2 p^{76} q^{59} + 70410 q^{41} p^{15}$$
$$+ 327633 q^{43} p^{19} + 6005897 p^{31} q^{29} + 8766471 p^{40} q^{31} + 11890236 p^{40} q^{34} + 12761194 p^{40} q^{35} + 13040951 p^{41} q^{36} + 543070 p^{52} q^{59}$$
$$+ 1365 p^{57} q^{71} + 1398 p^{63} q^{70} + 933 p^{68} q^{68} + 2162 p^{60} q^{70} + p^{48} q^{75} + 16 p^{49} q^{74} + 22 p^{50} q^{74} + 93 p^{49} q^{73} + 159 p^{72} q^{68} + 5263138 p^{34} q^{27}$$
$$+ 247579 p^{33} q^{16} + 6 q^{71} p^{33} + 12 q^{71} p^{34} + 21 q^{71} p^{35} + 6286213 p^{35} q^{28} + 22036 p^{66} q^{58} + 14076528 p^{37} q^{37} + 10720 p^{52} q^{17}$$
$$+ 47559 q^{40} p^{14} + 25872 q^{40} p^{13} + 335362 q^{40} p^{18} + 1912 p^{64} q^{69} + 6 p^{70} q^{30} + 3 p^{4} q^{2} + 7 p^{5} q^{3} + 371346 p^{23} q^{19} + 210685 p^{23} q^{17}$$
$$+ 700065 p^{24} q^{21} + 476289 p^{23} q^{20} + 1752240 p^{55} q^{50} + 38586 q^{21} p^{13} + 1404 q^{24} p^{7} + 1694913 p^{24} q^{26} + 2675770 p^{26} q^{27}$$
$$+ 1919137 p^{24} q^{27} + 6221 p^{54} q^{69} + 2138 p^{47} q^{70} + q^{4} p + p q^{3} + 3 q^{4} p^{2} + 73 p^{15} q^{4} + 1910729 p^{55} q^{49} + 2621 q^{20} p^{8} + 3 p^{46} q^{7}$$
$$+ 2400 p^{70} q^{59} + 2621 p^{70} q^{58} + 5 p^{4} q^{3} + 23 p^{13} q^{3} + 451 p^{16} q^{6} + 186 p^{15} q^{5} + 39017 p^{16} q^{16} + 19350 p^{13} q^{17} + 2051294 p^{55} q^{48}$$
$$+ 550 p^{71} q^{65} + 249 p^{72} q^{66} + 1124 p^{71} q^{60} + 1365 p^{71} q^{57} + 2 p^{3} q^{2} + 1820071 p^{22} q^{34} + 2316988 p^{23} q^{33} + 1385084 p^{21} q^{33}$$
$$+ 1810896 p^{22} q^{33} + 2168807 p^{55} q^{47} + 283063 p^{23} q^{18} + 5 p^{13} q^{2} + 3509 p^{44} q^{69} + 6500 p^{18} q^{10} + 1017 p^{17} q^{7} + 3344 p^{17} q^{9} + 1907 p^{17} q^{8}$$
$$+ 12239 q^{26} p^{10} + 1385084 p^{45} q^{57} + 1820071 p^{44} q^{56} + 6 p^{45} q^{7} + 4374 p^{69} q^{59} + 6 q^{32} p^{4} + 11 q^{7} p^{3} + 95 q^{53} p^{12} + 292 q^{53} p^{13}$$
$$+ 26862 q^{56} p^{22} + 223901 q^{27} p^{16} + 65473 p^{22} q^{14} + 107788 p^{23} q^{15} + 43752 p^{22} q^{13} + 17409 p^{22} q^{11} + 17 p^{6} q^{4} + 28 p^{6} q^{5} + 64 p^{7} q^{6}$$
$$+ 1187007 p^{40} q^{57} + 736137 p^{56} q^{55} + 1527230 p^{49} q^{56} + 2051294 p^{48} q^{55} + 1053594 p^{55} q^{54} + 563 p^{19} q^{6} + 222 p^{18} q^{5} + 1227052 p^{55} q^{53}$$
$$+ 4 p^{26} q^{3} + 17 p^{35} q^{5} + 1408607 p^{50} q^{56} + 1910729 p^{49} q^{55} + 131406 p^{55} q^{25} + 1291 p^{66} q^{30} + 183 p^{62} q^{20} + 25142 q^{21} p^{12} + 57111 q^{21} p^{14}$$
$$+ 94768 q^{22} p^{15} + 95817 p^{20} q^{16} + 208549 p^{26} q^{16} + 5310 p^{21} q^{9} + 28190 p^{22} q^{12} + 6500 p^{10} q^{18} + 33923 p^{18} q^{14} + 10411 p^{18} q^{11}$$
$$+ 57813 p^{19} q^{15} + 23677 p^{18} q^{13} + 16000 p^{18} q^{12} + 3 q^{33} p^{4} + 22 q^{16} p^{3} + 77 p^{17} q^{4} + 23 p^{15} q^{3} + 9392 p^{21} q^{10} + 1302 p^{20} q^{7} + 2621 p^{20} q^{8}$$

$$+ 867228\, p^{22}\, q^{24} + 1898\, p^{66}\, q^{31} + 5787\, p^{69}\, q^{49} + 63812\, p^{16}\, q^{18} + 9219\, p^{13}\, q^{14} + 6854\, p^{13}\, q^{13} + 1404730\, p^{55}\, q^{52} + 15736\, q^{21}\, p^{11}$$
$$+ 133175\, p^{22}\, q^{16} + 1161\, q^{14}\, p^{8} + 662\, q^{14}\, p^{7} + q^{35}\, p^{4} + p^{8}\, q + 1161\, p^{70}\, q^{64} + 20\, p^{55}\, q^{12} + p^{44}\, q^{6} + 1581691\, p^{55}\, q^{51} + 238626\, q^{34}\, p^{16}$$
$$+ 370157\, q^{33}\, p^{17} + 159974\, q^{33}\, p^{15} + 247579\, q^{33}\, p^{16} + 36695\, p^{53}\, q^{20} + 152802\, p^{16}\, q^{23} + 65473\, p^{14}\, q^{22} + 1092\, p^{46}\, q^{11} + 1898\, p^{47}\, q^{12}$$
$$+ 20\, p^{5}\, q^{5} + 22036\, p^{20}\, q^{12} + 4374\, p^{19}\, q^{9} + 1912\, q^{14}\, p^{9} + 3764\, q^{15}\, p^{10} + 172348\, p^{16}\, q^{24} + 9\, q^{6}\, p^{3} + 45\, p^{6}\, q^{6} + 4944\, p^{13}\, q^{12} + 4521\, p^{14}\, q^{11}$$
$$+ 12\, p^{5}\, q^{4} + 12\, p^{4}\, q^{5} + 3\, q^{5}\, p^{2} + 9\, p^{6}\, q^{3} + 3\, p^{5}\, q^{2} + 187\, q^{24}\, p^{5} + 2933\, q^{27}\, p^{8} + 54\, q^{23}\, p^{4} + 916242\, p^{20}\, q^{29} + 9\, p^{4}\, q^{4} + 7\, p^{3}\, q^{5} + 5\, q^{4}\, p^{3}$$
$$+ q^{5}\, p + 2\, q^{34}\, p^{4} + 4521\, p^{11}\, q^{14} + 4944\, p^{12}\, q^{13} + 48939\, p^{20}\, q^{14} + 13965\, p^{20}\, q^{11} + 81888\, p^{21}\, q^{15} + 33409\, p^{20}\, q^{13} + 10\, p^{54}\, q^{11} + 50\, p^{57}\, q^{14}$$
$$+ 34\, p^{56}\, q^{13} + 17\, q^{35}\, p^{5} + 48\, q^{24}\, p^{4} + 22\, p^{39}\, q^{72} + 72\, p^{42}\, q^{72} + 50\, p^{41}\, q^{72} + p^{38}\, q^{73} + 35\, p^{40}\, q^{72} + 3764\, p^{63}\, q^{68} + p^{4}\, q + 2\, p^{2}\, q^{3} + 21\, q^{43}\, p^{7}$$
$$+ 31052\, q^{23}\, p^{12} + 12269\, q^{27}\, p^{10} + 6265\, q^{27}\, p^{9} + 12112\, q^{28}\, p^{10} + 596\, q^{22}\, p^{6} + 90\, p^{6}\, q^{8} + 2713\, q^{55}\, p^{17} + 88858\, q^{56}\, p^{25} + 170505\, q^{56}\, p^{27}$$
$$+ 154080\, q^{57}\, p^{28} + 41353\, q^{56}\, p^{23} + 202986\, q^{57}\, p^{29} + 222989\, q^{58}\, p^{31} + 261529\, q^{57}\, p^{30} + 28190\, p^{12}\, q^{22} + 13\, q^{8}\, p^{3} + 16\, q^{9}\, p^{3} + 142\, p^{8}\, q^{7}$$
$$+ 5764\, p^{15}\, q^{11} + 37\, q^{48}\, p^{9} + 1365\, q^{21}\, p^{7} + 5310\, q^{21}\, p^{9} + 10250\, q^{22}\, p^{10} + 99\, p^{7}\, q^{7} + 4\, q^{7}\, p^{2} + 29\, p^{8}\, q^{4} + 53\, p^{8}\, q^{5} + 121\, p^{9}\, q^{6}$$
$$+ 236650\, q^{28}\, p^{16} + 62\, q^{22}\, p^{4} + 294225\, p^{37}\, q^{60} + 1910729\, p^{29}\, q^{23} + 482961\, p^{35}\, q^{58} + 590344\, p^{34}\, q^{57} + 32524\, p^{52}\, q^{19} + 88858\, p^{53}\, q^{22}$$
$$+ 2803\, q^{21}\, p^{8} + 586\, q^{20}\, p^{6} + 81652\, p^{14}\, q^{24} + 402432\, p^{20}\, q^{22} + 13\, p^{8}\, q^{3} + 4\, p^{7}\, q^{2} + 1891\, p^{46}\, q^{70} + 53\, p^{5}\, q^{8} + 1630439\, p^{48}\, q^{56}$$
$$+ 2168807\, p^{47}\, q^{55} + 2\, q^{72}\, p^{35} + q^{72}\, p^{34} + 191133\, p^{25}\, q^{16} + 82618\, p^{52}\, q^{21} + 188557\, p^{53}\, q^{24} + 29\, p^{4}\, q^{8} + 1142426\, p^{26}\, q^{22} + 28\, p^{5}\, q^{6}$$
$$+ 1758079\, p^{42}\, q^{56} + 58159\, q^{57}\, p^{25} + 114268\, q^{57}\, p^{27} + 10074\, q^{56}\, p^{20} + 5750\, q^{56}\, p^{19} + 1735\, q^{53}\, p^{15} + 52\, q^{52}\, p^{11} + 5200\, q^{55}\, p^{18}$$
$$+ 429\, q^{54}\, p^{14} + 33\, q^{33}\, p^{5} + 38783\, q^{50}\, p^{18} + 267\, p^{34}\, q^{69} + 67\, q^{21}\, p^{4} + 1223\, q^{19}\, p^{7} + 2162\, q^{18}\, p^{8} + 24\, q^{51}\, p^{10} + 9\, q^{50}\, p^{9} + 9389\, q^{55}\, p^{19}$$
$$+ 181\, q^{52}\, p^{12} + 754\, q^{53}\, p^{14} + 26308\, q^{55}\, p^{21} + 16073\, q^{55}\, p^{20} + 16797\, q^{56}\, p^{21} + 82618\, q^{57}\, p^{26} + 39743\, q^{57}\, p^{24} + 1302\, q^{20}\, p^{7} + 852\, p^{65}\, q^{27}$$
$$+ 2710\, p^{66}\, q^{32} + p^{5}\, q + 40\, q^{7}\, p^{5} + 11\, p^{7}\, q^{3} + 4\, p^{6}\, q^{2} + 1099768\, p^{39}\, q^{57} + 84175\, p^{17}\, q^{18} + 78979\, p^{16}\, q^{19} + 17\, q^{6}\, p^{4} + 22\, p^{7}\, q^{4} + 40\, p^{7}\, q^{5}$$
$$+ 90\, p^{8}\, q^{6} + 1124\, q^{18}\, p^{7} + 4859\, q^{20}\, p^{9} + 9392\, q^{21}\, p^{10} + 10250\, p^{56}\, q^{68} + 16\, q^{29}\, p^{4} + 9219\, p^{14}\, q^{13} + 6564\, p^{14}\, q^{12} + 95817\, p^{16}\, q^{20}$$
$$+ 232\, q^{70}\, p^{37} + 82\, p^{40}\, q^{7} + 613640\, p^{22}\, q^{22} + 494\, q^{17}\, p^{6} + 692454\, q^{36}\, p^{19} + 59\, q^{31}\, p^{5} + 205\, q^{32}\, p^{6} + 75\, q^{30}\, p^{5} + 324509\, q^{36}\, p^{17} + 4\, q^{15}\, p^{2}$$
$$+ 78\, q^{18}\, p^{4} + 563\, q^{19}\, p^{6} + 222\, q^{18}\, p^{5} + q^{6}\, p + 22\, q^{7}\, p^{4} + 441\, p^{39}\, q^{70} + 1013\, p^{38}\, q^{69} + 15771\, q^{51}\, p^{17} + 4\, q^{6}\, p^{2} + 24\, p^{34}\, q^{5} + 6564\, p^{12}\, q^{14}$$
$$+ 12584\, p^{14}\, q^{14} + 22471\, p^{15}\, q^{15} + 2008064\, p^{26}\, q^{25} + 2286261\, p^{25}\, q^{27} + 3078630\, p^{27}\, q^{27} + 3961835\, p^{28}\, q^{28} + 2\, q^{20}\, p^{2} + 267\, q^{44}\, p^{9}$$
$$+ 24030\, q^{48}\, p^{16} + 12\, q^{30}\, p^{4} + 114268\, p^{51}\, q^{21} + 259047\, p^{52}\, q^{24} + 2358\, q^{15}\, p^{9} + 4615\, q^{16}\, p^{10} + 1398\, q^{15}\, p^{8} + 6\, q^{12}\, p^{2} + 168\, q^{14}\, p^{5}$$
$$+ 70\, q^{14}\, p^{4} + 8\, q^{31}\, p^{4} + q^{29}\, p^{3} + 6221\, q^{24}\, p^{9} + 3051\, q^{23}\, p^{8} + 1417\, q^{23}\, p^{7} + 454\, p^{9}\, q^{9} + 933\, p^{10}\, q^{10} + 227554\, p^{56}\, q^{28} + 755044\, p^{59}\, q^{45}$$
$$+ 968826\, p^{58}\, q^{42} + 716444\, p^{58}\, q^{38} + 1005464\, p^{58}\, q^{43} + 638669\, p^{58}\, q^{37} + 790834\, p^{58}\, q^{39} + q^{30}\, p^{3} + 23\, q^{13}\, p^{3} + 356376\, p^{17}\, q^{29}$$

$$+ 306\, p^{8}\, q^{9} + 2\, p^{28}\, q^{3} + 981249\, p^{53}\, q^{30} + 483339\, p^{52}\, q^{26} + 787008\, p^{53}\, q^{29} + 69\, q^{9}\, p^{5} + 159\, q^{10}\, p^{6} + 306\, p^{9}\, q^{8} + 294634\, p^{17}\, q^{26}$$
$$+ 12382\, q^{50}\, p^{16} + 22491\, q^{50}\, p^{17} + 33647\, p^{12}\, q^{24} + 10983\, p^{10}\, q^{23} + 375949\, q^{39}\, p^{18} + 2675770\, p^{27}\, q^{26} + q^{10}\, p + 1956269\, p^{54}\, q^{36}$$
$$+ 4996\, p^{47}\, q^{69} + 10983\, p^{55}\, q^{68} + 20249\, p^{54}\, q^{67} + 760\, q^{41}\, p^{9} + 596429\, q^{27}\, p^{19} + 318915\, q^{27}\, p^{17} + 215\, q^{22}\, p^{5} + 582\, q^{23}\, p^{6} + 17651\, p^{47}\, q^{15}$$
$$+ 9091\, p^{47}\, q^{14} + 22036\, q^{20}\, p^{12} + 48939\, q^{20}\, p^{14} + 81888\, q^{21}\, p^{15} + 326162\, q^{50}\, p^{23} + 8736\, p^{61}\, q^{67} + 16000\, p^{60}\, q^{66} + 35\, q^{9}\, p^{4} + 6221\, p^{69}\, q^{54}$$
$$+ 4520\, p^{69}\, q^{46} + 3051\, p^{70}\, q^{55} + 39310\, q^{29}\, p^{12} + 106527\, q^{29}\, p^{14} + 215\, p^{8}\, q^{8} + 199\, p^{7}\, q^{9} + 10411\, p^{11}\, q^{18} + 732588\, p^{54}\, q^{30}$$
$$+ 358250\, p^{53}\, q^{26} + 583235\, p^{54}\, q^{29} + 12382\, q^{62}\, p^{28} + 17482\, q^{62}\, p^{29} + 24030\, q^{62}\, p^{30} + 32188\, q^{62}\, p^{31} + 22236\, q^{53}\, p^{19} + 2\, q^{28}\, p^{3} + 69\, p^{9}\, q^{5}$$
$$+ 159\, p^{10}\, q^{6} + 12179\, p^{11}\, q^{19} + 16000\, p^{12}\, q^{18} + 246\, q^{47}\, p^{10} + 66\, q^{47}\, p^{9} + 152\, q^{48}\, p^{10} + 371346\, p^{19}\, q^{23} + 120483\, p^{15}\, q^{24} + 110\, q^{46}\, p^{9}$$
$$+ 199\, p^{9}\, q^{7} + 35\, p^{9}\, q^{4} + 86071\, q^{49}\, p^{19} + 13965\, q^{20}\, p^{11} + 159780\, p^{28}\, q^{15} + 2822376\, p^{25}\, q^{29} + 142\, p^{7}\, q^{8} + 121\, p^{6}\, q^{9} + 1581691\, p^{23}\, q^{27}$$
$$+ 72\, q^{36}\, p^{6} + 7\, q^{37}\, p^{5} + 225\, q^{37}\, p^{7} + 33409\, q^{20}\, p^{13} + 16706\, p^{15}\, q^{14} + 29437\, p^{16}\, q^{15} + 24030\, p^{48}\, q^{16} + 8486\, p^{15}\, q^{12} + 12093\, p^{15}\, q^{13}$$
$$+ 45\, q^{32}\, p^{5} + 3045\, p^{65}\, q^{30} + 437\, p^{61}\, q^{20} + 1404\, p^{24}\, q^{7} + 86\, p^{61}\, q^{18} + 26\, p^{59}\, q^{15} + 1365\, p^{21}\, q^{7} + 210685\, p^{17}\, q^{23} + 2803\, p^{21}\, q^{8} + p^{12}\, q$$
$$+ 72\, p^{36}\, q^{6} + 66\, q^{69}\, p^{31} + 1294938\, p^{54}\, q^{33} + 166\, q^{38}\, p^{7} + 31052\, p^{23}\, q^{12} + 78\, p^{18}\, q^{4} + 22\, p^{16}\, q^{3} + 10250\, p^{22}\, q^{10} + 1195883\, p^{57}\, q^{49}$$
$$+ 1109504\, p^{57}\, q^{50} + 358250\, q^{53}\, p^{26} + 1261\, p^{64}\, q^{26} + 581\, p^{63}\, q^{23} + 2068\, p^{65}\, q^{29} + p^{40}\, q^{5} + 1090737\, p^{54}\, q^{32} + 476082\, p^{53}\, q^{27}$$
$$+ 902281\, p^{54}\, q^{31} + 598131\, p^{55}\, q^{57} + 82926\, p^{35}\, q^{62} + 28408\, p^{13}\, q^{19} + 888838\, p^{23}\, q^{23} + 2211204\, p^{55}\, q^{41} + 1510926\, p^{54}\, q^{34}$$
$$+ 1733362\, p^{54}\, q^{35} + 2287680\, p^{55}\, q^{42} + 1823632\, p^{55}\, q^{38} + 2331858\, p^{55}\, q^{43} + 154080\, q^{50}\, p^{21} + 1658314\, p^{55}\, q^{37} + 1974553\, p^{55}\, q^{39}$$
$$+ 421670\, q^{55}\, p^{29} + 224\, q^{21}\, p^{5} + 30\, p^{62}\, q^{18} + 8\, p^{60}\, q^{15} + 2815909\, p^{32}\, q^{24} + 529\, p^{25}\, q^{6} + 187\, p^{24}\, q^{5} + 65874\, p^{30}\, q^{13} + 534325\, p^{31}\, q^{18}$$
$$+ 533770\, q^{55}\, p^{30} + 618603\, p^{53}\, q^{28} + 1810896\, p^{56}\, q^{45} + 2341714\, p^{55}\, q^{44} + 700065\, p^{21}\, q^{24} + 3051\, p^{23}\, q^{8} + 35840\, p^{25}\, q^{12} + 11581\, p^{24}\, q^{10}$$
$$+ 23677\, p^{13}\, q^{18} + 6352\, q^{26}\, p^{9} + 50458\, p^{17}\, q^{16} + q^{67}\, p^{22} + 351\, q^{14}\, p^{6} + 149\, q^{13}\, p^{5} + q^{21}\, p^{2} + 5692\, q^{22}\, p^{9} + 2954\, q^{22}\, p^{8} + 48775\, p^{23}\, q^{13}$$
$$+ 586\, p^{20}\, q^{6} + 228\, p^{19}\, q^{5} + 2105369\, p^{55}\, q^{40} + 5692\, p^{22}\, q^{9} + 18942\, p^{23}\, q^{11} + q^{22}\, p^{2} + 324427\, p^{24}\, q^{18} + 73734\, p^{23}\, q^{14} + 120483\, p^{24}\, q^{15}$$
$$+ 31212\, p^{49}\, q^{17} + 101009\, p^{50}\, q^{20} + 37\, p^{69}\, q^{30} + 4\, p^{65}\, q^{20} + 218587\, q^{40}\, p^{17} + 88913\, p^{25}\, q^{14} + 143266\, p^{26}\, q^{15} + 294634\, p^{26}\, q^{17}$$
$$+ 1013371\, p^{27}\, q^{21} + 711138\, p^{26}\, q^{20} + 543070\, p^{26}\, q^{19} + 63855\, p^{50}\, q^{19} + 170505\, p^{51}\, q^{22} + 41\, p^{33}\, q^{70} + 35\, p^{36}\, q^{71} + 24\, p^{32}\, q^{70}$$
$$+ 246782\, p^{51}\, q^{23} + 1003822\, p^{25}\, q^{22} + 486567\, p^{19}\, q^{25} + 2\, q^{19}\, p^{2} + 12941\, p^{48}\, q^{15} + 6533\, p^{48}\, q^{14} + 239565\, p^{24}\, q^{17} + 805290\, p^{25}\, q^{21}$$
$$+ 553774\, p^{24}\, q^{20} + 428700\, p^{24}\, q^{19} + 1484200\, p^{55}\, q^{36} + 401\, q^{15}\, p^{6} + 781\, q^{15}\, p^{7} + 441751\, q^{27}\, p^{18} + 786175\, q^{27}\, p^{20} + 1109504\, q^{28}\, p^{21}$$
$$+ 4\, q^{26}\, p^{3} + 7169587\, p^{29}\, q^{38} + 107\, q^{43}\, p^{8} + 5\, q^{25}\, p^{3} + 358250\, p^{52}\, q^{25} + 441\, q^{39}\, p^{8} + 119\, q^{39}\, p^{7} + 1013\, q^{40}\, p^{9} + 22\, q^{39}\, p^{6} + 327\, q^{40}\, p^{8}$$
$$+ 4\, q^{16}\, p^{2} + 18\, q^{10}\, p^{3} + 216392\, p^{19}\, q^{20} + 173860\, p^{19}\, q^{19} + 136740\, p^{19}\, q^{18} + 82\, q^{40}\, p^{7} + 200\, q^{11}\, p^{6} + 501872\, p^{21}\, q^{22} + 43\, q^{10}\, p^{4}$$

$$+ 87 q^{10} p^{5} + q^{40} p^{5} + 605702 p^{19} q^{38} + 8 q^{41} p^{6} + 18942 q^{23} p^{11} + 166 p^{38} q^{7} + 88913 p^{14} q^{25} + 128735 p^{17} q^{20} + 41141 p^{19} q^{14}$$
$$+ 12179 p^{19} q^{11} + 69450 p^{20} q^{15} + 28408 p^{19} q^{13} + 18952 p^{19} q^{12} + 739 q^{47} p^{11} + q^{36} p^{4} + 4230713 p^{26} q^{38} + 425 p^{10} q^{8} + 267 p^{10} q^{7}$$
$$+ 88 q^{68} p^{29} + 595 q^{21} p^{6} + 228 q^{20} p^{5} + 1402 q^{22} p^{7} + 21 q^{17} p^{3} + 4 q^{67} p^{23} + 641 p^{10} q^{9} + 1304 p^{11} q^{10} + 7484 p^{19} q^{10} + 1124 p^{18} q^{7}$$
$$+ 3859 p^{18} q^{9} + 2162 p^{18} q^{8} + 168831 p^{18} q^{20} + 271503 p^{20} q^{20} + 413323 p^{21} q^{21} + 1568 q^{42} p^{10} + 494 p^{17} q^{6} + 201 p^{16} q^{5}$$
$$+ 133175 q^{22} p^{16} + 1734302 p^{25} q^{25} + 70611 q^{48} p^{18} + 4351 q^{47} p^{13} + 17651 q^{47} p^{15} + 42183 q^{48} p^{17} + 572 q^{45} p^{10} + 12327 q^{46} p^{14}$$
$$+ 23464 q^{46} p^{15} + 2710 q^{46} p^{12} + 3752 q^{45} p^{12} + 69 q^{70} p^{34} + 176 q^{69} p^{33} + 110 q^{69} p^{32} + 9738 p^{46} q^{68} + 114268 q^{51} p^{21} + 7170 q^{16} p^{11}$$
$$+ 154545 p^{17} q^{21} + 3367 p^{68} q^{39} + 4996 p^{69} q^{47} + 4158 p^{68} q^{40} + 6068 p^{69} q^{50} + 6910 p^{68} q^{43} + 5949 p^{68} q^{42} + 637041 q^{52} p^{27}$$
$$+ 358250 q^{52} p^{25} + 483339 q^{52} p^{26} + 182349 q^{52} p^{23} + 188557 q^{53} p^{24} + 259047 q^{52} p^{24} + 12 p^{30} q^{4} + 53436 p^{13} q^{24} + 350 q^{11} p^{7}$$
$$+ 5421 q^{30} p^{9} + 553774 p^{58} q^{54} + 371346 p^{59} q^{55} + 10719 q^{16} p^{12} + 1153 p^{43} q^{10} + 910773 p^{21} q^{26} + 711138 p^{20} q^{26} + 1013371 p^{21} q^{27}$$
$$+ 6029 p^{46} q^{13} + 52970 p^{49} q^{18} + 1775154 p^{56} q^{46} + 167464 q^{31} p^{15} + 33923 p^{14} q^{18} + 63812 p^{18} q^{16} + 35 q^{38} p^{6} + 8507 q^{51} p^{16}$$
$$+ 3082 q^{50} p^{14} + 55 q^{41} p^{7} + 14 q^{40} p^{6} + 5061 q^{44} p^{12} + 1153 q^{43} p^{10} + 805290 p^{57} q^{53} + 37684 p^{17} q^{15} + 15466 p^{16} q^{13} + 10719 p^{16} q^{12}$$
$$+ 1100235 q^{56} p^{36} + 662387 q^{55} p^{31} + 1132102 q^{55} p^{34} + 806400 q^{55} p^{32} + 2286261 p^{27} q^{25} + 760 p^{41} q^{9} + 327 p^{40} q^{8} + 21647 p^{16} q^{14}$$
$$+ 78979 p^{19} q^{16} + 161 q^{42} p^{8} + 18952 p^{12} q^{19} + 963972 q^{55} p^{33} + 1307097 q^{55} p^{35} + 216392 p^{20} q^{19} + 57604 p^{25} q^{13} + 6221 p^{24} q^{9}$$
$$+ 21307 p^{25} q^{11} + 405112 p^{26} q^{18} + 4961 p^{67} q^{37} + 5421 p^{69} q^{48} + 8837 p^{68} q^{45} + 1352 p^{65} q^{28} + 2080 q^{69} p^{41} + 4557 q^{49} p^{14}$$
$$+ 31212 q^{49} p^{17} + 10417737 p^{45} q^{37} + 2080 q^{37} p^{9} + 228 q^{19} p^{5} + 18 q^{19} p^{3} + 9 p^{50} q^{9} + 2 p^{49} q^{8} + 6230 p^{67} q^{38} + 86 p^{60} q^{17} + 380 p^{62} q^{21}$$
$$+ 134490 q^{49} p^{20} + 52970 q^{49} p^{18} + 79 p^{59} q^{16} + 128735 p^{20} q^{17} + 168831 p^{20} q^{18} + 136740 p^{18} q^{19} + 1030 p^{63} q^{24} + 206 p^{61} q^{19}$$
$$+ 8145 q^{45} p^{13} + 35 q^{42} p^{7} + 7170 p^{16} q^{11} + 36695 q^{53} p^{20} + 131406 q^{53} p^{23} + 58159 q^{53} p^{21} + 88858 q^{53} p^{22} + 61566 q^{54} p^{22}$$
$$+ 1227052 p^{25} q^{23} + 20 q^{18} p^{3} + 3 q^{17} p^{2} + 73 q^{20} p^{4} + 5764 q^{15} p^{11} + 75 q^{19} p^{4} + q^{8} p + 5 q^{9} p^{2} + 194597 q^{37} p^{16} + 408196 p^{57} q^{32}$$
$$+ 170505 p^{56} q^{27} + 330022 p^{57} q^{31} + 919439 p^{58} q^{41} + 590344 p^{57} q^{34} + 691214 p^{57} q^{35} + 22 p^{39} q^{6} + 27 q^{27} p^{4} + 4023 q^{33} p^{9}$$
$$+ 1891 q^{32} p^{8} + 686 q^{32} p^{7} + 1898 q^{47} p^{12} + 2379 p^{48} q^{70} + 5 q^{13} p^{2} + 1013371 p^{57} q^{51} + 910773 p^{57} q^{52} + 23 q^{14} p^{3} + 23 q^{15} p^{3}$$
$$+ 1674 q^{69} p^{40} + 350 p^{11} q^{7} + 881 p^{11} q^{9} + 1772 p^{12} q^{10} + 568 q^{11} p^{8} + 27391 p^{14} q^{17} + 37684 p^{15} q^{17} + 9091 q^{47} p^{14} + 232 q^{41} p^{8}$$
$$+ 568 p^{11} q^{8} + 200 p^{11} q^{6} + 43 p^{10} q^{4} + 87 p^{10} q^{5} + 4615 p^{16} q^{10} + 267 q^{10} p^{7} + 2933 p^{67} q^{35} + 7890 p^{68} q^{44} + 6342 p^{69} q^{53} + 781 p^{15} q^{7}$$
$$+ 2358 p^{15} q^{9} + 1398 p^{15} q^{8} + 326162 q^{55} p^{28} + 10314 p^{57} q^{21} + 24706 p^{58} q^{24} + 242710 p^{18} q^{22} + 1326535 p^{57} q^{47} + 1269134 p^{57} q^{48}$$
$$+ 1200224 q^{53} p^{31} + p^{6} q + 16 p^{9} q^{3} + 5 p^{8} q^{2} + 5 q^{8} p^{2} + q^{7} p + 133711 q^{54} p^{24} + 259047 q^{54} p^{26} + 454942 q^{54} p^{28} + 347239 q^{54} p^{27}$$

$$+ 188557\, q^{54}\, p^{25} + 1581691\, p^{27}\, q^{23} + 6265\, p^{69}\, q^{51} + 3857\, p^{67}\, q^{36} + 6352\, p^{69}\, q^{52} + 618603\, q^{53}\, p^{28} + 1284807\, q^{52}\, p^{30} + 787008\, q^{53}\, p^{29}$$
$$+ 476082\, q^{53}\, p^{27} + 981249\, q^{53}\, p^{30} + 583235\, q^{54}\, p^{29} + 638669\, p^{37}\, q^{58} + 227554\, q^{50}\, p^{22} + 1564\, q^{45}\, p^{11} + 2933\, q^{43}\, p^{11} + 1092\, q^{46}\, p^{11}$$
$$+ 9242\, q^{49}\, p^{15} + 827\, q^{44}\, p^{10} + 6029\, q^{46}\, p^{13} + 6533\, q^{48}\, p^{14} + 20\, p^{11}\, q^{3} + 6\, p^{10}\, q^{2} + 48775\, p^{13}\, q^{23} + 2\, q^{39}\, p^{5} + 17409\, p^{11}\, q^{22}$$
$$+ 12857\, q^{53}\, p^{18} + 32524\, q^{52}\, p^{19} + 52869\, q^{52}\, p^{20} + 170505\, q^{51}\, p^{22} + 391\, q^{43}\, p^{9} + 900621\, q^{57}\, p^{37} + 10720\, q^{52}\, p^{17} + 19155\, q^{52}\, p^{18}$$
$$+ 2170\, q^{44}\, p^{11} + 351\, p^{14}\, q^{6} + 149\, p^{13}\, q^{5} + 64\, p^{13}\, q^{4} + 239565\, p^{61}\, q^{54} + 152802\, p^{62}\, q^{55} + 375100\, p^{61}\, q^{46} + 12\, q^{44}\, p^{7} + 1971407\, q^{53}\, p^{34}$$
$$+ p^{7}\, q + 4303\, q^{51}\, p^{15} + 596429\, p^{59}\, q^{51} + 543070\, p^{59}\, q^{52} + 267\, p^{44}\, q^{9} + 107\, p^{43}\, q^{8} + 22445\, q^{27}\, p^{11} + 700065\, p^{57}\, q^{54} + 476289\, p^{58}\, q^{55}$$
$$+ 239565\, p^{17}\, q^{24} + 176\, q^{45}\, p^{9} + 41\, q^{45}\, p^{8} + 208549\, p^{16}\, q^{26} + 267894\, p^{17}\, q^{25} + 132474\, p^{15}\, q^{25} + q^{70}\, p^{28} + q^{71}\, p^{31} + 2\, q^{70}\, p^{29} + 6\, q^{70}\, p^{30}$$
$$+ 16\, p^{29}\, q^{4} + 6\, q^{11}\, p^{2} + 117196\, p^{60}\, q^{32} + 46207\, p^{59}\, q^{27} + 91952\, p^{60}\, q^{31} + 301151\, p^{61}\, q^{41} + 179095\, p^{60}\, q^{34} + 215132\, p^{60}\, q^{35}$$
$$+ 191133\, p^{16}\, q^{25} + 2951025\, q^{54}\, p^{44} + 58\, q^{12}\, p^{4} + 10\, q^{67}\, p^{24} + 152\, q^{68}\, p^{30} + 2914170\, q^{54}\, p^{42} + 2954316\, q^{54}\, p^{43} + 2832045\, q^{54}\, p^{41}$$
$$+ 11\, p^{52}\, q^{10} + 2170\, p^{67}\, q^{34} + 5019\, p^{68}\, q^{41} + 1700142\, q^{53}\, p^{33} + 2\, p^{63}\, q^{17} + 13\, p^{65}\, q^{21} + 2\, p^{62}\, q^{16} + 47\, p^{66}\, q^{24} + 6\, p^{64}\, q^{19} + 327\, p^{70}\, q^{38}$$
$$+ 9452674\, p^{37}\, q^{31} + 12348094\, p^{37}\, q^{34} + 13092788\, p^{37}\, q^{35} + 13815871\, p^{38}\, q^{36} + 8379419\, p^{37}\, q^{30} + 10494672\, p^{37}\, q^{32} + 7307925\, p^{37}\, q^{29}$$
$$+ 454942\, p^{54}\, q^{28} + 1385084\, p^{57}\, q^{45} + 1758079\, p^{56}\, q^{42} + 1368882\, p^{56}\, q^{38} + 1802158\, p^{56}\, q^{43} + 1237061\, p^{56}\, q^{37} + 1491079\, p^{56}\, q^{39}$$
$$+ 4\, q^{69}\, p^{27} + 1017\, q^{17}\, p^{7} + 5\, q^{14}\, p^{2} + 20\, q^{11}\, p^{3} + 6\, q^{10}\, p^{2} + 101009\, q^{50}\, p^{20} + 63855\, q^{50}\, p^{19} + 732588\, q^{54}\, p^{30} + 37\, q^{69}\, p^{30}$$
$$+ 1441182\, q^{53}\, p^{32} + 9\, q^{69}\, p^{28} + 19\, q^{69}\, p^{29} + 806400\, p^{55}\, q^{32} + 347239\, p^{54}\, q^{27} + 662387\, p^{55}\, q^{31} + 1689507\, p^{56}\, q^{41} + 1132102\, p^{55}\, q^{34}$$
$$+ 1307097\, p^{55}\, q^{35} + 24\, q^{68}\, p^{27} + 4\, q^{68}\, p^{25} + 77\, q^{16}\, p^{4} + 201\, q^{16}\, p^{5} + 3337560\, p^{29}\, q^{26} + 73\, q^{15}\, p^{4} + 186\, q^{15}\, p^{5} + 451\, q^{16}\, p^{6} + 50\, p^{37}\, q^{6}$$
$$+ 963972\, p^{55}\, q^{33} + 2068\, q^{49}\, p^{13} + 480\, q^{48}\, p^{11} + 24\, q^{46}\, p^{8} + 17482\, p^{49}\, q^{16} + 50\, q^{37}\, p^{6} + 11\, q^{36}\, p^{5} + 3344\, p^{61}\, q^{69} + 2621\, p^{58}\, q^{70}$$
$$+ 205\, p^{46}\, q^{72} + 375949\, p^{39}\, q^{60} + 481330\, p^{42}\, q^{60} + 450264\, p^{41}\, q^{60} + 218587\, p^{38}\, q^{61} + 414723\, p^{40}\, q^{60} + 867228\, p^{24}\, q^{22} + 365524\, p^{18}\, q^{25}$$
$$+ 50458\, p^{16}\, q^{17} + 1291\, q^{48}\, p^{12} + q^{9}\, p + 13230\, p^{61}\, q^{66} + 7170\, p^{62}\, q^{67} + q^{12}\, p + 4\, q^{38}\, p^{5} + 511\, p^{65}\, q^{26} + 228\, p^{64}\, q^{23} + 843\, p^{66}\, q^{29}$$
$$+ 73\, p^{20}\, q^{4} + 20\, p^{18}\, q^{3} + 3096\, p^{25}\, q^{8} + 38754\, p^{27}\, q^{12} + 12239\, p^{26}\, q^{10} + 356376\, p^{29}\, q^{17} + 1269134\, p^{30}\, q^{21} + 916242\, p^{29}\, q^{20}$$
$$+ 686000\, p^{29}\, q^{19} + 1630439\, p^{30}\, q^{22} + 104266\, p^{28}\, q^{14} + 2400\, q^{19}\, p^{8} + 1599374\, p^{56}\, q^{40} + 3008\, q^{35}\, p^{9} + 1919137\, p^{27}\, q^{24}$$
$$+ 1527230\, p^{56}\, q^{49} + 1408607\, p^{56}\, q^{50} + 50\, p^{4}\, q^{11} + 249\, p^{6}\, q^{12} + 107\, p^{5}\, q^{11} + 2560583\, p^{28}\, q^{25} + 881\, p^{9}\, q^{11} + 425\, p^{8}\, q^{10} + 62743\, p^{55}\, q^{23}$$
$$+ 5949\, q^{36}\, p^{10} + 2526\, q^{36}\, p^{9} + 5019\, q^{37}\, p^{10} + 632798\, p^{20}\, q^{25} + 5103398\, p^{27}\, q^{33} + 7976714\, p^{31}\, q^{32} + 7225592\, p^{30}\, q^{32} + 7083764\, p^{29}\, q^{34}$$
$$+ 7667817\, p^{30}\, q^{33} + 5943239\, p^{28}\, q^{33} + 6806127\, p^{29}\, q^{33} + 6342\, p^{25}\, q^{9} + 22040\, p^{26}\, q^{11} + 1820071\, p^{56}\, q^{44} + 1491079\, p^{39}\, q^{56}$$
$$+ 8486\, p^{12}\, q^{15} + 1714130\, q^{56}\, p^{47} + 2258510\, q^{55}\, p^{46} + 3272220\, p^{31}\, q^{25} + 4587334\, p^{31}\, q^{27} + 5651066\, p^{32}\, q^{28} + 3\, q^{71}\, p^{32} + q^{44}\, p^{6}$$

$$+ 69\, q^{44}\, p^{8} + 6\, q^{45}\, p^{7} + 1099768\, p^{21}\, q^{39} + 45\, p^{32}\, q^{5} + 5662\, q^{52}\, p^{16} + 64\, q^{13}\, p^{4} + 127\, q^{12}\, p^{5} + 114000\, p^{21}\, q^{16} + 22\, q^{12}\, p^{3} + 242710\, p^{22}\, q^{18}$$
$$+ 6\, p^{12}\, q^{2} + 12\, q^{47}\, p^{8} + 22491\, p^{50}\, q^{17} + 74025\, p^{51}\, q^{20} + 443\, p^{7}\, q^{12} + 1304\, p^{10}\, q^{11} + 641\, p^{9}\, q^{10} + 843\, q^{49}\, p^{12} + 18\, p^{10}\, q^{3} + 5\, p^{9}\, q^{2}$$
$$+ 1003822\, p^{56}\, q^{53} + 2137984\, p^{24}\, q^{28} + 246229\, p^{29}\, q^{16} + 339738\, p^{61}\, q^{50} + 101009\, p^{58}\, q^{28} + 370157\, p^{61}\, q^{45} + 481330\, p^{60}\, q^{42}$$
$$+ 335362\, p^{60}\, q^{38} + 506627\, p^{60}\, q^{43} + 294225\, p^{60}\, q^{37} + 375949\, p^{60}\, q^{39} + 736137\, p^{23}\, q^{22} + 741\, p^{12}\, q^{8} + 249\, p^{12}\, q^{6} + 50\, p^{11}\, q^{4} + 107\, p^{11}\, q^{5}$$
$$+ 867228\, p^{56}\, q^{54} + 598131\, p^{57}\, q^{55} + 330022\, p^{31}\, q^{57} + 443\, p^{12}\, q^{7} + 1171\, p^{12}\, q^{9} + 2336\, p^{13}\, q^{10} + 315985\, p^{22}\, q^{19} + 182057\, p^{22}\, q^{17}$$
$$+ 598131\, p^{23}\, q^{21} + 402432\, p^{22}\, q^{20} + 1003822\, p^{53}\, q^{56} + 1404730\, p^{52}\, q^{55} + 254571\, p^{31}\, q^{16} + 1234\, q^{27}\, p^{7} + 264023\, p^{19}\, q^{21}$$
$$+ 1714130\, p^{56}\, q^{47} + 553\, q^{42}\, p^{9} + 49\, q^{68}\, p^{28} + 1630439\, p^{56}\, q^{48} + 5\, q^{42}\, p^{6} + 598131\, p^{21}\, q^{23} + p^{21}\, q^{2} + 3483699\, p^{28}\, q^{27} + 4432728\, p^{29}\, q^{28}$$
$$+ 1256550\, p^{24}\, q^{24} + 18952\, p^{66}\, q^{59} + 531\, q^{50}\, p^{12} + 88\, q^{49}\, p^{10} + 1352\, q^{50}\, p^{13} + 2336\, p^{10}\, q^{13} + 408196\, p^{32}\, q^{57} + 409304\, p^{34}\, q^{58}$$
$$+ 495429\, p^{33}\, q^{57} + 3344\, p^{9}\, q^{17} + 15466\, p^{13}\, q^{16} + 3646013\, p^{34}\, q^{25} + 41141\, p^{14}\, q^{19} + 69450\, p^{15}\, q^{20} + 333744\, p^{20}\, q^{21} + 46207\, p^{51}\, q^{19}$$
$$+ 124715\, p^{52}\, q^{22} + 92137\, q^{54}\, p^{23} + 64\, p^{6}\, q^{7} + 1408607\, q^{28}\, p^{22} + 298\, p^{72}\, q^{65} + 127\, p^{73}\, q^{66} + 535\, p^{72}\, q^{60} + 595\, p^{72}\, q^{57} + 278333\, q^{58}\, p^{32}$$
$$+ 55\, p^{37}\, q^{71} + 81652\, p^{24}\, q^{14} + 132474\, p^{25}\, q^{15} + 267894\, p^{25}\, q^{17} + 910773\, p^{26}\, q^{21} + 632798\, p^{25}\, q^{20} + 486567\, p^{25}\, q^{19} + 61070\, q^{26}\, p^{13}$$
$$+ 57813\, p^{15}\, q^{19} + 326162\, p^{55}\, q^{28} + 1035249\, p^{58}\, q^{45} + 1320868\, p^{57}\, q^{42} + 1003114\, p^{57}\, q^{38} + 1362188\, p^{57}\, q^{43} + 900621\, p^{57}\, q^{37}$$
$$+ 1099768\, p^{57}\, q^{39} + 62743\, q^{55}\, p^{23} + 39743\, q^{54}\, p^{21} + 24706\, q^{54}\, p^{20} + 1752240\, p^{28}\, q^{23} + 1278783\, p^{56}\, q^{51} + 3878915\, p^{27}\, q^{29}$$
$$+ 1261\, q^{52}\, p^{14} + 296807\, q^{56}\, p^{29} + 178\, q^{50}\, p^{11} + 2168807\, p^{31}\, q^{23} + 374427\, p^{17}\, q^{31} + 3012597\, p^{26}\, q^{28} + 1142426\, p^{56}\, q^{52}$$
$$+ 2337816\, p^{26}\, q^{26} + 1694913\, p^{26}\, q^{24} + 3272220\, p^{25}\, q^{31} + 301\, q^{49}\, p^{11} + 12093\, p^{13}\, q^{15} + 172348\, p^{24}\, q^{16} + 11581\, q^{24}\, p^{10} + 1518\, p^{9}\, q^{13}$$
$$+ 3443547\, p^{32}\, q^{25} + 4875046\, p^{32}\, q^{27} + 5943239\, p^{33}\, q^{28} + 3005\, p^{10}\, q^{14} + 8465\, p^{20}\, q^{10} + 1223\, p^{19}\, q^{7} + 2400\, p^{19}\, q^{8} + 476289\, p^{20}\, q^{23}$$
$$+ 13676474\, p^{36}\, q^{37} + 12822786\, p^{35}\, q^{36} + 2336\, p^{65}\, q^{68} + 1311\, p^{52}\, q^{71} + 1003114\, p^{21}\, q^{40} + 21307\, q^{25}\, p^{11} + 22040\, q^{26}\, p^{11} + 35840\, q^{25}\, p^{12}$$
$$+ 9\, p^{62}\, q^{17} + 50\, p^{64}\, q^{21} + 9\, p^{61}\, q^{16} + 155\, p^{65}\, q^{24} + 26\, p^{63}\, q^{19} + 1013\, p^{69}\, q^{38} + 3012597\, p^{28}\, q^{26} + 497628\, p^{38}\, q^{59} + 13230\, p^{17}\, q^{12}$$
$$+ 27391\, p^{17}\, q^{14} + 8736\, p^{17}\, q^{11} + 47159\, p^{18}\, q^{15} + 19350\, p^{17}\, q^{13} + 37576\, q^{26}\, p^{12} + 553774\, p^{20}\, q^{24} + 6005\, p^{9}\, q^{23} + 4520\, p^{46}\, q^{69}$$
$$+ 6910\, p^{43}\, q^{68} + 11581\, p^{54}\, q^{68} + 21307\, p^{53}\, q^{67} + 384\, p^{46}\, q^{10} + 2068\, p^{49}\, q^{13} + 19155\, p^{52}\, q^{18} + 3368\, q^{57}\, p^{19} + 858\, q^{57}\, p^{17} + 306\, q^{56}\, p^{15}$$
$$+ 1762\, q^{57}\, p^{18} + 6045\, q^{57}\, p^{20} + 6045\, q^{58}\, p^{21} + 77\, q^{55}\, p^{13} + 10314\, q^{57}\, p^{21} + 731\, q^{56}\, p^{16} + 10074\, q^{58}\, p^{22} + 16073\, q^{58}\, p^{23} + 24706\, q^{58}\, p^{24}$$
$$+ 46207\, q^{59}\, p^{27} + 36695\, q^{58}\, p^{25} + 52869\, q^{58}\, p^{26} + 30835\, q^{34}\, p^{12} + 27964\, q^{35}\, p^{12} + 7890\, q^{34}\, p^{10} + 143626\, q^{35}\, p^{15} + 87426\, q^{35}\, p^{14}$$
$$+ 132901\, q^{36}\, p^{15} + 1599374\, q^{38}\, p^{22} + 301151\, q^{37}\, p^{17} + 450264\, q^{37}\, p^{18} + 919439\, q^{37}\, p^{20} + 45943\, q^{36}\, p^{13} + 652674\, q^{37}\, p^{19}$$
$$+ 521402\, p^{18}\, q^{30} + 1269134\, p^{48}\, q^{57} + 4\, p^{69}\, q^{27} + 24\, p^{70}\, q^{32} + 6404\, q^{50}\, p^{15} + 3\, q^{46}\, p^{7} + p\, q^{11} + 1653\, p^{8}\, q^{16} + 899\, p^{7}\, q^{16} + 11999\, q^{25}\, p^{10}$$

$$+ 77\, p^{16}\, q^{4} + 23\, p^{14}\, q^{3} + 1027147\, p^{46}\, q^{58} + 662\, p^{14}\, q^{7} + 1912\, p^{14}\, q^{9} + 1161\, p^{14}\, q^{8} + 32188\, q^{47}\, p^{16} + 581524\, p^{56}\, q^{32} + 246782\, p^{55}\, q^{27}$$
$$+ 474001\, p^{56}\, q^{31} + 1261725\, p^{57}\, q^{41} + 828152\, p^{56}\, q^{34} + 962584\, p^{56}\, q^{35} + 35\, p^{38}\, q^{6} + 1402\, p^{22}\, q^{7} + 2954\, p^{22}\, q^{8} + 33647\, p^{24}\, q^{12}$$
$$+ 10983\, p^{23}\, q^{10} + 3764\, p^{15}\, q^{10} + 3859\, p^{9}\, q^{18} + 3463\, p^{11}\, q^{13} + 3628\, p^{12}\, q^{12} + 35663\, q^{32}\, p^{12} + 10539\, q^{31}\, p^{10} + 428700\, p^{59}\, q^{54}$$
$$+ 283063\, p^{60}\, q^{55} + 2689533\, p^{31}\, q^{24} + 563\, p^{24}\, q^{6} + 203\, p^{23}\, q^{5} + 66193\, p^{29}\, q^{13} + 521402\, p^{30}\, q^{18} + 786175\, p^{58}\, q^{51} + 711138\, p^{58}\, q^{52}$$
$$+ 6342\, p^{53}\, q^{69} + 474164\, p^{60}\, q^{50} + 1417\, p^{23}\, q^{7} + 3463\, p^{13}\, q^{11} + 2576\, p^{11}\, q^{12} + 182349\, p^{52}\, q^{23} + 161\, p^{70}\, q^{36} + 493\, p^{72}\, q^{52} + 447\, p^{72}\, q^{51}$$
$$+ 4859\, p^{20}\, q^{9} + 25142\, p^{21}\, q^{12} + 754030\, p^{59}\, q^{46} + 391\, p^{43}\, q^{9} + 161\, p^{42}\, q^{8} + 755044\, p^{19}\, q^{33} + 1775154\, p^{22}\, q^{32} + 1402\, p^{71}\, q^{56}$$
$$+ 1564\, p^{67}\, q^{33} + 113\, p^{64}\, q^{22} + 292\, p^{65}\, q^{25} + 62267\, q^{32}\, p^{13} + 2787\, p^{50}\, q^{70} + 14\, p^{38}\, q^{72} + 227115\, p^{59}\, q^{33} + 267894\, p^{61}\, q^{53} + 3629\, p^{53}\, q^{16}$$
$$+ 3243270\, p^{39}\, q^{25} + 4023\, p^{33}\, q^{9} + 16179\, p^{34}\, q^{11} + 553\, p^{69}\, q^{36} + 1311\, p^{71}\, q^{52} + 1234\, p^{71}\, q^{51} + 803\, p^{31}\, q^{7} + 1891\, p^{32}\, q^{8} + 27964\, p^{35}\, q^{12}$$
$$+ 7890\, p^{34}\, q^{10} + 301151\, p^{37}\, q^{17} + 1187007\, p^{38}\, q^{21} + 80048\, p^{36}\, q^{14} + 40\, p^{25}\, q^{4} + 859374\, p^{38}\, q^{20} + 605702\, p^{38}\, q^{19} + 1491079\, p^{39}\, q^{22}$$
$$+ 1974553\, p^{39}\, q^{23} + 4917915\, p^{39}\, q^{27} + 5583582\, p^{40}\, q^{28} + 45943\, p^{36}\, q^{13} + 132901\, p^{36}\, q^{15} + 7890\, p^{44}\, q^{68} + 8837\, p^{45}\, q^{68} + 105185\, p^{19}\, q^{17}$$
$$+ 1311\, p^{26}\, q^{7} + 736137\, p^{22}\, q^{23} + 143266\, q^{26}\, p^{15} + 223901\, p^{27}\, q^{16} + 1053594\, p^{24}\, q^{23} + 65940\, p^{17}\, q^{17} + 1802158\, q^{35}\, p^{22} + 154080\, p^{57}\, q^{28}$$
$$+ 536274\, p^{60}\, q^{45} + 692454\, p^{59}\, q^{42} + 497628\, p^{59}\, q^{38} + 723597\, p^{59}\, q^{43} + 440276\, p^{59}\, q^{37} + 553431\, p^{59}\, q^{39} + 1034\, p^{49}\, q^{71} + 107\, p^{70}\, q^{35}$$
$$+ 529\, p^{72}\, q^{53} + 471\, p^{71}\, q^{44} + 736137\, p^{55}\, q^{56} + 1053594\, p^{54}\, q^{55} + 95275\, q^{26}\, p^{14} + 152516\, q^{27}\, p^{15} + 1527230\, q^{29}\, p^{22} + 35\, p^{42}\, q^{7}$$
$$+ 3639936\, p^{30}\, q^{26} + 6352\, p^{26}\, q^{9} + 22445\, p^{27}\, q^{11} + 2933\, p^{27}\, q^{8} + 39310\, p^{29}\, q^{12} + 12112\, p^{28}\, q^{10} + 374427\, p^{31}\, q^{17} + 1365665\, p^{32}\, q^{21}$$
$$+ 1003845\, p^{31}\, q^{20} + 741821\, p^{31}\, q^{19} + 1775154\, p^{32}\, q^{22} + 107178\, p^{30}\, q^{14} + 1034\, q^{29}\, p^{7} + 11227\, q^{30}\, p^{10} + 2595\, q^{29}\, p^{8} + 400\, q^{28}\, p^{6}$$
$$+ 1139\, q^{28}\, p^{7} + 5787\, q^{29}\, p^{9} + 1142426\, p^{52}\, q^{56} + 1581691\, p^{51}\, q^{55} + 75\, p^{19}\, q^{4} + 21\, p^{17}\, q^{3} + 3103\, p^{24}\, q^{8} + 37576\, p^{26}\, q^{12} + 11999\, p^{25}\, q^{10}$$
$$+ 1053594\, p^{23}\, q^{24} + 1142426\, p^{22}\, q^{26} + 1227052\, p^{23}\, q^{25} + 805290\, p^{21}\, q^{25} + 1003822\, p^{22}\, q^{25} + 9411666\, p^{36}\, q^{31} + 12142611\, p^{36}\, q^{34}$$
$$+ 12822786\, p^{36}\, q^{35} + 13676474\, p^{37}\, q^{36} + 8379192\, p^{36}\, q^{30} + 10405355\, p^{36}\, q^{32} + 7339815\, p^{36}\, q^{29} + 1362188\, p^{43}\, q^{57} + 38671\, q^{30}\, p^{12}$$
$$+ 568\, p^{67}\, q^{70} + 54\, p^{55}\, q^{74} + 62\, p^{56}\, q^{74} + 67\, p^{57}\, q^{74} + 73\, p^{58}\, q^{74} + 451\, p^{62}\, q^{72} + 6706086\, p^{30}\, q^{31} + 7667817\, p^{33}\, q^{30} + 183\, q^{58}\, p^{16}$$
$$+ 151\, q^{57}\, p^{15} + 50\, q^{57}\, p^{14} + 468\, q^{59}\, p^{18} + 34\, q^{56}\, p^{13} + 468\, q^{60}\, p^{19} + 858\, q^{61}\, p^{21} + 206\, q^{59}\, p^{17} + 943\, q^{60}\, p^{20} + 2713\, q^{61}\, p^{23} + 1567\, q^{61}\, p^{22}$$
$$+ 3629\, q^{62}\, p^{25} + 5662\, q^{62}\, p^{26} + 2236\, q^{62}\, p^{24} + 4303\, q^{63}\, p^{27} + 6404\, q^{63}\, p^{28} + 12675\, q^{36}\, p^{11} + 3062442\, p^{30}\, q^{25} + 4251087\, p^{30}\, q^{27}$$
$$+ 5292535\, p^{31}\, q^{28} + 40\, q^{25}\, p^{4} + 744712\, q^{34}\, p^{19} + 563\, p^{54}\, q^{72} + 112\, p^{50}\, q^{73} + 5513756\, p^{30}\, q^{29} + 3669015\, p^{35}\, q^{25} + 306\, p^{69}\, q^{70}$$
$$+ 186\, p^{63}\, q^{73} + 481330\, q^{36}\, p^{18} + 968826\, q^{36}\, p^{20} + 1261725\, q^{37}\, p^{21} + 300\, q^{30}\, p^{6} + 93\, q^{29}\, p^{5} + 803\, q^{31}\, p^{7} + 8486\, p^{63}\, q^{66} + 4521\, p^{64}\, q^{67}$$
$$+ 1302\, p^{58}\, q^{71} + 37426\, q^{31}\, p^{12} + 103542\, q^{32}\, p^{14} + 3062442\, p^{25}\, q^{30} + 375100\, p^{17}\, q^{32} + 16\, p^{75}\, q^{58} + 18\, p^{75}\, q^{59} + 506627\, q^{35}\, p^{18}$$

$$+ 34\, q^{26}\, p^{4} + 1758079\, q^{36}\, p^{22} + 55247\, q^{34}\, p^{13} + 2711534\, p^{38}\, q^{24} + 450264\, p^{37}\, q^{18} + 4230713\, p^{38}\, q^{26} + 400\, p^{28}\, q^{6} + 131\, p^{27}\, q^{5}$$
$$+ 11259131\, p^{39}\, q^{33} + 211596\, p^{36}\, q^{16} + 90729\, p^{33}\, q^{61} + 8017775\, p^{39}\, q^{30} + 6930744\, p^{39}\, q^{29} + 163\, p^{45}\, q^{72} + 10215185\, p^{39}\, q^{32}$$
$$+ 414723\, p^{18}\, q^{38} + 10405355\, p^{32}\, q^{36} + 5134985\, p^{27}\, q^{38} + 3553868\, p^{25}\, q^{37} + 4373418\, p^{26}\, q^{37} + 11471381\, p^{33}\, q^{37} + 9123330\, p^{39}\, q^{31}$$
$$+ 12219232\, p^{39}\, q^{34} + 13061308\, p^{39}\, q^{35} + 13491488\, p^{40}\, q^{36} + 339738\, p^{28}\, q^{17} + 1195883\, p^{29}\, q^{21} + 855426\, p^{28}\, q^{20} + 644637\, p^{28}\, q^{19}$$
$$+ 1527230\, p^{29}\, q^{22} + 100447\, p^{27}\, q^{14} + 78979\, p^{59}\, q^{62} + 84175\, p^{60}\, q^{61} + 57111\, p^{57}\, q^{64} + 69450\, p^{58}\, q^{63} + 78979\, p^{62}\, q^{59} + 550\, p^{65}\, q^{71}$$
$$+ 3\, p^{51}\, q^{75} + 2\, p^{50}\, q^{75} + 560105\, q^{42}\, p^{20} + 962584\, q^{43}\, p^{22} + 1484200\, q^{42}\, p^{23} + 795552\, q^{42}\, p^{21} + 1100235\, q^{42}\, p^{22} + 42123\, p^{62}\, q^{32}$$
$$+ 15771\, p^{61}\, q^{27} + 32188\, p^{62}\, q^{31} + 121044\, p^{63}\, q^{41} + 1752240\, p^{23}\, q^{28} + 66193\, p^{65}\, q^{49} + 662\, p^{64}\, q^{71} + 454\, p^{69}\, q^{69} + 859374\, p^{20}\, q^{38}$$
$$+ 855426\, p^{50}\, q^{58} + 7\, p^{41}\, q^{73} + 1370\, p^{53}\, q^{71} + 2557266\, p^{39}\, q^{24} + 414723\, p^{38}\, q^{18} + 4031921\, p^{39}\, q^{26} + 348\, p^{29}\, q^{6} + 112\, p^{28}\, q^{5}$$
$$+ 10910750\, p^{40}\, q^{33} + 194597\, p^{37}\, q^{16} + 7670634\, p^{40}\, q^{30} + 6600801\, p^{40}\, q^{29} + 9857866\, p^{40}\, q^{32} + 8256303\, p^{30}\, q^{35} + 2\, p^{44}\, q^{74}$$
$$+ 275050\, q^{38}\, p^{17} + 533770\, p^{55}\, q^{30} + 259047\, p^{54}\, q^{26} + 421670\, p^{55}\, q^{29} + 63859\, q^{38}\, p^{14} + 1139\, p^{28}\, q^{7} + 2595\, p^{29}\, q^{8} + 35663\, p^{32}\, q^{12}$$
$$+ 10539\, p^{31}\, q^{10} + 359724\, p^{34}\, q^{17} + 1362188\, p^{35}\, q^{21} + 99410\, p^{33}\, q^{14} + 351\, p^{64}\, q^{72} + 222\, p^{60}\, q^{73} + 50\, p^{74}\, q^{67} + 781\, p^{63}\, q^{71} + 48\, p^{54}\, q^{74}$$
$$+ 7083764\, p^{34}\, q^{29} + 69\, p^{69}\, q^{73} + 127\, p^{66}\, q^{73} + 73\, p^{63}\, q^{74} + 90\, p^{72}\, q^{70} + 99\, p^{71}\, q^{71} + 172348\, p^{62}\, q^{54} + 107788\, p^{63}\, q^{55} + 252992\, p^{62}\, q^{46}$$
$$+ 200\, p^{72}\, q^{67} + 795552\, p^{36}\, q^{57} + 716444\, p^{38}\, q^{58} + 560105\, p^{36}\, q^{58} + 691214\, p^{35}\, q^{57} + 919439\, p^{41}\, q^{58} + 24\, p^{68}\, q^{27} + 110\, p^{69}\, q^{32}$$
$$+ 1802158\, p^{43}\, q^{56} + 1003114\, q^{57}\, p^{38} + 378947\, p^{56}\, q^{30} + 182349\, p^{55}\, q^{26} + 296807\, p^{56}\, q^{29} + 790834\, p^{39}\, q^{58} + 3\, p^{33}\, q^{4} + 246\, p^{47}\, q^{10}$$
$$+ 1352\, p^{50}\, q^{13} + 12857\, p^{53}\, q^{18} + 1195883\, p^{49}\, q^{57} + 1404\, p^{71}\, q^{54} + 686\, p^{71}\, q^{46} + 582\, p^{72}\, q^{55} + 6\, p^{32}\, q^{4} + 391\, p^{35}\, q^{69} + 1237061\, p^{37}\, q^{56}$$
$$+ 11999\, p^{53}\, q^{68} + 22040\, p^{52}\, q^{67} + 3368\, p^{59}\, q^{21} + 8342\, p^{60}\, q^{24} + 731\, p^{56}\, q^{16} + 1866\, p^{58}\, q^{19} + 88\, p^{49}\, q^{10} + 5\, p^{53}\, q^{75} + 4\, p^{52}\, q^{75} + 7\, p^{54}\, q^{75}$$
$$+ p^{56}\, q^{76} + 14\, p^{57}\, q^{75} + 9\, p^{55}\, q^{75} + 11\, p^{56}\, q^{75} + 40871\, p^{65}\, q^{41} + 21048\, p^{64}\, q^{34} + 26592\, p^{64}\, q^{35} + 35840\, p^{66}\, q^{53} + 55247\, p^{65}\, q^{44}$$
$$+ 582\, p^{55}\, q^{72} + 236650\, p^{28}\, q^{16} + 1910729\, q^{29}\, p^{23} + 2784\, q^{52}\, p^{15} + 14706\, q^{54}\, p^{19} + 428700\, p^{19}\, q^{24} + 754030\, p^{46}\, q^{59} + 474001\, q^{56}\, p^{31}$$
$$+ 828152\, q^{56}\, p^{34} + 581524\, q^{56}\, p^{32} + 1383847\, q^{34}\, p^{21} + 1027956\, q^{34}\, p^{20} + 1362188\, q^{35}\, p^{21} + 263261\, p^{53}\, q^{25} + 525225\, p^{60}\, q^{44}$$
$$+ 7484\, q^{19}\, p^{10} + 4374\, q^{19}\, p^{9} + 8465\, q^{20}\, p^{10} + 182349\, q^{55}\, p^{26} + 246782\, q^{55}\, p^{27} + 700195\, q^{56}\, p^{33} + 962584\, q^{56}\, p^{35} + 543070\, p^{19}\, q^{26}$$
$$+ 741821\, p^{19}\, q^{31} + 4587334\, p^{27}\, q^{31} + 5513756\, p^{29}\, q^{30} + 7052\, q^{53}\, p^{17} + 378947\, q^{56}\, p^{30} + 131406\, q^{55}\, p^{25} + 92137\, q^{55}\, p^{24} + 4615\, p^{62}\, q^{68}$$
$$+ 1304\, p^{68}\, q^{67} + 535\, p^{18}\, q^{6} + 214\, p^{17}\, q^{5} + 182057\, q^{22}\, p^{17} + 493\, p^{26}\, q^{6} + 170\, p^{25}\, q^{5} + 215\, p^{73}\, q^{56} + 176\, p^{69}\, q^{33} + 8\, p^{66}\, q^{22} + 25\, p^{67}\, q^{25}$$
$$+ 52\, p^{67}\, q^{26} + 20\, p^{66}\, q^{23} + 4454497\, q^{36}\, p^{26} + 2914170\, q^{36}\, p^{24} + 1365665\, p^{46}\, q^{57} + 11\, p^{36}\, q^{5} + 252305\, p^{30}\, q^{16} + 2138\, q^{31}\, p^{8}$$
$$+ 859374\, p^{58}\, q^{40} + 93980\, q^{34}\, p^{14} + 9389\, p^{55}\, q^{19} + 26862\, p^{56}\, q^{22} + 781\, p^{71}\, q^{63} + 899\, p^{71}\, q^{62} + 1017\, p^{71}\, q^{61} + 167464\, p^{31}\, q^{15}$$

$$+ 4306779\, p^{33}\, q^{26} + 5787\, p^{29}\, q^{9} + 21502\, p^{30}\, q^{11} + 1187007\, p^{57}\, q^{40} + 4917915\, p^{27}\, q^{39} + 11448471\, p^{33}\, q^{38} + 786175\, p^{51}\, q^{58}$$
$$+ 4303\, p^{51}\, q^{15} + 560105\, p^{58}\, q^{36} + 2008\, p^{51}\, q^{14} + 2\, q^{49}\, p^{8} + 100\, q^{51}\, p^{11} + 318\, q^{51}\, p^{12} + 49\, q^{50}\, p^{10} + 8670225\, p^{32}\, q^{32} + 8016072\, p^{30}\, q^{34}$$
$$+ 8502082\, p^{31}\, q^{33} + 586\, p^{72}\, q^{58} + 563\, p^{72}\, q^{59} + 3553868\, p^{37}\, q^{25} + 4996\, p^{31}\, q^{9} + 19279\, p^{32}\, q^{11} + 3637792\, q^{36}\, p^{25} + 5354586\, q^{36}\, p^{27}$$
$$+ 6267247\, q^{37}\, p^{28} + 344329\, q^{35}\, p^{17} + 33427\, q^{33}\, p^{12} + 9738\, q^{32}\, p^{10} + 2287680\, q^{36}\, p^{23} + 692454\, p^{42}\, q^{59} + 525225\, p^{44}\, q^{60} + 919\, q^{30}\, p^{7}$$
$$+ 348\, q^{29}\, p^{6} + 16\, q^{20}\, p^{3} + 1564\, p^{45}\, q^{11} + 2710\, p^{46}\, q^{12} + 339738\, q^{28}\, p^{17} + 474164\, q^{28}\, p^{18} + 855426\, q^{28}\, p^{20} + 1195883\, q^{29}\, p^{21}$$
$$+ 119\, p^{39}\, q^{71} + 166\, p^{40}\, q^{71} + 225\, p^{41}\, q^{71} + 8299063\, p^{41}\, q^{31} + 11400059\, p^{41}\, q^{34} + 12285466\, p^{41}\, q^{35} + 12420044\, p^{42}\, q^{36}$$
$$+ 14276426\, p^{38}\, q^{37} + 11752\, q^{29}\, p^{10} + 447\, q^{27}\, p^{6} + 1003845\, p^{58}\, q^{47} + 966410\, p^{58}\, q^{48} + 119\, p^{39}\, q^{7} + 700195\, p^{56}\, q^{33} + 12382\, p^{50}\, q^{16}$$
$$+ 6\, q^{48}\, p^{8} + 2137984\, p^{28}\, q^{24} + 214\, p^{60}\, q^{18} + 66\, p^{58}\, q^{15} + 57111\, p^{21}\, q^{14} + 94768\, p^{22}\, q^{15} + 38586\, p^{21}\, q^{13} + 15736\, p^{21}\, q^{11} + 152802\, p^{23}\, q^{16}$$
$$+ 63739\, q^{27}\, p^{13} + 644637\, q^{28}\, p^{19} + 324427\, p^{60}\, q^{54} + 210685\, p^{61}\, q^{55} + 539378\, p^{60}\, q^{46} + 2344054\, p^{29}\, q^{24} + 3646013\, p^{25}\, q^{34}$$
$$+ 5651066\, p^{28}\, q^{32} + 7370777\, p^{31}\, q^{31} + 2951025\, p^{24}\, q^{34} + 1109504\, p^{50}\, q^{57} + 82738\, q^{40}\, p^{15} + 1291\, p^{48}\, q^{12} + 739\, p^{47}\, q^{11}$$
$$+ 2904195\, p^{33}\, q^{24} + 64562\, p^{31}\, q^{13} + 539378\, p^{32}\, q^{18} + 10720\, q^{61}\, p^{26} + 4463\, q^{61}\, p^{24} + 1658314\, p^{23}\, q^{41} + 2172628\, p^{24}\, q^{41}$$
$$+ 1956269\, p^{24}\, q^{42} + 2785841\, p^{25}\, q^{41} + 3499693\, p^{26}\, q^{41} + 7670634\, p^{30}\, q^{40} + 4311763\, p^{27}\, q^{41} + 6600801\, p^{29}\, q^{40} + 4420529\, p^{26}\, q^{34}$$
$$+ 7225592\, p^{32}\, q^{30} + 6157917\, p^{28}\, q^{34} + 5263138\, p^{27}\, q^{34} + 6286213\, p^{28}\, q^{35} + 3629\, q^{53}\, p^{16} + 2933\, p^{43}\, q^{11} + 5061\, p^{44}\, q^{12} + 1867\, p^{11}\, q^{11}$$
$$+ 324427\, p^{18}\, q^{24} + 2530275\, p^{30}\, q^{24} + 582\, p^{23}\, q^{6} + 215\, p^{22}\, q^{5} + 65456\, p^{28}\, q^{13} + 501042\, p^{29}\, q^{18} + 4\, p^{15}\, q^{2} + 596\, p^{22}\, q^{6} + 224\, p^{21}\, q^{5}$$
$$+ 7976714\, p^{32}\, q^{31} + 4306779\, p^{26}\, q^{33} + 6442052\, p^{29}\, q^{32} + 107788\, p^{15}\, q^{23} + 67\, p^{21}\, q^{4} + 18\, p^{19}\, q^{3} + 3043\, p^{26}\, q^{8} + 39349\, p^{28}\, q^{12}$$
$$+ 12269\, p^{27}\, q^{10} + 368064\, p^{30}\, q^{17} + 1326535\, p^{31}\, q^{21} + 966410\, p^{30}\, q^{20} + 718791\, p^{30}\, q^{19} + 1714130\, p^{31}\, q^{22} + 106527\, p^{29}\, q^{14}$$
$$+ 744712\, p^{44}\, q^{59} + 1278783\, p^{27}\, q^{22} + 441\, p^{70}\, q^{39} + 803\, p^{71}\, q^{47} + 585\, p^{70}\, q^{40} + 1139\, p^{71}\, q^{50} + 1156\, p^{70}\, q^{43} + 944\, p^{70}\, q^{42}$$
$$+ 744712\, p^{59}\, q^{44} + 4639840\, p^{27}\, q^{40} + 1689507\, p^{41}\, q^{56} + 1005464\, q^{35}\, p^{20} + 1320868\, q^{36}\, p^{21} + 112\, q^{28}\, p^{5} + 7\, q^{24}\, p^{3} + 88\, p^{68}\, q^{29}$$
$$+ 2248246\, q^{43}\, p^{25} + 1733362\, q^{43}\, p^{24} + 2855335\, q^{43}\, p^{26} + 4341828\, q^{43}\, p^{28} + 3554779\, q^{43}\, p^{27} + 3869789\, q^{44}\, p^{28} + 12285466\, p^{43}\, q^{37}$$
$$+ 227554\, q^{56}\, p^{28} + 8342\, q^{54}\, p^{18} + 10768503\, p^{34}\, q^{42} + 2172628\, p^{41}\, q^{24} + 335362\, p^{40}\, q^{18} + 3499693\, p^{41}\, q^{26} + 9799202\, p^{42}\, q^{33}$$
$$+ 156819\, p^{39}\, q^{16} + 6711455\, p^{42}\, q^{30} + 5722619\, p^{42}\, q^{29} + 8778518\, p^{42}\, q^{32} + 186\, p^{73}\, q^{63} + 201\, p^{73}\, q^{62} + 214\, p^{73}\, q^{61} + 1034\, p^{29}\, q^{7}$$
$$+ 2379\, p^{30}\, q^{8} + 33427\, p^{33}\, q^{12} + 9738\, p^{32}\, q^{10} + 344329\, p^{35}\, q^{17} + 1320868\, p^{36}\, q^{21} + 93980\, p^{34}\, q^{14} + 916242\, p^{58}\, q^{49} + 855426\, p^{58}\, q^{50}$$
$$+ 6265\, p^{51}\, q^{69} + 723597\, q^{35}\, p^{19} + 17815\, q^{33}\, p^{11} + 1027956\, p^{34}\, q^{20} + 744712\, p^{34}\, q^{19} + 1802158\, p^{35}\, q^{22} + 2331858\, p^{35}\, q^{23}$$
$$+ 5348085\, p^{35}\, q^{27} + 6323245\, p^{36}\, q^{28} + 1326535\, p^{47}\, q^{57} + 4520\, q^{32}\, p^{9} + 38754\, q^{27}\, p^{12} + 2954\, p^{70}\, q^{56} + 3752\, p^{66}\, q^{33} + 306\, p^{63}\, q^{22}$$

$$+ 754\, p^{64}\, q^{25} + 536274\, p^{45}\, q^{60} + 164923\, q^{32}\, p^{15} + 63739\, p^{27}\, q^{13} + 474164\, p^{28}\, q^{18} + 14268464\, p^{39}\, q^{37} + 741821\, p^{59}\, q^{47} + 718791\, p^{59}\, q^{48}$$
$$+ 495429\, p^{57}\, q^{33} + 8507\, p^{51}\, q^{16} + 11259131\, p^{33}\, q^{39} + 16797\, p^{56}\, q^{21} + 39743\, p^{57}\, q^{24} + 563\, p^{72}\, q^{54} + 205\, p^{72}\, q^{46} + 203\, p^{73}\, q^{55}$$
$$+ 1368882\, p^{22}\, q^{40} + 501872\, p^{56}\, q^{57} + 553774\, p^{54}\, q^{58} + 242710\, p^{60}\, q^{56} + 226448\, q^{35}\, p^{16} + 152750\, q^{34}\, p^{15} + 760\, p^{69}\, q^{37} + 919\, p^{71}\, q^{48}$$
$$+ 1635\, p^{70}\, q^{45} + 178\, p^{67}\, q^{28} + p^{52}\, q^{9} + 1161\, p^{64}\, q^{70} + p^{49}\, q^{75} + 42183\, q^{61}\, p^{30} + 8507\, q^{62}\, p^{27} + 31212\, q^{61}\, p^{29} + 15771\, q^{61}\, p^{27}$$
$$+ 22491\, q^{61}\, p^{28} + 3859\, p^{60}\, q^{69} + 2\, p^{19}\, q^{2} + 3043\, p^{52}\, q^{70} + 96\, p^{43}\, q^{72} + 1171\, p^{9}\, q^{12} + 550\, p^{7}\, q^{13} + 741\, p^{8}\, q^{12} + 10494672\, p^{32}\, q^{37}$$
$$+ 9411666\, p^{31}\, q^{36} + 3\, p^{17}\, q^{2} + 54\, p^{23}\, q^{4} + 14\, p^{21}\, q^{3} + 968826\, p^{36}\, q^{20} + 692454\, p^{36}\, q^{19} + 1689507\, p^{37}\, q^{22} + 2211204\, p^{37}\, q^{23}$$
$$+ 5282623\, p^{37}\, q^{27} + 6120858\, p^{38}\, q^{28} + 55247\, p^{34}\, q^{13} + 152750\, p^{34}\, q^{15} + 21862\, q^{37}\, p^{12} + 72089\, q^{37}\, p^{14} + 108432\, q^{38}\, p^{15} + 1156\, q^{35}\, p^{8}$$
$$+ 378\, q^{35}\, p^{7} + 35722\, q^{38}\, p^{13} + 10928\, q^{37}\, p^{11} + 50807\, q^{35}\, p^{13} + 8837\, q^{33}\, p^{10} + 16179\, q^{34}\, p^{11} + 14452\, q^{35}\, p^{11} + 19279\, q^{32}\, p^{11}$$
$$+ 14706\, p^{54}\, q^{19} + 41353\, p^{55}\, q^{22} + 8257380\, p^{30}\, q^{38} + 5530\, p^{61}\, q^{68} + 227115\, p^{33}\, q^{59} + 22236\, p^{25}\, q^{59} + 275277\, p^{34}\, q^{59} + 327633\, p^{35}\, q^{59}$$
$$+ 340669\, q^{58}\, p^{33} + 1714130\, p^{22}\, q^{31} + 131406\, p^{53}\, q^{23} + 3103\, q^{24}\, p^{8} + 20249\, q^{24}\, p^{11} + 14536788\, p^{38}\, q^{38} + 12761194\, p^{35}\, q^{40}$$
$$+ 13637977\, p^{41}\, q^{37} + 486567\, p^{59}\, q^{53} + 5787\, p^{49}\, q^{69} + 14586034\, p^{39}\, q^{38} + 2595\, p^{49}\, q^{70} + 246229\, p^{62}\, q^{49} + 10074\, p^{56}\, q^{20} + 36695\, p^{58}\, q^{25}$$
$$+ 568\, p^{70}\, q^{67} + 1491079\, p^{22}\, q^{39} + 3945692\, p^{27}\, q^{42} + 5207120\, p^{29}\, q^{43} + 6711455\, p^{30}\, q^{42} + 4795090\, p^{28}\, q^{42} + 5722619\, p^{29}\, q^{42} + p^{60}\, q^{14}$$
$$+ p^{59}\, q^{13} + 910773\, p^{52}\, q^{57} + 501872\, p^{57}\, q^{56} + 183802\, p^{59}\, q^{32} + 74025\, p^{58}\, q^{27} + 145831\, p^{59}\, q^{31} + 450264\, p^{60}\, q^{41} + 275277\, p^{59}\, q^{34}$$
$$+ 327633\, p^{59}\, q^{35} + 7229425\, p^{30}\, q^{41} + 8299063\, p^{31}\, q^{41} + 7738981\, p^{31}\, q^{42} + 9372528\, p^{32}\, q^{41} + 10417737\, p^{33}\, q^{41} + 11890236\, p^{34}\, q^{40}$$
$$+ 7307925\, q^{37}\, p^{29} + 65874\, p^{13}\, q^{30} + 167416\, p^{15}\, q^{30} + 3337560\, p^{26}\, q^{29} + 20534\, q^{31}\, p^{11} + 2\, p^{39}\, q^{73} + 3005\, p^{64}\, q^{68} + 3028950\, p^{40}\, q^{25}$$
$$+ 3509\, p^{34}\, q^{9} + 14452\, p^{35}\, q^{11} + 686\, p^{32}\, q^{7} + 1635\, p^{33}\, q^{8} + 24949\, p^{36}\, q^{12} + 6910\, p^{35}\, q^{10} + 275050\, p^{38}\, q^{17} + 1099768\, p^{39}\, q^{21}$$
$$+ 72089\, p^{37}\, q^{14} + 790834\, p^{39}\, q^{20} + 553431\, p^{39}\, q^{19} + 1368882\, p^{40}\, q^{22} + 1823632\, p^{40}\, q^{23} + 4639840\, p^{40}\, q^{27} + 5213946\, p^{41}\, q^{28}$$
$$+ 40871\, p^{37}\, q^{13} + 121044\, p^{37}\, q^{15} + 2379\, q^{30}\, p^{8} + 3243270\, p^{25}\, q^{39} + 506627\, p^{43}\, q^{60} + 247240\, p^{39}\, q^{61} + 236650\, p^{62}\, q^{50} + 63855\, p^{59}\, q^{28}$$
$$+ 247579\, p^{62}\, q^{45} + 324509\, p^{61}\, q^{42} + 218587\, p^{61}\, q^{38} + 344329\, p^{61}\, q^{43} + 190057\, p^{61}\, q^{37} + 247240\, p^{61}\, q^{39} + 7339815\, q^{36}\, p^{29} + 1392\, q^{34}\, p^{8}$$
$$+ 3509\, q^{34}\, p^{9} + 80048\, q^{36}\, p^{14} + 249\, p^{47}\, q^{72} + 400\, p^{50}\, q^{72} + 348\, p^{49}\, q^{72} + 45\, p^{46}\, q^{73} + 300\, p^{48}\, q^{72} + 324427\, p^{54}\, q^{60} + 405112\, p^{52}\, q^{60}$$
$$+ 368064\, p^{48}\, q^{61} + 333744\, p^{57}\, q^{58} + 204340\, p^{60}\, q^{57} + 271503\, p^{58}\, q^{58} + 8465\, p^{58}\, q^{68} + 8016072\, p^{34}\, q^{30} + 9355115\, p^{31}\, q^{38}$$
$$+ 4031921\, p^{26}\, q^{39} + 59133\, q^{33}\, p^{13} + 1187007\, p^{21}\, q^{38} + 3420502\, p^{38}\, q^{25} + 4520\, p^{32}\, q^{9} + 17815\, p^{33}\, q^{11} + 2711534\, p^{24}\, q^{38}$$
$$+ 1689507\, p^{22}\, q^{37} + 2211204\, p^{23}\, q^{37} + 641\, p^{69}\, q^{68} + 525225\, q^{34}\, p^{18} + 5583582\, p^{28}\, q^{40} + 13815871\, p^{36}\, q^{38} + 9123330\, p^{31}\, q^{39}$$
$$+ 10215185\, p^{32}\, q^{39} + 966410\, p^{48}\, q^{58} + 805290\, p^{53}\, q^{57} + 2951025\, p^{34}\, q^{24} + 62267\, p^{32}\, q^{13} + 536274\, p^{33}\, q^{18} + 1139\, p^{50}\, q^{71}$$

$$+ 1013371\, p^{51} q^{57} + 613640\, p^{56} q^{56} + 278333\, p^{58} q^{32} + 114268\, p^{57} q^{27} + 222989\, p^{58} q^{31} + 652674\, p^{59} q^{41} + 409304\, p^{58} q^{34}$$
$$+ 482961\, p^{58} q^{35} + 14\, p^{40} q^{6} + 1320\, p^{69} q^{39} + 2138\, p^{70} q^{47} + 1674\, p^{69} q^{40} + 2787\, p^{70} q^{50} + 3008\, p^{69} q^{43} + 2526\, p^{69} q^{42} + 7738981\, p^{42} q^{31}$$
$$+ 10768503\, p^{42} q^{34} + 11652733\, p^{42} q^{35} + 11652733\, p^{43} q^{36} + 11471381\, p^{37} q^{33} + 238626\, p^{34} q^{16} + 5310\, p^{57} q^{69} + 11326531\, p^{33} q^{36}$$
$$+ 6120858\, p^{28} q^{38} + 5282623\, p^{27} q^{37} + 12348094\, p^{34} q^{37} + 164923\, p^{32} q^{15} + 4420529\, p^{34} q^{26} + 24949\, q^{36} p^{12} + 1635\, q^{33} p^{8} + 572\, p^{45} q^{10}$$
$$+ 3045\, p^{48} q^{13} + 27645\, p^{51} q^{18} + 10564128\, p^{45} q^{44} + 9280880\, p^{46} q^{45} + 11448471\, p^{45} q^{40} + 575\, p^{45} q^{71} + 14586034\, p^{38} q^{39}$$
$$+ 2522556\, p^{42} q^{25} + 218587\, p^{40} q^{17} + 55589\, p^{39} q^{14} + 638669\, p^{41} q^{20} + 440276\, p^{41} q^{19} + 1100235\, p^{42} q^{22} + 1484200\, p^{42} q^{23}$$
$$+ 3945692\, p^{42} q^{27} + 4341828\, p^{43} q^{28} + 95550\, p^{39} q^{15} + 261529\, p^{57} q^{30} + 124715\, p^{56} q^{26} + 202986\, p^{57} q^{29} + 900621\, p^{41} q^{21} + 318\, p^{51} q^{12}$$
$$+ 178\, p^{50} q^{11} + 2713\, p^{55} q^{17} + 275050\, p^{61} q^{40} + 254571\, p^{62} q^{47} + 252305\, p^{62} q^{48} + 53436\, p^{24} q^{13} + 595\, p^{21} q^{6} + 228\, p^{20} q^{5} + 6005\, p^{23} q^{9}$$
$$+ 20249\, p^{24} q^{11} + 365524\, p^{25} q^{18} + 99410\, q^{33} p^{14} + 9234030\, p^{35} q^{31} + 10564128\, p^{33} q^{34} + 9786073\, p^{32} q^{34} + 11232601\, p^{34} q^{34}$$
$$+ 11765630\, p^{35} q^{34} + 10564128\, p^{34} q^{33} + 391\, p^{69} q^{35} + 1370\, p^{71} q^{53} + 1392\, p^{70} q^{44} + 71830\, p^{32} q^{61} + p^{75} q^{49} + 5\, p^{76} q^{64} + 916242\, p^{49} q^{58}$$
$$+ 62\, p^{74} q^{56} + 41\, p^{70} q^{33} + p^{67} q^{22} + 4\, p^{68} q^{25} + 11\, p^{68} q^{26} + 4\, p^{67} q^{23} + 267894\, p^{53} q^{61} + 164840\, p^{49} q^{63} + 223901\, p^{51} q^{62} + 81652\, p^{64} q^{54}$$
$$+ 48775\, p^{65} q^{55} + 103542\, p^{64} q^{46} + 1404\, p^{54} q^{71} + 1234\, p^{51} q^{71} + 33\, p^{33} q^{5} + 356376\, p^{61} q^{49} + 441751\, p^{60} q^{51} + 405112\, p^{60} q^{52}$$
$$+ 176\, p^{45} q^{9} + 69\, p^{44} q^{8} + 11020109\, p^{33} q^{35} + 12374569\, p^{35} q^{35} + 13341058\, p^{36} q^{36} + 9234030\, p^{31} q^{35} + 107\, q^{70} p^{35} + 1974553\, q^{55} p^{39}$$
$$+ 5\, p^{14} q^{2} + 919\, p^{30} q^{7} + 2138\, p^{31} q^{8} + 30835\, p^{34} q^{12} + 8837\, p^{33} q^{10} + 324509\, p^{36} q^{17} + 1261725\, p^{37} q^{21} + 87426\, p^{35} q^{14} + 48\, p^{24} q^{4}$$
$$+ 11\, p^{22} q^{3} + 919439\, p^{37} q^{20} + 652674\, p^{37} q^{19} + 1599374\, p^{38} q^{22} + 2105369\, p^{38} q^{23} + 5134985\, p^{38} q^{27} + 5889775\, p^{39} q^{28} + 50807\, p^{35} q^{13}$$
$$+ 143626\, p^{35} q^{15} + 493\, q^{26} p^{6} + 170\, q^{25} p^{5} + 539378\, p^{18} q^{32} + 70611\, p^{30} q^{60} + 32524\, p^{26} q^{59} + 8256303\, p^{35} q^{30} + 8926639\, p^{34} q^{31}$$
$$+ 8926639\, p^{31} q^{34} + 9976963\, p^{33} q^{33} + 10165821\, p^{35} q^{32} + 9280880\, p^{32} q^{33} + 9280880\, p^{33} q^{32} + 9786073\, p^{34} q^{32} + 11765630\, p^{34} q^{35}$$
$$+ 10165821\, p^{32} q^{35} + 16073\, p^{55} q^{20} + 58159\, p^{57} q^{25} + 1956269\, p^{42} q^{24} + 294225\, p^{41} q^{18} + 3186182\, p^{42} q^{26} + 9079104\, p^{43} q^{33}$$
$$+ 137320\, p^{40} q^{16} + 6135568\, p^{43} q^{30} + 5207120\, p^{43} q^{29} + 8098014\, p^{43} q^{32} + 13491488\, p^{36} q^{40} + 13040951\, p^{42} q^{37} + 14422523\, p^{40} q^{38}$$
$$+ 8778518\, p^{32} q^{42} + 11400059\, p^{34} q^{41} + 7107494\, p^{43} q^{31} + 10019605\, p^{43} q^{34} + 10887992\, p^{43} q^{35} + 10768503\, p^{44} q^{36} + 6135568\, p^{30} q^{43}$$
$$+ 881\, p^{69} q^{67} + 18830\, q^{38} p^{12} + 2051294\, p^{30} q^{23} + 536274\, p^{18} q^{33} + 1365665\, p^{21} q^{32} + 754030\, p^{19} q^{32} + 2689533\, p^{24} q^{31}$$
$$+ 1027147\, p^{20} q^{32} + p^{68} q^{24} + 14\, p^{72} q^{38} + 371346\, p^{55} q^{59} + 686\, p^{46} q^{71} + 803\, p^{47} q^{71} + 919\, p^{48} q^{71} + 365524\, p^{53} q^{60} + 264023\, p^{59} q^{57}$$
$$+ 486567\, p^{53} q^{59} + 1005464\, p^{43} q^{58} + 425\, p^{70} q^{68} + 11\, p^{75} q^{56} + 6\, p^{71} q^{33} + p^{69} q^{26} + 944\, q^{36} p^{8} + 534325\, p^{60} q^{47} + 521402\, p^{60} q^{48}$$
$$+ 7264169\, p^{35} q^{29} + 790834\, q^{39} p^{20} + 378\, p^{43} q^{71} + 9239\, q^{38} p^{11} + 553431\, q^{39} p^{19} + 113272\, p^{59} q^{30} + 52869\, p^{58} q^{26} + 86071\, p^{59} q^{29}$$

$$+ 223901\, p^{62} q^{51} + 208549\, p^{62} q^{52} + 26308\, p^{57} q^{23} + 511\, p^{52} q^{13} + 5200\, p^{55} q^{18} + 1735\, p^{53} q^{15} + 253819\, p^{60} q^{36} + 754\, p^{53} q^{14}$$
$$+ 301151\, p^{41} q^{61} + 413323\, p^{57} q^{57} + 596\, p^{72} q^{56} + 572\, p^{68} q^{33} + 34\, p^{65} q^{22} + 95\, p^{66} q^{25} + 2\, p^{66} q^{21} + 10\, p^{67} q^{24} + p^{65} q^{19} + 82\, p^{71} q^{38}$$
$$+ 2008064\, p^{25} q^{26} + 4374\, p^{59} q^{69} + 3103\, p^{54} q^{70} + 152\, p^{68} q^{30} + 20\, p^{64} q^{20} + 254571\, p^{16} q^{31} + 107178\, p^{14} q^{30} + 9452674\, p^{31} q^{37}$$
$$+ 8379192\, p^{30} q^{36} + p^{72} q^{34} + 7\, p^{73} q^{41} + 2184263\, q^{45} p^{26} + 1294938\, q^{45} p^{24} + 181\, p^{66} q^{26} + 77\, p^{65} q^{23} + 700065\, p^{54} q^{57} + 190057\, p^{37} q^{61}$$
$$+ 67533\, p^{34} q^{62} + 162377\, p^{36} q^{61} + 112271\, p^{34} q^{61} + 136297\, p^{35} q^{61} + 7484\, p^{59} q^{68} + 67533\, q^{44} p^{16} + 136297\, q^{43} p^{17} + 48216\, q^{43} p^{15}$$
$$+ 82926\, q^{43} p^{16} + 306\, p^{70} q^{69} + 267\, p^{71} q^{68} + 535\, p^{60} q^{72} + 563\, p^{59} q^{72} + 215\, p^{56} q^{73} + 8145\, p^{45} q^{13} + 70611\, p^{48} q^{18} + 843\, p^{49} q^{12}$$
$$+ 480\, p^{48} q^{11} + 2933\, p^{51} q^{70} + 686000\, p^{59} q^{49} + 84175\, p^{61} q^{60} + 43752\, p^{56} q^{65} + 69450\, p^{63} q^{58} + 43752\, p^{65} q^{56} + 57111\, p^{64} q^{57}$$
$$+ 143626\, p^{43} q^{63} + 132901\, p^{42} q^{63} + 152750\, p^{44} q^{63} + 103542\, p^{46} q^{64} + 167464\, p^{47} q^{63} + 159974\, p^{45} q^{63} + 164923\, p^{46} q^{63}$$
$$+ 315985\, p^{56} q^{59} + 402432\, p^{56} q^{58} + 476289\, p^{55} q^{58} + 182057\, p^{61} q^{56} + 164840\, p^{63} q^{49} + 6045\, p^{57} q^{20} + 22236\, p^{59} q^{25} + 4\, p^{40} q^{73}$$
$$+ 359724\, q^{34} p^{17} + 42183\, p^{61} q^{30} + 19155\, p^{60} q^{26} + 31212\, p^{61} q^{29} + 100447\, p^{64} q^{51} + 95275\, p^{64} q^{52} + 9389\, p^{59} q^{23} + 99917\, p^{62} q^{36}$$
$$+ 2530275\, p^{24} q^{30} + 10910750\, p^{45} q^{38} + 11471381\, p^{45} q^{41} + 11020109\, p^{45} q^{43} + 11326531\, p^{45} q^{42} + 295\, q^{36} p^{7} + 1674\, q^{38} p^{9}$$
$$+ 39938\, q^{41} p^{14} + p^{50} q^{8} + 32\, p^{61} q^{17} + 151\, p^{63} q^{21} + 30\, p^{60} q^{16} + 429\, p^{64} q^{24} + 79\, p^{62} q^{19} + 2674\, p^{68} q^{38} + 21413\, q^{41} p^{13}$$
$$+ 4111204\, q^{45} p^{29} + 7667\, q^{39} p^{11} + 973\, q^{59} p^{19} + 1762\, q^{60} p^{21} + 128\, q^{34} p^{6} + 1132102\, q^{44} p^{23} + 482961\, q^{43} p^{20} + 828152\, q^{44} p^{22}$$
$$+ 691214\, q^{43} p^{21} + 755044\, p^{45} q^{59} + 10430506\, p^{32} q^{38} + 686000\, p^{19} q^{29} + 2070\, p^{68} q^{37} + 2379\, p^{70} q^{48} + 4023\, p^{69} q^{45} + 531\, p^{66} q^{28}$$
$$+ 4\, p^{51} q^{9} + 2560583\, p^{25} q^{28} + 7052\, p^{53} q^{17} + 301\, p^{67} q^{29} + 1307097\, q^{43} p^{23} + 2400\, p^{59} q^{70} + 5\, p^{72} q^{36} + 3483699\, p^{27} q^{28}$$
$$+ 252992\, p^{16} q^{32} + 53436\, p^{65} q^{54} + 31052\, p^{66} q^{55} + 62267\, p^{65} q^{46} + 63739\, p^{65} q^{51} + 61070\, p^{65} q^{52} + 58814\, p^{63} q^{36} + 65456\, p^{65} q^{50}$$
$$+ 80048\, p^{64} q^{42} + 87426\, p^{64} q^{43} + 55589\, p^{64} q^{39} + 63859\, p^{64} q^{40} + 64562\, p^{65} q^{47} + 65874\, p^{65} q^{48} + 2822376\, p^{29} q^{25} + 605702\, p^{59} q^{40}$$
$$+ q^{69} p^{26} + 4\, p^{16} q^{2} + 62\, p^{22} q^{4} + 16\, p^{20} q^{3} + 1005464\, p^{35} q^{20} + 723597\, p^{35} q^{19} + 1758079\, p^{36} q^{22} + 2287680\, p^{36} q^{23} + 5354586\, p^{36} q^{27}$$
$$+ 6267247\, p^{37} q^{28} + 3669015\, q^{35} p^{25} + 5348085\, q^{35} p^{27} + 6323245\, q^{36} p^{28} + 2331858\, q^{35} p^{23} + 1867\, p^{67} q^{67} + 425\, p^{68} q^{70}$$
$$+ 283063\, p^{55} q^{60} + 154545\, p^{61} q^{57} + 216392\, p^{59} q^{58} + 8379419\, q^{37} p^{30} + 59133\, p^{33} q^{13} + 159974\, p^{33} q^{15} + 368064\, q^{30} p^{17}$$
$$+ 104266\, p^{64} q^{50} + 22491\, p^{61} q^{28} + 99410\, p^{64} q^{45} + 132901\, p^{63} q^{42} + 82738\, p^{63} q^{38} + 143626\, p^{63} q^{43} + 70410\, p^{63} q^{37} + 95550\, p^{63} q^{39}$$
$$+ 108432\, p^{63} q^{40} + 106155\, p^{64} q^{47} + 107178\, p^{64} q^{48} + 15914\, q^{39} p^{12} + 4158\, q^{38} p^{10} + 1027956\, p^{58} q^{44} + 30688\, q^{39} p^{13} + 95550\, q^{39} p^{15}$$
$$+ 938\, p^{70} q^{65} + 443\, p^{71} q^{66} + 2162\, p^{70} q^{60} + 2803\, p^{70} q^{57} + 1775154\, q^{56} p^{46} + 2316988\, q^{55} p^{45} + 3878915\, p^{29} q^{27} + 4881530\, p^{30} q^{28}$$
$$+ 9242\, p^{49} q^{15} + 1100235\, p^{56} q^{36} + 4557\, p^{49} q^{14} + 22\, q^{28} p^{4} + 159780\, p^{63} q^{50} + 38783\, p^{60} q^{28} + 159974\, p^{63} q^{45} + 211596\, p^{62} q^{42}$$

$$+ 137320\, p^{62}\, q^{38} + 226448\, p^{62}\, q^{43} + 118170\, p^{62}\, q^{37} + 156819\, p^{62}\, q^{39} + 1567\, p^{56}\, q^{17} + 176138\, p^{62}\, q^{40} + 167464\, p^{63}\, q^{47} + 167416\, p^{63}\, q^{48}$$
$$+ 1518\, p^{65}\, q^{69} + 23464\, q^{63}\, p^{32} + 35\, p^{71}\, q^{36} + 151\, p^{73}\, q^{52} + 131\, p^{73}\, q^{51} + 23464\, p^{63}\, q^{32} + 8507\, p^{62}\, q^{27} + 17651\, p^{63}\, q^{31} + 39310\, p^{66}\, q^{49}$$
$$+ 2\, p^{34}\, q^{4} + 7\, p^{37}\, q^{5} + 938\, p^{65}\, q^{70} + 228\, p^{58}\, q^{73} + 201\, p^{62}\, q^{73} + 214\, p^{61}\, q^{73} + 23677\, p^{65}\, q^{60} + 47159\, p^{63}\, q^{60} + 27391\, p^{64}\, q^{61}$$
$$+ 47159\, p^{60}\, q^{63} + 39017\, p^{62}\, q^{62} + 33923\, p^{64}\, q^{60} + 41141\, p^{64}\, q^{59} + 38586\, p^{65}\, q^{57} + 38586\, p^{57}\, q^{65} + 23677\, p^{60}\, q^{65} + 28408\, p^{59}\, q^{65}$$
$$+ 12093\, p^{63}\, q^{65} + 6854\, p^{65}\, q^{65} + 3628\, p^{66}\, q^{66} + 19350\, p^{61}\, q^{65} + 9219\, p^{64}\, q^{65} + 15466\, p^{62}\, q^{65} + 33409\, p^{58}\, q^{65} + 9857866\, p^{32}\, q^{40}$$
$$+ 13753239\, p^{36}\, q^{39} + 13061308\, p^{35}\, q^{39} + 17651\, q^{63}\, p^{31} + 42123\, q^{62}\, p^{32} + 53892\, q^{62}\, p^{33} + 539378\, p^{46}\, q^{60} + 596429\, p^{51}\, q^{59}$$
$$+ 2803\, p^{57}\, q^{70} + 238626\, p^{44}\, q^{62} + 9372528\, p^{46}\, q^{37} + 3459\, p^{58}\, q^{20} + 24030\, p^{62}\, q^{30} + 10720\, p^{61}\, q^{26} + 17482\, p^{62}\, q^{29} + 5200\, p^{60}\, q^{23}$$
$$+ 33647\, p^{66}\, q^{54} + 18942\, p^{67}\, q^{55} + 35663\, p^{66}\, q^{46} + 38754\, p^{66}\, q^{51} + 37576\, p^{66}\, q^{52} + 32919\, p^{64}\, q^{36} + 39349\, p^{66}\, q^{50} + 45943\, p^{65}\, q^{42}$$
$$+ 50807\, p^{65}\, q^{43} + 30688\, p^{65}\, q^{39} + 35722\, p^{65}\, q^{40} + 37426\, p^{66}\, q^{47} + 38671\, p^{66}\, q^{48} + 12382\, p^{62}\, q^{28} + 59133\, p^{65}\, q^{45} + 47559\, p^{64}\, q^{38}$$
$$+ 39938\, p^{64}\, q^{37} + 858\, p^{57}\, q^{17} + 1304\, p^{67}\, q^{68} + 55\, p^{71}\, q^{37} + 75\, p^{73}\, q^{48} + 163\, p^{72}\, q^{45} + 9\, p^{69}\, q^{28} + 28190\, q^{66}\, p^{56} + 19\, p^{69}\, q^{29} + 73\, p^{74}\, q^{63}$$
$$+ 77\, p^{74}\, q^{62} + 77\, p^{74}\, q^{61} + 15736\, q^{67}\, p^{57} + 66\, p^{47}\, q^{9} + 24\, p^{46}\, q^{8} + 13637977\, p^{37}\, q^{41} + 22236\, p^{53}\, q^{19} + 61566\, p^{54}\, q^{22} + 9799202\, p^{33}\, q^{42}$$
$$+ 14586034\, p^{39}\, q^{40} + 13040951\, p^{36}\, q^{41} + 203\, p^{55}\, q^{73} + 34\, p^{52}\, q^{74} + 34\, p^{26}\, q^{4} + 3\, p^{45}\, q^{74} + 6\, p^{46}\, q^{74} + 8\, p^{47}\, q^{74} + 12\, p^{48}\, q^{74}$$
$$+ 1907\, p^{61}\, q^{70} + 493\, p^{52}\, q^{72} + 93\, p^{29}\, q^{5} + 13815871\, p^{42}\, q^{40} + 11890236\, p^{44}\, q^{38} + 13061308\, p^{43}\, q^{39} + 12348094\, p^{44}\, q^{41}$$
$$+ 12822786\, p^{42}\, q^{43} + 13092788\, p^{41}\, q^{43} + 12374569\, p^{43}\, q^{43} + 11765630\, p^{44}\, q^{43} + 12142611\, p^{44}\, q^{42} + 3\, p^{18}\, q^{2} + 3008\, p^{35}\, q^{9} + 575\, p^{33}\, q^{7}$$
$$+ 1392\, p^{34}\, q^{8} + 19155\, q^{60}\, p^{26} + 8342\, q^{60}\, p^{24} + 5200\, q^{60}\, p^{23} + 3106\, q^{60}\, p^{22} + 52970\, q^{60}\, p^{29} + 38783\, q^{60}\, p^{28} + 7052\, q^{61}\, p^{25}$$
$$+ 27645\, q^{60}\, p^{27} + 9786073\, p^{46}\, q^{44} + 8502082\, p^{47}\, q^{45} + 10430506\, p^{46}\, q^{40} + 190057\, p^{41}\, q^{17} + 47559\, p^{40}\, q^{14} + 560105\, p^{42}\, q^{20}$$
$$+ 383048\, p^{42}\, q^{19} + 962584\, p^{43}\, q^{22} + 1307097\, p^{43}\, q^{23} + 3869789\, p^{44}\, q^{28} + 82738\, p^{40}\, q^{15} + 11259131\, p^{45}\, q^{39} + 62267\, q^{65}\, p^{46}$$
$$+ 66193\, q^{65}\, p^{49} + 65874\, q^{65}\, p^{48} + 61070\, q^{65}\, p^{52} + 53436\, q^{65}\, p^{54} + 31052\, q^{66}\, p^{55} + 65456\, q^{65}\, p^{50} + 57604\, q^{65}\, p^{53} + 63739\, q^{65}\, p^{51}$$
$$+ 64562\, q^{65}\, p^{47} + 8545\, q^{42}\, p^{12} + 2070\, q^{41}\, p^{10} + 17363\, q^{42}\, p^{13} + 700195\, q^{45}\, p^{22} + 2674\, q^{40}\, p^{10} + 1320\, q^{39}\, p^{9} + 275277\, q^{44}\, p^{19}$$
$$+ 10728\, q^{41}\, p^{12} + 32919\, q^{42}\, p^{14} + 146297\, q^{45}\, p^{18} + 581524\, q^{46}\, p^{22} + 590344\, q^{44}\, p^{21} + 409304\, q^{44}\, p^{20} + 495429\, q^{45}\, p^{21}$$
$$+ 1862903\, q^{46}\, p^{26} + 1090737\, q^{46}\, p^{24} + 21048\, q^{44}\, p^{14} + 1441182\, q^{46}\, p^{25} + 2358303\, q^{46}\, p^{27} + 90729\, q^{45}\, p^{17} + 6649\, q^{43}\, p^{12}$$
$$+ 806400\, q^{46}\, p^{23} + 10910750\, p^{38}\, q^{45} + 1027147\, p^{58}\, q^{46} + 10215185\, p^{39}\, q^{46} + 53\, p^{70}\, q^{73} + 6\, p^{76}\, q^{67} + 121\, p^{69}\, q^{72} + 87\, p^{68}\, q^{73}$$
$$+ 70\, p^{64}\, q^{74} + 69\, p^{73}\, q^{69} + 200\, p^{67}\, q^{72} + 159\, p^{68}\, q^{72} + 142\, p^{70}\, q^{71} + 340669\, q^{45}\, p^{20} + 227115\, q^{45}\, p^{19} + 58814\, q^{42}\, p^{15} + 38735\, q^{44}\, p^{15}$$
$$+ 3857\, q^{42}\, p^{11} + 3038882\, q^{47}\, p^{29} + 4961\, q^{41}\, p^{11} + 13800\, q^{43}\, p^{13} + 179095\, q^{44}\, p^{18} + 26592\, q^{43}\, p^{14} + 112271\, q^{44}\, p^{17} + 1700142\, q^{45}\, p^{25}$$

$$+ 2749370\, q^{45} p^{27} + 2927022\, q^{46} p^{28} + 963972\, q^{45} p^{23} + 5\, p^{75} q^{53} + 2\, p^{74} q^{44} + 5\, p^{76} q^{65} + p^{77} q^{66} + 3\, p^{76} q^{60} + p^{76} q^{57} + 7\, p^{75} q^{54}$$
$$+ 350\, p^{67} q^{71} + 87\, p^{73} q^{68} + 644637\, p^{59} q^{50} + 943\, p^{58} q^{18} + 306\, p^{56} q^{15} + 16290\, p^{64} q^{33} + 1567\, p^{61} q^{22} + 3629\, p^{62} q^{25} + 10250\, p^{68} q^{56}$$
$$+ 6500\, p^{68} q^{60} + 9392\, p^{68} q^{57} + 2336\, p^{68} q^{65} + 1171\, p^{69} q^{66} + 3564620\, p^{29} q^{46} + 61566\, q^{56} p^{24} + 1312\, q^{55} p^{16} + 4463\, q^{54} p^{17}$$
$$+ 1030\, q^{54} p^{15} + 2236\, q^{54} p^{16} + 124715\, q^{56} p^{26} + 4314818\, p^{31} q^{47} + 4263021\, p^{30} q^{46} + 64\, p^{74} q^{65} + 22\, p^{75} q^{66} + 78\, p^{74} q^{60} + 67\, p^{74} q^{57}$$
$$+ 339738\, p^{50} q^{61} + 428700\, p^{54} q^{59} + 121044\, p^{41} q^{63} + 205\, p^{32} q^{6} + 1700142\, p^{45} q^{25} + 2749370\, p^{45} q^{27} + 590344\, p^{44} q^{21}$$
$$+ 1294938\, p^{45} q^{24} + 2184263\, p^{45} q^{26} + 6577550\, p^{46} q^{33} + 4263021\, p^{46} q^{30} + 3564620\, p^{46} q^{29} + 5787831\, p^{46} q^{32} + 5009521\, p^{46} q^{31}$$
$$+ 7355989\, p^{46} q^{34} + 8098014\, p^{46} q^{35} + 7738981\, p^{47} q^{36} + 9239\, p^{38} q^{11} + 15914\, p^{39} q^{12} + 4158\, p^{38} q^{10} + 25872\, p^{40} q^{13} + 7\, p^{24} q^{3}$$
$$+ 215132\, p^{43} q^{18} + 99917\, p^{42} q^{16} + 8766471\, p^{47} q^{38} + 9452674\, p^{47} q^{41} + 9234030\, p^{47} q^{43} + 9411666\, p^{47} q^{42} + 9123330\, p^{47} q^{39}$$
$$+ 17409\, q^{67} p^{56} + 632798\, p^{58} q^{53} + 8299063\, p^{47} q^{37} + 27\, p^{27} q^{4} + 75\, p^{30} q^{5} + 2526\, p^{36} q^{9} + 471\, p^{34} q^{7} + 1156\, p^{35} q^{8} + 8926639\, p^{47} q^{44}$$
$$+ 7667817\, p^{48} q^{45} + 9355115\, p^{47} q^{40} + 162377\, p^{42} q^{17} + 39938\, p^{41} q^{14} + 482961\, p^{43} q^{20} + 327633\, p^{43} q^{19} + 828152\, p^{44} q^{22}$$
$$+ 1132102\, p^{44} q^{23} + 3393569\, p^{45} q^{28} + 70410\, p^{41} q^{15} + p^{47} q^{7} + 1302\, p^{71} q^{58} + 1223\, p^{71} q^{59} + 11259131\, p^{39} q^{45} + 10430506\, p^{40} q^{46}$$
$$+ 944\, p^{42} q^{70} + 5009521\, p^{32} q^{47} + 5009521\, p^{31} q^{46} + 2170\, p^{44} q^{11} + 3752\, p^{45} q^{12} + 20\, p^{60} q^{75} + 18\, p^{75} q^{68} + 64\, p^{71} q^{72} + 90\, p^{70} q^{72}$$
$$+ 107\, p^{67} q^{73} + 215\, p^{70} q^{70} + 375100\, p^{46} q^{61} + 226448\, p^{43} q^{62} + 108432\, p^{40} q^{63} + 11448471\, p^{40} q^{45} + 10494672\, p^{41} q^{46} + 42123\, q^{46} p^{16}$$
$$+ 183802\, q^{46} p^{19} + 71830\, q^{46} p^{17} + 30492\, q^{45} p^{15} + 16290\, q^{45} p^{14} + 91952\, q^{47} p^{18} + 222989\, q^{47} p^{20} + 145831\, q^{47} p^{19} + 117196\, q^{46} p^{18}$$
$$+ 278333\, q^{46} p^{20} + 330022\, q^{47} p^{21} + 10721\, q^{44} p^{13} + 99917\, p^{36} q^{62} + 118170\, p^{37} q^{62} + 137320\, p^{38} q^{62} + 156819\, p^{39} q^{62} + 408196\, q^{46} p^{21}$$
$$+ 53892\, q^{45} p^{16} + 732588\, q^{48} p^{24} + 474001\, q^{47} p^{22} + 662387\, q^{47} p^{23} + 2954\, p^{56} q^{70} + 3653243\, q^{47} p^{30} + 644637\, p^{50} q^{59} + 33\, p^{45} q^{73}$$
$$+ p^{42} q^{74} + 24\, p^{44} q^{73} + 11\, p^{42} q^{73} + 17\, p^{43} q^{73} + 175061\, p^{58} q^{30} + 82618\, p^{57} q^{26} + 134490\, p^{58} q^{29} + 318915\, p^{61} q^{51} + 294634\, p^{61} q^{52}$$
$$+ 110\, p^{46} q^{9} + 41\, p^{45} q^{8} + 187\, p^{73} q^{54} + 45\, p^{73} q^{46} + 54\, p^{74} q^{55} + 1027956\, p^{44} q^{58} + 1035249\, p^{45} q^{58} + 5787831\, p^{32} q^{46} + 6426887\, p^{34} q^{47}$$
$$+ 6577550\, p^{33} q^{46} + 1153\, p^{68} q^{35} + 3509\, p^{69} q^{44} + 3096\, p^{70} q^{53} + 902281\, p^{24} q^{47} + 1646413\, p^{27} q^{48} + 1200224\, p^{25} q^{47} + 1561155\, p^{26} q^{47}$$
$$+ 5720308\, p^{33} q^{47} + 163\, p^{33} q^{6} + 1441182\, p^{46} q^{25} + 2358303\, p^{46} q^{27} + 495429\, p^{45} q^{21} + 1090737\, p^{46} q^{24} + 1862903\, p^{46} q^{26}$$
$$+ 5720308\, p^{47} q^{33} + 3653243\, p^{47} q^{30} + 3038882\, p^{47} q^{29} + 5009521\, p^{47} q^{32} + 4314818\, p^{47} q^{31} + 6426887\, p^{47} q^{34} + 7107494\, p^{47} q^{35}$$
$$+ 6711455\, p^{48} q^{36} + 7667\, p^{39} q^{11} + 13202\, p^{40} q^{12} + 3367\, p^{39} q^{10} + 21413\, p^{41} q^{13} + 179095\, p^{44} q^{18} + 82926\, p^{43} q^{16} + 7670634\, p^{48} q^{38}$$
$$+ 8379419\, p^{48} q^{41} + 8256303\, p^{48} q^{43} + 8379192\, p^{48} q^{42} + 8017775\, p^{48} q^{39} + 7229425\, p^{48} q^{37} + 22\, p^{28} q^{4} + 59\, p^{31} q^{5} + 2080\, p^{37} q^{9}$$
$$+ 378\, p^{35} q^{7} + 944\, p^{36} q^{8} + 8016072\, p^{48} q^{44} + 6806127\, p^{49} q^{45} + 8257380\, p^{48} q^{40} + 136297\, p^{43} q^{17} + 32919\, p^{42} q^{14} + 409304\, p^{44} q^{20}$$

$$+ 275277\, p^{44}\, q^{19} + 700195\, p^{45}\, q^{22} + 963972\, p^{45}\, q^{23} + 2927022\, p^{46}\, q^{28} + 58814\, p^{42}\, q^{15} + 11471381\, p^{41}\, q^{45} + 10405355\, p^{42}\, q^{46}$$
$$+ 7107494\, p^{35}\, q^{47} + 7355989\, p^{34}\, q^{46} + 2067302\, p^{28}\, q^{48} + 1988230\, p^{27}\, q^{47} + 69\, p^{70}\, q^{34} + 225\, p^{71}\, q^{41} + 981249\, q^{48}\, p^{25} + 113272\, q^{48}\, p^{19}$$
$$+ 1284807\, q^{48}\, p^{26} + 70611\, p^{60}\, q^{30} + 32524\, p^{59}\, q^{26} + 52970\, p^{60}\, q^{29} + 152516\, p^{63}\, q^{51} + 143266\, p^{63}\, q^{52} + 16073\, p^{58}\, q^{23} + 3106\, p^{56}\, q^{18}$$
$$+ 1030\, p^{54}\, q^{15} + 162377\, p^{61}\, q^{36} + 333744\, p^{58}\, q^{57} + 202986\, q^{49}\, p^{21} + 55683\, q^{47}\, p^{17} + 25142\, p^{57}\, q^{66} + 21\, p^{71}\, q^{35} + 170\, p^{73}\, q^{53}$$
$$+ 128\, p^{72}\, q^{44} + 13965\, p^{58}\, q^{67} + 175061\, q^{48}\, p^{20} + 553431\, p^{39}\, q^{59} + 605702\, p^{40}\, q^{59} + 652674\, p^{41}\, q^{59} + 4859\, p^{58}\, q^{69} + 5764\, p^{67}\, q^{63}$$
$$+ 7170\, p^{67}\, q^{62} + 8736\, p^{67}\, q^{61} + 4521\, p^{67}\, q^{64} + 9239\, q^{67}\, p^{40} + 10928\, q^{67}\, p^{41} + 14452\, q^{67}\, p^{43} + 12675\, q^{67}\, p^{42} + 16179\, q^{67}\, p^{44}$$
$$+ 1030\, q^{63}\, p^{24} + 581\, q^{63}\, p^{23} + 2784\, q^{63}\, p^{26} + 113\, q^{64}\, p^{22} + 18830\, q^{66}\, p^{40} + 4557\, q^{64}\, p^{29} + 9\, q^{61}\, p^{16} + 8\, q^{60}\, p^{15} + 26\, q^{63}\, p^{19}$$
$$+ 1735\, q^{63}\, p^{25} + 3082\, q^{64}\, p^{28} + 292\, q^{65}\, p^{25} + 3096\, p^{53}\, q^{70} + 1898\, q^{66}\, p^{31} + 8545\, q^{66}\, p^{36} + 6649\, q^{66}\, p^{35} + 3752\, q^{66}\, p^{33} + 5061\, q^{66}\, p^{34}$$
$$+ 2710\, q^{66}\, p^{32} + 15914\, q^{66}\, p^{39} + 13202\, q^{66}\, p^{38} + 4961\, q^{67}\, p^{37} + 17363\, q^{65}\, p^{36} + 402432\, p^{58}\, q^{56} + 1171\, p^{66}\, q^{69} + 1124\, p^{60}\, q^{71}$$
$$+ 1402\, p^{56}\, q^{71} + 480\, p^{67}\, q^{30} + 66\, p^{63}\, q^{20} + 8\, p^{41}\, q^{6} + 181\, p^{52}\, q^{12} + 100\, p^{51}\, q^{11} + 292\, p^{53}\, q^{13} + 429\, p^{54}\, q^{14} + 11326531\, p^{42}\, q^{45}$$
$$+ 10165821\, p^{43}\, q^{46} + 7738981\, p^{36}\, q^{47} + 8098014\, p^{35}\, q^{46} + 92137\, p^{54}\, q^{23} + 2481690\, p^{28}\, q^{47} + 3653243\, p^{31}\, q^{48} + 8299063\, p^{37}\, q^{47}$$
$$+ 2545696\, p^{29}\, q^{48} + 533770\, p^{23}\, q^{48} + 3077093\, p^{30}\, q^{48} + 787008\, p^{25}\, q^{49} + 378947\, p^{22}\, q^{48} + 261529\, p^{21}\, q^{48} + 8\, p^{63}\, q^{18} + 2\, p^{61}\, q^{15}$$
$$+ 50458\, p^{62}\, q^{61} + 37684\, p^{63}\, q^{61} + 57813\, p^{59}\, q^{63} + 63812\, p^{60}\, q^{62} + 50458\, p^{61}\, q^{62} + p^{73}\, q^{38} + p^{76}\, q^{56} + 199\, p^{71}\, q^{69} + 128\, p^{34}\, q^{6}$$
$$+ 1200224\, p^{47}\, q^{25} + 1988230\, p^{47}\, q^{27} + 408196\, p^{46}\, q^{21} + 902281\, p^{47}\, q^{24} + 1561155\, p^{47}\, q^{26} + 4891695\, p^{48}\, q^{33} + 3077093\, p^{48}\, q^{30}$$
$$+ 2545696\, p^{48}\, q^{29} + 4263021\, p^{48}\, q^{32} + 3653243\, p^{48}\, q^{31} + 5522341\, p^{48}\, q^{34} + 6135568\, p^{48}\, q^{35} + 5722619\, p^{49}\, q^{36} + 6230\, p^{40}\, q^{11}$$
$$+ 10728\, p^{41}\, q^{12} + 2674\, p^{40}\, q^{10} + 17363\, p^{42}\, q^{13} + 146297\, p^{45}\, q^{18} + 67533\, p^{44}\, q^{16} + 6600801\, p^{49}\, q^{38} + 7307925\, p^{49}\, q^{41} + 7264169\, p^{49}\, q^{43}$$
$$+ 7339815\, p^{49}\, q^{42} + 6930744\, p^{49}\, q^{39} + 6192990\, p^{49}\, q^{37} + 468\, p^{59}\, q^{18} + 151\, p^{57}\, q^{15} + 1674\, p^{38}\, q^{9} + 295\, p^{36}\, q^{7} + 750\, p^{37}\, q^{8}$$
$$+ 7083764\, p^{49}\, q^{44} + 5943239\, p^{50}\, q^{45} + 7169587\, p^{49}\, q^{40} + 112271\, p^{44}\, q^{17} + 26592\, p^{43}\, q^{14} + 340669\, p^{45}\, q^{20} + 227115\, p^{45}\, q^{19}$$
$$+ 581524\, p^{46}\, q^{22} + 806400\, p^{46}\, q^{23} + 2481690\, p^{47}\, q^{28} + 48216\, p^{43}\, q^{15} + 11020109\, p^{43}\, q^{45} + 9786073\, p^{44}\, q^{46} + 4263021\, p^{32}\, q^{48}$$
$$+ 8766471\, p^{38}\, q^{47} + 1037527\, p^{26}\, q^{49} + 583235\, q^{49}\, p^{24} + 421670\, q^{49}\, p^{23} + 296807\, q^{49}\, p^{22} + 247579\, p^{45}\, q^{62} + 252992\, p^{46}\, q^{62}$$
$$+ 254571\, p^{47}\, q^{62} + 252305\, p^{48}\, q^{62} + 33409\, p^{65}\, q^{58} + 356376\, p^{49}\, q^{61} + 67533\, p^{62}\, q^{34} + 82926\, p^{62}\, q^{35} + 1635\, p^{45}\, q^{70} + 53892\, p^{62}\, q^{33}$$
$$+ 88913\, p^{64}\, q^{53} + 152750\, p^{63}\, q^{44} + 5750\, p^{59}\, q^{22} + 10719\, p^{62}\, q^{66} + 5764\, p^{63}\, q^{67} + 529\, p^{53}\, q^{72} + 5\, p^{36}\, q^{72} + 253819\, p^{36}\, q^{60}$$
$$+ 370157\, p^{45}\, q^{61} + 211596\, p^{42}\, q^{62} + 359724\, p^{44}\, q^{61} + 324509\, p^{42}\, q^{61} + 344329\, p^{43}\, q^{61} + 95550\, p^{39}\, q^{63} + 176138\, p^{40}\, q^{62}$$
$$+ 194597\, p^{41}\, q^{62} + 10564128\, p^{44}\, q^{45} + 9280880\, p^{45}\, q^{46} + 55\, p^{41}\, q^{7} + 9123330\, p^{39}\, q^{47} + 9355115\, p^{40}\, q^{47} + 4891695\, p^{33}\, q^{48} + 739\, p^{67}\, q^{31}$$

$$+ 2595\, p^{70} q^{49} + 662\, p^{71} q^{64} + 8\, p^{56} q^{12} + 5522341\, p^{34} q^{48} + 6135568\, p^{35} q^{48} + 2545696\, p^{30} q^{49} + 1735\, p^{63} q^{25} + 5692\, p^{69} q^{56}$$
$$+ 2094316\, p^{29} q^{49} + 1690702\, p^{28} q^{49} + 8145\, p^{65} q^{33} + 731\, p^{62} q^{22} + 618603\, p^{25} q^{50} + 1338264\, p^{27} q^{49} + 79\, q^{59} p^{16} + 981249\, p^{48} q^{25}$$
$$+ 1646413\, p^{48} q^{27} + 330022\, p^{47} q^{21} + 732588\, p^{48} q^{24} + 1284807\, p^{48} q^{26} + 4111204\, p^{49} q^{33} + 2545696\, p^{49} q^{30} + 2094316\, p^{49} q^{29}$$
$$+ 3564620\, p^{49} q^{32} + 3038882\, p^{49} q^{31} + 4664074\, p^{49} q^{34} + 5207120\, p^{49} q^{35} + 4795090\, p^{50} q^{36} + 4961\, p^{41} q^{11} + 8545\, p^{42} q^{12}$$
$$+ 2070\, p^{41} q^{10} + 13800\, p^{43} q^{13} + 117196\, p^{46} q^{18} + 53892\, p^{45} q^{16} + 5583582\, p^{50} q^{38} + 6267247\, p^{50} q^{41} + 6286213\, p^{50} q^{43}$$
$$+ 6323245\, p^{50} q^{42} + 5889775\, p^{50} q^{39} + 5213946\, p^{50} q^{37} + 1320\, p^{39} q^{9} + 585\, p^{38} q^{8} + 6157917\, p^{50} q^{44} + 5103398\, p^{51} q^{45}$$
$$+ 6120858\, p^{50} q^{40} + 90729\, p^{45} q^{17} + 21048\, p^{44} q^{14} + 278333\, p^{46} q^{20} + 183802\, p^{46} q^{19} + 474001\, p^{47} q^{22} + 662387\, p^{47} q^{23}$$
$$+ 2067302\, p^{48} q^{28} + 38735\, p^{44} q^{15} + 8670225\, p^{46} q^{46} + 9452674\, p^{41} q^{47} + 1518\, p^{69} q^{65} + 741\, p^{70} q^{66} + 6711455\, p^{36} q^{48}$$
$$+ 3038882\, p^{31} q^{49} + 3859\, p^{69} q^{60} + 5310\, p^{69} q^{57} + 821500\, p^{26} q^{50} + 454942\, q^{50} p^{24} + 1320\, q^{69} p^{39} + 2\, q^{63} p^{17} + 2\, q^{62} p^{16} + q^{65} p^{19}$$
$$+ 301\, q^{67} p^{29} + 480\, q^{67} p^{30} + 155\, q^{65} p^{24} + 1568\, q^{68} p^{36} + 739\, q^{67} p^{31} + 2170\, q^{67} p^{34} + 1092\, q^{67} p^{32} + 1564\, q^{67} p^{33} + 2933\, q^{67} p^{35}$$
$$+ 4\, q^{65} p^{20} + 77\, q^{65} p^{23} + 13\, q^{65} p^{21} + 34\, q^{65} p^{22} + 8\, q^{66} p^{22} + 178\, q^{67} p^{28} + 47\, q^{66} p^{24} + 181\, q^{66} p^{26} + 531\, q^{66} p^{28} + 318\, q^{66} p^{27}$$
$$+ 95\, q^{66} p^{25} + 843\, q^{66} p^{29} + 6\, q^{64} p^{19} + 20\, q^{64} p^{20} + q^{64} p^{18} + 10539\, q^{68} p^{47} + 117196\, p^{32} q^{60} + 215132\, p^{35} q^{60} + 179095\, p^{34} q^{60}$$
$$+ 55683\, p^{31} q^{61} + 146297\, p^{33} q^{60} + 2526\, p^{42} q^{69} + 3367\, p^{39} q^{68} + 12112\, p^{50} q^{68} + 12269\, p^{51} q^{68} + 22481\, p^{50} q^{67} + 22171\, p^{49} q^{67}$$
$$+ 4158\, p^{40} q^{68} + 5019\, p^{41} q^{68} + 7976714\, p^{47} q^{46} + 9411666\, p^{42} q^{47} + 7229425\, p^{37} q^{48} + 9234030\, p^{43} q^{47} + 7670634\, p^{38} q^{48}$$
$$+ 3564620\, p^{32} q^{49} + 8017775\, p^{39} q^{48} + 5207120\, p^{35} q^{49} + 4664074\, p^{34} q^{49} + 2481690\, p^{31} q^{50} + 4111204\, p^{33} q^{49} + 2067302\, p^{30} q^{50}$$
$$+ 833309\, p^{27} q^{51} + 1690702\, p^{29} q^{50} + 1066809\, p^{27} q^{50} + 1356565\, p^{28} q^{50} + q^{50} p^{8} + 106155\, p^{47} q^{64} + 264023\, p^{57} q^{59} + 106527\, p^{64} q^{49}$$
$$+ 12857\, p^{60} q^{25} + 8\, p^{37} q^{72} + 246\, p^{68} q^{31} + 1034\, p^{71} q^{49} + 351\, p^{72} q^{64} + 2\, p^{57} q^{12} + 787008\, p^{49} q^{25} + 1338264\, p^{49} q^{27} + 261529\, p^{48} q^{21}$$
$$+ 583235\, p^{49} q^{24} + 1037527\, p^{49} q^{26} + 3393569\, p^{50} q^{33} + 2067302\, p^{50} q^{30} + 1690702\, p^{50} q^{29} + 2927022\, p^{50} q^{32} + 2481690\, p^{50} q^{31}$$
$$+ 3869789\, p^{50} q^{34} + 4341828\, p^{50} q^{35} + 3945692\, p^{51} q^{36} + 3857\, p^{42} q^{11} + 6649\, p^{43} q^{12} + 10721\, p^{44} q^{13} + 91952\, p^{47} q^{18} + 42123\, p^{46} q^{16}$$
$$+ 4639840\, p^{51} q^{38} + 5282623\, p^{51} q^{41} + 5348085\, p^{51} q^{43} + 5354586\, p^{51} q^{42} + 4917915\, p^{51} q^{39} + 4311763\, p^{51} q^{37} + 5263138\, p^{51} q^{44}$$
$$+ 4306779\, p^{52} q^{45} + 5134985\, p^{51} q^{40} + 71830\, p^{46} q^{17} + 16290\, p^{45} q^{14} + 222989\, p^{47} q^{20} + 145831\, p^{47} q^{19} + 378947\, p^{48} q^{22}$$
$$+ 533770\, p^{48} q^{23} + 1690702\, p^{49} q^{28} + 30492\, p^{45} q^{15} + 7225592\, p^{48} q^{46} + 8926639\, p^{44} q^{47} + 8257380\, p^{40} q^{48} + 5722619\, p^{36} q^{49}$$
$$+ 2927022\, p^{32} q^{50} + 1066809\, p^{28} q^{51} + 22036\, p^{58} q^{66} + 12179\, p^{59} q^{67} + 3764\, p^{68} q^{63} + 4615\, p^{68} q^{62} + 5530\, p^{68} q^{61} + 3005\, p^{68} q^{64}$$
$$+ 5\, p^{42} q^{6} + 95\, p^{53} q^{12} + 52\, p^{52} q^{11} + 155\, p^{54} q^{13} + 228\, p^{55} q^{14} + 11752\, p^{49} q^{68} + 21502\, p^{48} q^{67} + 8465\, p^{68} q^{58} + p^{30} q^{3} + 12327\, p^{64} q^{32}$$

$$+ 4303\, p^{63} q^{27} + 9091\, p^{64} q^{31} + 22171\, p^{67} q^{49} + p^{35} q^{4} + 4\, p^{38} q^{5} + 1866\, p^{59} q^{20} + 12941\, p^{63} q^{30} + 5662\, p^{62} q^{26} + 9242\, p^{63} q^{29}$$
$$+ 2713\, p^{61} q^{23} + 20249\, p^{67} q^{54} + 10983\, p^{68} q^{55} + 19279\, p^{67} q^{46} + 22445\, p^{67} q^{51} + 22040\, p^{67} q^{52} + 17363\, p^{65} q^{36} + 22481\, p^{67} q^{50}$$
$$+ 24949\, p^{66} q^{42} + 27964\, p^{66} q^{43} + 15914\, p^{66} q^{39} + 18830\, p^{66} q^{40} + 20534\, p^{67} q^{47} + 21502\, p^{67} q^{48} + 6404\, p^{63} q^{28} + 33427\, p^{66} q^{45}$$
$$+ 25872\, p^{65} q^{38} + 21413\, p^{65} q^{37} + 437\, p^{58} q^{17} + 37\, p^{48} q^{9} + 12\, p^{47} q^{8} + 10728\, q^{66} p^{37} + 13800\, q^{65} p^{35} + 30\, q^{60} p^{16} + 4\, p^{55} q^{11} + 20\, p^{58} q^{14}$$
$$+ 13\, p^{57} q^{13} + 30\, q^{62} p^{18} + 1823632\, q^{55} p^{38} + 74025\, q^{51} p^{20} + 1762\, p^{60} q^{21} + 4463\, p^{61} q^{24} + 380\, p^{57} q^{16} + 973\, p^{59} q^{19} + 49\, p^{50} q^{10}$$
$$+ 21862\, p^{66} q^{41} + 10721\, p^{65} q^{34} + 13800\, p^{65} q^{35} + 21307\, p^{67} q^{53} + 30835\, p^{66} q^{44} + 6442052\, p^{49} q^{46} + 8502082\, p^{45} q^{47} + 7976714\, p^{46} q^{47}$$
$$+ 8379419\, p^{41} q^{48} + 8379192\, p^{42} q^{48} + 6192990\, p^{37} q^{49} + 8256303\, p^{43} q^{48} + 6600801\, p^{38} q^{49} + 3393569\, p^{33} q^{50} + 6930744\, p^{39} q^{49}$$
$$+ 7169587\, p^{40} q^{49} + 5213946\, p^{37} q^{50} + 3151833\, p^{34} q^{51} + 4795090\, p^{36} q^{50} + 3869789\, p^{34} q^{50} + 4341828\, p^{35} q^{50} + 1338264\, p^{29} q^{51}$$
$$+ 1646413\, p^{30} q^{51} + 1988230\, p^{31} q^{51} + 1561155\, p^{31} q^{52} + 2358303\, p^{32} q^{51} + 2749370\, p^{33} q^{51} + 22\, p^{72} q^{39} + 59\, p^{73} q^{47} + 35\, p^{72} q^{40}$$
$$+ 112\, p^{73} q^{50} + 121\, p^{72} q^{69} + 618603\, p^{50} q^{25} + 1066809\, p^{50} q^{27} + 202986\, p^{49} q^{21} + 454942\, p^{50} q^{24} + 821500\, p^{50} q^{26} + 2749370\, p^{51} q^{33}$$
$$+ 1646413\, p^{51} q^{30} + 1338264\, p^{51} q^{29} + 2358303\, p^{51} q^{32} + 1988230\, p^{51} q^{31} + 3151833\, p^{51} q^{34} + 3554779\, p^{51} q^{35} + 3186182\, p^{52} q^{36}$$
$$+ 3785179\, p^{52} q^{38} + 4373418\, p^{52} q^{41} + 4470350\, p^{52} q^{43} + 4454497\, p^{52} q^{42} + 4031921\, p^{52} q^{39} + 3499693\, p^{52} q^{37} + 4420529\, p^{52} q^{44}$$
$$+ 3569894\, p^{53} q^{45} + 4230713\, p^{52} q^{40} + 55683\, p^{47} q^{17} + 175061\, p^{48} q^{20} + 113272\, p^{48} q^{19} + 296807\, p^{49} q^{22} + 421670\, p^{49} q^{23}$$
$$+ 1356565\, p^{50} q^{28} + 5651066\, p^{50} q^{46} + 7370777\, p^{47} q^{47} + 8016072\, p^{44} q^{48} + 7307925\, p^{41} q^{49} + 5583582\, p^{38} q^{50} + 3554779\, p^{35} q^{51}$$
$$+ 1862903\, p^{32} q^{52} + 96\, p^{72} q^{43} + 2358\, p^{63} q^{69} + 72\, p^{72} q^{42} + 899\, p^{62} q^{71} + 11227\, p^{48} q^{68} + 20534\, p^{47} q^{67} + 298\, p^{65} q^{72} + 20\, p^{75} q^{67}$$
$$+ p^{57} q^{76} + 4875046\, p^{51} q^{46} + 6706086\, p^{48} q^{47} + 6005897\, p^{49} q^{47} + 7667817\, p^{45} q^{48} + 7225592\, p^{46} q^{48} + 6706086\, p^{47} q^{48}$$
$$+ 7264169\, p^{43} q^{49} + 7339815\, p^{42} q^{49} + 5889775\, p^{39} q^{50} + 7083764\, p^{44} q^{49} + 6120858\, p^{40} q^{50} + 3945692\, p^{36} q^{51} + 6806127\, p^{45} q^{49}$$
$$+ 6267247\, p^{41} q^{50} + 6323245\, p^{42} q^{50} + 6286213\, p^{43} q^{50} + 4311763\, p^{37} q^{51} + 4639840\, p^{38} q^{51} + 4917915\, p^{39} q^{51} + 4031921\, p^{39} q^{52}$$
$$+ 5134985\, p^{40} q^{51} + 5282623\, p^{41} q^{51} + 2518092\, p^{34} q^{52} + 2184263\, p^{33} q^{52} + 2855335\, p^{35} q^{52} + 2785841\, p^{37} q^{53} + 3785179\, p^{38} q^{52}$$
$$+ 3186182\, p^{36} q^{52} + 3499693\, p^{37} q^{52} + 66\, p^{69} q^{31} + 348\, p^{72} q^{49} + 168\, p^{73} q^{64} + 13965\, p^{67} q^{58} + p^{29} q^{3} + 833309\, p^{51} q^{27}$$
$$+ 2184263\, p^{52} q^{33} + 5\, p^{25} q^{3} + 1862903\, p^{52} q^{32} + 1561155\, p^{52} q^{31} + 2518092\, p^{52} q^{34} + 2855335\, p^{52} q^{35} + 3028950\, p^{53} q^{38}$$
$$+ 3553868\, p^{53} q^{41} + 3669015\, p^{53} q^{43} + 3637792\, p^{53} q^{42} + 3243270\, p^{53} q^{39} + 2785841\, p^{53} q^{37} + 3646013\, p^{53} q^{44} + 2904195\, p^{54} q^{45}$$
$$+ 3420502\, p^{53} q^{40} + 1066809\, p^{51} q^{28} + 4133960\, p^{52} q^{46} + 5292535\, p^{50} q^{47} + 6128811\, p^{48} q^{48} + 6442052\, p^{46} q^{49} + 6157917\, p^{44} q^{50}$$
$$+ 4230713\, p^{40} q^{52} + 5354586\, p^{42} q^{51} + 3028950\, p^{38} q^{53} + 7484\, p^{68} q^{59} + 12\, p^{44} q^{7} + 3857\, q^{67} p^{36} + 8\, q^{63} p^{18} + 28190\, p^{66} q^{56}$$

$$+ 16000\, p^{66}\, q^{60} + 25142\, p^{66}\, q^{57} + 4944\, p^{66}\, q^{65} + 2576\, p^{67}\, q^{66} + 58\, p^{66}\, q^{74} + 50\, p^{67}\, q^{74} + 43\, p^{68}\, q^{74} + 35\, p^{69}\, q^{74} + 199\, p^{69}\, q^{71}$$
$$+ 22\, p^{62}\, q^{75} + 21\, p^{61}\, q^{75} + 64\, p^{65}\, q^{74} + 23\, p^{64}\, q^{75} + 23\, p^{63}\, q^{75} + 23\, p^{65}\, q^{75} + 6\, p^{67}\, q^{76} + 18\, p^{68}\, q^{75} + 22\, p^{66}\, q^{75} + 20\, p^{67}\, q^{75} + 249\, p^{66}\, q^{72}$$
$$+ 3443547\, p^{53}\, q^{46} + 4587334\, p^{51}\, q^{47} + 3908682\, p^{52}\, q^{47} + 5513756\, p^{49}\, q^{48} + 4881530\, p^{50}\, q^{48} + 4251087\, p^{51}\, q^{48} + 6005897\, p^{47}\, q^{49}$$
$$+ 5513756\, p^{48}\, q^{49} + 4983487\, p^{49}\, q^{49} + 5651066\, p^{46}\, q^{50} + 5348085\, p^{43}\, q^{51} + 5943239\, p^{45}\, q^{50} + 4432728\, p^{50}\, q^{49} + 5292535\, p^{47}\, q^{50}$$
$$+ 5263138\, p^{44}\, q^{51} + 4373418\, p^{41}\, q^{52} + 4881530\, p^{48}\, q^{50} + 4432728\, p^{49}\, q^{50} + 5103398\, p^{45}\, q^{51} + 4875046\, p^{46}\, q^{51} + 4587334\, p^{47}\, q^{51}$$
$$+ 4251087\, p^{48}\, q^{51} + 4470350\, p^{43}\, q^{52} + 4454497\, p^{42}\, q^{52} + 4420529\, p^{44}\, q^{52} + 3443547\, p^{46}\, q^{53} + 3908682\, p^{47}\, q^{52} + 4306779\, p^{45}\, q^{52}$$
$$+ 4133960\, p^{46}\, q^{52} + 3420502\, p^{40}\, q^{53} + 3637792\, p^{42}\, q^{53} + 3553868\, p^{41}\, q^{53} + 3669015\, p^{43}\, q^{53} + 3569894\, p^{45}\, q^{53} + 3646013\, p^{44}\, q^{53}$$
$$+ 2904195\, p^{45}\, q^{54} + 3243270\, p^{39}\, q^{53} + 24706\, p^{54}\, q^{20} + 88858\, p^{56}\, q^{25} + 4\, q^{53}\, p^{10} + 4\, q^{51}\, p^{9} + 20\, q^{55}\, p^{12} + 10\, q^{54}\, p^{11} + 19279\, p^{46}\, q^{67}$$
$$+ 149\, p^{65}\, q^{73} + 77\, p^{62}\, q^{74} + 168\, p^{64}\, q^{73} + 53\, p^{73}\, q^{70} + 64\, p^{72}\, q^{71} + 267\, p^{68}\, q^{71} + 142\, p^{71}\, q^{70} + 43\, p^{74}\, q^{68} + 2815909\, p^{54}\, q^{46}$$
$$+ 3272220\, p^{53}\, q^{47} + 3639936\, p^{52}\, q^{48} + 3878915\, p^{51}\, q^{49} + 3961835\, p^{50}\, q^{50} + 3878915\, p^{49}\, q^{51} + 3272220\, p^{47}\, q^{53} + 3639936\, p^{48}\, q^{52}$$
$$+ 2815909\, p^{46}\, q^{54} + 440276\, p^{37}\, q^{59} + 26308\, p^{55}\, q^{21} + 61566\, p^{56}\, q^{24} + 9\, q^{62}\, p^{17} + 1312\, q^{62}\, p^{23} + 206\, q^{61}\, p^{19} + 327\, p^{38}\, q^{70} + 553\, p^{36}\, q^{69}$$
$$+ 760\, p^{37}\, q^{69} + 511\, q^{65}\, p^{26} + 380\, q^{62}\, p^{21} + 5692\, p^{56}\, q^{69} + q^{52}\, p^{9} + q^{54}\, p^{10} + 214\, q^{60}\, p^{18} + q^{59}\, p^{13} + 26\, q^{59}\, p^{15} + 86\, q^{60}\, p^{17} + 20\, q^{58}\, p^{14}$$
$$+ 66\, q^{58}\, p^{15} + 2\, q^{57}\, p^{12} + 151\, q^{63}\, p^{21} + 2008\, q^{64}\, p^{27} + 754\, q^{64}\, p^{25} + 1261\, q^{64}\, p^{26} + 228\, q^{64}\, p^{23} + 429\, q^{64}\, p^{24} + 8\, q^{56}\, p^{12} + 32\, q^{61}\, p^{17}$$
$$+ 437\, q^{61}\, p^{20} + 86\, q^{61}\, p^{18} + 13\, q^{57}\, p^{13} + 6\, q^{59}\, p^{14} + 4351\, q^{65}\, p^{31} + 1352\, q^{65}\, p^{28} + 6533\, q^{64}\, p^{30} + 2068\, q^{65}\, p^{29} + 852\, q^{65}\, p^{27}$$
$$+ 3045\, q^{65}\, p^{30} + 731\, q^{62}\, p^{22} + 4\, q^{55}\, p^{11} + 2\, q^{61}\, p^{15} + 4\, q^{58}\, p^{13} + q^{60}\, p^{14} + 306\, q^{63}\, p^{22} + q^{56}\, p^{11} + 10721\, q^{65}\, p^{34} + 30835\, q^{66}\, p^{44}$$
$$+ 24949\, q^{66}\, p^{42} + 27964\, q^{66}\, p^{43} + 21862\, q^{66}\, p^{41} + 8145\, q^{65}\, p^{33} + 183\, q^{62}\, p^{20} + 79\, q^{62}\, p^{19} + 1291\, q^{66}\, p^{30} + 6029\, q^{65}\, p^{32} + 6230\, q^{67}\, p^{38}$$
$$+ 66\, q^{63}\, p^{20} + p^{22}\, q^{2} + 12179\, p^{67}\, q^{59} + 18\, p^{59}\, q^{75} + 77\, p^{61}\, q^{74} + 21\, p^{43}\, q^{7} + 12\, p^{70}\, q^{31} + 93\, p^{73}\, q^{49} + 70\, p^{74}\, q^{64} + 318915\, p^{51}\, q^{61}$$
$$+ 294634\, p^{52}\, q^{61} + 167416\, p^{48}\, q^{63} + 246229\, p^{49}\, q^{62} + 236650\, p^{50}\, q^{62} + 120483\, p^{63}\, q^{54} + 73734\, p^{64}\, q^{55} + 164923\, p^{63}\, q^{46}$$
$$+ 2689533\, p^{54}\, q^{47} + 3062442\, p^{53}\, q^{48} + 2530275\, p^{54}\, q^{48} + 2822376\, p^{53}\, q^{49} + 3337560\, p^{52}\, q^{49} + 2344054\, p^{54}\, q^{49} + 3483699\, p^{51}\, q^{50}$$
$$+ 3012597\, p^{52}\, q^{50} + 2560583\, p^{53}\, q^{50} + 3337560\, p^{49}\, q^{52} + 3483699\, p^{50}\, q^{51} + 3078630\, p^{51}\, q^{51} + 2137984\, p^{54}\, q^{50} + 3012597\, p^{50}\, q^{52}$$
$$+ 2675770\, p^{52}\, q^{51} + 3062442\, p^{48}\, q^{53} + 2286261\, p^{53}\, q^{51} + 1919137\, p^{54}\, q^{51} + 2675770\, p^{51}\, q^{52} + 2008064\, p^{53}\, q^{52} + 2337816\, p^{52}\, q^{52}$$
$$+ 1694913\, p^{54}\, q^{52} + 2560583\, p^{50}\, q^{53} + 2008064\, p^{52}\, q^{53} + 2286261\, p^{51}\, q^{53} + 1734302\, p^{53}\, q^{53} + 1471967\, p^{54}\, q^{53} + 2822376\, p^{49}\, q^{53}$$
$$+ 2344054\, p^{49}\, q^{54} + 2530275\, p^{48}\, q^{54} + 1694913\, p^{52}\, q^{54} + 1256550\, p^{54}\, q^{54} + 888838\, p^{55}\, q^{55} + 2137984\, p^{50}\, q^{54} + 1471967\, p^{53}\, q^{54}$$
$$+ 1919137\, p^{51}\, q^{54} + 2689533\, p^{47}\, q^{54} + 8486\, p^{66}\, q^{63} + 10719\, p^{66}\, q^{62} + 2008\, q^{51}\, p^{14} + 852\, q^{51}\, p^{13} + 13230\, p^{66}\, q^{61} + 18952\, p^{59}\, q^{66}$$

$$+ 10411\, p^{60} q^{67} + 35\, p^{74} q^{69} + 2\, p^{59} q^{76} + 3\, p^{61} q^{76} + 4\, p^{63} q^{76} + 4\, p^{62} q^{76} + 5\, p^{64} q^{76} + 6\, p^{66} q^{76} + 5\, p^{65} q^{76} + p^{66} q^{77} + 3\, p^{60} q^{76}$$
$$+ 2\, p^{58} q^{76} + 6564\, p^{66} q^{64} + 20\, q^{66} p^{23} + 2\, q^{66} p^{21} + 2070\, q^{68} p^{37} + 246\, q^{68} p^{31} + 827\, q^{68} p^{34} + 384\, q^{68} p^{32} + 52\, q^{67} p^{26} + 100\, q^{67} p^{27}$$
$$+ 572\, q^{68} p^{33} + 1153\, q^{68} p^{35} + 25\, q^{67} p^{25} + 29\, p^{70} q^{74} + 6\, p^{68} q^{76} + 16\, p^{69} q^{75} + 29\, p^{74} q^{70} + 40\, p^{73} q^{71} + 16\, p^{75} q^{69} + p^{67} q^{77} + 50\, q^{64} p^{21}$$
$$+ 2674\, q^{68} p^{38} + p^{77} q^{69} + p^{77} q^{70} + 12\, p^{74} q^{73} + 20\, p^{73} q^{73} + 3\, p^{76} q^{74} + 9\, p^{72} q^{75} + 22\, p^{74} q^{71} + p^{77} q^{72} + 5\, p^{69} q^{76} + p^{77} q^{68} + 17\, p^{74} q^{72}$$
$$+ 7\, p^{75} q^{73} + 40\, p^{71} q^{73} + p^{77} q^{67} + 6\, p^{76} q^{68} + 45\, p^{72} q^{72} + 73\, p^{74} q^{58} + 75\, p^{74} q^{59} + 13\, p^{70} q^{75} + 22\, p^{71} q^{74} + 17\, p^{72} q^{74} + p^{77} q^{71}$$
$$+ 4\, p^{76} q^{71} + 4\, p^{76} q^{72} + 28\, p^{72} q^{73} + 11\, p^{75} q^{71} + 5\, p^{75} q^{74} + 5\, p^{76} q^{70} + 2\, p^{75} q^{50} + p^{74} q^{43} + p^{74} q^{42} + 5\, p^{74} q^{75} + 7\, p^{73} q^{75} + p^{77} q^{74}$$
$$+ 2\, p^{76} q^{75} + 4\, p^{75} q^{75} + p^{77} q^{75} + p^{77} q^{73} + 9\, p^{74} q^{74} + 3\, p^{76} q^{73} + 11\, p^{71} q^{75} + 12\, p^{73} q^{74} + 4\, p^{71} q^{76} + 3\, p^{73} q^{76} + 2\, p^{75} q^{76} + 3\, p^{74} q^{76}$$
$$+ 2\, p^{76} q^{76} + p^{77} q^{76} + 4\, p^{72} q^{76} + 5\, p^{70} q^{76} + p^{68} q^{77} + p^{69} q^{77} + p^{72} q^{77} + p^{71} q^{77} + p^{75} q^{77} + p^{77} q^{77} + p^{78} q^{78} + p^{73} q^{77} + p^{76} q^{77} + p^{74} q^{77}$$
$$+ p^{70} q^{77} + 28\, p^{73} q^{72} + 9\, p^{75} q^{72} + 13\, p^{75} q^{70} + 5\, p^{76} q^{69}$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 14, *is:*

$$1 + 249413\, p^{47} q^{16} + 1793564\, q^{42} p^{19} + 23620939\, p^{40} q^{61} + 46292276\, p^{38} q^{31} + 69829669\, p^{38} q^{34} + 77982139\, p^{38} q^{35} + 90741461\, p^{39} q^{36}$$
$$+ 39259881\, p^{38} q^{30} + 53819538\, p^{38} q^{32} + 32812436\, p^{38} q^{29} + 725968\, p^{18} q^{26} + 21\, q^{21} p^{3} + 69033\, q^{28} p^{12} + 187712\, q^{28} p^{14}$$
$$+ 315718\, q^{29} p^{15} + 68310388\, q^{55} p^{40} + 74749884\, q^{55} p^{41} + 86242950\, q^{55} p^{43} + 28734\, p^{71} q^{79} + p^{10} q + 9997620\, p^{36} q^{24}$$
$$+ 1411370\, p^{35} q^{18} + 16273837\, p^{36} q^{26} + 53\, p^{64} q^{87} + 62\, p^{65} q^{87} + 5877014\, p^{52} q^{69} + 5530642\, p^{60} q^{68} + 3299\, p^{71} q^{83} + 4809\, q^{26} p^{8}$$
$$+ 2090\, q^{26} p^{7} + 10499\, q^{28} p^{9} + 80783958\, q^{55} p^{42} + 83739789\, q^{56} p^{45} + 90959523\, q^{55} p^{44} + 820\, q^{25} p^{6} + 255\, q^{26} p^{5} + 40021117\, q^{44} p^{30}$$
$$+ 30308\, p^{53} q^{80} + 22639475\, p^{38} q^{60} + 41304\, p^{80} q^{61} + 39093\, p^{80} q^{63} + 40474\, p^{80} q^{62} + 47087040\, p^{43} q^{59} + 6529381\, p^{33} q^{23}$$
$$+ 14154473\, p^{28} q^{30} + 4484549\, q^{51} p^{24} + 3162467\, q^{51} p^{23} + 1221288\, q^{52} p^{21} + 9414102\, p^{32} q^{59} + 32690542\, q^{44} p^{29} + 100\, p^{84} q^{84}$$
$$+ 122\, p^{82} q^{85} + 162\, p^{81} q^{85} + 158\, p^{78} q^{86} + 24\, p^{72} q^{88} + 296531\, p^{73} q^{39} + 620241\, p^{74} q^{47} + 363323\, p^{73} q^{40} + 798692\, p^{74} q^{50}$$
$$+ 609432\, p^{73} q^{43} + 520591\, p^{73} q^{42} + 10615247\, p^{24} q^{39} + 7979633\, p^{23} q^{39} + 73240233\, p^{35} q^{37} + 61258613\, p^{34} q^{36} + 556056\, p^{16} q^{39}$$
$$+ 886828\, p^{17} q^{39} + 5\, p^{55} q^{87} + 7\, p^{56} q^{87} + 4084\, p^{67} q^{20} + 46\, q^{47} p^{7} + 460\, q^{49} p^{9} + 11018\, q^{52} p^{13} + 14\, q^{45} p^{6} + 408459\, p^{21} q^{19}$$
$$+ 227620\, p^{21} q^{17} + 25100\, q^{68} p^{24} + 64626\, q^{68} p^{26} + 706\, q^{66} p^{17} + 3789184\, p^{54} q^{25} + 41644\, p^{60} q^{80} + 157535\, p^{26} q^{14} + 581635\, p^{27} q^{17}$$
$$+ 2331385\, p^{28} q^{21} + 1542001\, p^{27} q^{20} + 1139907\, p^{27} q^{19} + 17386914\, p^{26} q^{42} + 706\, p^{66} q^{17} + 846413\, p^{22} q^{21} + 530467\, p^{21} q^{20}$$

$$+ 61541\, p^{13}\, q^{22} + 163089\, p^{46}\, q^{15} + 87435\, p^{46}\, q^{14} + 8433247\, q^{51}\, p^{26} + 1836694\, q^{52}\, p^{22} + 77613364\, q^{54}\, p^{40} + 2160399\, p^{20}\, q^{30}$$
$$+ 3230\, p^{9}\, q^{16} + 47343882\, p^{38}\, q^{56} + 6504\, p^{10}\, q^{17} + 26347\, p^{14}\, q^{16} + 64\, p^{84}\, q^{85} + 95\, p^{87}\, q^{73} + 82\, p^{87}\, q^{76} + 54914443\, p^{53}\, q^{36}$$
$$+ 1007884\, q^{55}\, p^{22} + 10709521\, p^{33}\, q^{25} + 16408611\, p^{33}\, q^{27} + 21627744\, p^{34}\, q^{28} + 572729\, p^{32}\, q^{16} + 41393\, p^{59}\, q^{80} + 77\, p^{87}\, q^{77} + 25\, p^{88}\, q^{78}$$
$$+ 7\, q^{67}\, p^{14} + 20823512\, p^{52}\, q^{30} + 16456671\, p^{52}\, q^{29} + 8433247\, p^{51}\, q^{26} + 60947827\, p^{42}\, q^{57} + 267334\, p^{27}\, q^{15} + 645189\, p^{38}\, q^{71}$$
$$+ 329\, p^{45}\, q^{83} + 123087\, q^{29}\, p^{13} + 4855\, q^{28}\, p^{8} + 259\, p^{85}\, q^{55} + 101\, p^{84}\, q^{46} + 237\, p^{86}\, q^{64} + 14\, p^{80}\, q^{30} + 13\, p^{82}\, q^{35} + 51\, p^{85}\, q^{49} + 82\, p^{76}\, q^{87}$$
$$+ 1331535\, p^{73}\, q^{58} + 1269496\, p^{73}\, q^{59} + 39093\, p^{63}\, q^{80} + 16456671\, q^{52}\, p^{29} + 47\, p^{63}\, q^{87} + 5633169\, p^{24}\, q^{29} + 10572413\, p^{40}\, q^{24}$$
$$+ 1367824\, p^{39}\, q^{18} + 17842842\, p^{40}\, q^{26} + 624\, p^{30}\, q^{6} + 67900545\, p^{41}\, q^{33} + 579777\, p^{38}\, q^{16} + 41819323\, p^{41}\, q^{30} + 34556233\, p^{41}\, q^{29}$$
$$+ 58593582\, p^{41}\, q^{32} + 69829669\, p^{34}\, q^{38} + 244292\, p^{71}\, q^{34} + 713986\, p^{72}\, q^{41} + 537\, q^{52}\, p^{10} + 1713721\, p^{50}\, q^{21} + 4484549\, p^{51}\, q^{24}$$
$$+ 6216091\, p^{51}\, q^{25} + 220970\, q^{31}\, p^{14} + 969968\, p^{71}\, q^{67} + 97\, p^{85}\, q^{51} + 18\, p^{84}\, q^{42} + 767\, p^{61}\, q^{14} + 450\, p^{60}\, q^{13} + 1983460\, p^{51}\, q^{72}$$
$$+ 994687\, p^{47}\, q^{73} + 52599\, p^{70}\, q^{78} + 1493\, p^{72}\, q^{84} + 1176\, p^{74}\, q^{84} + 778\, p^{70}\, q^{85} + 811\, p^{69}\, q^{85} + 274\, p^{66}\, q^{86} + 1549\, p^{76}\, q^{83} + 664\, p^{81}\, q^{82}$$
$$+ 1001\, p^{78}\, q^{83} + 3\, p^{36}\, q^{83} + 2\, p^{89}\, q^{69} + 2\, p^{89}\, q^{70} + p^{88}\, q^{59} + 654450\, q^{70}\, p^{36} + 85256814\, p^{51}\, q^{56} + 97496351\, p^{50}\, q^{55} + 22\, q^{66}\, p^{14}$$
$$+ 3047041\, p^{28}\, q^{22} + q^{65}\, p^{12} + 111\, p^{58}\, q^{11} + p\, q + 29858\, q^{48}\, p^{13} + 177446\, q^{49}\, p^{16} + 116827\, q^{48}\, p^{15} + 161565\, p^{31}\, q^{70} + 61541\, p^{69}\, q^{78}$$
$$+ 168\, p^{86}\, q^{61} + 214\, p^{86}\, q^{63} + 2\, p^{60}\, q^{88} + 237\, q^{27}\, p^{5} + 3323\, p^{81}\, q^{77} + 1635\, p^{82}\, q^{78} + 7840\, p^{81}\, q^{73} + 4238\, p^{81}\, q^{76} + 6504\, p^{17}\, q^{10}$$
$$+ 1014\, p^{16}\, q^{7} + 3230\, p^{16}\, q^{9} + 597574\, q^{51}\, p^{19} + 91\, q^{17}\, p^{4} + 636\, q^{18}\, p^{6} + 250\, q^{17}\, p^{5} + 2093\, p^{77}\, q^{82} + 3850891\, p^{22}\, q^{30} + 3668527\, p^{50}\, q^{23}$$
$$+ 2209\, q^{17}\, p^{8} + 39093\, q^{28}\, p^{11} + 116160\, q^{28}\, p^{13} + 25\, p^{31}\, q^{4} + 366906\, p^{43}\, q^{74} + 840685\, p^{49}\, q^{19} + 2540531\, p^{50}\, q^{22} + 4197630\, p^{42}\, q^{68}$$
$$+ 3\, p^{20}\, q^{2} + 10572413\, p^{51}\, q^{67} + 7979633\, p^{52}\, q^{68} + 3322153\, p^{43}\, q^{69} + 366906\, p^{48}\, q^{17} + 1312148\, p^{49}\, q^{20} + 6216091\, q^{51}\, p^{25}$$
$$+ 99436\, p^{26}\, q^{13} + 823980\, p^{27}\, q^{18} + 2893555\, p^{26}\, q^{23} + 150699\, p^{18}\, q^{18} + 146373\, p^{17}\, q^{19} + 2655050\, p^{22}\, q^{27} + 6504\, p^{81}\, q^{74} + 5311\, p^{81}\, q^{75}$$
$$+ 16879\, p^{81}\, q^{67} + 10785\, p^{81}\, q^{71} + 9263\, p^{81}\, q^{72} + 15420\, p^{81}\, q^{68} + 308152\, p^{21}\, q^{18} + p^{58}\, q^{88} + 141\, p^{84}\, q^{47} + 4989\, q^{76}\, p^{32} + 110556\, q^{56}\, p^{18}$$
$$+ 621895\, q^{57}\, p^{22} + 9841\, q^{55}\, p^{14} + 60680\, q^{56}\, p^{17} + 2320\, q^{54}\, p^{12} + 945872\, q^{57}\, p^{23} + 4676\, q^{25}\, p^{8} + 2331385\, p^{70}\, q^{63} + 2913706\, p^{70}\, q^{61}$$
$$+ 2624037\, p^{70}\, q^{62} + 77613364\, p^{54}\, q^{40} + 12782613\, p^{52}\, q^{28} + 101962711\, p^{54}\, q^{44} + 94790662\, p^{55}\, q^{45} + 10395\, p^{11}\, q^{17} + 10191\, q^{31}\, p^{9}$$
$$+ 70282788\, p^{54}\, q^{39} + 55449496\, p^{54}\, q^{37} + 132798\, q^{31}\, p^{13} + 41304\, q^{30}\, p^{11} + 40474\, p^{62}\, q^{80} + p^{9}\, q + 96993733\, p^{54}\, q^{43} + 91160477\, p^{54}\, q^{42}$$
$$+ 41304\, p^{61}\, q^{80} + 62836822\, p^{54}\, q^{38} + 84635943\, p^{54}\, q^{41} + 3020159\, p^{25}\, q^{24} + 40249315\, p^{53}\, q^{34} + 47343882\, p^{53}\, q^{35} + q^{59}\, p^{9}$$
$$+ 27847267\, p^{53}\, q^{32} + 22639475\, p^{53}\, q^{31} + 193\, p^{86}\, q^{62} + 255\, p^{86}\, q^{65} + 2353926\, p^{20}\, q^{31} + 9748887\, p^{52}\, q^{27} + 33729581\, p^{53}\, q^{33} + q^{61}\, p^{10}$$
$$+ 4118215\, p^{45}\, q^{69} + 2918\, q^{75}\, p^{29} + 7291\, q^{75}\, p^{31} + 4688\, q^{75}\, p^{30} + 1734\, q^{75}\, p^{28} + 228\, p^{54}\, q^{10} + 621895\, p^{69}\, q^{34} + 1713721\, p^{70}\, q^{41}$$

$$+ 29\, p^{83}\, q^{87} + 22\, p^{84}\, q^{87} + 27955552\, p^{29}\, q^{35} + 32070860\, p^{33}\, q^{31} + 23\, p^{88}\, q^{79} + 9564695\, p^{35}\, q^{24} + 1379510\, p^{34}\, q^{18} + 15429118\, p^{35}\, q^{26}$$
$$+ 50301547\, p^{35}\, q^{33} + 3297836\, q^{59}\, p^{28} + 31910\, q^{58}\, p^{17} + 134017\, q^{59}\, p^{20} + 4408162\, q^{59}\, p^{29} + 552206\, q^{59}\, p^{23} + 5779359\, q^{59}\, p^{30}$$
$$+ 917628\, q^{60}\, p^{25} + 356357\, q^{59}\, p^{22} + 222621\, q^{59}\, p^{21} + 12782613\, q^{52}\, p^{28} + 4534339\, q^{53}\, p^{25} + 2\, p^{38}\, q^{4} + 310\, p^{35}\, q^{6} + 114136\, p^{18}\, q^{17}$$
$$+ 61262\, p^{15}\, q^{18} + p^{11}\, q + 4\, p^{3}\, q^{3} + 3047041\, p^{69}\, q^{63} + 3850891\, p^{69}\, q^{61} + 3448462\, p^{69}\, q^{62} + 2572\, p^{73}\, q^{83} + 1775\, p^{70}\, q^{84} + 804\, p^{65}\, q^{85}$$
$$+ 102\, p^{58}\, q^{86} + 122\, p^{59}\, q^{86} + 237\, p^{64}\, q^{86} + 32\, p^{61}\, q^{87} + 768\, p^{64}\, q^{85} + 1873\, p^{16}\, q^{8} + 23\, p^{12}\, q^{3} + 6\, p^{11}\, q^{2} + 442\, p^{15}\, q^{6} + 182\, p^{14}\, q^{5}$$
$$+ 515875\, q^{30}\, p^{16} + 68\, p^{61}\, q^{12} + 61203\, p^{78}\, q^{47} + 31359\, p^{77}\, q^{40} + 24239\, p^{77}\, q^{39} + 36497\, p^{15}\, q^{16} + 19910\, p^{14}\, q^{15} + 40474\, q^{29}\, p^{11}$$
$$+ 1457522\, p^{40}\, q^{70} + 49\, p^{82}\, q^{37} + 122\, p^{86}\, q^{59} + 70\, p^{83}\, q^{41} + 23\, p^{81}\, q^{33} + p^{79}\, q^{26} + 90\, p^{87}\, q^{69} + 7\, p^{82}\, q^{34} + 92\, p^{87}\, q^{70} + p^{3}\, q + 2\, p^{2}\, q^{2}$$
$$+ 42\, p^{83}\, q^{40} + 25\, p^{83}\, q^{39} + p\, q^{2} + 81\, q^{34}\, p^{5} + 310\, q^{35}\, p^{6} + 315718\, p^{29}\, q^{15} + 9577\, q^{25}\, p^{9} + 308152\, p^{18}\, q^{21} + p^{2}\, q + 88\, p^{86}\, q^{81}$$
$$+ 173090\, q^{27}\, p^{14} + 292406\, q^{28}\, p^{15} + 90156\, p^{13}\, q^{25} + 67123481\, q^{44}\, p^{33} + 88331968\, q^{44}\, p^{35} + 97610208\, q^{45}\, p^{36} + 48249615\, q^{44}\, p^{31}$$
$$+ 77523890\, q^{44}\, p^{34} + 57318502\, q^{44}\, p^{32} + 130833089\, p^{39}\, q^{44} + 120859505\, p^{38}\, q^{44} + 15944\, p^{74}\, q^{79} + 2435789\, p^{66}\, q^{68} + 636\, p^{73}\, q^{85}$$
$$+ 296\, p^{68}\, q^{86} + 5\, q^{80}\, p^{29} + 14\, q^{80}\, p^{30} + q^{78}\, p^{24} + 139\, q^{81}\, p^{36} + 29\, q^{80}\, p^{31} + 198\, q^{80}\, p^{34} + 61\, q^{80}\, p^{32} + 111\, q^{80}\, p^{33} + 325\, q^{80}\, p^{35} + 2\, q^{80}\, p^{28}$$
$$+ q^{79}\, p^{26} + 526780\, q^{40}\, p^{16} + 194668\, q^{39}\, p^{14} + 42711\, q^{73}\, p^{32} + 2907334\, p^{20}\, q^{40} + 110262240\, p^{44}\, q^{37} + 8214\, p^{50}\, q^{12} + 4297\, p^{49}\, q^{11}$$
$$+ 105907\, p^{54}\, q^{17} + 29273046\, p^{60}\, q^{40} + 3487\, q^{46}\, p^{10} + 1194956\, p^{18}\, q^{31} + 12313537\, p^{28}\, q^{29} + 5530642\, p^{23}\, q^{31} + 9790017\, p^{26}\, q^{30}$$
$$+ 257\, p^{61}\, q^{13} + 439\, p^{62}\, q^{14} + 592011\, p^{58}\, q^{75} + 864925\, p^{59}\, q^{74} + 820011\, p^{60}\, q^{74} + 1269496\, p^{59}\, q^{73} + 2\, q^{84}\, p^{39} + 5\, q^{84}\, p^{40} + 9\, q^{84}\, p^{41}$$
$$+ q^{81}\, p^{30} + 40021117\, p^{61}\, q^{47} + 41097671\, p^{61}\, q^{48} + 22338\, p^{74}\, q^{32} + 15196\, p^{74}\, q^{31} + 5848813\, p^{31}\, q^{60} + 12920964\, p^{43}\, q^{25}$$
$$+ 21599289\, p^{43}\, q^{27} + 3850205\, p^{42}\, q^{21} + 9716188\, p^{43}\, q^{24} + 16857083\, p^{43}\, q^{26} + 67123481\, p^{44}\, q^{33} + 40021117\, p^{44}\, q^{30} + 32690542\, p^{44}\, q^{29}$$
$$+ 57318502\, p^{44}\, q^{32} + 48249615\, p^{44}\, q^{31} + 77523890\, p^{44}\, q^{34} + 88331968\, p^{44}\, q^{35} + 97610208\, p^{45}\, q^{36} + 82305\, p^{57}\, q^{18} + 21297\, p^{55}\, q^{15}$$
$$+ 2992591\, p^{55}\, q^{71} + 4197061\, p^{63}\, q^{33} + 261718\, p^{60}\, q^{22} + 679352\, p^{61}\, q^{25} + 146272\, q^{75}\, p^{41} + 195\, p^{69}\, q^{18} + 531\, p^{71}\, q^{21} + 118548\, q^{75}\, p^{40}$$
$$+ 9564695\, p^{67}\, q^{56} + 7076309\, p^{67}\, q^{60} + 9039408\, p^{67}\, q^{57} + 3607979\, p^{67}\, q^{65} + 2435789\, p^{68}\, q^{66} + 109490948\, p^{37}\, q^{42} + 116375912\, p^{38}\, q^{41}$$
$$+ 124804581\, p^{39}\, q^{41} + 69575837\, p^{57}\, q^{44} + 113952256\, p^{39}\, q^{39} + 119971771\, p^{40}\, q^{39} + 14507144\, p^{58}\, q^{33} + 61\, p^{87}\, q^{79} + 46292276\, p^{60}\, q^{53}$$
$$+ 94521\, p^{52}\, q^{16} + 49364256\, p^{31}\, q^{43} + 126708478\, p^{40}\, q^{40} + 45476\, p^{79}\, q^{50} + 29858\, p^{78}\, q^{43} + 818858\, p^{70}\, q^{37} + 1674021\, p^{72}\, q^{48}$$
$$+ 1922758\, p^{71}\, q^{45} + 146272\, p^{68}\, q^{28} + 85\, p^{53}\, q^{9} + 1116306\, p^{44}\, q^{72} + 22737\, q^{57}\, p^{16} + 4958391\, p^{69}\, q^{58} + 6965\, q^{56}\, p^{14} + 60012\, q^{58}\, p^{18}$$
$$+ 182903\, q^{58}\, p^{20} + 107101\, q^{58}\, p^{19} + 830300\, q^{59}\, p^{24} + 42910171\, p^{40}\, q^{58} + 51\, p^{87}\, q^{80} + 7954817\, q^{38}\, p^{23} + 20570355\, p^{36}\, q^{59}$$
$$+ 19508976\, q^{54}\, p^{31} + 571\, p^{85}\, q^{74} + 833\, p^{85}\, q^{67} + 741\, p^{85}\, q^{71} + 688\, p^{85}\, q^{72} + 824\, p^{85}\, q^{68} + 510\, p^{85}\, q^{75} + 2\, p^{68}\, q^{14} + p^{67}\, q^{13} + 14\, q^{79}\, p^{28}$$

$$+ 33\, q^{79}\, p^{29} + 460\, q^{82}\, p^{42} + 537\, q^{81}\, p^{39} + 9352\, q^{81}\, p^{50} + 779\, q^{81}\, p^{40} + 1109\, q^{81}\, p^{41} + 5\, q^{79}\, p^{27} + 5234476\, p^{64}\, q^{66} + 3607979\, p^{65}\, q^{67}$$
$$+ 1421\, q^{33}\, p^{7} + 18162\, q^{35}\, p^{10} + 606920\, q^{36}\, p^{16} + 809\, p^{37}\, q^{7} + 1179\, p^{53}\, q^{11} + 6965\, p^{56}\, q^{14} + 4176\, p^{55}\, q^{13} + 2655050\, p^{69}\, q^{64}$$
$$+ 2320\, p^{54}\, q^{12} + 34\, p^{43}\, q^{6} + 4247961\, p^{70}\, q^{54} + 3132467\, p^{70}\, q^{46} + 2992591\, p^{71}\, q^{55} + 19296729\, p^{61}\, q^{61} + 12205014\, p^{65}\, q^{59} + 2852\, p^{55}\, q^{83}$$
$$+ 16408611\, p^{58}\, q^{64} + 10323055\, p^{37}\, q^{24} + 1426527\, p^{36}\, q^{18} + 16955952\, p^{37}\, q^{26} + 19765\, p^{73}\, q^{79} + 105907837\, q^{46}\, p^{37} + 556056\, p^{75}\, q^{52}$$
$$+ 526780\, p^{75}\, q^{51} + 187765\, p^{73}\, q^{37} + 414414\, p^{75}\, q^{48} + 490506\, p^{74}\, q^{45} + 30314\, p^{71}\, q^{28} + 45806\, p^{71}\, q^{29} + 292406\, p^{76}\, q^{63} + 315718\, p^{76}\, q^{62}$$
$$+ 336316\, p^{76}\, q^{61} + 1513\, p^{51}\, q^{83} + 68\, p^{45}\, q^{84} + 886828\, p^{74}\, q^{52} + 846811\, p^{74}\, q^{51} + 318417\, p^{72}\, q^{37} + 683674\, p^{74}\, q^{48} + 800086\, p^{73}\, q^{45}$$
$$+ 53440\, p^{70}\, q^{28} + 79302\, p^{70}\, q^{29} + 441220\, p^{75}\, q^{63} + 480164\, p^{75}\, q^{62} + 515875\, p^{75}\, q^{61} + 52\, p^{68}\, q^{16} + 9793\, p^{76}\, q^{79} + 1198\, q^{76}\, p^{29}$$
$$+ 2011\, q^{76}\, p^{30} + 818858\, p^{54}\, q^{21} + 2195463\, p^{55}\, q^{24} + 798692\, q^{41}\, p^{17} + 1250512\, q^{41}\, p^{18} + 1173588\, q^{42}\, p^{18} + 1898010\, q^{41}\, p^{19}$$
$$+ 2799554\, q^{41}\, p^{20} + 598\, p^{47}\, q^{83} + 11\, p^{88}\, q^{84} + 1916071\, p^{58}\, q^{72} + 14919388\, p^{59}\, q^{64} + 11861147\, p^{61}\, q^{64} + 8931709\, p^{63}\, q^{64}$$
$$+ 10364937\, p^{62}\, q^{64} + 7587591\, p^{64}\, q^{64} + 6350490\, p^{65}\, q^{64} + 13391353\, p^{60}\, q^{64} + 18953570\, p^{62}\, q^{60} + 3217\, q^{76}\, p^{31} + 10948\, q^{75}\, p^{32}$$
$$+ 16006\, q^{75}\, p^{33} + 1319978\, p^{65}\, q^{31} + 5\, p^{36}\, q^{4} + 7491648\, p^{68}\, q^{49} + 10572413\, p^{24}\, q^{40} + 4023579\, p^{21}\, q^{41} + 7908168\, p^{23}\, q^{40}$$
$$+ 48249615\, p^{47}\, q^{60} + 49364256\, p^{48}\, q^{60} + p^{56}\, q^{8} + 4297\, p^{80}\, q^{42} + 2860\, p^{78}\, q^{35} + 7952\, p^{81}\, q^{49} + 10333\, p^{82}\, q^{64} + 2011\, p^{76}\, q^{30}$$
$$+ 16870\, p^{81}\, q^{55} + 11059\, p^{80}\, q^{46} + 154274166\, p^{42}\, q^{44} + 162196598\, p^{44}\, q^{44} + 165076761\, p^{45}\, q^{45} + 139903743\, p^{40}\, q^{44}$$
$$+ 159124760\, p^{43}\, q^{44} + 147797104\, p^{41}\, q^{44} + 138928476\, p^{40}\, q^{43} + 5457\, p^{44}\, q^{10} + 36627\, p^{47}\, q^{13} + 438317\, p^{50}\, q^{18} + 75675682\, p^{57}\, q^{46}$$
$$+ 2\, p^{31}\, q^{3} + 523038\, p^{64}\, q^{27} + 1733945\, p^{65}\, q^{32} + 11002902\, p^{31}\, q^{26} + 10333\, p^{27}\, q^{9} + 39093\, p^{28}\, q^{11} + 5644584\, p^{22}\, q^{41} + 17842842\, p^{26}\, q^{40}$$
$$+ 40576603\, p^{30}\, q^{39} + 1567144\, p^{61}\, q^{72} + 1379510\, p^{57}\, q^{73} + 917025\, p^{53}\, q^{74} + 48282710\, q^{54}\, p^{36} + 41883462\, q^{55}\, p^{36} + 41468963\, q^{54}\, p^{35}$$
$$+ 29312299\, q^{54}\, p^{33} + 35119584\, q^{54}\, p^{34} + 24101193\, q^{54}\, p^{32} + 9307211\, p^{60}\, q^{33} + 32812436\, p^{62}\, q^{53} + 56854\, p^{54}\, q^{16} + 454875\, p^{18}\, q^{23}$$
$$+ 6047496\, p^{32}\, q^{23} + 156695\, p^{67}\, q^{27} + 552206\, p^{68}\, q^{32} + 788392\, p^{71}\, q^{39} + 1542484\, p^{72}\, q^{47} + 948233\, p^{71}\, q^{40} + 1898010\, p^{72}\, q^{50}$$
$$+ 1510969\, p^{71}\, q^{43} + 1312148\, p^{71}\, q^{42} + 23960\, p^{78}\, q^{42} + 15388\, p^{76}\, q^{35} + 40096\, p^{79}\, q^{49} + 37298\, p^{80}\, q^{64} + 10060\, p^{74}\, q^{30} + 69524\, p^{79}\, q^{55}$$
$$+ 52401\, p^{78}\, q^{46} + 34556233\, p^{29}\, q^{41} + 66562544\, p^{33}\, q^{40} + 99118544\, p^{37}\, q^{39} + 768\, p^{27}\, q^{6} + 255\, p^{26}\, q^{5} + 3448462\, p^{62}\, q^{69}$$
$$+ 4177169\, p^{55}\, q^{70} + 21297\, q^{55}\, p^{15} + 1179\, q^{53}\, p^{11} + 5904\, q^{54}\, p^{13} + 354\, p^{53}\, q^{10} + 945872\, p^{68}\, q^{34} + 2540531\, p^{69}\, q^{41} + 7835620\, p^{68}\, q^{54}$$
$$+ 6304197\, p^{68}\, q^{46} + 5702888\, p^{69}\, q^{55} + 5251387\, q^{63}\, p^{34} + 4197061\, q^{63}\, p^{33} + 6465684\, q^{63}\, p^{35} + 7065156\, q^{64}\, p^{37} + 11014577\, q^{63}\, p^{38}$$
$$+ 7837241\, q^{63}\, p^{36} + 9359022\, q^{63}\, p^{37} + 123\, p^{67}\, q^{16} + 1087296\, p^{48}\, q^{73} + 2057550\, p^{56}\, q^{72} + 1997727\, p^{57}\, q^{72} + 2532391\, p^{59}\, q^{71}$$
$$+ 2561673\, p^{44}\, q^{70} + 15944\, p^{12}\, q^{17} + 70282788\, q^{54}\, p^{39} + 10364937\, p^{64}\, q^{62} + 14154473\, p^{61}\, q^{63} + 12313537\, p^{63}\, q^{62} + 9790017\, p^{65}\, q^{61}$$

$$+ 8931709\, p^{64} q^{63} + 10563548\, p^{63} q^{63} + 7440461\, p^{65} q^{63} + 8593690\, p^{65} q^{62} + 12313537\, p^{62} q^{63} + 16408611\, p^{64} q^{58} + 17958411\, p^{63} q^{59}$$
$$+ 1284623\, p^{63} q^{72} + 11861147\, p^{27} q^{30} + 12636\, p^{75} q^{79} + 300078\, p^{58} q^{21} + 830300\, p^{59} q^{24} + 5779359\, p^{61} q^{32} + 1853586\, p^{60} q^{27}$$
$$+ 4517481\, p^{61} q^{31} + 21083620\, p^{62} q^{41} + 8993512\, p^{61} q^{34} + 10954510\, p^{61} q^{35} + 152267568\, p^{43} q^{42} + 139903743\, p^{44} q^{40} + 146\, p^{60} q^{86}$$
$$+ 136341047\, p^{40} q^{42} + 138404726\, p^{41} q^{41} + 143153879\, p^{42} q^{41} + 138928476\, p^{43} q^{40} + 5\, q^{42} p^{5} + p^{75} q^{20} + 127\, p^{85} q^{52} + 164220\, q^{21} p^{16}$$
$$+ 73240233\, p^{54} q^{56} + 85979156\, p^{53} q^{55} + 13861236\, p^{25} q^{40} + 240915\, p^{66} q^{27} + 830300\, p^{67} q^{32} + 3323\, p^{14} q^{10} + 2789\, p^{12} q^{11}$$
$$+ 1899\, p^{10} q^{12} + 1001\, p^{8} q^{13} + 28691136\, p^{59} q^{60} + 820\, p^{66} q^{85} + 833\, p^{67} q^{85} + 1887\, p^{69} q^{84} + 730\, p^{63} q^{85} + 25331653\, p^{60} q^{60}$$
$$+ 30464558\, p^{57} q^{61} + 21599289\, p^{48} q^{64} + 22508679\, p^{50} q^{64} + 22362087\, p^{52} q^{64} + 22569111\, p^{51} q^{64} + 21892480\, p^{53} q^{64}$$
$$+ 20238713\, p^{55} q^{64} + 21177556\, p^{54} q^{64} + 16273837\, p^{55} q^{65} + 22181104\, p^{49} q^{64} + 23616924\, p^{62} q^{58} + 36605192\, p^{58} q^{59}$$
$$+ 32623932\, p^{59} q^{59} + 1567144\, p^{19} q^{30} + 315\, p^{13} q^{6} + 61\, p^{12} q^{4} + 132\, p^{12} q^{5} + 585\, p^{13} q^{7} + 1635\, p^{13} q^{9} + 1204348\, p^{56} q^{23}$$
$$+ 62836822\, q^{54} p^{38} + 48282710\, q^{55} p^{37} + 515159\, p^{63} q^{26} + 211133\, p^{62} q^{23} + 1028004\, p^{64} q^{29} + 20\, p^{39} q^{5} + 1394532\, p^{64} q^{30}$$
$$+ 96080\, p^{60} q^{20} + 3970\, p^{69} q^{83} + 54914443\, q^{53} p^{36} + 119255693\, p^{42} q^{38} + 214\, p^{63} q^{86} + 193\, p^{62} q^{86} + 1984\, p^{68} q^{84} + 168\, p^{61} q^{86}$$
$$+ 12867587\, p^{36} q^{25} + 6\, p^{89} q^{80} + 10428\, p^{30} q^{9} + 41644\, p^{31} q^{11} + 35386923\, p^{57} q^{60} + 32070860\, p^{58} q^{60} + 19107597\, p^{64} q^{56}$$
$$+ 55449496\, q^{54} p^{37} + 47343882\, q^{53} p^{35} + 91\, p^{85} q^{83} + 202\, p^{82} q^{84} + 380\, p^{77} q^{85} + 207\, p^{76} q^{86} + 95\, p^{73} q^{87} + 57318502\, p^{47} q^{59}$$
$$+ 34383829\, p^{61} q^{44} + 191996\, p^{56} q^{19} + 621895\, p^{57} q^{22} + 1001\, p^{13} q^{8} + 42711\, p^{73} q^{32} + 29683\, p^{73} q^{31} + 2893555\, p^{23} q^{26} + 77\, p^{14} q^{4}$$
$$+ 49906336\, p^{49} q^{60} + 7268986\, p^{61} q^{33} + 27013577\, p^{63} q^{53} + 42795\, p^{55} q^{16} + 110\, p^{80} q^{86} + 27755976\, p^{62} q^{44} + 144926\, p^{57} q^{19}$$
$$+ 475460\, p^{58} q^{22} + 1983460\, q^{40} p^{19} + 492581\, q^{41} p^{16} + 33785286\, p^{29} q^{39} + 27704453\, p^{28} q^{39} + 4238\, p^{76} q^{81} + 327294\, p^{62} q^{24}$$
$$+ 54696\, p^{60} q^{19} + 16006\, p^{58} q^{16} + 1284623\, p^{72} q^{63} + 1428446\, p^{72} q^{62} + 1567144\, p^{72} q^{61} + 51852222\, p^{42} q^{58} + 13680469\, p^{25} q^{38}$$
$$+ 10323055\, p^{24} q^{37} + 61715223\, p^{38} q^{33} + 609398\, p^{35} q^{16} + 14573\, p^{51} q^{13} + 187765\, p^{54} q^{18} + 49369\, p^{52} q^{15} + 20570355\, p^{59} q^{36}$$
$$+ 24239\, p^{52} q^{14} + 76409\, p^{58} q^{79} + 2057\, p^{48} q^{10} + 3096334\, p^{27} q^{58} + 4197061\, p^{28} q^{58} + 7440739\, p^{31} q^{59} + 5575678\, p^{29} q^{58}$$
$$+ 7268986\, p^{30} q^{58} + 4153266\, p^{70} q^{51} + 1507743\, p^{68} q^{36} + 4235765\, p^{70} q^{52} + 4326\, p^{40} q^{9} + 1813\, p^{39} q^{8} + 114647\, p^{61} q^{21}$$
$$+ 44335791\, p^{59} q^{56} + 1911\, p^{78} q^{34} + 8214\, p^{79} q^{41} + 529\, p^{75} q^{26} + 3201\, p^{77} q^{33} + 74780\, p^{61} q^{79} + 23\, p^{58} q^{10} + 5702888\, p^{55} q^{69}$$
$$+ 122494\, q^{37} p^{13} + 367098\, q^{37} p^{15} + 579777\, q^{38} p^{16} + 1261\, q^{34} p^{7} + 432\, q^{33} p^{6} + 460\, p^{49} q^{9} + 163\, p^{48} q^{8} + 363323\, q^{51} p^{18}$$
$$+ 4534339\, p^{66} q^{38} + 22338\, p^{59} q^{17} + 3789184\, p^{66} q^{37} + 7160476\, p^{68} q^{48} + 8001833\, p^{67} q^{45} + 741856\, p^{64} q^{28} + 34\, q^{43} p^{6} + 9\, q^{41} p^{5}$$
$$+ 18\, q^{22} p^{3} + 16\, q^{23} p^{3} + 6961124\, p^{57} q^{68} + 5164081\, p^{48} q^{69} + 1713721\, p^{41} q^{70} + 97610208\, p^{55} q^{46} + 585\, p^{78} q^{84} + p^{87} q^{52}$$

$$+ 1715825\, p^{44}\, q^{71} + 7952\, p^{42}\, q^{10} + 3835246\, p^{67}\, q^{39} + 6760122\, p^{68}\, q^{47} + 4484549\, p^{67}\, q^{40} + 7744036\, p^{68}\, q^{50} + 6602836\, p^{67}\, q^{43}$$
$$+ 5882229\, p^{67}\, q^{42} + 7908168\, p^{68}\, q^{51} + 3119217\, p^{66}\, q^{36} + 7979633\, p^{68}\, q^{52} + 10600\, p^{77}\, q^{78} + 87\, p^{72}\, q^{20} + 5062\, p^{82}\, q^{52} + 4326\, p^{82}\, q^{51}$$
$$+ 2\, p^{63}\, q^{11} + 3020159\, p^{24}\, q^{25} + 2913706\, p^{21}\, q^{30} + 9841\, p^{77}\, q^{36} + 67123481\, p^{47}\, q^{58} + 1120\, p^{71}\, q^{22} + 3589\, p^{72}\, q^{25} + 325\, p^{56}\, q^{11}$$
$$+ 2064\, p^{59}\, q^{14} + 1226\, p^{58}\, q^{13} + 315\, q^{13}\, p^{6} + 2527341\, p^{66}\, q^{35} + 7315127\, p^{67}\, q^{44} + 7954817\, p^{68}\, q^{53} + 504073\, p^{19}\, q^{22} + 109003\, p^{14}\, q^{23}$$
$$+ 5373\, p^{72}\, q^{82} + 559\, p^{31}\, q^{6} + 108706224\, q^{45}\, p^{37} + 12320441\, p^{44}\, q^{25} + 20780690\, p^{44}\, q^{27} + 3639601\, p^{43}\, q^{21} + 9220577\, p^{44}\, q^{24}$$
$$+ 16148297\, p^{44}\, q^{26} + 65299117\, p^{45}\, q^{33} + 38508054\, p^{45}\, q^{30} + 31333184\, p^{45}\, q^{29} + 55562054\, p^{45}\, q^{32} + 46602052\, p^{45}\, q^{31}$$
$$+ 75675682\, p^{45}\, q^{34} + 86518814\, p^{45}\, q^{35} + 94790662\, p^{46}\, q^{36} + 779\, p^{51}\, q^{10} + 2014786\, p^{66}\, q^{34} + 5171425\, p^{67}\, q^{41} + 56000442\, p^{41}\, q^{57}$$
$$+ 59322545\, p^{40}\, q^{56} + 116828749\, q^{46}\, p^{38} + 33039\, p^{37}\, q^{11} + 61115\, p^{38}\, q^{12} + 15425\, p^{37}\, q^{10} + 3017\, p^{42}\, q^{9} + 1231\, p^{41}\, q^{8} + 107533\, p^{39}\, q^{13}$$
$$+ 3835246\, q^{67}\, p^{39} + 9352\, p^{81}\, q^{50} + 5593\, p^{80}\, q^{43} + 1423988\, p^{54}\, q^{73} + 846811\, p^{51}\, q^{74} + 1404356\, p^{53}\, q^{73} + 1367824\, p^{52}\, q^{73}$$
$$+ 1316126\, p^{51}\, q^{73} + 8001833\, q^{67}\, p^{45} + 77982139\, p^{35}\, q^{38} + 2624037\, p^{62}\, q^{70} + 20259\, p^{64}\, q^{81} + 2071\, p^{27}\, q^{7} + 4855\, p^{28}\, q^{8} + 74780\, p^{30}\, q^{12}$$
$$+ 21371\, p^{29}\, q^{10} + 864925\, p^{32}\, q^{17} + 3691259\, p^{33}\, q^{21} + 2532391\, p^{32}\, q^{20} + 1814680\, p^{32}\, q^{19} + 4958391\, p^{33}\, q^{22} + 220970\, p^{31}\, q^{14}$$
$$+ 1524\, p^{81}\, q^{42} + 1049\, p^{79}\, q^{35} + 3017\, p^{82}\, q^{49} + 4857\, p^{83}\, q^{64} + 767\, p^{77}\, q^{30} + 7328\, p^{82}\, q^{55} + 4394\, p^{81}\, q^{46} + 34925\, p^{70}\, q^{27} + 134017\, p^{71}\, q^{32}$$
$$+ 13386860\, p^{25}\, q^{42} + 49224828\, p^{31}\, q^{40} + 28114620\, p^{28}\, q^{41} + 49906336\, p^{60}\, q^{49} + 103692101\, p^{40}\, q^{37} + 73206492\, p^{34}\, q^{39}$$
$$+ 13704315\, p^{41}\, q^{25} + 35482\, p^{36}\, q^{11} + 65588\, p^{37}\, q^{12} + 16870\, p^{36}\, q^{10} + 886828\, p^{39}\, q^{17} + 4153266\, p^{40}\, q^{21} + 206853\, p^{38}\, q^{14}$$
$$+ 2907334\, p^{40}\, q^{20} + 1983460\, p^{40}\, q^{19} + 5644584\, p^{41}\, q^{22} + 7744036\, p^{41}\, q^{23} + 22508679\, p^{41}\, q^{27} + 27820635\, p^{42}\, q^{28} + 115488\, p^{38}\, q^{13}$$
$$+ 353402\, p^{38}\, q^{15} + 1008075\, p^{53}\, q^{21} + 2684859\, p^{54}\, q^{24} + 2339\, p^{69}\, q^{21} + 93608540\, p^{37}\, q^{38} + 480164\, p^{16}\, q^{29} + 559\, q^{31}\, p^{6}$$
$$+ 11002902\, p^{26}\, q^{31} + 132\, p^{86}\, q^{79} + 2088\, q^{25}\, p^{7} + 4\, q^{18}\, p^{2} + 296\, q^{23}\, p^{5} + 833\, q^{24}\, p^{6} + 6961124\, p^{23}\, q^{34} + 2789\, p^{80}\, q^{79} + 1231\, p^{83}\, q^{50}$$
$$+ 642\, p^{82}\, q^{43} + 76282\, p^{31}\, q^{12} + 21527\, p^{30}\, q^{10} + 901061\, p^{33}\, q^{17} + 3894194\, p^{34}\, q^{21} + 2689799\, p^{33}\, q^{20} + 1916071\, p^{33}\, q^{19}$$
$$+ 5259749\, p^{34}\, q^{22} + 227437\, p^{32}\, q^{14} + 10709521\, p^{25}\, q^{33} + 14919388\, p^{27}\, q^{32} + 22064092\, p^{31}\, q^{30} + 18953570\, p^{29}\, q^{31} + 23616924\, p^{33}\, q^{29}$$
$$+ 96080\, p^{71}\, q^{31} + 743622\, p^{74}\, q^{49} + 399917\, p^{75}\, q^{64} + 25856705\, p^{62}\, q^{57} + 1312148\, p^{42}\, q^{71} + 35066\, p^{80}\, q^{65} + 27715148\, p^{58}\, q^{61}$$
$$+ 2271126\, p^{43}\, q^{70} + 21627744\, p^{63}\, q^{57} + 2689799\, p^{20}\, q^{33} + 7776625\, p^{24}\, q^{32} + 8436954\, p^{24}\, q^{33} + 9824385\, p^{25}\, q^{32} + 12205014\, p^{26}\, q^{32}$$
$$+ 19296729\, p^{30}\, q^{30} + 6961124\, p^{34}\, q^{23} + 28\, p^{86}\, q^{85} + 116375912\, p^{41}\, q^{38} + 112224042\, p^{38}\, q^{40} + 87559855\, p^{35}\, q^{41} + 103692101\, p^{37}\, q^{40}$$
$$+ 68185424\, p^{33}\, q^{43} + 58429135\, p^{32}\, q^{43} + 78478962\, p^{34}\, q^{43} + 99888959\, p^{36}\, q^{43} + 89122943\, p^{35}\, q^{43} + 99329900\, p^{36}\, q^{44}$$
$$+ 124804581\, p^{41}\, q^{39} + 212337\, p^{51}\, q^{17} + 788392\, p^{52}\, q^{20} + 88861585\, p^{35}\, q^{42} + 110528214\, p^{37}\, q^{43} + 119255693\, p^{38}\, q^{42}$$

$$+ 99272362\, p^{36}\, q^{42} + 49224828\, p^{51}\, q^{60} + 49860355\, p^{50}\, q^{60} + 40021117\, p^{47}\, q^{61} + 27955552\, p^{62}\, q^{56} + 539659\, p^{73}\, q^{67} + 6047496\, p^{23}\, q^{32}$$
$$+ 16049422\, p^{28}\, q^{31} + 21295519\, p^{32}\, q^{29} + 32070860\, p^{60}\, q^{58} + 187765\, q^{73}\, p^{37} + 44537\, q^{74}\, p^{34} + 145417\, q^{73}\, p^{36} + 82305\, q^{73}\, p^{34}$$
$$+ 110556\, q^{73}\, p^{35} + 27715148\, p^{61}\, q^{58} + 191996\, p^{72}\, q^{35} + 917025\, p^{74}\, q^{53} + 703075\, p^{73}\, q^{44} + 1538\, p^{46}\, q^{82} + 2057\, p^{43}\, q^{81} + 15425\, p^{54}\, q^{81}$$
$$+ 2700\, p^{44}\, q^{81} + 3487\, p^{45}\, q^{81} + 1610135\, p^{67}\, q^{69} + 2160399\, p^{61}\, q^{71} + 15244\, p^{72}\, q^{80} + 2088\, p^{25}\, q^{7} + 15429118\, q^{35}\, p^{26} + 9564695\, q^{35}\, p^{24}$$
$$+ 54696\, q^{72}\, p^{31} + 132221792\, p^{40}\, q^{41} + 132221792\, p^{41}\, q^{40} + 120765343\, p^{43}\, q^{38} + 110262240\, p^{37}\, q^{44} + 128292103\, p^{42}\, q^{39}$$
$$+ 120765343\, p^{38}\, q^{43} + 128292103\, p^{39}\, q^{42} + 143153879\, p^{41}\, q^{42} + 146320722\, p^{43}\, q^{41} + 130325287\, p^{39}\, q^{43} + 78585\, p^{50}\, q^{15}$$
$$+ 30226954\, p^{57}\, q^{36} + 39864\, p^{50}\, q^{14} + 130833089\, p^{44}\, q^{39} + 148521659\, p^{42}\, q^{42} + 33064811\, p^{56}\, q^{61} + 32812436\, p^{53}\, q^{62}$$
$$+ 28114620\, p^{50}\, q^{63} + 28691136\, p^{60}\, q^{59} + 18182\, p^{81}\, q^{66} + 36627\, p^{78}\, q^{44} + 2213\, p^{71}\, q^{23} + 37641\, p^{80}\, q^{56} + 65588\, p^{79}\, q^{54} + 41644\, p^{80}\, q^{60}$$
$$+ 39354\, p^{80}\, q^{57} + 18336\, p^{77}\, q^{38} + 61115\, p^{79}\, q^{53} + 29850864\, p^{55}\, q^{62} + 27955552\, p^{56}\, q^{62} + 25856705\, p^{57}\, q^{62} + 23616924\, p^{58}\, q^{62}$$
$$+ 24892262\, p^{59}\, q^{61} + 35444320\, p^{55}\, q^{61} + 33785286\, p^{52}\, q^{62} + 37530007\, p^{54}\, q^{61} + 134\, p^{78}\, q^{29} + 67\, p^{78}\, q^{28} + 4\, p^{69}\, q^{15} + 8\, p^{72}\, q^{18}$$
$$+ 23\, p^{74}\, q^{21} + 36\, p^{76}\, q^{24} + 18\, p^{75}\, q^{22} + 85\, p^{76}\, q^{25} + 2488\, p^{83}\, q^{54} + 1261\, p^{84}\, q^{57} + 354\, p^{81}\, q^{38} + 2148\, p^{83}\, q^{53} + 1712\, p^{84}\, q^{60} + 820\, p^{85}\, q^{66}$$
$$+ 883\, p^{82}\, q^{44} + 52\, p^{75}\, q^{23} + 1108\, p^{84}\, q^{56} + 7\, p^{71}\, q^{17} + 774\, p^{83}\, q^{48} + 1173\, p^{82}\, q^{45} + 54517336\, p^{36}\, q^{33} + 110\, p^{86}\, q^{80} + 4424667\, p^{65}\, q^{66}$$
$$+ 3020159\, p^{66}\, q^{67} + 676\, p^{62}\, q^{85} + 2045\, p^{67}\, q^{84} + 81\, p^{57}\, q^{86} + 4612\, p^{73}\, q^{82} + 2930\, p^{72}\, q^{83} + 2488\, q^{37}\, p^{8} + 5107\, p^{64}\, q^{18} + 1198\, p^{62}\, q^{15}$$
$$+ 12726675\, p^{64}\, q^{41} + 357671\, p^{75}\, q^{65} + 214349\, p^{76}\, q^{66} + 546967\, p^{75}\, q^{60} + 604483\, p^{75}\, q^{57} + 936775\, p^{74}\, q^{54} + 555412\, p^{74}\, q^{46}$$
$$+ 606920\, p^{75}\, q^{55} + 1503715\, p^{66}\, q^{70} + 1321361\, p^{68}\, q^{69} + 1148809\, p^{66}\, q^{71} + 5251387\, p^{63}\, q^{34} + 6465684\, p^{63}\, q^{35} + 17455154\, p^{65}\, q^{53}$$
$$+ 17205140\, p^{64}\, q^{44} + 92\, p^{70}\, q^{87} + 96\, p^{71}\, q^{87} + 70\, q^{83}\, p^{41} + 439\, p^{77}\, q^{29} + 234\, p^{77}\, q^{28} + 12\, p^{68}\, q^{15} + 27013577\, p^{53}\, q^{63} + 27704453\, p^{52}\, q^{63}$$
$$+ 26024133\, p^{54}\, q^{63} + 19107597\, p^{56}\, q^{64} + 21627744\, p^{57}\, q^{63} + 24770027\, p^{55}\, q^{63} + 23288836\, p^{56}\, q^{63} + 3\, p^{55}\, q^{8} + p^{49}\, q^{6}$$
$$+ 38554718\, p^{56}\, q^{60} + 24892262\, p^{61}\, q^{59} + 31487559\, p^{54}\, q^{62} + 28076226\, p^{51}\, q^{63} + 10644\, p^{79}\, q^{42} + 6965\, p^{77}\, q^{35} + 18660\, p^{80}\, q^{49}$$
$$+ 20259\, p^{81}\, q^{64} + 4688\, p^{75}\, q^{30} + 35482\, p^{80}\, q^{55} + 25063\, p^{79}\, q^{46} + 212026\, q^{75}\, p^{43} + 177446\, q^{75}\, p^{42} + 249413\, q^{75}\, p^{44} + 188500\, q^{76}\, p^{46}$$
$$+ 372710\, q^{75}\, p^{47} + 289251\, q^{75}\, p^{45} + 330561\, q^{75}\, p^{46} + 8358861\, q^{64}\, p^{38} + 11214470\, q^{64}\, p^{40} + 14254400\, q^{64}\, p^{42} + 12726675\, q^{64}\, p^{41}$$
$$+ 15759714\, q^{64}\, p^{43} + 18549008\, q^{64}\, p^{45} + 17205140\, q^{64}\, p^{44} + 14286264\, q^{65}\, p^{45} + 9748887\, q^{64}\, p^{39} + 3193533\, p^{21}\, q^{31} + 3639\, p^{70}\, q^{83}$$
$$+ 336316\, p^{30}\, q^{15} + 14417817\, p^{29}\, q^{29} + 12205014\, p^{32}\, q^{26} + 10499\, p^{28}\, q^{9} + 40474\, p^{29}\, q^{11} + 16\, p^{23}\, q^{3} + 1173588\, p^{42}\, q^{18} + 492581\, p^{41}\, q^{16}$$
$$+ 116828749\, p^{46}\, q^{38} + 145550859\, p^{46}\, q^{41} + 158616368\, p^{46}\, q^{43} + 152855656\, p^{46}\, q^{42} + 725968\, p^{73}\, q^{65} + 451545\, p^{74}\, q^{66}$$
$$+ 1194956\, p^{73}\, q^{60} + 1379510\, p^{73}\, q^{57} + 127266075\, p^{46}\, q^{39} + 2148\, q^{38}\, p^{8} + 24483\, q^{40}\, p^{11} + 50904\, q^{40}\, p^{12} + 743622\, q^{42}\, p^{17}$$

$$+ 38508054\, q^{45} p^{30} + 69575837\, p^{44} q^{57} + 12374\, q^{39} p^{10} + 12320441\, q^{44} p^{25} + 9220577\, q^{44} p^{24} + 16148297\, q^{44} p^{26} + 20780690\, q^{44} p^{27}$$
$$+ 25087771\, q^{45} p^{28} + 9\, p^{88} q^{85} + 65299117\, q^{45} p^{33} + 86518814\, q^{45} p^{35} + 94790662\, q^{46} p^{36} + 46602052\, q^{45} p^{31} + 75675682\, q^{45} p^{34}$$
$$+ 55562054\, q^{45} p^{32} + 1087296\, q^{43} p^{18} + 5644584\, p^{50} q^{69} + 454846\, q^{42} p^{16} + 64479335\, p^{52} q^{58} + 61715223\, p^{53} q^{58} + 58429135\, p^{48} q^{59}$$
$$+ 58860021\, p^{49} q^{59} + 23288836\, p^{63} q^{56} + 7\, p^{27} q^{3} + 1018895\, p^{18} q^{29} + 4992276\, p^{23} q^{30} + 40650\, p^{80} q^{58} + 28762\, p^{76} q^{37} + 41393\, p^{80} q^{59}$$
$$+ 7\, q^{27} p^{3} + 1433289\, q^{63} p^{29} + 1929077\, q^{63} p^{30} + 1853586\, q^{64} p^{31} + 2417608\, q^{64} p^{32} + 3898388\, q^{64} p^{34} + 3096334\, q^{64} p^{33}$$
$$+ 4827534\, q^{64} p^{35} + 5229177\, q^{65} p^{37} + 5884994\, q^{64} p^{36} + 6220349\, q^{65} p^{38} + 8433247\, q^{65} p^{40} + 10825670\, q^{65} p^{42} + 9619035\, q^{65} p^{41}$$
$$+ 12026626\, q^{65} p^{43} + 13190202\, q^{65} p^{44} + 10798168\, q^{66} p^{45} + 7293979\, q^{65} p^{39} + 11605931\, q^{66} p^{46} + 13386860\, q^{66} p^{49}$$
$$+ 12920964\, q^{66} p^{48} + 13853728\, q^{66} p^{52} + 13348614\, q^{66} p^{54} + 9997620\, q^{67} p^{55} + 13704315\, q^{66} p^{50} + 13680469\, q^{66} p^{53}$$
$$+ 13861236\, q^{66} p^{51} + 12320441\, q^{66} p^{47} + 17972\, p^{71} q^{80} + 28\, p^{43} q^{84} + p^{61} q^{10} + 376656\, p^{76} q^{58} + 367294\, p^{76} q^{59} + 292282\, q^{41} p^{15}$$
$$+ 18182\, p^{66} q^{81} + 9322\, p^{58} q^{82} + 1674021\, q^{43} p^{19} + 18953570\, p^{31} q^{29} + 49224828\, p^{40} q^{31} + 75832333\, p^{40} q^{34} + 85256814\, p^{40} q^{35}$$
$$+ 97496351\, p^{41} q^{36} + 56031574\, p^{52} q^{59} + 2821868\, p^{57} q^{71} + 2331385\, p^{63} q^{70} + 1647138\, p^{68} q^{68} + 3193533\, p^{60} q^{70} + 414414\, p^{48} q^{75}$$
$$+ 743622\, p^{49} q^{74} + 798692\, p^{50} q^{74} + 1173588\, p^{49} q^{73} + 27\, p^{71} q^{18} + 80\, p^{73} q^{21} + 611998\, p^{72} q^{68} + 123\, p^{75} q^{24} + 68\, p^{74} q^{22} + 268\, p^{75} q^{25}$$
$$+ 17817508\, p^{34} q^{27} + 592011\, p^{33} q^{16} + 182903\, q^{71} p^{33} + 7187\, q^{71} p^{25} + 244292\, q^{71} p^{34} + 320056\, q^{71} p^{35} + 23288836\, p^{35} q^{28}$$
$$+ 10709521\, p^{66} q^{58} + 6582\, p^{82} q^{54} + 3557\, p^{83} q^{57} + 1179\, p^{80} q^{38} + 5807\, p^{82} q^{53} + 4424\, p^{83} q^{60} + 2088\, p^{84} q^{66} + 2700\, p^{81} q^{44}$$
$$+ 161\, p^{74} q^{23} + 3202\, p^{83} q^{56} + 23\, p^{70} q^{17} + 2460\, p^{82} q^{48} + 3487\, p^{81} q^{45} + 87335043\, p^{37} q^{37} + 171324\, p^{52} q^{17} + 180923\, q^{40} p^{14} + 8\, p^{65} q^{88}$$
$$+ p^{67} q^{89} + 16\, p^{68} q^{88} + 11\, p^{66} q^{88} + 13\, p^{67} q^{88} + 5\, p^{63} q^{88} + 7\, p^{64} q^{88} + 98736\, q^{40} p^{13} + 1316126\, q^{40} p^{18} + 2655050\, p^{64} q^{69}$$
$$+ 26851\, p^{68} q^{80} + 14\, p^{63} q^{12} + 13372\, p^{80} q^{47} + 6192\, p^{79} q^{40} + 4579\, p^{79} q^{39} + p^{53} q^{7} + 87\, p^{71} q^{19} + 3970\, p^{83} q^{69} + 3639\, p^{83} q^{70}$$
$$+ 521\, p^{80} q^{36} + 118\, p^{77} q^{27} + 10547\, p^{62} q^{82} + 114647\, p^{70} q^{30} + 7187\, p^{66} q^{20} + 3\, p^{4} q^{2} + 7\, p^{5} q^{3} + 611998\, p^{23} q^{19} + 330741\, p^{23} q^{17}$$
$$+ 1261344\, p^{24} q^{21} + 806235\, p^{23} q^{20} + 97496351\, p^{55} q^{50} + 1686\, q^{80} p^{39} + 8968\, q^{80} p^{45} + 98736\, q^{78} p^{51} + 61203\, q^{78} p^{47} + 52599\, q^{21} p^{13}$$
$$+ 2045\, q^{24} p^{7} + 3607979\, p^{24} q^{26} + 6350490\, p^{26} q^{27} + 4245821\, p^{24} q^{27} + 5830327\, p^{54} q^{69} + 3397643\, p^{47} q^{70} + 122494\, q^{78} p^{54}$$
$$+ 69524\, q^{79} p^{55} + 89504\, q^{78} p^{50} + 115488\, q^{78} p^{53} + q^{4} p + p\, q^{3} + 3\, q^{4} p^{2} + 4411\, p^{68} q^{21} + 82\, p^{15} q^{4} + 99272362\, p^{55} q^{49} + 3299\, q^{20} p^{8}$$
$$+ 68\, p^{46} q^{7} + 3455031\, p^{70} q^{59} + 3691259\, p^{70} q^{58} + 52401\, q^{78} p^{46} + 79961\, q^{78} p^{49} + 70496\, q^{78} p^{48} + 107533\, q^{78} p^{52} + 42795\, p^{75} q^{36}$$
$$+ 5\, p^{4} q^{3} + 25\, p^{13} q^{3} + 510\, p^{16} q^{6} + 207\, p^{15} q^{5} + 49397\, p^{16} q^{16} + 23683\, p^{13} q^{17} + 99888959\, p^{55} q^{48} + 1340721\, p^{71} q^{65} + 860329\, p^{72} q^{66}$$
$$+ 2353926\, p^{71} q^{60} + 2821868\, p^{71} q^{57} + 2\, p^{3} q^{2} + 5259749\, p^{22} q^{34} + 6529381\, p^{23} q^{33} + 3691259\, p^{21} q^{33} + 4958391\, p^{22} q^{33}$$

$$+ 99329900\, p^{55} q^{47} + 454875\, p^{23} q^{18} + 6\, p^{13} q^{2} + 706\, q^{74} p^{25} + 3722881\, p^{44} q^{69} + 2987\, q^{73} p^{26} + 878\, q^{73} p^{24} + 435\, q^{73} p^{23} + 195\, q^{73} p^{22}$$
$$+ 7840\, p^{18} q^{10} + 1176\, p^{17} q^{7} + 3902\, p^{17} q^{9} + 2209\, p^{17} q^{8} + 19343\, q^{26} p^{10} + 18660\, p^{49} q^{80} + 72998597\, p^{45} q^{57} + 80088762\, p^{44} q^{56}$$
$$+ 101\, p^{45} q^{7} + 4616510\, p^{69} q^{59} + 20\, q^{32} p^{4} + 11\, q^{7} p^{3} + 3294\, q^{53} p^{12} + 8173\, q^{53} p^{13} + 798788\, q^{56} p^{22} + 399917\, q^{27} p^{16} + 93639\, p^{22} q^{14}$$
$$+ 162297\, p^{23} q^{15} + 61541\, p^{22} q^{13} + 23841\, p^{22} q^{11} + 17\, p^{6} q^{4} + 28\, p^{6} q^{5} + 64\, p^{7} q^{6} + 32\, p^{87} q^{61} + 47\, p^{87} q^{63} + 50811399\, p^{40} q^{57}$$
$$+ 67945415\, p^{56} q^{55} + 88861585\, p^{49} q^{56} + 99888959\, p^{48} q^{55} + 80479966\, p^{55} q^{54} + 688\, p^{19} q^{6} + 266\, p^{18} q^{5} + 85979156\, p^{55} q^{53} + 8\, p^{26} q^{3}$$
$$+ 65\, p^{35} q^{5} + 87559855\, p^{50} q^{56} + 99272362\, p^{49} q^{55} + 3119217\, p^{55} q^{25} + 679352\, p^{66} q^{30} + 45806\, p^{62} q^{20} + 33764\, q^{21} p^{12} + 79140\, q^{21} p^{14}$$
$$+ 138025\, q^{22} p^{15} + 134056\, p^{20} q^{16} + 13\, p^{86} q^{51} + p^{85} q^{42} + 357671\, p^{26} q^{16} + 6924\, p^{21} q^{9} + 39093\, p^{22} q^{12} + 7840\, p^{10} q^{18} + 43262\, p^{18} q^{14}$$
$$+ 12689\, p^{18} q^{11} + 77092\, p^{19} q^{15} + 29681\, p^{18} q^{13} + 19765\, p^{18} q^{12} + 14\, q^{33} p^{4} + 49\, p^{86} q^{55} + 14\, p^{85} q^{46} + 53\, p^{87} q^{64} + p^{81} q^{30} + p^{83} q^{35}$$
$$+ 5\, p^{86} q^{49} + 26\, q^{16} p^{3} + 2339\, q^{70} p^{22} + 4411\, q^{70} p^{23} + 7909\, q^{70} p^{24} + 19469\, q^{71} p^{27} + 91\, p^{17} q^{4} + 27\, p^{15} q^{3} + 12329\, p^{21} q^{10} + 1636\, p^{20} q^{7}$$
$$+ 3299\, p^{20} q^{8} + 1610135\, p^{22} q^{24} + 26\, p^{88} q^{77} + 6\, p^{89} q^{78} + 878\, p^{67} q^{18} + 917628\, p^{66} q^{31} + 3\, p^{37} q^{4} + 5432330\, p^{69} q^{49} + 977\, p^{81} q^{81}$$
$$+ 67\, q^{63} p^{13} + 84633\, p^{16} q^{18} + 234\, q^{63} p^{14} + 10600\, p^{13} q^{14} + 7753\, p^{13} q^{13} + 1981\, p^{67} q^{19} + 90741461\, p^{55} q^{52} + 20878\, q^{21} p^{11}$$
$$+ 197938\, p^{22} q^{16} + 6965\, q^{77} p^{35} + 9841\, q^{77} p^{36} + 8173\, q^{78} p^{38} + 1263\, q^{14} p^{8} + 716\, q^{14} p^{7} + 7\, q^{35} p^{4} + p^{8} q + 2043375\, p^{70} q^{64}$$
$$+ 1579\, p^{55} q^{12} + 23\, p^{44} q^{6} + 2064\, q^{77} p^{32} + 4783\, q^{77} p^{34} + 3201\, q^{77} p^{33} + 94622921\, p^{55} q^{51} + 604483\, q^{34} p^{16} + 901061\, q^{33} p^{17}$$
$$+ 376656\, q^{33} p^{15} + 592011\, q^{33} p^{16} + 645189\, p^{53} q^{20} + 234685\, p^{16} q^{23} + 27\, p^{88} q^{76} + 93639\, p^{14} q^{22} + 25\, p^{88} q^{73} + 8968\, p^{46} q^{11}$$
$$+ 16920\, p^{47} q^{12} + 20\, p^{5} q^{5} + 28734\, p^{20} q^{12} + 5373\, p^{19} q^{9} + 2093\, q^{14} p^{9} + 4238\, q^{15} p^{10} + 1014\, p^{75} q^{84} + 741\, p^{71} q^{85} + 274116\, p^{16} q^{24}$$
$$+ 9\, q^{6} p^{3} + 45\, p^{6} q^{6} + 5505\, p^{13} q^{12} + 5052\, p^{14} q^{11} + 12\, p^{5} q^{4} + 12\, p^{4} q^{5} + 3\, q^{5} p^{2} + 9\, p^{6} q^{3} + 3\, p^{5} q^{2} + 590\, p^{83} q^{80} + 285\, q^{24} p^{5}$$
$$+ 4857\, q^{27} p^{8} + 83\, q^{23} p^{4} + 1956766\, p^{20} q^{29} + 9\, p^{4} q^{4} + 7\, p^{3} q^{5} + 5\, q^{4} p^{3} + q^{5} p + 11\, q^{34} p^{4} + 5052\, p^{11} q^{14} + 5505\, p^{12} q^{13} + 65855\, p^{20} q^{14}$$
$$+ 17972\, p^{20} q^{11} + 115611\, p^{21} q^{15} + 44200\, p^{20} q^{13} + 792\, p^{54} q^{11} + 4783\, p^{57} q^{14} + 2860\, p^{56} q^{13} + 65\, q^{35} p^{5} + 78\, q^{24} p^{4} + 492353\, p^{39} q^{72}$$
$$+ 840685\, p^{42} q^{72} + 713986\, p^{41} q^{72} + 237952\, p^{38} q^{73} + 597574\, p^{40} q^{72} + 3908186\, p^{63} q^{68} + p^{4} q + 2\, p^{2} q^{3} + 197\, q^{43} p^{7} + 2\, q^{38} p^{4}$$
$$+ 44529\, q^{23} p^{12} + 20259\, q^{27} p^{10} + 10333\, q^{27} p^{9} + 20967\, q^{28} p^{10} + 811\, q^{22} p^{6} + 91\, p^{6} q^{8} + 81007\, q^{55} p^{17} + 2527341\, q^{56} p^{25}$$
$$+ 4827534\, q^{56} p^{27} + 5251387\, q^{57} p^{28} + 1204348\, q^{56} p^{23} + 6936807\, q^{57} p^{29} + 9307211\, q^{58} p^{31} + 8993512\, q^{57} p^{30} + 150103\, p^{77} q^{49}$$
$$+ 108238\, p^{78} q^{64} + 39093\, p^{12} q^{22} + 37679\, p^{72} q^{30} + 224617\, p^{77} q^{55} + 188500\, p^{76} q^{46} + 13\, q^{8} p^{3} + 16\, q^{9} p^{3} + 143\, p^{8} q^{7} + 6569\, p^{15} q^{11}$$
$$+ 642\, q^{48} p^{9} + 2987\, q^{65} p^{18} + 1775\, q^{21} p^{7} + 6924\, q^{21} p^{9} + 13907\, q^{22} p^{10} + 100\, p^{7} q^{7} + 4\, q^{7} p^{2} + 96638\, p^{76} q^{42} + 29\, p^{8} q^{4} + 53\, p^{8} q^{5}$$
$$+ 122\, p^{9} q^{6} + 60680\, p^{74} q^{35} + 441220\, q^{28} p^{16} + 90\, q^{22} p^{4} + 218\, p^{83} q^{83} + 19508976\, p^{37} q^{60} + 165858\, p^{77} q^{50} + 116827\, p^{76} q^{43}$$

$$+ 4447379\, p^{29}\, q^{23} + 21233750\, p^{35}\, q^{58} + 21459462\, p^{34}\, q^{57} + 492353\, p^{52}\, q^{19} + 1527349\, p^{53}\, q^{22} + 3639\, q^{21}\, p^{8} + 741\, q^{20}\, p^{6}$$
$$+ 125064\, p^{14}\, q^{24} + 659579\, p^{20}\, q^{22} + 13\, p^{8}\, q^{3} + 4\, p^{7}\, q^{2} + 61115\, q^{79}\, p^{53} + 50904\, q^{79}\, p^{51} + 29783\, q^{79}\, p^{47} + 3132467\, p^{46}\, q^{70} + 53\, p^{5}\, q^{8}$$
$$+ 10395\, p^{80}\, q^{74} + 8337\, p^{80}\, q^{75} + 29758\, p^{80}\, q^{67} + 17972\, p^{80}\, q^{71} + 15244\, p^{80}\, q^{72} + 26851\, p^{80}\, q^{68} + p^{59}\, q^{88} + 23\, p^{85}\, q^{47} + q^{32}\, p^{3}$$
$$+ 89122943\, p^{48}\, q^{56} + 99329900\, p^{47}\, q^{55} + 77481\, q^{72}\, p^{32} + 191996\, q^{72}\, p^{35} + 144926\, q^{72}\, p^{34} + 29683\, q^{73}\, p^{31} + 107101\, q^{72}\, p^{33}$$
$$+ 315329\, p^{25}\, q^{16} + 1221288\, p^{52}\, q^{21} + 3232675\, p^{53}\, q^{24} + 29\, p^{4}\, q^{8} + 2281077\, p^{26}\, q^{22} + 28\, p^{5}\, q^{6} + 49\, p^{54}\, q^{9} + 70647489\, p^{42}\, q^{56}$$
$$+ 2014786\, q^{57}\, p^{25} + 3898388\, q^{57}\, p^{27} + 320056\, q^{56}\, p^{20} + 191996\, q^{56}\, p^{19} + 38084\, q^{53}\, p^{15} + 1686\, q^{52}\, p^{11} + 145417\, q^{55}\, p^{18} + 13602\, q^{54}\, p^{14}$$
$$+ 102\, q^{33}\, p^{5} + 438317\, q^{50}\, p^{18} + 52\, q^{68}\, p^{16} + 36\, q^{67}\, p^{15} + 621895\, p^{34}\, q^{69} + 5052\, p^{80}\, q^{77} + 2538\, p^{81}\, q^{78} + 12689\, p^{80}\, q^{73} + 6569\, p^{80}\, q^{76}$$
$$+ 92\, q^{21}\, p^{4} + 1493\, q^{19}\, p^{7} + 2572\, q^{18}\, p^{8} + 779\, q^{51}\, p^{10} + 315\, q^{50}\, p^{9} + 249596\, q^{55}\, p^{19} + 4579\, q^{52}\, p^{12} + 18336\, q^{53}\, p^{14} + 654450\, q^{55}\, p^{21}$$
$$+ 411380\, q^{55}\, p^{20} + 513986\, q^{56}\, p^{21} + 2833834\, q^{57}\, p^{26} + 1398342\, q^{57}\, p^{24} + 1636\, q^{20}\, p^{7} + 359846\, p^{65}\, q^{27} + 1215164\, p^{66}\, q^{32} + p^{5}\, q$$
$$+ 40\, q^{7}\, p^{5} + 11\, p^{7}\, q^{3} + 4\, p^{6}\, q^{2} + 45519279\, p^{39}\, q^{57} + 114136\, p^{17}\, q^{18} + 107473\, p^{16}\, q^{19} + 17\, q^{6}\, p^{4} + 22\, p^{7}\, q^{4} + 40\, p^{7}\, q^{5} + 91\, p^{8}\, q^{6}$$
$$+ 1332\, q^{18}\, p^{7} + 56133\, q^{79}\, p^{52} + 65588\, q^{79}\, p^{54} + 45476\, q^{79}\, p^{50} + 25063\, q^{79}\, p^{46} + 40096\, q^{79}\, p^{49} + 34795\, q^{79}\, p^{48} + q^{23}\, p^{2} + 29858\, q^{78}\, p^{43}$$
$$+ 36627\, q^{78}\, p^{44} + 11018\, q^{78}\, p^{39} + 6140\, q^{20}\, p^{9} + 12329\, q^{21}\, p^{10} + 7330534\, p^{56}\, q^{68} + 38\, q^{29}\, p^{4} + 10600\, p^{14}\, q^{13} + 7439\, p^{14}\, q^{12}$$
$$+ 134056\, p^{16}\, q^{20} + 818858\, q^{70}\, p^{37} + 436\, p^{40}\, q^{7} + 1066833\, p^{22}\, q^{22} + 571\, q^{17}\, p^{6} + 2092970\, q^{36}\, p^{19} + 146\, q^{31}\, p^{5} + 499\, q^{32}\, p^{6} + 168\, q^{30}\, p^{5}$$
$$+ 944988\, q^{36}\, p^{17} + 4524\, q^{69}\, p^{22} + 8294\, q^{69}\, p^{23} + 5\, q^{15}\, p^{2} + 95\, q^{18}\, p^{4} + 688\, q^{19}\, p^{6} + 266\, q^{18}\, p^{5} + q^{6}\, p + 22\, q^{7}\, p^{4} + 1221288\, p^{39}\, q^{70}$$
$$+ 1527349\, p^{38}\, q^{69} + 212337\, q^{51}\, p^{17} + 4\, q^{6}\, p^{2} + 81\, p^{34}\, q^{5} + 14573\, q^{78}\, p^{40} + 23960\, q^{78}\, p^{42} + 18848\, q^{78}\, p^{41} + 7439\, p^{12}\, q^{14} + 14724\, p^{14}\, q^{14}$$
$$+ 27298\, p^{15}\, q^{15} + 4424667\, p^{26}\, q^{25} + 5234476\, p^{25}\, q^{27} + 7587591\, p^{27}\, q^{27} + 10563548\, p^{28}\, q^{28} + 3\, q^{20}\, p^{2} + 1958\, q^{44}\, p^{9} + 212026\, q^{48}\, p^{16}$$
$$+ 32\, q^{30}\, p^{4} + 1457522\, p^{51}\, q^{21} + 3835246\, p^{52}\, q^{24} + 2633\, q^{15}\, p^{9} + 5311\, q^{16}\, p^{10} + 1549\, q^{15}\, p^{8} + 7\, q^{12}\, p^{2} + 133920\, p^{77}\, q^{48} + 163089\, p^{76}\, q^{45}$$
$$+ 182\, q^{14}\, p^{5} + 77\, q^{14}\, p^{4} + 25\, q^{31}\, p^{4} + 4\, q^{29}\, p^{3} + 9017\, q^{24}\, p^{9} + 4250\, q^{23}\, p^{8} + 1984\, q^{23}\, p^{7} + 194668\, p^{77}\, q^{52} + 180923\, p^{77}\, q^{51} + 467\, p^{9}\, q^{9}$$
$$+ 977\, p^{10}\, q^{10} + 6465684\, p^{56}\, q^{28} + 53220108\, p^{59}\, q^{45} + 51852222\, p^{58}\, q^{42} + 33729581\, p^{58}\, q^{38} + 55940703\, p^{58}\, q^{43} + 29312299\, p^{58}\, q^{37}$$
$$+ 38293674\, p^{58}\, q^{39} + 3\, q^{30}\, p^{3} + 25\, q^{13}\, p^{3} + 709071\, p^{17}\, q^{29} + 312\, p^{8}\, q^{9} + 2\, q^{63}\, p^{11} + 64\, p^{85}\, q^{84} + 5\, p^{28}\, q^{3} + 18111635\, p^{53}\, q^{30}$$
$$+ 7293979\, p^{52}\, q^{26} + 14249151\, p^{53}\, q^{29} + 70\, q^{9}\, p^{5} + 162\, q^{10}\, p^{6} + 312\, p^{9}\, q^{8} + 516031\, p^{17}\, q^{26} + 146272\, q^{50}\, p^{16} + 258758\, q^{50}\, p^{17}$$
$$+ 50024\, p^{12}\, q^{24} + 15420\, p^{10}\, q^{23} + 16\, p^{88}\, q^{82} + 4176\, p^{78}\, q^{36} + 1367824\, q^{39}\, p^{18} + 6350490\, p^{27}\, q^{26} + 38\, p^{87}\, q^{62} + 62\, p^{87}\, q^{65} + q^{10}\, p$$
$$+ 48282710\, p^{54}\, q^{36} + 4849349\, p^{47}\, q^{69} + 7624845\, p^{55}\, q^{68} + 10323055\, p^{54}\, q^{67} + 3652\, q^{41}\, p^{9} + 1139907\, q^{27}\, p^{19} + 581635\, q^{27}\, p^{17}$$
$$+ 33764\, p^{70}\, q^{79} + 298\, q^{22}\, p^{5} + 824\, q^{23}\, p^{6} + 139127\, p^{47}\, q^{15} + 73583\, p^{47}\, q^{14} + 28734\, q^{20}\, p^{12} + 65855\, q^{20}\, p^{14} + 115611\, q^{21}\, p^{15}$$

$$+ 3668527\, q^{50}\, p^{23} + 6356100\, p^{61}\, q^{67} + 8897908\, p^{60}\, q^{66} + 35\, q^{9}\, p^{4} + 5830327\, p^{69}\, q^{54} + 4496952\, p^{69}\, q^{46} + 4177169\, p^{70}\, q^{55}$$
$$+ 72295\, q^{29}\, p^{12} + 200776\, q^{29}\, p^{14} + 218\, p^{8}\, q^{8} + 202\, p^{7}\, q^{9} + 12689\, p^{11}\, q^{18} + 15538082\, p^{54}\, q^{30} + 6220349\, p^{53}\, q^{26} + 12166522\, p^{54}\, q^{29}$$
$$+ 1433289\, q^{62}\, p^{28} + 1954882\, q^{62}\, p^{29} + 2612694\, q^{62}\, p^{30} + 3424663\, q^{62}\, p^{31} + 399338\, q^{53}\, p^{19} + 5\, q^{28}\, p^{3} + 70\, p^{9}\, q^{5} + 162\, p^{10}\, q^{6}$$
$$+ 214665\, p^{76}\, q^{47} + 118548\, p^{75}\, q^{40} + 15244\, p^{11}\, q^{19} + 19765\, p^{12}\, q^{18} + 94521\, p^{75}\, q^{39} + 2700\, q^{47}\, p^{10} + 883\, q^{47}\, p^{9} + 2057\, q^{48}\, p^{10}$$
$$+ 611998\, p^{19}\, q^{23} + 187850\, p^{15}\, q^{24} + 1173\, q^{46}\, p^{9} + 202\, p^{9}\, q^{7} + 35\, p^{9}\, q^{4} + 840685\, q^{49}\, p^{19} + 17972\, q^{20}\, p^{11} + 292406\, p^{28}\, q^{15}$$
$$+ 7014946\, p^{25}\, q^{29} + 143\, p^{7}\, q^{8} + 122\, p^{6}\, q^{9} + 132460\, p^{78}\, q^{56} + 73968\, p^{75}\, q^{38} + 3387207\, p^{23}\, q^{27} + 259\, q^{36}\, p^{6} + 38\, q^{37}\, p^{5} + 1023\, p^{68}\, q^{19}$$
$$+ 216881\, p^{77}\, q^{54} + 37641\, q^{80}\, p^{56} + 23841\, p^{80}\, q^{69} + 20878\, p^{80}\, q^{70} + 809\, q^{37}\, p^{7} + 463\, p^{84}\, q^{79} + 132798\, p^{78}\, q^{60} + 135074\, p^{78}\, q^{57}$$
$$+ 44200\, q^{20}\, p^{13} + 8294\, p^{69}\, q^{23} + 19910\, p^{15}\, q^{14} + 36497\, p^{16}\, q^{15} + 212026\, p^{48}\, q^{16} + 99436\, p^{78}\, q^{65} + 55335\, p^{79}\, q^{66} + 206853\, p^{77}\, q^{53}$$
$$+ 139127\, p^{76}\, q^{44} + 4524\, p^{69}\, q^{22} + 13488\, p^{70}\, q^{25} + 9793\, p^{15}\, q^{12} + 14176\, p^{15}\, q^{13} + 122\, q^{32}\, p^{5} + 80534\, q^{78}\, p^{67} + 985220\, p^{65}\, q^{30}$$
$$+ 67181\, p^{61}\, q^{20} + 2045\, p^{24}\, q^{7} + 20043\, p^{61}\, q^{18} + 4989\, p^{59}\, q^{15} + 1775\, p^{21}\, q^{7} + 330741\, p^{17}\, q^{23} + 3639\, p^{21}\, q^{8} + p^{12}\, q + 82\, p^{56}\, q^{10}$$
$$+ 259\, p^{36}\, q^{6} + 261718\, q^{69}\, p^{31} + 29312299\, p^{54}\, q^{33} + 669\, q^{38}\, p^{7} + 44529\, p^{23}\, q^{12} + 95\, p^{18}\, q^{4} + 26\, p^{16}\, q^{3} + 13907\, p^{22}\, q^{10}$$
$$+ 78512370\, p^{57}\, q^{49} + 77619275\, p^{57}\, q^{50} + 6220349\, q^{53}\, p^{26} + 5\, p^{42}\, q^{5} + 359846\, p^{64}\, q^{26} + 146272\, p^{63}\, q^{23} + 720444\, p^{65}\, q^{29} + 13\, p^{40}\, q^{5}$$
$$+ 24101193\, p^{54}\, q^{32} + 8358861\, p^{53}\, q^{27} + 19508976\, p^{54}\, q^{31} + 61258613\, p^{55}\, q^{57} + 8493098\, p^{35}\, q^{62} + 36562\, p^{13}\, q^{19} + 1647138\, p^{23}\, q^{23}$$
$$+ 74749884\, p^{55}\, q^{41} + 35119584\, p^{54}\, q^{34} + 41468963\, p^{54}\, q^{35} + 80783958\, p^{55}\, q^{42} + 54914443\, p^{55}\, q^{38} + 86242950\, p^{55}\, q^{43}$$
$$+ 1713721\, q^{50}\, p^{21} + 48282710\, p^{55}\, q^{37} + 61643379\, p^{55}\, q^{39} + 10241053\, q^{55}\, p^{29} + 299\, q^{21}\, p^{5} + 89504\, p^{78}\, q^{50} + 61008\, p^{77}\, q^{43}$$
$$+ 13160\, p^{62}\, q^{18} + 3217\, p^{60}\, q^{15} + 7776625\, p^{32}\, q^{24} + 820\, p^{25}\, q^{6} + 285\, p^{24}\, q^{5} + 128644\, p^{30}\, q^{13} + 1194956\, p^{31}\, q^{18} + 13141902\, q^{55}\, p^{30}$$
$$+ 11014577\, p^{53}\, q^{28} + 83739789\, p^{56}\, q^{45} + 90959523\, p^{55}\, q^{44} + 1261344\, p^{21}\, q^{24} + 4250\, p^{23}\, q^{8} + 55335\, p^{25}\, q^{12} + 16879\, p^{24}\, q^{10}$$
$$+ 29681\, p^{13}\, q^{18} + 49713\, p^{77}\, q^{42} + 31573\, p^{75}\, q^{35} + 79961\, p^{78}\, q^{49} + 64991\, p^{79}\, q^{64} + 20043\, p^{73}\, q^{30} + 128162\, p^{78}\, q^{55} + 102245\, p^{77}\, q^{46}$$
$$+ 10007\, q^{26}\, p^{9} + 65311\, p^{17}\, q^{16} + 14421\, q^{67}\, p^{22} + 380\, q^{14}\, p^{6} + 158\, q^{13}\, p^{5} + 2\, q^{21}\, p^{2} + 20784\, q^{79}\, p^{45} + 7668\, q^{22}\, p^{9} + 3970\, q^{22}\, p^{8}$$
$$+ 70957\, p^{23}\, q^{13} + 741\, p^{20}\, q^{6} + 282\, p^{19}\, q^{5} + 68310388\, p^{55}\, q^{40} + 7668\, p^{22}\, q^{9} + 26851\, p^{23}\, q^{11} + 2\, q^{22}\, p^{2} + 1290\, q^{77}\, p^{31} + 5904\, q^{78}\, p^{37}$$
$$+ 539659\, p^{24}\, q^{18} + 109003\, p^{23}\, q^{14} + 187850\, p^{24}\, q^{15} + 310536\, p^{49}\, q^{17} + 1123715\, p^{50}\, q^{20} + 5107\, p^{73}\, q^{27} + 187922\, p^{69}\, q^{30} + 12050\, p^{65}\, q^{20}$$
$$+ 846811\, q^{40}\, p^{17} + 141326\, p^{25}\, q^{14} + 241001\, p^{26}\, q^{15} + 516031\, p^{26}\, q^{17} + 2043375\, p^{27}\, q^{21} + 1340721\, p^{26}\, q^{20} + 997311\, p^{26}\, q^{19}$$
$$+ 713986\, p^{50}\, q^{19} + 2175627\, p^{51}\, q^{22} + 300078\, p^{33}\, q^{70} + 411380\, p^{36}\, q^{71} + 222621\, p^{32}\, q^{70} + 18\, p^{88}\, q^{69} + 21\, p^{88}\, q^{70} + 5\, p^{84}\, q^{40} + 2\, p^{84}\, q^{39}$$
$$+ 7\, p^{83}\, q^{37} + 20\, p^{87}\, q^{59} + 9\, p^{84}\, q^{41} + 2\, p^{82}\, q^{33} + 38\, p^{62}\, q^{87} + 255\, p^{65}\, q^{86} + 3162467\, p^{51}\, q^{23} + 2209\, p^{74}\, q^{83} + 1636\, p^{71}\, q^{84} + 18336\, q^{77}\, p^{38}$$

$$+ 31359\, q^{77}\, p^{40} + 49713\, q^{77}\, p^{42} + 1930958\, p^{25}\, q^{22} + 860329\, p^{19}\, q^{25} + 25210\, p^{72}\, q^{29} + 3\, q^{19}\, p^{2} + 16385\, p^{72}\, q^{28} + 116827\, p^{48}\, q^{15}$$
$$+ 61008\, p^{48}\, q^{14} + 389295\, p^{24}\, q^{17} + 1503715\, p^{25}\, q^{21} + 969968\, p^{24}\, q^{20} + 731101\, p^{24}\, q^{19} + 41883462\, p^{55}\, q^{36} + 442\, q^{15}\, p^{6} + 863\, q^{15}\, p^{7}$$
$$+ 105907\, p^{74}\, q^{37} + 823980\, q^{27}\, p^{18} + 1542001\, q^{27}\, p^{20} + 2331385\, q^{28}\, p^{21} + 135247\, p^{78}\, q^{59} + 128644\, p^{78}\, q^{61} + 136067\, p^{78}\, q^{58}$$
$$+ 116160\, p^{78}\, q^{63} + 123087\, p^{78}\, q^{62} + 8\, q^{26}\, p^{3} + 32812436\, p^{29}\, q^{38} + 774\, q^{43}\, p^{8} + 11\, q^{25}\, p^{3} + q^{24}\, p^{2} + 5346626\, p^{52}\, q^{25} + 1813\, q^{39}\, p^{8}$$
$$+ 549\, q^{39}\, p^{7} + 4326\, q^{40}\, p^{9} + 127\, q^{39}\, p^{6} + 1513\, q^{40}\, p^{8} + 5\, q^{16}\, p^{2} + 18\, q^{10}\, p^{3} + 325158\, p^{19}\, q^{20} + 254234\, p^{19}\, q^{19} + 194866\, p^{19}\, q^{18}$$
$$+ 436\, q^{40}\, p^{7} + 206\, q^{11}\, p^{6} + 846413\, p^{21}\, q^{22} + 3\, q^{37}\, p^{4} + 44\, q^{10}\, p^{4} + 88\, q^{10}\, p^{5} + 13\, q^{40}\, p^{5} + 2087927\, p^{19}\, q^{38} + p^{81}\, q^{90} + p^{85}\, q^{90} + p^{84}\, q^{90}$$
$$+ p^{88}\, q^{90} + p^{90}\, q^{90} + p^{91}\, q^{91} + p^{86}\, q^{90} + p^{89}\, q^{90} + p^{82}\, q^{90} + 21362\, p^{60}\, q^{81} + 5062\, p^{52}\, q^{82} + 44537\, p^{74}\, q^{34} + 146272\, p^{75}\, q^{41} + 12050\, p^{71}\, q^{26}$$
$$+ 60012\, p^{73}\, q^{33} + 70\, q^{41}\, p^{6} + 7909\, p^{70}\, q^{24} + 26851\, q^{23}\, p^{11} + 669\, p^{38}\, q^{7} + p^{32}\, q^{3} + 141326\, p^{14}\, q^{25} + 184116\, p^{17}\, q^{20} + 53832\, p^{19}\, q^{14}$$
$$+ 15244\, p^{19}\, q^{11} + 95192\, p^{20}\, q^{15} + 36562\, p^{19}\, q^{13} + 24022\, p^{19}\, q^{12} + 14\, q^{61}\, p^{11} + 7162\, q^{47}\, p^{11} + 5\, q^{36}\, p^{4} + 17455154\, p^{26}\, q^{38} + 22\, p^{66}\, q^{14}$$
$$+ 12\, p^{65}\, q^{13} + 438\, p^{10}\, q^{8} + 273\, p^{10}\, q^{7} + 118\, q^{64}\, p^{14} + 211133\, q^{68}\, p^{29} + 778\, q^{21}\, p^{6} + 291\, q^{20}\, p^{5} + 1887\, q^{22}\, p^{7} + 26\, q^{17}\, p^{3} + 7187\, q^{66}\, p^{20}$$
$$+ 25100\, q^{67}\, p^{23} + 664\, p^{10}\, q^{9} + 1378\, p^{11}\, q^{10} + 9263\, p^{19}\, q^{10} + 1332\, p^{18}\, q^{7} + 4612\, p^{18}\, q^{9} + 2572\, p^{18}\, q^{8} + 247321\, p^{18}\, q^{20} + 419269\, p^{20}\, q^{20}$$
$$+ 676193\, p^{21}\, q^{21} + 7952\, q^{42}\, p^{10} + 4\, p^{88}\, q^{62} + 8\, p^{88}\, q^{65} + 571\, p^{17}\, q^{6} + 228\, p^{16}\, q^{5} + 18\, q^{69}\, p^{16} + 197938\, q^{22}\, p^{16} + 39354\, q^{80}\, p^{57}$$
$$+ 10874\, p^{76}\, q^{34} + 39864\, p^{77}\, q^{41} + 2987\, p^{73}\, q^{26} + 16006\, p^{75}\, q^{33} + 1981\, p^{72}\, q^{24} + 3684507\, p^{25}\, q^{25} + 10274\, p^{72}\, q^{27} + 609432\, q^{48}\, p^{18}$$
$$+ 36627\, q^{47}\, p^{13} + 139127\, q^{47}\, p^{15} + 366906\, q^{48}\, p^{17} + 4394\, q^{45}\, p^{10} + 87435\, q^{46}\, p^{14} + 163089\, q^{46}\, p^{15} + 20784\, q^{46}\, p^{12} + 25063\, q^{45}\, p^{12}$$
$$+ 396562\, q^{70}\, p^{34} + 475460\, q^{69}\, p^{33} + 356357\, q^{69}\, p^{32} + 33\, q^{62}\, p^{12} + 6304197\, p^{46}\, q^{68} + 80\, q^{70}\, p^{18} + 531\, q^{71}\, p^{21} + 531\, q^{70}\, p^{20}$$
$$+ 2320\, q^{79}\, p^{37} + 23\, q^{70}\, p^{17} + 4\, q^{69}\, p^{15} + 218\, q^{70}\, p^{19} + 1457522\, q^{51}\, p^{21} + 8337\, q^{16}\, p^{11} + 12\, q^{65}\, p^{13} + 227620\, p^{17}\, q^{21} + 2687448\, p^{68}\, q^{39}$$
$$+ 4849349\, p^{69}\, q^{47} + 3162467\, p^{68}\, q^{40} + 5644584\, p^{69}\, q^{50} + 4738269\, p^{68}\, q^{43} + 4197630\, p^{68}\, q^{42} + 9748887\, q^{52}\, p^{27} + 5346626\, q^{52}\, p^{25}$$
$$+ 7293979\, q^{52}\, p^{26} + 2687448\, q^{52}\, p^{23} + 3232675\, q^{53}\, p^{24} + 3835246\, q^{52}\, p^{24} + 32\, p^{30}\, q^{4} + 80534\, p^{13}\, q^{24} + 362\, q^{11}\, p^{7} + 10428\, q^{30}\, p^{9}$$
$$+ 58361011\, p^{58}\, q^{54} + 47880646\, p^{59}\, q^{55} + 12636\, q^{16}\, p^{12} + 6634\, p^{43}\, q^{10} + 1765568\, p^{21}\, q^{26} + 1340721\, p^{20}\, q^{26} + 2043375\, p^{21}\, q^{27}$$
$$+ 44135\, p^{46}\, q^{13} + 520591\, p^{49}\, q^{18} + 86518814\, p^{56}\, q^{46} + 353781\, q^{31}\, p^{15} + 2860\, q^{78}\, p^{35} + 43262\, p^{14}\, q^{18} + 84633\, p^{18}\, q^{16} + 166\, q^{38}\, p^{6}$$
$$+ 118548\, q^{51}\, p^{16} + 39864\, q^{50}\, p^{14} + 68\, q^{69}\, p^{17} + 344\, q^{41}\, p^{7} + 2\, q^{31}\, p^{3} + 97\, q^{40}\, p^{6} + 29783\, q^{44}\, p^{12} + 6634\, q^{43}\, p^{10} + 69829669\, p^{57}\, q^{53}$$
$$+ 47796\, p^{17}\, q^{15} + 18502\, p^{16}\, q^{13} + 12636\, p^{16}\, q^{12} + 35835306\, q^{56}\, p^{36} + 16577916\, q^{55}\, p^{31} + 30226954\, q^{55}\, p^{34} + 20570355\, q^{55}\, p^{32}$$
$$+ 5234476\, p^{27}\, q^{25} + 3652\, p^{41}\, q^{9} + 1513\, p^{40}\, q^{8} + 26347\, p^{16}\, q^{14} + 107473\, p^{19}\, q^{16} + 990\, q^{42}\, p^{8} + 24022\, p^{12}\, q^{19} + 25\, p^{52}\, q^{8} + 9\, p^{46}\, q^{6}$$
$$+ 2\, q^{68}\, p^{14} + 25126027\, q^{55}\, p^{33} + 35835306\, q^{55}\, p^{35} + 325158\, p^{20}\, q^{19} + 195\, q^{69}\, p^{18} + 90156\, p^{25}\, q^{13} + 9017\, p^{24}\, q^{9} + 32550\, p^{25}\, q^{11}$$

$$+ 725968\, p^{26}\, q^{18} + 2684859\, p^{67}\, q^{37} + 5164081\, p^{69}\, q^{48} + 5805389\, p^{68}\, q^{45} + 515159\, p^{65}\, q^{28} + 2540531\, q^{69}\, p^{41} + 49713\, q^{49}\, p^{14}$$
$$+ 310536\, q^{49}\, p^{17} + 108706224\, p^{45}\, q^{37} + 6582\, q^{37}\, p^{9} + 282\, q^{19}\, p^{5} + 24\, q^{19}\, p^{3} + 315\, p^{50}\, q^{9} + 107\, p^{49}\, q^{8} + 3232675\, p^{67}\, q^{38} + 15196\, p^{60}\, q^{17}$$
$$+ 79302\, p^{62}\, q^{21} + 1312148\, q^{49}\, p^{20} + 520591\, q^{49}\, p^{18} + 10948\, p^{59}\, q^{16} + 184116\, p^{20}\, q^{17} + 247321\, p^{20}\, q^{18} + 194866\, p^{18}\, q^{19} + 107\, q^{83}\, p^{42}$$
$$+ 229312\, p^{63}\, q^{24} + 37679\, p^{61}\, q^{19} + 52401\, q^{45}\, p^{13} + 781\, p^{79}\, q^{83} + 261\, q^{42}\, p^{7} + 260\, p^{85}\, q^{79} + 8337\, p^{16}\, q^{11} + 645189\, q^{53}\, p^{20}$$
$$+ 2250864\, q^{53}\, p^{23} + 1008075\, q^{53}\, p^{21} + 1527349\, q^{53}\, p^{22} + 1250853\, q^{54}\, p^{22} + 2435789\, p^{25}\, q^{23} + 25\, q^{18}\, p^{3} + 4\, q^{17}\, p^{2} + 96\, q^{20}\, p^{4}$$
$$+ 6569\, q^{15}\, p^{11} + 95\, q^{19}\, p^{4} + q^{8}\, p + 5\, q^{9}\, p^{2} + 596821\, q^{37}\, p^{16} + 14348964\, p^{57}\, q^{32} + 4827534\, p^{56}\, q^{27} + 11456453\, p^{57}\, q^{31}$$
$$+ 47467722\, p^{58}\, q^{41} + 21459462\, p^{57}\, q^{34} + 25654163\, p^{57}\, q^{35} + 127\, p^{39}\, q^{6} + 53\, q^{27}\, p^{4} + 9322\, q^{33}\, p^{9} + 4180\, q^{32}\, p^{8} + 1567\, q^{32}\, p^{7}$$
$$+ 16920\, q^{47}\, p^{12} + 3639601\, p^{48}\, q^{70} + 6\, q^{13}\, p^{2} + 75832333\, p^{57}\, q^{51} + 73206492\, p^{57}\, q^{52} + 9\, p^{85}\, q^{45} + 3\, p^{83}\, q^{36} + 7\, p^{87}\, q^{56} + 3\, p^{86}\, q^{48}$$
$$+ 26\, q^{14}\, p^{3} + 27\, q^{15}\, p^{3} + 2175627\, q^{69}\, p^{40} + 8294\, q^{68}\, p^{22} + 1981\, q^{72}\, p^{24} + 362\, p^{11}\, q^{7} + 924\, p^{11}\, q^{9} + 1899\, p^{12}\, q^{10} + 590\, q^{11}\, p^{8}$$
$$+ 990\, p^{64}\, q^{16} + 226\, q^{71}\, p^{20} + 87\, q^{71}\, p^{19} + 27\, q^{71}\, p^{18} + 34084\, p^{14}\, q^{17} + 47796\, p^{15}\, q^{17} + 73583\, q^{47}\, p^{14} + 1231\, q^{41}\, p^{8} + 590\, p^{11}\, q^{8}$$
$$+ 5\, q^{70}\, p^{16} + 206\, p^{11}\, q^{6} + 44\, p^{10}\, q^{4} + 88\, p^{10}\, q^{5} + 5311\, p^{16}\, q^{10} + 273\, q^{10}\, p^{7} + 1766999\, p^{67}\, q^{35} + 5279003\, p^{68}\, q^{44} + 5889333\, p^{69}\, q^{53}$$
$$+ 1330\, p^{65}\, q^{17} + 863\, p^{15}\, q^{7} + 2633\, p^{15}\, q^{9} + 1549\, p^{15}\, q^{8} + 1635\, p^{78}\, q^{82} + 438\, p^{83}\, q^{81} + 1241\, p^{79}\, q^{82} + 1873\, p^{75}\, q^{83} + 7837241\, q^{55}\, p^{28}$$
$$+ 396562\, p^{57}\, q^{21} + 1087600\, p^{58}\, q^{24} + 377536\, p^{18}\, q^{22} + 77523890\, p^{57}\, q^{47} + 78478962\, p^{57}\, q^{48} + 22639475\, q^{53}\, p^{31} + p^{6}\, q + 16\, p^{9}\, q^{3}$$
$$+ 5\, p^{8}\, q^{2} + 5\, q^{8}\, p^{2} + q^{7}\, p + 2684859\, q^{54}\, p^{24} + 5229177\, q^{54}\, p^{26} + 9359022\, q^{54}\, p^{28} + 7065156\, q^{54}\, p^{27} + 3789184\, q^{54}\, p^{25} + 3387207\, p^{27}\, q^{23}$$
$$+ 5794820\, p^{69}\, q^{51} + 2195463\, p^{67}\, q^{36} + 5877014\, p^{69}\, q^{52} + 11014577\, q^{53}\, p^{28} + 20823512\, q^{52}\, p^{30} + 14249151\, q^{53}\, p^{29} + 8358861\, q^{53}\, p^{27}$$
$$+ 18111635\, q^{53}\, p^{30} + 12166522\, q^{54}\, p^{29} + 29312299\, p^{37}\, q^{58} + 2540531\, q^{50}\, p^{22} + 687\, q^{76}\, p^{28} + 11059\, q^{45}\, p^{11} + 15938\, q^{43}\, p^{11}$$
$$+ 8968\, q^{46}\, p^{11} + 64991\, p^{64}\, q^{79} + 96638\, q^{49}\, p^{15} + 5457\, q^{44}\, p^{10} + 44135\, q^{46}\, p^{13} + 61008\, q^{48}\, p^{14} + 21\, p^{11}\, q^{3} + 6\, p^{10}\, q^{2} + 70957\, p^{13}\, q^{23}$$
$$+ 161\, q^{74}\, p^{23} + 268\, q^{75}\, p^{25} + 529\, q^{75}\, p^{26} + 68\, q^{74}\, p^{22} + 20\, q^{39}\, p^{5} + 23841\, p^{11}\, q^{22} + 237952\, q^{53}\, p^{18} + 492353\, q^{52}\, p^{19} + 788392\, q^{52}\, p^{20}$$
$$+ 2175627\, q^{51}\, p^{22} + 2460\, q^{43}\, p^{9} + 8\, q^{72}\, p^{18} + 27\, q^{73}\, p^{20} + 35119584\, q^{57}\, p^{37} + 171324\, q^{52}\, p^{17} + 296531\, q^{52}\, p^{18} + 13372\, q^{44}\, p^{11}$$
$$+ 380\, p^{14}\, q^{6} + 158\, p^{13}\, q^{5} + 68\, p^{13}\, q^{4} + 37530007\, p^{61}\, q^{54} + 29850864\, p^{62}\, q^{55} + 38508054\, p^{61}\, q^{46} + 141\, q^{44}\, p^{7} + 40249315\, q^{53}\, p^{34}$$
$$+ 218\, q^{72}\, p^{21} + 1673\, q^{73}\, p^{25} + 497\, q^{72}\, p^{22} + 1023\, q^{72}\, p^{23} + p^{7}\, q + 87\, q^{72}\, p^{20} + 62878\, q^{51}\, p^{15} + 57641346\, p^{59}\, q^{51} + 56031574\, p^{59}\, q^{52}$$
$$+ 1958\, p^{44}\, q^{9} + 774\, p^{43}\, q^{8} + 28\, p^{55}\, q^{9} + 37298\, q^{27}\, p^{11} + 65804963\, p^{57}\, q^{54} + 54517336\, p^{58}\, q^{55} + 44529\, q^{79}\, p^{68} + 7\, q^{71}\, p^{17}$$
$$+ 70496\, p^{78}\, q^{48} + 87435\, p^{77}\, q^{45} + 389295\, p^{17}\, q^{24} + 1538\, q^{45}\, p^{9} + 446\, q^{45}\, p^{8} + 250\, p^{74}\, q^{86} + 357671\, p^{16}\, q^{26} + 451545\, p^{17}\, q^{25}$$
$$+ 924\, p^{82}\, q^{80} + 214349\, p^{15}\, q^{25} + 53440\, q^{70}\, p^{28} + 96080\, q^{71}\, p^{31} + 79302\, q^{70}\, p^{29} + 114647\, q^{70}\, p^{30} + 34925\, q^{70}\, p^{27} + 38\, p^{29}\, q^{4}$$

$$+ 28762\, q^{76}\, p^{37} + 6\, q^{11}\, p^{2} + 38084\, q^{76}\, p^{38} + 21297\, q^{76}\, p^{36} + 7440739\, p^{60}\, q^{32} + 2417608\, p^{59}\, q^{27} + 5848813\, p^{60}\, q^{31} + 26445752\, p^{61}\, q^{41}$$
$$+ 11456453\, p^{60}\, q^{34} + 13884286\, p^{60}\, q^{35} + 315329\, p^{16}\, q^{25} + 15388\, q^{76}\, p^{35} + 13602\, q^{77}\, p^{37} + 101962711\, q^{54}\, p^{44} + 61\, q^{12}\, p^{4}$$
$$+ 10874\, q^{76}\, p^{34} + 7461\, q^{76}\, p^{33} + 41794\, q^{67}\, p^{24} + 297507\, q^{68}\, p^{30} + 1330\, q^{65}\, p^{17} + q^{67}\, p^{13} + 12\, q^{68}\, p^{15} + 91160477\, q^{54}\, p^{42}$$
$$+ 96993733\, q^{54}\, p^{43} + 84635943\, q^{54}\, p^{41} + 537\, p^{52}\, q^{10} + 1398342\, p^{67}\, q^{34} + 3668527\, p^{68}\, q^{41} + 33729581\, q^{53}\, p^{33} + 40650\, p^{58}\, q^{80}$$
$$+ 367\, q^{64}\, p^{15} + 3589\, q^{66}\, p^{19} + 3975\, p^{63}\, q^{17} + 22122\, p^{65}\, q^{21} + 2918\, p^{62}\, q^{16} + 67108\, p^{66}\, q^{24} + 10274\, p^{64}\, q^{19} + 1008075\, p^{70}\, q^{38}$$
$$+ 44090149\, p^{37}\, q^{31} + 65804963\, p^{37}\, q^{34} + 73240233\, p^{37}\, q^{35} + 85979156\, p^{38}\, q^{36} + 37530007\, p^{37}\, q^{30} + 51073073\, p^{37}\, q^{32}$$
$$+ 31487559\, p^{37}\, q^{29} + 9359022\, p^{54}\, q^{28} + 72998597\, p^{57}\, q^{45} + 70647489\, p^{56}\, q^{42} + 47343882\, p^{56}\, q^{38} + 75678183\, p^{56}\, q^{43}$$
$$+ 41468963\, p^{56}\, q^{37} + 53339261\, p^{56}\, q^{39} + 1981\, q^{67}\, p^{19} + 4084\, q^{67}\, p^{20} + 7909\, q^{67}\, p^{21} + 59915\, q^{69}\, p^{27} + 187\, q^{65}\, p^{15} + 1176\, q^{17}\, p^{7}$$
$$+ 6\, q^{14}\, p^{2} + 21\, q^{11}\, p^{3} + 6\, q^{10}\, p^{2} + 1123715\, q^{50}\, p^{20} + 713986\, q^{50}\, p^{19} + 15538082\, q^{54}\, p^{30} + 187922\, q^{69}\, p^{30} + 27847267\, q^{53}\, p^{32}$$
$$+ 90088\, q^{69}\, p^{28} + 131841\, q^{69}\, p^{29} + 14747\, q^{68}\, p^{23} + 70957\, p^{68}\, q^{78} + 20570355\, p^{55}\, q^{32} + 7065156\, p^{54}\, q^{27} + 16577916\, p^{55}\, q^{31}$$
$$+ 65142630\, p^{56}\, q^{41} + 30226954\, p^{55}\, q^{34} + 35835306\, p^{55}\, q^{35} + 98614\, q^{68}\, p^{27} + 40976\, q^{68}\, p^{25} + 89\, q^{16}\, p^{4} + 228\, q^{16}\, p^{5} + 8593690\, p^{29}\, q^{26}$$
$$+ 82\, q^{15}\, p^{4} + 38\, p^{86}\, q^{54} + 11\, p^{87}\, q^{57} + 207\, q^{15}\, p^{5} + 510\, q^{16}\, p^{6} + 207\, p^{37}\, q^{6} + 25126027\, p^{55}\, q^{33} + p^{82}\, q^{32} + 14\, p^{87}\, q^{58} + 23960\, q^{49}\, p^{13}$$
$$+ 5593\, q^{48}\, p^{11} + 329\, q^{46}\, p^{8} + 177446\, p^{49}\, q^{16} + 207\, q^{37}\, p^{6} + 49\, q^{36}\, p^{5} + 3850891\, p^{61}\, q^{69} + 11\, p^{88}\, q^{66} + 5\, p^{85}\, q^{44} + p^{84}\, q^{38} + 25\, p^{87}\, q^{60}$$
$$+ 27\, p^{86}\, q^{53} + 3691259\, p^{58}\, q^{70} + 1403336\, p^{46}\, q^{72} + 7952\, q^{81}\, p^{49} + 25914977\, p^{39}\, q^{60} + 35926823\, p^{42}\, q^{60} + 32637005\, p^{41}\, q^{60}$$
$$+ 18111635\, p^{38}\, q^{61} + 29273046\, p^{40}\, q^{60} + 1610135\, p^{24}\, q^{22} + 630442\, p^{18}\, q^{25} + 65311\, p^{16}\, q^{17} + 13560\, q^{48}\, p^{12} + q^{9}\, p + 7953352\, p^{61}\, q^{66}$$
$$+ 5633169\, p^{62}\, q^{67} + q^{12}\, p + 27\, q^{38}\, p^{5} + 27454\, p^{52}\, q^{80} + 244896\, p^{65}\, q^{26} + 98614\, p^{64}\, q^{23} + 492200\, p^{66}\, q^{29} + 9\, p^{41}\, q^{5} + 96\, p^{20}\, q^{4}$$
$$+ 25\, p^{18}\, q^{3} + 4676\, p^{25}\, q^{8} + 64991\, p^{27}\, q^{12} + 19343\, p^{26}\, q^{10} + 709071\, p^{29}\, q^{17} + 2913706\, p^{30}\, q^{21} + 1956766\, p^{29}\, q^{20} + 1428446\, p^{29}\, q^{19}$$
$$+ 3850891\, p^{30}\, q^{22} + 187712\, p^{28}\, q^{14} + 2930\, q^{19}\, p^{8} + 59322545\, p^{56}\, q^{40} + 8061\, q^{35}\, p^{9} + 4245821\, p^{27}\, q^{24} + 88861585\, p^{56}\, q^{49}$$
$$+ 87559855\, p^{56}\, q^{50} + 51\, p^{4}\, q^{11} + 260\, p^{6}\, q^{12} + 110\, p^{5}\, q^{11} + 6102383\, p^{28}\, q^{25} + 924\, p^{9}\, q^{11} + 438\, p^{8}\, q^{10} + 1507743\, p^{55}\, q^{23} + 16870\, q^{36}\, p^{10}$$
$$+ 7328\, q^{36}\, p^{9} + 15425\, q^{37}\, p^{10} + 2213\, p^{68}\, q^{20} + 1148809\, p^{20}\, q^{25} + 529\, q^{65}\, p^{16} + 16408611\, p^{27}\, q^{33} + 28691136\, p^{31}\, q^{32} + 24892262\, p^{30}\, q^{32}$$
$$+ 25856705\, p^{29}\, q^{34} + 27715148\, p^{30}\, q^{33} + 19833648\, p^{28}\, q^{33} + 23616924\, p^{29}\, q^{33} + 9577\, p^{25}\, q^{9} + 35066\, p^{26}\, q^{11} + 107533\, p^{78}\, q^{52}$$
$$+ 98736\, p^{78}\, q^{51} + 80088762\, p^{56}\, q^{44} + 53339261\, p^{39}\, q^{56} + 81007\, p^{74}\, q^{36} + 9793\, p^{12}\, q^{15} + 68\, p^{84}\, q^{45} + 5\, p^{79}\, q^{27} + 28\, p^{82}\, q^{36}$$
$$+ 88331968\, q^{56}\, p^{47} + 65\, p^{86}\, q^{56} + 34\, p^{85}\, q^{48} + 97610208\, q^{55}\, p^{46} + 8897908\, p^{31}\, q^{25} + 13391353\, p^{31}\, q^{27} + 17958411\, p^{32}\, q^{28}$$
$$+ 134017\, q^{71}\, p^{32} + 23\, q^{44}\, p^{6} + q^{33}\, p^{3} + 598\, q^{44}\, p^{8} + 69\, p^{87}\, q^{66} + 2\, p^{77}\, q^{23} + 46\, p^{84}\, q^{44} + 101\, q^{45}\, p^{7} + 10\, p^{59}\, q^{10} + 4235765\, p^{21}\, q^{39}$$

$$+ 13 p^{83} q^{38} + 146 p^{86} q^{60} + 166 p^{85} q^{53} + 3 p^{78} q^{25} + 81 p^{86} q^{57} + 207 p^{85} q^{54} + p^{78} q^{24} + 122 p^{32} q^{5} + 5 p^{80} q^{29} + 2 p^{80} q^{28} + 94521 q^{52} p^{16}$$
$$+ 68 q^{13} p^{4} + 132 q^{12} p^{5} + 13 q^{83} p^{38} + 28 q^{82} p^{36} + 49 q^{82} p^{37} + 164220 p^{21} q^{16} + 23 q^{12} p^{3} + 377536 p^{22} q^{18} + 7 p^{12} q^{2} + 233 q^{47} p^{8}$$
$$+ 258758 p^{50} q^{17} + 948233 p^{51} q^{20} + 463 p^{7} q^{12} + 1378 p^{10} q^{11} + 664 p^{9} q^{10} + 10644 q^{49} p^{12} + 18 p^{10} q^{3} + 5 p^{9} q^{2} + 77982139 p^{56} q^{53}$$
$$+ 4925183 p^{24} q^{28} + 480164 p^{29} q^{16} + 41819323 p^{61} q^{50} + 4197061 p^{58} q^{28} + 36609836 p^{61} q^{45} + 35926823 p^{60} q^{42} + 22639475 p^{60} q^{38}$$
$$+ 39053293 p^{60} q^{43} + 19508976 p^{60} q^{37} + 25914977 p^{60} q^{39} + 3 q^{66} p^{13} + 1321361 p^{23} q^{22} + 781 p^{12} q^{8} + 260 p^{12} q^{6} + 51 p^{11} q^{4}$$
$$+ 110 p^{11} q^{5} + 73240233 p^{56} q^{54} + 61258613 p^{57} q^{55} + 11456453 p^{31} q^{57} + 463 p^{12} q^{7} + 1241 p^{12} q^{9} + 2538 p^{13} q^{10} + 504073 p^{22} q^{19}$$
$$+ 276552 p^{22} q^{17} + 1041813 p^{23} q^{21} + 659579 p^{22} q^{20} + 77982139 p^{53} q^{56} + 90741461 p^{52} q^{55} + 546967 p^{31} q^{16} + 2071 q^{27} p^{7}$$
$$+ 73583 q^{77} p^{44} + 44135 q^{78} p^{45} + 24239 q^{77} p^{39} + 39864 q^{77} p^{41} + 61008 q^{77} p^{43} + 87435 q^{77} p^{45} + 408459 p^{19} q^{21} + 88331968 p^{56} q^{47}$$
$$+ 7439 p^{79} q^{77} + 3808 p^{80} q^{78} + 19765 p^{79} q^{73} + 9793 p^{79} q^{76} + 15944 p^{79} q^{74} + 12636 p^{79} q^{75} + 3017 q^{42} p^{9} + 50024 p^{79} q^{67}$$
$$+ 28734 p^{79} q^{71} + 24022 p^{79} q^{72} + 44529 p^{79} q^{68} + 1673 q^{66} p^{18} + 146272 q^{68} p^{28} + 39093 p^{79} q^{69} + 33764 p^{79} q^{70} + 89122943 p^{56} q^{48}$$
$$+ 51 q^{42} p^{6} + 1041813 p^{21} q^{23} + 2 p^{21} q^{2} + 8931709 p^{28} q^{27} + 12313537 p^{29} q^{28} + 2489495 p^{24} q^{24} + 9824385 p^{66} q^{59} + 8214 q^{50} p^{12}$$
$$+ 1524 q^{49} p^{10} + 18848 q^{50} p^{13} + 2538 p^{10} q^{13} + 14348964 p^{32} q^{57} + 17684803 p^{34} q^{58} + 17684803 p^{33} q^{57} + 3902 p^{9} q^{17} + 18502 p^{13} q^{16}$$
$$+ 11527159 p^{34} q^{25} + 1378 p^{81} q^{80} + 824 p^{68} q^{85} + 3 p^{87} q^{54} + p^{88} q^{58} + 2 p^{88} q^{60} + 2 p^{87} q^{53} + 53832 p^{14} q^{19} + 95192 p^{15} q^{20}$$
$$+ 530467 p^{20} q^{21} + 597574 p^{51} q^{19} + 1836694 p^{52} q^{22} + 1856598 q^{54} p^{23} + 64 p^{6} q^{7} + 3047041 q^{28} p^{22} + 39093 p^{69} q^{79} + 997311 p^{72} q^{65}$$
$$+ 630442 p^{73} q^{66} + 1697350 p^{72} q^{60} + 1997727 p^{72} q^{57} + 285 p^{67} q^{86} + 11715659 q^{58} p^{32} + 134 p^{60} q^{12} + 688 p^{72} q^{85} + 863 p^{76} q^{84}$$
$$+ 716 p^{77} q^{84} + 44200 p^{71} q^{78} + 519651 p^{37} q^{71} + 117898 p^{77} q^{47} + 62878 p^{76} q^{40} + 49369 p^{76} q^{39} + 20 p^{86} q^{52} + 125064 p^{24} q^{14}$$
$$+ 214349 p^{25} q^{15} + 451545 p^{25} q^{17} + 1765568 p^{26} q^{21} + 1148809 p^{25} q^{20} + 860329 p^{25} q^{19} + 99436 q^{26} p^{13} + 77092 p^{15} q^{19}$$
$$+ 7837241 p^{55} q^{28} + 62769023 p^{58} q^{45} + 60947827 p^{57} q^{42} + 40249315 p^{57} q^{38} + 65518657 p^{57} q^{43} + 35119584 p^{57} q^{37}$$
$$+ 45519279 p^{57} q^{39} + 1507743 q^{55} p^{23} + 818858 q^{54} p^{21} + 519651 q^{54} p^{20} + 3908186 p^{28} q^{23} + 85256814 p^{56} q^{51} + 10364937 p^{27} q^{29}$$
$$+ 24239 q^{52} p^{14} + 8493098 q^{56} p^{29} + 3217 q^{50} p^{11} + 5530642 p^{31} q^{23} + 820011 p^{17} q^{31} + 7440461 p^{26} q^{28} + 82030982 p^{56} q^{52}$$
$$+ 5341560 p^{26} q^{26} + 3607979 p^{26} q^{24} + 8897908 p^{25} q^{31} + 4297 q^{49} p^{11} + 14176 p^{13} q^{15} + 274116 p^{24} q^{16} + 16879 q^{24} p^{10} + 1635 p^{9} q^{13}$$
$$+ p^{40} q^{4} + 9824385 p^{32} q^{25} + 14919388 p^{32} q^{27} + 19833648 p^{33} q^{28} + 19469 p^{71} q^{27} + 3323 p^{10} q^{14} + 4783 p^{77} q^{34} + 18848 p^{78} q^{41}$$
$$+ 1330 p^{74} q^{26} + 7461 p^{76} q^{33} + 878 p^{73} q^{24} + 10785 p^{20} q^{10} + 1493 p^{19} q^{7} + 2930 p^{19} q^{8} + 206 p^{85} q^{80} + 806235 p^{20} q^{23}$$
$$+ 80479966 p^{36} q^{37} + 67945415 p^{35} q^{36} + 2893555 p^{65} q^{68} + 2982201 p^{52} q^{71} + 497 p^{72} q^{22} + 1673 p^{73} q^{25} + 4153266 p^{21} q^{40}$$

$$+ 32550\, q^{25}\, p^{11} + 35066\, q^{26}\, p^{11} + 55335\, q^{25}\, p^{12} + 76282\, p^{60}\, q^{79} + 44\, p^{57}\, q^{10} + 42\, p^{51}\, q^{8} + 6429\, p^{62}\, q^{17} + 34925\, p^{64}\, q^{21} + 4688\, p^{61}\, q^{16}$$
$$+ 104076\, p^{65}\, q^{24} + 16385\, p^{63}\, q^{19} + 1527349\, p^{69}\, q^{38} + 7440461\, p^{28}\, q^{26} + 27847267\, p^{38}\, q^{59} + 15944\, p^{17}\, q^{12} + 34084\, p^{17}\, q^{14}$$
$$+ 10395\, p^{17}\, q^{11} + 10948\, p^{75}\, q^{32} + 7291\, p^{75}\, q^{31} + 61262\, p^{18}\, q^{15} + 23683\, p^{17}\, q^{13} + 60411\, q^{26}\, p^{12} + 89\, p^{87}\, q^{75} + 28\, p^{84}\, q^{43} + 70\, p^{85}\, q^{50}$$
$$+ 969968\, p^{20}\, q^{24} + 8386\, p^{9}\, q^{23} + 4496952\, p^{46}\, q^{69} + 4738269\, p^{43}\, q^{68} + 7835620\, p^{54}\, q^{68} + 10531647\, p^{53}\, q^{67} + 2339\, p^{70}\, q^{22} + 7187\, p^{71}\, q^{25}$$
$$+ 3487\, p^{46}\, q^{10} + 23960\, p^{49}\, q^{13} + 296531\, p^{52}\, q^{18} + 42\, q^{83}\, p^{40} + 3\, p^{89}\, q^{87} + 144926\, q^{57}\, p^{19} + 44537\, q^{57}\, p^{17} + 15388\, q^{56}\, p^{15}$$
$$+ 82305\, q^{57}\, p^{18} + 244292\, q^{57}\, p^{20} + 300078\, q^{58}\, p^{21} + 4176\, q^{55}\, p^{13} + 396562\, q^{57}\, p^{21} + 31573\, q^{56}\, p^{16} + 475460\, q^{58}\, p^{22} + 729490\, q^{58}\, p^{23}$$
$$+ 96\, p^{87}\, q^{71} + 83\, p^{87}\, q^{68} + 95\, p^{87}\, q^{72} + 1087600\, q^{58}\, p^{24} + 2417608\, q^{59}\, p^{27} + 1578687\, q^{58}\, p^{25} + 2236414\, q^{58}\, p^{26} + 78\, p^{87}\, q^{67} + 91\, p^{87}\, q^{74}$$
$$+ 75030\, q^{34}\, p^{12} + 72667\, q^{35}\, p^{12} + 19320\, q^{34}\, p^{10} + 381293\, q^{35}\, p^{15} + 229588\, q^{35}\, p^{14} + 376418\, q^{36}\, p^{15} + 5889333\, q^{38}\, p^{22} + 936775\, q^{37}\, p^{17}$$
$$+ 1423988\, q^{37}\, p^{18} + 3025597\, q^{37}\, p^{20} + 128162\, q^{36}\, p^{13} + 2103410\, q^{37}\, p^{19} + 60411\, p^{79}\, q^{65} + 32550\, p^{80}\, q^{66} + 115488\, p^{78}\, q^{53}$$
$$+ 73583\, p^{77}\, q^{44} + 4411\, p^{70}\, q^{23} + 1110715\, p^{18}\, q^{30} + 28\, q^{72}\, p^{19} + 80\, q^{73}\, p^{21} + 5\, q^{64}\, p^{12} + 78478962\, p^{48}\, q^{57} + 59915\, p^{69}\, q^{27}$$
$$+ 222621\, p^{70}\, q^{32} + 213\, p^{40}\, q^{82} + 78585\, q^{50}\, p^{15} + q^{39}\, p^{4} + 68\, q^{46}\, p^{7} + 72667\, p^{79}\, q^{56} + 122494\, p^{78}\, q^{54} + 76282\, p^{79}\, q^{60} + 75030\, p^{79}\, q^{57}$$
$$+ 38084\, p^{76}\, q^{38} + p\, q^{11} + 1873\, p^{8}\, q^{16} + 1014\, p^{7}\, q^{16} + 18182\, q^{25}\, p^{10} + 89\, p^{16}\, q^{4} + 26\, p^{14}\, q^{3} + 65299117\, p^{46}\, q^{58} + 716\, p^{14}\, q^{7}$$
$$+ 2093\, p^{14}\, q^{9} + 1263\, p^{14}\, q^{8} + 249413\, q^{47}\, p^{16} + 17308141\, p^{56}\, q^{32} + 5884994\, p^{55}\, q^{27} + 13884286\, p^{56}\, q^{31} + 56000442\, p^{57}\, q^{41}$$
$$+ 25654163\, p^{56}\, q^{34} + 30537931\, p^{56}\, q^{35} + 166\, p^{38}\, q^{6} + 1887\, p^{22}\, q^{7} + 3970\, p^{22}\, q^{8} + 50024\, p^{24}\, q^{12} + 15420\, p^{23}\, q^{10} + 4238\, p^{15}\, q^{10}$$
$$+ 4612\, p^{9}\, q^{18} + 3808\, p^{11}\, q^{13} + 3982\, p^{12}\, q^{12} + 76873\, q^{32}\, p^{12} + 21362\, q^{31}\, p^{10} + 51073073\, p^{59}\, q^{54} + 41483607\, p^{60}\, q^{55} + 1120\, p^{69}\, q^{20}$$
$$+ 56133\, p^{79}\, q^{52} + 50904\, p^{79}\, q^{51} + 7076309\, p^{31}\, q^{24} + 833\, p^{24}\, q^{6} + 296\, p^{23}\, q^{5} + 123087\, p^{29}\, q^{13} + 1110715\, p^{30}\, q^{18} + 268\, q^{66}\, p^{16}$$
$$+ 66562544\, p^{58}\, q^{51} + 64479335\, p^{58}\, q^{52} + 5889333\, p^{53}\, q^{69} + 49860355\, p^{60}\, q^{50} + 1984\, p^{23}\, q^{7} + 3808\, p^{13}\, q^{11} + 2789\, p^{11}\, q^{12} + 355\, q^{74}\, p^{24}$$
$$+ 2687448\, p^{52}\, q^{23} + 68\, q^{79}\, p^{30} + 1179\, q^{80}\, p^{38} + 654450\, p^{70}\, q^{36} + 2047680\, p^{72}\, q^{52} + 1983460\, p^{72}\, q^{51} + p^{44}\, q^{5} + 29\, p^{60}\, q^{11} + 1330\, q^{74}\, p^{26}$$
$$+ 6140\, p^{20}\, q^{9} + 33764\, p^{21}\, q^{12} + 55562054\, p^{59}\, q^{46} + 2460\, p^{43}\, q^{9} + 990\, p^{42}\, q^{8} + 1916071\, p^{19}\, q^{33} + 4616510\, p^{22}\, q^{32} + 7162\, q^{80}\, p^{44}$$
$$+ 36\, q^{76}\, p^{24} + 12\, q^{76}\, p^{23} + 187\, q^{76}\, p^{26} + 6192\, q^{79}\, p^{40} + 439\, q^{77}\, p^{29} + 85\, q^{76}\, p^{25} + 234\, q^{77}\, p^{28} + 1579\, q^{79}\, p^{36} + 1049\, q^{79}\, p^{35} + 411\, q^{79}\, p^{33}$$
$$+ 667\, q^{79}\, p^{34} + 239\, q^{79}\, p^{32} + 2923690\, p^{71}\, q^{56} + 1087600\, p^{67}\, q^{33} + 59915\, p^{64}\, q^{22} + 162161\, p^{65}\, q^{25} + 135247\, q^{32}\, p^{13} + 2366\, q^{80}\, p^{40}$$
$$+ 3217\, q^{80}\, p^{41} + 5593\, q^{80}\, p^{43} + 4297\, q^{80}\, p^{42} + 4023579\, p^{50}\, q^{70} + 399338\, p^{38}\, q^{72} + 11715659\, p^{59}\, q^{33} + 39259881\, p^{61}\, q^{53} + 73968\, p^{53}\, q^{16}$$
$$+ 438\, p^{81}\, q^{83} + 228\, p^{75}\, q^{86} + 362\, p^{80}\, q^{84} + 13853728\, p^{39}\, q^{25} + 9322\, p^{33}\, q^{9} + 39354\, p^{34}\, q^{11} + 1007884\, p^{69}\, q^{36} + 2982201\, p^{71}\, q^{52}$$
$$+ 2907334\, p^{71}\, q^{51} + 1712\, p^{31}\, q^{7} + 4180\, p^{32}\, q^{8} + 72667\, p^{35}\, q^{12} + 19320\, p^{34}\, q^{10} + 936775\, p^{37}\, q^{17} + 4267418\, p^{38}\, q^{21} + 224617\, p^{36}\, q^{14}$$

$$+ 69\, p^{25}\, q^{4} + 3022321\, p^{38}\, q^{20} + 2087927\, p^{38}\, q^{19} + 5877014\, p^{39}\, q^{22} + 7979633\, p^{39}\, q^{23} + 22362087\, p^{39}\, q^{27} + 28076226\, p^{40}\, q^{28}$$
$$+ 128162\, p^{36}\, q^{13} + 376418\, p^{36}\, q^{15} + 5279003\, p^{44}\, q^{68} + 5805389\, p^{45}\, q^{68} + 146373\, p^{19}\, q^{17} + 18\, p^{49}\, q^{7} + 315\, p^{78}\, q^{85} + 260\, p^{79}\, q^{85}$$
$$+ 273\, p^{81}\, q^{84} + 2090\, p^{26}\, q^{7} + 1321361\, p^{22}\, q^{23} + 241001\, q^{26}\, p^{15} + 12\, q^{78}\, p^{26} + 2\, q^{77}\, p^{23} + 399917\, p^{27}\, q^{16} + 2018936\, p^{24}\, q^{23}$$
$$+ 87298\, p^{17}\, q^{17} + 5510282\, q^{35}\, p^{22} + 5251387\, p^{57}\, q^{28} + 44472455\, p^{60}\, q^{45} + 43482640\, p^{59}\, q^{42} + 27847267\, p^{59}\, q^{38} + 47087040\, p^{59}\, q^{43}$$
$$+ 24101193\, p^{59}\, q^{37} + 31744296\, p^{59}\, q^{39} + 35066\, p^{65}\, q^{80} + 2663129\, p^{49}\, q^{71} + 3\, p^{43}\, q^{5} + 513986\, p^{70}\, q^{35} + 2087927\, p^{72}\, q^{53}$$
$$+ 1715825\, p^{71}\, q^{44} + 67945415\, p^{55}\, q^{56} + 80479966\, p^{54}\, q^{55} + 61\, p^{59}\, q^{11} + 157535\, q^{26}\, p^{14} + 267334\, q^{27}\, p^{15} + 20\, p^{59}\, q^{87} + 25\, p^{60}\, q^{87}$$
$$+ 3448462\, q^{29}\, p^{22} + 261\, p^{42}\, q^{7} + 9790017\, p^{30}\, q^{26} + 10007\, p^{26}\, q^{9} + 37298\, p^{27}\, q^{11} + 7328\, p^{55}\, q^{82} + 4857\, p^{27}\, q^{8} + 72295\, p^{29}\, q^{12}$$
$$+ 20967\, p^{28}\, q^{10} + 820011\, p^{31}\, q^{17} + 3455031\, p^{32}\, q^{21} + 2353926\, p^{31}\, q^{20} + 1697350\, p^{31}\, q^{19} + 4616510\, p^{32}\, q^{22} + 212049\, p^{30}\, q^{14}$$
$$+ 1939\, q^{29}\, p^{7} + 21527\, q^{30}\, p^{10} + 4768\, q^{29}\, p^{8} + 730\, q^{28}\, p^{6} + 2014\, q^{28}\, p^{7} + 10547\, q^{29}\, p^{9} + 82030982\, p^{52}\, q^{56} + 94622921\, p^{51}\, q^{55}$$
$$+ 95\, p^{19}\, q^{4} + 26\, p^{17}\, q^{3} + 4499\, p^{24}\, q^{8} + 60411\, p^{26}\, q^{12} + 18182\, p^{25}\, q^{10} + 2018936\, p^{23}\, q^{24} + 2281077\, p^{22}\, q^{26} + 2435789\, p^{23}\, q^{25}$$
$$+ 1503715\, p^{21}\, q^{25} + 1930958\, p^{22}\, q^{25} + p^{65}\, q^{12} + 1958\, p^{82}\, q^{47} + 779\, p^{81}\, q^{40} + 537\, p^{81}\, q^{39} + 8\, p^{73}\, q^{19} + 811\, p^{85}\, q^{69} + 778\, p^{85}\, q^{70}$$
$$+ 41483607\, p^{36}\, q^{31} + 61258613\, p^{36}\, q^{34} + 67945415\, p^{36}\, q^{35} + 80479966\, p^{37}\, q^{36} + 35444320\, p^{36}\, q^{30} + 47880646\, p^{36}\, q^{32}$$
$$+ 29850864\, p^{36}\, q^{29} + 65518657\, p^{43}\, q^{57} + 74780\, q^{30}\, p^{12} + 1261344\, p^{67}\, q^{70} + 944988\, p^{55}\, q^{74} + 941778\, p^{56}\, q^{74} + 926832\, p^{57}\, q^{74}$$
$$+ 901061\, p^{58}\, q^{74} + 1428446\, p^{62}\, q^{72} + 22064092\, p^{30}\, q^{31} + 27715148\, p^{33}\, q^{30} + 16006\, q^{58}\, p^{16} + 10874\, q^{57}\, p^{15} + 4783\, q^{57}\, p^{14}$$
$$+ 42711\, q^{59}\, p^{18} + 2860\, q^{56}\, p^{13} + 54696\, q^{60}\, p^{19} + 114647\, q^{61}\, p^{21} + 22338\, q^{59}\, p^{17} + 96080\, q^{60}\, p^{20} + 163\, p^{43}\, q^{83} + 315\, p^{41}\, q^{82}$$
$$+ 297507\, q^{61}\, p^{23} + 187922\, q^{61}\, p^{22} + 492200\, q^{62}\, p^{25} + 720444\, q^{62}\, p^{26} + 327294\, q^{62}\, p^{24} + 741856\, q^{63}\, p^{27} + 1042646\, q^{63}\, p^{28}$$
$$+ 35482\, q^{36}\, p^{11} + 7953352\, p^{30}\, q^{25} + 11861147\, p^{30}\, q^{27} + 16049422\, p^{31}\, q^{28} + 69\, q^{25}\, p^{4} + 1997727\, q^{34}\, p^{19} + 72295\, p^{62}\, q^{79}$$
$$+ 2103410\, p^{54}\, q^{72} + 1250512\, p^{50}\, q^{73} + 16644258\, p^{30}\, q^{29} + 12254421\, p^{35}\, q^{25} + 145417\, p^{73}\, q^{36} + 846413\, p^{69}\, q^{70} + 922572\, p^{63}\, q^{73}$$
$$+ 667\, p^{79}\, q^{34} + 3217\, p^{80}\, q^{41} + 187\, p^{76}\, q^{26} + 1226\, p^{78}\, q^{33} + 1426527\, q^{36}\, p^{18} + 2992591\, q^{36}\, p^{20} + 4247961\, q^{37}\, p^{21} + 15938\, p^{48}\, q^{80}$$
$$+ 624\, q^{30}\, p^{6} + 193\, q^{29}\, p^{5} + 1712\, q^{31}\, p^{7} + 6102383\, p^{63}\, q^{66} + 4245821\, p^{64}\, q^{67} + 3902\, p^{74}\, q^{82} + 1899\, p^{79}\, q^{81} + 3230\, p^{75}\, q^{82}$$
$$+ 2689799\, p^{58}\, q^{71} + 7\, p^{57}\, q^{9} + 29681\, p^{73}\, q^{78} + 76282\, q^{31}\, p^{12} + 227437\, q^{32}\, p^{14} + 7953352\, p^{25}\, q^{30} + 864925\, p^{17}\, q^{32} + 592011\, p^{75}\, q^{58}$$
$$+ 572729\, p^{75}\, q^{59} + 355\, p^{74}\, q^{24} + 195\, p^{73}\, q^{22} + 706\, p^{74}\, q^{25} + 1411370\, q^{35}\, p^{18} + 62\, q^{26}\, p^{4} + 5702888\, q^{36}\, p^{22} + 135074\, q^{34}\, p^{13}$$
$$+ 10531647\, p^{38}\, q^{24} + 1423988\, p^{37}\, q^{18} + 17455154\, p^{38}\, q^{26} + 730\, p^{28}\, q^{6} + 237\, p^{27}\, q^{5} + 64479335\, p^{39}\, q^{33} + 606920\, p^{36}\, q^{16}$$
$$+ 19343\, p^{81}\, q^{65} + 7268986\, p^{33}\, q^{61} + 40576603\, p^{39}\, q^{30} + 33785286\, p^{39}\, q^{29} + 1259895\, p^{45}\, q^{72} + 56031574\, p^{39}\, q^{32} + 1404356\, p^{18}\, q^{38}$$

$$+ 47880646\, p^{32}\, q^{36} + 21892480\, p^{27}\, q^{38} + 13348614\, p^{25}\, q^{37} + 16955952\, p^{26}\, q^{37} + 58361011\, p^{33}\, q^{37} + 26\, p^{88}\, q^{75} + 48023284\, p^{39}\, q^{31}$$
$$+ 73206492\, p^{39}\, q^{34} + 82030982\, p^{39}\, q^{35} + 94622921\, p^{40}\, q^{36} + 646444\, p^{28}\, q^{17} + 2624037\, p^{29}\, q^{21} + 1749082\, p^{28}\, q^{20} + 1284623\, p^{28}\, q^{19}$$
$$+ 3448462\, p^{29}\, q^{22} + 173090\, p^{27}\, q^{14} + 21295519\, p^{59}\, q^{62} + 22064092\, p^{60}\, q^{61} + 17817508\, p^{57}\, q^{64} + 19833648\, p^{58}\, q^{63} + 21295519\, p^{62}\, q^{59}$$
$$+ 1340721\, p^{65}\, q^{71} + 526780\, p^{51}\, q^{75} + 492581\, p^{50}\, q^{75} + 2663129\, q^{42}\, p^{20} + 5164081\, q^{43}\, p^{22} + 7491648\, q^{42}\, p^{23} + 3850205\, q^{42}\, p^{21}$$
$$+ 5432330\, q^{42}\, p^{22} + 4408162\, p^{62}\, q^{32} + 1394532\, p^{61}\, q^{27} + 3424663\, p^{62}\, q^{31} + 16527168\, p^{63}\, q^{41} + 3908186\, p^{23}\, q^{28} + 29\, p^{87}\, q^{83} + p^{80}\, q^{90}$$
$$+ 17386914\, p^{65}\, q^{49} + 1542001\, p^{64}\, q^{71} + 1066833\, p^{69}\, q^{69} + 3022321\, p^{20}\, q^{38} + 61541\, p^{78}\, q^{69} + 52599\, p^{78}\, q^{70} + 36562\, p^{78}\, q^{72}$$
$$+ 70957\, p^{78}\, q^{68} + 80534\, p^{78}\, q^{67} + 44200\, p^{78}\, q^{71} + 23683\, p^{78}\, q^{74} + 18502\, p^{78}\, q^{75} + 29681\, p^{78}\, q^{73} + 14176\, p^{78}\, q^{76} + 10600\, p^{78}\, q^{77}$$
$$+ 5505\, p^{79}\, q^{78} + 22\, p^{87}\, q^{84} + 5\, p^{89}\, q^{83} + 67900545\, p^{50}\, q^{58} + 438317\, p^{41}\, q^{73} + 3022321\, p^{53}\, q^{71} + p^{90}\, q^{87} + 10615247\, p^{39}\, q^{24}$$
$$+ 1404356\, p^{38}\, q^{18} + 17753500\, p^{39}\, q^{26} + 676\, p^{29}\, q^{6} + 214\, p^{28}\, q^{5} + 66562544\, p^{40}\, q^{33} + 596821\, p^{37}\, q^{16} + 41440000\, p^{40}\, q^{30}$$
$$+ 34372212\, p^{40}\, q^{29} + 57641346\, p^{40}\, q^{32} + p^{90}\, q^{79} + 33064811\, p^{30}\, q^{35} + 6634\, q^{81}\, p^{48} + 13372\, q^{80}\, p^{47} + 427341\, p^{44}\, q^{74} + 917025\, q^{38}\, p^{17}$$
$$+ 13141902\, p^{55}\, q^{30} + 5229177\, p^{54}\, q^{26} + 10241053\, p^{55}\, q^{29} + 206853\, q^{38}\, p^{14} + 9\, p^{87}\, q^{87} + p^{90}\, q^{86} + 11\, p^{84}\, q^{88} + 4\, p^{89}\, q^{85} + 2014\, p^{28}\, q^{7}$$
$$+ 4768\, p^{29}\, q^{8} + 76873\, p^{32}\, q^{12} + 21362\, p^{31}\, q^{10} + 926832\, p^{34}\, q^{17} + 4058211\, p^{35}\, q^{21} + 231025\, p^{33}\, q^{14} + 990\, p^{49}\, q^{83} + 1139907\, p^{64}\, q^{72}$$
$$+ 1194956\, p^{60}\, q^{73} + 389295\, p^{74}\, q^{67} + 2918\, p^{75}\, q^{29} + 1734\, p^{75}\, q^{28} + 85\, p^{66}\, q^{15} + 1749082\, p^{63}\, q^{71} + 3\, p^{85}\, q^{43} + 9\, p^{86}\, q^{50} + 936775\, p^{54}\, q^{74}$$
$$+ 25856705\, p^{34}\, q^{29} + 91\, p^{74}\, q^{87} + 182\, p^{77}\, q^{86} + 143\, p^{83}\, q^{84} + 377536\, p^{69}\, q^{73} + 88\, p^{81}\, q^{86} + 70\, p^{82}\, q^{86} + 630442\, p^{66}\, q^{73} + 646444\, p^{63}\, q^{74}$$
$$+ 408459\, p^{72}\, q^{70} + 198\, p^{80}\, q^{34} + 1109\, p^{81}\, q^{41} + 53\, p^{77}\, q^{26} + 411\, p^{79}\, q^{33} + 419269\, p^{71}\, q^{71} + 10333\, p^{64}\, q^{82} + 13907\, p^{69}\, q^{81}$$
$$+ 10007\, p^{65}\, q^{82} + 1263\, p^{83}\, q^{77} + 585\, p^{84}\, q^{78} + 2572\, p^{83}\, q^{73} + 1549\, p^{83}\, q^{76} + 22\, p^{71}\, q^{88} + 31487559\, p^{62}\, q^{54} + 24770027\, p^{63}\, q^{55}$$
$$+ 31333184\, p^{62}\, q^{46} + 442\, p^{76}\, q^{85} + 731101\, p^{72}\, q^{67} + 13\, p^{88}\, q^{83} + 30314\, q^{71}\, p^{28} + 45806\, q^{71}\, p^{29} + 30226954\, p^{36}\, q^{57} + 33729581\, p^{38}\, q^{58}$$
$$+ 13160\, p^{73}\, q^{29} + 8340\, p^{73}\, q^{28} + 25126027\, p^{36}\, q^{58} + 25654163\, p^{35}\, q^{57} + 47467722\, p^{41}\, q^{58} + 435\, p^{68}\, q^{18} + 16879\, p^{67}\, q^{81} + 9803\, p^{59}\, q^{82}$$
$$+ 98614\, p^{68}\, q^{27} + 356357\, p^{69}\, q^{32} + 75678183\, p^{43}\, q^{56} + 40249315\, q^{57}\, p^{38} + 26\, p^{88}\, q^{74} + 13\, p^{88}\, q^{67} + 10954510\, p^{56}\, q^{30} + 4330469\, p^{55}\, q^{26}$$
$$+ 8493098\, p^{56}\, q^{29} + 38293674\, p^{39}\, q^{58} + 14\, p^{33}\, q^{4} + 2700\, p^{47}\, q^{10} + 18848\, p^{50}\, q^{13} + 237952\, p^{53}\, q^{18} + 78512370\, p^{49}\, q^{57} + 22\, p^{88}\, q^{71}$$
$$+ 16\, p^{88}\, q^{68} + 24\, p^{88}\, q^{72} + 367\, p^{64}\, q^{15} + 3025597\, p^{71}\, q^{54} + 2126147\, p^{71}\, q^{46} + 2092970\, p^{72}\, q^{55} + 2633\, p^{76}\, q^{82} + 20\, p^{32}\, q^{4} + 2\, p^{53}\, q^{87}$$
$$+ q^{13}\, p + 1155\, p^{70}\, q^{21} + 798788\, p^{35}\, q^{69} + 3\, p^{54}\, q^{87} + 41468963\, p^{37}\, q^{56} + 7954817\, p^{53}\, q^{68} + 10615247\, p^{52}\, q^{67} + p^{52}\, q^{87} + 222621\, p^{59}\, q^{21}$$
$$+ 621825\, p^{60}\, q^{24} + 13\, q^{82}\, p^{35} + 31573\, p^{56}\, q^{16} + 107101\, p^{58}\, q^{19} + 1524\, p^{49}\, q^{10} + 579777\, p^{53}\, q^{75} + 556056\, p^{52}\, q^{75} + 596821\, p^{54}\, q^{75}$$
$$+ 381293\, p^{56}\, q^{76} + 604483\, p^{57}\, q^{75} + 606920\, p^{55}\, q^{75} + 609398\, p^{56}\, q^{75} + 9619035\, p^{65}\, q^{41} + 3898388\, p^{64}\, q^{34} + 4827534\, p^{64}\, q^{35}$$

$$+ 13680469\, p^{66}\, q^{53} + 13190202\, p^{65}\, q^{44} + 2092970\, p^{55}\, q^{72} + 1173\, q^{82}\, p^{45} + 18\, p^{88}\, q^{81} + 642\, q^{82}\, p^{43} + 441220\, p^{28}\, q^{16} + 4447379\, q^{29}\, p^{23}$$
$$+ 2339\, q^{69}\, p^{21} + 13488\, q^{70}\, p^{25} + 22122\, q^{70}\, p^{26} + 49369\, q^{52}\, p^{15} + 318417\, q^{54}\, p^{19} + 3323\, p^{77}\, q^{81} + 731101\, p^{19}\, q^{24} + 69033\, p^{63}\, q^{79}$$
$$+ 55562054\, p^{46}\, q^{59} + 13884286\, q^{56}\, p^{31} + 25654163\, q^{56}\, p^{34} + 17308141\, q^{56}\, p^{32} + 3894194\, q^{34}\, p^{21} + 2821868\, q^{34}\, p^{20} + 4058211\, q^{35}\, p^{21}$$
$$+ 4534339\, p^{53}\, q^{25} + 41931012\, p^{60}\, q^{44} + 75030\, p^{57}\, q^{79} + 9263\, q^{19}\, p^{10} + 5373\, q^{19}\, p^{9} + 10785\, q^{20}\, p^{10} + 20949\, p^{59}\, q^{81} + 4326\, p^{51}\, q^{82}$$
$$+ 4330469\, q^{55}\, p^{26} + 5884994\, q^{55}\, p^{27} + 21233750\, q^{56}\, p^{33} + 30537931\, q^{56}\, p^{35} + 997311\, p^{19}\, q^{26} + 1697350\, p^{19}\, q^{31} + 13391353\, p^{27}\, q^{31}$$
$$+ 16644258\, p^{29}\, q^{30} + 135962\, q^{53}\, p^{17} + 10954510\, q^{56}\, p^{30} + 3119217\, q^{55}\, p^{25} + 2195463\, q^{55}\, p^{24} + 18502\, p^{75}\, q^{78} + 4447379\, p^{62}\, q^{68}$$
$$+ 2018936\, p^{68}\, q^{67} + 636\, p^{18}\, q^{6} + 250\, p^{17}\, q^{5} + 276552\, q^{22}\, p^{17} + 804\, p^{26}\, q^{6} + 274\, p^{25}\, q^{5} + 1411370\, p^{73}\, q^{56} + 475460\, p^{69}\, q^{33}$$
$$+ 24068\, p^{66}\, q^{22} + 67108\, p^{67}\, q^{25} + 104076\, p^{67}\, q^{26} + 40976\, p^{66}\, q^{23} + 16273837\, q^{36}\, p^{26} + 9997620\, q^{36}\, p^{24} + 75675682\, p^{46}\, q^{57} + 49\, p^{36}\, q^{5}$$
$$+ 515875\, p^{30}\, q^{16} + 4424\, q^{31}\, p^{8} + 42910171\, p^{58}\, q^{40} + 231819\, q^{34}\, p^{14} + 249596\, p^{55}\, q^{19} + 798788\, p^{56}\, q^{22} + 1749082\, p^{71}\, q^{63}$$
$$+ 1956766\, p^{71}\, q^{62} + 2160399\, p^{71}\, q^{61} + 7\, p^{88}\, q^{86} + 353781\, p^{31}\, q^{15} + 13364141\, p^{33}\, q^{26} + 10547\, p^{29}\, q^{9} + 41304\, p^{30}\, q^{11} + 50811399\, p^{57}\, q^{40}$$
$$+ 22362087\, p^{27}\, q^{39} + 61715223\, p^{33}\, q^{38} + 66562544\, p^{51}\, q^{58} + 62878\, p^{51}\, q^{15} + 25126027\, p^{58}\, q^{36} + 31359\, p^{51}\, q^{14} + 107\, q^{49}\, p^{8}$$
$$+ 2366\, q^{51}\, p^{11} + 6192\, q^{51}\, p^{12} + 1109\, q^{50}\, p^{10} + 32623932\, p^{32}\, q^{32} + 30464558\, p^{30}\, q^{34} + 32070860\, p^{31}\, q^{33} + 28\, p^{48}\, q^{7} + 1916071\, p^{72}\, q^{58}$$
$$+ 1814680\, p^{72}\, q^{59} + 13348614\, p^{37}\, q^{25} + 10191\, p^{31}\, q^{9} + 41393\, p^{32}\, q^{11} + 12867587\, q^{36}\, p^{25} + 20238713\, q^{36}\, p^{27} + 26024133\, q^{37}\, p^{28}$$
$$+ 941778\, q^{35}\, p^{17} + 76409\, q^{33}\, p^{12} + 20949\, q^{32}\, p^{10} + 7624845\, q^{36}\, p^{23} + p^{79}\, q^{90} + 43482640\, p^{42}\, q^{59} + 41931012\, p^{44}\, q^{60} + 1830\, q^{30}\, p^{7}$$
$$+ 676\, q^{29}\, p^{6} + 22\, q^{20}\, p^{3} + 11059\, p^{45}\, q^{11} + 20784\, p^{46}\, q^{12} + 646444\, q^{28}\, p^{17} + 74780\, p^{79}\, q^{61} + 69033\, p^{79}\, q^{63} + 72295\, p^{79}\, q^{62}$$
$$+ 76409\, p^{79}\, q^{58} + 922572\, q^{28}\, p^{18} + 1749082\, q^{28}\, p^{20} + 2624037\, q^{29}\, p^{21} + 788392\, p^{39}\, q^{71} + 948233\, p^{40}\, q^{71} + 1123715\, p^{41}\, q^{71}$$
$$+ 49860355\, p^{41}\, q^{31} + 77619275\, p^{41}\, q^{34} + 87559855\, p^{41}\, q^{35} + 99272362\, p^{42}\, q^{36} + 93608540\, p^{38}\, q^{37} + 4579\, q^{79}\, p^{39} + 3294\, q^{79}\, p^{38}$$
$$+ 4176\, q^{78}\, p^{36} + 21371\, q^{29}\, p^{10} + 768\, q^{27}\, p^{6} + 67123481\, p^{58}\, q^{47} + 68185424\, p^{58}\, q^{48} + 202\, p^{84}\, q^{82} + 549\, p^{39}\, q^{7} + 21233750\, p^{56}\, q^{33}$$
$$+ 146272\, p^{50}\, q^{16} + 56854\, p^{75}\, q^{37} + 76873\, p^{79}\, q^{59} + 163\, q^{48}\, p^{8} + 4925183\, p^{28}\, q^{24} + 29683\, p^{60}\, q^{18} + 7461\, p^{58}\, q^{15} + 79140\, p^{21}\, q^{14}$$
$$+ 138025\, p^{22}\, q^{15} + 52599\, p^{21}\, q^{13} + 20878\, p^{21}\, q^{11} + 234685\, p^{23}\, q^{16} + 1673\, p^{66}\, q^{18} + 108238\, q^{27}\, p^{13} + 1284623\, q^{28}\, p^{19}$$
$$+ 44090149\, p^{60}\, q^{54} + 35444320\, p^{61}\, q^{55} + 46602052\, p^{60}\, q^{46} + 5633169\, p^{29}\, q^{24} + 11527159\, p^{25}\, q^{34} + 17958411\, p^{28}\, q^{32}$$
$$+ 25331653\, p^{31}\, q^{31} + 9039408\, p^{24}\, q^{34} + 77619275\, p^{50}\, q^{57} + 3652\, p^{50}\, q^{82} + 2460\, p^{48}\, q^{82} + 315376\, q^{40}\, p^{15} + 13560\, p^{48}\, q^{12} + 7162\, p^{47}\, q^{11}$$
$$+ 8436954\, p^{33}\, q^{24} + 132798\, p^{31}\, q^{13} + 1269496\, p^{32}\, q^{18} + 37679\, q^{72}\, p^{30} + 12050\, q^{71}\, p^{26} + 985220\, q^{61}\, p^{26} + 456043\, q^{61}\, p^{24}$$
$$+ 7744036\, p^{23}\, q^{41} + 10403394\, p^{24}\, q^{41} + 10115220\, p^{24}\, q^{42} + 13704315\, p^{25}\, q^{41} + 17718663\, p^{26}\, q^{41} + 41440000\, p^{30}\, q^{40}$$

$$+ 22508679\, p^{27} q^{41} + 34372212\, p^{29} q^{40} + 6\, p^{80} q^{89} + 18\, p^{81} q^{88} + 14449834\, p^{26} q^{34} + 24892262\, p^{32} q^{30} + 21627744\, p^{28} q^{34}$$
$$+ 17817508\, p^{27} q^{34} + 23288836\, p^{28} q^{35} + 73968\, q^{53} p^{16} + p^{33} q^{3} + 15938\, p^{43} q^{11} + 29783\, p^{44} q^{12} + 1997\, p^{11} q^{11} + 539659\, p^{18} q^{24}$$
$$+ 6356100\, p^{30} q^{24} + 824\, p^{23} q^{6} + 298\, p^{22} q^{5} + 116160\, p^{28} q^{13} + 1018895\, p^{29} q^{18} + 5\, p^{15} q^{2} + 22737\, p^{75} q^{34} + 78585\, p^{76} q^{41}$$
$$+ 6217\, p^{72} q^{26} + 31910\, p^{74} q^{33} + 4084\, p^{71} q^{24} + 811\, p^{22} q^{6} + 299\, p^{21} q^{5} + 28691136\, p^{32} q^{31} + 13364141\, p^{26} q^{33} + 21295519\, p^{29} q^{32}$$
$$+ 4\, p^{62} q^{88} + 3\, p^{61} q^{88} + 162297\, p^{15} q^{23} + 92\, p^{21} q^{4} + 24\, p^{19} q^{3} + 4809\, p^{26} q^{8} + 69033\, p^{28} q^{12} + 20259\, p^{27} q^{10} + 767387\, p^{30} q^{17}$$
$$+ 3193533\, p^{31} q^{21} + 2160399\, p^{30} q^{20} + 1567144\, p^{30} q^{19} + 4243509\, p^{31} q^{22} + 200776\, p^{29} q^{14} + 81007\, q^{74} p^{36} + 105907\, q^{74} p^{37}$$
$$+ 135962\, q^{74} p^{38} + 171324\, q^{74} p^{39} + 50364628\, p^{44} q^{59} + 16870\, p^{55} q^{81} + 33039\, p^{54} q^{80} + 2655050\, p^{27} q^{22} + 1221288\, p^{70} q^{39}$$
$$+ 2321205\, p^{71} q^{47} + 1457522\, p^{70} q^{40} + 2799554\, p^{71} q^{50} + 2271126\, p^{70} q^{43} + 1986726\, p^{70} q^{42} + 50364628\, p^{59} q^{44} + 22569111\, p^{27} q^{40}$$
$$+ 2064\, p^{77} q^{32} + 1290\, p^{77} q^{31} + 9322\, p^{82} q^{58} + 5904\, p^{78} q^{37} + 9803\, p^{82} q^{59} + 65142630\, p^{41} q^{56} + 2923690\, q^{35} p^{20} + 4177169\, q^{36} p^{21}$$
$$+ 214\, q^{28} p^{5} + 13\, q^{24} p^{3} + 211133\, p^{68} q^{29} + 12920964\, q^{43} p^{25} + 9716188\, q^{43} p^{24} + 16857083\, q^{43} p^{26} + 27202174\, q^{43} p^{28}$$
$$+ 21599289\, q^{43} p^{27} + 26281875\, q^{44} p^{28} + 4\, q^{81} p^{31} + 10\, q^{81} p^{32} + 23\, q^{81} p^{33} + 110528214\, p^{43} q^{37} + 6465684\, q^{56} p^{28} + 187765\, q^{54} p^{18}$$
$$+ 78512370\, p^{34} q^{42} + 10403394\, p^{41} q^{24} + 1316126\, p^{40} q^{18} + 17718663\, p^{41} q^{26} + 68446383\, p^{42} q^{33} + 556056\, p^{39} q^{16} + 41704705\, p^{42} q^{30}$$
$$+ 34329138\, p^{42} q^{29} + 58860021\, p^{42} q^{32} + 922572\, p^{73} q^{63} + 1018895\, p^{73} q^{62} + 1110715\, p^{73} q^{61} + 1939\, p^{29} q^{7} + 4634\, p^{30} q^{8}$$
$$+ 76409\, p^{33} q^{12} + 20949\, p^{32} q^{10} + 941778\, p^{35} q^{17} + 4177169\, p^{36} q^{21} + 231819\, p^{34} q^{14} + 68446383\, p^{58} q^{49} + 67900545\, p^{58} q^{50} + q^{73} p^{18}$$
$$+ 118\, q^{77} p^{27} + 22\, q^{77} p^{25} + 53\, q^{77} p^{26} + 7\, q^{77} p^{24} + 2071\, p^{64} q^{84} + 559\, p^{60} q^{85} + 5794820\, p^{51} q^{69} + 2057550\, q^{35} p^{19} + 40650\, q^{33} p^{11}$$
$$+ 2821868\, p^{34} q^{20} + 1997727\, p^{34} q^{19} + 5510282\, p^{35} q^{22} + 7330534\, p^{35} q^{23} + 19107597\, p^{35} q^{27} + 24770027\, p^{36} q^{28} + 77523890\, p^{47} q^{57}$$
$$+ 9803\, q^{32} p^{9} + 5457\, p^{47} q^{81} + 64991\, q^{27} p^{12} + 4058211\, p^{70} q^{56} + 1578687\, p^{66} q^{33} + 90088\, p^{63} q^{22} + 240915\, p^{64} q^{25} + 44472455\, p^{45} q^{60}$$
$$+ 20236\, p^{58} q^{81} + 367294\, q^{32} p^{15} + 108238\, p^{27} q^{13} + 922572\, p^{28} q^{18} + 52\, q^{75} p^{23} + q^{74} p^{19} + 5\, q^{75} p^{21} + 7439\, p^{77} q^{79} + 590\, p^{80} q^{83}$$
$$+ 99118544\, p^{39} q^{37} + 57318502\, p^{59} q^{47} + 58429135\, p^{59} q^{48} + 17684803\, p^{57} q^{33} + 118548\, p^{51} q^{16} + 64479335\, p^{33} q^{39} + 513986\, p^{56} q^{21}$$
$$+ 1398342\, p^{57} q^{24} + 12\, p^{87} q^{86} + 2103410\, p^{72} q^{54} + 1403336\, p^{72} q^{46} + 1426527\, p^{73} q^{55} + 5794820\, p^{22} q^{40} + 1958\, p^{47} q^{82} + 4394\, p^{46} q^{81}$$
$$+ 9577\, p^{82} q^{66} + 16920\, p^{79} q^{44} + 1023\, p^{72} q^{23} + 18162\, p^{81} q^{56} + 56321254\, p^{56} q^{57} + 58361011\, p^{54} q^{58} + 38554718\, p^{60} q^{56}$$
$$+ 609398\, q^{35} p^{16} + 381285\, q^{34} p^{15} + 161\, p^{68} q^{17} + p^{39} q^{4} + 15938\, p^{80} q^{48} + 20784\, p^{79} q^{45} + 1250853\, p^{69} q^{37} + 2501779\, p^{71} q^{48}$$
$$+ 2851004\, p^{70} q^{45} + 229312\, p^{67} q^{28} + 135\, p^{52} q^{9} + 2043375\, p^{64} q^{70} + 454846\, p^{49} q^{75} + 3467961\, q^{61} p^{30} + 1028004\, q^{62} p^{27}$$
$$+ 2612694\, q^{61} p^{29} + 1394532\, q^{61} p^{27} + 1929077\, q^{61} p^{28} + 4243509\, p^{60} q^{69} + 5\, p^{87} q^{88} + 7\, p^{86} q^{88} + 3\, p^{19} q^{2} + 4235765\, p^{52} q^{70}$$

$$+ 975450\, p^{43}\, q^{72} + 1241\, p^{9}\, q^{12} + 585\, p^{7}\, q^{13} + 781\, p^{8}\, q^{12} + 11059\, q^{80}\, p^{46} + 51073073\, p^{32}\, q^{37} + 41483607\, p^{31}\, q^{36} + 4\, p^{17}\, q^{2} + 83\, p^{23}\, q^{4}$$
$$+ 21\, p^{21}\, q^{3} + 2992591\, p^{36}\, q^{20} + 2092970\, p^{36}\, q^{19} + 5830327\, p^{37}\, q^{22} + 7835620\, p^{37}\, q^{23} + 21177556\, p^{37}\, q^{27} + 27013577\, p^{38}\, q^{28}$$
$$+ 135074\, p^{34}\, q^{13} + 381285\, p^{34}\, q^{15} + 65588\, q^{37}\, p^{12} + 216881\, q^{37}\, p^{14} + 353402\, q^{38}\, p^{15} + 3202\, q^{35}\, p^{8} + 1108\, q^{35}\, p^{7} + 115488\, q^{38}\, p^{13}$$
$$+ 33039\, q^{37}\, p^{11} + 883\, q^{82}\, p^{44} + 132460\, q^{35}\, p^{13} + 20236\, q^{33}\, p^{10} + 39354\, q^{34}\, p^{11} + 37641\, q^{35}\, p^{11} + 41393\, q^{32}\, p^{11} + 1997\, p^{80}\, q^{80}$$
$$+ 318417\, p^{54}\, q^{19} + 1007884\, p^{55}\, q^{22} + 95\, p^{72}\, q^{87} + 39259881\, p^{30}\, q^{38} + 4992276\, p^{61}\, q^{68} + 11715659\, p^{33}\, q^{59} + 1215164\, p^{25}\, q^{59}$$
$$+ 14348964\, p^{34}\, q^{59} + 17308141\, p^{35}\, q^{59} + 14507144\, q^{58}\, p^{33} + 4243509\, p^{22}\, q^{31} + 2250864\, p^{53}\, q^{23} + 7\, q^{74}\, p^{20} + 450\, q^{78}\, p^{31} + 67\, q^{78}\, p^{28}$$
$$+ 767\, q^{77}\, p^{30} + 134\, q^{78}\, p^{29} + 29\, q^{78}\, p^{27} + 257\, q^{78}\, p^{30} + 18\, q^{75}\, p^{22} + 4\, q^{76}\, p^{22} + 1911\, q^{78}\, p^{34} + 4499\, q^{24}\, p^{8} + 29758\, q^{24}\, p^{11} + 4250\, p^{68}\, q^{83}$$
$$+ 100661908\, p^{38}\, q^{38} + 85256814\, p^{35}\, q^{40} + 107188486\, p^{41}\, q^{37} + 53819538\, p^{59}\, q^{53} + 5432330\, p^{49}\, q^{69} + 106929320\, p^{39}\, q^{38}$$
$$+ 3850205\, p^{49}\, q^{70} + 990\, q^{75}\, p^{27} + 2347\, q^{74}\, p^{27} + 3975\, q^{74}\, p^{28} + 6429\, q^{74}\, p^{29} + 34329138\, p^{62}\, q^{49} + 320056\, p^{56}\, q^{20} + 1578687\, p^{58}\, q^{25}$$
$$+ 2987\, p^{65}\, q^{18} + 83\, p^{68}\, q^{87} + 90\, p^{69}\, q^{87} + 9\, p^{50}\, q^{7} + 5\, p^{89}\, q^{75} + 1261344\, p^{70}\, q^{67} + 2\, q^{82}\, p^{33} + q^{82}\, p^{32} + 5877014\, p^{22}\, q^{39}$$
$$+ 22181104\, p^{27}\, q^{42} + 33701003\, p^{29}\, q^{43} + 41704705\, p^{30}\, q^{42} + 27820635\, p^{28}\, q^{42} + 34329138\, p^{29}\, q^{42} + 5\, p^{51}\, q^{7} + 198\, p^{57}\, q^{11}$$
$$+ 1290\, p^{60}\, q^{14} + 764\, p^{59}\, q^{13} + 73206492\, p^{52}\, q^{57} + 56321254\, p^{57}\, q^{56} + 9414102\, p^{59}\, q^{32} + 3096334\, p^{58}\, q^{27} + 7440739\, p^{59}\, q^{31}$$
$$+ 32637005\, p^{60}\, q^{41} + 14348964\, p^{59}\, q^{34} + 17308141\, p^{59}\, q^{35} + 41819323\, p^{30}\, q^{41} + 49860355\, p^{31}\, q^{41} + 49906336\, p^{31}\, q^{42}$$
$$+ 58593582\, p^{32}\, q^{41} + 67900545\, p^{33}\, q^{41} + 75832333\, p^{34}\, q^{40} + 40\, p^{84}\, q^{86} + 31487559\, q^{37}\, p^{29} + 128644\, p^{13}\, q^{30} + 336316\, p^{15}\, q^{30}$$
$$+ 8593690\, p^{26}\, q^{29} + 41644\, q^{31}\, p^{11} + 497\, p^{69}\, q^{19} + 13907\, p^{81}\, q^{69} + 12329\, p^{81}\, q^{70} + 33039\, p^{80}\, q^{54} + 19320\, p^{81}\, q^{57} + 8173\, p^{78}\, q^{38}$$
$$+ 30308\, p^{80}\, q^{53} + 21362\, p^{81}\, q^{60} + 296531\, p^{39}\, q^{73} + 3387207\, p^{64}\, q^{68} + 13861236\, p^{40}\, q^{25} + 8719\, p^{34}\, q^{9} + 37641\, p^{35}\, q^{11} + 1567\, p^{32}\, q^{7}$$
$$+ 3876\, p^{33}\, q^{8} + 69524\, p^{36}\, q^{12} + 18162\, p^{35}\, q^{10} + 917025\, p^{38}\, q^{17} + 4235765\, p^{39}\, q^{21} + 216881\, p^{37}\, q^{14} + 2982201\, p^{39}\, q^{20} + 2047680\, p^{39}\, q^{19}$$
$$+ 5794820\, p^{40}\, q^{22} + 7908168\, p^{40}\, q^{23} + 22569111\, p^{40}\, q^{27} + 28114620\, p^{41}\, q^{28} + 122494\, p^{37}\, q^{13} + 367098\, p^{37}\, q^{15} + 4634\, q^{30}\, p^{8}$$
$$+ 25\, q^{83}\, p^{39} + 13853728\, p^{25}\, q^{39} + 39053293\, p^{43}\, q^{60} + 20823512\, p^{39}\, q^{61} + 34556233\, p^{62}\, q^{50} + 3297836\, p^{59}\, q^{28} + 29670308\, p^{62}\, q^{45}$$
$$+ 29228746\, p^{61}\, q^{42} + 18111635\, p^{61}\, q^{38} + 31900100\, p^{61}\, q^{43} + 15538082\, p^{61}\, q^{37} + 20823512\, p^{61}\, q^{39} + 29850864\, q^{36}\, p^{29} + 3557\, q^{34}\, p^{8}$$
$$+ 8719\, q^{34}\, p^{9} + 224617\, q^{36}\, p^{14} + 1542484\, p^{47}\, q^{72} + 1898010\, p^{50}\, q^{72} + 1793564\, p^{49}\, q^{72} + 897956\, p^{46}\, q^{73} + 1674021\, p^{48}\, q^{72}$$
$$+ 10060\, q^{74}\, p^{30} + 44090149\, p^{54}\, q^{60} + 48023284\, p^{52}\, q^{60} + 41097671\, p^{48}\, q^{61} + 45830812\, p^{57}\, q^{58} + 239\, p^{59}\, q^{12} + 35386923\, p^{60}\, q^{57}$$
$$+ 41227856\, p^{58}\, q^{58} + 65\, p^{56}\, q^{86} + 6529381\, p^{58}\, q^{68} + 30464558\, p^{34}\, q^{30} + 46292276\, p^{31}\, q^{38} + 17753500\, p^{26}\, q^{39} + 24022\, p^{72}\, q^{79}$$
$$+ 136067\, q^{33}\, p^{13} + 234\, p^{63}\, q^{14} + 134\, p^{62}\, q^{13} + 4267418\, p^{21}\, q^{38} + 273\, p^{84}\, q^{81} + 13680469\, p^{38}\, q^{25} + 9803\, p^{32}\, q^{9} + 40650\, p^{33}\, q^{11}$$

$$+ 10531647\, p^{24}\, q^{38} + 5830327\, p^{22}\, q^{37} + 7835620\, p^{23}\, q^{37} + 1321361\, p^{69}\, q^{68} + 1379510\, q^{34}\, p^{18} + 28076226\, p^{28}\, q^{40} + 85979156\, p^{36}\, q^{38}$$
$$+ 48023284\, p^{31}\, q^{39} + 56031574\, p^{32}\, q^{39} + 68185424\, p^{48}\, q^{58} + 21\, p^{88}\, q^{80} + 69829669\, p^{53}\, q^{57} + 9039408\, p^{34}\, q^{24} + 135247\, p^{32}\, q^{13}$$
$$+ 1331535\, p^{33}\, q^{18} + 2799554\, p^{50}\, q^{71} + 75832333\, p^{51}\, q^{57} + 355\, q^{67}\, p^{17} + 62254555\, p^{56}\, q^{56} + 11715659\, p^{58}\, q^{32} + 3898388\, p^{57}\, q^{27}$$
$$+ 9307211\, p^{58}\, q^{31} + 39656925\, p^{59}\, q^{41} + 17684803\, p^{58}\, q^{34} + 21233750\, p^{58}\, q^{35} + 97\, p^{40}\, q^{6} + 1836694\, p^{69}\, q^{39} + 3397643\, p^{70}\, q^{47}$$
$$+ 2175627\, p^{69}\, q^{40} + 4023579\, p^{70}\, q^{50} + 3322153\, p^{69}\, q^{43} + 2924911\, p^{69}\, q^{42} + 268\, p^{66}\, q^{16} + 49906336\, p^{42}\, q^{31} + 78512370\, p^{42}\, q^{34}$$
$$+ 88861585\, p^{42}\, q^{35} + 99888959\, p^{43}\, q^{36} + 58361011\, p^{37}\, q^{33} + 604483\, p^{34}\, q^{16} + 5259749\, p^{57}\, q^{69} + 54517336\, p^{33}\, q^{36} + 27013577\, p^{28}\, q^{38}$$
$$+ 21177556\, p^{27}\, q^{37} + 65804963\, p^{34}\, q^{37} + 367294\, p^{32}\, q^{15} + 14449834\, p^{34}\, q^{26} + 1231\, p^{50}\, q^{83} + 716\, p^{84}\, q^{77} + 315\, p^{85}\, q^{78} + 1332\, p^{84}\, q^{73}$$
$$+ 863\, p^{84}\, q^{76} + 69524\, q^{36}\, p^{12} + 3876\, q^{33}\, p^{8} + 60012\, q^{73}\, p^{33} + 4394\, p^{45}\, q^{10} + 29858\, p^{48}\, q^{13} + 363323\, p^{51}\, q^{18} + 163384075\, p^{45}\, q^{44}$$
$$+ 164828637\, p^{46}\, q^{45} + 139230361\, p^{45}\, q^{40} + 1922758\, p^{45}\, q^{71} + 106929320\, p^{38}\, q^{39} + 13386860\, p^{42}\, q^{25} + 846811\, p^{40}\, q^{17} + 194668\, p^{39}\, q^{14}$$
$$+ 2799554\, p^{41}\, q^{20} + 1898010\, p^{41}\, q^{19} + 5432330\, p^{42}\, q^{22} + 7491648\, p^{42}\, q^{23} + 22181104\, p^{42}\, q^{27} + 27202174\, p^{43}\, q^{28} + 336055\, p^{39}\, q^{15}$$
$$+ 8993512\, p^{57}\, q^{30} + 3531585\, p^{56}\, q^{26} + 6936807\, p^{57}\, q^{29} + 4023579\, p^{41}\, q^{21} + 6192\, p^{51}\, q^{12} + 3217\, p^{50}\, q^{11} + 81007\, p^{55}\, q^{17}$$
$$+ 23620939\, p^{61}\, q^{40} + 32690542\, p^{62}\, q^{47} + 33701003\, p^{62}\, q^{48} + 80534\, p^{24}\, q^{13} + 778\, p^{21}\, q^{6} + 291\, p^{20}\, q^{5} + 8386\, p^{23}\, q^{9} + 29758\, p^{24}\, q^{11}$$
$$+ 630442\, p^{25}\, q^{18} + 231025\, q^{33}\, p^{14} + 4411\, q^{68}\, p^{21} + 878\, q^{67}\, p^{18} + 38554718\, p^{35}\, q^{31} + 45830812\, p^{33}\, q^{34} + 40543552\, p^{32}\, q^{34}$$
$$+ 51134082\, p^{34}\, q^{34} + 56321254\, p^{35}\, q^{34} + 45830812\, p^{34}\, q^{33} + 798788\, p^{69}\, q^{35} + 3022321\, p^{71}\, q^{53} + 2561673\, p^{70}\, q^{44} + 5779359\, p^{32}\, q^{61}$$
$$+ 77481\, p^{72}\, q^{32} + 54696\, p^{72}\, q^{31} + 454846\, p^{75}\, q^{49} + 267334\, p^{76}\, q^{64} + 68446383\, p^{49}\, q^{58} + 941778\, p^{74}\, q^{56} + 300078\, p^{70}\, q^{33}$$
$$+ 14421\, p^{67}\, q^{22} + 40976\, p^{68}\, q^{25} + 64626\, p^{68}\, q^{26} + 25100\, p^{67}\, q^{23} + 39259881\, p^{53}\, q^{61} + 27820635\, p^{49}\, q^{63} + 34372212\, p^{51}\, q^{62}$$
$$+ 21177556\, p^{64}\, q^{54} + 16273837\, p^{65}\, q^{55} + 19753707\, p^{64}\, q^{46} + 3025597\, p^{54}\, q^{71} + 2907334\, p^{51}\, q^{71} + 102\, p^{33}\, q^{5} + 41704705\, p^{61}\, q^{49}$$
$$+ 53\, p^{83}\, q^{86} + 49224828\, p^{60}\, q^{51} + 48023284\, p^{60}\, q^{52} + 1538\, p^{45}\, q^{9} + 598\, p^{44}\, q^{8} + 24068\, q^{69}\, p^{25} + 2213\, q^{68}\, p^{20} + 1023\, q^{68}\, p^{19}$$
$$+ 50301547\, p^{33}\, q^{35} + 62254555\, p^{35}\, q^{35} + 74411969\, p^{36}\, q^{36} + 38554718\, p^{31}\, q^{35} + 513986\, q^{70}\, p^{35} + 61643379\, q^{55}\, p^{39} + 6\, p^{14}\, q^{2}$$
$$+ 1830\, p^{30}\, q^{7} + 4424\, p^{31}\, q^{8} + 75030\, p^{34}\, q^{12} + 20236\, p^{33}\, q^{10} + 944988\, p^{36}\, q^{17} + 4247961\, p^{37}\, q^{21} + 229588\, p^{35}\, q^{14} + 78\, p^{24}\, q^{4} + 18\, p^{22}\, q^{3}$$
$$+ 3025597\, p^{37}\, q^{20} + 2103410\, p^{37}\, q^{19} + 5889333\, p^{38}\, q^{22} + 7954817\, p^{38}\, q^{23} + 21892480\, p^{38}\, q^{27} + 27704453\, p^{39}\, q^{28} + 132460\, p^{35}\, q^{13}$$
$$+ 381293\, p^{35}\, q^{15} + 804\, q^{26}\, p^{6} + 274\, q^{25}\, p^{5} + 1269496\, p^{18}\, q^{32} + 4517481\, p^{30}\, q^{60} + 1733945\, p^{26}\, q^{59} + 4634\, p^{83}\, q^{61} + 4855\, p^{83}\, q^{63}$$
$$+ 4768\, p^{83}\, q^{62} + p^{59}\, q^{9} + 4809\, p^{83}\, q^{65} + 33064811\, p^{35}\, q^{30} + 16920\, q^{79}\, p^{44} + 13560\, q^{79}\, p^{43} + 8214\, q^{79}\, p^{41} + 1226\, q^{78}\, p^{33} + q^{75}\, p^{20}$$
$$+ 764\, q^{78}\, p^{32} + 10644\, q^{79}\, p^{42} + 35386923\, p^{34}\, q^{31} + 35386923\, p^{31}\, q^{34} + 41227856\, p^{33}\, q^{33} + 44335791\, p^{35}\, q^{32} + 36605192\, p^{32}\, q^{33}$$

$$+ 36605192\, p^{33} q^{32} + 40543552\, p^{34} q^{32} + 56321254\, p^{34} q^{35} + 44335791\, p^{32} q^{35} + 60411\, p^{65} q^{79} + 26\, p^{74} q^{88} + 25\, p^{73} q^{88}$$
$$+ 411380\, p^{55} q^{20} + 2014786\, p^{57} q^{25} + 10115220\, p^{42} q^{24} + 1250512\, p^{41} q^{18} + 17386914\, p^{42} q^{26} + 68185424\, p^{43} q^{33} + 526780\, p^{40} q^{16}$$
$$+ 41097671\, p^{43} q^{30} + 33701003\, p^{43} q^{29} + 58429135\, p^{43} q^{32} + 94622921\, p^{36} q^{40} + 109490948\, p^{42} q^{37} + 112224042\, p^{40} q^{38}$$
$$+ 58860021\, p^{32} q^{42} + 77619275\, p^{34} q^{41} + 49364256\, p^{43} q^{31} + 78478962\, p^{43} q^{34} + 89122943\, p^{43} q^{35} + 99329900\, p^{44} q^{36}$$
$$+ 41097671\, p^{30} q^{43} + 1610135\, p^{69} q^{67} + 61115\, q^{38} p^{12} + 7\, q^{82} p^{34} + 4992276\, p^{30} q^{23} + 7\, p^{89} q^{79} + 8061\, p^{56} q^{82} + 6582\, p^{54} q^{82} + 5\, p^{89} q^{82}$$
$$+ 21527\, p^{61} q^{81} + 1331535\, p^{18} q^{33} + 3455031\, p^{21} q^{32} + 1814680\, p^{19} q^{32} + 7076309\, p^{24} q^{31} + 2532391\, p^{20} q^{32} + 7909\, p^{67} q^{21}$$
$$+ 25100\, p^{68} q^{24} + 3589\, p^{66} q^{19} + 399338\, p^{72} q^{38} + 47880646\, p^{55} q^{59} + 2126147\, p^{46} q^{71} + 2321205\, p^{47} q^{71} + 2501779\, p^{48} q^{71}$$
$$+ 46292276\, p^{53} q^{60} + 40543552\, p^{59} q^{57} + 53819538\, p^{53} q^{59} + 55940703\, p^{43} q^{58} + 1041813\, p^{70} q^{68} + 2209\, p^{83} q^{74} + 4499\, p^{83} q^{67}$$
$$+ 3299\, p^{83} q^{71} + 2930\, p^{83} q^{72} + 4250\, p^{83} q^{68} + 1873\, p^{83} q^{75} + 609398\, p^{75} q^{56} + 182903\, p^{71} q^{33} + 8294\, p^{68} q^{22} + 24068\, p^{69} q^{25}$$
$$+ 38600\, p^{69} q^{26} + 14747\, p^{68} q^{23} + 2852\, q^{36} p^{8} + 687\, p^{63} q^{15} + 4989\, p^{76} q^{32} + 3217\, p^{76} q^{31} + 48249615\, p^{60} q^{47} + 49364256\, p^{60} q^{48}$$
$$+ 27955552\, p^{35} q^{29} + 2982201\, q^{39} p^{20} + 1510969\, p^{43} q^{71} + 30308\, q^{38} p^{11} + 2047680\, q^{39} p^{19} + 20\, p^{86} q^{86} + 28\, p^{85} q^{86} + 13\, p^{83} q^{88}$$
$$+ 3017\, p^{49} q^{82} + 5779359\, p^{59} q^{30} + 2236414\, p^{58} q^{26} + 4408162\, p^{59} q^{29} + 34372212\, p^{62} q^{51} + 33785286\, p^{62} q^{52} + 945872\, p^{57} q^{23}$$
$$+ 11018\, p^{52} q^{13} + 145417\, p^{55} q^{18} + 38084\, p^{53} q^{15} + 16577916\, p^{60} q^{36} + 18336\, p^{53} q^{14} + 20236\, p^{81} q^{58} + 13602\, p^{77} q^{37} + 20949\, p^{81} q^{59}$$
$$+ 26445752\, p^{41} q^{61} + 5\, p^{88} q^{87} + 51134082\, p^{57} q^{57} + 2057550\, p^{72} q^{56} + 729490\, p^{68} q^{33} + 38600\, p^{65} q^{22} + 105962\, p^{66} q^{25} + 17\, p^{87} q^{85}$$
$$+ 5\, p^{82} q^{89} + 2347\, p^{64} q^{17} + 13488\, p^{66} q^{21} + 1734\, p^{63} q^{16} + 41794\, p^{67} q^{24} + 6217\, p^{65} q^{19} + 645189\, p^{71} q^{38} + 4424667\, p^{25} q^{26}$$
$$+ 4616510\, p^{59} q^{69} + 4247961\, p^{54} q^{70} + 297507\, p^{68} q^{30} + 19469\, p^{64} q^{20} + 546967\, p^{16} q^{31} + 212049\, p^{14} q^{30} + 44090149\, p^{31} q^{37}$$
$$+ 35444320\, p^{30} q^{36} + 144926\, p^{72} q^{34} + 438317\, p^{73} q^{41} + 15281785\, q^{45} p^{26} + 8642838\, q^{45} p^{24} + 162161\, p^{66} q^{26} + 64626\, p^{65} q^{23}$$
$$+ 65804963\, p^{54} q^{57} + 15538082\, p^{37} q^{61} + 6936807\, p^{34} q^{62} + 13141902\, p^{36} q^{61} + 8993512\, p^{34} q^{61} + 10954510\, p^{35} q^{61} + 6047496\, p^{59} q^{68}$$
$$+ 372710\, q^{44} p^{16} + 683674\, q^{43} p^{17} + 241203\, q^{43} p^{15} + 414414\, q^{43} p^{16} + 846413\, p^{70} q^{69} + 806235\, p^{71} q^{68} + 15425\, p^{81} q^{54} + 8719\, p^{82} q^{57}$$
$$+ 3294\, p^{79} q^{38} + 13931\, p^{81} q^{53} + 10191\, p^{82} q^{60} + 1697350\, p^{60} q^{72} + 1814680\, p^{59} q^{72} + 1411370\, p^{56} q^{73} + 40\, p^{86} q^{84} + p^{90} q^{83}$$
$$+ 18162\, p^{56} q^{81} + 35482\, p^{55} q^{80} + 52401\, p^{45} q^{13} + 609432\, p^{48} q^{18} + 10644\, p^{49} q^{12} + 5593\, p^{48} q^{11} + 4153266\, p^{51} q^{70} + 58860021\, p^{59} q^{49}$$
$$+ 4676\, p^{83} q^{66} + 7162\, p^{80} q^{44} + 435\, p^{73} q^{23} + 8061\, p^{82} q^{56} + 68\, p^{69} q^{17} + 6634\, p^{81} q^{48} + 8968\, p^{80} q^{45} + 22064092\, p^{61} q^{60}$$
$$+ 15429118\, p^{56} q^{65} + 19833648\, p^{63} q^{58} + 15429118\, p^{65} q^{56} + 94521\, q^{75} p^{39} + 212337\, q^{74} p^{40} + 258758\, q^{74} p^{41} + 17817508\, p^{64} q^{57}$$
$$+ 20279482\, p^{43} q^{63} + 18424707\, p^{42} q^{63} + 22040522\, p^{44} q^{63} + 19753707\, p^{46} q^{64} + 26281875\, p^{47} q^{63} + 23659945\, p^{45} q^{63}$$

$$+ 25087771\, p^{46}\, q^{63} + 13\, p^{56}\, q^{9} + 44335791\, p^{56}\, q^{59} + 76873\, p^{59}\, q^{79} + 50301547\, p^{56}\, q^{58} + 54517336\, p^{55}\, q^{58} + 33064811\, p^{61}\, q^{56}$$
$$+ 36562\, p^{72}\, q^{78} + 13931\, p^{53}\, q^{81} + 27820635\, p^{63}\, q^{49} + 244292\, p^{57}\, q^{20} + 1215164\, p^{59}\, q^{25} + 363323\, p^{40}\, q^{73} + 926832\, q^{34}\, p^{17}$$
$$+ 3467961\, p^{61}\, q^{30} + 1319978\, p^{60}\, q^{26} + 2612694\, p^{61}\, q^{29} + 22569111\, p^{64}\, q^{51} + 22362087\, p^{64}\, q^{52} + 552206\, p^{59}\, q^{23} + 10241053\, p^{62}\, q^{36}$$
$$+ 16\, p^{82}\, q^{88} + 4\, p^{85}\, q^{89} + 5\, p^{83}\, q^{89} + p^{87}\, q^{90} + p^{83}\, q^{90} + p^{90}\, q^{88} + 4\, p^{88}\, q^{88} + 2\, p^{89}\, q^{88} + 8719\, p^{57}\, q^{82} + 1176\, p^{84}\, q^{74} + 2045\, p^{84}\, q^{67}$$
$$+ 1636\, p^{84}\, q^{71} + 1493\, p^{84}\, q^{72} + 1984\, p^{84}\, q^{68} + 1014\, p^{84}\, q^{75} + 6356100\, p^{24}\, q^{30} + 119531165\, p^{45}\, q^{38} + 147539105\, p^{45}\, q^{41}$$
$$+ 159811371\, p^{45}\, q^{43} + 154470731\, p^{45}\, q^{42} + 950\, q^{36}\, p^{7} + 5807\, q^{38}\, p^{9} + 165858\, q^{41}\, p^{14} + 70\, p^{50}\, q^{8} + 10060\, p^{61}\, q^{17} + 53440\, p^{63}\, q^{21}$$
$$+ 7291\, p^{60}\, q^{16} + 156695\, p^{64}\, q^{24} + 25210\, p^{62}\, q^{19} + 2250864\, p^{68}\, q^{38} + 89504\, q^{41}\, p^{13} + 31333184\, q^{45}\, p^{29} + 27454\, q^{39}\, p^{11} + 77481\, q^{59}\, p^{19}$$
$$+ 161565\, q^{60}\, p^{21} + 372\, q^{34}\, p^{6} + 6760122\, q^{44}\, p^{23} + 2501779\, q^{43}\, p^{20} + 4849349\, q^{44}\, p^{22} + 3639601\, q^{43}\, p^{21} + 53220108\, p^{45}\, q^{59}$$
$$+ 2538\, p^{78}\, q^{81} + 53819538\, p^{32}\, q^{38} + 1428446\, p^{19}\, q^{29} + 1856598\, p^{68}\, q^{37} + 3639601\, p^{70}\, q^{48} + 4118215\, p^{69}\, q^{45} + 348672\, p^{66}\, q^{28}$$
$$+ 213\, p^{51}\, q^{9} + 6102383\, p^{25}\, q^{28} + 135962\, p^{53}\, q^{17} + 327294\, p^{67}\, q^{29} + 7160476\, q^{43}\, p^{23} + 35\, p^{87}\, q^{82} + 23841\, p^{69}\, q^{80} + 14176\, p^{76}\, q^{78}$$
$$+ 3455031\, p^{59}\, q^{70} + 7\, p^{67}\, q^{14} + 3\, p^{66}\, q^{13} + 249596\, p^{72}\, q^{36} + 34795\, p^{79}\, q^{48} + 44135\, p^{78}\, q^{45} + 8931709\, p^{27}\, q^{28} + 572729\, p^{16}\, q^{32}$$
$$+ 16955952\, p^{65}\, q^{54} + 12867587\, p^{66}\, q^{55} + 15281785\, p^{65}\, q^{46} + 17842842\, p^{65}\, q^{51} + 17753500\, p^{65}\, q^{52} + 7837241\, p^{63}\, q^{36}$$
$$+ 17718663\, p^{65}\, q^{50} + 14254400\, p^{64}\, q^{42} + 15759714\, p^{64}\, q^{43} + 9748887\, p^{64}\, q^{39} + 11214470\, p^{64}\, q^{40} + 16148297\, p^{65}\, q^{47}$$
$$+ 16857083\, p^{65}\, q^{48} + 226\, p^{71}\, q^{20} + 12374\, p^{81}\, q^{52} + 10854\, p^{81}\, q^{51} + 5\, p^{62}\, q^{11} + 7014946\, p^{29}\, q^{25} + 35710373\, p^{59}\, q^{40} + 38600\, q^{69}\, p^{26}$$
$$+ 14421\, q^{69}\, p^{24} + 5\, p^{16}\, q^{2} + 90\, p^{22}\, q^{4} + 22\, p^{20}\, q^{3} + 2923690\, p^{35}\, q^{20} + 2057550\, p^{35}\, q^{19} + 5702888\, p^{36}\, q^{22} + 7624845\, p^{36}\, q^{23}$$
$$+ 20238713\, p^{36}\, q^{27} + 26024133\, p^{37}\, q^{28} + 12254421\, q^{35}\, p^{25} + 19107597\, q^{35}\, p^{27} + 24770027\, q^{36}\, p^{28} + 7330534\, q^{35}\, p^{23} + 2489495\, p^{67}\, q^{67}$$
$$+ 1041813\, p^{68}\, q^{70} + 41483607\, p^{55}\, q^{60} + 30464558\, p^{61}\, q^{57} + 36605192\, p^{59}\, q^{58} + 37530007\, q^{37}\, p^{30} + 136067\, p^{33}\, q^{13} + 376656\, p^{33}\, q^{15}$$
$$+ 767387\, q^{30}\, p^{17} + 22508679\, p^{64}\, q^{50} + 1929077\, p^{61}\, q^{28} + 18549008\, p^{64}\, q^{45} + 18424707\, p^{63}\, q^{42} + 11014577\, p^{63}\, q^{38} + 20279482\, p^{63}\, q^{43}$$
$$+ 9359022\, p^{63}\, q^{37} + 12782613\, p^{63}\, q^{39} + 14631827\, p^{63}\, q^{40} + 20780690\, p^{64}\, q^{47} + 21599289\, p^{64}\, q^{48} + 664\, p^{82}\, q^{81} + 56133\, q^{39}\, p^{12}$$
$$+ 13931\, q^{38}\, p^{10} + 59617689\, p^{58}\, q^{44} + 107533\, q^{39}\, p^{13} + 336055\, q^{39}\, p^{15} + 1765568\, p^{70}\, q^{65} + 1148809\, p^{71}\, q^{66} + 3193533\, p^{70}\, q^{60}$$
$$+ 3894194\, p^{70}\, q^{57} + p^{68}\, q^{89} + 86518814\, q^{56}\, p^{46} + 94790662\, q^{55}\, p^{45} + 53\, p^{86}\, q^{83} + 10364937\, p^{29}\, q^{27} + 14154473\, p^{30}\, q^{28} + 96638\, p^{49}\, q^{15}$$
$$+ 35835306\, p^{56}\, q^{36} + 49713\, p^{49}\, q^{14} + 47\, q^{28}\, p^{4} + 28114620\, p^{63}\, q^{50} + 2546064\, p^{60}\, q^{28} + 23659945\, p^{63}\, q^{45} + 23401895\, p^{62}\, q^{42}$$
$$+ 14249151\, p^{62}\, q^{38} + 25645625\, p^{62}\, q^{43} + 12166522\, p^{62}\, q^{37} + 16456671\, p^{62}\, q^{39} + 60680\, p^{56}\, q^{17} + 18751189\, p^{62}\, q^{40} + 26281875\, p^{63}\, q^{47}$$
$$+ 27202174\, p^{63}\, q^{48} + 68\, p^{78}\, q^{87} + 2281077\, p^{65}\, q^{69} + 3297836\, q^{63}\, p^{32} + 411380\, p^{71}\, q^{36} + 1367824\, p^{73}\, q^{52} + 1316126\, p^{73}\, q^{51}$$

$$+ 15420\, p^{68} q^{81} + 3297836\, p^{63} q^{32} + 1028004\, p^{62} q^{27} + 2546064\, p^{63} q^{31} + 13386860\, p^{66} q^{49} + 11\, p^{34} q^{4} + 38\, p^{37} q^{5} + 1765568\, p^{65} q^{70}$$
$$+ 1331535\, p^{58} q^{73} + 1018895\, p^{62} q^{73} + 1110715\, p^{61} q^{73} + 531\, p^{70} q^{20} + 27454\, p^{80} q^{52} + 24483\, p^{80} q^{51} + p^{45} q^{5} + 14\, p^{61} q^{11}$$
$$+ 11002902\, p^{65} q^{60} + 16049422\, p^{63} q^{60} + 11861147\, p^{64} q^{61} + 16049422\, p^{60} q^{63} + 14417817\, p^{62} q^{62} + 6\, p^{81} q^{89} + 13391353\, p^{64} q^{60}$$
$$+ 14919388\, p^{64} q^{59} + 14449834\, p^{65} q^{57} + 51\, p^{80} q^{87} + 44\, p^{81} q^{87} + 14449834\, p^{57} q^{65} + 11002902\, p^{60} q^{65} + 12205014\, p^{59} q^{65}$$
$$+ 7440461\, p^{63} q^{65} + 5341560\, p^{65} q^{65} + 3684507\, p^{66} q^{66} + 9790017\, p^{61} q^{65} + 6350490\, p^{64} q^{65} + 8593690\, p^{62} q^{65} + 13364141\, p^{58} q^{65}$$
$$+ 57641346\, p^{32} q^{40} + 90741461\, p^{36} q^{39} + 82030982\, p^{35} q^{39} + 2546064\, q^{63} p^{31} + 4408162\, q^{62} p^{32} + 5575678\, q^{62} p^{33} + 46602052\, p^{46} q^{60}$$
$$+ 57641346\, p^{51} q^{59} + 3894194\, p^{57} q^{70} + 78\, p^{67} q^{87} + 27755976\, p^{44} q^{62} + 463\, p^{79} q^{84} + 122\, p^{85} q^{82} + 143\, p^{84} q^{83} + 105907837\, p^{46} q^{37}$$
$$+ 182903\, p^{58} q^{20} + 2612694\, p^{62} q^{30} + 985220\, p^{61} q^{26} + 1954882\, p^{62} q^{29} + 409593\, p^{60} q^{23} + 13348614\, p^{66} q^{54} + 9997620\, p^{67} q^{55}$$
$$+ 11605931\, p^{66} q^{46} + 13861236\, p^{66} q^{51} + 13853728\, p^{66} q^{52} + 5884994\, p^{64} q^{36} + 13704315\, p^{66} q^{50} + 10825670\, p^{65} q^{42}$$
$$+ 12026626\, p^{65} q^{43} + 7293979\, p^{65} q^{39} + 8433247\, p^{65} q^{40} + 12320441\, p^{66} q^{47} + 12920964\, p^{66} q^{48} + 1433289\, p^{62} q^{28} + 14286264\, p^{65} q^{45}$$
$$+ 8358861\, p^{64} q^{38} + 7065156\, p^{64} q^{37} + 44537\, p^{57} q^{17} + 2018936\, p^{67} q^{68} + p^{90} q^{81} + 519651\, p^{71} q^{37} + 1087296\, p^{73} q^{48} + 1259895\, p^{72} q^{45}$$
$$+ 90088\, p^{69} q^{28} + 12254421\, q^{66} p^{56} + 131841\, p^{69} q^{29} + 646444\, p^{74} q^{63} + 709071\, p^{74} q^{62} + 767387\, p^{74} q^{61} + 9039408\, q^{67} p^{57} + 883\, p^{47} q^{9}$$
$$+ 329\, p^{46} q^{8} + p^{13} q + 107188486\, p^{37} q^{41} + 399338\, p^{53} q^{19} + 1250853\, p^{54} q^{22} + 68446383\, p^{33} q^{42} + 119971771\, p^{39} q^{40}$$
$$+ 97496351\, p^{36} q^{41} + 1426527\, p^{55} q^{73} + 886828\, p^{52} q^{74} + 62\, p^{26} q^{4} + 490506\, p^{45} q^{74} + 555412\, p^{46} q^{74} + 620241\, p^{47} q^{74} + 683674\, p^{48} q^{74}$$
$$+ 2913706\, p^{61} q^{70} + 2047680\, p^{52} q^{72} + 193\, p^{29} q^{5} + 446\, p^{46} q^{83} + 549\, p^{52} q^{84} + 97\, p^{51} q^{85} + 809\, p^{54} q^{84} + 950\, p^{55} q^{84} + 1108\, p^{56} q^{84}$$
$$+ 8337\, p^{75} q^{80} + 23\, p^{47} q^{85} + 70\, p^{50} q^{85} + 51\, p^{49} q^{85} + p^{46} q^{86} + 34\, p^{48} q^{85} + 136341047\, p^{42} q^{40} + 120859505\, p^{44} q^{38} + 130325287\, p^{43} q^{39}$$
$$+ 147797104\, p^{44} q^{41} + 152267568\, p^{42} q^{43} + 146320722\, p^{41} q^{43} + 156583938\, p^{43} q^{43} + 159124760\, p^{44} q^{43} + 154274166\, p^{44} q^{42} + 4\, p^{18} q^{2}$$
$$+ 8061\, p^{35} q^{9} + 1421\, p^{33} q^{7} + 3557\, p^{34} q^{8} + 1319978\, q^{60} p^{26} + 621825\, q^{60} p^{24} + 409593\, q^{60} p^{23} + 261718\, q^{60} p^{22} + 3424663\, q^{60} p^{29}$$
$$+ 2546064\, q^{60} p^{28} + 679352\, q^{61} p^{25} + 1853586\, q^{60} p^{27} + 162652878\, p^{46} q^{44} + 162652878\, p^{47} q^{45} + 136935412\, p^{46} q^{40} + 798692\, p^{41} q^{17}$$
$$+ 180923\, p^{40} q^{14} + 2663129\, p^{42} q^{20} + 1793564\, p^{42} q^{19} + 5164081\, p^{43} q^{22} + 7160476\, p^{43} q^{23} + 26281875\, p^{44} q^{28} + 315376\, p^{40} q^{15}$$
$$+ p^{90} q^{80} + 60680\, q^{74} p^{35} + 129803360\, p^{45} q^{39} + 162\, p^{85} q^{81} + 44\, p^{87} q^{81} + 15281785\, q^{65} p^{46} + 17386914\, q^{65} p^{49} + 16857083\, q^{65} p^{48}$$
$$+ 17753500\, q^{65} p^{52} + 16955952\, q^{65} p^{54} + 12867587\, q^{66} p^{55} + 17718663\, q^{65} p^{50} + 17455154\, q^{65} p^{53} + 17842842\, q^{65} p^{51}$$
$$+ 16148297\, q^{65} p^{47} + 40096\, q^{42} p^{12} + 9352\, q^{41} p^{10} + 79961\, q^{42} p^{13} + 4496952\, q^{45} p^{22} + 10854\, q^{40} p^{10} + 5062\, q^{39} p^{9} + 1542484\, q^{44} p^{19}$$
$$+ 45476\, q^{41} p^{12} + 150103\, q^{42} p^{14} + 897956\, q^{45} p^{18} + 4118215\, q^{46} p^{22} + 3397643\, q^{44} p^{21} + 2321205\, q^{44} p^{20} + 3132467\, q^{45} p^{21}$$

$$+ 14286264\, q^{46}\, p^{26} + 8001833\, q^{46}\, p^{24} + 117898\, q^{44}\, p^{14} + 10798168\, q^{46}\, p^{25} + 18549008\, q^{46}\, p^{27} + 555412\, q^{45}\, p^{17} + 34795\, q^{43}\, p^{12}$$
$$+ 5805389\, q^{46}\, p^{23} + 119531165\, p^{38}\, q^{45} + 65299117\, p^{58}\, q^{46} + 127266075\, p^{39}\, q^{46} + 3202\, p^{56}\, q^{83} + 312\, p^{82}\, q^{83} + 1579\, p^{79}\, q^{36}$$
$$+ 308152\, p^{70}\, q^{73} + 187850\, p^{76}\, q^{67} + 504073\, p^{69}\, q^{72} + 454875\, p^{68}\, q^{73} + 581635\, p^{64}\, q^{74} + 377536\, p^{73}\, q^{69} + 13\, p^{53}\, q^{8} + 5\, p^{47}\, q^{6}$$
$$+ 731101\, p^{67}\, q^{72} + 611998\, p^{68}\, q^{72} + 530467\, p^{70}\, q^{71} + 2126147\, q^{45}\, p^{20} + 1403336\, q^{45}\, p^{19} + 267238\, q^{42}\, p^{15} + 214665\, q^{44}\, p^{15}$$
$$+ 18660\, q^{42}\, p^{11} + 27755976\, q^{47}\, p^{29} + 21553\, q^{41}\, p^{11} + 70496\, q^{43}\, p^{13} + 994687\, q^{44}\, p^{18} + 133920\, q^{43}\, p^{14} + 620241\, q^{44}\, p^{17}$$
$$+ 11605931\, q^{45}\, p^{25} + 19753707\, q^{45}\, p^{27} + 23659945\, q^{46}\, p^{28} + 6304197\, q^{45}\, p^{23} + 110556\, p^{73}\, q^{35} + 579777\, p^{75}\, q^{53} + 427341\, p^{74}\, q^{44}$$
$$+ 241001\, p^{76}\, q^{65} + 141326\, p^{77}\, q^{66} + 353781\, p^{76}\, q^{60} + 381285\, p^{76}\, q^{57} + 596821\, p^{75}\, q^{54} + 330561\, p^{75}\, q^{46} + 376418\, p^{76}\, q^{55}$$
$$+ 969968\, p^{67}\, q^{71} + 21371\, p^{62}\, q^{81} + 67181\, p^{71}\, q^{30} + 206\, p^{80}\, q^{85} + 132\, p^{79}\, q^{86} + 454875\, p^{73}\, q^{68} + 58593582\, p^{59}\, q^{50} + 1813\, p^{52}\, q^{83}$$
$$+ 60012\, p^{58}\, q^{18} + 15388\, p^{56}\, q^{15} + 3096334\, p^{64}\, q^{33} + 187922\, p^{61}\, q^{22} + 492200\, p^{62}\, q^{25} + 7330534\, p^{68}\, q^{56} + 5530642\, p^{68}\, q^{60}$$
$$+ 6961124\, p^{68}\, q^{57} + 2893555\, p^{68}\, q^{65} + 1930958\, p^{69}\, q^{66} + 29670308\, p^{29}\, q^{46} + 1766999\, q^{56}\, p^{24} + 42795\, q^{55}\, p^{16} + 105907\, q^{54}\, p^{17}$$
$$+ 28762\, q^{54}\, p^{15} + 56854\, q^{54}\, p^{16} + 3531585\, q^{56}\, p^{26} + 41931012\, p^{31}\, q^{47} + 36609836\, p^{30}\, q^{46} + 3\, p^{71}\, q^{89} + 4\, p^{73}\, q^{89} + 5\, p^{75}\, q^{89} + 4\, p^{74}\, q^{89}$$
$$+ 5\, p^{76}\, q^{89} + 6\, p^{78}\, q^{89} + 6\, p^{77}\, q^{89} + p^{78}\, q^{90} + 516031\, p^{74}\, q^{65} + 315329\, p^{75}\, q^{66} + 820011\, p^{74}\, q^{60} + 926832\, p^{74}\, q^{57} + 41819323\, p^{50}\, q^{61}$$
$$+ 51073073\, p^{54}\, q^{59} + 16527168\, p^{41}\, q^{63} + 499\, p^{32}\, q^{6} + 11605931\, p^{45}\, q^{25} + 19753707\, p^{45}\, q^{27} + 3397643\, p^{44}\, q^{21} + 8642838\, p^{45}\, q^{24}$$
$$+ 15281785\, p^{45}\, q^{26} + 62769023\, p^{46}\, q^{33} + 36609836\, p^{46}\, q^{30} + 29670308\, p^{46}\, q^{29} + 53220108\, p^{46}\, q^{32} + 44472455\, p^{46}\, q^{31}$$
$$+ 72998597\, p^{46}\, q^{34} + 83739789\, p^{46}\, q^{35} + 90959523\, p^{47}\, q^{36} + 30308\, p^{38}\, q^{11} + 56133\, p^{39}\, q^{12} + 13931\, p^{38}\, q^{10} + 98736\, p^{40}\, q^{13} + 18\, p^{42}\, q^{84}$$
$$+ 13\, p^{24}\, q^{3} + 1087296\, p^{43}\, q^{18} + 454846\, p^{42}\, q^{16} + 112836905\, p^{47}\, q^{38} + 141902806\, p^{47}\, q^{41} + 155584199\, p^{47}\, q^{43} + 149477776\, p^{47}\, q^{42}$$
$$+ 123309231\, p^{47}\, q^{39} + 598\, p^{83}\, q^{47} + 213\, p^{82}\, q^{40} + 135\, p^{82}\, q^{39} + p^{74}\, q^{19} + 298\, p^{86}\, q^{69} + 299\, p^{86}\, q^{70} + 44\, p^{81}\, q^{34} + 315\, p^{82}\, q^{41} + 12\, p^{78}\, q^{26}$$
$$+ 111\, p^{80}\, q^{33} + 3\, p^{88}\, q^{61} + 5\, p^{88}\, q^{63} + 9564695\, q^{67}\, p^{56} + 367\, p^{76}\, q^{27} + 61715223\, p^{58}\, q^{53} + 101962711\, p^{47}\, q^{37} + 53\, p^{27}\, q^{4} + 168\, p^{30}\, q^{5}$$
$$+ 7328\, p^{36}\, q^{9} + 1261\, p^{34}\, q^{7} + 3202\, p^{35}\, q^{8} + 160022426\, p^{47}\, q^{44} + 158616368\, p^{48}\, q^{45} + 133090192\, p^{47}\, q^{40} + 743622\, p^{42}\, q^{17}$$
$$+ 165858\, p^{41}\, q^{14} + 2501779\, p^{43}\, q^{20} + 1674021\, p^{43}\, q^{19} + 4849349\, p^{44}\, q^{22} + 6760122\, p^{44}\, q^{23} + 25087771\, p^{45}\, q^{28} + 292282\, p^{41}\, q^{15}$$
$$+ 46\, p^{47}\, q^{7} + 2689799\, p^{71}\, q^{58} + 2532391\, p^{71}\, q^{59} + 129803360\, p^{39}\, q^{45} + 136935412\, p^{40}\, q^{46} + 1986726\, p^{42}\, q^{70} + 50364628\, p^{32}\, q^{47}$$
$$+ 44472455\, p^{31}\, q^{46} + 13372\, p^{44}\, q^{11} + 25063\, p^{45}\, q^{12} + 135\, p^{39}\, q^{82} + 546967\, p^{60}\, q^{75} + 4\, p^{60}\, q^{10} + 234685\, p^{75}\, q^{68} + 10428\, p^{61}\, q^{82}$$
$$+ 325158\, p^{71}\, q^{72} + 408459\, p^{70}\, q^{72} + 539659\, p^{67}\, q^{73} + 676193\, p^{70}\, q^{70} + 38508054\, p^{46}\, q^{61} + 25645625\, p^{43}\, q^{62} + p^{24}\, q^{2}$$
$$+ 14631827\, p^{40}\, q^{63} + 139230361\, p^{40}\, q^{45} + 145550859\, p^{41}\, q^{46} + 289251\, q^{46}\, p^{16} + 1259895\, q^{46}\, p^{19} + 490506\, q^{46}\, p^{17} + 188500\, q^{45}\, p^{15}$$

$$+ 102245\, q^{45}\, p^{14} + 703075\, q^{47}\, p^{18} + 1715825\, q^{47}\, p^{20} + 1116306\, q^{47}\, p^{19} + 800086\, q^{46}\, p^{18} + 1922758\, q^{46}\, p^{20} + 2561673\, q^{47}\, p^{21}$$
$$+ 61203\, q^{44}\, p^{13} + 10241053\, p^{36}\, q^{62} + 12166522\, p^{37}\, q^{62} + 14249151\, p^{38}\, q^{62} + 16456671\, p^{39}\, q^{62} + 2851004\, q^{46}\, p^{21} + 330561\, q^{45}\, p^{16}$$
$$+ 6602836\, q^{48}\, p^{24} + 3722881\, q^{47}\, p^{22} + 5279003\, q^{47}\, p^{23} + 4058211\, p^{56}\, q^{70} + 34383829\, q^{47}\, p^{30} + 35\, p^{82}\, q^{87} + 85\, p^{38}\, q^{82} + 25210\, q^{72}\, p^{29}$$
$$+ 16385\, q^{72}\, p^{28} + 10274\, q^{72}\, p^{27} + 58593582\, p^{50}\, q^{59} + 800086\, p^{45}\, q^{73} + 310536\, p^{42}\, q^{74} + 703075\, p^{44}\, q^{73} + 520591\, p^{42}\, q^{73}$$
$$+ 609432\, p^{43}\, q^{73} + 7268986\, p^{58}\, q^{30} + 2833834\, p^{57}\, q^{26} + 5575678\, p^{58}\, q^{29} + 41440000\, p^{61}\, q^{51} + 40576603\, p^{61}\, q^{52} + 1173\, p^{46}\, q^{9}$$
$$+ 446\, p^{45}\, q^{8} + 1423988\, p^{73}\, q^{54} + 897956\, p^{73}\, q^{46} + 944988\, p^{74}\, q^{55} + 59617689\, p^{44}\, q^{58} + 62769023\, p^{45}\, q^{58} + 228\, q^{81}\, p^{37} + 44\, q^{81}\, p^{34}$$
$$+ 82\, q^{81}\, p^{35} + 354\, q^{81}\, p^{38} + 53220108\, p^{32}\, q^{46} + 69575837\, p^{34}\, q^{47} + 62769023\, p^{33}\, q^{46} + 1204348\, p^{68}\, q^{35} + 3722881\, p^{69}\, q^{44}$$
$$+ 4267418\, p^{70}\, q^{53} + 7315127\, p^{24}\, q^{47} + 15759714\, p^{27}\, q^{48} + 9922488\, p^{25}\, q^{47} + 13190202\, p^{26}\, q^{47} + 59617689\, p^{33}\, q^{47} + 3876\, p^{58}\, q^{83}$$
$$+ 49369\, q^{76}\, p^{39} + 15196\, q^{74}\, p^{31} + 117898\, q^{77}\, p^{47} + 29\, q^{64}\, p^{13} + 764\, p^{78}\, q^{32} + 450\, p^{78}\, q^{31} + 3876\, p^{83}\, q^{58} + 2320\, p^{79}\, q^{37} + 4180\, p^{83}\, q^{59}$$
$$+ 5505\, p^{78}\, q^{79} + 2347\, p^{74}\, q^{27} + 12374\, p^{52}\, q^{81} + 467\, p^{82}\, q^{82} + 432\, p^{33}\, q^{6} + 10798168\, p^{46}\, q^{25} + 18549008\, p^{46}\, q^{27} + 3132467\, p^{45}\, q^{21}$$
$$+ 8001833\, p^{46}\, q^{24} + 14286264\, p^{46}\, q^{26} + 59617689\, p^{47}\, q^{33} + 34383829\, p^{47}\, q^{30} + 27755976\, p^{47}\, q^{29} + 50364628\, p^{47}\, q^{32}$$
$$+ 41931012\, p^{47}\, q^{31} + 69575837\, p^{47}\, q^{34} + 80088762\, p^{47}\, q^{35} + 86242950\, p^{48}\, q^{36} + 27454\, p^{39}\, q^{11} + 50904\, p^{40}\, q^{12} + 12374\, p^{39}\, q^{10}$$
$$+ 89504\, p^{41}\, q^{13} + 994687\, p^{44}\, q^{18} + 414414\, p^{43}\, q^{16} + 107688691\, p^{48}\, q^{38} + 136709612\, p^{48}\, q^{41} + 150809771\, p^{48}\, q^{43} + 144452541\, p^{48}\, q^{42}$$
$$+ 118056915\, p^{48}\, q^{39} + 96993733\, p^{48}\, q^{37} + 47\, p^{28}\, q^{4} + 146\, p^{31}\, q^{5} + 6582\, p^{37}\, q^{9} + 1108\, p^{35}\, q^{7} + 2852\, p^{36}\, q^{8} + 155584199\, p^{48}\, q^{44}$$
$$+ 152855656\, p^{49}\, q^{45} + 127824437\, p^{48}\, q^{40} + 683674\, p^{43}\, q^{17} + 150103\, p^{42}\, q^{14} + 2321205\, p^{44}\, q^{20} + 1542484\, p^{44}\, q^{19} + 4496952\, p^{45}\, q^{22}$$
$$+ 6304197\, p^{45}\, q^{23} + 23659945\, p^{46}\, q^{28} + 267238\, p^{42}\, q^{15} + 147539105\, p^{41}\, q^{45} + 152855656\, p^{42}\, q^{46} + 80088762\, p^{35}\, q^{47}$$
$$+ 72998597\, p^{34}\, q^{46} + 20279482\, p^{28}\, q^{48} + 17205140\, p^{27}\, q^{47} + 139\, p^{55}\, q^{10} + 396562\, p^{70}\, q^{34} + 1123715\, p^{71}\, q^{41} + 9002325\, q^{48}\, p^{25}$$
$$+ 5\, p^{70}\, q^{16} + 344\, p^{50}\, q^{84} + 18\, p^{69}\, q^{88} + 5\, p^{44}\, q^{85} + 10395\, p^{74}\, q^{80} + 975450\, q^{48}\, p^{19} + 12026626\, q^{48}\, p^{26} + 4517481\, p^{60}\, q^{30}$$
$$+ 1733945\, p^{59}\, q^{26} + 3424663\, p^{60}\, q^{29} + 28076226\, p^{63}\, q^{51} + 27704453\, p^{63}\, q^{52} + 729490\, p^{58}\, q^{23} + 110556\, p^{56}\, q^{18} + 28762\, p^{54}\, q^{15}$$
$$+ 13141902\, p^{61}\, q^{36} + 45830812\, p^{58}\, q^{57} + 1986726\, q^{49}\, p^{21} + 427341\, q^{47}\, p^{17} + 11527159\, p^{57}\, q^{66} + 320056\, p^{71}\, q^{35} + 1404356\, p^{73}\, q^{53}$$
$$+ 1116306\, p^{72}\, q^{44} + 8436954\, p^{58}\, q^{67} + 3\, p^{72}\, q^{89} + 2\, p^{70}\, q^{89} + 990\, p^{75}\, q^{27} + 9\, p^{85}\, q^{88} + 1510969\, q^{48}\, p^{20} + 31744296\, p^{39}\, q^{59}$$
$$+ 35710373\, p^{40}\, q^{59} + 39656925\, p^{41}\, q^{59} + 4958391\, p^{58}\, q^{69} + 26\, p^{77}\, q^{88} + 7\, p^{79}\, q^{89} + 21\, p^{80}\, q^{88} + 25\, p^{78}\, q^{88} + 23\, p^{79}\, q^{88} + 26\, p^{75}\, q^{88}$$
$$+ 27\, p^{76}\, q^{88} + 4925183\, p^{67}\, q^{63} + 5633169\, p^{67}\, q^{62} + 6356100\, p^{67}\, q^{61} + 4245821\, p^{67}\, q^{64} + 4484549\, q^{67}\, p^{40} + 5171425\, q^{67}\, p^{41}$$
$$+ 6602836\, q^{67}\, p^{43} + 5882229\, q^{67}\, p^{42} + 7315127\, q^{67}\, p^{44} + 229312\, q^{63}\, p^{24} + 146272\, q^{63}\, p^{23} + p^{87}\, q^{51} + 5\, p^{87}\, q^{55} + p^{86}\, q^{46} + 7\, p^{88}\, q^{64}$$

$$+ 515159\, q^{63}\, p^{26} + 59915\, q^{64}\, p^{22} + 6216091\, q^{66}\, p^{40} + 1028004\, q^{64}\, p^{29} + 4688\, q^{61}\, p^{16} + 3217\, q^{60}\, p^{15} + 16385\, q^{63}\, p^{19} + 348672\, q^{63}\, p^{25}$$
$$+ 521\, q^{80}\, p^{36} + 67181\, q^{71}\, p^{30} + 741856\, q^{64}\, p^{28} + 162161\, q^{65}\, p^{25} + 5\, q^{47}\, p^{6} + 21527\, p^{81}\, q^{61} + 20967\, p^{81}\, q^{63} + 21371\, p^{81}\, q^{62}$$
$$+ 4267418\, p^{53}\, q^{70} + 917628\, q^{66}\, p^{31} + 3119217\, q^{66}\, p^{36} + 2527341\, q^{66}\, p^{35} + 1578687\, q^{66}\, p^{33} + 2014786\, q^{66}\, p^{34} + 1215164\, q^{66}\, p^{32}$$
$$+ 5346626\, q^{66}\, p^{39} + 4534339\, q^{66}\, p^{38} + 2684859\, q^{67}\, p^{37} + 4330469\, q^{65}\, p^{36} + 50301547\, p^{58}\, q^{56} + 1930958\, p^{66}\, q^{69} + 45\, p^{85}\, q^{85} + 4\, p^{89}\, q^{84}$$
$$+ p^{90}\, q^{84} + 2353926\, p^{60}\, q^{71} + 2923690\, p^{56}\, q^{71} + 133920\, q^{77}\, p^{48} + 165858\, q^{77}\, p^{50} + 194668\, q^{77}\, p^{52} + 180923\, q^{77}\, p^{51} + 206853\, q^{77}\, p^{53}$$
$$+ 216881\, q^{77}\, p^{54} + 128162\, q^{78}\, p^{55} + 150103\, q^{77}\, p^{49} + 456043\, p^{67}\, q^{30} + 30314\, p^{63}\, q^{20} + 70\, p^{41}\, q^{6} + 4579\, p^{52}\, q^{12} + 2366\, p^{51}\, q^{11}$$
$$+ 8173\, p^{53}\, q^{13} + 13602\, p^{54}\, q^{14} + 154470731\, p^{42}\, q^{45} + 158616368\, p^{43}\, q^{46} + 6\, p^{89}\, q^{77} + p^{90}\, q^{78} + 90959523\, p^{36}\, q^{47} + 83739789\, p^{35}\, q^{46}$$
$$+ 1856598\, p^{54}\, q^{23} + 22040522\, p^{28}\, q^{47} + 39053293\, p^{31}\, q^{48} + 101962711\, p^{37}\, q^{47} + 25645625\, p^{29}\, q^{48} + 4738269\, p^{23}\, q^{48}$$
$$+ 31900100\, p^{30}\, q^{48} + 8063313\, p^{25}\, q^{49} + 3322153\, p^{22}\, q^{48} + 2271126\, p^{21}\, q^{48} + 8340\, p^{63}\, q^{18} + 2011\, p^{61}\, q^{15} + 781\, p^{83}\, q^{79}$$
$$+ 16644258\, p^{62}\, q^{61} + 14154473\, p^{63}\, q^{61} + 17958411\, p^{59}\, q^{63} + 18953570\, p^{60}\, q^{62} + 16644258\, p^{61}\, q^{62} + 53\, p^{65}\, q^{14} + 29\, p^{64}\, q^{13}$$
$$+ 774\, p^{48}\, q^{83} + 14421\, p^{69}\, q^{24} + 237952\, p^{73}\, q^{38} + 381293\, p^{76}\, q^{56} + 107101\, p^{72}\, q^{33} + 22122\, p^{70}\, q^{26} + 82305\, p^{73}\, q^{34} + 258758\, p^{74}\, q^{41}$$
$$+ 659579\, p^{71}\, q^{69} + 372\, p^{34}\, q^{6} + 9922488\, p^{47}\, q^{25} + 17205140\, p^{47}\, q^{27} + 2851004\, p^{46}\, q^{21} + 7315127\, p^{47}\, q^{24} + 13190202\, p^{47}\, q^{26}$$
$$+ 55940703\, p^{48}\, q^{33} + 31900100\, p^{48}\, q^{30} + 25645625\, p^{48}\, q^{29} + 47087040\, p^{48}\, q^{32} + 39053293\, p^{48}\, q^{31} + 65518657\, p^{48}\, q^{34}$$
$$+ 75678183\, p^{48}\, q^{35} + 80783958\, p^{49}\, q^{36} + 24483\, p^{40}\, q^{11} + 45476\, p^{41}\, q^{12} + 10854\, p^{40}\, q^{10} + 79961\, p^{42}\, q^{13} + 897956\, p^{45}\, q^{18}$$
$$+ 372710\, p^{44}\, q^{16} + 101542544\, p^{49}\, q^{38} + 130142582\, p^{49}\, q^{41} + 144452541\, p^{49}\, q^{43} + 137937452\, p^{49}\, q^{42} + 111680149\, p^{49}\, q^{39}$$
$$+ 91160477\, p^{49}\, q^{37} + 42711\, p^{59}\, q^{18} + 10874\, p^{57}\, q^{15} + 5807\, p^{38}\, q^{9} + 950\, p^{36}\, q^{7} + 2488\, p^{37}\, q^{8} + 149477776\, p^{49}\, q^{44} + 145550859\, p^{50}\, q^{45}$$
$$+ 121301993\, p^{49}\, q^{40} + 620241\, p^{44}\, q^{17} + 133920\, p^{43}\, q^{14} + 2126147\, p^{45}\, q^{20} + 1403336\, p^{45}\, q^{19} + 4118215\, p^{46}\, q^{22} + 5805389\, p^{46}\, q^{23}$$
$$+ 22040522\, p^{47}\, q^{28} + 241203\, p^{43}\, q^{15} + 159811371\, p^{43}\, q^{45} + 162652878\, p^{44}\, q^{46} + 47087040\, p^{32}\, q^{48} + 112836905\, p^{38}\, q^{47}$$
$$+ 10825670\, p^{26}\, q^{49} + 4\, p^{89}\, q^{74} + p^{89}\, q^{67} + 3\, p^{89}\, q^{71} + p^{89}\, q^{68} + 3\, p^{89}\, q^{72} + 5882229\, q^{49}\, p^{24} + 4197630\, q^{49}\, p^{23} + 2924911\, q^{49}\, p^{22} + q^{83}\, p^{35}$$
$$+ 29670308\, p^{45}\, q^{62} + 31333184\, p^{46}\, q^{62} + 32690542\, p^{47}\, q^{62} + 33701003\, p^{48}\, q^{62} + 239\, p^{79}\, q^{32} + 134\, p^{79}\, q^{31} + 1421\, p^{84}\, q^{58} + 792\, p^{80}\, q^{37}$$
$$+ 1567\, p^{84}\, q^{59} + 13364141\, p^{65}\, q^{58} + 41704705\, p^{49}\, q^{61} + 6936807\, p^{62}\, q^{34} + 8493098\, p^{62}\, q^{35} + 2851004\, p^{45}\, q^{70} + 5575678\, p^{62}\, q^{33}$$
$$+ 21892480\, p^{64}\, q^{53} + 22040522\, p^{63}\, q^{44} + 356357\, p^{59}\, q^{22} + 20878\, p^{70}\, q^{80} + 7014946\, p^{62}\, q^{66} + 4925183\, p^{63}\, q^{67} + 2087927\, p^{53}\, q^{72}$$
$$+ 249596\, p^{36}\, q^{72} + 6429\, p^{74}\, q^{29} + 3975\, p^{74}\, q^{28} + 187\, p^{65}\, q^{15} + 16577916\, p^{36}\, q^{60} + 36609836\, p^{45}\, q^{61} + 23401895\, p^{42}\, q^{62}$$
$$+ 34383829\, p^{44}\, q^{61} + 29228746\, p^{42}\, q^{61} + 31900100\, p^{43}\, q^{61} + 12782613\, p^{39}\, q^{63} + 18751189\, p^{40}\, q^{62} + 21083620\, p^{41}\, q^{62}$$

$$+ 163384075\, p^{44} q^{45} + 164828637\, p^{45} q^{46} + 344\, p^{41} q^{7} + 123309231\, p^{39} q^{47} + 133090192\, p^{40} q^{47} + 55940703\, p^{33} q^{48} + 621825\, p^{67} q^{31}$$
$$+ 3850205\, p^{70} q^{49} + 1542001\, p^{71} q^{64} + 1049\, p^{56} q^{12} + 14\, p^{45} q^{6} + 65518657\, p^{34} q^{48} + 75678183\, p^{35} q^{48} + 29228746\, p^{30} q^{49}$$
$$+ 348672\, p^{63} q^{25} + 5510282\, p^{69} q^{56} + 23401895\, p^{29} q^{49} + 18424707\, p^{28} q^{49} + 2236414\, p^{65} q^{33} + 131841\, p^{62} q^{22} + 7127259\, p^{25} q^{50}$$
$$+ 14254400\, p^{27} q^{49} + 10948\, q^{59} p^{16} + 27\, p^{73} q^{20} + 1813\, p^{83} q^{52} + 1513\, p^{83} q^{51} + 460\, p^{82} q^{42} + 325\, p^{80} q^{35} + 990\, p^{83} q^{49} + 2071\, p^{84} q^{64}$$
$$+ 257\, p^{78} q^{30} + 2852\, p^{83} q^{55} + 1538\, p^{82} q^{46} + 9002325\, p^{48} q^{25} + 15759714\, p^{48} q^{27} + 2561673\, p^{47} q^{21} + 6602836\, p^{48} q^{24}$$
$$+ 12026626\, p^{48} q^{26} + 51852222\, p^{49} q^{33} + 29228746\, p^{49} q^{30} + 23401895\, p^{49} q^{29} + 43482640\, p^{49} q^{32} + 35926823\, p^{49} q^{31}$$
$$+ 60947827\, p^{49} q^{34} + 70647489\, p^{49} q^{35} + 74749884\, p^{50} q^{36} + 21553\, p^{41} q^{11} + 40096\, p^{42} q^{12} + 9352\, p^{41} q^{10} + 70496\, p^{43} q^{13}$$
$$+ 800086\, p^{46} q^{18} + 330561\, p^{45} q^{16} + 94590411\, p^{50} q^{38} + 122403027\, p^{50} q^{41} + 136709612\, p^{50} q^{43} + 130142582\, p^{50} q^{42}$$
$$+ 104371582\, p^{50} q^{39} + 84635943\, p^{50} q^{37} + 5062\, p^{39} q^{9} + 2148\, p^{38} q^{8} + 141902806\, p^{50} q^{44} + 136935412\, p^{51} q^{45} + 113729971\, p^{50} q^{40}$$
$$+ 555412\, p^{45} q^{17} + 117898\, p^{44} q^{14} + 1922758\, p^{46} q^{20} + 1259895\, p^{46} q^{19} + 3722881\, p^{47} q^{22} + 5279003\, p^{47} q^{23} + 20279482\, p^{48} q^{28}$$
$$+ 214665\, p^{44} q^{15} + 165076761\, p^{46} q^{46} + 141902806\, p^{41} q^{47} + 2281077\, p^{69} q^{65} + 1503715\, p^{70} q^{66} + 86242950\, p^{36} q^{48} + 35926823\, p^{31} q^{49}$$
$$+ 4243509\, p^{69} q^{60} + 5259749\, p^{69} q^{57} + 9619035\, p^{26} q^{50} + 5\, p^{89} q^{76} + 4\, p^{89} q^{73} + 5171425\, q^{50} p^{24} + 50024\, q^{79} p^{67} + 1836694\, q^{69} p^{39}$$
$$+ 3975\, q^{63} p^{17} + 13\, q^{56} p^{9} + 2918\, q^{62} p^{16} + 6217\, q^{65} p^{19} + 10\, q^{59} p^{10} + 327294\, q^{67} p^{29} + 456043\, q^{67} p^{30} + 3\, q^{55} p^{8} + 362\, p^{84} q^{80}$$
$$+ 61\, q^{59} p^{11} + 118\, p^{64} q^{14} + 67\, p^{63} q^{13} + 44\, q^{57} p^{10} + 104076\, q^{65} p^{24} + 1734\, q^{63} p^{16} + 439\, q^{62} p^{14} + q^{53} p^{7} + 1507743\, q^{68} p^{36}$$
$$+ 621825\, q^{67} p^{31} + 1398342\, q^{67} p^{34} + 830300\, q^{67} p^{32} + 1087600\, q^{67} p^{33} + 1766999\, q^{67} p^{35} + 767\, q^{61} p^{14} + 12050\, q^{65} p^{20} + 64626\, q^{65} p^{23}$$
$$+ 22122\, q^{65} p^{21} + 38600\, q^{65} p^{22} + 24068\, q^{66} p^{22} + 239\, q^{59} p^{12} + 229312\, q^{67} p^{28} + 67108\, q^{66} p^{24} + 162161\, q^{66} p^{26} + 348672\, q^{66} p^{28}$$
$$+ 240915\, q^{66} p^{27} + 105962\, q^{66} p^{25} + 492200\, q^{66} p^{29} + 10274\, q^{64} p^{19} + 19469\, q^{64} p^{20} + 2347\, q^{64} p^{17} + 5107\, q^{64} p^{18} + 687\, q^{63} p^{15}$$
$$+ 7\, q^{57} p^{9} + 257\, q^{61} p^{13} + 29\, q^{60} p^{11} + 134\, q^{60} p^{12} + 6760122\, q^{68} p^{47} + q^{56} p^{8} + 990\, q^{64} p^{16} + 68\, q^{61} p^{12} + 7440739\, p^{32} q^{60}$$
$$+ 13884286\, p^{35} q^{60} + 11456453\, p^{34} q^{60} + 4517481\, p^{31} q^{61} + 9307211\, p^{33} q^{60} + 2924911\, p^{42} q^{69} + 298\, p^{69} q^{86} + 299\, p^{70} q^{86} + 510\, p^{75} q^{85}$$
$$+ 2687448\, p^{39} q^{68} + 7744036\, p^{50} q^{68} + 7908168\, p^{51} q^{68} + 10403394\, p^{50} q^{67} + 10115220\, p^{49} q^{67} + 5\, p^{64} q^{12} + 5457\, p^{81} q^{47} + 2366\, p^{80} q^{40}$$
$$+ 1686\, p^{80} q^{39} + 28\, p^{72} q^{19} + 1887\, p^{84} q^{69} + 1775\, p^{84} q^{70} + 3162467\, p^{40} q^{68} + 1378\, p^{80} q^{81} + 3668527\, p^{41} q^{68} + 163384075\, p^{47} q^{46}$$
$$+ 149477776\, p^{42} q^{47} + 96993733\, p^{37} q^{48} + 155584199\, p^{43} q^{47} + 107688691\, p^{38} q^{48} + 43482640\, p^{32} q^{49} + 118056915\, p^{39} q^{48}$$
$$+ 70647489\, p^{35} q^{49} + 60947827\, p^{34} q^{49} + 32637005\, p^{31} q^{50} + 51852222\, p^{33} q^{49} + 26445752\, p^{30} q^{50} + 11214470\, p^{27} q^{51}$$
$$+ 21083620\, p^{29} q^{50} + 12726675\, p^{27} q^{50} + 16527168\, p^{28} q^{50} + 10428\, p^{82} q^{61} + 10499\, p^{82} q^{63} + 10547\, p^{82} q^{62} + 2\, p^{58} q^{9} + 10007\, p^{82} q^{65}$$

$$+ 70\, q^{50}\, p^{8} + 1241\, p^{82}\, q^{79} + 20780690\, p^{47}\, q^{64} + 40543552\, p^{57}\, q^{59} + 22181104\, p^{64}\, q^{49} + 917628\, p^{60}\, q^{25} + 318417\, p^{37}\, q^{72}$$
$$+ 409593\, p^{68}\, q^{31} + 2663129\, p^{71}\, q^{49} + 1139907\, p^{72}\, q^{64} + 667\, p^{57}\, q^{12} + 8063313\, p^{49}\, q^{25} + 14254400\, p^{49}\, q^{27} + 2271126\, p^{48}\, q^{21}$$
$$+ 5882229\, p^{49}\, q^{24} + 10825670\, p^{49}\, q^{26} + 47467722\, p^{50}\, q^{33} + 26445752\, p^{50}\, q^{30} + 21083620\, p^{50}\, q^{29} + 39656925\, p^{50}\, q^{32}$$
$$+ 32637005\, p^{50}\, q^{31} + 56000442\, p^{50}\, q^{34} + 65142630\, p^{50}\, q^{35} + 68310388\, p^{51}\, q^{36} + 18660\, p^{42}\, q^{11} + 34795\, p^{43}\, q^{12} + 61203\, p^{44}\, q^{13}$$
$$+ 703075\, p^{47}\, q^{18} + 289251\, p^{46}\, q^{16} + 87032878\, p^{51}\, q^{38} + 113729971\, p^{51}\, q^{41} + 127824437\, p^{51}\, q^{43} + 121301993\, p^{51}\, q^{42}$$
$$+ 96352502\, p^{51}\, q^{39} + 77613364\, p^{51}\, q^{37} + 133090192\, p^{51}\, q^{44} + 127266075\, p^{52}\, q^{45} + 105331662\, p^{51}\, q^{40} + 490506\, p^{46}\, q^{17}$$
$$+ 102245\, p^{45}\, q^{14} + 1715825\, p^{47}\, q^{20} + 1116306\, p^{47}\, q^{19} + 3322153\, p^{48}\, q^{22} + 4738269\, p^{48}\, q^{23} + 18424707\, p^{49}\, q^{28} + 188500\, p^{45}\, q^{15}$$
$$+ 159811371\, p^{48}\, q^{46} + 160022426\, p^{44}\, q^{47} + 127824437\, p^{40}\, q^{48} + 80783958\, p^{36}\, q^{49} + 39656925\, p^{32}\, q^{50} + 14631827\, p^{28}\, q^{51} + 624\, p^{61}\, q^{85}$$
$$+ 2090\, p^{65}\, q^{84} + 2088\, p^{66}\, q^{84} + 10709521\, p^{58}\, q^{66} + 7776625\, p^{59}\, q^{67} + 3908186\, p^{68}\, q^{63} + 4447379\, p^{68}\, q^{62} + 4992276\, p^{68}\, q^{61}$$
$$+ 3387207\, p^{68}\, q^{64} + 51\, p^{42}\, q^{6} + 3294\, p^{53}\, q^{12} + 1686\, p^{52}\, q^{11} + 5904\, p^{54}\, q^{13} + 9841\, p^{55}\, q^{14} + 380\, p^{85}\, q^{77} + 158\, p^{86}\, q^{78} + 636\, p^{85}\, q^{73}$$
$$+ 442\, p^{85}\, q^{76} + 1830\, p^{84}\, q^{61} + 2014\, p^{84}\, q^{63} + 1939\, p^{84}\, q^{62} + 2090\, p^{84}\, q^{65} + 7491648\, p^{49}\, q^{68} + 9716188\, p^{48}\, q^{67} + 6529381\, p^{68}\, q^{58}$$
$$+ 3\, p^{30}\, q^{3} + 22338\, q^{74}\, p^{32} + 20043\, q^{73}\, p^{30} + 6217\, q^{72}\, p^{26} + 22737\, q^{75}\, p^{34} + 132460\, q^{78}\, p^{56} + 116827\, q^{76}\, p^{43} + 96638\, q^{76}\, p^{42}$$
$$+ 139127\, q^{76}\, p^{44} + 102245\, q^{77}\, p^{46} + 163089\, q^{76}\, p^{45} + 135074\, q^{78}\, p^{57} + 132798\, q^{78}\, p^{60} + 135247\, q^{78}\, p^{59} + 116160\, q^{78}\, p^{63}$$
$$+ 99436\, q^{78}\, p^{65} + 55335\, q^{79}\, p^{66} + 128644\, q^{78}\, p^{61} + 108238\, q^{78}\, p^{64} + 123087\, q^{78}\, p^{62} + 136067\, q^{78}\, p^{58} + 13160\, q^{73}\, p^{29} + 8340\, q^{73}\, p^{28}$$
$$+ 5107\, q^{73}\, p^{27} + 123\, q^{67}\, p^{16} + 78585\, q^{76}\, p^{41} + 62878\, q^{76}\, p^{40} + 42795\, q^{75}\, p^{36} + 56854\, q^{75}\, p^{37} + 73968\, q^{75}\, p^{38} + 2417608\, p^{64}\, q^{32}$$
$$+ 741856\, p^{63}\, q^{27} + 1853586\, p^{64}\, q^{31} + 10115220\, p^{67}\, q^{49} + 7\, p^{35}\, q^{4} + 27\, p^{38}\, q^{5} + 24483\, p^{51}\, q^{80} + 134017\, p^{59}\, q^{20} + 1929077\, p^{63}\, q^{30}$$
$$+ 720444\, p^{62}\, q^{26} + 1433289\, p^{63}\, q^{29} + 297507\, p^{61}\, q^{23} + 10323055\, p^{67}\, q^{54} + 7624845\, p^{68}\, q^{55} + 8642838\, p^{67}\, q^{46} + 10572413\, p^{67}\, q^{51}$$
$$+ 10615247\, p^{67}\, q^{52} + 4330469\, p^{65}\, q^{36} + 10403394\, p^{67}\, q^{50} + 8063313\, p^{66}\, q^{42} + 9002325\, p^{66}\, q^{43} + 5346626\, p^{66}\, q^{39} + 6216091\, p^{66}\, q^{40}$$
$$+ 9220577\, p^{67}\, q^{47} + 9716188\, p^{67}\, q^{48} + 1042646\, p^{63}\, q^{28} + 10798168\, p^{66}\, q^{45} + 6220349\, p^{65}\, q^{38} + 5229177\, p^{65}\, q^{37} + 31910\, p^{58}\, q^{17}$$
$$+ 642\, p^{48}\, q^{9} + 233\, p^{47}\, q^{8} + 3789184\, q^{66}\, p^{37} + 3531585\, q^{65}\, p^{35} + 2488\, p^{54}\, q^{83} + 355\, p^{67}\, q^{17} + q^{45}\, p^{5} + 7291\, q^{60}\, p^{16} + 521\, p^{55}\, q^{11}$$
$$+ 3201\, p^{58}\, q^{14} + 1911\, p^{57}\, q^{13} + 13160\, q^{62}\, p^{18} + 54914443\, q^{55}\, p^{38} + 948233\, q^{51}\, p^{20} + 161565\, p^{60}\, q^{21} + 456043\, p^{61}\, q^{24} + 22737\, p^{57}\, q^{16}$$
$$+ 77481\, p^{59}\, q^{19} + 1109\, p^{50}\, q^{10} + 7127259\, p^{66}\, q^{41} + 2833834\, p^{65}\, q^{34} + 3531585\, p^{65}\, q^{35} + 10531647\, p^{67}\, q^{53} + 9922488\, p^{66}\, q^{44} + 9\, p^{45}\, q^{85}$$
$$+ 436\, p^{51}\, q^{84} + 9577\, p^{66}\, q^{82} + 14\, p^{46}\, q^{85} + 6569\, p^{76}\, q^{80} + 154470731\, p^{49}\, q^{46} + 162652878\, p^{45}\, q^{47} + 163384075\, p^{46}\, q^{47}$$
$$+ 136709612\, p^{41}\, q^{48} + 144452541\, p^{42}\, q^{48} + 91160477\, p^{37}\, q^{49} + 150809771\, p^{43}\, q^{48} + 101542544\, p^{38}\, q^{49} + 47467722\, p^{33}\, q^{50}$$

$$+ 111680149\, p^{39}\, q^{49} + 121301993\, p^{40}\, q^{49} + 84635943\, p^{37}\, q^{50} + 50811399\, p^{34}\, q^{51} + 74749884\, p^{36}\, q^{50} + 56000442\, p^{34}\, q^{50}$$
$$+ 65142630\, p^{35}\, q^{50} + 18751189\, p^{29}\, q^{51} + 23620939\, p^{30}\, q^{51} + 29273046\, p^{31}\, q^{51} + 25914977\, p^{31}\, q^{52} + 35710373\, p^{32}\, q^{51}$$
$$+ 42910171\, p^{33}\, q^{51} + 1198\, p^{76}\, q^{29} + 687\, p^{76}\, q^{28} + 36\, p^{67}\, q^{15} + 492353\, p^{72}\, q^{39} + 994687\, p^{73}\, q^{47} + 597574\, p^{72}\, q^{40} + 1250512\, p^{73}\, q^{50}$$
$$+ 70\, p^{86}\, q^{82} + 504073\, p^{72}\, q^{69} + 291\, p^{71}\, q^{86} + 7127259\, p^{50}\, q^{25} + 12726675\, p^{50}\, q^{27} + 1986726\, p^{49}\, q^{21} + 5171425\, p^{50}\, q^{24}$$
$$+ 9619035\, p^{50}\, q^{26} + 42910171\, p^{51}\, q^{33} + 23620939\, p^{51}\, q^{30} + 18751189\, p^{51}\, q^{29} + 35710373\, p^{51}\, q^{32} + 29273046\, p^{51}\, q^{31}$$
$$+ 50811399\, p^{51}\, q^{34} + 59322545\, p^{51}\, q^{35} + 61643379\, p^{52}\, q^{36} + 79085078\, p^{52}\, q^{38} + 104371582\, p^{52}\, q^{41} + 118056915\, p^{52}\, q^{43}$$
$$+ 111680149\, p^{52}\, q^{42} + 87846522\, p^{52}\, q^{39} + 70282788\, p^{52}\, q^{37} + 123309231\, p^{52}\, q^{44} + 116828749\, p^{53}\, q^{45} + 96352502\, p^{52}\, q^{40}$$
$$+ 427341\, p^{47}\, q^{17} + 1510969\, p^{48}\, q^{20} + 975450\, p^{48}\, q^{19} + 2924911\, p^{49}\, q^{22} + 4197630\, p^{49}\, q^{23} + 16527168\, p^{50}\, q^{28} + 147539105\, p^{50}\, q^{46}$$
$$+ 162196598\, p^{47}\, q^{47} + 155584199\, p^{44}\, q^{48} + 130142582\, p^{41}\, q^{49} + 94590411\, p^{38}\, q^{50} + 59322545\, p^{35}\, q^{51} + 31744296\, p^{32}\, q^{52}$$
$$+ 975450\, p^{72}\, q^{43} + 3047041\, p^{63}\, q^{69} + 233\, p^{44}\, q^{83} + p^{86}\, q^{47} + 840685\, p^{72}\, q^{42} + 161\, q^{68}\, p^{17} + 1120\, q^{69}\, p^{20} + 497\, q^{69}\, p^{19} + 85\, q^{66}\, p^{15}$$
$$+ 435\, q^{68}\, p^{18} + 4\, q^{60}\, p^{10} + 31573\, q^{75}\, p^{35} + 2\, q^{58}\, p^{9} + 1956766\, p^{62}\, q^{71} + 7160476\, p^{48}\, q^{68} + 9220577\, p^{47}\, q^{67} + 997311\, p^{65}\, q^{72}$$
$$+ 274116\, p^{75}\, q^{67} + 381285\, p^{57}\, q^{76} + 21297\, p^{76}\, q^{36} + 924\, p^{80}\, q^{82} + 1332\, p^{73}\, q^{84} + 1263\, p^{77}\, q^{83} + 11\, p^{57}\, q^{87} + 14\, p^{58}\, q^{87}$$
$$+ 139230361\, p^{51}\, q^{46} + 159124760\, p^{48}\, q^{47} + 154274166\, p^{49}\, q^{47} + 158616368\, p^{45}\, q^{48} + 159811371\, p^{46}\, q^{48} + 159124760\, p^{47}\, q^{48}$$
$$+ 144452541\, p^{43}\, q^{49} + 137937452\, p^{42}\, q^{49} + 104371582\, p^{39}\, q^{50} + 149477776\, p^{44}\, q^{49} + 113729971\, p^{40}\, q^{50} + 68310388\, p^{36}\, q^{51}$$
$$+ 152855656\, p^{45}\, q^{49} + 122403027\, p^{41}\, q^{50} + 130142582\, p^{42}\, q^{50} + 136709612\, p^{43}\, q^{50} + 77613364\, p^{37}\, q^{51} + 87032878\, p^{38}\, q^{51}$$
$$+ 96352502\, p^{39}\, q^{51} + 87846522\, p^{39}\, q^{52} + 105331662\, p^{40}\, q^{51} + 113729971\, p^{41}\, q^{51} + 45519279\, p^{34}\, q^{52} + 38293674\, p^{33}\, q^{52}$$
$$+ 53339261\, p^{35}\, q^{52} + 62836822\, p^{37}\, q^{53} + 79085078\, p^{38}\, q^{52} + 61643379\, p^{36}\, q^{52} + 70282788\, p^{37}\, q^{52} + 261718\, p^{69}\, q^{31} + 1793564\, p^{72}\, q^{49}$$
$$+ 823980\, p^{73}\, q^{64} + 411\, p^{58}\, q^{12} + 8436954\, p^{67}\, q^{58} + 241203\, q^{76}\, p^{48} + 292282\, q^{76}\, p^{50} + 336055\, q^{76}\, p^{52} + 315376\, q^{76}\, p^{51} + 353402\, q^{76}\, p^{53}$$
$$+ 376418\, q^{76}\, p^{55} + 367098\, q^{76}\, p^{54} + 224617\, q^{77}\, p^{55} + 267238\, q^{76}\, p^{49} + 4\, p^{29}\, q^{3} + 571\, p^{74}\, q^{85} + 69\, p^{66}\, q^{87} + 61\, p^{79}\, q^{87} + 2\, p^{69}\, q^{89}$$
$$+ 2093\, p^{82}\, q^{77} + 1001\, p^{83}\, q^{78} + 4612\, p^{82}\, q^{73} + 2633\, p^{82}\, q^{76} + 11214470\, p^{51}\, q^{27} + 38293674\, p^{52}\, q^{33} + 11\, p^{25}\, q^{3} + 31744296\, p^{52}\, q^{32}$$
$$+ 25914977\, p^{52}\, q^{31} + 45519279\, p^{52}\, q^{34} + 53339261\, p^{52}\, q^{35} + 70952559\, p^{53}\, q^{38} + 94590411\, p^{53}\, q^{41} + 107688691\, p^{53}\, q^{43}$$
$$+ 101542544\, p^{53}\, q^{42} + 79085078\, p^{53}\, q^{39} + 62836822\, p^{53}\, q^{37} + 112836905\, p^{53}\, q^{44} + 105907837\, p^{54}\, q^{45} + 87032878\, p^{53}\, q^{40}$$
$$+ 14631827\, p^{51}\, q^{28} + 129803360\, p^{52}\, q^{46} + 147797104\, p^{50}\, q^{47} + 156583938\, p^{48}\, q^{48} + 154470731\, p^{46}\, q^{49} + 141902806\, p^{44}\, q^{50}$$
$$+ 96352502\, p^{40}\, q^{52} + 121301993\, p^{42}\, q^{51} + 70952559\, p^{38}\, q^{53} + p^{23}\, q^{2} + 6047496\, p^{68}\, q^{59} + 141\, p^{44}\, q^{7} + 450\, q^{60}\, p^{13} + 23\, q^{58}\, p^{10}$$

$$+ 23683\, p^{74}\, q^{78} + 2195463\, q^{67}\, p^{36} + 8340\, q^{63}\, p^{18} + 3982\, p^{79}\, q^{79} + 12254421\, p^{66}\, q^{56} + 8897908\, p^{66}\, q^{60} + 72667\, p^{56}\, q^{79}$$
$$+ 11527159\, p^{66}\, q^{57} + 4424667\, p^{66}\, q^{65} + 3020159\, p^{67}\, q^{66} + 2148\, p^{53}\, q^{83} + 451545\, p^{66}\, q^{74} + 389295\, p^{67}\, q^{74} + 330741\, p^{68}\, q^{74}$$
$$+ 276552\, p^{69}\, q^{74} + 7\, p^{54}\, q^{8} + 3\, p^{48}\, q^{6} + 659579\, p^{69}\, q^{71} + 1524\, p^{42}\, q^{81} + 480164\, p^{62}\, q^{75} + 515875\, p^{61}\, q^{75} + 516031\, p^{65}\, q^{74}$$
$$+ 399917\, p^{64}\, q^{75} + 441220\, p^{63}\, q^{75} + 357671\, p^{65}\, q^{75} + 187850\, p^{67}\, q^{76} + 234685\, p^{68}\, q^{75} + 315329\, p^{66}\, q^{75} + 274116\, p^{67}\, q^{75}$$
$$+ 860329\, p^{66}\, q^{72} + p^{90}\, q^{85} + 3\, p^{89}\, q^{86} + 12\, p^{86}\, q^{87} + 20967\, p^{63}\, q^{81} + 7\, p^{37}\, q^{83} + q^{84}\, p^{38} + 119531165\, p^{53}\, q^{46} + 139903743\, p^{51}\, q^{47}$$
$$+ 130833089\, p^{52}\, q^{47} + 152267568\, p^{49}\, q^{48} + 146320722\, p^{50}\, q^{48} + 138928476\, p^{51}\, q^{48} + 154274166\, p^{47}\, q^{49} + 152267568\, p^{48}\, q^{49}$$
$$+ 148521659\, p^{49}\, q^{49} + 147539105\, p^{46}\, q^{50} + 127824437\, p^{43}\, q^{51} + 145550859\, p^{45}\, q^{50} + 143153879\, p^{50}\, q^{49} + 147797104\, p^{47}\, q^{50}$$
$$+ 133090192\, p^{44}\, q^{51} + 104371582\, p^{41}\, q^{52} + 146320722\, p^{48}\, q^{50} + 143153879\, p^{49}\, q^{50} + 136935412\, p^{45}\, q^{51} + 139230361\, p^{46}\, q^{51}$$
$$+ 139903743\, p^{47}\, q^{51} + 138928476\, p^{48}\, q^{51} + 118056915\, p^{43}\, q^{52} + 111680149\, p^{42}\, q^{52} + 123309231\, p^{44}\, q^{52} + 119531165\, p^{46}\, q^{53}$$
$$+ 130833089\, p^{47}\, q^{52} + 127266075\, p^{45}\, q^{52} + 129803360\, p^{46}\, q^{52} + 87032878\, p^{40}\, q^{53} + 101542544\, p^{42}\, q^{53} + 94590411\, p^{41}\, q^{53}$$
$$+ 107688691\, p^{43}\, q^{53} + 116828749\, p^{45}\, q^{53} + 112836905\, p^{44}\, q^{53} + 105907837\, p^{45}\, q^{54} + 79085078\, p^{39}\, q^{53} + 91\, p^{83}\, q^{85} + 519651\, p^{54}\, q^{20}$$
$$+ 2527341\, p^{56}\, q^{25} + 28\, q^{48}\, p^{7} + 9\, q^{46}\, p^{6} + 37298\, p^{64}\, q^{80} + q^{40}\, p^{4} + 354\, q^{53}\, p^{10} + 213\, q^{51}\, p^{9} + 1579\, q^{55}\, p^{12} + 792\, q^{54}\, p^{11}$$
$$+ 8642838\, p^{46}\, q^{67} + 725968\, p^{65}\, q^{73} + 709071\, p^{62}\, q^{74} + 823980\, p^{64}\, q^{73} + 308152\, p^{73}\, q^{70} + 325158\, p^{72}\, q^{71} + 6\, p^{89}\, q^{81} + 3652\, p^{82}\, q^{50}$$
$$+ 2057\, p^{81}\, q^{43} + 806235\, p^{68}\, q^{71} + 530467\, p^{71}\, q^{70} + 330741\, p^{74}\, q^{68} + 21553\, p^{80}\, q^{50} + 13560\, p^{79}\, q^{43} + 14\, q^{63}\, p^{12} + 53\, q^{65}\, p^{14} + 5\, q^{62}\, p^{11}$$
$$+ 1155\, q^{70}\, p^{21} + 1120\, q^{71}\, p^{22} + 2213\, q^{71}\, p^{23} + 4084\, q^{71}\, p^{24} + 31910\, q^{74}\, p^{33} + 3589\, q^{72}\, p^{25} + 4634\, p^{61}\, q^{83} + 10785\, p^{71}\, q^{81}$$
$$+ 108706224\, p^{54}\, q^{46} + 120859505\, p^{53}\, q^{47} + 130325287\, p^{52}\, q^{48} + 136341047\, p^{51}\, q^{49} + 138404726\, p^{50}\, q^{50} + 136341047\, p^{49}\, q^{51}$$
$$+ 120859505\, p^{47}\, q^{53} + 130325287\, p^{48}\, q^{52} + 108706224\, p^{46}\, q^{54} + 10854\, p^{51}\, q^{81} + 21553\, p^{50}\, q^{80} + 24101193\, p^{37}\, q^{59} + 654450\, p^{55}\, q^{21}$$
$$+ 1766999\, p^{56}\, q^{24} + 33\, p^{79}\, q^{29} + 14\, p^{79}\, q^{28} + p^{73}\, q^{18} + 5\, p^{75}\, q^{21} + 7\, p^{77}\, q^{24} + 4\, p^{76}\, q^{22} + 22\, p^{77}\, q^{25} + 809\, p^{84}\, q^{54} + 372\, p^{85}\, q^{57}$$
$$+ 85\, p^{82}\, q^{38} + 669\, p^{84}\, q^{53} + 559\, p^{85}\, q^{60} + 274\, p^{86}\, q^{66} + 233\, p^{83}\, q^{44} + 12\, p^{76}\, q^{23} + 310\, p^{85}\, q^{56} + p^{72}\, q^{17} + 197\, p^{84}\, q^{48} + 329\, p^{83}\, q^{45}$$
$$+ 139\, p^{81}\, q^{36} + 29\, p^{78}\, q^{27} + 8\, q^{73}\, p^{19} + 23\, q^{74}\, p^{21} + q^{72}\, p^{17} + 123\, q^{75}\, p^{24} + 367\, q^{76}\, p^{27} + q^{71}\, p^{16} + 6429\, q^{62}\, p^{17} + 85\, q^{53}\, p^{9}$$
$$+ 211133\, q^{62}\, p^{23} + 37679\, q^{61}\, p^{19} + 3\, q^{48}\, p^{6} + 18\, q^{49}\, p^{7} + 1008075\, p^{38}\, q^{70} + 1007884\, p^{36}\, q^{69} + 1250853\, p^{37}\, q^{69} + q^{44}\, p^{5} + 9\, q^{50}\, p^{7}$$
$$+ 244896\, q^{65}\, p^{26} + 79302\, q^{62}\, p^{21} + 5510282\, p^{56}\, q^{69} + 42\, q^{51}\, p^{8} + 5\, q^{51}\, p^{7} + 135\, q^{52}\, p^{9} + 25\, q^{52}\, p^{8} + 2\, q^{52}\, p^{7} + 228\, q^{54}\, p^{10}$$
$$+ 29683\, q^{60}\, p^{18} + 764\, q^{59}\, p^{13} + 4989\, q^{59}\, p^{15} + 15196\, q^{60}\, p^{17} + 3201\, q^{58}\, p^{14} + 7461\, q^{58}\, p^{15} + 411\, q^{58}\, p^{12} + 667\, q^{57}\, p^{12} + 53440\, q^{63}\, p^{21}$$
$$+ 523038\, q^{64}\, p^{27} + 240915\, q^{64}\, p^{25} + 359846\, q^{64}\, p^{26} + 98614\, q^{64}\, p^{23} + 156695\, q^{64}\, p^{24} + 1049\, q^{56}\, p^{12} + 139\, q^{55}\, p^{10} + 7\, q^{54}\, p^{8}$$

$$+ 10060\, q^{61} p^{17} + 67181\, q^{61} p^{20} + 20043\, q^{61} p^{18} + 1911\, q^{57} p^{13} + 2064\, q^{59} p^{14} + 13\, q^{53} p^{8} + 1319978\, q^{65} p^{31} + 515159\, q^{65} p^{28}$$
$$+ 1394532\, q^{64} p^{30} + 720444\, q^{65} p^{29} + 359846\, q^{65} p^{27} + 985220\, q^{65} p^{30} + 131841\, q^{62} p^{22} + 198\, q^{57} p^{11} + 521\, q^{55} p^{11} + 111\, q^{58} p^{11}$$
$$+ 2011\, q^{61} p^{15} + 82\, q^{56} p^{10} + 1226\, q^{58} p^{13} + 1290\, q^{60} p^{14} + 90088\, q^{63} p^{22} + 28\, q^{55} p^{9} + 325\, q^{56} p^{11} + 2833834\, q^{65} p^{34} + 9922488\, q^{66} p^{44}$$
$$+ 8063313\, q^{66} p^{42} + 9002325\, q^{66} p^{43} + 7127259\, q^{66} p^{41} + 2236414\, q^{65} p^{33} + 45806\, q^{62} p^{20} + 25210\, q^{62} p^{19} + 679352\, q^{66} p^{30}$$
$$+ 1733945\, q^{65} p^{32} + q^{49} p^{6} + 49\, q^{54} p^{9} + 214665\, q^{76} p^{47} + 4\, p^{84} q^{89} + 3\, p^{86} q^{89} + 3232675\, q^{67} p^{38} + 30314\, q^{63} p^{20} + 18\, p^{69} q^{16} + 3\, q^{78} p^{25}$$
$$+ 134\, q^{79} p^{31} + 792\, q^{80} p^{37} + 2\, p^{22} q^{2} + 7776625\, p^{67} q^{59} + 572729\, p^{59} q^{75} + 767387\, p^{61} q^{74} + 197\, p^{43} q^{7} + 161565\, p^{70} q^{31}$$
$$+ 1173588\, p^{73} q^{49} + 581635\, p^{74} q^{64} + 41440000\, p^{51} q^{61} + 40576603\, p^{52} q^{61} + 27202174\, p^{48} q^{63} + 34329138\, p^{49} q^{62} + 34556233\, p^{50} q^{62}$$
$$+ 26024133\, p^{63} q^{54} + 20238713\, p^{64} q^{55} + 25087771\, p^{63} q^{46} + 110262240\, p^{54} q^{47} + 120765343\, p^{53} q^{48} + 110528214\, p^{54} q^{48}$$
$$+ 119255693\, p^{53} q^{49} + 128292103\, p^{52} q^{49} + 109490948\, p^{54} q^{49} + 132221792\, p^{51} q^{50} + 124804581\, p^{52} q^{50} + 116375912\, p^{53} q^{50}$$
$$+ 128292103\, p^{49} q^{52} + 132221792\, p^{50} q^{51} + 126708478\, p^{51} q^{51} + 107188486\, p^{54} q^{50} + 124804581\, p^{50} q^{52} + 119971771\, p^{52} q^{51}$$
$$+ 120765343\, p^{48} q^{53} + 112224042\, p^{53} q^{51} + 103692101\, p^{54} q^{51} + 119971771\, p^{51} q^{52} + 106929320\, p^{53} q^{52} + 113952256\, p^{52} q^{52}$$
$$+ 99118544\, p^{54} q^{52} + 116375912\, p^{50} q^{53} + 106929320\, p^{52} q^{53} + 112224042\, p^{51} q^{53} + 100661908\, p^{53} q^{53} + 93608540\, p^{54} q^{53}$$
$$+ 119255693\, p^{49} q^{53} + 109490948\, p^{49} q^{54} + 110528214\, p^{48} q^{54} + 99118544\, p^{52} q^{54} + 87335043\, p^{54} q^{54} + 74411969\, p^{55} q^{55}$$
$$+ 107188486\, p^{50} q^{54} + 93608540\, p^{53} q^{54} + 103692101\, p^{51} q^{54} + 110262240\, p^{47} q^{54} + 6102383\, p^{66} q^{63} + 7014946\, p^{66} q^{62} + 31359\, q^{51} p^{14}$$
$$+ 14573\, q^{51} p^{13} + 7953352\, p^{66} q^{61} + 9824385\, p^{59} q^{66} + 7076309\, p^{60} q^{67} + 261\, p^{49} q^{84} + 77\, p^{77} q^{87} + 250\, p^{86} q^{74} + 285\, p^{86} q^{67}$$
$$+ 291\, p^{86} q^{71} + 282\, p^{86} q^{72} + 296\, p^{86} q^{68} + 228\, p^{86} q^{75} + 344\, p^{84} q^{50} + 163\, p^{83} q^{43} + 276552\, p^{74} q^{69} + 367294\, p^{59} q^{76} + 336316\, p^{61} q^{76}$$
$$+ 292406\, p^{63} q^{76} + 315718\, p^{62} q^{76} + 267334\, p^{64} q^{76} + 214349\, p^{66} q^{76} + 241001\, p^{65} q^{76} + 141326\, p^{66} q^{77} + 353781\, p^{60} q^{76} + 5807\, p^{53} q^{82}$$
$$+ 376656\, p^{58} q^{76} + 19320\, p^{57} q^{81} + 10191\, p^{60} q^{82} + 46\, p^{44} q^{84} + 3\, p^{43} q^{85} + 12689\, p^{73} q^{80} + 3\, q^{43} p^{5} + 3902\, p^{82} q^{74} + 9017\, p^{82} q^{67}$$
$$+ 6140\, p^{82} q^{71} + 5373\, p^{82} q^{72} + 8386\, p^{82} q^{68} + 3230\, p^{82} q^{75} + 5234476\, p^{66} q^{64} + 19343\, p^{65} q^{81} + 134\, q^{62} p^{13} + 40976\, q^{66} p^{23}$$
$$+ 529\, p^{65} q^{16} + 13488\, q^{66} p^{21} + 2\, p^{88} q^{89} + 2\, p^{89} q^{89} + p^{90} q^{89} + 3\, p^{87} q^{89} + 1198\, q^{62} p^{15} + 1856598\, q^{68} p^{37} + 409593\, q^{68} p^{31}$$
$$+ 945872\, q^{68} p^{34} + 552206\, q^{68} p^{32} + 104076\, q^{67} p^{26} + 156695\, q^{67} p^{27} + 729490\, q^{68} p^{33} + 1204348\, q^{68} p^{35} + 67108\, q^{67} p^{25} + 4855\, p^{63} q^{83}$$
$$+ 207\, p^{54} q^{85} + 1712\, p^{60} q^{84} + 259\, p^{55} q^{85} + 3\, p^{48} q^{86} + 5\, p^{49} q^{86} + 38\, p^{54} q^{86} + p^{51} q^{87} + 27\, p^{53} q^{86} + 13\, p^{51} q^{86} + 20\, p^{52} q^{86}$$
$$+ 1421\, p^{58} q^{84} + 7668\, p^{69} q^{82} + 6504\, p^{74} q^{81} + 1939\, p^{62} q^{84} + 4676\, p^{66} q^{83} + 227620\, p^{70} q^{74} + 162297\, p^{68} q^{76} + 197938\, p^{69} q^{75}$$
$$+ 227620\, p^{74} q^{70} + 247321\, p^{73} q^{71} + 17\, p^{85} q^{87} + 197938\, p^{75} q^{69} + 125064\, p^{67} q^{77} + 292282\, p^{76} q^{50} + 212026\, p^{75} q^{43} + 177446\, p^{75} q^{42}$$

$$+ 1899\, p^{81}\, q^{79} + 4180\, p^{59}\, q^{83} + 669\, p^{53}\, q^{84} + 34925\, q^{64}\, p^{21} + 2250864\, q^{68}\, p^{38} + 93639\, p^{77}\, q^{69} + 79140\, p^{77}\, q^{70} + 114136\, p^{74}\, q^{73}$$
$$+ 150699\, p^{73}\, q^{73} + 47796\, p^{76}\, q^{74} + 107473\, p^{72}\, q^{75} + 184116\, p^{74}\, q^{71} + 53832\, p^{77}\, q^{72} + 138025\, p^{69}\, q^{76} + 267238\, p^{76}\, q^{49} + 173090\, p^{77}\, q^{64}$$
$$+ 109003\, p^{77}\, q^{68} + 146373\, p^{74}\, q^{72} + 84633\, p^{75}\, q^{73} + 89\, p^{75}\, q^{87} + 3808\, p^{78}\, q^{80} + 1830\, p^{61}\, q^{84} + 2014\, p^{63}\, q^{84} + 310\, p^{56}\, q^{85} + 499\, p^{59}\, q^{85}$$
$$+ 432\, p^{58}\, q^{85} + 49\, p^{55}\, q^{86} + 372\, p^{57}\, q^{85} + 4809\, p^{65}\, q^{83} + 6924\, p^{70}\, q^{82} + 4499\, p^{67}\, q^{83} + 1567\, p^{59}\, q^{84} + 166\, p^{53}\, q^{85} + 2789\, p^{79}\, q^{80}$$
$$+ 9\, p^{50}\, q^{86} + 101\, p^{46}\, q^{84} + 141\, p^{47}\, q^{84} + 197\, p^{48}\, q^{84} + 229588\, q^{77}\, p^{56} + 231819\, q^{77}\, p^{57} + 220970\, q^{77}\, p^{60} + 227437\, q^{77}\, p^{59}$$
$$+ 187712\, q^{77}\, p^{63} + 157535\, q^{77}\, p^{65} + 90156\, q^{78}\, p^{66} + 212049\, q^{77}\, p^{61} + 173090\, q^{77}\, p^{64} + 200776\, q^{77}\, p^{62} + 231025\, q^{77}\, p^{58} + 312\, p^{83}\, q^{82}$$
$$+ 266\, p^{73}\, q^{86} + 282\, p^{72}\, q^{86} + 247321\, p^{71}\, q^{73} + 125064\, p^{77}\, q^{67} + 353402\, p^{76}\, q^{53} + 249413\, p^{75}\, q^{44} + 157535\, p^{77}\, q^{65} + 90156\, p^{78}\, q^{66}$$
$$+ 220970\, p^{77}\, q^{60} + 231819\, p^{77}\, q^{57} + 367098\, p^{76}\, q^{54} + 80\, p^{70}\, q^{18} + 218\, p^{72}\, q^{21} + 162297\, p^{76}\, q^{68} + 254234\, p^{72}\, q^{72} + 135962\, p^{74}\, q^{38}$$
$$+ 229588\, p^{77}\, q^{56} + 901061\, p^{74}\, q^{58} + 864925\, p^{74}\, q^{59} + 164220\, p^{70}\, q^{75} + 184116\, p^{71}\, q^{74} + 146373\, p^{72}\, q^{74} + 65855\, p^{77}\, q^{71} + 95192\, p^{76}\, q^{71}$$
$$+ 21\, p^{70}\, q^{88} + 77092\, p^{76}\, q^{72} + 194866\, p^{72}\, q^{73} + 134056\, p^{75}\, q^{71} + 65311\, p^{75}\, q^{74} + 115611\, p^{76}\, q^{70} + 171324\, p^{74}\, q^{39} + 372710\, p^{75}\, q^{47}$$
$$+ 212337\, p^{74}\, q^{40} + 492581\, p^{75}\, q^{50} + 366906\, p^{74}\, q^{43} + 310536\, p^{74}\, q^{42} + 29758\, p^{67}\, q^{80} + 32550\, p^{66}\, q^{80} + 65311\, p^{74}\, q^{75} + 84633\, p^{73}\, q^{75}$$
$$+ 34084\, p^{77}\, q^{74} + 36497\, p^{76}\, q^{75} + 49397\, p^{75}\, q^{75} + 26347\, p^{77}\, q^{75} + 33\, p^{62}\, q^{12} + 29783\, p^{79}\, q^{47} + 14573\, p^{78}\, q^{40} + 11018\, p^{78}\, q^{39}$$
$$+ 43262\, p^{77}\, q^{73} + 87298\, p^{74}\, q^{74} + 61262\, p^{76}\, q^{73} + 10\, p^{81}\, q^{32} + 102\, p^{86}\, q^{58} + 4\, p^{81}\, q^{31} + 2\, p^{52}\, q^{7} + 218\, p^{70}\, q^{19} + 7668\, p^{82}\, q^{69}$$
$$+ 6924\, p^{82}\, q^{70} + 134056\, p^{71}\, q^{75} + 114136\, p^{73}\, q^{74} + 95192\, p^{71}\, q^{76} + 61262\, p^{73}\, q^{76} + 36497\, p^{75}\, q^{76} + 47796\, p^{74}\, q^{76} + 27298\, p^{76}\, q^{76}$$
$$+ 19910\, p^{77}\, q^{76} + 77092\, p^{72}\, q^{76} + 115611\, p^{70}\, q^{76} + 109003\, p^{68}\, q^{77} + 93639\, p^{69}\, q^{77} + 53832\, p^{72}\, q^{77} + 65855\, p^{71}\, q^{77} + 26347\, p^{75}\, q^{77}$$
$$+ 14724\, p^{77}\, q^{77} + 7753\, p^{78}\, q^{78} + 43262\, p^{73}\, q^{77} + 19910\, p^{76}\, q^{77} + 34084\, p^{74}\, q^{77} + 79140\, p^{70}\, q^{77} + 336055\, p^{76}\, q^{52} + 315376\, p^{76}\, q^{51}$$
$$+ 241203\, p^{76}\, q^{48} + 289251\, p^{75}\, q^{45} + 187712\, p^{77}\, q^{63} + 200776\, p^{77}\, q^{62} + 212049\, p^{77}\, q^{61} + 12329\, p^{70}\, q^{81} + 4424\, p^{60}\, q^{83} + 231025\, p^{77}\, q^{58}$$
$$+ 227437\, p^{77}\, q^{59} + 194866\, p^{73}\, q^{72} + 107473\, p^{75}\, q^{72} + q^{85}\, p^{42} + 164220\, p^{75}\, q^{70} + 138025\, p^{76}\, q^{69} + 61\, p^{80}\, q^{32} + 29\, p^{80}\, q^{31} + 432\, p^{85}\, q^{58}$$
$$+ 228\, p^{81}\, q^{37} + 499\, p^{85}\, q^{59} + 7\, p^{74}\, q^{20} + 549\, p^{84}\, q^{52} + 436\, p^{84}\, q^{51} + 107\, p^{83}\, q^{42} + 82\, p^{81}\, q^{35} + 261\, p^{84}\, q^{49} + 768\, p^{85}\, q^{64} + 68\, p^{79}\, q^{30}$$
$$+ 950\, p^{84}\, q^{55} + 446\, p^{83}\, q^{46} + 182\, p^{86}\, q^{77} + 68\, p^{87}\, q^{78} + 266\, p^{86}\, q^{73} + 207\, p^{86}\, q^{76} + 624\, p^{85}\, q^{61} + 730\, p^{85}\, q^{63} + 676\, p^{85}\, q^{62} + 804\, p^{85}\, q^{65}$$
$$+ 9017\, p^{67}\, q^{82} + 5052\, p^{77}\, q^{80} + 4768\, p^{62}\, q^{83} + 9263\, p^{72}\, q^{81} + p^{90}\, q^{82} + 127\, p^{52}\, q^{85} + 1261\, p^{57}\, q^{84} + p^{47}\, q^{86} + p^{71}\, q^{16} + 8386\, p^{68}\, q^{82}$$
$$+ 10499\, p^{63}\, q^{82} + 3557\, p^{57}\, q^{83} + 4857\, p^{64}\, q^{83} + 7840\, p^{73}\, q^{81} + 5311\, p^{75}\, q^{81} + 6140\, p^{71}\, q^{82}$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 15, *is:*

$$1 + 1016554\, p^{47} q^{16} + 5394390\, q^{42} p^{19} + 507744756\, p^{40} q^{61} + 151857398\, p^{38} q^{31} + 253843261\, p^{38} q^{34} + 294140600\, p^{38} q^{35}$$
$$+ 371422654\, p^{39} q^{36} + 124774193\, p^{38} q^{30} + 182457557\, p^{38} q^{32} + 101162522\, p^{38} q^{29} + 16012\, p^{70} q^{96} + 1100739\, p^{18} q^{26} + 3\, p^{52} q^{99}$$
$$+ 27\, q^{21} p^{3} + 102483\, q^{28} p^{12} + 284458\, q^{28} p^{14} + 501026\, q^{29} p^{15} + 845354565\, q^{55} p^{40} + 959538619\, q^{55} p^{41} + 1196918726\, q^{55} p^{43}$$
$$+ 34578729\, p^{71} q^{79} + 314\, p^{58} q^{98} + 3737\, p^{64} q^{97} + p^{10} q + 18028\, p^{88} q^{93} + 24669916\, p^{36} q^{24} + 2950509\, p^{35} q^{18} + 42252429\, p^{36} q^{26}$$
$$+ 3506276\, p^{64} q^{87} + 3495018\, p^{65} q^{87} + 508296601\, p^{52} q^{69} + 621361451\, p^{60} q^{68} + 11402724\, p^{71} q^{83} + 6612\, q^{26} p^{8} + 2900\, q^{26} p^{7}$$
$$+ 15422\, q^{28} p^{9} + 1077391733\, q^{55} p^{42} + 1366420710\, q^{56} p^{45} + 1315876713\, q^{55} p^{44} + 1116\, q^{25} p^{6} + 372\, q^{26} p^{5} + 34142\, p^{82} q^{94}$$
$$+ 16112\, p^{88} q^{36} + 26\, p^{90} q^{29} + 2\, p^{88} q^{24} + 171605377\, q^{44} p^{30} + 35134878\, p^{53} q^{80} + 413906988\, p^{38} q^{60} + 46483261\, p^{80} q^{61}$$
$$+ 45155955\, p^{80} q^{63} + 46041730\, p^{80} q^{62} + 916584652\, p^{43} q^{59} + 17707\, p^{86} q^{94} + 13926938\, p^{33} q^{23} + 31045160\, p^{28} q^{30} + 26753089\, q^{51} p^{24}$$
$$+ 18597085\, q^{51} p^{23} + 7652193\, q^{52} p^{21} + 134780297\, p^{32} q^{59} + 116302\, p^{63} q^{93} + 136281624\, q^{44} p^{29} + 958951\, p^{84} q^{84} + 1173092\, p^{82} q^{85}$$
$$+ 1447788\, p^{81} q^{85} + 1814555\, p^{78} q^{86} + 1706170\, p^{72} q^{88} + 43699847\, p^{73} q^{39} + 117814816\, p^{74} q^{47} + 53237117\, p^{73} q^{40}$$
$$+ 157870178\, p^{74} q^{50} + 81221\, p^{93} q^{59} + 73709\, p^{94} q^{70} + 36877\, p^{90} q^{43} + 89290450\, p^{73} q^{43} + 76069450\, p^{73} q^{42} + 30024387\, p^{24} q^{39}$$
$$+ 22064298\, p^{23} q^{39} + 264835370\, p^{35} q^{37} + 204847042\, p^{34} q^{36} + 1366765\, p^{16} q^{39} + 2205245\, p^{17} q^{39} + 2277998\, p^{55} q^{87} + 2491710\, p^{56} q^{87}$$
$$+ 258453\, p^{67} q^{20} + 314\, q^{47} p^{7} + 2940\, q^{49} p^{9} + 75317\, q^{52} p^{13} + 98\, q^{45} p^{6} + 555292\, p^{21} q^{19} + 298168\, p^{21} q^{17} + 1548634\, q^{68} p^{24}$$
$$+ 3668764\, q^{68} p^{26} + 48998\, q^{66} p^{17} + 29609738\, p^{54} q^{25} + 46469354\, p^{60} q^{80} + 224378\, p^{26} q^{14} + 892597\, p^{27} q^{17} + 3990566\, p^{28} q^{21}$$
$$+ 2504970\, p^{27} q^{20} + 1814555\, p^{27} q^{19} + 60070108\, p^{26} q^{42} + 206569\, p^{92} q^{75} + 48998\, p^{66} q^{17} + 1228399\, p^{22} q^{21} + 736163\, p^{21} q^{20}$$
$$+ 10299\, p^{85} q^{30} + 59822\, p^{89} q^{42} + 3\, p^{53} q^{6} + 1057\, p^{76} q^{18} + 3975\, p^{78} q^{21} + 4504\, p^{79} q^{22} + 77873\, p^{13} q^{22} + 617032\, p^{46} q^{15}$$
$$+ 332193\, p^{46} q^{14} + 52047333\, q^{51} p^{26} + 11606881\, q^{52} p^{22} + 888412485\, q^{54} p^{40} + 4032\, p^{94} q^{92} + 3866268\, p^{20} q^{30} + 32529\, p^{76} q^{95}$$
$$+ 3512\, p^{9} q^{16} + 594539335\, p^{38} q^{56} + 5416\, p^{94} q^{91} + 7232\, p^{10} q^{17} + 29984\, p^{14} q^{16} + 736163\, p^{84} q^{85} + 3\, p^{94} q^{35} + 2350908\, p^{87} q^{73}$$
$$+ 1696160\, p^{87} q^{76} + 508296601\, p^{53} q^{36} + p^{36} q^{3} + 2\, p^{48} q^{5} + 8431760\, q^{55} p^{22} + 72638\, p^{94} q^{72} + 71594\, p^{94} q^{68} + 24010060\, p^{33} q^{25}$$
$$+ 38854514\, p^{33} q^{27} + 54774604\, p^{34} q^{28} + 1027262\, p^{32} q^{16} + 45999985\, p^{59} q^{80} + 1486529\, p^{87} q^{77} + 892597\, p^{88} q^{78} + 2407\, q^{67} p^{14}$$
$$+ 151212623\, p^{52} q^{30} + 116781354\, p^{52} q^{29} + 210\, p^{67} q^{12} + 52047333\, p^{51} q^{26} + 104287\, p^{90} q^{47} + 956943086\, p^{42} q^{57} + 397704\, p^{27} q^{15}$$
$$+ 59906825\, p^{38} q^{71} + 4851\, p^{82} q^{25} + 12592\, p^{84} q^{29} + 2432\, p^{82} q^{24} + 70146\, q^{86} p^{36} + 899\, q^{73} p^{16} + 3941588\, p^{45} q^{83} + 190746\, q^{29} p^{13}$$
$$+ 7158\, q^{28} p^{8} + 5899840\, p^{85} q^{55} + 2962172\, p^{84} q^{46} + 5397576\, p^{86} q^{64} + 219554\, p^{80} q^{30} + 516611\, p^{82} q^{35} + 2978679\, p^{85} q^{49}$$

$$+ 1696160\, p^{76} q^{87} + 9602\, q^{90} p^{39} + 1379\, q^{88} p^{31} + 273134692\, p^{73} q^{58} + 271669442\, p^{73} q^{59} + 45155955\, p^{63} q^{80} + 116781354\, q^{52} p^{29}$$
$$+ 3482228\, p^{63} q^{87} + 10692033\, p^{24} q^{29} + 31408910\, p^{40} q^{24} + 3448531\, p^{39} q^{18} + 55631676\, p^{40} q^{26} + 1038\, p^{30} q^{6} + 273542771\, p^{41} q^{33}$$
$$+ 1353889\, p^{38} q^{16} + 153080366\, p^{41} q^{30} + 122827009\, p^{41} q^{29} + 228337219\, p^{41} q^{32} + 253843261\, p^{34} q^{38} + 23252772\, p^{71} q^{34}$$
$$+ 82859367\, p^{72} q^{41} + 4656\, q^{52} p^{10} + 9081476\, p^{50} q^{21} + 26753089\, p^{51} q^{24} + 37684395\, p^{51} q^{25} + 371956\, q^{31} p^{14} + 253843261\, p^{71} q^{67}$$
$$+ 3911865\, p^{85} q^{51} + 1311214\, p^{84} q^{42} + 21461\, p^{61} q^{14} + 11693\, p^{60} q^{13} + 27192\, p^{57} q^{94} + 269217986\, p^{51} q^{72} + 151226788\, p^{47} q^{73}$$
$$+ 48917939\, p^{70} q^{78} + 7527488\, p^{72} q^{84} + 6045144\, p^{74} q^{84} + 6335734\, p^{70} q^{85} + 6771005\, p^{69} q^{85} + 5242660\, p^{66} q^{86} + 6234292\, p^{76} q^{83}$$
$$+ 3228296\, p^{81} q^{82} + 4508104\, p^{78} q^{83} + 424364\, p^{36} q^{83} + 1287864\, p^{89} q^{69} + 1236576\, p^{89} q^{70} + 462383\, p^{85} q^{40} + 348808\, p^{85} q^{39}$$
$$+ 337065\, p^{84} q^{37} + 1863149\, p^{88} q^{59} + 602738\, p^{85} q^{41} + 146629\, p^{83} q^{33} + 49286410\, q^{70} p^{36} + 1866276473\, p^{51} q^{56} + 1880059037\, p^{50} q^{55}$$
$$+ 3702\, q^{66} p^{14} + 812869\, p^{88} q^{51} + 604972\, p^{87} q^{46} + 1350663\, p^{89} q^{64} + 1345095\, p^{88} q^{55} + 5334664\, p^{28} q^{22} + 41304\, p^{93} q^{84} + 591\, q^{65} p^{12}$$
$$+ 2721\, p^{58} q^{11} + p\, q + 135771\, q^{48} p^{13} + 849284\, q^{49} p^{16} + 517112\, q^{48} p^{15} + 12768236\, p^{31} q^{70} + 53999806\, p^{69} q^{78} + 5227772\, p^{86} q^{61}$$
$$+ 5394390\, p^{86} q^{63} + 1968427\, p^{60} q^{88} + 358\, q^{27} p^{5} + 9055319\, p^{81} q^{77} + 5890449\, p^{82} q^{78} + 16371467\, p^{81} q^{73} + 10692033\, p^{81} q^{76}$$
$$+ 7232\, p^{17} q^{10} + 1097\, p^{16} q^{7} + 3512\, p^{16} q^{9} + 3393057\, q^{51} p^{19} + 103\, q^{17} p^{4} + 714\, q^{18} p^{6} + 277\, q^{17} p^{5} + 7007826\, p^{77} q^{82} + 387214\, p^{91} q^{61}$$
$$+ 432240\, p^{91} q^{63} + 7198105\, p^{22} q^{30} + 19933461\, p^{50} q^{23} + 2433\, q^{17} p^{8} + 57659\, q^{28} p^{11} + 174090\, q^{28} p^{13} + 52\, p^{31} q^{4} + 68496697\, p^{43} q^{74}$$
$$+ 4044796\, p^{49} q^{19} + 13617741\, p^{50} q^{22} + 234484963\, p^{42} q^{68} + 4\, p^{20} q^{2} + 670456879\, p^{51} q^{67} + 600669317\, p^{52} q^{68} + 222529595\, p^{43} q^{69}$$
$$+ 1617427\, p^{48} q^{17} + 6365285\, p^{49} q^{20} + 37684395\, q^{51} p^{25} + 139999\, p^{26} q^{13} + 1287123\, p^{27} q^{18} + 4887002\, p^{26} q^{23} + 189012\, p^{18} q^{18}$$
$$+ 183821\, p^{17} q^{19} + 4508104\, p^{22} q^{27} + 14371615\, p^{81} q^{74} + 12470419\, p^{81} q^{75} + 28411965\, p^{81} q^{67} + 20538795\, p^{81} q^{71} + 18439014\, p^{81} q^{72}$$
$$+ 26612219\, p^{81} q^{68} + 411011\, p^{21} q^{18} + 1745213\, p^{58} q^{88} + 3514226\, p^{84} q^{47} + 2631807\, q^{76} p^{32} + 1050388\, q^{56} p^{18} + 6445286\, q^{57} p^{22}$$
$$+ 93453\, q^{55} p^{14} + 588208\, q^{56} p^{17} + 21888\, q^{54} p^{12} + 9814898\, q^{57} p^{23} + 14\, p^{92} q^{32} + 1050\, p^{97} q^{57} + 6234\, q^{25} p^{8} + 403344964\, p^{70} q^{63}$$
$$+ 444583042\, p^{70} q^{61} + 425565731\, p^{70} q^{62} + 888412485\, p^{54} q^{40} + 88770989\, p^{52} q^{28} + 1368829067\, p^{54} q^{44} + 1431849879\, p^{55} q^{45}$$
$$+ 11639\, p^{11} q^{17} + 16791\, q^{31} p^{9} + 776144987\, p^{54} q^{39} + 572496467\, p^{54} q^{37} + 221246\, q^{31} p^{13} + 65409\, q^{30} p^{11} + 46041730\, p^{62} q^{80} + p^{9} q$$
$$+ 181\, p^{96} q^{47} + 8\, p^{88} q^{25} + 1248188624\, p^{54} q^{43} + 1126391129\, p^{54} q^{42} + 46483261\, p^{61} q^{80} + 670456879\, p^{54} q^{38} + 1005764967\, p^{54} q^{41}$$
$$+ 5087342\, p^{25} q^{24} + 350805512\, p^{53} q^{34} + 424930159\, p^{53} q^{35} + 116\, q^{59} p^{9} + 229848545\, p^{53} q^{32} + 182232484\, p^{53} q^{31} + 5337353\, p^{86} q^{62}$$
$$+ 5346428\, p^{86} q^{65} + 4363572\, p^{20} q^{31} + 66361029\, p^{52} q^{27} + 285876347\, p^{53} q^{33} + 232\, q^{61} p^{10} + 287803915\, p^{45} q^{69} + 1295425\, q^{75} p^{29}$$
$$+ 2701326\, q^{75} p^{31} + 1891419\, q^{75} p^{30} + 866264\, q^{75} p^{28} + 2795\, p^{54} q^{10} + 38420398\, p^{69} q^{34} + 132711785\, p^{70} q^{41} + 1706\, p^{96} q^{92}$$

$$+ 117\, q^{93}\, p^{37} + 515223\, p^{83}\, q^{87} + 411011\, p^{84}\, q^{87} + 75895788\, p^{29}\, q^{35} + 85980915\, p^{33}\, q^{31} + 768750\, p^{88}\, q^{79} + 22630115\, p^{35}\, q^{24}$$
$$+ 2764810\, p^{34}\, q^{18} + 38429542\, p^{35}\, q^{26} + 155909200\, p^{35}\, q^{33} + 44412092\, q^{59}\, p^{28} + 404240\, q^{58}\, p^{17} + 1808762\, q^{59}\, p^{20} + 60102126\, q^{59}\, p^{29}$$
$$+ 7250924\, q^{59}\, p^{23} + 79944164\, q^{59}\, p^{30} + 13654584\, q^{60}\, p^{25} + 4701002\, q^{59}\, p^{22} + 2962172\, q^{59}\, p^{21} + 88770989\, q^{52}\, p^{28} + 32422924\, q^{53}\, p^{25}$$
$$+ 70146\, p^{86}\, q^{36} + 259552\, p^{89}\, q^{48} + 465570\, p^{90}\, q^{56} + 10\, p^{38}\, q^{4} + 262835\, p^{88}\, q^{45} + 692\, p^{35}\, q^{6} + 140646\, p^{18}\, q^{17} + 73145\, p^{15}\, q^{18} + p^{11}\, q$$
$$+ 4\, p^{3}\, q^{3} + 462450\, p^{91}\, q^{65} + 411279\, p^{91}\, q^{62} + 467523837\, p^{69}\, q^{63} + 518284246\, p^{69}\, q^{61} + 494697975\, p^{69}\, q^{62} + 316920\, p^{90}\, q^{53}$$
$$+ 302608\, p^{91}\, q^{58} + 360593\, p^{91}\, q^{60} + 254378\, p^{92}\, q^{71} + 364583\, p^{90}\, q^{54} + 117\, p^{68}\, q^{12} + 9265339\, p^{73}\, q^{83} + 8971932\, p^{70}\, q^{84}$$
$$+ 7967040\, p^{65}\, q^{85} + 4622468\, p^{58}\, q^{86} + 4865361\, p^{59}\, q^{86} + 5397576\, p^{64}\, q^{86} + 3331550\, p^{61}\, q^{87} + 8089911\, p^{64}\, q^{85} + 18028\, p^{93}\, q^{88}$$
$$+ 2026\, p^{16}\, q^{8} + 24\, p^{12}\, q^{3} + 6\, p^{11}\, q^{2} + 471\, p^{15}\, q^{6} + 191\, p^{14}\, q^{5} + 48925\, p^{93}\, q^{83} + 859638\, q^{30}\, p^{16} + 3047\, p^{61}\, q^{12} + 36907970\, p^{78}\, q^{47}$$
$$+ 15769531\, p^{77}\, q^{40} + 12687301\, p^{77}\, q^{39} + 42116\, p^{15}\, q^{16} + 22331\, p^{14}\, q^{15} + 61776\, q^{29}\, p^{11} + 111679551\, p^{40}\, q^{70} + 963670\, p^{82}\, q^{37}$$
$$+ 4865361\, p^{86}\, q^{59} + 1705895\, p^{83}\, q^{41} + 428865\, p^{81}\, q^{33} + 55262\, p^{79}\, q^{26} + 3115857\, p^{87}\, q^{69} + 367296\, p^{82}\, q^{34} + 2950509\, p^{87}\, q^{70} + p^{3}\, q$$
$$+ 2\, p^{2}\, q^{2} + 1334886\, p^{83}\, q^{40} + 4702\, p^{75}\, q^{19} + 1028395\, p^{83}\, q^{39} + p\, q^{2} + 43\, p^{67}\, q^{11} + 221246\, p^{92}\, q^{74} + 263680\, p^{92}\, q^{67} + 187\, q^{34}\, p^{5}$$
$$+ 692\, q^{35}\, p^{6} + 91991\, p^{82}\, q^{92} + 264548\, p^{69}\, q^{92} + 501026\, p^{29}\, q^{15} + 12744\, q^{25}\, p^{9} + p^{44}\, q^{4} + 411011\, p^{18}\, q^{21} + p^{2}\, q + 1069267\, p^{86}\, q^{81}$$
$$+ 375\, p^{100}\, q^{83} + 254144\, q^{27}\, p^{14} + 449000\, q^{28}\, p^{15} + 123286\, p^{13}\, q^{25} + 315620243\, q^{44}\, p^{33} + 444583042\, q^{44}\, p^{35} + 537675928\, q^{45}\, p^{36}$$
$$+ 213073262\, q^{44}\, p^{31} + 376880031\, q^{44}\, p^{34} + 261018115\, q^{44}\, p^{32} + 9\, q^{90}\, p^{28} + q^{89}\, p^{25} + 5\, q^{89}\, p^{26} + 767169346\, p^{39}\, q^{44} + 680646493\, p^{38}\, q^{44}$$
$$+ 23561926\, p^{74}\, q^{79} + 422012410\, p^{66}\, q^{68} + 4869434\, p^{73}\, q^{85} + 4889493\, p^{68}\, q^{86} + 142028\, q^{80}\, p^{29} + 219554\, q^{80}\, p^{30} + 30511\, q^{78}\, p^{24}$$
$$+ 1155713\, q^{81}\, p^{36} + 330322\, q^{80}\, p^{31} + 977180\, q^{80}\, p^{34} + 484893\, q^{80}\, p^{32} + 695651\, q^{80}\, p^{33} + 1345620\, q^{80}\, p^{35} + 16375\, q^{78}\, p^{23}$$
$$+ 89215\, q^{80}\, p^{28} + 17471\, q^{79}\, p^{24} + 55262\, q^{79}\, p^{26} + 1365730\, q^{40}\, p^{16} + 470824\, q^{39}\, p^{14} + 7329822\, q^{73}\, p^{32} + 7967040\, p^{20}\, q^{40}$$
$$+ 597287029\, p^{44}\, q^{37} + 46885\, p^{50}\, q^{12} + 23152\, p^{49}\, q^{11} + 812869\, p^{54}\, q^{17} + 567257126\, p^{60}\, q^{40} + 14630\, q^{46}\, p^{10} + 2132473\, p^{18}\, q^{31}$$
$$+ 116\, p^{97}\, q^{50} + 269\, p^{100}\, q^{74} + 90\, p^{100}\, q^{67} + 242\, p^{100}\, q^{73} + 98\, p^{101}\, q^{89} + 319\, p^{100}\, q^{76} + 340\, p^{100}\, q^{77} + 28\, p^{102}\, q^{91} + 109\, p^{101}\, q^{81}$$
$$+ 26142554\, p^{28}\, q^{29} + 10958412\, p^{23}\, q^{31} + 20258863\, p^{26}\, q^{30} + 139584\, q^{86}\, p^{38} + 8570\, p^{61}\, q^{13} + 15799\, p^{62}\, q^{14} + 176104257\, p^{58}\, q^{75}$$
$$+ 220357834\, p^{59}\, q^{74} + 217745920\, p^{60}\, q^{74} + 271669442\, p^{59}\, q^{73} + 1593\, q^{72}\, p^{16} + 965\, q^{71}\, p^{15} + 295\, q^{71}\, p^{14} + 144\, q^{70}\, p^{13} + 2440\, q^{73}\, p^{17}$$
$$+ 610420\, q^{84}\, p^{39} + 800283\, q^{84}\, p^{40} + 1032266\, q^{84}\, p^{41} + 130207\, q^{81}\, p^{30} + 1101908853\, p^{61}\, q^{47} + 1180731537\, p^{61}\, q^{48} + 5314971\, p^{74}\, q^{32}$$
$$+ 3827244\, p^{74}\, q^{31} + 91874990\, p^{31}\, q^{60} + 46041730\, p^{43}\, q^{25} + 80774577\, p^{43}\, q^{27} + 11959593\, p^{42}\, q^{21} + 33863478\, p^{43}\, q^{24}$$
$$+ 61497383\, p^{43}\, q^{26} + 315620243\, p^{44}\, q^{33} + 171605377\, p^{44}\, q^{30} + 136281624\, p^{44}\, q^{29} + 261018115\, p^{44}\, q^{32} + 213073262\, p^{44}\, q^{31}$$

$$+ 376880031\, p^{44}\, q^{34} + 444583042\, p^{44}\, q^{35} + 537675928\, p^{45}\, q^{36} + 221246\, p^{74}\, q^{92} + 885394\, p^{57}\, q^{18} + 193201\, p^{55}\, q^{15} + 392192115\, p^{55}\, q^{71}$$
$$+ 420649\, q^{91}\, p^{72} + 344043\, q^{91}\, p^{75} + 284458\, q^{91}\, p^{77} + 157068\, q^{92}\, p^{78} + 397745\, q^{91}\, p^{73} + 314619\, q^{91}\, p^{76} + 371956\, q^{91}\, p^{74}$$
$$+ 455613\, q^{91}\, p^{70} + 440152\, q^{91}\, p^{71} + 98035707\, p^{63}\, q^{33} + 3941588\, p^{60}\, q^{22} + 11524822\, p^{61}\, q^{25} + 36443807\, q^{75}\, p^{41} + 34739\, p^{69}\, q^{18}$$
$$+ 119277\, p^{71}\, q^{21} + 30025236\, q^{75}\, p^{40} + 762610684\, p^{67}\, q^{56} + 710010508\, p^{67}\, q^{60} + 760080572\, p^{67}\, q^{57} + 520310146\, p^{67}\, q^{65}$$
$$+ 422012410\, p^{68}\, q^{66} + 535778181\, p^{37}\, q^{42} + 564953897\, p^{38}\, q^{41} + 631620197\, p^{39}\, q^{41} + 1180731537\, p^{57}\, q^{44} + 527295256\, p^{39}\, q^{39}$$
$$+ 580104936\, p^{40}\, q^{39} + 191281470\, p^{58}\, q^{33} + 1100739\, p^{87}\, q^{79} + 1554014610\, p^{60}\, q^{53} + 596297\, p^{52}\, q^{16} + 206466790\, p^{31}\, q^{43}$$
$$+ 639963579\, p^{40}\, q^{40} + 37630551\, p^{79}\, q^{50} + 19999811\, p^{78}\, q^{43} + 61695718\, p^{70}\, q^{37} + 211601414\, p^{72}\, q^{48} + 190104929\, p^{71}\, q^{45}$$
$$+ 7867332\, p^{68}\, q^{28} + 1065\, p^{53}\, q^{9} + 132469431\, p^{44}\, q^{72} + 259552\, q^{57}\, p^{16} + 561961673\, p^{69}\, q^{58} + 76081\, q^{56}\, p^{14} + 736795\, q^{58}\, p^{18}$$
$$+ 2162781\, q^{58}\, p^{20} + 1286508\, q^{58}\, p^{19} + 10895638\, q^{59}\, p^{24} + 23\, p^{62}\, q^{9} + 686066940\, p^{40}\, q^{58} + 929286\, p^{87}\, q^{80} + 20973408\, q^{38}\, p^{23}$$
$$+ 322005079\, p^{36}\, q^{59} + 170475857\, q^{54}\, p^{31} + 4363572\, p^{85}\, q^{74} + 7496227\, p^{85}\, q^{67} + 5866370\, p^{85}\, q^{71} + 5373817\, p^{85}\, q^{72} + 7161100\, p^{85}\, q^{68}$$
$$+ 3866268\, p^{85}\, q^{75} + 552605\, p^{90}\, q^{75} + 1518\, p^{68}\, q^{14} + 784\, p^{67}\, q^{13} + 79620\, q^{89}\, p^{43} + 59822\, q^{89}\, p^{42} + 104087\, q^{89}\, p^{44} + 82452\, q^{90}\, p^{46}$$
$$+ 211230\, q^{89}\, p^{47} + 133855\, q^{89}\, p^{45} + 169410\, q^{89}\, p^{46} + 1975\, p^{93}\, q^{95} + 149592\, q^{79}\, p^{28} + 31770\, q^{79}\, p^{25} + 234565\, q^{79}\, p^{29} + 3409122\, q^{82}\, p^{42}$$
$$+ 2643750\, q^{81}\, p^{39} + 18631517\, q^{81}\, p^{50} + 3373737\, q^{81}\, p^{40} + 4242357\, q^{81}\, p^{41} + 382\, p^{100}\, q^{80} + 277\, p^{100}\, q^{88} + 92511\, q^{79}\, p^{27}$$
$$+ 631620197\, p^{64}\, q^{66} + 520310146\, p^{65}\, q^{67} + 2658\, q^{33}\, p^{7} + 40807\, q^{94}\, p^{60} + 35730\, q^{35}\, p^{10} + 1287864\, q^{36}\, p^{16} + 1924\, p^{37}\, q^{7}$$
$$+ 10553\, p^{53}\, q^{11} + 76081\, p^{56}\, q^{14} + 42126\, p^{55}\, q^{13} + 437435662\, p^{69}\, q^{64} + 21888\, p^{54}\, q^{12} + 168\, p^{43}\, q^{6} + 38864\, p^{94}\, q^{81} + 459470286\, p^{70}\, q^{54}$$
$$+ 264304986\, p^{70}\, q^{46} + 392192115\, p^{71}\, q^{55} + 1191952553\, p^{61}\, q^{61} + 931567157\, p^{65}\, q^{59} + 934284\, p^{89}\, q^{57} + 53077\, p^{84}\, q^{32} + 818143\, p^{90}\, q^{66}$$
$$+ 391078\, p^{87}\, q^{44} + 139584\, p^{86}\, q^{38} + 3327\, p^{77}\, q^{20} + 466693\, p^{91}\, q^{69} + 455613\, p^{91}\, q^{70} + 617032\, p^{90}\, q^{59} + 13617741\, p^{55}\, q^{83}$$
$$+ 1065181444\, p^{58}\, q^{64} + 26612219\, p^{37}\, q^{24} + 3115857\, p^{36}\, q^{18} + 45966583\, p^{37}\, q^{26} + 10685\, p^{86}\, q^{95} + 2898\, p^{74}\, q^{98} + 6915\, p^{78}\, q^{97}$$
$$+ 27082749\, p^{73}\, q^{79} + 640109996\, q^{46}\, p^{37} + 142385562\, p^{75}\, q^{52} + 132730344\, p^{75}\, q^{51} + 28284406\, p^{73}\, q^{37} + 101083526\, p^{75}\, q^{48}$$
$$+ 91874990\, p^{74}\, q^{45} + 3415353\, p^{71}\, q^{28} + 4938216\, p^{71}\, q^{29} + 128421883\, p^{76}\, q^{63} + 132947109\, p^{76}\, q^{62} + 136281624\, p^{76}\, q^{61}$$
$$+ 404240\, p^{88}\, q^{47} + 10\, p^{51}\, q^{6} + 389\, p^{66}\, q^{99} + 238018\, p^{87}\, q^{42} + 40550\, p^{83}\, q^{30} + 93355\, p^{85}\, q^{35} + 53481\, p^{92}\, q^{85} + 9482394\, p^{51}\, q^{83}$$
$$+ 2465307\, p^{45}\, q^{84} + 182232484\, p^{74}\, q^{52} + 170475857\, p^{74}\, q^{51} + 37259645\, p^{72}\, q^{37} + 131261533\, p^{74}\, q^{48} + 118820815\, p^{73}\, q^{45}$$
$$+ 4586781\, p^{70}\, q^{28} + 6584984\, p^{70}\, q^{29} + 160604749\, p^{75}\, q^{63} + 166833894\, p^{75}\, q^{62} + 171605377\, p^{75}\, q^{61} + 10528\, p^{68}\, q^{16} + 12744\, p^{80}\, q^{96}$$
$$+ 17208681\, p^{76}\, q^{79} + 878931\, q^{76}\, p^{29} + 1295425\, q^{76}\, p^{30} + 6176968\, p^{54}\, q^{21} + 18631517\, p^{55}\, q^{24} + 2211915\, q^{41}\, p^{17} + 3506276\, q^{41}\, p^{18}$$

$$+ 3482228\, q^{42}\, p^{18} + 5397576\, q^{41}\, p^{19} + 8089911\, q^{41}\, p^{20} + 5537785\, p^{47}\, q^{83} + 517112\, q^{90}\, p^{57} + 298168\, p^{88}\, q^{84} + 333348172\, p^{58}\, q^{72}$$
$$+ 1033160211\, p^{59}\, q^{64} + 943854128\, p^{61}\, q^{64} + 828717432\, p^{63}\, q^{64} + 888856653\, p^{62}\, q^{64} + 764853073\, p^{64}\, q^{64} + 698689178\, p^{65}\, q^{64}$$
$$+ 992365477\, p^{60}\, q^{64} + 91991\, p^{92}\, q^{82} + 1177182746\, p^{62}\, q^{60} + 1866088\, q^{76}\, p^{31} + 3779253\, q^{75}\, p^{32} + 5186475\, q^{75}\, p^{33} + 1593\, p^{72}\, q^{16}$$
$$+ 40318598\, p^{65}\, q^{31} + 18\, p^{36}\, q^{4} + 504801015\, p^{68}\, q^{49} + 31408910\, p^{24}\, q^{40} + 11832290\, p^{21}\, q^{41} + 116\, q^{96}\, p^{46} + 145\, q^{95}\, p^{43} + 5847\, q^{95}\, p^{54}$$
$$+ 232\, q^{95}\, p^{44} + 362\, q^{95}\, p^{45} + 22977972\, p^{23}\, q^{40} + 1208050462\, p^{47}\, q^{60} + 1291201104\, p^{48}\, q^{60} + 77\, p^{56}\, q^{8} + 7905645\, p^{80}\, q^{42}$$
$$+ 3124262\, p^{78}\, q^{35} + 16570970\, p^{81}\, q^{49} + 23690732\, p^{82}\, q^{64} + 1295425\, p^{76}\, q^{30} + 28535273\, p^{81}\, q^{55} + 15983875\, p^{80}\, q^{46}$$
$$+ 1030650733\, p^{42}\, q^{44} + 1191952553\, p^{44}\, q^{44} + 1341003838\, p^{45}\, q^{45} + 855442127\, p^{40}\, q^{44} + 1113977599\, p^{43}\, q^{44} + 943854128\, p^{41}\, q^{44}$$
$$+ 807694306\, p^{40}\, q^{43} + 19173\, p^{44}\, q^{10} + 152601\, p^{47}\, q^{13} + 2277998\, p^{50}\, q^{18} + 1397657928\, p^{57}\, q^{46} + 5\, p^{31}\, q^{3} + 13682229\, p^{64}\, q^{27}$$
$$+ 53237117\, p^{65}\, q^{32} + 23561926\, p^{31}\, q^{26} + 14653\, p^{27}\, q^{9} + 57659\, p^{28}\, q^{11} + 16919052\, p^{22}\, q^{41} + 55631676\, p^{26}\, q^{40} + 134943676\, p^{30}\, q^{39}$$
$$+ 315620243\, p^{61}\, q^{72} + 271951743\, p^{57}\, q^{73} + 192855902\, p^{53}\, q^{74} + 483071621\, q^{54}\, p^{36} + 454564020\, q^{55}\, p^{36} + 402652543\, q^{54}\, p^{35}$$
$$+ 269217986\, q^{54}\, p^{33} + 331405214\, q^{54}\, p^{34} + 215750863\, q^{54}\, p^{32} + 151378246\, p^{60}\, q^{33} + 1318347262\, p^{62}\, q^{53} + 444103\, p^{54}\, q^{16}$$
$$+ 636130\, p^{18}\, q^{23} + 12423583\, p^{32}\, q^{23} + 6997182\, p^{67}\, q^{27} + 28284406\, p^{68}\, q^{32} + 73301381\, p^{71}\, q^{39} + 191281470\, p^{72}\, q^{47} + 88540515\, p^{71}\, q^{40}$$
$$+ 250998629\, p^{72}\, q^{50} + 144991211\, p^{71}\, q^{43} + 124480729\, p^{71}\, q^{42} + 16648827\, p^{78}\, q^{42} + 6584984\, p^{76}\, q^{35} + 33801215\, p^{79}\, q^{49}$$
$$+ 43850766\, p^{80}\, q^{64} + 2701326\, p^{74}\, q^{30} + 55019936\, p^{79}\, q^{55} + 32224488\, p^{78}\, q^{46} + 25\, q^{65}\, p^{10} + 5\, q^{64}\, p^{9} + 363\, q^{66}\, p^{12} + 174090\, p^{77}\, q^{92}$$
$$+ 122827009\, p^{29}\, q^{41} + 255636445\, p^{33}\, q^{40} + 422012410\, p^{37}\, q^{39} + 1126\, p^{27}\, q^{6} + 372\, p^{26}\, q^{5} + 494697975\, p^{62}\, q^{69} + 470828465\, p^{55}\, q^{70}$$
$$+ 193201\, q^{55}\, p^{15} + 10553\, q^{53}\, p^{11} + 51852\, q^{54}\, p^{13} + 3637\, p^{53}\, q^{10} + 48310015\, p^{68}\, q^{34} + 164462439\, p^{69}\, q^{41} + 642090344\, p^{68}\, q^{54}$$
$$+ 387345245\, p^{68}\, q^{46} + 558329905\, p^{69}\, q^{55} + 124480729\, q^{63}\, p^{34} + 98035707\, q^{63}\, p^{33} + 155826083\, q^{63}\, p^{35} + 201115121\, q^{64}\, p^{37}$$
$$+ 282139981\, q^{63}\, p^{38} + 192414455\, q^{63}\, p^{36} + 234484963\, q^{63}\, p^{37} + 15608\, p^{67}\, q^{16} + 167874991\, p^{48}\, q^{73} + 329308647\, p^{56}\, q^{72}$$
$$+ 332934626\, p^{57}\, q^{72} + 112\, p^{101}\, q^{86} + 397063439\, p^{59}\, q^{71} + 207505592\, p^{44}\, q^{70} + 18028\, p^{12}\, q^{17} + 776144987\, q^{54}\, p^{39} + 888856653\, p^{64}\, q^{62}$$
$$+ 1030650733\, p^{61}\, q^{63} + 968105193\, p^{63}\, q^{62} + 855442127\, p^{65}\, q^{61} + 828717432\, p^{64}\, q^{63} + 900269963\, p^{63}\, q^{63} + 755026310\, p^{65}\, q^{63}$$
$$+ 807694306\, p^{65}\, q^{62} + 968105193\, p^{62}\, q^{63} + 1065181444\, p^{64}\, q^{58} + 1133919019\, p^{63}\, q^{59} + 173\, p^{97}\, q^{51} + 116\, p^{96}\, q^{46} + 1125\, p^{98}\, q^{64}$$
$$+ 629\, p^{97}\, q^{55} + 3\, p^{87}\, q^{23} + 33\, p^{91}\, q^{31} + 9\, p^{90}\, q^{28} + 289770480\, p^{63}\, q^{72} + 65409\, p^{94}\, q^{75} + 251\, p^{78}\, q^{18} + 1008\, p^{80}\, q^{21} + 1102\, p^{81}\, q^{22}$$
$$+ 12\, p^{66}\, q^{10} + 19487\, p^{95}\, q^{82} + 77873\, p^{83}\, q^{92} + 73\, p^{59}\, q^{99} + p^{55}\, q^{100} + 37\, p^{57}\, q^{99} + 51\, p^{58}\, q^{99} + 123\, p^{96}\, q^{99} + 209\, p^{94}\, q^{99} + 221\, p^{90}\, q^{100}$$
$$+ 266\, p^{93}\, q^{99} + 27\, p^{84}\, q^{102} + 81\, p^{91}\, q^{101} + 71\, p^{92}\, q^{101} + 203\, p^{96}\, q^{98} + 276\, p^{95}\, q^{98} + 111\, p^{94}\, q^{100} + 89\, p^{95}\, q^{100} + 25254263\, p^{27}\, q^{30}$$

$$+ 20258863\, p^{75}\, q^{79} + 3514226\, p^{58}\, q^{21} + 10895638\, p^{59}\, q^{24} + 103590968\, p^{61}\, q^{32} + 27814896\, p^{60}\, q^{27} + 79787145\, p^{61}\, q^{31}$$
$$+ 520348970\, p^{62}\, q^{41} + 166954593\, p^{61}\, q^{34} + 207505592\, p^{61}\, q^{35} + 968105193\, p^{43}\, q^{42} + 855442127\, p^{44}\, q^{40} + 5069064\, p^{60}\, q^{86}$$
$$+ 755026310\, p^{40}\, q^{42} + 764853073\, p^{41}\, q^{41} + 828717432\, p^{42}\, q^{41} + 807694306\, p^{43}\, q^{40} + 32\, q^{42}\, p^{5} + 10299\, p^{75}\, q^{20} + 4406848\, p^{85}\, q^{52}$$
$$+ 211615\, q^{21}\, p^{16} + 1912337702\, p^{54}\, q^{56} + 1969187194\, p^{53}\, q^{55} + 42160507\, p^{25}\, q^{40} + 8874868\, p^{66}\, q^{27} + 35399300\, p^{67}\, q^{32} + 3532\, p^{14}\, q^{10}$$
$$+ 2926\, p^{12}\, q^{11} + 1975\, p^{10}\, q^{12} + 1041\, p^{8}\, q^{13} + 1410109147\, p^{59}\, q^{60} + 7767213\, p^{66}\, q^{85} + 7496227\, p^{67}\, q^{85} + 9640012\, p^{69}\, q^{84}$$
$$+ 8132753\, p^{63}\, q^{85} + 1341003838\, p^{60}\, q^{60} + 1415279954\, p^{57}\, q^{61} + 847818288\, p^{48}\, q^{64} + 959538619\, p^{50}\, q^{64} + 1043949903\, p^{52}\, q^{64}$$
$$+ 1005764967\, p^{51}\, q^{64} + 1073089263\, p^{53}\, q^{64} + 1101376320\, p^{55}\, q^{64} + 1092406914\, p^{54}\, q^{64} + 982968188\, p^{55}\, q^{65} + 906450349\, p^{49}\, q^{64}$$
$$+ 1276323691\, p^{62}\, q^{58} + 1551464861\, p^{58}\, q^{59} + 1486387754\, p^{59}\, q^{59} + 2749585\, p^{19}\, q^{30} + 326\, p^{13}\, q^{6} + 62\, p^{12}\, q^{4} + 135\, p^{12}\, q^{5} + 605\, p^{13}\, q^{7}$$
$$+ 1706\, p^{13}\, q^{9} + 36090\, q^{94}\, p^{59} + 11221636\, p^{56}\, q^{23} + 670456879\, q^{54}\, p^{38} + 540275213\, q^{55}\, p^{37} + 11600843\, p^{63}\, q^{26} + 4198660\, p^{62}\, q^{23}$$
$$+ 26793559\, p^{64}\, q^{29} + 71\, p^{39}\, q^{5} + 36443807\, p^{64}\, q^{30} + 1493217\, p^{60}\, q^{20} + 13440598\, p^{69}\, q^{83} + 72\, p^{60}\, q^{9} + 508296601\, q^{53}\, p^{36}$$
$$+ 607209387\, p^{42}\, q^{38} + 5394390\, p^{63}\, q^{86} + 5337353\, p^{62}\, q^{86} + 10250585\, p^{68}\, q^{84} + 5227772\, p^{61}\, q^{86} + 32550531\, p^{36}\, q^{25} + 449154\, p^{89}\, q^{80}$$
$$+ 16511\, p^{30}\, q^{9} + 68503\, p^{31}\, q^{11} + 145\, q^{65}\, p^{11} + 48\, q^{64}\, p^{10} + 2\, q^{62}\, p^{8} + 80602\, q^{84}\, p^{33} + 119277\, q^{84}\, p^{34} + 172304\, q^{84}\, p^{35}$$
$$+ 1514051345\, p^{57}\, q^{60} + 1468295843\, p^{58}\, q^{60} + 1099753912\, p^{64}\, q^{56} + 572496467\, q^{54}\, p^{37} + 424930159\, q^{53}\, p^{35} + 936583\, p^{85}\, q^{83}$$
$$+ 1549031\, p^{82}\, q^{84} + 2930329\, p^{77}\, q^{85} + 2422685\, p^{76}\, q^{86} + 2350908\, p^{73}\, q^{87} + 1310914551\, p^{47}\, q^{59} + 842590726\, p^{61}\, q^{44} + 1801021\, p^{56}\, q^{19}$$
$$+ 6445286\, p^{57}\, q^{22} + 1041\, p^{13}\, q^{8} + 7329822\, p^{73}\, q^{32} + 5314971\, p^{73}\, q^{31} + 4887002\, p^{23}\, q^{26} + 81\, p^{14}\, q^{4} + 1366420710\, p^{49}\, q^{60}$$
$$+ 132469431\, p^{61}\, q^{33} + 1195680486\, p^{63}\, q^{53} + 376180\, p^{55}\, q^{16} + 1292507\, p^{80}\, q^{86} + 754599311\, p^{62}\, q^{44} + 1531775\, p^{57}\, q^{19}$$
$$+ 5537785\, p^{58}\, q^{22} + 1368\, q^{94}\, p^{45} + 16\, p^{100}\, q^{61} + 32\, p^{100}\, q^{63} + 107175\, p^{92}\, q^{81} + 34528\, p^{92}\, q^{87} + 139999\, p^{92}\, q^{79} + 43334\, p^{92}\, q^{86}$$
$$+ 187930\, q^{85}\, p^{37} + 5346428\, q^{40}\, p^{19} + 1350663\, q^{41}\, p^{16} + 109026336\, p^{29}\, q^{39} + 86862584\, p^{28}\, q^{39} + 10692033\, p^{76}\, q^{81} + 6432614\, p^{62}\, q^{24}$$
$$+ 872620\, p^{60}\, q^{19} + 211230\, p^{58}\, q^{16} + q^{14}\, p + 289770480\, p^{72}\, q^{63} + 303917582\, p^{72}\, q^{62} + 315620243\, p^{72}\, q^{61} + 888446069\, p^{42}\, q^{58}$$
$$+ 37812872\, p^{25}\, q^{38} + 26612219\, p^{24}\, q^{37} + 216512337\, p^{38}\, q^{33} + 1236576\, p^{35}\, q^{16} + 88956\, p^{51}\, q^{13} + 1424453\, p^{54}\, q^{18} + 316920\, p^{52}\, q^{15}$$
$$+ 322005079\, p^{59}\, q^{36} + 159529\, p^{52}\, q^{14} + 61222500\, p^{58}\, q^{79} + 10586\, p^{48}\, q^{10} + 36907970\, p^{27}\, q^{58} + 50635656\, p^{28}\, q^{58} + 104613051\, p^{31}\, q^{59}$$
$$+ 68229052\, p^{29}\, q^{58} + 90384299\, p^{30}\, q^{58} + 402652543\, p^{70}\, q^{51} + 77657414\, p^{68}\, q^{36} + 424930159\, p^{70}\, q^{52} + 11631\, p^{40}\, q^{9} + 4725\, p^{39}\, q^{8}$$
$$+ 2025143\, p^{61}\, q^{21} + 1641612120\, p^{59}\, q^{56} + 2308688\, p^{78}\, q^{34} + 9479062\, p^{79}\, q^{41} + 357561\, p^{75}\, q^{26} + 2497762\, p^{77}\, q^{33} + 62341072\, p^{61}\, q^{79}$$
$$+ 791\, p^{58}\, q^{10} + 558329905\, p^{55}\, q^{69} + 265539\, q^{37}\, p^{13} + 807375\, q^{37}\, p^{15} + 1353889\, q^{38}\, p^{16} + 2499\, q^{34}\, p^{7} + 848\, q^{33}\, p^{6} + 2940\, p^{49}\, q^{9}$$

$$+ 1050\, p^{48}\, q^{8} + 2060033\, q^{51}\, p^{18} + 173561287\, p^{66}\, q^{38} + 328337\, p^{59}\, q^{17} + 142763317\, p^{66}\, q^{37} + 466919384\, p^{68}\, q^{48} + 413906988\, p^{67}\, q^{45}$$
$$+ 19336798\, p^{64}\, q^{28} + 168\, q^{43}\, p^{6} + 43\, q^{41}\, p^{5} + 25\, q^{22}\, p^{3} + 23\, q^{23}\, p^{3} + 659793052\, p^{57}\, q^{68} + 390531469\, p^{48}\, q^{69} + 132711785\, p^{41}\, q^{70}$$
$$+ 1542314328\, p^{55}\, q^{46} + 187\, p^{71}\, q^{100} + 517723\, p^{89}\, q^{52} + 15\, p^{55}\, q^{7} + 3391386\, p^{78}\, q^{84} + 1629363\, p^{87}\, q^{52} + 166954593\, p^{44}\, q^{71}$$
$$+ 23896\, p^{42}\, q^{10} + 173561287\, p^{67}\, q^{39} + 427486387\, p^{68}\, q^{47} + 206517296\, p^{67}\, q^{40} + 540275213\, p^{68}\, q^{50} + 324145196\, p^{67}\, q^{43}$$
$$+ 282139981\, p^{67}\, q^{42} + 572496467\, p^{68}\, q^{51} + 115903157\, p^{66}\, q^{36} + 600669317\, p^{68}\, q^{52} + 17835578\, p^{77}\, q^{78} + 42199\, p^{72}\, q^{20}$$
$$+ 15690489\, p^{82}\, q^{52} + 14185198\, p^{82}\, q^{51} + 397\, p^{63}\, q^{11} + 5087342\, p^{24}\, q^{25} + 5326035\, p^{21}\, q^{30} + 6055793\, p^{77}\, q^{36} + 1408225391\, p^{47}\, q^{58}$$
$$+ 245478\, p^{92}\, q^{72} + 265539\, p^{92}\, q^{68} + 213613\, p^{71}\, q^{22} + 695651\, p^{72}\, q^{25} + 4950\, p^{56}\, q^{11} + 37446\, p^{59}\, q^{14} + 20562\, p^{58}\, q^{13} + 326\, q^{13}\, p^{6}$$
$$+ 145\, p^{65}\, q^{11} + 2\, p^{42}\, q^{4} + 92826413\, p^{66}\, q^{35} + 368285057\, p^{67}\, q^{44} + 624071259\, p^{68}\, q^{53} + 701324\, p^{19}\, q^{22} + 143084\, p^{14}\, q^{23}$$
$$+ 13926938\, p^{72}\, q^{82} + 980\, p^{31}\, q^{6} + 621361451\, q^{45}\, p^{37} + 46483261\, p^{44}\, q^{25} + 82200718\, p^{44}\, q^{27} + 11968340\, p^{43}\, q^{21} + 34042072\, p^{44}\, q^{24}$$
$$+ 62341072\, p^{44}\, q^{26} + 324572965\, p^{45}\, q^{33} + 174790298\, p^{45}\, q^{30} + 138336870\, p^{45}\, q^{29} + 267593370\, p^{45}\, q^{32} + 217745920\, p^{45}\, q^{31}$$
$$+ 388733501\, p^{45}\, q^{34} + 459907209\, p^{45}\, q^{35} + 552366304\, p^{46}\, q^{36} + 5847\, p^{51}\, q^{10} + 73301381\, p^{66}\, q^{34} + 242799111\, p^{67}\, q^{41}$$
$$+ 847818288\, p^{41}\, q^{57} + 796468163\, p^{40}\, q^{56} + 733422755\, q^{46}\, p^{38} + 71594\, p^{37}\, q^{11} + 139356\, p^{38}\, q^{12} + 33709\, p^{37}\, q^{10} + 9414\, p^{42}\, q^{9}$$
$$+ 3737\, p^{41}\, q^{8} + 259107\, p^{39}\, q^{13} + 5\, q^{79}\, p^{16} + 40\, q^{80}\, p^{18} + 173561287\, q^{67}\, p^{39} + 18631517\, p^{81}\, q^{50} + 9606707\, p^{80}\, q^{43} + 253193918\, p^{54}\, q^{73}$$
$$+ 170475857\, p^{51}\, q^{74} + 242436131\, p^{53}\, q^{73} + 229848545\, p^{52}\, q^{73} + 215750863\, p^{51}\, q^{73} + 413906988\, q^{67}\, p^{45} + 284458\, p^{91}\, q^{77}$$
$$+ 157068\, p^{92}\, q^{78} + 142968\, p^{69}\, q^{93} + 263680\, p^{67}\, q^{92} + 294140600\, p^{35}\, q^{38} + 425565731\, p^{62}\, q^{70} + 42\, q^{61}\, p^{9} + 145\, q^{62}\, p^{10} + 72\, q^{60}\, p^{9}$$
$$+ 9\, q^{94}\, p^{36} + 28\, q^{88}\, p^{26} + 32528789\, p^{64}\, q^{81} + 4\, p^{103}\, q^{85} + 2972\, p^{27}\, q^{7} + 7158\, p^{28}\, q^{8} + 119057\, p^{30}\, q^{12} + 32529\, p^{29}\, q^{10} + 1575270\, p^{32}\, q^{17}$$
$$+ 7527488\, p^{33}\, q^{21} + 4869434\, p^{32}\, q^{20} + 3422239\, p^{32}\, q^{19} + 10335126\, p^{33}\, q^{22} + 371956\, p^{31}\, q^{14} + 5259532\, p^{81}\, q^{42} + 2077450\, p^{79}\, q^{35}$$
$$+ 11221636\, p^{82}\, q^{49} + 16919052\, p^{83}\, q^{64} + 866264\, p^{77}\, q^{30} + 19933461\, p^{82}\, q^{55} + 10895638\, p^{81}\, q^{46} + 3124262\, p^{70}\, q^{27} + 13206707\, p^{71}\, q^{32}$$
$$+ 6159\, p^{86}\, q^{96} + 5814\, p^{81}\, q^{97} + 6234\, p^{80}\, q^{97} + 5\, q^{95}\, p^{38} + 3637\, q^{95}\, p^{52} + 45155955\, p^{25}\, q^{42} + 176999784\, p^{31}\, q^{40} + 97158419\, p^{28}\, q^{41}$$
$$+ 1366420710\, p^{60}\, q^{49} + 461671740\, p^{40}\, q^{37} + 278119598\, p^{34}\, q^{39} + 43850766\, p^{41}\, q^{25} + 73031\, p^{36}\, q^{11} + 141892\, p^{37}\, q^{12} + 34907\, p^{36}\, q^{10}$$
$$+ 2205245\, p^{39}\, q^{17} + 11589519\, p^{40}\, q^{21} + 474409\, p^{38}\, q^{14} + 7967040\, p^{40}\, q^{20} + 5346428\, p^{40}\, q^{19} + 16919052\, p^{41}\, q^{22} + 23690732\, p^{41}\, q^{23}$$
$$+ 75719231\, p^{41}\, q^{27} + 101222984\, p^{42}\, q^{28} + 263680\, p^{38}\, q^{13} + 816933\, p^{38}\, q^{15} + 2\, q^{88}\, p^{24} + 6912819\, p^{53}\, q^{21} + 20721747\, p^{54}\, q^{24}$$
$$+ 243513\, p^{69}\, q^{21} + 381742322\, p^{37}\, q^{38} + 143084\, p^{91}\, q^{82} + 773166\, p^{16}\, q^{29} + 980\, q^{31}\, p^{6} + 23561926\, p^{26}\, q^{31} + 1541364\, p^{86}\, q^{79}$$
$$+ 2797\, q^{25}\, p^{7} + 5\, q^{18}\, p^{2} + 383\, q^{23}\, p^{5} + 1094\, q^{24}\, p^{6} + 15440624\, p^{23}\, q^{34} + 536\, p^{70}\, q^{14} + 267\, p^{69}\, q^{13} + 7869941\, p^{80}\, q^{79} + 8431760\, p^{83}\, q^{50}$$

$$+ 4198660\, p^{82}\, q^{43} + 126139\, p^{31}\, q^{12} + 33995\, p^{30}\, q^{10} + 1706170\, p^{33}\, q^{17} + 8262179\, p^{34}\, q^{21} + 5373817\, p^{33}\, q^{20} + 3754831\, p^{33}\, q^{19}$$
$$+ 11402724\, p^{34}\, q^{22} + 397745\, p^{32}\, q^{14} + 483\, p^{74}\, q^{16} + 24010060\, p^{25}\, q^{33} + 34051362\, p^{27}\, q^{32} + 53309667\, p^{31}\, q^{30} + 44348819\, p^{29}\, q^{31}$$
$$+ 59355958\, p^{33}\, q^{29} + 146629\, q^{83}\, p^{33} + 243513\, q^{84}\, p^{36} + 98202\, q^{83}\, p^{32} + 9697973\, p^{71}\, q^{31} + 144703371\, p^{74}\, q^{49} + 153080366\, p^{75}\, q^{64}$$
$$+ 1309691526\, p^{62}\, q^{57} + 124480729\, p^{42}\, q^{71} + 42160507\, p^{80}\, q^{65} + 1375842379\, p^{58}\, q^{61} + 180843847\, p^{43}\, q^{70} + 1199676505\, p^{63}\, q^{57}$$
$$+ 5373817\, p^{20}\, q^{33} + 16371467\, p^{24}\, q^{32} + 18439014\, p^{24}\, q^{33} + 21221652\, p^{25}\, q^{32} + 27082749\, p^{26}\, q^{32} + 45084905\, p^{30}\, q^{30}$$
$$+ 15440624\, p^{34}\, q^{23} + 432587\, p^{86}\, q^{85} + 564953897\, p^{41}\, q^{38} + 5915\, p^{87}\, q^{32} + 135771\, p^{92}\, q^{57} + 49078\, p^{90}\, q^{44} + 73031\, p^{94}\, q^{69} + 402\, p^{80}\, q^{20}$$
$$+ 15608\, p^{89}\, q^{38} + 135373\, p^{93}\, q^{66} + 520310146\, p^{38}\, q^{40} + 378481021\, p^{35}\, q^{41} + 461671740\, p^{37}\, q^{40} + 303917582\, p^{33}\, q^{43}$$
$$+ 252118231\, p^{32}\, q^{43} + 361815647\, p^{34}\, q^{43} + 494697975\, p^{36}\, q^{43} + 425565731\, p^{35}\, q^{43} + 518284246\, p^{36}\, q^{44} + 631620197\, p^{41}\, q^{39}$$
$$+ 1206569\, p^{51}\, q^{17} + 4909855\, p^{52}\, q^{20} + 403344964\, p^{35}\, q^{42} + 568516171\, p^{37}\, q^{43} + 607209387\, p^{38}\, q^{42} + 467523837\, p^{36}\, q^{42} + 24\, p^{99}\, q^{56}$$
$$+ 4\, p^{100}\, q^{58} + 1485813559\, p^{51}\, q^{60} + 1431849879\, p^{50}\, q^{60} + 1101908853\, p^{47}\, q^{61} + 102483\, p^{77}\, q^{93} + 1330980861\, p^{62}\, q^{56}$$
$$+ 182457557\, p^{73}\, q^{67} + 12\, q^{66}\, p^{10} + 33953\, q^{84}\, p^{31} + 160907\, q^{88}\, p^{43} + 919\, q^{69}\, p^{14} + 117\, q^{68}\, p^{12} + 12423583\, p^{23}\, q^{32} + 295\, p^{100}\, q^{75}$$
$$+ 36415613\, p^{28}\, q^{31} + 51607538\, p^{32}\, q^{29} + 15700\, p^{92}\, q^{90} + 8043\, p^{93}\, q^{91} + 1706\, p^{92}\, q^{96} + 1468295843\, p^{60}\, q^{58} + 28284406\, q^{73}\, p^{37}$$
$$+ 9697973\, q^{74}\, p^{34} + 22278358\, q^{73}\, p^{36} + 13206707\, q^{73}\, p^{34} + 17287773\, q^{73}\, p^{35} + 1375842379\, p^{61}\, q^{58} + 259552\, q^{89}\, p^{48} + 42199\, q^{85}\, p^{33}$$
$$+ 63564\, q^{85}\, p^{34} + 23005430\, p^{72}\, q^{35} + 192855902\, p^{74}\, q^{53} + 103590968\, p^{73}\, q^{44} + 7250924\, p^{46}\, q^{82} + 6432614\, p^{43}\, q^{81} + 26753089\, p^{54}\, q^{81}$$
$$+ 7764680\, p^{44}\, q^{81} + 9254690\, p^{45}\, q^{81} + 336964957\, p^{67}\, q^{69} + 376880031\, p^{61}\, q^{71} + 53481\, p^{85}\, q^{92} + 1111\, p^{77}\, q^{99} + 24010060\, p^{72}\, q^{80}$$
$$+ 12692\, p^{95}\, q^{85} + 10554\, p^{88}\, q^{35} + 66556\, p^{66}\, q^{94} + 2797\, p^{25}\, q^{7} + 38429542\, q^{35}\, p^{26} + 22630115\, q^{35}\, p^{24} + 7243285\, q^{72}\, p^{31} + 176\, p^{77}\, q^{17}$$
$$+ 3327\, p^{85}\, q^{28} + 1135\, p^{82}\, q^{23} + 8016\, p^{86}\, q^{31} + 698689178\, p^{40}\, q^{41} + 698689178\, p^{41}\, q^{40} + 646088425\, p^{43}\, q^{38} + 597287029\, p^{37}\, q^{44}$$
$$+ 680716492\, p^{42}\, q^{39} + 646088425\, p^{38}\, q^{43} + 680716492\, p^{39}\, q^{42} + 828717432\, p^{41}\, q^{42} + 888856653\, p^{43}\, q^{41} + 726265787\, p^{39}\, q^{43}$$
$$+ 414373\, p^{50}\, q^{15} + 390531469\, p^{57}\, q^{36} + 213625\, p^{50}\, q^{14} + 767169346\, p^{44}\, q^{39} + 900269963\, p^{42}\, q^{42} + 1441807363\, p^{56}\, q^{61}$$
$$+ 1318347262\, p^{53}\, q^{62} + 1077391733\, p^{50}\, q^{63} + 1410109147\, p^{60}\, q^{59} + 30024387\, p^{81}\, q^{66} + 23728720\, p^{78}\, q^{44} + 367296\, p^{71}\, q^{23}$$
$$+ 42053137\, p^{80}\, q^{56} + 52047333\, p^{79}\, q^{54} + 46469354\, p^{80}\, q^{60} + 43761177\, p^{80}\, q^{57} + 10064421\, p^{77}\, q^{38} + 48740918\, p^{79}\, q^{53} + 532\, q^{77}\, p^{18}$$
$$+ 1339615354\, p^{55}\, q^{62} + 1330980861\, p^{56}\, q^{62} + 1309691526\, p^{57}\, q^{62} + 1276323691\, p^{58}\, q^{62} + 1324544894\, p^{59}\, q^{61} + 1454714655\, p^{55}\, q^{61}$$
$$+ 1289026249\, p^{52}\, q^{62} + 1453650666\, p^{54}\, q^{61} + 449000\, p^{90}\, q^{77} + 254144\, p^{91}\, q^{78} + 123671\, p^{93}\, q^{64} + 103697\, p^{92}\, q^{55} + 51852\, p^{92}\, q^{51}$$
$$+ 37446\, p^{91}\, q^{46} + 374897\, p^{78}\, q^{29} + 242419\, p^{78}\, q^{28} + 2685\, p^{69}\, q^{15} + p^{35}\, q^{3} + 4\, p^{47}\, q^{5} + 65020\, p^{92}\, q^{84} + 9662\, p^{72}\, q^{18} + 33953\, p^{74}\, q^{21}$$

$$+ 82939\, p^{76}\, q^{24} + 40550\, p^{75}\, q^{22} + 142028\, p^{76}\, q^{25} + 12637867\, p^{83}\, q^{54} + 10337569\, p^{84}\, q^{57} + 2039853\, p^{81}\, q^{38} + 11606881\, p^{83}\, q^{53}$$
$$+ 11632176\, p^{84}\, q^{60} + 7767213\, p^{85}\, q^{66} + 5102344\, p^{82}\, q^{44} + 74291\, p^{75}\, q^{23} + 9739307\, p^{84}\, q^{56} + 6713\, p^{71}\, q^{17} + 6445286\, p^{83}\, q^{48}$$
$$+ 6120619\, p^{82}\, q^{45} + q^{36}\, p^{3} + 175835268\, p^{36}\, q^{33} + 1292507\, p^{86}\, q^{80} + 580104936\, p^{65}\, q^{66} + 474265070\, p^{66}\, q^{67} + 8094143\, p^{62}\, q^{85}$$
$$+ 10787897\, p^{67}\, q^{84} + 4346497\, p^{57}\, q^{86} + 12423583\, p^{73}\, q^{82} + 10335126\, p^{72}\, q^{83} + 5679\, q^{37}\, p^{8} + 181200\, p^{64}\, q^{18} + 36877\, p^{62}\, q^{15}$$
$$+ 397099745\, p^{64}\, q^{41} + 144455454\, p^{75}\, q^{65} + 109026336\, p^{76}\, q^{66} + 174790298\, p^{75}\, q^{60} + 174199049\, p^{75}\, q^{57} + 202081491\, p^{74}\, q^{54}$$
$$+ 104613051\, p^{74}\, q^{46} + 165525334\, p^{75}\, q^{55} + 323254601\, p^{66}\, q^{70} + 302476757\, p^{68}\, q^{69} + 278119598\, p^{66}\, q^{71} + 124480729\, p^{63}\, q^{34}$$
$$+ 155826083\, p^{63}\, q^{35} + 952815859\, p^{65}\, q^{53} + 585911797\, p^{64}\, q^{44} + 2950509\, p^{70}\, q^{87} + 2764810\, p^{71}\, q^{87} + 1102\, q^{81}\, p^{22} + 53077\, q^{84}\, p^{32}$$
$$+ 1705895\, q^{83}\, p^{41} + 106\, q^{79}\, p^{18} + 13163\, q^{86}\, p^{32} + 3490\, q^{87}\, p^{31} + 20869\, q^{86}\, p^{33} + 194\, q^{83}\, p^{22} + 488\, q^{83}\, p^{23} + 581833\, p^{77}\, q^{29}$$
$$+ 380850\, p^{77}\, q^{28} + 4228\, p^{68}\, q^{15} + 1195680486\, p^{53}\, q^{63} + 1166169158\, p^{52}\, q^{63} + 1214130691\, p^{54}\, q^{63} + 1099753912\, p^{56}\, q^{64}$$
$$+ 1199676505\, p^{57}\, q^{63} + 1221020903\, p^{55}\, q^{63} + 1216158604\, p^{56}\, q^{63} + 116\, p^{55}\, q^{8} + 24\, p^{49}\, q^{6} + 1546168408\, p^{56}\, q^{60} + 1324544894\, p^{61}\, q^{59}$$
$$+ 1335365801\, p^{54}\, q^{62} + 1126391129\, p^{51}\, q^{63} + 11600843\, p^{79}\, q^{42} + 4586781\, p^{77}\, q^{35} + 23918726\, p^{80}\, q^{49} + 32528789\, p^{81}\, q^{64}$$
$$+ 1891419\, p^{75}\, q^{30} + 40009673\, p^{80}\, q^{55} + 22931655\, p^{79}\, q^{46} + 51704449\, q^{75}\, p^{43} + 43676196\, q^{75}\, p^{42} + 60481289\, q^{75}\, p^{44}$$
$$+ 60102126\, q^{76}\, p^{46} + 90384299\, q^{75}\, p^{47} + 69930759\, q^{75}\, p^{45} + 79944164\, q^{75}\, p^{46} + 242799111\, q^{64}\, p^{38} + 341052335\, q^{64}\, p^{40}$$
$$+ 457108395\, q^{64}\, p^{42} + 397099745\, q^{64}\, p^{41} + 520348970\, q^{64}\, p^{43} + 652714542\, q^{64}\, p^{45} + 585911797\, q^{64}\, p^{44} + 567257126\, q^{65}\, p^{45}$$
$$+ 289501696\, q^{64}\, p^{39} + 6045144\, p^{21}\, q^{31} + 12445506\, p^{70}\, q^{83} + 552605\, p^{30}\, q^{15} + 31577072\, p^{29}\, q^{29} + 27082749\, p^{32}\, q^{26} + 15422\, p^{28}\, q^{9}$$
$$+ 61776\, p^{29}\, q^{11} + 23\, p^{23}\, q^{3} + 3482228\, p^{42}\, q^{18} + 1350663\, p^{41}\, q^{16} + 733422755\, p^{46}\, q^{38} + 1033160211\, p^{46}\, q^{41} + 1231763555\, p^{46}\, q^{43}$$
$$+ 1133919019\, p^{46}\, q^{42} + 602686\, p^{90}\, q^{74} + 816933\, p^{90}\, q^{67} + 731834\, p^{90}\, q^{71} + 214061795\, p^{73}\, q^{65} + 164791604\, p^{74}\, q^{66}$$
$$+ 267593370\, p^{73}\, q^{60} + 271951743\, p^{73}\, q^{57} + 831073976\, p^{46}\, q^{39} + 5218\, q^{38}\, p^{8} + 63108\, q^{40}\, p^{11} + 130110\, q^{40}\, p^{12} + 2181559\, q^{42}\, p^{17}$$
$$+ 174790298\, q^{45}\, p^{30} + 1180731537\, p^{44}\, q^{57} + 30401\, q^{39}\, p^{10} + 46483261\, q^{44}\, p^{25} + 34042072\, q^{44}\, p^{24} + 62341072\, q^{44}\, p^{26}$$
$$+ 82200718\, q^{44}\, p^{27} + 107879047\, q^{45}\, p^{28} + 236032\, p^{88}\, q^{85} + 324572965\, q^{45}\, p^{33} + 459907209\, q^{45}\, p^{35} + 552366304\, q^{46}\, p^{36}$$
$$+ 217745920\, q^{45}\, p^{31} + 388733501\, q^{45}\, p^{34} + 267593370\, q^{45}\, p^{32} + 3423339\, q^{43}\, p^{18} + 454564020\, p^{50}\, q^{69} + 1322157\, q^{42}\, p^{16}$$
$$+ 1737123313\, p^{52}\, q^{58} + 1759540174\, p^{53}\, q^{58} + 1397657928\, p^{48}\, q^{59} + 1475439569\, p^{49}\, q^{59} + 1216158604\, p^{63}\, q^{56} + 3975\, q^{84}\, p^{27}$$
$$+ 28\, q^{79}\, p^{17} + 2\, q^{78}\, p^{15} + 139\, q^{80}\, p^{19} + 52\, q^{81}\, p^{19} + 167\, q^{81}\, p^{20} + 458\, q^{81}\, p^{21} + 1135\, q^{82}\, p^{23} + 13\, p^{27}\, q^{3} + 1696160\, p^{18}\, q^{29}$$
$$+ 9554840\, p^{23}\, q^{30} + 45089095\, p^{80}\, q^{58} + 11148812\, p^{76}\, q^{37} + 45999985\, p^{80}\, q^{59} + 13\, q^{27}\, p^{3} + 32264301\, q^{63}\, p^{29} + 43676196\, q^{63}\, p^{30}$$

$$+ 48709263\, q^{64} p^{31} + 1206569\, p^{88} q^{54} + 1016554\, p^{89} q^{58} + 1165391\, p^{89} q^{60} + 1070087\, p^{88} q^{53} + 64032630\, q^{64} p^{32} + 105621544\, q^{64} p^{34}$$
$$+ 82859367\, q^{64} p^{33} + 132711785\, q^{64} p^{35} + 170475499\, q^{65} p^{37} + 164462439\, q^{64} p^{36} + 206517296\, q^{65} p^{38} + 291996847\, q^{65} p^{40}$$
$$+ 393792749\, q^{65} p^{42} + 341052335\, q^{65} p^{41} + 449614848\, q^{65} p^{43} + 507744756\, q^{65} p^{44} + 487396696\, q^{66} p^{45} + 247062711\, q^{65} p^{39}$$
$$+ 540357982\, q^{66} p^{46} + 692073977\, q^{66} p^{49} + 643801916\, q^{66} p^{48} + 809864901\, q^{66} p^{52} + 856336626\, q^{66} p^{54} + 757788141\, q^{67} p^{55}$$
$$+ 736549536\, q^{66} p^{50} + 836832945\, q^{66} p^{53} + 776144987\, q^{66} p^{51} + 592854383\, q^{66} p^{47} + 26863333\, p^{71} q^{80} + 1641038\, p^{43} q^{84} + 232\, p^{61} q^{10}$$
$$+ 138421695\, p^{76} q^{58} + 139056243\, p^{76} q^{59} + 444103\, q^{89} p^{51} + 376180\, q^{89} p^{50} + 181200\, q^{87} p^{41} + 795339\, q^{41} p^{15} + 30024387\, p^{66} q^{81}$$
$$+ 23096174\, p^{58} q^{82} + 5337353\, q^{43} p^{19} + 44348819\, p^{31} q^{29} + 368\, p^{94} q^{98} + 109\, p^{87} q^{101} + 144\, p^{97} q^{98} + 258453\, q^{85} p^{38} + 6\, p^{99} q^{53}$$
$$+ 2\, q^{81} p^{17} + 9662\, q^{87} p^{33} + 186\, q^{82} p^{21} + 13\, q^{81} p^{18} + 176999784\, p^{40} q^{31} + 301577276\, p^{40} q^{34} + 351575404\, p^{40} q^{35} + 437435662\, p^{41} q^{36}$$
$$+ 1077\, p^{76} q^{99} + 1636762722\, p^{52} q^{59} + 402353919\, p^{57} q^{71} + 403344964\, p^{63} q^{70} + 341656877\, p^{68} q^{68} + 459907209\, p^{60} q^{70}$$
$$+ 101083526\, p^{48} q^{75} + 144703371\, p^{49} q^{74} + 157870178\, p^{50} q^{74} + 184408805\, p^{49} q^{73} + 741664\, p^{90} q^{62} + 810819\, p^{90} q^{65} + 15235\, p^{71} q^{18}$$
$$+ 53077\, p^{73} q^{21} + 196161360\, p^{72} q^{68} + 130207\, p^{75} q^{24} + 64050\, p^{74} q^{22} + 219554\, p^{75} q^{25} + 43837671\, p^{34} q^{27} + 1104529\, p^{33} q^{16}$$
$$+ 17670996\, q^{71} p^{33} + 977180\, q^{71} p^{25} + 23252772\, q^{71} p^{34} + 30116550\, q^{71} p^{35} + 61361239\, p^{35} q^{28} + q^{80} p^{16} + 852416125\, p^{66} q^{58}$$
$$+ 18597085\, p^{82} q^{54} + 15331059\, p^{83} q^{57} + 3156275\, p^{80} q^{38} + 17171654\, p^{82} q^{53} + 16977857\, p^{83} q^{60} + 11238374\, p^{84} q^{66} + 7764680\, p^{81} q^{44}$$
$$+ 115173\, p^{74} q^{23} + 14522838\, p^{83} q^{56} + 10554\, p^{70} q^{17} + 9814898\, p^{82} q^{48} + 9254690\, p^{81} q^{45} + 341656877\, p^{37} q^{37} + 1070087\, p^{52} q^{17}$$
$$+ 462450\, q^{40} p^{14} + 2219821\, p^{65} q^{88} + 1353889\, p^{67} q^{89} + 2110447\, p^{68} q^{88} + 2205245\, p^{66} q^{88} + 2168378\, p^{67} q^{88} + 2181559\, p^{63} q^{88}$$
$$+ 2211915\, p^{64} q^{88} + 251893\, q^{40} p^{13} + 3495018\, q^{40} p^{18} + 4702\, p^{86} q^{30} + 2\, p^{54} q^{6} + 27207\, p^{90} q^{42} + 437435662\, p^{64} q^{69} + 35265961\, p^{68} q^{80}$$
$$+ 1427\, p^{63} q^{12} + 18491531\, p^{80} q^{47} + 7640976\, p^{79} q^{40} + 6073262\, p^{79} q^{39} + 40\, p^{53} q^{7} + 32121\, p^{71} q^{19} + 13440598\, p^{83} q^{69}$$
$$+ 12445506\, p^{83} q^{70} + 1818957\, p^{80} q^{36} + 242419\, p^{77} q^{27} + 24441279\, p^{62} q^{82} + 9259241\, p^{70} q^{30} + 348808\, p^{66} q^{20} + 119925\, p^{83} q^{91}$$
$$+ 82939\, q^{81} p^{29} + 132202\, p^{73} q^{93} + 3\, p^{4} q^{2} + 7\, p^{5} q^{3} + 872362\, p^{23} q^{19} + 454282\, p^{23} q^{17} + 1924120\, p^{24} q^{21} + 1173092\, p^{23} q^{20}$$
$$+ 1880059037\, p^{55} q^{50} + 4058716\, q^{80} p^{39} + 13654584\, q^{80} p^{45} + 56918750\, q^{78} p^{51} + 36907970\, q^{78} p^{47} + 65020\, q^{21} p^{13} + 2659\, q^{24} p^{7}$$
$$+ 6249276\, p^{24} q^{26} + 11954512\, p^{26} q^{27} + 7572181\, p^{24} q^{27} + 17\, p^{89} q^{27} + 358\, p^{100} q^{78} + 546427889\, p^{54} q^{69} + 293525936\, p^{47} q^{70}$$
$$+ 70568672\, q^{78} p^{54} + 55019936\, q^{79} p^{55} + 51901961\, q^{78} p^{50} + 66361029\, q^{78} p^{53} + q^{4} p + p\, q^{3} + 3\, q^{4} p^{2} + 337065\, p^{68} q^{21} + 89\, p^{15} q^{4}$$
$$+ 1815769711\, p^{55} q^{49} + 3850\, q^{20} p^{8} + 406\, p^{46} q^{7} + 471132090\, p^{70} q^{59} + 477958925\, p^{70} q^{58} + 32224488\, q^{78} p^{46} + 46829928\, q^{78} p^{49}$$
$$+ 41802433\, q^{78} p^{48} + 61775084\, q^{78} p^{52} + 12068033\, p^{75} q^{36} + 5\, p^{4} q^{3} + 26\, p^{13} q^{3} + 551\, p^{16} q^{6} + 221\, p^{15} q^{5} + 57849\, p^{16} q^{16}$$

$$+ 27060\, p^{13}\, q^{17} + 1736650392\, p^{55}\, q^{48} + 301577276\, p^{71}\, q^{65} + 236481154\, p^{72}\, q^{66} + 388733501\, p^{71}\, q^{60} + 402353919\, p^{71}\, q^{57} + 2\, p^{3}\, q^{2}$$
$$+ 11402724\, p^{22}\, q^{34} + 13926938\, p^{23}\, q^{33} + 7527488\, p^{21}\, q^{33} + 10335126\, p^{22}\, q^{33} + 1644735924\, p^{55}\, q^{47} + 636130\, p^{23}\, q^{18} + 7\, p^{13}\, q^{2}$$
$$+ 330322\, q^{74}\, p^{25} + 254470068\, p^{44}\, q^{69} + 103697\, q^{92}\, p^{55} + 770941\, q^{73}\, p^{26} + 295404\, q^{73}\, p^{24} + 173748\, q^{73}\, p^{23} + 98202\, q^{73}\, p^{22}$$
$$+ 8866\, p^{18}\, q^{10} + 1292\, p^{17}\, q^{7} + 4309\, p^{17}\, q^{9} + 2433\, p^{17}\, q^{8} + 26604\, q^{26}\, p^{10} + 23918726\, p^{49}\, q^{80} + 6\, p^{53}\, q^{99} + 1291201104\, p^{45}\, q^{57}$$
$$+ 1252643610\, p^{44}\, q^{56} + 515\, p^{45}\, q^{7} + 552366304\, p^{69}\, q^{59} + 45\, q^{32}\, p^{4} + 11\, q^{7}\, p^{3} + 27047\, q^{53}\, p^{12} + 62938\, q^{53}\, p^{13} + 7414273\, q^{56}\, p^{22}$$
$$+ 603891\, q^{27}\, p^{16} + 245478\, p^{72}\, q^{92} + 119925\, p^{22}\, q^{14} + 215949\, p^{23}\, q^{15} + 77873\, p^{22}\, q^{13} + 29584\, p^{22}\, q^{11} + 17\, p^{6}\, q^{4} + 28\, p^{6}\, q^{5} + 64\, p^{7}\, q^{6}$$
$$+ 3331550\, p^{87}\, q^{61} + 3482228\, p^{87}\, q^{63} + 742951187\, p^{40}\, q^{57} + 1891148269\, p^{56}\, q^{55} + 1749550720\, p^{49}\, q^{56} + 1736650392\, p^{48}\, q^{55}$$
$$+ 1961647316\, p^{55}\, q^{54} + 790\, p^{19}\, q^{6} + 302\, p^{18}\, q^{5} + 1969187194\, p^{55}\, q^{53} + 15\, p^{26}\, q^{3} + 160\, p^{35}\, q^{5} + 643\, p^{98}\, q^{61} + 948\, p^{98}\, q^{63}$$
$$+ 1815769711\, p^{50}\, q^{56} + 1815769711\, p^{49}\, q^{55} + 26756306\, p^{55}\, q^{25} + 24414612\, p^{66}\, q^{30} + 976814\, p^{62}\, q^{20} + 483\, q^{89}\, p^{31} + 47\, q^{89}\, p^{28}$$
$$+ 241\, q^{89}\, p^{30} + 113\, q^{89}\, p^{29} + 41304\, q^{21}\, p^{12} + 99068\, q^{21}\, p^{14} + 179260\, q^{22}\, p^{15} + 169006\, p^{20}\, q^{16} + 129950\, p^{90}\, q^{48} + 133855\, p^{89}\, q^{45}$$
$$+ 251893\, p^{92}\, q^{65} + 217080\, p^{92}\, q^{62} + 242722\, p^{91}\, q^{56} + 307527\, q^{87}\, p^{43} + 2401530\, p^{86}\, q^{51} + 773153\, p^{85}\, q^{42} + 524123\, p^{26}\, q^{16} + 8289\, p^{21}\, q^{9}$$
$$+ 48925\, p^{22}\, q^{12} + 8866\, p^{10}\, q^{18} + 50934\, p^{18}\, q^{14} + 14468\, p^{18}\, q^{11} + 93790\, p^{19}\, q^{15} + 34528\, p^{18}\, q^{13} + 22737\, p^{18}\, q^{12} + 36\, q^{33}\, p^{4}$$
$$+ 137014\, p^{72}\, q^{93} + 260822\, p^{70}\, q^{92} + 3724420\, p^{86}\, q^{55} + 1808762\, p^{85}\, q^{46} + 3506276\, p^{87}\, q^{64} + 130207\, p^{81}\, q^{30} + 304278\, p^{83}\, q^{35}$$
$$+ 1801021\, p^{86}\, q^{49} + 30\, q^{16}\, p^{3} + 304278\, q^{70}\, p^{22} + 516611\, q^{70}\, p^{23} + 847035\, q^{70}\, p^{24} + 2308688\, q^{71}\, p^{27} + 103\, p^{17}\, q^{4} + 30\, p^{15}\, q^{3}$$
$$+ 34739\, p^{87}\, q^{36} + 14840\, p^{21}\, q^{10} + 1913\, p^{20}\, q^{7} + 3850\, p^{20}\, q^{8} + 21896\, p^{81}\, q^{95} + 2512994\, p^{22}\, q^{24} + 1023621\, p^{88}\, q^{77} + 603891\, p^{89}\, q^{78}$$
$$+ 71612\, p^{67}\, q^{18} + 32943640\, p^{66}\, q^{31} + 13\, p^{37}\, q^{4} + 423474570\, p^{69}\, q^{49} + 4082973\, p^{81}\, q^{81} + 4304\, q^{63}\, p^{13} + 102562\, p^{16}\, q^{18} + 11383\, q^{63}\, p^{14}$$
$$+ 11591\, p^{13}\, q^{14} + 8372\, p^{13}\, q^{13} + 216\, p^{63}\, q^{99} + 287\, q^{90}\, p^{32} + 139584\, p^{67}\, q^{19} + 1957811241\, p^{55}\, q^{52} + 25298\, q^{21}\, p^{11} + 260968\, p^{22}\, q^{16}$$
$$+ 4586781\, q^{77}\, p^{35} + 6055793\, q^{77}\, p^{36} + 6997182\, q^{78}\, p^{38} + 1327\, q^{14}\, p^{8} + 751\, q^{14}\, p^{7} + 23\, q^{35}\, p^{4} + p^{8}\, q + 378481021\, p^{70}\, q^{64}$$
$$+ 17424\, p^{55}\, q^{12} + 131\, p^{44}\, q^{6} + 1791997\, q^{77}\, p^{32} + 3415353\, q^{77}\, p^{34} + 2497762\, q^{77}\, p^{33} + 1927832830\, p^{55}\, q^{51} + 1174961\, q^{34}\, p^{16}$$
$$+ 1706170\, q^{33}\, p^{17} + 693466\, q^{33}\, p^{15} + 1104529\, q^{33}\, p^{16} + 4406848\, p^{53}\, q^{20} + 108128\, p^{62}\, q^{93} + 317096\, p^{16}\, q^{23} + 1159987\, p^{88}\, q^{76}$$
$$+ 119925\, p^{14}\, q^{22} + 1575270\, p^{88}\, q^{73} + 36090\, p^{46}\, q^{11} + 72107\, p^{47}\, q^{12} + 20\, p^{5}\, q^{5} + 34379\, p^{20}\, q^{12} + 6159\, p^{19}\, q^{9} + 2212\, q^{14}\, p^{9}$$
$$+ 4568\, q^{15}\, p^{10} + 5326035\, p^{75}\, q^{84} + 5866370\, p^{71}\, q^{85} + 379965\, p^{16}\, q^{24} + 17707\, p^{94}\, q^{86} + 9\, q^{6}\, p^{3} + 45\, p^{6}\, q^{6} + 5886\, p^{13}\, q^{12} + 5416\, p^{14}\, q^{11}$$
$$+ 12\, p^{5}\, q^{4} + 12\, p^{4}\, q^{5} + 3\, q^{5}\, p^{2} + 9\, p^{6}\, q^{3} + 3\, p^{5}\, q^{2} + 3095688\, p^{83}\, q^{80} + 384\, q^{24}\, p^{5} + 6915\, q^{27}\, p^{8} + 112\, q^{23}\, p^{4} + 3385996\, p^{20}\, q^{29} + 9\, p^{4}\, q^{4}$$
$$+ 7\, p^{3}\, q^{5} + 5\, q^{4}\, p^{3} + q^{5}\, p + 30\, q^{34}\, p^{4} + 5416\, p^{11}\, q^{14} + 5886\, p^{12}\, q^{13} + 80649\, p^{20}\, q^{14} + 21316\, p^{20}\, q^{11} + 146705\, p^{21}\, q^{15} + 53481\, p^{20}\, q^{13}$$

$$+ 8340\, p^{54}\, q^{11} + 61011\, p^{57}\, q^{14} + 33700\, p^{56}\, q^{13} + 160\, q^{35}\, p^{5} + 109\, q^{24}\, p^{4} + 57035632\, p^{39}\, q^{72} + 98035707\, p^{42}\, q^{72} + 82859367\, p^{41}\, q^{72}$$
$$+ 35399300\, p^{38}\, q^{73} + 69181009\, p^{40}\, q^{72} + 4568\, p^{95}\, q^{90} + 535778181\, p^{63}\, q^{68} + p^{4}\, q + 2\, p^{2}\, q^{3} + 788\, q^{43}\, p^{7} + 10\, q^{38}\, p^{4} + 57136\, q^{23}\, p^{12}$$
$$+ 28779\, q^{27}\, p^{10} + 14653\, q^{27}\, p^{9} + 30787\, q^{28}\, p^{10} + 1001\, q^{22}\, p^{6} + 91\, p^{6}\, q^{8} + 695836\, q^{55}\, p^{17} + 23918726\, q^{56}\, p^{25} + 46829928\, q^{56}\, p^{27}$$
$$+ 57095658\, q^{57}\, p^{28} + 11221636\, q^{56}\, p^{23} + 76611261\, q^{57}\, p^{29} + 117814816\, q^{58}\, p^{31} + 101083526\, q^{57}\, p^{30} + 63686020\, p^{77}\, q^{49}$$
$$+ 75719231\, p^{78}\, q^{64} + 48925\, p^{12}\, q^{22} + 5186475\, p^{72}\, q^{30} + 98604408\, p^{77}\, q^{55} + 60102126\, p^{76}\, q^{46} + 13\, q^{8}\, p^{3} + 16\, q^{9}\, p^{3} + 144\, p^{8}\, q^{7}$$
$$+ 7130\, p^{15}\, q^{11} + 3628\, q^{48}\, p^{9} + 135524\, q^{65}\, p^{18} + 2121\, q^{21}\, p^{7} + 8289\, q^{21}\, p^{9} + 17129\, q^{22}\, p^{10} + 100\, p^{7}\, q^{7} + 4\, q^{7}\, p^{2} + 32264301\, p^{76}\, q^{42}$$
$$+ 29\, p^{8}\, q^{4} + 53\, p^{8}\, q^{5} + 123\, p^{9}\, q^{6} + 12768236\, p^{74}\, q^{35} + 687413\, q^{28}\, p^{16} + 116\, q^{22}\, p^{4} + 1584201\, p^{83}\, q^{83} + 347291257\, p^{37}\, q^{60} + 25\, p^{98}\, q^{51}$$
$$+ 16\, p^{97}\, q^{46} + 265\, p^{99}\, q^{64} + 127\, p^{98}\, q^{55} + 5\, p^{92}\, q^{31} + p^{91}\, q^{28} + 70284342\, p^{77}\, q^{50} + 38370589\, p^{76}\, q^{43} + 11639\, p^{94}\, q^{88} + 29584\, p^{94}\, q^{83}$$
$$+ 8233008\, p^{29}\, q^{23} + 293525936\, p^{35}\, q^{58} + 263020869\, p^{34}\, q^{57} + 3057667\, p^{52}\, q^{19} + 10547531\, p^{53}\, q^{22} + 848\, p^{99}\, q^{72} + 534\, p^{99}\, q^{68}$$
$$+ 4350\, q^{21}\, p^{8} + 868\, q^{20}\, p^{6} + 168427\, p^{14}\, q^{24} + 936583\, p^{20}\, q^{22} + 13\, p^{8}\, q^{3} + 4\, p^{7}\, q^{2} + 48740918\, q^{79}\, p^{53} + 41450026\, q^{79}\, p^{51}$$
$$+ 26392541\, q^{79}\, p^{47} + 264304986\, p^{46}\, q^{70} + 53\, p^{5}\, q^{8} + 18544461\, p^{80}\, q^{74} + 16016202\, p^{80}\, q^{75} + 37812872\, p^{80}\, q^{67} + 26863333\, p^{80}\, q^{71}$$
$$+ 24010060\, p^{80}\, q^{72} + 35265961\, p^{80}\, q^{68} + 1863149\, p^{59}\, q^{88} + 2162781\, p^{85}\, q^{47} + 4\, q^{32}\, p^{3} + 1669354420\, p^{48}\, q^{56} + 1644735924\, p^{47}\, q^{55}$$
$$+ 152601\, p^{92}\, q^{58} + 186144\, p^{92}\, q^{60} + 140486\, p^{93}\, q^{71} + 185732\, p^{91}\, q^{54} + 61\, p^{69}\, q^{12} + 159529\, p^{91}\, q^{53} + q^{85}\, p^{20} + 9924649\, q^{72}\, p^{32}$$
$$+ 23005430\, q^{72}\, p^{35} + 17670996\, q^{72}\, p^{34} + 5314971\, q^{73}\, p^{31} + 13356045\, q^{72}\, p^{33} + 48197\, p^{91}\, q^{47} + 2306\, p^{83}\, q^{25} + 5990\, p^{85}\, q^{29}$$
$$+ 1102\, p^{83}\, q^{24} + 449154\, p^{25}\, q^{16} + 391078\, q^{87}\, p^{44} + 7652193\, p^{52}\, q^{21} + 22801057\, p^{53}\, q^{24} + 29\, p^{4}\, q^{8} + 3760875\, p^{26}\, q^{22} + 28\, p^{5}\, q^{6}$$
$$+ 787\, p^{54}\, q^{9} + 1020435464\, p^{42}\, q^{56} + 21149032\, q^{57}\, p^{25} + 41802433\, q^{57}\, p^{27} + 2978679\, q^{56}\, p^{20} + 1801021\, q^{56}\, p^{19} + 272176\, q^{53}\, p^{15}$$
$$+ 13131\, q^{52}\, p^{11} + 1230607\, q^{55}\, p^{18} + 113210\, q^{54}\, p^{14} + 214\, q^{33}\, p^{5} + 2277998\, q^{50}\, p^{18} + 81221\, p^{59}\, q^{93} + 10528\, q^{68}\, p^{16} + 6466\, q^{67}\, p^{15}$$
$$+ 221\, p^{100}\, q^{90} + 406\, p^{98}\, q^{59} + 38420398\, p^{34}\, q^{69} + 11519002\, p^{80}\, q^{77} + 7572181\, p^{81}\, q^{78} + 21221652\, p^{80}\, q^{73} + 13667363\, p^{80}\, q^{76}$$
$$+ 692\, p^{99}\, q^{70} + 145\, p^{95}\, q^{43} + 115\, q^{21}\, p^{4} + 1705\, q^{19}\, p^{7} + 2881\, q^{18}\, p^{8} + 5847\, q^{51}\, p^{10} + 2343\, q^{50}\, p^{9} + 2092109\, q^{55}\, p^{19} + 32957\, q^{52}\, p^{12}$$
$$+ 135261\, q^{53}\, p^{14} + 5458488\, q^{55}\, p^{21} + 3433307\, q^{55}\, p^{20} + 4768928\, q^{56}\, p^{21} + 30033650\, q^{57}\, p^{26} + 14575362\, q^{57}\, p^{24} + 1913\, q^{20}\, p^{7}$$
$$+ 11095871\, p^{65}\, q^{27} + 43699847\, p^{66}\, q^{32} + p^{5}\, q + 40\, q^{7}\, p^{5} + 11\, p^{7}\, q^{3} + 4\, p^{6}\, q^{2} + 643801916\, p^{39}\, q^{57} + 140646\, p^{17}\, q^{18} + 132781\, p^{16}\, q^{19}$$
$$+ 17\, q^{6}\, p^{4} + 22\, p^{7}\, q^{4} + 40\, p^{7}\, q^{5} + 91\, p^{8}\, q^{6} + 1493\, q^{18}\, p^{7} + 45180620\, q^{79}\, p^{52} + 52047333\, q^{79}\, p^{54} + 37630551\, q^{79}\, p^{50} + 22931655\, q^{79}\, p^{46}$$
$$+ 33801215\, q^{79}\, p^{49} + 30033650\, q^{79}\, p^{48} + 2\, q^{23}\, p^{2} + 19999811\, q^{78}\, p^{43} + 23728720\, q^{78}\, p^{44} + 8874868\, q^{78}\, p^{39} + 52\, q^{86}\, p^{24} + 7192\, q^{20}\, p^{9}$$
$$+ 14840\, q^{21}\, p^{10} + 660198567\, p^{56}\, q^{68} + q^{26}\, p^{2} + 69\, q^{29}\, p^{4} + 11591\, p^{14}\, q^{13} + 8043\, p^{14}\, q^{12} + 169006\, p^{16}\, q^{20} + 61695718\, q^{70}\, p^{37}$$

$$+ 1313\, p^{40}\, q^{7} + 1584201\, p^{22}\, q^{22} + 630\, q^{17}\, p^{6} + 4649659\, q^{36}\, p^{19} + 269\, q^{31}\, p^{5} + 920\, q^{32}\, p^{6} + 2669\, p^{95}\, q^{92} + 3975\, p^{84}\, q^{27} + 295\, q^{30}\, p^{5}$$
$$+ 2032847\, q^{36}\, p^{17} + 424364\, q^{69}\, p^{22} + 712273\, q^{69}\, p^{23} + 6\, q^{15}\, p^{2} + 109\, q^{18}\, p^{4} + 790\, q^{19}\, p^{6} + 302\, q^{18}\, p^{5} + q^{6}\, p + 22\, q^{7}\, p^{4}$$
$$+ 92826413\, p^{39}\, q^{70} + 95493204\, p^{38}\, q^{69} + 1206569\, q^{51}\, p^{17} + 4\, q^{6}\, p^{2} + 187\, p^{34}\, q^{5} + 11095871\, q^{78}\, p^{40} + 16648827\, q^{78}\, p^{42}$$
$$+ 13682229\, q^{78}\, p^{41} + 8043\, p^{12}\, q^{14} + 16287\, p^{14}\, q^{14} + 31024\, p^{15}\, q^{15} + 7869941\, p^{26}\, q^{25} + 9584800\, p^{25}\, q^{27} + 14701342\, p^{27}\, q^{27}$$
$$+ 21736124\, p^{28}\, q^{28} + 4\, q^{20}\, p^{2} + 7237\, q^{44}\, p^{9} + 934284\, q^{48}\, p^{16} + 61\, q^{30}\, p^{4} + 8380506\, p^{51}\, q^{21} + 24826711\, p^{52}\, q^{24} + 2818\, q^{15}\, p^{9}$$
$$+ 5805\, q^{16}\, p^{10} + 1652\, q^{15}\, p^{8} + 7\, q^{12}\, p^{2} + 57095658\, p^{77}\, q^{48} + 52353482\, p^{76}\, q^{45} + 66\, q^{90}\, p^{30} + 191\, q^{14}\, p^{5} + 81\, q^{14}\, p^{4} + 52\, q^{31}\, p^{4} + 8\, q^{29}\, p^{3}$$
$$+ 11665\, q^{24}\, p^{9} + 5345\, q^{23}\, p^{8} + 2501\, q^{23}\, p^{7} + 82968065\, p^{77}\, q^{52} + 76758637\, p^{77}\, q^{51} + 473\, p^{9}\, q^{9} + 1001\, p^{10}\, q^{10} + 63686020\, p^{56}\, q^{28}$$
$$+ 1118953038\, p^{59}\, q^{45} + 888446069\, p^{58}\, q^{42} + 506422604\, p^{58}\, q^{38} + 994687230\, p^{58}\, q^{43} + 427486387\, p^{58}\, q^{37} + 592854383\, p^{58}\, q^{39}$$
$$+ 7\, q^{30}\, p^{3} + 26\, q^{13}\, p^{3} + 1159987\, p^{17}\, q^{29} + 315\, p^{8}\, q^{9} + 397\, q^{63}\, p^{11} + 736163\, p^{85}\, q^{84} + 10\, p^{28}\, q^{3} + 14468\, p^{94}\, q^{87} + 142385562\, p^{53}\, q^{30}$$
$$+ 48740918\, p^{52}\, q^{26} + 109565129\, p^{53}\, q^{29} + 70\, q^{9}\, p^{5} + 163\, q^{10}\, p^{6} + 315\, p^{9}\, q^{8} + 768750\, p^{17}\, q^{26} + 763527\, q^{50}\, p^{16} + 1345095\, q^{50}\, p^{17}$$
$$+ 65866\, p^{12}\, q^{24} + 19487\, p^{10}\, q^{23} + 774\, p^{71}\, q^{99} + 2967\, p^{75}\, q^{98} + 3007\, p^{76}\, q^{98} + 6612\, p^{79}\, q^{97} + 7192\, p^{85}\, q^{96} + 454282\, p^{88}\, q^{82}$$
$$+ 4154831\, p^{78}\, q^{36} + 3448531\, q^{39}\, p^{18} + 11954512\, p^{27}\, q^{26} + 3423339\, p^{87}\, q^{62} + 3495018\, p^{87}\, q^{65} + q^{10}\, p + 483071621\, p^{54}\, q^{36}$$
$$+ 356471087\, p^{47}\, q^{69} + 654242207\, p^{55}\, q^{68} + 745744099\, p^{54}\, q^{67} + 10531\, q^{41}\, p^{9} + 1814555\, q^{27}\, p^{19} + 892597\, q^{27}\, p^{17} + 38429542\, p^{70}\, q^{79}$$
$$+ 375\, q^{22}\, p^{5} + 1050\, q^{23}\, p^{6} + 568008\, p^{47}\, q^{15} + 302608\, p^{47}\, q^{14} + 449429\, p^{91}\, q^{64} + 414373\, p^{90}\, q^{55} + 34379\, q^{20}\, p^{12} + 80649\, q^{20}\, p^{14}$$
$$+ 146705\, q^{21}\, p^{15} + 230796\, p^{90}\, q^{51} + 169410\, p^{89}\, q^{46} + 19933461\, q^{50}\, p^{23} + 680646493\, p^{61}\, q^{67} + 802408177\, p^{60}\, q^{66} + 181200\, p^{87}\, q^{41}$$
$$+ 42199\, p^{85}\, q^{33} + 35\, q^{9}\, p^{4} + 546427889\, p^{69}\, q^{54} + 322005079\, p^{69}\, q^{46} + 470828465\, p^{70}\, q^{55} + 111078\, q^{29}\, p^{12} + 314619\, q^{29}\, p^{14} + 219\, p^{8}\, q^{8}$$
$$+ 203\, p^{7}\, q^{9} + 14468\, p^{11}\, q^{18} + 99516\, p^{87}\, q^{39} + 100008\, p^{86}\, q^{37} + 132730344\, p^{54}\, q^{30} + 45180620\, p^{53}\, q^{26} + 101758282\, p^{54}\, q^{29}$$
$$+ 27968048\, q^{62}\, p^{28} + 38370589\, q^{62}\, p^{29} + 51704449\, q^{62}\, p^{30} + 68496697\, q^{62}\, p^{31} + 135524\, p^{87}\, q^{40} + 2725214\, q^{53}\, p^{19} + 10\, q^{28}\, p^{3}$$
$$+ 70\, p^{9}\, q^{5} + 163\, p^{10}\, q^{6} + 68229052\, p^{76}\, q^{47} + 30025236\, p^{75}\, q^{40} + 17707\, p^{11}\, q^{19} + 22737\, p^{12}\, q^{18} + 24414612\, p^{75}\, q^{39} + 12524\, q^{47}\, p^{10}$$
$$+ 4407\, q^{47}\, p^{9} + 10586\, q^{48}\, p^{10} + 872362\, p^{19}\, q^{23} + 256520\, p^{15}\, q^{24} + 5273\, q^{46}\, p^{9} + 203\, p^{9}\, q^{7} + 35\, p^{9}\, q^{4} + 4044796\, q^{49}\, p^{19} + 21316\, q^{20}\, p^{11}$$
$$+ 61\, p^{101}\, q^{75} + 449000\, p^{28}\, q^{15} + 13667363\, p^{25}\, q^{29} + 144\, p^{7}\, q^{8} + 123\, p^{6}\, q^{9} + 77439219\, p^{78}\, q^{56} + 19583463\, p^{75}\, q^{38} + 16875\, p^{73}\, q^{96}$$
$$+ 5890449\, p^{23}\, q^{27} + 616\, q^{36}\, p^{6} + 111\, q^{37}\, p^{5} + 100008\, p^{68}\, q^{19} + 94026682\, p^{77}\, q^{54} + 24279\, p^{80}\, q^{95} + 4725\, p^{66}\, q^{97} + 42053137\, q^{80}\, p^{56}$$
$$+ 32550531\, p^{80}\, q^{69} + 29729555\, p^{80}\, q^{70} + 1924\, q^{37}\, p^{7} + 2845436\, p^{84}\, q^{79} + 82834981\, p^{78}\, q^{60} + 79923693\, p^{78}\, q^{57} + 53481\, q^{20}\, p^{13}$$
$$+ 712273\, p^{69}\, q^{23} + 22331\, p^{15}\, q^{14} + 42116\, p^{16}\, q^{15} + 934284\, p^{48}\, q^{16} + 72224709\, p^{78}\, q^{65} + 52737683\, p^{79}\, q^{66} + 88770989\, p^{77}\, q^{53}$$

$$+ 45084479\, p^{76} q^{44} + 424364\, p^{69} q^{22} + 1345620\, p^{70} q^{25} + 10737\, p^{15} q^{12} + 15700\, p^{15} q^{13} + 242\, q^{32} p^{5} + 63751101\, q^{78} p^{67} + 45573\, p^{61} q^{94}$$
$$+ 247\, p^{97} q^{52} + 398\, p^{96} q^{49} + 30025236\, p^{65} q^{30} + 1216171\, p^{61} q^{20} + 2659\, p^{24} q^{7} + 48505\, p^{94} q^{79} + 391078\, p^{61} q^{18} + 82452\, p^{59} q^{15}$$
$$+ 6466\, q^{90} p^{38} + 2685\, q^{90} p^{36} + 2121\, p^{21} q^{7} + 454282\, p^{17} q^{23} + 4350\, p^{21} q^{8} + p^{12} q + 1555\, p^{56} q^{10} + 616\, p^{36} q^{6} + 16544915\, q^{69} p^{31}$$
$$+ 1407\, p^{77} q^{19} + 269217986\, p^{54} q^{33} + 251\, q^{87} p^{27} + 4228\, q^{90} p^{37} + 1717\, q^{38} p^{7} + 57136\, p^{23} q^{12} + 109\, p^{18} q^{4} + 30\, p^{16} q^{3} + 17129\, p^{22} q^{10}$$
$$+ 1669354420\, p^{57} q^{49} + 1736650392\, p^{57} q^{50} + 45180620\, q^{53} p^{26} + 32\, p^{42} q^{5} + 9479062\, p^{64} q^{26} + 3409122\, p^{63} q^{23} + 21966016\, p^{65} q^{29}$$
$$+ 56\, p^{40} q^{5} + 215750863\, p^{54} q^{32} + 61775084\, p^{53} q^{27} + 170475857\, p^{54} q^{31} + 37446\, q^{91} p^{46} + 2695\, q^{89} p^{34} + 1830082130\, p^{55} q^{57}$$
$$+ 180843847\, p^{35} q^{62} + 43334\, p^{13} q^{19} + 2567424\, p^{23} q^{23} + 959538619\, p^{55} q^{41} + 331405214\, p^{54} q^{34} + 402652543\, p^{54} q^{35}$$
$$+ 1077391733\, p^{55} q^{42} + 634506516\, p^{55} q^{38} + 1196918726\, p^{55} q^{43} + 9081476\, q^{50} p^{21} + 40\, p^{98} q^{52} + 77\, p^{97} q^{49} + 540275213\, p^{55} q^{37}$$
$$+ 736549536\, p^{55} q^{39} + 93544150\, q^{55} p^{29} + 363\, q^{21} p^{5} + 51901961\, p^{78} q^{50} + 27968048\, p^{77} q^{43} + 307527\, p^{62} q^{18} + 64145\, p^{60} q^{15}$$
$$+ 126139\, p^{93} q^{74} + 139356\, p^{93} q^{67} + 16371467\, p^{32} q^{24} + 1116\, p^{25} q^{6} + 384\, p^{24} q^{5} + 206569\, p^{30} q^{13} + 2132473\, p^{31} q^{18}$$
$$+ 122474738\, q^{55} p^{30} + 82968065\, p^{53} q^{28} + 1366420710\, p^{56} q^{45} + 1315876713\, p^{55} q^{44} + 1924120\, p^{21} q^{24} + 5345\, p^{23} q^{8} + 74920\, p^{25} q^{12}$$
$$+ 21896\, p^{24} q^{10} + 34528\, p^{13} q^{18} + 23402691\, p^{77} q^{42} + 9259241\, p^{75} q^{35} + 46829928\, p^{78} q^{49} + 58097069\, p^{79} q^{64} + 3779253\, p^{73} q^{30}$$
$$+ 74292917\, p^{78} q^{55} + 44412092\, p^{77} q^{46} + 13743\, q^{26} p^{9} + 77773\, p^{17} q^{16} + 141892\, q^{93} p^{68} + 779307\, q^{67} p^{22} + 397\, q^{14} p^{6} + 163\, q^{13} p^{5}$$
$$+ 3\, q^{21} p^{2} + q^{25} p^{2} + 19695166\, q^{79} p^{45} + 9408\, q^{22} p^{9} + 4859\, q^{22} p^{8} + 91991\, p^{23} q^{13} + 868\, p^{20} q^{6} + 326\, p^{19} q^{5} + 845354565\, p^{55} q^{40}$$
$$+ 9408\, p^{22} q^{9} + 34142\, p^{23} q^{11} + 3\, q^{22} p^{2} + 1259707\, q^{77} p^{31} + 899\, q^{89} p^{32} + 1593\, q^{89} p^{33} + 141\, q^{90} p^{31} + 5434390\, q^{78} p^{37} + 774230\, p^{24} q^{18}$$
$$+ 143084\, p^{23} q^{14} + 256520\, p^{24} q^{15} + 1483091\, p^{49} q^{17} + 5899840\, p^{50} q^{20} + 1191004\, p^{73} q^{27} + 12068033\, p^{69} q^{30} + 462383\, p^{65} q^{20}$$
$$+ 2219821\, q^{40} p^{17} + 195628\, p^{25} q^{14} + 347963\, p^{26} q^{15} + 768750\, p^{26} q^{17} + 3391386\, p^{27} q^{21} + 2114496\, p^{26} q^{20} + 1541364\, p^{26} q^{19}$$
$$+ 3724420\, p^{50} q^{19} + 12637867\, p^{51} q^{22} + 23005430\, p^{33} q^{70} + 38420398\, p^{36} q^{71} + 17287773\, p^{32} q^{70} + 2032847\, p^{88} q^{69} + 1937926\, p^{88} q^{70}$$
$$+ 800283\, p^{84} q^{40} + 610420\, p^{84} q^{39} + 213613\, p^{83} q^{34} + 580421\, p^{83} q^{37} + 3059936\, p^{87} q^{59} + 1032266\, p^{84} q^{41} + 255544\, p^{82} q^{33}$$
$$+ 31770\, p^{80} q^{26} + 3423339\, p^{62} q^{87} + 5346428\, p^{65} q^{86} + 16\, q^{86} p^{23} + 40\, q^{87} p^{25} + 4\, q^{86} p^{22} + 18597085\, p^{51} q^{23} + 8213498\, p^{74} q^{83}$$
$$+ 8262179\, p^{71} q^{84} + 10064421\, q^{77} p^{38} + 15769531\, q^{77} p^{40} + 23402691\, q^{77} p^{42} + 3095688\, p^{25} q^{22} + 1292507\, p^{19} q^{25} + 3638710\, p^{72} q^{29}$$
$$+ 4\, q^{19} p^{2} + 2497762\, p^{72} q^{28} + 517112\, p^{48} q^{15} + 272598\, p^{48} q^{14} + 548679\, p^{24} q^{17} + 2356070\, p^{25} q^{21} + 1447788\, p^{24} q^{20} + 1069267\, p^{24} q^{19}$$
$$+ 454564020\, p^{55} q^{36} + 471\, q^{15} p^{6} + 917\, q^{15} p^{7} + 21115105\, p^{74} q^{37} + 1287123\, q^{27} p^{18} + 2504970\, q^{27} p^{20} + 3990566\, q^{28} p^{21}$$
$$+ 82659332\, p^{78} q^{59} + 82200718\, p^{78} q^{61} + 81680082\, p^{78} q^{58} + 78594284\, p^{78} q^{63} + 80774577\, p^{78} q^{62} + 15\, q^{26} p^{3} + 101162522\, p^{29} q^{38}$$

$$+ 2801\, q^{43} p^{8} + 18\, q^{25} p^{3} + 2\, q^{24} p^{2} + 35134878\, p^{52} q^{25} + 4725\, q^{39} p^{8} + 1512\, q^{39} p^{7} + 11631\, q^{40} p^{9} + 389\, q^{39} p^{6} + 4235\, q^{40} p^{8} + 6\, q^{16} p^{2}$$
$$+ 18\, q^{10} p^{3} + 432587\, p^{19} q^{20} + 331332\, p^{19} q^{19} + 249171\, p^{19} q^{18} + 1313\, q^{40} p^{7} + 209\, q^{11} p^{6} + 406\, p^{59} q^{98} + 1228399\, p^{21} q^{22} + 13\, q^{37} p^{4}$$
$$+ 44\, q^{10} p^{4} + 89\, q^{10} p^{5} + 56\, q^{40} p^{5} + 5088849\, p^{19} q^{38} + 256520\, p^{81} q^{90} + 118223\, p^{85} q^{90} + 146705\, p^{84} q^{90} + 56047\, p^{88} q^{90}$$
$$+ 31024\, p^{90} q^{90} + 16287\, p^{91} q^{91} + 93790\, p^{86} q^{90} + 42116\, p^{89} q^{90} + 215949\, p^{82} q^{90} + 33885107\, p^{60} q^{81} + 15690489\, p^{52} q^{82}$$
$$+ 9697973\, p^{74} q^{34} + 36443807\, p^{75} q^{41} + 1522352\, p^{71} q^{26} + 9924649\, p^{73} q^{33} + 265\, q^{41} p^{6} + 847035\, p^{70} q^{24} + 34142\, q^{23} p^{11} + 1717\, p^{38} q^{7}$$
$$+ 4\, p^{32} q^{3} + 195628\, p^{14} q^{25} + 236032\, p^{17} q^{20} + 64615\, p^{19} q^{14} + 17707\, p^{19} q^{11} + 118223\, p^{20} q^{15} + 43334\, p^{19} q^{13} + 28173\, p^{19} q^{12}$$
$$+ 935\, q^{61} p^{11} + 31534\, q^{47} p^{11} + 18\, q^{36} p^{4} + 49489595\, p^{26} q^{38} + 3702\, p^{66} q^{14} + 1955\, p^{65} q^{13} + 816933\, q^{90} p^{67} + 444\, p^{10} q^{8} + 276\, p^{10} q^{7}$$
$$+ 8029\, q^{64} p^{14} + 11148812\, q^{68} p^{29} + 937\, q^{21} p^{6} + 346\, q^{20} p^{5} + 2317\, q^{22} p^{7} + 30\, q^{17} p^{3} + 348808\, q^{66} p^{20} + 1280999\, q^{67} p^{23} + 677\, p^{10} q^{9}$$
$$+ 1423\, p^{11} q^{10} + 10685\, p^{19} q^{10} + 1493\, p^{18} q^{7} + 5191\, p^{18} q^{9} + 2881\, p^{18} q^{8} + 322733\, p^{18} q^{20} + 569268\, p^{20} q^{20} + 958951\, p^{21} q^{21}$$
$$+ 23896\, q^{42} p^{10} + 2129864\, p^{88} q^{62} + 2219821\, p^{88} q^{65} + 630\, p^{17} q^{6} + 249\, p^{16} q^{5} + 541\, p^{72} q^{15} + 6899\, q^{69} p^{16} + 260968\, q^{22} p^{16}$$
$$+ 43761177\, q^{80} p^{57} + 4938216\, p^{76} q^{34} + 19336798\, p^{77} q^{41} + 770941\, p^{73} q^{26} + 5186475\, p^{75} q^{33} + 428865\, p^{72} q^{24} + 6373345\, p^{25} q^{25}$$
$$+ 1674625\, p^{72} q^{27} + 2696569\, q^{48} p^{18} + 152601\, q^{47} p^{13} + 568008\, q^{47} p^{15} + 1617427\, q^{48} p^{17} + 16847\, q^{45} p^{10} + 332193\, q^{46} p^{14}$$
$$+ 617032\, q^{46} p^{15} + 81221\, q^{46} p^{12} + 90382\, q^{45} p^{12} + 30116550\, q^{70} p^{34} + 29493594\, q^{69} p^{33} + 31534\, q^{94} p^{58} + 22278358\, q^{69} p^{32}$$
$$+ 2115\, q^{62} p^{12} + 387345245\, p^{46} q^{68} + 5\, p^{64} q^{9} + 347\, p^{97} q^{53} + 23329\, q^{70} p^{18} + 119277\, q^{71} p^{21} + 93355\, q^{70} p^{20} + 3668764\, q^{79} p^{37}$$
$$+ 10554\, q^{70} p^{17} + 2685\, q^{69} p^{15} + 48060\, q^{70} p^{19} + 8380506\, q^{51} p^{21} + 9191\, q^{16} p^{11} + 1955\, q^{65} p^{13} + 965\, q^{90} p^{34} + 541\, q^{90} p^{33}$$
$$+ 298168\, p^{17} q^{21} + 1641\, q^{90} p^{35} + 1518\, q^{91} p^{37} + 142763317\, p^{68} q^{39} + 356471087\, p^{69} q^{47} + 170475499\, p^{68} q^{40} + 454564020\, p^{69} q^{50}$$
$$+ 270272806\, p^{68} q^{43} + 234484963\, p^{68} q^{42} + 66361029\, q^{52} p^{27} + 35134878\, q^{52} p^{25} + 48740918\, q^{52} p^{26} + 17171654\, q^{52} p^{23}$$
$$+ 22801057\, q^{53} p^{24} + 24826711\, q^{52} p^{24} + 61\, p^{30} q^{4} + 107175\, p^{13} q^{24} + 368\, q^{11} p^{7} + 16511\, q^{30} p^{9} + 144\, q^{92} p^{35} + 1765153961\, p^{58} q^{54}$$
$$+ 1664292844\, p^{59} q^{55} + 14051\, q^{16} p^{12} + 21528\, p^{43} q^{10} + 2845436\, p^{21} q^{26} + 2114496\, p^{20} q^{26} + 3391386\, p^{21} q^{27} + 169493\, p^{46} q^{13}$$
$$+ 2491710\, p^{49} q^{18} + 1475439569\, p^{56} q^{46} + 602686\, q^{31} p^{15} + 3124262\, q^{78} p^{35} + 50934\, p^{14} q^{18} + 102562\, p^{18} q^{16} + 461\, q^{38} p^{6} + 567\, p^{96} q^{50}$$
$$+ 980\, p^{99} q^{74} + 461\, p^{99} q^{67} + 920\, p^{99} q^{73} + 249\, p^{100} q^{89} + 1077\, p^{99} q^{76} + 1111\, p^{99} q^{77} + 81\, p^{101} q^{91} + 384\, p^{100} q^{81} + 678636\, q^{51} p^{16}$$
$$+ 213625\, q^{50} p^{14} + 16112\, q^{69} p^{17} + 16480\, p^{71} q^{96} + 4950\, q^{94} p^{49} + 1125\, q^{41} p^{7} + 5\, q^{31} p^{3} + 325\, q^{40} p^{6} + 99436\, q^{44} p^{12} + 21528\, q^{43} p^{10}$$
$$+ 1844727997\, p^{57} q^{53} + p^{49} q^{5} + 56047\, p^{17} q^{15} + 20808\, p^{16} q^{13} + 14051\, p^{16} q^{12} + 423474570\, q^{56} p^{36} + 157870178\, q^{55} p^{31}$$
$$+ 309962947\, q^{55} p^{34} + 200485241\, q^{55} p^{32} + 9584800\, p^{27} q^{25} + 10531\, p^{41} q^{9} + 4235\, p^{40} q^{8} + 29984\, p^{16} q^{14} + 89\, p^{101} q^{90} + 73\, p^{99} q^{59}$$

$$+ 132781\, p^{19}\, q^{16} + 3262\, q^{42}\, p^{8} + 28173\, p^{12}\, q^{19} + 347\, p^{52}\, q^{8} + 73\, p^{46}\, q^{6} + 1518\, q^{68}\, p^{14} + 250998629\, q^{55}\, p^{33} + 377763031\, q^{55}\, p^{35}$$
$$+ 432587\, p^{20}\, q^{19} + 34739\, q^{69}\, p^{18} + 123286\, p^{25}\, q^{13} + 11665\, p^{24}\, q^{9} + 43698\, p^{25}\, q^{11} + 1100739\, p^{26}\, q^{18} + 118072339\, p^{67}\, q^{37}$$
$$+ 390531469\, p^{69}\, q^{48} + 347291257\, p^{68}\, q^{45} + 15769531\, p^{65}\, q^{28} + 164462439\, q^{69}\, p^{41} + 4\, q^{83}\, p^{19} + 242722\, q^{49}\, p^{14} + 1483091\, q^{49}\, p^{17}$$
$$+ 621361451\, p^{45}\, q^{37} + 14596\, q^{37}\, p^{9} + 326\, q^{19}\, p^{5} + 29\, q^{19}\, p^{3} + 2343\, p^{50}\, q^{9} + 818\, p^{49}\, q^{8} + 144070363\, p^{67}\, q^{38} + 262835\, p^{60}\, q^{17}$$
$$+ 1641038\, p^{62}\, q^{21} + 6365285\, q^{49}\, p^{20} + 326\, p^{100}\, q^{86} + 2491710\, q^{49}\, p^{18} + 169410\, p^{59}\, q^{16} + 3532\, p^{95}\, q^{91} + 236032\, p^{20}\, q^{17}$$
$$+ 322733\, p^{20}\, q^{18} + 249171\, p^{18}\, q^{19} + 2147597\, q^{83}\, p^{42} + 28123\, q^{82}\, p^{28} + 84\, q^{63}\, p^{10} + 245\, q^{64}\, p^{11} + 5259532\, p^{63}\, q^{24} + 704065\, p^{61}\, q^{19}$$
$$+ 186144\, q^{45}\, p^{13} + 3760875\, p^{79}\, q^{83} + 948\, q^{42}\, p^{7} + 2114496\, p^{85}\, q^{79} + 9191\, p^{16}\, q^{11} + 4406848\, q^{53}\, p^{20} + 15690489\, q^{53}\, p^{23}$$
$$+ 6912819\, q^{53}\, p^{21} + 10547531\, q^{53}\, p^{22} + 9482394\, q^{54}\, p^{22} + 4000132\, p^{25}\, q^{23} + 119057\, p^{93}\, q^{75} + 532\, p^{77}\, q^{18} + 2070\, p^{79}\, q^{21} + 2306\, p^{80}\, q^{22}$$
$$+ 30\, q^{18}\, p^{3} + 5\, q^{17}\, p^{2} + 116\, q^{20}\, p^{4} + 7130\, q^{15}\, p^{11} + 112\, q^{19}\, p^{4} + q^{8}\, p + 5\, q^{9}\, p^{2} + 1327292\, q^{37}\, p^{16} + 167874991\, p^{57}\, q^{32}$$
$$+ 46829928\, p^{56}\, q^{27} + 131261533\, p^{57}\, q^{31} + 785037099\, p^{58}\, q^{41} + 263020869\, p^{57}\, q^{34} + 322577855\, p^{57}\, q^{35} + 389\, p^{39}\, q^{6} + 86\, q^{27}\, p^{4}$$
$$+ 16779\, q^{33}\, p^{9} + 7272\, q^{32}\, p^{8} + 2792\, q^{32}\, p^{7} + 25\, p^{65}\, q^{10} + 34142\, p^{94}\, q^{82} + 20\, q^{84}\, p^{21} + 72107\, q^{47}\, p^{12} + 322577855\, p^{48}\, q^{70} + 7\, q^{13}\, p^{2}$$
$$+ 1789172446\, p^{57}\, q^{51} + 1825523330\, p^{57}\, q^{52} + 1493217\, p^{85}\, q^{45} + 424364\, p^{83}\, q^{36} + 2491710\, p^{87}\, q^{56} + 1531775\, p^{86}\, q^{48} + 54212\, p^{80}\, q^{27}$$
$$+ 2407\, q^{91}\, p^{38} + 28\, q^{14}\, p^{3} + 30\, q^{15}\, p^{3} + 138910604\, q^{69}\, p^{40} + 580421\, q^{68}\, p^{22} + 428865\, q^{72}\, p^{24} + 368\, p^{11}\, q^{7} + 947\, p^{11}\, q^{9} + 1975\, p^{12}\, q^{10}$$
$$+ 603\, q^{11}\, p^{8} + 44133\, p^{64}\, q^{16} + 63564\, q^{71}\, p^{20} + 32121\, q^{71}\, p^{19} + 15235\, q^{71}\, p^{18} + 39439\, p^{14}\, q^{17} + 56047\, p^{15}\, q^{17} + 11639\, p^{88}\, q^{94}$$
$$+ 302608\, q^{47}\, p^{14} + 3737\, q^{41}\, p^{8} + 603\, p^{11}\, q^{8} + 4390\, q^{70}\, p^{16} + 209\, p^{11}\, q^{6} + 44\, p^{10}\, q^{4} + 89\, p^{10}\, q^{5} + 5805\, p^{16}\, q^{10} + 276\, q^{10}\, p^{7}$$
$$+ 76178442\, p^{67}\, q^{35} + 308054410\, p^{68}\, q^{44} + 529601279\, p^{69}\, q^{53} + 67885\, p^{65}\, q^{17} + 917\, p^{15}\, q^{7} + 2818\, p^{15}\, q^{9} + 1652\, p^{15}\, q^{8}$$
$$+ 5890449\, p^{78}\, q^{82} + 2512994\, p^{83}\, q^{81} + 4887002\, p^{79}\, q^{82} + 7198105\, p^{75}\, q^{83} + 70284342\, q^{55}\, p^{28} + 4118399\, p^{57}\, q^{21} + 12675490\, p^{58}\, q^{24}$$
$$+ 515223\, p^{18}\, q^{22} + 1497720971\, p^{57}\, q^{47} + 1589031813\, p^{57}\, q^{48} + 182232484\, q^{53}\, p^{31} + p^{6}\, q + 16\, p^{9}\, q^{3} + 5\, p^{8}\, q^{2} + 5\, q^{8}\, p^{2} + q^{7}\, p + q^{35}\, p^{3}$$
$$+ 20721747\, q^{54}\, p^{24} + 41450026\, q^{54}\, p^{26} + 76758637\, q^{54}\, p^{28} + 56918750\, q^{54}\, p^{27} + 29609738\, q^{54}\, p^{25} + 5890449\, p^{27}\, q^{23}$$
$$+ 483071621\, p^{69}\, q^{51} + 95493204\, p^{67}\, q^{36} + 508296601\, p^{69}\, q^{52} + 376180\, p^{89}\, q^{50} + 16\, p^{59}\, q^{8} + 82968065\, q^{53}\, p^{28} + 151212623\, q^{52}\, p^{30}$$
$$+ 109565129\, q^{53}\, p^{29} + 61775084\, q^{53}\, p^{27} + 142385562\, q^{53}\, p^{30} + 101758282\, q^{54}\, p^{29} + 427486387\, p^{37}\, q^{58} + 332193\, p^{91}\, q^{59}$$
$$+ 13617741\, q^{50}\, p^{22} + 260822\, p^{92}\, q^{70} + 581833\, q^{76}\, p^{28} + 160907\, p^{88}\, q^{43} + 40807\, q^{45}\, p^{11} + 50308\, q^{43}\, p^{11} + 36090\, q^{46}\, p^{11}$$
$$+ 58097069\, p^{64}\, q^{79} + 465570\, q^{49}\, p^{15} + 19173\, q^{44}\, p^{10} + 169493\, q^{46}\, p^{13} + 264548\, p^{92}\, q^{69} + 272598\, q^{48}\, p^{14} + 1756\, p^{78}\, q^{20} + 71612\, p^{87}\, q^{38}$$
$$+ 21\, p^{11}\, q^{3} + 6\, p^{10}\, q^{2} + 91991\, p^{13}\, q^{23} + 115173\, q^{74}\, p^{23} + 219554\, q^{75}\, p^{25} + 357561\, q^{75}\, p^{26} + 64050\, q^{74}\, p^{22} + 71\, q^{39}\, p^{5} + 207297\, p^{88}\, q^{44}$$

$$+ 29584\, p^{11}\, q^{22} + 1629363\, q^{53}\, p^{18} + 3057667\, q^{52}\, p^{19} + 4909855\, q^{52}\, p^{20} + 470824\, p^{91}\, q^{66} + 12637867\, q^{51}\, p^{22} + 27232\, p^{85}\, q^{32}$$
$$+ 8310\, q^{43}\, p^{9} + 517112\, p^{90}\, q^{57} + 9662\, q^{72}\, p^{18} + 27232\, q^{73}\, p^{20} + 466919384\, q^{57}\, p^{37} + 1070087\, q^{52}\, p^{17} + 1842486\, q^{52}\, p^{18} + 54802\, q^{93}\, p^{56}$$
$$+ 45573\, q^{44}\, p^{11} + 397\, p^{14}\, q^{6} + 163\, p^{13}\, q^{5} + 71\, p^{13}\, q^{4} + 1453650666\, p^{61}\, q^{54} + 1339615354\, p^{62}\, q^{55} + 1018030418\, p^{61}\, q^{46} + 643\, q^{44}\, p^{7}$$
$$+ 63564\, p^{85}\, q^{34} + 9142\, p^{82}\, q^{26} + 350805512\, q^{53}\, p^{34} + 314590\, p^{89}\, q^{49} + 80602\, q^{72}\, p^{21} + 484893\, q^{73}\, p^{25} + 146629\, q^{72}\, p^{22}$$
$$+ 255544\, q^{72}\, p^{23} + p^{7}\, q + 42199\, q^{72}\, p^{20} + 364583\, q^{51}\, p^{15} + 1596565554\, p^{59}\, q^{51} + 1636762722\, p^{59}\, q^{52} + 7237\, p^{44}\, q^{9} + 2801\, p^{43}\, q^{8}$$
$$+ 567\, p^{55}\, q^{9} + 53209\, q^{27}\, p^{11} + 1846260992\, p^{57}\, q^{54} + 1753806728\, p^{58}\, q^{55} + 45966583\, q^{79}\, p^{68} + 6713\, q^{71}\, p^{17} + 41802433\, p^{78}\, q^{48}$$
$$+ 38515516\, p^{77}\, q^{45} + 548679\, p^{17}\, q^{24} + 6225\, q^{45}\, p^{9} + 1981\, q^{45}\, p^{8} + 28\, p^{88}\, q^{26} + 936\, p^{93}\, q^{41} + 937\, p^{99}\, q^{84} + 295\, p^{91}\, q^{34} + 19\, p^{85}\, q^{22}$$
$$+ 1050\, p^{99}\, q^{82} + 3084946\, p^{74}\, q^{86} + 524123\, p^{16}\, q^{26} + 653780\, p^{17}\, q^{25} + 4000132\, p^{82}\, q^{80} + 300714\, p^{15}\, q^{25} + 4586781\, q^{70}\, p^{28}$$
$$+ 9697973\, q^{71}\, p^{31} + 6584984\, q^{70}\, p^{29} + 9259241\, q^{70}\, p^{30} + 3124262\, q^{70}\, p^{27} + 69\, p^{29}\, q^{4} + 3\, p^{82}\, q^{18} + 20\, p^{84}\, q^{21} + 11148812\, q^{76}\, p^{37}$$
$$+ 6\, q^{11}\, p^{2} + 5521\, q^{91}\, p^{40} + 11383\, q^{91}\, p^{42} + 14177131\, q^{76}\, p^{38} + 8636299\, q^{76}\, p^{36} + 118820815\, p^{60}\, q^{32} + 32224488\, p^{59}\, q^{27}$$
$$+ 91874990\, p^{60}\, q^{31} + 585911797\, p^{61}\, q^{41} + 190104929\, p^{60}\, q^{34} + 235466442\, p^{60}\, q^{35} + 449154\, p^{16}\, q^{25} + 6584984\, q^{76}\, p^{35}$$
$$+ 7867332\, q^{77}\, p^{37} + 1368829067\, q^{54}\, p^{44} + 62\, q^{12}\, p^{4} + 4938216\, q^{76}\, p^{34} + 3638710\, q^{76}\, p^{33} + 2039853\, q^{67}\, p^{24} + 15487387\, q^{68}\, p^{30}$$
$$+ 67885\, q^{65}\, p^{17} + 784\, q^{67}\, p^{13} + 4228\, q^{68}\, p^{15} + 1126391129\, q^{54}\, p^{42} + 1248188624\, q^{54}\, p^{43} + 1005764967\, q^{54}\, p^{41} + 2967\, p^{98}\, q^{75}$$
$$+ 4656\, p^{52}\, q^{10} + 59906825\, p^{67}\, q^{34} + 201115121\, p^{68}\, q^{41} + 285876347\, q^{53}\, p^{33} + 45089095\, p^{58}\, q^{80} + 19655\, q^{64}\, p^{15} + 190912\, q^{66}\, p^{19}$$
$$+ 130110\, p^{65}\, q^{93} + 122867\, p^{63}\, q^{17} + 800283\, p^{65}\, q^{21} + 79620\, p^{62}\, q^{16} + 2643750\, p^{66}\, q^{24} + 338061\, p^{64}\, q^{19} + 76178442\, p^{70}\, q^{38}$$
$$+ 138488248\, p^{37}\, q^{31} + 229258297\, p^{37}\, q^{34} + 264835370\, p^{37}\, q^{35} + 336964957\, p^{38}\, q^{36} + 114178468\, p^{37}\, q^{30} + 165842255\, p^{37}\, q^{32}$$
$$+ 92899382\, p^{37}\, q^{29} + 76758637\, p^{54}\, q^{28} + 1291201104\, p^{57}\, q^{45} + 1020435464\, p^{56}\, q^{42} + 594539335\, p^{56}\, q^{38} + 1136541551\, p^{56}\, q^{43}$$
$$+ 504801015\, p^{56}\, q^{37} + 692073977\, p^{56}\, q^{39} + 139584\, q^{67}\, p^{19} + 258453\, q^{67}\, p^{20} + 457745\, q^{67}\, p^{21} + 4154831\, q^{69}\, p^{27} + 13904\, q^{65}\, p^{15}$$
$$+ 1292\, q^{17}\, p^{7} + 7\, q^{14}\, p^{2} + 21\, q^{11}\, p^{3} + 6\, q^{10}\, p^{2} + 742\, p^{75}\, q^{17} + 14690\, p^{83}\, q^{28} + 4851\, p^{80}\, q^{23} + 33953\, p^{84}\, q^{31} + 5899840\, q^{50}\, p^{20}$$
$$+ 3724420\, q^{50}\, p^{19} + 9570\, p^{81}\, q^{25} + 24863\, p^{83}\, q^{29} + 4974\, p^{81}\, q^{24} + 132730344\, q^{54}\, p^{30} + 3\, q^{53}\, p^{6} + 2432\, q^{81}\, p^{23} + 12068033\, q^{69}\, p^{30}$$
$$+ 229848545\, q^{53}\, p^{32} + 6055793\, q^{69}\, p^{28} + 8636299\, q^{69}\, p^{29} + 963670\, q^{68}\, p^{23} + 58980609\, p^{68}\, q^{78} + 200485241\, p^{55}\, q^{32} + 56918750\, p^{54}\, q^{27}$$
$$+ 157870178\, p^{55}\, q^{31} + 906450349\, p^{56}\, q^{41} + 309962947\, p^{55}\, q^{34} + 377763031\, p^{55}\, q^{35} + 5434390\, q^{68}\, p^{27} + 2415982\, q^{68}\, p^{25} + 98\, q^{16}\, p^{4}$$
$$+ 249\, q^{16}\, p^{5} + 17208681\, p^{29}\, q^{26} + 89\, q^{15}\, p^{4} + 31770\, p^{79}\, q^{25} + 3393057\, p^{86}\, q^{54} + 17471\, p^{79}\, q^{24} + 82939\, p^{81}\, q^{29} + 51181\, p^{81}\, q^{28}$$
$$+ 2696569\, p^{87}\, q^{57} + 221\, q^{15}\, p^{5} + 551\, q^{16}\, p^{6} + 534\, p^{37}\, q^{6} + 250998629\, p^{55}\, q^{33} + 173748\, p^{82}\, q^{32} + 2887488\, p^{87}\, q^{58} + 115173\, p^{82}\, q^{31}$$

$$+ 119396\, q^{49}\, p^{13} + 27192\, q^{48}\, p^{11} + 1632\, q^{46}\, p^{8} + 34379\, p^{93}\, q^{85} + 849284\, p^{49}\, q^{16} + 534\, q^{37}\, p^{6} + 48060\, p^{86}\, q^{35} + 134\, q^{36}\, p^{5}$$
$$+ 518284246\, p^{61}\, q^{69} + 21057\, p^{84}\, q^{30} + 2205245\, p^{88}\, q^{66} + 16375\, p^{78}\, q^{23} + 1216171\, p^{85}\, q^{44} + 122867\, p^{88}\, q^{42} + 457745\, p^{84}\, q^{38}$$
$$+ 3209237\, p^{87}\, q^{60} + 3057667\, p^{86}\, q^{53} + 6\, p^{52}\, q^{6} + 477958925\, p^{58}\, q^{70} + 171087251\, p^{46}\, q^{72} + 16570970\, q^{81}\, p^{49} + 487396696\, p^{39}\, q^{60}$$
$$+ 742729552\, p^{42}\, q^{60} + 652714542\, p^{41}\, q^{60} + 368285057\, p^{38}\, q^{61} + 567257126\, p^{40}\, q^{60} + 2512994\, p^{24}\, q^{22} + 929286\, p^{18}\, q^{25} + 21316\, p^{85}\, q^{94}$$
$$+ 30787\, p^{77}\, q^{95} + 211230\, p^{89}\, q^{47} + 77773\, p^{16}\, q^{17} + 137014\, p^{93}\, q^{72} + 141892\, p^{93}\, q^{68} + 63271\, q^{48}\, p^{12} + q^{9}\, p + 767169346\, p^{61}\, q^{66}$$
$$+ 646088425\, p^{62}\, q^{67} + 19\, q^{85}\, p^{22} + 139\, q^{86}\, p^{25} + 302\, p^{100}\, q^{87} + 84\, p^{95}\, q^{42} + 372\, p^{100}\, q^{79} + q^{12}\, p + 90\, q^{38}\, p^{5} + 8866\, p^{95}\, q^{87}$$
$$+ 32422924\, p^{52}\, q^{80} + 63271\, q^{93}\, p^{57} + 7640976\, p^{65}\, q^{26} + 2729673\, p^{64}\, q^{23} + 17769488\, p^{66}\, q^{29} + 43\, p^{41}\, q^{5} + 116\, p^{20}\, q^{4} + 30\, p^{18}\, q^{3}$$
$$+ 6234\, p^{25}\, q^{8} + 93434\, p^{27}\, q^{12} + 26604\, p^{26}\, q^{10} + 1159987\, p^{29}\, q^{17} + 5326035\, p^{30}\, q^{21} + 3385996\, p^{29}\, q^{20} + 2422685\, p^{29}\, q^{19}$$
$$+ 7198105\, p^{30}\, q^{22} + 284458\, p^{28}\, q^{14} + 3352\, q^{19}\, p^{8} + 796468163\, p^{56}\, q^{40} + 16012\, q^{35}\, p^{9} + 15\, q^{55}\, p^{7} + 2\, q^{54}\, p^{6} + 7572181\, p^{27}\, q^{24}$$
$$+ 1749550720\, p^{56}\, q^{49} + 1815769711\, p^{56}\, q^{50} + 52\, p^{4}\, q^{11} + 266\, p^{6}\, q^{12} + 111\, p^{5}\, q^{11} + 11519002\, p^{28}\, q^{25} + 947\, p^{9}\, q^{11} + 444\, p^{8}\, q^{10}$$
$$+ 109\, p^{101}\, q^{87} + 12\, p^{96}\, q^{42} + 96\, p^{101}\, q^{79} + 12686559\, p^{55}\, q^{23} + 34907\, q^{36}\, p^{10} + 15375\, q^{36}\, p^{9} + 33709\, q^{37}\, p^{10} + 187930\, p^{68}\, q^{20}$$
$$+ 1761578\, p^{20}\, q^{25} + 242314\, p^{92}\, q^{64} + 213625\, p^{91}\, q^{55} + 113210\, p^{91}\, q^{51} + 82452\, p^{90}\, q^{46} + 31900\, q^{65}\, p^{16} + 38854514\, p^{27}\, q^{33}$$
$$+ 74200012\, p^{31}\, q^{32} + 62275786\, p^{30}\, q^{32} + 67493063\, p^{29}\, q^{34} + 71897433\, p^{30}\, q^{33} + 48355679\, p^{28}\, q^{33} + 59355958\, p^{29}\, q^{33} + 12744\, p^{25}\, q^{9}$$
$$+ 48505\, p^{26}\, q^{11} + 61775084\, p^{78}\, q^{52} + 56918750\, p^{78}\, q^{51} + 1252643610\, p^{56}\, q^{44} + 692073977\, p^{39}\, q^{56} + 16544915\, p^{74}\, q^{36} + 10737\, p^{12}\, q^{15}$$
$$+ 2465307\, p^{84}\, q^{45} + 92511\, p^{79}\, q^{27} + 712273\, p^{82}\, q^{36} + 1577223487\, q^{56}\, p^{47} + 4044796\, p^{86}\, q^{56} + 2553648\, p^{85}\, q^{48} + 2440\, p^{73}\, q^{17}$$
$$+ 1542314328\, q^{55}\, p^{46} + 18544461\, p^{31}\, q^{25} + 29499431\, p^{31}\, q^{27} + 42207976\, p^{32}\, q^{28} + 13206707\, q^{71}\, p^{32} + 131\, q^{44}\, p^{6} + 3\, q^{33}\, p^{3} + 2\, q^{34}\, p^{3}$$
$$+ 2378\, q^{44}\, p^{8} + 3448531\, p^{87}\, q^{66} + 28123\, p^{77}\, q^{23} + 2025143\, p^{84}\, q^{44} + 515\, q^{45}\, p^{7} + 541\, p^{59}\, q^{10} + 11238374\, p^{21}\, q^{39} + 779307\, p^{83}\, q^{38}$$
$$+ 5069064\, p^{86}\, q^{60} + 4909855\, p^{85}\, q^{53} + 54212\, p^{78}\, q^{25} + 4346497\, p^{86}\, q^{57} + 5410938\, p^{85}\, q^{54} + 790\, p^{99}\, q^{86} + 2104\, p^{95}\, q^{50} + 2898\, p^{98}\, q^{74}$$
$$+ 1717\, p^{98}\, q^{67} + 2792\, p^{98}\, q^{73} + 551\, p^{99}\, q^{89} + 3007\, p^{98}\, q^{76} + 3007\, p^{98}\, q^{77} + 191\, p^{100}\, q^{91} + 1094\, p^{99}\, q^{81} + 12592\, p^{76}\, q^{21} + 14690\, p^{77}\, q^{22}$$
$$+ 30511\, p^{78}\, q^{24} + 714\, p^{99}\, q^{87} + 4\, p^{83}\, q^{19} + 397\, p^{94}\, q^{42} + 1131\, p^{99}\, q^{79} + 242\, p^{32}\, q^{5} + 48\, p^{64}\, q^{10} + 142028\, p^{80}\, q^{29} + 3490\, p^{74}\, q^{18}$$
$$+ 89215\, p^{80}\, q^{28} + 57136\, p^{93}\, q^{82} + 596297\, q^{52}\, p^{16} + 267\, p^{92}\, q^{36} + 66\, p^{90}\, q^{30} + 154\, p^{91}\, q^{33} + 591\, p^{93}\, q^{40} + 363\, p^{93}\, q^{39} + 468\, p^{92}\, q^{37}$$
$$+ 71\, q^{13}\, p^{4} + 135\, q^{12}\, p^{5} + 779307\, q^{83}\, p^{38} + 712273\, q^{82}\, p^{36} + 963670\, q^{82}\, p^{37} + 211615\, p^{21}\, q^{16} + 24\, q^{12}\, p^{3} + 515223\, p^{22}\, q^{18} + 7\, p^{12}\, q^{2}$$
$$+ 1317\, q^{47}\, p^{8} + 1345095\, p^{50}\, q^{17} + 5410938\, p^{51}\, q^{20} + 475\, p^{7}\, q^{12} + 1423\, p^{10}\, q^{11} + 677\, p^{9}\, q^{10} + 54802\, q^{49}\, p^{12} + 18\, p^{10}\, q^{3} + 5\, p^{9}\, q^{2}$$
$$+ 1915222687\, p^{56}\, q^{53} + 9055319\, p^{24}\, q^{28} + 773166\, p^{29}\, q^{16} + 1315876713\, p^{61}\, q^{50} + 50635656\, p^{58}\, q^{28} + 930979496\, p^{61}\, q^{45}$$

$$+ 742729552\, p^{60}\, q^{42} + 413906988\, p^{60}\, q^{38} + 835997200\, p^{60}\, q^{43} + 347291257\, p^{60}\, q^{37} + 487396696\, p^{60}\, q^{39} + 1257\, q^{66}\, p^{13}$$
$$+ 2010475\, p^{23}\, q^{22} + 803\, p^{12}\, q^{8} + 266\, p^{12}\, q^{6} + 52\, p^{11}\, q^{4} + 111\, p^{11}\, q^{5} + 1912337702\, p^{56}\, q^{54} + 1830082130\, p^{57}\, q^{55} + 131261533\, p^{31}\, q^{57}$$
$$+ 2926\, p^{93}\, q^{94} + 475\, p^{12}\, q^{7} + 1285\, p^{12}\, q^{9} + 2669\, p^{13}\, q^{10} + 701324\, p^{22}\, q^{19} + 370763\, p^{22}\, q^{17} + 1549031\, p^{23}\, q^{21} + 936583\, p^{22}\, q^{20}$$
$$+ 1915222687\, p^{53}\, q^{56} + 1957811241\, p^{52}\, q^{55} + 944938\, p^{31}\, q^{16} + 2972\, q^{27}\, p^{7} + 33016583\, q^{77}\, p^{44} + 27814896\, q^{78}\, p^{45} + 12687301\, q^{77}\, p^{39}$$
$$+ 19336798\, q^{77}\, p^{41} + 27968048\, q^{77}\, p^{43} + 38515516\, q^{77}\, p^{45} + 555292\, p^{19}\, q^{21} + 1577223487\, p^{56}\, q^{47} + 14436205\, p^{79}\, q^{77}$$
$$+ 9584800\, p^{80}\, q^{78} + 27082749\, p^{79}\, q^{73} + 17208681\, p^{79}\, q^{76} + 23561926\, p^{79}\, q^{74} + 20258863\, p^{79}\, q^{75} + 9414\, q^{42}\, p^{9} + 49489595\, p^{79}\, q^{67}$$
$$+ 34578729\, p^{79}\, q^{71} + 30773955\, p^{79}\, q^{72} + 45966583\, p^{79}\, q^{68} + 99516\, q^{66}\, p^{18} + 7867332\, q^{68}\, p^{28} + 42252429\, p^{79}\, q^{69} + 38429542\, p^{79}\, q^{70}$$
$$+ 234308\, p^{92}\, q^{73} + 1669354420\, p^{56}\, q^{48} + 216\, q^{42}\, p^{6} + 1549031\, p^{21}\, q^{23} + 190746\, p^{92}\, q^{76} + 3\, p^{21}\, q^{2} + 17835578\, p^{28}\, q^{27}$$
$$+ 26142554\, p^{29}\, q^{28} + 92170\, p^{88}\, q^{41} + 48998\, p^{88}\, q^{39} + 50460\, p^{87}\, q^{37} + 20869\, p^{86}\, q^{33} + 4082973\, p^{24}\, q^{24} + 831073976\, p^{66}\, q^{59}$$
$$+ 46885\, q^{50}\, p^{12} + 8814\, q^{49}\, p^{10} + 103697\, q^{50}\, p^{13} + 14468\, p^{87}\, q^{94} + 2669\, p^{10}\, q^{13} + 5990\, q^{76}\, p^{20} + 2636\, q^{76}\, p^{19} + 3327\, q^{77}\, p^{20}$$
$$+ 617032\, q^{90}\, p^{59} + 704988\, q^{90}\, p^{61} + 772030\, q^{90}\, p^{63} + 741664\, q^{90}\, p^{62} + 795339\, q^{90}\, p^{64} + 810819\, q^{90}\, p^{65} + 868\, p^{99}\, q^{85} + 144\, p^{92}\, q^{35}$$
$$+ 167874991\, p^{32}\, q^{57} + 238561806\, p^{34}\, q^{58} + 211601414\, p^{33}\, q^{57} + 4309\, p^{9}\, q^{17} + 20808\, p^{13}\, q^{16} + 26863333\, p^{34}\, q^{25} + 30511\, q^{81}\, p^{27}$$
$$+ 5087342\, p^{81}\, q^{80} + 7161100\, p^{68}\, q^{85} + 2060033\, p^{87}\, q^{54} + 1617427\, p^{88}\, q^{57} + 98202\, p^{83}\, q^{32} + 1745213\, p^{88}\, q^{58} + 1366765\, p^{89}\, q^{66}$$
$$+ 704065\, p^{86}\, q^{44} + 258453\, p^{85}\, q^{38} + 1968427\, p^{88}\, q^{60} + 1842486\, p^{87}\, q^{53} + 64615\, p^{14}\, q^{19} + 118223\, p^{15}\, q^{20} + 736163\, p^{20}\, q^{21}$$
$$+ 3393057\, p^{51}\, q^{19} + 11606881\, p^{52}\, q^{22} + 14185198\, q^{54}\, p^{23} + 64\, p^{6}\, q^{7} + 5334664\, q^{28}\, p^{22} + 42252429\, p^{69}\, q^{79} + 255636445\, p^{72}\, q^{65}$$
$$+ 198648867\, p^{73}\, q^{66} + 324572965\, p^{72}\, q^{60} + 332934626\, p^{72}\, q^{57} + 5088849\, p^{67}\, q^{86} + 151226788\, q^{58}\, p^{32} + 4295\, p^{60}\, q^{12} + 5373817\, p^{72}\, q^{85}$$
$$+ 4638039\, p^{76}\, q^{84} + 3990566\, p^{77}\, q^{84} + 43837671\, p^{71}\, q^{78} + 48310015\, p^{37}\, q^{71} + 50635656\, p^{77}\, q^{47} + 21966016\, p^{76}\, q^{40} + 17769488\, p^{76}\, q^{39}$$
$$+ 2725214\, p^{86}\, q^{52} + 168427\, p^{24}\, q^{14} + 300714\, p^{25}\, q^{15} + 653780\, p^{25}\, q^{17} + 2845436\, p^{26}\, q^{21} + 1761578\, p^{25}\, q^{20} + 1292507\, p^{25}\, q^{19}$$
$$+ 139999\, q^{26}\, p^{13} + 470\, p^{97}\, q^{54} + 93790\, p^{15}\, q^{19} + 70284342\, p^{55}\, q^{28} + 1208050462\, p^{58}\, q^{45} + 956943086\, p^{57}\, q^{42} + 551514547\, p^{57}\, q^{38}$$
$$+ 1068580962\, p^{57}\, q^{43} + 466919384\, p^{57}\, q^{37} + 643801916\, p^{57}\, q^{39} + 12686559\, q^{55}\, p^{23} + 6176968\, q^{54}\, p^{21} + 3911865\, q^{54}\, p^{20}$$
$$+ 7007826\, p^{28}\, q^{23} + 1866276473\, p^{56}\, q^{51} + 21357607\, p^{27}\, q^{29} + 159529\, q^{52}\, p^{14} + 85103324\, q^{56}\, p^{29} + 19437\, q^{50}\, p^{11} + 10958412\, p^{31}\, q^{23}$$
$$+ 1438632\, p^{17}\, q^{31} + 14436205\, p^{26}\, q^{28} + 1899729606\, p^{56}\, q^{52} + 9767627\, p^{26}\, q^{26} + 5990\, p^{76}\, q^{20} + 6249276\, p^{26}\, q^{24} + 18544461\, p^{25}\, q^{31}$$
$$+ 23152\, q^{49}\, p^{11} + 15700\, p^{13}\, q^{15} + 379965\, p^{24}\, q^{16} + 21896\, q^{24}\, p^{10} + 1706\, p^{9}\, q^{13} + 5\, p^{40}\, q^{4} + 21221652\, p^{32}\, q^{25} + 34051362\, p^{32}\, q^{27}$$
$$+ 48355679\, p^{33}\, q^{28} + 2308688\, p^{71}\, q^{27} + 3532\, p^{10}\, q^{14} + 2797\, p^{80}\, q^{98} + 3415353\, p^{77}\, q^{34} + 13682229\, p^{78}\, q^{41} + 531306\, p^{74}\, q^{26}$$

$$+ 3638710\, p^{76} q^{33} + 295404\, p^{73} q^{24} + 2926\, p^{94} q^{93} + 126139\, p^{74} q^{93} + 789601\, p^{90} q^{69} + 764222\, p^{90} q^{70} + 1094275\, p^{89} q^{59}$$
$$+ 12692\, p^{20} q^{10} + 1705\, p^{19} q^{7} + 3352\, p^{19} q^{8} + 16511\, p^{75} q^{96} + 6497\, p^{70} q^{97} + 6116\, p^{69} q^{97} + 788\, p^{62} q^{98} + 1761578\, p^{85} q^{80}$$
$$+ 67885\, p^{88} q^{40} + 1173092\, p^{20} q^{23} + 302476757\, p^{36} q^{37} + 235895627\, p^{35} q^{36} + 461671740\, p^{65} q^{68} + 350805512\, p^{52} q^{71} + 4235\, p^{97} q^{65}$$
$$+ 2801\, p^{97} q^{62} + 146629\, p^{72} q^{22} + 484893\, p^{73} q^{25} + 11589519\, p^{21} q^{40} + 43698\, q^{25} p^{11} + 48505\, q^{26} p^{11} + 74920\, q^{25} p^{12}$$
$$+ 62577506\, p^{60} q^{79} + 1119\, p^{95} q^{48} + 1368\, p^{94} q^{45} + 1119\, p^{57} q^{10} + 470\, p^{51} q^{8} + 160907\, p^{62} q^{17} + 1032266\, p^{64} q^{21} + 104087\, p^{61} q^{16}$$
$$+ 3373737\, p^{65} q^{24} + 438531\, p^{63} q^{19} + 95493204\, p^{69} q^{38} + 14436205\, p^{28} q^{26} + 460240509\, p^{38} q^{59} + 18028\, p^{17} q^{12} + 39439\, p^{17} q^{14}$$
$$+ 11639\, p^{17} q^{11} + 4725\, p^{97} q^{66} + p^{80} q^{16} + 4\, p^{84} q^{20} + 210\, p^{93} q^{38} + 935\, p^{94} q^{44} + 2125\, p^{98} q^{69} + 3779253\, p^{75} q^{32} + 2701326\, p^{75} q^{31}$$
$$+ 9\, q^{56} p^{7} + 73145\, p^{18} q^{15} + 27060\, p^{17} q^{13} + 14051\, p^{89} q^{93} + 10737\, p^{90} q^{93} + 84190\, q^{26} p^{12} + 1912836\, p^{87} q^{75} + 1641038\, p^{84} q^{43}$$
$$+ 3433307\, p^{85} q^{50} + 1447788\, p^{20} q^{24} + 10548\, p^{9} q^{23} + 61\, p^{93} q^{36} + 12\, p^{91} q^{30} + 33\, p^{92} q^{33} + 145\, p^{94} q^{40} + 81\, p^{94} q^{39} + 117\, p^{93} q^{37}$$
$$+ 322005079\, p^{46} q^{69} + 270272806\, p^{43} q^{68} + 642090344\, p^{54} q^{68} + 726809315\, p^{53} q^{67} + 304278\, p^{70} q^{22} + 977180\, p^{71} q^{25} + 14630\, p^{46} q^{10}$$
$$+ 119396\, p^{49} q^{13} + 1842486\, p^{52} q^{18} + 1334886\, q^{83} p^{40} + 102562\, p^{89} q^{87} + 1531775\, q^{57} p^{19} + 490909\, q^{57} p^{17} + 159541\, q^{56} p^{15}$$
$$+ 885394\, q^{57} p^{18} + 2553648\, q^{57} p^{20} + 3514226\, q^{58} p^{21} + 42126\, q^{55} p^{13} + 4118399\, q^{57} p^{21} + 314590\, q^{56} p^{16} + 5537785\, q^{58} p^{22}$$
$$+ 8485980\, q^{58} p^{23} + 2764810\, p^{87} q^{71} + 3256289\, p^{87} q^{68} + 2563264\, p^{87} q^{72} + 12675490\, q^{58} p^{24} + 32224488\, q^{59} p^{27} + 18491531\, q^{58} p^{25}$$
$$+ 26392541\, q^{58} p^{26} + 3368272\, p^{87} q^{67} + 2132473\, p^{87} q^{74} + 140486\, q^{34} p^{12} + 142468\, q^{35} p^{12} + 36184\, q^{34} p^{10} + 764222\, q^{35} p^{15}$$
$$+ 455613\, q^{35} p^{14} + 789601\, q^{36} p^{15} + 15193921\, q^{38} p^{22} + 2110447\, q^{37} p^{17} + 3256289\, q^{37} p^{18} + 7161100\, q^{37} p^{20} + 264548\, q^{36} p^{13}$$
$$+ 4889493\, q^{37} p^{19} + 55631676\, p^{79} q^{65} + 40130609\, p^{80} q^{66} + 66361029\, p^{78} q^{53} + 33016583\, p^{77} q^{44} + 516611\, p^{70} q^{23} + 1912836\, p^{18} q^{30}$$
$$+ 20869\, q^{72} p^{19} + 53077\, q^{73} p^{21} + 936\, q^{64} p^{12} + 74\, p^{91} q^{32} + 3628\, p^{96} q^{57} + 1589031813\, p^{48} q^{57} + 4154831\, p^{69} q^{27} + 17287773\, p^{70} q^{32}$$
$$+ 2900\, p^{79} q^{98} + 2154233\, p^{40} q^{82} + 414373\, q^{50} p^{15} + 6\, q^{39} p^{4} + 406\, q^{46} p^{7} + 57582584\, p^{79} q^{56} + 70568672\, p^{78} q^{54} + 62577506\, p^{79} q^{60}$$
$$+ 59668999\, p^{79} q^{57} + 14177131\, p^{76} q^{38} + p\, q^{11} + 2026\, p^{8} q^{16} + 787\, p^{96} q^{51} + 541\, p^{95} q^{46} + 3737\, p^{97} q^{64} + 2343\, p^{96} q^{55} + 1097\, p^{7} q^{16}$$
$$+ 16\, p^{86} q^{23} + 141\, p^{90} q^{31} + 24279\, q^{25} p^{10} + 2\, p^{81} q^{17} + 47\, p^{89} q^{28} + 98\, p^{16} q^{4} + 28\, p^{14} q^{3} + 1310914551\, p^{46} q^{58} + 751\, p^{14} q^{7}$$
$$+ 2212\, p^{14} q^{9} + 1327\, p^{14} q^{8} + 1016554\, q^{47} p^{16} + 184408805\, p^{56} q^{32} + 51901961\, p^{55} q^{27} + 144703371\, p^{56} q^{31} + 847818288\, p^{57} q^{41}$$
$$+ 286993927\, p^{56} q^{34} + 350863173\, p^{56} q^{35} + 461\, p^{38} q^{6} + 2317\, p^{22} q^{7} + 4859\, p^{22} q^{8} + 65866\, p^{24} q^{12} + 19487\, p^{23} q^{10} + 4568\, p^{15} q^{10}$$
$$+ 5191\, p^{9} q^{18} + 4032\, p^{11} q^{13} + 4212\, p^{12} q^{12} + 132202\, q^{32} p^{12} + 35107\, q^{31} p^{10} + 1671092875\, p^{59} q^{54} + 1563782823\, p^{60} q^{55}$$
$$+ 133887\, p^{69} q^{20} + 45180620\, p^{79} q^{52} + 41450026\, p^{79} q^{51} + 14371615\, p^{31} q^{24} + 1094\, p^{24} q^{6} + 383\, p^{23} q^{5} + 190746\, p^{29} q^{13}$$

$$+ 1912836\, p^{30}\, q^{18} + 22578\, q^{66}\, p^{16} + 1698508390\, p^{58}\, q^{51} + 1737123313\, p^{58}\, q^{52} + 529601279\, p^{53}\, q^{69} + 1431849879\, p^{60}\, q^{50}$$
$$+ 1955\, q^{94}\, p^{46} + 2501\, p^{23}\, q^{7} + 1412\, p^{96}\, q^{53} + 4032\, p^{13}\, q^{11} + 2926\, p^{11}\, q^{12} + 198698\, q^{74}\, p^{24} + 17171654\, p^{52}\, q^{23} + 357561\, q^{79}\, p^{30}$$
$$+ 3156275\, q^{80}\, p^{38} + 49286410\, p^{70}\, q^{36} + 285876347\, p^{72}\, q^{52} + 269217986\, p^{72}\, q^{51} + 16\, p^{44}\, q^{5} + 1368\, p^{60}\, q^{11} + 531306\, q^{74}\, p^{26}$$
$$+ 784\, q^{92}\, p^{38} + 74\, q^{91}\, p^{32} + 154\, q^{91}\, p^{33} + 7192\, p^{20}\, q^{9} + 41304\, p^{21}\, q^{12} + 1217294062\, p^{59}\, q^{46} + 1838\, p^{96}\, q^{54} + 8310\, p^{43}\, q^{9} + 3262\, p^{42}\, q^{8}$$
$$+ 61776\, p^{94}\, q^{76} + 57659\, p^{94}\, q^{77} + 70922\, p^{94}\, q^{73} + 3754831\, p^{19}\, q^{33} + 9265339\, p^{22}\, q^{32} + 11524822\, q^{80}\, p^{44} + 82939\, q^{76}\, p^{24}$$
$$+ 46476\, q^{76}\, p^{23} + 234565\, q^{76}\, p^{26} + 7640976\, q^{79}\, p^{40} + 581833\, q^{77}\, p^{29} + 142028\, q^{76}\, p^{25} + 380850\, q^{77}\, p^{28} + 2784264\, q^{79}\, p^{36}$$
$$+ 2077450\, q^{79}\, p^{35} + 1094496\, q^{79}\, p^{33} + 1522352\, q^{79}\, p^{34} + 770941\, q^{79}\, p^{32} + 399173208\, p^{71}\, q^{56} + 46412551\, p^{67}\, q^{33} + 1705895\, p^{64}\, q^{22}$$
$$+ 5141419\, p^{65}\, q^{25} + 234308\, q^{32}\, p^{13} + 5141419\, q^{80}\, p^{40} + 6419601\, q^{80}\, p^{41} + 9606707\, q^{80}\, p^{43} + 7905645\, q^{80}\, p^{42} + 54872\, p^{63}\, q^{94}$$
$$+ 377763031\, p^{50}\, q^{70} + 46412551\, p^{38}\, q^{72} + 171087251\, p^{59}\, q^{33} + 1438649832\, p^{61}\, q^{53} + 517723\, p^{53}\, q^{16} + 1981\, p^{97}\, q^{60} + 2499\, p^{98}\, q^{71}$$
$$+ 234308\, p^{73}\, q^{92} + 2512994\, p^{81}\, q^{83} + 2749585\, p^{75}\, q^{86} + 2356070\, p^{80}\, q^{84} + 40130609\, p^{39}\, q^{25} + 16779\, p^{33}\, q^{9} + 73564\, p^{34}\, q^{11}$$
$$+ 62303334\, p^{69}\, q^{36} + 350805512\, p^{71}\, q^{52} + 331405214\, p^{71}\, q^{51} + 2898\, p^{31}\, q^{7} + 7272\, p^{32}\, q^{8} + 142468\, p^{35}\, q^{12} + 36184\, p^{34}\, q^{10}$$
$$+ 2110447\, p^{37}\, q^{17} + 10787897\, p^{38}\, q^{21} + 466693\, p^{36}\, q^{14} + 102\, p^{25}\, q^{4} + 7496227\, p^{38}\, q^{20} + 5088849\, p^{38}\, q^{19} + 15908135\, p^{39}\, q^{22}$$
$$+ 22064298\, p^{39}\, q^{23} + 68201979\, p^{39}\, q^{27} + 92330823\, p^{40}\, q^{28} + 264548\, p^{36}\, q^{13} + 789601\, p^{36}\, q^{15} + 308054410\, p^{44}\, q^{68} + 347291257\, p^{45}\, q^{68}$$
$$+ 183821\, p^{19}\, q^{17} + 176\, p^{49}\, q^{7} + 2504970\, p^{78}\, q^{85} + 2114496\, p^{79}\, q^{85} + 1924120\, p^{81}\, q^{84} + 2900\, p^{26}\, q^{7} + 2010475\, p^{22}\, q^{23} + 347963\, q^{26}\, p^{15}$$
$$+ 92511\, q^{78}\, p^{26} + 28123\, q^{77}\, p^{23} + 603891\, p^{27}\, q^{16} + 3228296\, p^{24}\, q^{23} + 241\, p^{75}\, q^{16} + 105654\, p^{17}\, q^{17} + 12445506\, q^{35}\, p^{22}$$
$$+ 57095658\, p^{57}\, q^{28} + 1025930141\, p^{60}\, q^{45} + 816518568\, p^{59}\, q^{42} + 460240509\, p^{59}\, q^{38} + 916584652\, p^{59}\, q^{43} + 387345245\, p^{59}\, q^{37}$$
$$+ 540357982\, p^{59}\, q^{39} + 3\, p^{64}\, q^{101} + 5\, p^{65}\, q^{101} + 42160507\, p^{65}\, q^{80} + 286993927\, p^{49}\, q^{71} + 23\, p^{43}\, q^{5} + 38814995\, p^{70}\, q^{35}$$
$$+ 300561740\, p^{72}\, q^{53} + 166954593\, p^{71}\, q^{44} + 1891148269\, p^{55}\, q^{56} + 1961647316\, p^{54}\, q^{55} + 2940\, p^{96}\, q^{56} + 1317\, p^{97}\, q^{58} + 1955\, p^{59}\, q^{11}$$
$$+ 224378\, q^{26}\, p^{14} + 397704\, q^{27}\, p^{15} + 515\, p^{60}\, q^{98} + 98\, p^{60}\, q^{99} + 948\, p^{63}\, q^{98} + 1125\, p^{64}\, q^{98} + 1313\, p^{65}\, q^{98} + 5218\, p^{67}\, q^{97} + 5679\, p^{68}\, q^{97}$$
$$+ 16791\, p^{74}\, q^{96} + 643\, p^{61}\, q^{98} + 3059936\, p^{59}\, q^{87} + 3209237\, p^{60}\, q^{87} + 7242\, p^{55}\, q^{95} + 16097\, p^{54}\, q^{94} + 6234292\, q^{29}\, p^{22} + 948\, p^{42}\, q^{7}$$
$$+ 20258863\, p^{30}\, q^{26} + 13743\, p^{26}\, q^{9} + 53209\, p^{27}\, q^{11} + 19933461\, p^{55}\, q^{82} + 2\, p^{58}\, q^{7} + 6915\, p^{27}\, q^{8} + 111078\, p^{29}\, q^{12} + 30787\, p^{28}\, q^{10}$$
$$+ 1438632\, p^{31}\, q^{17} + 6783357\, p^{32}\, q^{21} + 4363572\, p^{31}\, q^{20} + 3084946\, p^{31}\, q^{19} + 9265339\, p^{32}\, q^{22} + 344043\, p^{30}\, q^{14} + 3007\, q^{29}\, p^{7}$$
$$+ 33995\, q^{30}\, p^{10} + 7308\, q^{29}\, p^{8} + 1111\, q^{28}\, p^{6} + 3007\, q^{28}\, p^{7} + 16054\, q^{29}\, p^{9} + 703\, p^{78}\, q^{19} + 1899729606\, p^{52}\, q^{56} + 1927832830\, p^{51}\, q^{55}$$
$$+ 112\, p^{19}\, q^{4} + 30\, p^{17}\, q^{3} + 5814\, p^{24}\, q^{8} + 84190\, p^{26}\, q^{12} + 24279\, p^{25}\, q^{10} + 113\, p^{89}\, q^{29} + 13\, p^{87}\, q^{24} + 3228296\, p^{23}\, q^{24} + 3760875\, p^{22}\, q^{26}$$

$$+ 4000132\, p^{23}\, q^{25} + 2356070\, p^{21}\, q^{25} + 3095688\, p^{22}\, q^{25} + 591\, p^{65}\, q^{12} + 8485980\, p^{82}\, q^{47} + 3373737\, p^{81}\, q^{40} + 2643750\, p^{81}\, q^{39}$$
$$+ 13163\, p^{73}\, q^{19} + 6771005\, p^{85}\, q^{69} + 6335734\, p^{85}\, q^{70} + 375\, p^{83}\, q^{100} + 124964782\, p^{36}\, q^{31} + 204847042\, p^{36}\, q^{34} + 235895627\, p^{36}\, q^{35}$$
$$+ 302476757\, p^{37}\, q^{36} + 103386245\, p^{36}\, q^{30} + 149146061\, p^{36}\, q^{32} + 84418404\, p^{36}\, q^{29} + 73031\, p^{69}\, q^{94} + 18\, p^{102}\, q^{80} + 30\, p^{102}\, q^{88}$$
$$+ 1068580962\, p^{43}\, q^{57} + 119057\, q^{30}\, p^{12} + 294140600\, p^{67}\, q^{70} + 209669773\, p^{55}\, q^{74} + 215420897\, p^{56}\, q^{74} + 219178155\, p^{57}\, q^{74}$$
$$+ 220839762\, p^{58}\, q^{74} + 303917582\, p^{62}\, q^{72} + 30511\, p^{81}\, q^{27} + 53309667\, p^{30}\, q^{31} + 71897433\, p^{33}\, q^{30} + 211230\, q^{58}\, p^{16} + 129950\, q^{57}\, p^{15}$$
$$+ 61011\, q^{57}\, p^{14} + 604972\, q^{59}\, p^{18} + 33700\, q^{56}\, p^{13} + 872620\, q^{60}\, p^{19} + 2025143\, q^{61}\, p^{21} + 328337\, q^{59}\, p^{17} + 1493217\, q^{60}\, p^{20}$$
$$+ 2665396\, p^{43}\, q^{83} + 2729673\, p^{41}\, q^{82} + 5102344\, q^{61}\, p^{23} + 3262762\, q^{61}\, p^{22} + 9606707\, q^{62}\, p^{25} + 14013505\, q^{62}\, p^{26} + 6432614\, q^{62}\, p^{24}$$
$$+ 50308\, p^{62}\, q^{94} + 16648827\, q^{63}\, p^{27} + 23402691\, q^{63}\, p^{28} + 1641\, q^{70}\, p^{15} + 267\, q^{69}\, p^{13} + 73031\, q^{36}\, p^{11} + 69\, p^{76}\, q^{101} + 79\, p^{77}\, q^{101}$$
$$+ 16016202\, p^{30}\, q^{25} + 25254263\, p^{30}\, q^{27} + 36415613\, p^{31}\, q^{28} + 102\, q^{25}\, p^{4} + 791\, p^{95}\, q^{47} + 40\, p^{87}\, q^{25} + 8332\, q^{78}\, p^{22} + 241\, q^{75}\, p^{16}$$
$$+ 141\, q^{74}\, p^{15} + 1407\, q^{77}\, p^{19} + 4075159\, q^{34}\, p^{19} + 61497383\, p^{62}\, q^{79} + 312901028\, p^{54}\, q^{72} + 200485241\, p^{50}\, q^{73} + 51181\, q^{81}\, p^{28}$$
$$+ 37654766\, p^{30}\, q^{29} + 29729555\, p^{35}\, q^{25} + 22278358\, p^{73}\, q^{36} + 235895627\, p^{69}\, q^{70} + 241130388\, p^{63}\, q^{73} + 1522352\, p^{79}\, q^{34}$$
$$+ 6419601\, p^{80}\, q^{41} + 234565\, p^{76}\, q^{26} + 1674625\, p^{78}\, q^{33} + 160\, p^{100}\, q^{70} + 23\, p^{96}\, q^{43} + 3115857\, q^{36}\, p^{18} + 6771005\, q^{36}\, p^{20}$$
$$+ 10250585\, q^{37}\, p^{21} + 21149032\, p^{48}\, q^{80} + 1038\, q^{30}\, p^{6} + 319\, q^{29}\, p^{5} + 2898\, q^{31}\, p^{7} + 1001\, p^{99}\, q^{83} + 2\, p^{78}\, q^{15} + 515\, p^{98}\, q^{60} + 774\, p^{99}\, q^{71}$$
$$+ 680716492\, p^{63}\, q^{66} + 564953897\, p^{64}\, q^{67} + 2125\, p^{69}\, q^{98} + 10958412\, p^{74}\, q^{82} + 6249276\, p^{79}\, q^{81} + 9554840\, p^{75}\, q^{82} + 207297\, q^{88}\, p^{44}$$
$$+ 596297\, q^{89}\, p^{53} + 517723\, q^{89}\, p^{52} + 678636\, q^{89}\, p^{54} + 465570\, q^{90}\, p^{56} + 763527\, q^{89}\, p^{55} + 401644084\, p^{58}\, q^{71} + 274\, p^{57}\, q^{9}$$
$$+ 34051362\, p^{73}\, q^{78} + 1116\, p^{99}\, q^{80} + 630\, p^{99}\, q^{88} + 195628\, p^{80}\, q^{91} + 126139\, q^{31}\, p^{12} + 397745\, q^{32}\, p^{14} + 30\, p^{90}\, q^{102} + 7\, p^{92}\, q^{103}$$
$$+ 24\, p^{93}\, q^{102} + 28\, p^{91}\, q^{102} + 26\, p^{92}\, q^{102} + 30\, p^{88}\, q^{102} + 30\, p^{89}\, q^{102} + 315\, p^{97}\, q^{96} + 473\, p^{96}\, q^{96} + 2\, p^{81}\, q^{103} + 103\, p^{88}\, q^{101}$$
$$+ 16016202\, p^{25}\, q^{30} + 22737\, p^{93}\, q^{87} + 1575270\, p^{17}\, q^{32} + 176104257\, p^{75}\, q^{58} + 176303886\, p^{75}\, q^{59} + 198698\, p^{74}\, q^{24} + 98202\, p^{73}\, q^{22}$$
$$+ 330322\, p^{74}\, q^{25} + p^{25}\, q^{2} + 2950509\, q^{35}\, p^{18} + 96\, q^{26}\, p^{4} + 13440598\, q^{36}\, p^{22} + 254378\, q^{34}\, p^{13} + 3\, p^{99}\, q^{52} + 9\, p^{98}\, q^{49} + 28411965\, p^{38}\, q^{24}$$
$$+ 3256289\, p^{37}\, q^{18} + 49489595\, p^{38}\, q^{26} + 1111\, p^{28}\, q^{6} + 358\, p^{27}\, q^{5} + 236481154\, p^{39}\, q^{33} + 1287864\, p^{36}\, q^{16} + 31408910\, p^{81}\, q^{65}$$
$$+ 132469431\, p^{33}\, q^{61} + 134943676\, p^{39}\, q^{30} + 109026336\, p^{39}\, q^{29} + 151378246\, p^{45}\, q^{72} + 198648867\, p^{39}\, q^{32} + 3368272\, p^{18}\, q^{38}$$
$$+ 149146061\, p^{32}\, q^{36} + 63751101\, p^{27}\, q^{38} + 35265961\, p^{25}\, q^{37} + 45966583\, p^{26}\, q^{37} + 196161360\, p^{33}\, q^{37} + 1299160\, p^{88}\, q^{75} + 65866\, p^{93}\, q^{81}$$
$$+ 164791604\, p^{39}\, q^{31} + 278119598\, p^{39}\, q^{34} + 323254601\, p^{39}\, q^{35} + 405156477\, p^{40}\, q^{36} + 1023621\, p^{28}\, q^{17} + 4638039\, p^{29}\, q^{21}$$
$$+ 2930329\, p^{28}\, q^{20} + 2109431\, p^{28}\, q^{19} + 6234292\, p^{29}\, q^{22} + 254144\, p^{27}\, q^{14} + 1231763555\, p^{59}\, q^{62} + 1262722703\, p^{60}\, q^{61}$$

$$+ 1087578582\, p^{57}\, q^{64} + 1172015735\, p^{58}\, q^{63} + 1231763555\, p^{62}\, q^{59} + 812869\, q^{88}\, p^{51} + 695836\, q^{88}\, p^{50} + 301577276\, p^{65}\, q^{71}$$
$$+ 132730344\, p^{51}\, q^{75} + 122474738\, p^{50}\, q^{75} + 483\, q^{74}\, p^{16} + 1057\, q^{76}\, p^{18} + 8132753\, q^{42}\, p^{20} + 17288877\, q^{43}\, p^{22} + 24182769\, q^{42}\, p^{23}$$
$$+ 11959593\, q^{42}\, p^{21} + 17188418\, q^{42}\, p^{22} + 402\, q^{85}\, p^{25} + 67\, q^{84}\, p^{22} + 186\, q^{84}\, p^{23} + 458\, q^{84}\, p^{24} + 1756\, q^{85}\, p^{27} + q^{77}\, p^{14} + 89290450\, p^{62}\, q^{32}$$
$$+ 23728720\, p^{61}\, q^{27} + 68496697\, p^{62}\, q^{31} + 457108395\, p^{63}\, q^{41} + 7007826\, p^{23}\, q^{28} + 515223\, p^{87}\, q^{83} + 300714\, p^{80}\, q^{90} + 796468163\, p^{65}\, q^{49}$$
$$+ 323688742\, p^{64}\, q^{71} + 268599026\, p^{69}\, q^{69} + 168427\, p^{91}\, q^{81} + p^{14}\, q + 7496227\, p^{20}\, q^{38} + 4\, p^{97}\, q^{44} + 18\, p^{101}\, q^{69} + 71\, p^{100}\, q^{66}$$
$$+ 53999806\, p^{78}\, q^{69} + 48917939\, p^{78}\, q^{70} + 38854514\, p^{78}\, q^{72} + 58980609\, p^{78}\, q^{68} + 63751101\, p^{78}\, q^{67} + 43837671\, p^{78}\, q^{71} + 12\, p^{63}\, q^{9}$$
$$+ 29499431\, p^{78}\, q^{74} + 25254263\, p^{78}\, q^{75} + 34051362\, p^{78}\, q^{73} + 21357607\, p^{78}\, q^{76} + 17835578\, p^{78}\, q^{77} + 11954512\, p^{79}\, q^{78} + 23\, p^{70}\, q^{101}$$
$$+ 30\, p^{71}\, q^{101} + 411011\, p^{87}\, q^{84} + 260968\, p^{89}\, q^{83} + 135373\, p^{66}\, q^{93} + 1644735924\, p^{50}\, q^{58} + 64032630\, p^{41}\, q^{73} + 367682214\, p^{53}\, q^{71}$$
$$+ 73145\, p^{90}\, q^{87} + 30024387\, p^{39}\, q^{24} + 3368272\, p^{38}\, q^{18} + 52737683\, p^{39}\, q^{26} + 1077\, p^{29}\, q^{6} + 340\, p^{28}\, q^{5} + 255636445\, p^{40}\, q^{33}$$
$$+ 1327292\, p^{37}\, q^{16} + 144455454\, p^{40}\, q^{30} + 116306625\, p^{40}\, q^{29} + 214061795\, p^{40}\, q^{32} + 347963\, p^{90}\, q^{79} + 92613242\, p^{30}\, q^{35}$$
$$+ 14575362\, q^{81}\, p^{48} + 18491531\, q^{80}\, p^{47} + 50934\, p^{91}\, q^{87} + 224378\, p^{91}\, q^{79} + 64615\, p^{91}\, q^{86} + 79787145\, p^{44}\, q^{74} + 2168378\, q^{38}\, p^{17}$$
$$+ 122474738\, p^{55}\, q^{30} + 41450026\, p^{54}\, q^{26} + 93544150\, p^{55}\, q^{29} + 474409\, q^{38}\, p^{14} + 189012\, p^{87}\, q^{87} + 93790\, p^{90}\, q^{86} + 298168\, p^{84}\, q^{88}$$
$$+ 169006\, p^{89}\, q^{85} + 3007\, p^{28}\, q^{7} + 7308\, p^{29}\, q^{8} + 132202\, p^{32}\, q^{12} + 35107\, p^{31}\, q^{10} + 1828012\, p^{34}\, q^{17} + 8971932\, p^{35}\, q^{21} + 420649\, p^{33}\, q^{14}$$
$$+ 122867\, q^{88}\, p^{42} + 7414273\, p^{49}\, q^{83} + 273542771\, p^{64}\, q^{72} + 267593370\, p^{60}\, q^{73} + 151857398\, p^{74}\, q^{67} + 1295425\, p^{75}\, q^{29} + 866264\, p^{75}\, q^{28}$$
$$+ 9602\, p^{66}\, q^{15} + 16\, p^{55}\, q^{99} + 343934505\, p^{63}\, q^{71} + 976814\, p^{85}\, q^{43} + 2092109\, p^{86}\, q^{50} + 202081491\, p^{54}\, q^{74} + 67493063\, p^{34}\, q^{29}$$
$$+ 2132473\, p^{74}\, q^{87} + 2109431\, p^{77}\, q^{86} + 28173\, p^{93}\, q^{86} + 1228399\, p^{83}\, q^{84} + 91\, p^{99}\, q^{97} + p^{104}\, q^{92} + 44\, p^{101}\, q^{95} + 61776\, p^{76}\, q^{94}$$
$$+ 163\, p^{99}\, q^{95} + 48925\, p^{83}\, q^{93} + 33709\, p^{68}\, q^{95} + 149146061\, p^{69}\, q^{73} + 1069267\, p^{81}\, q^{86} + 872362\, p^{82}\, q^{86} + 198648867\, p^{66}\, q^{73}$$
$$+ 198100857\, p^{63}\, q^{74} + 155909200\, p^{72}\, q^{70} + 62\, q^{85}\, p^{23} + 167\, q^{85}\, p^{24} + 4121\, q^{88}\, p^{33} + 5\, q^{72}\, p^{12} + q^{71}\, p^{11} + 104287\, q^{90}\, p^{47}$$
$$+ 977180\, p^{80}\, q^{34} + 4242357\, p^{81}\, q^{41} + 149592\, p^{77}\, q^{26} + 1094496\, p^{79}\, q^{33} + 158227561\, p^{71}\, q^{71} + 23690732\, p^{64}\, q^{82} + 84190\, p^{93}\, q^{79}$$
$$+ 24669916\, p^{69}\, q^{81} + 371956\, p^{91}\, q^{74} + 474409\, p^{91}\, q^{67} + 440152\, p^{91}\, q^{71} + 678636\, p^{89}\, q^{54} + 568008\, p^{90}\, q^{58} + 663127\, p^{90}\, q^{60}$$
$$+ 596297\, p^{89}\, q^{53} + 22977972\, p^{65}\, q^{82} + 52\, p^{101}\, q^{94} + 5334664\, p^{83}\, q^{77} + 3391386\, p^{84}\, q^{78} + 9265339\, p^{83}\, q^{73} + 6234292\, p^{83}\, q^{76}$$
$$+ 111\, p^{68}\, q^{100} + 1828012\, p^{71}\, q^{88} + 807375\, p^{90}\, q^{68} + q^{94}\, p^{34} + 3\, q^{94}\, p^{35} + 693466\, p^{90}\, q^{72} + 1335365801\, p^{62}\, q^{54} + 1221020903\, p^{63}\, q^{55}$$
$$+ 916584652\, p^{62}\, q^{46} + 3385996\, p^{76}\, q^{85} + 53209\, p^{94}\, q^{78} + 216512337\, p^{72}\, q^{67} + 42\, p^{61}\, q^{9} + 370763\, p^{88}\, q^{83} + 10553\, p^{52}\, q^{94}$$
$$+ 3415353\, q^{71}\, p^{28} + 4938216\, q^{71}\, p^{29} + 135524\, q^{87}\, p^{40} + 390531469\, p^{36}\, q^{57} + 506422604\, p^{38}\, q^{58} + 2631807\, p^{73}\, q^{29} + 1791997\, p^{73}\, q^{28}$$

$$+ 356471087\, p^{36}\, q^{58} + 322577855\, p^{35}\, q^{57} + 785037099\, p^{41}\, q^{58} + 26604\, p^{95}\, q^{79} + 50460\, p^{68}\, q^{18} + 4702\, q^{86}\, p^{30} + 870\, q^{85}\, p^{26}$$
$$+ 90\, p^{67}\, q^{100} + 16112\, q^{88}\, p^{36} + 23914\, q^{88}\, p^{37} + 34636\, q^{88}\, p^{38} + 48998\, q^{88}\, p^{39} + 28411965\, p^{67}\, q^{81} + 23776496\, p^{59}\, q^{82} + 5434390\, p^{68}\, q^{27}$$
$$+ 22278358\, p^{69}\, q^{32} + 1136541551\, p^{43}\, q^{56} + 551514547\, q^{57}\, p^{38} + 1438632\, p^{88}\, q^{74} + 2168378\, p^{88}\, q^{67} + 111851148\, p^{56}\, q^{30}$$
$$+ 37630551\, p^{55}\, q^{26} + 85103324\, p^{56}\, q^{29} + 592854383\, p^{39}\, q^{58} + 36\, p^{33}\, q^{4} + 12524\, p^{47}\, q^{10} + 103697\, p^{50}\, q^{13} + 1629363\, p^{53}\, q^{18}$$
$$+ 1669354420\, p^{49}\, q^{57} + 1828012\, p^{88}\, q^{71} + 2110447\, p^{88}\, q^{68} + 1706170\, p^{88}\, q^{72} + 19655\, p^{64}\, q^{15} + 381599469\, p^{71}\, q^{54} + 214105941\, p^{71}\, q^{46}$$
$$+ 322569087\, p^{72}\, q^{55} + 8233008\, p^{76}\, q^{82} + 111078\, p^{76}\, q^{93} + 45\, p^{32}\, q^{4} + 4295\, q^{93}\, p^{45} + 33\, q^{91}\, p^{31} + 468\, q^{92}\, p^{37} + 1842486\, p^{53}\, q^{87} + q^{13}\, p$$
$$+ 17\, q^{89}\, p^{27} + 176\, q^{88}\, p^{28} + 374\, q^{88}\, p^{29} + 74\, q^{88}\, p^{27} + 172304\, p^{70}\, q^{21} + 49286410\, p^{35}\, q^{69} + 2060033\, p^{54}\, q^{87} + 74\, p^{88}\, q^{27} + 1126\, p^{99}\, q^{78}$$
$$+ 504801015\, p^{37}\, q^{56} + 624071259\, p^{53}\, q^{68} + 701490141\, p^{52}\, q^{67} + 1629363\, p^{52}\, q^{87} + 7192\, p^{96}\, q^{85} + 4390\, p^{89}\, q^{35} + 74\, p^{78}\, q^{17}$$
$$+ 1407\, p^{86}\, q^{28} + 488\, p^{83}\, q^{23} + 3490\, p^{87}\, q^{31} + 59189\, p^{94}\, q^{64} + 46885\, p^{93}\, q^{55} + 21888\, p^{93}\, q^{51} + 15657\, p^{92}\, q^{46} + 7\, p^{102}\, q^{75} + 2440\, p^{88}\, q^{32}$$
$$+ 63271\, p^{93}\, q^{57} + 21461\, p^{91}\, q^{44} + 34907\, p^{95}\, q^{69} + 167\, p^{81}\, q^{20} + 6466\, p^{90}\, q^{38} + 66556\, p^{94}\, q^{66} + 2378\, p^{97}\, q^{61} + 3262\, p^{97}\, q^{63}$$
$$+ 19173\, p^{61}\, q^{95} + 47\, p^{77}\, q^{16} + 26547\, p^{92}\, q^{48} + 28613\, p^{91}\, q^{45} + 63108\, p^{94}\, q^{65} + 50308\, p^{94}\, q^{62} + 54802\, p^{93}\, q^{56} + 31534\, p^{94}\, q^{58}$$
$$+ 40807\, p^{94}\, q^{60} + 36184\, p^{95}\, q^{71} + 39572\, p^{93}\, q^{54} + 12\, p^{71}\, q^{12} + 32957\, p^{93}\, q^{53} + 2962172\, p^{59}\, q^{21} + 9254690\, p^{60}\, q^{24} + 516611\, q^{82}\, p^{35}$$
$$+ 314590\, p^{56}\, q^{16} + 1286508\, p^{58}\, q^{19} + 8814\, p^{49}\, q^{10} + 151212623\, p^{53}\, q^{75} + 142385562\, p^{52}\, q^{75} + 158991903\, p^{54}\, q^{75} + 133197701\, p^{56}\, q^{76}$$
$$+ 174199049\, p^{57}\, q^{75} + 165525334\, p^{55}\, q^{75} + 170639802\, p^{56}\, q^{75} + 176\, q^{77}\, p^{17} + 113\, q^{76}\, p^{16} + 329\, q^{79}\, p^{19} + 870\, q^{79}\, p^{20} + 9142\, q^{79}\, p^{23}$$
$$+ 2070\, q^{79}\, p^{21} + 4504\, q^{79}\, p^{22} + 2306\, q^{80}\, p^{22} + 9570\, q^{80}\, p^{24} + 703\, q^{78}\, p^{19} + 1756\, q^{78}\, p^{20} + 251\, q^{78}\, p^{18} + 100008\, q^{86}\, p^{37}$$
$$+ 341052335\, p^{65}\, q^{41} + 105621544\, p^{64}\, q^{34} + 132711785\, p^{64}\, q^{35} + 836832945\, p^{66}\, q^{53} + 507744756\, p^{65}\, q^{44} + 322569087\, p^{55}\, q^{72}$$
$$+ 6120619\, q^{82}\, p^{45} + 548679\, p^{88}\, q^{81} + 4198660\, q^{82}\, p^{43} + 139999\, q^{92}\, p^{79} + p^{77}\, q^{14} + 687413\, p^{28}\, q^{16} + 2321\, p^{98}\, q^{70} + 619\, p^{94}\, q^{43}$$
$$+ 8233008\, q^{29}\, p^{23} + 243513\, q^{69}\, p^{21} + 1345620\, q^{70}\, p^{25} + 2077450\, q^{70}\, p^{26} + 316920\, q^{52}\, p^{15} + 2401530\, q^{54}\, p^{19} + 10\, p^{54}\, q^{99}$$
$$+ 15235\, p^{87}\, q^{34} + 2070\, p^{84}\, q^{26} + 471\, p^{99}\, q^{90} + 1632\, p^{97}\, q^{59} + 9055319\, p^{77}\, q^{81} + 1069267\, p^{19}\, q^{24} + 60070108\, p^{63}\, q^{79}$$
$$+ 1217294062\, p^{46}\, q^{59} + p^{93}\, q^{32} + 237\, p^{98}\, q^{57} + 29\, p^{97}\, q^{47} + p^{89}\, q^{25} + 144703371\, q^{56}\, p^{31} + 286993927\, q^{56}\, p^{34} + 184408805\, q^{56}\, p^{32}$$
$$+ 8262179\, q^{34}\, p^{21} + 5866370\, q^{34}\, p^{20} + 8971932\, q^{35}\, p^{21} + 32422924\, p^{53}\, q^{25} + 930979496\, p^{60}\, q^{44} + 59668999\, p^{57}\, q^{79} + 848\, p^{72}\, q^{99}$$
$$+ 3007\, p^{77}\, q^{98} + 10685\, q^{19}\, p^{10} + 6159\, q^{19}\, p^{9} + 12692\, q^{20}\, p^{10} + 33397669\, p^{59}\, q^{81} + 14185198\, p^{51}\, q^{82} + 37630551\, q^{55}\, p^{26}$$
$$+ 51901961\, q^{55}\, p^{27} + 231647750\, q^{56}\, p^{33} + 350863173\, q^{56}\, p^{35} + 2658\, p^{98}\, q^{72} + 1924\, p^{98}\, q^{68} + 1541364\, p^{19}\, q^{26} + 3084946\, p^{19}\, q^{31}$$
$$+ 29499431\, p^{27}\, q^{31} + 37654766\, p^{29}\, q^{30} + 938218\, q^{53}\, p^{17} + 111851148\, q^{56}\, p^{30} + 26756306\, q^{55}\, p^{25} + 18631517\, q^{55}\, p^{24}$$

$$+ 25254263\, p^{75} q^{78} + 568516171\, p^{62} q^{68} + 381742322\, p^{68} q^{67} + 714\, p^{18} q^{6} + 277\, p^{17} q^{5} + 370763\, q^{22} p^{17} + 1050388\, q^{87} p^{49}$$
$$+ 1230607\, q^{87} p^{50} + 1131\, p^{26} q^{6} + 382\, p^{25} q^{5} + 268152588\, p^{73} q^{56} + 29493594\, p^{69} q^{33} + 1028395\, p^{66} q^{22} + 3156275\, p^{67} q^{25}$$
$$+ 4756679\, p^{67} q^{26} + 1674417\, p^{66} q^{23} + 42252429\, q^{36} p^{26} + 24669916\, q^{36} p^{24} + 1397657928\, p^{46} q^{57} + 490909\, q^{88} p^{48} + 134\, p^{36} q^{5}$$
$$+ 93434\, p^{78} q^{93} + 859638\, p^{30} q^{16} + 21316\, p^{94} q^{85} + 23329\, p^{87} q^{35} + 42126\, q^{92} p^{50} + 75317\, q^{92} p^{53} + 7366\, q^{31} p^{8} + 686066940\, p^{58} q^{40}$$
$$+ 440152\, q^{34} p^{14} + 2092109\, p^{55} q^{19} + 7414273\, p^{56} q^{22} + 343934505\, p^{71} q^{63} + 361815647\, p^{71} q^{62} + 376880031\, p^{71} q^{61} + 183821\, p^{88} q^{86}$$
$$+ 602686\, p^{31} q^{15} + 30773955\, p^{33} q^{26} + 16054\, p^{29} q^{9} + 65409\, p^{30} q^{11} + 742951187\, p^{57} q^{40} + 68201979\, p^{27} q^{39} + 216512337\, p^{33} q^{38}$$
$$+ 1698508390\, p^{51} q^{58} + 63108\, p^{65} q^{94} + 44133\, p^{89} q^{41} + 22578\, p^{89} q^{39} + 23914\, p^{88} q^{37} + 9662\, p^{87} q^{33} + 364583\, p^{51} q^{15}$$
$$+ 356471087\, p^{58} q^{36} + 185732\, p^{51} q^{14} + 818\, q^{49} p^{8} + 16097\, q^{51} p^{11} + 39572\, q^{51} p^{12} + 7242\, q^{50} p^{10} + 87327142\, p^{32} q^{32}$$
$$+ 82059101\, p^{30} q^{34} + 85980915\, p^{31} q^{33} + 237\, p^{48} q^{7} + 333348172\, p^{72} q^{58} + 330535240\, p^{72} q^{59} + 35265961\, p^{37} q^{25} + 16791\, p^{31} q^{9}$$
$$+ 70922\, p^{32} q^{11} + 32550531\, q^{36} p^{25} + 53999806\, q^{36} p^{27} + 74553859\, q^{37} p^{28} + 1937926\, q^{35} p^{17} + 137014\, q^{33} p^{12} + 35868\, q^{32} p^{10}$$
$$+ 18376784\, q^{36} p^{23} + 347963\, p^{79} q^{90} + 816518568\, p^{42} q^{59} + 930979496\, p^{44} q^{60} + 2967\, q^{30} p^{7} + 1077\, q^{29} p^{6} + 28\, q^{20} p^{3} + 88956\, q^{92} p^{54}$$
$$+ 46885\, q^{93} p^{55} + 40807\, p^{45} q^{11} + 81221\, p^{46} q^{12} + 1023621\, q^{28} p^{17} + 62341072\, p^{79} q^{61} + 60070108\, p^{79} q^{63} + 61497383\, p^{79} q^{62}$$
$$+ 61222500\, p^{79} q^{58} + 1486529\, q^{28} p^{18} + 2930329\, q^{28} p^{20} + 4638039\, q^{29} p^{21} + 2\, q^{90} p^{27} + 73301381\, p^{39} q^{71} + 88540515\, p^{40} q^{71}$$
$$+ 105621544\, p^{41} q^{71} + 188195026\, p^{41} q^{31} + 323688742\, p^{41} q^{34} + 378481021\, p^{41} q^{35} + 467523837\, p^{42} q^{36} + 381742322\, p^{38} q^{37}$$
$$+ 36\, p^{101} q^{72} + 13\, p^{101} q^{68} + 6073262\, q^{79} p^{39} + 4756679\, q^{79} p^{38} + 4154831\, q^{78} p^{36} + 32529\, q^{29} p^{10} + 1126\, q^{27} p^{6} + 1408225391\, p^{58} q^{47}$$
$$+ 1497720971\, p^{58} q^{48} + 1549031\, p^{84} q^{82} + 1512\, p^{39} q^{7} + 231647750\, p^{56} q^{33} + 763527\, p^{50} q^{16} + 15487387\, p^{75} q^{37} + 62201341\, p^{79} q^{59}$$
$$+ 1050\, q^{48} p^{8} + 1065\, p^{96} q^{52} + 1555\, p^{95} q^{49} + 9055319\, p^{28} q^{24} + 489955\, p^{60} q^{18} + 104287\, p^{58} q^{15} + 20562\, q^{92} p^{47} + 51852\, q^{92} p^{51}$$
$$+ 99068\, p^{21} q^{14} + 179260\, p^{22} q^{15} + 65020\, p^{21} q^{13} + 25298\, p^{21} q^{11} + 2795\, q^{95} p^{51} + 6486\, q^{94} p^{50} + 317096\, p^{23} q^{16} + 99516\, p^{66} q^{18}$$
$$+ 157068\, q^{27} p^{13} + 2109431\, q^{28} p^{19} + 1566422630\, p^{60} q^{54} + 1454714655\, p^{61} q^{55} + 1118953038\, p^{60} q^{46} + 10692033\, p^{29} q^{24}$$
$$+ 26863333\, p^{25} q^{34} + 42207976\, p^{28} q^{32} + 9\, p^{56} q^{7} + 63278777\, p^{31} q^{31} + 20538795\, p^{24} q^{34} + 29584\, p^{83} q^{94} + 1736650392\, p^{50} q^{57}$$
$$+ 272176\, p^{90} q^{52} + 81\, q^{94} p^{39} + 12686559\, p^{50} q^{82} + 9814898\, p^{48} q^{82} + 810819\, q^{40} p^{15} + 63271\, p^{48} q^{12} + 31534\, p^{47} q^{11} + 2658\, p^{72} q^{98}$$
$$+ 18439014\, p^{33} q^{24} + 221246\, p^{31} q^{13} + 2350908\, p^{32} q^{18} + 5186475\, q^{72} p^{30} + 1522352\, q^{71} p^{26} + 16715142\, q^{61} p^{26} + 7764680\, q^{61} p^{24}$$
$$+ 23690732\, p^{23} q^{41} + 32528789\, p^{24} q^{41} + 33354656\, p^{24} q^{42} + 43850766\, p^{25} q^{41} + 58097069\, p^{26} q^{41} + 144455454\, p^{30} q^{40}$$
$$+ 75719231\, p^{27} q^{41} + 116306625\, p^{29} q^{40} + 449154\, p^{80} q^{89} + 548679\, p^{81} q^{88} + 34578729\, p^{26} q^{34} + 62275786\, p^{32} q^{30} + 54774604\, p^{28} q^{34}$$

$$+ 43837671\, p^{27}\, q^{34} + 61361239\, p^{28}\, q^{35} + 74920\, p^{93}\, q^{80} + 517723\, q^{53}\, p^{16} + 3\, p^{33}\, q^{3} + 50308\, p^{43}\, q^{11} + 99436\, p^{44}\, q^{12} + 2075\, p^{11}\, q^{11}$$
$$+ 774230\, p^{18}\, q^{24} + 12470419\, p^{30}\, q^{24} + 1050\, p^{23}\, q^{6} + 375\, p^{22}\, q^{5} + 174090\, p^{28}\, q^{13} + 1696160\, p^{29}\, q^{18} + 6\, p^{15}\, q^{2} + 6989429\, p^{75}\, q^{34}$$
$$+ 26793559\, p^{76}\, q^{41} + 1094496\, p^{72}\, q^{26} + 7243285\, p^{74}\, q^{33} + 608917\, p^{71}\, q^{24} + 1001\, p^{22}\, q^{6} + 363\, p^{21}\, q^{5} + 74200012\, p^{32}\, q^{31}$$
$$+ 30773955\, p^{26}\, q^{33} + 51607538\, p^{29}\, q^{32} + 2129864\, p^{62}\, q^{88} + 2058083\, p^{61}\, q^{88} + 215949\, p^{15}\, q^{23} + 115\, p^{21}\, q^{4} + 29\, p^{19}\, q^{3} + 6612\, p^{26}\, q^{8}$$
$$+ 102483\, p^{28}\, q^{12} + 28779\, p^{27}\, q^{10} + 1299160\, p^{30}\, q^{17} + 6045144\, p^{31}\, q^{21} + 3866268\, p^{30}\, q^{20} + 2749585\, p^{30}\, q^{19} + 8213498\, p^{31}\, q^{22}$$
$$+ 314619\, p^{29}\, q^{14} + 16544915\, q^{74}\, p^{36} + 21115105\, q^{74}\, p^{37} + 26559096\, q^{74}\, p^{38} + 32943640\, q^{74}\, p^{39} + 5805\, p^{95}\, q^{89} + 7130\, p^{94}\, q^{90}$$
$$+ 1018030418\, p^{44}\, q^{59} + 28535273\, p^{55}\, q^{81} + 37684395\, p^{54}\, q^{80} + 4508104\, p^{27}\, q^{22} + 68503\, p^{94}\, q^{74} + 69401\, p^{94}\, q^{67} + 501026\, p^{90}\, q^{76}$$
$$+ 649991\, p^{90}\, q^{73} + 92826413\, p^{70}\, q^{39} + 238561806\, p^{71}\, q^{47} + 111679551\, p^{70}\, q^{40} + 309962947\, p^{71}\, q^{50} + 180843847\, p^{70}\, q^{43}$$
$$+ 155826083\, p^{70}\, q^{42} + 1018030418\, p^{59}\, q^{44} + 72224709\, p^{27}\, q^{40} + 1791997\, p^{77}\, q^{32} + 1259707\, p^{77}\, q^{31} + 23096174\, p^{82}\, q^{58}$$
$$+ 5434390\, p^{78}\, q^{37} + 23776496\, p^{82}\, q^{59} + 214\, p^{100}\, q^{72} + 111\, p^{100}\, q^{68} + 906450349\, p^{41}\, q^{56} + 6335734\, q^{35}\, p^{20} + 9640012\, q^{36}\, p^{21}$$
$$+ 1070087\, q^{88}\, p^{53} + 1206569\, q^{88}\, p^{54} + 849284\, q^{89}\, p^{56} + 1617427\, q^{88}\, p^{57} + 1345095\, q^{88}\, p^{55} + 1483091\, q^{88}\, p^{56} + 938218\, q^{88}\, p^{52}$$
$$+ 340\, q^{28}\, p^{5} + 21\, q^{24}\, p^{3} + 11148812\, p^{68}\, q^{29} + 8332\, p^{83}\, q^{27} + 46041730\, q^{43}\, p^{25} + 33863478\, q^{43}\, p^{24} + 61497383\, q^{43}\, p^{26}$$
$$+ 104417020\, q^{43}\, p^{28} + 80774577\, q^{43}\, p^{27} + 106656205\, q^{44}\, p^{28} + 198698\, q^{81}\, p^{31} + 295404\, q^{81}\, p^{32} + 31770\, q^{80}\, p^{26} + 54212\, q^{80}\, p^{27}$$
$$+ 428865\, q^{81}\, p^{33} + 17852\, q^{80}\, p^{25} + 568516171\, p^{43}\, q^{37} + 63686020\, q^{56}\, p^{28} + 1424453\, q^{54}\, p^{18} + 343934505\, p^{34}\, q^{42} + 32528789\, p^{41}\, q^{24}$$
$$+ 3495018\, p^{40}\, q^{18} + 58097069\, p^{41}\, q^{26} + 289770480\, p^{42}\, q^{33} + 1366765\, p^{39}\, q^{16} + 160604749\, p^{42}\, q^{30} + 128421883\, p^{42}\, q^{29}$$
$$+ 241130388\, p^{42}\, q^{32} + 241130388\, p^{73}\, q^{63} + 252118231\, p^{73}\, q^{62} + 261018115\, p^{73}\, q^{61} + 3007\, p^{29}\, q^{7} + 7385\, p^{30}\, q^{8} + 137014\, p^{33}\, q^{12}$$
$$+ 35868\, p^{32}\, q^{10} + 1937926\, p^{35}\, q^{17} + 9640012\, p^{36}\, q^{21} + 440152\, p^{34}\, q^{14} + 1577223487\, p^{58}\, q^{49} + 1644735924\, p^{58}\, q^{50} + 5915\, q^{73}\, p^{18}$$
$$+ 12592\, q^{76}\, p^{21} + 242419\, q^{77}\, p^{27} + 89215\, q^{77}\, p^{25} + 149592\, q^{77}\, p^{26} + 51181\, q^{77}\, p^{24} + 11832290\, p^{64}\, q^{84} + 7779949\, p^{60}\, q^{85}$$
$$+ 483071621\, p^{51}\, q^{69} + 4375993\, q^{35}\, p^{19} + 72638\, q^{33}\, p^{11} + 5866370\, p^{34}\, q^{20} + 4075159\, p^{34}\, q^{19} + 12445506\, p^{35}\, q^{22} + 16934803\, p^{35}\, q^{23}$$
$$+ 48917939\, p^{35}\, q^{27} + 67998156\, p^{36}\, q^{28} + 1497720971\, p^{47}\, q^{57} + 16875\, q^{32}\, p^{9} + 12675490\, p^{47}\, q^{81} + 93434\, q^{27}\, p^{12} + 477803314\, p^{70}\, q^{56}$$
$$+ 57035632\, p^{66}\, q^{33} + 2147597\, p^{63}\, q^{22} + 6419601\, p^{64}\, q^{25} + 1025930141\, p^{45}\, q^{60} + 32592925\, p^{58}\, q^{81} + 649991\, q^{32}\, p^{15} + 157068\, p^{27}\, q^{13}$$
$$+ 1486529\, p^{28}\, q^{18} + 74291\, q^{75}\, p^{23} + 8016\, q^{74}\, p^{19} + 21057\, q^{75}\, p^{21} + 14436205\, p^{77}\, q^{79} + 3095688\, p^{80}\, q^{83} + 12\, q^{95}\, p^{39} + 25\, q^{95}\, p^{40}$$
$$+ 48\, q^{95}\, p^{41} + 422012410\, p^{39}\, q^{37} + 1310914551\, p^{59}\, q^{47} + 1397657928\, p^{59}\, q^{48} + 211601414\, p^{57}\, q^{33} + 678636\, p^{51}\, q^{16}$$
$$+ 236481154\, p^{33}\, q^{39} + 4768928\, p^{56}\, q^{21} + 14575362\, p^{57}\, q^{24} + 249171\, p^{87}\, q^{86} + 312901028\, p^{72}\, q^{54} + 171087251\, p^{72}\, q^{46}$$

$$+ 261843443\, p^{73}\, q^{55} + 16488523\, p^{22}\, q^{40} + 8485980\, p^{47}\, q^{82} + 14051\, p^{93}\, q^{89} + 10895638\, p^{46}\, q^{81} + 22064298\, p^{82}\, q^{66} + 16715142\, p^{79}\, q^{44}$$
$$+ 255544\, p^{72}\, q^{23} + 30128869\, p^{81}\, q^{56} + 1796625774\, p^{56}\, q^{57} + 1765153961\, p^{54}\, q^{58} + 1546168408\, p^{60}\, q^{56} + 1236576\, q^{35}\, p^{16}$$
$$+ 731834\, q^{34}\, p^{15} + 2972\, p^{78}\, q^{98} + 4350\, p^{84}\, q^{97} + 4859\, p^{83}\, q^{97} + 23914\, p^{68}\, q^{17} + 15657\, q^{92}\, p^{46} + 26547\, q^{92}\, p^{48} + 62938\, q^{92}\, p^{52}$$
$$+ 33700\, q^{92}\, p^{49} + 6\, p^{39}\, q^{4} + 21149032\, p^{80}\, q^{48} + 19695166\, p^{79}\, q^{45} + 77657414\, p^{69}\, q^{37} + 263020869\, p^{71}\, q^{48} + 235466442\, p^{70}\, q^{45}$$
$$+ 10064421\, p^{67}\, q^{28} + 1412\, p^{52}\, q^{9} + 29984\, p^{91}\, q^{89} + 378481021\, p^{64}\, q^{70} + 111851148\, p^{49}\, q^{75} + 60481289\, q^{61}\, p^{30} + 19999811\, q^{62}\, p^{27}$$
$$+ 45084479\, q^{61}\, p^{29} + 23728720\, q^{61}\, p^{27} + 33016583\, q^{61}\, p^{28} + 537675928\, p^{60}\, q^{69} + 140646\, p^{87}\, q^{88} + 183821\, p^{86}\, q^{88} + 4\, p^{19}\, q^{2}$$
$$+ 424930159\, p^{52}\, q^{70} + 114620445\, p^{43}\, q^{72} + 1285\, p^{9}\, q^{12} + 605\, p^{7}\, q^{13} + 803\, p^{8}\, q^{12} + 15983875\, q^{80}\, p^{46} + 165842255\, p^{32}\, q^{37}$$
$$+ 124964782\, p^{31}\, q^{36} + 5\, p^{17}\, q^{2} + 112\, p^{23}\, q^{4} + 27\, p^{21}\, q^{3} + 6771005\, p^{36}\, q^{20} + 4649659\, p^{36}\, q^{19} + 14364207\, p^{37}\, q^{22} + 19734060\, p^{37}\, q^{23}$$
$$+ 58980609\, p^{37}\, q^{27} + 80889992\, p^{38}\, q^{28} + 254378\, p^{34}\, q^{13} + 731834\, p^{34}\, q^{15} + 141892\, q^{37}\, p^{12} + 472987\, q^{37}\, p^{14} + 816933\, q^{38}\, p^{15}$$
$$+ 6497\, q^{35}\, p^{8} + 2321\, q^{35}\, p^{7} + 263680\, q^{38}\, p^{13} + 71594\, q^{37}\, p^{11} + 5102344\, q^{82}\, p^{44} + 260822\, q^{35}\, p^{13} + 36215\, q^{33}\, p^{10} + 73564\, q^{34}\, p^{11}$$
$$+ 73709\, q^{35}\, p^{11} + 89\, p^{98}\, q^{54} + 70922\, q^{32}\, p^{11} + 6373345\, p^{80}\, q^{80} + 2401530\, p^{54}\, q^{19} + 8431760\, p^{55}\, q^{22} + 2563264\, p^{72}\, q^{87} + 7961\, q^{93}\, p^{47}$$
$$+ 124774193\, p^{30}\, q^{38} + 9\, p^{94}\, q^{36} + p^{92}\, q^{30} + 5\, p^{93}\, q^{33} + 25\, p^{95}\, q^{40} + 12\, p^{95}\, q^{39} + 21\, p^{94}\, q^{37} + 597287029\, p^{61}\, q^{68} + 171087251\, p^{33}\, q^{59}$$
$$+ 15983875\, p^{25}\, q^{59} + 214105941\, p^{34}\, q^{59} + 264304986\, p^{35}\, q^{59} + 132202\, p^{93}\, q^{73} + 111078\, p^{93}\, q^{76} + 191281470\, q^{58}\, p^{33} + 8213498\, p^{22}\, q^{31}$$
$$+ 15690489\, p^{53}\, q^{23} + 17045\, q^{74}\, p^{20} + 829297\, q^{78}\, p^{31} + 242419\, q^{78}\, p^{28} + 866264\, q^{77}\, p^{30} + 374897\, q^{78}\, p^{29} + 152199\, q^{78}\, p^{27}$$
$$+ 564519\, q^{78}\, p^{30} + 40550\, q^{75}\, p^{22} + 24863\, q^{76}\, p^{22} + 2308688\, q^{78}\, p^{34} + 28\, p^{102}\, q^{85} + 5814\, q^{24}\, p^{8} + 38864\, q^{24}\, p^{11} + 102483\, p^{93}\, q^{77}$$
$$+ 14364207\, p^{68}\, q^{83} + 427778224\, p^{38}\, q^{38} + 351575404\, p^{35}\, q^{40} + 499881061\, p^{41}\, q^{37} + 1661832692\, p^{59}\, q^{53} + 423474570\, p^{49}\, q^{69}$$
$$+ 474265070\, p^{39}\, q^{38} + 116\, p^{101}\, q^{85} + 350863173\, p^{49}\, q^{70} + 564519\, q^{75}\, p^{27} + 829297\, q^{74}\, p^{27} + 1259707\, q^{74}\, p^{28} + 1866088\, q^{74}\, p^{29}$$
$$+ 1136541551\, p^{62}\, q^{49} + 76081\, p^{91}\, q^{49} + 2978679\, p^{56}\, q^{20} + 18491531\, p^{58}\, q^{25} + 4\, p^{57}\, q^{7} + 135524\, p^{65}\, q^{18} + 3256289\, p^{68}\, q^{87}$$
$$+ 3115857\, p^{69}\, q^{87} + 127\, p^{50}\, q^{7} + 859638\, p^{89}\, q^{75} + 294140600\, p^{70}\, q^{67} + 255544\, q^{82}\, p^{33} + 173748\, q^{82}\, p^{32} + 15908135\, p^{22}\, q^{39} + 2\, p^{57}\, q^{100}$$
$$+ 78594284\, p^{27}\, q^{42} + 132947109\, p^{29}\, q^{43} + 160604749\, p^{30}\, q^{42} + 101222984\, p^{28}\, q^{42} + 128421883\, p^{29}\, q^{42} + 89\, p^{51}\, q^{7} + 3709\, p^{57}\, q^{11}$$
$$+ 28613\, p^{60}\, q^{14} + 15657\, p^{59}\, q^{13} + 1825523330\, p^{52}\, q^{57} + 1796625774\, p^{57}\, q^{56} + 134780297\, p^{59}\, q^{32} + 36907970\, p^{58}\, q^{27}$$
$$+ 104613051\, p^{59}\, q^{31} + 652714542\, p^{60}\, q^{41} + 214105941\, p^{59}\, q^{34} + 264304986\, p^{59}\, q^{35} + p^{43}\, q^{4} + 153080366\, p^{30}\, q^{41} + 188195026\, p^{31}\, q^{41}$$
$$+ 198100857\, p^{31}\, q^{42} + 228337219\, p^{32}\, q^{41} + 273542771\, p^{33}\, q^{41} + 301577276\, p^{34}\, q^{40} + 134\, p^{69}\, q^{100} + 160\, p^{70}\, q^{100} + 295\, p^{75}\, q^{100}$$
$$+ 36\, p^{72}\, q^{101} + 269\, p^{74}\, q^{100} + 214\, p^{72}\, q^{100} + 242\, p^{73}\, q^{100} + 555292\, p^{84}\, q^{86} + 92899382\, q^{37}\, p^{29} + 4\, q^{85}\, p^{21} + 4\, q^{84}\, p^{20} + 206569\, p^{13}\, q^{30}$$

$$+ 552605\, p^{15}\, q^{30} + 81\, p^{66}\, q^{11} + 17208681\, p^{26}\, q^{29} + 68503\, q^{31}\, p^{11} + 70146\, p^{69}\, q^{19} + 24669916\, p^{81}\, q^{69} + 22630115\, p^{81}\, q^{70}$$
$$+ 37684395\, p^{80}\, q^{54} + 31493635\, p^{81}\, q^{57} + 6997182\, p^{78}\, q^{38} + 35134878\, p^{80}\, q^{53} + 33885107\, p^{81}\, q^{60} + 43699847\, p^{39}\, q^{73}$$
$$+ 499881061\, p^{64}\, q^{68} + 42160507\, p^{40}\, q^{25} + 16480\, p^{34}\, q^{9} + 73709\, p^{35}\, q^{11} + 2792\, p^{32}\, q^{7} + 7083\, p^{33}\, q^{8} + 142968\, p^{36}\, q^{12} + 35730\, p^{35}\, q^{10}$$
$$+ 2168378\, p^{38}\, q^{17} + 11238374\, p^{39}\, q^{21} + 472987\, p^{37}\, q^{14} + 7767213\, p^{39}\, q^{20} + 5242660\, p^{39}\, q^{19} + 16488523\, p^{40}\, q^{22} + 22977972\, p^{40}\, q^{23}$$
$$+ 72224709\, p^{40}\, q^{27} + 97158419\, p^{41}\, q^{28} + 265539\, p^{37}\, q^{13} + 807375\, p^{37}\, q^{15} + 7385\, q^{30}\, p^{8} + 742\, q^{88}\, p^{30} + 1028395\, q^{83}\, p^{39}$$
$$+ 40130609\, p^{25}\, q^{39} + 835997200\, p^{43}\, q^{60} + 434985171\, p^{39}\, q^{61} + 1196918726\, p^{62}\, q^{50} + 44412092\, p^{59}\, q^{28} + 835997200\, p^{62}\, q^{45}$$
$$+ 668579419\, p^{61}\, q^{42} + 368285057\, p^{61}\, q^{38} + 754599311\, p^{61}\, q^{43} + 308054410\, p^{61}\, q^{37} + 434985171\, p^{61}\, q^{39} + 24\, p^{56}\, q^{99} + 14690\, q^{77}\, p^{22}$$
$$+ 84418404\, q^{36}\, p^{29} + 6830\, q^{34}\, p^{8} + 16480\, q^{34}\, p^{9} + 466693\, q^{36}\, p^{14} + 191281470\, p^{47}\, q^{72} + 250998629\, p^{50}\, q^{72} + 231647750\, p^{49}\, q^{72}$$
$$+ 134780297\, p^{46}\, q^{73} + 211601414\, p^{48}\, q^{72} + 7232\, p^{95}\, q^{88} + 17129\, p^{95}\, q^{83} + 2701326\, q^{74}\, p^{30} + 1566422630\, p^{54}\, q^{60} + 12\, q^{63}\, p^{9}$$
$$+ 2432\, q^{82}\, p^{24} + 9142\, q^{82}\, p^{26} + 1526901615\, p^{52}\, q^{60} + 1180731537\, p^{48}\, q^{61} + 1681909500\, p^{57}\, q^{58} + 5902\, p^{59}\, q^{12} + 1514051345\, p^{60}\, q^{57}$$
$$+ 980\, p^{74}\, q^{99} + 1623283926\, p^{58}\, q^{58} + 4044796\, p^{56}\, q^{86} + 653036968\, p^{58}\, q^{68} + 82059101\, p^{34}\, q^{30} + 99516\, q^{87}\, p^{39} + 151857398\, p^{31}\, q^{38}$$
$$+ 52737683\, p^{26}\, q^{39} + 30773955\, p^{72}\, q^{79} + 254378\, p^{71}\, q^{92} + 245478\, q^{33}\, p^{13} + 11383\, p^{63}\, q^{14} + 6142\, p^{62}\, q^{13} + 10787897\, p^{21}\, q^{38}$$
$$+ 872620\, p^{86}\, q^{45} + 243513\, p^{84}\, q^{36} + 1483091\, p^{88}\, q^{56} + 885394\, p^{87}\, q^{48} + 1924120\, p^{84}\, q^{81} + 37812872\, p^{38}\, q^{25} + 16875\, p^{32}\, q^{9}$$
$$+ 72638\, p^{33}\, q^{11} + 141\, p^{74}\, q^{15} + 28411965\, p^{24}\, q^{38} + 14364207\, p^{22}\, q^{37} + 1094275\, q^{89}\, p^{59} + 1228219\, q^{89}\, p^{61} + 1322157\, q^{89}\, p^{63}$$
$$+ 1280912\, q^{89}\, p^{62} + 1350663\, q^{89}\, p^{64} + 1366765\, q^{89}\, p^{66} + 1365730\, q^{89}\, p^{65} + 818143\, q^{90}\, p^{66} + 1165391\, q^{89}\, p^{60} + 1016554\, q^{89}\, p^{58}$$
$$+ 19734060\, p^{23}\, q^{37} + 302476757\, p^{69}\, q^{68} + 16\, q^{59}\, p^{8} + 7242\, q^{84}\, p^{28} + 17045\, q^{85}\, p^{31} + 12592\, q^{84}\, p^{29} + 21057\, q^{84}\, p^{30} + 4974\, q^{81}\, p^{24}$$
$$+ 8332\, q^{83}\, p^{27} + 14690\, q^{83}\, p^{28} + 24863\, q^{83}\, p^{29} + 2764810\, q^{34}\, p^{18} + 92330823\, p^{28}\, q^{40} + 336964957\, p^{36}\, q^{38} + 164791604\, p^{31}\, q^{39}$$
$$+ 198648867\, p^{32}\, q^{39} + 1497720971\, p^{48}\, q^{58} + 653780\, p^{88}\, q^{80} + 1844727997\, p^{53}\, q^{57} + 20538795\, p^{34}\, q^{24} + 234308\, p^{32}\, q^{13}$$
$$+ 2563264\, p^{33}\, q^{18} + 309962947\, p^{50}\, q^{71} + 1789172446\, p^{51}\, q^{57} + 34636\, q^{67}\, p^{17} + 1852230798\, p^{56}\, q^{56} + 151226788\, p^{58}\, q^{32}$$
$$+ 41802433\, p^{57}\, q^{27} + 117814816\, p^{58}\, q^{31} + 719535323\, p^{59}\, q^{41} + 238561806\, p^{58}\, q^{34} + 293525936\, p^{58}\, q^{35} + 325\, p^{40}\, q^{6}$$
$$+ 115903157\, p^{69}\, q^{39} + 293525936\, p^{70}\, q^{47} + 138910604\, p^{69}\, q^{40} + 377763031\, p^{70}\, q^{50} + 222529595\, p^{69}\, q^{43} + 192414455\, p^{69}\, q^{42}$$
$$+ 22578\, p^{66}\, q^{16} + 787\, p^{51}\, q^{96} + 1119\, p^{48}\, q^{95} + 14630\, p^{59}\, q^{95} + 1555\, p^{49}\, q^{95} + 2104\, p^{50}\, q^{95} + 198100857\, p^{42}\, q^{31} + 343934505\, p^{42}\, q^{34}$$
$$+ 403344964\, p^{42}\, q^{35} + 494697975\, p^{43}\, q^{36} + 196161360\, p^{37}\, q^{33} + 1174961\, p^{34}\, q^{16} + 566205940\, p^{57}\, q^{69} + q^{91}\, p^{28} + 29\, q^{93}\, p^{35}$$
$$+ 619\, q^{94}\, p^{43} + 397\, q^{94}\, p^{42} + 61\, q^{93}\, p^{36} + 935\, q^{94}\, p^{44} + 591\, q^{93}\, p^{40} + 4\, q^{91}\, p^{29} + 4504\, q^{83}\, p^{26} + 175835268\, p^{33}\, q^{36} + 80889992\, p^{28}\, q^{38}$$

$$+ 58980609\, p^{27}\, q^{37} + 229258297\, p^{34}\, q^{37} + 649991\, p^{32}\, q^{15} + 34578729\, p^{34}\, q^{26} + 8431760\, p^{50}\, q^{83} + 3990566\, p^{84}\, q^{77} + 2504970\, p^{85}\, q^{78}$$
$$+ 6783357\, p^{84}\, q^{73} + 4638039\, p^{84}\, q^{76} + 142968\, q^{36}\, p^{12} + 7083\, q^{33}\, p^{8} + 9924649\, q^{73}\, p^{33} + 346\, p^{100}\, q^{85} + 16847\, p^{45}\, q^{10} + 135771\, p^{48}\, q^{13}$$
$$+ 2060033\, p^{51}\, q^{18} + 1262722703\, p^{45}\, q^{44} + 1410109147\, p^{46}\, q^{45} + 897086325\, p^{45}\, q^{40} + 190104929\, p^{45}\, q^{71} + 474265070\, p^{38}\, q^{39}$$
$$+ 45155955\, p^{42}\, q^{25} + 2219821\, p^{40}\, q^{17} + 470824\, p^{39}\, q^{14} + 8089911\, p^{41}\, q^{20} + 5397576\, p^{41}\, q^{19} + 17188418\, p^{42}\, q^{22} + 24182769\, p^{42}\, q^{23}$$
$$+ 78594284\, p^{42}\, q^{27} + 104417020\, p^{43}\, q^{28} + 818143\, p^{39}\, q^{15} + 13\, p^{68}\, q^{101} + 18\, p^{69}\, q^{101} + 101083526\, p^{57}\, q^{30} + 33801215\, p^{56}\, q^{26}$$
$$+ 76611261\, p^{57}\, q^{29} + 11832290\, p^{41}\, q^{21} + 2\, q^{58}\, p^{7} + 39572\, p^{51}\, q^{12} + 19437\, p^{50}\, q^{11} + 695836\, p^{55}\, q^{17} + 507744756\, p^{61}\, q^{40} + 106\, q^{87}\, p^{26}$$
$$+ 3\, q^{87}\, p^{23} + 13\, q^{87}\, p^{24} + 994687230\, p^{62}\, q^{47} + 1068580962\, p^{62}\, q^{48} + 8\, q^{88}\, p^{25} + 107175\, p^{24}\, q^{13} + 937\, p^{21}\, q^{6} + 346\, p^{20}\, q^{5} + 10548\, p^{23}\, q^{9}$$
$$+ 38864\, p^{24}\, q^{11} + 929286\, p^{25}\, q^{18} + 807375\, q^{90}\, p^{68} + 789601\, q^{90}\, p^{69} + 693466\, q^{90}\, p^{72} + 731834\, q^{90}\, p^{71} + 552605\, q^{90}\, p^{75}$$
$$+ 449000\, q^{90}\, p^{77} + 254144\, q^{91}\, p^{78} + 649991\, q^{90}\, p^{73} + 501026\, q^{90}\, p^{76} + 287\, p^{73}\, q^{15} + 420649\, q^{33}\, p^{14} + 337065\, q^{68}\, p^{21} + 71612\, q^{67}\, p^{18}$$
$$+ 111552277\, p^{35}\, q^{31} + 136711602\, p^{33}\, q^{34} + 116741122\, p^{32}\, q^{34} + 158227561\, p^{34}\, q^{34} + 181043487\, p^{35}\, q^{34} + 136711602\, p^{34}\, q^{33}$$
$$+ 5\, q^{92}\, p^{31} + 12\, q^{91}\, p^{30} + q^{92}\, p^{30} + 73\, q^{92}\, p^{34} + 195628\, p^{91}\, q^{80} + 49286410\, p^{69}\, q^{35} + 367682214\, p^{71}\, q^{53} + 31900\, p^{89}\, q^{40}$$
$$+ 207505592\, p^{70}\, q^{44} + 103590968\, p^{32}\, q^{61} + 9924649\, p^{72}\, q^{32} + 7243285\, p^{72}\, q^{31} + 111851148\, p^{75}\, q^{49} + 122827009\, p^{76}\, q^{64}$$
$$+ 1577223487\, p^{49}\, q^{58} + 215420897\, p^{74}\, q^{56} + 23005430\, p^{70}\, q^{33} + 779307\, p^{67}\, q^{22} + 2415982\, p^{68}\, q^{25} + 3668764\, p^{68}\, q^{26} + 1280999\, p^{67}\, q^{23}$$
$$+ 1438649832\, p^{53}\, q^{61} + 1020435464\, p^{49}\, q^{63} + 1248188624\, p^{51}\, q^{62} + 1092406914\, p^{64}\, q^{54} + 982968188\, p^{65}\, q^{55} + 719535323\, p^{64}\, q^{46}$$
$$+ 381599469\, p^{54}\, q^{71} + 331405214\, p^{51}\, q^{71} + 214\, p^{33}\, q^{5} + 1252643610\, p^{61}\, q^{49} + 701324\, p^{83}\, q^{86} + 1485813559\, p^{60}\, q^{51}$$
$$+ 1526901615\, p^{60}\, q^{52} + 6225\, p^{45}\, q^{9} + 2378\, p^{44}\, q^{8} + 1818957\, q^{69}\, p^{25} + 187930\, q^{68}\, p^{20} + 100008\, q^{68}\, p^{19} + 155909200\, p^{33}\, q^{35}$$
$$+ 207822540\, p^{35}\, q^{35} + 268599026\, p^{36}\, q^{36} + 111552277\, p^{31}\, q^{35} + 38814995\, q^{70}\, p^{35} + 736549536\, q^{55}\, p^{39} + 11665\, p^{81}\, q^{96} + 7\, p^{14}\, q^{2}$$
$$+ 99068\, p^{84}\, q^{91} + 2967\, p^{30}\, q^{7} + 7366\, p^{31}\, q^{8} + 140486\, p^{34}\, q^{12} + 36215\, p^{33}\, q^{10} + 2032847\, p^{36}\, q^{17} + 10250585\, p^{37}\, q^{21} + 455613\, p^{35}\, q^{14}$$
$$+ 109\, p^{24}\, q^{4} + 25\, p^{22}\, q^{3} + 7161100\, p^{37}\, q^{20} + 4889493\, p^{37}\, q^{19} + 15193921\, p^{38}\, q^{22} + 20973408\, p^{38}\, q^{23} + 63751101\, p^{38}\, q^{27}$$
$$+ 86862584\, p^{39}\, q^{28} + 260822\, p^{35}\, q^{13} + 764222\, p^{35}\, q^{15} + 1131\, q^{26}\, p^{6} + 382\, q^{25}\, p^{5} + 2350908\, p^{18}\, q^{32} + 69930759\, p^{30}\, q^{60}$$
$$+ 22931655\, p^{26}\, q^{59} + 43334\, p^{86}\, q^{92} + 1228219\, p^{89}\, q^{61} + 1322157\, p^{89}\, q^{63} + 11\, p^{60}\, q^{100} + 7385\, p^{75}\, q^{97} + 17218132\, p^{83}\, q^{61}$$
$$+ 17188418\, p^{83}\, q^{63} + 17288877\, p^{83}\, q^{62} + 116\, p^{59}\, q^{9} + 16488523\, p^{83}\, q^{65} + 92613242\, p^{35}\, q^{30} + 16715142\, q^{79}\, p^{44} + 14013505\, q^{79}\, p^{43}$$
$$+ 9479062\, q^{79}\, p^{41} + 1674625\, q^{78}\, p^{33} + 10299\, q^{75}\, p^{20} + 1191004\, q^{78}\, p^{32} + 11600843\, q^{79}\, p^{42} + 98488351\, p^{34}\, q^{31} + 98488351\, p^{31}\, q^{34}$$
$$+ 118520899\, p^{33}\, q^{33} + 132684432\, p^{35}\, q^{32} + 101556397\, p^{32}\, q^{33} + 101556397\, p^{33}\, q^{32} + 116741122\, p^{34}\, q^{32} + 181043487\, p^{34}\, q^{35}$$

$$+ 132684432\, p^{32}\, q^{35} + 55631676\, p^{65}\, q^{79} + 1438632\, p^{74}\, q^{88} + 1575270\, p^{73}\, q^{88} + 3433307\, p^{55}\, q^{20} + 21149032\, p^{57}\, q^{25} + 33354656\, p^{42}\, q^{24}$$
$$+ 3506276\, p^{41}\, q^{18} + 60070108\, p^{42}\, q^{26} + 303917582\, p^{43}\, q^{33} + 1365730\, p^{40}\, q^{16} + 166833894\, p^{43}\, q^{30} + 132947109\, p^{43}\, q^{29}$$
$$+ 252118231\, p^{43}\, q^{32} + 405156477\, p^{36}\, q^{40} + 535778181\, p^{42}\, q^{37} + 520310146\, p^{40}\, q^{38} + 241130388\, p^{32}\, q^{42} + 323688742\, p^{34}\, q^{41}$$
$$+ 206466790\, p^{43}\, q^{31} + 361815647\, p^{43}\, q^{34} + 425565731\, p^{43}\, q^{35} + 518284246\, p^{44}\, q^{36} + 166833894\, p^{30}\, q^{43} + 336964957\, p^{69}\, q^{67}$$
$$+ 139356\, q^{38}\, p^{12} + 367296\, q^{82}\, p^{34} + 9554840\, p^{30}\, q^{23} + 524123\, p^{89}\, q^{79} + 21148911\, p^{56}\, q^{82} + 18597085\, p^{54}\, q^{82} + 317096\, p^{89}\, q^{82}$$
$$+ 34042072\, p^{61}\, q^{81} + 2563264\, p^{18}\, q^{33} + 6783357\, p^{21}\, q^{32} + 142468\, p^{70}\, q^{93} + 3422239\, p^{19}\, q^{32} + 14371615\, p^{24}\, q^{31} + 4869434\, p^{20}\, q^{32}$$
$$+ 93434\, p^{93}\, q^{78} + 457745\, p^{67}\, q^{21} + 1548634\, p^{68}\, q^{24} + 190912\, p^{66}\, q^{19} + 46412551\, p^{72}\, q^{38} + 1664292844\, p^{55}\, q^{59} + 214105941\, p^{46}\, q^{71}$$
$$+ 238561806\, p^{47}\, q^{71} + 263020869\, p^{48}\, q^{71} + 1554014610\, p^{53}\, q^{60} + 1603665589\, p^{59}\, q^{57} + 1661832692\, p^{53}\, q^{59} + 994687230\, p^{43}\, q^{58}$$
$$+ 264835370\, p^{70}\, q^{68} + 8213498\, p^{83}\, q^{74} + 15193921\, p^{83}\, q^{67} + 11402724\, p^{83}\, q^{71} + 10335126\, p^{83}\, q^{72} + 14364207\, p^{83}\, q^{68}$$
$$+ 7198105\, p^{83}\, q^{75} + 170639802\, p^{75}\, q^{56} + 17670996\, p^{71}\, q^{33} + 580421\, p^{68}\, q^{22} + 1818957\, p^{69}\, q^{25} + 2784264\, p^{69}\, q^{26} + 963670\, p^{68}\, q^{23}$$
$$+ 6116\, q^{36}\, p^{8} + 59189\, p^{64}\, q^{94} + 174090\, p^{92}\, q^{77} + 27207\, p^{63}\, q^{15} + 2631807\, p^{76}\, q^{32} + 1866088\, p^{76}\, q^{31} + 1208050462\, p^{60}\, q^{47}$$
$$+ 1291201104\, p^{60}\, q^{48} + 75895788\, p^{35}\, q^{29} + 965\, p^{71}\, q^{15} + 7767213\, q^{39}\, p^{20} + 144991211\, p^{43}\, q^{71} + 69401\, q^{38}\, p^{11} + 5242660\, q^{39}\, p^{19}$$
$$+ 331332\, p^{86}\, q^{86} + 432587\, p^{85}\, q^{86} + 370763\, p^{83}\, q^{88} + 80649\, p^{85}\, q^{91} + 11221636\, p^{49}\, q^{82} + 79944164\, p^{59}\, q^{30} + 26392541\, p^{58}\, q^{26}$$
$$+ 60102126\, p^{59}\, q^{29} + 1248188624\, p^{62}\, q^{51} + 1289026249\, p^{62}\, q^{52} + 9814898\, p^{57}\, q^{23} + 75317\, p^{52}\, q^{13} + 1230607\, p^{55}\, q^{18} + 272176\, p^{53}\, q^{15}$$
$$+ 287803915\, p^{60}\, q^{36} + 135261\, p^{53}\, q^{14} + 32592925\, p^{81}\, q^{58} + 7867332\, p^{77}\, q^{37} + 33397669\, p^{81}\, q^{59} + 585911797\, p^{41}\, q^{61} + 176\, p^{98}\, q^{56}$$
$$+ 51\, p^{99}\, q^{58} + 140646\, p^{88}\, q^{87} + 1746794856\, p^{57}\, q^{57} + 329308647\, p^{72}\, q^{56} + 37259645\, p^{68}\, q^{33} + 1334886\, p^{65}\, q^{22} + 4058716\, p^{66}\, q^{25}$$
$$+ 322733\, p^{87}\, q^{85} + 317096\, p^{82}\, q^{89} + 92170\, p^{64}\, q^{17} + 610420\, p^{66}\, q^{21} + 59822\, p^{63}\, q^{16} + 2039853\, p^{67}\, q^{24} + 256324\, p^{65}\, q^{19}$$
$$+ 59906825\, p^{71}\, q^{38} + 5\, q^{67}\, p^{10} + 2\, q^{65}\, p^{9} + 61\, q^{69}\, p^{12} + 21\, q^{68}\, p^{11} + 374\, q^{76}\, p^{17} + 4702\, q^{75}\, p^{19} + q^{66}\, p^{9} + 2\, q^{68}\, p^{10} + 3490\, q^{74}\, p^{18}$$
$$+ 14\, q^{73}\, p^{13} + 287\, q^{73}\, p^{15} + 1379\, q^{74}\, p^{17} + 154\, q^{72}\, p^{14} + 541\, q^{72}\, p^{15} + 12\, q^{71}\, p^{12} + 7242\, q^{77}\, p^{21} + 29\, q^{70}\, p^{12} + 742\, q^{75}\, p^{17} + 1970\, q^{75}\, p^{18}$$
$$+ 73\, q^{71}\, p^{13} + 74\, q^{73}\, p^{14} + 9\, q^{69}\, p^{11} + 66\, q^{75}\, p^{15} + 33\, q^{72}\, p^{13} + 33\, q^{74}\, p^{14} + 3\, q^{70}\, p^{11} + 7869941\, p^{25}\, q^{26} + 552366304\, p^{59}\, q^{69}$$
$$+ 3709\, q^{94}\, p^{48} + 459470286\, p^{54}\, q^{70} + 15487387\, p^{68}\, q^{30} + 602738\, p^{64}\, q^{20} + 944938\, p^{16}\, q^{31} + 344043\, p^{14}\, q^{30} + 138488248\, p^{31}\, q^{37}$$
$$+ 103386245\, p^{30}\, q^{36} + 43698\, p^{94}\, q^{80} + 17670996\, p^{72}\, q^{34} + 64032630\, p^{73}\, q^{41} + 62577506\, q^{45}\, p^{26} + 33885107\, q^{45}\, p^{24} + 6073262\, p^{66}\, q^{26}$$
$$+ 2154233\, p^{65}\, q^{23} + 1846260992\, p^{54}\, q^{57} + 308054410\, p^{37}\, q^{61} + 144991211\, p^{34}\, q^{62} + 254470068\, p^{36}\, q^{61} + 166954593\, p^{34}\, q^{61}$$
$$+ 207505592\, p^{35}\, q^{61} + 640109996\, p^{59}\, q^{68} + 1228219\, q^{44}\, p^{16} + 2129864\, q^{43}\, p^{17} + 741664\, q^{43}\, p^{15} + 1280912\, q^{43}\, p^{16} + 235895627\, p^{70}\, q^{69}$$

$$+ 19487\, p^{82}\, q^{95} + 14840\, p^{84}\, q^{95} + 9191\, p^{89}\, q^{94} + 15422\, p^{77}\, q^{96} + 1717\, p^{67}\, q^{98} + 7272\, p^{73}\, q^{97} + 7083\, p^{72}\, q^{97} + 229258297\, p^{71}\, q^{68}$$
$$+ 26753089\, p^{81}\, q^{54} + 22212211\, p^{82}\, q^{57} + 4756679\, p^{79}\, q^{38} + 24826711\, p^{81}\, q^{53} + 24235100\, p^{82}\, q^{60} + 324572965\, p^{60}\, q^{72}$$
$$+ 330535240\, p^{59}\, q^{72} + 268152588\, p^{56}\, q^{73} + 4656\, q^{95}\, p^{53} + 555292\, p^{86}\, q^{84} + 179260\, p^{90}\, q^{83} + 5\, p^{96}\, q^{41} + p^{94}\, q^{34} + 23\, p^{102}\, q^{82}$$
$$+ 27\, p^{102}\, q^{84} + 28779\, p^{95}\, q^{78} + 30128869\, p^{56}\, q^{81} + 40009673\, p^{55}\, q^{80} + 186144\, p^{45}\, q^{13} + 2696569\, p^{48}\, q^{18} + 54802\, p^{49}\, q^{12}$$
$$+ 27192\, p^{48}\, q^{11} + 402652543\, p^{51}\, q^{70} + 10548\, p^{82}\, q^{96} + 1475439569\, p^{59}\, q^{49} + 15908135\, p^{83}\, q^{66} + 11524822\, p^{80}\, q^{44} + 173748\, p^{73}\, q^{23}$$
$$+ 21148911\, p^{82}\, q^{56} + 16112\, p^{69}\, q^{17} + 14575362\, p^{81}\, q^{48} + 13654584\, p^{80}\, q^{45} + 1262722703\, p^{61}\, q^{60} + 984031799\, p^{56}\, q^{65}$$
$$+ 1172015735\, p^{63}\, q^{58} + 984031799\, p^{65}\, q^{56} + 213613\, q^{83}\, p^{34} + 24414612\, q^{75}\, p^{39} + 40318598\, q^{74}\, p^{40} + 48709263\, q^{74}\, p^{41}$$
$$+ 1087578582\, p^{64}\, q^{57} + 1280912\, p^{89}\, q^{62} + 1365730\, p^{89}\, q^{65} + 605\, p^{98}\, q^{92} + 595462459\, p^{43}\, q^{63} + 524617893\, p^{42}\, q^{63} + 668579419\, p^{44}\, q^{63}$$
$$+ 719535323\, p^{46}\, q^{64} + 888446069\, p^{47}\, q^{63} + 742729552\, p^{45}\, q^{63} + 816518568\, p^{46}\, q^{63} + 4\, p^{58}\, q^{100} + 7\, p^{59}\, q^{100} + 43\, p^{64}\, q^{100} + p^{61}\, q^{101}$$
$$+ 32\, p^{63}\, q^{100} + 16\, p^{61}\, q^{100} + 23\, p^{62}\, q^{100} + 398\, p^{56}\, q^{9} + 1641612120\, p^{56}\, q^{59} + 135261\, p^{91}\, q^{52} + 62201341\, p^{59}\, q^{79} + 1725808366\, p^{56}\, q^{58}$$
$$+ 1753806728\, p^{55}\, q^{58} + 1441807363\, p^{61}\, q^{56} + 38854514\, p^{72}\, q^{78} + 5886\, p^{92}\, q^{93} + 24826711\, p^{53}\, q^{81} + 1020435464\, p^{63}\, q^{49}$$
$$+ 2553648\, p^{57}\, q^{20} + 15983875\, p^{59}\, q^{25} + 53237117\, p^{40}\, q^{73} + 168427\, p^{81}\, q^{91} + 1828012\, q^{34}\, p^{17} + 99436\, p^{93}\, q^{61} + 116302\, p^{93}\, q^{63}$$
$$+ 60481289\, p^{61}\, q^{30} + 19695166\, p^{60}\, q^{26} + 45084479\, p^{61}\, q^{29} + 1005764967\, p^{64}\, q^{51} + 1043949903\, p^{64}\, q^{52} + 7250924\, p^{59}\, q^{23}$$
$$+ 222529595\, p^{62}\, q^{36} + 26\, q^{90}\, p^{29} + 454282\, p^{82}\, q^{88} + 169006\, p^{85}\, q^{89} + 260968\, p^{83}\, q^{89} + 73145\, p^{87}\, q^{90} + 179260\, p^{83}\, q^{90} + 56047\, p^{90}\, q^{88}$$
$$+ 105654\, p^{88}\, q^{88} + 77773\, p^{89}\, q^{88} + 22212211\, p^{57}\, q^{82} + 6045144\, p^{84}\, q^{74} + 10787897\, p^{84}\, q^{67} + 8262179\, p^{84}\, q^{71} + 7527488\, p^{84}\, q^{72}$$
$$+ 10250585\, p^{84}\, q^{68} + 5326035\, p^{84}\, q^{75} + 12470419\, p^{24}\, q^{30} + 710010508\, p^{45}\, q^{38} + 992365477\, p^{45}\, q^{41} + 1177182746\, p^{45}\, q^{43}$$
$$+ 1086387622\, p^{45}\, q^{42} + 2125\, q^{36}\, p^{7} + 13691\, q^{38}\, p^{9} + 449429\, q^{41}\, p^{14} + 629\, p^{50}\, q^{8} + 207297\, p^{61}\, q^{17} + 1311214\, p^{63}\, q^{21} + 133855\, p^{60}\, q^{16}$$
$$+ 4242357\, p^{64}\, q^{24} + 559850\, p^{62}\, q^{19} + 118072339\, p^{68}\, q^{38} + 242314\, q^{41}\, p^{13} + 138336870\, q^{45}\, p^{29} + 66556\, q^{39}\, p^{11} + 1066701\, q^{59}\, p^{19}$$
$$+ 2465307\, q^{60}\, p^{21} + 774\, q^{34}\, p^{6} + 24458635\, q^{44}\, p^{23} + 8094143\, q^{43}\, p^{20} + 17218132\, q^{44}\, p^{22} + 11968340\, q^{43}\, p^{21} + 16375\, q^{82}\, p^{27}$$
$$+ 4851\, q^{82}\, p^{25} + 9\, q^{60}\, p^{8} + q^{50}\, p^{5} + 1118953038\, p^{45}\, q^{59} + 7572181\, p^{78}\, q^{81} + 182457557\, p^{32}\, q^{38} + 470824\, q^{91}\, p^{66} + 663127\, q^{90}\, p^{60}$$
$$+ 568008\, q^{90}\, p^{58} + 4851\, q^{80}\, p^{23} + 1008\, q^{80}\, p^{21} + 17471\, q^{81}\, p^{26} + 9570\, q^{81}\, p^{25} + 474409\, q^{91}\, p^{67} + 3975\, q^{78}\, p^{21} + 472987\, q^{91}\, p^{68}$$
$$+ 466693\, q^{91}\, p^{69} + 2422685\, p^{19}\, q^{29} + 96398477\, p^{68}\, q^{37} + 322577855\, p^{70}\, q^{48} + 287803915\, p^{69}\, q^{45} + 12687301\, p^{66}\, q^{28} + 1838\, p^{51}\, q^{9}$$
$$+ 11519002\, p^{25}\, q^{28} + 938218\, p^{53}\, q^{17} + 14177131\, p^{67}\, q^{29} + 24441279\, q^{43}\, p^{23} + 636130\, p^{87}\, q^{82} + 32550531\, p^{69}\, q^{80} + 21357607\, p^{76}\, q^{78}$$
$$+ 471132090\, p^{59}\, q^{70} + 2407\, p^{67}\, q^{14} + 1257\, p^{66}\, q^{13} + 29493594\, p^{72}\, q^{36} + 30033650\, p^{79}\, q^{48} + 27814896\, p^{78}\, q^{45} + 17835578\, p^{27}\, q^{28}$$

$$+ 1027262\, p^{16}\, q^{32} + 972466078\, p^{65}\, q^{54} + 867847379\, p^{66}\, q^{55} + 627087264\, p^{65}\, q^{46} + 888412485\, p^{65}\, q^{51} + 924546226\, p^{65}\, q^{52}$$
$$+ 192414455\, p^{63}\, q^{36} + 845354565\, p^{65}\, q^{50} + 457108395\, p^{64}\, q^{42} + 520348970\, p^{64}\, q^{43} + 289501696\, p^{64}\, q^{39} + 341052335\, p^{64}\, q^{40}$$
$$+ 686066940\, p^{65}\, q^{47} + 742951187\, p^{65}\, q^{48} + 119925\, p^{91}\, q^{83} + 39439\, p^{91}\, q^{88} + 63564\, p^{71}\, q^{20} + 22801057\, p^{81}\, q^{52} + 20721747\, p^{81}\, q^{51}$$
$$+ 619\, p^{62}\, q^{11} + 13667363\, p^{29}\, q^{25} + 627087264\, p^{59}\, q^{40} + 2784264\, q^{69}\, p^{26} + 1155713\, q^{69}\, p^{24} + 6\, p^{16}\, q^{2} + 116\, p^{22}\, q^{4} + 28\, p^{20}\, q^{3}$$
$$+ 6335734\, p^{35}\, q^{20} + 4375993\, p^{35}\, q^{19} + 13440598\, p^{36}\, q^{22} + 18376784\, p^{36}\, q^{23} + 53999806\, p^{36}\, q^{27} + 74553859\, p^{37}\, q^{28} + 29729555\, q^{35}\, p^{25}$$
$$+ 48917939\, q^{35}\, p^{27} + 67998156\, q^{36}\, p^{28} + 29\, p^{93}\, q^{35} + 16934803\, q^{35}\, p^{23} + 427778224\, p^{67}\, q^{67} + 10554\, q^{88}\, p^{35} + 3850\, p^{85}\, q^{97}$$
$$+ 264835370\, p^{68}\, q^{70} + 1563782823\, p^{55}\, q^{60} + 1415279954\, p^{61}\, q^{57} + 1551464861\, p^{59}\, q^{58} + 114178468\, q^{37}\, p^{30} + 245478\, p^{33}\, q^{13}$$
$$+ 693466\, p^{33}\, q^{15} + 1299160\, q^{30}\, p^{17} + 959538619\, p^{64}\, q^{50} + 33016583\, p^{61}\, q^{28} + 652714542\, p^{64}\, q^{45} + 524617893\, p^{63}\, q^{42}$$
$$+ 282139981\, p^{63}\, q^{38} + 595462459\, p^{63}\, q^{43} + 234484963\, p^{63}\, q^{37} + 335323479\, p^{63}\, q^{39} + 393792749\, p^{63}\, q^{40} + 785037099\, p^{64}\, q^{47}$$
$$+ 847818288\, p^{64}\, q^{48} + 13743\, p^{79}\, q^{96} + 14653\, p^{78}\, q^{96} + 12692\, p^{85}\, q^{95} + 17129\, p^{83}\, q^{95} + 5915\, q^{87}\, p^{32} + 44133\, q^{89}\, p^{41} + 31900\, q^{89}\, p^{40}$$
$$+ 3228296\, p^{82}\, q^{81} + 135373\, q^{39}\, p^{12} + 2321\, p^{70}\, q^{98} + 2792\, p^{73}\, q^{98} + 7158\, p^{77}\, q^{97} + 2499\, p^{71}\, q^{98} + 32205\, q^{38}\, p^{10} + 1101908853\, p^{58}\, q^{44}$$
$$+ 259107\, q^{39}\, p^{13} + 818143\, q^{39}\, p^{15} + 351575404\, p^{70}\, q^{65} + 278119598\, p^{71}\, q^{66} + 459907209\, p^{70}\, q^{60} + 480201901\, p^{70}\, q^{57}$$
$$+ 1327292\, p^{68}\, q^{89} + 1475439569\, q^{56}\, p^{46} + 1431849879\, q^{55}\, p^{45} + 701324\, p^{86}\, q^{83} + 21357607\, p^{29}\, q^{27} + 31045160\, p^{30}\, q^{28}$$
$$+ 465570\, p^{49}\, q^{15} + 423474570\, p^{56}\, q^{36} + 242722\, p^{49}\, q^{14} + 79\, q^{28}\, p^{4} + 5902\, q^{93}\, p^{46} + 1257\, q^{92}\, p^{39} + 1077391733\, p^{63}\, q^{50}$$
$$+ 38515516\, p^{60}\, q^{28} + 742729552\, p^{63}\, q^{45} + 595462459\, p^{62}\, q^{42} + 324145196\, p^{62}\, q^{38} + 673950980\, p^{62}\, q^{43} + 270272806\, p^{62}\, q^{37}$$
$$+ 384031911\, p^{62}\, q^{39} + 588208\, p^{56}\, q^{17} + 449614848\, p^{62}\, q^{40} + 888446069\, p^{63}\, q^{47} + 956943086\, p^{63}\, q^{48} + 8340\, p^{51}\, q^{94} + 1287123\, p^{78}\, q^{87}$$
$$+ p^{101}\, q^{61} + 2\, p^{101}\, q^{63} + 405156477\, p^{65}\, q^{69} + 76069450\, q^{63}\, p^{32} + 536\, q^{70}\, p^{14} + 38420398\, p^{71}\, q^{36} + 229848545\, p^{73}\, q^{52}$$
$$+ 215750863\, p^{73}\, q^{51} + 26612219\, p^{68}\, q^{81} + 76069450\, p^{63}\, q^{32} + 19999811\, p^{62}\, q^{27} + 58113890\, p^{63}\, q^{31} + 692073977\, p^{66}\, q^{49} + 30\, p^{34}\, q^{4}$$
$$+ 111\, p^{37}\, q^{5} + 351575404\, p^{65}\, q^{70} + 273134692\, p^{58}\, q^{73} + 1050\, p^{82}\, q^{99} + 358\, p^{78}\, q^{100} + 21\, p^{81}\, q^{102} + 252118231\, p^{62}\, q^{73}$$
$$+ 261018115\, p^{61}\, q^{73} + 93355\, p^{70}\, q^{20} + 32422924\, p^{80}\, q^{52} + 29609738\, p^{80}\, q^{51} + 11\, p^{45}\, q^{5} + 935\, p^{61}\, q^{11} + 897086325\, p^{65}\, q^{60}$$
$$+ 1086387622\, p^{63}\, q^{60} + 943854128\, p^{64}\, q^{61} + 1086387622\, p^{60}\, q^{63} + 1043724269\, p^{62}\, q^{62} + 48\, p^{95}\, q^{41} + 12\, p^{93}\, q^{34} + 112\, p^{101}\, q^{82}$$
$$+ 115\, p^{101}\, q^{84} + 379965\, p^{81}\, q^{89} + 992365477\, p^{64}\, q^{60} + 1033160211\, p^{64}\, q^{59} + 975628175\, p^{65}\, q^{57} + 929286\, p^{80}\, q^{87} + 774230\, p^{81}\, q^{87}$$
$$+ 975628175\, p^{57}\, q^{65} + 897086325\, p^{60}\, q^{65} + 931567157\, p^{59}\, q^{65} + 755026310\, p^{63}\, q^{65} + 639963579\, p^{65}\, q^{65} + 527295256\, p^{66}\, q^{66}$$
$$+ 855442127\, p^{61}\, q^{65} + 698689178\, p^{64}\, q^{65} + 807694306\, p^{62}\, q^{65} + 957981014\, p^{58}\, q^{65} + 3047\, q^{93}\, p^{44} + 2115\, q^{93}\, p^{43} + 16511\, p^{96}\, q^{75}$$

$$+ 40\, p^{80}\, q^{18} + 186\, p^{82}\, q^{21} + 194\, p^{83}\, q^{22} + 2\, p^{68}\, q^{10} + 5345\, p^{97}\, q^{82} + 4350\, p^{97}\, q^{84} + 68503\, p^{74}\, q^{94} + 116\, p^{50}\, q^{97} + 2695\, p^{89}\, q^{34}$$
$$+ 329\, p^{86}\, q^{26} + 8029\, p^{91}\, q^{41} + 3702\, p^{91}\, q^{39} + 4228\, p^{90}\, q^{37} + 1593\, p^{89}\, q^{33} + 5521\, p^{91}\, q^{40} + 15700\, p^{90}\, q^{92} + 2685\, p^{90}\, q^{36} + 742\, p^{88}\, q^{30}$$
$$+ 4304\, p^{92}\, q^{42} + 6612\, p^{97}\, q^{79} + 214061795\, p^{32}\, q^{40} + 371422654\, p^{36}\, q^{39} + 323254601\, p^{35}\, q^{39} + 58113890\, q^{63}\, p^{31} + 89290450\, q^{62}\, p^{32}$$
$$+ 114620445\, q^{62}\, p^{33} + 1118953038\, p^{46}\, q^{60} + 1596565554\, p^{51}\, q^{59} + 480201901\, p^{57}\, q^{70} + 3368272\, p^{67}\, q^{87} + 17852\, p^{80}\, q^{25} + 9570\, p^{80}\, q^{24}$$
$$+ 46476\, p^{82}\, q^{29} + 28123\, p^{82}\, q^{28} + 64050\, p^{83}\, q^{31} + 9142\, p^{79}\, q^{23} + 1379\, p^{74}\, q^{17} + 754599311\, p^{44}\, q^{62} + 2845436\, p^{79}\, q^{84} + 1173092\, p^{85}\, q^{82}$$
$$+ 1228399\, p^{84}\, q^{83} + 640109996\, p^{46}\, q^{37} + 2162781\, p^{58}\, q^{20} + 51704449\, p^{62}\, q^{30} + 16715142\, p^{61}\, q^{26} + 38370589\, p^{62}\, q^{29} + 6120619\, p^{60}\, q^{23}$$
$$+ 934284\, q^{89}\, p^{57} + 856336626\, p^{66}\, q^{54} + 757788141\, p^{67}\, q^{55} + 540357982\, p^{66}\, q^{46} + 776144987\, p^{66}\, q^{51} + 809864901\, p^{66}\, q^{52}$$
$$+ 164462439\, p^{64}\, q^{36} + 736549536\, p^{66}\, q^{50} + 393792749\, p^{65}\, q^{42} + 449614848\, p^{65}\, q^{43} + 247062711\, p^{65}\, q^{39} + 291996847\, p^{65}\, q^{40}$$
$$+ 592854383\, p^{66}\, q^{47} + 643801916\, p^{66}\, q^{48} + 27968048\, p^{62}\, q^{28} + 567257126\, p^{65}\, q^{45} + 242799111\, p^{64}\, q^{38} + 201115121\, p^{64}\, q^{37}$$
$$+ 490909\, p^{57}\, q^{17} + 381742322\, p^{67}\, q^{68} + 256520\, p^{90}\, q^{81} + 48310015\, p^{71}\, q^{37} + 167874991\, p^{73}\, q^{48} + 151378246\, p^{72}\, q^{45} + 6055793\, p^{69}\, q^{28}$$
$$+ 871053403\, q^{66}\, p^{56} + 23\, p^{101}\, q^{70} + 2\, p^{97}\, q^{43} + 8636299\, p^{69}\, q^{29} + 198100857\, p^{74}\, q^{63} + 206466790\, p^{74}\, q^{62} + 213073262\, p^{74}\, q^{61}$$
$$+ 760080572\, q^{67}\, p^{57} + 4407\, p^{47}\, q^{9} + 1632\, p^{46}\, q^{8} + 8866\, p^{87}\, q^{95} + p^{13}\, q + 499881061\, p^{37}\, q^{41} + 2725214\, p^{53}\, q^{19} + 9482394\, p^{54}\, q^{22}$$
$$+ 2721\, q^{94}\, p^{47} + 289770480\, p^{33}\, q^{42} + 580104936\, p^{39}\, q^{40} + 437435662\, p^{36}\, q^{41} + 261843443\, p^{55}\, q^{73} + 182232484\, p^{52}\, q^{74} + 96\, p^{26}\, q^{4}$$
$$+ 91874990\, p^{45}\, q^{74} + 104613051\, p^{46}\, q^{74} + 117814816\, p^{47}\, q^{74} + 131261533\, p^{48}\, q^{74} + 444583042\, p^{61}\, q^{70} + 285876347\, p^{52}\, q^{72}$$
$$+ 319\, p^{29}\, q^{5} + 4701002\, p^{46}\, q^{83} + 6912819\, p^{52}\, q^{84} + 3911865\, p^{51}\, q^{85} + 8380506\, p^{54}\, q^{84} + 9081476\, p^{55}\, q^{84} + 9739307\, p^{56}\, q^{84}$$
$$+ 16016202\, p^{75}\, q^{80} + 2162781\, p^{47}\, q^{85} + 3433307\, p^{50}\, q^{85} + 2978679\, p^{49}\, q^{85} + 1066701\, p^{46}\, q^{86} + 2553648\, p^{48}\, q^{85} + p^{70}\, q^{102} + 567\, q^{96}\, p^{50}$$
$$+ 274\, q^{96}\, p^{48} + 181\, q^{96}\, p^{47} + 382\, p^{80}\, q^{100} + 5\, p^{74}\, q^{102} + 4\, p^{73}\, q^{102} + 372\, p^{79}\, q^{100} + 755026310\, p^{42}\, q^{40} + 559850\, p^{86}\, q^{43} + 1230607\, p^{87}\, q^{50}$$
$$+ 680646493\, p^{44}\, q^{38} + 726265787\, p^{43}\, q^{39} + 943854128\, p^{44}\, q^{41} + 968105193\, p^{42}\, q^{43} + 888856653\, p^{41}\, q^{43} + 1043724269\, p^{43}\, q^{43}$$
$$+ 1113977599\, p^{44}\, q^{43} + 1030650733\, p^{44}\, q^{42} + 630\, p^{88}\, q^{99} + 5\, p^{18}\, q^{2} + 16012\, p^{35}\, q^{9} + 2658\, p^{33}\, q^{7} + 6830\, p^{34}\, q^{8} + 19695166\, q^{60}\, p^{26}$$
$$+ 9254690\, q^{60}\, p^{24} + 6120619\, q^{60}\, p^{23} + 3941588\, q^{60}\, p^{22} + 52353482\, q^{60}\, p^{29} + 38515516\, q^{60}\, p^{28} + 11524822\, q^{61}\, p^{25} + 27814896\, q^{60}\, p^{27}$$
$$+ 1324544894\, p^{46}\, q^{44} + 1468295843\, p^{47}\, q^{45} + 931567157\, p^{46}\, q^{40} + 2211915\, p^{41}\, q^{17} + 462450\, p^{40}\, q^{14} + 8132753\, p^{42}\, q^{20}$$
$$+ 5394390\, p^{42}\, q^{19} + 17288877\, p^{43}\, q^{22} + 24441279\, p^{43}\, q^{23} + 106656205\, p^{44}\, q^{28} + 810819\, p^{40}\, q^{15} + 300714\, p^{90}\, q^{80} + 4\, p^{91}\, q^{29}$$
$$+ 12768236\, q^{74}\, p^{35} + 802408177\, p^{45}\, q^{39} + 1447788\, p^{85}\, q^{81} + 774230\, p^{87}\, q^{81} + 314619\, p^{91}\, q^{76} + 397745\, p^{91}\, q^{73} + 536\, q^{91}\, p^{35}$$
$$+ 919\, q^{91}\, p^{36} + 627087264\, q^{65}\, p^{46} + 796468163\, q^{65}\, p^{49} + 742951187\, q^{65}\, p^{48} + 924546226\, q^{65}\, p^{52} + 972466078\, q^{65}\, p^{54}$$

$$+ 867847379\, q^{66} p^{55} + 845354565\, q^{65} p^{50} + 952815859\, q^{65} p^{53} + 888412485\, q^{65} p^{51} + 686066940\, q^{65} p^{47} + 116302\, q^{42} p^{12}$$
$$+ 26193\, q^{41} p^{10} + 230573\, q^{42} p^{13} + 16977857\, q^{45} p^{22} + 28394\, q^{40} p^{10} + 12701\, q^{39} p^{9} + 5227772\, q^{44} p^{19} + 123671\, q^{41} p^{12}$$
$$+ 432240\, q^{42} p^{14} + 3209237\, q^{45} p^{18} + 16575310\, q^{46} p^{22} + 11857997\, q^{44} p^{21} + 7975514\, q^{44} p^{20} + 11632176\, q^{45} p^{21} + 62201341\, q^{46} p^{26}$$
$$+ 33397669\, q^{46} p^{24} + 387214\, q^{44} p^{14} + 45999985\, q^{46} p^{25} + 82659332\, q^{46} p^{27} + 1968427\, q^{45} p^{17} + 108128\, q^{43} p^{12} + 23776496\, q^{46} p^{23}$$
$$+ 47\, p^{57} q^{8} + 91\, p^{97} q^{99} + 70\, p^{96} q^{100} + 710010508\, p^{38} q^{45} + 1310914551\, p^{58} q^{46} + 831073976\, p^{39} q^{46} + 14522838\, p^{56} q^{83} + 2659\, p^{81} q^{98}$$
$$+ 11591\, p^{91} q^{92} + 173\, p^{51} q^{97} + 35730\, p^{70} q^{95} + 34907\, p^{69} q^{95} + 818\, p^{56} q^{97} + 65409\, p^{75} q^{94} + 7\, p^{103} q^{93} + 44\, p^{95} q^{101} + p^{92} q^{104}$$
$$+ 9414\, p^{63} q^{96} + 7237\, p^{61} q^{96} + 6225\, p^{60} q^{96} + 32205\, p^{67} q^{95} + 2010475\, p^{82} q^{83} + 2784264\, p^{79} q^{36} + 132684432\, p^{70} q^{73}$$
$$+ 101162522\, p^{76} q^{67} + 175835268\, p^{69} q^{72} + 165842255\, p^{68} q^{73} + 188195026\, p^{64} q^{74} + 149146061\, p^{73} q^{69} + 247\, p^{53} q^{8} + 51\, p^{47} q^{6}$$
$$+ 216512337\, p^{67} q^{72} + 196161360\, p^{68} q^{72} + 181043487\, p^{70} q^{71} + 7779949\, q^{45} p^{20} + 5069064\, q^{45} p^{19} + 772030\, q^{42} p^{15} + 704988\, q^{44} p^{15}$$
$$+ 54872\, q^{42} p^{11} + 138421695\, q^{47} p^{29} + 59189\, q^{41} p^{11} + 217080\, q^{43} p^{13} + 3331550\, q^{44} p^{18} + 65020\, p^{84} q^{92} + 411279\, q^{43} p^{14}$$
$$+ 2058083\, q^{44} p^{17} + 46469354\, q^{45} p^{25} + 82834981\, q^{45} p^{27} + 108053620\, q^{46} p^{28} + 24235100\, q^{45} p^{23} + 17287773\, p^{73} q^{35}$$
$$+ 151212623\, p^{75} q^{53} + 79787145\, p^{74} q^{44} + 33\, p^{72} q^{13} + 74\, p^{73} q^{14} + 116306625\, p^{76} q^{65} + 86862584\, p^{77} q^{66} + 138336870\, p^{76} q^{60}$$
$$+ 136450272\, p^{76} q^{57} + 158991903\, p^{75} q^{54} + 79944164\, p^{75} q^{46} + 128751494\, p^{76} q^{55} + 253843261\, p^{67} q^{71} + 33863478\, p^{62} q^{81}$$
$$+ 6989429\, p^{71} q^{30} + 1761578\, p^{80} q^{85} + 1541364\, p^{79} q^{86} + 165842255\, p^{73} q^{68} + 1542314328\, p^{59} q^{50} + 4\, q^{97} p^{44} + 2433\, p^{88} q^{97}$$
$$+ 7\, p^{93} q^{103} + 21\, p^{94} q^{102} + 21\, p^{102} q^{94} + 3327\, q^{85} p^{28} + 5990\, q^{85} p^{29} + 920\, p^{73} q^{99} + 67\, q^{83} p^{21} + 1008\, q^{84} p^{25} + 2070\, q^{84} p^{26}$$
$$+ 10547531\, p^{52} q^{83} + 736795\, p^{58} q^{18} + 159541\, p^{56} q^{15} + 82859367\, p^{64} q^{33} + 3262762\, p^{61} q^{22} + 9606707\, p^{62} q^{25} + 660198567\, p^{68} q^{56}$$
$$+ 621361451\, p^{68} q^{60} + 659793052\, p^{68} q^{57} + 461671740\, p^{68} q^{65} + 371422654\, p^{69} q^{66} + 139056243\, p^{29} q^{46} + 16570970\, q^{56} p^{24}$$
$$+ 376180\, q^{55} p^{16} + 812869\, q^{54} p^{17} + 230796\, q^{54} p^{15} + 444103\, q^{54} p^{16} + 33801215\, q^{56} p^{26} + 220839762\, p^{31} q^{47} + 176303886\, p^{30} q^{46}$$
$$+ 1174961\, p^{71} q^{89} + 1027262\, p^{73} q^{89} + 859638\, p^{75} q^{89} + 944938\, p^{74} q^{89} + 773166\, p^{76} q^{89} + 603891\, p^{78} q^{89} + 687413\, p^{77} q^{89}$$
$$+ 397704\, p^{78} q^{90} + 176999784\, p^{74} q^{65} + 134943676\, p^{75} q^{66} + 217745920\, p^{74} q^{60} + 219178155\, p^{74} q^{57} + 1315876713\, p^{50} q^{61}$$
$$+ 1671092875\, p^{54} q^{59} + 457108395\, p^{41} q^{63} + 920\, p^{32} q^{6} + 46469354\, p^{45} q^{25} + 82834981\, p^{45} q^{27} + 11857997\, p^{44} q^{21} + 33885107\, p^{45} q^{24}$$
$$+ 62577506\, p^{45} q^{26} + 330535240\, p^{46} q^{33} + 176303886\, p^{46} q^{30} + 139056243\, p^{46} q^{29} + 271669442\, p^{46} q^{32} + 220357834\, p^{46} q^{31}$$
$$+ 397063439\, p^{46} q^{34} + 471132090\, p^{46} q^{35} + 561961673\, p^{47} q^{36} + 69401\, p^{38} q^{11} + 135373\, p^{39} q^{12} + 32205\, p^{38} q^{10} + 251893\, p^{40} q^{13}$$
$$+ 1311214\, p^{42} q^{84} + 27232\, q^{85} p^{32} + 29\, q^{58} p^{8} + q^{59} p^{7} + 4\, q^{61} p^{8} + 21\, p^{24} q^{3} + 3423339\, p^{43} q^{18} + 1322157\, p^{42} q^{16} + 750262301\, p^{47} q^{38}$$

$$+ 1065181444\, p^{47}\, q^{41} + 1276323691\, p^{47}\, q^{43} + 1172015735\, p^{47}\, q^{42} + 852416125\, p^{47}\, q^{39} + 50934\, p^{87}\, q^{91} + 3532\, p^{91}\, q^{95} + 6\, p^{103}\, q^{90}$$
$$+ 5\, p^{102}\, q^{74} + 4\, p^{102}\, q^{73} + 6\, p^{103}\, q^{89} + 8\, p^{102}\, q^{76} + 10\, p^{102}\, q^{77} + p^{104}\, q^{91} + 2\, p^{103}\, q^{81} + 917\, p^{90}\, q^{98} + 363\, p^{66}\, q^{12} + 5537785\, p^{83}\, q^{47}$$
$$+ 2154233\, p^{82}\, q^{40} + 1674417\, p^{82}\, q^{39} + 8016\, p^{74}\, q^{19} + 4649659\, p^{86}\, q^{69} + 4375993\, p^{86}\, q^{70} + 608917\, p^{81}\, q^{34} + 2729673\, p^{82}\, q^{41}$$
$$+ 92511\, p^{78}\, q^{26} + 695651\, p^{80}\, q^{33} + 5191\, p^{96}\, q^{87} + 3628\, p^{57}\, q^{96} + 28394\, p^{65}\, q^{95} + 2058083\, p^{88}\, q^{61} + 2181559\, p^{88}\, q^{63}$$
$$+ 762610684\, q^{67}\, p^{56} + 374897\, p^{76}\, q^{27} + 1759540174\, p^{58}\, q^{53} + 653036968\, p^{47}\, q^{37} + 295\, q^{91}\, p^{34} + 86\, p^{27}\, q^{4} + 295\, p^{30}\, q^{5} + p^{56}\, q^{100}$$
$$+ 15375\, p^{36}\, q^{9} + 2499\, p^{34}\, q^{7} + 6497\, p^{35}\, q^{8} + 1375842379\, p^{47}\, q^{44} + 1514051345\, p^{48}\, q^{45} + 957981014\, p^{47}\, q^{40} + 2181559\, p^{42}\, q^{17}$$
$$+ 449429\, p^{41}\, q^{14} + 8094143\, p^{43}\, q^{20} + 5337353\, p^{43}\, q^{19} + 17218132\, p^{44}\, q^{22} + 24458635\, p^{44}\, q^{23} + 107879047\, p^{45}\, q^{28} + 795339\, p^{41}\, q^{15}$$
$$+ 314\, p^{47}\, q^{7} + 401644084\, p^{71}\, q^{58} + 397063439\, p^{71}\, q^{59} + 802408177\, p^{39}\, q^{45} + 931567157\, p^{40}\, q^{46} + 155826083\, p^{42}\, q^{70}$$
$$+ 273134692\, p^{32}\, q^{47} + 220357834\, p^{31}\, q^{46} + 45573\, p^{44}\, q^{11} + 90382\, p^{45}\, q^{12} + 1674417\, p^{39}\, q^{82} + 174790298\, p^{60}\, q^{75} + 362\, p^{60}\, q^{10}$$
$$+ 114178468\, p^{75}\, q^{68} + 52\, p^{74}\, q^{101} + 20808\, p^{92}\, q^{89} + 24458635\, p^{61}\, q^{82} + 136711602\, p^{71}\, q^{72} + 155909200\, p^{70}\, q^{72} + 182457557\, p^{67}\, q^{73}$$
$$+ 207822540\, p^{70}\, q^{70} + 1018030418\, p^{46}\, q^{61} + 673950980\, p^{43}\, q^{62} + 2\, p^{24}\, q^{2} + 393792749\, p^{40}\, q^{63} + 2\, p^{34}\, q^{3} + 897086325\, p^{40}\, q^{45}$$
$$+ 1033160211\, p^{41}\, q^{46} + 402\, q^{80}\, p^{20} + 1094275\, q^{46}\, p^{16} + 4865361\, q^{46}\, p^{19} + 1863149\, q^{46}\, p^{17} + 663127\, q^{45}\, p^{15} + 360593\, q^{45}\, p^{14}$$
$$+ 2887488\, q^{47}\, p^{18} + 7182355\, q^{47}\, p^{20} + 4622468\, q^{47}\, p^{19} + 3059936\, q^{46}\, p^{18} + 7513227\, q^{46}\, p^{20} + 10861421\, q^{47}\, p^{21} + 202119\, q^{44}\, p^{13}$$
$$+ 222529595\, p^{36}\, q^{62} + 270272806\, p^{37}\, q^{62} + 324145196\, p^{38}\, q^{62} + 384031911\, p^{39}\, q^{62} + 11296735\, q^{46}\, p^{21} + 1165391\, q^{45}\, p^{16}$$
$$+ 31493635\, q^{48}\, p^{24} + 16021210\, q^{47}\, p^{22} + 23096174\, q^{47}\, p^{23} + 477803314\, p^{56}\, q^{70} + 176104257\, q^{47}\, p^{30} + 636130\, p^{82}\, q^{87}$$
$$+ 1280999\, p^{38}\, q^{82} + 3638710\, q^{72}\, p^{29} + 2497762\, q^{72}\, p^{28} + 1674625\, q^{72}\, p^{27} + 1542314328\, p^{50}\, q^{59} + 118820815\, p^{45}\, q^{73}$$
$$+ 58113890\, p^{42}\, q^{74} + 103590968\, p^{44}\, q^{73} + 76069450\, p^{42}\, q^{73} + 89290450\, p^{43}\, q^{73} + 936\, q^{93}\, p^{41} + 33\, q^{92}\, p^{33} + 14\, q^{92}\, p^{32} + 1427\, q^{93}\, p^{42}$$
$$+ 588208\, q^{88}\, p^{49} + 90384299\, p^{58}\, q^{30} + 30033650\, p^{57}\, q^{26} + 68229052\, p^{58}\, q^{29} + 1368829067\, p^{61}\, q^{51} + 1410118363\, p^{61}\, q^{52} + 5273\, p^{46}\, q^{9}$$
$$+ 1981\, p^{45}\, q^{8} + 93453\, p^{91}\, q^{50} + 4\, p^{61}\, q^{8} + 253193918\, p^{73}\, q^{54} + 134780297\, p^{73}\, q^{46} + 209669773\, p^{74}\, q^{55} + 1101908853\, p^{44}\, q^{58}$$
$$+ 1208050462\, p^{45}\, q^{58} + 1548634\, q^{81}\, p^{37} + 608917\, q^{81}\, p^{34} + 847035\, q^{81}\, p^{35} + 2039853\, q^{81}\, p^{38} + 28779\, p^{78}\, q^{95} + 25298\, p^{84}\, q^{94}$$
$$+ 16779\, p^{72}\, q^{96} + 4235\, p^{65}\, q^{97} + 271669442\, p^{32}\, q^{46} + 401644084\, p^{34}\, q^{47} + 330535240\, p^{33}\, q^{46} + 61695718\, p^{68}\, q^{35} + 254470068\, p^{69}\, q^{44}$$
$$+ 444033805\, p^{70}\, q^{53} + 26604\, p^{79}\, q^{95} + 32592925\, p^{24}\, q^{47} + 79923693\, p^{27}\, q^{48} + 45089095\, p^{25}\, q^{47} + 61222500\, p^{26}\, q^{47}$$
$$+ 333348172\, p^{33}\, q^{47} + 16021210\, p^{58}\, q^{83} + 17769488\, q^{76}\, p^{39} + 3827244\, q^{74}\, p^{31} + 50635656\, q^{77}\, p^{47} + 139\, p^{80}\, q^{19} + 1327\, p^{97}\, q^{91}$$
$$+ 11665\, p^{96}\, q^{81} + 2939\, q^{64}\, p^{13} + 1423\, p^{95}\, q^{94} + 2121\, p^{84}\, q^{98} + 32529\, p^{95}\, q^{76} + 30787\, p^{95}\, q^{77} + 35868\, p^{95}\, q^{73} + 3512\, p^{96}\, q^{89}$$

$$+ 35107\, p^{95} q^{74} + 32205\, p^{95} q^{67} + 1191004\, p^{78} q^{32} + 829297\, p^{78} q^{31} + 16021210\, p^{83} q^{58} + 3668764\, p^{79} q^{37} + 16575310\, p^{83} q^{59} + 7\, p^{46} q^{5}$$
$$+ 11954512\, p^{78} q^{79} + 829297\, p^{74} q^{27} + 99068\, p^{91} q^{84} + 21461\, q^{91} p^{44} + 11693\, q^{92} p^{45} + 3702\, q^{91} p^{39} + 22801057\, p^{52} q^{81}$$
$$+ 2567424\, p^{82} q^{82} + 90382\, p^{60} q^{93} + 21\, p^{68} q^{11} + 5\, p^{89} q^{26} + 10685\, p^{95} q^{86} + 848\, p^{33} q^{6} + 45999985\, p^{46} q^{25} + 82659332\, p^{46} q^{27}$$
$$+ 11632176\, p^{45} q^{21} + 33397669\, p^{46} q^{24} + 62201341\, p^{46} q^{26} + 333348172\, p^{47} q^{33} + 176104257\, p^{47} q^{30} + 138421695\, p^{47} q^{29}$$
$$+ 273134692\, p^{47} q^{32} + 220839762\, p^{47} q^{31} + 401644084\, p^{47} q^{34} + 477958925\, p^{47} q^{35} + 566205940\, p^{48} q^{36} + 66556\, p^{39} q^{11}$$
$$+ 130110\, p^{40} q^{12} + 30401\, p^{39} q^{10} + 242314\, p^{41} q^{13} + 3331550\, p^{44} q^{18} + 1280912\, p^{43} q^{16} + 760080572\, p^{48} q^{38} + 1087578582\, p^{48} q^{41}$$
$$+ 1309691526\, p^{48} q^{43} + 1199676505\, p^{48} q^{42} + 865862513\, p^{48} q^{39} + 659793052\, p^{48} q^{37} + 79\, p^{28} q^{4} + 269\, p^{31} q^{5} + 14596\, p^{37} q^{9}$$
$$+ 2321\, p^{35} q^{7} + 6116\, p^{36} q^{8} + 1415279954\, p^{48} q^{44} + 1546168408\, p^{49} q^{45} + 975628175\, p^{48} q^{40} + 2129864\, p^{43} q^{17} + 432240\, p^{42} q^{14}$$
$$+ 7975514\, p^{44} q^{20} + 5227772\, p^{44} q^{19} + 16977857\, p^{45} q^{22} + 24235100\, p^{45} q^{23} + 108053620\, p^{46} q^{28} + 772030\, p^{42} q^{15} + 992365477\, p^{41} q^{45}$$
$$+ 1133919019\, p^{42} q^{46} + 477958925\, p^{35} q^{47} + 397063439\, p^{34} q^{46} + 105267669\, p^{28} q^{48} + 81680082\, p^{27} q^{47} + 2104\, p^{55} q^{10}$$
$$+ 30116550\, p^{70} q^{34} + 105621544\, p^{71} q^{41} + 43761177\, q^{48} p^{25} + 4390\, p^{70} q^{16} + 5458488\, p^{50} q^{84} + 2032847\, p^{69} q^{88} + 1216171\, p^{44} q^{85}$$
$$+ 18544461\, p^{74} q^{80} + 2\, p^{102} q^{71} + 326\, p^{86} q^{100} + 4346497\, q^{48} p^{19} + 59668999\, q^{48} p^{26} + 69930759\, p^{60} q^{30} + 22931655\, p^{59} q^{26}$$
$$+ 52353482\, p^{60} q^{29} + 1126391129\, p^{63} q^{51} + 1166169158\, p^{63} q^{52} + 8485980\, p^{58} q^{23} + 1050388\, p^{56} q^{18} + 230796\, p^{54} q^{15}$$
$$+ 254470068\, p^{61} q^{36} + 1681909500\, p^{58} q^{57} + 9739307\, q^{49} p^{21} + 1745213\, q^{47} p^{17} + 7130\, p^{90} q^{94} + 115173\, q^{82} p^{31} + 123\, p^{99} q^{96}$$
$$+ 603\, p^{94} q^{97} + 803\, p^{93} q^{97} + 865862513\, p^{57} q^{66} + 30116550\, p^{71} q^{35} + 242436131\, p^{73} q^{53} + 132469431\, p^{72} q^{44} + 736795\, p^{87} q^{47}$$
$$+ 750262301\, p^{58} q^{67} + 2306\, q^{83} p^{25} + 62\, q^{82} p^{20} + 16\, q^{82} p^{19} + 4\, p^{103} q^{86} + 5\, p^{103} q^{87} + p^{103} q^{79} + 1104529\, p^{72} q^{89} + 1236576\, p^{70} q^{89}$$
$$+ 564519\, p^{75} q^{27} + 602686\, q^{90} p^{74} + 764222\, q^{90} p^{70} + 236032\, p^{85} q^{88} + 6796462\, q^{48} p^{20} + 16\, p^{50} q^{6} + 10\, p^{77} q^{102} + p^{79} q^{103} + 18\, p^{80} q^{102}$$
$$+ 13\, p^{78} q^{102} + 15\, p^{79} q^{102} + 7\, p^{75} q^{102} + 8\, p^{76} q^{102} + 540357982\, p^{39} q^{59} + 627087264\, p^{40} q^{59} + 719535323\, p^{41} q^{59} + 561961673\, p^{58} q^{69}$$
$$+ 1023621\, p^{77} q^{88} + 524123\, p^{79} q^{89} + 653780\, p^{80} q^{88} + 892597\, p^{78} q^{88} + 768750\, p^{79} q^{88} + 1299160\, p^{75} q^{88} + 1159987\, p^{76} q^{88}$$
$$+ 607209387\, p^{67} q^{63} + 646088425\, p^{67} q^{62} + 680646493\, p^{67} q^{61} + 564953897\, p^{67} q^{64} + 206517296\, q^{67} p^{40} + 242799111\, q^{67} p^{41}$$
$$+ 324145196\, q^{67} p^{43} + 282139981\, q^{67} p^{42} + 368285057\, q^{67} p^{44} + 5259532\, q^{63} p^{24} + 3409122\, q^{63} p^{23} + 1424453\, p^{87} q^{51} + 438531\, p^{86} q^{42}$$
$$+ 2277998\, p^{87} q^{55} + 1066701\, p^{86} q^{46} + 2211915\, p^{88} q^{64} + 74291\, p^{82} q^{30} + 172304\, p^{84} q^{35} + 11600843\, q^{63} p^{26} + 1705895\, q^{64} p^{22}$$
$$+ 247062711\, q^{66} p^{40} + 26793559\, q^{64} p^{29} + 104087\, q^{61} p^{16} + 64145\, q^{60} p^{15} + 438531\, q^{63} p^{19} + 7905645\, q^{63} p^{25} + 1818957\, q^{80} p^{36}$$
$$+ 6989429\, q^{71} p^{30} + 19336798\, q^{64} p^{28} + 5141419\, q^{65} p^{25} + 7\, q^{46} p^{5} + 51\, q^{47} p^{6} + 34042072\, p^{81} q^{61} + 33354656\, p^{81} q^{63}$$

$$+ 33863478\, p^{81} q^{62} + 444033805\, p^{53} q^{70} + 32943640\, q^{66} p^{31} + 25298\, p^{94} q^{84} + 115903157\, q^{66} p^{36} + 92826413\, q^{66} p^{35}$$
$$+ 57035632\, q^{66} p^{33} + 73301381\, q^{66} p^{34} + 43699847\, q^{66} p^{32} + 208349114\, q^{66} p^{39} + 173561287\, q^{66} p^{38} + 118072339\, q^{67} p^{37}$$
$$+ 138910604\, q^{65} p^{36} + 144\, p^{70} q^{13} + 1725808366\, p^{58} q^{56} + 295\, p^{71} q^{14} + 371422654\, p^{66} q^{69} + 569268\, p^{85} q^{85} + 211615\, p^{89} q^{84}$$
$$+ 146705\, p^{90} q^{84} + 388733501\, p^{60} q^{71} + 80649\, p^{91} q^{85} + 399173208\, p^{56} q^{71} + 714\, p^{87} q^{99} + 42126\, p^{92} q^{50} + 2\, p^{62} q^{8} + 8289\, p^{84} q^{96}$$
$$+ 9\, p^{69} q^{11} + 6159\, p^{96} q^{86} + 57095658\, q^{77} p^{48} + 70284342\, q^{77} p^{50} + 82968065\, q^{77} p^{52} + 76758637\, q^{77} p^{51} + 88770989\, q^{77} p^{53}$$
$$+ 94026682\, q^{77} p^{54} + 74292917\, q^{78} p^{55} + 63686020\, q^{77} p^{49} + p^{103} q^{80} + 5\, p^{103} q^{88} + 33995\, p^{95} q^{75} + 106\, p^{79} q^{18} + 458\, p^{81} q^{21}$$
$$+ 488\, p^{82} q^{22} + 5\, p^{67} q^{10} + 10548\, p^{96} q^{82} + 190746\, p^{76} q^{92} + 2\, q^{48} p^{5} + 19583463\, p^{67} q^{30} + 773153\, p^{63} q^{20} + 818\, p^{97} q^{56} + 314\, p^{98} q^{58}$$
$$+ 131\, p^{61} q^{99} + 1512\, p^{66} q^{98} + 265\, p^{41} q^{6} + 32957\, p^{52} q^{12} + 16097\, p^{51} q^{11} + 62938\, p^{53} q^{13} + 113210\, p^{54} q^{14} + 1086387622\, p^{42} q^{45}$$
$$+ 1231763555\, p^{43} q^{46} + 1050388\, p^{87} q^{49} + 687413\, p^{89} q^{77} + 397704\, p^{90} q^{78} + 561961673\, p^{36} q^{47} + 471132090\, p^{35} q^{46}$$
$$+ 14185198\, p^{54} q^{23} + 107174568\, p^{28} q^{47} + 219178155\, p^{31} q^{48} + 653036968\, p^{37} q^{47} + 136450272\, p^{29} q^{48} + 22212211\, p^{23} q^{48}$$
$$+ 174199049\, p^{30} q^{48} + 42053137\, p^{25} q^{49} + 15331059\, p^{22} q^{48} + 10337569\, p^{21} q^{48} + 238018\, p^{63} q^{18} + 49078\, p^{61} q^{15} + 8289\, p^{96} q^{84}$$
$$+ 3760875\, p^{83} q^{79} + 5805\, p^{89} q^{95} + 9408\, p^{83} q^{96} + 4568\, p^{90} q^{95} + 1113977599\, p^{62} q^{61} + 1030650733\, p^{63} q^{61} + 1133919019\, p^{59} q^{63}$$
$$+ 1177182746\, p^{60} q^{62} + 1113977599\, p^{61} q^{62} + 24279\, p^{95} q^{80} + 5521\, p^{65} q^{14} + 2939\, p^{64} q^{13} + 245\, p^{94} q^{41} + 73\, p^{92} q^{34} + 4\, p^{86} q^{22}$$
$$+ 383\, p^{100} q^{82} + 363\, p^{100} q^{84} + 193201\, p^{90} q^{50} + 9\, p^{60} q^{8} + 6445286\, p^{48} q^{83} + 1155713\, p^{69} q^{24} + 35399300\, p^{73} q^{38} + 133197701\, p^{76} q^{56}$$
$$+ 13356045\, p^{72} q^{33} + 2077450\, p^{70} q^{26} + 13206707\, p^{73} q^{34} + 48709263\, p^{74} q^{41} + 204847042\, p^{71} q^{69} + 774\, p^{34} q^{6} + 45089095\, p^{47} q^{25}$$
$$+ 81680082\, p^{47} q^{27} + 11296735\, p^{46} q^{21} + 32592925\, p^{47} q^{24} + 61222500\, p^{47} q^{26} + 332934626\, p^{48} q^{33} + 174199049\, p^{48} q^{30}$$
$$+ 136450272\, p^{48} q^{29} + 271951743\, p^{48} q^{32} + 219178155\, p^{48} q^{31} + 402353919\, p^{48} q^{34} + 480201901\, p^{48} q^{35} + 564982805\, p^{49} q^{36}$$
$$+ 63108\, p^{40} q^{11} + 123671\, p^{41} q^{12} + 28394\, p^{40} q^{10} + 230573\, p^{42} q^{13} + 3209237\, p^{45} q^{18} + 1228219\, p^{44} q^{16} + 762610684\, p^{49} q^{38}$$
$$+ 1099753912\, p^{49} q^{41} + 1330980861\, p^{49} q^{43} + 1216158604\, p^{49} q^{42} + 871053403\, p^{49} q^{39} + 660198567\, p^{49} q^{37} + 604972\, p^{59} q^{18}$$
$$+ 129950\, p^{57} q^{15} + 13691\, p^{38} q^{9} + 2125\, p^{36} q^{7} + 5679\, p^{37} q^{8} + 1441807363\, p^{49} q^{44} + 1563782823\, p^{50} q^{45} + 984031799\, p^{49} q^{40}$$
$$+ 2058083\, p^{44} q^{17} + 411279\, p^{43} q^{14} + 7779949\, p^{45} q^{20} + 5069064\, p^{45} q^{19} + 16575310\, p^{46} q^{22} + 23776496\, p^{46} q^{23} + 107174568\, p^{47} q^{28}$$
$$+ 741664\, p^{43} q^{15} + 1177182746\, p^{43} q^{45} + 1324544894\, p^{44} q^{46} + 271951743\, p^{32} q^{48} + 750262301\, p^{38} q^{47} + 57582584\, p^{26} q^{49}$$
$$+ 944938\, p^{89} q^{74} + 1353889\, p^{89} q^{67} + 1174961\, p^{89} q^{71} + 1327292\, p^{89} q^{68} + 1104529\, p^{89} q^{72} + 30128869\, q^{49} p^{24} + 21148911\, q^{49} p^{23}$$
$$+ 23896\, p^{63} q^{95} + 21528\, p^{62} q^{95} + p^{80} q^{103} + 70922\, p^{73} q^{94} + 72\, p^{45} q^{96} + 42\, p^{44} q^{96} + 77\, p^{49} q^{97} + 26193\, p^{64} q^{95} + 14522838\, q^{49} p^{22}$$

$$+ 304278\, q^{83}\, p^{35} + 9191\, p^{94}\, q^{89} + 835997200\, p^{45}\, q^{62} + 916584652\, p^{46}\, q^{62} + 994687230\, p^{47}\, q^{62} + 1068580962\, p^{48}\, q^{62} + 770941\, p^{79}\, q^{32}$$
$$+ 531306\, p^{79}\, q^{31} + 10861421\, p^{84}\, q^{58} + 2415982\, p^{80}\, q^{37} + 11296735\, p^{84}\, q^{59} + 551\, p^{89}\, q^{99} + 957981014\, p^{65}\, q^{58} + 84\, q^{95}\, p^{42}$$
$$+ 1252643610\, p^{49}\, q^{61} + 144991211\, p^{62}\, q^{34} + 180843847\, p^{62}\, q^{35} + 235466442\, p^{45}\, q^{70} + 114620445\, p^{62}\, q^{33} + 1073089263\, p^{64}\, q^{53}$$
$$+ 668579419\, p^{63}\, q^{44} + 4701002\, p^{59}\, q^{22} + 256324\, p^{86}\, q^{40} + 190912\, p^{86}\, q^{39} + 187930\, p^{85}\, q^{37} + 338061\, p^{86}\, q^{41} + 80602\, p^{84}\, q^{33}$$
$$+ 444103\, p^{89}\, q^{51} + 328337\, p^{88}\, q^{46} + 795339\, p^{90}\, q^{64} + 763527\, p^{89}\, q^{55} + 29729555\, p^{70}\, q^{80} + 8029\, q^{91}\, p^{41} + 15799\, q^{91}\, p^{43} + 28613\, q^{91}\, p^{45}$$
$$+ 726265787\, p^{62}\, q^{66} + 607209387\, p^{63}\, q^{67} + 300561740\, p^{53}\, q^{72} + 29493594\, p^{36}\, q^{72} + 1866088\, p^{74}\, q^{29} + 1259707\, p^{74}\, q^{28} + 13904\, p^{65}\, q^{15}$$
$$+ 287803915\, p^{36}\, q^{60} + 930979496\, p^{45}\, q^{61} + 595462459\, p^{42}\, q^{62} + 842590726\, p^{44}\, q^{61} + 668579419\, p^{42}\, q^{61} + 754599311\, p^{43}\, q^{61}$$
$$+ 71594\, p^{68}\, q^{94} + 335323479\, p^{39}\, q^{63} + 449614848\, p^{40}\, q^{62} + 520348970\, p^{41}\, q^{62} + 1262722703\, p^{44}\, q^{45} + 1410109147\, p^{45}\, q^{46}$$
$$+ 1125\, p^{41}\, q^{7} + 169493\, p^{92}\, q^{59} + 142468\, p^{93}\, q^{70} + 79620\, p^{89}\, q^{43} + 852416125\, p^{39}\, q^{47} + 957981014\, p^{40}\, q^{47} + 332934626\, p^{33}\, q^{48}$$
$$+ 26559096\, p^{67}\, q^{31} + 350863173\, p^{70}\, q^{49} + 323688742\, p^{71}\, q^{64} + 13660\, p^{56}\, q^{12} + 98\, p^{45}\, q^{6} + 402353919\, p^{34}\, q^{48} + 480201901\, p^{35}\, q^{48}$$
$$+ 170639802\, p^{30}\, q^{49} + 7905645\, p^{63}\, q^{25} + 564982805\, p^{69}\, q^{56} + 133197701\, p^{29}\, q^{49} + 102384559\, p^{28}\, q^{49} + 69181009\, p^{65}\, q^{33}$$
$$+ 2665396\, p^{62}\, q^{22} + 40009673\, p^{25}\, q^{50} + 77439219\, p^{27}\, q^{49} + 43\, q^{94}\, p^{38} + 72638\, p^{72}\, q^{94} + 338061\, q^{86}\, p^{41} + 6713\, p^{88}\, q^{34} + 870\, p^{85}\, q^{26}$$
$$+ 84190\, p^{79}\, q^{93} + 19655\, p^{90}\, q^{41} + 9602\, p^{90}\, q^{39} + 10528\, p^{89}\, q^{37} + 4121\, p^{88}\, q^{33} + 326\, p^{99}\, q^{92} + 4032\, p^{92}\, q^{94} + 5416\, p^{91}\, q^{94} + 2881\, p^{97}\, q^{87}$$
$$+ 4407\, p^{58}\, q^{96} + 30401\, p^{66}\, q^{95} + 61\, p^{75}\, q^{101} + 266\, p^{99}\, q^{93} + 475\, p^{98}\, q^{93} + 52\, p^{81}\, q^{19} + 751\, p^{98}\, q^{91} + 5814\, p^{97}\, q^{81} + 16054\, p^{96}\, q^{76}$$
$$+ 15422\, p^{96}\, q^{77} + 16875\, p^{96}\, q^{73} + 2026\, p^{97}\, q^{89} + 16791\, p^{96}\, q^{74} + 13691\, p^{96}\, q^{67} + 17424\, p^{93}\, q^{50} + 3\, p^{70}\, q^{11} + 3352\, p^{97}\, q^{86}$$
$$+ 169410\, q^{59}\, p^{16} + 27232\, p^{73}\, q^{20} + 10547531\, p^{83}\, q^{52} + 9482394\, p^{83}\, q^{51} + 245\, p^{64}\, q^{11} + 3409122\, p^{82}\, q^{42} + 1345620\, p^{80}\, q^{35}$$
$$+ 7414273\, p^{83}\, q^{49} + 11832290\, p^{84}\, q^{64} + 564519\, p^{78}\, q^{30} + 13617741\, p^{83}\, q^{55} + 7250924\, p^{82}\, q^{46} + 2636\, p^{76}\, q^{19} + 3\, p^{41}\, q^{4}$$
$$+ 43761177\, p^{48}\, q^{25} + 79923693\, p^{48}\, q^{27} + 10861421\, p^{47}\, q^{21} + 31493635\, p^{48}\, q^{24} + 59668999\, p^{48}\, q^{26} + 329308647\, p^{49}\, q^{33}$$
$$+ 170639802\, p^{49}\, q^{30} + 133197701\, p^{49}\, q^{29} + 268152588\, p^{49}\, q^{32} + 215420897\, p^{49}\, q^{31} + 399173208\, p^{49}\, q^{34} + 477803314\, p^{49}\, q^{35}$$
$$+ 558329905\, p^{50}\, q^{36} + 59189\, p^{41}\, q^{11} + 116302\, p^{42}\, q^{12} + 26193\, p^{41}\, q^{10} + 217080\, p^{43}\, q^{13} + 3059936\, p^{46}\, q^{18} + 1165391\, p^{45}\, q^{16}$$
$$+ 757788141\, p^{50}\, q^{38} + 1101376320\, p^{50}\, q^{41} + 1339615354\, p^{50}\, q^{43} + 1221020903\, p^{50}\, q^{42} + 867847379\, p^{50}\, q^{39} + 654242207\, p^{50}\, q^{37}$$
$$+ 12701\, p^{39}\, q^{9} + 5218\, p^{38}\, q^{8} + 1454714655\, p^{50}\, q^{44} + 1566422630\, p^{51}\, q^{45} + 982968188\, p^{50}\, q^{40} + 1968427\, p^{45}\, q^{17} + 387214\, p^{44}\, q^{14}$$
$$+ 7513227\, p^{46}\, q^{20} + 4865361\, p^{46}\, q^{19} + 16021210\, p^{47}\, q^{22} + 23096174\, p^{47}\, q^{23} + 105267669\, p^{48}\, q^{28} + 704988\, p^{44}\, q^{15} + 72107\, p^{58}\, q^{93}$$
$$+ 1486387754\, p^{46}\, q^{46} + 1065181444\, p^{41}\, q^{47} + 405156477\, p^{69}\, q^{65} + 323254601\, p^{70}\, q^{66} + 566205940\, p^{36}\, q^{48} + 215420897\, p^{31}\, q^{49}$$

$$+ 537675928\, p^{69}\, q^{60} + 566205940\, p^{69}\, q^{57} + 55019936\, p^{26}\, q^{50} + 773166\, p^{89}\, q^{76} + 1027262\, p^{89}\, q^{73} + 28535273\, q^{50}\, p^{24} + 7232\, p^{88}\, q^{95}$$
$$+ 49489595\, q^{79}\, p^{67} + 30\, p^{102}\, q^{90} + 7\, p^{100}\, q^{59} + 115903157\, q^{69}\, p^{39} + 7366\, p^{74}\, q^{97} + 122867\, q^{63}\, p^{17} + 398\, q^{56}\, p^{9} + 79620\, q^{62}\, p^{16}$$
$$+ 256324\, q^{65}\, p^{19} + 541\, q^{59}\, p^{10} + 14177131\, q^{67}\, p^{29} + 19583463\, q^{67}\, p^{30} + 15\, p^{98}\, q^{50} + 52\, p^{101}\, q^{74} + 10\, p^{101}\, q^{67} + 45\, p^{101}\, q^{73} + 30\, p^{102}\, q^{89}$$
$$+ 69\, p^{101}\, q^{76} + 79\, p^{101}\, q^{77} + 7\, p^{103}\, q^{91} + 21\, p^{102}\, q^{81} + 116\, q^{55}\, p^{8} + 10\, q^{51}\, p^{6} + 259107\, p^{92}\, q^{66} + 13163\, p^{86}\, q^{32} + 272598\, p^{91}\, q^{57}$$
$$+ 104087\, p^{89}\, q^{44} + 2356070\, p^{84}\, q^{80} + 1955\, q^{59}\, p^{11} + 8029\, p^{64}\, q^{14} + 4304\, p^{63}\, q^{13} + 1119\, q^{57}\, p^{10} + 4\, p^{85}\, q^{21} + 3373737\, q^{65}\, p^{24}$$
$$+ 59822\, q^{63}\, p^{16} + 15799\, q^{62}\, p^{14} + 40\, q^{53}\, p^{7} + 77657414\, q^{68}\, p^{36} + 26559096\, q^{67}\, p^{31} + 59906825\, q^{67}\, p^{34} + 35399300\, q^{67}\, p^{32}$$
$$+ 46412551\, q^{67}\, p^{33} + 76178442\, q^{67}\, p^{35} + 21461\, q^{61}\, p^{14} + 142968\, p^{93}\, q^{69} + 870\, p^{79}\, q^{20} + 34636\, p^{88}\, q^{38} + 462383\, q^{65}\, p^{20}$$
$$+ 2154233\, q^{65}\, p^{23} + 800283\, q^{65}\, p^{21} + 1334886\, q^{65}\, p^{22} + 1028395\, q^{66}\, p^{22} + 143084\, p^{82}\, q^{91} + 5902\, q^{59}\, p^{12} + 10064421\, q^{67}\, p^{28}$$
$$+ 2643750\, q^{66}\, p^{24} + 6073262\, q^{66}\, p^{26} + 12687301\, q^{66}\, p^{28} + 8874868\, q^{66}\, p^{27} + 4058716\, q^{66}\, p^{25} + 17769488\, q^{66}\, p^{29} + 338061\, q^{64}\, p^{19}$$
$$+ 602738\, q^{64}\, p^{20} + 92170\, q^{64}\, p^{17} + 181200\, q^{64}\, p^{18} + 27207\, q^{63}\, p^{15} + 274\, q^{57}\, p^{9} + 8570\, q^{61}\, p^{13} + 1368\, q^{60}\, p^{11} + 4295\, q^{60}\, p^{12}$$
$$+ 427486387\, q^{68}\, p^{47} + 77\, q^{56}\, p^{8} + 44133\, q^{64}\, p^{16} + 3047\, q^{61}\, p^{12} + 118820815\, p^{32}\, q^{60} + 235466442\, p^{35}\, q^{60} + 190104929\, p^{34}\, q^{60}$$
$$+ 79787145\, p^{31}\, q^{61} + 151378246\, p^{33}\, q^{60} + 937\, p^{84}\, q^{99} + 1097\, p^{89}\, q^{98} + 26\, q^{76}\, p^{15} + 242722\, q^{91}\, p^{56} + 272598\, q^{91}\, p^{57} + 360593\, q^{91}\, p^{60}$$
$$+ 332193\, q^{91}\, p^{59} + 432240\, q^{91}\, p^{63} + 462450\, q^{91}\, p^{65} + 259107\, q^{92}\, p^{66} + 387214\, q^{91}\, p^{61} + 449429\, q^{91}\, p^{64} + 411279\, q^{91}\, p^{62}$$
$$+ 302608\, q^{91}\, p^{58} + 4\, p^{98}\, q^{48} + 192414455\, p^{42}\, q^{69} + 4649659\, p^{69}\, q^{86} + 4375993\, p^{70}\, q^{86} + 3866268\, p^{75}\, q^{85} + 142763317\, p^{39}\, q^{68}$$
$$+ 540275213\, p^{50}\, q^{68} + 588208\, p^{88}\, q^{49} + 572496467\, p^{51}\, q^{68} + 634506516\, p^{50}\, q^{67} + 594539335\, p^{49}\, q^{67} + 119277\, p^{84}\, q^{34} + 17471\, p^{81}\, q^{26}$$
$$+ 616\, p^{69}\, q^{99} + 56\, p^{65}\, q^{100} + 461\, p^{67}\, q^{99} + 534\, p^{68}\, q^{99} + 936\, p^{64}\, q^{12} + 12675490\, p^{81}\, q^{47} + 5141419\, p^{80}\, q^{40} + 4058716\, p^{80}\, q^{39}$$
$$+ 20869\, p^{72}\, q^{19} + 9640012\, p^{84}\, q^{69} + 8971932\, p^{84}\, q^{70} + 170475499\, p^{40}\, q^{68} + 5087342\, p^{80}\, q^{81} + 201115121\, p^{41}\, q^{68} + 1551464861\, p^{47}\, q^{46}$$
$$+ 1172015735\, p^{42}\, q^{47} + 659793052\, p^{37}\, q^{48} + 1276323691\, p^{43}\, q^{47} + 760080572\, p^{38}\, q^{48} + 268152588\, p^{32}\, q^{49} + 865862513\, p^{39}\, q^{48}$$
$$+ 477803314\, p^{35}\, q^{49} + 399173208\, p^{34}\, q^{49} + 209669773\, p^{31}\, q^{50} + 329308647\, p^{33}\, q^{49} + 165525334\, p^{30}\, q^{50} + 70568672\, p^{27}\, q^{51}$$
$$+ 128751494\, p^{29}\, q^{50} + 74292917\, p^{27}\, q^{50} + 98604408\, p^{28}\, q^{50} + 24458635\, p^{82}\, q^{61} + 24182769\, p^{82}\, q^{63} + 24441279\, p^{82}\, q^{62}$$
$$+ 307527\, p^{87}\, q^{43} + 695836\, p^{88}\, q^{50} + 29\, p^{58}\, q^{8} + 102\, p^{101}\, q^{80} + 103\, p^{101}\, q^{88} + 181\, p^{58}\, q^{9} + 22977972\, p^{82}\, q^{65} + 6\, p^{66}\, q^{101} + 10\, p^{67}\, q^{101}$$
$$+ 629\, q^{50}\, p^{8} + 4887002\, p^{82}\, q^{79} + 13904\, p^{90}\, q^{40} + 20808\, p^{89}\, q^{92} + 2\, p^{82}\, q^{103} + 444\, p^{95}\, q^{97} + 785037099\, p^{47}\, q^{64} + 1603665589\, p^{57}\, q^{59}$$
$$+ 906450349\, p^{64}\, q^{49} + 13654584\, p^{60}\, q^{25} + 37259645\, p^{37}\, q^{72} + 21115105\, p^{68}\, q^{31} + 286993927\, p^{71}\, q^{49} + 273542771\, p^{72}\, q^{64}$$
$$+ 10520\, p^{57}\, q^{12} + 42053137\, p^{49}\, q^{25} + 77439219\, p^{49}\, q^{27} + 10337569\, p^{48}\, q^{21} + 30128869\, p^{49}\, q^{24} + 57582584\, p^{49}\, q^{26} + 322569087\, p^{50}\, q^{33}$$

$$+ 165525334\, p^{50} q^{30} + 128751494\, p^{50} q^{29} + 261843443\, p^{50} q^{32} + 209669773\, p^{50} q^{31} + 392192115\, p^{50} q^{34} + 470828465\, p^{50} q^{35}$$
$$+ 546427889\, p^{51} q^{36} + 54872\, p^{42} q^{11} + 108128\, p^{43} q^{12} + 202119\, p^{44} q^{13} + 2887488\, p^{47} q^{18} + 1094275\, p^{46} q^{16} + 745744099\, p^{51} q^{38}$$
$$+ 1092406914\, p^{51} q^{41} + 1335365801\, p^{51} q^{43} + 1214130691\, p^{51} q^{42} + 856336626\, p^{51} q^{39} + 642090344\, p^{51} q^{37} + 1453650666\, p^{51} q^{44}$$
$$+ 1554014610\, p^{52} q^{45} + 972466078\, p^{51} q^{40} + 1863149\, p^{46} q^{17} + 360593\, p^{45} q^{14} + 7182355\, p^{47} q^{20} + 4622468\, p^{47} q^{19} + 15331059\, p^{48} q^{22}$$
$$+ 22212211\, p^{48} q^{23} + 102384559\, p^{49} q^{28} + 663127\, p^{45} q^{15} + 1603665589\, p^{48} q^{46} + 1375842379\, p^{44} q^{47} + 975628175\, p^{40} q^{48}$$
$$+ 564982805\, p^{36} q^{49} + 261843443\, p^{32} q^{50} + 94026682\, p^{28} q^{51} + 7975514\, p^{61} q^{85} + 11589519\, p^{65} q^{84} + 11238374\, p^{66} q^{84} + 210\, q^{67} p^{12}$$
$$+ 852416125\, p^{58} q^{66} + 733422755\, p^{59} q^{67} + 535778181\, p^{68} q^{63} + 568516171\, p^{68} q^{62} + 597287029\, p^{68} q^{61} + 499881061\, p^{68} q^{64}$$
$$+ 7308\, p^{76} q^{97} + 216\, p^{42} q^{6} + 27047\, p^{53} q^{12} + 13131\, p^{52} q^{11} + 51852\, p^{54} q^{13} + 93453\, p^{55} q^{14} + 2930329\, p^{85} q^{77} + 1814555\, p^{86} q^{78}$$
$$+ 4869434\, p^{85} q^{73} + 3385996\, p^{85} q^{76} + 11857997\, p^{84} q^{61} + 11959593\, p^{84} q^{63} + 11968340\, p^{84} q^{62} + 11589519\, p^{84} q^{65} + 1285\, p^{93} q^{96}$$
$$+ 2881\, p^{87} q^{97} + 504801015\, p^{49} q^{68} + 551514547\, p^{48} q^{67} + 653036968\, p^{68} q^{58} + 7\, p^{30} q^{3} + 5314971\, q^{74} p^{32} + 3779253\, q^{73} p^{30}$$
$$+ 1094496\, q^{72} p^{26} + 6989429\, q^{75} p^{34} + 77439219\, q^{78} p^{56} + 38370589\, q^{76} p^{43} + 32264301\, q^{76} p^{42} + 45084479\, q^{76} p^{44} + 44412092\, q^{77} p^{46}$$
$$+ 52353482\, q^{76} p^{45} + 6899\, p^{89} q^{36} + 79923693\, q^{78} p^{57} + 82834981\, q^{78} p^{60} + 82659332\, q^{78} p^{59} + 78594284\, q^{78} p^{63} + 72224709\, q^{78} p^{65}$$
$$+ 52737683\, q^{79} p^{66} + 82200718\, q^{78} p^{61} + 75719231\, q^{78} p^{64} + 80774577\, q^{78} p^{62} + 81680082\, q^{78} p^{58} + 119057\, p^{75} q^{93} + 1924\, p^{68} q^{98}$$
$$+ 2631807\, q^{73} p^{29} + 1791997\, q^{73} p^{28} + 1191004\, q^{73} p^{27} + 163\, p^{100} q^{92} + 15608\, q^{67} p^{16} + 26793559\, q^{76} p^{41} + 541\, p^{46} q^{95} + 5345\, p^{82} q^{97}$$
$$+ 21966016\, q^{76} p^{40} + 12068033\, q^{75} p^{36} + 15487387\, q^{75} p^{37} + 19583463\, q^{75} p^{38} + 70\, p^{100} q^{96} + 64032630\, p^{64} q^{32} + 16648827\, p^{63} q^{27}$$
$$+ 48709263\, p^{64} q^{31} + 594539335\, p^{67} q^{49} + 23\, p^{35} q^{4} + 90\, p^{38} q^{5} + 29609738\, p^{51} q^{80} + 1808762\, p^{59} q^{20} + 43676196\, p^{63} q^{30}$$
$$+ 14013505\, p^{62} q^{26} + 32264301\, p^{63} q^{29} + 5102344\, p^{61} q^{23} + 745744099\, p^{67} q^{54} + 654242207\, p^{68} q^{55} + 460240509\, p^{67} q^{46}$$
$$+ 670456879\, p^{67} q^{51} + 701490141\, p^{67} q^{52} + 138910604\, p^{65} q^{36} + 634506516\, p^{67} q^{50} + 335323479\, p^{66} q^{42} + 384031911\, p^{66} q^{43}$$
$$+ 208349114\, p^{66} q^{39} + 247062711\, p^{66} q^{40} + 506422604\, p^{67} q^{47} + 551514547\, p^{67} q^{48} + 23402691\, p^{63} q^{28} + 487396696\, p^{66} q^{45}$$
$$+ 206517296\, p^{65} q^{38} + 170475499\, p^{65} q^{37} + 404240\, p^{58} q^{17} + 3628\, p^{48} q^{9} + 1317\, p^{47} q^{8} + 1285\, p^{96} q^{93} + 5191\, p^{87} q^{96}$$
$$+ 142763317\, q^{66} p^{37} + 111679551\, q^{65} p^{35} + 12637867\, p^{54} q^{83} + 34636\, p^{67} q^{17} + 4\, q^{47} p^{5} + 11\, q^{45} p^{5} + 32121\, p^{86} q^{34} + 4504\, p^{83} q^{26}$$
$$+ 3\, q^{41} p^{4} + 133855\, q^{60} p^{16} + 6486\, p^{55} q^{11} + 48197\, p^{58} q^{14} + 26547\, p^{57} q^{13} + 307527\, q^{62} p^{18} + 634506516\, q^{55} p^{38} + 5410938\, q^{51} p^{20}$$
$$+ 2465307\, p^{60} q^{21} + 7764680\, p^{61} q^{24} + 259552\, p^{57} q^{16} + 1066701\, p^{59} q^{19} + 7242\, p^{50} q^{10} + 289501696\, p^{66} q^{41} + 88540515\, p^{65} q^{34}$$
$$+ 111679551\, p^{65} q^{35} + 726809315\, p^{67} q^{53} + 434985171\, p^{66} q^{44} + 1493217\, p^{45} q^{85} + 3\, p^{102} q^{72} + 116\, p^{101} q^{83} + 6176968\, p^{51} q^{84}$$

$$+ 22064298\, p^{66} q^{82} + 1808762\, p^{46} q^{85} + 13667363\, p^{76} q^{80} + 1641612120\, p^{49} q^{46} + 1468295843\, p^{45} q^{47} + 1551464861\, p^{46} q^{47}$$
$$+ 1087578582\, p^{41} q^{48} + 1199676505\, p^{42} q^{48} + 660198567\, p^{37} q^{49} + 1309691526\, p^{43} q^{48} + 762610684\, p^{38} q^{49} + 322569087\, p^{33} q^{50}$$
$$+ 871053403\, p^{39} q^{49} + 984031799\, p^{40} q^{49} + 654242207\, p^{37} q^{50} + 381599469\, p^{34} q^{51} + 558329905\, p^{36} q^{50} + 392192115\, p^{34} q^{50}$$
$$+ 470828465\, p^{35} q^{50} + 123231649\, p^{29} q^{51} + 158991903\, p^{30} q^{51} + 202081491\, p^{31} q^{51} + 192855902\, p^{31} q^{52} + 253193918\, p^{32} q^{51}$$
$$+ 312901028\, p^{33} q^{51} + 878931\, p^{76} q^{29} + 581833\, p^{76} q^{28} + 6466\, p^{67} q^{15} + 62938\, p^{92} q^{52} + 57035632\, p^{72} q^{39} + 151226788\, p^{73} q^{47}$$
$$+ 69181009\, p^{72} q^{40} + 200485241\, p^{73} q^{50} + 872362\, p^{86} q^{82} + 32957\, q^{93} p^{53} + 21888\, q^{93} p^{51} + 175835268\, p^{72} q^{69} + 314590\, q^{89} p^{49}$$
$$+ 4075159\, p^{71} q^{86} + 40009673\, p^{50} q^{25} + 74292917\, p^{50} q^{27} + 9739307\, p^{49} q^{21} + 28535273\, p^{50} q^{24} + 55019936\, p^{50} q^{26}$$
$$+ 312901028\, p^{51} q^{33} + 158991903\, p^{51} q^{30} + 123231649\, p^{51} q^{29} + 253193918\, p^{51} q^{32} + 202081491\, p^{51} q^{31} + 381599469\, p^{51} q^{34}$$
$$+ 459470286\, p^{51} q^{35} + 529601279\, p^{52} q^{36} + 726809315\, p^{52} q^{38} + 1073089263\, p^{52} q^{41} + 1318347262\, p^{52} q^{43} + 1195680486\, p^{52} q^{42}$$
$$+ 836832945\, p^{52} q^{39} + 624071259\, p^{52} q^{37} + 1438649832\, p^{52} q^{44} + 1526901615\, p^{53} q^{45} + 952815859\, p^{52} q^{40} + 1745213\, p^{47} q^{17}$$
$$+ 6796462\, p^{48} q^{20} + 4346497\, p^{48} q^{19} + 14522838\, p^{49} q^{22} + 21148911\, p^{49} q^{23} + 98604408\, p^{50} q^{28} + 1664292844\, p^{50} q^{46}$$
$$+ 1623283926\, p^{47} q^{47} + 1415279954\, p^{44} q^{48} + 1099753912\, p^{41} q^{49} + 757788141\, p^{38} q^{50} + 459470286\, p^{35} q^{51} + 242436131\, p^{32} q^{52}$$
$$+ 114620445\, p^{72} q^{43} + 467523837\, p^{63} q^{69} + 3262762\, p^{44} q^{83} + 1286508\, p^{86} q^{47} + 98035707\, p^{72} q^{42} + 23914\, q^{68} p^{17} + 34528\, p^{87} q^{92}$$
$$+ 133887\, q^{69} p^{20} + 70146\, q^{69} p^{19} + 9602\, q^{66} p^{15} + 50460\, q^{68} p^{18} + 2\, p^{90} q^{27} + 86\, p^{101} q^{78} + 2\, q^{42} p^{4} + q^{43} p^{4} + q^{44} p^{4} + p^{62} q^{101}$$
$$+ 362\, q^{60} p^{10} + 5\, q^{93} p^{33} + 12\, q^{93} p^{34} + q^{93} p^{32} + 145\, q^{94} p^{40} + 245\, q^{94} p^{41} + 9259241\, q^{75} p^{35} + 1038\, p^{99} q^{75} + 159541\, p^{90} q^{49} + 6\, q^{52} p^{6}$$
$$+ 25\, q^{54} p^{7} + 1970\, p^{87} q^{30} + 11383\, p^{91} q^{42} + 181\, q^{58} p^{9} + 868\, p^{85} q^{99} + 47\, q^{57} p^{8} + p^{100} q^{56} + 361815647\, p^{62} q^{71} + 22331\, p^{91} q^{90}$$
$$+ 11591\, p^{92} q^{91} + 466919384\, p^{48} q^{68} + 506422604\, p^{47} q^{67} + 255636445\, p^{65} q^{72} + 124774193\, p^{75} q^{67} + 136450272\, p^{57} q^{76} + 19\, q^{83} p^{20}$$
$$+ 3\, q^{82} p^{18} + 4390\, q^{89} p^{35} + 129950\, q^{90} p^{48} + 193201\, q^{90} p^{50} + 272176\, q^{90} p^{52} + 230796\, q^{90} p^{51} + 316920\, q^{90} p^{53} + 414373\, q^{90} p^{55}$$
$$+ 364583\, q^{90} p^{54} + 213625\, q^{91} p^{55} + 159541\, q^{90} p^{49} + 5\, q^{74} p^{13} + 8636299\, p^{76} q^{36} + 4000132\, p^{80} q^{82} + 6783357\, p^{73} q^{84}$$
$$+ 5334664\, p^{77} q^{83} + 2696569\, p^{57} q^{87} + 2887488\, p^{58} q^{87} + 2940\, p^{56} q^{96} + 1838\, p^{54} q^{96} + 1412\, p^{53} q^{96} + 1671092875\, p^{51} q^{46}$$
$$+ 1681909500\, p^{48} q^{47} + 1725808366\, p^{49} q^{47} + 1514051345\, p^{45} q^{48} + 1603665589\, p^{46} q^{48} + 1681909500\, p^{47} q^{48} + 1330980861\, p^{43} q^{49}$$
$$+ 1216158604\, p^{42} q^{49} + 867847379\, p^{39} q^{50} + 1441807363\, p^{44} q^{49} + 982968188\, p^{40} q^{50} + 546427889\, p^{36} q^{51} + 1546168408\, p^{45} q^{49}$$
$$+ 1101376320\, p^{41} q^{50} + 1221020903\, p^{42} q^{50} + 1339615354\, p^{43} q^{50} + 642090344\, p^{37} q^{51} + 745744099\, p^{38} q^{51} + 856336626\, p^{39} q^{51}$$
$$+ 836832945\, p^{39} q^{52} + 972466078\, p^{40} q^{51} + 1092406914\, p^{41} q^{51} + 367682214\, p^{34} q^{52} + 300561740\, p^{33} q^{52} + 444033805\, p^{35} q^{52}$$

$$+ 600669317\, p^{37} q^{53} + 726809315\, p^{38} q^{52} + 529601279\, p^{36} q^{52} + 624071259\, p^{37} q^{52} + 16544915\, p^{69} q^{31} + 231647750\, p^{72} q^{49}$$
$$+ 228337219\, p^{73} q^{64} + 7961\, p^{58} q^{12} + 73564\, p^{71} q^{94} + 5\, p^{101} q^{65} + p^{101} q^{62} + 2\, q^{96} p^{40} + 2\, p^{103} q^{82} + 3\, p^{103} q^{84} + 444\, p^{97} q^{95} + 677\, p^{95} q^{96}$$
$$+ 750262301\, p^{67} q^{58} + 76611261\, q^{76} p^{48} + 93544150\, q^{76} p^{50} + 109565129\, q^{76} p^{52} + 101758282\, q^{76} p^{51} + 116781354\, q^{76} p^{53}$$
$$+ 128751494\, q^{76} p^{55} + 123231649\, q^{76} p^{54} + 98604408\, q^{77} p^{55} + 85103324\, q^{76} p^{49} + 224378\, q^{91} p^{79} + 123286\, p^{92} q^{80} + 8\, p^{29} q^{3}$$
$$+ 16375\, p^{82} q^{27} + 4363572\, p^{74} q^{85} + 3448531\, p^{66} q^{87} + 29\, p^{102} q^{86} + 1100739\, p^{79} q^{87} + 1287864\, p^{69} q^{89} + 7007826\, p^{82} q^{77}$$
$$+ 4508104\, p^{83} q^{78} + 12423583\, p^{82} q^{73} + 8233008\, p^{82} q^{76} + 70568672\, p^{51} q^{27} + 300561740\, p^{52} q^{33} + 18\, p^{25} q^{3} + 242436131\, p^{52} q^{32}$$
$$+ 192855902\, p^{52} q^{31} + 367682214\, p^{52} q^{34} + 444033805\, p^{52} q^{35} + 701490141\, p^{53} q^{38} + 1043949903\, p^{53} q^{41} + 1289026249\, p^{53} q^{43}$$
$$+ 1166169158\, p^{53} q^{42} + 809864901\, p^{53} q^{39} + 600669317\, p^{53} q^{37} + 1410118363\, p^{53} q^{44} + 1485813559\, p^{54} q^{45} + 924546226\, p^{53} q^{40}$$
$$+ 94026682\, p^{51} q^{28} + 1661832692\, p^{52} q^{46} + 1753806728\, p^{50} q^{47} + 1746794856\, p^{48} q^{48} + 1641612120\, p^{46} q^{49} + 1454714655\, p^{44} q^{50}$$
$$+ 952815859\, p^{40} q^{52} + 1214130691\, p^{42} q^{51} + 701490141\, p^{38} q^{53} + 30\, p^{102} q^{87} + 15\, p^{102} q^{79} + 16847\, p^{60} q^{95} + 2\, p^{100} q^{57} + 3\, p^{103} q^{83}$$
$$+ 677\, p^{96} q^{95} + 13743\, p^{96} q^{79} + 190912\, q^{86} p^{39} + 24\, p^{102} q^{93} + 605\, p^{92} q^{98} + 98\, p^{89} q^{101} + 89\, p^{90} q^{101} + 256324\, q^{86} p^{40} + 28\, p^{85} q^{102}$$
$$+ 62\, p^{93} q^{101} + 52\, p^{94} q^{101} + 249\, p^{89} q^{100} + 112\, p^{86} q^{101} + 397\, p^{91} q^{99} + 4\, p^{85} q^{103} + 3\, p^{83} q^{103} + 3\, p^{84} q^{103} + 4\, p^{86} q^{103} + 5\, p^{88} q^{103}$$
$$+ 5\, p^{87} q^{103} + 6\, p^{89} q^{103} + 7\, p^{91} q^{103} + 6\, p^{90} q^{103} + p^{91} q^{104} + 326\, p^{92} q^{99} + 2\, p^{23} q^{2} + 640109996\, p^{68} q^{59} + 643\, p^{44} q^{7} + 11693\, q^{60} p^{13}$$
$$+ 791\, q^{58} p^{10} + 29499431\, p^{74} q^{78} + 95493204\, q^{67} p^{36} + 238018\, q^{63} p^{18} + 22578\, q^{89} p^{39} + 67885\, q^{88} p^{40} + 92170\, q^{88} p^{41} + 1102\, q^{83} p^{24}$$
$$+ 9767627\, p^{79} q^{79} + 871053403\, p^{66} q^{56} + 802408177\, p^{66} q^{60} + 57582584\, p^{56} q^{79} + 865862513\, p^{66} q^{57} + 736795\, q^{87} p^{47} + 885394\, q^{87} p^{48}$$
$$+ 580104936\, p^{66} q^{65} + 474265070\, p^{67} q^{66} + 11606881\, p^{53} q^{83} + 113\, p^{76} q^{16} + 202119\, p^{92} q^{61} + 230573\, p^{92} q^{63} + 164791604\, p^{66} q^{74}$$
$$+ 151857398\, p^{67} q^{74} + 138488248\, p^{68} q^{74} + 124964782\, p^{69} q^{74} + 173\, p^{54} q^{8} + 37\, p^{48} q^{6} + 204847042\, p^{69} q^{71} + 5259532\, p^{42} q^{81}$$
$$+ 166833894\, p^{62} q^{75} + 171605377\, p^{61} q^{75} + 61011\, p^{91} q^{48} + 64145\, p^{90} q^{45} + 130110\, p^{93} q^{65} + 108128\, p^{93} q^{62} + 119396\, p^{92} q^{56}$$
$$+ 176999784\, p^{65} q^{74} + 153080366\, p^{64} q^{75} + 160604749\, p^{63} q^{75} + 144455454\, p^{65} q^{75} + 101162522\, p^{67} q^{76} + 114178468\, p^{68} q^{75}$$
$$+ 134943676\, p^{66} q^{75} + 124774193\, p^{67} q^{75} + 236481154\, p^{66} q^{72} + 118223\, p^{90} q^{85} + 132781\, p^{89} q^{86} + 249171\, p^{86} q^{87} + 33354656\, p^{63} q^{81}$$
$$+ 580421\, p^{37} q^{83} + 489955\, q^{87} p^{45} + 604972\, q^{87} p^{46} + 457745\, q^{84} p^{38} + 2636\, q^{86} p^{29} + 1407\, q^{86} p^{28} + 703\, q^{86} p^{27} + 1636762722\, p^{53} q^{46}$$
$$+ 1765153961\, p^{51} q^{47} + 1759540174\, p^{52} q^{47} + 1796625774\, p^{49} q^{48} + 1830082130\, p^{50} q^{48} + 1846260992\, p^{51} q^{48} + 1725808366\, p^{47} q^{49}$$
$$+ 1796625774\, p^{48} q^{49} + 1852230798\, p^{49} q^{49} + 1664292844\, p^{46} q^{50} + 1335365801\, p^{43} q^{51} + 1563782823\, p^{45} q^{50} + 1891148269\, p^{50} q^{49}$$
$$+ 1753806728\, p^{47} q^{50} + 1453650666\, p^{44} q^{51} + 1073089263\, p^{41} q^{52} + 1830082130\, p^{48} q^{50} + 1891148269\, p^{49} q^{50} + 1566422630\, p^{45} q^{51}$$

$$+ 1671092875\, p^{46} q^{51} + 1765153961\, p^{47} q^{51} + 1846260992\, p^{48} q^{51} + 1318347262\, p^{43} q^{52} + 1195680486\, p^{42} q^{52} + 1438649832\, p^{44} q^{52}$$
$$+ 1636762722\, p^{46} q^{53} + 1759540174\, p^{47} q^{52} + 1554014610\, p^{45} q^{52} + 1661832692\, p^{46} q^{52} + 924546226\, p^{40} q^{53} + 1166169158\, p^{42} q^{53}$$
$$+ 1043949903\, p^{41} q^{53} + 1289026249\, p^{43} q^{53} + 1526901615\, p^{45} q^{53} + 1410118363\, p^{44} q^{53} + 1485813559\, p^{45} q^{54} + 809864901\, p^{39} q^{53}$$
$$+ 13131\, p^{53} q^{94} + 936583\, p^{83} q^{85} + 3911865\, p^{54} q^{20} + 23918726\, p^{56} q^{25} + 4212\, p^{93} q^{93} + 237\, q^{48} p^{7} + 73\, q^{46} p^{6} + 43850766\, p^{64} q^{80}$$
$$+ 325\, p^{65} q^{99} + 5\, q^{40} p^{4} + 3637\, q^{53} p^{10} + 1838\, q^{51} p^{9} + 99436\, p^{61} q^{93} + 17424\, q^{55} p^{12} + 8340\, q^{54} p^{11} + 131\, p^{99} q^{61} + 216\, p^{99} q^{63}$$
$$+ 460240509\, p^{46} q^{67} + 214061795\, p^{65} q^{73} + 206466790\, p^{62} q^{74} + 228337219\, p^{64} q^{73} + 132684432\, p^{73} q^{70} + 136711602\, p^{72} q^{71}$$
$$+ 379965\, p^{89} q^{81} + 12686559\, p^{82} q^{50} + 6432614\, p^{81} q^{43} + 229258297\, p^{68} q^{71} + 181043487\, p^{71} q^{70} + 73\, p^{71} q^{13} + 154\, p^{72} q^{14}$$
$$+ 72107\, p^{93} q^{58} + 90382\, p^{93} q^{60} + 73564\, p^{94} q^{71} + 88956\, p^{92} q^{54} + 29\, p^{70} q^{12} + 75317\, p^{92} q^{53} + 2\, p^{99} q^{51} + p^{98} q^{46} + 43\, p^{100} q^{64}$$
$$+ 16\, p^{99} q^{55} + 138488248\, p^{74} q^{68} + 26756306\, p^{80} q^{50} + 14013505\, p^{79} q^{43} + 1427\, q^{63} p^{12} + 5521\, q^{65} p^{14} + 619\, q^{62} p^{11} + 172304\, q^{70} p^{21}$$
$$+ 213613\, q^{71} p^{22} + 367296\, q^{71} p^{23} + 608917\, q^{71} p^{24} + 23\, p^{82} q^{102} + p^{102} q^{70} + 2\, p^{65} q^{9} + 7243285\, q^{74} p^{33} + 12744\, p^{96} q^{80}$$
$$+ 695651\, q^{72} p^{25} + 100\, p^{98} q^{98} + 17218132\, p^{61} q^{83} + 20538795\, p^{71} q^{81} + 84\, p^{63} q^{10} + 8\, q^{80} p^{17} + 1596565554\, p^{54} q^{46}$$
$$+ 1737123313\, p^{53} q^{47} + 1844727997\, p^{52} q^{48} + 1912337702\, p^{51} q^{49} + 1935399197\, p^{50} q^{50} + 1912337702\, p^{49} q^{51} + 1737123313\, p^{47} q^{53}$$
$$+ 1844727997\, p^{48} q^{52} + 1596565554\, p^{46} q^{54} + 20721747\, p^{51} q^{81} + 26756306\, p^{50} q^{80} + 387345245\, p^{37} q^{59} + 140486\, p^{71} q^{93}$$
$$+ 5458488\, p^{55} q^{21} + 16570970\, p^{56} q^{24} + 234565\, p^{79} q^{29} + 149592\, p^{79} q^{28} + 1641\, p^{70} q^{15} + 5915\, p^{73} q^{18} + 21057\, p^{75} q^{21} + 51181\, p^{77} q^{24}$$
$$+ 24863\, p^{76} q^{22} + 89215\, p^{77} q^{25} + 8380506\, p^{84} q^{54} + 6796462\, p^{85} q^{57} + 1280999\, p^{82} q^{38} + 7652193\, p^{84} q^{53} + 7779949\, p^{85} q^{60}$$
$$+ 5242660\, p^{86} q^{66} + 3262762\, p^{83} q^{44} + 46476\, p^{76} q^{23} + 6365285\, p^{85} q^{56} + 4121\, p^{72} q^{17} + 4118399\, p^{84} q^{48} + 3941588\, p^{83} q^{45}$$
$$+ 4309\, p^{96} q^{88} + 9408\, p^{96} q^{83} + 72\, p^{96} q^{45} + 325\, p^{99} q^{65} + 168\, p^{99} q^{62} + 66\, p^{75} q^{15} + 1065\, p^{52} q^{96} + 1155713\, p^{81} q^{36} + 152199\, p^{78} q^{27}$$
$$+ 144\, p^{98} q^{97} + 276\, p^{98} q^{95} + 163\, p^{95} q^{99} + 191\, p^{91} q^{100} + 7\, p^{103} q^{92} + 89\, p^{100} q^{95} + 25\, p^{83} q^{102} + 135\, p^{93} q^{100} + 30\, p^{87} q^{102} + 29\, p^{86} q^{102}$$
$$+ 163\, p^{92} q^{100} + 398\, q^{96} p^{49} + 13163\, q^{73} p^{19} + 33953\, q^{74} p^{21} + 4121\, q^{72} p^{17} + 130207\, q^{75} p^{24} + 374897\, q^{76} p^{27} + 168\, p^{62} q^{99}$$
$$+ 2695\, q^{71} p^{16} + 160907\, q^{62} p^{17} + 6142\, q^{92} p^{43} + 8570\, q^{92} p^{44} + 1065\, q^{53} p^{9} + 4198660\, q^{62} p^{23} + 704065\, q^{61} p^{19} + 37\, q^{48} p^{6} + 176\, q^{49} p^{7}$$
$$+ 76178442\, p^{38} q^{70} + 62303334\, p^{36} q^{69} + 77657414\, p^{37} q^{69} + 16\, q^{44} p^{5} + 39572\, q^{93} p^{54} + 13660\, q^{93} p^{49} + 10520\, q^{93} p^{48} + 17424\, q^{93} p^{50}$$
$$+ 127\, q^{50} p^{7} + 27047\, q^{93} p^{52} + 7640976\, q^{65} p^{26} + 1641038\, q^{62} p^{21} + 564982805\, p^{56} q^{69} + 470\, q^{51} p^{8} + 89\, q^{51} p^{7} + 1412\, q^{52} p^{9}$$
$$+ 347\, q^{52} p^{8} + 61\, q^{52} p^{7} + 206569\, p^{75} q^{92} + 2795\, q^{54} p^{10} + 489955\, q^{60} p^{18} + 15657\, q^{59} p^{13} + 82452\, q^{59} p^{15} + 262835\, q^{60} p^{17}$$
$$+ 48197\, q^{58} p^{14} + 104287\, q^{58} p^{15} + 7961\, q^{58} p^{12} + 10520\, q^{57} p^{12} + 1311214\, q^{63} p^{21} + 13682229\, q^{64} p^{27} + 6419601\, q^{64} p^{25}$$

$$+ 9479062\, q^{64} p^{26} + 2729673\, q^{64} p^{23} + 4242357\, q^{64} p^{24} + 16\, q^{50} p^{6} + 13660\, q^{56} p^{12} + 2104\, q^{55} p^{10} + 173\, q^{54} p^{8} + 207297\, q^{61} p^{17}$$
$$+ 1216171\, q^{61} p^{20} + 391078\, q^{61} p^{18} + 26547\, q^{57} p^{13} + 37446\, q^{59} p^{14} + 247\, q^{53} p^{8} + 40318598\, q^{65} p^{31} + 15769531\, q^{65} p^{28}$$
$$+ 36443807\, q^{64} p^{30} + 21966016\, q^{65} p^{29} + 11095871\, q^{65} p^{27} + 30025236\, q^{65} p^{30} + 2665396\, q^{62} p^{22} + 3709\, q^{57} p^{11} + 6486\, q^{55} p^{11}$$
$$+ 2721\, q^{58} p^{11} + 49078\, q^{61} p^{15} + 1555\, q^{56} p^{10} + 20562\, q^{58} p^{13} + 28613\, q^{60} p^{14} + 2147597\, q^{63} p^{22} + 567\, q^{55} p^{9} + 4950\, q^{56} p^{11}$$
$$+ 88540515\, q^{65} p^{34} + 434985171\, q^{66} p^{44} + 335323479\, q^{66} p^{42} + 384031911\, q^{66} p^{43} + 289501696\, q^{66} p^{41} + 69181009\, q^{65} p^{33}$$
$$+ 976814\, q^{62} p^{20} + 559850\, q^{62} p^{19} + 24414612\, q^{66} p^{30} + 53237117\, q^{65} p^{32} + 24\, q^{49} p^{6} + q^{49} p^{5} + 71612\, q^{87} p^{38} + 787\, q^{54} p^{9}$$
$$+ 68229052\, q^{76} p^{47} + 98\, p^{99} q^{60} + 187\, p^{100} q^{71} + 10586\, p^{57} q^{95} + 211615\, p^{84} q^{89} + 132781\, p^{86} q^{89} + 144070363\, q^{67} p^{38} + 773153\, q^{63} p^{20}$$
$$+ 7242\, p^{77} q^{21} + 8332\, p^{78} q^{22} + 1970\, p^{75} q^{18} + 1001\, p^{83} q^{99} + 1493\, p^{87} q^{98} + 1292\, p^{88} q^{98} + 1327\, p^{91} q^{97} + 6899\, p^{69} q^{16} + 54212\, q^{78} p^{25}$$
$$+ 531306\, q^{79} p^{31} + 2415982\, q^{80} p^{37} + 872620\, q^{86} p^{45} + 238018\, q^{87} p^{42} + 704065\, q^{86} p^{44} + 438531\, q^{86} p^{42} + 559850\, q^{86} p^{43} + 3\, p^{22} q^{2}$$
$$+ 733422755\, p^{67} q^{59} + 344043\, p^{91} q^{75} + 176303886\, p^{59} q^{75} + 213073262\, p^{61} q^{74} + 788\, p^{43} q^{7} + 12768236\, p^{70} q^{31} + 184408805\, p^{73} q^{49}$$
$$+ 188195026\, p^{74} q^{64} + 40550\, q^{83} p^{30} + 74291\, q^{82} p^{30} + 46476\, q^{82} p^{29} + 1368829067\, p^{51} q^{61} + 1410118363\, p^{52} q^{61} + 956943086\, p^{48} q^{63}$$
$$+ 1136541551\, p^{49} q^{62} + 1196918726\, p^{50} q^{62} + 1214130691\, p^{63} q^{54} + 1101376320\, p^{64} q^{55} + 816518568\, p^{63} q^{46} + 1698508390\, p^{54} q^{47}$$
$$+ 1825523330\, p^{53} q^{48} + 1789172446\, p^{54} q^{48} + 1899729606\, p^{53} q^{49} + 1915222687\, p^{52} q^{49} + 1866276473\, p^{54} q^{49} + 1961647316\, p^{51} q^{50}$$
$$+ 1969187194\, p^{52} q^{50} + 1957811241\, p^{53} q^{50} + 1915222687\, p^{49} q^{52} + 1961647316\, p^{50} q^{51} + 1992877894\, p^{51} q^{51} + 1927832830\, p^{54} q^{50}$$
$$+ 1969187194\, p^{50} q^{52} + 2005183011\, p^{52} q^{51} + 1825523330\, p^{48} q^{53} + 1998233021\, p^{53} q^{51} + 1972213676\, p^{54} q^{51} + 2005183011\, p^{51} q^{52}$$
$$+ 2019905440\, p^{53} q^{52} + 2022244566\, p^{52} q^{52} + 1998233021\, p^{54} q^{52} + 1957811241\, p^{50} q^{53} + 2019905440\, p^{52} q^{53} + 1998233021\, p^{51} q^{53}$$
$$+ 2022244566\, p^{53} q^{53} + 2005183011\, p^{54} q^{53} + 1899729606\, p^{49} q^{53} + 1866276473\, p^{49} q^{54} + 1789172446\, p^{48} q^{54} + 1998233021\, p^{52} q^{54}$$
$$+ 1992877894\, p^{54} q^{54} + 1935399197\, p^{55} q^{55} + 1927832830\, p^{50} q^{54} + 2005183011\, p^{53} q^{54} + 1972213676\, p^{51} q^{54} + 1698508390\, p^{47} q^{54}$$
$$+ 8814\, p^{56} q^{95} + 19437\, p^{55} q^{94} + 329\, p^{79} q^{19} + 23152\, p^{56} q^{94} + 680716492\, p^{66} q^{63} + 726265787\, p^{66} q^{62} + 791\, p^{47} q^{95} + 185732\, q^{51} p^{14}$$
$$+ 88956\, q^{51} p^{13} + 3850\, p^{97} q^{85} + 1641\, p^{90} q^{35} + 28\, p^{79} q^{17} + 532\, p^{87} q^{28} + 186\, p^{84} q^{23} + 1379\, p^{88} q^{31} + 26193\, p^{95} q^{64} + 19437\, p^{94} q^{55}$$
$$+ 8340\, p^{94} q^{51} + 5902\, p^{93} q^{46} + 899\, p^{89} q^{32} + 27192\, p^{94} q^{57} + 8570\, p^{92} q^{44} + 15375\, p^{96} q^{69} + 62\, p^{82} q^{20} + 2407\, p^{91} q^{38} + 30401\, p^{95} q^{66}$$
$$+ 17\, p^{78} q^{16} + 10520\, p^{93} q^{48} + 11693\, p^{92} q^{45} + 28394\, p^{95} q^{65} + 21528\, p^{95} q^{62} + 23152\, p^{94} q^{56} + 12524\, p^{95} q^{58} + 16847\, p^{95} q^{60}$$
$$+ 16480\, p^{96} q^{71} + 16097\, p^{94} q^{54} + 5\, p^{72} q^{12} + 13131\, p^{94} q^{53} + 767169346\, p^{66} q^{61} + 111\, p^{100} q^{94} + 475\, p^{93} q^{98} + 831073976\, p^{59} q^{66}$$
$$+ 710010508\, p^{60} q^{67} + 4768928\, p^{49} q^{84} + 704988\, p^{90} q^{61} + 772030\, p^{90} q^{63} + 1423\, p^{94} q^{95} + 3512\, p^{89} q^{96} + 7385\, p^{97} q^{75} + 13\, p^{81} q^{18}$$

$$+ 67 p^{83} q^{21} + 67 p^{84} q^{22} + 2501 p^{98} q^{82} + 2121 p^{98} q^{84} + 965 p^{90} q^{34} + 106 p^{87} q^{26} + 2939 p^{92} q^{41} + 1257 p^{92} q^{39} + 1518 p^{91} q^{37}$$
$$+ 541 p^{90} q^{33} + 1955 p^{92} q^{40} + 919 p^{91} q^{36} + 241 p^{89} q^{30} + 1427 p^{93} q^{42} + 2900 p^{98} q^{79} + 8372 p^{92} q^{92} + 36184 p^{71} q^{95} + 1050 p^{57} q^{97}$$
$$+ 10531 p^{64} q^{96} + 1493 p^{98} q^{87} + 16 p^{82} q^{19} + 397 p^{99} q^{91} + 2659 p^{98} q^{81} + 7308 p^{97} q^{76} + 7158 p^{97} q^{77} + 7272 p^{97} q^{73} + 1097 p^{98} q^{89}$$
$$+ 7366 p^{97} q^{74} + 5218 p^{97} q^{67} + 6486 p^{94} q^{50} + p^{71} q^{11} + 1705 p^{98} q^{86} + 1486529 p^{77} q^{87} + 3084946 p^{86} q^{74} + 5088849 p^{86} q^{67}$$
$$+ 4075159 p^{86} q^{71} + 3754831 p^{86} q^{72} + 4889493 p^{86} q^{68} + 2749585 p^{86} q^{75} + 919 p^{69} q^{14} + 468 p^{68} q^{13} + 3352 p^{86} q^{97} + 1094 p^{81} q^{99}$$
$$+ 340 p^{77} q^{100} + 1116 p^{80} q^{99} + 2 p^{71} q^{102} + 86 p^{78} q^{101} + 96 p^{79} q^{101} + 71 p^{101} q^{92} + 5458488 p^{84} q^{50} + 2665396 p^{83} q^{43} + 48197 q^{91} p^{47}$$
$$+ 10299 q^{85} p^{30} + 61011 q^{91} p^{48} + 93453 q^{91} p^{50} + 135261 q^{91} p^{52} + 113210 q^{91} p^{51} + 159529 q^{91} p^{53} + 185732 q^{91} p^{54} + 76081 q^{91} p^{49}$$
$$+ 124964782 p^{74} q^{69} + 2212 p^{96} q^{91} + 139056243 p^{59} q^{76} + 136281624 p^{61} q^{76} + 128421883 p^{63} q^{76} + 132947109 p^{62} q^{76}$$
$$+ 122827009 p^{64} q^{76} + 109026336 p^{66} q^{76} + 116306625 p^{65} q^{76} + 86862584 p^{66} q^{77} + 138336870 p^{60} q^{76} + 17171654 p^{53} q^{82}$$
$$+ 138421695 p^{58} q^{76} + 31493635 p^{57} q^{81} + 489955 p^{87} q^{45} + 133887 p^{85} q^{36} + 849284 p^{89} q^{56} + 490909 p^{88} q^{48} + 24235100 p^{60} q^{82}$$
$$+ 2025143 p^{44} q^{84} + 976814 p^{43} q^{85} + p^{50} q^{5} + 1041 p^{97} q^{92} + 21221652 p^{73} q^{80} + 23 q^{43} p^{5} + 10958412 p^{82} q^{74} + 20973408 p^{82} q^{67}$$
$$+ 15440624 p^{82} q^{71} + 13926938 p^{82} q^{72} + 19734060 p^{82} q^{68} + 9554840 p^{82} q^{75} + p^{26} q^{2} + 631620197 p^{66} q^{64} + 4304 q^{92} p^{42}$$
$$+ 2939 q^{92} p^{41} + 692 p^{70} q^{99} + 71 p^{66} q^{100} + 1955 q^{92} p^{40} + 37 p^{99} q^{57} + 2 p^{98} q^{47} + 61 p^{98} q^{53} + 337065 q^{84} p^{37} + 21896 p^{95} q^{81}$$
$$+ 31408910 p^{65} q^{81} + 6142 q^{62} p^{13} + 1674417 q^{66} p^{23} + 31900 p^{65} q^{16} + 610420 q^{66} p^{21} + 77773 p^{88} q^{89} + 57849 p^{89} q^{89} + 42116 p^{90} q^{89}$$
$$+ 1975 p^{95} q^{93} + p^{69} q^{102} + 102562 p^{87} q^{89} + 36877 q^{62} p^{15} + 133887 q^{85} p^{36} + 23 q^{62} p^{9} + 48060 q^{86} p^{35} + 32121 q^{86} p^{34} + 81 q^{66} p^{11}$$
$$+ 4 q^{57} p^{7} + 96398477 q^{68} p^{37} + 21115105 q^{68} p^{31} + 48310015 q^{68} p^{34} + 28284406 q^{68} p^{32} + 4756679 q^{67} p^{26} + 6997182 q^{67} p^{27}$$
$$+ 37259645 q^{68} p^{33} + 61695718 q^{68} p^{35} + 3156275 q^{67} p^{25} + 17188418 p^{63} q^{83} + 5410938 p^{54} q^{85} + 11632176 p^{60} q^{84} + 5899840 p^{55} q^{85}$$
$$+ 1531775 p^{48} q^{86} + 1801021 p^{49} q^{86} + 20562 p^{92} q^{47} + 1008 p^{84} q^{25} + 2636 p^{86} q^{29} + 458 p^{84} q^{24} + 1756 p^{85} q^{27} + 3393057 p^{54} q^{86}$$
$$+ 1424453 p^{51} q^{87} + 3057667 p^{53} q^{86} + 2401530 p^{51} q^{86} + 2725214 p^{52} q^{86} + 4309 p^{88} q^{96} + 25 p^{102} q^{83} + 803 p^{97} q^{93} + 10861421 p^{58} q^{84}$$
$$+ 18376784 p^{69} q^{82} + 14371615 p^{74} q^{81} + 363 q^{93} p^{39} + 210 q^{93} p^{38} + 267 q^{92} p^{36} + 11968340 p^{62} q^{84} + 15908135 p^{66} q^{83} + 43 q^{67} p^{11}$$
$$+ 468 q^{68} p^{13} + 62 p^{101} q^{93} + 209 p^{99} q^{94} + 265539 p^{68} q^{92} + 9 p^{101} q^{101} + 111552277 p^{70} q^{74} + 92899382 p^{68} q^{76} + 103386245 p^{69} q^{75}$$
$$+ 111552277 p^{74} q^{70} + 116741122 p^{73} q^{71} + 322733 p^{85} q^{87} + 103386245 p^{75} q^{69} + 80889992 p^{67} q^{77} + 93544150 p^{76} q^{50}$$
$$+ 51704449 p^{75} q^{43} + 43676196 p^{75} q^{42} + 107175 p^{81} q^{92} + 6249276 p^{81} q^{79} + 16575310 p^{59} q^{83} + 7652193 p^{53} q^{84} + 2818 p^{90} q^{96}$$
$$+ 1001 p^{95} q^{95} + 1913 p^{85} q^{98} + 2026 p^{89} q^{97} + 2317 p^{83} q^{98} + 2212 p^{91} q^{96} + 50460 q^{87} p^{37} + 6713 q^{88} p^{34} + 34739 q^{87} p^{36}$$

$$+ 15235\, q^{87}\, p^{34} + 23329\, q^{87}\, p^{35} + 8016\, q^{86}\, p^{31} + 1032266\, q^{64}\, p^{21} + 118072339\, q^{68}\, p^{38} + 14653\, p^{96}\, q^{78} + 45573\, p^{94}\, q^{61} + 54872\, p^{94}\, q^{63}$$
$$+ 67998156\, p^{77}\, q^{69} + 61361239\, p^{77}\, q^{70} + 74200012\, p^{74}\, q^{73} + 87327142\, p^{73}\, q^{73} + 44348819\, p^{76}\, q^{74} + 71897433\, p^{72}\, q^{75} + 139356\, q^{93}\, p^{67}$$
$$+ 47\, q^{77}\, p^{16} + 4\, q^{76}\, p^{14} + 12\, q^{75}\, p^{14} + 98488351\, p^{74}\, q^{71} + 48355679\, p^{77}\, q^{72} + 84418404\, p^{69}\, q^{76} + 1913\, p^{98}\, q^{85} + 536\, p^{91}\, q^{35} + 8\, p^{80}\, q^{17}$$
$$+ 176\, p^{88}\, q^{28} + 62\, p^{85}\, q^{23} + 483\, p^{89}\, q^{31} + 10531\, p^{96}\, q^{64} + 7242\, p^{95}\, q^{55} + 2795\, p^{95}\, q^{51} + 1955\, p^{94}\, q^{46} + 287\, p^{90}\, q^{32} + 10586\, p^{95}\, q^{57}$$
$$+ 3047\, p^{93}\, q^{44} + 6116\, p^{97}\, q^{69} + 19\, p^{83}\, q^{20} + 784\, p^{92}\, q^{38} + 12701\, p^{96}\, q^{66} + 5\, p^{79}\, q^{16} + 3709\, p^{94}\, q^{48} + 4295\, p^{93}\, q^{45} + 11631\, p^{96}\, q^{65}$$
$$+ 8310\, p^{96}\, q^{62} + 8814\, p^{95}\, q^{56} + 4407\, p^{96}\, q^{58} + 6225\, p^{96}\, q^{60} + 6830\, p^{97}\, q^{71} + 5847\, p^{95}\, q^{54} + p^{73}\, q^{12} + 4656\, p^{95}\, q^{53} + 15\, p^{50}\, q^{98}$$
$$+ 53209\, p^{78}\, q^{94} + 34379\, p^{85}\, q^{93} + 2797\, p^{98}\, q^{80} + 1292\, p^{98}\, q^{88} + 2317\, p^{98}\, q^{83} + 9\, p^{77}\, q^{15} + 2721\, p^{94}\, q^{47} + 139\, p^{86}\, q^{25} + 374\, p^{88}\, q^{29}$$
$$+ 52\, p^{86}\, q^{24} + 251\, p^{87}\, q^{27} + 2972\, p^{98}\, q^{78} + 7237\, p^{96}\, q^{61} + 9414\, p^{96}\, q^{63} + 7083\, p^{97}\, q^{72} + 5679\, p^{97}\, q^{68} + 917\, p^{98}\, q^{90} + 5273\, p^{96}\, q^{59}$$
$$+ 6497\, p^{97}\, q^{70} + 2115\, p^{93}\, q^{43} + p^{75}\, q^{13} + 4\, p^{76}\, q^{14} + 3637\, p^{95}\, q^{52} + 4950\, p^{94}\, q^{49} + 85103324\, p^{76}\, q^{49} + 97158419\, p^{77}\, q^{64} + 16054\, p^{76}\, q^{96}$$
$$+ 47\, p^{97}\, q^{48} + 74553859\, p^{77}\, q^{68} + 77873\, p^{92}\, q^{83} + 27060\, p^{92}\, q^{88} + 85980915\, p^{74}\, q^{72} + 62275786\, p^{75}\, q^{73} + 2501\, p^{82}\, q^{98}$$
$$+ 1912836\, p^{75}\, q^{87} + 9584800\, p^{78}\, q^{80} + 115\, p^{84}\, q^{101} + 368\, p^{98}\, q^{94} + 11857997\, p^{61}\, q^{84} + 11959593\, p^{63}\, q^{84} + 6365285\, p^{56}\, q^{85}$$
$$+ 7513227\, p^{59}\, q^{85} + 7182355\, p^{58}\, q^{85} + 3724420\, p^{55}\, q^{86} + 6796462\, p^{57}\, q^{85} + 16488523\, p^{65}\, q^{83} + 36215\, p^{95}\, q^{72} + 33709\, p^{95}\, q^{68}$$
$$+ 16934803\, p^{70}\, q^{82} + 15193921\, p^{67}\, q^{83} + 11296735\, p^{59}\, q^{84} + 4909855\, p^{53}\, q^{85} + 2818\, p^{96}\, q^{90} + 7869941\, p^{79}\, q^{80} + 2092109\, p^{50}\, q^{86}$$
$$+ p^{102}\, q^{69} + 6\, p^{101}\, q^{66} + 2962172\, p^{46}\, q^{84} + 3514226\, p^{47}\, q^{84} + 4118399\, p^{48}\, q^{84} + 11\, p^{100}\, q^{60} + 30\, p^{101}\, q^{71} + 5273\, p^{59}\, q^{96} + 347\, p^{53}\, q^{97}$$
$$+ 9\, p^{49}\, q^{98} + 629\, p^{55}\, q^{97} + 57659\, p^{77}\, q^{94} + 8310\, p^{62}\, q^{96} + 247\, p^{52}\, q^{97} + 470\, p^{54}\, q^{97} + 102384559\, q^{77}\, p^{56} + 64050\, q^{83}\, p^{31} + 69401\, p^{67}\, q^{94}$$
$$+ 105267669\, q^{77}\, p^{57} + 107879047\, q^{77}\, p^{60} + 108053620\, q^{77}\, p^{59} + 101222984\, q^{77}\, p^{63} + 92330823\, q^{77}\, p^{65} + 68201979\, q^{78}\, p^{66}$$
$$+ 106656205\, q^{77}\, p^{61} + 97158419\, q^{77}\, p^{64} + 104417020\, q^{77}\, p^{62} + 107174568\, q^{77}\, p^{58} + 2010475\, p^{83}\, q^{82} + 3422239\, p^{73}\, q^{86}$$
$$+ 3754831\, p^{72}\, q^{86} + 6830\, p^{71}\, q^{97} + 938218\, p^{88}\, q^{52} + 1038\, p^{75}\, q^{99} + 384\, p^{81}\, q^{100} + 383\, p^{82}\, q^{100} + 363\, p^{84}\, q^{100} + 346\, p^{85}\, q^{100} + 790\, p^{86}\, q^{99}$$
$$+ 116741122\, p^{71}\, q^{73} + 80889992\, p^{77}\, q^{67} + 116781354\, p^{76}\, q^{53} + 60481289\, p^{75}\, q^{44} + 92330823\, p^{77}\, q^{65} + 68201979\, p^{78}\, q^{66}$$
$$+ 107879047\, p^{77}\, q^{60} + 105267669\, p^{77}\, q^{57} + 123231649\, p^{76}\, q^{54} + 23329\, p^{70}\, q^{18} + 80602\, p^{72}\, q^{21} + 92899382\, p^{76}\, q^{68} + 118520899\, p^{72}\, q^{72}$$
$$+ q^{73}\, p^{12} + 74\, q^{78}\, p^{17} + 9\, q^{77}\, p^{15} + q^{75}\, p^{13} + 17\, q^{78}\, p^{16} + 1705\, p^{86}\, q^{98} + 1652\, p^{90}\, q^{97} + 2440\, q^{88}\, p^{32} + 1970\, q^{87}\, p^{30} + 329\, q^{86}\, p^{26}$$
$$+ 119396\, q^{92}\, p^{56} + 36877\, q^{90}\, p^{43} + 27207\, q^{90}\, p^{42} + 49078\, q^{90}\, p^{44} + 64145\, q^{90}\, p^{45} + 135771\, q^{92}\, p^{57} + 186144\, q^{92}\, p^{60} + 169493\, q^{92}\, p^{59}$$
$$+ 230573\, q^{92}\, p^{63} + 251893\, q^{92}\, p^{65} + 202119\, q^{92}\, p^{61} + 242314\, q^{92}\, p^{64} + 217080\, q^{92}\, p^{62} + 152601\, q^{92}\, p^{58} + 1057\, q^{87}\, p^{29} + 532\, q^{87}\, p^{28}$$
$$+ 19655\, q^{90}\, p^{41} + 13904\, q^{90}\, p^{40} + 6899\, q^{89}\, p^{36} + 10528\, q^{89}\, p^{37} + 15608\, q^{89}\, p^{38} + 26559096\, p^{74}\, q^{38} + 102384559\, p^{77}\, q^{56}$$

$$+ 220839762\, p^{74} q^{58} + 220357834\, p^{74} q^{59} + 41304\, p^{84} q^{93} + 2075\, p^{94} q^{94} + 92613242\, p^{70} q^{75} + 98488351\, p^{71} q^{74} + 85980915\, p^{72} q^{74}$$
$$+ 22331\, p^{90} q^{91} + p^{104} q^{93} + 54774604\, p^{77} q^{71} + 67493063\, p^{76} q^{71} + 1937926\, p^{70} q^{88} + 59355958\, p^{76} q^{72} + 101556397\, p^{72} q^{73}$$
$$+ 82059101\, p^{75} q^{71} + 53309667\, p^{75} q^{74} + 262835\, q^{88} p^{45} + 328337\, q^{88} p^{46} + 404240\, q^{88} p^{47} + 75895788\, p^{76} q^{70} + 135\, p^{100} q^{93} + q^{96} p^{39}$$
$$+ 2\, q^{95} p^{37} + 32943640\, p^{74} q^{39} + 90384299\, p^{75} q^{47} + 40318598\, p^{74} q^{40} + 122474738\, p^{75} q^{50} + 68496697\, p^{74} q^{43} + 58113890\, p^{74} q^{42}$$
$$+ 37812872\, p^{67} q^{80} + 40130609\, p^{66} q^{80} + 53\, p^{97} q^{100} + p^{104} q^{102} + 4\, p^{102} q^{102} + 2\, p^{103} q^{102} + 6\, p^{95} q^{103} + 5\, p^{102} q^{101} + 53309667\, p^{74} q^{75}$$
$$+ 62275786\, p^{73} q^{75} + 36415613\, p^{77} q^{74} + 37654766\, p^{76} q^{75} + 45084905\, p^{75} q^{75} + 31045160\, p^{77} q^{75} + 14840\, p^{95} q^{84} + 2115\, p^{62} q^{12}$$
$$+ 26392541\, p^{79} q^{47} + 11095871\, p^{78} q^{40} + 8874868\, p^{78} q^{39} + 42207976\, p^{77} q^{73} + 63278777\, p^{74} q^{74} + 51607538\, p^{76} q^{73} + 295404\, p^{81} q^{32}$$
$$+ 4622468\, p^{86} q^{58} + 198698\, p^{81} q^{31} + 61\, p^{52} q^{7} + 265\, p^{64} q^{99} + 48060\, p^{70} q^{19} + 18376784\, p^{82} q^{69} + 16934803\, p^{82} q^{70} + 82059101\, p^{71} q^{75}$$
$$+ 74200012\, p^{73} q^{74} + 67493063\, p^{71} q^{76} + 51607538\, p^{73} q^{76} + 37654766\, p^{75} q^{76} + 44348819\, p^{74} q^{76} + 31577072\, p^{76} q^{76}$$
$$+ 26142554\, p^{77} q^{76} + 59355958\, p^{72} q^{76} + 75895788\, p^{70} q^{76} + 374\, p^{76} q^{17} + 7242\, p^{84} q^{28} + 2432\, p^{81} q^{23} + 17045\, p^{85} q^{31}$$
$$+ 74553859\, p^{68} q^{77} + 67998156\, p^{69} q^{77} + 48355679\, p^{72} q^{77} + 54774604\, p^{71} q^{77} + 31045160\, p^{75} q^{77} + 21736124\, p^{77} q^{77}$$
$$+ 14701342\, p^{78} q^{78} + 42207976\, p^{73} q^{77} + 26142554\, p^{76} q^{77} + 36415613\, p^{74} q^{77} + 61361239\, p^{70} q^{77} + 25\, p^{54} q^{7} + 947\, p^{96} q^{94} + 3\, p^{72} q^{102}$$
$$+ 362\, p^{95} q^{45} + 1313\, p^{98} q^{65} + 788\, p^{98} q^{62} + 274\, p^{96} q^{48} + 102\, p^{80} q^{101} + 109\, p^{81} q^{101} + 109565129\, p^{76} q^{52} + 101758282\, p^{76} q^{51}$$
$$+ 76611261\, p^{76} q^{48} + 69930759\, p^{75} q^{45} + 101222984\, p^{77} q^{63} + 104417020\, p^{77} q^{62} + 106656205\, p^{77} q^{61} + 22630115\, p^{70} q^{81}$$
$$+ 16977857\, p^{60} q^{83} + 13\, p^{102} q^{78} + 319\, p^{76} q^{100} + 45\, p^{73} q^{101} + 107174568\, p^{77} q^{58} + 108053620\, p^{77} q^{59} + 112\, p^{82} q^{101} + 116\, p^{83} q^{101}$$
$$+ 1126\, p^{78} q^{99} + 12\, q^{96} p^{42} + 3\, p^{101} q^{64} + p^{100} q^{55} + 1041\, p^{92} q^{97} + 16\, q^{97} p^{46} + 471\, p^{90} q^{99} + 47\, q^{97} p^{48} + 101556397\, p^{73} q^{72}$$
$$+ 71897433\, p^{75} q^{72} + 348808\, q^{85} p^{39} + 773153\, q^{85} p^{42} + 602738\, q^{85} p^{41} + 462383\, q^{85} p^{40} + 93355\, q^{85} p^{35} + 92613242\, p^{75} q^{70}$$
$$+ 84418404\, p^{76} q^{69} + 5\, p^{95} q^{38} + 42\, p^{96} q^{44} + 134\, p^{100} q^{69} + 389\, p^{99} q^{66} + 472987\, p^{91} q^{68} + 420649\, p^{91} q^{72} + 123286\, q^{92} p^{80}$$
$$+ 484893\, p^{80} q^{32} + 330322\, p^{80} q^{31} + 7182355\, p^{85} q^{58} + 1548634\, p^{81} q^{37} + 7513227\, p^{85} q^{59} + 17045\, p^{74} q^{20} + 6912819\, p^{84} q^{52}$$
$$+ 6176968\, p^{84} q^{51} + 2147597\, p^{83} q^{42} + 847035\, p^{81} q^{35} + 4768928\, p^{84} q^{49} + 8089911\, p^{85} q^{64} + 357561\, p^{79} q^{30} + 9081476\, p^{84} q^{55}$$
$$+ 4701002\, p^{83} q^{46} + p^{59} q^{7} + 73709\, p^{70} q^{94} + 2109431\, p^{86} q^{77} + 1287123\, p^{87} q^{78} + 3422239\, p^{86} q^{73} + 2422685\, p^{86} q^{76} + 7975514\, p^{85} q^{61}$$
$$+ 8132753\, p^{85} q^{63} + 8094143\, p^{85} q^{62} + 7967040\, p^{85} q^{65} + 20973408\, p^{67} q^{82} + 10737\, p^{93} q^{90} + 11519002\, p^{77} q^{80} + 17288877\, p^{62} q^{83}$$
$$+ 18439014\, p^{72} q^{81} + 215949\, p^{90} q^{82} + 4406848\, p^{52} q^{85} + 10337569\, p^{57} q^{84} + 1286508\, p^{47} q^{86} + 2\, q^{97} p^{43} + 5\, q^{96} p^{41} + 203\, p^{98} q^{96}$$
$$+ 2695\, p^{71} q^{16} + 145\, p^{62} q^{10} + 1512\, p^{98} q^{66} + p^{85} q^{20} + 43\, p^{94} q^{38} + 232\, p^{95} q^{44} + 616\, p^{99} q^{69} + 899\, p^{73} q^{16} + 603\, p^{97} q^{94}$$

$$+ 19734060\, p^{68}\, q^{82} + 74920\, p^{80}\, q^{93} + 36090\, p^{94}\, q^{59} + 35730\, p^{95}\, q^{70} + 15799\, p^{91}\, q^{43} + 10\, p^{99}\, q^{54} + 2\, p^{96}\, q^{40} + p^{96}\, q^{39} + 2\, p^{95}\, q^{37}$$
$$+ 23\, p^{43}\, q^{96} + 39439\, p^{88}\, q^{91} + 26\, p^{102}\, q^{92} + 65866\, p^{81}\, q^{93} + 2343\, p^{55}\, q^{96} + p^{66}\, q^{9} + 6234\, p^{97}\, q^{80} + 2433\, p^{97}\, q^{88} + 4859\, p^{97}\, q^{83}$$
$$+ 26\, p^{76}\, q^{15} + 7961\, p^{93}\, q^{47} + 402\, p^{85}\, q^{25} + 1057\, p^{87}\, q^{29} + 167\, p^{85}\, q^{24} + 703\, p^{86}\, q^{27} + 6915\, p^{97}\, q^{78} + 19173\, p^{95}\, q^{61} + 23896\, p^{95}\, q^{63}$$
$$+ 16779\, p^{96}\, q^{72} + 14596\, p^{96}\, q^{68} + 1652\, p^{97}\, q^{90} + 14630\, p^{95}\, q^{59} + 16012\, p^{96}\, q^{70} + 6142\, p^{92}\, q^{43} + 29984\, p^{89}\, q^{91} + 57136\, p^{82}\, q^{93}$$
$$+ 5\, p^{74}\, q^{13} + 12\, p^{75}\, q^{14} + 10553\, p^{94}\, q^{52} + 13660\, p^{93}\, q^{49} + 1131\, p^{79}\, q^{99} + 9\, q^{97}\, p^{45} + 947\, p^{94}\, q^{96} + 8043\, p^{91}\, q^{93} + 21\, q^{94}\, p^{37} + 14\, p^{73}\, q^{13}$$
$$+ 33\, p^{74}\, q^{14} + 2\, p^{63}\, q^{101} + 2669\, p^{92}\, q^{95} + 123671\, p^{64}\, q^{93} + 12524\, p^{58}\, q^{95} + 24182769\, p^{63}\, q^{82} + 488\, q^{82}\, p^{22} + 15331059\, p^{57}\, q^{83}$$
$$+ 6\, p^{103}\, q^{94} + 18\, p^{95}\, q^{102} + 9\, p^{102}\, q^{99} + 13\, p^{102}\, q^{97} + p^{104}\, q^{98} + p^{95}\, q^{104} + p^{99}\, q^{104} + p^{98}\, q^{104} + p^{102}\, q^{104} + p^{104}\, q^{104} + p^{105}\, q^{105} + p^{100}\, q^{104}$$
$$+ p^{103}\, q^{104} + p^{96}\, q^{104} + 20\, p^{100}\, q^{100} + p^{104}\, q^{94} + 17\, p^{101}\, q^{99} + 6\, p^{103}\, q^{95} + p^{104}\, q^{95} + 6\, p^{94}\, q^{103} + 4\, p^{103}\, q^{99} + p^{101}\, q^{104} + p^{97}\, q^{104} + p^{94}\, q^{104}$$
$$+ p^{93}\, q^{104} + 16919052\, p^{64}\, q^{83} + 16371467\, p^{73}\, q^{81} + 27047\, p^{93}\, q^{52} + 27060\, p^{88}\, q^{92} + 12470419\, p^{75}\, q^{81} + 15440624\, p^{71}\, q^{82}$$
$$+ 33700\, p^{92}\, q^{49} + 64615\, p^{86}\, q^{91} + q^{98}\, p^{46} + 2\, q^{98}\, p^{47} + 4\, q^{98}\, p^{48} + 29\, q^{97}\, p^{47} + 751\, p^{91}\, q^{98} + 219\, p^{97}\, q^{97} + 315\, p^{96}\, q^{97} + 277\, p^{88}\, q^{100}$$
$$+ 116\, p^{85}\, q^{101} + 302\, p^{87}\, q^{100} + 38864\, p^{81}\, q^{94} + 36215\, p^{72}\, q^{95} + 43698\, p^{80}\, q^{94} + 22737\, p^{87}\, q^{93} + 12701\, p^{66}\, q^{96} + 35107\, p^{74}\, q^{95}$$
$$+ 48505\, p^{79}\, q^{94} + 13691\, p^{67}\, q^{96} + 2378\, p^{61}\, q^{97} + 237\, p^{57}\, q^{98} + 3262\, p^{63}\, q^{97} + 1981\, p^{60}\, q^{97} + 2801\, p^{62}\, q^{97} + 61\, p^{53}\, q^{98} + 25\, p^{51}\, q^{98}$$
$$+ 40\, p^{52}\, q^{98} + 2\, p^{51}\, q^{99} + 89\, p^{54}\, q^{98} + 127\, p^{55}\, q^{98} + 176\, p^{56}\, q^{98} + 9\, p^{97}\, q^{45} + 56\, p^{100}\, q^{65} + 23\, p^{100}\, q^{62} + p^{104}\, q^{100} + 11\, p^{98}\, q^{102}$$
$$+ 1317\, p^{58}\, q^{97} + 1632\, p^{59}\, q^{97} + 15375\, p^{69}\, q^{96} + 14596\, p^{68}\, q^{96} + 33995\, p^{75}\, q^{95} + 11631\, p^{65}\, q^{96} + 35868\, p^{73}\, q^{95} + 28173\, p^{86}\, q^{93}$$
$$+ 5886\, p^{93}\, q^{92} + 18\, p^{102}\, q^{95} + 64\, p^{98}\, q^{99} + 4\, p^{103}\, q^{98} + 5\, p^{96}\, q^{103} + 29\, p^{101}\, q^{97} + 35\, p^{101}\, q^{96} + 45\, p^{99}\, q^{99} + 3\, p^{103}\, q^{101} + p^{104}\, q^{101}$$
$$+ 9\, p^{99}\, q^{102} + 3\, p^{103}\, q^{100} + 12\, p^{100}\, q^{101} + 4\, p^{99}\, q^{103} + 5\, p^{97}\, q^{103} + 4\, p^{98}\, q^{103} + 3\, p^{100}\, q^{103} + 2\, p^{102}\, q^{103} + 3\, p^{101}\, q^{103} + 2\, p^{103}\, q^{103} + p^{104}\, q^{103}$$
$$+ 16\, p^{96}\, q^{102} + 13\, p^{97}\, q^{102} + 5\, p^{101}\, q^{102} + 7\, p^{100}\, q^{102} + 22\, p^{101}\, q^{98} + 11\, p^{102}\, q^{98} + 5\, p^{103}\, q^{96} + 53\, p^{100}\, q^{97} + 16\, p^{102}\, q^{96} + p^{104}\, q^{96}$$
$$+ 64\, p^{99}\, q^{98} + 5\, p^{103}\, q^{97} + 22\, p^{98}\, q^{101} + 40\, p^{98}\, q^{100} + 28\, p^{99}\, q^{100} + 28\, p^{100}\, q^{99} + 40\, p^{100}\, q^{98} + p^{104}\, q^{97} + 35\, p^{96}\, q^{101} + 29\, p^{97}\, q^{101} + p^{104}\, q^{99}$$
$$+ 7\, p^{102}\, q^{100} + 17\, p^{99}\, q^{101} + 12\, p^{101}\, q^{100}$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 16, *is:*

$$1 + 2789889\, p^{47}\, q^{16} + 1166589\, p^{105}\, q^{68} + 12082236\, q^{42}\, p^{19} + 56812\, p^{106}\, q^{102} + 4869413984\, p^{40}\, q^{61} + 891902\, p^{81}\, q^{106} + 2185092\, p^{104}\, q^{68}$$
$$+ 21\, p^{65}\, q^{8} + 372050830\, p^{38}\, q^{31} + 674757970\, p^{38}\, q^{34} + 804938764\, p^{38}\, q^{35} + 1083017095\, p^{39}\, q^{36} + 298051231\, p^{38}\, q^{30}$$

$$+ 458912027\, p^{38}\, q^{32} + 235819151\, p^{38}\, q^{29} + 99782457\, p^{70}\, q^{96} + 1483549\, p^{18}\, q^{26} + 4993296\, p^{52}\, q^{99} + 33\, q^{21}\, p^{3} + 135741\, q^{28}\, p^{12}$$
$$+ 382687\, q^{28}\, p^{14} + 697858\, q^{29}\, p^{15} + 5602364623\, q^{55}\, p^{40} + 6557117079\, q^{55}\, p^{41} + 8724284556\, q^{55}\, p^{43} + 5572506656\, p^{71}\, q^{79}$$
$$+ 20711548\, p^{58}\, q^{98} + 55252807\, p^{64}\, q^{97} + p^{10}\, q + 62989334\, p^{88}\, q^{93} + 48267389\, p^{36}\, q^{24} + 5057214\, p^{35}\, q^{18} + 86138062\, p^{36}\, q^{26}$$
$$+ 1352142727\, p^{64}\, q^{87} + 1380701488\, p^{65}\, q^{87} + 13088011011\, p^{52}\, q^{69} + 20745688599\, p^{60}\, q^{68} + 2953121077\, p^{71}\, q^{83} + 8288\, q^{26}\, p^{8}$$
$$+ 3656\, q^{26}\, p^{7} + 20265\, q^{28}\, p^{9} + 7599737303\, q^{55}\, p^{42} + 11265074871\, q^{56}\, p^{45} + 9921920869\, q^{55}\, p^{44} + 1388\, q^{25}\, p^{6} + 486\, q^{26}\, p^{5}$$
$$+ 107801614\, p^{82}\, q^{94} + 12411797\, p^{88}\, q^{36} + 307097\, p^{90}\, q^{29} + 45514\, p^{88}\, q^{24} + 7\, q^{57}\, p^{6} + 310468\, p^{104}\, q^{54} + 28144\, p^{100}\, q^{37} + 46383\, p^{101}\, q^{40}$$
$$+ 30607\, p^{101}\, q^{39} + 512624058\, q^{44}\, p^{30} + 3150025191\, p^{53}\, q^{80} + 3517750200\, p^{38}\, q^{60} + 5269641897\, p^{80}\, q^{61} + 5521389275\, p^{80}\, q^{63}$$
$$+ 5415797566\, p^{80}\, q^{62} + 8426487806\, p^{43}\, q^{59} + 66267524\, p^{86}\, q^{94} + 24382926\, p^{33}\, q^{23} + 55720348\, p^{28}\, q^{30} + 98690509\, q^{51}\, p^{24}$$
$$+ 67602251\, q^{51}\, p^{23} + 28726301\, q^{52}\, p^{21} + 933540751\, p^{32}\, q^{59} + 3\, p^{75}\, q^{116} + 231702588\, p^{63}\, q^{93} + 397696444\, q^{44}\, p^{29} + 710718448\, p^{84}\, q^{84}$$
$$+ 804938764\, p^{82}\, q^{85} + 914812266\, p^{81}\, q^{85} + 1053289765\, p^{78}\, q^{86} + 1015217639\, p^{72}\, q^{88} + 1201214124\, p^{73}\, q^{39} + 4244359112\, p^{74}\, q^{47}$$
$$+ 1485915661\, p^{73}\, q^{40} + 6151745807\, p^{74}\, q^{50} + 175379410\, p^{93}\, q^{59} + 199051547\, p^{94}\, q^{70} + 41792746\, p^{90}\, q^{43} + 274\, p^{61}\, q^{112} + 5\, p^{57}\, q^{113}$$
$$+ 514\, p^{63}\, q^{112} + 195\, p^{60}\, q^{112} + 382\, p^{62}\, q^{112} + 2631235668\, p^{73}\, q^{43} + 2198423818\, p^{73}\, q^{42} + 124\, q^{109}\, p^{47} + 138\, p^{97}\, q^{116} + 65043885\, p^{24}\, q^{39}$$
$$+ 46912513\, p^{23}\, q^{39} + 701561604\, p^{35}\, q^{37} + 510626197\, p^{34}\, q^{36} + 2628961\, p^{16}\, q^{39} + 4286130\, p^{17}\, q^{39} + 772993456\, p^{55}\, q^{87}$$
$$+ 850867814\, p^{56}\, q^{87} + 3456182\, p^{67}\, q^{20} + 1123\, q^{47}\, p^{7} + 10328\, q^{49}\, p^{9} + 284291\, q^{52}\, p^{13} + 339\, q^{45}\, p^{6} + 689328\, p^{21}\, q^{19} + 359915\, p^{21}\, q^{17}$$
$$+ 21987881\, q^{68}\, p^{24} + 51656808\, q^{68}\, p^{26} + 638754\, q^{66}\, p^{17} + 131708667\, p^{54}\, q^{25} + 5086190417\, p^{60}\, q^{80} + 288247\, p^{26}\, q^{14} + 1213532\, p^{27}\, q^{17}$$
$$+ 5902924\, p^{28}\, q^{21} + 3559465\, p^{27}\, q^{20} + 2538151\, p^{27}\, q^{19} + 151530538\, p^{26}\, q^{42} + 321081009\, p^{92}\, q^{75} + 638754\, p^{66}\, q^{17} + 1602386\, p^{22}\, q^{21}$$
$$+ 928117\, p^{21}\, q^{20} + 3986402\, p^{85}\, q^{30} + 47192420\, p^{89}\, q^{42} + 39\, p^{53}\, q^{6} + 92972\, p^{76}\, q^{18} + 399399\, p^{78}\, q^{21} + 538007\, p^{79}\, q^{22} + 91583\, p^{13}\, q^{22}$$
$$+ 1603478\, p^{46}\, q^{15} + 862786\, p^{46}\, q^{14} + 3617\, p^{91}\, q^{23} + 198454505\, q^{51}\, p^{26} + 44062251\, q^{52}\, p^{22} + 5575890884\, q^{54}\, p^{40} + 23555129\, p^{94}\, q^{92}$$
$$+ 5911972\, p^{20}\, q^{30} + 124696222\, p^{76}\, q^{95} + 3699\, p^{9}\, q^{16} + 283\, p^{84}\, q^{16} + 3935751414\, p^{38}\, q^{56} + 28770698\, p^{94}\, q^{91} + 7738\, p^{10}\, q^{17}$$
$$+ 32629\, p^{14}\, q^{16} + 605534597\, p^{84}\, q^{85} + 12\, p^{66}\, q^{8} + 593247\, p^{94}\, q^{35} + 1219707863\, p^{87}\, q^{73} + 1016920192\, p^{87}\, q^{76} + 2696469103\, p^{53}\, q^{36}$$
$$+ 3\, p^{36}\, q^{3} + 19\, p^{48}\, q^{5} + 38480106\, q^{55}\, p^{22} + p^{48}\, q^{4} + 195393080\, p^{94}\, q^{72} + 196250289\, p^{94}\, q^{68} + 43742870\, p^{33}\, q^{25} + 73932776\, p^{33}\, q^{27}$$
$$+ 109819534\, p^{34}\, q^{28} + 1568339\, p^{32}\, q^{16} + 4869413984\, p^{59}\, q^{80} + 941060863\, p^{87}\, q^{77} + 699635566\, p^{88}\, q^{78} + 46476\, q^{67}\, p^{14}$$
$$+ 657840336\, p^{52}\, q^{30} + 497534826\, p^{52}\, q^{29} + 5923\, p^{67}\, q^{12} + 198454505\, p^{51}\, q^{26} + 97741062\, p^{90}\, q^{47} + 7556811956\, p^{42}\, q^{57}$$
$$+ 527869\, p^{105}\, q^{93} + 527869\, p^{27}\, q^{15} + 1294454941\, p^{38}\, q^{71} + 1073581\, p^{82}\, q^{25} + 3694611\, p^{84}\, q^{29} + 618141\, p^{82}\, q^{24} + 25142135\, q^{86}\, p^{36}$$

$$+ 48277\, q^{73}\, p^{16} + 536066593\, p^{45}\, q^{83} + 260844\, q^{29}\, p^{13} + 9445\, q^{28}\, p^{8} + 6127\, p^{107}\, q^{108} + 1292442574\, p^{85}\, q^{55} + 497482976\, p^{84}\, q^{46}$$
$$+ 1714444463\, p^{86}\, q^{64} + 19380886\, p^{80}\, q^{30} + 23089\, q^{108}\, p^{58} + 62486457\, p^{82}\, q^{35} + 624239377\, p^{85}\, q^{49} + 1016920192\, p^{76}\, q^{87}$$
$$+ 14586951\, q^{90}\, p^{39} + 1915906\, q^{88}\, p^{31} + 12669095648\, p^{73}\, q^{58} + 13140057106\, p^{73}\, q^{59} + 5521389275\, p^{63}\, q^{80} + 497534826\, q^{52}\, p^{29}$$
$$+ 1313490811\, p^{63}\, q^{87} + 17140350\, p^{24}\, q^{29} + 70564907\, p^{40}\, q^{24} + 6782706\, p^{39}\, q^{18} + 130084122\, p^{40}\, q^{26} + 1500\, p^{30}\, q^{6} + 785193563\, p^{41}\, q^{33}$$
$$+ 2509513\, p^{38}\, q^{16} + 406690460\, p^{41}\, q^{30} + 318589469\, p^{41}\, q^{29} + 638154680\, p^{41}\, q^{32} + 674757970\, p^{34}\, q^{38} + 476797248\, p^{71}\, q^{34}$$
$$+ 2102507791\, p^{72}\, q^{41} + 19642\, q^{52}\, p^{10} + 30457702\, p^{50}\, q^{21} + 98690509\, p^{51}\, q^{24} + 141251117\, p^{51}\, q^{25} + 540898\, q^{31}\, p^{14} + 286327\, p^{96}\, q^{36}$$
$$+ 57136\, p^{94}\, q^{30} + 141032\, p^{95}\, q^{33} + 15621117207\, p^{71}\, q^{67} + 825527777\, p^{85}\, q^{51} + 225342432\, p^{84}\, q^{42} + 175701\, p^{61}\, q^{14} + 90517\, p^{60}\, q^{13}$$
$$+ 100063941\, p^{57}\, q^{94} + 8798036534\, p^{51}\, q^{72} + 4881649733\, p^{47}\, q^{73} + 6697968258\, p^{70}\, q^{78} + 2350740289\, p^{72}\, q^{84} + 2101276458\, p^{74}\, q^{84}$$
$$+ 2087764684\, p^{70}\, q^{85} + 2140296716\, p^{69}\, q^{85} + 1763459879\, p^{66}\, q^{86} + 2156748351\, p^{76}\, q^{83} + 1472453578\, p^{81}\, q^{82} + 1791930983\, p^{78}\, q^{83}$$
$$+ 3665\, p^{110}\, q^{106} + 63742650\, p^{36}\, q^{83} + 852777942\, p^{89}\, q^{69} + 841144977\, p^{89}\, q^{70} + 105822513\, p^{85}\, q^{40} + 81875499\, p^{85}\, q^{39}$$
$$+ 63742650\, p^{84}\, q^{37} + 826773004\, p^{88}\, q^{59} + 134998956\, p^{85}\, q^{41} + 24342195\, p^{83}\, q^{33} + 928638506\, q^{70}\, p^{36} + 19419676008\, p^{51}\, q^{56}$$
$$+ 17804898756\, p^{50}\, q^{55} + 60046\, q^{66}\, p^{14} + 359742662\, p^{88}\, q^{51} + 214525719\, p^{87}\, q^{46} + 808900696\, p^{89}\, q^{64} + 585624578\, p^{88}\, q^{55}$$
$$+ 425376\, p^{85}\, q^{107} + 8032416\, p^{28}\, q^{22} + 112527611\, p^{93}\, q^{84} + 10722\, q^{65}\, p^{12} + 19502\, p^{58}\, q^{11} + p\, q + 30860\, p^{98}\, q^{34} + 395730\, q^{48}\, p^{13}$$
$$+ 2597430\, q^{49}\, p^{16} + 1494237\, q^{48}\, p^{15} + 268463\, p^{101}\, q^{45} + 143939\, p^{100}\, q^{41} + 228097691\, p^{31}\, q^{70} + 6981214157\, p^{69}\, q^{78}$$
$$+ 1546593297\, p^{86}\, q^{61} + 1670082270\, p^{86}\, q^{63} + 882211259\, p^{60}\, q^{88} + 485\, q^{27}\, p^{5} + 2687102466\, p^{81}\, q^{77} + 2095466174\, p^{82}\, q^{78}$$
$$+ 3706369523\, p^{81}\, q^{73} + 2949808210\, p^{81}\, q^{76} + 7738\, p^{17}\, q^{10} + 1151\, p^{16}\, q^{7} + 3699\, p^{16}\, q^{9} + 11803902\, q^{51}\, p^{19} + 112\, q^{17}\, p^{4} + 773\, q^{18}\, p^{6}$$
$$+ 298\, q^{17}\, p^{5} + 2314860804\, p^{77}\, q^{82} + 394176373\, p^{91}\, q^{61} + 438979002\, p^{91}\, q^{63} + 11392000\, p^{22}\, q^{30} + 68648811\, p^{50}\, q^{23} + 2587\, q^{17}\, p^{8}$$
$$+ 75972\, q^{28}\, p^{11} + 232176\, q^{28}\, p^{13} + 87\, p^{31}\, q^{4} + 2264714777\, p^{43}\, q^{74} + 12587265\, p^{49}\, q^{19} + 46248495\, p^{50}\, q^{22} + 4096696004\, p^{42}\, q^{68}$$
$$+ 5\, p^{20}\, q^{2} + 14146889535\, p^{51}\, q^{67} + 14238374302\, p^{52}\, q^{68} + 4363942606\, p^{43}\, q^{69} + 4701342\, p^{48}\, q^{17} + 20007420\, p^{49}\, q^{20}$$
$$+ 141251117\, q^{51}\, p^{25} + 178240\, p^{26}\, q^{13} + 1773961\, p^{27}\, q^{18} + 7160952\, p^{26}\, q^{23} + 220862\, p^{18}\, q^{18} + 215004\, p^{17}\, q^{19} + 6630640\, p^{22}\, q^{27}$$
$$+ 2473832\, p^{104}\, q^{70} + 3463999118\, p^{81}\, q^{74} + 3210273918\, p^{81}\, q^{75} + 4678012154\, p^{81}\, q^{67} + 4138525793\, p^{81}\, q^{71} + 3932714100\, p^{81}\, q^{72}$$
$$+ 4592254796\, p^{81}\, q^{68} + 502824\, p^{21}\, q^{18} + 768322937\, p^{58}\, q^{88} + 590278538\, p^{84}\, q^{47} + 104846818\, q^{76}\, p^{32} + 5044754\, q^{56}\, p^{18}$$
$$+ 33693336\, q^{57}\, p^{22} + 82391\, p^{105}\, q^{102} + 433256\, q^{55}\, p^{14} + 2835729\, q^{56}\, p^{17} + 99137\, q^{54}\, p^{12} + 51741983\, q^{57}\, p^{23} + 472361\, p^{92}\, q^{32}$$
$$+ 29002617\, p^{97}\, q^{57} + 26559\, q^{96}\, p^{31} + 45514\, q^{96}\, p^{32} + 75259\, q^{96}\, p^{33} + 7629\, q^{25}\, p^{8} + 18288148608\, p^{70}\, q^{63} + 18194469387\, p^{70}\, q^{61}$$

$$+ 18314128873\, p^{70}\, q^{62} + 5575890884\, p^{54}\, q^{40} + 370751113\, p^{52}\, q^{28} + 9789622921\, p^{54}\, q^{44} + 11180989510\, p^{55}\, q^{45} + 12525\, p^{11}\, q^{17}$$
$$+ 24023\, q^{31}\, p^{9} + 4727212247\, p^{54}\, q^{39} + 3293664898\, p^{54}\, q^{37} + 319203\, q^{31}\, p^{13} + 90828\, q^{30}\, p^{11} + 5415797566\, p^{62}\, q^{80} + p^{9}\, q$$
$$+ 8286936\, p^{96}\, q^{47} + 86975\, p^{88}\, q^{25} + 8626088044\, p^{54}\, q^{43} + 7530362140\, p^{54}\, q^{42} + 5269641897\, p^{61}\, q^{80} + 3966775051\, p^{54}\, q^{38}$$
$$+ 6511504788\, p^{54}\, q^{41} + 7440582\, p^{25}\, q^{24} + 1766993516\, p^{53}\, q^{34} + 2195479676\, p^{53}\, q^{35} + 1339\, q^{59}\, p^{9} + 1103557381\, p^{53}\, q^{32}$$
$$+ 855482983\, p^{53}\, q^{31} + 1613723721\, p^{86}\, q^{62} + 1745803194\, p^{86}\, q^{65} + 6851636\, p^{20}\, q^{31} + 271981885\, p^{52}\, q^{27} + 1405165125\, p^{53}\, q^{33}$$
$$+ 2995\, q^{61}\, p^{10} + 5944154374\, p^{45}\, q^{69} + 45302132\, q^{75}\, p^{29} + 92736686\, q^{75}\, p^{31} + 65426982\, q^{75}\, p^{30} + 30743132\, q^{75}\, p^{28} + 14192\, p^{54}\, q^{10}$$
$$+ 634752909\, p^{69}\, q^{34} + 2735373215\, p^{70}\, q^{41} + 14166999\, p^{96}\, q^{92} + 2088302\, q^{93}\, p^{37} + 490618329\, p^{83}\, q^{87} + 426040419\, p^{84}\, q^{87} + 2\, q^{92}\, p^{18}$$
$$+ 160617471\, p^{29}\, q^{35} + 180440133\, p^{33}\, q^{31} + 638154680\, p^{88}\, q^{79} + 42896542\, p^{35}\, q^{24} + 4593296\, p^{34}\, q^{18} + 75918357\, p^{35}\, q^{26}$$
$$+ 366335402\, p^{35}\, q^{33} + 286712499\, q^{59}\, p^{28} + 2282527\, q^{58}\, p^{17} + 10911765\, q^{59}\, p^{20} + 425\, q^{90}\, p^{20} + 394176373\, q^{59}\, p^{29} + 44212385\, q^{59}\, p^{23}$$
$$+ 533311331\, q^{59}\, p^{30} + 91397187\, q^{60}\, p^{25} + 28492001\, q^{59}\, p^{22} + 17887403\, q^{59}\, p^{21} + 370751113\, q^{52}\, p^{28} + 135931427\, q^{53}\, p^{25}$$
$$+ 25142135\, p^{86}\, q^{36} + 164269723\, p^{89}\, q^{48} + 357474107\, p^{90}\, q^{56} + 28\, p^{38}\, q^{4} + 129146310\, p^{88}\, q^{45} + 1223\, p^{35}\, q^{6} + 162165\, p^{18}\, q^{17}$$
$$+ 82391\, p^{15}\, q^{18} + p^{11}\, q + 4\, p^{3}\, q^{3} + 472974658\, p^{91}\, q^{65} + 417708125\, p^{91}\, q^{62} + 19640404840\, p^{69}\, q^{63} + 19614478635\, p^{69}\, q^{61}$$
$$+ 19705810310\, p^{69}\, q^{62} + 252984948\, p^{90}\, q^{53} + 314847968\, p^{91}\, q^{58} + 368856520\, p^{91}\, q^{60} + 366135255\, p^{92}\, q^{71} + 286493718\, p^{90}\, q^{54}$$
$$+ 4288\, p^{68}\, q^{12} + 2670355874\, p^{73}\, q^{83} + 2544588261\, p^{70}\, q^{84} + 2180696769\, p^{65}\, q^{85} + 1295744672\, p^{58}\, q^{86} + 1385959829\, p^{59}\, q^{86}$$
$$+ 1714444463\, p^{64}\, q^{86} + 1209512217\, p^{61}\, q^{87} + 2147250250\, p^{64}\, q^{85} + 62989334\, p^{93}\, q^{88} + 2130\, p^{16}\, q^{8} + 24\, p^{12}\, q^{3} + 6\, p^{11}\, q^{2} + 488\, p^{15}\, q^{6}$$
$$+ 196\, p^{14}\, q^{5} + 126960185\, p^{93}\, q^{83} + 62657\, q^{97}\, p^{34} + 1242443\, q^{30}\, p^{16} + 28924\, p^{61}\, q^{12} + 2198423818\, p^{78}\, q^{47} + 741534973\, p^{77}\, q^{40}$$
$$+ 592018852\, p^{77}\, q^{39} + 46275\, p^{15}\, q^{16} + 24037\, p^{14}\, q^{15} + 83520\, q^{29}\, p^{11} + 2255001978\, p^{40}\, q^{70} + 112028219\, p^{82}\, q^{37} + 1385959829\, p^{86}\, q^{59}$$
$$+ 235611823\, p^{83}\, q^{41} + 43319026\, p^{81}\, q^{33} + 4641065\, p^{79}\, q^{26} + 1384640667\, p^{87}\, q^{69} + 45593412\, p^{82}\, q^{34} + 1357917491\, p^{87}\, q^{70} + p^{3}\, q$$
$$+ 2\, p^{2}\, q^{2} + 186277457\, p^{83}\, q^{40} + 268463\, p^{75}\, q^{19} + 145418656\, p^{83}\, q^{39} + p\, q^{2} + 1715\, p^{67}\, q^{11} + 335934041\, p^{92}\, q^{74} + 366288655\, p^{92}\, q^{67}$$
$$+ 333\, q^{34}\, p^{5} + 1223\, q^{35}\, p^{6} + 184180871\, p^{82}\, q^{92} + 372222801\, p^{69}\, q^{92} + 697858\, p^{29}\, q^{15} + 545\, q^{83}\, p^{16} + 276\, q^{82}\, p^{15} + 15584\, q^{25}\, p^{9}$$
$$+ 5\, p^{44}\, q^{4} + 502824\, p^{18}\, q^{21} + p^{2}\, q + 764641327\, p^{86}\, q^{81} + 1569\, p^{79}\, q^{15} + 13496019\, p^{100}\, q^{83} + 333889\, q^{27}\, p^{14} + 610125\, q^{28}\, p^{15}$$
$$+ 1496\, p^{91}\, q^{22} + 313274\, p^{107}\, q^{69} + 485718\, p^{106}\, q^{66} + 1639568\, p^{105}\, q^{75} + 153641\, p^{13}\, q^{25} + 120799\, p^{108}\, q^{93} + 50111\, p^{98}\, q^{35}$$
$$+ 1016920192\, q^{44}\, p^{33} + 1513542134\, q^{44}\, p^{35} + 1961896865\, q^{45}\, p^{36} + 652150722\, q^{44}\, p^{31} + 1247617416\, q^{44}\, p^{34} + 819297113\, q^{44}\, p^{32}$$
$$+ 181958\, q^{90}\, p^{28} + 51995\, q^{89}\, p^{25} + 96844\, q^{89}\, p^{26} + 2949808210\, p^{39}\, q^{44} + 2534914721\, p^{38}\, q^{44} + 340784\, p^{95}\, q^{35} + 4600026870\, p^{74}\, q^{79}$$

$$+ 8443\, p^{106} q^{108} + 17\, p^{80} q^{116} + 21\, p^{81} q^{116} + 19629484918\, p^{66} q^{68} + 1845261475\, p^{73} q^{85} + 1756332204\, p^{68} q^{86} + 13035012\, q^{80} p^{29}$$
$$+ 19380886\, q^{80} p^{30} + 2287216\, q^{78} p^{24} + 109922047\, q^{81} p^{36} + 28223698\, q^{80} p^{31} + 77984893\, q^{80} p^{34} + 40315212\, q^{80} p^{32}$$
$$+ 56550710\, q^{80} p^{33} + 105822513\, q^{80} p^{35} + 1328196\, q^{78} p^{23} + 8573924\, q^{80} p^{28} + 1692078\, q^{79} p^{24} + 4641065\, q^{79} p^{26} + 2730263\, q^{40} p^{16}$$
$$+ 891902\, q^{39} p^{14} + 189470528\, q^{73} p^{32} + 16721977\, p^{20} q^{40} + 2156748351\, p^{44} q^{37} + 157286\, p^{50} q^{12} + 74446\, p^{49} q^{11} + 3394314\, p^{54} q^{17}$$
$$+ 5086190417\, p^{60} q^{40} + 39924\, q^{46} p^{10} + 3248542\, p^{18} q^{31} + 9545037\, p^{97} q^{50} + 20330403\, p^{100} q^{74} + 17412043\, p^{100} q^{67}$$
$$+ 20391844\, p^{100} q^{73} + 4768775\, p^{101} q^{89} + 19705225\, p^{100} q^{76} + 19155887\, p^{100} q^{77} + 2452468\, p^{102} q^{91} + 10449329\, p^{101} q^{81}$$
$$+ 45751286\, p^{28} q^{29} + 18142372\, p^{23} q^{31} + 34738843\, p^{26} q^{30} + 45593412\, q^{86} p^{38} + 74626\, p^{61} q^{13} + 145416\, p^{62} q^{14} + 9960055040\, p^{58} q^{75}$$
$$+ 11727739906\, p^{59} q^{74} + 12090643629\, p^{60} q^{74} + 13140057106\, p^{59} q^{73} + 66054\, q^{72} p^{16} + 37207\, q^{71} p^{15} + 14205\, q^{71} p^{14} + 6879\, q^{70} p^{13}$$
$$+ 110748\, q^{73} p^{17} + 109922047\, q^{84} p^{39} + 141424253\, q^{84} p^{40} + 179624355\, q^{84} p^{41} + 492\, p^{69} q^{113} + 14586951\, q^{81} p^{30} + 12838\, q^{97} p^{31}$$
$$+ 13140057106\, p^{61} q^{47} + 14592229561\, p^{61} q^{48} + 157288177\, p^{74} q^{32} + 113448477\, p^{74} q^{31} + 669528468\, p^{31} q^{60} + 118491863\, p^{43} q^{25}$$
$$+ 216509169\, p^{43} q^{27} + 27560144\, p^{42} q^{21} + 85519491\, p^{43} q^{24} + 161442412\, p^{43} q^{26} + 1016920192\, p^{44} q^{33} + 512624058\, p^{44} q^{30}$$
$$+ 397696444\, p^{44} q^{29} + 819297113\, p^{44} q^{32} + 652150722\, p^{44} q^{31} + 1247617416\, p^{44} q^{34} + 1513542134\, p^{44} q^{35} + 1961896865\, p^{45} q^{36}$$
$$+ 126\, q^{101} p^{30} + 6\, q^{100} p^{26} + 967\, q^{103} p^{36} + 1758\, q^{103} p^{37} + 3030\, q^{103} p^{38} + 5051\, q^{103} p^{39} + 335934041\, p^{74} q^{92} + 4583588\, p^{57} q^{18}$$
$$+ 880268\, p^{55} q^{15} + 13435498042\, p^{55} q^{71} + 475018293\, q^{91} p^{72} + 420984115\, q^{91} p^{75} + 372539214\, q^{91} p^{77} + 266554729\, q^{92} p^{78}$$
$$+ 460063253\, q^{91} p^{73} + 397696444\, q^{91} p^{76} + 441918267\, q^{91} p^{74} + 494124707\, q^{91} p^{70} + 486460117\, q^{91} p^{71} + 928489378\, p^{63} q^{33}$$
$$+ 25853763\, p^{60} q^{22} + 1758\, p^{103} q^{37} + 425\, p^{100} q^{30} + 1278\, p^{101} q^{33} + 23235\, p^{107} q^{54} + 83449710\, p^{61} q^{25} + 38\, p^{113} q^{61} + 123\, p^{115} q^{79}$$
$$+ 139\, p^{116} q^{98} + 68\, p^{111} q^{53} + 573\, p^{114} q^{78} + 101\, p^{110} q^{50} + 365\, p^{115} q^{87} + 333\, p^{115} q^{86} + 1318372725\, q^{75} p^{41} + 662130\, p^{69} q^{18}$$
$$+ 2693785\, p^{71} q^{21} + 1071653966\, q^{75} p^{40} + 3\, p^{106} q^{35} + 76\, p^{114} q^{69} + 221\, p^{113} q^{66} + 195\, p^{112} q^{60} + 104\, p^{114} q^{70} + 382\, p^{113} q^{68}$$
$$+ 19634583711\, p^{67} q^{56} + 22037565196\, p^{67} q^{60} + 20454902495\, p^{67} q^{57} + 21269591034\, p^{67} q^{65} + 19629484918\, p^{68} q^{66}$$
$$+ 1791930983\, p^{37} q^{42} + 1880031682\, p^{38} q^{41} + 2171399720\, p^{39} q^{41} + 9950300303\, p^{57} q^{44} + 1691869973\, p^{39} q^{39} + 1925615363\, p^{40} q^{39}$$
$$+ 1265594603\, p^{58} q^{33} + 785193563\, p^{87} q^{79} + 22037565196\, p^{60} q^{53} + 2185092\, p^{52} q^{16} + 607058446\, p^{31} q^{43} + 2197289013\, p^{40} q^{40}$$
$$+ 2735373215\, p^{79} q^{50} + 1123407283\, p^{78} q^{43} + 1180336854\, p^{70} q^{37} + 6322904837\, p^{72} q^{48} + 4746867912\, p^{71} q^{45} + 111098416\, p^{68} q^{28}$$
$$+ 5374\, p^{53} q^{9} + 3577436123\, p^{44} q^{72} + 438\, q^{106} p^{41} + 1263\, q^{106} p^{43} + 3150\, q^{106} p^{45} + 1366060\, q^{57} p^{16} + 18437849207\, p^{69} q^{58}$$
$$+ 382754\, q^{56} p^{14} + 4126582\, q^{58} p^{18} + 12061552\, q^{58} p^{20} + 7177350\, q^{58} p^{19} + 66974779\, q^{59} p^{24} + 526\, p^{62} q^{9} + 5415797566\, p^{40} q^{58}$$

$$+ 707766892\, p^{87} q^{80} + 43045729\, q^{38} p^{23} + 2436126938\, p^{36} q^{59} + 846499114\, q^{54} p^{31} + 1741878600\, p^{85} q^{74} + 2195479676\, p^{85} q^{67}$$
$$+ 2020053879\, p^{85} q^{71} + 1938632182\, p^{85} q^{72} + 2176466974\, p^{85} q^{68} + 1630588821\, p^{85} q^{75} + 544373463\, p^{90} q^{75} + 35462\, p^{68} q^{14}$$
$$+ 17617\, p^{67} q^{13} + 59838531\, q^{89} p^{43} + 47192420\, q^{89} p^{42} + 74937712\, q^{89} p^{44} + 80422011\, q^{90} p^{46} + 137253123\, q^{89} p^{47} + 92736686\, q^{89} p^{45}$$
$$+ 113448477\, q^{89} p^{46} + 14952721\, p^{93} q^{95} + 11378272\, q^{79} p^{28} + 2845908\, q^{79} p^{25} + 17180343\, q^{79} p^{29} + 379472358\, q^{82} p^{42}$$
$$+ 244148820\, q^{81} p^{39} + 1838511310\, q^{81} p^{50} + 310221518\, q^{81} p^{40} + 389341682\, q^{81} p^{41} + 16721977\, p^{100} q^{80} + 7860041\, p^{100} q^{88}$$
$$+ 7360682\, q^{79} p^{27} + 22762332666\, p^{64} q^{66} + 21269591034\, p^{65} q^{67} + 395730\, p^{72} q^{107} + 4171\, q^{33} p^{7} + 133226921\, q^{94} p^{60} + 58072\, q^{35} p^{10}$$
$$+ 2226007\, q^{36} p^{16} + 3576\, p^{37} q^{7} + 45899\, p^{53} q^{11} + 382754\, p^{56} q^{14} + 200414\, p^{55} q^{13} + 19419676008\, p^{69} q^{64} + 99137\, p^{54} q^{12} + 485\, p^{43} q^{6}$$
$$+ 118950360\, p^{94} q^{81} + 13875885234\, p^{70} q^{54} + 6151745807\, p^{70} q^{46} + 13435498042\, p^{71} q^{55} + 26646440853\, p^{61} q^{61}$$
$$+ 23948426835\, p^{65} q^{59} + 532122052\, p^{89} q^{57} + 12411797\, p^{84} q^{32} + 645346221\, p^{90} q^{66} + 144235330\, p^{87} q^{44} + 45593412\, p^{86} q^{38}$$
$$+ 70\, q^{100} p^{28} + 8\, q^{99} p^{25} + 29\, q^{99} p^{26} + 181\, q^{100} p^{29} + 285661\, p^{77} q^{20} + 497846644\, p^{91} q^{69} + 494124707\, p^{91} q^{70} + 466274245\, p^{90} q^{59}$$
$$+ 2053377103\, p^{55} q^{83} + 540898\, p^{89} q^{106} + 24397115724\, p^{58} q^{64} + 53802697\, p^{37} q^{24} + 5516940\, p^{36} q^{18} + 96810336\, p^{37} q^{26}$$
$$+ 50400911\, p^{86} q^{95} + 46121704\, p^{74} q^{98} + 57603374\, p^{78} q^{97} + 4944845972\, p^{73} q^{79} + 4136983\, q^{100} p^{54} + 3456182\, q^{100} p^{53}$$
$$+ 2331905\, q^{100} p^{51} + 2855578\, q^{100} p^{52} + 2507895266\, q^{46} p^{37} + 6564006997\, p^{75} q^{52} + 5944154374\, p^{75} q^{51} + 757454471\, p^{73} q^{37}$$
$$+ 4184731006\, p^{75} q^{48} + 3162282072\, p^{74} q^{45} + 68329392\, p^{71} q^{28} + 98643843\, p^{71} q^{29} + 9950300303\, p^{76} q^{63} + 9845774618\, p^{76} q^{62}$$
$$+ 9664659481\, p^{76} q^{61} + 189470528\, p^{88} q^{47} + 76\, p^{51} q^{6} + 26195853\, p^{66} q^{99} + 92592654\, p^{87} q^{42} + 7889164\, p^{83} q^{30} + 25414270\, p^{85} q^{35}$$
$$+ 126796942\, p^{92} q^{85} + 1342605848\, p^{51} q^{83} + 4490\, p^{56} q^{109} + 414913206\, p^{45} q^{84} + 7533541729\, p^{74} q^{52} + 6837541259\, p^{74} q^{51}$$
$$+ 886755883\, p^{72} q^{37} + 4847608278\, p^{74} q^{48} + 3655064316\, p^{73} q^{45} + 81174975\, p^{70} q^{28} + 116638662\, p^{70} q^{29} + 11259494432\, p^{75} q^{63}$$
$$+ 11164358080\, p^{75} q^{62} + 10981868812\, p^{75} q^{61} + 196307\, p^{68} q^{16} + 70564907\, p^{80} q^{96} + 3880411297\, p^{76} q^{79} + 36234884\, q^{76} p^{29}$$
$$+ 52610150\, q^{76} p^{30} + 26195853\, p^{54} q^{21} + 86953732\, p^{55} q^{24} + 4646604\, q^{41} p^{17} + 7448190\, q^{41} p^{18} + 7704632\, q^{42} p^{18} + 11611541\, q^{41} p^{19}$$
$$+ 17647525\, q^{41} p^{20} + 757454471\, p^{47} q^{83} + 393994718\, q^{90} p^{57} + 351594644\, p^{88} q^{84} + 14097552559\, p^{58} q^{72} + 196307\, p^{104} q^{52}$$
$$+ 15584\, p^{95} q^{111} + 9615\, p^{102} q^{110} + 15764\, p^{102} q^{109} + 24871494687\, p^{59} q^{64} + 25236884632\, p^{61} q^{64} + 24804423962\, p^{63} q^{64}$$
$$+ 25119646339\, p^{62} q^{64} + 24298343114\, p^{64} q^{64} + 23612612510\, p^{65} q^{64} + 25153553533\, p^{60} q^{64} + 184180871\, p^{92} q^{82}$$
$$+ 26386961895\, p^{62} q^{60} + 74937712\, q^{76} p^{31} + 129146310\, q^{75} p^{32} + 176890220\, q^{75} p^{33} + 66054\, p^{72} q^{16} + 437240265\, p^{65} q^{31} + 43\, p^{36} q^{4}$$
$$+ 10776848345\, p^{68} q^{49} + 70564907\, p^{24} q^{40} + 26205483\, p^{21} q^{41} + 6581021\, q^{96} p^{46} + 5026134\, q^{95} p^{43} + 46199672\, q^{95} p^{54}$$

$$+ 6535052\, q^{95} p^{44} + 8382493\, q^{95} p^{45} + 50674176\, p^{23} q^{40} + 527869\, p^{93} q^{105} + 13519156842\, p^{47} q^{60} + 14983270737\, p^{48} q^{60} + 686\, p^{56} q^{8}$$
$$+ 606862651\, p^{80} q^{42} + 170069470\, p^{78} q^{35} + 1610593348\, p^{81} q^{49} + 3935751414\, p^{82} q^{64} + 52610150\, p^{76} q^{30} + 3111791144\, p^{81} q^{55}$$
$$+ 1268270817\, p^{80} q^{46} + 17370\, p^{106} q^{106} + 4388501540\, p^{42} q^{44} + 5462401900\, p^{44} q^{44} + 6635529743\, p^{45} q^{45} + 3399385536\, p^{40} q^{44}$$
$$+ 4918055946\, p^{43} q^{44} + 3880411297\, p^{41} q^{44} + 3089146243\, p^{40} q^{43} + 46582\, p^{44} q^{10} + 420018\, p^{47} q^{13} + 7432973\, p^{50} q^{18}$$
$$+ 12625918828\, p^{57} q^{46} + 10\, p^{31} q^{3} + 129907439\, p^{64} q^{27} + 585624578\, p^{65} q^{32} + 41478775\, p^{31} q^{26} + 18775\, p^{27} q^{9} + 75972\, p^{28} q^{11}$$
$$+ 7\, p^{57} q^{6} + 58\, p^{71} q^{10} + 38085844\, p^{22} q^{41} + 130084122\, p^{26} q^{40} + 333587886\, p^{30} q^{39} + 15261984123\, p^{61} q^{72} + 12116493663\, p^{57} q^{73}$$
$$+ 8229067820\, p^{53} q^{74} + 2705141179\, q^{54} p^{36} + 2692105296\, q^{55} p^{36} + 2196892965\, q^{54} p^{35} + 1398507758\, q^{54} p^{33} + 1763459879\, q^{54} p^{34}$$
$$+ 1095212325\, q^{54} p^{32} + 75972\, p^{109} q^{92} + 1146425532\, p^{60} q^{33} + 21138226790\, p^{62} q^{53} + 1861937\, p^{54} q^{16} + 7930\, p^{110} q^{63} + 806524\, p^{18} q^{23}$$
$$+ 21139914\, p^{32} q^{23} + 88622442\, p^{67} q^{27} + 412037662\, p^{68} q^{32} + 1610593348\, p^{71} q^{39} + 5562205308\, p^{72} q^{47} + 1980920876\, p^{71} q^{40}$$
$$+ 7950904868\, p^{72} q^{50} + 3451610565\, p^{71} q^{43} + 2898943006\, p^{71} q^{42} + 1663210\, p^{105} q^{78} + 925280887\, p^{78} q^{42} + 260428360\, p^{76} q^{35}$$
$$+ 2409361555\, p^{79} q^{49} + 5584062988\, p^{80} q^{64} + 80422011\, p^{74} q^{30} + 4512327723\, p^{79} q^{55} + 1887087930\, p^{78} q^{46} + 855\, q^{65} p^{10} + 252\, q^{64} p^{9}$$
$$+ 8052\, q^{66} p^{12} + 10544\, p^{98} q^{32} + 2064\, p^{94} q^{25} + 433256\, p^{106} q^{65} + 289591\, p^{106} q^{62} + 252381\, p^{108} q^{82} + 240397\, p^{108} q^{84} + 267284\, p^{105} q^{57}$$
$$+ 247391\, p^{108} q^{83} + 19569\, p^{109} q^{101} + 1603478\, q^{105} p^{74} + 1344177\, q^{105} p^{70} + 286033496\, p^{77} q^{92} + 318589469\, p^{29} q^{41}$$
$$+ 707766892\, p^{33} q^{40} + 1269115075\, p^{37} q^{39} + 1479\, p^{27} q^{6} + 486\, p^{26} q^{5} + 19705810310\, p^{62} q^{69} + 14779928457\, p^{55} q^{70} + 232176\, p^{107} q^{92}$$
$$+ 880268\, q^{55} p^{15} + 45899\, q^{53} p^{11} + 227425\, q^{54} p^{13} + 16780\, p^{53} q^{10} + 722043193\, p^{68} q^{34} + 3077257882\, p^{69} q^{41} + 16430977370\, p^{68} q^{54}$$
$$+ 7533541729\, p^{68} q^{46} + 16119736721\, p^{69} q^{55} + 1201227982\, q^{63} p^{34} + 928489378\, q^{63} p^{33} + 1533927608\, q^{63} p^{35} + 2234107568\, q^{64} p^{37}$$
$$+ 2968311603\, q^{63} p^{38} + 1934380158\, q^{63} p^{36} + 2410173087\, q^{63} p^{37} + 248461\, p^{67} q^{16} + 5562205308\, p^{48} q^{73} + 12841933767\, p^{56} q^{72}$$
$$+ 13509949094\, p^{57} q^{72} + 6867570\, p^{101} q^{86} + 16063912216\, p^{59} q^{71} + 3037\, p^{90} q^{22} + 645568\, p^{106} q^{69} + 975971\, p^{105} q^{66}$$
$$+ 4583488857\, p^{44} q^{70} + 19520\, p^{12} q^{17} + 4727212247\, q^{54} p^{39} + 25119646339\, p^{64} q^{62} + 25904498896\, p^{61} q^{63} + 25737014566\, p^{63} q^{62}$$
$$+ 24389793596\, p^{65} q^{61} + 24804423962\, p^{64} q^{63} + 25367580242\, p^{63} q^{63} + 24060094548\, p^{65} q^{63} + 24321092312\, p^{65} q^{62}$$
$$+ 25737014566\, p^{62} q^{63} + 24397115724\, p^{64} q^{58} + 25623073548\, p^{63} q^{59} + 11546103\, p^{97} q^{51} + 6581021\, p^{96} q^{46} + 36163157\, p^{98} q^{64}$$
$$+ 22210329\, p^{97} q^{55} + 38269\, p^{87} q^{23} + 494603\, p^{91} q^{31} + 3030\, p^{82} q^{17} + 181958\, p^{90} q^{28} + 15460122633\, p^{63} q^{72} + 178659841\, p^{94} q^{75}$$
$$+ 45373\, p^{78} q^{18} + 199736\, p^{80} q^{21} + 266456\, p^{81} q^{22} + 594\, p^{66} q^{10} + 80672597\, p^{95} q^{82} + 1327\, p^{96} q^{114} + 1867\, p^{101} q^{113}$$
$$+ 164171667\, p^{83} q^{92} + 14423480\, p^{59} q^{99} + 4897982\, p^{55} q^{100} + 11201398\, p^{57} q^{99} + 12771434\, p^{58} q^{99} + 4\, q^{101} p^{27} + 2607101\, p^{96} q^{99}$$

$$+ 316\, p^{111}\, q^{112} + 4020423\, p^{94}\, q^{99} + 5911972\, p^{90}\, q^{100} + 4900582\, p^{93}\, q^{99} + 5516940\, p^{84}\, q^{102} + 3554972\, p^{91}\, q^{101} + 3020448\, p^{92}\, q^{101}$$
$$+ 3465791\, p^{96}\, q^{98} + 4357669\, p^{95}\, q^{98} + p^{39}\, q^{3} + 2938109\, p^{94}\, q^{100} + 2395791\, p^{95}\, q^{100} + 44283402\, p^{27}\, q^{30} + 4243121539\, p^{75}\, q^{79}$$
$$+ 19648827\, p^{58}\, q^{21} + 66974779\, p^{59}\, q^{24} + 826773004\, p^{61}\, q^{32} + 190448943\, p^{60}\, q^{27} + 625476399\, p^{61}\, q^{31} + 5499026477\, p^{62}\, q^{41}$$
$$+ 1385959829\, p^{61}\, q^{34} + 1759772838\, p^{61}\, q^{35} + 3969250746\, p^{43}\, q^{42} + 3399385536\, p^{44}\, q^{40} + 1470145145\, p^{60}\, q^{86} + 2782561639\, p^{40}\, q^{42}$$
$$+ 2815094704\, p^{41}\, q^{41} + 3161151847\, p^{42}\, q^{41} + 3089146243\, p^{43}\, q^{40} + 99\, q^{42}\, p^{5} + 527813\, p^{75}\, q^{20} + 936040226\, p^{85}\, q^{52} + 252262\, q^{21}\, p^{16}$$
$$+ 22762332666\, p^{54}\, q^{56} + 21269591034\, p^{53}\, q^{55} + 96586752\, p^{25}\, q^{40} + 101625479\, p^{66}\, q^{27} + 467521531\, p^{67}\, q^{32} + 3665\, p^{14}\, q^{10}$$
$$+ 3006\, p^{12}\, q^{11} + 2021\, p^{10}\, q^{12} + 1063\, p^{8}\, q^{13} + 26704151962\, p^{59}\, q^{60} + 2196892965\, p^{66}\, q^{85} + 2195479676\, p^{67}\, q^{85} + 2615283652\, p^{69}\, q^{84}$$
$$+ 2097331419\, p^{63}\, q^{85} + 26810701814\, p^{60}\, q^{60} + 25623073548\, p^{57}\, q^{61} + 12841933767\, p^{48}\, q^{64} + 15613831918\, p^{50}\, q^{64}$$
$$+ 18344081157\, p^{52}\, q^{64} + 16995703372\, p^{51}\, q^{64} + 19634583711\, p^{53}\, q^{64} + 21944586661\, p^{55}\, q^{64} + 20842748142\, p^{54}\, q^{64}$$
$$+ 20973631646\, p^{55}\, q^{65} + 14221898696\, p^{49}\, q^{64} + 25781491606\, p^{62}\, q^{58} + 26377857450\, p^{58}\, q^{59} + 26646440853\, p^{59}\, q^{59} + 4138808\, p^{19}\, q^{30}$$
$$+ 332\, p^{13}\, q^{6} + 63\, p^{12}\, q^{4} + 136\, p^{12}\, q^{5} + 617\, p^{13}\, q^{7} + 1750\, p^{13}\, q^{9} + 122177301\, q^{94}\, p^{59} + 55252807\, p^{56}\, q^{23} + 3966775051\, q^{54}\, p^{38}$$
$$+ 3285986160\, q^{55}\, p^{37} + 100063941\, p^{63}\, q^{26} + 32671892\, p^{62}\, q^{23} + 259561171\, p^{64}\, q^{29} + 176\, p^{39}\, q^{5} + 357474107\, p^{64}\, q^{30} + 9781582\, p^{60}\, q^{20}$$
$$+ 3160631419\, p^{69}\, q^{83} + 3\, q^{83}\, p^{13} + 998\, p^{60}\, q^{9} + 2696469103\, q^{53}\, p^{36} + 2095466174\, p^{42}\, q^{38} + 1670082270\, p^{63}\, q^{86} + 1613723721\, p^{62}\, q^{86}$$
$$+ 2666296609\, p^{68}\, q^{84} + 1546593297\, p^{61}\, q^{86} + 64978565\, p^{36}\, q^{25} + 17525\, q^{100}\, p^{36} + 4309\, q^{101}\, p^{35} + 464829623\, p^{89}\, q^{80} + 22922\, p^{30}\, q^{9}$$
$$+ 97858\, p^{31}\, q^{11} + 57\, q^{63}\, p^{8} + 3328\, q^{65}\, p^{11} + 1210\, q^{64}\, p^{10} + 90\, q^{62}\, p^{8} + 17829402\, q^{84}\, p^{33} + 25142135\, q^{84}\, p^{34} + 34840343\, q^{84}\, p^{35}$$
$$+ p^{115}\, q^{66} + p^{114}\, q^{60} + 3\, p^{115}\, q^{68} + 25866210108\, p^{57}\, q^{60} + 26386961895\, p^{58}\, q^{60} + 2\, p^{83}\, q^{117} + 22917526879\, p^{64}\, q^{56}$$
$$+ 3293664898\, q^{54}\, p^{37} + 2195479676\, q^{53}\, p^{35} + 701561604\, p^{85}\, q^{83} + 950257842\, p^{82}\, q^{84} + 1392920982\, p^{77}\, q^{85} + 1247617416\, p^{76}\, q^{86}$$
$$+ 1219707863\, p^{73}\, q^{87} + 13798075295\, p^{47}\, q^{59} + 9090562799\, p^{61}\, q^{44} + 8648011\, p^{56}\, q^{19} + 33693336\, p^{57}\, q^{22} + 1063\, p^{13}\, q^{8}$$
$$+ 189470528\, p^{73}\, q^{32} + 137253123\, p^{73}\, q^{31} + 7160952\, p^{23}\, q^{26} + 84\, p^{14}\, q^{4} + 16461918816\, p^{49}\, q^{60} + 1077648146\, p^{61}\, q^{33}$$
$$+ 20454902495\, p^{63}\, q^{53} + 1695131\, p^{55}\, q^{16} + 858511302\, p^{80}\, q^{86} + 8710176822\, p^{62}\, q^{44} + 7914562\, p^{57}\, q^{19} + 31121099\, p^{58}\, q^{22}$$
$$+ 38818\, p^{108}\, q^{100} + 13248699\, q^{94}\, p^{45} + 10911765\, p^{100}\, q^{61} + 13211413\, p^{100}\, q^{63} + 204735934\, p^{92}\, q^{81} + 94162196\, p^{92}\, q^{87}$$
$$+ 246265969\, p^{92}\, q^{79} + 109819534\, p^{92}\, q^{86} + 4563\, q^{99}\, p^{32} + 47012000\, q^{85}\, p^{37} + 194\, q^{88}\, p^{18} + 33761\, q^{92}\, p^{27} + 8769\, q^{92}\, p^{25}$$
$$+ 263711\, p^{97}\, q^{105} + 3\, p^{117}\, q^{84} + 2\, p^{117}\, q^{83} + 5\, p^{118}\, q^{101} + p^{117}\, q^{82} + 11062823\, q^{40}\, p^{19} + 2810478\, q^{41}\, p^{16} + 263054086\, p^{29}\, q^{39}$$
$$+ 204735934\, p^{28}\, q^{39} + 14259\, p^{86}\, q^{21} + 1500\, p^{90}\, q^{114} + 2949808210\, p^{76}\, q^{81} + 50254195\, p^{62}\, q^{24} + 5740819\, p^{60}\, q^{19} + 1208802\, p^{58}\, q^{16}$$

$$+ q^{14} p + 1446 p^{94} q^{114} + 441 p^{90} q^{115} + 15460122633 p^{72} q^{63} + 15422158479 p^{72} q^{62} + 15261984123 p^{72} q^{61} + 181 q^{91} p^{20} + 49 q^{91} p^{19}$$
$$+ 70 q^{92} p^{20} + 384082 q^{105} p^{59} + 527831 q^{105} p^{61} + 695455 q^{105} p^{63} + 608906 q^{105} p^{62} + 786178 q^{105} p^{64} + 880268 q^{105} p^{65} + 1958 q^{96} p^{27}$$
$$+ 7445513390 p^{42} q^{58} + 80672597 p^{25} q^{38} + 53802697 p^{24} q^{37} + 559567715 p^{38} q^{33} + 2068057 p^{35} q^{16} + 313274 p^{51} q^{13}$$
$$+ 5946462 p^{54} q^{18} + 96844 p^{94} q^{31} + 33761 p^{93} q^{28} + 1166589 p^{52} q^{15} + 2436126938 p^{59} q^{36} + 592798 p^{52} q^{14} + 5499026477 p^{58} q^{79}$$
$$+ 32873 p^{48} q^{10} + 218884720 p^{27} q^{58} + 304917866 p^{28} q^{58} + 710704062 p^{31} q^{59} + 417708125 p^{29} q^{58} + 563241393 p^{30} q^{58}$$
$$+ 10919549374 p^{70} q^{51} + 1197646939 p^{68} q^{36} + 11928039061 p^{70} q^{52} + 23507 p^{40} q^{9} + 9334 p^{39} q^{8} + q^{15} p + 14423480 p^{61} q^{21}$$
$$+ 25236884632 p^{59} q^{56} + 126470457 p^{78} q^{34} + 611889892 p^{79} q^{41} + 13248699 p^{75} q^{26} + 116259553 p^{77} q^{33} + 6223676237 p^{61} q^{79}$$
$$+ 6369 p^{58} q^{10} + 16119736721 p^{55} q^{69} + 464332 q^{37} p^{13} + 1430496 q^{37} p^{15} + 2509513 q^{38} p^{16} + 4071 q^{34} p^{7} + 1369 q^{33} p^{6} + 10328 p^{49} q^{9}$$
$$+ 3669 p^{48} q^{8} + 7121461 q^{51} p^{18} + 2322755339 p^{66} q^{38} + 2018731 p^{59} q^{17} + 1871074379 p^{66} q^{37} + 9651248318 p^{68} q^{48}$$
$$+ 7185993643 p^{67} q^{45} + 185293886 p^{64} q^{28} + 485 q^{43} p^{6} + 123 q^{41} p^{5} + 31 q^{22} p^{3} + 30 q^{23} p^{3} + 19146985669 p^{57} q^{68}$$
$$+ 8798036534 p^{48} q^{69} + 2735373215 p^{41} q^{70} + 12486953603 p^{55} q^{46} + 20007420 p^{71} q^{100} + 304391582 p^{89} q^{52} + 165 p^{55} q^{7}$$
$$+ 1516930008 p^{78} q^{84} + 549377753 p^{87} q^{52} + 4067914794 p^{44} q^{71} + 52278 p^{42} q^{10} + 2588780947 p^{67} q^{39} + 8565969801 p^{68} q^{47}$$
$$+ 3150025191 p^{67} q^{40} + 11928039061 p^{68} q^{50} + 5324819722 p^{67} q^{43} + 4516330420 p^{67} q^{42} + 13088011011 p^{68} q^{51} + 1489407835 p^{66} q^{36}$$
$$+ 14238374302 p^{68} q^{52} + 3969250746 p^{77} q^{78} + 1179699 p^{72} q^{20} + 1888883296 p^{82} q^{52} + 1680709369 p^{82} q^{51} + 5974 p^{63} q^{11}$$
$$+ 57104 p^{98} q^{108} + 7440582 p^{24} q^{25} + 9175 p^{94} q^{27} + 176442 p^{102} q^{46} + 6 p^{108} q^{40} + 2 p^{108} q^{39} + p^{106} q^{34} + 139 p^{116} q^{96} + 327825 p^{103} q^{51}$$
$$+ 8281241 p^{21} q^{30} + 279348284 p^{77} q^{36} + 13970533386 p^{47} q^{58} + 358712706 p^{92} q^{72} + 370751113 p^{92} q^{68} + 4661490 p^{71} q^{22}$$
$$+ 16389802 p^{72} q^{25} + 28461 p^{56} q^{11} + 247867 p^{59} q^{14} + 128619 p^{58} q^{13} + 332 q^{13} p^{6} + 3328 p^{65} q^{11} + 9 p^{42} q^{4} + 1171025569 p^{66} q^{35}$$
$$+ 6215884068 p^{67} q^{44} + 15359455907 p^{68} q^{53} + 885845 p^{19} q^{22} + 172925 p^{14} q^{23} + 3347103646 p^{72} q^{82} + 1466 p^{31} q^{6}$$
$$+ 2335615389 q^{45} p^{37} + 124696222 p^{44} q^{25} + 229556713 p^{44} q^{27} + 28739371 p^{43} q^{21} + 89636659 p^{44} q^{24} + 170550149 p^{44} q^{26}$$
$$+ 1089575568 p^{45} q^{33} + 544373463 p^{45} q^{30} + 420984115 p^{45} q^{29} + 875313378 p^{45} q^{32} + 694679299 p^{45} q^{31} + 1340470037 p^{45} q^{34}$$
$$+ 1630588821 p^{45} q^{35} + 2101276458 p^{46} q^{36} + 22693 p^{51} q^{10} + 908931391 p^{66} q^{34} + 3791681309 p^{67} q^{41} + 6491480159 p^{41} q^{57}$$
$$+ 5584062988 p^{40} q^{56} + 2962336222 q^{46} p^{38} + 124884 p^{37} q^{11} + 252381 p^{38} q^{12} + 59060 p^{37} q^{10} + 21030 p^{42} q^{9} + 8174 p^{41} q^{8}$$
$$+ 488811 p^{39} q^{13} + 4731 q^{79} p^{16} + 20245 q^{80} p^{18} + 2588780947 q^{67} p^{39} + 1838511310 p^{81} q^{50} + 741534973 p^{80} q^{43}$$
$$+ 10090321779 p^{54} q^{73} + 6837541259 p^{51} q^{74} + 9336477022 p^{53} q^{73} + 8565969801 p^{52} q^{73} + 7791807386 p^{51} q^{73} + 7185993643 q^{67} p^{45}$$

$$+ 372539214\, p^{91} q^{77} + 266554729\, p^{92} q^{78} + 16\, p^{111} q^{117} + 274024585\, p^{69} q^{93} + 366288655\, p^{67} q^{92} + 804938764\, p^{35} q^{38}$$
$$+ 18314128873\, p^{62} q^{70} + 736\, q^{61} p^{9} + 2260\, q^{62} p^{10} + 998\, q^{60} p^{9} + 6\, q^{51} p^{5} + 54568\, p^{79} q^{110} + 877160\, q^{94} p^{36} + 158938\, q^{88} p^{26}$$
$$+ 4712424341\, p^{64} q^{81} + 3278994\, p^{103} q^{85} + 3328\, p^{55} q^{109} + 319203\, p^{89} q^{107} + 3851\, p^{27} q^{7} + 9445\, p^{28} q^{8} + 166056\, p^{30} q^{12}$$
$$+ 43870\, p^{29} q^{10} + 2434400\, p^{32} q^{17} + 12712678\, p^{33} q^{21} + 7860041\, p^{32} q^{20} + 5438467\, p^{32} q^{19} + 17762757\, p^{33} q^{22} + 540898\, p^{31} q^{14}$$
$$+ 482861598\, p^{81} q^{42} + 134998956\, p^{79} q^{35} + 1294454941\, p^{82} q^{49} + 3252091057\, p^{83} q^{64} + 41792746\, p^{77} q^{30} + 2542212562\, p^{82} q^{55}$$
$$+ 1022209981\, p^{81} q^{46} + 60951\, p^{94} q^{109} + 55389414\, p^{70} q^{27} + 266386906\, p^{71} q^{32} + 37761174\, p^{86} q^{96} + 46912513\, p^{81} q^{97}$$
$$+ 50674176\, p^{80} q^{97} + 1073581\, q^{95} p^{38} + 34105112\, q^{95} p^{52} + 4309\, p^{85} q^{19} + 111643372\, p^{25} q^{42} + 464829623\, p^{31} q^{40} + 246265969\, p^{28} q^{41}$$
$$+ 16461918816\, p^{60} q^{49} + 1436857624\, p^{40} q^{37} + 764641327\, p^{34} q^{39} + 104294724\, p^{41} q^{25} + 122721\, p^{36} q^{11} + 247391\, p^{37} q^{12}$$
$$+ 58866\, p^{36} q^{10} + 4286130\, p^{39} q^{17} + 24702740\, p^{40} q^{21} + 865173\, p^{38} q^{14} + 16721977\, p^{40} q^{20} + 11062823\, p^{40} q^{19} + 38085844\, p^{41} q^{22}$$
$$+ 54262314\, p^{41} q^{23} + 187722365\, p^{41} q^{27} + 266554729\, p^{42} q^{28} + 478497\, p^{38} q^{13} + 1500483\, p^{38} q^{15} + 45514\, q^{88} p^{24} + 27548834\, p^{53} q^{21}$$
$$+ 90876173\, p^{54} q^{24} + 4113073\, p^{69} q^{21} + 1110464901\, p^{37} q^{38} + 235819151\, p^{91} q^{82} + 1089064\, p^{16} q^{29} + 545\, p^{83} q^{16} + 1466\, q^{31} p^{6}$$
$$+ 41478775\, p^{26} q^{31} + 955178672\, p^{86} q^{79} + 3443\, q^{25} p^{7} + 6\, q^{18} p^{2} + 461\, q^{23} p^{5} + 1327\, q^{24} p^{6} + 27843517\, p^{23} q^{34} + 6975\, p^{90} q^{23}$$
$$+ 19632\, p^{70} q^{14} + 9601\, p^{69} q^{13} + 2483996882\, p^{80} q^{79} + 1180336854\, p^{83} q^{50} + 466894090\, p^{82} q^{43} + 180867\, p^{31} q^{12} + 47135\, p^{30} q^{10}$$
$$+ 2714373\, p^{33} q^{17} + 14374144\, p^{34} q^{21} + 8926524\, p^{33} q^{20} + 6141358\, p^{33} q^{19} + 20187189\, p^{34} q^{22} + 595084\, p^{32} q^{14} + 34675\, p^{74} q^{16}$$
$$+ 43742870\, p^{25} q^{33} + 62989334\, p^{27} q^{32} + 103177757\, p^{31} q^{30} + 83708692\, p^{29} q^{31} + 118393620\, p^{33} q^{29} + 79079\, p^{98} q^{36} + 382687\, p^{106} q^{92}$$
$$+ 24942\, p^{108} q^{102} + 24342195\, q^{83} p^{33} + 47494113\, q^{84} p^{36} + 17054875\, q^{83} p^{32} + 194559853\, p^{71} q^{31} + 5485674691\, p^{74} q^{49}$$
$$+ 11265074871\, p^{75} q^{64} + 25180522520\, p^{62} q^{57} + 2898943006\, p^{42} q^{71} + 5602364623\, p^{80} q^{65} + 26186648238\, p^{58} q^{61}$$
$$+ 3898628767\, p^{43} q^{70} + 24548511403\, p^{63} q^{57} + 8926524\, p^{20} q^{33} + 28406383\, p^{24} q^{32} + 32915773\, p^{24} q^{33} + 37581507\, p^{25} q^{32}$$
$$+ 48996006\, p^{26} q^{32} + 85012594\, p^{30} q^{30} + 27843517\, p^{34} q^{23} + 437692432\, p^{86} q^{85} + 1880031682\, p^{41} q^{38} + 4299705\, p^{87} q^{32}$$
$$+ 205774881\, p^{92} q^{57} + 52610150\, p^{90} q^{44} + 198454505\, p^{94} q^{69} + 99188\, p^{80} q^{20} + 15952462\, p^{89} q^{38} + 261460203\, p^{93} q^{66}$$
$$+ 1671522745\, p^{38} q^{40} + 1149259152\, p^{35} q^{41} + 1436857624\, p^{37} q^{40} + 941060863\, p^{33} q^{43} + 760369158\, p^{32} q^{43} + 1151313053\, p^{34} q^{43}$$
$$+ 1667120524\, p^{36} q^{43} + 1392920982\, p^{35} q^{43} + 1816299534\, p^{36} q^{44} + 2171399720\, p^{41} q^{39} + 4155316\, p^{51} q^{17} + 18258186\, p^{52} q^{20}$$
$$+ 1270824081\, p^{35} q^{42} + 1974506730\, p^{37} q^{43} + 2095466174\, p^{38} q^{42} + 1516930008\, p^{36} q^{42} + 9728085\, p^{99} q^{56} + 7640227\, p^{100} q^{58}$$
$$+ 19368446872\, p^{51} q^{60} + 17931936243\, p^{50} q^{60} + 13140057106\, p^{47} q^{61} + 216509169\, p^{77} q^{93} + 24397115724\, p^{62} q^{56}$$

$$+ 13186840191\, p^{73} q^{67} + 594\, q^{66} p^{10} + 8470250\, q^{84} p^{31} + 84125294\, q^{88} p^{43} + 26593\, q^{69} p^{14} + 4288\, q^{68} p^{12} + 21139914\, p^{23} q^{32}$$
$$+ 20099219\, p^{100} q^{75} + 67093939\, p^{28} q^{31} + 100086189\, p^{32} q^{29} + 2130\, p^{104} q^{112} + 55720348\, p^{92} q^{90} + 36516065\, p^{93} q^{91}$$
$$+ 14166999\, p^{92} q^{96} + 26386961895\, p^{60} q^{58} + 757454471\, q^{73} p^{37} + 288096963\, q^{74} p^{34} + 590278538\, q^{73} p^{36} + 344300380\, q^{73} p^{34}$$
$$+ 453949500\, q^{73} p^{35} + 26186648238\, p^{61} q^{58} + 164269723\, q^{89} p^{48} + 12844669\, q^{85} p^{33} + 18229002\, q^{85} p^{34} + 534994966\, p^{72} q^{35}$$
$$+ 8229067820\, p^{74} q^{53} + 3116830865\, p^{73} q^{44} + 814169952\, p^{46} q^{82} + 592018852\, p^{43} q^{81} + 2850557053\, p^{54} q^{81} + 717838643\, p^{44} q^{81}$$
$$+ 861096274\, p^{45} q^{81} + 17891537294\, p^{67} q^{69} + 16735310855\, p^{61} q^{71} + 126796942\, p^{85} q^{92} + 28739371\, p^{77} q^{99} + 166056\, p^{90} q^{108}$$
$$+ 39924\, p^{74} q^{110} + 124884\, p^{83} q^{109} + 8\, p^{117} q^{88} + 6\, p^{118} q^{103} + p^{118} q^{92} + p^{115} q^{65} + p^{116} q^{72} + 4575121941\, p^{72} q^{80} + 57504240\, p^{95} q^{85}$$
$$+ 8879765\, p^{88} q^{35} + 187252036\, p^{66} q^{94} + 3443\, p^{25} q^{7} + 75918357\, q^{35} p^{26} + 42896542\, q^{35} p^{24} + 164269723\, q^{72} p^{31} + 28441\, p^{77} q^{17}$$
$$+ 1627364\, p^{85} q^{28} + 342548\, p^{82} q^{23} + 4192797\, p^{86} q^{31} + 2483996882\, p^{40} q^{41} + 2483996882\, p^{41} q^{40} + 4124\, p^{91} q^{113} + 238\, p^{83} q^{115}$$
$$+ 147\, p^{80} q^{115} + 123\, p^{79} q^{115} + 2314860804\, p^{43} q^{38} + 527813\, p^{100} q^{45} + 285223\, p^{99} q^{41} + 62657\, p^{97} q^{34} + 2156748351\, p^{37} q^{44}$$
$$+ 2426349160\, p^{42} q^{39} + 2314860804\, p^{38} q^{43} + 2426349160\, p^{39} q^{42} + 3161151847\, p^{41} q^{42} + 3517915006\, p^{43} q^{41} + 2687102466\, p^{39} q^{43}$$
$$+ 1344177\, p^{50} q^{15} + 2602644247\, p^{57} q^{36} + 696722\, p^{50} q^{14} + 2949808210\, p^{44} q^{39} + 3558295411\, p^{42} q^{42} + 549526\, p^{99} q^{43}$$
$$+ 24871494687\, p^{56} q^{61} + 21138226790\, p^{53} q^{62} + 16360649964\, p^{50} q^{63} + 1369\, p^{87} q^{114} + 1306\, p^{86} q^{114} + 1223\, p^{85} q^{114} + 1429\, p^{88} q^{114}$$
$$+ 4234\, p^{89} q^{113} + 7629\, p^{95} q^{112} + 8288\, p^{94} q^{112} + 9375\, p^{99} q^{111} + 1466\, p^{89} q^{114} + 176\, p^{81} q^{115} + 205\, p^{82} q^{115} + 365\, p^{87} q^{115} + 43\, p^{84} q^{116}$$
$$+ 333\, p^{86} q^{115} + 268\, p^{84} q^{115} + 303\, p^{85} q^{115} + 26704151962\, p^{60} q^{59} + 4727212247\, p^{81} q^{66} + 1349348044\, p^{78} q^{44} + 7801998\, p^{71} q^{23}$$
$$+ 4067438009\, p^{80} q^{56} + 4154091833\, p^{79} q^{54} + 5086190417\, p^{80} q^{60} + 4354825460\, p^{80} q^{57} + 466894090\, p^{77} q^{38} + 3791681309\, p^{79} q^{53}$$
$$+ 65592\, q^{77} p^{18} + 23448314146\, p^{55} q^{62} + 24397115724\, p^{56} q^{62} + 25180522520\, p^{57} q^{62} + 25781491606\, p^{58} q^{62} + 26549742900\, p^{59} q^{61}$$
$$+ 23948426835\, p^{55} q^{61} + 19824221385\, p^{52} q^{62} + 22873646715\, p^{54} q^{61} + 478653708\, p^{90} q^{77} + 346001637\, p^{91} q^{78} + 243228433\, p^{93} q^{64}$$
$$+ 165347427\, p^{92} q^{55} + 95443015\, p^{92} q^{51} + 55966314\, p^{91} q^{46} + 22326249\, p^{78} q^{29} + 14884175\, p^{78} q^{28} + 66532\, p^{69} q^{15} + 4\, p^{35} q^{3}$$
$$+ 28\, p^{47} q^{5} + 144972783\, p^{92} q^{84} + 313053\, p^{72} q^{18} + 1297771\, p^{74} q^{21} + 3990650\, p^{76} q^{24} + 1778841\, p^{75} q^{22} + 6535052\, p^{76} q^{25}$$
$$+ 1871074379\, p^{83} q^{54} + 1934380158\, p^{84} q^{57} + 189691801\, p^{81} q^{38} + 1690132422\, p^{83} q^{53} + 2328304248\, p^{84} q^{60} + 2196892965\, p^{85} q^{66}$$
$$+ 568053353\, p^{82} q^{44} + 3080713\, p^{75} q^{23} + 1788244704\, p^{84} q^{56} + 196400\, p^{71} q^{17} + 886755883\, p^{83} q^{48} + 683658747\, p^{82} q^{45} + 3\, q^{36} p^{3}$$
$$+ 426040419\, p^{36} q^{33} + 858511302\, p^{86} q^{80} + 22201975758\, p^{65} q^{66} + 20618536924\, p^{66} q^{67} + 2032046921\, p^{62} q^{85} + 2696469103\, p^{67} q^{84}$$
$$+ 1201227982\, p^{57} q^{86} + 3161991501\, p^{73} q^{82} + 2819777599\, p^{72} q^{83} + 10235\, q^{37} p^{8} + 1789749\, p^{64} q^{18} + 322191\, p^{62} q^{15}$$

$$+ 4860151524\, p^{64}\, q^{41} + 11180989510\, p^{75}\, q^{65} + 9789622921\, p^{76}\, q^{66} + 10716104494\, p^{75}\, q^{60} + 9486104101\, p^{75}\, q^{57} + 8912637392\, p^{74}\, q^{54}$$
$$+ 3681303128\, p^{74}\, q^{46} + 8395312287\, p^{75}\, q^{55} + 17358438012\, p^{66}\, q^{70} + 17130724910\, p^{68}\, q^{69} + 16121026462\, p^{66}\, q^{71}$$
$$+ 1201227982\, p^{63}\, q^{34} + 1533927608\, p^{63}\, q^{35} + 18694796242\, p^{65}\, q^{53} + 7802861180\, p^{64}\, q^{44} + 6369\, p^{110}\, q^{62} + 10568\, p^{112}\, q^{84}$$
$$+ 5974\, p^{109}\, q^{57} + 10235\, p^{112}\, q^{83} + 1867\, p^{113}\, q^{101} + 9836\, p^{112}\, q^{82} + 1357917491\, p^{70}\, q^{87} + 1320946525\, p^{71}\, q^{87} + 266456\, q^{81}\, p^{22}$$
$$+ 14929\, p^{96}\, q^{30} + 38269\, p^{97}\, q^{33} + 12411797\, q^{84}\, p^{32} + 235611823\, q^{83}\, p^{41} + 204572\, p^{107}\, q^{93} + 99629\, p^{97}\, q^{35} + 30658\, q^{79}\, p^{18}$$
$$+ 6239292\, q^{86}\, p^{32} + 2864977\, q^{87}\, p^{31} + 9091444\, q^{86}\, p^{33} + 29\, p^{117}\, q^{106} + 121385\, q^{83}\, p^{22} + 232397\, q^{83}\, p^{23} + 28627027\, p^{77}\, q^{29}$$
$$+ 19202963\, p^{77}\, q^{28} + 86824\, p^{68}\, q^{15} + 8\, p^{113}\, q^{58} + 98\, p^{116}\, q^{90} + 20454902495\, p^{53}\, q^{63} + 19146985669\, p^{52}\, q^{63} + 21672490857\, p^{54}\, q^{63}$$
$$+ 22917526879\, p^{56}\, q^{64} + 24548511403\, p^{57}\, q^{63} + 22775460223\, p^{55}\, q^{63} + 23740957783\, p^{56}\, q^{63} + 888\, p^{55}\, q^{8} + 135\, p^{49}\, q^{6}$$
$$+ 25153553533\, p^{56}\, q^{60} + 26549742900\, p^{61}\, q^{59} + 22354444326\, p^{54}\, q^{62} + 17773884777\, p^{51}\, q^{63} + 5789\, q^{98}\, p^{31} + 753664409\, p^{79}\, q^{42}$$
$$+ 211683434\, p^{77}\, q^{35} + 1980920876\, p^{80}\, q^{49} + 4712424341\, p^{81}\, q^{64} + 65426982\, p^{75}\, q^{30} + 3767241930\, p^{80}\, q^{55} + 1555631474\, p^{79}\, q^{46}$$
$$+ 1930168387\, q^{75}\, p^{43} + 1603859066\, q^{75}\, p^{42} + 2298584321\, q^{75}\, p^{44} + 2689735525\, q^{76}\, p^{46} + 3655064316\, q^{75}\, p^{47} + 2709515114\, q^{75}\, p^{45}$$
$$+ 3162282072\, q^{75}\, p^{46} + 99137\, p^{66}\, q^{108} + 2121\, p^{109}\, q^{109} + 52597\, p^{68}\, q^{109} + 2758668245\, q^{64}\, p^{38} + 57136\, p^{90}\, q^{26} + 4067438009\, q^{64}\, p^{40}$$
$$+ 5747838569\, q^{64}\, p^{42} + 4860151524\, q^{64}\, p^{41} + 6729804428\, q^{64}\, p^{43} + 8960989131\, q^{64}\, p^{45} + 7802861180\, q^{64}\, p^{44} + 8395312287\, q^{65}\, p^{45}$$
$$+ 3368097809\, q^{64}\, p^{39} + 9651780\, p^{21}\, q^{31} + 3067556946\, p^{70}\, q^{83} + 23\, p^{60}\, q^{7} + 789770\, p^{30}\, q^{15} + 56619142\, p^{29}\, q^{29} + 48996006\, p^{32}\, q^{26}$$
$$+ 20265\, p^{28}\, q^{9} + 83520\, p^{29}\, q^{11} + 30\, p^{23}\, q^{3} + 7704632\, p^{42}\, q^{18} + 2810478\, p^{41}\, q^{16} + 23908\, p^{109}\, q^{100} + 214942\, p^{98}\, q^{105}$$
$$+ 2962336222\, p^{46}\, q^{38} + 4600026870\, p^{46}\, q^{41} + 5883429822\, p^{46}\, q^{43} + 5226275599\, p^{46}\, q^{42} + 573269356\, p^{90}\, q^{74} + 654207885\, p^{90}\, q^{67}$$
$$+ 637079486\, p^{90}\, q^{71} + 13822714369\, p^{73}\, q^{65} + 12269994769\, p^{74}\, q^{66} + 13519156842\, p^{73}\, q^{60} + 12116493663\, p^{73}\, q^{57}$$
$$+ 3463999118\, p^{46}\, q^{39} + 180867\, p^{108}\, q^{89} + 475335\, p^{107}\, q^{76} + 486641\, p^{107}\, q^{77} + 83520\, p^{109}\, q^{91} + 255046\, p^{108}\, q^{81} + 369554\, p^{107}\, q^{71}$$
$$+ 220705\, p^{108}\, q^{86} + 208489\, p^{108}\, q^{87} + 253584\, p^{108}\, q^{79} + 9836\, q^{38}\, p^{8} + 12997\, q^{102}\, p^{39} + 788111\, q^{104}\, p^{59} + 1058894\, q^{104}\, p^{61}$$
$$+ 1366060\, q^{104}\, p^{63} + 1208802\, q^{104}\, p^{62} + 1529118\, q^{104}\, p^{64} + 1861937\, q^{104}\, p^{66} + 124384\, q^{40}\, p^{11} + 1715\, q^{109}\, p^{53} + 2\, p^{94}\, q^{118}$$
$$+ 95943\, q^{106}\, p^{56} + 118828\, q^{106}\, p^{57} + 209920\, q^{106}\, p^{60} + 175701\, q^{106}\, p^{59} + 334605\, q^{106}\, p^{63} + 433256\, q^{106}\, p^{65} + 227425\, q^{107}\, p^{66}$$
$$+ 247867\, q^{106}\, p^{61} + 382754\, q^{106}\, p^{64} + 289591\, q^{106}\, p^{62} + 145416\, q^{106}\, p^{58} + 789770\, p^{105}\, q^{90} + 2854265\, p^{104}\, q^{74} + 2789889\, p^{104}\, q^{73}$$
$$+ 884936\, p^{105}\, q^{89} + 2910983\, p^{104}\, q^{76} + 2901907\, p^{104}\, q^{77} + 433854\, p^{106}\, q^{91} + 1560182\, p^{105}\, q^{81} + 2597430\, p^{104}\, q^{71} + 1173514\, p^{105}\, q^{86}$$
$$+ 1078498\, p^{105}\, q^{87} + 1642513\, p^{105}\, q^{79} + 1607739\, p^{105}\, q^{80} + 981596\, p^{105}\, q^{88} + 255516\, q^{40}\, p^{12} + 4775317\, q^{42}\, p^{17} + 544373463\, q^{45}\, p^{30}$$

$$+ 9950300303\, p^{44} q^{57} + 57847\, q^{39} p^{10} + 124696222\, q^{44} p^{25} + 89636659\, q^{44} p^{24} + 170550149\, q^{44} p^{26} + 229556713\, q^{44} p^{27}$$
$$+ 321081009\, q^{45} p^{28} + 303291525\, p^{88} q^{85} + 1089575568\, q^{45} p^{33} + 1630588821\, q^{45} p^{35} + 2101276458\, q^{46} p^{36} + 694679299\, q^{45} p^{31}$$
$$+ 1340470037\, q^{45} p^{34} + 875313378\, q^{45} p^{32} + 7901341\, q^{43} p^{18} + 10919549374\, p^{50} q^{69} + 2868353\, q^{42} p^{16} + 21027361529\, p^{52} q^{58}$$
$$+ 22253216032\, p^{53} q^{58} + 15261984123\, p^{48} q^{59} + 16735310855\, p^{49} q^{59} + 23740957783\, p^{63} q^{56} + 1458140\, q^{84} p^{27} + 12660\, q^{79} p^{17}$$
$$+ 2557\, q^{78} p^{15} + 46383\, q^{80} p^{19} + 30607\, q^{81} p^{19} + 66803\, q^{81} p^{20} + 137091\, q^{81} p^{21} + 342548\, q^{82} p^{23} + 21\, p^{27} q^{3} + 15\, p^{59} q^{113}$$
$$+ 289953\, p^{107} q^{90} + 862786\, p^{106} q^{74} + 828858\, p^{106} q^{73} + 2452468\, p^{18} q^{29} + 15406229\, p^{23} q^{30} + 840\, p^{86} q^{18} + 92655\, p^{108} q^{95}$$
$$+ 106411\, p^{108} q^{94} + 7506\, p^{109} q^{105} + 15044\, p^{108} q^{104} + 4623944529\, p^{80} q^{58} + 443891957\, p^{76} q^{37} + 4869413984\, p^{80} q^{59} + 230\, p^{105} q^{115}$$
$$+ 21\, q^{27} p^{3} + 287135595\, q^{63} p^{29} + 393994718\, q^{63} p^{30} + 484481488\, q^{64} p^{31} + 525622342\, p^{88} q^{54} + 579389589\, p^{89} q^{58}$$
$$+ 669528468\, p^{89} q^{60} + 467521531\, p^{88} q^{53} + 58345\, q^{103} p^{45} + 81080\, q^{103} p^{46} + 110748\, q^{103} p^{47} + 646710698\, q^{64} p^{32}$$
$$+ 1104156215\, q^{64} p^{34} + 850867814\, q^{64} p^{33} + 1414073922\, q^{64} p^{35} + 2053377103\, q^{65} p^{37} + 1788244704\, q^{64} p^{36} + 331\, q^{97} p^{26}$$
$$+ 692\, q^{92} p^{22} + 2542212562\, q^{65} p^{38} + 3767241930\, q^{65} p^{40} + 5349008598\, q^{65} p^{42} + 4512327723\, q^{65} p^{41} + 6277190749\, q^{65} p^{43}$$
$$+ 7294333825\, q^{65} p^{44} + 7799980341\, q^{66} p^{45} + 3111791144\, q^{65} p^{39} + 8912637392\, q^{66} p^{46} + 90\, p^{58} q^{112} + 12588259605\, q^{66} p^{49}$$
$$+ 11320579003\, q^{66} p^{48} + 16430977370\, q^{66} p^{52} + 18813160722\, q^{66} p^{54} + 18694796242\, q^{67} p^{55} + 13875885234\, q^{66} p^{50}$$
$$+ 17654980440\, q^{66} p^{53} + 15163841883\, q^{66} p^{51} + 10090321779\, q^{66} p^{47} + 4825724525\, p^{71} q^{80} + 3\, q^{106} p^{35} + 10\, q^{106} p^{36} + 4883\, p^{112} q^{74}$$
$$+ 2\, p^{92} q^{18} + 1388\, p^{114} q^{95} + 1446\, p^{114} q^{94} + 230\, p^{115} q^{105} + 580\, p^{114} q^{104} + 1185\, p^{109} q^{52} + p^{91} q^{17} + 330\, p^{107} q^{43} + 49\, p^{101} q^{29}$$
$$+ 4250\, p^{112} q^{73} + 279348284\, p^{43} q^{84} + 5061739\, q^{101} p^{59} + 5740819\, q^{101} p^{60} + 2995\, p^{61} q^{10} + 8710176822\, p^{76} q^{58} + 9090562799\, p^{76} q^{59}$$
$$+ 539094\, p^{106} q^{67} + 148617\, p^{103} q^{48} + 264778913\, q^{89} p^{51} + 228097691\, q^{89} p^{50} + 72832862\, q^{87} p^{41} + 1642513\, q^{41} p^{15} + 3006\, p^{108} q^{109}$$
$$+ 1200\, p^{90} q^{21} + 17694\, q^{92} p^{26} + 4091\, q^{92} p^{24} + 4727212247\, p^{66} q^{81} + 3167271156\, p^{58} q^{82} + 12465604\, q^{43} p^{19} + 12838\, p^{97} q^{31}$$
$$+ 4091\, p^{96} q^{28} + 83708692\, p^{31} q^{29} + 5408982\, p^{94} q^{98} + 6141358\, p^{87} q^{101} + 112\, p^{115} q^{109} + 28\, p^{96} q^{117} + 2719059\, p^{97} q^{98} + 438\, p^{79} q^{14}$$
$$+ 62486457\, q^{85} p^{38} + 5994735\, p^{99} q^{53} + 5051\, q^{81} p^{17} + 6315633\, q^{87} p^{33} + 91960\, q^{82} p^{21} + 12997\, q^{81} p^{18} + 16605\, p^{95} q^{29}$$
$$+ 288247\, p^{94} q^{106} + 464829623\, p^{40} q^{31} + 858511302\, p^{40} q^{34} + 1030044040\, p^{40} q^{35} + 1368107807\, p^{41} q^{36} + 29715232\, p^{76} q^{99}$$
$$+ 68\, q^{109} p^{46} + 8\, q^{107} p^{38} + 20969459762\, p^{52} q^{59} + 14931691114\, p^{57} q^{71} + 747889\, p^{85} q^{106} + 18288148608\, p^{63} q^{70}$$
$$+ 18072716200\, p^{68} q^{68} + 17931936243\, p^{60} q^{70} + 4184731006\, p^{48} q^{75} + 5485674691\, p^{49} q^{74} + 6151745807\, p^{50} q^{74} + 6279683788\, p^{49} q^{73}$$
$$+ 563241393\, p^{90} q^{62} + 631450884\, p^{90} q^{65} + 407473\, p^{71} q^{18} + 1677973\, p^{73} q^{21} + 743619\, p^{98} q^{42} + 915386\, p^{100} q^{47}$$

$$+ 13881718749\, p^{72}\, q^{68} + 14917\, p^{111}\, q^{74} + 9\, p^{91}\, q^{18} + 3443\, p^{113}\, q^{95} + 3656\, p^{113}\, q^{94} + 488\, p^{114}\, q^{105} + 1151\, p^{113}\, q^{104} + 4288\, p^{108}\, q^{52}$$
$$+ 4\, p^{90}\, q^{17} + 1263\, p^{106}\, q^{43} + 181\, p^{100}\, q^{29} + 13350\, p^{111}\, q^{73} + 5159032\, p^{75}\, q^{24} + 2309224\, p^{74}\, q^{22} + 8382493\, p^{75}\, q^{25} + 85890215\, p^{34}\, q^{27}$$
$$+ 1736149\, p^{33}\, q^{16} + 359054453\, q^{71}\, p^{33} + 20012867\, q^{71}\, p^{25} + 476797248\, q^{71}\, p^{34} + 624239377\, q^{71}\, p^{35} + 126796942\, p^{35}\, q^{28}$$
$$+ 2931\, q^{80}\, p^{16} + 22354444326\, p^{66}\, q^{58} + 2322755339\, p^{82}\, q^{54} + 2410173087\, p^{83}\, q^{57} + 241987153\, p^{80}\, q^{38} + 2103872825\, p^{82}\, q^{53}$$
$$+ 2878176931\, p^{83}\, q^{60} + 2705141179\, p^{84}\, q^{66} + 717838643\, p^{81}\, q^{44} + 3962172\, p^{74}\, q^{23} + 2234107568\, p^{83}\, q^{56} + 255514\, p^{70}\, q^{17}$$
$$+ 1120026133\, p^{82}\, q^{48} + 861096274\, p^{81}\, q^{45} + 276\, p^{82}\, q^{15} + 962360120\, p^{37}\, q^{37} + 3918784\, p^{52}\, q^{17} + 911523\, q^{40}\, p^{14} + 1078173257\, p^{65}\, q^{88}$$
$$+ 855482983\, p^{67}\, q^{89} + 1103025408\, p^{68}\, q^{88} + 1095212325\, p^{66}\, q^{88} + 1103557381\, p^{67}\, q^{88} + 1019777056\, p^{63}\, q^{88} + 1052841368\, p^{64}\, q^{88}$$
$$+ 494767\, q^{40}\, p^{13} + 407473\, p^{102}\, q^{49} + 196311\, p^{101}\, q^{44} + 245967\, p^{106}\, q^{95} + 288247\, p^{106}\, q^{94} + 16760\, p^{107}\, q^{105} + 32629\, p^{106}\, q^{104}$$
$$+ 7138892\, q^{40}\, p^{18} + 2754913\, p^{86}\, q^{30} + 28\, p^{54}\, q^{6} + 545\, p^{104}\, q^{37} + 417\, p^{102}\, q^{33} + 8052\, p^{108}\, q^{54} + 126\, p^{101}\, q^{30} + 32784191\, p^{90}\, q^{42}$$
$$+ 19419676008\, p^{64}\, q^{69} + 5391917663\, p^{68}\, q^{80} + 1430496\, q^{105}\, p^{83} + 1078498\, q^{105}\, p^{87} + 18146\, p^{63}\, q^{12} + 1485915661\, p^{80}\, q^{47}$$
$$+ 491041143\, p^{79}\, q^{40} + 389341682\, p^{79}\, q^{39} + 296\, p^{53}\, q^{7} + 800618\, p^{71}\, q^{19} + 3160631419\, p^{83}\, q^{69} + 3067556946\, p^{83}\, q^{70}$$
$$+ 141424253\, p^{80}\, q^{36} + 12595455\, p^{77}\, q^{27} + 3781488163\, p^{62}\, q^{82} + 296\, p^{67}\, q^{113} + 4250\, p^{73}\, q^{112} + 164532785\, p^{70}\, q^{30} + 4136983\, p^{66}\, q^{20}$$
$$+ 451572\, p^{94}\, q^{105} + 209463309\, p^{83}\, q^{91} + 9745206\, q^{81}\, p^{29} + 260203803\, p^{73}\, q^{93} + 3\, p^{4}\, q^{2} + 7\, p^{5}\, q^{3} + 1122405\, p^{23}\, q^{19} + 568216\, p^{23}\, q^{17}$$
$$+ 2607101\, p^{24}\, q^{21} + 1533083\, p^{23}\, q^{20} + 17804898756\, p^{55}\, q^{50} + 310221518\, q^{80}\, p^{39} + 1071653966\, q^{80}\, p^{45} + 3683560895\, q^{78}\, p^{51}$$
$$+ 2198423818\, q^{78}\, p^{47} + 75183\, q^{21}\, p^{13} + 3196\, q^{24}\, p^{7} + 9338704\, p^{24}\, q^{26} + 19054623\, p^{26}\, q^{27} + 11572318\, p^{24}\, q^{27} + 172984\, p^{89}\, q^{27}$$
$$+ 18465315\, p^{100}\, q^{78} + 28924\, q^{108}\, p^{59} + 4173\, p^{109}\, q^{107} + 11371\, p^{105}\, q^{108} + 850\, p^{81}\, q^{114} + 81\, p^{77}\, q^{115} + 15163841883\, p^{54}\, q^{69}$$
$$+ 7026057623\, p^{47}\, q^{70} + 4936085868\, q^{78}\, p^{54} + 4512327723\, q^{79}\, p^{55} + 3282670574\, q^{78}\, p^{50} + 4516330420\, q^{78}\, p^{53} + 8\, p^{58}\, q^{113} + q^{4}\, p$$
$$+ p\, q^{3} + 3\, q^{4}\, p^{2} + 4993296\, p^{68}\, q^{21} + 93\, p^{15}\, q^{4} + 16503770539\, p^{55}\, q^{49} + 4279\, q^{20}\, p^{8} + 1327\, p^{46}\, q^{7} + 17532399140\, p^{70}\, q^{59}$$
$$+ 17004796899\, p^{70}\, q^{58} + 1887087930\, q^{78}\, p^{46} + 2898943006\, q^{78}\, p^{49} + 2536473842\, q^{78}\, p^{48} + 4096696004\, q^{78}\, p^{52} + 414913206\, p^{75}\, q^{36}$$
$$+ 5\, p^{4}\, q^{3} + 27\, p^{13}\, q^{3} + 580\, p^{16}\, q^{6} + 230\, p^{15}\, q^{5} + 64269\, p^{16}\, q^{16} + 29534\, p^{13}\, q^{17} + 15168767865\, p^{55}\, q^{48} + 16503770539\, p^{71}\, q^{65}$$
$$+ 14845973038\, p^{72}\, q^{66} + 16461918816\, p^{71}\, q^{60} + 14931691114\, p^{71}\, q^{57} + 2\, p^{3}\, q^{2} + 6975\, q^{90}\, p^{23} + 300\, q^{89}\, p^{19} + 1200\, q^{90}\, p^{21}$$
$$+ 20187189\, p^{22}\, q^{34} + 24382926\, p^{23}\, q^{33} + 12712678\, p^{21}\, q^{33} + 17762757\, p^{22}\, q^{33} + 13822714369\, p^{55}\, q^{47} + 806524\, p^{23}\, q^{18} + 7\, p^{13}\, q^{2}$$
$$+ 2\, q^{78}\, p^{11} + 10612064\, q^{74}\, p^{25} + 5118182582\, p^{44}\, q^{69} + 165347427\, q^{92}\, p^{55} + 20690860\, q^{73}\, p^{26} + 8286936\, q^{73}\, p^{24} + 5029130\, q^{73}\, p^{23}$$
$$+ 2956406\, q^{73}\, p^{22} + 9615\, p^{18}\, q^{10} + 1375\, p^{17}\, q^{7} + 4595\, p^{17}\, q^{9} + 2587\, p^{17}\, q^{8} + 33315\, q^{26}\, p^{10} + 1980920876\, p^{49}\, q^{80} + 5994735\, p^{53}\, q^{99}$$

$$+ 11259494432\, p^{45} q^{57} + 9975892481\, p^{44} q^{56} + 1558\, p^{45} q^{7} + 18973311672\, p^{69} q^{59} + 79\, q^{32} p^{4} + 11\, q^{7} p^{3} + 112944\, q^{53} p^{12}$$
$$+ 255591\, q^{53} p^{13} + 36163157\, q^{56} p^{22} + 2\, p^{37} q^{3} + 810709\, q^{27} p^{16} + 358712706\, p^{72} q^{92} + 142343\, p^{22} q^{14} + 263711\, p^{23} q^{15} + 91583\, p^{22} q^{13}$$
$$+ 34304\, p^{22} q^{11} + 17\, p^{6} q^{4} + 28\, p^{6} q^{5} + 64\, p^{7} q^{6} + 1209512217\, p^{87} q^{61} + 1313490811\, p^{87} q^{63} + 5521389275\, p^{40} q^{57}$$
$$+ 23612612510\, p^{56} q^{55} + 16760828201\, p^{49} q^{56} + 15168767865\, p^{48} q^{55} + 22201975758\, p^{55} q^{54} + 868\, p^{19} q^{6} + 329\, p^{18} q^{5}$$
$$+ 21269591034\, p^{55} q^{53} + 23\, p^{26} q^{3} + 303\, p^{35} q^{5} + 28492001\, p^{98} q^{61} + 33693336\, p^{98} q^{63} + 18117140758\, p^{50} q^{56} + 16503770539\, p^{49} q^{55}$$
$$+ 126566314\, p^{55} q^{25} + 286493718\, p^{66} q^{30} + 7640227\, p^{62} q^{20} + 1252072\, q^{89} p^{31} + 297405\, q^{89} p^{28} + 797753\, q^{89} p^{30} + 494603\, q^{89} p^{29}$$
$$+ 47378\, q^{21} p^{12} + 115575\, q^{21} p^{14} + 214942\, q^{22} p^{15} + 198250\, p^{20} q^{16} + 117499795\, p^{90} q^{48} + 92736686\, p^{89} q^{45} + 348883886\, p^{92} q^{65}$$
$$+ 304917866\, p^{92} q^{62} + 259561171\, p^{91} q^{56} + 116259553\, q^{87} p^{43} + 634752909\, p^{86} q^{51} + 170069470\, p^{85} q^{42} + 688065\, p^{26} q^{16} + 9375\, p^{21} q^{9}$$
$$+ 57104\, p^{22} q^{12} + 9615\, p^{10} q^{18} + 56812\, p^{18} q^{14} + 15764\, p^{18} q^{11} + 107159\, p^{19} q^{15} + 38164\, p^{18} q^{13} + 24942\, p^{18} q^{12} + 68\, q^{33} p^{4}$$
$$+ 266847913\, p^{72} q^{93} + 370675010\, p^{70} q^{92} + 1006195083\, p^{86} q^{55} + 381242631\, p^{85} q^{46} + 1352142727\, p^{87} q^{64} + 14586951\, p^{81} q^{30}$$
$$+ 47012000\, p^{83} q^{35} + 476797248\, p^{86} q^{49} + 33\, q^{16} p^{3} + 5746728\, q^{70} p^{22} + 9545037\, q^{70} p^{23} + 15393136\, q^{70} p^{24} + 46392388\, q^{71} p^{27}$$
$$+ 112\, p^{17} q^{4} + 32\, p^{15} q^{3} + 17829402\, p^{87} q^{36} + 16832\, p^{21} q^{10} + 2127\, p^{20} q^{7} + 4279\, p^{20} q^{8} + 88667238\, p^{81} q^{95} + 3465791\, p^{22} q^{24}$$
$$+ 760369158\, p^{88} q^{77} + 560249721\, p^{89} q^{78} + 1021308\, p^{67} q^{18} + 391085268\, p^{66} q^{31} + 34\, p^{37} q^{4} + 9845077889\, p^{69} q^{49}$$
$$+ 1691869973\, p^{81} q^{81} + 48794\, q^{63} p^{13} + 116837\, p^{16} q^{18} + 118828\, q^{63} p^{14} + 12253\, p^{13} q^{14} + 8780\, p^{13} q^{13} + 21392695\, p^{63} q^{99}$$
$$+ 1234580\, q^{90} p^{32} + 1919184\, p^{67} q^{19} + 20211201461\, p^{55} q^{52} + 28841\, q^{21} p^{11} + 316524\, p^{22} q^{16} + 211683434\, q^{77} p^{35} + 279348284\, q^{77} p^{36}$$
$$+ 379472358\, q^{78} p^{38} + 1367\, q^{14} p^{8} + 771\, q^{14} p^{7} + 50\, q^{35} p^{4} + p^{8} q + 538007\, q^{98} p^{41} + 18117140758\, p^{70} q^{64} + 86036\, p^{55} q^{12} + 411\, p^{44} q^{6}$$
$$+ 84125294\, q^{77} p^{32} + 158083755\, q^{77} p^{34} + 116259553\, q^{77} p^{33} + 19048621270\, p^{55} q^{51} + 1903891\, q^{34} p^{16} + 2714373\, q^{33} p^{17}$$
$$+ 1078498\, q^{33} p^{15} + 1736149\, q^{33} p^{16} + 17412043\, p^{53} q^{20} + 218884720\, p^{62} q^{93} + 391650\, p^{16} q^{23} + 819297113\, p^{88} q^{76} + 142343\, p^{14} q^{22}$$
$$+ 974294191\, p^{88} q^{73} + 96195\, p^{46} q^{11} + 200481\, p^{47} q^{12} + 20\, p^{5} q^{5} + 38818\, p^{20} q^{12} + 6750\, p^{19} q^{9} + 2284\, q^{14} p^{9} + 4781\, q^{15} p^{10}$$
$$+ 1961896865\, p^{75} q^{84} + 2020053879\, p^{71} q^{85} + 478472\, p^{16} q^{24} + 66267524\, p^{94} q^{86} + 9\, q^{6} p^{3} + 45\, p^{6} q^{6} + 6127\, p^{13} q^{12} + 5647\, p^{14} q^{11}$$
$$+ 12\, p^{5} q^{4} + 12\, p^{4} q^{5} + 3\, q^{5} p^{2} + 9\, p^{6} q^{3} + 319312\, p^{96} q^{105} + 135\, p^{116} q^{99} + 138\, p^{116} q^{97} + 3\, p^{5} q^{2} + 1436857624\, p^{83} q^{80} + 47378\, p^{108} q^{99}$$
$$+ 67901\, p^{108} q^{97} + 473\, q^{24} p^{5} + 8883\, q^{27} p^{8} + 1758\, p^{83} q^{17} + 138\, q^{23} p^{4} + 5047239\, p^{20} q^{29} + 9\, p^{4} q^{4} + 7\, p^{3} q^{5} + 5\, q^{4} p^{3} + q^{5} p + 60\, q^{34} p^{4}$$
$$+ 5647\, p^{11} q^{14} + 6127\, p^{12} q^{13} + 92600\, p^{20} q^{14} + 23908\, p^{20} q^{11} + 172927\, p^{21} q^{15} + 60844\, p^{20} q^{13} + 39574\, p^{54} q^{11} + 334605\, p^{57} q^{14}$$
$$+ 174706\, p^{56} q^{13} + 303\, q^{35} p^{5} + 139\, q^{24} p^{4} + 1397655877\, p^{39} q^{72} + 2536473842\, p^{42} q^{72} + 2102507791\, p^{41} q^{72} + 959704935\, p^{38} q^{73}$$

$$+ 1723907944\, p^{40}\, q^{72} + 26881081\, p^{95}\, q^{90} + 20918020017\, p^{63}\, q^{68} + p^{4}\, q + 2\, p^{2}\, q^{3} + 2054\, q^{43}\, p^{7} + 28\, q^{38}\, p^{4} + 67901\, q^{23}\, p^{12}$$
$$+ 36888\, q^{27}\, p^{10} + 18775\, q^{27}\, p^{9} + 40459\, q^{28}\, p^{10} + q^{28}\, p^{2} + 1162\, q^{22}\, p^{6} + 91\, p^{6}\, q^{8} + 3116884\, q^{55}\, p^{17} + 120613618\, q^{56}\, p^{25}$$
$$+ 243228433\, q^{56}\, p^{27} + 321572800\, q^{57}\, p^{28} + 55252807\, q^{56}\, p^{23} + 438979002\, q^{57}\, p^{29} + 748164291\, q^{58}\, p^{31} + 589940070\, q^{57}\, p^{30}$$
$$+ 3451610565\, p^{77}\, q^{49} + 7608625634\, p^{78}\, q^{64} + 57104\, p^{12}\, q^{22} + 117499795\, p^{72}\, q^{30} + 6277190749\, p^{77}\, q^{55} + 2689735525\, p^{76}\, q^{46}$$
$$+ 13\, q^{8}\, p^{3} + 16\, q^{9}\, p^{3} + 144\, p^{8}\, q^{7} + 7506\, p^{15}\, q^{11} + 11796\, q^{48}\, p^{9} + 1501351\, q^{65}\, p^{18} + 2402\, q^{21}\, p^{7} + 9375\, q^{21}\, p^{9} + 19774\, q^{22}\, p^{10}$$
$$+ 100\, p^{7}\, q^{7} + 4\, q^{7}\, p^{2} + 1349348044\, p^{76}\, q^{42} + 29\, p^{8}\, q^{4} + 53\, p^{8}\, q^{5} + 123\, p^{9}\, q^{6} + 381242631\, p^{74}\, q^{35} + 944813\, q^{28}\, p^{16} + 139\, q^{22}\, p^{4}$$
$$+ 28\, p^{82}\, q^{116} + 34\, p^{83}\, q^{116} + 962360120\, p^{83}\, q^{83} + 2878176931\, p^{37}\, q^{60} + 7001722\, p^{98}\, q^{51} + 3962172\, p^{97}\, q^{46} + 23086050\, p^{99}\, q^{64}$$
$$+ 13830767\, p^{98}\, q^{55} + 22572\, p^{88}\, q^{23} + 297405\, p^{92}\, q^{31} + 107736\, p^{91}\, q^{28} + 3898628767\, p^{77}\, q^{50} + 1628513192\, p^{76}\, q^{43} + 48996006\, p^{94}\, q^{88}$$
$$+ 96810336\, p^{94}\, q^{83} + 12942186\, p^{29}\, q^{23} + 366\, q^{74}\, p^{12} + 2032046921\, p^{35}\, q^{58} + 1670082270\, p^{34}\, q^{57} + 11285409\, p^{52}\, q^{19}$$
$$+ 42472644\, p^{53}\, q^{22} + 1695131\, q^{104}\, p^{65} + 918389\, q^{104}\, p^{60} + 669273\, q^{104}\, p^{58} + 561\, q^{99}\, p^{29} + 1200\, q^{99}\, p^{30} + 129\, q^{96}\, p^{24} + 290\, q^{98}\, p^{27}$$
$$+ 692\, q^{98}\, p^{28} + 1496\, q^{98}\, p^{29} + 975971\, q^{105}\, p^{66} + 31232452\, p^{99}\, q^{72} + 28726301\, p^{99}\, q^{68} + 4913\, q^{21}\, p^{8} + 971\, q^{20}\, p^{6} + 207530\, p^{14}\, q^{24}$$
$$+ 1201662\, p^{20}\, q^{22} + 13\, p^{8}\, q^{3} + 4\, p^{7}\, q^{2} + 3791681309\, q^{79}\, p^{53} + 3077257882\, q^{79}\, p^{51} + 1817352297\, q^{79}\, p^{47} + 6151745807\, p^{46}\, q^{70}$$
$$+ 53\, p^{5}\, q^{8} + 4011007993\, p^{80}\, q^{74} + 3708404212\, p^{80}\, q^{75} + 5505205463\, p^{80}\, q^{67} + 4825724525\, p^{80}\, q^{71} + 4575121941\, p^{80}\, q^{72}$$
$$+ 5391917663\, p^{80}\, q^{68} + 30607\, q^{101}\, p^{39} + 46383\, q^{101}\, p^{40} + 236837\, q^{102}\, p^{47} + 313053\, q^{102}\, p^{48} + 826773004\, p^{59}\, q^{88} + 453949500\, p^{85}\, q^{47}$$
$$+ 8\, q^{32}\, p^{3} + 15375037929\, p^{48}\, q^{56} + 13822714369\, p^{47}\, q^{55} + 226499180\, p^{92}\, q^{58} + 267328616\, p^{92}\, q^{60} + 271428817\, p^{93}\, q^{71}$$
$$+ 206448900\, p^{91}\, q^{54} + 3030\, p^{69}\, q^{12} + 181589443\, p^{91}\, q^{53} + 10545\, q^{85}\, p^{20} + 225826137\, q^{72}\, p^{32} + 534994966\, q^{72}\, p^{35} + 407222455\, q^{72}\, p^{34}$$
$$+ 137253123\, q^{73}\, p^{31} + 305546103\, q^{72}\, p^{33} + 68352575\, p^{91}\, q^{47} + 747947\, p^{83}\, q^{25} + 2580207\, p^{85}\, q^{29} + 425190\, p^{83}\, q^{24} + 577154\, p^{25}\, q^{16}$$
$$+ 144235330\, q^{87}\, p^{44} + 28726301\, p^{52}\, q^{21} + 94185611\, p^{53}\, q^{24} + 29\, p^{4}\, q^{8} + 5408982\, p^{26}\, q^{22} + 28\, p^{5}\, q^{6} + 4415\, p^{54}\, q^{9}$$
$$+ 7608625634\, p^{42}\, q^{56} + 113982136\, q^{57}\, p^{25} + 231702588\, q^{57}\, p^{27} + 14342925\, q^{56}\, p^{20} + 8648011\, q^{56}\, p^{19} + 1072110\, q^{53}\, p^{15}$$
$$+ 52597\, q^{52}\, p^{11} + 5501506\, q^{55}\, p^{18} + 485718\, q^{54}\, p^{14} + 365\, q^{33}\, p^{5} + 7432973\, q^{50}\, p^{18} + 175379410\, p^{59}\, q^{93} + 196307\, q^{68}\, p^{16}$$
$$+ 111730\, q^{67}\, p^{15} + 5911972\, p^{100}\, q^{90} + 23246918\, p^{98}\, q^{59} + 634752909\, p^{34}\, q^{69} + 3089146243\, p^{80}\, q^{77} + 2426349160\, p^{81}\, q^{78}$$
$$+ 4301740893\, p^{80}\, q^{73} + 3399385536\, p^{80}\, q^{76} + 762\, p^{78}\, q^{14} + 30457702\, p^{99}\, q^{70} + 5026134\, p^{95}\, q^{43} + 135\, q^{21}\, p^{4} + 1867\, q^{19}\, p^{7}$$
$$+ 3107\, q^{18}\, p^{8} + 22693\, q^{51}\, p^{10} + 8920\, q^{50}\, p^{9} + 9365824\, q^{55}\, p^{19} + 127431\, q^{52}\, p^{12} + 539094\, q^{53}\, p^{14} + 24698454\, q^{55}\, p^{21}$$
$$+ 15433853\, q^{55}\, p^{20} + 23086050\, q^{56}\, p^{21} + 164038894\, q^{57}\, p^{26} + 77627457\, q^{57}\, p^{24} + 2127\, q^{20}\, p^{7} + 382033\, p^{105}\, q^{95} + 451572\, p^{105}\, q^{94}$$

$$+ 123\, p^{93}\, q^{116} + 131\, p^{94}\, q^{116} + 24037\, p^{106}\, q^{105} + 46275\, p^{105}\, q^{104} + 115436537\, p^{65}\, q^{27} + 525622342\, p^{66}\, q^{32} + p^{5}\, q + 40\, q^{7}\, p^{5} + 11\, p^{7}\, q^{3}$$
$$+ 4\, p^{6}\, q^{2} + 4648794344\, p^{39}\, q^{57} + 162165\, p^{17}\, q^{18} + 153392\, p^{16}\, q^{19} + 17\, q^{6}\, p^{4} + 22\, p^{7}\, q^{4} + 40\, p^{7}\, q^{5} + 91\, p^{8}\, q^{6} + 1610\, q^{18}\, p^{7}$$
$$+ 3430939823\, q^{79}\, p^{52} + 4154091833\, q^{79}\, p^{54} + 2735373215\, q^{79}\, p^{50} + 1555631474\, q^{79}\, p^{46} + 2409361555\, q^{79}\, p^{49} + 2102507791\, q^{79}\, p^{48}$$
$$+ 3\, q^{23}\, p^{2} + 1123407283\, q^{78}\, p^{43} + 1349348044\, q^{78}\, p^{44} + 482861598\, q^{78}\, p^{39} + 120752\, q^{86}\, p^{24} + 7999\, q^{20}\, p^{9} + 16832\, q^{21}\, p^{10}$$
$$+ 18344081157\, p^{56}\, q^{68} + 2\, q^{26}\, p^{2} + 106\, q^{29}\, p^{4} + 12253\, p^{14}\, q^{13} + 8443\, p^{14}\, q^{12} + 198250\, p^{16}\, q^{20} + 1180336854\, q^{70}\, p^{37} + 214942\, p^{105}\, q^{98}$$
$$+ 2842\, p^{40}\, q^{7} + 319203\, p^{107}\, q^{89} + 910188\, p^{106}\, q^{76} + 922506\, p^{106}\, q^{77} + 150865\, p^{108}\, q^{91} + 488811\, p^{107}\, q^{81} + 744885\, p^{106}\, q^{71}$$
$$+ 401502\, p^{107}\, q^{86} + 375548\, p^{107}\, q^{87} + 496485\, p^{107}\, q^{79} + 2103229\, p^{22}\, q^{22} + 152891\, q^{104}\, p^{51} + 117423\, q^{104}\, p^{50} + 30658\, q^{102}\, p^{41}$$
$$+ 671\, q^{17}\, p^{6} + 8348381\, q^{36}\, p^{19} + 420\, q^{31}\, p^{5} + 1429\, q^{32}\, p^{6} + 18395474\, p^{95}\, q^{92} + 1458140\, p^{84}\, q^{27} + 441\, q^{30}\, p^{5} + 3553749\, q^{36}\, p^{17}$$
$$+ 7001722\, q^{69}\, p^{22} + 11546103\, q^{69}\, p^{23} + 7\, q^{15}\, p^{2} + 121\, q^{18}\, p^{4} + 868\, q^{19}\, p^{6} + 329\, q^{18}\, p^{5} + q^{6}\, p + 22\, q^{7}\, p^{4} + 1838511310\, p^{39}\, q^{70}$$
$$+ 1680709369\, p^{38}\, q^{69} + 4155316\, q^{51}\, p^{17} + 4\, q^{6}\, p^{2} + 333\, p^{34}\, q^{5} + 606862651\, q^{78}\, p^{40} + 925280887\, q^{78}\, p^{42} + 753664409\, q^{78}\, p^{41}$$
$$+ 8443\, p^{12}\, q^{14} + 17370\, p^{14}\, q^{14} + 33727\, p^{15}\, q^{15} + 12004722\, p^{26}\, q^{25} + 14952721\, p^{25}\, q^{27} + 23964783\, p^{27}\, q^{27} + 37127106\, p^{28}\, q^{28} + 5\, q^{20}\, p^{2}$$
$$+ 18077\, q^{44}\, p^{9} + 2703809\, q^{48}\, p^{16} + 98\, q^{30}\, p^{4} + 29704012\, p^{51}\, q^{21} + 96811512\, p^{52}\, q^{24} + 2938\, q^{15}\, p^{9} + 6142\, q^{16}\, p^{10} + 1716\, q^{15}\, p^{8}$$
$$+ 7\, q^{12}\, p^{2} + 3027827680\, p^{77}\, q^{48} + 2298584321\, p^{76}\, q^{45} + 502242\, q^{90}\, p^{30} + 196\, q^{14}\, p^{5} + 84\, q^{14}\, p^{4} + 87\, q^{31}\, p^{4} + 15\, q^{29}\, p^{3} + 13956\, q^{24}\, p^{9}$$
$$+ 6267\, q^{23}\, p^{8} + 2943\, q^{23}\, p^{7} + 4841599803\, p^{77}\, q^{52} + 4363942606\, p^{77}\, q^{51} + 476\, p^{9}\, q^{9} + 1014\, p^{10}\, q^{10} + 1265222\, q^{105}\, p^{85}$$
$$+ 981596\, q^{105}\, p^{88} + 789770\, q^{105}\, p^{90} + 433854\, q^{106}\, p^{91} + 1173514\, q^{105}\, p^{86} + 1351355\, q^{105}\, p^{84} + q^{55}\, p^{5} + 1560182\, q^{105}\, p^{81}$$
$$+ 336336120\, p^{56}\, q^{28} + 10981868812\, p^{59}\, q^{45} + 7445513390\, p^{58}\, q^{42} + 3781488163\, p^{58}\, q^{38} + 8602648531\, p^{58}\, q^{43} + 3109363481\, p^{58}\, q^{37}$$
$$+ 4549309079\, p^{58}\, q^{39} + 12\, q^{30}\, p^{3} + 27\, q^{13}\, p^{3} + 1654557\, p^{17}\, q^{29} + 316\, p^{8}\, q^{9} + 5974\, q^{63}\, p^{11} + 62329\, p^{105}\, q^{103} + 605534597\, p^{85}\, q^{84}$$
$$+ 17\, p^{28}\, q^{3} + 57271275\, p^{94}\, q^{87} + 654207885\, p^{53}\, q^{30} + 196250289\, p^{52}\, q^{26} + 493205943\, p^{53}\, q^{29} + 70\, q^{9}\, p^{5} + 164\, q^{10}\, p^{6} + 316\, p^{9}\, q^{8}$$
$$+ 1021964\, p^{17}\, q^{26} + 2473832\, q^{50}\, p^{16} + 4367388\, q^{50}\, p^{17} + 79817\, p^{12}\, q^{24} + 22909\, p^{10}\, q^{23} + 30971897\, p^{71}\, q^{99} + 45142044\, p^{75}\, q^{98}$$
$$+ 43816467\, p^{76}\, q^{98} + 54262314\, p^{79}\, q^{97} + 42896542\, p^{85}\, q^{96} + 420018\, p^{73}\, q^{107} + 458912027\, p^{88}\, q^{82} + 225342432\, p^{78}\, q^{36} + 115\, q^{103}\, p^{33}$$
$$+ 6782706\, q^{39}\, p^{18} + 107159\, p^{105}\, q^{101} + 19054623\, p^{27}\, q^{26} + 1265594603\, p^{87}\, q^{62} + 1380701488\, p^{87}\, q^{65} + q^{10}\, p + 2705141179\, p^{54}\, q^{36}$$
$$+ 7791807386\, p^{47}\, q^{69} + 17432474583\, p^{55}\, q^{68} + 17654980440\, p^{54}\, q^{67} + 22358\, q^{41}\, p^{9} + 2538151\, q^{27}\, p^{19} + 1213532\, q^{27}\, p^{17}$$
$$+ 104339\, p^{88}\, q^{109} + 110242\, p^{87}\, q^{109} + 5842857789\, p^{70}\, q^{79} + 440\, q^{22}\, p^{5} + 1244\, q^{23}\, p^{6} + 1554807\, p^{47}\, q^{15} + 828858\, p^{47}\, q^{14}$$
$$+ 457533012\, p^{91}\, q^{64} + 321468320\, p^{90}\, q^{55} + 38818\, q^{20}\, p^{12} + 92600\, q^{20}\, p^{14} + 172927\, q^{21}\, p^{15} + 191758703\, p^{90}\, q^{51} + 113448477\, p^{89}\, q^{46}$$

$$+ 68648811\, q^{50}\, p^{23} + 22233557985\, p^{61}\, q^{67} + 23218612769\, p^{60}\, q^{66} + 43962\, q^{100}\, p^{38} + 72832862\, p^{87}\, q^{41} + 12844669\, p^{85}\, q^{33} + 35\, q^{9}\, p^{4}$$
$$+ 15163841883\, p^{69}\, q^{54} + 6837541259\, p^{69}\, q^{46} + 14779928457\, p^{70}\, q^{55} + 150865\, q^{29}\, p^{12} + 433854\, q^{29}\, p^{14} + 220\, p^{8}\, q^{8} + 204\, p^{7}\, q^{9}$$
$$+ 15764\, p^{11}\, q^{18} + 43319026\, p^{87}\, q^{39} + 34117765\, p^{86}\, q^{37} + 645346221\, p^{54}\, q^{30} + 192485593\, p^{53}\, q^{26} + 484953462\, p^{54}\, q^{29}$$
$$+ 226499180\, q^{62}\, p^{28} + 142343\, p^{106}\, q^{98} + 314847968\, q^{62}\, p^{29} + 430468463\, q^{62}\, p^{30} + 579389589\, q^{62}\, p^{31} + 56550710\, p^{87}\, q^{40}$$
$$+ 10698075\, q^{53}\, p^{19} + 17\, q^{28}\, p^{3} + 70\, p^{9}\, q^{5} + 164\, p^{10}\, q^{6} + 3116830865\, p^{76}\, q^{47} + 1071653966\, p^{75}\, q^{40} + 19569\, p^{11}\, q^{19} + 24942\, p^{12}\, q^{18}$$
$$+ 861096274\, p^{75}\, q^{39} + 36391\, q^{47}\, p^{10} + 13350\, q^{47}\, p^{9} + 32873\, q^{48}\, p^{10} + 1122405\, p^{19}\, q^{23} + 319312\, p^{15}\, q^{24} + 14917\, q^{46}\, p^{9} + 204\, p^{9}\, q^{7}$$
$$+ 35\, p^{9}\, q^{4} + 549526\, q^{99}\, p^{43} + 12587265\, q^{49}\, p^{19} + 137110\, p^{105}\, q^{100} + q^{27}\, p^{2} + 23908\, q^{20}\, p^{11} + 231361\, p^{108}\, q^{85} + 425\, p^{90}\, q^{20}$$
$$+ 12934940\, p^{101}\, q^{75} + 610125\, p^{28}\, q^{15} + 22365021\, p^{25}\, q^{29} + 144\, p^{7}\, q^{8} + 123\, p^{6}\, q^{9} + 5747838569\, p^{78}\, q^{56} + 683658747\, p^{75}\, q^{38}$$
$$+ 98159190\, p^{73}\, q^{96} + 8827375\, p^{23}\, q^{27} + 1142\, q^{36}\, p^{6} + 238\, q^{37}\, p^{5} + 1570999\, p^{68}\, q^{19} + 5806040050\, p^{77}\, q^{54} + 96586752\, p^{80}\, q^{95}$$
$$+ 61420117\, p^{66}\, q^{97} + 4067438009\, q^{80}\, p^{56} + 5238527448\, p^{80}\, q^{69} + 5048434705\, p^{80}\, q^{70} + 3576\, q^{37}\, p^{7} + 1368107807\, p^{84}\, q^{79}$$
$$+ 7055726429\, p^{78}\, q^{60} + 6125114367\, p^{78}\, q^{57} + 60844\, q^{20}\, p^{13} + 11546103\, p^{69}\, q^{23} + 24037\, p^{15}\, q^{14} + 46275\, p^{16}\, q^{15} + 2703809\, p^{48}\, q^{16}$$
$$+ 7599737303\, p^{78}\, q^{65} + 6511504788\, p^{79}\, q^{66} + 5324819722\, p^{77}\, q^{53} + 1944739423\, p^{76}\, q^{44} + 7001722\, p^{69}\, q^{22} + 24162979\, p^{70}\, q^{25}$$
$$+ 11371\, p^{15}\, q^{12} + 16760\, p^{15}\, q^{13} + 392\, q^{32}\, p^{5} + 7402025983\, q^{78}\, p^{67} + 144018487\, p^{61}\, q^{94} + 13812949\, p^{97}\, q^{52} + 12668460\, p^{96}\, q^{49}$$
$$+ 321468320\, p^{65}\, q^{30} + 8686034\, p^{61}\, q^{20} + 3196\, p^{24}\, q^{7} + 141009115\, p^{94}\, q^{79} + 2843135\, p^{61}\, q^{18} + 527831\, p^{59}\, q^{15} + 420\, p^{115}\, q^{89}$$
$$+ 485\, p^{114}\, q^{77} + 106\, p^{116}\, q^{91} + 176\, p^{115}\, q^{81} + 135\, p^{114}\, q^{71} + 411\, p^{114}\, q^{76} + 10814045\, q^{90}\, p^{38} + 5659014\, q^{90}\, p^{36} + 2402\, p^{21}\, q^{7}$$
$$+ 568216\, p^{17}\, q^{23} + 4913\, p^{21}\, q^{8} + p^{12}\, q + 9763\, p^{56}\, q^{10} + 1142\, p^{36}\, q^{6} + 264778913\, q^{69}\, p^{31} + 141090\, p^{77}\, q^{19} + 1398507758\, p^{54}\, q^{33}$$
$$+ 437331\, q^{87}\, p^{27} + 7889164\, q^{90}\, p^{37} + 3345\, q^{38}\, p^{7} + 67901\, p^{23}\, q^{12} + 121\, p^{18}\, q^{4} + 33\, p^{16}\, q^{3} + 19774\, p^{22}\, q^{10} + 16886491578\, p^{57}\, q^{49}$$
$$+ 18288148608\, p^{57}\, q^{50} + 192485593\, q^{53}\, p^{26} + 99\, p^{42}\, q^{5} + 89339830\, p^{64}\, q^{26} + 29002617\, p^{63}\, q^{23} + 232545229\, p^{65}\, q^{29} + 147\, p^{40}\, q^{5}$$
$$+ 1095212325\, p^{54}\, q^{32} + 267763124\, p^{53}\, q^{27} + 846499114\, p^{54}\, q^{31} + 889988\, p^{106}\, q^{75} + 55966314\, q^{91}\, p^{46} + 4192797\, q^{89}\, p^{34}$$
$$+ 24060094548\, p^{55}\, q^{57} + 1649877205\, p^{35}\, q^{62} + 48576\, p^{13}\, q^{19} + 3537574\, p^{23}\, q^{23} + 6557117079\, p^{55}\, q^{41} + 1763459879\, p^{54}\, q^{34}$$
$$+ 2196892965\, p^{54}\, q^{35} + 7599737303\, p^{55}\, q^{42} + 3967110346\, p^{55}\, q^{38} + 8724284556\, p^{55}\, q^{43} + 30457702\, q^{50}\, p^{21} + 8435637\, p^{98}\, q^{52}$$
$$+ 7801998\, p^{97}\, q^{49} + 3285986160\, p^{55}\, q^{37} + 4738774371\, p^{55}\, q^{39} + 472974658\, q^{55}\, p^{29} + 283\, q^{84}\, p^{16} + 418\, q^{21}\, p^{5} + 3282670574\, p^{78}\, q^{50}$$
$$+ 1359828968\, p^{77}\, q^{43} + 124\, p^{81}\, q^{14} + 37\, p^{75}\, q^{11} + 802\, q^{93}\, p^{23} + 875\, q^{94}\, p^{24} + 2462168\, p^{62}\, q^{18} + 452631\, p^{60}\, q^{15} + 251640102\, p^{93}\, q^{74}$$
$$+ 267763124\, p^{93}\, q^{67} + 28406383\, p^{32}\, q^{24} + 1388\, p^{25}\, q^{6} + 473\, p^{24}\, q^{5} + 289953\, p^{30}\, q^{13} + 3248542\, p^{31}\, q^{18} + 631450884\, q^{55}\, p^{30}$$

$$+ 366288655\, p^{53}\, q^{28} + 11265074871\, p^{56}\, q^{45} + 9921920869\, p^{55}\, q^{44} + 2607101\, p^{21}\, q^{24} + 6267\, p^{23}\, q^{8} + 92655\, p^{25}\, q^{12} + 26263\, p^{24}\, q^{10}$$
$$+ 3\, p^{45}\, q^{4} + 38164\, p^{13}\, q^{18} + 438\, q^{79}\, p^{14} + 1123407283\, p^{77}\, q^{42} + 316819082\, p^{75}\, q^{35} + 2898943006\, p^{78}\, q^{49} + 6550377663\, p^{79}\, q^{64}$$
$$+ 97741062\, p^{73}\, q^{30} + 5349008598\, p^{78}\, q^{55} + 2264714777\, p^{77}\, q^{46} + 17186\, q^{26}\, p^{9} + 87432\, p^{17}\, q^{16} + 271981885\, q^{93}\, p^{68} + 10051987\, q^{67}\, p^{22}$$
$$+ 17\, q^{76}\, p^{11} + 408\, q^{14}\, p^{6} + 2415\, q^{99}\, p^{31} + 28441\, q^{103}\, p^{43} + 10\, q^{84}\, p^{14} + 3407\, q^{100}\, p^{33} + 6130\, q^{100}\, p^{34} + 166\, q^{13}\, p^{5} + 4\, q^{21}\, p^{2} + 2\, q^{25}\, p^{2}$$
$$+ 1318372725\, q^{79}\, p^{45} + 10827\, q^{22}\, p^{9} + 5591\, q^{22}\, p^{8} + 110187\, p^{23}\, q^{13} + 971\, p^{20}\, q^{6} + 362\, p^{19}\, q^{5} + 5602364623\, p^{55}\, q^{40} + 10827\, p^{22}\, q^{9}$$
$$+ 40331\, p^{23}\, q^{11} + 4\, q^{22}\, p^{2} + 172927\, p^{105}\, q^{99} + 263711\, p^{105}\, q^{97} + 59838531\, q^{77}\, p^{31} + 1915906\, q^{89}\, p^{32} + 2864977\, q^{89}\, p^{33}$$
$$+ 797753\, q^{90}\, p^{31} + 294396707\, q^{78}\, p^{37} + 1000842\, p^{24}\, q^{18} + 172925\, p^{23}\, q^{14} + 319312\, p^{24}\, q^{15} + 4551061\, p^{49}\, q^{17} + 19570829\, p^{50}\, q^{20}$$
$$+ 31496001\, p^{73}\, q^{27} + 191758703\, p^{69}\, q^{30} + 4897982\, p^{65}\, q^{20} + 4482022\, q^{40}\, p^{17} + 37\, p^{109}\, q^{45} + 121\, p^{116}\, q^{102} + 8\, p^{107}\, q^{38} + 133\, p^{116}\, q^{100}$$
$$+ 245967\, p^{25}\, q^{14} + 451572\, p^{26}\, q^{15} + 1021964\, p^{26}\, q^{17} + 4900582\, p^{27}\, q^{21} + 2938109\, p^{26}\, q^{20} + 2108187\, p^{26}\, q^{19} + 12240753\, p^{50}\, q^{19}$$
$$+ 45329763\, p^{51}\, q^{22} + 417750676\, p^{33}\, q^{70} + 806276996\, p^{36}\, q^{71} + 311089987\, p^{32}\, q^{70} + 1093613608\, p^{88}\, q^{69} + 1075544502\, p^{88}\, q^{70}$$
$$+ 141424253\, p^{84}\, q^{40} + 109922047\, p^{84}\, q^{39} + 34117765\, p^{83}\, q^{34} + 85120434\, p^{83}\, q^{37} + 1077648146\, p^{87}\, q^{59} + 179624355\, p^{84}\, q^{41}$$
$$+ 32715012\, p^{82}\, q^{33} + 3442709\, p^{80}\, q^{26} + 1265594603\, p^{62}\, q^{87} + 1745803194\, p^{65}\, q^{86} + 62657\, q^{86}\, p^{23} + 141032\, q^{87}\, p^{25} + 30860\, q^{86}\, p^{22}$$
$$+ 67602251\, p^{51}\, q^{23} + 2507895266\, p^{74}\, q^{83} + 2455757427\, p^{71}\, q^{84} + 466894090\, q^{77}\, p^{38} + 741534973\, q^{77}\, p^{40} + 1123407283\, q^{77}\, p^{42}$$
$$+ 4357669\, p^{25}\, q^{22} + 1730460\, p^{19}\, q^{25} + 884936\, q^{105}\, p^{89} + 1500483\, q^{105}\, p^{82} + 82555651\, p^{72}\, q^{29} + 5\, q^{19}\, p^{2} + 56910245\, p^{72}\, q^{28}$$
$$+ 319312\, p^{105}\, q^{96} + 1494237\, p^{48}\, q^{15} + 789372\, p^{48}\, q^{14} + 699625\, p^{24}\, q^{17} + 3258463\, p^{25}\, q^{21} + 1929291\, p^{24}\, q^{20} + 1402637\, p^{24}\, q^{19}$$
$$+ 2692105296\, p^{55}\, q^{36} + 488\, q^{15}\, p^{6} + 952\, q^{15}\, p^{7} + 640519870\, p^{74}\, q^{37} + 1773961\, q^{27}\, p^{18} + 3559465\, q^{27}\, p^{20} + 5902924\, q^{28}\, p^{21}$$
$$+ 6785870674\, p^{78}\, q^{59} + 7277221444\, p^{78}\, q^{61} + 6473491985\, p^{78}\, q^{58} + 7556811956\, p^{78}\, q^{63} + 7445513390\, p^{78}\, q^{62} + 23\, q^{26}\, p^{3}$$
$$+ 2894748\, p^{104}\, q^{75} + 235819151\, p^{29}\, q^{38} + 6867\, q^{43}\, p^{8} + 26\, q^{25}\, p^{3} + 3\, q^{24}\, p^{2} + 139135362\, p^{52}\, q^{25} + 9334\, q^{39}\, p^{8} + 3106\, q^{39}\, p^{7}$$
$$+ 23507\, q^{40}\, p^{9} + 850\, q^{39}\, p^{6} + 8792\, q^{40}\, p^{8} + 7\, q^{16}\, p^{2} + 905\, q^{89}\, p^{20} + 172984\, q^{93}\, p^{31} + 33761\, q^{93}\, p^{28} + 60437\, q^{93}\, p^{29} + 18072\, q^{93}\, p^{27}$$
$$+ 18\, q^{10}\, p^{3} + 528226\, p^{19}\, q^{20} + 398427\, p^{19}\, q^{19} + 295329\, p^{19}\, q^{18} + 2842\, q^{40}\, p^{7} + 210\, q^{11}\, p^{6} + 23246918\, p^{59}\, q^{98} + 1602386\, p^{21}\, q^{22}$$
$$+ 34\, q^{37}\, p^{4} + 44\, q^{10}\, p^{4} + 89\, q^{10}\, p^{5} + 147\, q^{40}\, p^{5} + 9782916\, p^{19}\, q^{38} + 333587886\, p^{81}\, q^{90} + 200910056\, p^{85}\, q^{90} + 231353626\, p^{84}\, q^{90}$$
$$+ 123836037\, p^{88}\, q^{90} + 85012594\, p^{90}\, q^{90} + 56619142\, p^{91}\, q^{91} + 172751040\, p^{86}\, q^{90} + 103177757\, p^{89}\, q^{90} + 12838\, p^{89}\, q^{23}$$
$$+ 298051231\, p^{82}\, q^{90} + 4252462829\, p^{60}\, q^{81} + 1888883296\, p^{52}\, q^{82} + 288096963\, p^{74}\, q^{34} + 1318372725\, p^{75}\, q^{41} + 30826141\, p^{71}\, q^{26}$$
$$+ 257371952\, p^{73}\, q^{33} + 658\, q^{41}\, p^{6} + 15393136\, p^{70}\, q^{24} + 40331\, q^{23}\, p^{11} + 3345\, p^{38}\, q^{7} + 8\, p^{32}\, q^{3} + 245967\, p^{14}\, q^{25} + 280290\, p^{17}\, q^{20}$$

$$+ 73071\, p^{19}\, q^{14} + 19569\, p^{19}\, q^{11} + 137110\, p^{20}\, q^{15} + 48576\, p^{19}\, q^{13} + 31331\, p^{19}\, q^{12} + 10028\, q^{61}\, p^{11} + 89203\, q^{47}\, p^{11} + 43\, q^{36}\, p^{4}$$
$$+ 967\, q^{84}\, p^{17} + 107801614\, p^{26}\, q^{38} + 60046\, p^{66}\, q^{14} + 30214\, p^{65}\, q^{13} + 66803\, q^{100}\, p^{39} + 143939\, q^{100}\, p^{41} + 99188\, q^{100}\, p^{40} + 10545\, q^{100}\, p^{35}$$
$$+ 654207885\, q^{90}\, p^{67} + 447\, p^{10}\, q^{8} + 277\, p^{10}\, q^{7} + 95943\, q^{64}\, p^{14} + 158214802\, q^{68}\, p^{29} + 1065\, q^{21}\, p^{6} + 390\, q^{20}\, p^{5} + 2670\, q^{22}\, p^{7} + 34\, q^{17}\, p^{3}$$
$$+ 4136983\, q^{66}\, p^{20} + 16350097\, q^{67}\, p^{23} + 683\, p^{10}\, q^{9} + 1447\, p^{11}\, q^{10} + 11744\, p^{19}\, q^{10} + 1610\, p^{18}\, q^{7} + 5605\, p^{18}\, q^{9} + 3107\, p^{18}\, q^{8}$$
$$+ 388457\, p^{18}\, q^{20} + 706012\, p^{20}\, q^{20} + 1229214\, p^{21}\, q^{21} + 52278\, q^{42}\, p^{10} + 979724335\, p^{88}\, q^{62} + 1078173257\, p^{88}\, q^{65} + 671\, p^{17}\, q^{6}$$
$$+ 263\, p^{16}\, q^{5} + 27091\, p^{72}\, q^{15} + 152891\, q^{69}\, p^{16} + 316524\, q^{22}\, p^{16} + 4354825460\, q^{80}\, p^{57} + p^{112}\, q^{51} + 2\, p^{109}\, q^{42} + p^{111}\, q^{47} + 249\, p^{86}\, q^{17}$$
$$+ 195284247\, p^{76}\, q^{34} + 917927260\, p^{77}\, q^{41} + 20690860\, p^{73}\, q^{26} + 176890220\, p^{75}\, q^{33} + 10307587\, p^{72}\, q^{24} + 9515177\, p^{25}\, q^{25}$$
$$+ 38438344\, p^{72}\, q^{27} + 7891842\, q^{48}\, p^{18} + 420018\, q^{47}\, p^{13} + 1554807\, q^{47}\, p^{15} + 4701342\, q^{48}\, p^{17} + 43314\, q^{45}\, p^{10} + 862786\, q^{46}\, p^{14}$$
$$+ 1603478\, q^{46}\, p^{15} + 213372\, q^{46}\, p^{12} + 224899\, q^{45}\, p^{12} + 511\, q^{85}\, p^{17} + 4309\, q^{85}\, p^{19} + 47\, q^{80}\, p^{13} + 64\, q^{84}\, p^{15} + 552790389\, q^{70}\, p^{34}$$
$$+ 481347322\, q^{69}\, p^{33} + 111064815\, q^{94}\, p^{58} + 3663616\, q^{103}\, p^{67} + 2556355\, q^{103}\, p^{63} + 2835729\, q^{103}\, p^{64} + 359742662\, q^{69}\, p^{32}$$
$$+ 23089\, q^{62}\, p^{12} + 7533541729\, p^{46}\, q^{68} + 3116884\, q^{103}\, p^{65} + 2026102\, q^{104}\, p^{67} + 3918784\, q^{103}\, p^{68} + 3394314\, q^{103}\, p^{66} + 252\, p^{64}\, q^{9}$$
$$+ 16350097\, p^{97}\, q^{53} + 523041\, q^{70}\, p^{18} + 2693785\, q^{71}\, p^{21} + 1881810\, q^{70}\, p^{20} + 235611823\, q^{79}\, p^{37} + 255514\, q^{70}\, p^{17} + 66532\, q^{69}\, p^{15}$$
$$+ 1015162\, q^{70}\, p^{19} + 29704012\, q^{51}\, p^{21} + 9772\, q^{16}\, p^{11} + 30214\, q^{65}\, p^{13} + 2754913\, q^{90}\, p^{34} + 1864714\, q^{90}\, p^{33} + 64\, q^{77}\, p^{12} + 1580\, q^{85}\, p^{18}$$
$$+ 14259\, q^{86}\, p^{21} + 14\, p^{108}\, q^{41} + 10\, p^{106}\, q^{36} + 359915\, p^{17}\, q^{21} + 1210\, p^{110}\, q^{56} + 2866\, p^{111}\, q^{64} + 855\, p^{110}\, q^{55} + 2842\, p^{113}\, q^{80} + 4218\, p^{113}\, q^{88}$$
$$+ 671\, p^{114}\, q^{103} + 1505\, p^{114}\, q^{92} + 46\, p^{103}\, q^{32} + 8\, p^{99}\, q^{25} + 3590\, p^{111}\, q^{65} + 3669\, p^{112}\, q^{72} + 3986402\, q^{90}\, p^{35} + 5193240\, q^{91}\, p^{37}$$
$$+ 2330495741\, p^{68}\, q^{39} + 7791807386\, p^{69}\, q^{47} + 2843149519\, p^{68}\, q^{40} + 10919549374\, p^{69}\, q^{50} + 4841599803\, p^{68}\, q^{43} + 4096696004\, p^{68}\, q^{42}$$
$$+ 271981885\, q^{52}\, p^{27} + 139135362\, q^{52}\, p^{25} + 196250289\, q^{52}\, p^{26} + 66021567\, q^{52}\, p^{23} + 94185611\, q^{53}\, p^{24} + 96811512\, q^{52}\, p^{24} + 98\, p^{30}\, q^{4}$$
$$+ 130858\, p^{13}\, q^{24} + 135\, q^{85}\, p^{16} + 371\, q^{11}\, p^{7} + 22922\, q^{30}\, p^{9} + 1627364\, q^{92}\, p^{35} + 23358793201\, p^{58}\, q^{54} + 24389793596\, p^{59}\, q^{55}$$
$$+ 6130\, q^{86}\, p^{20} + 2397\, q^{86}\, p^{19} + 840\, q^{86}\, p^{18} + 15044\, q^{16}\, p^{12} + 49561\, p^{43}\, q^{10} + 4020423\, p^{21}\, q^{26} + 2938109\, p^{20}\, q^{26} + 4900582\, p^{21}\, q^{27}$$
$$+ 441620\, p^{46}\, q^{13} + 7691417\, p^{49}\, q^{18} + 12606500603\, p^{56}\, q^{46} + 884936\, q^{31}\, p^{15} + 170069470\, q^{78}\, p^{35} + 56812\, p^{14}\, q^{18} + 116837\, p^{18}\, q^{16}$$
$$+ 952\, q^{38}\, p^{6} + 15393136\, p^{96}\, q^{50} + 30977519\, p^{99}\, q^{74} + 27548834\, p^{99}\, q^{67} + 31235068\, p^{99}\, q^{73} + 6851636\, p^{100}\, q^{89} + 29715232\, p^{99}\, q^{76}$$
$$+ 28739371\, p^{99}\, q^{77} + 3554972\, p^{101}\, q^{91} + 15707008\, p^{100}\, q^{81} + 2335182\, q^{51}\, p^{16} + 696722\, q^{50}\, p^{14} + 327825\, q^{69}\, p^{17} + 100058149\, p^{71}\, q^{96}$$
$$+ 30826141\, q^{94}\, p^{49} + 2583\, q^{41}\, p^{7} + 10\, q^{31}\, p^{3} + 756\, q^{40}\, p^{6} + 234982\, q^{44}\, p^{12} + 49561\, q^{43}\, p^{10} + 22096126866\, p^{57}\, q^{53} + 14\, p^{49}\, q^{5}$$
$$+ 62329\, p^{17}\, q^{15} + 22440\, p^{16}\, q^{13} + 15044\, p^{16}\, q^{12} + 2657683154\, q^{56}\, p^{36} + 830856026\, q^{55}\, p^{31} + 1745803194\, q^{55}\, p^{34} + 1078173257\, q^{55}\, p^{32}$$

$$+ 14952721\, p^{27}\, q^{25} + 22358\, p^{41}\, q^{9} + 8792\, p^{40}\, q^{8} + 32629\, p^{16}\, q^{14} + 4138808\, p^{101}\, q^{90} + 14423480\, p^{99}\, q^{59} + 153392\, p^{19}\, q^{16} + 7541\, q^{42}\, p^{8}$$
$$+ 31331\, p^{12}\, q^{19} + 1781\, p^{52}\, q^{8} + 279\, p^{46}\, q^{6} + 35462\, q^{68}\, p^{14} + 1380701488\, q^{55}\, p^{33} + 2180696769\, q^{55}\, p^{35} + 528226\, p^{20}\, q^{19}$$
$$+ 662130\, q^{69}\, p^{18} + 153641\, p^{25}\, q^{13} + 13956\, p^{24}\, q^{9} + 53734\, p^{25}\, q^{11} + 1483549\, p^{26}\, q^{18} + 1690132422\, p^{67}\, q^{37} + 8798036534\, p^{69}\, q^{48}$$
$$+ 6564006997\, p^{68}\, q^{45} + 165347427\, p^{65}\, q^{28} + 3077257882\, q^{69}\, p^{41} + 12263\, q^{83}\, p^{19} + 744885\, q^{49}\, p^{14} + 4551061\, q^{49}\, p^{17}$$
$$+ 2335615389\, p^{45}\, q^{37} + 25842\, q^{37}\, p^{9} + q^{60}\, p^{6} + 362\, q^{19}\, p^{5} + 34\, q^{19}\, p^{3} + 8920\, p^{50}\, q^{9} + 3116\, p^{49}\, q^{8} + 2103872825\, p^{67}\, q^{38}$$
$$+ 1767671\, p^{60}\, q^{17} + 12771434\, p^{62}\, q^{21} + 20007420\, q^{49}\, p^{20} + 10039737\, p^{100}\, q^{86} + 103987\, q^{93}\, p^{30} + 3037\, q^{90}\, p^{22} + 1496\, q^{91}\, p^{22}$$
$$+ 743619\, q^{98}\, p^{42} + 1501351\, q^{102}\, p^{55} + 8\, q^{62}\, p^{7} + 1789749\, q^{102}\, p^{56} + 7691417\, q^{49}\, p^{18} + 1058894\, p^{59}\, q^{16} + 22365021\, p^{95}\, q^{91}$$
$$+ 280290\, p^{20}\, q^{17} + 388457\, p^{20}\, q^{18} + 295329\, p^{18}\, q^{19} + 19640\, q^{101}\, p^{38} + 23\, q^{87}\, p^{16} + 294396707\, q^{83}\, p^{42} + 4647199\, q^{82}\, p^{28} + 12\, q^{56}\, p^{6}$$
$$+ 1665\, q^{63}\, p^{10} + 4490\, q^{64}\, p^{11} + 44846943\, p^{63}\, q^{24} + 5061739\, p^{61}\, q^{19} + 460293\, q^{45}\, p^{13} + 1611870091\, p^{79}\, q^{83} + 2311\, q^{42}\, p^{7}$$
$$+ 1149259152\, p^{85}\, q^{79} + 9772\, p^{16}\, q^{11} + 17412043\, q^{53}\, p^{20} + 63946142\, q^{53}\, p^{23} + 27548834\, q^{53}\, p^{21} + 42472644\, q^{53}\, p^{22} + 40599025\, q^{54}\, p^{22}$$
$$+ 2848\, q^{84}\, p^{18} + 26\, q^{83}\, p^{14} + 5736982\, p^{25}\, q^{23} + 241351860\, p^{93}\, q^{75} + 65592\, p^{77}\, q^{18} + 285223\, p^{79}\, q^{21} + 382376\, p^{80}\, q^{22} + 34\, q^{18}\, p^{3}$$
$$+ 6\, q^{17}\, p^{2} + 133\, q^{20}\, p^{4} + 7506\, q^{15}\, p^{11} + 2185092\, q^{104}\, p^{68} + 126\, q^{19}\, p^{4} + q^{8}\, p + 5\, q^{9}\, p^{2} + 2374017\, q^{37}\, p^{16} + 1019777056\, p^{57}\, q^{32}$$
$$+ 243228433\, p^{56}\, q^{27} + 781136076\, p^{57}\, q^{31} + 6381744659\, p^{58}\, q^{41} + 1670082270\, p^{57}\, q^{34} + 2097331419\, p^{57}\, q^{35} + 850\, p^{39}\, q^{6} + 123\, q^{27}\, p^{4}$$
$$+ 25590\, q^{33}\, p^{9} + 10825\, q^{32}\, p^{8} + 4218\, q^{32}\, p^{7} + 855\, p^{65}\, q^{10} + 107801614\, p^{94}\, q^{82} + 38413\, q^{84}\, p^{21} + 200481\, q^{47}\, p^{12} + 3407\, q^{87}\, p^{20}$$
$$+ 7950904868\, p^{48}\, q^{70} + 7\, q^{13}\, p^{2} + 19640404840\, p^{57}\, q^{51} + 20918020017\, p^{57}\, q^{52} + 316819082\, p^{85}\, q^{45} + 63742650\, p^{83}\, q^{36}$$
$$+ 850867814\, p^{87}\, q^{56} + 407222455\, p^{86}\, q^{48} + 5504633\, p^{80}\, q^{27} + 7172598\, q^{91}\, p^{38} + 29\, q^{14}\, p^{3} + 32\, q^{15}\, p^{3} + 2543501825\, q^{69}\, p^{40}$$
$$+ 8251\, q^{87}\, p^{21} + 18360\, q^{87}\, p^{22} + 8435637\, q^{68}\, p^{22} + 10307587\, q^{72}\, p^{24} + 371\, p^{11}\, q^{7} + 960\, p^{11}\, q^{9} + 2021\, p^{12}\, q^{10} + 609\, q^{11}\, p^{8}$$
$$+ 466698\, p^{64}\, q^{16} + 1499541\, q^{71}\, p^{20} + 800618\, q^{71}\, p^{19} + 407473\, q^{71}\, p^{18} + 43418\, p^{14}\, q^{17} + 62329\, p^{15}\, q^{17} + 48996006\, p^{88}\, q^{94}$$
$$+ 828858\, q^{47}\, p^{14} + 8174\, q^{41}\, p^{8} + 609\, p^{11}\, q^{8} + 117423\, q^{70}\, p^{16} + 210\, p^{11}\, q^{6} + 44\, p^{10}\, q^{4} + 89\, p^{10}\, q^{5} + 1813\, q^{88}\, p^{20} + 417\, q^{87}\, p^{18}$$
$$+ 6142\, p^{16}\, q^{10} + 277\, q^{10}\, p^{7} + 1051680529\, p^{67}\, q^{35} + 5664985971\, p^{68}\, q^{44} + 14146889535\, p^{69}\, q^{53} + 778395\, p^{65}\, q^{17} + 952\, p^{15}\, q^{7}$$
$$+ 2938\, p^{15}\, q^{9} + 1716\, p^{15}\, q^{8} + 2095466174\, p^{78}\, q^{82} + 1269115075\, p^{83}\, q^{81} + 1880031682\, p^{79}\, q^{82} + 2335615389\, p^{75}\, q^{83}$$
$$+ 348883886\, q^{55}\, p^{28} + 21392695\, p^{57}\, q^{21} + 72417100\, p^{58}\, q^{24} + 800618\, p^{101}\, q^{49} + 391634\, p^{100}\, q^{44} + 827578\, p^{102}\, q^{52} + 641395\, p^{18}\, q^{22}$$
$$+ 14032667490\, p^{57}\, q^{47} + 15460122633\, p^{57}\, q^{48} + 855482983\, q^{53}\, p^{31} + p^{6}\, q + 16\, p^{9}\, q^{3} + 5\, p^{8}\, q^{2} + 5\, q^{8}\, p^{2} + q^{7}\, p + 4\, q^{35}\, p^{3}$$
$$+ 90876173\, q^{54}\, p^{24} + 187252036\, q^{54}\, p^{26} + 358945747\, q^{54}\, p^{28} + 261460203\, q^{54}\, p^{27} + 131708667\, q^{54}\, p^{25} + 8827375\, p^{27}\, q^{23}$$

$$+ 12006184770\, p^{69} q^{51} + 1341557915\, p^{67} q^{36} + 13088011011\, p^{69} q^{52} + 228097691\, p^{89} q^{50} + 274\, p^{59} q^{8} + 366288655\, q^{53} p^{28}$$
$$+ 657840336\, q^{52} p^{30} + 493205943\, q^{53} p^{29} + 267763124\, q^{53} p^{27} + 654207885\, q^{53} p^{30} + 484953462\, q^{54} p^{29} + 3109363481\, p^{37} q^{58}$$
$$+ 342250781\, p^{91} q^{59} + 46248495\, q^{50} p^{22} + 370675010\, p^{92} q^{70} + 24451758\, q^{76} p^{28} + 84125294\, p^{88} q^{43} + 22572\, q^{88} p^{23} + 10544\, q^{88} p^{22}$$
$$+ 102813\, q^{45} p^{11} + 114100\, q^{43} p^{11} + 96195\, q^{46} p^{11} + 6550377663\, p^{64} q^{79} + 1423643\, q^{49} p^{15} + 46582\, q^{44} p^{10} + 441620\, q^{46} p^{13}$$
$$+ 372222801\, p^{92} q^{69} + 789372\, q^{48} p^{14} + 204765\, p^{78} q^{20} + 32715012\, p^{87} q^{38} + 21\, p^{11} q^{3} + 6\, p^{10} q^{2} + 12838\, q^{89} p^{23} + 29962\, q^{90} p^{25}$$
$$+ 57136\, q^{90} p^{26} + 5789\, q^{89} p^{22} + 110187\, p^{13} q^{23} + 3962172\, q^{74} p^{23} + 8382493\, q^{75} p^{25} + 13248699\, q^{75} p^{26} + 2309224\, q^{74} p^{22} + 176\, q^{39} p^{5}$$
$$+ 104846818\, p^{88} q^{44} + 34304\, p^{11} q^{22} + 6370131\, q^{53} p^{18} + 11285409\, q^{52} p^{19} + 18258186\, q^{52} p^{20} + 484953462\, p^{91} q^{66} + 45329763\, q^{51} p^{22}$$
$$+ 8879765\, p^{85} q^{32} + 19610\, q^{43} p^{9} + 393994718\, p^{90} q^{57} + 313053\, q^{72} p^{18} + 915386\, q^{73} p^{20} + 3192775741\, q^{57} p^{37} + 3918784\, q^{52} p^{17}$$
$$+ 6764899\, q^{52} p^{18} + 129907439\, q^{93} p^{56} + 108786\, q^{44} p^{11} + 408\, p^{14} q^{6} + 166\, p^{13} q^{5} + 72\, p^{13} q^{4} + 61\, q^{82} p^{14} + 22873646715\, p^{61} q^{54}$$
$$+ 23448314146\, p^{62} q^{55} + 11727739906\, p^{61} q^{46} + 1795\, q^{44} p^{7} + 18229002\, p^{85} q^{34} + 1802622\, p^{82} q^{26} + 1766993516\, q^{53} p^{34}$$
$$+ 194559853\, p^{89} q^{49} + 2139826\, q^{72} p^{21} + 13268260\, q^{73} p^{25} + 3735981\, q^{72} p^{22} + 6302128\, q^{72} p^{23} + p^{7} q + 1179699\, q^{72} p^{20}$$
$$+ 1258039\, q^{51} p^{15} + 19614478635\, p^{59} q^{51} + 20969459762\, p^{59} q^{52} + 18077\, p^{44} q^{9} + 6867\, p^{43} q^{8} + 3590\, p^{55} q^{9} + 68434\, q^{27} p^{11}$$
$$+ 23150815775\, p^{57} q^{54} + 24321092312\, p^{58} q^{55} + 6268509008\, q^{79} p^{68} + 196400\, q^{71} p^{17} + 2536473842\, p^{78} q^{48} + 1930168387\, p^{77} q^{45}$$
$$+ 699625\, p^{17} q^{24} + 16522\, q^{45} p^{9} + 5525\, q^{45} p^{8} + 158938\, p^{88} q^{26} + 7360682\, p^{93} q^{41} + 17858930\, p^{99} q^{84} + 1766139\, p^{91} q^{34}$$
$$+ 50111\, p^{85} q^{22} + 21383089\, p^{99} q^{82} + 1428131557\, p^{74} q^{86} + 688065\, p^{16} q^{26} + 850801\, p^{17} q^{25} + 1671522745\, p^{82} q^{80} + 382033\, p^{15} q^{25}$$
$$+ 81174975\, q^{70} p^{28} + 194559853\, q^{71} p^{31} + 116638662\, q^{70} p^{29} + 164532785\, q^{70} p^{30} + 55389414\, q^{70} p^{27} + 106\, p^{29} q^{4} + 8116\, p^{82} q^{18}$$
$$+ 38413\, p^{84} q^{21} + 443891957\, q^{76} p^{37} + 6\, q^{11} p^{2} + 13035012\, q^{91} p^{40} + 22326249\, q^{91} p^{42} + 568053353\, q^{76} p^{38} + 342346275\, q^{76} p^{36}$$
$$+ 38269\, q^{97} p^{33} + 22572\, q^{97} p^{32} + 1767671\, q^{103} p^{60} + 882211259\, p^{60} q^{32} + 205044009\, p^{59} q^{27} + 669528468\, p^{60} q^{31}$$
$$+ 5777493337\, p^{61} q^{41} + 1470145145\, p^{60} q^{34} + 1861450316\, p^{60} q^{35} + 577154\, p^{16} q^{25} + 260428360\, q^{76} p^{35} + 363555667\, q^{77} p^{37}$$
$$+ 9789622921\, q^{54} p^{44} + 63\, q^{12} p^{4} + 195284247\, q^{76} p^{34} + 144235330\, q^{76} p^{33} + 25865523\, q^{67} p^{24} + 221313184\, q^{68} p^{30} + 778395\, q^{65} p^{17}$$
$$+ 17617\, q^{67} p^{13} + 86824\, q^{68} p^{15} + 920\, q^{80} p^{15} + 7530362140\, q^{54} p^{42} + 8626088044\, q^{54} p^{43} + 6511504788\, q^{54} p^{41} + 45142044\, p^{98} q^{75}$$
$$+ 19642\, p^{52} q^{10} + 813789449\, p^{67} q^{34} + 3430939823\, p^{68} q^{41} + 1405165125\, q^{53} p^{33} + 4623944529\, p^{58} q^{80} + 219007\, q^{64} p^{15}$$
$$+ 2317232\, q^{66} p^{19} + 253222370\, p^{65} q^{93} + 1116350\, p^{63} q^{17} + 8364823\, p^{65} q^{21} + 669273\, p^{62} q^{16} + 30119899\, p^{66} q^{24} + 3268237\, p^{64} q^{19}$$
$$+ 1481883691\, p^{70} q^{38} + 328265290\, p^{37} q^{31} + 589828749\, p^{37} q^{34} + 701561604\, p^{37} q^{35} + 950257842\, p^{38} q^{36} + 263838550\, p^{37} q^{30}$$

$$+ 403611083\, p^{37}\, q^{32} + 209463309\, p^{37}\, q^{29} + 358945747\, p^{54}\, q^{28} + 11259494432\, p^{57}\, q^{45} + 7608625634\, p^{56}\, q^{42} + 3935751414\, p^{56}\, q^{38}$$
$$+ 8753263159\, p^{56}\, q^{43} + 3252091057\, p^{56}\, q^{37} + 4712424341\, p^{56}\, q^{39} + 1919184\, q^{67}\, p^{19} + 3456182\, q^{67}\, p^{20} + 5994735\, q^{67}\, p^{21}$$
$$+ 65443017\, q^{69}\, p^{27} + 177330\, q^{65}\, p^{15} + 1375\, q^{17}\, p^{7} + 8\, q^{14}\, p^{2} + 21\, q^{11}\, p^{3} + 6\, q^{10}\, p^{2} + 58345\, p^{75}\, q^{17} + 3336618\, p^{83}\, q^{28} + 699808\, p^{80}\, q^{23}$$
$$+ 8470250\, p^{84}\, q^{31} + 1569\, q^{79}\, p^{15} + 19570829\, q^{50}\, p^{20} + 12240753\, q^{50}\, p^{19} + 1512160\, p^{81}\, q^{25} + 5193240\, p^{83}\, q^{29} + 880592\, p^{81}\, q^{24}$$
$$+ 645346221\, q^{54}\, p^{30} + 39\, q^{53}\, p^{6} + q^{54}\, p^{5} + 18\, q^{55}\, p^{6} + 494521\, q^{81}\, p^{23} + 8\, q^{82}\, p^{13} + 141\, q^{83}\, p^{15} + 191758703\, q^{69}\, p^{30}$$
$$+ 1103557381\, q^{53}\, p^{32} + 95443015\, q^{69}\, p^{28} + 136521931\, q^{69}\, p^{29} + 13812949\, q^{68}\, p^{23} + 7217625925\, p^{68}\, q^{78} + 6\, q^{80}\, p^{12}$$
$$+ 1078173257\, p^{55}\, q^{32} + 261460203\, p^{54}\, q^{27} + 830856026\, p^{55}\, q^{31} + 6550377663\, p^{56}\, q^{41} + 1745803194\, p^{55}\, q^{34} + 2180696769\, p^{55}\, q^{35}$$
$$+ 76534740\, q^{68}\, p^{27} + 34105112\, q^{68}\, p^{25} + 105\, q^{16}\, p^{4} + 263\, q^{16}\, p^{5} + 28770698\, p^{29}\, q^{26} + 124\, q^{81}\, p^{14} + 93\, q^{15}\, p^{4} + 2845908\, p^{79}\, q^{25}$$
$$+ 908931391\, p^{86}\, q^{54} + 1692078\, p^{79}\, q^{24} + 9745206\, p^{81}\, q^{29} + 6362847\, p^{81}\, q^{28} + 928489378\, p^{87}\, q^{57} + 230\, q^{15}\, p^{5} + 580\, q^{16}\, p^{6}$$
$$+ 1044\, p^{37}\, q^{6} + 1380701488\, p^{55}\, q^{33} + 23062250\, p^{82}\, q^{32} + 1004535886\, p^{87}\, q^{58} + 15952462\, p^{82}\, q^{31} + 369554\, q^{49}\, p^{13} + 81862\, q^{48}\, p^{11}$$
$$+ 4883\, q^{46}\, p^{8} + 98791841\, p^{93}\, q^{85} + 2597430\, p^{49}\, q^{16} + 1044\, q^{37}\, p^{6} + 18229002\, p^{86}\, q^{35} + 268\, q^{36}\, p^{5} + 3656\, p^{94}\, q^{113} + 196\, p^{115}\, q^{106}$$
$$+ 3006\, p^{109}\, q^{108} + 19614478635\, p^{61}\, q^{69} + 5659014\, p^{84}\, q^{30} + 1095212325\, p^{88}\, q^{66} + 1328196\, p^{78}\, q^{23} + 260428360\, p^{85}\, q^{44}$$
$$+ 66683866\, p^{88}\, q^{42} + 84297883\, p^{84}\, q^{38} + 1146425532\, p^{87}\, q^{60} + 813789449\, p^{86}\, q^{53} + 56\, p^{52}\, q^{6} + 17004796899\, p^{58}\, q^{70}$$
$$+ 4847608278\, p^{46}\, q^{72} + 1610593348\, q^{81}\, p^{49} + 4252462829\, p^{39}\, q^{60} + 7055726429\, p^{42}\, q^{60} + 6020770082\, p^{41}\, q^{60} + 3351655973\, p^{38}\, q^{61}$$
$$+ 5086190417\, p^{40}\, q^{60} + 79079\, q^{98}\, p^{36} + 3465791\, p^{24}\, q^{22} + 249\, q^{86}\, p^{17} + 1225935\, p^{18}\, q^{25} + 75918357\, p^{85}\, q^{94} + 118491863\, p^{77}\, q^{95}$$
$$+ 137253123\, p^{89}\, q^{47} + 87432\, p^{16}\, q^{17} + 266847913\, p^{93}\, q^{72} + 271981885\, p^{93}\, q^{68} + 186705\, q^{48}\, p^{12} + q^{9}\, p + 23381542063\, p^{61}\, q^{66}$$
$$+ 22253216032\, p^{62}\, q^{67} + 50111\, q^{85}\, p^{22} + 222064\, q^{86}\, p^{25} + 8926524\, p^{100}\, q^{87} + 7392\, p^{84}\, q^{19} + 3810399\, p^{95}\, q^{42} + 17647525\, p^{100}\, q^{79}$$
$$+ q^{12}\, p + 205\, q^{38}\, p^{5} + 43742870\, p^{95}\, q^{87} + 2843149519\, p^{52}\, q^{80} + 144865226\, q^{93}\, p^{57} + 79029777\, p^{65}\, q^{26} + 25502504\, p^{64}\, q^{23}$$
$$+ 206448900\, p^{66}\, q^{29} + 123\, p^{41}\, q^{5} + 2\, q^{59}\, p^{6} + 133\, p^{20}\, q^{4} + 34\, p^{18}\, q^{3} + 7629\, p^{25}\, q^{8} + 120799\, p^{27}\, q^{12} + 33315\, p^{26}\, q^{10} + 1314843\, q^{103}\, p^{58}$$
$$+ 1654557\, p^{29}\, q^{17} + 8281241\, p^{30}\, q^{21} + 5047239\, p^{29}\, q^{20} + 3554972\, p^{29}\, q^{19} + 11392000\, p^{30}\, q^{22} + 382687\, p^{28}\, q^{14} + 3665\, q^{19}\, p^{8}$$
$$+ 5584062988\, p^{56}\, q^{40} + 26216\, q^{35}\, p^{9} + 165\, q^{55}\, p^{7} + 28\, q^{54}\, p^{6} + 11572318\, p^{27}\, q^{24} + 16760828201\, p^{56}\, q^{49} + 18117140758\, p^{56}\, q^{50}$$
$$+ 52\, p^{4}\, q^{11} + 269\, p^{6}\, q^{12} + 112\, p^{5}\, q^{11} + 18395474\, p^{28}\, q^{25} + 960\, p^{9}\, q^{11} + 447\, p^{8}\, q^{10} + 6141358\, p^{101}\, q^{87} + 2287216\, p^{96}\, q^{42}$$
$$+ 11611541\, p^{101}\, q^{79} + q^{103}\, p^{29} + 58502324\, p^{55}\, q^{23} + 58866\, q^{36}\, p^{10} + 26140\, q^{36}\, p^{9} + 59060\, q^{37}\, p^{10} + 38164\, p^{107}\, q^{102} + 2855578\, p^{68}\, q^{20}$$
$$+ 2395791\, p^{20}\, q^{25} + 336336120\, p^{92}\, q^{64} + 232545229\, p^{91}\, q^{55} + 136521931\, p^{91}\, q^{51} + 80422011\, p^{90}\, q^{46} + 382915\, q^{65}\, p^{16}$$

$$+ 73932776\, p^{27}\, q^{33} + 151425824\, p^{31}\, q^{32} + 123836037\, p^{30}\, q^{32} + 138597572\, p^{29}\, q^{34} + 147030540\, p^{30}\, q^{33} + 94162196\, p^{28}\, q^{33}$$
$$+ 118393620\, p^{29}\, q^{33} + 15584\, p^{25}\, q^{9} + 60951\, p^{26}\, q^{11} + 4096696004\, p^{78}\, q^{52} + 3683560895\, p^{78}\, q^{51} + 9975892481\, p^{56}\, q^{44}$$
$$+ 4712424341\, p^{39}\, q^{56} + 497482976\, p^{74}\, q^{36} + 11371\, p^{12}\, q^{15} + 414913206\, p^{84}\, q^{45} + 7360682\, p^{79}\, q^{27} + 84297883\, p^{82}\, q^{36}$$
$$+ 13983013617\, q^{56}\, p^{47} + 1104156215\, p^{86}\, q^{56} + 534994966\, p^{85}\, q^{48} + 110748\, p^{73}\, q^{17} + 12486953603\, q^{55}\, p^{46} + 31955168\, p^{31}\, q^{25}$$
$$+ 53103453\, p^{31}\, q^{27} + 79908724\, p^{32}\, q^{28} + 266386906\, q^{71}\, p^{32} + 411\, q^{44}\, p^{6} + 7\, q^{33}\, p^{3} + 5\, q^{34}\, p^{3} + 6204\, q^{44}\, p^{8} + 1398507758\, p^{87}\, q^{66}$$
$$+ 1785023\, p^{77}\, q^{23} + 342346275\, p^{84}\, q^{44} + 1558\, q^{45}\, p^{7} + 5026\, p^{59}\, q^{10} + 23085061\, p^{21}\, q^{39} + 112028219\, p^{83}\, q^{38} + 1470145145\, p^{86}\, q^{60}$$
$$+ 1051680529\, p^{85}\, q^{53} + 3810399\, p^{78}\, q^{25} + 1201227982\, p^{86}\, q^{57} + 1171025569\, p^{85}\, q^{54} + 14374144\, p^{99}\, q^{86} + 24162979\, p^{95}\, q^{50}$$
$$+ 206\, p^{72}\, q^{11} + 46121704\, p^{98}\, q^{74} + 42472644\, p^{98}\, q^{67} + 46730691\, p^{98}\, q^{73} + 9651780\, p^{99}\, q^{89} + 43816467\, p^{98}\, q^{76} + 42172589\, p^{98}\, q^{77}$$
$$+ 5047239\, p^{100}\, q^{91} + 23085061\, p^{99}\, q^{81} + 743239\, p^{76}\, q^{21} + 1010223\, p^{77}\, q^{22} + 2287216\, p^{78}\, q^{24} + 12712678\, p^{99}\, q^{87} + 12263\, p^{83}\, q^{19}$$
$$+ 6161968\, p^{94}\, q^{42} + 26205483\, p^{99}\, q^{79} + 392\, p^{32}\, q^{5} + 1210\, p^{64}\, q^{10} + 13035012\, p^{80}\, q^{29} + 176442\, p^{74}\, q^{18} + 8573924\, p^{80}\, q^{28}$$
$$+ 141911888\, p^{93}\, q^{82} + 2185092\, q^{52}\, p^{16} + 2352991\, p^{92}\, q^{36} + 502242\, p^{90}\, q^{30} + 1183448\, p^{91}\, q^{33} + 5504633\, p^{93}\, q^{40} + 4052970\, p^{93}\, q^{39}$$
$$+ 3336618\, p^{92}\, q^{37} + 762\, q^{78}\, p^{14} + 72\, q^{13}\, p^{4} + 136\, q^{12}\, p^{5} + 182\, q^{78}\, p^{13} + 112028219\, q^{83}\, p^{38} + 84297883\, q^{82}\, p^{36} + 112028219\, q^{82}\, p^{37}$$
$$+ 252262\, p^{21}\, q^{16} + 24\, q^{12}\, p^{3} + 641395\, p^{22}\, q^{18} + 7\, p^{12}\, q^{2} + 4250\, q^{47}\, p^{8} + 4367388\, p^{50}\, q^{17} + 18982692\, p^{51}\, q^{20} + 481\, p^{7}\, q^{12} + 1447\, p^{10}\, q^{11}$$
$$+ 683\, p^{9}\, q^{10} + 172145\, q^{49}\, p^{12} + 18\, p^{10}\, q^{3} + 5\, p^{9}\, q^{2} + 21765770995\, p^{56}\, q^{53} + 14166999\, p^{24}\, q^{28} + 1089064\, p^{29}\, q^{16} + 2\, p^{74}\, q^{116}$$
$$+ 17532399140\, p^{61}\, q^{50} + 304917866\, p^{58}\, q^{28} + 10373010594\, p^{61}\, q^{45} + 7055726429\, p^{60}\, q^{42} + 3517750200\, p^{60}\, q^{38} + 8187851198\, p^{60}\, q^{43}$$
$$+ 2878176931\, p^{60}\, q^{37} + 4252462829\, p^{60}\, q^{39} + 23235\, q^{66}\, p^{13} + 2719059\, p^{23}\, q^{22} + 816\, p^{12}\, q^{8} + 269\, p^{12}\, q^{6} + 52\, p^{11}\, q^{4} + 112\, p^{11}\, q^{5}$$
$$+ 22762332666\, p^{56}\, q^{54} + 24060094548\, p^{57}\, q^{55} + 781136076\, p^{31}\, q^{57} + 19054623\, p^{93}\, q^{94} + 481\, p^{12}\, q^{7} + 1308\, p^{12}\, q^{9} + 2746\, p^{13}\, q^{10}$$
$$+ 1642513\, q^{105}\, p^{79} + 885845\, p^{22}\, q^{19} + 455313\, p^{22}\, q^{17} + 2058451\, p^{23}\, q^{21} + 1201662\, p^{22}\, q^{20} + 21765770995\, p^{53}\, q^{56}$$
$$+ 20211201461\, p^{52}\, q^{55} + 1402787\, p^{31}\, q^{16} + 3851\, q^{27}\, p^{7} + 1628513192\, q^{77}\, p^{44} + 1603859066\, q^{78}\, p^{45} + 592018852\, q^{77}\, p^{39}$$
$$+ 917927260\, q^{77}\, p^{41} + 1359828968\, q^{77}\, p^{43} + 1930168387\, q^{77}\, p^{45} + 689328\, p^{19}\, q^{21} + 232397\, q^{97}\, p^{37} + 414725\, p^{103}\, q^{52}$$
$$+ 13983013617\, p^{56}\, q^{47} + 3517915006\, p^{79}\, q^{77} + 2782561639\, p^{80}\, q^{78} + 4944845972\, p^{79}\, q^{73} + 3880411297\, p^{79}\, q^{76} + 4600026870\, p^{79}\, q^{74}$$
$$+ 4243121539\, p^{79}\, q^{75} + 21030\, q^{42}\, p^{9} + 6414587540\, p^{79}\, q^{67} + 5572506656\, p^{79}\, q^{71} + 5271122566\, p^{79}\, q^{72} + 6268509008\, p^{79}\, q^{68}$$
$$+ 1245598\, q^{66}\, p^{18} + 111098416\, q^{68}\, p^{28} + 6076539725\, p^{79}\, q^{69} + 5842857789\, p^{79}\, q^{70} + 348568128\, p^{92}\, q^{73} + 15375037929\, p^{56}\, q^{48}$$
$$+ 573\, q^{42}\, p^{6} + 2058451\, p^{21}\, q^{23} + 304333345\, p^{92}\, q^{76} + 181931\, q^{98}\, p^{38} + 154025\, q^{97}\, p^{36} + 4\, p^{21}\, q^{2} + 29761279\, p^{28}\, q^{27}$$

$$+ 45751286\, p^{29}\, q^{28} + 52192287\, p^{88}\, q^{41} + 30712967\, p^{88}\, q^{39} + 24342195\, p^{87}\, q^{37} + 9091444\, p^{86}\, q^{33} + 5850331\, p^{24}\, q^{24}$$
$$+ 22873646715\, p^{66}\, q^{59} + 157286\, q^{50}\, p^{12} + 29353\, q^{49}\, p^{10} + 341800\, q^{50}\, p^{13} + 57271275\, p^{87}\, q^{94} + 5525\, p^{75}\, q^{112} + 25273\, p^{82}\, q^{111}$$
$$+ 2746\, p^{10}\, q^{13} + 391634\, q^{76}\, p^{20} + 196311\, q^{76}\, p^{19} + 285661\, q^{77}\, p^{20} + 855\, q^{110}\, p^{55} + 2406\, q^{109}\, p^{54} + 466274245\, q^{90}\, p^{59}$$
$$+ 533311331\, q^{90}\, p^{61} + 589940070\, q^{90}\, p^{63} + 563241393\, q^{90}\, p^{62} + 612846441\, q^{90}\, p^{64} + 631450884\, q^{90}\, p^{65} + 16098038\, p^{99}\, q^{85}$$
$$+ 1627364\, p^{92}\, q^{35} + 1019777056\, p^{32}\, q^{57} + 1613723721\, p^{34}\, q^{58} + 1313490811\, p^{33}\, q^{57} + 4595\, p^{9}\, q^{17} + 22440\, p^{13}\, q^{16} + 50400911\, p^{34}\, q^{25}$$
$$+ 4052970\, q^{81}\, p^{27} + 8443\, p^{108}\, q^{106} + 12374\, p^{97}\, q^{111} + 1925615363\, p^{81}\, q^{80} + 43418\, p^{106}\, q^{103} + 2176466974\, p^{68}\, q^{85} + 696075658\, p^{87}\, q^{54}$$
$$+ 707943704\, p^{88}\, q^{57} + 17054875\, p^{83}\, q^{32} + 768322937\, p^{88}\, q^{58} + 846499114\, p^{89}\, q^{66} + 195284247\, p^{86}\, q^{44} + 62486457\, p^{85}\, q^{38}$$
$$+ 882211259\, p^{88}\, q^{60} + 621221886\, p^{87}\, q^{53} + 73071\, p^{14}\, q^{19} + 137110\, p^{15}\, q^{20} + 928117\, p^{20}\, q^{21} + 11803902\, p^{51}\, q^{19} + 44062251\, p^{52}\, q^{22}$$
$$+ 61420117\, q^{54}\, p^{23} + 64\, p^{6}\, q^{7} + 8032416\, q^{28}\, p^{22} + 6076539725\, p^{69}\, q^{79} + 15168767865\, p^{72}\, q^{65} + 13555324805\, p^{73}\, q^{66}$$
$$+ 14983270737\, p^{72}\, q^{60} + 13509949094\, p^{72}\, q^{57} + 1766993516\, p^{67}\, q^{86} + 979724335\, q^{58}\, p^{32} + 35796\, p^{60}\, q^{12} + 1938632182\, p^{72}\, q^{85}$$
$$+ 1816299534\, p^{76}\, q^{84} + 1667120524\, p^{77}\, q^{84} + 6373902444\, p^{71}\, q^{78} + 1027990918\, p^{37}\, q^{71} + 2631235668\, p^{77}\, q^{47} + 896203411\, p^{76}\, q^{40}$$
$$+ 717838643\, p^{76}\, q^{39} + 722043193\, p^{86}\, q^{52} + 207530\, p^{24}\, q^{14} + 382033\, p^{25}\, q^{15} + 850801\, p^{25}\, q^{17} + 4020423\, p^{26}\, q^{21} + 2395791\, p^{25}\, q^{20}$$
$$+ 1730460\, p^{25}\, q^{19} + 178240\, q^{26}\, p^{13} + 19152439\, p^{97}\, q^{54} + 266456\, q^{98}\, p^{39} + 107159\, p^{15}\, q^{19} + 348883886\, p^{55}\, q^{28} + 11164358080\, p^{58}\, q^{45}$$
$$+ 7556811956\, p^{57}\, q^{42} + 3873398756\, p^{57}\, q^{38} + 8712414102\, p^{57}\, q^{43} + 3192775741\, p^{57}\, q^{37} + 4648794344\, p^{57}\, q^{39} + 58502324\, q^{55}\, p^{23}$$
$$+ 26195853\, q^{54}\, p^{21} + 16464389\, q^{54}\, p^{20} + 10750509\, p^{28}\, q^{23} + 19419676008\, p^{56}\, q^{51} + 36516065\, p^{27}\, q^{29} + 592798\, q^{52}\, p^{14}$$
$$+ 457533012\, q^{56}\, p^{29} + 66973\, q^{50}\, p^{11} + 18142372\, p^{31}\, q^{23} + 2162240\, p^{17}\, q^{31} + 23555129\, p^{26}\, q^{28} + 20643934569\, p^{56}\, q^{52}$$
$$+ 15223497\, p^{26}\, q^{26} + 22\, q^{81}\, p^{13} + 391634\, p^{76}\, q^{20} + 9338704\, p^{26}\, q^{24} + 3250677\, p^{102}\, q^{60} + 31955168\, p^{25}\, q^{31} + 74446\, q^{49}\, p^{11}$$
$$+ 16760\, p^{13}\, q^{15} + 478472\, p^{24}\, q^{16} + 26263\, q^{24}\, p^{10} + 1750\, p^{9}\, q^{13} + 17\, p^{40}\, q^{4} + 215\, p^{75}\, q^{12} + 37581507\, p^{32}\, q^{25} + 62989334\, p^{32}\, q^{27}$$
$$+ 94162196\, p^{33}\, q^{28} + 46392388\, p^{71}\, q^{27} + 3665\, p^{10}\, q^{14} + 35730247\, p^{80}\, q^{98} + 158083755\, p^{77}\, q^{34} + 753664409\, p^{78}\, q^{41} + 16658626\, p^{74}\, q^{26}$$
$$+ 144235330\, p^{76}\, q^{33} + 8286936\, p^{73}\, q^{24} + 19054623\, p^{94}\, q^{93} + 251640102\, p^{74}\, q^{93} + 656149160\, p^{90}\, q^{69} + 649179418\, p^{90}\, q^{70}$$
$$+ 625476399\, p^{89}\, q^{59} + 14168\, p^{20}\, q^{10} + 1867\, p^{19}\, q^{7} + 3665\, p^{19}\, q^{8} + 93164168\, p^{75}\, q^{96} + 68648811\, p^{70}\, q^{97} + 67602251\, p^{69}\, q^{97}$$
$$+ 31121099\, p^{62}\, q^{98} + 1030044040\, p^{85}\, q^{80} + 32\, p^{72}\, q^{10} + 4\, p^{58}\, q^{6} + 40315212\, p^{88}\, q^{40} + 1533083\, p^{20}\, q^{23} + 825835523\, p^{36}\, q^{37}$$
$$+ 605534597\, p^{35}\, q^{36} + 20211201461\, p^{65}\, q^{68} + 10776848345\, p^{52}\, q^{71} + 58502324\, p^{97}\, q^{65} + 48037461\, p^{97}\, q^{62} + 3735981\, p^{72}\, q^{22}$$
$$+ 13268260\, p^{73}\, q^{25} + 24702740\, p^{21}\, q^{40} + 53734\, q^{25}\, p^{11} + 60951\, q^{26}\, p^{11} + 92655\, q^{25}\, p^{12} + 6020770082\, p^{60}\, q^{79} + 16389802\, p^{95}\, q^{48}$$

$$+ 13248699\, p^{94}\, q^{45} + 7930\, p^{57}\, q^{10} + 18146\, q^{108}\, p^{57} + 33\, p^{117}\, q^{99} + 30\, p^{117}\, q^{97} + 2170\, p^{51}\, q^{8} + 1314843\, p^{62}\, q^{17} + 9728085\, p^{64}\, q^{21}$$
$$+ 788111\, p^{61}\, q^{16} + 34726253\, p^{65}\, q^{24} + 3820114\, p^{63}\, q^{19} + 1680709369\, p^{69}\, q^{38} + 23555129\, p^{28}\, q^{26} + 3662056089\, p^{38}\, q^{59} + 19520\, p^{17}\, q^{12}$$
$$+ 43418\, p^{17}\, q^{14} + 12525\, p^{17}\, q^{11} + 61420117\, p^{97}\, q^{66} + 2931\, p^{80}\, q^{16} + 17525\, p^{84}\, q^{20} + 2934797\, p^{93}\, q^{38} + 10404261\, p^{94}\, q^{44}$$
$$+ 45329763\, p^{98}\, q^{69} + 129146310\, p^{75}\, q^{32} + 92736686\, p^{75}\, q^{31} + 118\, q^{56}\, p^{7} + 3196\, p^{96}\, q^{113} + 3443\, p^{95}\, q^{113} + 2943\, p^{97}\, q^{113} + 82391\, p^{18}\, q^{15}$$
$$+ 29534\, p^{17}\, q^{13} + 53103453\, p^{89}\, q^{93} + 44283402\, p^{90}\, q^{93} + 106411\, q^{26}\, p^{12} + 1089575568\, p^{87}\, q^{75} + 279348284\, p^{84}\, q^{43}$$
$$+ 721292073\, p^{85}\, q^{50} + 1929291\, p^{20}\, q^{24} + 12374\, p^{9}\, q^{23} + 1881810\, q^{100}\, p^{50} + 1499541\, q^{100}\, p^{49} + 360886\, q^{101}\, p^{46} + 1179699\, q^{100}\, p^{48}$$
$$+ 915386\, q^{100}\, p^{47} + 1458140\, p^{93}\, q^{36} + 307097\, p^{91}\, q^{30} + 730392\, p^{92}\, q^{33} + 3442709\, p^{94}\, q^{40} + 2512471\, p^{94}\, q^{39} + 2088302\, p^{93}\, q^{37}$$
$$+ 6837541259\, p^{46}\, q^{69} + 4841599803\, p^{43}\, q^{68} + 16430977370\, p^{54}\, q^{68} + 16536031032\, p^{53}\, q^{67} + 5746728\, p^{70}\, q^{22} + 20012867\, p^{71}\, q^{25}$$
$$+ 39924\, p^{46}\, q^{10} + 369554\, p^{49}\, q^{13} + 6764899\, p^{52}\, q^{18} + 186277457\, q^{83}\, p^{40} + 180440133\, p^{89}\, q^{87} + 7914562\, q^{57}\, p^{19} + 2556355\, q^{57}\, p^{17}$$
$$+ 786178\, q^{56}\, p^{15} + 4583588\, q^{57}\, p^{18} + 13211413\, q^{57}\, p^{20} + 19648827\, q^{58}\, p^{21} + 200414\, q^{55}\, p^{13} + 21392695\, q^{57}\, p^{21} + 1529118\, q^{56}\, p^{16}$$
$$+ 31121099\, q^{58}\, p^{22} + 48037461\, q^{58}\, p^{23} + 1320946525\, p^{87}\, q^{71} + 1400504558\, p^{87}\, q^{68} + 1274535283\, p^{87}\, q^{72} + 72417100\, q^{58}\, p^{24}$$
$$+ 205044009\, q^{59}\, p^{27} + 106805516\, q^{58}\, p^{25} + 154357472\, q^{58}\, p^{26} + 1405165125\, p^{87}\, q^{67} + 1157621776\, p^{87}\, q^{74} + 220705\, q^{34}\, p^{12}$$
$$+ 231361\, q^{35}\, p^{12} + 56800\, q^{34}\, p^{10} + 1265222\, q^{35}\, p^{15} + 747889\, q^{35}\, p^{14} + 1351355\, q^{36}\, p^{15} + 30630321\, q^{38}\, p^{22} + 3816955\, q^{37}\, p^{17}$$
$$+ 5963242\, q^{37}\, p^{18} + 13496019\, q^{37}\, p^{20} + 446399\, q^{36}\, p^{13} + 9078378\, q^{37}\, p^{19} + q^{76}\, p^{10} + 6557117079\, p^{79}\, q^{65} + 5575890884\, p^{80}\, q^{66}$$
$$+ 4516330420\, p^{78}\, q^{53} + 1628513192\, p^{77}\, q^{44} + 9545037\, p^{70}\, q^{23} + 2837423\, p^{18}\, q^{30} + 622760\, q^{72}\, p^{19} + 1677973\, q^{73}\, p^{21} + 14072\, q^{64}\, p^{12}$$
$$+ 774685\, p^{91}\, q^{32} + 44846943\, p^{96}\, q^{57} + 15460122633\, p^{48}\, q^{57} + 65443017\, p^{69}\, q^{27} + 311089987\, p^{70}\, q^{32} + 38085844\, p^{79}\, q^{98}$$
$$+ 241987153\, p^{40}\, q^{82} + 1344177\, q^{50}\, p^{15} + 21\, q^{39}\, p^{4} + 1327\, q^{46}\, p^{7} + 4860151524\, p^{79}\, q^{56} + 4936085868\, p^{78}\, q^{54} + 6020770082\, p^{79}\, q^{60}$$
$$+ 5191189842\, p^{79}\, q^{57} + 568053353\, p^{76}\, q^{38} + p\, q^{11} + 2130\, p^{8}\, q^{16} + 18496273\, p^{96}\, q^{51} + 10612064\, p^{95}\, q^{46} + 55252807\, p^{97}\, q^{64}$$
$$+ 34726253\, p^{96}\, q^{55} + 1151\, p^{7}\, q^{16} + 62657\, p^{86}\, q^{23} + 797753\, p^{90}\, q^{31} + 29728\, q^{25}\, p^{10} + 5051\, p^{81}\, q^{17} + 297405\, p^{89}\, q^{28} + 105\, p^{16}\, q^{4}$$
$$+ 29\, p^{14}\, q^{3} + 12544824556\, p^{46}\, q^{58} + 771\, p^{14}\, q^{7} + 2284\, p^{14}\, q^{9} + 1367\, p^{14}\, q^{8} + 2789889\, q^{47}\, p^{16} + 1052841368\, p^{56}\, q^{32}$$
$$+ 253222370\, p^{55}\, q^{27} + 808900696\, p^{56}\, q^{31} + 6491480159\, p^{57}\, q^{41} + 1714444463\, p^{56}\, q^{34} + 2147250250\, p^{56}\, q^{35} + 952\, p^{38}\, q^{6} + 2670\, p^{22}\, q^{7}$$
$$+ 5591\, p^{22}\, q^{8} + 79817\, p^{24}\, q^{12} + 22909\, p^{23}\, q^{10} + 4781\, p^{15}\, q^{10} + 5605\, p^{9}\, q^{18} + 4173\, p^{11}\, q^{13} + 4356\, p^{12}\, q^{12} + 4194\, p^{90}\, q^{113} + 6963\, p^{96}\, q^{112}$$
$$+ 7506\, p^{105}\, q^{109} + 195169\, q^{32}\, p^{12} + 50088\, q^{31}\, p^{10} + 23381542063\, p^{59}\, q^{54} + 24264608354\, p^{60}\, q^{55} + 2331905\, p^{69}\, q^{20}$$
$$+ 3430939823\, p^{79}\, q^{52} + 3077257882\, p^{79}\, q^{51} + 24262554\, p^{31}\, q^{24} + 1327\, p^{24}\, q^{6} + 461\, p^{23}\, q^{5} + 260844\, p^{29}\, q^{13} + 2837423\, p^{30}\, q^{18}$$

$$+ 29534\, p^{107}\, q^{103} + 310468\, q^{66}\, p^{16} + 19705810310\, p^{58}\, q^{51} + 21027361529\, p^{58}\, q^{52} + 14146889535\, p^{53}\, q^{69} + 8251\, p^{87}\, q^{21}$$
$$+ 17931936243\, p^{60}\, q^{50} + 16658626\, q^{94}\, p^{46} + 2943\, p^{23}\, q^{7} + 25865523\, p^{96}\, q^{53} + 4173\, p^{13}\, q^{11} + 3006\, p^{11}\, q^{12} + 366\, q^{108}\, p^{46} + 22\, q^{107}\, p^{39}$$
$$+ 125722\, p^{81}\, q^{109} + 57\, p^{57}\, q^{112} + 806\, q^{109}\, p^{51} + 10779\, p^{112}\, q^{85} + 16522\, p^{111}\, q^{75} + 4844\, p^{107}\, q^{49} + 2032\, p^{106}\, q^{44} + 6\, p^{94}\, q^{20}$$
$$+ 6581021\, q^{74}\, p^{24} + 66021567\, p^{52}\, q^{23} + 25380373\, q^{79}\, p^{30} + 241987153\, q^{80}\, p^{38} + 26559\, p^{96}\, q^{31} + 8769\, p^{95}\, q^{28} + 928638506\, p^{70}\, q^{36}$$
$$+ 9651248318\, p^{72}\, q^{52} + 8798036534\, p^{72}\, q^{51} + 63\, p^{44}\, q^{5} + 12682\, p^{60}\, q^{11} + 16658626\, q^{74}\, p^{26} + 4647199\, q^{92}\, p^{38} + 774685\, q^{91}\, p^{32}$$
$$+ 1183448\, q^{91}\, p^{33} + 7999\, p^{20}\, q^{9} + 47378\, p^{21}\, q^{12} + 12365033853\, p^{59}\, q^{46} + 30119899\, p^{96}\, q^{54} + 366\, p^{74}\, q^{12} + 19610\, p^{43}\, q^{9} + 7541\, p^{42}\, q^{8}$$
$$+ 170550149\, p^{94}\, q^{76} + 161442412\, p^{94}\, q^{77} + 191220204\, p^{94}\, q^{73} + 6141358\, p^{19}\, q^{33} + 15476166\, p^{22}\, q^{32} + 896203411\, q^{80}\, p^{44}$$
$$+ 3990650\, q^{76}\, p^{24} + 2362035\, q^{76}\, p^{23} + 10404261\, q^{76}\, p^{26} + 491041143\, q^{79}\, p^{40} + 28627027\, q^{77}\, p^{29} + 6535052\, q^{76}\, p^{25} + 19202963\, q^{77}\, p^{28}$$
$$+ 179624355\, q^{79}\, p^{36} + 134998956\, q^{79}\, p^{35} + 72832862\, q^{79}\, p^{33} + 99945629\, q^{79}\, p^{34} + 52192287\, q^{79}\, p^{32} + 14221898696\, p^{71}\, q^{56}$$
$$+ 621221886\, p^{67}\, q^{33} + 15978769\, p^{64}\, q^{22} + 52983252\, p^{65}\, q^{25} + 347851\, q^{32}\, p^{13} + 392685907\, q^{80}\, p^{40} + 491041143\, q^{80}\, p^{41}$$
$$+ 741534973\, q^{80}\, p^{43} + 606862651\, q^{80}\, p^{42} + 382687\, q^{106}\, p^{92} + 164038894\, p^{63}\, q^{94} + 9910531555\, p^{50}\, q^{70} + 1120026133\, p^{38}\, q^{72}$$
$$+ 1209512217\, p^{59}\, q^{33} + 21669721086\, p^{61}\, q^{53} + 2026102\, p^{53}\, q^{16} + 40333091\, p^{97}\, q^{60} + 46794577\, p^{98}\, q^{71} + 73071\, p^{106}\, q^{101}$$
$$+ 348568128\, p^{73}\, q^{92} + 1269115075\, p^{81}\, q^{83} + 1340470037\, p^{75}\, q^{86} + 927004\, p^{106}\, q^{78} + 1222839167\, p^{80}\, q^{84} + 88667238\, p^{39}\, q^{25}$$
$$+ 25590\, p^{33}\, q^{9} + 115313\, p^{34}\, q^{11} + 1059494052\, p^{69}\, q^{36} + 10776848345\, p^{71}\, q^{52} + 9845077889\, p^{71}\, q^{51} + 4234\, p^{31}\, q^{7} + 10825\, p^{32}\, q^{8}$$
$$+ 231361\, p^{35}\, q^{12} + 56800\, p^{34}\, q^{10} + 3816955\, p^{37}\, q^{17} + 21383089\, p^{38}\, q^{21} + 792316\, p^{36}\, q^{14} + 134\, p^{25}\, q^{4} + 14625011\, p^{38}\, q^{20}$$
$$+ 9782916\, p^{38}\, q^{19} + 33228186\, p^{39}\, q^{22} + 46912513\, p^{39}\, q^{23} + 157182119\, p^{39}\, q^{27} + 225542974\, p^{40}\, q^{28} + 446399\, p^{36}\, q^{13} + 1351355\, p^{36}\, q^{15}$$
$$+ 5664985971\, p^{44}\, q^{68} + 6564006997\, p^{45}\, q^{68} + 215004\, p^{19}\, q^{17} + 766\, p^{49}\, q^{7} + 1270824081\, p^{78}\, q^{85} + 1149259152\, p^{79}\, q^{85}$$
$$+ 1083017095\, p^{81}\, q^{84} + 3656\, p^{26}\, q^{7} + 2719059\, p^{22}\, q^{23} + 451572\, q^{26}\, p^{15} + 6161968\, q^{78}\, p^{26} + 1785023\, q^{77}\, p^{23} + 810709\, p^{27}\, q^{16}$$
$$+ 4535898\, p^{24}\, q^{23} + 24388\, p^{75}\, q^{16} + 120240\, p^{17}\, q^{17} + 8007\, q^{96}\, p^{29} + 22720860\, q^{35}\, p^{22} + 321572800\, p^{57}\, q^{28} + 10716104494\, p^{60}\, q^{45}$$
$$+ 7277221444\, p^{59}\, q^{42} + 3662056089\, p^{59}\, q^{38} + 8426487806\, p^{59}\, q^{43} + 3003732882\, p^{59}\, q^{37} + 4416225579\, p^{59}\, q^{39} + 8648011\, p^{64}\, q^{101}$$
$$+ 9365824\, p^{65}\, q^{101} + 5602364623\, p^{65}\, q^{80} + 8004640509\, p^{49}\, q^{71} + 81\, p^{43}\, q^{5} + 721292073\, p^{70}\, q^{35} + 10496910137\, p^{72}\, q^{53}$$
$$+ 4067914794\, p^{71}\, q^{44} + 23612612510\, p^{55}\, q^{56} + 22201975758\, p^{54}\, q^{55} + 39651846\, p^{96}\, q^{56} + 32671892\, p^{97}\, q^{58} + 15850\, p^{59}\, q^{11}$$
$$+ 288247\, q^{26}\, p^{14} + 527869\, q^{27}\, p^{15} + 25853763\, p^{60}\, q^{98} + 16136182\, p^{60}\, q^{99} + 33693336\, p^{63}\, q^{98} + 36163157\, p^{64}\, q^{98} + 38480106\, p^{65}\, q^{98}$$
$$+ 63946142\, p^{67}\, q^{97} + 66021567\, p^{68}\, q^{97} + 96027530\, p^{74}\, q^{96} + 28492001\, p^{61}\, q^{98} + 1077648146\, p^{59}\, q^{87} + 1146425532\, p^{60}\, q^{87}$$

$$+ 52983252\, p^{55} q^{95} + 69255229\, p^{54} q^{94} + 9445\, p^{92} q^{112} + 9912\, p^{91} q^{112} + 9618813\, q^{29} p^{22} + 2311\, p^{42} q^{7} + 34738843\, p^{30} q^{26}$$
$$+ 17186\, p^{26} q^{9} + 68434\, p^{27} q^{11} + 64\, p^{77} q^{12} + 918389\, p^{104} q^{60} + 2542212562\, p^{55} q^{82} + 56\, p^{58} q^{7} + 8883\, p^{27} q^{8} + 150865\, p^{29} q^{12}$$
$$+ 40459\, p^{28} q^{10} + 2162240\, p^{31} q^{17} + 11132657\, p^{32} q^{21} + 6851636\, p^{31} q^{20} + 4768775\, p^{31} q^{19} + 15476166\, p^{32} q^{22} + 486941\, p^{30} q^{14}$$
$$+ 4124\, q^{29} p^{7} + 47135\, q^{30} p^{10} + 8769\, q^{95} p^{28} + 4511\, q^{94} p^{26} + 9912\, q^{29} p^{8} + 1505\, q^{28} p^{6} + 51995\, q^{95} p^{31} + 86975\, q^{95} p^{32}$$
$$+ 141032\, q^{95} p^{33} + 340784\, q^{95} p^{35} + 222064\, q^{95} p^{34} + 4001\, q^{28} p^{7} + 21676\, q^{29} p^{9} + 99426\, p^{78} q^{19} + 20643934569\, p^{52} q^{56}$$
$$+ 19048621270\, p^{51} q^{55} + 126\, p^{19} q^{4} + 34\, p^{17} q^{3} + 29962\, q^{95} p^{30} + 1958\, q^{93} p^{24} + 286327\, q^{96} p^{36} + 16605\, q^{95} p^{29} + 6963\, p^{24} q^{8}$$
$$+ 106411\, p^{26} q^{12} + 29728\, p^{25} q^{10} + 494603\, p^{89} q^{29} + 75259\, p^{87} q^{24} + 4535898\, p^{23} q^{24} + 5408982\, p^{22} q^{26} + 5736982\, p^{23} q^{25}$$
$$+ 3258463\, p^{21} q^{25} + 4357669\, p^{22} q^{25} + 10722\, p^{65} q^{12} + 959704935\, p^{82} q^{47} + 310221518\, p^{81} q^{40} + 244148820\, p^{81} q^{39} + 477708\, p^{73} q^{19}$$
$$+ 2140296716\, p^{85} q^{69} + 2087764684\, p^{85} q^{70} + 485718\, q^{106} p^{66} + 8\, q^{95} p^{21} + 13496019\, p^{83} q^{100} + 286884953\, p^{36} q^{31} + 510626197\, p^{36} q^{34}$$
$$+ 605534597\, p^{36} q^{35} + 825835523\, p^{37} q^{36} + 231353626\, p^{36} q^{30} + 351594644\, p^{36} q^{32} + 184305970\, p^{36} q^{29} + 198454505\, p^{69} q^{94}$$
$$+ 7138892\, p^{102} q^{80} + 3682168\, p^{102} q^{88} + 8712414102\, p^{43} q^{57} + 166056\, q^{30} p^{12} + 16787574733\, p^{67} q^{70} + 9572141487\, p^{55} q^{74}$$
$$+ 10195302333\, p^{56} q^{74} + 10769909104\, p^{57} q^{74} + 11284327447\, p^{58} q^{74} + 15422158479\, p^{62} q^{72} + 4052970\, p^{81} q^{27} + 103177757\, p^{30} q^{31}$$
$$+ 147030540\, p^{33} q^{30} + 1208802\, q^{58} p^{16} + 695455\, q^{57} p^{15} + 334605\, q^{57} p^{14} + 3679969\, q^{59} p^{18} + 174706\, q^{56} p^{13} + 592\, q^{108} p^{47}$$
$$+ 5740819\, q^{60} p^{19} + 14423480\, q^{61} p^{21} + 2018731\, q^{59} p^{17} + 9781582\, q^{60} p^{20} + 363555667\, p^{43} q^{83} + 304857983\, p^{41} q^{82}$$
$$+ 36467115\, q^{61} p^{23} + 23246918\, q^{61} p^{22} + 75517813\, q^{62} p^{25} + 111064815\, q^{62} p^{26} + 50254195\, q^{62} p^{24} + 154357472\, p^{62} q^{94}$$
$$+ 144865226\, q^{63} p^{27} + 205774881\, q^{63} p^{28} + 50140\, q^{70} p^{15} + 9601\, q^{69} p^{13} + 6879\, q^{107} p^{50} + 17617\, q^{107} p^{53} + 122721\, q^{36} p^{11}$$
$$+ 12751609\, p^{76} q^{101} + 12465604\, p^{77} q^{101} + p^{55} q^{5} + 26881081\, p^{30} q^{25} + 44283402\, p^{30} q^{27} + 67093939\, p^{31} q^{28} + 134\, q^{25} p^{4}$$
$$+ 13268260\, p^{95} q^{47} + 141032\, p^{87} q^{25} + 743619\, q^{78} p^{22} + 24388\, q^{75} p^{16} + 13564\, q^{74} p^{15} + 141090\, q^{77} p^{19} + 341800\, p^{107} q^{70}$$
$$+ 6867570\, q^{34} p^{19} + 6381744659\, p^{62} q^{79} + 11320579003\, p^{54} q^{72} + 7026057623\, p^{50} q^{73} + 6362847\, q^{81} p^{28} + 1058894\, p^{104} q^{61}$$
$$+ 1366060\, p^{104} q^{63} + 1494237\, p^{105} q^{72} + 937347\, p^{103} q^{56} + 1695131\, p^{104} q^{65} + 1208802\, p^{104} q^{62} + 865173\, p^{106} q^{82} + 792316\, p^{106} q^{84}$$
$$+ 1116350\, p^{103} q^{57} + 831598\, p^{106} q^{83} + 69238954\, p^{30} q^{29} + 57504240\, p^{35} q^{25} + 590278538\, p^{73} q^{36} + 15324454215\, p^{69} q^{70}$$
$$+ 14032667490\, p^{63} q^{73} + 99945629\, p^{79} q^{34} + 491041143\, p^{80} q^{41} + 10404261\, p^{76} q^{26} + 92592654\, p^{78} q^{33} + 19570829\, p^{100} q^{70}$$
$$+ 3043411\, p^{96} q^{43} + 5516940\, q^{36} p^{18} + 12342551\, q^{36} p^{20} + 19631057\, q^{37} p^{21} + 1723907944\, p^{48} q^{80} + 1500\, q^{30} p^{6} + 462\, q^{29} p^{5}$$
$$+ 4234\, q^{31} p^{7} + 19631057\, p^{99} q^{83} + 2557\, p^{78} q^{15} + 25853763\, p^{98} q^{60} + 30971897\, p^{99} q^{71} + 23150815775\, p^{63} q^{66} + 21765770995\, p^{64} q^{67}$$

$$+ 45329763\, p^{69}\, q^{98} + 135741\, p^{108}\, q^{92} + 2962336222\, p^{74}\, q^{82} + 2171399720\, p^{79}\, q^{81} + 2752003473\, p^{75}\, q^{82} + 104846818\, q^{88}\, p^{44}$$
$$+ 29\, p^{99}\, q^{26} + 1327\, p^{114}\, q^{96} + 4\, p^{93}\, q^{19} + 242\, p^{106}\, q^{40} + 124\, p^{106}\, q^{39} + 60\, p^{104}\, q^{34} + 346633275\, q^{89}\, p^{53} + 304391582\, q^{89}\, p^{52}$$
$$+ 391085268\, q^{89}\, p^{54} + 357474107\, q^{90}\, p^{56} + 437240265\, q^{89}\, p^{55} + 15550084282\, p^{58}\, q^{71} + 154025\, p^{97}\, q^{36} + 29962\, p^{95}\, q^{30} + 75259\, p^{96}\, q^{33}$$
$$+ 2265\, p^{57}\, q^{9} + 5630744894\, p^{73}\, q^{78} + 24702740\, p^{99}\, q^{80} + 11132657\, p^{99}\, q^{88} + 290784126\, p^{80}\, q^{91} + 249509\, p^{78}\, q^{108} + 180867\, q^{31}\, p^{12}$$
$$+ 595084\, q^{32}\, p^{14} + 2837423\, p^{90}\, q^{102} + 1424630\, p^{92}\, q^{103} + 1773961\, p^{93}\, q^{102} + 2452468\, p^{91}\, q^{102} + 2097452\, p^{92}\, q^{102} + 3682168\, p^{88}\, q^{102}$$
$$+ 3248542\, p^{89}\, q^{102} + 2\, p^{115}\, q^{67} + 4535898\, p^{97}\, q^{96} + 592798\, p^{106}\, q^{68} + 5850331\, p^{96}\, q^{96} + 4286130\, p^{81}\, q^{103} + 5438467\, p^{88}\, q^{101}$$
$$+ 26881081\, p^{25}\, q^{30} + 73932776\, p^{93}\, q^{87} + 2434400\, p^{17}\, q^{32} + 9960055040\, p^{75}\, q^{58} + 10373010594\, p^{75}\, q^{59} + 6581021\, p^{74}\, q^{24}$$
$$+ 2956406\, p^{73}\, q^{22} + 10612064\, p^{74}\, q^{25} + 2\, p^{25}\, q^{2} + 19502\, q^{109}\, p^{62} + 6\, p^{51}\, q^{5} + 5057214\, q^{35}\, p^{18} + 131\, q^{26}\, p^{4} + 25332543\, q^{36}\, p^{22}$$
$$+ 23235\, q^{107}\, p^{54} + 10722\, q^{108}\, p^{55} + 46275\, p^{104}\, q^{105} + 401502\, q^{34}\, p^{13} + 4993296\, p^{99}\, q^{52} + 4661490\, p^{98}\, q^{49} + 59425346\, p^{38}\, q^{24}$$
$$+ 5963242\, p^{37}\, q^{18} + 107801614\, p^{38}\, q^{26} + 14929\, q^{96}\, p^{30} + 1505\, p^{28}\, q^{6} + 485\, p^{27}\, q^{5} + 632230980\, p^{39}\, q^{33} + 2226007\, p^{36}\, q^{16}$$
$$+ 1767671\, p^{103}\, q^{60} + 122\, p^{76}\, q^{12} + 4738774371\, p^{81}\, q^{65} + 1077648146\, p^{33}\, q^{61} + 333587886\, p^{39}\, q^{30} + 263054086\, p^{39}\, q^{29} + 1750\, p^{107}\, q^{111}$$
$$+ 4184731006\, p^{45}\, q^{72} + 516920531\, p^{39}\, q^{32} + 6388340\, p^{18}\, q^{38} + 351594644\, p^{32}\, q^{36} + 141911888\, p^{27}\, q^{38} + 72737472\, p^{25}\, q^{37}$$
$$+ 96810336\, p^{26}\, q^{37} + 490618329\, p^{33}\, q^{37} + 875313378\, p^{88}\, q^{75} + 157182119\, p^{93}\, q^{81} + 417767629\, p^{39}\, q^{31} + 764641327\, p^{39}\, q^{34}$$
$$+ 914812266\, p^{39}\, q^{35} + 1222839167\, p^{40}\, q^{36} + 1424630\, p^{28}\, q^{17} + 7030445\, p^{29}\, q^{21} + 4262656\, p^{28}\, q^{20} + 3020448\, p^{28}\, q^{19} + 9618813\, p^{29}\, q^{22}$$
$$+ 333889\, p^{27}\, q^{14} + 26186648238\, p^{59}\, q^{62} + 26704151962\, p^{60}\, q^{61} + 23740957783\, p^{57}\, q^{64} + 25180522520\, p^{58}\, q^{63} + 26186648238\, p^{62}\, q^{59}$$
$$+ 29534\, p^{103}\, q^{107} + 359742662\, q^{88}\, p^{51} + 311089987\, q^{88}\, p^{50} + 16503770539\, p^{65}\, q^{71} + 5944154374\, p^{51}\, q^{75} + 5335685583\, p^{50}\, q^{75}$$
$$+ 34675\, q^{74}\, p^{16} + 92972\, q^{76}\, p^{18} + 59060\, p^{83}\, q^{110} + 247867\, p^{106}\, q^{61} + 334605\, p^{106}\, q^{63} + 395730\, p^{107}\, q^{72} + 219007\, p^{105}\, q^{56}$$
$$+ 18465315\, q^{42}\, p^{20} + 42172589\, q^{43}\, p^{22} + 57603374\, q^{42}\, p^{23} + 27560144\, q^{42}\, p^{21} + 40249209\, q^{42}\, p^{22} + 137091\, q^{99}\, p^{39} + 199736\, q^{99}\, p^{40}$$
$$+ 285223\, q^{99}\, p^{41} + 340784\, q^{85}\, p^{25} + 50088\, p^{89}\, q^{110} + 79079\, q^{84}\, p^{22} + 154025\, q^{84}\, p^{23} + 286327\, q^{84}\, p^{24} + 998037\, q^{85}\, p^{27} + 1263\, q^{77}\, p^{14}$$
$$+ 768322937\, p^{62}\, q^{32} + 175379410\, p^{61}\, q^{27} + 579389589\, p^{62}\, q^{31} + 5191189842\, p^{63}\, q^{41} + 10750509\, p^{23}\, q^{28} + 490618329\, p^{87}\, q^{83}$$
$$+ 369982343\, p^{80}\, q^{90} + 13435498042\, p^{65}\, q^{49} + 16760828201\, p^{64}\, q^{71} + 16269147073\, p^{69}\, q^{69} + 347851\, p^{88}\, q^{107} + 382754\, p^{106}\, q^{64}$$
$$+ 177330\, p^{105}\, q^{55} + 263054086\, p^{91}\, q^{81} + 24037\, p^{105}\, q^{106} + 3590\, p^{65}\, q^{111} + 36391\, p^{73}\, q^{110} + 110187\, p^{97}\, q^{107} + p^{14}\, q + 14625011\, p^{20}\, q^{38}$$
$$+ 511\, q^{103}\, p^{35} + 194\, q^{102}\, p^{32} + 4731\, q^{104}\, p^{41} + 2931\, q^{104}\, p^{40} + 1479\, p^{114}\, q^{93} + 2995\, p^{110}\, q^{59} + 2260\, p^{110}\, q^{58} + 4194\, p^{113}\, q^{90}$$
$$+ 618141\, p^{96}\, q^{38} + 2362035\, p^{97}\, q^{44} + 11803902\, p^{101}\, q^{69} + 16464389\, p^{100}\, q^{66} + 2\, p^{116}\, q^{74} + 2\, p^{118}\, q^{95} + 2\, p^{118}\, q^{94} + p^{119}\, q^{105} + 7\, p^{118}\, q^{104}$$

$$+ 6981214157\, p^{78}\, q^{69} + 6697968258\, p^{78}\, q^{70} + 6015772104\, p^{78}\, q^{72} + 7217625925\, p^{78}\, q^{68} + 7402025983\, p^{78}\, q^{67} + 6373902444\, p^{78}\, q^{71}$$
$$+ 373\, p^{63}\, q^{9} + 5226275599\, p^{78}\, q^{74} + 4809777048\, p^{78}\, q^{75} + 5630744894\, p^{78}\, q^{73} + 4388501540\, p^{78}\, q^{76} + 3969250746\, p^{78}\, q^{77}$$
$$+ 3161151847\, p^{79}\, q^{78} + 12240753\, p^{70}\, q^{101} + 12587265\, p^{71}\, q^{101} + 426040419\, p^{87}\, q^{84} + 328265290\, p^{89}\, q^{83} + 261460203\, p^{66}\, q^{93}$$
$$+ 18314128873\, p^{50}\, q^{58} + 1817352297\, p^{41}\, q^{73} + 11696583708\, p^{53}\, q^{71} + 147030540\, p^{90}\, q^{87} + 124\, p^{73}\, q^{11} + 65043885\, p^{39}\, q^{24}$$
$$+ 6388340\, p^{38}\, q^{18} + 118950360\, p^{39}\, q^{26} + 1505\, p^{29}\, q^{6} + 474\, p^{28}\, q^{5} + 707766892\, p^{40}\, q^{33} + 2374017\, p^{37}\, q^{16} + 369982343\, p^{40}\, q^{30}$$
$$+ 290784126\, p^{40}\, q^{29} + 576944140\, p^{40}\, q^{32} + 2026102\, p^{104}\, q^{67} + 622760\, p^{101}\, q^{48} + 1245598\, p^{102}\, q^{54} + 137091\, p^{99}\, q^{39} + 121385\, p^{98}\, q^{37}$$
$$+ 199736\, p^{99}\, q^{40} + 406690460\, p^{90}\, q^{79} + 9\, q^{86}\, p^{15} + 46\, q^{88}\, p^{17} + q^{86}\, p^{14} + 200910056\, p^{30}\, q^{35} + 1397655877\, q^{81}\, p^{48} + 1485915661\, q^{80}\, p^{47}$$
$$+ 118393620\, p^{91}\, q^{87} + 318589469\, p^{91}\, q^{79} + 138597572\, p^{91}\, q^{86} + 2689735525\, p^{44}\, q^{74} + 4062569\, q^{38}\, p^{17} + 631450884\, p^{55}\, q^{30}$$
$$+ 187252036\, p^{54}\, q^{26} + 472974658\, p^{55}\, q^{29} + 865173\, q^{38}\, p^{14} + 262678117\, p^{87}\, q^{87} + 172751040\, p^{90}\, q^{86} + 351594644\, p^{84}\, q^{88}$$
$$+ 248291932\, p^{89}\, q^{85} + 4001\, p^{28}\, q^{7} + 9912\, p^{29}\, q^{8} + 195169\, p^{32}\, q^{12} + 50088\, p^{31}\, q^{10} + 2997287\, p^{34}\, q^{17} + 16098038\, p^{35}\, q^{21}$$
$$+ 648234\, p^{33}\, q^{14} + 66683866\, q^{88}\, p^{42} + 1027990918\, p^{49}\, q^{83} + 15375037929\, p^{64}\, q^{72} + 13519156842\, p^{60}\, q^{73} + 11960432210\, p^{74}\, q^{67}$$
$$+ 255516\, p^{108}\, q^{80} + 195169\, p^{108}\, q^{88} + 45302132\, p^{75}\, q^{29} + 30743132\, p^{75}\, q^{28} + 141668\, p^{66}\, q^{15} + 8364823\, p^{55}\, q^{99} + 16886491578\, p^{63}\, q^{71}$$
$$+ 211683434\, p^{85}\, q^{43} + 552790389\, p^{86}\, q^{50} + 8912637392\, p^{54}\, q^{74} + 138597572\, p^{34}\, q^{29} + 1157621776\, p^{74}\, q^{87} + 1151313053\, p^{77}\, q^{86}$$
$$+ 85890215\, p^{93}\, q^{86} + 825835523\, p^{83}\, q^{84} + 133\, p^{59}\, q^{112} + 2058451\, p^{99}\, q^{97} + 944813\, p^{104}\, q^{92} + 1730460\, p^{101}\, q^{95} + 240397\, p^{84}\, q^{108}$$
$$+ 4155316\, p^{103}\, q^{69} + 5946462\, p^{102}\, q^{66} + 170550149\, p^{76}\, q^{94} + 255591\, p^{107}\, q^{67} + 66054\, p^{104}\, q^{48} + 561\, p^{91}\, q^{21} + 5789\, p^{98}\, q^{31}$$
$$+ 1759\, p^{97}\, q^{28} + 3258463\, p^{99}\, q^{95} + 514\, p^{112}\, q^{63} + 1431\, p^{112}\, q^{67} + 206\, p^{109}\, q^{48} + p^{96}\, q^{21} + 17\, p^{103}\, q^{31} + 2\, p^{102}\, q^{28} + 126960185\, p^{83}\, q^{93}$$
$$+ 139135362\, p^{68}\, q^{95} + 12180818239\, p^{69}\, q^{73} + 764641327\, p^{81}\, q^{86} + 674757970\, p^{82}\, q^{86} + 13555324805\, p^{66}\, q^{73} + 12625918828\, p^{63}\, q^{74}$$
$$+ 12565227456\, p^{72}\, q^{70} + 4\, p^{118}\, q^{99} + 3\, p^{118}\, q^{97} + 99629\, q^{85}\, p^{23} + 188275\, q^{85}\, p^{24} + 4299705\, q^{88}\, p^{33} + 934\, q^{72}\, p^{12} + 339\, q^{71}\, p^{11}$$
$$+ 97741062\, q^{90}\, p^{47} + 77984893\, p^{80}\, q^{34} + 389341682\, p^{81}\, q^{41} + 8062366\, p^{77}\, q^{26} + 72832862\, p^{79}\, q^{33} + 206\, q^{109}\, p^{48}$$
$$+ 12695937105\, p^{71}\, q^{71} + 28461\, q^{109}\, p^{64} + 3935751414\, p^{64}\, q^{82} + 187722365\, p^{93}\, q^{79} + 4471879098\, p^{69}\, q^{81} + 441918267\, p^{91}\, q^{74}$$
$$+ 493205943\, p^{91}\, q^{67} + 486460117\, p^{91}\, q^{71} + 391085268\, p^{89}\, q^{54} + 430468463\, p^{90}\, q^{58} + 500776085\, p^{90}\, q^{60} + 346633275\, p^{89}\, q^{53}$$
$$+ 8116\, q^{102}\, p^{38} + 3967110346\, p^{65}\, q^{82} + 2108187\, p^{101}\, q^{94} + 33\, p^{104}\, q^{117} + 8\, p^{106}\, q^{118} + 5\, p^{86}\, q^{117} + 7\, p^{87}\, q^{117} + 1974506730\, p^{83}\, q^{77}$$
$$+ 1516930008\, p^{84}\, q^{78} + 2670355874\, p^{83}\, q^{73} + 2156748351\, p^{83}\, q^{76} + 789372\, q^{106}\, p^{72} + 889988\, q^{106}\, p^{75} + 922506\, q^{106}\, p^{77}$$
$$+ 828858\, q^{106}\, p^{73} + 910188\, q^{106}\, p^{76} + 862786\, q^{106}\, p^{74} + 696722\, q^{106}\, p^{70} + 744885\, q^{106}\, p^{71} + 18258186\, p^{68}\, q^{100} + 2032\, q^{106}\, p^{44}$$

$$+ 1049213145\, p^{71}\, q^{88} + 657840336\, p^{90}\, q^{68} + 425376\, p^{107}\, q^{85} + 905\, p^{89}\, q^{20} + 392335\, q^{94}\, p^{34} + 593247\, q^{94}\, p^{35} + 620130254\, p^{90}\, q^{72}$$
$$+ 22354444326\, p^{62}\, q^{54} + 22775460223\, p^{63}\, q^{55} + 11284327447\, p^{62}\, q^{46} + p^{27}\, q^{2} + 1513542134\, p^{76}\, q^{85} + 921\, q^{107}\, p^{45} + 124\, q^{106}\, p^{39}$$
$$+ 35796\, q^{108}\, p^{60} + 151530538\, p^{94}\, q^{78} + 3820114\, q^{101}\, p^{57} + 4419167\, q^{101}\, p^{58} + 1813\, q^{100}\, p^{32} + 14413785712\, p^{72}\, q^{67} + 4126582\, q^{102}\, p^{62}$$
$$+ 3679969\, q^{102}\, p^{61} + 736\, p^{61}\, q^{9} + 2\, p^{114}\, q^{61} + 12\, p^{116}\, q^{79} + 31\, p^{117}\, q^{98} + 6\, p^{112}\, q^{53} + 99\, p^{115}\, q^{78} + 11\, p^{111}\, q^{50} + 68\, p^{116}\, q^{87} + 60\, p^{116}\, q^{86}$$
$$+ 4401\, p^{95}\, q^{27} + 81080\, p^{103}\, q^{46} + 152891\, p^{104}\, q^{51} + 1244\, p^{97}\, q^{114} + 403611083\, p^{88}\, q^{83} + 51656808\, p^{52}\, q^{94} + 68329392\, q^{71}\, p^{28}$$
$$+ 98643843\, q^{71}\, p^{29} + 1750\, p^{111}\, q^{107} + 22358\, p^{79}\, q^{111} + 56550710\, q^{87}\, p^{40} + p^{54}\, q^{5} + 2602644247\, p^{36}\, q^{57} + 3781488163\, p^{38}\, q^{58}$$
$$+ 68352575\, p^{73}\, q^{29} + 46882201\, p^{73}\, q^{28} + 2528247259\, p^{36}\, q^{58} + 32449\, q^{94}\, p^{29} + 2097331419\, p^{35}\, q^{57} + 56\, p^{113}\, q^{62} + 268\, p^{115}\, q^{84}$$
$$+ 57\, p^{112}\, q^{57} + 238\, p^{115}\, q^{83} + 126\, p^{116}\, q^{101} + 205\, p^{115}\, q^{82} + 2835729\, p^{103}\, q^{64} + 1501351\, p^{102}\, q^{55} + 6381744659\, p^{41}\, q^{58}$$
$$+ 104294724\, p^{95}\, q^{79} + 1166589\, q^{105}\, p^{68} + 1258039\, q^{105}\, p^{69} + 1494237\, q^{105}\, p^{72} + 1423643\, q^{105}\, p^{71} + 1639568\, q^{105}\, p^{75}$$
$$+ 1669810\, q^{105}\, p^{77} + 927004\, q^{106}\, p^{78} + 1554807\, q^{105}\, p^{73} + 1661695\, q^{105}\, p^{76} + 827578\, p^{68}\, q^{18} + 2754913\, q^{86}\, p^{30} + 593247\, q^{85}\, p^{26}$$
$$+ 17412043\, p^{67}\, q^{100} + 120799\, p^{93}\, q^{108} + 12411797\, q^{88}\, p^{36} + 17054875\, q^{88}\, p^{37} + 23062250\, q^{88}\, p^{38} + 30712967\, q^{88}\, p^{39}$$
$$+ 4678012154\, p^{67}\, q^{81} + 3351655973\, p^{59}\, q^{82} + 76534740\, p^{68}\, q^{27} + 359742662\, p^{69}\, q^{32} + 17694\, q^{94}\, p^{28} + 8753263159\, p^{43}\, q^{56}$$
$$+ 2335182\, q^{104}\, p^{69} + 99426\, p^{101}\, q^{42} + 110748\, p^{103}\, q^{47} + 3873398756\, q^{57}\, p^{38} + 927334558\, p^{88}\, q^{74} + 1103557381\, p^{88}\, q^{67}$$
$$+ 612846441\, p^{56}\, q^{30} + 180663466\, p^{55}\, q^{26} + 457533012\, p^{56}\, q^{29} + 4549309079\, p^{39}\, q^{58} + 68\, p^{33}\, q^{4} + 36391\, p^{47}\, q^{10} + 341800\, p^{50}\, q^{13}$$
$$+ 6370131\, p^{53}\, q^{18} + 17186\, p^{94}\, q^{111} + 16886491578\, p^{49}\, q^{57} + 23\, q^{69}\, p^{9} + 1049213145\, p^{88}\, q^{71} + 1103025408\, p^{88}\, q^{68}$$
$$+ 1015217639\, p^{88}\, q^{72} + 219007\, p^{64}\, q^{15} + 2597430\, q^{104}\, p^{71} + 2789889\, q^{104}\, p^{73} + 2894748\, q^{104}\, p^{75} + 12588259605\, p^{71}\, q^{54}$$
$$+ 5485674691\, p^{71}\, q^{46} + 12107251875\, p^{72}\, q^{55} + 2534914721\, p^{76}\, q^{82} + 229556713\, p^{76}\, q^{93} + 79\, p^{32}\, q^{4} + 20418602\, q^{93}\, p^{45}$$
$$+ 494603\, q^{91}\, p^{31} + 3336618\, q^{92}\, p^{37} + 32\, q^{78}\, p^{12} + 242\, q^{80}\, p^{14} + 8\, q^{77}\, p^{11} + 621221886\, p^{53}\, q^{87} + q^{13}\, p + 172984\, q^{89}\, p^{27} + 472361\, q^{88}\, p^{28}$$
$$+ 774685\, q^{88}\, p^{29} + 278861\, q^{88}\, p^{27} + 164\, q^{69}\, p^{10} + 1677973\, q^{99}\, p^{47} + 3348545\, p^{70}\, q^{21} + 825527777\, p^{35}\, q^{69} + 989646\, q^{99}\, p^{45}$$
$$+ 696075658\, p^{54}\, q^{87} + 21\, q^{65}\, p^{8} + 699808\, q^{97}\, p^{40} + 9175\, q^{94}\, p^{27} + 1278\, q^{87}\, p^{19} + 14\, q^{79}\, p^{12} + 4563\, q^{88}\, p^{21} + 278861\, p^{88}\, q^{27}$$
$$+ 27560144\, p^{99}\, q^{78} + 12\, q^{66}\, p^{8} + 68\, q^{67}\, p^{9} + 6\, q^{67}\, p^{8} + 3252091057\, p^{37}\, q^{56} + q^{65}\, p^{7} + 39\, q^{68}\, p^{9} + 2\, q^{64}\, p^{7} + 206\, q^{72}\, p^{11} + 124\, q^{73}\, p^{11}$$
$$+ 121385\, q^{98}\, p^{37} + 91960\, q^{99}\, p^{38} + q^{69}\, p^{8} + 3\, q^{68}\, p^{8} + 1002\, q^{82}\, p^{16} + 382376\, q^{98}\, p^{40} + 15359455907\, p^{53}\, q^{68} + 15359455907\, p^{52}\, q^{67}$$
$$+ 549377753\, p^{52}\, q^{87} + 2110176\, q^{102}\, p^{57} + 2462168\, q^{102}\, p^{58} + 2\, q^{72}\, p^{9} + 558\, q^{76}\, p^{13} + 37\, q^{75}\, p^{11} + 1758\, q^{83}\, p^{17} + 7392\, q^{84}\, p^{19}$$
$$+ 522\, q^{81}\, p^{15} + 4890\, q^{83}\, p^{18} + 3\, q^{75}\, p^{10} + 637\, q^{88}\, p^{19} + 2415\, q^{89}\, p^{21} + 115\, q^{87}\, p^{17} + 14929\, q^{90}\, p^{24} + 60437\, q^{91}\, p^{27} + 60\, q^{86}\, p^{16}$$

$$+ 4401\, q^{93}\, p^{25} + 96844\, q^{94}\, p^{31} + q^{73}\, p^{9} + 58\, q^{71}\, p^{10} + 11\, q^{70}\, p^{9} + 101\, q^{70}\, p^{10} + 622760\, q^{101}\, p^{48} + 800618\, q^{101}\, p^{49} + 2317232\, q^{101}\, p^{54}$$
$$+ 662130\, q^{102}\, p^{51} + 1919184\, q^{101}\, p^{53} + 5\, q^{63}\, p^{7} + 527813\, q^{100}\, p^{45} + 700404\, q^{100}\, p^{46} + 215\, q^{75}\, p^{12} + 122\, q^{76}\, p^{12} + 16\, q^{73}\, p^{10}$$
$$+ 42896542\, p^{96}\, q^{85} + 6015422\, p^{89}\, q^{35} + 19192\, p^{78}\, q^{17} + 1102609\, p^{86}\, q^{28} + 232397\, p^{83}\, q^{23} + 2864977\, p^{87}\, q^{31} + 172871012\, p^{94}\, q^{64}$$
$$+ 115436537\, p^{93}\, q^{55} + 65443017\, p^{93}\, q^{51} + 38187984\, p^{92}\, q^{46} + 285661\, p^{100}\, q^{43} + 476\, p^{111}\, q^{111} + 8100877\, p^{102}\, q^{75} + 2902586\, p^{88}\, q^{32}$$
$$+ 144865226\, p^{93}\, q^{57} + 36234884\, p^{91}\, q^{44} + 141251117\, p^{95}\, q^{69} + 66803\, p^{81}\, q^{20} + 10814045\, p^{90}\, q^{38} + 187252036\, p^{94}\, q^{66}$$
$$+ 44212385\, p^{97}\, q^{61} + 51741983\, p^{97}\, q^{63} + 76\, p^{69}\, q^{114} + p^{65}\, q^{115} + 39\, p^{67}\, q^{114} + 56\, p^{68}\, q^{114} + 6267\, p^{97}\, q^{112} + 5647\, p^{106}\, q^{109}$$
$$+ 99230460\, p^{61}\, q^{95} + 11307\, p^{77}\, q^{16} + 56910245\, p^{92}\, q^{48} + 45302132\, p^{91}\, q^{45} + 180663466\, p^{94}\, q^{65} + 154357472\, p^{94}\, q^{62}$$
$$+ 129907439\, p^{93}\, q^{56} + 111064815\, p^{94}\, q^{58} + 133226921\, p^{94}\, q^{60} + 142038669\, p^{95}\, q^{71} + 101625479\, p^{93}\, q^{54} + 1415\, p^{71}\, q^{12}$$
$$+ 88622442\, p^{93}\, q^{53} + 17887403\, p^{59}\, q^{21} + 61404323\, p^{60}\, q^{24} + 62486457\, q^{82}\, p^{35} + 60437\, p^{93}\, q^{29} + 1529118\, p^{56}\, q^{16} + 7177350\, p^{58}\, q^{19}$$
$$+ 29353\, p^{49}\, q^{10} + 7185993643\, p^{53}\, q^{75} + 6564006997\, p^{52}\, q^{75} + 7799980341\, p^{54}\, q^{75} + 7802861180\, p^{56}\, q^{76} + 9486104101\, p^{57}\, q^{75}$$
$$+ 8395312287\, p^{55}\, q^{75} + 8960989131\, p^{56}\, q^{75} + 28441\, q^{77}\, p^{17} + 16815\, q^{76}\, p^{16} + 68698\, q^{79}\, p^{19} + 143939\, q^{79}\, p^{20} + 972545\, q^{79}\, p^{23}$$
$$+ 285223\, q^{79}\, p^{21} + 538007\, q^{79}\, p^{22} + 382376\, q^{80}\, p^{22} + 1231526\, q^{80}\, p^{24} + 99426\, q^{78}\, p^{19} + 204765\, q^{78}\, p^{20} + 45373\, q^{78}\, p^{18} + 37\, q^{64}\, p^{8}$$
$$+ 34117765\, q^{86}\, p^{37} + 4512327723\, p^{65}\, q^{41} + 1104156215\, p^{64}\, q^{34} + 1414073922\, p^{64}\, q^{35} + 17654980440\, p^{66}\, q^{53} + 7294333825\, p^{65}\, q^{44}$$
$$+ 12107251875\, p^{55}\, q^{72} + 960\, p^{109}\, q^{111} + 43674\, p^{61}\, q^{108} + 1044\, p^{83}\, q^{114} + 4218\, p^{88}\, q^{113} + 255514\, p^{103}\, q^{50} + 101\, p^{70}\, q^{10} + 12\, p^{56}\, q^{6}$$
$$+ 683658747\, q^{82}\, p^{45} + 516920531\, p^{88}\, q^{81} + 466894090\, q^{82}\, p^{43} + 246265969\, q^{92}\, p^{79} + 558\, p^{76}\, q^{13} + 1263\, p^{77}\, q^{14} + 944813\, p^{28}\, q^{16}$$
$$+ 46248495\, p^{98}\, q^{70} + 8062366\, p^{94}\, q^{43} + 12942186\, q^{29}\, p^{23} + 4113073\, q^{69}\, p^{21} + 24162979\, q^{70}\, p^{25} + 37004171\, q^{70}\, p^{26} + 1166589\, q^{52}\, p^{15}$$
$$+ 10053341\, q^{54}\, p^{19} + 7118563\, p^{54}\, q^{99} + 9091444\, p^{87}\, q^{34} + 877160\, p^{84}\, q^{26} + 15850\, q^{109}\, p^{61} + 68698\, q^{101}\, p^{41} + 8281241\, p^{99}\, q^{90}$$
$$+ 36467115\, p^{97}\, q^{59} + 2687102466\, p^{77}\, q^{81} + 1402637\, p^{19}\, q^{24} + 6491480159\, p^{63}\, q^{79} + 12365033853\, p^{46}\, q^{59} + 278861\, p^{93}\, q^{32}$$
$$+ 18279070\, p^{98}\, q^{57} + 5029130\, p^{97}\, q^{47} + 51995\, p^{89}\, q^{25} + 808900696\, q^{56}\, p^{31} + 1714444463\, q^{56}\, p^{34} + 1052841368\, q^{56}\, p^{32}$$
$$+ 14374144\, q^{34}\, p^{21} + 10039737\, q^{34}\, p^{20} + 16098038\, q^{35}\, p^{21} + 135931427\, p^{53}\, q^{25} + 9411059110\, p^{60}\, q^{44} + 5191189842\, p^{57}\, q^{79}$$
$$+ 31232452\, p^{72}\, q^{99} + 42172589\, p^{77}\, q^{98} + 11744\, q^{19}\, p^{10} + 6750\, q^{19}\, p^{9} + 14168\, q^{20}\, p^{10} + 4061588751\, p^{59}\, q^{81} + 1680709369\, p^{51}\, q^{82}$$
$$+ 180663466\, q^{55}\, p^{26} + 253222370\, q^{55}\, p^{27} + 1352142727\, q^{56}\, p^{33} + 2147250250\, q^{56}\, p^{35} + 46957468\, p^{98}\, q^{72} + 44062251\, p^{98}\, q^{68}$$
$$+ 2108187\, p^{19}\, q^{26} + 4768775\, p^{19}\, q^{31} + 53103453\, p^{27}\, q^{31} + 69238954\, p^{29}\, q^{30} + 196400\, p^{103}\, q^{49} + 92972\, p^{102}\, q^{44} + 3663616\, q^{53}\, p^{17}$$
$$+ 612846441\, q^{56}\, p^{30} + 126566314\, q^{55}\, p^{25} + 86953732\, q^{55}\, p^{24} + 333889\, q^{106}\, p^{93} + 4809777048\, p^{75}\, q^{78} + 23725\, q^{109}\, p^{63}$$

$$+ 21027361529\, p^{62} q^{68} + 18911492477\, p^{68} q^{67} + 773\, p^{18} q^{6} + 298\, p^{17} q^{5} + 455313\, q^{22} p^{17} + 359054453\, q^{87} p^{49} + 417750676\, q^{87} p^{50}$$
$$+ 1446\, p^{26} q^{6} + 485\, p^{25} q^{5} + 11493875029\, p^{73} q^{56} + 481347322\, p^{69} q^{33} + 11852311\, p^{66} q^{22} + 39894078\, p^{67} q^{25} + 60106835\, p^{67} q^{26}$$
$$+ 19152439\, p^{66} q^{23} + 86138062\, q^{36} p^{26} + 48267389\, q^{36} p^{24} + 12625918828\, p^{46} q^{57} + 225826137\, q^{88} p^{48} + 268\, p^{36} q^{5} + 3348545\, q^{99} p^{50}$$
$$+ 2139826\, q^{99} p^{48} + 2693785\, q^{99} p^{49} + 202470819\, p^{78} q^{93} + 60258\, q^{99} p^{37} + 142240\, q^{108} p^{69} + 255591\, q^{107} p^{67} + 1242443\, p^{30} q^{16}$$
$$+ 2854265\, q^{104} p^{74} + 2868353\, q^{104} p^{78} + 2901907\, q^{104} p^{77} + 1663210\, q^{105} p^{78} + 2910983\, q^{104} p^{76} + 75918357\, p^{94} q^{85} + 12844669\, p^{87} q^{35}$$
$$+ 81174975\, q^{92} p^{50} + 128057051\, q^{92} p^{53} + 10610\, q^{31} p^{8} + 5415797566\, p^{58} q^{40} + 699626\, q^{34} p^{14} + 2232\, q^{107} p^{47} + 9601\, q^{107} p^{51}$$
$$+ 19569\, p^{101} q^{109} + 2064\, q^{95} p^{26} + 4401\, q^{95} p^{27} + 902\, q^{95} p^{25} + 9365824\, p^{55} q^{19} + 36163157\, p^{56} q^{22} + 16886491578\, p^{71} q^{63}$$
$$+ 16877900216\, p^{71} q^{62} + 16735310855\, p^{71} q^{61} + 259009614\, p^{88} q^{86} + 884936\, p^{31} q^{15} + 57271275\, p^{33} q^{26} + 21676\, p^{29} q^{9} + 90828\, p^{30} q^{11}$$
$$+ 5521389275\, p^{57} q^{40} + 5\, p^{63} q^{7} + 9175\, p^{93} q^{26} + 157182119\, p^{27} q^{39} + 559567715\, p^{33} q^{38} + 182\, q^{107} p^{42} + 98\, q^{107} p^{41} + 47\, q^{107} p^{40}$$
$$+ 2\, q^{108} p^{39} + 19705810310\, p^{51} q^{58} + 180663466\, p^{65} q^{94} + 36742962\, p^{89} q^{41} + 21376930\, p^{89} q^{39} + 17054875\, p^{88} q^{37} + 6315633\, p^{87} q^{33}$$
$$+ 6\, p^{115} q^{69} + 28\, p^{114} q^{66} + 23\, p^{113} q^{60} + 9\, p^{115} q^{70} + 56\, p^{114} q^{68} + 1258039\, p^{51} q^{15} + 2528247259\, p^{58} q^{36} + 645568\, p^{51} q^{14} + 3116\, q^{49} p^{8}$$
$$+ 59687\, q^{51} p^{11} + 142240\, q^{51} p^{12} + 25969\, q^{50} p^{10} + 183074045\, p^{32} q^{32} + 172751040\, p^{30} q^{34} + 180440133\, p^{31} q^{33} + 930\, p^{48} q^{7}$$
$$+ 14097552559\, p^{72} q^{58} + 14592229561\, p^{72} q^{59} + 72737472\, p^{37} q^{25} + 24023\, p^{31} q^{9} + 104339\, p^{32} q^{11} + 2402\, p^{113} q^{99} + 2943\, p^{113} q^{97}$$
$$+ p^{82} q^{117} + 64978565\, q^{36} p^{25} + 112527611\, q^{36} p^{27} + 164171667\, q^{37} p^{28} + 3278994\, q^{35} p^{17} + 208489\, q^{33} p^{12} + 52756\, q^{32} p^{10}$$
$$+ 35272086\, q^{36} p^{23} + 406690460\, p^{79} q^{90} + 1002\, p^{82} q^{16} + 7277221444\, p^{42} q^{59} + 9411059110\, p^{44} q^{60} + 4194\, q^{30} p^{7} + 1505\, q^{29} p^{6}$$
$$+ 33\, q^{20} p^{3} + 146198237\, q^{92} p^{54} + 115436537\, q^{93} p^{55} + 102813\, p^{45} q^{11} + 213372\, p^{46} q^{12} + 1424630\, q^{28} p^{17} + 6223676237\, p^{79} q^{61}$$
$$+ 6491480159\, p^{79} q^{63} + 6381744659\, p^{79} q^{62} + 5499026477\, p^{79} q^{58} + 2097452\, q^{28} p^{18} + 4262656\, q^{28} p^{20} + 7030445\, q^{29} p^{21}$$
$$+ 103987\, q^{90} p^{27} + 1610593348\, p^{39} q^{71} + 1980920876\, p^{40} q^{71} + 2409361555\, p^{41} q^{71} + 512574646\, p^{41} q^{31} + 955178672\, p^{41} q^{34}$$
$$+ 1149259152\, p^{41} q^{35} + 1516930008\, p^{42} q^{36} + 1110464901\, p^{38} q^{37} + 12834053\, p^{101} q^{72} + 11285409\, p^{101} q^{68} + 389341682\, q^{79} p^{39}$$
$$+ 304857983\, q^{79} p^{38} + 225342432\, q^{78} p^{36} + 57136\, q^{94} p^{30} + 26559\, q^{89} p^{24} + 43870\, q^{29} p^{10} + 1479\, q^{27} p^{6} + 13970533386\, p^{58} q^{47}$$
$$+ 15422158479\, p^{58} q^{48} + 276\, q^{105} p^{38} + 64\, q^{105} p^{36} + 141\, q^{105} p^{37} + 950257842\, p^{84} q^{82} + 3106\, p^{39} q^{7} + 1352142727\, p^{56} q^{33}$$
$$+ 2473832\, p^{50} q^{16} + 536066593\, p^{75} q^{37} + 5777493337\, p^{79} q^{59} + 3669\, q^{48} p^{8} + 21987881\, p^{96} q^{52} + 20012867\, p^{95} q^{49} + 14166999\, p^{28} q^{24}$$
$$+ 3250677\, p^{60} q^{18} + 608906\, p^{58} q^{15} + 46882201\, q^{92} p^{47} + 95443015\, q^{92} p^{51} + 115575\, p^{21} q^{14} + 214942\, p^{22} q^{15} + 75183\, p^{21} q^{13}$$
$$+ 28841\, p^{21} q^{11} + 28859245\, q^{95} p^{51} + 37004171\, q^{94} p^{50} + 391650\, p^{23} q^{16} + 1245598\, p^{66} q^{18} + 204572\, q^{27} p^{13} + 399399\, q^{99} p^{42}$$

$$+ 3020448\, q^{28} p^{19} + 1744\, q^{81} p^{16} + 23218612769\, p^{60} q^{54} + 23948426835\, p^{61} q^{55} + 12090643629\, p^{60} q^{46} + 518014\, q^{103} p^{53}$$
$$+ 638754\, q^{103} p^{54} + 466698\, q^{104} p^{56} + 1116350\, q^{103} p^{57} + 778395\, q^{103} p^{55} + 937347\, q^{103} p^{56} + 414725\, q^{103} p^{52} + 17140350\, p^{29} q^{24}$$
$$+ 50400911\, p^{25} q^{34} + 79908724\, p^{28} q^{32} + 118\, p^{56} q^{7} + 125701827\, p^{31} q^{31} + 37761174\, p^{24} q^{34} + 96810336\, p^{83} q^{94} + 18288148608\, p^{50} q^{57}$$
$$+ 333889\, p^{106} q^{93} + 221313184\, p^{90} q^{52} + 2512471\, q^{94} p^{39} + 1481883691\, p^{50} q^{82} + 1120026133\, p^{48} q^{82} + 188275\, p^{96} q^{35}$$
$$+ 1607739\, q^{40} p^{15} + 186705\, p^{48} q^{12} + 89203\, p^{47} q^{11} + 494521\, q^{97} p^{39} + 46957468\, p^{72} q^{98} + 32915773\, p^{33} q^{24} + 319203\, p^{31} q^{13}$$
$$+ 3682168\, p^{32} q^{18} + 117499795\, q^{72} p^{30} + 30826141\, q^{71} p^{26} + 122177301\, q^{61} p^{26} + 55799685\, q^{61} p^{24} + 54262314\, p^{23} q^{41}$$
$$+ 75884940\, p^{24} q^{41} + 80904508\, p^{24} q^{42} + 104294724\, p^{25} q^{41} + 141009115\, p^{26} q^{41} + 369982343\, p^{30} q^{40} + 187722365\, p^{27} q^{41}$$
$$+ 290784126\, p^{29} q^{40} + 464829623\, p^{80} q^{89} + 516920531\, p^{81} q^{88} + 66267524\, p^{26} q^{34} + 123836037\, p^{32} q^{30} + 109819534\, p^{28} q^{34}$$
$$+ 85890215\, p^{27} q^{34} + 126796942\, p^{28} q^{35} + 172535146\, p^{93} q^{80} + 2026102\, q^{53} p^{16} + 7\, p^{33} q^{3} + 114100\, p^{43} q^{11} + 234982\, p^{44} q^{12}$$
$$+ 2121\, p^{11} q^{11} + 1000842\, p^{18} q^{24} + 20505179\, p^{30} q^{24} + 1244\, p^{23} q^{6} + 440\, p^{22} q^{5} + 232176\, p^{28} q^{13} + 2452468\, p^{29} q^{18} + 7\, p^{15} q^{2}$$
$$+ 238503033\, p^{75} q^{34} + 1105893251\, p^{76} q^{41} + 25399499\, p^{72} q^{26} + 214525719\, p^{74} q^{33} + 12668460\, p^{71} q^{24} + 1162\, p^{22} q^{6} + 418\, p^{21} q^{5}$$
$$+ 151425824\, p^{32} q^{31} + 158938\, q^{94} p^{32} + 57271275\, p^{26} q^{33} + 100086189\, p^{29} q^{32} + 16605\, q^{91} p^{25} + 253046\, q^{94} p^{33} + 61580\, q^{92} p^{28}$$
$$+ 979724335\, p^{62} q^{88} + 933540751\, p^{61} q^{88} + 263711\, p^{15} q^{23} + 135\, p^{21} q^{4} + 34\, p^{19} q^{3} + 8288\, p^{26} q^{8} + 135741\, p^{28} q^{12} + 36888\, p^{27} q^{10}$$
$$+ 1901076\, p^{30} q^{17} + 9651780\, p^{31} q^{21} + 5911972\, p^{30} q^{20} + 4138808\, p^{30} q^{19} + 13347126\, p^{31} q^{22} + 433854\, p^{29} q^{14} + 86036\, p^{65} q^{108}$$
$$+ 497482976\, q^{74} p^{36} + 640519870\, q^{74} p^{37} + 814169952\, q^{74} p^{38} + 1022209981\, q^{74} p^{39} + 339\, p^{114} q^{75} + 58\, p^{110} q^{49} + 17\, p^{109} q^{44}$$
$$+ 303\, p^{115} q^{85} + 31955168\, p^{95} q^{89} + 3030\, q^{82} p^{17} + 34738843\, p^{94} q^{90} + 9664659481\, p^{44} q^{59} + 3111791144\, p^{55} q^{81} + 3459697320\, p^{54} q^{80}$$
$$+ 6630640\, p^{27} q^{22} + 185602200\, p^{94} q^{74} + 192485593\, p^{94} q^{67} + 3617\, q^{91} p^{23} + 32449\, q^{91} p^{26} + 107736\, q^{92} p^{29} + 8007\, q^{91} p^{24}$$
$$+ 512624058\, p^{90} q^{76} + 598700768\, p^{90} q^{73} + 1838511310\, p^{70} q^{39} + 6279683788\, p^{71} q^{47} + 2255001978\, p^{70} q^{40} + 8916367468\, p^{71} q^{50}$$
$$+ 3898628767\, p^{70} q^{43} + 3282670574\, p^{70} q^{42} + 9664659481\, p^{59} q^{44} + 172535146\, p^{27} q^{40} + 84125294\, p^{77} q^{32} + 59838531\, p^{77} q^{31}$$
$$+ 3167271156\, p^{82} q^{58} + 294396707\, p^{78} q^{37} + 3351655973\, p^{82} q^{59} + 43962\, p^{100} q^{38} + 52685\, p^{62} q^{108} + 20283827\, p^{100} q^{72}$$
$$+ 18258186\, p^{100} q^{68} + 6550377663\, p^{41} q^{56} + 11183742\, q^{35} p^{20} + 17858930\, q^{36} p^{21} + 467521531\, q^{88} p^{53} + 525622342\, q^{88} p^{54}$$
$$+ 484481488\, q^{89} p^{56} + 707943704\, q^{88} p^{57} + 585624578\, q^{88} p^{55} + 646710698\, q^{88} p^{56} + 412037662\, q^{88} p^{52} + 474\, q^{28} p^{5} + 28\, q^{24} p^{3}$$
$$+ 158214802\, p^{68} q^{29} + 2088302\, p^{83} q^{27} + 118491863\, q^{43} p^{25} + 85519491\, q^{43} p^{24} + 161442412\, q^{43} p^{26} + 286033496\, q^{43} p^{28}$$
$$+ 216509169\, q^{43} p^{27} + 304333345\, q^{44} p^{28} + 21376930\, q^{81} p^{31} + 30712967\, q^{81} p^{32} + 3442709\, q^{80} p^{26} + 5504633\, q^{80} p^{27}$$

$$+ 43319026\, q^{81} p^{33} + 2091837\, q^{80} p^{25} + 1974506730\, p^{43} q^{37} + 336336120\, q^{56} p^{28} + 5946462\, q^{54} p^{18} + 1053289765\, p^{34} q^{42}$$
$$+ 75884940\, p^{41} q^{24} + 7138892\, p^{40} q^{18} + 141009115\, p^{41} q^{26} + 863370847\, p^{42} q^{33} + 2628961\, p^{39} q^{16} + 443127057\, p^{42} q^{30}$$
$$+ 346001637\, p^{42} q^{29} + 699635566\, p^{42} q^{32} + 930\, p^{72} q^{113} + 615\, p^{70} q^{113} + 766\, p^{71} q^{113} + 104\, p^{70} q^{114} + 1123\, p^{73} q^{113} + 1327\, p^{74} q^{113}$$
$$+ 1558\, p^{75} q^{113} + 14032667490\, p^{73} q^{63} + 13970533386\, p^{73} q^{62} + 13798075295\, p^{73} q^{61} + 4124\, p^{29} q^{7} + 10318\, p^{30} q^{8} + 208489\, p^{33} q^{12}$$
$$+ 52756\, p^{32} q^{10} + 3278994\, p^{35} q^{17} + 17858930\, p^{36} q^{21} + 699626\, p^{34} q^{14} + 16877900216\, p^{58} q^{49} + 18314128873\, p^{58} q^{50} + 236837\, q^{73} p^{18}$$
$$+ 743239\, q^{76} p^{21} + 12595455\, q^{77} p^{27} + 5026134\, q^{77} p^{25} + 8062366\, q^{77} p^{26} + 3043411\, q^{77} p^{24} + 2657683154\, p^{64} q^{84}$$
$$+ 1861450316\, p^{60} q^{85} + 12006184770\, p^{51} q^{69} + 7607511\, q^{35} p^{19} + 110242\, q^{33} p^{11} + 2064\, q^{94} p^{25} + 10039737\, p^{34} q^{20} + 6867570\, p^{34} q^{19}$$
$$+ 22720860\, p^{35} q^{22} + 31488441\, p^{35} q^{23} + 98791841\, p^{35} q^{27} + 144972783\, p^{36} q^{28} + 14032667490\, p^{47} q^{57} + 12253\, p^{107} q^{106}$$
$$+ 24900\, q^{32} p^{9} + 1201214124\, p^{47} q^{81} + 120799\, q^{27} p^{12} + 15613831918\, p^{70} q^{56} + 696075658\, p^{66} q^{33} + 18279070\, p^{63} q^{22}$$
$$+ 60183583\, p^{64} q^{25} + 10716104494\, p^{45} q^{60} + 3847610527\, p^{58} q^{81} + 981596\, q^{32} p^{15} + 204572\, p^{27} q^{13} + 2097452\, p^{28} q^{18} + 3\, p^{107} q^{37}$$
$$+ 3\, p^{105} q^{33} + 108\, p^{111} q^{54} + 3080713\, q^{75} p^{23} + 360886\, q^{74} p^{19} + 989646\, q^{75} p^{21} + 4490\, p^{109} q^{56} + 9763\, p^{110} q^{64} + 3328\, p^{109} q^{55}$$
$$+ 8792\, p^{112} q^{80} + 10825\, p^{112} q^{88} + 1375\, p^{113} q^{103} + 4001\, p^{113} q^{92} + 194\, p^{102} q^{32} + 35\, p^{98} q^{25} + 11834\, p^{110} q^{65} + 11796\, p^{111} q^{72}$$
$$+ 3517915006\, p^{77} q^{79} + 1436857624\, p^{80} q^{83} + 1512160\, q^{95} p^{39} + 2091837\, q^{95} p^{40} + 2845908\, q^{95} p^{41} + 1269115075\, p^{39} q^{37}$$
$$+ 13798075295\, p^{59} q^{47} + 15261984123\, p^{59} q^{48} + 1313490811\, p^{57} q^{33} + 2335182\, p^{51} q^{16} + 632230980\, p^{33} q^{39} + 4768\, q^{106} p^{46}$$
$$+ 60\, q^{104} p^{34} + 561\, q^{91} p^{21} + 23086050\, p^{56} q^{21} + 77627457\, p^{57} q^{24} + 311823309\, p^{87} q^{86} + 11320579003\, p^{72} q^{54} + 4847608278\, p^{72} q^{46}$$
$$+ 10814022905\, p^{73} q^{55} + 35730247\, p^{22} q^{40} + 460293\, p^{107} q^{75} + 959704935\, p^{47} q^{82} + 53103453\, p^{93} q^{89} + 1022209981\, p^{46} q^{81}$$
$$+ 142343\, p^{98} q^{106} + 3966775051\, p^{82} q^{66} + 1105893251\, p^{79} q^{44} + 6302128\, p^{72} q^{23} + 3368097809\, p^{81} q^{56} + 24804423962\, p^{56} q^{57}$$
$$+ 23358793201\, p^{54} q^{58} + 25153553533\, p^{60} q^{56} + 2068057\, q^{35} p^{16} + 1173514\, q^{34} p^{15} + 40249209\, p^{78} q^{98} + 35272086\, p^{84} q^{97}$$
$$+ 39144835\, p^{83} q^{97} + 414725\, p^{68} q^{17} + 38187984\, q^{92} p^{46} + 56910245\, q^{92} p^{48} + 111098416\, q^{92} p^{52} + 68329392\, q^{92} p^{49} + 21\, p^{39} q^{4}$$
$$+ 1723907944\, p^{80} q^{48} + 1318372725\, p^{79} q^{45} + 1342605848\, p^{69} q^{37} + 7122212492\, p^{71} q^{48} + 5335685583\, p^{70} q^{45} + 128057051\, p^{67} q^{28}$$
$$+ 6435\, p^{52} q^{9} + 83708692\, p^{91} q^{89} + 6\, q^{108} p^{40} + 18117140758\, p^{64} q^{70} + 4746867912\, p^{49} q^{75} + 466274245\, q^{61} p^{30} + 160098716\, q^{62} p^{27}$$
$$+ 342250781\, q^{61} p^{29} + 175379410\, q^{61} p^{27} + 247132919\, q^{61} p^{28} + 19368446872\, p^{60} q^{69} + 218916915\, p^{87} q^{88} + 259009614\, p^{86} q^{88}$$
$$+ 38\, q^{96} p^{23} + 5\, p^{19} q^{2} + 11928039061\, p^{52} q^{70} + 3027827680\, p^{43} q^{72} + 1308\, p^{9} q^{12} + 617\, p^{7} q^{13} + 816\, p^{8} q^{12} + 1268270817\, q^{80} p^{46}$$
$$+ 403611083\, p^{32} q^{37} + 286884953\, p^{31} q^{36} + 6\, p^{17} q^{2} + 138\, p^{23} q^{4} + 33\, p^{21} q^{3} + 12342551\, p^{36} q^{20} + 8348381\, p^{36} q^{19} + 27982568\, p^{37} q^{22}$$

$$+ 39144835\, p^{37} q^{23} + 126960185\, p^{37} q^{27} + 184180871\, p^{38} q^{28} + 401502\, p^{34} q^{13} + 1173514\, p^{34} q^{15} + 247391\, q^{37} p^{12} + 831598\, q^{37} p^{14}$$
$$+ 1500483\, q^{38} p^{15} + 10779\, q^{35} p^{8} + 3944\, q^{35} p^{7} + 478497\, q^{38} p^{13} + 124884\, q^{37} p^{11} + 568053353\, q^{82} p^{44} + 522\, q^{105} p^{39} + 17\, q^{103} p^{31}$$
$$+ 180867\, p^{89} q^{108} + 425376\, q^{35} p^{13} + 54978\, q^{33} p^{10} + 115313\, q^{34} p^{11} + 119550\, q^{35} p^{11} + 11852311\, p^{98} q^{54} + 104339\, q^{32} p^{11}$$
$$+ 2197289013\, p^{80} q^{80} + 10053341\, p^{54} q^{19} + 38480106\, p^{55} q^{22} + 1274535283\, p^{72} q^{87} + 31496001\, q^{93} p^{47} + 298051231\, p^{30} q^{38}$$
$$+ 877160\, p^{94} q^{36} + 181958\, p^{92} q^{30} + 437331\, p^{93} q^{33} + 2091837\, p^{95} q^{40} + 1512160\, p^{95} q^{39} + 1269685\, p^{94} q^{37} + 8\, q^{104} p^{32} + 23\, q^{104} p^{33}$$
$$+ 20969459762\, p^{61} q^{68} + 1209512217\, p^{33} q^{59} + 99230460\, p^{25} q^{59} + 1546593297\, p^{34} q^{59} + 1952854315\, p^{35} q^{59} + 260203803\, p^{93} q^{73}$$
$$+ 229556713\, p^{93} q^{76} + 1265594603\, q^{58} p^{33} + 13347126\, p^{22} q^{31} + 63946142\, p^{53} q^{23} + 700404\, q^{74} p^{20} + 47192420\, q^{78} p^{31}$$
$$+ 14884175\, q^{78} p^{28} + 41792746\, q^{77} p^{30} + 22326249\, q^{78} p^{29} + 9696695\, q^{78} p^{27} + 32784191\, q^{78} p^{30} + 1778841\, q^{75} p^{22} + 1350869\, q^{76} p^{22}$$
$$+ 126470457\, q^{78} p^{34} + 5057214\, p^{102} q^{85} + 6963\, q^{24} p^{8} + 46803\, q^{24} p^{11} + 216509169\, p^{93} q^{77} + 3230278012\, p^{68} q^{83} + 1284907219\, p^{38} q^{38}$$
$$+ 342548\, q^{97} p^{38} + 1030044040\, p^{35} q^{40} + 1611870091\, p^{41} q^{37} + 22233557985\, p^{59} q^{53} + 9845077889\, p^{49} q^{69} + 1472453578\, p^{39} q^{38}$$
$$+ 7607511\, p^{101} q^{85} + 8916367468\, p^{49} q^{70} + 20418602\, q^{75} p^{27} + 25510942\, q^{74} p^{27} + 38187984\, q^{74} p^{28} + 55966314\, q^{74} p^{29}$$
$$+ 15550084282\, p^{62} q^{49} + 98643843\, p^{91} q^{49} + 8920\, p^{70} q^{111} + 125847\, p^{82} q^{109} + 119550\, p^{85} q^{109} + 14342925\, p^{56} q^{20} + 106805516\, p^{58} q^{25}$$
$$+ 84\, p^{57} q^{7} + 1501351\, p^{65} q^{18} + 1400504558\, p^{68} q^{87} + 1384640667\, p^{69} q^{87} + p^{15} q + 615\, p^{50} q^{7} + 694679299\, p^{89} q^{75}$$
$$+ 16787574733\, p^{70} q^{67} + 32715012\, q^{82} p^{33} + 23062250\, q^{82} p^{32} + 9175\, q^{93} p^{26} + 1759\, q^{92} p^{23} + 33228186\, p^{22} q^{39} + 6654489\, p^{57} q^{100}$$
$$+ 202470819\, p^{27} q^{42} + 372539214\, p^{29} q^{43} + 443127057\, p^{30} q^{42} + 266554729\, p^{28} q^{42} + 346001637\, p^{29} q^{42} + 492\, p^{51} q^{7} + 23725\, p^{57} q^{11}$$
$$+ 209920\, p^{60} q^{14} + 108566\, p^{59} q^{13} + p^{73} q^{116} + 22909\, p^{97} q^{110} + 10610\, p^{89} q^{112} + 771\, p^{113} q^{106} + 65592\, q^{102} p^{43} + 20918020017\, p^{52} q^{57}$$
$$+ 24804423962\, p^{57} q^{56} + 933540751\, p^{59} q^{32} + 218884720\, p^{58} q^{27} + 710704062\, p^{59} q^{31} + 6020770082\, p^{60} q^{41} + 1546593297\, p^{59} q^{34}$$
$$+ 1952854315\, p^{59} q^{35} + 6\, p^{43} q^{4} + 406690460\, p^{30} q^{41} + 512574646\, p^{31} q^{41} + 560249721\, p^{31} q^{42} + 638154680\, p^{32} q^{41}$$
$$+ 785193563\, p^{33} q^{41} + 290\, q^{93} p^{22} + 15\, q^{92} p^{19} + 4091\, q^{96} p^{28} + 28\, q^{85} p^{15} + 858511302\, p^{34} q^{40} + 75183\, p^{99} q^{107} + 18982692\, p^{69} q^{100}$$
$$+ 19570829\, p^{70} q^{100} + 20099219\, p^{75} q^{100} + 12834053\, p^{72} q^{101} + 20330403\, p^{74} q^{100} + 20283827\, p^{72} q^{100} + 20391844\, p^{73} q^{100}$$
$$+ 510626197\, p^{84} q^{86} + 209463309\, q^{37} p^{29} + 23808\, q^{85} p^{21} + 17525\, q^{84} p^{20} + 289953\, p^{13} q^{30} + 789770\, p^{15} q^{30} + 2406\, p^{66} q^{11}$$
$$+ 28770698\, p^{26} q^{29} + 97858\, q^{31} p^{11} + 92600\, p^{106} q^{100} + 1270869\, p^{69} q^{19} + 4471879098\, p^{81} q^{69} + 4319524159\, p^{81} q^{70} + 61\, p^{82} q^{14}$$
$$+ 17\, p^{76} q^{11} + 3459697320\, p^{80} q^{54} + 3614926212\, p^{81} q^{57} + 379472358\, p^{78} q^{38} + 3150025191\, p^{80} q^{53} + 4252462829\, p^{81} q^{60}$$
$$+ 1201214124\, p^{39} q^{73} + 20643934569\, p^{64} q^{68} + 96586752\, p^{40} q^{25} + 26011\, p^{34} q^{9} + 119550\, p^{35} q^{11} + 4218\, p^{32} q^{7} + 10908\, p^{33} q^{8}$$

$$+ 240397\, p^{36} q^{12} + 58072\, p^{35} q^{10} + 4062569\, p^{38} q^{17} + 23085061\, p^{39} q^{21} + 831598\, p^{37} q^{14} + 15707008\, p^{39} q^{20} + 10449329\, p^{39} q^{19}$$
$$+ 35730247\, p^{40} q^{22} + 50674176\, p^{40} q^{23} + 172535146\, p^{40} q^{27} + 246265969\, p^{41} q^{28} + 464332\, p^{37} q^{13} + 1430496\, p^{37} q^{15} + 10318\, q^{30} p^{8}$$
$$+ 1234580\, q^{88} p^{30} + 145418656\, q^{83} p^{39} + 88667238\, p^{25} q^{39} + 8187851198\, p^{43} q^{60} + 4061588751\, p^{39} q^{61} + 17004796899\, p^{62} q^{50}$$
$$+ 286712499\, p^{59} q^{28} + 9960055040\, p^{62} q^{45} + 6785870674\, p^{61} q^{42} + 3351655973\, p^{61} q^{38} + 7892038430\, p^{61} q^{43} + 2735397518\, p^{61} q^{37}$$
$$+ 4061588751\, p^{61} q^{39} + 686\, p^{64} q^{112} + 10328\, p^{71} q^{111} + 7634\, p^{69} q^{111} + 6435\, p^{68} q^{111} + 5374\, p^{67} q^{111} + 1716\, p^{105} q^{112} + 9728085\, p^{56} q^{99}$$
$$+ 213372\, p^{74} q^{108} + 1010223\, q^{77} p^{22} + 184305970\, q^{36} p^{29} + 10910\, q^{34} p^{8} + 26011\, q^{34} p^{9} + 792316\, q^{36} p^{14} + 5562205308\, p^{47} q^{72}$$
$$+ 7950904868\, p^{50} q^{72} + 7122212492\, p^{49} q^{72} + 4244359112\, p^{46} q^{73} + 6322904837\, p^{48} q^{72} + 37581507\, p^{95} q^{88} + 72737472\, p^{95} q^{83}$$
$$+ 80422011\, q^{74} p^{30} + 23218612769\, p^{54} q^{60} + 15\, q^{61} p^{7} + 373\, q^{63} p^{9} + 618141\, q^{82} p^{24} + 1802622\, q^{82} p^{26} + 1781\, p^{68} q^{112}$$
$$+ 20745688599\, p^{52} q^{60} + 14592229561\, p^{48} q^{61} + 25737014566\, p^{57} q^{58} + 43674\, p^{59} q^{12} + 25866210108\, p^{60} q^{57} + 30977519\, p^{74} q^{99}$$
$$+ 26159587649\, p^{58} q^{58} + 1104156215\, p^{56} q^{86} + 19824221385\, p^{58} q^{68} + 172751040\, p^{34} q^{30} + 43319026\, q^{87} p^{39} + 372050830\, p^{31} q^{38}$$
$$+ 118950360\, p^{26} q^{39} + 5271122566\, p^{72} q^{79} + 366135255\, p^{71} q^{92} + 375548\, q^{33} p^{13} + 118828\, p^{63} q^{14} + 60708\, p^{62} q^{13} + 253584\, p^{79} q^{108}$$
$$+ 112\, p^{103} q^{116} + 105\, p^{104} q^{116} + 93\, p^{105} q^{116} + 84\, p^{106} q^{116} + 72\, p^{116} q^{107} + 21383089\, p^{21} q^{38} + 238503033\, p^{86} q^{45} + 47494113\, p^{84} q^{36}$$
$$+ 646710698\, p^{88} q^{56} + 305546103\, p^{87} q^{48} + 1083017095\, p^{84} q^{81} + 80672597\, p^{38} q^{25} + 24900\, p^{32} q^{9} + 110242\, p^{33} q^{11} + 13564\, p^{74} q^{15}$$
$$+ 425190\, q^{96} p^{37} + 120752\, q^{96} p^{34} + 188275\, q^{96} p^{35} + 618141\, q^{96} p^{38} + 59425346\, p^{24} q^{38} + 27982568\, p^{22} q^{37} + 625476399\, q^{89} p^{59}$$
$$+ 710704062\, q^{89} p^{61} + 781136076\, q^{89} p^{63} + 748164291\, q^{89} p^{62} + 808900696\, q^{89} p^{64} + 846499114\, q^{89} p^{66} + 830856026\, q^{89} p^{65}$$
$$+ 645346221\, q^{90} p^{66} + 669528468\, q^{89} p^{60} + 579389589\, q^{89} p^{58} + 39144835\, p^{23} q^{37} + 17130724910\, p^{69} q^{68} + 274\, q^{59} p^{8}$$
$$+ 2352991\, q^{84} p^{28} + 6015422\, q^{85} p^{31} + 3694611\, q^{84} p^{29} + 5659014\, q^{84} p^{30} + 18775\, p^{93} q^{111} + 880592\, q^{81} p^{24} + 2088302\, q^{83} p^{27}$$
$$+ 3336618\, q^{83} p^{28} + 5193240\, q^{83} p^{29} + 6\, q^{112} p^{53} + 21\, q^{112} p^{55} + 3\, q^{112} p^{52} + 12\, q^{112} p^{54} + 4593296\, q^{34} p^{18} + 225542974\, p^{28} q^{40}$$
$$+ 950257842\, p^{36} q^{38} + 417767629\, p^{31} q^{39} + 516920531\, p^{32} q^{39} + 15422158479\, p^{48} q^{58} + 2843135\, q^{102} p^{59} + 3250677\, q^{102} p^{60}$$
$$+ 576944140\, p^{88} q^{80} + 22096126866\, p^{53} q^{57} + 37761174\, p^{34} q^{24} + 347851\, p^{32} q^{13} + 4132306\, p^{33} q^{18} + 115575\, p^{99} q^{106}$$
$$+ 8916367468\, p^{50} q^{71} + 19640404840\, p^{51} q^{57} + 518014\, q^{67} p^{17} + 24298343114\, p^{56} q^{56} + 12263\, p^{101} q^{37} + 141668\, p^{105} q^{54}$$
$$+ 979724335\, p^{58} q^{32} + 231702588\, p^{57} q^{27} + 748164291\, p^{58} q^{31} + 6223676237\, p^{59} q^{41} + 1613723721\, p^{58} q^{34} + 2032046921\, p^{58} q^{35}$$
$$+ 756\, p^{40} q^{6} + 2079358816\, p^{69} q^{39} + 7026057623\, p^{70} q^{47} + 2543501825\, p^{69} q^{40} + 9910531555\, p^{70} q^{50} + 4363942606\, p^{69} q^{43}$$
$$+ 3683560895\, p^{69} q^{42} + 310468\, p^{66} q^{16} + 18496273\, p^{51} q^{96} + 16389802\, p^{48} q^{95} + 83449710\, p^{59} q^{95} + 20012867\, p^{49} q^{95}$$

$$+ 24162979\, p^{50}\, q^{95} + 560249721\, p^{42}\, q^{31} + 1053289765\, p^{42}\, q^{34} + 1270824081\, p^{42}\, q^{35} + 1667120524\, p^{43}\, q^{36} + 490618329\, p^{37}\, q^{33}$$
$$+ 1903891\, p^{34}\, q^{16} + 1958\, p^{93}\, q^{24} + 17773884777\, p^{57}\, q^{69} + 107736\, q^{91}\, p^{28} + 998037\, q^{93}\, p^{35} + 8062366\, q^{94}\, p^{43} + 6161968\, q^{94}\, p^{42}$$
$$+ 1458140\, q^{93}\, p^{36} + 10404261\, q^{94}\, p^{44} + 5504633\, q^{93}\, p^{40} + 185042\, q^{91}\, p^{29} + 1269685\, q^{83}\, p^{26} + 426040419\, p^{33}\, q^{36} + 184180871\, p^{28}\, q^{38}$$
$$+ 126960185\, p^{27}\, q^{37} + 589828749\, p^{34}\, q^{37} + 6\, p^{67}\, q^{8} + 981596\, p^{32}\, q^{15} + 66267524\, p^{34}\, q^{26} + 1180336854\, p^{50}\, q^{83} + 1667120524\, p^{84}\, q^{77}$$
$$+ 1270824081\, p^{85}\, q^{78} + 2231754396\, p^{84}\, q^{73} + 1816299534\, p^{84}\, q^{76} + 240397\, q^{36}\, p^{12} + 10908\, q^{33}\, p^{8} + 257371952\, q^{73}\, p^{33}$$
$$+ 11183742\, p^{100}\, q^{85} + 43314\, p^{45}\, q^{10} + 395730\, p^{48}\, q^{13} + 7121461\, p^{51}\, q^{18} + 6013812411\, p^{45}\, q^{44} + 7258124228\, p^{46}\, q^{45} + 86975\, p^{95}\, q^{32}$$
$$+ 16605\, p^{91}\, q^{25} + 3708404212\, p^{45}\, q^{40} + 4746867912\, p^{45}\, q^{71} + 1759\, p^{92}\, q^{23} + 135\, p^{85}\, q^{16} + 1472453578\, p^{38}\, q^{39} + 111643372\, p^{42}\, q^{25}$$
$$+ 4482022\, p^{40}\, q^{17} + 891902\, p^{39}\, q^{14} + 17647525\, p^{41}\, q^{20} + 11611541\, p^{41}\, q^{19} + 40249209\, p^{42}\, q^{22} + 57603374\, p^{42}\, q^{23} + 202470819\, p^{42}\, q^{27}$$
$$+ 286033496\, p^{43}\, q^{28} + 1560182\, p^{39}\, q^{15} + 11285409\, p^{68}\, q^{101} + 11803902\, p^{69}\, q^{101} + 589940070\, p^{57}\, q^{30} + 172871012\, p^{56}\, q^{26}$$
$$+ 438979002\, p^{57}\, q^{29} + 26205483\, p^{41}\, q^{21} + 34304\, p^{109}\, q^{98} + 248461\, p^{104}\, q^{53} + 2\, q^{53}\, p^{5} + 56\, q^{58}\, p^{7} + 142240\, p^{51}\, q^{12} + 66973\, p^{50}\, q^{11}$$
$$+ 3116884\, p^{55}\, q^{17} + 4869413984\, p^{61}\, q^{40} + 253046\, q^{87}\, p^{26} + 38269\, q^{87}\, p^{23} + 75259\, q^{87}\, p^{24} + 12669095648\, p^{62}\, q^{47}$$
$$+ 14097552559\, p^{62}\, q^{48} + 86975\, q^{88}\, p^{25} + 130858\, p^{24}\, q^{13} + 1065\, p^{21}\, q^{6} + 390\, p^{20}\, q^{5} + 12374\, p^{23}\, q^{9} + 46803\, p^{24}\, q^{11} + 1225935\, p^{25}\, q^{18}$$
$$+ 657840336\, q^{90}\, p^{68} + 656149160\, q^{90}\, p^{69} + 620130254\, q^{90}\, p^{72} + 637079486\, q^{90}\, p^{71} + 544373463\, q^{90}\, p^{75} + 478653708\, q^{90}\, p^{77}$$
$$+ 346001637\, q^{91}\, p^{78} + 598700768\, q^{90}\, p^{73} + 512624058\, q^{90}\, p^{76} + 19384\, p^{73}\, q^{15} + 129192\, q^{102}\, p^{45} + 176442\, q^{102}\, p^{46} + 648234\, q^{33}\, p^{14}$$
$$+ 1415\, q^{108}\, p^{49} + 934\, q^{108}\, p^{48} + 2101\, q^{108}\, p^{50} + 4993296\, q^{68}\, p^{21} + 1021308\, q^{67}\, p^{18} + 248291932\, p^{35}\, q^{31} + 311823309\, p^{33}\, q^{34}$$
$$+ 259009614\, p^{32}\, q^{34} + 371377542\, p^{34}\, q^{34} + 437692432\, p^{35}\, q^{34} + 311823309\, p^{34}\, q^{33} + 297405\, q^{92}\, p^{31} + 307097\, q^{91}\, p^{30} + 181958\, q^{92}\, p^{30}$$
$$+ 1102609\, q^{92}\, p^{34} + 2\, p^{61}\, q^{114} + 290784126\, p^{91}\, q^{80} + 825527777\, p^{69}\, q^{35} + 11696583708\, p^{71}\, q^{53} + 28223698\, p^{89}\, q^{40}$$
$$+ 4583488857\, p^{70}\, q^{44} + 826773004\, p^{32}\, q^{61} + 225826137\, p^{72}\, q^{32} + 967\, p^{84}\, q^{17} + 164269723\, p^{72}\, q^{31} + 4746867912\, p^{75}\, q^{49}$$
$$+ 9975892481\, p^{76}\, q^{64} + 16877900216\, p^{49}\, q^{58} + 10195302333\, p^{74}\, q^{56} + 417750676\, p^{70}\, q^{33} + 10051987\, p^{67}\, q^{22} + 34105112\, p^{68}\, q^{25}$$
$$+ 51656808\, p^{68}\, q^{26} + 16350097\, p^{67}\, q^{23} + 494767\, p^{107}\, q^{80} + 347851\, p^{107}\, q^{88} + 172145\, q^{108}\, p^{71} + 493661\, p^{107}\, q^{78} + 21669721086\, p^{53}\, q^{61}$$
$$+ 14931691114\, p^{49}\, q^{63} + 18437849207\, p^{51}\, q^{62} + 20842748142\, p^{64}\, q^{54} + 20973631646\, p^{65}\, q^{55} + 10195302333\, p^{64}\, q^{46}$$
$$+ 12588259605\, p^{54}\, q^{71} + 9845077889\, p^{51}\, q^{71} + 365\, p^{33}\, q^{5} + 16063912216\, p^{61}\, q^{49} + 589828749\, p^{83}\, q^{86} + 19368446872\, p^{60}\, q^{51}$$
$$+ 20745688599\, p^{60}\, q^{52} + 16522\, p^{45}\, q^{9} + 6204\, p^{44}\, q^{8} + 28859245\, q^{69}\, p^{25} + 2855578\, q^{68}\, p^{20} + 1570999\, q^{68}\, p^{19} + 366335402\, p^{33}\, q^{35}$$
$$+ 517465409\, p^{35}\, q^{35} + 710718448\, p^{36}\, q^{36} + 248291932\, p^{31}\, q^{35} + 721292073\, q^{70}\, p^{35} + 4738774371\, q^{55}\, p^{39} + 65043885\, p^{81}\, q^{96}$$

$$+ 2282527\, q^{103}\, p^{62} + 2018731\, q^{103}\, p^{61} + 8\, p^{14}\, q^{2} + 62740\, p^{63}\, q^{108} + 184305970\, p^{84}\, q^{91} + 4194\, p^{30}\, q^{7} + 10610\, p^{31}\, q^{8} + 220705\, p^{34}\, q^{12}$$
$$+ 54978\, p^{33}\, q^{10} + 3553749\, p^{36}\, q^{17} + 19631057\, p^{37}\, q^{21} + 747889\, p^{35}\, q^{14} + 139\, p^{24}\, q^{4} + 31\, p^{22}\, q^{3} + 13496019\, p^{37}\, q^{20} + 9078378\, p^{37}\, q^{19}$$
$$+ 30630321\, p^{38}\, q^{22} + 43045729\, p^{38}\, q^{23} + 141911888\, p^{38}\, q^{27} + 204735934\, p^{39}\, q^{28} + 425376\, p^{35}\, q^{13} + 1265222\, p^{35}\, q^{15} + 1446\, q^{26}\, p^{6}$$
$$+ 485\, q^{25}\, p^{5} + 267284\, q^{105}\, p^{57} + 3682168\, p^{18}\, q^{32} + 500776085\, p^{30}\, q^{60} + 144018487\, p^{26}\, q^{59} + 109819534\, p^{86}\, q^{92} + 710704062\, p^{89}\, q^{61}$$
$$+ 781136076\, p^{89}\, q^{63} + 3037\, p^{98}\, q^{30} + 8251\, p^{99}\, q^{33} + 4\, p^{101}\, q^{27} + 68\, p^{109}\, q^{46} + 164\, p^{110}\, q^{51} + 182\, p^{107}\, q^{42} + 124\, p^{109}\, q^{47}$$
$$+ 9781582\, p^{60}\, q^{100} + 65490308\, p^{75}\, q^{97} + 5974\, p^{57}\, q^{109} + 3003732882\, p^{83}\, q^{61} + 3192775741\, p^{83}\, q^{63} + 3109363481\, p^{83}\, q^{62} + 1339\, p^{59}\, q^{9}$$
$$+ 3285986160\, p^{83}\, q^{65} + 200910056\, p^{35}\, q^{30} + 1105893251\, q^{79}\, p^{44} + 917927260\, q^{79}\, p^{43} + 611889892\, q^{79}\, p^{41} + 92592654\, q^{78}\, p^{33}$$
$$+ 527813\, q^{75}\, p^{20} + 66683866\, q^{78}\, p^{32} + 753664409\, q^{79}\, p^{42} + 212752067\, p^{34}\, q^{31} + 212752067\, p^{31}\, q^{34} + 262678117\, p^{33}\, q^{33}$$
$$+ 303291525\, p^{35}\, q^{32} + 218916915\, p^{32}\, q^{33} + 218916915\, p^{33}\, q^{32} + 259009614\, p^{34}\, q^{32} + 437692432\, p^{34}\, q^{35} + 303291525\, p^{32}\, q^{35}$$
$$+ 6557117079\, p^{65}\, q^{79} + 927334558\, p^{74}\, q^{88} + 974294191\, p^{73}\, q^{88} + 15433853\, p^{55}\, q^{20} + 113982136\, p^{57}\, q^{25} + 91583\, p^{98}\, q^{107}$$
$$+ 43314\, p^{75}\, q^{110} + 122721\, p^{84}\, q^{109} + 73914\, p^{64}\, q^{108} + 911523\, p^{80}\, q^{106} + 80904508\, p^{42}\, q^{24} + 7448190\, p^{41}\, q^{18} + 151530538\, p^{42}\, q^{26}$$
$$+ 941060863\, p^{43}\, q^{33} + 2730263\, p^{40}\, q^{16} + 478653708\, p^{43}\, q^{30} + 372539214\, p^{43}\, q^{29} + 760369158\, p^{43}\, q^{32} + 1222839167\, p^{36}\, q^{40}$$
$$+ 1791930983\, p^{42}\, q^{37} + 1671522745\, p^{40}\, q^{38} + 699635566\, p^{32}\, q^{42} + 955178672\, p^{34}\, q^{41} + 4563\, p^{88}\, q^{21} + 607058446\, p^{43}\, q^{31}$$
$$+ 1151313053\, p^{43}\, q^{34} + 1392920982\, p^{43}\, q^{35} + 1816299534\, p^{44}\, q^{36} + 478653708\, p^{30}\, q^{43} + 17891537294\, p^{69}\, q^{67} + 252381\, q^{38}\, p^{12}$$
$$+ 45593412\, q^{82}\, p^{34} + 15406229\, p^{30}\, q^{23} + 512574646\, p^{89}\, q^{79} + 2758668245\, p^{56}\, q^{82} + 2322755339\, p^{54}\, q^{82} + 372050830\, p^{89}\, q^{82}$$
$$+ 4416225579\, p^{61}\, q^{81} + 4132306\, p^{18}\, q^{33} + 11132657\, p^{21}\, q^{32} + 273837236\, p^{70}\, q^{93} + 3918784\, p^{103}\, q^{68} + 5438467\, p^{19}\, q^{32}$$
$$+ 24262554\, p^{24}\, q^{31} + 37\, p^{64}\, q^{8} + 7860041\, p^{20}\, q^{32} + 202470819\, p^{93}\, q^{78} + 5994735\, p^{67}\, q^{21} + 21987881\, p^{68}\, q^{24} + 2317232\, p^{66}\, q^{19}$$
$$+ 1120026133\, p^{72}\, q^{38} + 923193\, p^{79}\, q^{106} + 24389793596\, p^{55}\, q^{59} + 5485674691\, p^{46}\, q^{71} + 6279683788\, p^{47}\, q^{71} + 7122212492\, p^{48}\, q^{71}$$
$$+ 22037565196\, p^{53}\, q^{60} + 25904498896\, p^{59}\, q^{57} + 22233557985\, p^{53}\, q^{59} + 8602648531\, p^{43}\, q^{58} + 1759\, q^{97}\, p^{28} + q^{79}\, p^{11}$$
$$+ 16104754354\, p^{70}\, q^{68} + 2507895266\, p^{83}\, q^{74} + 3274962991\, p^{83}\, q^{67} + 2953121077\, p^{83}\, q^{71} + 2819777599\, p^{83}\, q^{72} + 3230278012\, p^{83}\, q^{68}$$
$$+ 2335615389\, p^{83}\, q^{75} + 8960989131\, p^{75}\, q^{56} + 359054453\, p^{71}\, q^{33} + 8435637\, p^{68}\, q^{22} + 28859245\, p^{69}\, q^{25} + 43947536\, p^{69}\, q^{26}$$
$$+ 13812949\, p^{68}\, q^{23} + 10568\, q^{36}\, p^{8} + 172871012\, p^{64}\, q^{94} + 286033496\, p^{92}\, q^{77} + 267284\, p^{63}\, q^{15} + 104846818\, p^{76}\, q^{32} + 74937712\, p^{76}\, q^{31}$$
$$+ 13519156842\, p^{60}\, q^{47} + 14983270737\, p^{60}\, q^{48} + 98\, q^{79}\, p^{13} + 160617471\, p^{35}\, q^{29} + 215\, p^{108}\, q^{45} + 329\, p^{115}\, q^{102} + 61\, p^{106}\, q^{38}$$
$$+ 390\, p^{115}\, q^{100} + 1466\, p^{114}\, q^{89} + 1795\, p^{113}\, q^{76} + 2054\, p^{113}\, q^{77} + 462\, p^{115}\, q^{91} + 850\, p^{114}\, q^{81} + 766\, p^{113}\, q^{71} + 98\, p^{107}\, q^{41} + 64\, p^{105}\, q^{36}$$

$$+ 37207\, p^{71} q^{15} + 15707008\, q^{39} p^{20} + 4091\, p^{92} q^{24} + 41138\, q^{103} p^{44} + 248461\, q^{104} p^{53} + 196307\, q^{104} p^{52} + 310468\, q^{104} p^{54}$$
$$+ 382915\, q^{104} p^{55} + 3451610565\, p^{43} q^{71} + 125847\, q^{38} p^{11} + 10449329\, q^{39} p^{19} + 371377542\, p^{86} q^{86} + 437692432\, p^{85} q^{86}$$
$$+ 403611083\, p^{83} q^{88} + 160617471\, p^{85} q^{91} + 1294454941\, p^{49} q^{82} + 533311331\, p^{59} q^{30} + 154357472\, p^{58} q^{26} + 394176373\, p^{59} q^{29}$$
$$+ 18437849207\, p^{62} q^{51} + 19824221385\, p^{62} q^{52} + 51741983\, p^{57} q^{23} + 284291\, p^{52} q^{13} + 5501506\, p^{55} q^{18} + 1072110\, p^{53} q^{15}$$
$$+ 2328304248\, p^{60} q^{36} + 539094\, p^{53} q^{14} + 97858\, p^{89} q^{109} + 79817\, p^{96} q^{108} + 13350\, p^{73} q^{111} + 57847\, p^{81} q^{110} + 56476\, p^{80} q^{110}$$
$$+ 3847610527\, p^{81} q^{58} + 363555667\, p^{77} q^{37} + 4061588751\, p^{81} q^{59} + 5777493337\, p^{41} q^{61} + 15978769\, p^{98} q^{56} + 12771434\, p^{99} q^{58}$$
$$+ 218916915\, p^{88} q^{87} + 25367580242\, p^{57} q^{57} + 12841933767\, p^{72} q^{56} + 549377753\, p^{68} q^{33} + 13830767\, p^{65} q^{22} + 46199672\, p^{66} q^{25}$$
$$+ 366335402\, p^{87} q^{85} + 372050830\, p^{82} q^{89} + 937347\, p^{64} q^{17} + 7118563\, p^{66} q^{21} + 561988\, p^{63} q^{16} + 25865523\, p^{67} q^{24} + 2767087\, p^{65} q^{19}$$
$$+ 1294454941\, p^{71} q^{38} + 126\, q^{90} p^{19} + 17\, q^{89} p^{17} + 3\, q^{87} p^{15} + 237\, q^{92} p^{21} + 4\, q^{90} p^{17} + 31\, q^{90} p^{18} + 81\, q^{89} p^{18} + 330\, p^{77} q^{13} + 398\, q^{67} p^{10}$$
$$+ 170\, q^{65} p^{9} + 3030\, q^{69} p^{12} + 1185\, q^{68} p^{11} + 41138\, q^{76} p^{17} + 268463\, q^{75} p^{19} + 108\, q^{66} p^{9} + 262\, q^{68} p^{10} + 176442\, q^{74} p^{18} + 2232\, q^{73} p^{13}$$
$$+ 19384\, q^{73} p^{15} + 81080\, q^{74} p^{17} + 10096\, q^{72} p^{14} + 27091\, q^{72} p^{15} + 1415\, q^{71} p^{12} + 549526\, q^{77} p^{21} + 2101\, q^{70} p^{12} + 58345\, q^{75} p^{17}$$
$$+ 129192\, q^{75} p^{18} + 4844\, q^{71} p^{13} + 7010\, q^{73} p^{14} + 806\, q^{69} p^{11} + 9307\, q^{75} p^{15} + 3320\, q^{72} p^{13} + 4768\, q^{74} p^{14} + 527\, q^{70} p^{11}$$
$$+ 12004722\, p^{25} q^{26} + 18973311672\, p^{59} q^{69} + 2\, p^{46} q^{4} + 25399499\, q^{94} p^{48} + 13875885234\, p^{54} q^{70} + 221313184\, p^{68} q^{30} + 5738677\, p^{64} q^{20}$$
$$+ 1402787\, p^{16} q^{31} + 486941\, p^{14} q^{30} + 328265290\, p^{31} q^{37} + 231353626\, p^{30} q^{36} + 130084122\, p^{94} q^{80} + 407222455\, p^{72} q^{34}$$
$$+ 1817352297\, p^{73} q^{41} + 178659841\, q^{45} p^{26} + 93164168\, q^{45} p^{24} + 69255229\, p^{66} q^{26} + 22210329\, p^{65} q^{23} + 23150815775\, p^{54} q^{57}$$
$$+ 2735397518\, p^{37} q^{61} + 1295744672\, p^{34} q^{62} + 2207049953\, p^{36} q^{61} + 1385959829\, p^{34} q^{61} + 1759772838\, p^{35} q^{61} + 20361057806\, p^{59} q^{68}$$
$$+ 2910983\, q^{44} p^{16} + 4865986\, q^{43} p^{17} + 1669810\, q^{43} p^{15} + 2901907\, q^{43} p^{16} + 15324454215\, p^{70} q^{69} + 80672597\, p^{82} q^{95}$$
$$+ 64978565\, p^{84} q^{95} + 41478775\, p^{89} q^{94} + 85519491\, p^{77} q^{96} + 42472644\, p^{67} q^{98} + 68414252\, p^{73} q^{97} + 69059935\, p^{72} q^{97}$$
$$+ 15014912414\, p^{71} q^{68} + 2850557053\, p^{81} q^{54} + 2968311603\, p^{82} q^{57} + 304857983\, p^{79} q^{38} + 2588780947\, p^{81} q^{53} + 3517750200\, p^{82} q^{60}$$
$$+ 14983270737\, p^{60} q^{72} + 14592229561\, p^{59} q^{72} + 11493875029\, p^{56} q^{73} + 39894078\, q^{95} p^{53} + 14259\, p^{99} q^{34} + 129192\, p^{102} q^{45}$$
$$+ 68698\, p^{101} q^{41} + 510626197\, p^{86} q^{84} + 263838550\, p^{90} q^{83} + 1692078\, p^{96} q^{41} + 392335\, p^{94} q^{34} + 6388340\, p^{102} q^{82} + 5516940\, p^{102} q^{84}$$
$$+ 150865\, p^{91} q^{108} + 111643372\, p^{95} q^{78} + 3368097809\, p^{56} q^{81} + 3767241930\, p^{55} q^{80} + 460293\, p^{45} q^{13} + 7891842\, p^{48} q^{18}$$
$$+ 172145\, p^{49} q^{12} + 81862\, p^{48} q^{11} + 12525\, p^{103} q^{109} + q^{91} p^{17} + 10919549374\, p^{51} q^{70} + 59425346\, p^{82} q^{96} + 7738\, p^{103} q^{110}$$
$$+ 16735310855\, p^{59} q^{49} + 3293664898\, p^{83} q^{66} + 896203411\, p^{80} q^{44} + 5029130\, p^{73} q^{23} + 2758668245\, p^{82} q^{56} + 327825\, p^{69} q^{17}$$

$$+ 1397655877\, p^{81}\, q^{48} + 1071653966\, p^{80}\, q^{45} + 26704151962\, p^{61}\, q^{60} + 21944586661\, p^{56}\, q^{65} + 25180522520\, p^{63}\, q^{58}$$
$$+ 21944586661\, p^{65}\, q^{56} + 34117765\, q^{83}\, p^{34} + 141090\, p^{101}\, q^{43} + 861096274\, q^{75}\, p^{39} + 1268270817\, q^{74}\, p^{40} + 1555631474\, q^{74}\, p^{41}$$
$$+ 23740957783\, p^{64}\, q^{57} + 748164291\, p^{89}\, q^{62} + 830856026\, p^{89}\, q^{65} + 8032416\, p^{98}\, q^{92} + 7155358854\, p^{43}\, q^{63} + 6125114367\, p^{42}\, q^{63}$$
$$+ 8277957015\, p^{44}\, q^{63} + 10195302333\, p^{46}\, q^{64} + 12116493663\, p^{47}\, q^{63} + 9486104101\, p^{45}\, q^{63} + 10769909104\, p^{46}\, q^{63} + 7640227\, p^{58}\, q^{100}$$
$$+ 8686034\, p^{59}\, q^{100} + 14342925\, p^{64}\, q^{100} + 6449485\, p^{61}\, q^{101} + 13211413\, p^{63}\, q^{100} + 10911765\, p^{61}\, q^{100} + 12061552\, p^{62}\, q^{100} + 2866\, p^{56}\, q^{9}$$
$$+ 25236884632\, p^{56}\, q^{59} + 158214802\, p^{91}\, q^{52} + 5777493337\, p^{59}\, q^{79} + 25119646339\, p^{56}\, q^{58} + 215\, q^{108}\, p^{45} + 3\, q^{107}\, p^{37} + 1015162\, q^{101}\, p^{50}$$
$$+ 1297771\, q^{99}\, p^{46} + 24321092312\, p^{55}\, q^{58} + 24871494687\, p^{61}\, q^{56} + 6015772104\, p^{72}\, q^{78} + 29761279\, p^{92}\, q^{93} + 2588780947\, p^{53}\, q^{81}$$
$$+ 14931691114\, p^{63}\, q^{49} + 13211413\, p^{57}\, q^{20} + 99230460\, p^{59}\, q^{25} + 1485915661\, p^{40}\, q^{73} + 263054086\, p^{81}\, q^{91} + 2997287\, q^{34}\, p^{17}$$
$$+ 399399\, p^{99}\, q^{42} + 477708\, p^{101}\, q^{47} + 38413\, p^{99}\, q^{36} + 15764\, p^{109}\, q^{102} + 205044009\, p^{93}\, q^{61} + 231702588\, p^{93}\, q^{63} + 920\, p^{80}\, q^{15}$$
$$+ 466274245\, p^{61}\, q^{30} + 133226921\, p^{60}\, q^{26} + 342250781\, p^{61}\, q^{29} + 16995703372\, p^{64}\, q^{51} + 18344081157\, p^{64}\, q^{52} + 44212385\, p^{59}\, q^{23}$$
$$+ 2074874203\, p^{62}\, q^{36} + 307097\, q^{90}\, p^{29} + 458912027\, p^{82}\, q^{88} + 13107\, q^{107}\, p^{52} + 4844\, q^{107}\, p^{49} + 248291932\, p^{85}\, q^{89} + 328265290\, p^{83}\, q^{89}$$
$$+ 147030540\, p^{87}\, q^{90} + 263838550\, p^{83}\, q^{90} + 123836037\, p^{90}\, q^{88} + 183074045\, p^{88}\, q^{88} + 151425824\, p^{89}\, q^{88} + 8792\, p^{80}\, q^{112} + 8174\, p^{79}\, q^{112}$$
$$+ 1388\, p^{95}\, q^{114} + 2402\, p^{99}\, q^{113} + 2127\, p^{100}\, q^{113} + 2746\, p^{107}\, q^{110} + 4595\, p^{103}\, q^{111} + 1479\, p^{93}\, q^{114} + 420\, p^{89}\, q^{115} + 1505\, p^{92}\, q^{114}$$
$$+ 28\, p^{66}\, q^{114} + 2968311603\, p^{57}\, q^{82} + 2101276458\, p^{84}\, q^{74} + 2696469103\, p^{84}\, q^{67} + 2455757427\, p^{84}\, q^{71} + 2350740289\, p^{84}\, q^{72}$$
$$+ 2666296609\, p^{84}\, q^{68} + 1961896865\, p^{84}\, q^{75} + 20505179\, p^{24}\, q^{30} + 2752003473\, p^{45}\, q^{38} + 4243121539\, p^{45}\, q^{41} + 5402430119\, p^{45}\, q^{43}$$
$$+ 4809777048\, p^{45}\, q^{42} + 1010223\, q^{98}\, p^{43} + 3769\, q^{36}\, p^{7} + 25273\, q^{38}\, p^{9} + 327825\, q^{103}\, p^{51} + 255514\, q^{103}\, p^{50} + 2\, q^{89}\, p^{16} + 9\, q^{91}\, p^{18}$$
$$+ 923193\, q^{41}\, p^{14} + 2624\, p^{50}\, q^{8} + 1532559\, p^{61}\, q^{17} + 11201398\, p^{63}\, q^{21} + 918389\, p^{60}\, q^{16} + 39651846\, p^{64}\, q^{24} + 4419167\, p^{62}\, q^{19}$$
$$+ 1888883296\, p^{68}\, q^{38} + 496485\, q^{41}\, p^{13} + 420984115\, q^{45}\, p^{29} + 125722\, q^{39}\, p^{11} + 46\, q^{103}\, p^{32} + 6449485\, q^{59}\, p^{19} + 16136182\, q^{60}\, p^{21}$$
$$+ 1306\, q^{34}\, p^{6} + 63278553\, q^{44}\, p^{23} + 19155887\, q^{43}\, p^{20} + 43816467\, q^{44}\, p^{22} + 28739371\, q^{43}\, p^{21} + 2934797\, q^{82}\, p^{27} + 1073581\, q^{82}\, p^{25}$$
$$+ 195\, q^{60}\, p^{8} + 9\, q^{50}\, p^{5} + 3\, q^{52}\, p^{5} + 10981868812\, p^{45}\, q^{59} + 2426349160\, p^{78}\, q^{81} + 458912027\, p^{32}\, q^{38} + 484953462\, q^{91}\, p^{66}$$
$$+ 500776085\, q^{90}\, p^{60} + 430468463\, q^{90}\, p^{58} + 699808\, q^{80}\, p^{23} + 199736\, q^{80}\, p^{21} + 2512471\, q^{81}\, p^{26} + 1512160\, q^{81}\, p^{25} + 493205943\, q^{91}\, p^{67}$$
$$+ 399399\, q^{78}\, p^{21} + 497534826\, q^{91}\, p^{68} + 497846644\, q^{91}\, p^{69} + 3554972\, p^{19}\, q^{29} + 1513192533\, p^{68}\, q^{37} + 7950904868\, p^{70}\, q^{48}$$
$$+ 5944154374\, p^{69}\, q^{45} + 146198237\, p^{66}\, q^{28} + 7634\, p^{51}\, q^{9} + 18395474\, p^{25}\, q^{28} + 3663616\, p^{53}\, q^{17} + 391634\, q^{100}\, p^{44} + 181589443\, p^{67}\, q^{29}$$
$$+ 16780\, p^{110}\, q^{67} + 3320\, p^{107}\, q^{48} + 29\, p^{94}\, q^{21} + 300\, p^{101}\, q^{31} + 70\, p^{100}\, q^{28} + 60631200\, q^{43}\, p^{23} + 559567715\, p^{87}\, q^{82} + 5238527448\, p^{69}\, q^{80}$$

$$+ 1450\, q^{107}\, p^{46} + 3320\, q^{107}\, p^{48} + 4388501540\, p^{76}\, q^{78} + 17532399140\, p^{59}\, q^{70} + 46476\, p^{67}\, q^{14} + 23235\, p^{66}\, q^{13} + 693303868\, p^{72}\, q^{36}$$
$$+ 2102507791\, p^{79}\, q^{48} + 1603859066\, p^{78}\, q^{45} + 29761279\, p^{27}\, q^{28} + 1568339\, p^{16}\, q^{32} + 19882944334\, p^{65}\, q^{54} + 19882944334\, p^{66}\, q^{55}$$
$$+ 9572141487\, p^{65}\, q^{46} + 16119736721\, p^{65}\, q^{51} + 17432474583\, p^{65}\, q^{52} + 1934380158\, p^{63}\, q^{36} + 1344177\, p^{105}\, q^{70} + 14779928457\, p^{65}\, q^{50}$$
$$+ 5747838569\, p^{64}\, q^{42} + 6729804428\, p^{64}\, q^{43} + 3368097809\, p^{64}\, q^{39} + 4067438009\, p^{64}\, q^{40} + 10814022905\, p^{65}\, q^{47} + 12107251875\, p^{65}\, q^{48}$$
$$+ 209463309\, p^{91}\, q^{83} + 100086189\, p^{91}\, q^{88} + 1499541\, p^{71}\, q^{20} + 2330495741\, p^{81}\, q^{52} + 2079358816\, p^{81}\, q^{51} + 7790\, p^{62}\, q^{11}$$
$$+ 22365021\, p^{29}\, q^{25} + 5269641897\, p^{59}\, q^{40} + 43947536\, q^{69}\, p^{26} + 18496273\, q^{69}\, p^{24} + 7\, p^{16}\, q^{2} + 139\, p^{22}\, q^{4} + 33\, p^{20}\, q^{3} + 11183742\, p^{35}\, q^{20}$$
$$+ 7607511\, p^{35}\, q^{19} + 25332543\, p^{36}\, q^{22} + 35272086\, p^{36}\, q^{23} + 112527611\, p^{36}\, q^{27} + 164171667\, p^{37}\, q^{28} + 57504240\, q^{35}\, p^{25}$$
$$+ 98791841\, q^{35}\, p^{27} + 144972783\, q^{36}\, p^{28} + 998037\, p^{93}\, q^{35} + 31488441\, q^{35}\, p^{23} + 511\, p^{85}\, q^{17} + 19826872159\, p^{67}\, q^{67} + 485\, p^{115}\, q^{93}$$
$$+ 736\, p^{111}\, q^{59} + 526\, p^{111}\, q^{58} + 1500\, p^{114}\, q^{90} + 8879765\, q^{88}\, p^{35} + 31488441\, p^{85}\, q^{97} + 16104754354\, p^{68}\, q^{70} + 196400\, q^{103}\, p^{49}$$
$$+ 38646\, q^{107}\, p^{56} + 48794\, q^{107}\, p^{57} + 9\, q^{102}\, p^{29} + 2\, q^{102}\, p^{28} + 1569\, q^{105}\, p^{41} + 920\, q^{105}\, p^{40} + 24264608354\, p^{55}\, q^{60} + 25623073548\, p^{61}\, q^{57}$$
$$+ 26377857450\, p^{59}\, q^{58} + 263838550\, q^{37}\, p^{30} + 375548\, p^{33}\, q^{13} + 1078498\, p^{33}\, q^{15} + 1901076\, q^{30}\, p^{17} + 15613831918\, p^{64}\, q^{50}$$
$$+ 247132919\, p^{61}\, q^{28} + 8960989131\, p^{64}\, q^{45} + 6125114367\, p^{63}\, q^{42} + 2968311603\, p^{63}\, q^{38} + 7155358854\, p^{63}\, q^{43} + 2410173087\, p^{63}\, q^{37}$$
$$+ 3614926212\, p^{63}\, q^{39} + 4354825460\, p^{63}\, q^{40} + 11493875029\, p^{64}\, q^{47} + 12841933767\, p^{64}\, q^{48} + 75884940\, p^{79}\, q^{96} + 80904508\, p^{78}\, q^{96}$$
$$+ 57504240\, p^{85}\, q^{95} + 72737472\, p^{83}\, q^{95} + 4299705\, q^{87}\, p^{32} + 51995\, p^{95}\, q^{31} + 17694\, p^{94}\, q^{28} + 36742962\, q^{89}\, p^{41} + 28223698\, q^{89}\, p^{40}$$
$$+ 1472453578\, p^{82}\, q^{81} + 115575\, p^{106}\, q^{99} + 172925\, p^{106}\, q^{97} + 255046\, q^{39}\, p^{12} + 46248495\, p^{70}\, q^{98} + 46730691\, p^{73}\, q^{98} + 60631200\, p^{77}\, q^{97}$$
$$+ 46794577\, p^{71}\, q^{98} + 58753\, q^{38}\, p^{10} + 9845774618\, p^{58}\, q^{44} + 488811\, q^{39}\, p^{13} + 1560182\, q^{39}\, p^{15} + 17804898756\, p^{70}\, q^{65}$$
$$+ 16121026462\, p^{71}\, q^{66} + 17931936243\, p^{70}\, q^{60} + 16360649964\, p^{70}\, q^{57} + 857589700\, p^{68}\, q^{89} + 12606500603\, q^{56}\, p^{46}$$
$$+ 11180989510\, q^{55}\, p^{45} + 589828749\, p^{86}\, q^{83} + 460293\, p^{75}\, q^{107} + 36516065\, p^{29}\, q^{27} + 55720348\, p^{30}\, q^{28} + 1423643\, p^{49}\, q^{15}$$
$$+ 2657683154\, p^{56}\, q^{36} + 744885\, p^{49}\, q^{14} + 117\, q^{28}\, p^{4} + 25510942\, q^{93}\, p^{46} + 6362847\, q^{92}\, p^{39} + 16360649964\, p^{63}\, q^{50} + 267328616\, p^{60}\, q^{28}$$
$$+ 9486104101\, p^{63}\, q^{45} + 6473491985\, p^{62}\, q^{42} + 3167271156\, p^{62}\, q^{38} + 7545424351\, p^{62}\, q^{43} + 2578341114\, p^{62}\, q^{37} + 3847610527\, p^{62}\, q^{39}$$
$$+ 2835729\, p^{56}\, q^{17} + 4623944529\, p^{62}\, q^{40} + 12116493663\, p^{63}\, q^{47} + 13509949094\, p^{63}\, q^{48} + 43947536\, p^{51}\, q^{94} + 863370847\, p^{78}\, q^{87}$$
$$+ 30860\, q^{98}\, p^{34} + 92972\, q^{102}\, p^{44} + 6449485\, p^{101}\, q^{61} + 7914562\, p^{101}\, q^{63} + 19048621270\, p^{65}\, q^{69} + 707943704\, q^{63}\, p^{32} + 19632\, q^{70}\, p^{14}$$
$$+ 806276996\, p^{71}\, q^{36} + 8565969801\, p^{73}\, q^{52} + 7791807386\, p^{73}\, q^{51} + 4592254796\, p^{68}\, q^{81} + 210\, p^{109}\, q^{114} + 332\, p^{107}\, q^{114} + 298\, p^{103}\, q^{115}$$
$$+ 408\, p^{106}\, q^{114} + 707943704\, p^{63}\, q^{32} + 160098716\, p^{62}\, q^{27} + 532122052\, p^{63}\, q^{31} + 12588259605\, p^{66}\, q^{49} + 60\, p^{34}\, q^{4} + 238\, p^{37}\, q^{5}$$

$$+ 17804898756\, p^{65}\, q^{70} + 12669095648\, p^{58}\, q^{73} + 269\, p^{114}\, q^{108} + 21383089\, p^{82}\, q^{99} + 18465315\, p^{78}\, q^{100} + 6782706\, p^{81}\, q^{102}$$
$$+ 13970533386\, p^{62}\, q^{73} + 13798075295\, p^{61}\, q^{73} + 1881810\, p^{70}\, q^{20} + 2843149519\, p^{80}\, q^{52} + 2543501825\, p^{80}\, q^{51} + 50\, p^{45}\, q^{5}$$
$$+ 10028\, p^{61}\, q^{11} + 24264608354\, p^{65}\, q^{60} + 25866210108\, p^{63}\, q^{60} + 25236884632\, p^{64}\, q^{61} + 25866210108\, p^{60}\, q^{63} + 26159587649\, p^{62}\, q^{62}$$
$$+ 39\, p^{68}\, q^{9} + 2845908\, p^{95}\, q^{41} + 668355\, p^{93}\, q^{34} + 18360\, p^{87}\, q^{22} + 9782916\, p^{101}\, q^{82} + 8348381\, p^{101}\, q^{84} + 417767629\, p^{81}\, q^{89}$$
$$+ 25153553533\, p^{64}\, q^{60} + 24871494687\, p^{64}\, q^{59} + 22775460223\, p^{65}\, q^{57} + 207530\, p^{106}\, q^{96} + 2703809\, q^{104}\, p^{72} + 2473832\, q^{104}\, p^{70}$$
$$+ 707766892\, p^{80}\, q^{87} + 632230980\, p^{81}\, q^{87} + 22775460223\, p^{57}\, q^{65} + 24264608354\, p^{60}\, q^{65} + 23948426835\, p^{59}\, q^{65} + 24060094548\, p^{63}\, q^{65}$$
$$+ 22988675278\, p^{65}\, q^{65} + 21482176398\, p^{66}\, q^{66} + 24389793596\, p^{61}\, q^{65} + 23612612510\, p^{64}\, q^{65} + 24321092312\, p^{62}\, q^{65}$$
$$+ 23448314146\, p^{58}\, q^{65} + 16140491\, q^{93}\, p^{44} + 12595455\, q^{93}\, p^{43} + 93164168\, p^{96}\, q^{75} + 20245\, p^{80}\, q^{18} + 91960\, p^{82}\, q^{21} + 121385\, p^{83}\, q^{22}$$
$$+ 262\, p^{68}\, q^{10} + 43045729\, p^{97}\, q^{82} + 35272086\, p^{97}\, q^{84} + 185602200\, p^{74}\, q^{94} + 9545037\, p^{50}\, q^{97} + 4192797\, p^{89}\, q^{34} + 392335\, p^{86}\, q^{26}$$
$$+ 17180343\, p^{91}\, q^{41} + 9745206\, p^{91}\, q^{39} + 7889164\, p^{90}\, q^{37} + 2864977\, p^{89}\, q^{33} + 13035012\, p^{91}\, q^{40} + 55720348\, p^{90}\, q^{92} + 5659014\, p^{90}\, q^{36}$$
$$+ 36888\, p^{110}\, q^{93} + 4415\, p^{66}\, q^{111} + 255046\, p^{81}\, q^{108} + 175701\, p^{106}\, q^{59} + 22\, p^{81}\, q^{13} + 1234580\, p^{88}\, q^{30} + 14884175\, p^{92}\, q^{42}$$
$$+ 54262314\, p^{97}\, q^{79} + 43870\, p^{91}\, q^{110} + 576944140\, p^{32}\, q^{40} + 1083017095\, p^{36}\, q^{39} + 914812266\, p^{35}\, q^{39} + 532122052\, q^{63}\, p^{31}$$
$$+ 768322937\, q^{62}\, p^{32} + 1004535886\, q^{62}\, p^{33} + 2848\, p^{84}\, q^{18} + 12090643629\, p^{46}\, q^{60} + 19614478635\, p^{51}\, q^{59} + 16360649964\, p^{57}\, q^{70}$$
$$+ 1405165125\, p^{67}\, q^{87} + 2091837\, p^{80}\, q^{25} + 1231526\, p^{80}\, q^{24} + 7172598\, p^{82}\, q^{29} + 4647199\, p^{82}\, q^{28} + 11720759\, p^{83}\, q^{31} + 972545\, p^{79}\, q^{23}$$
$$+ 81080\, p^{74}\, q^{17} + 8710176822\, p^{44}\, q^{62} + 1368107807\, p^{79}\, q^{84} + 804938764\, p^{85}\, q^{82} + 825835523\, p^{84}\, q^{83} + 2507895266\, p^{46}\, q^{37}$$
$$+ 12061552\, p^{58}\, q^{20} + 430468463\, p^{62}\, q^{30} + 122177301\, p^{61}\, q^{26} + 314847968\, p^{62}\, q^{29} + 40333091\, p^{60}\, q^{23} + 532122052\, q^{89}\, p^{57}$$
$$+ 18813160722\, p^{66}\, q^{54} + 18694796242\, p^{67}\, q^{55} + 8912637392\, p^{66}\, q^{46} + 15163841883\, p^{66}\, q^{51} + 16430977370\, p^{66}\, q^{52}$$
$$+ 1788244704\, p^{64}\, q^{36} + 13875885234\, p^{66}\, q^{50} + 5349008598\, p^{65}\, q^{42} + 6277190749\, p^{65}\, q^{43} + 3111791144\, p^{65}\, q^{39} + 3767241930\, p^{65}\, q^{40}$$
$$+ 10090321779\, p^{66}\, q^{47} + 11320579003\, p^{66}\, q^{48} + 226499180\, p^{62}\, q^{28} + 8395312287\, p^{65}\, q^{45} + 2758668245\, p^{64}\, q^{38} + 2234107568\, p^{64}\, q^{37}$$
$$+ 2556355\, p^{57}\, q^{17} + 18911492477\, p^{67}\, q^{68} + 66054\, q^{104}\, p^{48} + 333587886\, p^{90}\, q^{81} + 1027990918\, p^{71}\, q^{37} + 5562205308\, p^{73}\, q^{48}$$
$$+ 4184731006\, p^{72}\, q^{45} + 95443015\, p^{69}\, q^{28} + 20842748142\, q^{66}\, p^{56} + 12240753\, p^{101}\, q^{70} + 1785023\, p^{97}\, q^{43} + 136521931\, p^{69}\, q^{29}$$
$$+ 12625918828\, p^{74}\, q^{63} + 12544824556\, p^{74}\, q^{62} + 12365033853\, p^{74}\, q^{61} + 20454902495\, q^{67}\, p^{57} + 13350\, p^{47}\, q^{9} + 4883\, p^{46}\, q^{8}$$
$$+ 43742870\, p^{87}\, q^{95} + 124\, q^{97}\, p^{25} + 452631\, q^{105}\, p^{60} + 322191\, q^{105}\, p^{58} + 124\, q^{95}\, p^{23} + 875\, q^{96}\, p^{26} + 353\, q^{96}\, p^{25} + 539094\, q^{106}\, p^{67}$$
$$+ 92\, q^{93}\, p^{21} + 592798\, q^{106}\, p^{68} + 645568\, q^{106}\, p^{69} + p^{13}\, q + 1611870091\, p^{37}\, q^{41} + 10698075\, p^{53}\, q^{19} + 40599025\, p^{54}\, q^{22}$$

$$+ 20690860\, q^{94} p^{47} + 863370847\, p^{33} q^{42} + 1925615363\, p^{39} q^{40} + 1368107807\, p^{36} q^{41} + 10814022905\, p^{55} q^{73} + 7533541729\, p^{52} q^{74}$$
$$+ 131\, p^{26} q^{4} + 2868353\, p^{104} q^{78} + 3162282072\, p^{45} q^{74} + 3681303128\, p^{46} q^{74} + 4244359112\, p^{47} q^{74} + 4847608278\, p^{48} q^{74}$$
$$+ 18194469387\, p^{61} q^{70} + 9651248318\, p^{52} q^{72} + 802\, q^{97} p^{27} + 462\, p^{29} q^{5} + 640519870\, p^{46} q^{83} + 1197646939\, p^{52} q^{84} + 825527777\, p^{51} q^{85}$$
$$+ 1489407835\, p^{54} q^{84} + 1639077944\, p^{55} q^{84} + 1788244704\, p^{56} q^{84} + 3708404212\, p^{75} q^{80} + 453949500\, p^{47} q^{85} + 721292073\, p^{50} q^{85}$$
$$+ 624239377\, p^{49} q^{85} + 288096963\, p^{46} q^{86} + 534994966\, p^{48} q^{85} + 111\, p^{98} q^{26} + 3196\, p^{113} q^{96} + 15\, p^{92} q^{19} + 920\, p^{105} q^{40} + 522\, p^{105} q^{39}$$
$$+ p^{86} q^{14} + 249\, p^{103} q^{34} + 7432973\, p^{70} q^{102} + 15393136\, q^{96} p^{50} + 10307587\, q^{96} p^{48} + 182\, p^{78} q^{13} + 8286936\, q^{96} p^{47} + 16721977\, p^{80} q^{100}$$
$$+ 8099075\, p^{74} q^{102} + 8028469\, p^{73} q^{102} + 17647525\, p^{79} q^{100} + 237\, q^{99} p^{28} + 905\, q^{100} p^{31} + 2782561639\, p^{42} q^{40} + 158083755\, p^{86} q^{43}$$
$$+ 417750676\, p^{87} q^{50} + 2534914721\, p^{44} q^{38} + 2687102466\, p^{43} q^{39} + 3880411297\, p^{44} q^{41} + 3969250746\, p^{42} q^{43} + 3517915006\, p^{41} q^{43}$$
$$+ 4438012016\, p^{43} q^{43} + 4918055946\, p^{44} q^{43} + 4388501540\, p^{44} q^{42} + 11132657\, p^{88} q^{99} + 382\, p^{68} q^{113} + 6\, p^{18} q^{2} + 26216\, p^{35} q^{9}$$
$$+ 4171\, p^{33} q^{7} + 10910\, p^{34} q^{8} + 133226921\, q^{60} p^{26} + 61404323\, q^{60} p^{24} + 40333091\, q^{60} p^{23} + 25853763\, q^{60} p^{22} + 368856520\, q^{60} p^{29}$$
$$+ 267328616\, q^{60} p^{28} + 83449710\, q^{61} p^{25} + 190448943\, q^{60} p^{27} + 6563757222\, p^{46} q^{44} + 7871393585\, p^{47} q^{45} + 4011007993\, p^{46} q^{40}$$
$$+ 4646604\, p^{41} q^{17} + 911523\, p^{40} q^{14} + 18465315\, p^{42} q^{20} + 12082236\, p^{42} q^{19} + 42172589\, p^{43} q^{22} + 60631200\, p^{43} q^{23} + 304333345\, p^{44} q^{28}$$
$$+ 1607739\, p^{40} q^{15} + 369982343\, p^{90} q^{80} + 185042\, p^{91} q^{29} + 26559\, p^{89} q^{24} + 381242631\, q^{74} p^{35} + 3210273918\, p^{45} q^{39}$$
$$+ 914812266\, p^{85} q^{81} + 632230980\, p^{87} q^{81} + 330\, q^{107} p^{43} + 558\, q^{107} p^{44} + 8052\, q^{108} p^{54} + 4288\, q^{108} p^{52} + 397696444\, p^{91} q^{76}$$
$$+ 460063253\, p^{91} q^{73} + 2580207\, q^{91} p^{35} + 3694611\, q^{91} p^{36} + 9572141487\, q^{65} p^{46} + 13435498042\, q^{65} p^{49} + 12107251875\, q^{65} p^{48}$$
$$+ 17432474583\, q^{65} p^{52} + 19882944334\, q^{65} p^{54} + 19882944334\, q^{66} p^{55} + 14779928457\, q^{65} p^{50} + 18694796242\, q^{65} p^{53}$$
$$+ 16119736721\, q^{65} p^{51} + 10814022905\, q^{65} p^{47} + 249509\, q^{42} p^{12} + 54568\, q^{41} p^{10} + 493661\, q^{42} p^{13} + 45142044\, q^{45} p^{22} + 56476\, q^{40} p^{10}$$
$$+ 24510\, q^{39} p^{9} + 12751609\, q^{44} p^{19} + 253584\, q^{41} p^{12} + 927004\, q^{42} p^{14} + 8100877\, q^{45} p^{18} + 46121704\, q^{46} p^{22} + 29715232\, q^{44} p^{21}$$
$$+ 19705225\, q^{44} p^{20} + 30467678\, q^{45} p^{21} + 185602200\, q^{46} p^{26} + 96027530\, q^{46} p^{24} + 910188\, q^{44} p^{14} + 134668040\, q^{46} p^{25}$$
$$+ 251640102\, q^{46} p^{27} + 4924029\, q^{45} p^{17} + 243185\, q^{43} p^{12} + 67214270\, q^{46} p^{23} + 1447\, p^{109} q^{110} + 960\, p^{111} q^{109} + 514\, p^{57} q^{8}$$
$$+ 204765\, q^{100} p^{42} + 2058451\, p^{97} q^{99} + 1929291\, p^{96} q^{100} + 2752003473\, p^{38} q^{45} + 12544824556\, p^{58} q^{46} + 788111\, p^{104} q^{59}$$
$$+ 3463999118\, p^{39} q^{46} + 79\, p^{88} q^{116} + 2234107568\, p^{56} q^{83} + 683\, p^{111} q^{110} + 98\, p^{79} q^{13} + 33228186\, p^{81} q^{98} + 45751286\, p^{91} q^{92}$$
$$+ 11546103\, p^{51} q^{97} + 145416\, p^{106} q^{58} + 3150\, p^{106} q^{45} + 1610\, p^{113} q^{102} + 1002\, p^{104} q^{38} + 2127\, p^{113} q^{100} + 10610\, p^{112} q^{89} + 18077\, p^{111} q^{76}$$
$$+ 19610\, p^{111} q^{77} + 4124\, p^{113} q^{91} + 9334\, p^{112} q^{81} + 10328\, p^{111} q^{71} + 1569\, p^{105} q^{41} + 967\, p^{103} q^{36} + 90828\, p^{109} q^{90} + 213372\, p^{108} q^{74}$$

$$+ 200481\, p^{108}\, q^{73} + 194\, p^{88}\, q^{18} + 29728\, p^{110}\, q^{95} + 33315\, p^{110}\, q^{94} + 2938\, p^{111}\, q^{105} + 6142\, p^{110}\, q^{104} + 3679969\, p^{102}\, q^{61}$$
$$+ 4583588\, p^{102}\, q^{63} + 277\, p^{110}\, q^{113} + 371\, p^{109}\, q^{113} + 204\, p^{111}\, q^{113} + 142225228\, p^{70}\, q^{95} + 141251117\, p^{69}\, q^{95} + 25502504\, p^{56}\, q^{97}$$
$$+ 178659841\, p^{75}\, q^{94} + 4701342\, p^{103}\, q^{72} + 3268237\, p^{101}\, q^{56} + 58072\, p^{85}\, q^{110} + 5501506\, p^{102}\, q^{65} + 4126582\, p^{102}\, q^{62} + 2509513\, p^{104}\, q^{82}$$
$$+ 2226007\, p^{104}\, q^{84} + 243185\, p^{77}\, q^{108} + 3820114\, p^{101}\, q^{57} + 2374017\, p^{104}\, q^{83} + 1213532\, p^{103}\, q^{93} + 1730460\, p^{95}\, q^{101} + 944813\, p^{92}\, q^{104}$$
$$+ 486941\, p^{90}\, q^{106} + 86824\, p^{105}\, q^{52} + 4367388\, p^{103}\, q^{70} + 77627457\, p^{63}\, q^{96} + 66974779\, p^{61}\, q^{96} + 61404323\, p^{60}\, q^{96} + 135931427\, p^{67}\, q^{95}$$
$$+ 1110464901\, p^{82}\, q^{83} + 179624355\, p^{79}\, q^{36} + 26216\, p^{85}\, q^{111} + 11564770676\, p^{70}\, q^{73} + 48576\, p^{107}\, q^{101} + 9581929790\, p^{76}\, q^{67}$$
$$+ 13261177961\, p^{69}\, q^{72} + 12725332097\, p^{68}\, q^{73} + 12606500603\, p^{64}\, q^{74} + 12180818239\, p^{73}\, q^{69} + 1431\, p^{53}\, q^{8} + 222\, p^{47}\, q^{6}$$
$$+ 14413785712\, p^{67}\, q^{72} + 13881718749\, p^{68}\, q^{72} + 13537176316\, p^{70}\, q^{71} + 20099219\, q^{45}\, p^{20} + 12934940\, q^{45}\, p^{19} + 1663210\, q^{42}\, p^{15}$$
$$+ 1661695\, q^{44}\, p^{15} + 118494\, q^{42}\, p^{11} + 460063253\, q^{47}\, p^{29} + 121999\, q^{41}\, p^{11} + 486641\, q^{43}\, p^{13} + 8034798\, q^{44}\, p^{18} + 144972783\, p^{84}\, q^{92}$$
$$+ 922506\, q^{43}\, p^{14} + 4915668\, q^{44}\, p^{17} + 130128969\, q^{45}\, p^{25} + 241351860\, q^{45}\, p^{27} + 335934041\, q^{46}\, p^{28} + 65490308\, q^{45}\, p^{23}$$
$$+ 453949500\, p^{73}\, q^{35} + 7185993643\, p^{75}\, q^{53} + 2689735525\, p^{74}\, q^{44} + 3320\, p^{72}\, q^{13} + 7010\, p^{73}\, q^{14} + 9921920869\, p^{76}\, q^{65}$$
$$+ 8626088044\, p^{77}\, q^{66} + 9411059110\, p^{76}\, q^{60} + 8277957015\, p^{76}\, q^{57} + 7799980341\, p^{75}\, q^{54} + 3162282072\, p^{75}\, q^{46} + 7294333825\, p^{76}\, q^{55}$$
$$+ 15621117207\, p^{67}\, q^{71} + 4549309079\, p^{62}\, q^{81} + 139759437\, p^{71}\, q^{30} + 1030044040\, p^{80}\, q^{85} + 955178672\, p^{79}\, q^{86} + 12725332097\, p^{73}\, q^{68}$$
$$+ 18194469387\, p^{59}\, q^{50} + 2311\, p^{78}\, q^{113} + 10568\, p^{84}\, q^{112} + 2362035\, q^{97}\, p^{44} + 21139914\, p^{88}\, q^{97} + 38818\, p^{100}\, q^{108} + 68434\, p^{93}\, q^{109}$$
$$+ 1213532\, p^{93}\, q^{103} + 1483549\, p^{94}\, q^{102} + 1483549\, p^{102}\, q^{94} + 164\, p^{110}\, q^{114} + 4924029\, p^{103}\, q^{75} + 115\, p^{87}\, q^{17} + 1627364\, q^{85}\, p^{28}$$
$$+ 2580207\, q^{85}\, p^{29} + 31235068\, p^{73}\, q^{99} + 60258\, q^{83}\, p^{21} + 510394\, q^{84}\, p^{25} + 877160\, q^{84}\, p^{26} + 3\, p^{116}\, q^{75} + 4\, p^{117}\, q^{85} + 1513192533\, p^{52}\, q^{83}$$
$$+ 4126582\, p^{58}\, q^{18} + 786178\, p^{56}\, q^{15} + 850867814\, p^{64}\, q^{33} + 23246918\, p^{61}\, q^{22} + 75517813\, p^{62}\, q^{25} + 18344081157\, p^{68}\, q^{56}$$
$$+ 20745688599\, p^{68}\, q^{60} + 19146985669\, p^{68}\, q^{57} + 20211201461\, p^{68}\, q^{65} + 18535462672\, p^{69}\, q^{66} + 441918267\, p^{29}\, q^{46} + 82507239\, q^{56}\, p^{24}$$
$$+ 1695131\, q^{55}\, p^{16} + 3394314\, q^{54}\, p^{17} + 975971\, q^{54}\, p^{15} + 1861937\, q^{54}\, p^{16} + 172871012\, q^{56}\, p^{26} + 768691336\, p^{31}\, q^{47} + 573269356\, p^{30}\, q^{46}$$
$$+ 822962702\, p^{71}\, q^{89} + 768691336\, p^{73}\, q^{89} + 694679299\, p^{75}\, q^{89} + 733791597\, p^{74}\, q^{89} + 652150722\, p^{76}\, q^{89} + 560249721\, p^{78}\, q^{89}$$
$$+ 607058446\, p^{77}\, q^{89} + 443127057\, p^{78}\, q^{90} + 12486953603\, p^{74}\, q^{65} + 11009086823\, p^{75}\, q^{66} + 12090643629\, p^{74}\, q^{60} + 10769909104\, p^{74}\, q^{57}$$
$$+ 5789\, p^{89}\, q^{22} + 1258039\, p^{105}\, q^{69} + 1861937\, p^{104}\, q^{66} + 17532399140\, p^{50}\, q^{61} + 23381542063\, p^{54}\, q^{59} + 5191189842\, p^{41}\, q^{63}$$
$$+ 1429\, p^{32}\, q^{6} + 130128969\, p^{45}\, q^{25} + 241351860\, p^{45}\, q^{27} + 29715232\, p^{44}\, q^{21} + 93164168\, p^{45}\, q^{24} + 178659841\, p^{45}\, q^{26}$$
$$+ 1157621776\, p^{46}\, q^{33} + 573269356\, p^{46}\, q^{30} + 441918267\, p^{46}\, q^{29} + 927334558\, p^{46}\, q^{32} + 733791597\, p^{46}\, q^{31} + 1428131557\, p^{46}\, q^{34}$$

$$+ 1741878600\, p^{46} q^{35} + 2231754396\, p^{47} q^{36} + 125847\, p^{38} q^{11} + 255046\, p^{39} q^{12} + 58753\, p^{38} q^{10} + 494767\, p^{40} q^{13} + 375548\, p^{87} q^{107}$$
$$+ 225342432\, p^{42} q^{84} + 3\, q^{105} p^{33} + 28\, q^{105} p^{35} + 26\, q^{106} p^{37} + 9\, q^{105} p^{34} + 8879765\, q^{85} p^{32} + 4\, q^{58} p^{6} + 382\, q^{58} p^{8} + 38\, q^{59} p^{7} + 133\, q^{61} p^{8}$$
$$+ 28\, p^{24} q^{3} + 7901341\, p^{43} q^{18} + 2868353\, p^{42} q^{16} + 3161991501\, p^{47} q^{38} + 4944845972\, p^{47} q^{41} + 6352878331\, p^{47} q^{43}$$
$$+ 5630744894\, p^{47} q^{42} + 3706369523\, p^{47} q^{39} + 118393620\, p^{87} q^{91} + 786178\, p^{105} q^{64} + 382915\, p^{104} q^{55} + 22365021\, p^{91} q^{95} + 8\, p^{62} q^{7}$$
$$+ 17694\, p^{92} q^{26} + 37\, p^{115} q^{74} + 26\, p^{117} q^{95} + 23\, p^{117} q^{94} + 7\, p^{118} q^{105} + 33\, p^{117} q^{104} + 1901076\, p^{103} q^{90} + 5061739\, p^{101} q^{59}$$
$$+ 3348545\, p^{99} q^{50} + 8099075\, p^{102} q^{74} + 6370131\, p^{102} q^{67} + 8028469\, p^{102} q^{73} + 2162240\, p^{103} q^{89} + 8034798\, p^{102} q^{76} + 7901341\, p^{102} q^{77}$$
$$+ 1089064\, p^{104} q^{91} + 4286130\, p^{103} q^{81} + 11392000\, p^{90} q^{98} + 2139826\, p^{99} q^{48} + 2670\, p^{98} q^{113} + 8052\, p^{66} q^{12} + 757454471\, p^{83} q^{47}$$
$$+ 241987153\, p^{82} q^{40} + 189691801\, p^{82} q^{39} + 360886\, p^{74} q^{19} + 1731699570\, p^{86} q^{69} + 1693663186\, p^{86} q^{70} + 1151\, p^{104} q^{113} + 447\, p^{110} q^{112}$$
$$+ 60044334\, p^{81} q^{34} + 304857983\, p^{82} q^{41} + 6161968\, p^{78} q^{26} + 56550710\, p^{80} q^{33} + 32915773\, p^{96} q^{87} + 135\, p^{71} q^{114} + 1795\, p^{76} q^{113}$$
$$+ 44846943\, p^{57} q^{96} + 126566314\, p^{65} q^{95} + 2628961\, q^{104} p^{81} + 2068057\, q^{104} p^{85} + 2226007\, q^{104} p^{84} + 1568339\, q^{104} p^{88}$$
$$+ 1242443\, q^{104} p^{90} + 697858\, q^{105} p^{91} + 1903891\, q^{104} p^{86} + 1402787\, q^{104} p^{89} + 2509513\, q^{104} p^{82} + 28841\, p^{99} q^{109} + 34304\, p^{98} q^{109}$$
$$+ 933540751\, p^{88} q^{61} + 1019777056\, p^{88} q^{63} + 19634583711\, q^{67} p^{56} + 7790\, p^{58} q^{109} + 16140491\, p^{76} q^{27} + 22253216032\, p^{58} q^{53}$$
$$+ 2670355874\, p^{47} q^{37} + 1766139\, q^{91} p^{34} + 123\, p^{27} q^{4} + 441\, p^{30} q^{5} + 5738677\, p^{56} q^{100} + 26140\, p^{36} q^{9} + 4071\, p^{34} q^{7} + 10779\, p^{35} q^{8}$$
$$+ 7103002954\, p^{47} q^{44} + 8464540228\, p^{48} q^{45} + 4301740893\, p^{47} q^{40} + 4775317\, p^{42} q^{17} + 923193\, p^{41} q^{14} + 19155887\, p^{43} q^{20}$$
$$+ 12465604\, p^{43} q^{19} + 43816467\, p^{44} q^{22} + 63278553\, p^{44} q^{23} + 321081009\, p^{45} q^{28} + 1642513\, p^{41} q^{15} + 1123\, p^{47} q^{7} + 15550084282\, p^{71} q^{58}$$
$$+ 16063912216\, p^{71} q^{59} + 3210273918\, p^{39} q^{45} + 4011007993\, p^{40} q^{46} + 3282670574\, p^{42} q^{70} + 974294191\, p^{32} q^{47} + 733791597\, p^{31} q^{46}$$
$$+ 108786\, p^{44} q^{11} + 224899\, p^{45} q^{12} + 189691801\, p^{39} q^{82} + 10716104494\, p^{60} q^{75} + 3919\, p^{60} q^{10} + 527\, q^{109} p^{50} + 10419106378\, p^{75} q^{68}$$
$$+ 1327\, p^{113} q^{74} + 485\, p^{115} q^{95} + 486\, p^{115} q^{94} + 93\, p^{116} q^{105} + 263\, p^{115} q^{104} + 262\, p^{110} q^{52} + 64\, p^{108} q^{43} + 9\, p^{102} q^{29} + 1123\, p^{113} q^{73}$$
$$+ 13010057\, p^{74} q^{101} + 67093939\, p^{92} q^{89} + 3662056089\, p^{61} q^{82} + 11808003537\, p^{71} q^{72} + 12565227456\, p^{70} q^{72} + 13186840191\, p^{67} q^{73}$$
$$+ 14462861059\, p^{70} q^{70} + 5923\, q^{108} p^{53} + 3030\, q^{108} p^{51} + 11727739906\, p^{46} q^{61} + 7545424351\, p^{43} q^{62} + 3\, p^{24} q^{2} + 4354825460\, p^{40} q^{63}$$
$$+ 5\, p^{34} q^{3} + 3708404212\, p^{40} q^{45} + 4600026870\, p^{41} q^{46} + p^{47} q^{4} + 134\, p^{95} q^{116} + 139\, p^{96} q^{116} + 99188\, q^{80} p^{20} + 2854265\, q^{46} p^{16}$$
$$+ 2\, p^{64} q^{7} + 4511\, p^{94} q^{26} + p^{118} q^{93} + 13010057\, q^{46} p^{19} + 4890101\, q^{46} p^{17} + 446399\, p^{84} q^{107} + 121\, p^{102} q^{116} + 1639568\, q^{45} p^{15}$$
$$+ 889988\, q^{45} p^{14} + 8028469\, q^{47} p^{18} + 20391844\, q^{47} p^{20} + 12976575\, q^{47} p^{19} + 46803\, p^{109} q^{96} + 6\, p^{71} q^{9} + 637\, p^{88} q^{19} + 8099075\, q^{46} p^{18}$$
$$+ 20330403\, q^{46} p^{20} + 31235068\, q^{47} p^{21} + 510394\, q^{95} p^{36} + 475335\, q^{44} p^{13} + 2074874203\, p^{36} q^{62} + 2578341114\, p^{37} q^{62}$$

$$+ 3167271156\, p^{38}\, q^{62} + 3847610527\, p^{39}\, q^{62} + 16760\, p^{105}\, q^{107} + 30977519\, q^{46}\, p^{21} + 2894748\, q^{45}\, p^{16} + 99514186\, q^{48}\, p^{24}$$
$$+ 46730691\, q^{47}\, p^{22} + 68414252\, q^{47}\, p^{23} + 15613831918\, p^{56}\, q^{70} + 598700768\, q^{47}\, p^{30} + 559567715\, p^{82}\, q^{87} + 146773907\, p^{38}\, q^{82}$$
$$+ 696722\, p^{106}\, q^{70} + 2\, q^{81}\, p^{12} + 82555651\, q^{72}\, p^{29} + 56910245\, q^{72}\, p^{28} + 38438344\, q^{72}\, p^{27} + 18194469387\, p^{50}\, q^{59} + 3655064316\, p^{45}\, q^{73}$$
$$+ 1887087930\, p^{42}\, q^{74} + 3116830865\, p^{44}\, q^{73} + 2198423818\, p^{42}\, q^{73} + 2631235668\, p^{43}\, q^{73} + 7360682\, q^{93}\, p^{41} + 730392\, q^{92}\, p^{33}$$
$$+ 472361\, q^{92}\, p^{32} + 9696695\, q^{93}\, p^{42} + 610125\, p^{105}\, q^{92} + 266386906\, q^{88}\, p^{49} + 563241393\, p^{58}\, q^{30} + 164038894\, p^{57}\, q^{26}$$
$$+ 417708125\, p^{58}\, q^{29} + 18973311672\, p^{61}\, q^{51} + 20361057806\, p^{61}\, q^{52} + 14917\, p^{46}\, q^{9} + 5525\, p^{45}\, q^{8} + 116638662\, p^{91}\, q^{50} + 133\, p^{61}\, q^{8}$$
$$+ 10090321779\, p^{73}\, q^{54} + 4244359112\, p^{73}\, q^{46} + 9572141487\, p^{74}\, q^{55} + 921\, p^{107}\, q^{45} + 773\, p^{114}\, q^{102} + 276\, p^{105}\, q^{38} + 971\, p^{114}\, q^{100}$$
$$+ 4234\, p^{113}\, q^{89} + 6204\, p^{112}\, q^{76} + 6867\, p^{112}\, q^{77} + 1505\, p^{114}\, q^{91} + 3106\, p^{113}\, q^{81} + 3116\, p^{112}\, q^{71} + 438\, p^{106}\, q^{41} + 283\, p^{104}\, q^{36}$$
$$+ 9845774618\, p^{44}\, q^{58} + 11164358080\, p^{45}\, q^{58} + 14168\, p^{100}\, q^{110} + 16832\, p^{99}\, q^{110} + 19774\, p^{98}\, q^{110} + 145418656\, q^{81}\, p^{37}$$
$$+ 60044334\, q^{81}\, p^{34} + 81875499\, q^{81}\, p^{35} + 189691801\, q^{81}\, p^{38} + 111643372\, p^{78}\, q^{95} + 86138062\, p^{84}\, q^{94} + 99514186\, p^{72}\, q^{96}$$
$$+ 58502324\, p^{65}\, q^{97} + 927334558\, p^{32}\, q^{46} + 1508859794\, p^{34}\, q^{47} + 1157621776\, p^{33}\, q^{46} + 936040226\, p^{68}\, q^{35} + 5118182582\, p^{69}\, q^{44}$$
$$+ 12919300948\, p^{70}\, q^{53} + 104294724\, p^{79}\, q^{95} + 98159190\, p^{24}\, q^{47} + 266847913\, p^{27}\, q^{48} + 138216703\, p^{25}\, q^{47} + 191220204\, p^{26}\, q^{47}$$
$$+ 1219707863\, p^{33}\, q^{47} + 2843135\, p^{102}\, q^{59} + 1881810\, p^{100}\, q^{50} + 3663616\, p^{103}\, q^{67} + 19520\, p^{108}\, q^{103} + 1179699\, p^{100}\, q^{48}$$
$$+ 2317232\, p^{101}\, q^{54} + 266456\, p^{98}\, q^{39} + 232397\, p^{97}\, q^{37} + 382376\, p^{98}\, q^{40} + 164\, p^{114}\, q^{110} + 277\, p^{113}\, q^{110} + 447\, p^{112}\, q^{110} + 9\, q^{96}\, p^{22}$$
$$+ 637\, q^{101}\, p^{32} + 81\, q^{102}\, p^{31} + 1278\, q^{101}\, p^{33} + q^{98}\, p^{23} + 2578341114\, p^{58}\, q^{83} + 4913\, p^{99}\, q^{112} + 617\, p^{113}\, q^{107} + 717838643\, q^{76}\, p^{39}$$
$$+ 113448477\, q^{74}\, p^{31} + 2631235668\, q^{77}\, p^{47} + 56\, p^{62}\, q^{113} + 23\, p^{60}\, q^{113} + 38\, p^{61}\, q^{113} + p^{60}\, q^{114} + 84\, p^{63}\, q^{113} + 118\, p^{64}\, q^{113} + 165\, p^{65}\, q^{113}$$
$$+ 28441\, p^{103}\, q^{43} + 3617\, p^{97}\, q^{29} + 83520\, p^{91}\, q^{109} + 46383\, p^{80}\, q^{19} + 12942186\, p^{97}\, q^{91} + 65043885\, p^{96}\, q^{81} + 38646\, q^{64}\, p^{13} + 12\, p^{90}\, q^{117}$$
$$+ p^{92}\, q^{118} + 12004722\, p^{95}\, q^{94} + 25332543\, p^{84}\, q^{98} + 124696222\, p^{95}\, q^{76} + 118491863\, p^{95}\, q^{77} + 138216703\, p^{95}\, q^{73} + 369554\, p^{71}\, q^{107}$$
$$+ 1367\, p^{106}\, q^{112} + 24262554\, p^{96}\, q^{89} + 134668040\, p^{95}\, q^{74} + 135931427\, p^{95}\, q^{67} + 66683866\, p^{78}\, q^{32} + 47192420\, p^{78}\, q^{31}$$
$$+ 2578341114\, p^{83}\, q^{58} + 235611823\, p^{79}\, q^{37} + 2735397518\, p^{83}\, q^{59} + 37\, p^{46}\, q^{5} + 3161151847\, p^{78}\, q^{79} + 25510942\, p^{74}\, q^{27} + 952\, p^{105}\, q^{113}$$
$$+ 773\, p^{102}\, q^{114} + 609\, p^{109}\, q^{112} + 816\, p^{108}\, q^{112} + 204\, p^{113}\, q^{111} + 671\, p^{103}\, q^{114} + 362\, p^{101}\, q^{115} + 139\, p^{98}\, q^{116} + 390\, p^{100}\, q^{115}$$
$$+ 184305970\, p^{91}\, q^{84} + 36234884\, q^{91}\, p^{44} + 30743132\, q^{92}\, p^{45} + 9745206\, q^{91}\, p^{39} + 2330495741\, p^{52}\, q^{81} + 1284907219\, p^{82}\, q^{82}$$
$$+ 190448943\, p^{60}\, q^{93} + 1185\, p^{68}\, q^{11} + 523041\, p^{102}\, q^{50} + 96844\, p^{89}\, q^{26} + 50400911\, p^{95}\, q^{86} + 1369\, p^{33}\, q^{6} + 134668040\, p^{46}\, q^{25}$$
$$+ 251640102\, p^{46}\, q^{27} + 30467678\, p^{45}\, q^{21} + 96027530\, p^{46}\, q^{24} + 185602200\, p^{46}\, q^{26} + 1219707863\, p^{47}\, q^{33} + 598700768\, p^{47}\, q^{30}$$

$$+ 460063253\, p^{47}\, q^{29} + 974294191\, p^{47}\, q^{32} + 768691336\, p^{47}\, q^{31} + 1508859794\, p^{47}\, q^{34} + 1845261475\, p^{47}\, q^{35} + 2350740289\, p^{48}\, q^{36}$$
$$+ 125722\, p^{39}\, q^{11} + 255516\, p^{40}\, q^{12} + 57847\, p^{39}\, q^{10} + 496485\, p^{41}\, q^{13} + 8034798\, p^{44}\, q^{18} + 2901907\, p^{43}\, q^{16} + 3347103646\, p^{48}\, q^{38}$$
$$+ 5271122566\, p^{48}\, q^{41} + 6802246167\, p^{48}\, q^{43} + 6015772104\, p^{48}\, q^{42} + 3932714100\, p^{48}\, q^{39} + 2819777599\, p^{48}\, q^{37} + 117\, p^{28}\, q^{4}$$
$$+ 420\, p^{31}\, q^{5} + 25842\, p^{37}\, q^{9} + 3944\, p^{35}\, q^{7} + 10568\, p^{36}\, q^{8} + 7621957301\, p^{48}\, q^{44} + 9026582900\, p^{49}\, q^{45} + 4575121941\, p^{48}\, q^{40}$$
$$+ 4865986\, p^{43}\, q^{17} + 927004\, p^{42}\, q^{14} + 19705225\, p^{44}\, q^{20} + 12751609\, p^{44}\, q^{19} + 45142044\, p^{45}\, q^{22} + 65490308\, p^{45}\, q^{23} + 335934041\, p^{46}\, q^{28}$$
$$+ 1663210\, p^{42}\, q^{15} + 4243121539\, p^{41}\, q^{45} + 5226275599\, p^{42}\, q^{46} + 1845261475\, p^{35}\, q^{47} + 1428131557\, p^{34}\, q^{46} + 358712706\, p^{28}\, q^{48}$$
$$+ 260203803\, p^{27}\, q^{47} + 11834\, p^{55}\, q^{10} + 552790389\, p^{70}\, q^{34} + 2409361555\, p^{71}\, q^{41} + 140690925\, q^{48}\, p^{25} + 117423\, p^{70}\, q^{16}$$
$$+ 928638506\, p^{50}\, q^{84} + 1093613608\, p^{69}\, q^{88} + 260428360\, p^{44}\, q^{85} + 4011007993\, p^{74}\, q^{80} + 5740819\, p^{101}\, q^{60} + 7691417\, p^{102}\, q^{71}$$
$$+ 10039737\, p^{86}\, q^{100} + 4\, p^{62}\, q^{114} + 12834053\, q^{48}\, p^{19} + 195393080\, q^{48}\, p^{26} + 18072\, p^{93}\, q^{27} + 662130\, p^{102}\, q^{51} + 360886\, p^{101}\, q^{46}$$
$$+ 500776085\, p^{60}\, q^{30} + 144018487\, p^{59}\, q^{26} + 368856520\, p^{60}\, q^{29} + 17773884777\, p^{63}\, q^{51} + 19146985669\, p^{63}\, q^{52} + 48037461\, p^{58}\, q^{23}$$
$$+ 5044754\, p^{56}\, q^{18} + 975971\, p^{54}\, q^{15} + 2207049953\, p^{61}\, q^{36} + 25737014566\, p^{58}\, q^{57} + 30971897\, q^{49}\, p^{21} + 610125\, q^{105}\, p^{92}$$
$$+ 4815541\, q^{47}\, p^{17} + 1499541\, p^{100}\, q^{49} + 743239\, p^{99}\, q^{44} + 1570999\, p^{101}\, q^{52} + 34738843\, p^{90}\, q^{94} + 15952462\, q^{82}\, p^{31} + 2260\, q^{110}\, p^{58}$$
$$+ 1308\, p^{111}\, q^{108} + 2607101\, p^{99}\, q^{96} + 7160952\, p^{94}\, q^{97} + 8827375\, p^{93}\, q^{97} + 21672490857\, p^{57}\, q^{66} + 60844\, p^{107}\, q^{100} + 624239377\, p^{71}\, q^{35}$$
$$+ 9336477022\, p^{73}\, q^{53} + 3577436123\, p^{72}\, q^{44} + 257371952\, p^{87}\, q^{47} + 21138226790\, p^{58}\, q^{67} + 747947\, q^{83}\, p^{25} + 43962\, q^{82}\, p^{20}$$
$$+ 19640\, q^{82}\, p^{19} + 2997287\, p^{103}\, q^{86} + 2714373\, p^{103}\, q^{87} + 4646604\, p^{103}\, q^{79} + 18\, p^{65}\, q^{114} + 798628757\, p^{72}\, q^{89} + 841144977\, p^{70}\, q^{89}$$
$$+ 20418602\, p^{75}\, q^{27} + 573269356\, q^{90}\, p^{74} + 649179418\, q^{90}\, p^{70} + 4\, q^{103}\, p^{30} + 303291525\, p^{85}\, q^{88} + 20283827\, q^{48}\, p^{20} + 669273\, p^{104}\, q^{58}$$
$$+ 462\, p^{91}\, q^{115} + 3944\, p^{85}\, q^{113} + 104\, p^{50}\, q^{6} + 7901341\, p^{77}\, q^{102} + 4646604\, p^{79}\, q^{103} + 7138892\, p^{80}\, q^{102} + 7704632\, p^{78}\, q^{102}$$
$$+ 7448190\, p^{79}\, q^{102} + 8100877\, p^{75}\, q^{102} + 8034798\, p^{76}\, q^{102} + 2021\, p^{110}\, q^{108} + 4416225579\, p^{39}\, q^{59} + 5269641897\, p^{40}\, q^{59}$$
$$+ 6223676237\, p^{41}\, q^{59} + 18437849207\, p^{58}\, q^{69} + 760369158\, p^{77}\, q^{88} + 512574646\, p^{79}\, q^{89} + 576944140\, p^{80}\, q^{88} + 699635566\, p^{78}\, q^{88}$$
$$+ 638154680\, p^{79}\, q^{88} + 875313378\, p^{75}\, q^{88} + 819297113\, p^{76}\, q^{88} + 22096126866\, p^{67}\, q^{63} + 22253216032\, p^{67}\, q^{62} + 22233557985\, p^{67}\, q^{61}$$
$$+ 21765770995\, p^{67}\, q^{64} + 3150025191\, q^{67}\, p^{40} + 3791681309\, q^{67}\, p^{41} + 5324819722\, q^{67}\, p^{43} + 4516330420\, q^{67}\, p^{42} + 6215884068\, q^{67}\, p^{44}$$
$$+ 44846943\, q^{63}\, p^{24} + 29002617\, q^{63}\, p^{23} + 481347322\, p^{87}\, q^{51} + 126470457\, p^{86}\, q^{42} + 772993456\, p^{87}\, q^{55} + 288096963\, p^{86}\, q^{46}$$
$$+ 1052841368\, p^{88}\, q^{64} + 10814045\, p^{82}\, q^{30} + 34840343\, p^{84}\, q^{35} + 100063941\, q^{63}\, p^{26} + 15978769\, q^{64}\, p^{22} + 3459697320\, q^{66}\, p^{40}$$
$$+ 259561171\, q^{64}\, p^{29} + 788111\, q^{61}\, p^{16} + 452631\, q^{60}\, p^{15} + 3820114\, q^{63}\, p^{19} + 67727162\, q^{63}\, p^{25} + 141424253\, q^{80}\, p^{36} + 20245\, q^{102}\, p^{40}$$

$$+ 139759437\, q^{71}\, p^{30} + 185293886\, q^{64}\, p^{28} + 52983252\, q^{65}\, p^{25} + 37\, q^{46}\, p^{5} + 222\, q^{47}\, p^{6} + 4416225579\, p^{81}\, q^{61} + 4648794344\, p^{81}\, q^{63}$$
$$+ 4549309079\, p^{81}\, q^{62} + 12919300948\, p^{53}\, q^{70} + 391085268\, q^{66}\, p^{31} + 86138062\, p^{94}\, q^{84} + 1489407835\, q^{66}\, p^{36} + 1171025569\, q^{66}\, p^{35}$$
$$+ 696075658\, q^{66}\, p^{33} + 908931391\, q^{66}\, p^{34} + 525622342\, q^{66}\, p^{32} + 2850557053\, q^{66}\, p^{39} + 2322755339\, q^{66}\, p^{38} + 1690132422\, q^{67}\, p^{37}$$
$$+ 1639077944\, q^{65}\, p^{36} + 6879\, p^{70}\, q^{13} + 25119646339\, p^{58}\, q^{56} + 14205\, p^{71}\, q^{14} + 18535462672\, p^{66}\, q^{69} + 517465409\, p^{85}\, q^{85}$$
$$+ 286884953\, p^{89}\, q^{84} + 231353626\, p^{90}\, q^{84} + 16461918816\, p^{60}\, q^{71} + 135\, q^{104}\, p^{35} + 160617471\, p^{91}\, q^{85} + 816\, p^{112}\, q^{108}$$
$$+ 14221898696\, p^{56}\, q^{71} + 12712678\, p^{87}\, q^{99} + 81174975\, p^{92}\, q^{50} + 90\, p^{62}\, q^{8} + 48267389\, p^{84}\, q^{96} + 806\, p^{69}\, q^{11} + 37761174\, p^{96}\, q^{86}$$
$$+ 3027827680\, q^{77}\, p^{48} + 3898628767\, q^{77}\, p^{50} + 4841599803\, q^{77}\, p^{52} + 4363942606\, q^{77}\, p^{51} + 5324819722\, q^{77}\, p^{53} + 5806040050\, q^{77}\, p^{54}$$
$$+ 5349008598\, q^{78}\, p^{55} + 3451610565\, q^{77}\, p^{49} + 136\, p^{115}\, q^{108} + 683\, p^{110}\, q^{111} + 4482022\, p^{103}\, q^{80} + 2434400\, p^{103}\, q^{88} + 75183\, p^{107}\, q^{99}$$
$$+ 110187\, p^{107}\, q^{97} + 130128969\, p^{95}\, q^{75} + 30658\, p^{79}\, q^{18} + 137091\, p^{81}\, q^{21} + 181931\, p^{82}\, q^{22} + 398\, p^{67}\, q^{10} + 59425346\, p^{96}\, q^{82} + 87\, p^{89}\, q^{116}$$
$$+ 98\, p^{90}\, q^{116} + 106\, p^{91}\, q^{116} + 117\, p^{92}\, q^{116} + 304333345\, p^{76}\, q^{92} + 5\, p^{76}\, q^{116} + 6\, p^{77}\, q^{116} + 38164\, p^{102}\, q^{107} + 3\, q^{45}\, p^{4} + 12\, p^{117}\, q^{90}$$
$$+ 382033\, p^{95}\, q^{105} + 19\, q^{48}\, p^{5} + 52756\, p^{88}\, q^{110} + 54978\, p^{87}\, q^{110} + 56800\, p^{86}\, q^{110} + 9\, p^{78}\, q^{116} + 12\, p^{79}\, q^{116} + 22440\, p^{104}\, q^{107}$$
$$+ 252984948\, p^{67}\, q^{30} + 6654489\, p^{63}\, q^{20} + 25502504\, p^{97}\, q^{56} + 20711548\, p^{98}\, q^{58} + 17887403\, p^{61}\, q^{99} + 40599025\, p^{66}\, q^{98} + 658\, p^{41}\, q^{6}$$
$$+ 127431\, p^{52}\, q^{12} + 59687\, p^{51}\, q^{11} + 255591\, p^{53}\, q^{13} + 485718\, p^{54}\, q^{14} + 4809777048\, p^{42}\, q^{45} + 5883429822\, p^{43}\, q^{46} + 359054453\, p^{87}\, q^{49}$$
$$+ 607058446\, p^{89}\, q^{77} + 443127057\, p^{90}\, q^{78} + 2231754396\, p^{36}\, q^{47} + 1741878600\, p^{35}\, q^{46} + 61420117\, p^{54}\, q^{23} + 15\, p^{61}\, q^{7}$$
$$+ 1072110\, p^{105}\, q^{67} + 313053\, p^{102}\, q^{48} + 348568128\, p^{28}\, q^{47} + 798628757\, p^{31}\, q^{48} + 2670355874\, p^{37}\, q^{47} + 475018293\, p^{29}\, q^{48}$$
$$+ 69059935\, p^{23}\, q^{48} + 620130254\, p^{30}\, q^{48} + 142038669\, p^{25}\, q^{49} + 46957468\, p^{22}\, q^{48} + 31232452\, p^{21}\, q^{48} + 32449\, p^{91}\, q^{26} + 2110176\, p^{63}\, q^{18}$$
$$+ 384082\, p^{61}\, q^{15} + 48267389\, p^{96}\, q^{84} + 84\, p^{116}\, q^{106} + 2587\, p^{103}\, q^{112} + 5605\, p^{102}\, q^{111} + 6750\, p^{101}\, q^{111} + 4781\, p^{105}\, q^{110}$$
$$+ 1611870091\, p^{83}\, q^{79} + 31955168\, p^{89}\, q^{95} + 53802697\, p^{83}\, q^{96} + 26881081\, p^{90}\, q^{95} + 26377857450\, p^{62}\, q^{61} + 25904498896\, p^{63}\, q^{61}$$
$$+ 25623073548\, p^{59}\, q^{63} + 26386961895\, p^{60}\, q^{62} + 26377857450\, p^{61}\, q^{62} + 96586752\, p^{95}\, q^{80} + 76397\, p^{65}\, q^{14} + 38646\, p^{64}\, q^{13}$$
$$+ 4641065\, p^{94}\, q^{41} + 1102609\, p^{92}\, q^{34} + 30860\, p^{86}\, q^{22} + 14625011\, p^{100}\, q^{82} + 12342551\, p^{100}\, q^{84} + q^{113}\, p^{55} + 2\, q^{113}\, p^{56}$$
$$+ 164532785\, p^{90}\, q^{50} + 195\, p^{60}\, q^{8} + 886755883\, p^{48}\, q^{83} + 18496273\, p^{69}\, q^{24} + 959704935\, p^{73}\, q^{38} + 7802861180\, p^{76}\, q^{56}$$
$$+ 305546103\, p^{72}\, q^{33} + 37004171\, p^{70}\, q^{26} + 344300380\, p^{73}\, q^{34} + 1555631474\, p^{74}\, q^{41} + 14315418524\, p^{71}\, q^{69} + 1306\, p^{34}\, q^{6}$$
$$+ 138216703\, p^{47}\, q^{25} + 260203803\, p^{47}\, q^{27} + 30977519\, p^{46}\, q^{21} + 98159190\, p^{47}\, q^{24} + 191220204\, p^{47}\, q^{26} + 1274535283\, p^{48}\, q^{33}$$
$$+ 620130254\, p^{48}\, q^{30} + 475018293\, p^{48}\, q^{29} + 1015217639\, p^{48}\, q^{32} + 798628757\, p^{48}\, q^{31} + 1581014290\, p^{48}\, q^{34} + 1938632182\, p^{48}\, q^{35}$$

$$+ 2455757427\, p^{49}\, q^{36} + 124384\, p^{40}\, q^{11} + 253584\, p^{41}\, q^{12} + 56476\, p^{40}\, q^{10} + 493661\, p^{42}\, q^{13} + 8100877\, p^{45}\, q^{18} + 2910983\, p^{44}\, q^{16}$$
$$+ 3513908786\, p^{49}\, q^{38} + 5572506656\, p^{49}\, q^{41} + 7222997362\, p^{49}\, q^{43} + 6373902444\, p^{49}\, q^{42} + 4138525793\, p^{49}\, q^{39} + 2953121077\, p^{49}\, q^{37}$$
$$+ 3679969\, p^{59}\, q^{18} + 695455\, p^{57}\, q^{15} + 25273\, p^{38}\, q^{9} + 3769\, p^{36}\, q^{7} + 10235\, p^{37}\, q^{8} + 8110830326\, p^{49}\, q^{44} + 9546561644\, p^{50}\, q^{45}$$
$$+ 4825724525\, p^{49}\, q^{40} + 4915668\, p^{44}\, q^{17} + 922506\, p^{43}\, q^{14} + 20099219\, p^{45}\, q^{20} + 12934940\, p^{45}\, q^{19} + 46121704\, p^{46}\, q^{22}$$
$$+ 67214270\, p^{46}\, q^{23} + 348568128\, p^{47}\, q^{28} + 1669810\, p^{43}\, q^{15} + 5402430119\, p^{43}\, q^{45} + 6563757222\, p^{44}\, q^{46} + 1015217639\, p^{32}\, q^{48}$$
$$+ 3161991501\, p^{38}\, q^{47} + 198021803\, p^{26}\, q^{49} + 733791597\, p^{89}\, q^{74} + 855482983\, p^{89}\, q^{67} + 822962702\, p^{89}\, q^{71} + 857589700\, p^{89}\, q^{68}$$
$$+ 798628757\, p^{89}\, q^{72} + 100058149\, q^{49}\, p^{24} + 69139619\, q^{49}\, p^{23} + 113982136\, p^{63}\, q^{95} + 106805516\, p^{62}\, q^{95} + 141\, p^{105}\, q^{37} + 115\, p^{103}\, q^{33}$$
$$+ 2406\, p^{109}\, q^{54} + 31\, p^{102}\, q^{30} + 1958\, p^{96}\, q^{27} + 34675\, p^{104}\, q^{46} + 66532\, p^{105}\, q^{51} + 4173\, p^{107}\, q^{109} + 45373\, p^{102}\, q^{42} + 48277\, p^{104}\, q^{47}$$
$$+ 4482022\, p^{80}\, q^{103} + 191220204\, p^{73}\, q^{94} + 123\, p^{116}\, q^{93} + 133\, p^{112}\, q^{59} + 5159032\, p^{45}\, q^{96} + 3990650\, p^{44}\, q^{96} + 7801998\, p^{49}\, q^{97}$$
$$+ 120613618\, p^{64}\, q^{95} + 23\, q^{111}\, p^{51} + 32\, q^{110}\, p^{48} + 2995\, q^{110}\, p^{59} + 58\, q^{110}\, p^{49} + 101\, q^{110}\, p^{50} + 8\, q^{109}\, p^{43} + 2\, q^{109}\, p^{42} + 17\, q^{109}\, p^{44}$$
$$+ 46794577\, q^{49}\, p^{22} + 47012000\, q^{83}\, p^{35} + 41478775\, p^{94}\, q^{89} + 9960055040\, p^{45}\, q^{62} + 11284327447\, p^{46}\, q^{62} + 12669095648\, p^{47}\, q^{62}$$
$$+ 14097552559\, p^{48}\, q^{62} + 52192287\, p^{79}\, q^{32} + 36742962\, p^{79}\, q^{31} + 2074874203\, p^{84}\, q^{58} + 186277457\, p^{80}\, q^{37} + 2207049953\, p^{84}\, q^{59}$$
$$+ q^{95}\, p^{20} + 9651780\, p^{89}\, q^{99} + 23448314146\, p^{65}\, q^{58} + 3810399\, q^{95}\, p^{42} + 16063912216\, p^{49}\, q^{61} + 1295744672\, p^{62}\, q^{34}$$
$$+ 1649877205\, p^{62}\, q^{35} + 5335685583\, p^{45}\, q^{70} + 1004535886\, p^{62}\, q^{33} + 19634583711\, p^{64}\, q^{53} + 8277957015\, p^{63}\, q^{44} + 28492001\, p^{59}\, q^{22}$$
$$+ 6\, q^{94}\, p^{20} + 331\, q^{94}\, p^{23} + 29\, q^{94}\, p^{21} + 111\, q^{94}\, p^{22} + 77984893\, p^{86}\, q^{40} + 60044334\, p^{86}\, q^{39} + 47012000\, p^{85}\, q^{37} + 99945629\, p^{86}\, q^{41}$$
$$+ 17829402\, p^{84}\, q^{33} + 264778913\, p^{89}\, q^{51} + 157288177\, p^{88}\, q^{46} + 612846441\, p^{90}\, q^{64} + 437240265\, p^{89}\, q^{55} + 5048434705\, p^{70}\, q^{80}$$
$$+ 17180343\, q^{91}\, p^{41} + 28627027\, q^{91}\, p^{43} + 45302132\, q^{91}\, p^{45} + 23358793201\, p^{62}\, q^{66} + 22096126866\, p^{63}\, q^{67} + 52\, p^{116}\, q^{109}$$
$$+ 10496910137\, p^{53}\, q^{72} + 693303868\, p^{36}\, q^{72} + 55966314\, p^{74}\, q^{29} + 38187984\, p^{74}\, q^{28} + 177330\, p^{65}\, q^{15} + 2328304248\, p^{36}\, q^{60}$$
$$+ 2462168\, p^{102}\, q^{58} + 10373010594\, p^{45}\, q^{61} + 6473491985\, p^{42}\, q^{62} + 9090562799\, p^{44}\, q^{61} + 6785870674\, p^{42}\, q^{61} + 7892038430\, p^{43}\, q^{61}$$
$$+ 196250289\, p^{68}\, q^{94} + 3614926212\, p^{39}\, q^{63} + 4623944529\, p^{40}\, q^{62} + 5499026477\, p^{41}\, q^{62} + 72\, p^{107}\, q^{116} + 63\, p^{108}\, q^{116} + 329\, p^{102}\, q^{115}$$
$$+ 135\, p^{99}\, q^{116} + 1063\, p^{107}\, q^{112} + 2\, p^{104}\, q^{31} + 165\, p^{113}\, q^{65} + 177\, p^{114}\, q^{72} + 6013812411\, p^{44}\, q^{45} + 7258124228\, p^{45}\, q^{46} + 2583\, p^{41}\, q^{7}$$
$$+ 247132919\, p^{92}\, q^{59} + 273837236\, p^{93}\, q^{70} + 59838531\, p^{89}\, q^{43} + 3706369523\, p^{39}\, q^{47} + 4301740893\, p^{40}\, q^{47} + 1274535283\, p^{33}\, q^{48}$$
$$+ 346633275\, p^{67}\, q^{31} + 8916367468\, p^{70}\, q^{49} + 16760828201\, p^{71}\, q^{64} + 73914\, p^{56}\, q^{12} + 339\, p^{45}\, q^{6} + 1581014290\, p^{34}\, q^{48}$$
$$+ 1938632182\, p^{35}\, q^{48} + 637079486\, p^{30}\, q^{49} + 67727162\, p^{63}\, q^{25} + 16995703372\, p^{69}\, q^{56} + 486460117\, p^{29}\, q^{49} + 366135255\, p^{28}\, q^{49}$$

$$+ 772993456\, p^{65} q^{33} + 20711548\, p^{62} q^{22} + 142225228\, p^{25} q^{50} + 271428817\, p^{27} q^{49} + 6975\, p^{97} q^{30} + 18360\, p^{98} q^{33} + 1802622\, q^{94} p^{38}$$
$$+ 195393080\, p^{72} q^{94} + 1736149\, q^{104} p^{87} + 2374017\, q^{104} p^{83} + 232176\, p^{92} q^{107} + 252381\, p^{82} q^{108} + 81862\, p^{72} q^{109} + 7930\, p^{63} q^{110}$$
$$+ 6369\, p^{62} q^{110} + 398\, p^{53} q^{110} + 14192\, p^{66} q^{110} + 164\, p^{51} q^{110} + 102813\, p^{75} q^{109} + 99945629\, q^{86} p^{41} + 6239292\, p^{88} q^{34} + 593247\, p^{85} q^{26}$$
$$+ 84\, p^{113} q^{63} + 32\, p^{110} q^{48} + 296\, p^{113} q^{67} + 478497\, p^{82} q^{107} + 747889\, p^{106} q^{85} + 1813\, p^{88} q^{20} + 187722365\, p^{79} q^{93} + 25380373\, p^{90} q^{41}$$
$$+ 14586951\, p^{90} q^{39} + 11720759\, p^{89} q^{37} + 4299705\, p^{88} q^{33} + 5902924\, p^{99} q^{92} + 23555129\, p^{92} q^{94} + 28770698\, p^{91} q^{94} + 18360\, q^{98} p^{33}$$
$$+ 38413\, q^{99} p^{36} + 10544\, q^{98} p^{32} + 2730263\, q^{104} p^{80} + 2810478\, q^{104} p^{79} + 24382926\, p^{97} q^{87} + 50254195\, p^{58} q^{96} + 131708667\, p^{66} q^{95}$$
$$+ 12934940\, p^{75} q^{101} + 4900582\, p^{99} q^{93} + 6630640\, p^{98} q^{93} + 30607\, p^{81} q^{19} + 9618813\, p^{98} q^{91} + 46912513\, p^{97} q^{81} + 89636659\, p^{96} q^{76}$$
$$+ 85519491\, p^{96} q^{77} + 98159190\, p^{96} q^{73} + 18142372\, p^{97} q^{89} + 96027530\, p^{96} q^{74} + 94185611\, p^{96} q^{67} + 26\, p^{106} q^{37} + 23\, p^{104} q^{33}$$
$$+ 594\, p^{110} q^{54} + 4\, p^{103} q^{30} + 16832\, p^{110} q^{99} + 22909\, p^{110} q^{97} + 8\, p^{74} q^{10} + p^{60} q^{6} + 55389414\, p^{93} q^{50} + 57\, p^{63} q^{8} + 527\, p^{70} q^{11}$$
$$+ 27843517\, p^{97} q^{86} + 1058894\, q^{59} p^{16} + 915386\, p^{73} q^{20} + 1513192533\, p^{83} q^{52} + 1342605848\, p^{83} q^{51} + 4490\, p^{64} q^{11} + 379472358\, p^{82} q^{42}$$
$$+ 105822513\, p^{80} q^{35} + 1027990918\, p^{83} q^{49} + 2657683154\, p^{84} q^{64} + 32784191\, p^{78} q^{30} + 2053377103\, p^{83} q^{55} + 814169952\, p^{82} q^{46}$$
$$+ 196311\, p^{76} q^{19} + 12\, p^{41} q^{4} + 140690925\, p^{48} q^{25} + 266847913\, p^{48} q^{27} + 31235068\, p^{47} q^{21} + 99514186\, p^{48} q^{24} + 195393080\, p^{48} q^{26}$$
$$+ 1320946525\, p^{49} q^{33} + 637079486\, p^{49} q^{30} + 486460117\, p^{49} q^{29} + 1049213145\, p^{49} q^{32} + 822962702\, p^{49} q^{31} + 1643058380\, p^{49} q^{34}$$
$$+ 2020053879\, p^{49} q^{35} + 2544588261\, p^{50} q^{36} + 121999\, p^{41} q^{11} + 249509\, p^{42} q^{12} + 54568\, p^{41} q^{10} + 486641\, p^{43} q^{13} + 8099075\, p^{46} q^{18}$$
$$+ 2894748\, p^{45} q^{16} + 3658941275\, p^{50} q^{38} + 5842857789\, p^{50} q^{41} + 7606741279\, p^{50} q^{43} + 6697968258\, p^{50} q^{42} + 4319524159\, p^{50} q^{39}$$
$$+ 3067556946\, p^{50} q^{37} + 24510\, p^{39} q^{9} + 9836\, p^{38} q^{8} + 8560038349\, p^{50} q^{44} + 10013998128\, p^{51} q^{45} + 5048434705\, p^{50} q^{40}$$
$$+ 4924029\, p^{45} q^{17} + 910188\, p^{44} q^{14} + 20330403\, p^{46} q^{20} + 13010057\, p^{46} q^{19} + 46730691\, p^{47} q^{22} + 68414252\, p^{47} q^{23} + 358712706\, p^{48} q^{28}$$
$$+ 1661695\, p^{44} q^{15} + 160098716\, p^{58} q^{93} + 7956266033\, p^{46} q^{46} + 4944845972\, p^{41} q^{47} + 19048621270\, p^{69} q^{65} + 17358438012\, p^{70} q^{66}$$
$$+ 2350740289\, p^{36} q^{48} + 822962702\, p^{31} q^{49} + 19368446872\, p^{69} q^{60} + 17773884777\, p^{69} q^{57} + 199051547\, p^{26} q^{50} + 652150722\, p^{89} q^{76}$$
$$+ 768691336\, p^{89} q^{73} + 99782457\, q^{50} p^{24} + 204765\, p^{100} q^{42} + 236837\, p^{102} q^{47} + 166\, p^{115} q^{107} + 26\, p^{95} q^{117} + 37581507\, p^{88} q^{95}$$
$$+ 6414587540\, q^{79} p^{67} + 50\, p^{115} q^{75} + 6\, p^{111} q^{49} + p^{110} q^{44} + 50\, p^{116} q^{85} + 2837423\, p^{102} q^{90} + 8686034\, p^{100} q^{59} + 48576\, p^{101} q^{107}$$
$$+ q^{106} p^{34} + 2079358816\, q^{69} p^{39} + 67214270\, p^{74} q^{97} + 1116350\, q^{63} p^{17} + 2866\, q^{56} p^{9} + p^{81} q^{117} + 669273\, q^{62} p^{16} + 135741\, p^{92} q^{108}$$
$$+ 2767087\, q^{65} p^{19} + 5026\, q^{59} p^{10} + 2624\, p^{70} q^{112} + 221\, p^{66} q^{113} + 3669\, p^{72} q^{112} + 2170\, p^{69} q^{112} + 3116\, p^{71} q^{112} + 181589443\, q^{67} p^{29}$$
$$+ 252984948\, q^{67} p^{30} + 5746728\, p^{98} q^{50} + 13010057\, p^{101} q^{74} + 10698075\, p^{101} q^{67} + 12976575\, p^{101} q^{73} + 3248542\, p^{102} q^{89}$$

$$+ 12751609\, p^{101}\, q^{76} + 12465604\, p^{101}\, q^{77} + 1654557\, p^{103}\, q^{91} + 6782706\, p^{102}\, q^{81} + 888\, q^{55}\, p^{8} + 76\, q^{51}\, p^{6} + 358945747\, p^{92}\, q^{66}$$
$$+ 6239292\, p^{86}\, q^{32} + 287135595\, p^{91}\, q^{57} + 74937712\, p^{89}\, q^{44} + 1222839167\, p^{84}\, q^{80} + 15850\, q^{59}\, p^{11} + 3\, p^{52}\, q^{5} + 95943\, p^{64}\, q^{14}$$
$$+ 48794\, p^{63}\, q^{13} + 7930\, q^{57}\, p^{10} + 4890\, p^{83}\, q^{18} + 23808\, p^{85}\, q^{21} + 34726253\, q^{65}\, p^{24} + 561988\, q^{63}\, p^{16} + 145416\, q^{62}\, p^{14} + 296\, q^{53}\, p^{7}$$
$$+ 1197646939\, q^{68}\, p^{36} + 346633275\, q^{67}\, p^{31} + 813789449\, q^{67}\, p^{34} + 467521531\, q^{67}\, p^{32} + 621221886\, q^{67}\, p^{33} + 1051680529\, q^{67}\, p^{35}$$
$$+ 175701\, q^{61}\, p^{14} + 274024585\, p^{93}\, q^{69} + 143939\, p^{79}\, q^{20} + 23062250\, p^{88}\, q^{38} + 4897982\, q^{65}\, p^{20} + 22210329\, q^{65}\, p^{23} + 8364823\, q^{65}\, p^{21}$$
$$+ 13830767\, q^{65}\, p^{22} + 11852311\, q^{66}\, p^{22} + 235819151\, p^{82}\, q^{91} + 43674\, q^{59}\, p^{12} + 128057051\, q^{67}\, p^{28} + 30119899\, q^{66}\, p^{24}$$
$$+ 69255229\, q^{66}\, p^{26} + 146198237\, q^{66}\, p^{28} + 101625479\, q^{66}\, p^{27} + 46199672\, q^{66}\, p^{25} + 206448900\, q^{66}\, p^{29} + 3268237\, q^{64}\, p^{19}$$
$$+ 5738677\, q^{64}\, p^{20} + 937347\, q^{64}\, p^{17} + 1789749\, q^{64}\, p^{18} + 267284\, q^{63}\, p^{15} + 2265\, q^{57}\, p^{9} + 74626\, q^{61}\, p^{13} + 12682\, q^{60}\, p^{11} + 35796\, q^{60}\, p^{12}$$
$$+ q^{112}\, p^{51} + 8565969801\, q^{68}\, p^{47} + 686\, q^{56}\, p^{8} + 466698\, q^{64}\, p^{16} + 28924\, q^{61}\, p^{12} + 882211259\, p^{32}\, q^{60} + 1861450316\, p^{35}\, q^{60}$$
$$+ 1470145145\, p^{34}\, q^{60} + 625476399\, p^{31}\, q^{61} + 1146425532\, p^{33}\, q^{60} + 17858930\, p^{84}\, q^{99} + 13347126\, p^{89}\, q^{98} + 87\, p^{116}\, q^{89} + 81\, p^{115}\, q^{77}$$
$$+ 15\, p^{117}\, q^{91} + 21\, p^{116}\, q^{81} + 14\, p^{115}\, q^{71} + 63\, p^{115}\, q^{76} + 21030\, p^{78}\, q^{111} + 19610\, p^{77}\, q^{111} + 18077\, p^{76}\, q^{111} + 6213\, q^{76}\, p^{15} + 90\, p^{112}\, q^{58}$$
$$+ 441\, p^{115}\, q^{90} + 259561171\, q^{91}\, p^{56} + 287135595\, q^{91}\, p^{57} + 368856520\, q^{91}\, p^{60} + 342250781\, q^{91}\, p^{59} + 438979002\, q^{91}\, p^{63}$$
$$+ 472974658\, q^{91}\, p^{65} + 358945747\, q^{92}\, p^{66} + 394176373\, q^{91}\, p^{61} + 457533012\, q^{91}\, p^{64} + 417708125\, q^{91}\, p^{62} + 314847968\, q^{91}\, p^{58}$$
$$+ 3735981\, p^{98}\, q^{48} + 3683560895\, p^{42}\, q^{69} + 1731699570\, p^{69}\, q^{86} + 1693663186\, p^{70}\, q^{86} + 1630588821\, p^{75}\, q^{85} + 2330495741\, p^{39}\, q^{68}$$
$$+ 10827\, p^{98}\, q^{111} + 11928039061\, p^{50}\, q^{68} + 266386906\, p^{88}\, q^{49} + 119550\, p^{109}\, q^{85} + 181\, p^{91}\, q^{20} + 252\, p^{111}\, q^{56} + 686\, p^{112}\, q^{64} + 170\, p^{111}\, q^{55}$$
$$+ 756\, p^{114}\, q^{80} + 1429\, p^{114}\, q^{88} + 298\, p^{115}\, q^{103} + 474\, p^{115}\, q^{92} + 13088011011\, p^{51}\, q^{68} + 12919300948\, p^{50}\, q^{67} + 26140\, p^{84}\, q^{111}$$
$$+ 12\, p^{64}\, q^{114} + 11696583708\, p^{49}\, q^{67} + 19192\, q^{103}\, p^{42} + 19384\, q^{105}\, p^{47} + 25142135\, p^{84}\, q^{34} + 2512471\, p^{81}\, q^{26} + 29704012\, p^{69}\, q^{99}$$
$$+ 15433853\, p^{65}\, q^{100} + 27548834\, p^{67}\, q^{99} + 28726301\, p^{68}\, q^{99} + 14072\, p^{64}\, q^{12} + 1201214124\, p^{81}\, q^{47} + 392685907\, p^{80}\, q^{40}$$
$$+ 310221518\, p^{80}\, q^{39} + 622760\, p^{72}\, q^{19} + 2615283652\, p^{84}\, q^{69} + 2544588261\, p^{84}\, q^{70} + 2843149519\, p^{40}\, q^{68} + 1925615363\, p^{80}\, q^{81}$$
$$+ 3430939823\, p^{41}\, q^{68} + 8646902091\, p^{47}\, q^{46} + 5630744894\, p^{42}\, q^{47} + 2819777599\, p^{37}\, q^{48} + 6352878331\, p^{43}\, q^{47} + 3347103646\, p^{38}\, q^{48}$$
$$+ 1049213145\, p^{32}\, q^{49} + 3932714100\, p^{39}\, q^{48} + 2020053879\, p^{35}\, q^{49} + 1643058380\, p^{34}\, q^{49} + 841144977\, p^{31}\, q^{50} + 1320946525\, p^{33}\, q^{49}$$
$$+ 649179418\, p^{30}\, q^{50} + 274024585\, p^{27}\, q^{51} + 494124707\, p^{29}\, q^{50} + 273837236\, p^{27}\, q^{50} + 370675010\, p^{28}\, q^{50} + 3662056089\, p^{82}\, q^{61}$$
$$+ 3873398756\, p^{82}\, q^{63} + 3781488163\, p^{82}\, q^{62} + 116259553\, p^{87}\, q^{43} + 311089987\, p^{88}\, q^{50} + 382\, p^{58}\, q^{8} + 11062823\, p^{101}\, q^{80}$$
$$+ 5438467\, p^{101}\, q^{88} + 1750\, p^{58}\, q^{9} + 3967110346\, p^{82}\, q^{65} + 10053341\, p^{66}\, q^{101} + 10698075\, p^{67}\, q^{101} + 2624\, q^{50}\, p^{8} + 8007\, p^{91}\, q^{24}$$

$$+ 1880031682\, p^{82} q^{79} + 19380886\, p^{90} q^{40} + 4155316\, q^{103} p^{69} + 67093939\, p^{89} q^{92} + 7\, p^{63} q^{114} + 224899\, p^{108} q^{75} + 4062569\, p^{82} q^{103}$$
$$+ 3\, p^{96} q^{118} + 771\, p^{106} q^{113} + 31\, p^{98} q^{117} + 210\, p^{114} q^{109} + 63\, p^{116} q^{108} + 1014\, p^{110} q^{110} + 5736982\, p^{95} q^{97} + 11493875029\, p^{47} q^{64}$$
$$+ 25904498896\, p^{57} q^{59} + 14221898696\, p^{64} q^{49} + 91397187\, p^{60} q^{25} + 886755883\, p^{37} q^{72} + 304391582\, p^{68} q^{31} + 8004640509\, p^{71} q^{49}$$
$$+ 15375037929\, p^{72} q^{64} + 62740\, p^{57} q^{12} + 142038669\, p^{49} q^{25} + 271428817\, p^{49} q^{27} + 31232452\, p^{48} q^{21} + 100058149\, p^{49} q^{24}$$
$$+ 198021803\, p^{49} q^{26} + 1357917491\, p^{50} q^{33} + 649179418\, p^{50} q^{30} + 494124707\, p^{50} q^{29} + 1075544502\, p^{50} q^{32} + 841144977\, p^{50} q^{31}$$
$$+ 1693663186\, p^{50} q^{34} + 2087764684\, p^{50} q^{35} + 2615283652\, p^{51} q^{36} + 118494\, p^{42} q^{11} + 243185\, p^{43} q^{12} + 475335\, p^{44} q^{13}$$
$$+ 8028469\, p^{47} q^{18} + 2854265\, p^{46} q^{16} + 3779071296\, p^{51} q^{38} + 6076539725\, p^{51} q^{41} + 7945607334\, p^{51} q^{43} + 6981214157\, p^{51} q^{42}$$
$$+ 4471879098\, p^{51} q^{39} + 3160631419\, p^{51} q^{37} + 8960387682\, p^{51} q^{44} + 10419106378\, p^{52} q^{45} + 5238527448\, p^{51} q^{40} + 4890101\, p^{46} q^{17}$$
$$+ 889988\, p^{45} q^{14} + 20391844\, p^{47} q^{20} + 12976575\, p^{47} q^{19} + 46957468\, p^{48} q^{22} + 69059935\, p^{48} q^{23} + 366135255\, p^{49} q^{28} + 1639568\, p^{45} q^{15}$$
$$+ 9318129147\, p^{48} q^{46} + 7103002954\, p^{44} q^{47} + 4575121941\, p^{40} q^{48} + 2455757427\, p^{36} q^{49} + 1075544502\, p^{32} q^{50} + 372222801\, p^{28} q^{51}$$
$$+ 1952854315\, p^{61} q^{85} + 2692105296\, p^{65} q^{84} + 2705141179\, p^{66} q^{84} + 2\, q^{46} p^{4} + 5923\, q^{67} p^{12} + q^{47} p^{4} + 22354444326\, p^{58} q^{66}$$
$$+ 21669721086\, p^{59} q^{67} + 20918020017\, p^{68} q^{63} + 21027361529\, p^{68} q^{62} + 20969459762\, p^{68} q^{61} + 20643934569\, p^{68} q^{64}$$
$$+ 63278553\, p^{76} q^{97} + 573\, p^{42} q^{6} + 112944\, p^{53} q^{12} + 52597\, p^{52} q^{11} + 227425\, p^{54} q^{13} + 433256\, p^{55} q^{14} + 1392920982\, p^{85} q^{77}$$
$$+ 1053289765\, p^{86} q^{78} + 1845261475\, p^{85} q^{73} + 1513542134\, p^{85} q^{76} + 25842\, p^{83} q^{111} + 47135\, p^{90} q^{110} + 2436126938\, p^{84} q^{61}$$
$$+ 2602644247\, p^{84} q^{63} + 2528247259\, p^{84} q^{62} + 2692105296\, p^{84} q^{65} + 3665\, p^{101} q^{112} + 2021\, p^{108} q^{110} + 1447\, p^{110} q^{109} + 4279\, p^{100} q^{112}$$
$$+ 3699\, p^{104} q^{111} + 5591\, p^{98} q^{112} + 2938\, p^{105} q^{111} + 3665\, p^{106} q^{110} + 11572318\, p^{93} q^{96} + 24382926\, p^{87} q^{97} + 10776848345\, p^{49} q^{68}$$
$$+ 10496910137\, p^{48} q^{67} + 19824221385\, p^{68} q^{58} + 12\, p^{30} q^{3} + 493661\, p^{78} q^{107} + 90828\, p^{90} q^{109} + 1140\, p^{66} q^{112} + 45899\, p^{67} q^{109}$$
$$+ 157288177\, q^{74} p^{32} + 97741062\, q^{73} p^{30} + 25399499\, q^{72} p^{26} + 238503033\, q^{75} p^{34} + 5747838569\, q^{78} p^{56} + 1628513192\, q^{76} p^{43}$$
$$+ 1349348044\, q^{76} p^{42} + 1944739423\, q^{76} p^{44} + 2264714777\, q^{77} p^{46} + 2298584321\, q^{76} p^{45} + 8470250\, p^{89} q^{36} + 6125114367\, q^{78} p^{57}$$
$$+ 7055726429\, q^{78} p^{60} + 6785870674\, q^{78} p^{59} + 7556811956\, q^{78} p^{63} + 7599737303\, q^{78} p^{65} + 6511504788\, q^{79} p^{66} + 7277221444\, q^{78} p^{61}$$
$$+ 7608625634\, q^{78} p^{64} + 7445513390\, q^{78} p^{62} + 6473491985\, q^{78} p^{58} + 241351860\, p^{75} q^{93} + 44062251\, p^{68} q^{98} + 68352575\, q^{73} p^{29}$$
$$+ 46882201\, q^{73} p^{28} + 31496001\, q^{73} p^{27} + 4262656\, p^{100} q^{92} + 248461\, q^{67} p^{16} + 1105893251\, q^{76} p^{41} + 10612064\, p^{46} q^{95}$$
$$+ 43045729\, p^{82} q^{97} + 896203411\, q^{76} p^{40} + 414913206\, q^{75} p^{36} + 536066593\, q^{75} p^{37} + 683658747\, q^{75} p^{38} + 1242443\, p^{104} q^{90}$$
$$+ 4890101\, p^{103} q^{74} + 4815541\, p^{103} q^{73} + 1402787\, p^{104} q^{89} + 4915668\, p^{103} q^{76} + 4865986\, p^{103} q^{77} + 697858\, p^{105} q^{91} + 2628961\, p^{104} q^{81}$$

$$+ 4551061\, p^{103} q^{71} + 1929291\, p^{100} q^{96} + 638754\, p^{103} q^{54} + 60258\, p^{99} q^{37} + 99188\, p^{100} q^{40} + 66803\, p^{100} q^{39} + 1903891\, p^{104} q^{86}$$
$$+ 1736149\, p^{104} q^{87} + 2810478\, p^{104} q^{79} + 2730263\, p^{104} q^{80} + 1568339\, p^{104} q^{88} + 646710698\, p^{64} q^{32} + 144865226\, p^{63} q^{27}$$
$$+ 484481488\, p^{64} q^{31} + 11696583708\, p^{67} q^{49} + 50\, p^{35} q^{4} + 205\, p^{38} q^{5} + 2543501825\, p^{51} q^{80} + 10911765\, p^{59} q^{20} + 393994718\, p^{63} q^{30}$$
$$+ 111064815\, p^{62} q^{26} + 287135595\, p^{63} q^{29} + 36467115\, p^{61} q^{23} + 17654980440\, p^{67} q^{54} + 17432474583\, p^{68} q^{55} + 8229067820\, p^{67} q^{46}$$
$$+ 14146889535\, p^{67} q^{51} + 15359455907\, p^{67} q^{52} + 1639077944\, p^{65} q^{36} + 12919300948\, p^{67} q^{50} + 4936085868\, p^{66} q^{42}$$
$$+ 5806040050\, p^{66} q^{43} + 2850557053\, p^{66} q^{39} + 3459697320\, p^{66} q^{40} + 9336477022\, p^{67} q^{47} + 10496910137\, p^{67} q^{48} + 205774881\, p^{63} q^{28}$$
$$+ 7799980341\, p^{66} q^{45} + 2542212562\, p^{65} q^{38} + 2053377103\, p^{65} q^{37} + 2282527\, p^{58} q^{17} + 11796\, p^{48} q^{9} + 4250\, p^{47} q^{8} + 79817\, p^{108} q^{96}$$
$$+ 11\, p^{70} q^{9} + 11572318\, p^{96} q^{93} + 32915773\, p^{87} q^{96} + 6\, p^{118} q^{102} + 5\, p^{118} q^{100} + 107736\, p^{92} q^{29} + 1278\, p^{87} q^{19} + 200481\, p^{73} q^{108}$$
$$+ 1871074379\, q^{66} p^{37} + 1292442574\, q^{65} p^{35} + 1871074379\, p^{54} q^{83} + 92\, q^{99} p^{27} + q^{96} p^{21} + 10\, q^{97} p^{23} + 1607739\, q^{105} p^{80}$$
$$+ 518014\, p^{67} q^{17} + 28\, q^{47} p^{5} + 50\, q^{45} p^{5} + 12992114\, p^{86} q^{34} + 1269685\, p^{83} q^{26} + 12\, q^{41} p^{4} + 918389\, q^{60} p^{16} + 33779\, p^{55} q^{11}$$
$$+ 289591\, p^{58} q^{14} + 150765\, p^{57} q^{13} + 2462168\, q^{62} p^{18} + 3967110346\, q^{55} p^{38} + 18982692\, q^{51} p^{20} + 14\, q^{108} p^{41} + 32\, q^{108} p^{42}$$
$$+ 12525\, p^{109} q^{103} + 16136182\, p^{60} q^{21} + 55799685\, p^{61} q^{24} + 1366060\, p^{57} q^{16} + 6449485\, p^{59} q^{19} + 25969\, p^{50} q^{10} + 4154091833\, p^{66} q^{41}$$
$$+ 1006195083\, p^{65} q^{34} + 1292442574\, p^{65} q^{35} + 16536031032\, p^{67} q^{53} + 6762125811\, p^{66} q^{44} + 316819082\, p^{45} q^{85} + 7891842\, p^{102} q^{72}$$
$$+ 6764899\, p^{102} q^{68} + 9078378\, p^{101} q^{83} + 1059494052\, p^{51} q^{84} + 3966775051\, p^{66} q^{82} + 381242631\, p^{46} q^{85} + 3399385536\, p^{76} q^{80}$$
$$+ 9957624291\, p^{49} q^{46} + 7871393585\, p^{45} q^{47} + 8646902091\, p^{46} q^{47} + 5271122566\, p^{41} q^{48} + 6015772104\, p^{42} q^{48} + 2953121077\, p^{37} q^{49}$$
$$+ 6802246167\, p^{43} q^{48} + 3513908786\, p^{38} q^{49} + 1357917491\, p^{33} q^{50} + 4138525793\, p^{39} q^{49} + 4825724525\, p^{40} q^{49} + 3067556946\, p^{37} q^{50}$$
$$+ 1731699570\, p^{34} q^{51} + 2544588261\, p^{36} q^{50} + 1693663186\, p^{34} q^{50} + 2087764684\, p^{35} q^{50} + 497846644\, p^{29} q^{51} + 656149160\, p^{30} q^{51}$$
$$+ 852777942\, p^{31} q^{51} + 857589700\, p^{31} q^{52} + 1093613608\, p^{32} q^{51} + 1384640667\, p^{33} q^{51} + 36234884\, p^{76} q^{29} + 24451758\, p^{76} q^{28}$$
$$+ 111730\, p^{67} q^{15} + 111098416\, p^{92} q^{52} + 2746\, p^{110} q^{107} + 1397655877\, p^{72} q^{39} + 4881649733\, p^{73} q^{47} + 1723907944\, p^{72} q^{40}$$
$$+ 7026057623\, p^{73} q^{50} + 674757970\, p^{86} q^{82} + 88622442\, q^{93} p^{53} + 65443017\, q^{93} p^{51} + 13261177961\, p^{72} q^{69} + 475335\, p^{76} q^{107}$$
$$+ 792316\, p^{84} q^{106} + 2\, q^{111} p^{48} + q^{111} p^{47} + 194559853\, q^{89} p^{49} + 8\, p^{110} q^{46} + 23\, p^{111} q^{51} + 32\, p^{108} q^{42} + 16\, p^{110} q^{47} + 1643058380\, p^{71} q^{86}$$
$$+ 595084\, p^{88} q^{106} + 1532559\, p^{103} q^{59} + 1015162\, p^{101} q^{50} + 142225228\, p^{50} q^{25} + 273837236\, p^{50} q^{27} + 30971897\, p^{49} q^{21}$$
$$+ 99782457\, p^{50} q^{24} + 199051547\, p^{50} q^{26} + 1384640667\, p^{51} q^{33} + 656149160\, p^{51} q^{30} + 497846644\, p^{51} q^{29} + 1093613608\, p^{51} q^{32}$$
$$+ 852777942\, p^{51} q^{31} + 1731699570\, p^{51} q^{34} + 2140296716\, p^{51} q^{35} + 2666296609\, p^{52} q^{36} + 3871690703\, p^{52} q^{38} + 6268509008\, p^{52} q^{41}$$

$$+ 8232389879\, p^{52}\, q^{43} + 7217625925\, p^{52}\, q^{42} + 4592254796\, p^{52}\, q^{39} + 3230278012\, p^{52}\, q^{37} + 9303491996\, p^{52}\, q^{44} + 10753246735\, p^{53}\, q^{45}$$
$$+ 5391917663\, p^{52}\, q^{40} + 4815541\, p^{47}\, q^{17} + 20283827\, p^{48}\, q^{20} + 12834053\, p^{48}\, q^{19} + 46794577\, p^{49}\, q^{22} + 69139619\, p^{49}\, q^{23}$$
$$+ 370675010\, p^{50}\, q^{28} + 10553124986\, p^{50}\, q^{46} + 9417305391\, p^{47}\, q^{47} + 7621957301\, p^{44}\, q^{48} + 5572506656\, p^{41}\, q^{49} + 3658941275\, p^{38}\, q^{50}$$
$$+ 2140296716\, p^{35}\, q^{51} + 1103025408\, p^{32}\, q^{52} + 3027827680\, p^{72}\, q^{43} + 19640404840\, p^{63}\, q^{69} + 443891957\, p^{44}\, q^{83} + 344300380\, p^{86}\, q^{47}$$
$$+ 2536473842\, p^{72}\, q^{42} + 414725\, q^{68}\, p^{17} + 94162196\, p^{87}\, q^{92} + 3\, q^{85}\, p^{14} + 2331905\, q^{69}\, p^{20} + 1270869\, q^{69}\, p^{19} + 141668\, q^{66}\, p^{15}$$
$$+ 827578\, q^{68}\, p^{18} + 103987\, p^{90}\, q^{27} + 12082236\, p^{101}\, q^{78} + 9\, q^{42}\, p^{4} + 6\, q^{43}\, p^{4} + 5\, q^{44}\, p^{4} + 7177350\, p^{62}\, q^{101} + 3919\, q^{60}\, p^{10}$$
$$+ 437331\, q^{93}\, p^{33} + 668355\, q^{93}\, p^{34} + 278861\, q^{93}\, p^{32} + 3442709\, q^{94}\, p^{40} + 4641065\, q^{94}\, p^{41} + 316819082\, q^{75}\, p^{35} + p^{116}\, q^{73}$$
$$+ 30467678\, p^{99}\, q^{75} + 139759437\, p^{90}\, q^{49} + q^{39}\, p^{3} + q^{38}\, p^{3} + 56\, q^{52}\, p^{6} + 27\, p^{117}\, q^{107} + 221\, q^{54}\, p^{7} + 1864714\, p^{87}\, q^{30} + 22326249\, p^{91}\, q^{42}$$
$$+ 1750\, q^{58}\, p^{9} + 16098038\, p^{85}\, q^{99} + 514\, q^{57}\, p^{8} + 5738677\, p^{100}\, q^{56} + 4419167\, p^{101}\, q^{58} + 8\, p^{104}\, q^{32} + p^{100}\, q^{25} + 888\, p^{112}\, q^{65} + 930\, p^{113}\, q^{72}$$
$$+ 16877900216\, p^{62}\, q^{71} + 69238954\, p^{91}\, q^{90} + 45751286\, p^{92}\, q^{91} + 9651248318\, p^{48}\, q^{68} + 9336477022\, p^{47}\, q^{67} + 15168767865\, p^{65}\, q^{72}$$
$$+ 10753246735\, p^{75}\, q^{67} + 8277957015\, p^{57}\, q^{76} + 316\, p^{112}\, q^{111} + 28144\, q^{83}\, p^{20} + 8116\, q^{82}\, p^{18} + 6015422\, q^{89}\, p^{35} + 68\, p^{87}\, q^{116}$$
$$+ 117499795\, q^{90}\, p^{48} + 164532785\, q^{90}\, p^{50} + 221313184\, q^{90}\, p^{52} + 191758703\, q^{90}\, p^{51} + 252984948\, q^{90}\, p^{53} + 321468320\, q^{90}\, p^{55}$$
$$+ 286493718\, q^{90}\, p^{54} + 232545229\, q^{91}\, p^{55} + 139759437\, q^{90}\, p^{49} + 1450\, q^{74}\, p^{13} + 342346275\, p^{76}\, q^{36} + 1671522745\, p^{80}\, q^{82}$$
$$+ 2231754396\, p^{73}\, q^{84} + 1974506730\, p^{77}\, q^{83} + 928489378\, p^{57}\, q^{87} + 1004535886\, p^{58}\, q^{87} + 166\, p^{107}\, q^{115} + 196\, p^{106}\, q^{115} + 136\, p^{108}\, q^{115}$$
$$+ 112\, p^{109}\, q^{115} + 39651846\, p^{56}\, q^{96} + 30119899\, p^{54}\, q^{96} + 25865523\, p^{53}\, q^{96} + 11092675690\, p^{51}\, q^{46} + 10169480359\, p^{48}\, q^{47}$$
$$+ 10889876192\, p^{49}\, q^{47} + 8464540228\, p^{45}\, q^{48} + 9318129147\, p^{46}\, q^{48} + 10169480359\, p^{47}\, q^{48} + 7222997362\, p^{43}\, q^{49} + 6373902444\, p^{42}\, q^{49}$$
$$+ 4319524159\, p^{39}\, q^{50} + 8110830326\, p^{44}\, q^{49} + 5048434705\, p^{40}\, q^{50} + 2615283652\, p^{36}\, q^{51} + 9026582900\, p^{45}\, q^{49} + 5842857789\, p^{41}\, q^{50}$$
$$+ 6697968258\, p^{42}\, q^{50} + 7606741279\, p^{43}\, q^{50} + 3160631419\, p^{37}\, q^{51} + 3779071296\, p^{38}\, q^{51} + 4471879098\, p^{39}\, q^{51} + 4592254796\, p^{39}\, q^{52}$$
$$+ 5238527448\, p^{40}\, q^{51} + 6076539725\, p^{41}\, q^{51} + 1756332204\, p^{34}\, q^{52} + 1400504558\, p^{33}\, q^{52} + 2176466974\, p^{35}\, q^{52} + 3274962991\, p^{37}\, q^{53}$$
$$+ 3871690703\, p^{38}\, q^{52} + 2666296609\, p^{36}\, q^{52} + 3230278012\, p^{37}\, q^{52} + 264778913\, p^{69}\, q^{31} + 7122212492\, p^{72}\, q^{49} + 13983013617\, p^{73}\, q^{64}$$
$$+ 52685\, p^{58}\, q^{12} + 198021803\, p^{71}\, q^{94} + 1778841\, p^{98}\, q^{45} + 9365824\, p^{101}\, q^{65} + 7177350\, p^{101}\, q^{62} + 1231526\, q^{96}\, p^{40} + 972545\, p^{97}\, q^{41}$$
$$+ 222064\, p^{95}\, q^{34} + 4062569\, p^{103}\, q^{82} + 3553749\, p^{103}\, q^{84} + 49\, q^{101}\, p^{29} + 15\, q^{101}\, p^{28} + 8\, q^{110}\, p^{46} + 2265\, p^{111}\, q^{63} + 5736982\, p^{97}\, q^{95}$$
$$+ 7440582\, p^{95}\, q^{96} + 21138226790\, p^{67}\, q^{58} + 3577436123\, q^{76}\, p^{48} + 4583488857\, q^{76}\, p^{50} + 5664985971\, q^{76}\, p^{52} + 5118182582\, q^{76}\, p^{51}$$
$$+ 6215884068\, q^{76}\, p^{53} + 7294333825\, q^{76}\, p^{55} + 6762125811\, q^{76}\, p^{54} + 6277190749\, q^{77}\, p^{55} + 4067914794\, q^{76}\, p^{49} + 318589469\, q^{91}\, p^{79}$$

$$+ 225542974\, p^{92} q^{80} + 417\, q^{102} p^{33} + 15\, p^{29} q^{3} + 2934797\, p^{82} q^{27} + 8883\, p^{112} q^{93} + 28924\, p^{108} q^{59} + 3\, p^{83} q^{13} + 23089\, p^{108} q^{58}$$
$$+ 22922\, p^{111} q^{90} + 1741878600\, p^{74} q^{85} + 1398507758\, p^{66} q^{87} + 4593296\, p^{102} q^{86} + 785193563\, p^{79} q^{87} + 852777942\, p^{69} q^{89}$$
$$+ 2314860804\, p^{82} q^{77} + 1791930983\, p^{83} q^{78} + 3161991501\, p^{82} q^{73} + 2534914721\, p^{82} q^{76} + 274024585\, p^{51} q^{27} + 1400504558\, p^{52} q^{33}$$
$$+ 26\, p^{25} q^{3} + 1103025408\, p^{52} q^{32} + 857589700\, p^{52} q^{31} + 1756332204\, p^{52} q^{34} + 2176466974\, p^{52} q^{35} + 3934722320\, p^{53} q^{38}$$
$$+ 6414587540\, p^{53} q^{41} + 8460905523\, p^{53} q^{43} + 7402025983\, p^{53} q^{42} + 4678012154\, p^{53} q^{39} + 3274962991\, p^{53} q^{37} + 9581929790\, p^{53} q^{44}$$
$$+ 11009086823\, p^{54} q^{45} + 5505205463\, p^{53} q^{40} + 372222801\, p^{51} q^{28} + 50111\, q^{98} p^{35} + 11565140167\, p^{52} q^{46} + 11564770676\, p^{50} q^{47}$$
$$+ 11004404009\, p^{48} q^{48} + 9957624291\, p^{46} q^{49} + 8560038349\, p^{44} q^{50} + 5391917663\, p^{40} q^{52} + 6981214157\, p^{42} q^{51} + 3934722320\, p^{38} q^{53}$$
$$+ 1919184\, p^{101} q^{53} + 4132306\, p^{102} q^{87} + 1328196\, p^{97} q^{42} + 7448190\, p^{102} q^{79} + 91397187\, p^{60} q^{95} + 6654489\, p^{100} q^{57} + 1677973\, p^{99} q^{47}$$
$$+ 23\, p^{69} q^{9} + 130858\, p^{107} q^{96} + 3816955\, p^{103} q^{83} + 7440582\, p^{96} q^{95} + 75884940\, p^{96} q^{79} + 35\, q^{95} p^{22} + 4\, q^{93} p^{19} + 22\, q^{93} p^{20}$$
$$+ 12263\, q^{101} p^{37} + 353\, q^{95} p^{24} + 60044334\, q^{86} p^{39} + 3\, p^{110} q^{45} + 34\, p^{117} q^{102} + 33\, p^{117} q^{100} + 1773961\, p^{102} q^{93} + 8032416\, p^{92} q^{98}$$
$$+ 4768775\, p^{89} q^{101} + 4138808\, p^{90} q^{101} + 77984893\, q^{86} p^{40} + 5057214\, p^{85} q^{102} + 2538151\, p^{93} q^{101} + 2108187\, p^{94} q^{101} + 6851636\, p^{89} q^{100}$$
$$+ 6867570\, p^{86} q^{101} + 7030445\, p^{91} q^{99} + 3278994\, p^{85} q^{103} + 3816955\, p^{83} q^{103} + 3553749\, p^{84} q^{103} + 2997287\, p^{86} q^{103} + 2434400\, p^{88} q^{103}$$
$$+ 2714373\, p^{87} q^{103} + 2162240\, p^{89} q^{103} + 1654557\, p^{91} q^{103} + 1901076\, p^{90} q^{103} + 1089064\, p^{91} q^{104} + 5902924\, p^{92} q^{99} + 3\, p^{23} q^{2}$$
$$+ 20361057806\, p^{68} q^{59} + 1795\, p^{44} q^{7} + 90517\, q^{60} p^{13} + 6369\, q^{58} p^{10} + 5226275599\, p^{74} q^{78} + 1341557915\, q^{67} p^{36} + 2110176\, q^{63} p^{18}$$
$$+ 21376930\, q^{89} p^{39} + 40315212\, q^{88} p^{40} + 52192287\, q^{88} p^{41} + 425190\, q^{83} p^{24} + 313274\, p^{69} q^{107} + 2815094704\, p^{79} q^{79} + 5374\, p^{111} q^{67}$$
$$+ 934\, p^{108} q^{48} + 8\, p^{95} q^{21} + 81\, p^{102} q^{31} + 15\, p^{101} q^{28} + 20842748142\, p^{66} q^{56} + 486641\, p^{77} q^{107} + 23218612769\, p^{66} q^{60}$$
$$+ 4860151524\, p^{56} q^{79} + 21672490857\, p^{66} q^{57} + 257371952\, q^{87} p^{47} + 305546103\, q^{87} p^{48} + 22201975758\, p^{66} q^{65} + 20618536924\, p^{67} q^{66}$$
$$+ 1690132422\, p^{53} q^{83} + 16815\, p^{76} q^{16} + 286712499\, p^{92} q^{61} + 321572800\, p^{92} q^{63} + 12269994769\, p^{66} q^{74} + 11960432210\, p^{67} q^{74}$$
$$+ 11565140167\, p^{68} q^{74} + 11092675690\, p^{69} q^{74} + 1140\, p^{54} q^{8} + 177\, p^{48} q^{6} + 14315418524\, p^{69} q^{71} + 342548\, p^{97} q^{38} + 482861598\, p^{42} q^{81}$$
$$+ 11164358080\, p^{62} q^{75} + 10981868812\, p^{61} q^{75} + 407473\, q^{102} p^{49} + 523041\, q^{102} p^{50} + 82555651\, p^{91} q^{48} + 65426982\, p^{90} q^{45}$$
$$+ 253222370\, p^{93} q^{65} + 218884720\, p^{93} q^{62} + 185293886\, p^{92} q^{56} + 12486953603\, p^{65} q^{74} + 11265074871\, p^{64} q^{75} + 11259494432\, p^{63} q^{75}$$
$$+ 11180989510\, p^{65} q^{75} + 9581929790\, p^{67} q^{76} + 10419106378\, p^{68} q^{75} + 11009086823\, p^{66} q^{75} + 10753246735\, p^{67} q^{75}$$
$$+ 14845973038\, p^{66} q^{72} + 200910056\, p^{90} q^{85} + 212752067\, p^{89} q^{86} + 311823309\, p^{86} q^{87} + 4648794344\, p^{63} q^{81} + 85120434\, p^{37} q^{83}$$
$$+ 176890220\, q^{87} p^{45} + 214525719\, q^{87} p^{46} + 84297883\, q^{84} p^{38} + 88754\, p^{104} q^{49} + 41138\, p^{103} q^{44} + 418\, p^{115} q^{99} + 461\, p^{115} q^{97}$$

$$+ 1766139\, q^{86} p^{29} + 1102609\, q^{86} p^{28} + 668355\, q^{86} p^{27} + 88754\, q^{104} p^{49} + 290\, p^{98} q^{27} + 4768\, p^{106} q^{46} + 9601\, p^{107} q^{51} + 7427\, p^{104} q^{42}$$
$$+ 7010\, p^{106} q^{47} + 4913\, p^{112} q^{99} + 6267\, p^{112} q^{97} + p^{76} q^{10} + 122\, q^{108} p^{44} + 64\, q^{108} p^{43} + 11960432210\, p^{53} q^{46} + 283\, q^{104} p^{36}$$
$$+ 12180818239\, p^{51} q^{47} + 12725332097\, p^{52} q^{47} + 11808003537\, p^{49} q^{48} + 12565227456\, p^{50} q^{48} + 13261177961\, p^{51} q^{48}$$
$$+ 10889876192\, p^{47} q^{49} + 11808003537\, p^{48} q^{49} + 12695937105\, p^{49} q^{49} + 10553124986\, p^{46} q^{50} + 7945607334\, p^{43} q^{51}$$
$$+ 9546561644\, p^{45} q^{50} + 13537176316\, p^{50} q^{49} + 11564770676\, p^{47} q^{50} + 8960387682\, p^{44} q^{51} + 6268509008\, p^{41} q^{52}$$
$$+ 12565227456\, p^{48} q^{50} + 13537176316\, p^{49} q^{50} + 10013998128\, p^{45} q^{51} + 11092675690\, p^{46} q^{51} + 12180818239\, p^{47} q^{51}$$
$$+ 13261177961\, p^{48} q^{51} + 8232389879\, p^{43} q^{52} + 7217625925\, p^{42} q^{52} + 9303491996\, p^{44} q^{52} + 11960432210\, p^{46} q^{53}$$
$$+ 12725332097\, p^{47} q^{52} + 10419106378\, p^{45} q^{52} + 11565140167\, p^{46} q^{52} + 5505205463\, p^{40} q^{53} + 7402025983\, p^{42} q^{53}$$
$$+ 6414587540\, p^{41} q^{53} + 8460905523\, p^{43} q^{53} + 10753246735\, p^{45} q^{53} + 9581929790\, p^{44} q^{53} + 11009086823\, p^{45} q^{54} + 4678012154\, p^{39} q^{53}$$
$$+ 60106835\, p^{53} q^{94} + 701561604\, p^{83} q^{85} + 16464389\, p^{54} q^{20} + 120613618\, p^{56} q^{25} + 23964783\, p^{93} q^{93} + 930\, q^{48} p^{7} + 279\, q^{46} p^{6}$$
$$+ 5584062988\, p^{64} q^{80} + 39924\, p^{110} q^{74} + 31\, p^{90} q^{18} + 7629\, p^{112} q^{95} + 8288\, p^{112} q^{94} + 952\, p^{113} q^{105} + 2130\, p^{112} q^{104} + 13107\, p^{107} q^{52}$$
$$+ 17\, p^{89} q^{17} + 4055\, p^{105} q^{43} + 561\, p^{99} q^{29} + 36391\, p^{110} q^{73} + 61\, q^{106} p^{38} + 24698454\, p^{65} q^{99} + 17\, q^{40} p^{4} + 16780\, q^{53} p^{10} + 7634\, q^{51} p^{9}$$
$$+ 205044009\, p^{61} q^{93} + 86036\, q^{55} p^{12} + 39574\, q^{54} p^{11} + 17887403\, p^{99} q^{61} + 21392695\, p^{99} q^{63} + 8229067820\, p^{46} q^{67}$$
$$+ 13822714369\, p^{65} q^{73} + 12544824556\, p^{62} q^{74} + 13983013617\, p^{64} q^{73} + 11564770676\, p^{73} q^{70} + 11808003537\, p^{72} q^{71}$$
$$+ 417767629\, p^{89} q^{81} + 1021308\, p^{102} q^{53} + 1481883691\, p^{82} q^{50} + 592018852\, p^{81} q^{43} + 11744\, p^{101} q^{110} + 26216\, p^{111} q^{85} + 43314\, p^{110} q^{75}$$
$$+ 14205\, p^{106} q^{49} + 6213\, p^{105} q^{44} + 279\, p^{114} q^{74} + 134\, p^{116} q^{95} + 131\, p^{116} q^{94} + 32\, p^{117} q^{105} + 105\, p^{116} q^{104} + 22\, p^{93} q^{20}$$
$$+ 15014912414\, p^{68} q^{71} + 13537176316\, p^{71} q^{70} + 4844\, p^{71} q^{13} + 10096\, p^{72} q^{14} + 160098716\, p^{93} q^{58} + 190448943\, p^{93} q^{60}$$
$$+ 198021803\, p^{94} q^{71} + 146198237\, p^{92} q^{54} + 2101\, p^{70} q^{12} + 128057051\, p^{92} q^{53} + 4113073\, p^{99} q^{51} + 2309224\, p^{98} q^{46} + 14342925\, p^{100} q^{64}$$
$$+ 8364823\, p^{99} q^{55} + 172984\, p^{93} q^{31} + 61580\, p^{92} q^{28} + 11565140167\, p^{74} q^{68} + 2255001978\, p^{80} q^{50} + 917927260\, p^{79} q^{43} + 18146\, q^{63} p^{12}$$
$$+ 91583\, p^{107} q^{98} + 76397\, q^{65} p^{14} + 7790\, q^{62} p^{11} + 3348545\, q^{70} p^{21} + 4661490\, q^{71} p^{22} + 7801998\, q^{71} p^{23} + 12668460\, q^{71} p^{24}$$
$$+ 10544\, p^{88} q^{22} + 473\, p^{96} q^{115} + 485\, p^{93} q^{115} + 474\, p^{92} q^{115} + 971\, p^{100} q^{114} + 1065\, p^{99} q^{114} + 1162\, p^{98} q^{114} + 1610\, p^{102} q^{113} + 486\, p^{94} q^{115}$$
$$+ 485\, p^{95} q^{115} + 461\, p^{97} q^{115} + 440\, p^{98} q^{115} + 6388340\, p^{82} q^{102} + 7432973\, p^{102} q^{70} + 1010223\, p^{98} q^{43} + 170\, p^{65} q^{9} + 214525719\, q^{74} p^{33}$$
$$+ 70564907\, p^{96} q^{80} + p^{66} q^{115} + 2\, q^{37} p^{3} + 16389802\, q^{72} p^{25} + 2103229\, p^{98} q^{98} + 9334\, p^{81} q^{112} + 3003732882\, p^{61} q^{83} + 2335182\, p^{104} q^{69}$$
$$+ 3394314\, p^{103} q^{66} + 4138525793\, p^{71} q^{81} + 1665\, p^{63} q^{10} + 3107\, p^{102} q^{112} + 60\, p^{86} q^{116} + 8105\, q^{80} p^{17} + 8251\, q^{99} p^{33} + 14259\, q^{99} p^{34}$$

$$+ 23808\, q^{99}\, p^{35} + 12269994769\, p^{54}\, q^{46} + 13186840191\, p^{53}\, q^{47} + 13881718749\, p^{52}\, q^{48} + 14315418524\, p^{51}\, q^{49} + 14462861059\, p^{50}\, q^{50}$$
$$+ 14315418524\, p^{49}\, q^{51} + 13186840191\, p^{47}\, q^{53} + 13881718749\, p^{48}\, q^{52} + 12269994769\, p^{46}\, q^{54} + 2079358816\, p^{51}\, q^{81}$$
$$+ 2255001978\, p^{50}\, q^{80} + 3003732882\, p^{37}\, q^{59} + 271428817\, p^{71}\, q^{93} + 24698454\, p^{55}\, q^{21} + 82507239\, p^{56}\, q^{24} + 17180343\, p^{79}\, q^{29}$$
$$+ 11378272\, p^{79}\, q^{28} + 50140\, p^{70}\, q^{15} + 236837\, p^{73}\, q^{18} + 989646\, p^{75}\, q^{21} + 3043411\, p^{77}\, q^{24} + 1350869\, p^{76}\, q^{22} + 5026134\, p^{77}\, q^{25}$$
$$+ 1489407835\, p^{84}\, q^{54} + 1533927608\, p^{85}\, q^{57} + 146773907\, p^{82}\, q^{38} + 1341557915\, p^{84}\, q^{53} + 1861450316\, p^{85}\, q^{60} + 1763459879\, p^{86}\, q^{66}$$
$$+ 443891957\, p^{83}\, q^{44} + 2362035\, p^{76}\, q^{23} + 1414073922\, p^{85}\, q^{56} + 148617\, p^{72}\, q^{17} + 693303868\, p^{84}\, q^{48} + 536066593\, p^{83}\, q^{45}$$
$$+ 28406383\, p^{96}\, q^{88} + 53802697\, p^{96}\, q^{83} + 5159032\, p^{96}\, q^{45} + 24698454\, p^{99}\, q^{65} + 19648827\, p^{99}\, q^{62} + 9307\, p^{75}\, q^{15} + 21987881\, p^{52}\, q^{96}$$
$$+ 2\, p^{95}\, q^{118} + 30\, p^{97}\, q^{117} + 109922047\, p^{81}\, q^{36} + 9696695\, p^{78}\, q^{27} + 33\, p^{99}\, q^{117} + 8\, p^{118}\, q^{106} + 2719059\, p^{98}\, q^{97} + 4357669\, p^{98}\, q^{95}$$
$$+ 3258463\, p^{95}\, q^{99} + 5047239\, p^{91}\, q^{100} + 1424630\, p^{103}\, q^{92} + 2395791\, p^{100}\, q^{95} + 5963242\, p^{83}\, q^{102} + 3559465\, p^{93}\, q^{100} + 4132306\, p^{87}\, q^{102}$$
$$+ 4593296\, p^{86}\, q^{102} + 4262656\, p^{92}\, q^{100} + 12668460\, q^{96}\, p^{49} + 181931\, p^{98}\, q^{38} + 477708\, q^{73}\, p^{19} + 1297771\, q^{74}\, p^{21} + 148617\, q^{72}\, p^{17}$$
$$+ 5159032\, q^{75}\, p^{24} + 16140491\, q^{76}\, p^{27} + 19648827\, p^{62}\, q^{99} + 88754\, q^{71}\, p^{16} + 1314843\, q^{62}\, p^{17} + 19202963\, q^{92}\, p^{43} + 24451758\, q^{92}\, p^{44}$$
$$+ 5374\, q^{53}\, p^{9} + 32671892\, q^{62}\, p^{23} + 5061739\, q^{61}\, p^{19} + 177\, q^{48}\, p^{6} + 766\, q^{49}\, p^{7} + 1481883691\, p^{38}\, q^{70} + 1059494052\, p^{36}\, q^{69}$$
$$+ 1342605848\, p^{37}\, q^{69} + 63\, q^{44}\, p^{5} + 101625479\, q^{93}\, p^{54} + 46392388\, q^{93}\, p^{49} + 38438344\, q^{93}\, p^{48} + 55389414\, q^{93}\, p^{50} + 615\, q^{50}\, p^{7}$$
$$+ 76534740\, q^{93}\, p^{52} + 79029777\, q^{65}\, p^{26} + 12771434\, q^{62}\, p^{21} + 16995703372\, p^{56}\, q^{69} + 2170\, q^{51}\, p^{8} + 492\, q^{51}\, p^{7} + 6435\, q^{52}\, p^{9}$$
$$+ 1781\, q^{52}\, p^{8} + 382\, q^{52}\, p^{7} + 321081009\, p^{75}\, q^{92} + 14192\, q^{54}\, p^{10} + 3250677\, q^{60}\, p^{18} + 108566\, q^{59}\, p^{13} + 527831\, q^{59}\, p^{15} + 1767671\, q^{60}\, p^{17}$$
$$+ 289591\, q^{58}\, p^{14} + 608906\, q^{58}\, p^{15} + 52685\, q^{58}\, p^{12} + 62740\, q^{57}\, p^{12} + 11201398\, q^{63}\, p^{21} + 129907439\, q^{64}\, p^{27} + 60183583\, q^{64}\, p^{25}$$
$$+ 89339830\, q^{64}\, p^{26} + 25502504\, q^{64}\, p^{23} + 39651846\, q^{64}\, p^{24} + 104\, q^{50}\, p^{6} + 73914\, q^{56}\, p^{12} + 11834\, q^{55}\, p^{10} + 1140\, q^{54}\, p^{8}$$
$$+ 1532559\, q^{61}\, p^{17} + 8686034\, q^{61}\, p^{20} + 2843135\, q^{61}\, p^{18} + 150765\, q^{57}\, p^{13} + 247867\, q^{59}\, p^{14} + 1431\, q^{53}\, p^{8} + 437240265\, q^{65}\, p^{31}$$
$$+ 165347427\, q^{65}\, p^{28} + 357474107\, q^{64}\, p^{30} + 232545229\, q^{65}\, p^{29} + 115436537\, q^{65}\, p^{27} + 321468320\, q^{65}\, p^{30} + 20711548\, q^{62}\, p^{22}$$
$$+ 23725\, q^{57}\, p^{11} + 33779\, q^{55}\, p^{11} + 19502\, q^{58}\, p^{11} + 384082\, q^{61}\, p^{15} + 9763\, q^{56}\, p^{10} + 128619\, q^{58}\, p^{13} + 209920\, q^{60}\, p^{14} + 18279070\, q^{63}\, p^{22}$$
$$+ 3590\, q^{55}\, p^{9} + 28461\, q^{56}\, p^{11} + 1006195083\, q^{65}\, p^{34} + 6762125811\, q^{66}\, p^{44} + 4936085868\, q^{66}\, p^{42} + 5806040050\, q^{66}\, p^{43}$$
$$+ 4154091833\, q^{66}\, p^{41} + 772993456\, q^{65}\, p^{33} + 7640227\, q^{62}\, p^{20} + 4419167\, q^{62}\, p^{19} + 286493718\, q^{66}\, p^{30} + 585624578\, q^{65}\, p^{32} + 135\, q^{49}\, p^{6}$$
$$+ q^{48}\, p^{4} + 14\, q^{49}\, p^{5} + 32715012\, q^{87}\, p^{38} + 4415\, q^{54}\, p^{9} + 21\, p^{93}\, q^{117} + 17\, p^{92}\, q^{117} + 8\, p^{88}\, q^{117} + 10\, p^{89}\, q^{117} + 3116830865\, q^{76}\, p^{47}$$
$$+ 16136182\, p^{99}\, q^{60} + 20007420\, p^{100}\, q^{71} + 67727162\, p^{57}\, q^{95} + 57104\, p^{108}\, q^{98} + 286884953\, p^{84}\, q^{89} + 212752067\, p^{86}\, q^{89}$$

$$+ 518014\, p^{103}\, q^{53} + 2103872825\, q^{67}\, p^{38} + 6654489\, q^{63}\, p^{20} + 549526\, p^{77}\, q^{21} + 743619\, p^{78}\, q^{22} + 129192\, p^{75}\, q^{18} + 19631057\, p^{83}\, q^{99}$$
$$+ 17762757\, p^{87}\, q^{98} + 15476166\, p^{88}\, q^{98} + 12942186\, p^{91}\, q^{97} + 152891\, p^{69}\, q^{16} + 3810399\, q^{78}\, p^{25} + 36742962\, q^{79}\, p^{31} + 186277457\, q^{80}\, p^{37}$$
$$+ 14072\, q^{108}\, p^{56} + 238503033\, q^{86}\, p^{45} + 92592654\, q^{87}\, p^{42} + 195284247\, q^{86}\, p^{44} + 126470457\, q^{86}\, p^{42} + 158083755\, q^{86}\, p^{43} + 4\, p^{22}\, q^{2}$$
$$+ 21669721086\, p^{67}\, q^{59} + 420984115\, p^{91}\, q^{75} + 10373010594\, p^{59}\, q^{75} + 12365033853\, p^{61}\, q^{74} + 2054\, p^{43}\, q^{7} + 228097691\, p^{70}\, q^{31}$$
$$+ 6279683788\, p^{73}\, q^{49} + 12606500603\, p^{74}\, q^{64} + 7889164\, q^{83}\, p^{30} + 10814045\, q^{82}\, p^{30} + 7172598\, q^{82}\, p^{29} + 18973311672\, p^{51}\, q^{61}$$
$$+ 20361057806\, p^{52}\, q^{61} + 13509949094\, p^{48}\, q^{63} + 15550084282\, p^{49}\, q^{62} + 17004796899\, p^{50}\, q^{62} + 28841\, p^{109}\, q^{99} + 40331\, p^{109}\, q^{97}$$
$$+ 16\, p^{73}\, q^{10} + 2\, p^{59}\, q^{6} + 21672490857\, p^{63}\, q^{54} + 21944586661\, p^{64}\, q^{55} + 10769909104\, p^{63}\, q^{46} + 13555324805\, p^{54}\, q^{47}$$
$$+ 14413785712\, p^{53}\, q^{48} + 14845973038\, p^{54}\, q^{48} + 15621117207\, p^{53}\, q^{49} + 15014912414\, p^{52}\, q^{49} + 16121026462\, p^{54}\, q^{49}$$
$$+ 15324454215\, p^{51}\, q^{50} + 16104754354\, p^{52}\, q^{50} + 16787574733\, p^{53}\, q^{50} + 15014912414\, p^{49}\, q^{52} + 15324454215\, p^{50}\, q^{51}$$
$$+ 16269147073\, p^{51}\, q^{51} + 17358438012\, p^{54}\, q^{50} + 16104754354\, p^{50}\, q^{52} + 17130724910\, p^{52}\, q^{51} + 14413785712\, p^{48}\, q^{53}$$
$$+ 17891537294\, p^{53}\, q^{51} + 18535462672\, p^{54}\, q^{51} + 17130724910\, p^{51}\, q^{52} + 18911492477\, p^{53}\, q^{52} + 18072716200\, p^{52}\, q^{52}$$
$$+ 19629484918\, p^{54}\, q^{52} + 16787574733\, p^{50}\, q^{53} + 18911492477\, p^{52}\, q^{53} + 17891537294\, p^{51}\, q^{53} + 19826872159\, p^{53}\, q^{53}$$
$$+ 20618536924\, p^{54}\, q^{53} + 15621117207\, p^{49}\, q^{53} + 16121026462\, p^{49}\, q^{54} + 14845973038\, p^{48}\, q^{54} + 19629484918\, p^{52}\, q^{54}$$
$$+ 21482176398\, p^{54}\, q^{54} + 22988675278\, p^{55}\, q^{55} + 17358438012\, p^{50}\, q^{54} + 20618536924\, p^{53}\, q^{54} + 18535462672\, p^{51}\, q^{54}$$
$$+ 13555324805\, p^{47}\, q^{54} + 60183583\, p^{56}\, q^{95} + 79029777\, p^{55}\, q^{94} + 68698\, p^{79}\, q^{19} + 47378\, p^{99}\, q^{108} + 117423\, p^{104}\, q^{50} + 1431\, p^{67}\, q^{112}$$
$$+ 89339830\, p^{56}\, q^{94} + 23150815775\, p^{66}\, q^{63} + 23358793201\, p^{66}\, q^{62} + 486941\, p^{106}\, q^{90} + 1603478\, p^{105}\, q^{74} + 1554807\, p^{105}\, q^{73}$$
$$+ 540898\, p^{106}\, q^{89} + 1661695\, p^{105}\, q^{76} + 1669810\, p^{105}\, q^{77} + 260844\, p^{107}\, q^{91} + 891902\, p^{106}\, q^{81} + 1423643\, p^{105}\, q^{71} + 699626\, p^{106}\, q^{86}$$
$$+ 648234\, p^{106}\, q^{87} + 923193\, p^{106}\, q^{79} + 13268260\, p^{47}\, q^{95} + 645568\, q^{51}\, p^{14} + 313274\, q^{51}\, p^{13} + 5044754\, p^{102}\, q^{64} + 2767087\, p^{101}\, q^{55}$$
$$+ 10545\, p^{100}\, q^{35} + 64\, p^{84}\, q^{15} + 74446\, p^{71}\, q^{109} + 5026\, p^{61}\, q^{110} + 12682\, p^{60}\, q^{109} + 260844\, p^{91}\, q^{107} + 692\, p^{92}\, q^{22} + 142240\, p^{108}\, q^{69}$$
$$+ 227425\, p^{107}\, q^{66} + 31488441\, p^{97}\, q^{85} + 3986402\, p^{90}\, q^{35} + 12660\, p^{79}\, q^{17} + 730392\, p^{87}\, q^{28} + 154025\, p^{84}\, q^{23} + 1915906\, p^{88}\, q^{31}$$
$$+ 120613618\, p^{95}\, q^{64} + 79029777\, p^{94}\, q^{55} + 43947536\, p^{94}\, q^{51} + 25510942\, p^{93}\, q^{46} + 1915906\, p^{89}\, q^{32} + 100063941\, p^{94}\, q^{57}$$
$$+ 24451758\, p^{92}\, q^{44} + 98690509\, p^{96}\, q^{69} + 43962\, p^{82}\, q^{20} + 7172598\, p^{91}\, q^{38} + 131708667\, p^{95}\, q^{66} + 7427\, p^{78}\, q^{16} + 38438344\, p^{93}\, q^{48}$$
$$+ 30743132\, p^{92}\, q^{45} + 126566314\, p^{95}\, q^{65} + 106805516\, p^{95}\, q^{62} + 89339830\, p^{94}\, q^{56} + 75517813\, p^{95}\, q^{58} + 91397187\, p^{95}\, q^{60}$$
$$+ 100058149\, p^{96}\, q^{71} + 69255229\, p^{94}\, q^{54} + 934\, p^{72}\, q^{12} + 60106835\, p^{94}\, q^{53} + 2\, p^{53}\, q^{5} + 23381542063\, p^{66}\, q^{61} + 2938109\, p^{100}\, q^{94}$$

$$+ 6630640\, p^{93} q^{98} + 22873646715\, p^{59} q^{66} + 22037565196\, p^{60} q^{67} + 6867\, p^{77} q^{112} + 806276996\, p^{49} q^{84} + p^{38} q^{3} + 533311331\, p^{90} q^{61}$$
$$+ 589940070\, p^{90} q^{63} + 12004722\, p^{94} q^{95} + 24262554\, p^{89} q^{96} + 27\, p^{107} q^{117} + 29\, p^{106} q^{117} + 34\, p^{102} q^{117} + 34\, p^{103} q^{117} + 65490308\, p^{97} q^{75}$$
$$+ 12997\, p^{81} q^{18} + 60258\, p^{83} q^{21} + 79079\, p^{84} q^{22} + 164\, p^{69} q^{10} + 30630321\, p^{98} q^{82} + 25332543\, p^{98} q^{84} + 18\, p^{55} q^{6} + 2754913\, p^{90} q^{34}$$
$$+ 253046\, p^{87} q^{26} + 11378272\, p^{92} q^{41} + 6362847\, p^{92} q^{39} + 5193240\, p^{91} q^{37} + 1864714\, p^{90} q^{33} + 8573924\, p^{92} q^{40} + 3694611\, p^{91} q^{36}$$
$$+ 797753\, p^{89} q^{30} + 9696695\, p^{93} q^{42} + 38085844\, p^{98} q^{79} + 73071\, p^{101} q^{106} + 37127106\, p^{92} q^{92} + 142038669\, p^{71} q^{95} + 29002617\, p^{57} q^{97}$$
$$+ 82507239\, p^{64} q^{96} + 17762757\, p^{98} q^{87} + 19640\, p^{82} q^{19} + 7030445\, p^{99} q^{91} + 33228186\, p^{98} q^{81} + 63278553\, p^{97} q^{76} + 60631200\, p^{97} q^{77}$$
$$+ 68414252\, p^{97} q^{73} + 13347126\, p^{98} q^{89} + 67214270\, p^{97} q^{74} + 63946142\, p^{97} q^{67} + 37004171\, p^{94} q^{50} + 339\, p^{71} q^{11} + 20187189\, p^{98} q^{86}$$
$$+ 7392\, q^{101} p^{36} + 8\, q^{88} p^{16} + 941060863\, p^{77} q^{87} + 1428131557\, p^{86} q^{74} + 1766993516\, p^{86} q^{67} + 1643058380\, p^{86} q^{71}$$
$$+ 1581014290\, p^{86} q^{72} + 1756332204\, p^{86} q^{68} + 1340470037\, p^{86} q^{75} + 26593\, p^{69} q^{14} + 13107\, p^{68} q^{13} + 37\, q^{109} p^{45} + 27843517\, p^{86} q^{97}$$
$$+ 494767\, q^{107} p^{80} + q^{97} p^{22} + 23085061\, p^{81} q^{99} + 19155887\, p^{77} q^{100} + 24702740\, p^{80} q^{99} + 7691417\, p^{71} q^{102} + 12082236\, p^{78} q^{101}$$
$$+ 11611541\, p^{79} q^{101} + 3020448\, p^{101} q^{92} + 92600\, p^{100} q^{106} + 868\, p^{101} q^{114} + 1375\, p^{103} q^{113} + 418\, p^{99} q^{115} + 496485\, p^{79} q^{107}$$
$$+ 928638506\, p^{84} q^{50} + 363555667\, p^{83} q^{43} + 68352575\, q^{91} p^{47} + 133\, p^{100} q^{116} + 3986402\, q^{85} p^{30} + 157286\, q^{108} p^{70} + 82555651\, q^{91} p^{48}$$
$$+ 116638662\, q^{91} p^{50} + 158214802\, q^{91} p^{52} + 136521931\, q^{91} p^{51} + 181589443\, q^{91} p^{53} + 206448900\, q^{91} p^{54} + 98643843\, q^{91} p^{49}$$
$$+ 11092675690\, p^{74} q^{69} + 17140350\, p^{96} q^{91} + 9090562799\, p^{59} q^{76} + 9664659481\, p^{61} q^{76} + 9950300303\, p^{63} q^{76} + 9845774618\, p^{62} q^{76}$$
$$+ 9975892481\, p^{64} q^{76} + 9789622921\, p^{66} q^{76} + 9921920869\, p^{65} q^{76} + 8626088044\, p^{66} q^{77} + 9411059110\, p^{60} q^{76} + 58866\, p^{84} q^{110}$$
$$+ 2103872825\, p^{53} q^{82} + 743239\, q^{99} p^{44} + 285661\, q^{100} p^{43} + 8710176822\, p^{58} q^{76} + 3614926212\, p^{57} q^{81} + 176890220\, p^{87} q^{45}$$
$$+ 34840343\, p^{85} q^{36} + 484481488\, p^{89} q^{56} + 225826137\, p^{88} q^{48} + 38\, q^{97} p^{24} + 3517750200\, p^{60} q^{82} + 342346275\, p^{44} q^{84}$$
$$+ 211683434\, p^{43} q^{85} + 9\, p^{50} q^{5} + 10750509\, p^{97} q^{92} + 4301740893\, p^{73} q^{80} + 81\, q^{43} p^{5} + 2962336222\, p^{82} q^{74} + 3934722320\, p^{82} q^{67}$$
$$+ 3513908786\, p^{82} q^{71} + 3347103646\, p^{82} q^{72} + 3871690703\, p^{82} q^{68} + 2752003473\, p^{82} q^{75} + 561988\, q^{104} p^{57} + 2\, p^{26} q^{2}$$
$$+ 22762332666\, p^{66} q^{64} + 224899\, p^{75} q^{108} + 39\, p^{111} q^{52} + p^{103} q^{29} + 222\, p^{114} q^{73} + 8\, p^{109} q^{43} + 2018731\, p^{103} q^{61} + 2556355\, p^{103} q^{63}$$
$$+ 2703809\, p^{104} q^{72} + 1789749\, p^{102} q^{56} + 3116884\, p^{103} q^{65} + 2282527\, p^{103} q^{62} + 1500483\, p^{105} q^{82} + 1351355\, p^{105} q^{84} + 2110176\, p^{102} q^{57}$$
$$+ 1430496\, p^{105} q^{83} + 29\, p^{112} q^{116} + 195169\, p^{88} q^{108} + 14884175\, q^{92} p^{42} + 11378272\, q^{92} p^{41} + 11307\, q^{104} p^{43} + 7427\, q^{104} p^{42}$$
$$+ 16815\, q^{104} p^{44} + 13564\, q^{105} p^{46} + 48277\, q^{104} p^{47} + 24388\, q^{104} p^{45} + 34675\, q^{104} p^{46} + 2\, q^{104} p^{31} + 30457702\, p^{70} q^{99}$$
$$+ 16464389\, p^{66} q^{100} + 8573924\, q^{92} p^{40} + 158938\, p^{94} q^{32} + 11201398\, p^{99} q^{57} + 2956406\, p^{98} q^{47} + 29962\, p^{90} q^{25} + 911523\, p^{106} q^{80}$$

$$+ 595084\, p^{106} q^{88} + 10051987\, p^{98} q^{53} + 63742650\, q^{84} p^{37} + 30214\, q^{107} p^{55} + 45899\, p^{109} q^{67} + 10096\, p^{106} q^{48} + 92\, p^{93} q^{21} + 905\, p^{100} q^{31}$$
$$+ 237\, p^{99} q^{28} + 32\, p^{78} q^{12} + 452631\, p^{105} q^{60} + 2767087\, q^{101} p^{55} + 3268237\, q^{101} p^{56} + 88667238\, p^{95} q^{81} + 4738774371\, p^{65} q^{81}$$
$$+ 60708\, q^{62} p^{13} + 19152439\, q^{66} p^{23} + 382915\, p^{65} q^{16} + 7118563\, q^{66} p^{21} + 151425824\, p^{88} q^{89} + 125701827\, p^{89} q^{89} + 103177757\, p^{90} q^{89}$$
$$+ 14952721\, p^{95} q^{93} + 7121461\, p^{69} q^{102} + 1314843\, p^{103} q^{58} + 180440133\, p^{87} q^{89} + 322191\, q^{62} p^{15} + 34840343\, q^{85} p^{36} + 526\, q^{62} p^{9}$$
$$+ 18229002\, q^{86} p^{35} + 12992114\, q^{86} p^{34} + 2406\, q^{66} p^{11} + 84\, q^{57} p^{7} + 1513192533\, q^{68} p^{37} + 304391582\, q^{68} p^{31} + 722043193\, q^{68} p^{34}$$
$$+ 412037662\, q^{68} p^{32} + 60106835\, q^{67} p^{26} + 88622442\, q^{67} p^{27} + 549377753\, q^{68} p^{33} + 936040226\, q^{68} p^{35} + 39894078\, q^{67} p^{25}$$
$$+ 3192775741\, p^{63} q^{83} + 1171025569\, p^{54} q^{85} + 2328304248\, p^{60} q^{84} + 1292442574\, p^{55} q^{85} + 28\, p^{105} q^{35} + p^{97} q^{22} + 492\, p^{113} q^{69}$$
$$+ 1140\, p^{112} q^{66} + 998\, p^{111} q^{60} + 615\, p^{113} q^{70} + 1781\, p^{112} q^{68} + 274\, p^{112} q^{61} + 1306\, p^{114} q^{86} + 658\, p^{114} q^{79} + p^{98} q^{23} + 440\, p^{115} q^{98}$$
$$+ 398\, p^{110} q^{53} + 2311\, p^{113} q^{78} + 527\, p^{109} q^{50} + 1369\, p^{114} q^{87} + p^{99} q^{24} + 407222455\, p^{48} q^{86} + 476797248\, p^{49} q^{86} + 46882201\, p^{92} q^{47}$$
$$+ 510394\, p^{84} q^{25} + 1766139\, p^{86} q^{29} + 286327\, p^{84} q^{24} + 998037\, p^{85} q^{27} + p^{93} q^{118} + 908931391\, p^{54} q^{86} + 481347322\, p^{51} q^{87}$$
$$+ 813789449\, p^{53} q^{86} + 634752909\, p^{51} q^{86} + 722043193\, p^{52} q^{86} + 28406383\, p^{88} q^{96} + 28144\, q^{100} p^{37} + 118\, p^{113} q^{64} + 21\, p^{112} q^{55}$$
$$+ 147\, p^{115} q^{80} + 392\, p^{115} q^{88} + 112\, p^{116} q^{103} + 117\, p^{116} q^{92} + 37\, p^{112} q^{56} + 5963242\, p^{102} q^{83} + 8827375\, p^{97} q^{93} + 2074874203\, p^{58} q^{84}$$
$$+ 3779071296\, p^{69} q^{82} + 3463999118\, p^{74} q^{81} + 4052970\, q^{93} p^{39} + 2934797\, q^{93} p^{38} + 2352991\, q^{92} p^{36} + 2528247259\, p^{62} q^{84}$$
$$+ 3293664898\, p^{66} q^{83} + 1715\, q^{67} p^{11} + 13107\, q^{68} p^{13} + 2415\, p^{89} q^{21} + 2538151\, p^{101} q^{93} + 4020423\, p^{99} q^{94} + 2397\, q^{101} p^{34}$$
$$+ 115313\, p^{86} q^{109} + 284291\, q^{107} p^{68} + 370751113\, p^{68} q^{92} + 398427\, p^{101} q^{101} + 875\, p^{94} q^{24} + 3\, p^{68} q^{8} + p^{119} q^{107} + 5\, p^{118} q^{112}$$
$$+ 16\, p^{117} q^{111} + 35\, p^{116} q^{111} + 7\, p^{117} q^{115} + 17\, p^{114} q^{116} + 18\, p^{110} q^{117} + 5\, p^{111} q^{118} + 11\, p^{113} q^{117} + 29\, p^{116} q^{112} + 53\, p^{115} q^{112} + p^{119} q^{111}$$
$$+ 44\, p^{116} q^{110} + 70\, p^{111} q^{115} + 28\, p^{115} q^{114} + 45\, p^{114} q^{114} + 64\, p^{113} q^{114} + 11\, p^{117} q^{113} + 53\, p^{112} q^{115} + 40\, p^{113} q^{115} + 10553124986\, p^{70} q^{74}$$
$$+ 9303491996\, p^{68} q^{76} + 10013998128\, p^{69} q^{75} + 10553124986\, p^{74} q^{70} + 10889876192\, p^{73} q^{71} + 366335402\, p^{85} q^{87}$$
$$+ 10013998128\, p^{75} q^{69} + 8460905523\, p^{67} q^{77} + 4583488857\, p^{76} q^{50} + 1930168387\, p^{75} q^{43} + 1603859066\, p^{75} q^{42} + 33779\, p^{65} q^{109}$$
$$+ 331\, p^{97} q^{26} + 6963\, p^{112} q^{96} + 49\, p^{91} q^{19} + 2931\, p^{104} q^{40} + 1744\, p^{104} q^{39} + 3\, p^{85} q^{14} + p^{79} q^{11} + 840\, p^{102} q^{34} + 112944\, p^{67} q^{108}$$
$$+ 204735934\, p^{81} q^{92} + 14\, p^{79} q^{12} + 209920\, p^{106} q^{60} + 2284\, p^{111} q^{106} + 137110\, p^{100} q^{105} + 2171399720\, p^{81} q^{79} + 2735397518\, p^{59} q^{83}$$
$$+ 1341557915\, p^{53} q^{84} + 207530\, p^{96} q^{106} + 20505179\, p^{90} q^{96} + 9515177\, p^{95} q^{95} + 22720860\, p^{85} q^{98} + 18142372\, p^{89} q^{97}$$
$$+ 27982568\, p^{83} q^{98} + p^{28} q^{2} + 17140350\, p^{91} q^{96} + 24342195\, q^{87} p^{37} + 6239292\, q^{88} p^{34} + 17829402\, q^{87} p^{36} + 9091444\, q^{87} p^{34}$$
$$+ 12844669\, q^{87} p^{35} + 4192797\, q^{86} p^{31} + 9728085\, q^{64} p^{21} + 1888883296\, q^{68} p^{38} + 80904508\, p^{96} q^{78} + 144018487\, p^{94} q^{61}$$

$$+ 164038894\, p^{94} q^{63} + 21\, p^{117} q^{93} + 15\, p^{113} q^{59} + 7945607334\, p^{77} q^{69} + 7606741279\, p^{77} q^{70} + 8646902091\, p^{74} q^{73} + 9417305391\, p^{73} q^{73}$$
$$+ 172927\, p^{99} q^{105} + 32\, p^{105} q^{117} + 617\, p^{107} q^{113} + 6563757222\, p^{76} q^{74} + 8464540228\, p^{72} q^{75} + 45514\, p^{96} q^{32} + 8769\, p^{92} q^{25}$$
$$+ 9307\, p^{105} q^{45} + 2848\, p^{102} q^{36} + 3107\, p^{112} q^{102} + 3030\, p^{103} q^{38} + 4279\, p^{112} q^{100} + 24023\, p^{111} q^{89} + 46582\, p^{110} q^{76} + 49561\, p^{110} q^{77}$$
$$+ 9912\, p^{112} q^{91} + 24510\, p^{111} q^{81} + 29353\, p^{110} q^{71} + 4731\, p^{104} q^{41} + 157286\, p^{108} q^{70} + 284291\, p^{107} q^{68} + 135\, p^{104} q^{35} + 9\, p^{96} q^{22}$$
$$+ 2170\, p^{112} q^{69} + 4415\, p^{111} q^{66} + 3919\, p^{110} q^{60} + 2624\, p^{112} q^{70} + 6435\, p^{111} q^{68} + 1339\, p^{111} q^{61} + 4071\, p^{113} q^{86} + 2583\, p^{113} q^{79}$$
$$+ 10\, p^{97} q^{23} + 1162\, p^{114} q^{98} + 1715\, p^{109} q^{53} + 7541\, p^{112} q^{78} + 2101\, p^{108} q^{50} + 4171\, p^{113} q^{87} + 9\, p^{98} q^{24} + 267763124\, q^{93} p^{67}$$
$$+ 11307\, q^{77} p^{16} + 2032\, q^{76} p^{14} + 3150\, q^{75} p^{14} + 9957624291\, p^{74} q^{71} + 6802246167\, p^{77} q^{72} + 8960387682\, p^{69} q^{76} + 22720860\, p^{98} q^{85}$$
$$+ 2580207\, p^{91} q^{35} + 8105\, p^{80} q^{17} + 472361\, p^{88} q^{28} + 99629\, p^{85} q^{23} + 1252072\, p^{89} q^{31} + 82507239\, p^{96} q^{64} + 52983252\, p^{95} q^{55}$$
$$+ 28859245\, p^{95} q^{51} + 16658626\, p^{94} q^{46} + 1234580\, p^{90} q^{32} + 67727162\, p^{95} q^{57} + 16140491\, p^{93} q^{44} + 67602251\, p^{97} q^{69} + 28144\, p^{83} q^{20}$$
$$+ 4647199\, p^{92} q^{38} + 90876173\, p^{96} q^{66} + 4731\, p^{79} q^{16} + 25399499\, p^{94} q^{48} + 20418602\, p^{93} q^{45} + 86953732\, p^{96} q^{65} + 72417100\, p^{96} q^{62}$$
$$+ 60183583\, p^{95} q^{56} + 50254195\, p^{96} q^{58} + 61404323\, p^{96} q^{60} + 69139619\, p^{97} q^{71} + 46199672\, p^{95} q^{54} + 592\, p^{73} q^{12} + 39894078\, p^{95} q^{53}$$
$$+ 5746728\, p^{50} q^{98} + 151530538\, p^{78} q^{94} + 98791841\, p^{85} q^{93} + 108566\, p^{107} q^{61} + 150765\, p^{107} q^{63} + 186705\, p^{108} q^{72} + 95943\, p^{106} q^{56}$$
$$+ 174706\, p^{107} q^{64} + 76397\, p^{106} q^{55} + 580\, p^{104} q^{114} + 269\, p^{108} q^{114} + 263\, p^{104} q^{115} + 124384\, p^{109} q^{80} + 104339\, p^{109} q^{88} + 68\, p^{67} q^{9}$$
$$+ 35730247\, p^{98} q^{80} + 15476166\, p^{98} q^{88} + 27982568\, p^{98} q^{83} + 4055\, p^{77} q^{15} + 20690860\, p^{94} q^{47} + 222064\, p^{86} q^{25} + 774685\, p^{88} q^{29}$$
$$+ 120752\, p^{86} q^{24} + 437331\, p^{87} q^{27} + 40249209\, p^{98} q^{78} + 66974779\, p^{96} q^{61} + 77627457\, p^{96} q^{63} + 69059935\, p^{97} q^{72} + 66021567\, p^{97} q^{68}$$
$$+ 11392000\, p^{98} q^{90} + 55799685\, p^{96} q^{59} + 68648811\, p^{97} q^{70} + 12595455\, p^{93} q^{43} + 921\, p^{75} q^{13} + 2032\, p^{76} q^{14} + 34105112\, p^{95} q^{52}$$
$$+ 30826141\, p^{94} q^{49} + 425\, q^{100} p^{30} + 19632\, q^{106} p^{50} + 35462\, q^{106} p^{52} + 26593\, q^{106} p^{51} + 46476\, q^{106} p^{53} + 60046\, q^{106} p^{54} + 14205\, q^{106} p^{49}$$
$$+ 4067914794\, p^{76} q^{49} + 8753263159\, p^{77} q^{64} + 32449\, p^{94} q^{29} + 3944\, p^{113} q^{85} + 5525\, p^{112} q^{75} + 1415\, p^{108} q^{49} + 558\, p^{107} q^{44} + p^{95} q^{20}$$
$$+ 268463\, q^{101} p^{45} + 45373\, q^{102} p^{42} + 196311\, q^{101} p^{44} + 99426\, q^{101} p^{42} + 141090\, q^{101} p^{43} + 3037\, q^{98} p^{30} + 6975\, q^{97} p^{30}$$
$$+ 89636659\, p^{76} q^{96} + 6302128\, p^{97} q^{48} + 3851\, p^{113} q^{93} + 10028\, p^{109} q^{59} + 7790\, p^{109} q^{58} + 10318\, p^{112} q^{90} + 332\, p^{114} q^{107} + 23\, p^{94} q^{117}$$
$$+ 121999\, p^{79} q^{109} + 25969\, p^{70} q^{110} + 22693\, p^{69} q^{110} + 6\, p^{118} q^{109} + 6\, p^{118} q^{110} + 64\, p^{114} q^{113} + 40\, p^{115} q^{113} + 5\, p^{118} q^{111} + 3\, p^{118} q^{115}$$
$$+ 100\, p^{113} q^{113} + p^{119} q^{113} + 44\, p^{110} q^{116} + 35\, p^{111} q^{116} + 5\, p^{117} q^{116} + 91\, p^{114} q^{112} + 9\, p^{117} q^{114} + 4\, p^{118} q^{114} + 12\, p^{116} q^{115} + 22\, p^{113} q^{116}$$
$$+ 20\, p^{115} q^{115} + 118494\, p^{78} q^{109} + 19642\, p^{68} q^{110} + p^{119} q^{106} + 24\, p^{108} q^{117} + 8232389879\, p^{77} q^{68} + 242\, p^{80} q^{14} + 245967\, p^{95} q^{106}$$
$$+ 164171667\, p^{92} q^{83} + 79908724\, p^{92} q^{88} + 68\, p^{74} q^{11} + 9318129147\, p^{74} q^{72} + 7871393585\, p^{75} q^{73} + 1505\, p^{91} q^{114} + 16522\, p^{75} q^{111}$$

$$+ 30630321\, p^{82}\, q^{98} + 322191\, p^{105}\, q^{58} + 1089575568\, p^{75}\, q^{87} + 382\, p^{112}\, q^{62} + 1142\, p^{114}\, q^{84} + 373\, p^{111}\, q^{57} + 1044\, p^{114}\, q^{83} + 362\, p^{115}\, q^{101}$$
$$+ 952\, p^{114}\, q^{82} + 7738\, p^{110}\, q^{103} + 2782561639\, p^{78}\, q^{80} + 4775317\, p^{103}\, q^{78} + 8348381\, p^{84}\, q^{101} + 10\, p^{117}\, q^{89} + 6\, p^{116}\, q^{77} + p^{117}\, q^{81}$$
$$+ 5\, p^{116}\, q^{76} + 5408982\, p^{98}\, q^{94} + 4136983\, p^{100}\, q^{54} + 699808\, p^{97}\, q^{40} + 494521\, p^{97}\, q^{39} + 425190\, p^{96}\, q^{37} + 2436126938\, p^{61}\, q^{84}$$
$$+ 2602644247\, p^{63}\, q^{84} + 1414073922\, p^{56}\, q^{85} + 1759772838\, p^{59}\, q^{85} + 1649877205\, p^{58}\, q^{85} + 1006195083\, p^{55}\, q^{86} + 1533927608\, p^{57}\, q^{85}$$
$$+ 3285986160\, p^{65}\, q^{83} + 140690925\, p^{95}\, q^{72} + 139135362\, p^{95}\, q^{68} + 464332\, p^{83}\, q^{107} + 3658941275\, p^{70}\, q^{82} + 3274962991\, p^{67}\, q^{83}$$
$$+ 2207049953\, p^{59}\, q^{84} + 1051680529\, p^{53}\, q^{85} + 20505179\, p^{96}\, q^{90} + 2483996882\, p^{79}\, q^{80} + 552790389\, p^{50}\, q^{86} + 2855578\, p^{100}\, q^{52}$$
$$+ 2693785\, p^{99}\, q^{49} + 35\, q^{98}\, p^{25} + 1350869\, p^{98}\, q^{44} + 7121461\, p^{102}\, q^{69} + 10053341\, p^{101}\, q^{66} + 166056\, p^{108}\, q^{90} + 441620\, p^{107}\, q^{74}$$
$$+ 420018\, p^{107}\, q^{73} + 417\, p^{87}\, q^{18} + 53734\, p^{109}\, q^{95} + 60951\, p^{109}\, q^{94} + 4781\, p^{110}\, q^{105} + 9772\, p^{109}\, q^{104} + 989646\, p^{99}\, q^{45} + 538007\, p^{98}\, q^{41}$$
$$+ 120752\, p^{96}\, q^{34} + 1223\, p^{114}\, q^{85} + 1558\, p^{113}\, q^{75} + 339\, p^{109}\, q^{49} + 122\, p^{108}\, q^{44} + 497482976\, p^{46}\, q^{84} + 590278538\, p^{47}\, q^{84}$$
$$+ 693303868\, p^{48}\, q^{84} + 9781582\, p^{100}\, q^{60} + 12587265\, p^{101}\, q^{71} + 1072110\, q^{105}\, p^{67} + 55799685\, p^{59}\, q^{96} + 16350097\, p^{53}\, q^{97}$$
$$+ 4661490\, p^{49}\, q^{98} + 22210329\, p^{55}\, q^{97} + 161442412\, p^{77}\, q^{94} + 72417100\, p^{62}\, q^{96} + 13812949\, p^{52}\, q^{97} + 19152439\, p^{54}\, q^{97} + 89203\, p^{73}\, q^{109}$$
$$+ 262\, p^{52}\, q^{110} + 6729804428\, q^{77}\, p^{56} + 11720759\, q^{83}\, p^{31} + 192485593\, p^{67}\, q^{94} + 7155358854\, q^{77}\, p^{57} + 8187851198\, q^{77}\, p^{60}$$
$$+ 7892038430\, q^{77}\, p^{59} + 8712414102\, q^{77}\, p^{63} + 8724284556\, q^{77}\, p^{65} + 7530362140\, q^{78}\, p^{66} + 8426487806\, q^{77}\, p^{61} + 8753263159\, q^{77}\, p^{64}$$
$$+ 8602648531\, q^{77}\, p^{62} + 7545424351\, q^{77}\, p^{58} + 1110464901\, p^{83}\, q^{82} + 1508859794\, p^{73}\, q^{86} + 1581014290\, p^{72}\, q^{86} + 69139619\, p^{71}\, q^{97}$$
$$+ 412037662\, p^{88}\, q^{52} + 401502\, p^{86}\, q^{107} + 234982\, p^{76}\, q^{108} + 441620\, p^{74}\, q^{107} + 99\, p^{78}\, q^{115} + 30467678\, p^{75}\, q^{99} + 15707008\, p^{81}\, q^{100}$$
$$+ 14625011\, p^{82}\, q^{100} + 12342551\, p^{84}\, q^{100} + 11183742\, p^{85}\, q^{100} + 4890\, q^{102}\, p^{37} + 249\, q^{103}\, p^{34} + 2848\, q^{102}\, p^{36} + 840\, q^{102}\, p^{34}$$
$$+ 1580\, q^{102}\, p^{35} + 300\, q^{101}\, p^{31} + 4\, p^{118}\, q^{98} + 9\, p^{116}\, q^{78} + 7\, p^{117}\, q^{87} + 5\, p^{117}\, q^{86} + 14374144\, p^{86}\, q^{99} + 10889876192\, p^{71}\, q^{73}$$
$$+ 8460905523\, p^{77}\, q^{67} + 6215884068\, p^{76}\, q^{53} + 2298584321\, p^{75}\, q^{44} + 8724284556\, p^{77}\, q^{65} + 7530362140\, p^{78}\, q^{66} + 8187851198\, p^{77}\, q^{60}$$
$$+ 7155358854\, p^{77}\, q^{57} + 6762125811\, p^{76}\, q^{54} + 523041\, p^{70}\, q^{18} + 2139826\, p^{72}\, q^{21} + p^{109}\, q^{41} + 9303491996\, p^{76}\, q^{68} + 11004404009\, p^{72}\, q^{72}$$
$$+ 592\, q^{73}\, p^{12} + 19192\, q^{78}\, p^{17} + 4055\, q^{77}\, p^{15} + 921\, q^{75}\, p^{13} + 7427\, q^{78}\, p^{16} + 20187189\, p^{86}\, q^{98} + 15406229\, p^{90}\, q^{97} + 2902586\, q^{88}\, p^{32}$$
$$+ 1864714\, q^{87}\, p^{30} + 392335\, q^{86}\, p^{26} + 185293886\, q^{92}\, p^{56} + 41792746\, q^{90}\, p^{43} + 32784191\, q^{90}\, p^{42} + 52610150\, q^{90}\, p^{44} + 65426982\, q^{90}\, p^{45}$$
$$+ 205774881\, q^{92}\, p^{57} + 267328616\, q^{92}\, p^{60} + 247132919\, q^{92}\, p^{59} + 321572800\, q^{92}\, p^{63} + 348883886\, q^{92}\, p^{65} + 286712499\, q^{92}\, p^{61}$$
$$+ 336336120\, q^{92}\, p^{64} + 304917866\, q^{92}\, p^{62} + 226499180\, q^{92}\, p^{58} + 1183448\, q^{87}\, p^{29} + 730392\, q^{87}\, p^{28} + 25380373\, q^{90}\, p^{41}$$
$$+ 19380886\, q^{90}\, p^{40} + 8470250\, q^{89}\, p^{36} + 11720759\, q^{89}\, p^{37} + 15952462\, q^{89}\, p^{38} + 814169952\, p^{74}\, q^{38} + 6729804428\, p^{77}\, q^{56} + 144\, p^{113}\, q^{112}$$

$$+ p^{106} q^{119} + 153641 p^{95} q^{107} + p^{119} q^{117} + 220705 p^{86} q^{108} + 11284327447 p^{74} q^{58} + 11727739906 p^{74} q^{59} + 10910 p^{86} q^{112}$$
$$+ 26011 p^{86} q^{111} + 31331 p^{101} q^{108} + 3 p^{112} q^{52} + 28 p^{115} q^{73} + 65592 p^{102} q^{43} + 112527611 p^{84} q^{93} + 15223497 p^{94} q^{94} + 23 q^{60} p^{7}$$
$$+ 13956 p^{96} q^{111} + 60844 p^{100} q^{107} + 699626 p^{86} q^{106} + 5501506 q^{102} p^{65} + 6764899 q^{102} p^{68} + 5946462 q^{102} p^{66} + 6370131 q^{102} p^{67}$$
$$+ 4583588 q^{102} p^{63} + 5044754 q^{102} p^{64} + 9546561644 p^{70} q^{75} + 9957624291 p^{71} q^{74} + 9318129147 p^{72} q^{74} + 69238954 p^{90} q^{91}$$
$$+ 231361 p^{85} q^{108} + 112944 p^{108} q^{67} + 27091 p^{105} q^{48} + 237 p^{92} q^{21} + 2415 p^{99} q^{31} + 692 p^{98} q^{28} + 810709 p^{104} q^{93} + 1065 p^{114} q^{99}$$
$$+ 1244 p^{114} q^{97} + 7222997362 p^{77} q^{71} + 8110830326 p^{76} q^{71} + 1075544502 p^{70} q^{88} + 7621957301 p^{76} q^{72} + 10169480359 p^{72} q^{73}$$
$$+ 9026582900 p^{75} q^{71} + 7258124228 p^{75} q^{74} + 129146310 q^{88} p^{45} + 157288177 q^{88} p^{46} + 189470528 q^{88} p^{47} + 1580 p^{102} q^{35}$$
$$+ 111 p^{94} q^{22} + 22693 p^{110} q^{69} + 39574 p^{109} q^{66} + 129 p^{96} q^{24} + 2 p^{81} q^{12} + 35796 p^{108} q^{60} + 25969 p^{110} q^{70} + 52597 p^{109} q^{68}$$
$$+ 15850 p^{109} q^{61} + 9 p^{86} q^{15} + 8560038349 p^{76} q^{70} + 40459 p^{110} q^{92} + 4563 p^{99} q^{32} + 902 p^{95} q^{25} + 200414 p^{107} q^{65} + 128619 p^{107} q^{62}$$
$$+ 125847 p^{109} q^{82} + 122721 p^{109} q^{84} + 118828 p^{106} q^{57} + 124884 p^{109} q^{83} + 11744 p^{110} q^{101} + 3559465 p^{100} q^{93} + 26011 p^{111} q^{86}$$
$$+ 22358 p^{111} q^{79} + 124 p^{95} q^{23} + 8 p^{88} q^{16} + 5591 p^{112} q^{98} + 17617 p^{107} q^{53} + 52278 p^{110} q^{78} + 19632 p^{106} q^{50} + 25590 p^{111} q^{87}$$
$$+ 880592 q^{96} p^{39} + 27091 q^{105} p^{48} + 50140 q^{105} p^{50} + 86824 q^{105} p^{52} + 66532 q^{105} p^{51} + 111730 q^{105} p^{53} + 177330 q^{105} p^{55}$$
$$+ 141668 q^{105} p^{54} + 76397 q^{106} p^{55} + 37207 q^{105} p^{49} + 747947 q^{95} p^{37} + 3456182 p^{100} q^{53} + 371 p^{113} q^{109} + 609 p^{112} q^{109}$$
$$+ 1022209981 p^{74} q^{39} + 3655064316 p^{75} q^{47} + 1268270817 p^{74} q^{40} + 5335685583 p^{75} q^{50} + 2264714777 p^{74} q^{43} + 1887087930 p^{74} q^{42}$$
$$+ 5505205463 p^{67} q^{80} + 5575890884 p^{66} q^{80} + 1533083 p^{97} q^{100} + 116837 p^{104} q^{102} + 220862 p^{102} q^{102} + 162165 p^{103} q^{102}$$
$$+ 850801 p^{95} q^{103} + 295329 p^{102} q^{101} + 89 p^{115} q^{110} + 4890 p^{102} q^{37} + 60046 p^{106} q^{54} + 1200 p^{99} q^{30} + 3407 p^{100} q^{33} + 7258124228 p^{74} q^{75}$$
$$+ 7871393585 p^{73} q^{75} + 5883429822 p^{77} q^{74} + 6013812411 p^{76} q^{75} + 6635529743 p^{75} q^{75} + 5402430119 p^{77} q^{75} + 8007 p^{96} q^{29}$$
$$+ 64978565 p^{95} q^{84} + 23089 p^{62} q^{12} + 1817352297 p^{79} q^{47} + 606862651 p^{78} q^{40} + 482861598 p^{78} q^{39} + 6352878331 p^{77} q^{73}$$
$$+ 7956266033 p^{74} q^{74} + 7103002954 p^{76} q^{73} + 30712967 p^{81} q^{32} + 1295744672 p^{86} q^{58} + 21376930 p^{81} q^{31} + 382 p^{52} q^{7}$$
$$+ 23086050 p^{64} q^{99} + 33761 p^{92} q^{27} + 1270869 p^{101} q^{51} + 700404 p^{100} q^{46} + 1015162 p^{70} q^{19} + 3779071296 p^{82} q^{69} + 3658941275 p^{82} q^{70}$$
$$+ 91960 p^{99} q^{38} + 9026582900 p^{71} q^{75} + 8646902091 p^{73} q^{74} + 8110830326 p^{71} q^{76} + 7103002954 p^{73} q^{76} + 6013812411 p^{75} q^{76}$$
$$+ 6563757222 p^{74} q^{76} + 5462401900 p^{76} q^{76} + 4918055946 p^{77} q^{76} + 7621957301 p^{72} q^{76} + 8560038349 p^{70} q^{76} + 1021308 q^{102} p^{53}$$
$$+ 41138 p^{76} q^{17} + 2352991 p^{84} q^{28} + 494521 p^{81} q^{23} + 6015422 p^{85} q^{31} + 8232389879 p^{68} q^{77} + 7945607334 p^{69} q^{77}$$
$$+ 6802246167 p^{72} q^{77} + 7222997362 p^{71} q^{77} + 5402430119 p^{75} q^{77} + 4438012016 p^{77} q^{77} + 3558295411 p^{78} q^{78} + 6352878331 p^{73} q^{77}$$

$$+ 4918055946\, p^{76} q^{77} + 5883429822\, p^{74} q^{77} + 7606741279\, p^{70} q^{77} + 221\, p^{54} q^{7} + 488\, p^{105} q^{114} + 46803\, p^{96} q^{109} + 9338704\, p^{96} q^{94}$$
$$+ 7891842\, p^{72} q^{102} + 8382493\, p^{95} q^{45} + 38480106\, p^{98} q^{65} + 31121099\, p^{98} q^{62} + 6\, q^{71} p^{9} + 8\, q^{74} p^{10} + 10307587\, p^{96} q^{48}$$
$$+ 11062823\, p^{80} q^{101} + 10449329\, p^{81} q^{101} + 7999\, p^{100} q^{111} + 392\, p^{88} q^{115} + 50\, p^{85} q^{116} + 5664985971\, p^{76} q^{52} + 5118182582\, p^{76} q^{51}$$
$$+ 3577436123\, p^{76} q^{48} + 2709515114\, p^{75} q^{45} + 8712414102\, p^{77} q^{63} + 8602648531\, p^{77} q^{62} + 8426487806\, p^{77} q^{61} + 4319524159\, p^{70} q^{81}$$
$$+ 2878176931\, p^{60} q^{83} + 60437\, p^{91} q^{27} + 7704632\, p^{102} q^{78} + 19705225\, p^{76} q^{100} + 12976575\, p^{73} q^{101} + 1580\, p^{85} q^{18} + 888\, p^{65} q^{112}$$
$$+ 11796\, p^{72} q^{111} + 68434\, p^{109} q^{93} + 488811\, p^{81} q^{107} + 153641\, p^{107} q^{95} + 178240\, p^{107} q^{94} + 11371\, p^{108} q^{105} + 22440\, p^{107} q^{104}$$
$$+ 7545424351\, p^{77} q^{58} + 7892038430\, p^{77} q^{59} + 252\, q^{111} p^{56} + 108\, q^{111} p^{54} + 68\, q^{111} p^{53} + 39\, q^{111} p^{52} + 52\, p^{109} q^{116} + 1245598\, q^{102} p^{54}$$
$$+ 9782916\, p^{82} q^{101} + 9078378\, p^{83} q^{101} + 6142\, p^{104} q^{110} + 527831\, p^{105} q^{61} + 695455\, p^{105} q^{63} + 789372\, p^{106} q^{72} + 466698\, p^{104} q^{56}$$
$$+ 27560144\, p^{78} q^{99} + 477708\, q^{101} p^{47} + 8883\, p^{93} q^{112} + 1270869\, q^{101} p^{51} + 1570999\, q^{101} p^{52} + 330\, q^{77} p^{13} + 111\, q^{98} p^{26}$$
$$+ 2287216\, q^{96} p^{42} + 1265222\, p^{105} q^{85} + 23725\, p^{109} q^{63} + 14072\, p^{108} q^{56} + 28461\, p^{109} q^{64} + 10722\, p^{108} q^{55} + 23507\, p^{111} q^{80}$$
$$+ 24900\, p^{111} q^{88} + 2587\, p^{112} q^{103} + 9445\, p^{112} q^{92} + 637\, p^{101} q^{32} + 124\, p^{97} q^{25} + 33779\, p^{109} q^{65} + 32873\, p^{110} q^{72} + 3407\, p^{87} q^{20}$$
$$+ 2331905\, p^{100} q^{51} + 1297771\, p^{99} q^{46} + 8648011\, p^{101} q^{64} + 4897982\, p^{100} q^{55} + 6204\, p^{76} q^{112} + 255516\, p^{80} q^{108} + 10750509\, p^{92} q^{97}$$
$$+ 23507\, p^{80} q^{111} + 75972\, p^{92} q^{109} + 53734\, p^{95} q^{109} + q^{109} p^{41} + 2068057\, p^{104} q^{85} + 3962172\, q^{97} p^{46} + 8281241\, p^{90} q^{99} + p^{65} q^{7}$$
$$+ 2064\, p^{95} q^{26} + 26263\, p^{110} q^{96} + 2\, p^{72} q^{9} + 300\, p^{89} q^{19} + 6302128\, q^{97} p^{48} + 1063\, p^{112} q^{107} + 10169480359\, p^{73} q^{72} + 8464540228\, p^{75} q^{72}$$
$$+ 3617\, q^{97} p^{29} + 9772\, p^{104} q^{109} + 384082\, p^{105} q^{59} + 47\, p^{80} q^{13} + 39574\, p^{66} q^{109} + 81875499\, q^{85} p^{39} + 170069470\, q^{85} p^{42}$$
$$+ 134998956\, q^{85} p^{41} + 105822513\, q^{85} p^{40} + 25414270\, q^{85} p^{35} + 9546561644\, p^{75} q^{70} + 8960387682\, p^{76} q^{69} + 6130\, p^{86} q^{20}$$
$$+ 1073581\, p^{95} q^{38} + 3990650\, p^{96} q^{44} + 18982692\, p^{100} q^{69} + 28\, p^{117} q^{96} + 26195853\, p^{99} q^{66} + 497534826\, p^{91} q^{68} + 475018293\, p^{91} q^{72}$$
$$+ 33\, p^{100} q^{117} + 34\, p^{101} q^{117} + 225542974\, q^{92} p^{80} + 24\, p^{117} q^{108} + 170\, q^{111} p^{55} + 7\, p^{118} q^{107} + 89\, p^{110} q^{115} + 4701342\, q^{103} p^{72}$$
$$+ 4367388\, q^{103} p^{70} + 40315212\, p^{80} q^{32} + 28223698\, p^{80} q^{31} + 1649877205\, p^{85} q^{58} + 145418656\, p^{81} q^{37} + 1759772838\, p^{85} q^{59}$$
$$+ 700404\, p^{74} q^{20} + 1197646939\, p^{84} q^{52} + 1059494052\, p^{84} q^{51} + 294396707\, p^{83} q^{42} + 81875499\, p^{81} q^{35} + 806276996\, p^{84} q^{49}$$
$$+ 2147250250\, p^{85} q^{64} + 25380373\, p^{79} q^{30} + 1639077944\, p^{84} q^{55} + 640519870\, p^{83} q^{46} + 38\, p^{59} q^{7} + 2397\, p^{86} q^{19} + 199051547\, p^{70} q^{94}$$
$$+ 1151313053\, p^{86} q^{77} + 863370847\, p^{87} q^{78} + 1508859794\, p^{86} q^{73} + 1247617416\, p^{86} q^{76} + 1952854315\, p^{85} q^{61} + 2097331419\, p^{85} q^{63}$$
$$+ 2032046921\, p^{85} q^{62} + 2180696769\, p^{85} q^{65} + 186705\, p^{72} q^{108} + 341800\, p^{70} q^{107} + 3934722320\, p^{67} q^{82} + 44283402\, p^{93} q^{90}$$
$$+ 3089146243\, p^{77} q^{80} + 831598\, p^{83} q^{106} + 865173\, p^{82} q^{106} + 3109363481\, p^{62} q^{83} + 3932714100\, p^{72} q^{81} + 124384\, p^{80} q^{109} + 37\, p^{56} q^{112}$$

$$+ 2265\, p^{63}\, q^{111} + 1339\, p^{61}\, q^{111} + 998\, p^{60}\, q^{111} + 736\, p^{59}\, q^{111} + 208489\, p^{87}\, q^{108} + 6\, p^{49}\, q^{111} + 11\, p^{50}\, q^{111} + 1750\, p^{62}\, q^{111} + 4\, p^{85}\, q^{117}$$
$$+ 32629\, p^{104}\, q^{106} + 114100\, p^{77}\, q^{109} + 2866\, p^{64}\, q^{111} + 32873\, p^{72}\, q^{110} + 29353\, p^{71}\, q^{110} + 3576\, p^{83}\, q^{113} + 3106\, p^{81}\, q^{113} + 3345\, p^{82}\, q^{113}$$
$$+ 3769\, p^{84}\, q^{113} + 130858\, p^{96}\, q^{107} + 62329\, p^{103}\, q^{105} + 298051231\, p^{90}\, q^{82} + 177\, p^{72}\, q^{114} + 56812\, p^{102}\, q^{106} + 936040226\, p^{52}\, q^{85}$$
$$+ 1934380158\, p^{57}\, q^{84} + 344300380\, p^{47}\, q^{86} + 1785023\, q^{97}\, p^{43} + 1692078\, q^{96}\, p^{41} + 20245\, p^{102}\, q^{40} + 12997\, p^{102}\, q^{39} + 3465791\, p^{98}\, q^{96}$$
$$+ 26\, p^{83}\, q^{14} + 8\, p^{77}\, q^{11} + 88754\, p^{71}\, q^{16} + 4883\, p^{74}\, q^{112} + 24510\, p^{81}\, q^{111} + 7541\, p^{78}\, q^{112} + 22572\, p^{97}\, q^{32} + 4401\, p^{93}\, q^{25} + 19502\, p^{109}\, q^{62}$$
$$+ 26140\, p^{111}\, q^{84} + 18146\, p^{108}\, q^{57} + 25842\, p^{111}\, q^{83} + 3665\, p^{112}\, q^{101} + 25273\, p^{111}\, q^{82} + 172925\, p^{97}\, q^{106} + 880268\, p^{105}\, q^{65}$$
$$+ 608906\, p^{105}\, q^{62} + 478497\, p^{107}\, q^{82} + 446399\, p^{107}\, q^{84} + 561988\, p^{104}\, q^{57} + 464332\, p^{107}\, q^{83} + 2260\, p^{62}\, q^{10} + 40599025\, p^{98}\, q^{66}$$
$$+ 1744\, p^{81}\, q^{16} + 10545\, p^{85}\, q^{20} + 1802622\, p^{94}\, q^{38} + 6535052\, p^{95}\, q^{44} + 29704012\, p^{99}\, q^{69} + 1532559\, q^{103}\, p^{59} + 48277\, p^{73}\, q^{16}$$
$$+ 220\, p^{112}\, q^{112} + 7160952\, p^{97}\, q^{94} + 31331\, p^{108}\, q^{101} + 14929\, p^{90}\, q^{24} + 3871690703\, p^{68}\, q^{82} + 6130\, p^{100}\, q^{34} + 58345\, p^{103}\, q^{45}$$
$$+ 30658\, p^{102}\, q^{41} + 17525\, p^{100}\, q^{36} + 9615\, p^{110}\, q^{102} + 172535146\, p^{80}\, q^{93} + 2842\, p^{80}\, q^{113} + 122177301\, p^{94}\, q^{59} + 142225228\, p^{95}\, q^{70}$$
$$+ 28627027\, p^{91}\, q^{43} + 4\, p^{114}\, q^{62} + 43\, p^{116}\, q^{84} + 5\, p^{113}\, q^{57} + 34\, p^{116}\, q^{83} + 34\, p^{117}\, q^{101} + 28\, p^{116}\, q^{82} + 7118563\, p^{99}\, q^{54} + 827578\, q^{102}\, p^{52}$$
$$+ 99629\, q^{97}\, p^{35} + 510394\, p^{95}\, q^{36} + 103987\, p^{93}\, q^{30} + 253046\, p^{94}\, q^{33} + 1231526\, p^{96}\, q^{40} + 880592\, p^{96}\, q^{39} + 747947\, p^{95}\, q^{37}$$
$$+ 3043411\, p^{43}\, q^{96} + 100086189\, p^{88}\, q^{91} + 2097452\, p^{102}\, q^{92} + 157182119\, p^{81}\, q^{93} + 511\, p^{103}\, q^{35} + 35\, p^{95}\, q^{22} + 7634\, p^{111}\, q^{69}$$
$$+ 96195\, p^{74}\, q^{109} + 34726253\, p^{55}\, q^{96} + 108\, p^{66}\, q^{9} + 50674176\, p^{97}\, q^{80} + 14192\, p^{110}\, q^{66} + 12682\, p^{109}\, q^{60} + 8920\, p^{111}\, q^{70} + 19642\, p^{110}\, q^{68}$$
$$+ 5026\, p^{110}\, q^{61} + 3\, p^{87}\, q^{15} + 10910\, p^{112}\, q^{86} + 8174\, p^{112}\, q^{79} + 38\, p^{96}\, q^{23} + 2\, p^{89}\, q^{16} + 2670\, p^{113}\, q^{98} + 5923\, p^{108}\, q^{53} + 21030\, p^{111}\, q^{78}$$
$$+ 6879\, p^{107}\, q^{50} + 10908\, p^{112}\, q^{87} + 38\, p^{97}\, q^{24} + 1529118\, p^{104}\, q^{64} + 778395\, p^{103}\, q^{55} + 21139914\, p^{97}\, q^{88} + 39144835\, p^{97}\, q^{83}$$
$$+ 6213\, p^{76}\, q^{15} + 31\, q^{102}\, p^{30} + 4055\, q^{105}\, p^{43} + 2557\, q^{105}\, p^{42} + 6213\, q^{105}\, p^{44} + 9307\, q^{105}\, p^{45} + 90517\, q^{107}\, p^{60} + 74626\, q^{107}\, p^{59}$$
$$+ 150765\, q^{107}\, p^{63} + 200414\, q^{107}\, p^{65} + 108566\, q^{107}\, p^{61} + 174706\, q^{107}\, p^{64} + 128619\, q^{107}\, p^{62} + 60708\, q^{107}\, p^{58} + 545\, q^{104}\, p^{37}$$
$$+ 1002\, q^{104}\, p^{38} + 31496001\, p^{93}\, q^{47} + 340784\, p^{85}\, q^{25} + 1183448\, p^{87}\, q^{29} + 188275\, p^{85}\, q^{24} + 668355\, p^{86}\, q^{27} + 23808\, p^{99}\, q^{35}$$
$$+ 57603374\, p^{97}\, q^{78} + 99230460\, p^{95}\, q^{61} + 113982136\, p^{95}\, q^{63} + 99514186\, p^{96}\, q^{72} + 96811512\, p^{96}\, q^{68} + 15406229\, p^{97}\, q^{90}$$
$$+ 4551061\, q^{103}\, p^{71} + 4815541\, q^{103}\, p^{73} + 4924029\, q^{103}\, p^{75} + 4890101\, q^{103}\, p^{74} + 4915668\, q^{103}\, p^{76} + 4775317\, q^{103}\, p^{78} + 4865986\, q^{103}\, p^{77}$$
$$+ 83449710\, p^{95}\, q^{59} + 99782457\, p^{96}\, q^{70} + 19202963\, p^{92}\, q^{43} + 83708692\, p^{89}\, q^{91} + 141911888\, p^{82}\, q^{93} + 1450\, p^{74}\, q^{13} + 3150\, p^{75}\, q^{14}$$
$$+ 32\, q^{72}\, p^{10} + 68\, q^{74}\, p^{11} + 51656808\, p^{94}\, q^{52} + 46392388\, p^{93}\, q^{49} + 15\, p^{91}\, q^{117} + 5647\, p^{109}\, q^{106} + 26205483\, p^{79}\, q^{99} + 242\, q^{106}\, p^{40}$$
$$+ 762\, q^{106}\, p^{42} + 3080713\, q^{97}\, p^{45} + 1750\, p^{111}\, q^{62} + 3769\, p^{113}\, q^{84} + 1665\, p^{110}\, q^{57} + 3576\, p^{113}\, q^{83} + 868\, p^{114}\, q^{101} + 3345\, p^{113}\, q^{82}$$

$$+ 127431\, p^{68} q^{108} + 9338704\, p^{94} q^{96} + 141\, p^{83} q^{15} + 36516065\, p^{91} q^{93} + 3851\, p^{93} q^{113} + 1142\, p^{84} q^{114} + 408\, p^{114} q^{106} + 1269685\, q^{94} p^{37}$$
$$+ 2232\, p^{73} q^{13} + 4768\, p^{74} q^{14} + 92\, p^{99} q^{27} + 1450\, p^{107} q^{46} + 3030\, p^{108} q^{51} + 2557\, p^{105} q^{42} + 2232\, p^{107} q^{47} + 19640\, p^{101} q^{38}$$
$$+ 7914562\, p^{63} q^{101} + 18395474\, p^{92} q^{95} + 243228433\, p^{64} q^{93} + 148617\, q^{103} p^{48} + 4356\, p^{108} q^{108} + 75517813\, p^{58} q^{95}$$
$$+ 3873398756\, p^{63} q^{82} + 181931\, q^{82} p^{22} + 2410173087\, p^{57} q^{83} + 66973\, p^{70} q^{109} + 1021964\, p^{103} q^{94} + 1665\, q^{110} p^{57} + 1210\, q^{110} p^{56}$$
$$+ 16\, q^{110} p^{47} + 1225935\, p^{95} q^{102} + 14168\, p^{110} q^{100} + 97858\, p^{109} q^{89} + 234982\, p^{108} q^{76} + 243185\, p^{108} q^{77} + 43870\, p^{110} q^{91}$$
$$+ 125722\, p^{109} q^{81} + 172145\, p^{108} q^{71} + 115313\, p^{109} q^{86} + 110242\, p^{109} q^{87} + 121999\, p^{109} q^{79} + 502824\, p^{102} q^{99} + 3919\, p^{60} q^{110}$$
$$+ 10028\, p^{59} q^{109} + 4\, p^{99} q^{118} + 3\, p^{97} q^{118} + 4\, p^{98} q^{118} + 5\, p^{100} q^{118} + 6\, p^{102} q^{118} + 5\, p^{101} q^{118} + 6\, p^{103} q^{118} + 7\, p^{105} q^{118} + 7\, p^{104} q^{118}$$
$$+ p^{105} q^{119} + 806524\, p^{102} q^{97} + 316524\, p^{104} q^{98} + 577154\, p^{95} q^{104} + 252262\, p^{99} q^{104} + 316524\, p^{98} q^{104} + 116837\, p^{102} q^{104}$$
$$+ 64269\, p^{104} q^{104} + 33727\, p^{105} q^{105} + 198250\, p^{100} q^{104} + 87432\, p^{103} q^{104} + 478472\, p^{96} q^{104} + 706012\, p^{100} q^{100} + 688065\, p^{104} q^{94}$$
$$+ 689328\, p^{101} q^{99} + 12\, p^{114} q^{64} + p^{113} q^{55} + 17\, p^{116} q^{80} + 79\, p^{116} q^{88} + 34\, p^{117} q^{103} + 17\, p^{117} q^{92} + 2\, p^{113} q^{56} + 850801\, p^{103} q^{95}$$
$$+ 577154\, p^{104} q^{95} + 1021964\, p^{94} q^{103} + 359915\, p^{103} q^{99} + 648234\, p^{87} q^{106} + 153392\, p^{101} q^{104} + 391650\, p^{97} q^{104} + 688065\, p^{94} q^{104}$$
$$+ 810709\, p^{93} q^{104} + 802\, p^{93} q^{23} + 60\, p^{86} q^{16} + 19774\, p^{110} q^{98} + 111730\, p^{105} q^{53} + 249509\, p^{108} q^{78} + 92655\, p^{95} q^{108} + 106411\, p^{94} q^{108}$$
$$+ 3252091057\, p^{64} q^{83} + 6\, p^{100} q^{26} + 473\, p^{115} q^{96} + 47\, p^{107} q^{40} + 22\, p^{107} q^{39} + 9\, p^{105} q^{34} + 14917\, p^{74} q^{111} + 58753\, p^{82} q^{110}$$
$$+ 3706369523\, p^{73} q^{81} + 76534740\, p^{93} q^{52} + 18\, p^{114} q^{65} + 19\, p^{115} q^{72} + 219007\, q^{105} p^{56} + 79908724\, p^{88} q^{92} + 3210273918\, p^{75} q^{81}$$
$$+ 3513908786\, p^{71} q^{82} + 68329392\, p^{92} q^{49} + 289953\, p^{90} q^{107} + 138597572\, p^{86} q^{91} + 3\, p^{118} q^{96} + q^{110} p^{44} + 3\, q^{110} p^{45} + 952\, p^{82} q^{114}$$
$$+ 4071\, p^{86} q^{113} + 4171\, p^{87} q^{113} + 18775\, p^{111} q^{93} + 74626\, p^{107} q^{59} + 8\, p^{82} q^{13} + 144\, p^{112} q^{113} + 123\, p^{111} q^{114} + 60708\, p^{107} q^{58}$$
$$+ 47135\, p^{110} q^{90} + 96195\, p^{109} q^{74} + 89203\, p^{109} q^{73} + 81\, p^{89} q^{18} + 15584\, p^{111} q^{95} + 17186\, p^{111} q^{94} + 1716\, p^{112} q^{105} + 3699\, p^{111} q^{104}$$
$$+ 35462\, p^{106} q^{52} + 46\, p^{88} q^{17} + 11307\, p^{104} q^{43} + 1496\, p^{98} q^{29} + 123\, p^{114} q^{111} + 12\, p^{112} q^{54} + 2284\, p^{106} q^{111} + 1778841\, q^{98} p^{45}$$
$$+ 1328196\, q^{97} p^{42} + 18\, p^{117} q^{110} + 21\, p^{117} q^{109} + 22\, p^{116} q^{113} + p^{119} q^{112} + 6\, p^{109} q^{118} + 13\, p^{117} q^{112} + 6\, p^{110} q^{118} + 13\, p^{112} q^{117}$$
$$+ 9\, p^{114} q^{117} + 4\, p^{117} q^{117} + 2\, p^{118} q^{117} + 17\, p^{116} q^{114} + 4\, p^{118} q^{113} + 28\, p^{114} q^{115} + 12\, p^{115} q^{116} + p^{110} q^{119} + p^{114} q^{119} + p^{113} q^{119} + p^{117} q^{119}$$
$$+ p^{119} q^{119} + p^{120} q^{120} + p^{115} q^{119} + p^{118} q^{119} + p^{111} q^{119} + p^{116} q^{119} + p^{112} q^{119} + p^{109} q^{119} + p^{108} q^{119} + 7\, p^{108} q^{118} + p^{119} q^{114} + p^{119} q^{115}$$
$$+ 21\, p^{109} q^{117} + 70\, p^{115} q^{111} + p^{119} q^{110} + p^{119} q^{109} + 7\, p^{115} q^{117} + 5\, p^{116} q^{117} + p^{107} q^{119} + 4\, p^{114} q^{118} + 5\, p^{112} q^{118} + 4\, p^{113} q^{118} + 3\, p^{115} q^{118}$$
$$+ 2\, p^{117} q^{118} + 3\, p^{116} q^{118} + 2\, p^{118} q^{118} + p^{119} q^{118} + p^{119} q^{108} + 9\, p^{116} q^{116} + 7\, p^{118} q^{108} + 12253\, p^{106} q^{107} + 59687\, p^{69} q^{109} + 802\, p^{97} q^{27}$$
$$+ 13564\, p^{105} q^{46} + 26593\, p^{106} q^{51} + 19192\, p^{103} q^{42} + 19384\, p^{105} q^{47} + 16780\, p^{67} q^{110} + 108786\, p^{76} q^{109} + 9375\, p^{111} q^{99} + 12374\, p^{111} q^{97}$$

$$+ 3 p^{75} q^{10} + 58072 p^{110} q^{85} + 70 p^{92} q^{20} + 102813 p^{109} q^{75} + 37207 p^{105} q^{49} + 16815 p^{104} q^{44} + 1350869 q^{98} p^{44} + 2309224 q^{98} p^{46}$$
$$+ 2956406 q^{98} p^{47} + 3735981 q^{98} p^{48} + 5029130 q^{97} p^{47} + 22 p^{100} q^{27} + 366 p^{108} q^{46} + 806 p^{109} q^{51} + 762 p^{106} q^{42} + 592 p^{108} q^{47}$$
$$+ 107159 p^{101} q^{105} + 373 p^{57} q^{111} + 594 p^{54} q^{110} + 11834 p^{65} q^{110} + 972545 q^{97} p^{41} + 9618813 p^{91} q^{98} + 3537574 p^{97} q^{97}$$
$$+ 4535898 p^{96} q^{97} + 7860041 p^{88} q^{100} + 7607511 p^{85} q^{101} + 8926524 p^{87} q^{100} + 522 p^{81} q^{15} + 118950360 p^{81} q^{94} + 140690925 p^{72} q^{95}$$
$$+ 130084122 p^{80} q^{94} + 73932776 p^{87} q^{93} + 90876173 p^{66} q^{96} + 134668040 p^{74} q^{95} + 33315 p^{94} q^{110} + 6127 p^{108} q^{107} + 22922 p^{90} q^{111}$$
$$+ 15044 p^{104} q^{108} + 756 p^{80} q^{114} + 63 p^{76} q^{115} + 573 p^{78} q^{114} + 658 p^{79} q^{114} + 141009115 p^{79} q^{94} + 247391 p^{83} q^{108} + 204572 p^{93} q^{107}$$
$$+ 9763 p^{64} q^{110} + 94185611 p^{67} q^{96} + 44212385 p^{61} q^{97} + 18279070 p^{57} q^{98} + 51741983 p^{63} q^{97} + 40333091 p^{60} q^{97} + 48037461 p^{62} q^{97}$$
$$+ 10051987 p^{53} q^{98} + 7001722 p^{51} q^{98} + 8435637 p^{52} q^{98} + 4113073 p^{51} q^{99} + 11852311 p^{54} q^{98} + 13830767 p^{55} q^{98} + 15978769 p^{56} q^{98}$$
$$+ 3080713 p^{97} q^{45} + 15433853 p^{100} q^{65} + 12061552 p^{100} q^{62} + 7010 q^{106} p^{47} + 10096 q^{106} p^{48} + 481 p^{113} q^{108} + 1744 q^{104} p^{39}$$
$$+ 8105 q^{103} p^{40} + 12660 q^{103} p^{41} + 9 q^{98} p^{24} + 198250 p^{104} q^{100} + 641395 p^{98} q^{102} + q^{100} p^{25} + q^{99} p^{24} + 22 q^{100} p^{27} + 32671892 p^{58} q^{97}$$
$$+ 36467115 p^{59} q^{97} + 98690509 p^{69} q^{96} + 96811512 p^{68} q^{96} + 130128969 p^{75} q^{95} + 86953732 p^{65} q^{96} + 138216703 p^{73} q^{95}$$
$$+ 1308 p^{108} q^{111} + 85890215 p^{86} q^{93} + 29761279 p^{93} q^{92} + 7 p^{114} q^{63} + 2 p^{111} q^{48} + 39 p^{114} q^{67} + 52278 p^{78} q^{110} + 49561 p^{77} q^{110}$$
$$+ 46582 p^{76} q^{110} + 126 p^{101} q^{116} + 1225935 p^{102} q^{95} + 1602386 p^{98} q^{99} + 455313 p^{103} q^{98} + 67901 p^{97} q^{108} + 699625 p^{96} q^{103}$$
$$+ 1185 q^{109} p^{52} + 1122405 p^{101} q^{97} + 1402637 p^{101} q^{96} + 1229214 p^{99} q^{99} + 215004 p^{103} q^{101} + 153392 p^{104} q^{101} + 502824 p^{99} q^{102}$$
$$+ 280290 p^{103} q^{100} + 528226 p^{100} q^{101} + 359915 p^{99} q^{103} + 568216 p^{97} q^{103} + 455313 p^{98} q^{103} + 280290 p^{100} q^{103} + 162165 p^{102} q^{103}$$
$$+ 215004 p^{101} q^{103} + 120240 p^{103} q^{103} + 87432 p^{104} q^{103} + 1000842 p^{96} q^{102} + 806524 p^{97} q^{102} + 295329 p^{101} q^{102} + 388457 p^{100} q^{102}$$
$$+ 339 q^{109} p^{49} + 885845 p^{101} q^{98} + 641395 p^{102} q^{98} + 699625 p^{103} q^{96} + 1533083 p^{100} q^{97} + 1000842 p^{102} q^{96} + 478472 p^{104} q^{96}$$
$$+ 1602386 p^{99} q^{98} + 568216 p^{103} q^{97} + 885845 p^{98} q^{101} + 1201662 p^{98} q^{100} + 928117 p^{99} q^{100} + 928117 p^{100} q^{99} + 1201662 p^{100} q^{98}$$
$$+ 391650 p^{104} q^{97} + 1402637 p^{96} q^{101} + 1122405 p^{97} q^{101} + 252262 p^{104} q^{99} + 388457 p^{102} q^{100} + 689328 p^{99} q^{101} + 528226 p^{101} q^{100}$$
$$+ 875 p^{96} q^{26} + 13956 p^{111} q^{96} + p^{73} q^{9} + 126 p^{90} q^{19} + 43418 p^{103} q^{106} + 8105 p^{103} q^{40} + 5051 p^{103} q^{39} + 10 p^{84} q^{14} + 2 p^{78} q^{11}$$
$$+ 10318 p^{90} q^{112} + 4001 p^{92} q^{113} + 2397 p^{101} q^{34} + 24388 p^{104} q^{45} + 12660 p^{103} q^{41} + 7392 p^{101} q^{36} + 5605 p^{111} q^{102} + 481 p^{108} q^{113}$$
$$+ 8116 p^{102} q^{38} + 7999 p^{111} q^{100} + 50088 p^{110} q^{89} + 108786 p^{109} q^{76} + 114100 p^{109} q^{77} + 21676 p^{111} q^{91} + 57847 p^{110} q^{81} + 74446 p^{109} q^{71}$$
$$+ 56800 p^{110} q^{86} + 54978 p^{110} q^{87} + 54568 p^{110} q^{79} + 331 p^{94} q^{23} + 23 p^{87} q^{16} + 10827 p^{111} q^{98} + 46476 p^{106} q^{53} + 118494 p^{109} q^{78}$$
$$+ 82391 p^{102} q^{105} + 526 p^{58} q^{111} + 178240 p^{94} q^{107} + 339 p^{75} q^{114} + 279 p^{74} q^{114} + 50140 p^{105} q^{50} + 4309 p^{101} q^{35} + 28 p^{85} q^{15}$$

$$+ 290\, p^{93}\, q^{22} + 59687\, p^{109}\, q^{69} + 99137\, p^{108}\, q^{66} + 353\, p^{95}\, q^{24} + p^{69}\, q^{8} + 6\, p^{80}\, q^{12} + 90517\, p^{107}\, q^{60} + 66973\, p^{109}\, q^{70} + 127431\, p^{108}\, q^{68}$$
$$+ 3\, p^{84}\, q^{117} + 43674\, p^{108}\, q^{61} + 62740\, p^{108}\, q^{63} + 81862\, p^{109}\, q^{72} + 38646\, p^{107}\, q^{56} + 73914\, p^{108}\, q^{64} + 30214\, p^{107}\, q^{55} + 56476\, p^{110}\, q^{80}$$
$$+ 52756\, p^{110}\, q^{88} + 4595\, p^{111}\, q^{103} + 20265\, p^{111}\, q^{92} + 1813\, p^{100}\, q^{32} + 353\, p^{96}\, q^{25} + 86036\, p^{108}\, q^{65} + 52685\, p^{108}\, q^{62} + 58753\, p^{110}\, q^{82}$$
$$+ 58866\, p^{110}\, q^{84} + 48794\, p^{107}\, q^{57} + 59060\, p^{110}\, q^{83} + 6750\, p^{111}\, q^{101} + 7\, p^{107}\, q^{118} + 222\, p^{73}\, q^{114} + 411\, p^{76}\, q^{114} + 19520\, p^{103}\, q^{108}$$
$$+ 2054\, p^{77}\, q^{113} + 10235\, p^{83}\, q^{112} + 9836\, p^{82}\, q^{112} + 24023\, p^{89}\, q^{111} + 24900\, p^{88}\, q^{111} + 25590\, p^{87}\, q^{111} + 23908\, p^{100}\, q^{109} + 40459\, p^{92}\, q^{110}$$
$$+ 24942\, p^{102}\, q^{108} + 485\, p^{77}\, q^{114} + 6\, p^{69}\, q^{115} + 9\, p^{70}\, q^{115} + 50\, p^{75}\, q^{115} + p^{72}\, q^{116} + 37\, p^{74}\, q^{115} + 19\, p^{72}\, q^{115} + 28\, p^{73}\, q^{115} + 2583\, p^{79}\, q^{113}$$
$$+ 26263\, p^{96}\, q^{110} + 10825\, p^{88}\, q^{112} + 1367\, p^{112}\, q^{106} + 29728\, p^{95}\, q^{110} + 40331\, p^{97}\, q^{109} + 14\, p^{71}\, q^{115} + 10908\, p^{87}\, q^{112} + 21676\, p^{91}\, q^{111}$$
$$+ 8780\, p^{107}\, q^{107} + 10779\, p^{85}\, q^{112} + 20265\, p^{92}\, q^{111} + 3\, p^{68}\, q^{115} + 36888\, p^{93}\, q^{110} + 2\, p^{67}\, q^{115} + 91\, p^{112}\, q^{114} + 3\, p^{118}\, q^{116} + p^{119}\, q^{116}$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 17, *is:*

$$1 + 5876606\, p^{47}\, q^{16} + 2134336442\, p^{105}\, q^{68} + 22018058\, q^{42}\, p^{19} + 303498018\, p^{106}\, q^{102} + 27293760478\, p^{40}\, q^{61} + 2182605940\, p^{81}\, q^{106}$$
$$+ 2929099687\, p^{104}\, q^{68} + 318\, p^{65}\, q^{8} + 736325622\, p^{38}\, q^{31} + 1425875698\, p^{38}\, q^{34} + 1740998703\, p^{38}\, q^{35} + 2463245161\, p^{39}\, q^{36}$$
$$+ 577928005\, p^{38}\, q^{30} + 927643271\, p^{38}\, q^{32} + 448314175\, p^{38}\, q^{29} + 207829\, p^{125}\, q^{93} + 200405\, p^{125}\, q^{97} + 25227869971\, p^{70}\, q^{96}$$
$$+ 1837756\, p^{18}\, q^{26} + 1941090694\, p^{52}\, q^{99} + 38\, q^{21}\, p^{3} + 165956\, q^{28}\, p^{12} + 473300\, q^{28}\, p^{14} + 886110\, q^{29}\, p^{15} + 24013560773\, q^{55}\, p^{40}$$
$$+ 28831495450\, q^{55}\, p^{41} + 40456731175\, q^{55}\, p^{43} + 258606760591\, p^{71}\, q^{79} + 6266398115\, p^{58}\, q^{98} + 14583521928\, p^{64}\, q^{97} + p^{10}\, q$$
$$+ 24385002206\, p^{88}\, q^{93} + 79816314\, p^{36}\, q^{24} + 7525100\, p^{35}\, q^{18} + 147257891\, p^{36}\, q^{26} + 93158161119\, p^{64}\, q^{87} + 98221380075\, p^{65}\, q^{87}$$
$$+ 155338234233\, p^{52}\, q^{69} + 307779821469\, p^{60}\, q^{68} + 184524456571\, p^{71}\, q^{83} + 9737\, q^{26}\, p^{8} + 4322\, q^{26}\, p^{7} + 24669\, q^{28}\, p^{9}$$
$$+ 34303921731\, q^{55}\, p^{42} + 57548708678\, q^{56}\, p^{45} + 47304649918\, q^{55}\, p^{44} + 1625\, q^{25}\, p^{6} + 591\, q^{26}\, p^{5} + 32656670523\, p^{82}\, q^{94}$$
$$+ 650563494\, p^{88}\, q^{36} + 27383012\, p^{90}\, q^{29} + 3620191\, p^{88}\, q^{24} + 111\, p^{68}\, q^{128} + 61\, q^{57}\, p^{6} + 552070342\, p^{104}\, q^{54} + 28250505\, p^{100}\, q^{37}$$
$$+ 54329581\, p^{101}\, q^{40} + 39064952\, p^{101}\, q^{39} + 1180823015\, q^{44}\, p^{30} + 82749435472\, p^{53}\, q^{80} + 17940408506\, p^{38}\, q^{60} + 175677218195\, p^{80}\, q^{61}$$
$$+ 197457545474\, p^{80}\, q^{63} + 186893708872\, p^{80}\, q^{62} + 46360891298\, p^{43}\, q^{59} + 25010436584\, p^{86}\, q^{94} + 36986803\, p^{33}\, q^{23} + 86333051\, p^{28}\, q^{30}$$
$$+ 692\, p^{126}\, q^{63} + 1704\, p^{130}\, q^{99} + 150\, p^{123}\, q^{49} + 262653736\, q^{51}\, p^{24} + 177512307\, q^{51}\, p^{23} + 76766787\, q^{52}\, p^{21} + 4015343714\, p^{32}\, q^{59}$$
$$+ 36000518\, p^{75}\, q^{116} + 31877850377\, p^{63}\, q^{93} + 898531239\, q^{44}\, p^{29} + 99133670882\, p^{84}\, q^{84} + 105647693567\, p^{82}\, q^{85}$$

$$+ 112802221458\, p^{81} q^{85} + 118459209430\, p^{78} q^{86} + 103158492224\, p^{72} q^{88} + 13461719929\, p^{73} q^{39} + 60411891560\, p^{74} q^{47}$$
$$+ 16957608908\, p^{73} q^{40} + 94496152597\, p^{74} q^{50} + 22310222740\, p^{93} q^{59} + 37673887032\, p^{94} q^{70} + 2910158442\, p^{90} q^{43}$$
$$+ 60937356\, p^{61} q^{112} + 18108399\, p^{57} q^{113} + 81303842\, p^{63} q^{112} + 52078771\, p^{60} q^{112} + 70687077\, p^{62} q^{112} + 31877850377\, p^{73} q^{43}$$
$$+ 26086250162\, p^{73} q^{42} + 13872428\, q^{109} p^{47} + 26537312\, p^{97} q^{116} + 116301597\, p^{24} q^{39} + 82600195\, p^{23} q^{39} + 1479039088\, p^{35} q^{37}$$
$$+ 1025839679\, p^{34} q^{36} + 4261154\, p^{16} q^{39} + 7007293\, p^{17} q^{39} + 42039503744\, p^{55} q^{87} + 47297495168\, p^{56} q^{87} + 21268009\, p^{67} q^{20}$$
$$+ 2760\, q^{47} p^{7} + 25390\, q^{49} p^{9} + 744289\, q^{52} p^{13} + 811\, q^{45} p^{6} + 802133\, p^{21} q^{19} + 410070\, p^{21} q^{17} + 144970421\, q^{68} p^{24} + 344091920\, q^{68} p^{26}$$
$$+ 3769284\, q^{66} p^{17} + 402531819\, p^{54} q^{25} + q^{127} p^{56} + 163987102702\, p^{60} q^{80} + 344279\, p^{26} q^{14} + 1513118\, p^{27} q^{17} + 7857163\, p^{28} q^{21}$$
$$+ 4592878\, p^{27} q^{20} + 3235066\, p^{27} q^{19} + 305056401\, p^{26} q^{42} + 56356668479\, p^{92} q^{75} + 3769284\, p^{66} q^{17} + 606\, p^{131} q^{107} + 2\, p^{113} q^{27}$$
$$+ 1936478\, p^{22} q^{21} + 67\, q^{115} p^{32} + 1916\, p^{130} q^{102} + 1092872\, p^{21} q^{20} + 143518914\, p^{85} q^{30} + 2824759412\, p^{89} q^{42} + 185\, p^{53} q^{6}$$
$$+ 1437648\, p^{76} q^{18} + 6976321\, p^{78} q^{21} + 10316014\, p^{79} q^{22} + 102402\, p^{13} q^{22} + 3240767\, p^{46} q^{15} + 1740013\, p^{46} q^{14} + 741173\, p^{91} q^{23}$$
$$+ 544039537\, q^{51} p^{26} + 119046884\, q^{52} p^{22} + 22953102213\, q^{54} p^{40} + 13468633856\, p^{94} q^{92} + 8069896\, p^{20} q^{30} + 32957738093\, p^{76} q^{95}$$
$$+ 3820\, p^{9} q^{16} + 29024\, p^{84} q^{16} + 16755578730\, p^{38} q^{56} + 15219005216\, p^{94} q^{91} + 8079\, p^{10} q^{17} + 34443\, p^{14} q^{16} + 90728903451\, p^{84} q^{85}$$
$$+ 230\, p^{66} q^{8} + 100555628\, p^{94} q^{35} + 117538370130\, p^{87} q^{73} + 112556982135\, p^{87} q^{76} + 9692797432\, p^{53} q^{36} + 7\, p^{36} q^{3} + 73\, p^{48} q^{5}$$
$$+ 118540547\, q^{55} p^{22} + 5\, p^{48} q^{4} + 39350729134\, p^{94} q^{72} + 35105397104\, p^{94} q^{68} + 68501167\, p^{33} q^{25} + 119873255\, p^{33} q^{27}$$
$$+ 185554438\, p^{34} q^{28} + 2135352\, p^{32} q^{16} + 152001406957\, p^{59} q^{80} + 109462698915\, p^{87} q^{77} + 93657441871\, p^{88} q^{78} + 328768\, q^{67} p^{14}$$
$$+ 2008787045\, p^{52} q^{30} + 1491917728\, p^{52} q^{29} + 48366\, p^{67} q^{12} + 544039537\, p^{51} q^{26} + 6923088231\, p^{90} q^{47} + 37080594577\, p^{42} q^{57}$$
$$+ 1383447256\, p^{105} q^{93} + 646221\, p^{27} q^{15} + 3\, p^{131} q^{79} + 12376760457\, p^{38} q^{71} + 28104607\, p^{82} q^{25} + 117257778\, p^{84} q^{29} + 16680638\, p^{82} q^{24}$$
$$+ 43\, q^{113} p^{29} + 987713691\, q^{86} p^{36} + 578075\, q^{73} p^{16} + 15788740138\, p^{45} q^{83} + 326637\, q^{29} p^{13} + 11532\, q^{28} p^{8} + 44553\, p^{82} q^{126}$$
$$+ 320\, q^{125} p^{57} + 69496899\, p^{107} q^{108} + 56731398469\, p^{85} q^{55} + 16526302650\, p^{84} q^{46} + 106872970134\, p^{86} q^{64} + 371522318\, p^{80} q^{30}$$
$$+ 231964245\, q^{108} p^{58} + 1499313074\, p^{82} q^{35} + 24248363248\, p^{85} q^{49} + 112556982135\, p^{76} q^{87} + 1026690087\, q^{90} p^{39} + 108520951\, q^{88} p^{31}$$
$$+ 232863886286\, p^{73} q^{58} + 250204956409\, p^{73} q^{59} + 197457545474\, p^{63} q^{80} + 1491917728\, q^{52} p^{29} + 87748086791\, p^{63} q^{87}$$
$$+ 24296093\, p^{24} q^{29} + 129725066\, p^{40} q^{24} + 11199326\, p^{39} q^{18} + 247145279\, p^{40} q^{26} + 1964\, p^{30} q^{6} + 1760541682\, p^{41} q^{33} + 3955930\, p^{38} q^{16}$$
$$+ 856238676\, p^{41} q^{30} + 657731751\, p^{41} q^{29} + 1400176493\, p^{41} q^{32} + 2\, q^{75} p^{8} + 1425875698\, p^{34} q^{38} + 29\, p^{71} q^{8} + 4272688922\, p^{71} q^{34}$$
$$+ 22797113691\, p^{72} q^{41} + 54763\, q^{52} p^{10} + 75035930\, p^{50} q^{21} + 262653736\, p^{51} q^{24} + 381362942\, p^{51} q^{25} + 709622\, q^{31} p^{14}$$

$$+ 101657\, p^{122}\, q^{116} + 78218952\, p^{96}\, q^{36} + 12982518\, p^{94}\, q^{30} + 34436268\, p^{95}\, q^{33} + 3721268\, p^{116}\, q^{58} + 367221298354\, p^{71}\, q^{67}$$
$$+ 33261376340\, p^{85}\, q^{51} + 7110312858\, p^{84}\, q^{42} + 764493\, p^{61}\, q^{14} + 377620\, p^{60}\, q^{13} + 14418274911\, p^{57}\, q^{94} + 121636432215\, p^{51}\, q^{72}$$
$$+ 64822181854\, p^{47}\, q^{73} + 276977378228\, p^{70}\, q^{78} + 166651621854\, p^{72}\, q^{84} + 163567793096\, p^{74}\, q^{84} + 147848816542\, p^{70}\, q^{85}$$
$$+ 145548335834\, p^{69}\, q^{85} + 117585445819\, p^{66}\, q^{86} + 171792319054\, p^{76}\, q^{83} + 146193919259\, p^{81}\, q^{82} + 159267777516\, p^{78}\, q^{83}$$
$$+ 51915692\, p^{110}\, q^{106} + 1719521521\, p^{36}\, q^{83} + 85569002295\, p^{89}\, q^{69} + 87516944406\, p^{89}\, q^{70} + 3688511039\, p^{85}\, q^{40} + 2837976506\, p^{85}\, q^{39}$$
$$+ 1941090694\, p^{84}\, q^{37} + 55157445115\, p^{88}\, q^{59} + 4738564636\, p^{85}\, q^{41} + 655132227\, p^{83}\, q^{33} + 8014168250\, q^{70}\, p^{36} + 119604961402\, p^{51}\, q^{56}$$
$$+ 101961600296\, p^{50}\, q^{55} + 387247\, q^{66}\, p^{14} + 20437994213\, p^{88}\, q^{51} + 10071411603\, p^{87}\, q^{46} + 69069184244\, p^{89}\, q^{64} + 35734770051\, p^{88}\, q^{55}$$
$$+ 1435567023\, p^{85}\, q^{107} + 10840978\, p^{28}\, q^{22} + 33983258249\, p^{93}\, q^{84} + 70959\, q^{65}\, p^{12} + 76379\, p^{58}\, q^{11} + p\, q + 18610985\, p^{98}\, q^{34}$$
$$+ 865228\, q^{48}\, p^{13} + 5915072\, q^{49}\, p^{16} + 3260144\, q^{48}\, p^{15} + 229190681\, p^{101}\, q^{45} + 106554344\, p^{100}\, q^{41} + 1831566131\, p^{31}\, q^{70}$$
$$+ 275683045251\, p^{69}\, q^{78} + 87929734640\, p^{86}\, q^{61} + 100843720245\, p^{86}\, q^{63} + 60351234178\, p^{60}\, q^{88} + 603\, q^{27}\, p^{5} + 195592170113\, p^{81}\, q^{77}$$
$$+ 173238193294\, p^{82}\, q^{78} + 218348468759\, p^{81}\, q^{73} + 203091919636\, p^{81}\, q^{76} + 8079\, p^{17}\, q^{10} + 1186\, p^{16}\, q^{7} + 3820\, p^{16}\, q^{9}$$
$$+ 29699766\, q^{51}\, p^{19} + 119\, q^{17}\, p^{4} + 814\, q^{18}\, p^{6} + 312\, q^{17}\, p^{5} + 180821274705\, p^{77}\, q^{82} + 39606058963\, p^{91}\, q^{61} + 46280509093\, p^{91}\, q^{63}$$
$$+ 15978274\, p^{22}\, q^{30} + 9\, q^{68}\, p^{7} + 173306116\, p^{50}\, q^{23} + 2691\, q^{17}\, p^{8} + 92571\, q^{28}\, p^{11} + 285344\, q^{28}\, p^{13} + 129\, p^{31}\, q^{4} + 375684\, q^{121}\, p^{65}$$
$$+ 13\, q^{112}\, p^{27} + 7510\, q^{125}\, p^{66} + 29475100675\, p^{43}\, q^{74} + 29226806\, p^{49}\, q^{19} + 115276208\, p^{50}\, q^{22} + 35105397104\, p^{42}\, q^{68} + 6\, p^{20}\, q^{2}$$
$$+ 145548335834\, p^{51}\, q^{67} + 159663177127\, p^{52}\, q^{68} + 40654261953\, p^{43}\, q^{69} + 95016\, q^{121}\, p^{59} + 248973\, q^{121}\, p^{63} + 199289\, q^{121}\, p^{62}$$
$$+ 307494\, q^{121}\, p^{64} + 157667\, q^{121}\, p^{61} + 10343894\, p^{48}\, q^{17} + 46905831\, p^{49}\, q^{20} + 381362942\, q^{51}\, p^{25} + 211522\, p^{26}\, q^{13} + 2235465\, p^{27}\, q^{18}$$
$$+ 9465569\, p^{26}\, q^{23} + 245589\, p^{18}\, q^{18} + 239250\, p^{17}\, q^{19} + 8788892\, p^{22}\, q^{27} + 3297518817\, p^{104}\, q^{70} + 214575503262\, p^{81}\, q^{74}$$
$$+ 209458407442\, p^{81}\, q^{75} + 210688612536\, p^{81}\, q^{67} + 221605535272\, p^{81}\, q^{71} + 220706615515\, p^{81}\, q^{72} + 215517714057\, p^{81}\, q^{68}$$
$$+ 578768\, p^{21}\, q^{18} + 50043824998\, p^{58}\, q^{88} + 19918913118\, p^{84}\, q^{47} + 1363803250\, q^{76}\, p^{32} + 15861183\, q^{56}\, p^{18} + 114139400\, q^{57}\, p^{22}$$
$$+ 381541682\, p^{105}\, q^{102} + 1308633\, q^{55}\, p^{14} + 8903481\, q^{56}\, p^{17} + 292245\, q^{54}\, p^{12} + 177021541\, q^{57}\, p^{23} + 56836773\, p^{92}\, q^{32}$$
$$+ 7131791967\, p^{97}\, q^{57} + 10440497\, q^{96}\, p^{31} + 16274438\, q^{96}\, p^{32} + 24814295\, q^{96}\, p^{33} + 8811\, q^{25}\, p^{8} + 341154276698\, p^{70}\, q^{63}$$
$$+ 312944619317\, p^{70}\, q^{61} + 327857016356\, p^{70}\, q^{62} + 3038785\, p^{121}\, q^{93} + 22953102213\, p^{54}\, q^{40} + 1092537512\, p^{52}\, q^{28}$$
$$+ 44859497732\, p^{54}\, q^{44} + 54849306640\, p^{55}\, q^{45} + 13118\, p^{11}\, q^{17} + 31155\, q^{31}\, p^{9} + 18979982130\, p^{54}\, q^{39} + 12607677811\, p^{54}\, q^{37}$$
$$+ 416214\, q^{31}\, p^{13} + 115134\, q^{30}\, p^{11} + 186893708872\, p^{62}\, q^{80} + p^{9}\, q + 1689641499\, p^{96}\, q^{47} + 6404631\, p^{88}\, q^{25} + 38438901471\, p^{54}\, q^{43}$$

$$+ 32656670523\, p^{54}\, q^{42} + 175677218195\, p^{61}\, q^{80} + 15545499065\, p^{54}\, q^{38} + 27501907771\, p^{54}\, q^{41} + 9821651\, p^{25}\, q^{24} + 6079124151\, p^{53}\, q^{34}$$
$$+ 7718006949\, p^{53}\, q^{35} + 6626\, q^{59}\, p^{9} + 3644054011\, p^{53}\, q^{32} + 2770507603\, p^{53}\, q^{31} + 94496152597\, p^{86}\, q^{62} + 112485263462\, p^{86}\, q^{65}$$
$$+ 9545055\, p^{20}\, q^{31} + 9739\, q^{125}\, p^{67} + 788255839\, p^{52}\, q^{27} + 4734452691\, p^{53}\, q^{33} + 16082\, q^{61}\, p^{10} + 58098512146\, p^{45}\, q^{69}$$
$$+ 530434365\, q^{75}\, p^{29} + 1097787804\, q^{75}\, p^{31} + 769657370\, q^{75}\, p^{30} + 358944718\, q^{75}\, p^{28} + 44553\, p^{54}\, q^{10} + 4962531080\, p^{69}\, q^{34}$$
$$+ 25958803061\, p^{70}\, q^{41} + 9874243399\, p^{96}\, q^{92} + 264635412\, q^{93}\, p^{37} + 80226645263\, p^{83}\, q^{87} + 74340832416\, p^{84}\, q^{87} + 44046\, p^{126}\, q^{109}$$
$$+ 41\, p^{98}\, q^{17} + 257\, p^{104}\, q^{22} + 18342\, p^{126}\, q^{115} + 7999\, q^{92}\, p^{18} + 283219255\, p^{29}\, q^{35} + 316311692\, p^{33}\, q^{31} + 90010623338\, p^{88}\, q^{79}$$
$$+ 69226848\, p^{35}\, q^{24} + 6674245\, p^{34}\, q^{18} + 126665627\, p^{35}\, q^{26} + 702290933\, p^{35}\, q^{33} + 1153796214\, q^{59}\, p^{28} + 7972097\, q^{58}\, p^{17}$$
$$+ 40413119\, q^{59}\, p^{20} + 118345\, q^{90}\, p^{20} + 1610822519\, q^{59}\, p^{29} + 167256162\, q^{59}\, p^{23} + 2215096863\, q^{59}\, p^{30} + 372000722\, q^{60}\, p^{25}$$
$$+ 106853122\, q^{59}\, p^{22} + 66603892\, q^{59}\, p^{21} + 1092537512\, q^{52}\, p^{28} + 398102478\, q^{53}\, p^{25} + 987713691\, p^{86}\, q^{36} + 10208794264\, p^{89}\, q^{48}$$
$$+ 28471281765\, p^{90}\, q^{56} + 58\, p^{38}\, q^{4} + 6827188617\, p^{88}\, q^{45} + 1857\, p^{35}\, q^{6} + 178581\, p^{18}\, q^{17} + 89197\, p^{15}\, q^{18} + p^{11}\, q + 4\, p^{3}\, q^{3}$$
$$+ 28597\, p^{105}\, q^{28} + 3611\, p^{99}\, q^{21} + 52576678888\, p^{91}\, q^{65} + 42966086510\, p^{91}\, q^{62} + 347098934999\, p^{69}\, q^{63} + 319339293501\, p^{69}\, q^{61}$$
$$+ 334061354671\, p^{69}\, q^{62} + 19164231353\, p^{90}\, q^{53} + 29698695290\, p^{91}\, q^{58} + 36246776476\, p^{91}\, q^{60} + 55354635258\, p^{92}\, q^{71}$$
$$+ 22042182692\, p^{90}\, q^{54} + 39279\, p^{68}\, q^{12} + 182959393171\, p^{73}\, q^{83} + 165316094797\, p^{70}\, q^{84} + 127805149885\, p^{65}\, q^{85}$$
$$+ 67874843905\, p^{58}\, q^{86} + 74528057885\, p^{59}\, q^{86} + 106872970134\, p^{64}\, q^{86} + 76238057065\, p^{61}\, q^{87} + 121636432215\, p^{64}\, q^{85}$$
$$+ 24385002206\, p^{93}\, q^{88} + 2194\, p^{16}\, q^{8} + 24\, p^{12}\, q^{3} + 6\, p^{11}\, q^{2} + 499\, p^{15}\, q^{6} + 199\, p^{14}\, q^{5} + 36269194728\, p^{93}\, q^{83} + 26479918\, q^{97}\, p^{34}$$
$$+ 1622686\, q^{30}\, p^{16} + 134970\, p^{61}\, q^{12} + 42427673262\, p^{78}\, q^{47} + 11553783039\, p^{77}\, q^{40} + 9084545772\, p^{77}\, q^{39} + 49202\, p^{15}\, q^{16}$$
$$+ 25189\, p^{14}\, q^{15} + 103728\, q^{29}\, p^{11} + 1197298\, q^{120}\, p^{67} + 20961798119\, p^{40}\, q^{70} + 2715704322\, p^{82}\, q^{37} + 74528057885\, p^{86}\, q^{59}$$
$$+ 6589337092\, p^{83}\, q^{41} + 925659205\, p^{81}\, q^{33} + 81798281\, p^{79}\, q^{26} + 113386619241\, p^{87}\, q^{69} + 1091057309\, p^{82}\, q^{34} + 115565340741\, p^{87}\, q^{70}$$
$$+ p^{3}\, q + 2\, p^{2}\, q^{2} + 5157978367\, p^{83}\, q^{40} + 3514259\, p^{75}\, q^{19} + 3991826203\, p^{83}\, q^{39} + 329784\, p^{101}\, q^{124} + p\, q^{2} + 15708\, p^{67}\, q^{11}$$
$$+ 56671644330\, p^{92}\, q^{74} + 48819254725\, p^{92}\, q^{67} + 511\, q^{34}\, p^{5} + 1857\, q^{35}\, p^{6} + 44859497732\, p^{82}\, q^{92} + 52692901360\, p^{69}\, q^{92}$$
$$+ 886110\, p^{29}\, q^{15} + 41062\, q^{83}\, p^{16} + 8903481\, p^{119}\, q^{80} + 2388861\, p^{116}\, q^{56} + 20769\, q^{82}\, p^{15} + 17962\, q^{25}\, p^{9} + 16\, p^{44}\, q^{4} + 578768\, p^{18}\, q^{21}$$
$$+ p^{2}\, q + 101961600296\, p^{86}\, q^{81} + 54212\, p^{79}\, q^{15} + 9692797432\, p^{100}\, q^{83} + 405675\, q^{27}\, p^{14} + 760417\, q^{28}\, p^{15} + 372654\, p^{91}\, q^{22}$$
$$+ 1163905772\, p^{107}\, q^{69} + 1306399722\, p^{106}\, q^{66} + 2920699832\, p^{105}\, q^{75} + 5940151\, p^{117}\, q^{64} + 179381\, p^{13}\, q^{25} + 2729\, p^{96}\, q^{19}$$
$$+ 614916760\, p^{108}\, q^{93} + 27648265\, p^{98}\, q^{35} + 2492864906\, q^{44}\, p^{33} + 3880839147\, q^{44}\, p^{35} + 5313227163\, q^{45}\, p^{36} + 1532650013\, q^{44}\, p^{31}$$

$$+ 3126808240\, q^{44}\, p^{34} + 1965820302\, q^{44}\, p^{32} + 17112078\, q^{90}\, p^{28} + 4792680\, q^{89}\, p^{25} + 8278815\, q^{89}\, p^{26} + 1396\, p^{130}\, q^{96}$$
$$+ 8345158900\, p^{39}\, q^{44} + 6989709326\, p^{38}\, q^{44} + 74438736\, p^{95}\, q^{35} + 248102243063\, p^{74}\, q^{79} + 86333051\, p^{106}\, q^{108} + 45532318\, p^{80}\, q^{116}$$
$$+ 46707186\, p^{81}\, q^{116} + 376273478985\, p^{66}\, q^{68} + 148877166747\, p^{73}\, q^{85} + 125901250985\, p^{68}\, q^{86} + 250839813\, q^{80}\, p^{29}$$
$$+ 371522318\, q^{80}\, p^{30} + 37026958\, q^{78}\, p^{24} + 2379239528\, q^{81}\, p^{36} + 540240760\, q^{80}\, p^{31} + 1503751845\, q^{80}\, p^{34} + 772149957\, q^{80}\, p^{32}$$
$$+ 1085841873\, q^{80}\, p^{33} + 2052488804\, q^{80}\, p^{35} + 21924834\, q^{78}\, p^{23} + 166059450\, q^{80}\, p^{28} + 30788007\, q^{79}\, p^{24} + 81798281\, q^{79}\, p^{26}$$
$$+ 4554520\, q^{40}\, p^{16} + 1427151\, q^{39}\, p^{14} + 1921317000\, q^{73}\, p^{32} + 29057095\, p^{20}\, q^{40} + 5800498897\, p^{44}\, q^{37} + 378492\, p^{50}\, q^{12} + 173504\, p^{49}\, q^{11}$$
$$+ 9654885\, p^{54}\, q^{17} + 27172490743\, p^{60}\, q^{40} + 49600\, p^{83}\, q^{126} + 82837\, q^{46}\, p^{10} + 4418729\, p^{18}\, q^{31} + 2360820677\, p^{97}\, q^{50}$$
$$+ 11195168576\, p^{100}\, q^{74} + 8560962751\, p^{100}\, q^{67} + 10997171728\, p^{100}\, q^{73} + 5210688149\, p^{101}\, q^{89} + 11368998123\, p^{100}\, q^{76}$$
$$+ 11341454828\, p^{100}\, q^{77} + 3466582280\, p^{102}\, q^{91} + 8318489564\, p^{101}\, q^{81} + 69496899\, p^{28}\, q^{29} + 26357132\, p^{23}\, q^{31} + 51915692\, p^{26}\, q^{30}$$
$$+ 1788853401\, q^{86}\, p^{38} + 334189\, p^{61}\, q^{13} + 679178\, p^{62}\, q^{14} + 13\, q^{109}\, p^{24} + 208495361783\, p^{58}\, q^{75} + 237936407201\, p^{59}\, q^{74}$$
$$+ 254263766891\, p^{60}\, q^{74} + 250204956409\, p^{59}\, q^{73} + 704098\, q^{72}\, p^{16} + 375684\, q^{71}\, p^{15} + 154401\, q^{71}\, p^{14} + 72540\, q^{70}\, p^{13} + 1255899\, q^{73}\, p^{17}$$
$$+ 3380729074\, q^{84}\, p^{39} + 4380945958\, q^{84}\, p^{40} + 5612157902\, q^{84}\, p^{41} + 100164025\, p^{69}\, q^{113} + 312981913\, q^{81}\, p^{30} + 7288881\, q^{97}\, p^{31}$$
$$+ 88573842011\, p^{61}\, q^{47} + 101308820419\, p^{61}\, q^{48} + 1727138725\, p^{74}\, q^{32} + 1234769998\, p^{74}\, q^{31} + 1581\, q^{95}\, p^{18} + 9379\, q^{99}\, p^{22}$$
$$+ 22315\, q^{99}\, p^{23} + 2971526991\, p^{31}\, q^{60} + 241842427\, p^{43}\, q^{25} + 457130479\, p^{43}\, q^{27} + 51448365\, p^{42}\, q^{21} + 171808039\, p^{43}\, q^{24}$$
$$+ 335014416\, p^{43}\, q^{26} + 2492864906\, p^{44}\, q^{33} + 1180823015\, p^{44}\, q^{30} + 898531239\, p^{44}\, q^{29} + 1965820302\, p^{44}\, q^{32} + 1532650013\, p^{44}\, q^{31}$$
$$+ 3126808240\, p^{44}\, q^{34} + 3880839147\, p^{44}\, q^{35} + 5313227163\, p^{45}\, q^{36} + 848119\, q^{101}\, p^{30} + 124014\, q^{100}\, p^{26} + 5656003\, q^{103}\, p^{36}$$
$$+ 8413230\, q^{103}\, p^{37} + 12277874\, q^{103}\, p^{38} + 17601459\, q^{103}\, p^{39} + 56671644330\, p^{74}\, q^{92} + 15168879\, p^{57}\, q^{18} + 2638291\, p^{55}\, q^{15}$$
$$+ 197329941323\, p^{55}\, q^{71} + 66216615676\, q^{91}\, p^{72} + 66074432519\, q^{91}\, p^{75} + 63802956340\, q^{91}\, p^{77} + 53231450416\, q^{92}\, p^{78}$$
$$+ 66614042660\, q^{91}\, p^{73} + 65147472072\, q^{91}\, p^{76} + 66566372085\, q^{91}\, p^{74} + 64125427644\, q^{91}\, p^{70} + 3631480\, p^{115}\, q^{55} + 42367\, p^{102}\, q^{26}$$
$$+ 65381779034\, q^{91}\, p^{71} + 4988328629\, p^{63}\, q^{33} + 102293981\, p^{60}\, q^{22} + 8413230\, p^{103}\, q^{37} + 1332551\, p^{100}\, q^{30} + 3725371\, p^{101}\, q^{33}$$
$$+ 174805348\, p^{107}\, q^{54} + 262055\, q^{111}\, p^{39} + 403306\, q^{111}\, p^{40} + 607079\, q^{111}\, p^{41} + 358325682\, p^{61}\, q^{25} + 1389\, p^{122}\, q^{128} + 1756\, p^{121}\, q^{128}$$
$$+ 36770018\, p^{113}\, q^{61} + 71856214\, p^{115}\, q^{79} + 24046325\, p^{116}\, q^{98} + 22599413\, p^{111}\, q^{53} + 110826925\, p^{114}\, q^{78} + 18524336\, p^{110}\, q^{50}$$
$$+ 73403893\, p^{115}\, q^{87} + 75035930\, p^{115}\, q^{86} + 17788465002\, q^{75}\, p^{41} + 4903577\, p^{69}\, q^{18} + 22670312\, p^{71}\, q^{21} + 14205118339\, q^{75}\, p^{40}$$
$$+ 848119\, p^{106}\, q^{35} + 61507325\, p^{114}\, q^{69} + 73082676\, p^{113}\, q^{66} + 52078771\, p^{112}\, q^{60} + 67636809\, p^{114}\, q^{70} + 90874313\, p^{113}\, q^{68}$$

$$+ 238138878450\, p^{67} q^{56} + 310362176831\, p^{67} q^{60} + 257128465256\, p^{67} q^{57} + 370428776904\, p^{67} q^{65} + 376273478985\, p^{68} q^{66}$$
$$+ 4540457600\, p^{37} q^{42} + 4747673646\, p^{38} q^{41} + 5627583952\, p^{39} q^{41} + 51527802808\, p^{57} q^{44} + 4152296519\, p^{39} q^{39} + 4854622584\, p^{40} q^{39}$$
$$+ 5290775132\, p^{58} q^{33} + 101444454288\, p^{87} q^{79} + 171792319054\, p^{60} q^{53} + 5655724\, p^{52} q^{16} + 1383447256\, p^{31} q^{43} + 5689847979\, p^{40} q^{40}$$
$$+ 61363076977\, p^{79} q^{50} + 20033744609\, p^{78} q^{43} + 10363869523\, p^{70} q^{37} + 80547500606\, p^{72} q^{48} + 52576678888\, p^{71} q^{45}$$
$$+ 752481870\, p^{68} q^{28} + 16676\, p^{53} q^{9} + 1568675\, p^{95} q^{122} + 41353836841\, p^{44} q^{72} + 9289814\, q^{106} p^{41} + 17865448\, q^{106} p^{43}$$
$$+ 32409239\, q^{106} p^{45} + 4531227\, q^{57} p^{16} + 267697478664\, p^{69} q^{58} + 1220641\, q^{56} p^{14} + 14401315\, q^{58} p^{18} + 42355009\, q^{58} p^{20}$$
$$+ 25098108\, q^{58} p^{19} + 255936612\, q^{59} p^{24} + 3591\, p^{62} q^{9} + 26392853026\, p^{40} q^{58} + 96663682231\, p^{87} q^{80} + 73777073\, q^{38} p^{23}$$
$$+ 11341454828\, p^{36} q^{59} + 2856358859\, q^{54} p^{31} + 147240026181\, p^{85} q^{74} + 138242970677\, p^{85} q^{67} + 149184320588\, p^{85} q^{71}$$
$$+ 149529336298\, p^{85} q^{72} + 142326324711\, p^{85} q^{68} + 144648786827\, p^{85} q^{75} + 76817361661\, p^{90} q^{75} + 276444\, p^{68} q^{14} + 132263\, p^{67} q^{13}$$
$$+ 3590688778\, q^{89} p^{43} + 2824759412\, q^{89} p^{42} + 4515319823\, q^{89} p^{44} + 5659190574\, q^{90} p^{46} + 8446747058\, q^{89} p^{47} + 5619259822\, q^{89} p^{45}$$
$$+ 6923088231\, q^{89} p^{46} + 10191292415\, p^{93} q^{95} + 197141698\, q^{79} p^{28} + 50852083\, q^{79} p^{25} + 296411078\, q^{79} p^{29} + 9668280255\, q^{82} p^{42}$$
$$+ 5424306556\, q^{81} p^{39} + 49038884292\, q^{81} p^{50} + 6970271310\, q^{81} p^{40} + 8857312202\, q^{81} p^{41} + 10811337391\, p^{100} q^{80}$$
$$+ 7027915437\, p^{100} q^{88} + 128419786\, q^{79} p^{27} + 360885963544\, p^{64} q^{66} + 370428776904\, p^{65} q^{67} + 1385208068\, p^{72} q^{107} + 5799\, q^{33} p^{7}$$
$$+ 182\, q^{111} p^{28} + 61\, q^{110} p^{26} + 20050593326\, q^{94} p^{60} + 82844\, q^{35} p^{10} + 3329236\, q^{36} p^{16} + 5624\, p^{37} q^{7} + 131121\, p^{53} q^{11} + 1220641\, p^{56} q^{14}$$
$$+ 613061\, p^{55} q^{13} + 358219679959\, p^{69} q^{64} + 292245\, p^{54} q^{12} + 1038\, p^{43} q^{6} + 34303921731\, p^{94} q^{81} + 185900201005\, p^{70} q^{54}$$
$$+ 65546134394\, p^{70} q^{46} + 197329941323\, p^{71} q^{55} + 295210546733\, p^{61} q^{61} + 293431838364\, p^{65} q^{59} + 38134224034\, p^{89} q^{57}$$
$$+ 380612900\, p^{84} q^{32} + 65546134394\, p^{90} q^{66} + 6639225811\, p^{87} q^{44} + 1788853401\, p^{86} q^{38} + 438469\, q^{100} p^{28} + 102599\, q^{99} p^{25}$$
$$+ 202456\, q^{99} p^{26} + 777310\, q^{100} p^{29} + 4570196\, p^{77} q^{20} + 62471257596\, p^{91} q^{69} + 64125427644\, p^{91} q^{70} + 17897730\, q^{117} p^{73}$$
$$+ 19438138\, q^{117} p^{74} + 39456766172\, p^{90} q^{59} + 74112171716\, p^{55} q^{83} + 1521294845\, p^{89} q^{106} + 2410506\, q^{120} p^{72} + 1870696\, q^{120} p^{70}$$
$$+ 274046172786\, p^{58} q^{64} + 230\, p^{70} q^{128} + 3\, p^{66} q^{129} + 91241539\, p^{37} q^{24} + 8413637\, p^{36} q^{18} + 169719149\, p^{37} q^{26} + 21234026452\, p^{86} q^{95}$$
$$+ 17827169465\, p^{74} q^{98} + 21642317907\, p^{78} q^{97} + 253243425272\, p^{73} q^{79} + 2031443750\, q^{100} p^{54} + 1719521521\, q^{100} p^{53}$$
$$+ 1199306099\, q^{100} p^{51} + 1442617778\, q^{100} p^{52} + 7183538313\, q^{46} p^{37} + 596498\, p^{109} q^{38} + 2823\, p^{94} q^{18} + 1526\, p^{93} q^{17}$$
$$+ 114194107758\, p^{75} q^{52} + 100601287603\, p^{75} q^{51} + 8208230819\, p^{73} q^{37} + 65559705096\, p^{75} q^{48} + 42966086510\, p^{74} q^{45}$$
$$+ 573608184\, p^{71} q^{28} + 834481066\, p^{71} q^{29} + 266963785190\, p^{76} q^{63} + 254263766891\, p^{76} q^{62} + 240513284421\, p^{76} q^{61}$$

$$+ 10208794264\, p^{88} q^{47} + 292\, p^{51} q^{6} + 10363869523\, p^{66} q^{99} + 4201369495\, p^{87} q^{42} + 216075456\, p^{83} q^{30} + 876010623\, p^{85} q^{35}$$
$$+ 36684791223\, p^{92} q^{85} + 44135793684\, p^{51} q^{83} + 886110\, p^{121} q^{107} + 452440\, p^{121} q^{111} + 2711903\, p^{120} q^{102} + 3329236\, p^{120} q^{100}$$
$$+ 4554520\, p^{120} q^{96} + 9930872\, p^{118} q^{73} + 27\, p^{133} q^{123} + 118\, p^{81} q^{11} + 437\, p^{72} q^{128} + 318\, p^{71} q^{128} + 107633083\, p^{56} q^{109}$$
$$+ 13583823172\, p^{45} q^{84} + p^{59} q^{5} + 122294201146\, p^{74} q^{52} + 107923651771\, p^{74} q^{51} + 8935584777\, p^{72} q^{37} + 70712062298\, p^{74} q^{48}$$
$$+ 46280509093\, p^{73} q^{45} + 632617994\, p^{70} q^{28} + 916912428\, p^{70} q^{29} + 282878203936\, p^{75} q^{63} + 269831577154\, p^{75} q^{62}$$
$$+ 255631051868\, p^{75} q^{61} + 1402018\, p^{68} q^{16} + 24951197788\, p^{80} q^{96} + 233377189940\, p^{76} q^{79} + 147\, p^{132} q^{116} + 464372151\, q^{76} p^{29}$$
$$+ 676431439\, q^{76} p^{30} + 76358288\, p^{54} q^{21} + 274083662\, p^{55} q^{24} + 8051720\, q^{41} p^{17} + 13029674\, q^{41} p^{18} + 13894214\, q^{42} p^{18}$$
$$+ 20530053\, q^{41} p^{19} + 31570329\, q^{41} p^{20} + 23046295473\, p^{47} q^{83} + 31983363372\, q^{90} p^{57} + 66540999177\, p^{88} q^{84} + 243581538582\, p^{58} q^{72}$$
$$+ 517700\, p^{123} q^{79} + 65859\, p^{118} q^{49} + 64826\, p^{126} q^{105} + 199289\, p^{121} q^{62} + 380612900\, p^{104} q^{52} + 200491796\, p^{95} q^{111}$$
$$+ 107988446\, p^{102} q^{110} + 142471055\, p^{102} q^{109} + 226\, p^{131} q^{94} + p^{121} q^{39} + 115\, p^{129} q^{74} + 290466243147\, p^{59} q^{64} + 319668011325\, p^{61} q^{64}$$
$$+ 342383870870\, p^{63} q^{64} + 331949180926\, p^{62} q^{64} + 350782011239\, p^{64} q^{64} + 356988105865\, p^{65} q^{64} + 305759655474\, p^{60} q^{64}$$
$$+ 16671\, p^{118} q^{125} + 44859497732\, p^{92} q^{82} + 292783104944\, p^{62} q^{60} + 968358180\, q^{76} p^{31} + 1540742124\, q^{75} p^{32} + 2129720535\, q^{75} p^{33}$$
$$+ 704098\, p^{72} q^{16} + 2545379352\, p^{65} q^{31} + 78\, p^{36} q^{4} + 110504099782\, p^{68} q^{49} + 129725066\, p^{24} q^{40} + 47477688\, p^{21} q^{41}$$
$$+ 1356318857\, q^{96} p^{46} + 867587744\, q^{95} p^{43} + 7671344158\, q^{95} p^{54} + 1112508990\, q^{95} p^{44} + 1410756421\, q^{95} p^{45} + 91742944\, p^{23} q^{40}$$
$$+ 1383447256\, p^{93} q^{105} + 87019770649\, p^{47} q^{60} + 99358721110\, p^{48} q^{60} + 2916\, p^{56} q^{8} + 12720740536\, p^{80} q^{42} + 2717378445\, p^{78} q^{35}$$
$$+ 42039503744\, p^{81} q^{49} + 171225791973\, p^{82} q^{64} + 676431439\, p^{76} q^{30} + 93842331373\, p^{81} q^{55} + 28471281765\, p^{80} q^{46}$$
$$+ 136954590\, p^{106} q^{106} + 13468633856\, p^{42} q^{44} + 17768069138\, p^{44} q^{44} + 22928213336\, p^{45} q^{45} + 9874243399\, p^{40} q^{44}$$
$$+ 15532960196\, p^{43} q^{44} + 11581604141\, p^{41} q^{44} + 8708620916\, p^{40} q^{43} + 89044\, p^{44} q^{10} + 881549\, p^{47} q^{13} + 17815458\, p^{50} q^{18}$$
$$+ 69216453473\, p^{57} q^{46} + 17\, p^{31} q^{3} + 676177534\, p^{64} q^{27} + 3462254331\, p^{65} q^{32} + 63273075\, p^{31} q^{26} + 22413\, p^{27} q^{9} + 92571\, p^{28} q^{11}$$
$$+ 61\, p^{57} q^{6} + 1377\, p^{71} q^{10} + 69946445\, p^{22} q^{41} + 247145279\, p^{26} q^{40} + 664286861\, p^{30} q^{39} + 7182\, q^{107} p^{28} + 144532\, q^{109} p^{35}$$
$$+ 2330532\, q^{110} p^{43} + 1630984\, q^{110} p^{42} + 238171\, q^{109} p^{36} + 1360847\, q^{109} p^{40} + 15039\, q^{107} p^{29} + 294546227987\, p^{61} q^{72}$$
$$+ 215198750163\, p^{57} q^{73} + 137512985371\, p^{53} q^{74} + 10121444938\, q^{54} p^{36} + 10496556230\, q^{55} p^{36} + 8040223362\, q^{54} p^{35}$$
$$+ 4907529391\, q^{54} p^{33} + 6317403400\, q^{54} p^{34} + 3767312533\, q^{54} p^{32} + 500011372\, p^{109} q^{92} + 5273973354\, p^{60} q^{33} + 180364476377\, p^{62} q^{53}$$
$$+ 5292076\, p^{54} q^{16} + 202304435\, p^{110} q^{63} + 953760\, p^{18} q^{23} + 31370485\, p^{32} q^{23} + 556232371\, p^{67} q^{27} + 2929099687\, p^{68} q^{32}$$

$$+ 15686517271\, p^{71} q^{39} + 69069184244\, p^{72} q^{47} + 19670014766\, p^{71} q^{40} + 106872970134\, p^{72} q^{50} + 36504325529\, p^{71} q^{43}$$
$$+ 29996565144\, p^{71} q^{42} + 11581\, p^{97} q^{21} + 94550\, p^{103} q^{28} + 3013644598\, p^{105} q^{78} + 16216067516\, p^{78} q^{42} + 3484142873\, p^{76} q^{35}$$
$$+ 52809919898\, p^{79} q^{49} + 207193367738\, p^{80} q^{64} + 868804000\, p^{74} q^{30} + 115294718434\, p^{79} q^{55} + 35657033255\, p^{78} q^{46} + 7095\, q^{65} p^{10}$$
$$+ 2237\, q^{64} p^{9} + 58918\, q^{66} p^{12} + 7926307\, p^{98} q^{32} + 895071\, p^{94} q^{25} + 1193123096\, p^{106} q^{65} + 868804000\, p^{106} q^{62} + 1148489416\, p^{108} q^{82}$$
$$+ 1092537512\, p^{108} q^{84} + 633040484\, p^{105} q^{57} + 1124039244\, p^{108} q^{83} + 167775919\, p^{109} q^{101} + 1890\, p^{66} q^{126} + 2851205149\, q^{105} p^{74}$$
$$+ 2417173731\, q^{105} p^{70} + 54620269090\, p^{77} q^{92} + 657731751\, p^{29} q^{41} + 1543018108\, p^{33} q^{40} + 2958493369\, p^{37} q^{39} + 1805\, p^{27} q^{6}$$
$$+ 591\, p^{26} q^{5} + 9\, p^{124} q^{48} + 334061354671\, p^{62} q^{69} + 204588714983\, p^{55} q^{70} + 898531239\, p^{107} q^{92} + 2638291\, q^{55} p^{15} + 131121\, q^{53} p^{11}$$
$$+ 659145\, q^{54} p^{13} + 49600\, p^{53} q^{10} + 5291446182\, p^{68} q^{34} + 27412536780\, p^{69} q^{41} + 196451263459\, p^{68} q^{54} + 71179456439\, p^{68} q^{46}$$
$$+ 210688612536\, p^{69} q^{55} + 6571199584\, q^{63} p^{34} + 4988328629\, q^{63} p^{33} + 8550908567\, q^{63} p^{35} + 13676531919\, q^{64} p^{37}$$
$$+ 17592061800\, q^{63} p^{38} + 10997171728\, q^{63} p^{36} + 13984737246\, q^{63} p^{37} + 1626685\, p^{67} q^{16} + 75733606169\, p^{48} q^{73}$$
$$+ 207193367738\, p^{56} q^{72} + 225454000971\, p^{57} q^{72} + 6547675464\, p^{101} q^{86} + 271080911767\, p^{59} q^{71} + 532438\, p^{90} q^{22}$$
$$+ 1641542607\, p^{106} q^{69} + 1831566131\, p^{105} q^{66} + 46511894742\, p^{44} q^{70} + 20545\, p^{12} q^{17} + 18979982130\, q^{54} p^{39} + 331949180926\, p^{64} q^{62}$$
$$+ 313395196616\, p^{61} q^{63} + 324954956996\, p^{63} q^{62} + 323893764806\, p^{65} q^{61} + 342383870870\, p^{64} q^{63} + 334677130777\, p^{63} q^{63}$$
$$+ 347932148309\, p^{65} q^{63} + 336833558295\, p^{65} q^{62} + 324954956996\, p^{62} q^{63} + 274046172786\, p^{64} q^{58} + 285616009477\, p^{63} q^{59}$$
$$+ 806\, q^{113} p^{32} + 2837976506\, p^{97} q^{51} + 1356318857\, p^{96} q^{46} + 11479457266\, p^{98} q^{64} + 5424306556\, p^{97} q^{55} + 2653276\, p^{87} q^{23}$$
$$+ 49842311\, p^{91} q^{31} + 142723\, p^{82} q^{17} + 17112078\, p^{90} q^{28} + 323010056619\, p^{63} q^{72} + 39940870286\, p^{94} q^{75} + 923706\, p^{78} q^{18}$$
$$+ 4563613\, p^{80} q^{21} + 6721225\, p^{81} q^{22} + 5610\, p^{66} q^{10} + 27501907771\, p^{95} q^{82} + 63754368\, p^{96} q^{114} + 50032165\, p^{101} q^{113} + q^{41} p^{3}$$
$$+ 42246138145\, p^{83} q^{92} + 5428157182\, p^{59} q^{99} + 2379239528\, p^{55} q^{100} + 4215899890\, p^{57} q^{99} + 4802667837\, p^{58} q^{99} + 144532\, q^{101} p^{27}$$
$$+ 3441227629\, p^{96} q^{99} + 9821651\, p^{111} q^{112} + 4540457600\, p^{94} q^{99} + 5876017047\, p^{90} q^{100} + 5152286419\, p^{93} q^{99} + 5809521523\, p^{84} q^{102}$$
$$+ 4313754516\, p^{91} q^{101} + 3880839147\, p^{92} q^{101} + 89614\, q^{123} p^{67} + 4105768106\, p^{96} q^{98} + 4747673646\, p^{95} q^{98} + 3\, p^{39} q^{3}$$
$$+ 3750965580\, p^{94} q^{100} + 3287393027\, p^{95} q^{100} + 67361519\, p^{27} q^{30} + 241439321783\, p^{75} q^{79} + 69426603\, p^{58} q^{21} + 255936612\, p^{59} q^{24}$$
$$+ 3927580173\, p^{61} q^{32} + 794763528\, p^{60} q^{27} + 2920699832\, p^{61} q^{31} + 33164557846\, p^{62} q^{41} + 6830646741\, p^{61} q^{34} + 8844256684\, p^{61} q^{35}$$
$$+ 157667\, p^{121} q^{61} + 208370\, p^{125} q^{94} + 19587\, p^{115} q^{40} + 11581\, p^{115} q^{39} + 293119\, p^{123} q^{74} + 328768\, p^{122} q^{69} + 3575\, p^{113} q^{34}$$
$$+ 207313\, p^{125} q^{95} + 387247\, p^{122} q^{70} + 138130\, p^{125} q^{104} + 11825458128\, p^{43} q^{42} + 111\, p^{128} q^{68} + 129\, p^{126} q^{59} + 161\, p^{132} q^{113}$$

$$+ 9874243399\, p^{44}\, q^{40} + 81242378135\, p^{60}\, q^{86} + 7619283323\, p^{40}\, q^{42} + 7701675350\, p^{41}\, q^{41} + 8895961401\, p^{42}\, q^{41} + 8708620916\, p^{43}\, q^{40}$$
$$+ 226\, q^{42}\, p^{5} + 6686973\, p^{75}\, q^{20} + 38470454782\, p^{85}\, q^{52} + 284790\, q^{21}\, p^{16} + 155778241699\, p^{54}\, q^{56} + 135058553799\, p^{53}\, q^{55} + 18\, p^{72}\, q^{8}$$
$$+ 16464775\, q^{118}\, p^{81} + 180443404\, p^{25}\, q^{40} + 597912402\, p^{66}\, q^{27} + 3118794446\, p^{67}\, q^{32} + 2856773\, p^{115}\, q^{54} + 3743\, p^{14}\, q^{10} + 3053\, p^{12}\, q^{11}$$
$$+ 2045\, p^{10}\, q^{12} + 1076\, p^{8}\, q^{13} + 160\, p^{69}\, q^{128} + 260823963151\, p^{59}\, q^{60} + 133373311318\, p^{66}\, q^{85} + 138242970677\, p^{67}\, q^{85}$$
$$+ 163010009937\, p^{69}\, q^{84} + 114972606419\, p^{63}\, q^{85} + 272913863565\, p^{60}\, q^{60} + 241439321783\, p^{57}\, q^{61} + 103158492224\, p^{48}\, q^{64}$$
$$+ 133153702500\, p^{50}\, q^{64} + 166651621854\, p^{52}\, q^{64} + 149529336298\, p^{51}\, q^{64} + 184354811936\, p^{53}\, q^{64} + 220706615515\, p^{55}\, q^{64}$$
$$+ 202445766780\, p^{54}\, q^{64} + 221605535272\, p^{55}\, q^{65} + 117661214896\, p^{49}\, q^{64} + 263995663264\, p^{62}\, q^{58} + 237323946193\, p^{58}\, q^{59}$$
$$+ 249647748445\, p^{59}\, q^{59} + 5580242\, p^{19}\, q^{30} + 335\, p^{13}\, q^{6} + 63\, p^{12}\, q^{4} + 137\, p^{12}\, q^{5} + 623\, p^{13}\, q^{7} + 1773\, p^{13}\, q^{9} + 18099475321\, q^{94}\, p^{59}$$
$$+ 180215084\, p^{56}\, q^{23} + 15545499065\, q^{54}\, p^{38} + 13104937727\, q^{55}\, p^{37} + 485871110\, p^{63}\, q^{26} + 145691848\, p^{62}\, q^{23} + 1385208068\, p^{64}\, q^{29}$$
$$+ 335\, p^{39}\, q^{5} + 1934733002\, p^{64}\, q^{30} + 38282584\, p^{60}\, q^{20} + 181197492422\, p^{69}\, q^{83} + 1205\, q^{83}\, p^{13} + 5469\, p^{60}\, q^{9} + 48338\, q^{109}\, p^{33}$$
$$+ 85024\, q^{109}\, p^{34} + 26422\, q^{109}\, p^{32} + 755474\, q^{110}\, p^{40} + 1120846\, q^{110}\, p^{41} + 3\, q^{70}\, p^{7} + 9\, q^{73}\, p^{8} + 1240\, q^{99}\, p^{20} + 203\, q^{98}\, p^{18}$$
$$+ 9692797432\, q^{53}\, p^{36} + 5444657760\, p^{42}\, q^{38} + 100843720245\, p^{63}\, q^{86} + 94496152597\, p^{62}\, q^{86} + 159663177127\, p^{68}\, q^{84}$$
$$+ 87929734640\, p^{61}\, q^{86} + 109213427\, p^{36}\, q^{25} + 19457570\, q^{100}\, p^{36} + 8822833\, q^{101}\, p^{35} + 75774397834\, p^{89}\, q^{80} + 29082\, p^{30}\, q^{9}$$
$$+ 126679\, p^{31}\, q^{11} + 582\, q^{63}\, p^{8} + 24092\, q^{65}\, p^{11} + 8872\, q^{64}\, p^{10} + 769\, q^{62}\, p^{8} + 543645159\, q^{84}\, p^{33} + 764043278\, q^{84}\, p^{34}$$
$$+ 1057498138\, q^{84}\, p^{35} + 21268009\, p^{116}\, q^{69} + 25891614\, p^{115}\, q^{66} + 18179616\, p^{114}\, q^{60} + 23669246\, p^{116}\, q^{70} + 32950983\, p^{115}\, q^{68}$$
$$+ 233377189940\, p^{57}\, q^{60} + 247570719613\, p^{58}\, q^{60} + 29333615\, p^{83}\, q^{117} + 238898666727\, p^{64}\, q^{56} + 12607677811\, q^{54}\, p^{37}$$
$$+ 7718006949\, q^{53}\, p^{35} + 98253272146\, p^{85}\, q^{83} + 115827551418\, p^{82}\, q^{84} + 136814296559\, p^{77}\, q^{85} + 126526126098\, p^{76}\, q^{86}$$
$$+ 117538370130\, p^{73}\, q^{87} + 84919661009\, p^{47}\, q^{59} + 56356668479\, p^{61}\, q^{44} + 9\, p^{73}\, q^{8} + 1464756\, p^{116}\, q^{54} + 27294729\, p^{56}\, q^{19}$$
$$+ 114139400\, p^{57}\, q^{22} + 517101\, p^{113}\, q^{44} + 1076\, p^{13}\, q^{8} + 1921317000\, p^{73}\, q^{32} + 1378158648\, p^{73}\, q^{31} + 9465569\, p^{23}\, q^{26} + 85\, p^{14}\, q^{4}$$
$$+ 112556982135\, p^{49}\, q^{60} + 5212297353\, p^{61}\, q^{33} + 182959393171\, p^{63}\, q^{53} + 5062765\, p^{55}\, q^{16} + 107928385639\, p^{80}\, q^{86}$$
$$+ 56671644330\, p^{62}\, q^{44} + 26268220\, p^{57}\, q^{19} + 110826925\, p^{58}\, q^{22} + 256958230\, p^{108}\, q^{100} + 1825337893\, q^{94}\, p^{45} + 5172441662\, p^{100}\, q^{61}$$
$$+ 6299075034\, p^{100}\, q^{63} + 47304649918\, p^{92}\, q^{81} + 30955651243\, p^{92}\, q^{87} + 51527802808\, p^{92}\, q^{79} + 33821068526\, p^{92}\, q^{86} + 5383746\, q^{99}\, p^{32}$$
$$+ 1619191868\, q^{85}\, p^{37} + 45245\, q^{88}\, p^{18} + 5635633\, q^{92}\, p^{27} + 1839722\, q^{92}\, p^{25} + 849067057\, p^{97}\, q^{105} + 14454587\, p^{115}\, q^{62}$$
$$+ 29621080\, p^{117}\, q^{84} + 10316014\, p^{114}\, q^{57} + 29333615\, p^{117}\, q^{83} + 7525100\, p^{118}\, q^{101} + 28842626\, p^{117}\, q^{82} + 18997105\, q^{40}\, p^{19}$$

$$+ 4830668\, q^{41} p^{16} + 513602223\, p^{29} q^{39} + 392209862\, p^{28} q^{39} + 965622\, p^{86} q^{21} + 99288090\, p^{90} q^{114} + 203091919636\, p^{76} q^{81}$$
$$+ 225914340\, p^{62} q^{24} + 22416637\, p^{60} q^{19} + 4238673\, p^{58} q^{16} + q^{14} p + 76153162\, p^{94} q^{114} + 65841524\, p^{90} q^{115} + 323010056619\, p^{72} q^{63}$$
$$+ 309502486580\, p^{72} q^{62} + 294546227987\, p^{72} q^{61} + 79898\, q^{91} p^{20} + 33426\, q^{91} p^{19} + 52787\, q^{92} p^{20} + 847375206\, q^{105} p^{59}$$
$$+ 1097787804\, q^{105} p^{61} + 1378158648\, q^{105} p^{63} + 1234769998\, q^{105} p^{62} + 1526548567\, q^{105} p^{64} + 1678303637\, q^{105} p^{65} + 1360847\, q^{96} p^{27}$$
$$+ 38160395823\, p^{42} q^{58} + 1505\, p^{130} q^{97} + 583\, p^{131} q^{105} + 476\, p^{126} q^{62} + 1038\, p^{130} q^{93} + 437\, p^{128} q^{72} + 80\, p^{124} q^{51} + 925\, p^{130} q^{92}$$
$$+ 142711485\, p^{25} q^{38} + 91241539\, p^{24} q^{37} + 646221\, p^{109} q^{121} + 1156096407\, p^{38} q^{33} + 3017200\, p^{35} q^{16} + 2930193\, p^{94} q^{121}$$
$$+ 781776\, p^{51} q^{13} + 16968519\, p^{54} q^{18} + 20389976\, p^{94} q^{31} + 6830094\, p^{93} q^{28} + 3020244\, p^{52} q^{15} + 11341454828\, p^{59} q^{36} + 1539952\, p^{52} q^{14}$$
$$+ 153700917353\, p^{58} q^{79} + 74601\, p^{48} q^{10} + 826542342\, p^{27} q^{58} + 1168640805\, p^{28} q^{58} + 3002713021\, p^{31} q^{59} + 1626330161\, p^{29} q^{58}$$
$$+ 2229626070\, p^{30} q^{58} + 133373311318\, p^{70} q^{51} + 9081122220\, p^{68} q^{36} + 150115012587\, p^{70} q^{52} + 198\, p^{125} q^{56} + 389\, p^{131} q^{117}$$
$$+ 253\, p^{127} q^{65} + 521\, p^{127} q^{67} + 39367\, p^{40} q^{9} + 15372\, p^{39} q^{8} + q^{15} p + 59992095\, p^{61} q^{21} + 210077794357\, p^{59} q^{56} + 20\, q^{124} p^{49} + 9\, q^{124} p^{48}$$
$$+ 2003712739\, p^{78} q^{34} + 11525548452\, p^{79} q^{41} + 154777159\, p^{75} q^{26} + 1666493176\, p^{77} q^{33} + 192072865773\, p^{61} q^{79} + 26421\, p^{58} q^{10}$$
$$+ 210688612536\, p^{55} q^{69} + 3\, p^{111} q^{134} + 699523\, q^{37} p^{13} + 2178459\, q^{37} p^{15} + 3955930\, q^{38} p^{16} + 5830\, q^{34} p^{7} + 1951\, q^{33} p^{6} + 25390\, p^{49} q^{9}$$
$$+ 8954\, p^{48} q^{8} + 17789860\, q^{51} p^{18} + 16232740985\, p^{66} q^{38} + 7459682\, p^{59} q^{17} + 12816480783\, p^{66} q^{37} + 96219759436\, p^{68} q^{48}$$
$$+ 62471257596\, p^{67} q^{45} + 976051860\, p^{64} q^{28} + 1038\, q^{43} p^{6} + 261\, q^{41} p^{5} + 37\, q^{22} p^{3} + 36\, q^{23} p^{3} + 253838805831\, p^{57} q^{68}$$
$$+ 92981739190\, p^{48} q^{69} + 25958803061\, p^{41} q^{70} + 63077367867\, p^{55} q^{46} + 10397788363\, p^{71} q^{100} + 19918913118\, p^{89} q^{52} + 748\, p^{55} q^{7}$$
$$+ 145369228270\, p^{78} q^{84} + 28164342855\, p^{87} q^{52} + 44009518807\, p^{44} q^{71} + 92696\, p^{42} q^{10} + 19578980815\, p^{67} q^{39} + 83102807321\, p^{68} q^{47}$$
$$+ 24335061751\, p^{67} q^{40} + 125901250985\, p^{68} q^{50} + 44050948605\, p^{67} q^{43} + 36490718977\, p^{67} q^{42} + 142326324711\, p^{68} q^{51}$$
$$+ 10007564143\, p^{66} q^{36} + 159663177127\, p^{68} q^{52} + 237323946193\, p^{77} q^{78} + 11018796\, p^{72} q^{20} + 57755375834\, p^{82} q^{52}$$
$$+ 50234415702\, p^{82} q^{51} + 35283\, p^{63} q^{11} + 343532263\, p^{98} q^{108} + 89075\, p^{126} q^{99} + 182\, p^{108} q^{25} + 2213\, p^{112} q^{32} + 9821651\, p^{24} q^{25}$$
$$+ 2866995\, p^{94} q^{27} + 207494705\, p^{102} q^{46} + 2367477\, p^{108} q^{40} + 1603871\, p^{108} q^{39} + 526288\, p^{106} q^{34} + 29057095\, p^{116} q^{96}$$
$$+ 446870602\, p^{103} q^{51} + 11454221\, p^{21} q^{30} + p^{80} q^{9} + 94052\, p^{118} q^{50} + 139276\, p^{120} q^{57} + 104879\, p^{119} q^{53} + 13044\, p^{116} q^{41}$$
$$+ 12650\, p^{113} q^{36} + 6891\, p^{113} q^{35} + 4121024523\, p^{77} q^{36} + 82312434548\, p^{47} q^{58} + 56165721913\, p^{92} q^{72} + 50891846637\, p^{92} q^{68}$$
$$+ 38896581\, p^{71} q^{22} + 147286464\, p^{72} q^{25} + 97338\, p^{56} q^{11} + 944595\, p^{59} q^{14} + 469932\, p^{58} q^{13} + 315232\, p^{112} q^{41} + 335\, q^{13} p^{6}$$
$$+ 24092\, p^{65} q^{11} + 26\, p^{42} q^{4} + 2908855\, q^{121} p^{83} + 3234037\, q^{121} p^{87} + 5\, p^{131} q^{80} + 7\, p^{133} q^{100} + 7724589048\, p^{66} q^{35}$$

$$+ 52692901360\, p^{67} q^{44} + 177764185948\, p^{68} q^{53} + 1044577\, p^{19} q^{22} + 197293\, p^{14} q^{23} + 202445766780\, p^{72} q^{82} + 1975\, p^{31} q^{6}$$
$$+ 6479762995\, q^{45} p^{37} + 262612923\, p^{44} q^{25} + 500011372\, p^{44} q^{27} + 55332203\, p^{43} q^{21} + 185835337\, p^{44} q^{24} + 365144070\, p^{44} q^{26}$$
$$+ 2756353039\, p^{45} q^{33} + 1294434305\, p^{45} q^{30} + 981942768\, p^{45} q^{29} + 2167586077\, p^{45} q^{32} + 1685118955\, p^{45} q^{31} + 3466582280\, p^{45} q^{34}$$
$$+ 4313754516\, p^{45} q^{35} + 5876017047\, p^{46} q^{36} + 59905\, p^{51} q^{10} + 5891093466\, p^{66} q^{34} + 29944507956\, p^{67} q^{41} + 31041578096\, p^{41} q^{57}$$
$$+ 24951197788\, p^{40} q^{56} + 8697601978\, q^{46} p^{38} + 2409\, p^{128} q^{79} + 187684\, p^{37} q^{11} + 390119\, p^{38} q^{12} + 89075\, p^{37} q^{10} + 37856\, p^{42} q^{9}$$
$$+ 14486\, p^{41} q^{8} + 779183\, p^{39} q^{13} + 139276\, q^{79} p^{16} + 8109679\, q^{118} p^{71} + 566478\, q^{80} p^{18} + 2357377\, q^{117} p^{59} + 2893067\, q^{117} p^{60}$$
$$+ 538\, q^{108} p^{26} + 52\, q^{108} p^{24} + 19578980815\, q^{67} p^{39} + 49038884292\, p^{81} q^{50} + 15788568761\, p^{80} q^{43} + 162656876330\, p^{54} q^{73}$$
$$+ 107923651771\, p^{51} q^{74} + 145998297539\, p^{53} q^{73} + 130058987091\, p^{52} q^{73} + 114972606419\, p^{51} q^{73} + 62471257596\, q^{67} p^{45}$$
$$+ 63802956340\, p^{91} q^{77} + 53231450416\, p^{92} q^{78} + 2132956\, p^{111} q^{117} + 2409\, p^{79} q^{128} + 23443\, q^{103} p^{26} + 1758\, q^{103} p^{23} + 4534\, q^{103} p^{24}$$
$$+ 5462\, q^{104} p^{25} + 28597\, q^{108} p^{31} + 44050948605\, p^{69} q^{93} + 48819254725\, p^{67} q^{92} + 2357377\, p^{117} q^{59} + 124871\, p^{123} q^{113} + 1240\, p^{99} q^{20}$$
$$+ 1740998703\, p^{35} q^{38} + 327857016356\, p^{62} q^{70} + q^{42} p^{3} + 4460\, q^{61} p^{9} + 13348\, q^{62} p^{10} + 5469\, q^{60} p^{9} + 33\, q^{51} p^{5} + 327754\, p^{105} q^{32}$$
$$+ 35687\, p^{101} q^{25} + 582242476\, p^{79} q^{110} + 143158107\, q^{94} p^{36} + 10966741\, q^{88} p^{26} + 189042806033\, p^{64} q^{81} + 14726\, q^{106} p^{28}$$
$$+ 2638\, q^{105} p^{25} + 6269\, q^{105} p^{26} + 4315782380\, p^{103} q^{85} + 89373600\, p^{55} q^{109} + 760\, p^{117} q^{38} + 1146998386\, p^{89} q^{107} + 4639\, p^{27} q^{7}$$
$$+ 11532\, p^{28} q^{8} + 211086\, p^{30} q^{12} + 54425\, p^{29} q^{10} + 3346571\, p^{32} q^{17} + 18736291\, p^{33} q^{21} + 11183771\, p^{32} q^{20} + 7643166\, p^{32} q^{19}$$
$$+ 26549214\, p^{33} q^{22} + 709622\, p^{31} q^{14} + 11134743235\, p^{81} q^{42} + 2371324313\, p^{79} q^{35} + 37078026711\, p^{82} q^{49} + 153941957305\, p^{83} q^{64}$$
$$+ 589701124\, p^{77} q^{30} + 83715957291\, p^{82} q^{55} + 25149972454\, p^{81} q^{46} + 414766761\, p^{94} q^{109} + 428570490\, p^{70} q^{27} + 2324715840\, p^{71} q^{32}$$
$$+ 10535472\, q^{117} p^{68} + 11902747\, q^{117} p^{69} + 17869583255\, p^{86} q^{96} + 19815210959\, p^{81} q^{97} + 20545830647\, p^{80} q^{97} + 208040168\, q^{95} p^{38}$$
$$+ 5612157902\, q^{95} p^{52} + 756\, q^{125} p^{59} + 207\, q^{126} p^{60} + 299665\, p^{85} q^{19} + 221041885\, p^{25} q^{42} + 970939269\, p^{31} q^{40} + 498901083\, p^{28} q^{41}$$
$$+ 112556982135\, p^{60} q^{49} + 3441227629\, p^{40} q^{37} + 1659083250\, p^{34} q^{39} + 200491796\, p^{41} q^{25} + 179443\, p^{36} q^{11} + 371827\, p^{37} q^{12}$$
$$+ 86270\, p^{36} q^{10} + 7007293\, p^{39} q^{17} + 43478899\, p^{40} q^{21} + 1345559\, p^{38} q^{14} + 29057095\, p^{40} q^{20} + 18997105\, p^{40} q^{19} + 69946445\, p^{41} q^{22}$$
$$+ 101102784\, p^{41} q^{23} + 373439860\, p^{41} q^{27} + 556028338\, p^{42} q^{28} + 741166\, p^{38} q^{13} + 2347731\, p^{38} q^{15} + 3620191\, q^{88} p^{24}$$
$$+ 76832027\, p^{53} q^{21} + 274021577\, p^{54} q^{24} + 29327596\, p^{69} q^{21} + 2521608028\, p^{37} q^{38} + 51916893040\, p^{91} q^{82} + 1394952\, p^{16} q^{29}$$
$$+ 41062\, p^{83} q^{16} + 1975\, q^{31} p^{6} + 63273075\, p^{26} q^{31} + 187684\, p^{125} q^{99} + 493\, p^{107} q^{25} + 5462\, p^{111} q^{32} + 113459021657\, p^{86} q^{79}$$
$$+ 3992\, q^{25} p^{7} + 7\, q^{18} p^{2} + 526\, q^{23} p^{5} + 1523\, q^{24} p^{6} + 43209963\, p^{23} q^{34} + 1043844\, p^{90} q^{23} + 189519\, p^{70} q^{14} + 89614\, p^{69} q^{13}$$

$$+ 190307362819\, p^{80}\, q^{79} + 38000741521\, p^{83}\, q^{50} + 12058108959\, p^{82}\, q^{43} + 234803\, p^{31}\, q^{12} + 59679\, p^{30}\, q^{10} + 3814509\, p^{33}\, q^{17}$$
$$+ 21673742\, p^{34}\, q^{21} + 12983730\, p^{33}\, q^{20} + 8822646\, p^{33}\, q^{19} + 30867794\, p^{34}\, q^{22} + 797568\, p^{32}\, q^{14} + 469614\, p^{74}\, q^{16} + 68501167\, p^{25}\, q^{33}$$
$$+ 99905888\, p^{27}\, q^{32} + 169674698\, p^{31}\, q^{30} + 134949963\, p^{29}\, q^{31} + 199318120\, p^{33}\, q^{29} + 40310653\, p^{98}\, q^{36} + 1180823015\, p^{106}\, q^{92}$$
$$+ 185554438\, p^{108}\, q^{102} + 655132227\, q^{83}\, p^{33} + 1442617778\, q^{84}\, p^{36} + 460541665\, q^{83}\, p^{32} + 21\, p^{125}\, q^{133} + 1678303637\, p^{71}\, q^{31}$$
$$+ 82078765536\, p^{74}\, q^{49} + 294546227987\, p^{75}\, q^{64} + 248102243063\, p^{62}\, q^{57} + 29996565144\, p^{42}\, q^{71} + 215934003430\, p^{80}\, q^{65}$$
$$+ 256514911488\, p^{58}\, q^{61} + 38656661845\, p^{43}\, q^{70} + 253243425272\, p^{63}\, q^{57} + 12983730\, p^{20}\, q^{33} + 42813250\, p^{24}\, q^{32} + 50713542\, p^{24}\, q^{33}$$
$$+ 57572102\, p^{25}\, q^{32} + 76345122\, p^{26}\, q^{32} + 136954590\, p^{30}\, q^{30} + 43209963\, p^{34}\, q^{23} + 75705562347\, p^{86}\, q^{85} + 4747673646\, p^{41}\, q^{38}$$
$$+ 202524948\, p^{87}\, q^{32} + 21890055660\, p^{92}\, q^{57} + 3670379307\, p^{90}\, q^{44} + 36490718977\, p^{94}\, q^{69} + 2388861\, p^{80}\, q^{20} + 962637088\, p^{89}\, q^{38}$$
$$+ 38656661845\, p^{93}\, q^{66} + 4105768106\, p^{38}\, q^{40} + 2696638185\, p^{35}\, q^{41} + 3441227629\, p^{37}\, q^{40} + 2237404789\, p^{33}\, q^{43} + 1769314662\, p^{32}\, q^{43}$$
$$+ 2798782632\, p^{34}\, q^{43} + 4245679890\, p^{36}\, q^{43} + 3464586864\, p^{35}\, q^{43} + 4767953748\, p^{36}\, q^{44} + 5627583952\, p^{41}\, q^{39} + 10323810\, p^{51}\, q^{17}$$
$$+ 48320268\, p^{52}\, q^{20} + 3068825281\, p^{35}\, q^{42} + 5152286419\, p^{37}\, q^{43} + 5444657760\, p^{38}\, q^{42} + 3750965580\, p^{36}\, q^{42} + 3671204948\, p^{99}\, q^{56}$$
$$+ 3635873578\, p^{100}\, q^{58} + 141151946575\, p^{51}\, q^{60} + 126526126098\, p^{50}\, q^{60} + 88573842011\, p^{47}\, q^{61} + 46360891298\, p^{77}\, q^{93}$$
$$+ 231544946062\, p^{62}\, q^{56} + 32\, p^{95}\, q^{132} + 41\, p^{96}\, q^{132} + 203\, q^{118}\, p^{38} + 6976321\, p^{115}\, q^{58} + 151664\, p^{121}\, q^{116} + 347098934999\, p^{73}\, q^{67}$$
$$+ 5610\, q^{66}\, p^{10} + 261928231\, q^{84}\, p^{31} + 4387115938\, q^{88}\, p^{43} + 2577299\, p^{118}\, q^{63} + 230068\, q^{69}\, p^{14} + 39279\, q^{68}\, p^{12} + 31370485\, p^{23}\, q^{32}$$
$$+ 23549\, p^{120}\, q^{123} + 11319910554\, p^{100}\, q^{75} + 106114191\, p^{28}\, q^{31} + 164826514\, p^{32}\, q^{29} + 42813250\, p^{104}\, q^{112} + 22701907739\, p^{92}\, q^{90}$$
$$+ 17589388914\, p^{93}\, q^{91} + 9874243399\, p^{92}\, q^{96} + 129\, q^{106}\, p^{23} + 5\, q^{106}\, p^{21} + 247570719613\, p^{60}\, q^{58} + 8208230819\, q^{73}\, p^{37}$$
$$+ 3232366439\, q^{74}\, p^{34} + 6299075034\, q^{73}\, p^{36} + 3573753015\, q^{73}\, p^{34} + 4775111466\, q^{73}\, p^{35} + 256514911488\, p^{61}\, q^{58}$$
$$+ 10208794264\, q^{89}\, p^{48} + 446870602\, q^{85}\, p^{33} + 630539821\, q^{85}\, p^{34} + 5225682975\, p^{72}\, q^{35} + 137512985371\, p^{74}\, q^{53} + 38587346949\, p^{73}\, q^{44}$$
$$+ 22042182692\, p^{46}\, q^{82} + 13853162399\, p^{43}\, q^{81} + 83715957291\, p^{54}\, q^{81} + 17063103277\, p^{44}\, q^{81} + 20813518125\, p^{45}\, q^{81}$$
$$+ 378241851690\, p^{67}\, q^{69} + 304629204050\, p^{61}\, q^{71} + 36684791223\, p^{85}\, q^{92} + 14289995329\, p^{77}\, q^{99} + 794917609\, p^{90}\, q^{108}$$
$$+ 509547174\, p^{74}\, q^{110} + 808318955\, p^{83}\, q^{109} + 19682691\, p^{115}\, q^{64} + 27294729\, p^{117}\, q^{80} + 28684315\, p^{117}\, q^{88} + 5868826\, p^{118}\, q^{103}$$
$$+ 15447922\, p^{118}\, q^{92} + 8371188\, p^{114}\, q^{56} + 22670312\, p^{115}\, q^{65} + 28636782\, p^{116}\, q^{72} + 238898666727\, p^{72}\, q^{80} + 22893825879\, p^{95}\, q^{85}$$
$$+ 469772006\, p^{88}\, q^{35} + 31830159730\, p^{66}\, q^{94} + 3992\, p^{25}\, q^{7} + 126665627\, q^{35}\, p^{26} + 69226848\, q^{35}\, p^{24} + 1526548567\, q^{72}\, p^{31}$$
$$+ 539027\, p^{77}\, q^{17} + 61030258\, p^{85}\, q^{28} + 9598597\, p^{82}\, q^{23} + 172164689\, p^{86}\, q^{31} + 6611870792\, p^{40}\, q^{41} + 6611870792\, p^{41}\, q^{40}$$

$$+ 138200959\, p^{91} q^{113} + 76832027\, p^{83} q^{115} + 73845359\, p^{80} q^{115} + 71856214\, p^{79} q^{115} + 6193551315\, p^{43} q^{38} + 321509772\, p^{100} q^{45}$$
$$+ 150044917\, p^{99} q^{41} + 26479918\, p^{97} q^{34} + 5800498897\, p^{37} q^{44} + 6469530213\, p^{42} q^{39} + 6193551315\, p^{38} q^{43} + 6469530213\, p^{39} q^{42}$$
$$+ 8895961401\, p^{41} q^{42} + 10191292415\, p^{43} q^{41} + 7377114109\, p^{39} q^{43} + 3184512\, p^{50} q^{15} + 11059965321\, p^{57} q^{36} + 1652606\, p^{50} q^{14}$$
$$+ 8345158900\, p^{44} q^{39} + 10299115978\, p^{42} q^{42} + 264635412\, p^{99} q^{43} + 225673009369\, p^{56} q^{61} + 180364476377\, p^{53} q^{62}$$
$$+ 132791824149\, p^{50} q^{63} + 112243783\, p^{87} q^{114} + 115276208\, p^{86} q^{114} + 117558253\, p^{85} q^{114} + 108520119\, p^{88} q^{114} + 154583977\, p^{89} q^{113}$$
$$+ 143562442\, p^{95} q^{112} + 157651403\, p^{94} q^{112} + 125370381\, p^{99} q^{111} + 104174434\, p^{89} q^{114} + 75356355\, p^{81} q^{115} + 76358288\, p^{82} q^{115}$$
$$+ 73403893\, p^{87} q^{115} + 48320268\, p^{84} q^{116} + 75035930\, p^{86} q^{115} + 76766787\, p^{84} q^{115} + 76164570\, p^{85} q^{115} + 260823963151\, p^{60} q^{59}$$
$$+ 204588714983\, p^{81} q^{66} + 24508469148\, p^{78} q^{44} + 64765802\, p^{71} q^{23} + 115950565854\, p^{80} q^{56} + 103217144035\, p^{79} q^{54}$$
$$+ 163987102702\, p^{80} q^{60} + 127825647781\, p^{80} q^{57} + 7063372176\, p^{77} q^{38} + 91704956578\, p^{79} q^{53} + 1158789\, q^{77} p^{18}$$
$$+ 214575503262\, p^{55} q^{62} + 231544946062\, p^{56} q^{62} + 248102243063\, p^{57} q^{62} + 263995663264\, p^{58} q^{62} + 270657396665\, p^{59} q^{61}$$
$$+ 209458407442\, p^{55} q^{61} + 163567793096\, p^{52} q^{62} + 193031965878\, p^{54} q^{61} + 73909292164\, p^{90} q^{77} + 62065973524\, p^{91} q^{78}$$
$$+ 34232740236\, p^{93} q^{64} + 17063103277\, p^{92} q^{55} + 9410913494\, p^{92} q^{51} + 4580769289\, p^{91} q^{46} + 347198666\, p^{78} q^{29} + 231964245\, p^{78} q^{28}$$
$$+ 543480\, p^{69} q^{15} + 8\, p^{35} q^{3} + 91\, p^{47} q^{5} + 39507044198\, p^{92} q^{84} + 3069383\, p^{72} q^{18} + 14454587\, p^{74} q^{21} + 52078771\, p^{76} q^{24}$$
$$+ 21544614\, p^{75} q^{22} + 84495362\, p^{76} q^{25} + 65873985678\, p^{83} q^{54} + 80849041258\, p^{84} q^{57} + 4172421672\, p^{81} q^{38} + 58100697068\, p^{83} q^{53}$$
$$+ 105882555349\, p^{84} q^{60} + 133373311318\, p^{85} q^{66} + 14887270604\, p^{82} q^{44} + 36770018\, p^{75} q^{23} + 72821444472\, p^{84} q^{56} + 1801007\, p^{71} q^{17}$$
$$+ 27465503799\, p^{83} q^{48} + 18201078926\, p^{82} q^{45} + 7\, q^{36} p^{3} + 836753226\, p^{36} q^{33} + 107928385639\, p^{86} q^{80} + 368342887958\, p^{65} q^{66}$$
$$+ 376109887089\, p^{66} q^{67} + 107923651771\, p^{62} q^{85} + 155338234233\, p^{67} q^{84} + 61363076977\, p^{57} q^{86} + 200595920901\, p^{73} q^{82}$$
$$+ 184354811936\, p^{72} q^{83} + 15764\, q^{37} p^{8} + 9009895\, p^{64} q^{18} + 1470205\, p^{62} q^{15} + 32487546700\, p^{64} q^{41} + 29745\, q^{107} p^{30} + 162611\, q^{108} p^{34}$$
$$+ 14726\, q^{108} p^{30} + 304629204050\, p^{75} q^{65} + 296674543849\, p^{76} q^{66} + 240513284421\, p^{75} q^{60} + 192072865773\, p^{75} q^{57} + 4826\, p^{95} q^{19}$$
$$+ 153457156571\, p^{74} q^{54} + 51171863301\, p^{74} q^{46} + 159516072820\, p^{75} q^{55} + 369145599494\, p^{66} q^{70} + 380053740529\, p^{68} q^{69}$$
$$+ 361988824291\, p^{66} q^{71} + 6571199584\, p^{63} q^{34} + 8550908567\, p^{63} q^{35} + 184524456571\, p^{65} q^{53} + 56165721913\, p^{64} q^{44}$$
$$+ 177679581\, p^{110} q^{62} + 268251139\, p^{112} q^{84} + 128419786\, p^{109} q^{57} + 272064396\, p^{112} q^{83} + 50032165\, p^{113} q^{101} + 274021577\, p^{112} q^{82}$$
$$+ 115565340741\, p^{70} q^{87} + 116999303534\, p^{71} q^{87} + 6721225\, q^{81} p^{22} + 6539857\, p^{96} q^{30} + 17601459\, p^{97} q^{33} + 4534\, p^{112} q^{33}$$
$$+ 45245\, p^{118} q^{48} + 2985\, p^{110} q^{30} + 50657\, p^{117} q^{46} + 380612900\, q^{84} p^{32} + 6589337092\, q^{83} p^{41} + 816039675\, p^{107} q^{93} + 39064952\, p^{97} q^{35}$$

$$+ 15708\, q^{125} p^{69} + 727740\, q^{79} p^{18} + 252480694\, q^{86} p^{32} + 137431331\, q^{87} p^{31} + 363745789\, q^{86} p^{33} + 5580242\, p^{117} q^{106} + 4190350\, q^{83} p^{22}$$
$$+ 7602543\, q^{83} p^{23} + 403219368\, p^{77} q^{29} + 270573201\, p^{77} q^{28} + 643952\, p^{68} q^{15} + 21924834\, p^{113} q^{58} + 42706378\, p^{116} q^{90} + 57151\, p^{106} q^{30}$$
$$+ 5\, p^{63} q^{6} + 182959393171\, p^{53} q^{63} + 165655377016\, p^{52} q^{63} + 200595920901\, p^{54} q^{63} + 238898666727\, p^{56} q^{64} + 253243425272\, p^{57} q^{63}$$
$$+ 218348468759\, p^{55} q^{63} + 235981118051\, p^{56} q^{63} + 443\, q^{95} p^{17} + 37\, q^{94} p^{15} + 2729\, q^{96} p^{19} + 1481\, q^{97} p^{19} + 4382\, q^{97} p^{20} + 11581\, q^{97} p^{21}$$
$$+ 3476\, p^{55} q^{8} + 432\, p^{49} q^{6} + 218473731549\, p^{56} q^{60} + 270657396665\, p^{61} q^{59} + 197438246887\, p^{54} q^{62} + 6597\, p^{98} q^{21} + 53066\, p^{104} q^{28}$$
$$+ 148877166747\, p^{51} q^{63} + 4998277\, q^{98} p^{31} + 781776\, p^{85} q^{123} + 12772\, p^{127} q^{81} + 23168\, p^{127} q^{86} + 14418274911\, p^{79} q^{42}$$
$$+ 3089087718\, p^{77} q^{35} + 47297495168\, p^{80} q^{49} + 189042806033\, p^{81} q^{64} + 769657370\, p^{75} q^{30} + 104403673043\, p^{80} q^{55}$$
$$+ 31983363372\, p^{79} q^{46} + 27058649941\, q^{75} p^{43} + 22048387004\, q^{75} p^{42} + 32889708716\, q^{75} p^{44} + 43341119037\, q^{76} p^{46}$$
$$+ 55904960351\, q^{75} p^{47} + 39606058963\, q^{75} p^{45} + 47263264578\, q^{75} p^{46} + 31694\, p^{127} q^{90} + 26421\, p^{126} q^{78} + 632617994\, p^{66} q^{108}$$
$$+ 22619\, p^{126} q^{77} + 15642\, p^{128} q^{98} + 29693\, p^{127} q^{89} + 19183\, p^{126} q^{76} + 25390\, p^{127} q^{87} + 34428238\, p^{109} q^{109} + 513709890\, p^{68} q^{109}$$
$$+ 17243235972\, q^{64} p^{38} + 6165799\, p^{90} q^{26} + 26566788547\, q^{64} p^{40} + 39350729134\, q^{64} p^{42} + 32487546700\, q^{64} p^{41} + 47224484893\, q^{64} p^{43}$$
$$+ 66216615676\, q^{64} p^{45} + 56165721913\, q^{64} p^{44} + 65381779034\, q^{65} p^{45} + 21512329640\, q^{64} p^{39} + 13624381\, p^{21} q^{31}$$
$$+ 183465243813\, p^{70} q^{83} + 215\, p^{60} q^{7} + 1022684\, p^{30} q^{15} + 87663956\, p^{29} q^{29} + 76345122\, p^{32} q^{26} + 24669\, p^{28} q^{9} + 103728\, p^{29} q^{11} + q^{71} p^{7}$$
$$+ 36\, p^{23} q^{3} + 13894214\, p^{42} q^{18} + 4830668\, p^{41} q^{16} + 195811268\, p^{109} q^{100} + 736325622\, p^{98} q^{105} + 8697601978\, p^{46} q^{38}$$
$$+ 14609185207\, p^{46} q^{41} + 19763105574\, p^{46} q^{43} + 17063594868\, p^{46} q^{42} + 77529098685\, p^{90} q^{74} + 68537683081\, p^{90} q^{67}$$
$$+ 76564361079\, p^{90} q^{71} + 333074731025\, p^{73} q^{65} + 327857016356\, p^{74} q^{66} + 266963785190\, p^{73} q^{60} + 215198750163\, p^{73} q^{57}$$
$$+ 10432591448\, p^{46} q^{39} + 853272777\, p^{108} q^{89} + 1584584807\, p^{107} q^{76} + 1610822519\, p^{107} q^{77} + 542841221\, p^{109} q^{91}$$
$$+ 1165421067\, p^{108} q^{81} + 1316370629\, p^{107} q^{71} + 1010844694\, p^{108} q^{86} + 962141679\, p^{108} q^{87} + 1175591876\, p^{108} q^{79} + 15642\, q^{38} p^{8}$$
$$+ 26479918\, q^{102} p^{39} + 1197649529\, q^{104} p^{59} + 1540742124\, q^{104} p^{61} + 1921317000\, q^{104} p^{63} + 1727138725\, q^{104} p^{62} + 2121279400\, q^{104} p^{64}$$
$$+ 2529056234\, q^{104} p^{66} + 204619\, q^{40} p^{11} + 59852106\, q^{109} p^{53} + 13894214\, p^{94} q^{118} + 371522318\, q^{106} p^{56} + 437115424\, q^{106} p^{57}$$
$$+ 676431439\, q^{106} p^{60} + 589701124\, q^{106} p^{59} + 973099603\, q^{106} p^{63} + 1193123096\, q^{106} p^{65} + 916912428\, q^{107} p^{66} + 769657370\, q^{106} p^{61}$$
$$+ 1081587563\, q^{106} p^{64} + 868804000\, q^{106} p^{62} + 509858945\, q^{106} p^{58} + 1838965159\, p^{105} q^{90} + 3844973827\, p^{104} q^{74} + 3738490047\, p^{104} q^{73}$$
$$+ 1992128240\, p^{105} q^{89} + 3984739997\, p^{104} q^{76} + 4015343714\, p^{104} q^{77} + 1294434305\, p^{106} q^{91} + 2924710458\, p^{105} q^{81}$$
$$+ 3462254331\, p^{104} q^{71} + 2425110625\, p^{105} q^{86} + 2287505832\, p^{105} q^{87} + 3004107015\, p^{105} q^{79} + 2974271712\, p^{105} q^{80}$$

$$+ 2142403246\, p^{105} q^{88} + 419333\, q^{40} p^{12} + 8532664\, q^{42} p^{17} + 1294434305\, q^{45} p^{30} + 51527802808\, p^{44} q^{57} + 92707\, q^{39} p^{10}$$
$$+ 262612923\, q^{44} p^{25} + 185835337\, q^{44} p^{24} + 365144070\, q^{44} p^{26} + 500011372\, q^{44} p^{27} + 735160158\, q^{45} p^{28} + 61328964540\, p^{88} q^{85}$$
$$+ 733\, q^{87} p^{14} + 268\, q^{86} p^{13} + 2756353039\, q^{45} p^{33} + 4313754516\, q^{45} p^{35} + 5876017047\, q^{46} p^{36} + 1685118955\, q^{45} p^{31}$$
$$+ 3466582280\, q^{45} p^{34} + 2167586077\, q^{45} p^{32} + 14704948\, q^{43} p^{18} + 122084325738\, p^{50} q^{69} + 5084944\, q^{42} p^{16} + 145369228270\, p^{52} q^{58}$$
$$+ 159267777516\, p^{53} q^{58} + 96792453106\, p^{48} q^{59} + 109462698915\, p^{49} q^{59} + 235981118051\, p^{63} q^{56} + 48240105\, q^{84} p^{27} + 329568\, q^{79} p^{17}$$
$$+ 72282\, q^{78} p^{15} + 1194231\, q^{80} p^{19} + 930039\, q^{81} p^{19} + 1881752\, q^{81} p^{20} + 3631480\, q^{81} p^{21} + 9598597\, q^{82} p^{23} + 5586\, p^{105} q^{129} + 3\, q^{124} p^{47}$$
$$+ 29\, p^{27} q^{3} + 451744\, p^{122} q^{71} + 9\, p^{88} q^{12} + 9379\, p^{114} q^{37} + 438543\, p^{124} q^{91} + 26291507\, p^{59} q^{113} + 1065160499\, p^{107} q^{90}$$
$$+ 2084869392\, p^{106} q^{74} + 2015345161\, p^{106} q^{73} + 3205618\, p^{18} q^{29} + 21929885\, p^{23} q^{30} + 94052\, p^{86} q^{18} + 498901083\, p^{108} q^{95}$$
$$+ 556028338\, p^{108} q^{94} + 82452687\, p^{109} q^{105} + 129099599\, p^{108} q^{104} + 211\, p^{125} q^{130} + 270\, p^{124} q^{130} + 278\, p^{126} q^{129} + 85\, p^{122} q^{132}$$
$$+ 139893015675\, p^{80} q^{58} + 24092\, p^{125} q^{71} + 368\, p^{117} q^{37} + 33556\, p^{127} q^{91} + 6087799749\, p^{76} q^{37} + 152001406957\, p^{80} q^{59}$$
$$+ 13624381\, p^{105} q^{115} + 29\, q^{27} p^{3} + 1447506956\, q^{63} p^{29} + 2015345161\, q^{63} p^{30} + 2661799075\, q^{64} p^{31} + 31452829359\, p^{88} q^{54}$$
$$+ 42427673262\, p^{89} q^{58} + 51365700358\, p^{89} q^{60} + 27465503799\, p^{88} q^{53} + 110859360\, q^{103} p^{45} + 143806189\, q^{103} p^{46} + 184370607\, q^{103} p^{47}$$
$$+ 3610131652\, q^{64} p^{32} + 6379745715\, q^{64} p^{34} + 4830285122\, q^{64} p^{33} + 8322727495\, q^{64} p^{35} + 13284689935\, q^{65} p^{37} + 10729704744\, q^{64} p^{36}$$
$$+ 498597\, q^{97} p^{26} + 256033\, q^{92} p^{22} + 16787289221\, q^{65} p^{38} + 326637\, p^{107} q^{123} + 25976392585\, q^{65} p^{40} + 38633186980\, q^{65} p^{42}$$
$$+ 31831228000\, q^{65} p^{41} + 46454008935\, q^{65} p^{43} + 55354635258\, q^{65} p^{44} + 64125427644\, q^{66} p^{45} + 20989557972\, q^{65} p^{39}$$
$$+ 75230210641\, q^{66} p^{46} + 37026958\, p^{58} q^{112} + 115565340741\, q^{66} p^{49} + 100974590965\, q^{66} p^{48} + 165316094797\, q^{66} p^{52}$$
$$+ 202107817153\, q^{66} p^{54} + 218986082966\, q^{67} p^{55} + 131222484126\, q^{66} p^{50} + 183465243813\, q^{66} p^{53} + 147848816542\, q^{66} p^{51}$$
$$+ 87516944406\, q^{66} p^{47} + 240242627775\, p^{71} q^{80} + 848119\, q^{106} p^{35} + 1332551\, q^{106} p^{36} + 225914340\, p^{112} q^{74} + 7999\, p^{92} q^{18}$$
$$+ 69946445\, p^{114} q^{95} + 76153162\, p^{114} q^{94} + 13624381\, p^{115} q^{105} + 22628347\, p^{114} q^{104} + 48240105\, p^{109} q^{52} + 4423\, p^{91} q^{17}$$
$$+ 11190395\, p^{107} q^{43} + 487878\, p^{101} q^{29} + 213661517\, p^{112} q^{73} + 8912900269\, p^{43} q^{84} + 3089087718\, q^{101} p^{59} + 3484142873\, q^{101} p^{60}$$
$$+ 16082\, p^{61} q^{10} + 195247805829\, p^{76} q^{58} + 210774642091\, p^{76} q^{59} + 1419958200\, p^{106} q^{67} + 233728998\, p^{103} q^{48} + 17073500475\, q^{89} p^{51}$$
$$+ 14510691074\, q^{89} p^{50} + 3288274850\, q^{87} p^{41} + 2804358\, q^{41} p^{15} + 43546600\, p^{108} q^{109} + 258337\, p^{90} q^{21} + 3274202\, q^{92} p^{26}$$
$$+ 996011\, q^{92} p^{24} + 204588714983\, p^{66} q^{81} + 113348917953\, p^{58} q^{82} + 23437299\, q^{43} p^{19} + 7288881\, p^{97} q^{31} + 2367477\, p^{96} q^{28}$$
$$+ 134949963\, p^{31} q^{29} + 5555727\, q^{116} p^{60} + 5444657760\, p^{94} q^{98} + 6111560673\, p^{87} q^{101} + 6406264\, p^{115} q^{109} + 18997105\, p^{96} q^{117}$$

$$+ 3520683915\, p^{97}\, q^{98} + 19069\, p^{79}\, q^{14} + 2157264894\, q^{85}\, p^{38} + 2306076747\, p^{99}\, q^{53} + 191335\, q^{81}\, p^{17} + 293107268\, q^{87}\, p^{33}$$
$$+ 2856773\, q^{82}\, p^{21} + 435339\, q^{81}\, p^{18} + 5722352\, p^{95}\, q^{29} + 960500197\, p^{94}\, q^{106} + 970939269\, p^{40}\, q^{31} + 1914125192\, p^{40}\, q^{34}$$
$$+ 2350338817\, p^{40}\, q^{35} + 3287393027\, p^{41}\, q^{36} + 10323810\, q^{119}\, p^{85} + 9944755\, q^{119}\, p^{83} + 10169108\, q^{119}\, p^{84} + 10405269\, q^{119}\, p^{86}$$
$$+ 10343894\, q^{119}\, p^{88} + 10412167\, q^{119}\, p^{87} + 10202186\, q^{119}\, p^{89} + 9710265\, q^{119}\, p^{91} + 9989433\, q^{119}\, p^{90} + 5670253\, q^{120}\, p^{91}$$
$$+ 14357613020\, p^{76}\, q^{99} + 10418886\, q^{109}\, p^{46} + 1836699\, q^{107}\, p^{38} + 151244886205\, p^{52}\, q^{59} + 234597814761\, p^{57}\, q^{71} + 1927129966\, p^{85}\, q^{106}$$
$$+ 341154276698\, p^{63}\, q^{70} + 381321862264\, p^{68}\, q^{68} + 18\, q^{125}\, p^{52} + 296674543849\, p^{60}\, q^{70} + 65559705096\, p^{48}\, q^{75} + 82078765536\, p^{49}\, q^{74}$$
$$+ 94496152597\, p^{50}\, q^{74} + 87748086791\, p^{49}\, q^{73} + 756\, p^{84}\, q^{13} + 10939\, p^{73}\, q^{126} + 8\, p^{134}\, q^{122} + 3262487\, q^{121}\, p^{89} + 2780646\, q^{121}\, p^{82}$$
$$+ 51171863301\, p^{90}\, q^{62} + 62257136585\, p^{90}\, q^{65} + 3620929\, p^{71}\, q^{18} + 16942145\, p^{73}\, q^{21} + 276742037\, p^{98}\, q^{42} + 519952775\, p^{100}\, q^{47}$$
$$+ 361507554601\, p^{72}\, q^{68} + 342738817\, p^{111}\, q^{74} + 12822\, p^{91}\, q^{18} + 101102784\, p^{113}\, q^{95} + 110561130\, p^{113}\, q^{94} + 19106639\, p^{114}\, q^{105}$$
$$+ 31370485\, p^{113}\, q^{104} + 76069929\, p^{108}\, q^{52} + 7150\, p^{90}\, q^{17} + 17865448\, p^{106}\, q^{43} + 777310\, p^{100}\, q^{29} + 325524163\, p^{111}\, q^{73}$$
$$+ 60937356\, p^{75}\, q^{24} + 25302099\, p^{74}\, q^{22} + 98318677\, p^{75}\, q^{25} + 142471055\, p^{34}\, q^{27} + 2416815\, p^{33}\, q^{16} + 3173514340\, q^{71}\, p^{33}$$
$$+ 165816734\, q^{71}\, p^{25} + 4272688922\, q^{71}\, p^{34} + 5677284928\, q^{71}\, p^{35} + 219344905\, p^{35}\, q^{28} + 441390\, p^{92}\, q^{124} + 105036\, q^{80}\, p^{16}$$
$$+ 755474\, p^{110}\, q^{40} + 498597\, p^{110}\, q^{39} + 162611\, p^{108}\, q^{34} + 276977378228\, p^{66}\, q^{58} + 11902747\, p^{117}\, q^{69} + 13338024\, p^{117}\, q^{70}$$
$$+ 7971746\, p^{116}\, q^{62} + 5672492\, p^{115}\, q^{57} + 74547365749\, p^{82}\, q^{54} + 91704956578\, p^{83}\, q^{57} + 4816962401\, p^{80}\, q^{38} + 65873985678\, p^{82}\, q^{53}$$
$$+ 119466505765\, p^{83}\, q^{60} + 150115012587\, p^{84}\, q^{66} + 17063103277\, p^{81}\, q^{44} + 42904847\, p^{74}\, q^{23} + 82749435472\, p^{83}\, q^{56} + 2125737\, p^{70}\, q^{17}$$
$$+ 31452829359\, p^{82}\, q^{48} + 20813518125\, p^{81}\, q^{45} + 20769\, p^{82}\, q^{15} + 2130284306\, p^{37}\, q^{37} + 4534\, p^{103}\, q^{24} + 10169108\, p^{52}\, q^{17}$$
$$+ 1502059\, q^{40}\, p^{14} + 85076553750\, p^{65}\, q^{88} + 80163790452\, p^{67}\, q^{89} + 96219759436\, p^{68}\, q^{88} + 89245263410\, p^{66}\, q^{88} + 92981739190\, p^{67}\, q^{88}$$
$$+ 75733606169\, p^{63}\, q^{88} + 80547500606\, p^{64}\, q^{88} + 812725\, q^{40}\, p^{13} + 417067860\, p^{102}\, q^{49} + 176338192\, p^{101}\, q^{44} + 856238676\, p^{106}\, q^{95}$$
$$+ 960500197\, p^{106}\, q^{94} + 134949963\, p^{107}\, q^{105} + 208029760\, p^{106}\, q^{104} + 12126593\, q^{40}\, p^{18} + 115192552\, p^{86}\, q^{30} + 146\, p^{54}\, q^{6}$$
$$+ 5383746\, p^{104}\, q^{37} + 2399992\, p^{102}\, q^{33} + 114599086\, p^{108}\, q^{54} + 848119\, p^{101}\, q^{30} + 2282375196\, p^{90}\, q^{42} + 358219679959\, p^{64}\, q^{69}$$
$$+ 234731416034\, p^{68}\, q^{80} + 2770507603\, q^{105}\, p^{83} + 2287505832\, q^{105}\, p^{87} + 99816\, p^{63}\, q^{12} + 34017329027\, p^{80}\, q^{47} + 9116204092\, p^{79}\, q^{40}$$
$$+ 7131791967\, p^{79}\, q^{39} + 1113\, p^{53}\, q^{7} + 6945756\, p^{71}\, q^{19} + 181197492422\, p^{83}\, q^{69} + 183465243813\, p^{83}\, q^{70} + 13348\, p^{74}\, q^{126} + 7\, p^{131}\, q^{133}$$
$$+ 2763102871\, p^{80}\, q^{36} + 177942025\, p^{77}\, q^{27} + 5\, p^{67}\, q^{129} + 153457156571\, p^{62}\, q^{82} + 14700104\, q^{116}\, p^{66} + 16763338\, q^{116}\, p^{67}$$
$$+ 81814157\, p^{67}\, q^{113} + 213661517\, p^{73}\, q^{112} + 1064746\, q^{108}\, p^{38} + 101435\, q^{107}\, p^{32} + 176784\, q^{107}\, p^{33} + 1306399722\, p^{70}\, q^{30}$$

$$+ 23669246\, p^{66}\, q^{20} + 1239179420\, p^{94}\, q^{105} + 48800429111\, p^{83}\, q^{91} + 100\, q^{97}\, p^{17} + 6597\, q^{98}\, p^{21} + 428\, q^{97}\, p^{18} + 210371616\, q^{81}\, p^{29}$$
$$+ 47686334626\, p^{73}\, q^{93} + 3\, p^{4}\, q^{2} + 7\, p^{5}\, q^{3} + 1342103\, p^{23}\, q^{19} + 665014\, p^{23}\, q^{17} + 3243745\, p^{24}\, q^{21} + 1855323\, p^{23}\, q^{20}$$
$$+ 101961600296\, p^{55}\, q^{50} + 6244869135\, q^{80}\, p^{39} + 23613513257\, q^{80}\, p^{45} + 24\, p^{76}\, q^{9} + 78078279370\, q^{78}\, p^{51} + 42427673262\, q^{78}\, p^{47}$$
$$+ 82984\, q^{21}\, p^{13} + 3645\, q^{24}\, p^{7} + 12534344\, p^{24}\, q^{26} + 26897377\, p^{26}\, q^{27} + 15805755\, p^{24}\, q^{27} + 13872428\, p^{89}\, q^{27} + 11237793436\, p^{100}\, q^{78}$$
$$+ 270573201\, q^{108}\, p^{59} + 54457366\, p^{109}\, q^{107} + 106114191\, p^{105}\, q^{108} + 118540547\, p^{81}\, q^{114} + 66603892\, p^{77}\, q^{115} + 191746592851\, p^{54}\, q^{69}$$
$$+ 76804983147\, p^{47}\, q^{70} + 709622\, p^{122}\, q^{105} + 1325270\, p^{121}\, q^{104} + 4226387\, p^{117}\, q^{62} + 2997949\, p^{116}\, q^{57} + 6412455\, p^{118}\, q^{69}$$
$$+ 7241024\, p^{118}\, q^{70} + 85024\, p^{109}\, q^{34} + 2804358\, p^{121}\, q^{95} + 2930193\, p^{121}\, q^{94} + 5838156\, p^{119}\, q^{74} + 403306\, p^{111}\, q^{40} + 262055\, p^{111}\, q^{39}$$
$$+ 113348917953\, q^{78}\, p^{54} + 115294718434\, q^{79}\, p^{55} + 67874843905\, q^{78}\, p^{50} + 100883586774\, q^{78}\, p^{53} + 21924834\, p^{58}\, q^{113} + q^{4}\, p + p\, q^{3}$$
$$+ 3\, q^{4}\, p^{2} + 32950983\, p^{68}\, q^{21} + 96\, p^{15}\, q^{4} + 91475965367\, p^{55}\, q^{49} + 4594\, q^{20}\, p^{8} + 2145\, p^{125}\, q^{125} + 3092\, p^{46}\, q^{7} + 279318766655\, p^{70}\, q^{59}$$
$$+ 261156687279\, p^{70}\, q^{58} + 35657033255\, q^{78}\, p^{46} + 58525052400\, q^{78}\, p^{49} + 50043824998\, q^{78}\, p^{48} + 89100183004\, q^{78}\, p^{52}$$
$$+ 5172441662\, p^{75}\, q^{36} + 199\, p^{131}\, q^{122} + 5\, p^{4}\, q^{3} + 27\, p^{13}\, q^{3} + 597\, p^{16}\, q^{6} + 235\, p^{15}\, q^{5} + 68862\, p^{16}\, q^{16} + 31243\, p^{13}\, q^{17} + 1129597\, p^{122}\, q^{79}$$
$$+ p^{71}\, q^{7} + 155441\, p^{117}\, q^{49} + 126679\, p^{125}\, q^{105} + 469614\, p^{120}\, q^{62} + 377252\, p^{120}\, q^{61} + 258938\, p^{124}\, q^{104} + 436906\, p^{124}\, q^{94} + 45835\, p^{114}\, q^{40}$$
$$+ 27923\, p^{114}\, q^{39} + 679178\, p^{122}\, q^{74} + 81447143852\, p^{55}\, q^{48} + 354453654652\, p^{71}\, q^{65} + 352600696622\, p^{72}\, q^{66} + 288359535200\, p^{71}\, q^{60}$$
$$+ 234597814761\, p^{71}\, q^{57} + 2\, p^{3}\, q^{2} + 1043844\, q^{90}\, p^{23} + 75111\, q^{89}\, p^{19} + 258337\, q^{90}\, p^{21} + 755794\, p^{121}\, q^{69} + 8796\, p^{112}\, q^{34}$$
$$+ 429659\, p^{124}\, q^{95} + 878784\, p^{121}\, q^{70} + 30867794\, p^{22}\, q^{34} + 36986803\, p^{23}\, q^{33} + 18736291\, p^{21}\, q^{33} + 26549214\, p^{22}\, q^{33}$$
$$+ 71959095971\, p^{55}\, q^{47} + 1404704\, p^{114}\, q^{49} + 953760\, p^{23}\, q^{18} + 7\, p^{13}\, q^{2} + 499\, q^{78}\, p^{11} + 113432516\, q^{74}\, p^{25} + 3\, p^{79}\, q^{9} + 217599\, p^{117}\, q^{50}$$
$$+ 329568\, p^{119}\, q^{57} + 246855\, p^{118}\, q^{53} + 48819254725\, p^{44}\, q^{69} + 32099\, p^{115}\, q^{41} + 28841\, p^{112}\, q^{36} + 16254\, p^{112}\, q^{35} + 17063103277\, q^{92}\, p^{55}$$
$$+ 202304435\, q^{73}\, p^{26} + 81303842\, q^{73}\, p^{24} + 49632523\, q^{73}\, p^{23} + 29452914\, q^{73}\, p^{22} + 10128\, p^{18}\, q^{10} + 1429\, p^{17}\, q^{7} + 4783\, p^{17}\, q^{9}$$
$$+ 2691\, p^{17}\, q^{8} + 39073\, q^{26}\, p^{10} + 47297495168\, p^{49}\, q^{80} + 2306076747\, p^{53}\, q^{99} + 59968563974\, p^{45}\, q^{57} + 49540385732\, p^{44}\, q^{56}$$
$$+ 3430\, p^{45}\, q^{7} + 285880817836\, p^{69}\, q^{59} + 120\, q^{32}\, p^{4} + 11\, q^{7}\, p^{3} + 315495\, q^{53}\, p^{12} + 703187\, q^{53}\, p^{13} + 116727875\, q^{56}\, p^{22} + 5\, p^{37}\, q^{3}$$
$$+ 1001198\, q^{27}\, p^{16} + 56165721913\, p^{72}\, q^{92} + 160182\, p^{22}\, q^{14} + 303135\, p^{23}\, q^{15} + 102402\, p^{22}\, q^{13} + 37982\, p^{22}\, q^{11} + 204619\, p^{125}\, q^{96}$$
$$+ 105036\, p^{120}\, q^{56} + 154401\, p^{122}\, q^{65} + 230068\, p^{122}\, q^{67} + 12505\, p^{126}\, q^{117} + 219441\, p^{123}\, q^{72} + 53885\, p^{119}\, q^{51} + 205650\, p^{125}\, q^{92} + 3\, p^{86}\, q^{11}$$
$$+ 17\, p^{6}\, q^{4} + 28\, p^{6}\, q^{5} + 64\, p^{7}\, q^{6} + 76238057065\, p^{87}\, q^{61} + 87748086791\, p^{87}\, q^{63} + 49510\, p^{75}\, q^{125} + 118345\, p^{116}\, q^{46} + 1704934\, p^{115}\, q^{52}$$
$$+ 25749163367\, p^{40}\, q^{57} + 167700410268\, p^{56}\, q^{55} + 10701\, p^{111}\, q^{33} + p^{66}\, q^{6} + 109071\, p^{117}\, q^{48} + 6865\, p^{109}\, q^{30} + 96663682231\, p^{49}\, q^{56}$$

$$+ 81447143852\, p^{48}\, q^{55} + 146193919259\, p^{55}\, q^{54} + 927\, p^{19}\, q^{6} + 350\, p^{18}\, q^{5} + 135058553799\, p^{55}\, q^{53} + 31\, p^{26}\, q^{3} + 480\, p^{35}\, q^{5}$$
$$+ 8770809838\, p^{98}\, q^{61} + 10571178582\, p^{98}\, q^{63} + 107928385639\, p^{50}\, q^{56} + 91475965367\, p^{49}\, q^{55} + 404205169\, p^{55}\, q^{25}$$
$$+ 1746201481\, p^{66}\, q^{30} + 33606549\, p^{62}\, q^{20} + 2570821\, p^{111}\, q^{45} + 1012630\, p^{121}\, q^{71} + 20\, p^{87}\, q^{12} + 22315\, p^{113}\, q^{37} + 894568\, p^{123}\, q^{91}$$
$$+ 84732089\, q^{89}\, p^{31} + 22610025\, q^{89}\, p^{28} + 55774272\, q^{89}\, p^{30} + 35928594\, q^{89}\, p^{29} + 52017\, q^{21}\, p^{12} + 128425\, q^{21}\, p^{14} + 243744\, q^{22}\, p^{15}$$
$$+ 221095\, p^{20}\, q^{16} + 8388910086\, p^{90}\, q^{48} + 5619259822\, p^{89}\, q^{45} + 44009518807\, p^{92}\, q^{65} + 35752317764\, p^{92}\, q^{62} + 23613513257\, p^{91}\, q^{56}$$
$$+ 5309459455\, q^{87}\, p^{43} + 28520222163\, p^{86}\, q^{51} + 6019934745\, p^{85}\, q^{42} + 835358\, p^{26}\, q^{16} + 10194\, p^{21}\, q^{9} + 63487\, p^{22}\, q^{12} + 10128\, p^{10}\, q^{18}$$
$$+ 61051\, p^{18}\, q^{14} + 16671\, p^{18}\, q^{11} + 117198\, p^{19}\, q^{15} + 40759\, p^{18}\, q^{13} + 17194\, q^{119}\, p^{48} + 26486\, p^{18}\, q^{12} + 108\, q^{33}\, p^{4} + 47224484893\, p^{72}\, q^{93}$$
$$+ 54189737305\, p^{70}\, q^{92} + 49038884292\, p^{86}\, q^{55} + 14132808521\, p^{85}\, q^{46} + 93158161119\, p^{87}\, q^{64} + 312981913\, p^{81}\, q^{30}$$
$$+ 1264847410\, p^{83}\, q^{35} + 20702440423\, p^{86}\, q^{49} + 35\, q^{16}\, p^{3} + 44145150\, q^{70}\, p^{22} + 73082676\, q^{70}\, p^{23} + 117785431\, q^{70}\, p^{24}$$
$$+ 387060282\, q^{71}\, p^{27} + 119\, p^{17}\, q^{4} + 33\, p^{15}\, q^{3} + 805617619\, p^{87}\, q^{36} + 18342\, p^{21}\, q^{10} + 2290\, p^{20}\, q^{7} + 4594\, p^{20}\, q^{8} + 28831495450\, p^{81}\, q^{95}$$
$$+ 4371191\, p^{22}\, q^{24} + 96792453106\, p^{88}\, q^{77} + 82312434548\, p^{89}\, q^{78} + 6412455\, p^{67}\, q^{18} + 2417173731\, p^{66}\, q^{31} + 67\, p^{37}\, q^{4}$$
$$+ 106971286481\, p^{69}\, q^{49} + 157128833799\, p^{81}\, q^{81} + 254809\, q^{63}\, p^{13} + 127500\, p^{16}\, q^{18} + 598134\, q^{63}\, p^{14} + 12680\, p^{13}\, q^{14} + 9032\, p^{13}\, q^{13}$$
$$+ 8208230819\, p^{63}\, q^{99} + 97899702\, q^{90}\, p^{32} + 11902747\, p^{67}\, q^{19} + 123879126608\, p^{55}\, q^{52} + 31519\, q^{21}\, p^{11} + 361955\, p^{22}\, q^{16}$$
$$+ 3089087718\, q^{77}\, p^{35} + 4121024523\, q^{77}\, p^{36} + 6266398115\, q^{78}\, p^{38} + 423\, q^{112}\, p^{30} + 74601\, p^{126}\, q^{88} + 2\, p^{92}\, q^{13} + 34814\, p^{127}\, q^{103}$$
$$+ 1389\, q^{14}\, p^{8} + 783\, q^{14}\, p^{7} + 87\, q^{35}\, p^{4} + p^{8}\, q + 208040168\, q^{98}\, p^{41} + 306820\, p^{124}\, q^{102} + 103728\, p^{125}\, q^{107} + 62141\, p^{125}\, q^{111}$$
$$+ 352600696622\, p^{70}\, q^{64} + 268459\, p^{55}\, q^{12} + 925\, p^{44}\, q^{6} + 1197649529\, q^{77}\, p^{32} + 2284867188\, q^{77}\, p^{34} + 1666493176\, q^{77}\, p^{33}$$
$$+ 598134\, p^{122}\, q^{73} + 368\, p^{99}\, q^{19} + 351625\, p^{124}\, q^{100} + 704098\, p^{120}\, q^{64} + 257\, p^{114}\, q^{32} + 15\, p^{110}\, q^{25} + 164\, p^{100}\, q^{19} + 307494\, p^{121}\, q^{64}$$
$$+ 565625\, p^{123}\, q^{80} + 179443\, p^{125}\, q^{100} + 112802221458\, p^{55}\, q^{51} + 1043844\, p^{113}\, q^{46} + p^{42}\, q^{3} + 2711903\, q^{34}\, p^{16} + 3814509\, q^{33}\, p^{17}$$
$$+ 1488723\, q^{33}\, p^{15} + 2416815\, q^{33}\, p^{16} + 48115325\, p^{53}\, q^{20} + 29475100675\, p^{62}\, q^{93} + 454099\, p^{16}\, q^{23} + 99358721110\, p^{88}\, q^{76}$$
$$+ 160182\, p^{14}\, q^{22} + 103226757033\, p^{88}\, q^{73} + 196717\, p^{46}\, q^{11} + 423114\, p^{47}\, q^{12} + 20\, p^{5}\, q^{5} + 42106\, p^{20}\, q^{12} + 1220641\, p^{122}\, q^{80}$$
$$+ 419333\, p^{124}\, q^{96} + 8\, p^{85}\, q^{11} + 252809\, p^{119}\, q^{56} + 7168\, p^{19}\, q^{9} + 2328\, q^{14}\, p^{9} + 4915\, q^{15}\, p^{10} + 160428135251\, p^{75}\, q^{84}$$
$$+ 149184320588\, p^{71}\, q^{85} + 562853\, p^{16}\, q^{24} + 25010436584\, p^{94}\, q^{86} + 9\, q^{6}\, p^{3} + 45\, p^{6}\, q^{6} + 6275\, p^{13}\, q^{12} + 375684\, p^{121}\, q^{65}$$
$$+ 543480\, p^{121}\, q^{67} + 20898\, p^{125}\, q^{117} + 5790\, p^{14}\, q^{11} + 12\, p^{5}\, q^{4} + 12\, p^{4}\, q^{5} + 3\, q^{5}\, p^{2} + 522193\, p^{122}\, q^{72} + 131878\, p^{118}\, q^{51} + 441390\, p^{124}\, q^{92}$$
$$+ 9\, p^{6}\, q^{3} + 625805\, p^{122}\, q^{106} + 970939269\, p^{96}\, q^{105} + 21615131\, p^{116}\, q^{99} + 26537312\, p^{116}\, q^{97} + 3\, p^{5}\, q^{2} + 143678579788\, p^{83}\, q^{80}$$

$$+ 298384903\, p^{108}\, q^{99} + 392209862\, p^{108}\, q^{97} + 552\, q^{24}\, p^{5} + q^{16}\, p + 10640\, q^{27}\, p^{8} + 104879\, p^{83}\, q^{17} + 161\, q^{23}\, p^{4} + 6756293\, p^{20}\, q^{29}$$
$$+ 9\, p^{4}\, q^{4} + 7\, p^{3}\, q^{5} + 5\, q^{4}\, p^{3} + q^{5}\, p + 99\, q^{34}\, p^{4} + 5790\, p^{11}\, q^{14} + 6275\, p^{12}\, q^{13} + 101657\, p^{20}\, q^{14} + 25824\, p^{20}\, q^{11} + 193571\, p^{21}\, q^{15}$$
$$+ 66375\, p^{20}\, q^{13} + 119740\, p^{54}\, q^{11} + 1129597\, p^{57}\, q^{14} + 565625\, p^{56}\, q^{13} + 480\, q^{35}\, p^{5} + 160088\, p^{125}\, q^{102} + 54425\, p^{126}\, q^{107} + 34301\, p^{126}\, q^{111}$$
$$+ 254809\, p^{123}\, q^{73} + 165\, q^{24}\, p^{4} + 14583521928\, p^{39}\, q^{72} + 28071915514\, p^{42}\, q^{72} + 22797113691\, p^{41}\, q^{72} + 10571178582\, p^{38}\, q^{73}$$
$$+ 18328504846\, p^{40}\, q^{72} + 14609185207\, p^{95}\, q^{90} + 350797113340\, p^{63}\, q^{68} + p^{4}\, q + 2\, p^{2}\, q^{3} + 814\, p^{118}\, q^{130} + 4103\, q^{43}\, p^{7} + 58\, q^{38}\, p^{4}$$
$$+ 76542\, q^{23}\, p^{12} + 44046\, q^{27}\, p^{10} + 22413\, q^{27}\, p^{9} + 49205\, q^{28}\, p^{10} + 2\, q^{28}\, p^{2} + 1291\, q^{22}\, p^{6} + 91\, p^{6}\, q^{8} + 9305659\, q^{55}\, p^{17}$$
$$+ 403088966\, q^{56}\, p^{25} + 836271926\, q^{56}\, p^{27} + 1175591876\, q^{57}\, p^{28} + 180215084\, q^{56}\, p^{23} + 1630806905\, q^{57}\, p^{29} + 3013644598\, q^{58}\, p^{31}$$
$$+ 2228999923\, q^{57}\, p^{30} + 64382075557\, p^{77}\, q^{49} + 243581538582\, p^{78}\, q^{64} + 342\, q^{113}\, p^{31} + 63487\, p^{12}\, q^{22} + 42\, q^{124}\, p^{50} + 1081587563\, p^{72}\, q^{30}$$
$$+ 137564161272\, p^{77}\, q^{55} + 43341119037\, p^{76}\, q^{46} + 13\, q^{8}\, p^{3} + 16\, q^{9}\, p^{3} + 144\, p^{8}\, q^{7} + 7741\, p^{15}\, q^{11} + 27574\, q^{48}\, p^{9} + 8109679\, q^{65}\, p^{18}$$
$$+ 2617\, q^{21}\, p^{7} + 10194\, q^{21}\, p^{9} + 21821\, q^{22}\, p^{10} + 100\, p^{7}\, q^{7} + 4\, q^{7}\, p^{2} + 20050593326\, p^{76}\, q^{42} + 29\, p^{8}\, q^{4} + 53\, p^{8}\, q^{5} + 123\, p^{9}\, q^{6}$$
$$+ 4331318679\, p^{74}\, q^{35} + 1187735\, q^{28}\, p^{16} + 159\, q^{22}\, p^{4} + 47574211\, p^{82}\, q^{116} + 48115325\, p^{83}\, q^{116} + 116853250990\, p^{83}\, q^{83}$$
$$+ 14357613020\, p^{37}\, q^{60} + 2157264894\, p^{98}\, q^{51} + 1026690087\, p^{97}\, q^{46} + 8935584777\, p^{99}\, q^{64} + 4172421672\, p^{98}\, q^{55} + 1973231\, p^{88}\, q^{23}$$
$$+ 37509741\, p^{92}\, q^{31} + 12779826\, p^{91}\, q^{28} + 74528057885\, p^{77}\, q^{50} + 24660564562\, p^{76}\, q^{43} + 20966832329\, p^{94}\, q^{88} + 30873862606\, p^{94}\, q^{83}$$
$$+ 18063566\, p^{29}\, q^{23} + 8595\, q^{74}\, p^{12} + 8842944193\, p^{35}\, q^{58} + 6804195454\, p^{34}\, q^{57} + 29621080\, p^{52}\, q^{19} + 119712126\, p^{53}\, q^{22}$$
$$+ 2324715840\, q^{104}\, p^{65} + 1363803250\, q^{104}\, p^{60} + 1043272620\, q^{104}\, p^{58} + 1208475\, q^{99}\, p^{29} + 2045291\, q^{99}\, p^{30} + 206037\, q^{96}\, p^{24}$$
$$+ 596498\, q^{98}\, p^{27} + 1064746\, q^{98}\, p^{28} + 1836699\, q^{98}\, p^{29} + 1831566131\, q^{105}\, p^{66} + 13676531919\, p^{99}\, q^{72} + 11686074608\, p^{99}\, q^{68}$$
$$+ 5346\, q^{21}\, p^{8} + 22\, p^{105}\, q^{21} + 182\, p^{111}\, q^{28} + 2823\, p^{118}\, q^{42} + 1049\, q^{20}\, p^{6} + 137\, p^{131}\, q^{124} + 240197\, p^{14}\, q^{24} + 270\, p^{130}\, q^{124}$$
$$+ 1433836\, p^{20}\, q^{22} + 13\, p^{8}\, q^{3} + 4\, p^{7}\, q^{2} + 91704956578\, q^{79}\, p^{53} + 70718928464\, q^{79}\, p^{51} + 38134224034\, q^{79}\, p^{47} + 65546134394\, p^{46}\, q^{70}$$
$$+ 53\, p^{5}\, q^{8} + 231544946062\, p^{80}\, q^{74} + 225673009369\, p^{80}\, q^{75} + 229829642506\, p^{80}\, q^{67} + 240242627775\, p^{80}\, q^{71} + 238898666727\, p^{80}\, q^{72}$$
$$+ 234731416034\, p^{80}\, q^{68} + 39064952\, q^{101}\, p^{39} + 54329581\, q^{101}\, p^{40} + 351625\, p^{100}\, q^{124} + 264738661\, q^{102}\, p^{47} + 334061467\, q^{102}\, p^{48}$$
$$+ 55157445115\, p^{59}\, q^{88} + 17073500475\, p^{85}\, q^{47} + 14\, q^{32}\, p^{3} + 85916885273\, p^{48}\, q^{56} + 71959095971\, p^{47}\, q^{55} + 24508469148\, p^{92}\, q^{58}$$
$$+ 30038304623\, p^{92}\, q^{60} + 46454008935\, p^{93}\, q^{71} + 18201078926\, p^{91}\, q^{54} + 31506\, p^{69}\, q^{12} + 15788740138\, p^{91}\, q^{53} + 639265\, q^{85}\, p^{20}$$
$$+ 2121279400\, q^{72}\, p^{32} + 5225682975\, q^{72}\, p^{35} + 3921966926\, q^{72}\, p^{34} + 1378158648\, q^{73}\, p^{31} + 2904601468\, q^{72}\, p^{33} + 5619259822\, p^{91}\, q^{47}$$
$$+ 22599413\, p^{83}\, q^{25} + 94599865\, p^{85}\, q^{29} + 13316877\, p^{83}\, q^{24} + 689505\, p^{25}\, q^{16} + 6639225811\, q^{87}\, p^{44} + 76766787\, p^{52}\, q^{21}$$

$$+ 272064396\, p^{53}\, q^{24} + 424065\, q^{119}\, p^{58} + 29\, p^{4}\, q^{8} + 7046321\, p^{26}\, q^{22} + 28\, p^{5}\, q^{6} + 14664\, p^{54}\, q^{9} + 35787310186\, p^{42}\, q^{56}$$
$$+ 399208719\, q^{57}\, p^{25} + 834253484\, q^{57}\, p^{27} + 45532318\, q^{56}\, p^{20} + 27294729\, q^{56}\, p^{19} + 2908855\, q^{53}\, p^{15} + 142362\, q^{52}\, p^{11}$$
$$+ 16464775\, q^{55}\, p^{18} + 1392242\, q^{54}\, p^{14} + 539\, q^{33}\, p^{5} + 17815458\, q^{50}\, p^{18} + 22310222740\, p^{59}\, q^{93} + 1402018\, q^{68}\, p^{16} + 755794\, q^{67}\, p^{15}$$
$$+ 5876017047\, p^{100}\, q^{90} + 7063372176\, p^{98}\, q^{59} + 4962531080\, p^{34}\, q^{69} + 210077794357\, p^{80}\, q^{77} + 187093185443\, p^{81}\, q^{78}$$
$$+ 235981118051\, p^{80}\, q^{73} + 218473731549\, p^{80}\, q^{76} + 26056\, p^{78}\, q^{14} + 12816480783\, p^{99}\, q^{70} + 867587744\, p^{95}\, q^{43} + 152\, q^{21}\, p^{4}$$
$$+ 1984\, q^{19}\, p^{7} + 3262\, q^{18}\, p^{8} + 59905\, q^{51}\, p^{10} + 23168\, q^{50}\, p^{9} + 28158697\, q^{55}\, p^{19} + 337924\, q^{52}\, p^{12} + 1469770\, q^{53}\, p^{14} + 75356355\, q^{55}\, p^{21}$$
$$+ 46707186\, q^{55}\, p^{20} + 73845359\, q^{56}\, p^{21} + 582242476\, q^{57}\, p^{26} + 268562210\, q^{57}\, p^{24} + 2290\, q^{20}\, p^{7} + 1101284330\, p^{105}\, q^{95}$$
$$+ 1239179420\, p^{105}\, q^{94} + 36427941\, p^{93}\, q^{116} + 34040421\, p^{94}\, q^{116} + 169674698\, p^{106}\, q^{105} + 259668028\, p^{105}\, q^{104} + 638111528\, p^{65}\, q^{27}$$
$$+ 3297518817\, p^{66}\, q^{32} + p^{5}\, q + 40\, q^{7}\, p^{5} + 11\, p^{7}\, q^{3} + 4\, p^{6}\, q^{2} + 21158634034\, p^{39}\, q^{57} + 178581\, p^{17}\, q^{18} + 744289\, p^{123}\, q^{84} + 299623\, p^{120}\, q^{60}$$
$$+ 454142\, p^{121}\, q^{66} + 169170\, p^{16}\, q^{19} + 17\, q^{6}\, p^{4} + 22\, p^{7}\, q^{4} + 40\, p^{7}\, q^{5} + 91\, p^{8}\, q^{6} + 1693\, q^{18}\, p^{7} + 80849041258\, q^{79}\, p^{52}$$
$$+ 103217144035\, q^{79}\, p^{54} + 61363076977\, q^{79}\, p^{50} + 6357\, p^{126}\, q^{120} + 6269\, p^{110}\, q^{31} + 329784\, p^{124}\, q^{101} + 13118\, p^{125}\, q^{119}$$
$$+ 31983363372\, q^{79}\, p^{46} + 52809919898\, q^{79}\, p^{49} + 45069260808\, q^{79}\, p^{48} + 4\, q^{23}\, p^{2} + 764493\, p^{122}\, q^{75} + 79245\, p^{115}\, q^{43} + 53307\, p^{125}\, q^{112}$$
$$+ 3213\, p^{109}\, q^{29} + 20033744609\, q^{78}\, p^{43} + 24508469148\, q^{78}\, p^{44} + 8080490109\, q^{78}\, p^{39} + 6327388\, q^{86}\, p^{24} + 781776\, p^{123}\, q^{85}$$
$$+ 703187\, p^{123}\, q^{83} + 181877\, p^{118}\, q^{52} + 643952\, p^{121}\, q^{68} + 8597\, q^{20}\, p^{9} + 18342\, q^{21}\, p^{10} + 234731416034\, p^{56}\, q^{68} + 84\, p^{93}\, q^{15}$$
$$+ 191335\, p^{119}\, q^{55} + 79898\, p^{116}\, q^{45} + 2985\, p^{106}\, q^{26} + 3\, q^{26}\, p^{2} + 147\, q^{29}\, p^{4} + 12680\, p^{14}\, q^{13} + 98\, p^{95}\, q^{16} + 8691\, p^{14}\, q^{12} + 221095\, p^{16}\, q^{20}$$
$$+ 10363869523\, q^{70}\, p^{37} + 736325622\, p^{105}\, q^{98} + 5004\, p^{40}\, q^{7} + 1146998386\, p^{107}\, q^{89} + 2185703746\, p^{106}\, q^{76} + 2215096863\, p^{106}\, q^{77}$$
$$+ 735160158\, p^{108}\, q^{91} + 1606509103\, p^{107}\, q^{81} + 1844487865\, p^{106}\, q^{71} + 1371728708\, p^{107}\, q^{86} + 1301541207\, p^{107}\, q^{87}$$
$$+ 1630806905\, p^{107}\, q^{79} + 2576121\, p^{22}\, q^{22} + 311539886\, q^{104}\, p^{51} + 252480694\, q^{104}\, p^{50} + 51103239\, q^{102}\, p^{41} + 700\, q^{17}\, p^{6}$$
$$+ 12876959\, q^{36}\, p^{19} + 583\, q^{31}\, p^{5} + 1976\, q^{32}\, p^{6} + 11581604141\, p^{95}\, q^{92} + 48240105\, p^{84}\, q^{27} + 597\, q^{30}\, p^{5} + 5364282\, q^{36}\, p^{17}$$
$$+ 49697210\, q^{69}\, p^{22} + 81814157\, q^{69}\, p^{23} + 8\, q^{15}\, p^{2} + 130\, q^{18}\, p^{4} + 927\, q^{19}\, p^{6} + 350\, q^{18}\, p^{5} + q^{6}\, p + 22\, q^{7}\, p^{4} + 16754232153\, p^{39}\, q^{70}$$
$$+ 14085460300\, p^{38}\, q^{69} + 10323810\, q^{51}\, p^{17} + 4\, q^{6}\, p^{2} + 511\, p^{34}\, q^{5} + 10302557482\, q^{78}\, p^{40} + 16216067516\, q^{78}\, p^{42} + 12993453290\, q^{78}\, p^{41}$$
$$+ 8691\, p^{12}\, q^{14} + 18075\, p^{14}\, q^{14} + 35576\, p^{15}\, q^{15} + 16373755\, p^{26}\, q^{25} + 20754154\, p^{25}\, q^{27} + 34428238\, p^{27}\, q^{27} + 55330026\, p^{28}\, q^{28} + 6\, q^{20}\, p^{2}$$
$$+ 35219\, q^{44}\, p^{9} + 5917409\, q^{48}\, p^{16} + 140\, q^{30}\, p^{4} + 76164570\, p^{51}\, q^{21} + 268251139\, p^{52}\, q^{24} + 3010\, q^{15}\, p^{9} + 6357\, q^{16}\, p^{10} + 1756\, q^{15}\, p^{8}$$
$$+ 7\, q^{12}\, p^{2} + 55157445115\, p^{77}\, q^{48} + 36246776476\, p^{76}\, q^{45} + 42783903\, q^{90}\, p^{30} + 199\, q^{14}\, p^{5} + 85\, q^{14}\, p^{4} + 129\, q^{31}\, p^{4} + 23\, q^{29}\, p^{3}$$

$$+ 2916\, p^{128}\, q^{80} + 1792\, p^{130}\, q^{100} + 15837\, q^{24}\, p^{9} + 7011\, q^{23}\, p^{8} + 3300\, q^{23}\, p^{7} + 97479862188\, p^{77}\, q^{52} + 85574839539\, p^{77}\, q^{51} + 477\, p^{9}\, q^{9}$$
$$+ 1020\, p^{10}\, q^{10} + 2552927477\, q^{105}\, p^{85} + 2142403246\, q^{105}\, p^{88} + 1838965159\, q^{105}\, p^{90} + 1294434305\, q^{106}\, p^{91} + 2425110625\, q^{105}\, p^{86}$$
$$+ 2668744673\, q^{105}\, p^{84} + q^{52}\, p^{4} + 8\, q^{55}\, p^{5} + 2924710458\, q^{105}\, p^{81} + 2617\, p^{129}\, q^{115} + 1174513883\, p^{56}\, q^{28} + 63802956340\, p^{59}\, q^{45}$$
$$+ 38160395823\, p^{58}\, q^{42} + 17574062485\, p^{58}\, q^{38} + 45267397158\, p^{58}\, q^{43} + 14126985116\, p^{58}\, q^{37} + 21642317907\, p^{58}\, q^{39} + 20\, q^{30}\, p^{3}$$
$$+ 27\, q^{13}\, p^{3} + 2139762\, p^{17}\, q^{29} + 317\, p^{8}\, q^{9} + 35283\, q^{63}\, p^{11} + 316311692\, p^{105}\, q^{103} + 90728903451\, p^{85}\, q^{84} + 26\, p^{28}\, q^{3}$$
$$+ 22983354780\, p^{94}\, q^{87} + 989\, p^{126}\, q^{64} + 256033\, p^{114}\, q^{44} + 2079415388\, p^{53}\, q^{30} + 559831821\, p^{52}\, q^{26} + 1539757902\, p^{53}\, q^{29} + 70\, q^{9}\, p^{5}$$
$$+ 164\, q^{10}\, p^{6} + 317\, p^{9}\, q^{8} + 1252796\, p^{17}\, q^{26} + 5869998\, q^{50}\, p^{16} + 10405269\, q^{50}\, p^{17} + 91269\, p^{12}\, q^{24} + 25641\, p^{10}\, q^{23}$$
$$+ 13284689935\, p^{71}\, q^{99} + 17944039023\, p^{75}\, q^{98} + 17940408506\, p^{76}\, q^{98} + 21158634034\, p^{79}\, q^{97} + 19226071959\, p^{85}\, q^{96}$$
$$+ 1447506956\, p^{73}\, q^{107} + 76676468671\, p^{88}\, q^{82} + 3635873578\, p^{78}\, q^{36} + 1509549\, q^{103}\, p^{33} + 11199326\, q^{39}\, p^{18} + 455863529\, p^{105}\, q^{101}$$
$$+ 26897377\, p^{27}\, q^{26} + 82078765536\, p^{87}\, q^{62} + 98221380075\, p^{87}\, q^{65} + q^{10}\, p + 10121444938\, p^{54}\, q^{36} + 80163790452\, p^{47}\, q^{69}$$
$$+ 215517714057\, p^{55}\, q^{68} + 199926791257\, p^{54}\, q^{67} + 38768\, q^{41}\, p^{9} + 3235066\, q^{27}\, p^{19} + 1513118\, q^{27}\, p^{17} + 10202186\, p^{119}\, q^{89}$$
$$+ 13571999\, p^{118}\, q^{77} + 9305659\, p^{119}\, q^{81} + 12695918\, p^{118}\, q^{76} + 3955930\, p^{120}\, q^{98} + 14401315\, p^{118}\, q^{78} + 10412167\, p^{119}\, q^{87}$$
$$+ 10405269\, p^{119}\, q^{86} + 9989433\, p^{119}\, q^{90} + 664769749\, p^{88}\, q^{109} + 701068088\, p^{87}\, q^{109} + 258727944387\, p^{70}\, q^{79} + 495\, q^{22}\, p^{5} + 1406\, q^{23}\, p^{6}$$
$$+ 3262487\, p^{47}\, q^{15} + 1736979\, p^{47}\, q^{14} + 49500648168\, p^{91}\, q^{64} + 25149972454\, p^{90}\, q^{55} + 42106\, q^{20}\, p^{12} + 101657\, q^{20}\, p^{14} + 193571\, q^{21}\, p^{15}$$
$$+ 14132808521\, p^{90}\, q^{51} + 6923088231\, p^{89}\, q^{46} + 173306116\, q^{50}\, p^{23} + 325925737421\, p^{61}\, q^{67} + 310886478018\, p^{60}\, q^{66}$$
$$+ 40310653\, q^{100}\, p^{38} + 3288274850\, p^{87}\, q^{41} + 446870602\, p^{85}\, q^{33} + 35\, q^{9}\, p^{4} + 191746592851\, p^{69}\, q^{54} + 68537683081\, p^{69}\, q^{46}$$
$$+ 204588714983\, p^{70}\, q^{55} + 188015\, q^{29}\, p^{12} + 546784\, q^{29}\, p^{14} + 220\, p^{8}\, q^{8} + 204\, p^{7}\, q^{9} + 16671\, p^{11}\, q^{18} + 1945635012\, p^{87}\, q^{39}$$
$$+ 1338197430\, p^{86}\, q^{37} + 2137719887\, p^{54}\, q^{30} + 572092157\, p^{53}\, q^{26} + 1578195230\, p^{54}\, q^{29} + 1065517403\, q^{62}\, p^{28} + 577928005\, p^{106}\, q^{98}$$
$$+ 1502147474\, q^{62}\, p^{29} + 2084869392\, q^{62}\, p^{30} + 2851205149\, q^{62}\, p^{31} + 2544447255\, p^{87}\, q^{40} + 29333615\, q^{53}\, p^{19} + 26\, q^{28}\, p^{3} + 70\, p^{9}\, q^{5}$$
$$+ 164\, p^{10}\, q^{6} + 51365700358\, p^{76}\, q^{47} + 14205118339\, p^{75}\, q^{40} + 20898\, p^{11}\, q^{19} + 26486\, p^{12}\, q^{18} + 387247\, q^{122}\, p^{70} + 451744\, q^{122}\, p^{71}$$
$$+ 11223720131\, p^{75}\, q^{39} + 78916\, q^{47}\, p^{10} + 29693\, q^{47}\, p^{9} + 74601\, q^{48}\, p^{10} + 1342103\, p^{19}\, q^{23} + 372442\, p^{15}\, q^{24} + 31694\, q^{46}\, p^{9} + 204\, p^{9}\, q^{7}$$
$$+ 35\, p^{9}\, q^{4} + 264635412\, q^{99}\, p^{43} + 29226806\, q^{49}\, p^{19} + 42008\, p^{74}\, q^{125} + 522193\, q^{122}\, p^{72} + 944595\, q^{122}\, p^{77} + 598134\, q^{122}\, p^{73}$$
$$+ 853360\, q^{122}\, p^{76} + 679178\, q^{122}\, p^{74} + 764493\, q^{122}\, p^{75} + 17\, q^{123}\, p^{46} + 2\, p^{58}\, q^{5} + 539651963\, p^{105}\, q^{100} + 2\, q^{27}\, p^{2} + 25824\, q^{20}\, p^{11}$$
$$+ 1054571757\, p^{108}\, q^{85} + 118345\, p^{90}\, q^{20} + 1038\, p^{93}\, q^{130} + 91\, p^{89}\, q^{131} + 8844256684\, p^{101}\, q^{75} + 760417\, p^{28}\, q^{15} + 32219296\, p^{25}\, q^{29}$$

$$+ 144\, p^{7}\, q^{8} + 123\, p^{6}\, q^{9} + 139893015675\, p^{78}\, q^{56} + 8770809838\, p^{75}\, q^{38} + 26987940082\, p^{73}\, q^{96} + 11872596\, p^{23}\, q^{27} + 1792\, q^{36}\, p^{6}$$
$$+ 410\, q^{37}\, p^{5} + 10535472\, p^{68}\, q^{19} + 123576773788\, p^{77}\, q^{54} + 30018431791\, p^{80}\, q^{95} + 16754232153\, p^{66}\, q^{97} + 115950565854\, q^{80}\, p^{56}$$
$$+ 238138878450\, p^{80}\, q^{69} + 239987701230\, p^{80}\, q^{70} + 5624\, q^{37}\, p^{7} + 138772480738\, p^{84}\, q^{79} + 195247805829\, p^{78}\, q^{60}$$
$$+ 153700917353\, p^{78}\, q^{57} + 66375\, q^{20}\, p^{13} + 81814157\, p^{69}\, q^{23} + 25189\, p^{15}\, q^{14} + 49202\, p^{16}\, q^{15} + 5917409\, p^{48}\, q^{16} + 253068897519\, p^{78}\, q^{65}$$
$$+ 242467827486\, p^{79}\, q^{66} + 110177220118\, p^{77}\, q^{53} + 30038304623\, p^{76}\, q^{44} + 49697210\, p^{69}\, q^{22} + 185215756\, p^{70}\, q^{25} + 11783\, p^{15}\, q^{12}$$
$$+ 17452\, p^{15}\, q^{13} + 563\, q^{32}\, p^{5} + 267697478664\, q^{78}\, p^{67} + 4\, p^{134}\, q^{112} + 22048387004\, p^{61}\, q^{94} + 3380729074\, p^{97}\, q^{52} + 2544447255\, p^{96}\, q^{49}$$
$$+ 1844487865\, p^{65}\, q^{30} + 36000518\, p^{61}\, q^{20} + 3645\, p^{24}\, q^{7} + 37080594577\, p^{94}\, q^{79} + 11787325\, p^{61}\, q^{18} + 1980573\, p^{59}\, q^{15} + 6\, p^{134}\, q^{116}$$
$$+ p^{133}\, q^{94} + 68762659\, p^{115}\, q^{89} + 106853122\, p^{114}\, q^{77} + 40799214\, p^{116}\, q^{91} + 75356355\, p^{115}\, q^{81} + 73814303\, p^{114}\, q^{71} + 102293981\, p^{114}\, q^{76}$$
$$+ 767226736\, q^{90}\, p^{38} + 411141919\, q^{90}\, p^{36} + 2617\, p^{21}\, q^{7} + 665014\, p^{17}\, q^{23} + 5346\, p^{21}\, q^{8} + p^{12}\, q + 34962\, p^{56}\, q^{10} + 1792\, p^{36}\, q^{6}$$
$$+ 1984304016\, q^{69}\, p^{31} + 2357377\, p^{77}\, q^{19} + 4907529391\, p^{54}\, q^{33} + 23660673\, q^{87}\, p^{27} + 565641470\, q^{90}\, p^{37} + 5457\, q^{38}\, p^{7} + 76542\, p^{23}\, q^{12}$$
$$+ 130\, p^{18}\, q^{4} + 35\, p^{16}\, q^{3} + 21821\, p^{22}\, q^{10} + 101444454288\, p^{57}\, q^{49} + 113459021657\, p^{57}\, q^{50} + 572092157\, q^{53}\, p^{26} + 226\, p^{42}\, q^{5}$$
$$+ 460036389\, p^{64}\, q^{26} + 137166797\, p^{63}\, q^{23} + 1316370629\, p^{65}\, q^{29} + 298\, p^{40}\, q^{5} + 462\, p^{131}\, q^{115} + 3767312533\, p^{54}\, q^{32} + 808318955\, p^{53}\, q^{27}$$
$$+ 2856358859\, p^{54}\, q^{31} + 2142013897\, p^{106}\, q^{75} + 4580769289\, q^{91}\, p^{46} + 264738661\, q^{89}\, p^{34} + 177743199305\, p^{55}\, q^{57} + 8725857620\, p^{35}\, q^{62}$$
$$+ 85024\, p^{102}\, q^{27} + p^{101}\, q^{17} + 8\, p^{107}\, q^{22} + 4639\, p^{129}\, q^{109} + 2780646\, p^{121}\, q^{82} + 52399\, p^{13}\, q^{19} + 4458641\, p^{23}\, q^{23} + 28831495450\, p^{55}\, q^{41}$$
$$+ 6317403400\, p^{54}\, q^{34} + 8040223362\, p^{54}\, q^{35} + 34303921731\, p^{55}\, q^{42} + 16194580533\, p^{55}\, q^{38} + 40456731175\, p^{55}\, q^{43} + 75035930\, q^{50}\, p^{21}$$
$$+ 2577787960\, p^{98}\, q^{52} + 1945635012\, p^{97}\, q^{49} + 13104937727\, p^{55}\, q^{37} + 19815210959\, p^{55}\, q^{39} + 1606509103\, q^{55}\, p^{29} + 29024\, q^{84}\, p^{16}$$
$$+ 462\, q^{21}\, p^{5} + 67874843905\, p^{78}\, q^{50} + 22310222740\, p^{77}\, q^{43} + 9695\, p^{81}\, q^{14} + 1608\, p^{75}\, q^{11} + 354119\, q^{93}\, p^{23} + 471861\, q^{94}\, p^{24}$$
$$+ 10861148\, p^{62}\, q^{18} + 1807827\, p^{60}\, q^{15} + 47830680156\, p^{93}\, q^{74} + 40654261953\, p^{93}\, q^{67} + 42813250\, p^{32}\, q^{24} + 1625\, p^{25}\, q^{6} + 552\, p^{24}\, q^{5}$$
$$+ 370373\, p^{30}\, q^{13} + 4418729\, p^{31}\, q^{18} + 2182605940\, q^{55}\, p^{30} + 1309533\, q^{121}\, p^{73} + 4423\, p^{119}\, q^{45} + 5\, p^{98}\, q^{16} + 9695\, p^{122}\, q^{55} + 195\, p^{109}\, q^{26}$$
$$+ 1807827\, q^{121}\, p^{76} + 1124039244\, p^{53}\, q^{28} + 57548708678\, p^{56}\, q^{45} + 47304649918\, p^{55}\, q^{44} + 3243745\, p^{21}\, q^{24} + 7011\, p^{23}\, q^{8}$$
$$+ 107611\, p^{25}\, q^{12} + 29822\, p^{24}\, q^{10} + 11\, p^{45}\, q^{4} + 40759\, p^{13}\, q^{18} + 19069\, q^{79}\, p^{14} + 18099475321\, p^{77}\, q^{42} + 3899490267\, p^{75}\, q^{35}$$
$$+ 58525052400\, p^{78}\, q^{49} + 225454000971\, p^{79}\, q^{64} + 973099603\, p^{73}\, q^{30} + 126393675869\, p^{78}\, q^{55} + 39456766172\, p^{77}\, q^{46} + 20157\, q^{26}\, p^{9}$$
$$+ 94515\, p^{17}\, q^{16} + 42462970009\, q^{93}\, p^{68} + 61507325\, q^{67}\, p^{22} + 1115\, q^{76}\, p^{11} + q^{51}\, p^{4} + 414\, q^{14}\, p^{6} + 5\, p^{96}\, q^{15} + 3362603\, q^{99}\, p^{31}$$
$$+ 63470380\, q^{103}\, p^{43} + 3012\, q^{84}\, p^{14} + 5656003\, q^{100}\, p^{33} + 8718721\, q^{100}\, p^{34} + 167\, q^{13}\, p^{5} + 5\, q^{21}\, p^{2} + 3\, q^{25}\, p^{2} + 26583088718\, q^{79}\, p^{45}$$

$$+ 755794\, q^{121} p^{69} + 1012630\, q^{121} p^{71} + 1637009\, q^{121} p^{75} + 1980573\, q^{121} p^{77} + 1037166\, q^{122} p^{78} + 1156509\, q^{121} p^{72} + 11934\, q^{22} p^{9}$$
$$+ 6161\, q^{22} p^{8} + 124871\, p^{23} q^{13} + 1049\, p^{20} q^{6} + 389\, p^{19} q^{5} + 24013560773\, p^{55} q^{40} + 11934\, p^{22} q^{9} + 45259\, p^{23} q^{11} + 5\, q^{22} p^{2}$$
$$+ 633128844\, p^{105} q^{99} + 849067057\, p^{105} q^{97} + 847375206\, q^{77} p^{31} + 126164863\, q^{89} p^{32} + 184370607\, q^{89} p^{33} + 65385554\, q^{90} p^{31}$$
$$+ 4802667837\, q^{78} p^{37} + 7999\, q^{118} p^{44} + 1201009\, p^{24} q^{18} + 197293\, p^{23} q^{14} + 372442\, p^{24} q^{15} + 10412167\, p^{49} q^{17} + 47709662\, p^{50} q^{20}$$
$$+ 308494134\, p^{73} q^{27} + 1419958200\, p^{69} q^{30} + 26135435\, p^{65} q^{20} + 7540211\, q^{40} p^{17} + 7718471\, p^{109} q^{45} + 14939444\, p^{116} q^{102}$$
$$+ 1836699\, p^{107} q^{38} + 19272086\, p^{116} q^{100} + 289104\, p^{25} q^{14} + 543551\, p^{26} q^{15} + 1252796\, p^{26} q^{17} + 6406264\, p^{27} q^{21} + 3726365\, p^{26} q^{20}$$
$$+ 2641487\, p^{26} q^{19} + 29567284\, p^{50} q^{19} + 117558253\, p^{51} q^{22} + 3442165264\, p^{33} q^{70} + 7449344172\, p^{36} q^{71} + 2529056234\, p^{32} q^{70}$$
$$+ 98900555051\, p^{88} q^{69} + 100974590965\, p^{88} q^{70} + 4380945958\, p^{84} q^{40} + 3380729074\, p^{84} q^{39} + 917187777\, p^{83} q^{34} + 2306076747\, p^{83} q^{37}$$
$$+ 64382075557\, p^{87} q^{59} + 5612157902\, p^{84} q^{41} + 782235917\, p^{82} q^{33} + 68189663\, p^{80} q^{26} + 82078765536\, p^{62} q^{87} + 112485263462\, p^{65} q^{86}$$
$$+ 3518592\, q^{86} p^{23} + 8445325\, q^{87} p^{25} + 1883373\, q^{86} p^{22} + 177512307\, p^{51} q^{23} + 180364476377\, p^{74} q^{83} + 166537740459\, p^{71} q^{84}$$
$$+ 7063372176\, q^{77} p^{38} + 11553783039\, q^{77} p^{40} + 18099475321\, q^{77} p^{42} + 5583711\, p^{25} q^{22} + 2132956\, p^{19} q^{25} + 643952\, q^{121} p^{68}$$
$$+ 1992128240\, q^{105} p^{89} + 2856358859\, q^{105} p^{82} + 753776066\, p^{72} q^{29} + 6\, q^{19} p^{2} + 516173944\, p^{72} q^{28} + 970939269\, p^{105} q^{96}$$
$$+ 3260144\, p^{48} q^{15} + 1721193\, p^{48} q^{14} + 830933\, p^{24} q^{17} + 4118258\, p^{25} q^{21} + 2369681\, p^{24} q^{20} + 1702251\, p^{24} q^{19} + 10496556230\, p^{55} q^{36}$$
$$+ 499\, q^{15} p^{6} + 972\, q^{15} p^{7} + 7485315593\, p^{74} q^{37} + 2235465\, q^{27} p^{18} + 4592878\, q^{27} p^{20} + 7857163\, q^{28} p^{21} + 181565960091\, p^{78} q^{59}$$
$$+ 208495361783\, p^{78} q^{61} + 167652342726\, p^{78} q^{58} + 232863886286\, p^{78} q^{63} + 221102386873\, p^{78} q^{62} + 1317\, q^{114} p^{34} + 31\, q^{26} p^{3}$$
$$+ 3927580173\, p^{104} q^{75} + 448314175\, p^{29} q^{38} + 13189\, q^{43} p^{8} + 33\, q^{25} p^{3} + 4\, q^{24} p^{2} + 391000066\, p^{52} q^{25} + 204\, p^{129} q^{127} + 15372\, q^{39} p^{8}$$
$$+ 3591\, p^{74} q^{127} + 6597\, q^{115} p^{38} + 5250\, q^{39} p^{7} + 39367\, q^{40} p^{9} + 1505\, q^{39} p^{6} + 14995\, q^{40} p^{8} + 8\, q^{16} p^{2} + 171743\, q^{89} p^{20}$$
$$+ 27851866\, q^{93} p^{31} + 6830094\, q^{93} p^{28} + 11190395\, q^{93} p^{29} + 4052462\, q^{93} p^{27} + 18\, q^{10} p^{3} + 607133\, p^{19} q^{20} + 452634\, p^{19} q^{19}$$
$$+ 331946\, p^{19} q^{18} + 5004\, q^{40} p^{7} + 211\, q^{11} p^{6} + 7063372176\, p^{59} q^{98} + 1936478\, p^{21} q^{22} + 67\, q^{37} p^{4} + 44\, q^{10} p^{4} + 89\, q^{10} p^{5} + 298\, q^{40} p^{5}$$
$$+ 15891938\, p^{19} q^{38} + 63077367867\, p^{81} q^{90} + 48189061275\, p^{85} q^{90} + 52093288083\, p^{84} q^{90} + 36520190197\, p^{88} q^{90}$$
$$+ 29244165497\, p^{90} q^{90} + 22928213336\, p^{91} q^{91} + 44257820716\, p^{86} q^{90} + 32805126183\, p^{89} q^{90} + 1446337\, p^{89} q^{23} + 59595521913\, p^{82} q^{90}$$
$$+ 148657546173\, p^{60} q^{81} + 57755375834\, p^{52} q^{82} + 3232366439\, p^{74} q^{34} + 17788465002\, p^{75} q^{41} + 256054554\, p^{71} q^{26}$$
$$+ 2638942317\, p^{73} q^{33} + 1502059\, p^{96} q^{122} + 1276\, q^{41} p^{6} + 117785431\, p^{70} q^{24} + 110\, p^{127} q^{63} + 5793781\, p^{120} q^{90} + 118\, q^{125} p^{55}$$
$$+ 45259\, q^{23} p^{11} + 5915072\, p^{120} q^{87} + 5869998\, p^{120} q^{86} + 2347731\, p^{121} q^{98} + 7972097\, p^{119} q^{78} + 5457\, p^{38} q^{7} + 14\, p^{32} q^{3}$$

$$+ 5062765\, p^{120}\, q^{81} + 6927436\, p^{119}\, q^{76} + 289104\, p^{14}\, q^{25} + 315503\, p^{17}\, q^{20} + 5876606\, p^{120}\, q^{89} + 7459682\, p^{119}\, q^{77} + 4402\, p^{121}\, q^{50}$$
$$+ 79345\, p^{19}\, q^{14} + 20898\, p^{19}\, q^{11} + 151664\, p^{20}\, q^{15} + 52399\, p^{19}\, q^{13} + 33619\, p^{19}\, q^{12} + 49510\, q^{61}\, p^{11} + 190160\, q^{47}\, p^{11} + 78\, q^{36}\, p^{4}$$
$$+ 75816\, q^{84}\, p^{17} + 193958360\, p^{26}\, q^{38} + 387247\, p^{66}\, q^{14} + 187213\, p^{65}\, q^{13} + 56586417\, q^{100}\, p^{39} + 106554344\, q^{100}\, p^{41} + 78218952\, q^{100}\, p^{40}$$
$$+ 13154851\, q^{100}\, p^{35} + 68537683081\, q^{90}\, p^{67} + 276\, p^{116}\, q^{35} + 5911\, p^{123}\, q^{57} + 443\, p^{119}\, q^{41} + 608\, p^{116}\, q^{36} + 4548\, p^{122}\, q^{53} + 448\, p^{10}\, q^{8}$$
$$+ 278\, p^{10}\, q^{7} + 522193\, q^{64}\, p^{14} + 1082779688\, q^{68}\, p^{29} + 1168\, q^{21}\, p^{6} + 426\, q^{20}\, p^{5} + 2953\, q^{22}\, p^{7} + 37\, q^{17}\, p^{3} + 23669246\, q^{66}\, p^{20}$$
$$+ 100164025\, q^{67}\, p^{23} + 686\, p^{10}\, q^{9} + 1460\, p^{11}\, q^{10} + 12505\, p^{19}\, q^{10} + 1693\, p^{18}\, q^{7} + 5893\, p^{18}\, q^{9} + 3262\, p^{18}\, q^{8} + 441628\, p^{18}\, q^{20}$$
$$+ 820962\, p^{20}\, q^{20} + 1465677\, p^{21}\, q^{21} + 92696\, q^{42}\, p^{10} + 70712062298\, p^{88}\, q^{62} + 85076553750\, p^{88}\, q^{65} + 700\, p^{17}\, q^{6} + 272\, p^{16}\, q^{5}$$
$$+ 307494\, p^{72}\, q^{15} + 1197298\, q^{69}\, p^{16} + 361955\, q^{22}\, p^{16} + 127825647781\, q^{80}\, p^{57} + 3536231\, p^{111}\, q^{46} + 8205668\, p^{112}\, q^{51} + 2866995\, p^{109}\, q^{42}$$
$$+ 4792680\, p^{111}\, q^{47} + 37583\, p^{86}\, q^{17} + 2584897553\, p^{76}\, q^{34} + 14536394389\, p^{77}\, q^{41} + 202304435\, p^{73}\, q^{26} + 2129720535\, p^{75}\, q^{33}$$
$$+ 92742986\, p^{72}\, q^{24} + 12762419\, p^{25}\, q^{25} + 346900051\, p^{72}\, q^{27} + 17486425\, q^{48}\, p^{18} + 881549\, q^{47}\, p^{13} + 3262487\, q^{47}\, p^{15} + 10343894\, q^{48}\, p^{17}$$
$$+ 86213\, q^{45}\, p^{10} + 1740013\, q^{46}\, p^{14} + 3240767\, q^{46}\, p^{15} + 432444\, q^{46}\, p^{12} + 438543\, q^{45}\, p^{12} + 53885\, q^{85}\, p^{17} + 299665\, q^{85}\, p^{19} + 4112\, q^{80}\, p^{13}$$
$$+ 9995\, q^{84}\, p^{15} + 4621215204\, q^{70}\, p^{34} + 3706787856\, q^{69}\, p^{33} + 16216067516\, q^{94}\, p^{58} + 3706787856\, q^{103}\, p^{67} + 2638942317\, q^{103}\, p^{63}$$
$$+ 2904601468\, q^{103}\, p^{64} + 2731501574\, q^{69}\, p^{32} + 116645\, q^{62}\, p^{12} + 71179456439\, p^{46}\, q^{68} + 3173514340\, q^{103}\, p^{65} + 2731501574\, q^{104}\, p^{67}$$
$$+ 3963426710\, q^{103}\, p^{68} + 3442165264\, q^{103}\, p^{66} + 2\, p^{40}\, q^{3} + 2237\, p^{64}\, q^{9} + 3991826203\, p^{97}\, q^{53} + 4232688\, q^{70}\, p^{18} + 22670312\, q^{71}\, p^{21}$$
$$+ 14700104\, q^{70}\, p^{20} + 4215899890\, q^{79}\, p^{37} + 2125737\, q^{70}\, p^{17} + 543480\, q^{69}\, p^{15} + 8049512\, q^{70}\, p^{19} + 76164570\, q^{51}\, p^{21} + 10155\, q^{16}\, p^{11}$$
$$+ 187213\, q^{65}\, p^{13} + 59679\, p^{106}\, q^{126} + 207494705\, q^{90}\, p^{34} + 143806189\, q^{90}\, p^{33} + 3259\, q^{77}\, p^{12} + 131878\, q^{85}\, p^{18} + 965622\, q^{86}\, p^{21}$$
$$+ 73\, p^{123}\, q^{132} + 35\, p^{112}\, q^{133} + 37\, p^{114}\, q^{133} + 35\, p^{120}\, q^{133} + 144532\, p^{109}\, q^{35} + 3429048\, p^{108}\, q^{41} + 1332551\, p^{106}\, q^{36} + 410070\, p^{17}\, q^{21}$$
$$+ 68189663\, p^{110}\, q^{56} + 147286464\, p^{111}\, q^{64} + 56305951\, p^{110}\, q^{55} + 180215084\, p^{113}\, q^{80} + 161733611\, p^{113}\, q^{88} + 26549214\, p^{114}\, q^{103}$$
$$+ 88248693\, p^{114}\, q^{92} + 924892\, p^{103}\, q^{32} + 102599\, p^{99}\, q^{25} + 165816734\, p^{111}\, q^{65} + 200629493\, p^{112}\, q^{72} + 294399938\, q^{90}\, p^{35}$$
$$+ 444203200\, q^{91}\, p^{37} + 18716856615\, p^{68}\, q^{39} + 80163790452\, p^{69}\, q^{47} + 23314176196\, p^{68}\, q^{40} + 122084325738\, p^{69}\, q^{50}$$
$$+ 42462970009\, p^{68}\, q^{43} + 35105397104\, p^{68}\, q^{42} + 788255839\, q^{52}\, p^{27} + 391000066\, q^{52}\, p^{25} + 559831821\, q^{52}\, p^{26} + 180550131\, q^{52}\, p^{23}$$
$$+ 272064396\, q^{53}\, p^{24} + 268251139\, q^{52}\, p^{24} + 140\, p^{30}\, q^{4} + 150479\, p^{13}\, q^{24} + 20114\, q^{85}\, p^{16} + 372\, q^{11}\, p^{7} + 29082\, q^{30}\, p^{9} + 8200\, p^{94}\, q^{19}$$
$$+ 176338192\, q^{92}\, p^{35} + 173238193294\, p^{58}\, q^{54} + 195592170113\, p^{59}\, q^{55} + 238171\, p^{109}\, q^{36} + 471494\, q^{86}\, p^{20} + 217599\, q^{86}\, p^{19}$$
$$+ 94052\, q^{86}\, p^{18} + 15698\, q^{16}\, p^{12} + 91200\, p^{43}\, q^{10} + 5165908\, p^{21}\, q^{26} + 3726365\, p^{20}\, q^{26} + 6406264\, p^{21}\, q^{27} + 891363\, p^{46}\, q^{13}$$

$$+ 17713489\, p^{49} q^{18} + 66302731487\, p^{56} q^{46} + 1169494\, q^{31} p^{15} + 2717378445\, q^{78} p^{35} + 61051\, p^{14} q^{18} + 127500\, p^{18} q^{16} + 1613\, q^{38} p^{6}$$
$$+ 3077722687\, p^{96} q^{50} + 14203478653\, p^{99} q^{74} + 11043654005\, p^{99} q^{67} + 13984737246\, p^{99} q^{73} + 6449955838\, p^{100} q^{89}$$
$$+ 14357613020\, p^{99} q^{76} + 14289995329\, p^{99} q^{77} + 4313754516\, p^{101} q^{91} + 10496556230\, p^{100} q^{81} + 5782834\, q^{51} p^{16} + 1652606\, q^{50} p^{14}$$
$$+ 2485974\, q^{69} p^{17} + 25976392585\, p^{71} q^{96} + 4201369495\, q^{94} p^{49} + 4727\, q^{41} p^{7} + 17\, q^{31} p^{3} + 1396\, q^{40} p^{6} + 441390\, q^{44} p^{12}$$
$$+ 91200\, q^{43} p^{10} + 151793302492\, p^{57} q^{53} + 57\, p^{49} q^{5} + 66831\, p^{17} q^{15} + 23549\, p^{16} q^{13} + 15698\, p^{16} q^{12} + 10811337391\, q^{56} p^{36}$$
$$+ 2924710458\, q^{55} p^{31} + 6520048325\, q^{55} p^{34} + 3868072886\, q^{55} p^{32} + 20754154\, p^{27} q^{25} + 38768\, p^{41} q^{9} + 14995\, p^{40} q^{8} + 34443\, p^{16} q^{14}$$
$$+ 4758773997\, p^{101} q^{90} + 5428157182\, p^{99} q^{59} + 169170\, p^{19} q^{16} + 13890\, q^{42} p^{8} + 33619\, p^{12} q^{19} + 5550\, p^{52} q^{8} + 708\, p^{46} q^{6}$$
$$+ 276444\, q^{68} p^{14} + 5052103545\, q^{55} p^{33} + 8318489564\, q^{55} p^{35} + 607133\, p^{20} q^{19} + 4903577\, q^{69} p^{18} + 179381\, p^{25} q^{13} + 15837\, p^{24} q^{9}$$
$$+ 62141\, p^{25} q^{11} + 1837756\, p^{26} q^{18} + 12280437530\, p^{67} q^{37} + 92981739190\, p^{69} q^{48} + 60449984965\, p^{68} q^{45} + 924411508\, p^{65} q^{28}$$
$$+ 27412536780\, q^{69} p^{41} + 542810\, q^{83} p^{19} + 1692800\, q^{49} p^{14} + 10412167\, q^{49} p^{17} + 6479762995\, p^{45} q^{37} + 39255\, q^{37} p^{9} + 539027\, p^{119} q^{59}$$
$$+ 276\, p^{101} q^{20} + 45259\, p^{125} q^{113} + 22\, q^{60} p^{6} + 2\, p^{75} q^{8} + 330155\, p^{118} q^{54} + 389\, q^{19} p^{5} + 38\, q^{19} p^{3} + 23168\, p^{50} q^{9} + 8054\, p^{49} q^{8}$$
$$+ 15589738338\, p^{67} q^{38} + 6927436\, p^{60} q^{17} + 56320572\, p^{62} q^{21} + 46905831\, q^{49} p^{20} + 164\, p^{111} q^{132} + 8164283357\, p^{100} q^{86}$$
$$+ 17865448\, q^{93} p^{30} + 532438\, q^{90} p^{22} + 372654\, q^{91} p^{22} + 276742037\, q^{98} p^{42} + 9\, p^{68} q^{7} + 1286435706\, q^{102} p^{55} + 115\, q^{62} p^{7}$$
$$+ 1503751845\, q^{102} p^{56} + 17713489\, q^{49} p^{18} + 3934714\, p^{59} q^{16} + 13058104153\, p^{95} q^{91} + 315503\, p^{20} q^{17} + 441628\, p^{20} q^{18}$$
$$+ 331946\, p^{18} q^{19} + 27648265\, q^{101} p^{38} + 9061\, q^{87} p^{16} + 8326171195\, q^{83} p^{42} + 114599086\, q^{82} p^{28} + 84\, q^{56} p^{6} + 10939\, q^{63} p^{10}$$
$$+ 29313\, q^{64} p^{11} + 213661517\, p^{63} q^{24} + 20952563\, p^{61} q^{19} + 894568\, q^{45} p^{13} + 151793302492\, p^{79} q^{83} + 4423\, q^{42} p^{7}$$
$$+ 125944943580\, p^{85} q^{79} + 131878\, q^{118} p^{51} + 410\, p^{131} q^{99} + 20\, p^{124} q^{49} + 10155\, p^{16} q^{11} + 48115325\, q^{53} p^{20} + 182362454\, q^{53} p^{23}$$
$$+ 76832027\, q^{53} p^{21} + 119712126\, q^{53} p^{22} + 119542419\, q^{54} p^{22} + 181877\, q^{84} p^{18} + 4548\, q^{83} p^{14} + 7458140\, p^{25} q^{23} + 47654702918\, p^{93} q^{75}$$
$$+ 1158789\, p^{77} q^{18} + 5672492\, p^{79} q^{21} + 8371188\, p^{80} q^{22} + 38\, q^{18} p^{3} + 7\, q^{17} p^{2} + 147\, q^{20} p^{4} + 7741\, q^{15} p^{11} + 2929099687\, q^{104} p^{68}$$
$$+ 138\, q^{19} p^{4} + q^{8} p + 5\, q^{9} p^{2} + 3643586\, q^{37} p^{16} + 3995016833\, p^{57} q^{32} + 836271926\, p^{56} q^{27} + 3004107015\, p^{57} q^{31} + 31882294840\, p^{58} q^{41}$$
$$+ 6804195454\, p^{57} q^{34} + 8723634970\, p^{57} q^{35} + 1505\, p^{39} q^{6} + 159\, q^{27} p^{4} + 34814\, q^{33} p^{9} + 14471\, q^{32} p^{8} + 5715\, q^{32} p^{7} + 7095\, p^{65} q^{10}$$
$$+ 32656670523\, p^{94} q^{82} + 126\, p^{122} q^{46} + 7\, p^{117} q^{33} + 5\, p^{115} q^{30} + 1704934\, q^{84} p^{21} + 2760\, p^{129} q^{89} + 2133\, p^{129} q^{87} + 1268\, p^{128} q^{76}$$
$$+ 423114\, q^{47} p^{12} + 342402\, q^{87} p^{20} + 3092\, p^{129} q^{90} + 1589\, p^{128} q^{77} + 1613\, p^{130} q^{98} + 1973\, p^{128} q^{78} + 89245263410\, p^{48} q^{70}$$
$$+ 691439\, p^{108} q^{37} + 317561\, p^{106} q^{33} + 7\, q^{13} p^{2} + 748\, p^{129} q^{81} + 1844\, p^{129} q^{86} + 125944943580\, p^{57} q^{51} + 138772480738\, p^{57} q^{52}$$

$$+ 11588850503\, p^{85}\, q^{45} + 1719521521\, p^{83}\, q^{36} + 47297495168\, p^{87}\, q^{56} + 17410219668\, p^{86}\, q^{48} + 107633083\, p^{80}\, q^{27} + 604928372\, q^{91}\, p^{38}$$
$$+ p^{132}\, q^{84} + 30\, q^{14}\, p^{3} + 33\, q^{15}\, p^{3} + 22183271870\, q^{69}\, p^{40} + 711377\, q^{87}\, p^{21} + 1404704\, q^{87}\, p^{22} + 55504651\, q^{68}\, p^{22} + 92742986\, q^{72}\, p^{24}$$
$$+ 372\, p^{11}\, q^{7} + 966\, p^{11}\, q^{9} + 2045\, p^{12}\, q^{10} + 612\, q^{11}\, p^{8} + 12\, p^{133}\, q^{103} + 2410506\, p^{64}\, q^{16} + 12782078\, q^{71}\, p^{20} + 6945756\, q^{71}\, p^{19}$$
$$+ 3620929\, q^{71}\, p^{18} + 46231\, p^{14}\, q^{17} + 66831\, p^{15}\, q^{17} + 20966832329\, p^{88}\, q^{94} + 1736979\, q^{47}\, p^{14} + 14486\, q^{41}\, p^{8} + 612\, p^{11}\, q^{8}$$
$$+ 1012982\, q^{70}\, p^{16} + 211\, p^{11}\, q^{6} + 44\, p^{10}\, q^{4} + 89\, p^{10}\, q^{5} + 244646\, q^{88}\, p^{20} + 65859\, q^{87}\, p^{18} + 6357\, p^{16}\, q^{10} + 278\, q^{10}\, p^{7} + 23443\, p^{103}\, q^{26}$$
$$+ 7365483450\, p^{67}\, q^{35} + 50891846637\, p^{68}\, q^{44} + 173229800860\, p^{69}\, q^{53} + 1881752\, p^{116}\, q^{55} + 4256881\, p^{65}\, q^{17} + 972\, p^{15}\, q^{7} + 3010\, p^{15}\, q^{9}$$
$$+ 1756\, p^{15}\, q^{8} + 173238193294\, p^{78}\, q^{82} + 135058553799\, p^{83}\, q^{81} + 164842781254\, p^{79}\, q^{82} + 176618865898\, p^{75}\, q^{83} + 741173\, p^{113}\, q^{45}$$
$$+ 1165421067\, q^{55}\, p^{28} + 71856214\, p^{57}\, q^{21} + 263088647\, p^{58}\, q^{24} + 584047169\, p^{101}\, q^{49} + 248530253\, p^{100}\, q^{44} + 764043278\, p^{102}\, q^{52}$$
$$+ 747960\, p^{18}\, q^{22} + 79245722278\, p^{57}\, q^{47} + 90010623338\, p^{57}\, q^{48} + 752\, p^{92}\, q^{16} + 2770507603\, q^{53}\, p^{31} + p^{6}\, q + 16\, p^{9}\, q^{3} + 5\, p^{8}\, q^{2} + 5\, q^{8}\, p^{2}$$
$$+ q^{7}\, p + 8\, q^{35}\, p^{3} + 274021577\, q^{54}\, p^{24} + 580589057\, q^{54}\, p^{26} + 1148489416\, q^{54}\, p^{28} + 823180135\, q^{54}\, p^{27} + 402531819\, q^{54}\, p^{25}$$
$$+ 11872596\, p^{27}\, q^{23} + 600\, p^{90}\, q^{15} + 138242970677\, p^{69}\, q^{51} + 9566080121\, p^{67}\, q^{36} + 155338234233\, p^{69}\, q^{52} + 14510691074\, p^{89}\, q^{50}$$
$$+ 1589\, p^{59}\, q^{8} + 1001198\, p^{109}\, q^{120} + 1124039244\, q^{53}\, p^{28} + 2008787045\, q^{52}\, p^{30} + 1539757902\, q^{53}\, p^{29} + 808318955\, q^{53}\, p^{27}$$
$$+ 2079415388\, q^{53}\, p^{30} + 1578195230\, q^{54}\, p^{29} + 208370\, p^{94}\, q^{125} + 54763\, p^{84}\, q^{126} + 14126985116\, p^{37}\, q^{58} + 32931335465\, p^{91}\, q^{59}$$
$$+ 115276208\, q^{50}\, p^{22} + 54189737305\, p^{92}\, q^{70} + 312939761\, q^{76}\, p^{28} + 4387115938\, p^{88}\, q^{43} + 1973231\, q^{88}\, p^{23} + 1032667\, q^{88}\, p^{22}$$
$$+ 201935\, q^{45}\, p^{11} + 207829\, q^{43}\, p^{11} + 196717\, q^{46}\, p^{11} + 225454000971\, p^{64}\, q^{79} + 3234037\, q^{49}\, p^{15} + 89044\, q^{44}\, p^{10} + 891363\, q^{46}\, p^{13}$$
$$+ 52692901360\, p^{92}\, q^{69} + 1721193\, q^{48}\, p^{14} + 3721268\, p^{78}\, q^{20} + 1469413898\, p^{87}\, q^{38} + 21\, p^{11}\, q^{3} + 6\, p^{10}\, q^{2} + 1446337\, q^{89}\, p^{23}$$
$$+ 3536231\, q^{90}\, p^{25} + 6165799\, q^{90}\, p^{26} + 747548\, q^{89}\, p^{22} + 124871\, p^{13}\, q^{23} + 42904847\, q^{74}\, p^{23} + 98318677\, q^{75}\, p^{25} + 154777159\, q^{75}\, p^{26}$$
$$+ 25302099\, q^{74}\, p^{22} + 335\, q^{39}\, p^{5} + 5501092864\, p^{88}\, q^{44} + 37982\, p^{11}\, q^{22} + 17361990\, q^{53}\, p^{18} + 29621080\, q^{52}\, p^{19} + 48320268\, q^{52}\, p^{20}$$
$$+ 55458786244\, p^{91}\, q^{66} + 117558253\, q^{51}\, p^{22} + 311539886\, p^{85}\, q^{32} + 4826\, q^{117}\, p^{41} + 423\, p^{112}\, q^{30} + 7150\, p^{119}\, q^{46} + 36669\, q^{43}\, p^{9}$$
$$+ 31983363372\, p^{90}\, q^{57} + 3069383\, q^{72}\, p^{18} + 9414832\, q^{73}\, p^{20} + 606\, p^{114}\, q^{33} + 5870\, p^{120}\, q^{48} + 13871674081\, q^{57}\, p^{37} + 10169108\, q^{52}\, p^{17}$$
$$+ 17637809\, q^{52}\, p^{18} + 15788568761\, q^{93}\, p^{56} + 5782834\, p^{120}\, q^{85} + 205650\, q^{44}\, p^{11} + 414\, p^{14}\, q^{6} + 167\, p^{13}\, q^{5} + 73\, p^{13}\, q^{4} + 6718\, q^{82}\, p^{14}$$
$$+ 193031965878\, p^{61}\, q^{54} + 214575503262\, p^{62}\, q^{55} + 76817361661\, p^{61}\, q^{46} + 6384284\, p^{119}\, q^{75} + 3768\, q^{44}\, p^{7} + 39660\, p^{127}\, q^{97}$$
$$+ 36669\, p^{127}\, q^{93} + 630539821\, p^{85}\, q^{34} + 46039269\, p^{82}\, q^{26} + 6079124151\, q^{53}\, p^{34} + 12225642741\, p^{89}\, q^{49} + 19682691\, q^{72}\, p^{21}$$
$$+ 129784639\, q^{73}\, p^{25} + 33990270\, q^{72}\, p^{22} + 56931311\, q^{72}\, p^{23} + p^{7}\, q + 11018796\, q^{72}\, p^{20} + 3112831\, q^{51}\, p^{15} + 136814296559\, p^{59}\, q^{51}$$

$$+ 151244886205\, p^{59}\, q^{52} + 35219\, p^{44}\, q^{9} + 13189\, p^{43}\, q^{8} + 12772\, p^{55}\, q^{9} + 81860\, q^{27}\, p^{11} + 29745\, p^{106}\, q^{29} + 692029\, p^{112}\, q^{43}$$
$$+ 164842781254\, p^{57}\, q^{54} + 187093185443\, p^{58}\, q^{55} + 253838805831\, q^{79}\, p^{68} + 1801007\, q^{71}\, p^{17} + 50043824998\, p^{78}\, q^{48}$$
$$+ 32931335465\, p^{77}\, q^{45} + 830933\, p^{17}\, q^{24} + 13850\, p^{128}\, q^{105} + 27558\, p^{123}\, q^{62} + 86621\, p^{125}\, q^{79} + 9061\, p^{120}\, q^{49} + 33556\, q^{45}\, p^{9}$$
$$+ 11598\, q^{45}\, p^{8} + 2045\, p^{124}\, q^{126} + 10966741\, p^{88}\, q^{26} + 867587744\, p^{93}\, q^{41} + 11429843169\, p^{99}\, q^{84} + 160768164\, p^{91}\, q^{34} + 2490546\, p^{85}\, q^{22}$$
$$+ 12607677811\, p^{99}\, q^{82} + 342\, p^{105}\, q^{23} + 131548317054\, p^{74}\, q^{86} + 835358\, p^{16}\, q^{26} + 1026123\, p^{17}\, q^{25} + 155778241699\, p^{82}\, q^{80}$$
$$+ 452440\, p^{15}\, q^{25} + 632617994\, q^{70}\, p^{28} + 1678303637\, q^{71}\, p^{31} + 916912428\, q^{70}\, p^{29} + 1306399722\, q^{70}\, p^{30} + 428570490\, q^{70}\, p^{27}$$
$$+ 147\, p^{29}\, q^{4} + 330155\, p^{82}\, q^{18} + 1704934\, p^{84}\, q^{21} + 43\, p^{107}\, q^{23} + 6087799749\, q^{76}\, p^{37} + 6\, q^{11}\, p^{2} + 1077387721\, q^{91}\, p^{40}$$
$$+ 1825337893\, q^{91}\, p^{42} + 7900746408\, q^{76}\, p^{38} + 4634629922\, q^{76}\, p^{36} + 17601459\, q^{97}\, p^{33} + 11456069\, q^{97}\, p^{32} + 1891334378\, q^{103}\, p^{60}$$
$$+ 3984739997\, p^{60}\, q^{32} + 813293946\, p^{59}\, q^{27} + 2971526991\, p^{60}\, q^{31} + 33172263279\, p^{61}\, q^{41} + 6893699180\, p^{60}\, q^{34} + 8903818914\, p^{60}\, q^{35}$$
$$+ 9379\, p^{99}\, q^{22} + 12650\, p^{100}\, q^{23} + 689505\, p^{16}\, q^{25} + 2438\, p^{88}\, q^{129} + 3484142873\, q^{76}\, p^{35} + 5428157182\, q^{77}\, p^{37} + 44859497732\, q^{54}\, p^{44}$$
$$+ 63\, q^{12}\, p^{4} + 2584897553\, q^{76}\, p^{34} + 1891334378\, q^{76}\, p^{33} + 159000535\, q^{67}\, p^{24} + 1532227001\, q^{68}\, p^{30} + 4256881\, q^{65}\, p^{17} + 132263\, q^{67}\, p^{13}$$
$$+ 643952\, q^{68}\, p^{15} + 40032\, q^{80}\, p^{15} + 32656670523\, q^{54}\, p^{42} + 38438901471\, q^{54}\, p^{43} + 27501907771\, q^{54}\, p^{41} + 17944039023\, p^{98}\, q^{75}$$
$$+ 54763\, p^{52}\, q^{10} + 5602694707\, p^{67}\, q^{34} + 28748824120\, p^{68}\, q^{41} + 841240\, p^{95}\, q^{123} + 659145\, p^{82}\, q^{123} + 315495\, p^{83}\, q^{124}$$
$$+ 4734452691\, q^{53}\, p^{33} + 139893015675\, p^{58}\, q^{80} + 1156509\, q^{64}\, p^{15} + 13338024\, q^{66}\, p^{19} + 36504325529\, p^{65}\, q^{93} + 5297087\, p^{63}\, q^{17}$$
$$+ 44579541\, p^{65}\, q^{21} + 3003922\, p^{62}\, q^{16} + 173087434\, p^{66}\, q^{24} + 16353588\, p^{64}\, q^{19} + 13249936364\, p^{70}\, q^{38} + 633128844\, p^{37}\, q^{31}$$
$$+ 1214837889\, p^{37}\, q^{34} + 1479039088\, p^{37}\, q^{35} + 2105171579\, p^{38}\, q^{36} + 498548374\, p^{37}\, q^{30} + 795123644\, p^{37}\, q^{32} + 388041461\, p^{37}\, q^{29}$$
$$+ 1148489416\, p^{54}\, q^{28} + 59968563974\, p^{57}\, q^{45} + 35787310186\, p^{56}\, q^{42} + 16755578730\, p^{56}\, q^{38} + 42288310882\, p^{56}\, q^{43}$$
$$+ 13528859624\, p^{56}\, q^{37} + 20545830647\, p^{56}\, q^{39} + 11902747\, q^{67}\, p^{19} + 21268009\, q^{67}\, p^{20} + 36728895\, q^{67}\, p^{21} + 470963906\, q^{69}\, p^{27}$$
$$+ 1012630\, q^{65}\, p^{15} + 1429\, q^{17}\, p^{7} + 8\, q^{14}\, p^{2} + 21\, q^{11}\, p^{3} + 6\, q^{10}\, p^{2} + 840913\, p^{75}\, q^{17} + 93836871\, p^{83}\, q^{28} + 14808179\, p^{80}\, q^{23}$$
$$+ 261928231\, p^{84}\, q^{31} + 54212\, q^{79}\, p^{15} + 97\, q^{114}\, p^{31} + 47709662\, q^{50}\, p^{20} + 29567284\, q^{50}\, p^{19} + 34589520\, p^{81}\, q^{25} + 143874543\, p^{83}\, q^{29}$$
$$+ 20671394\, p^{81}\, q^{24} + 2137719887\, q^{54}\, p^{30} + 185\, q^{53}\, p^{6} + 12\, q^{54}\, p^{5} + 110\, q^{55}\, p^{6} + 2\, q^{50}\, p^{4} + 11985863\, q^{81}\, p^{23} + 1861\, q^{82}\, p^{13}$$
$$+ 14559\, q^{83}\, p^{15} + 1419958200\, q^{69}\, p^{30} + 3644054011\, q^{53}\, p^{32} + 692500836\, q^{69}\, p^{28} + 1000052248\, q^{69}\, p^{29} + 90874313\, q^{68}\, p^{23}$$
$$+ 272570095765\, p^{68}\, q^{78} + 1030\, q^{80}\, p^{12} + 3868072886\, p^{55}\, q^{32} + 823180135\, p^{54}\, q^{27} + 2924710458\, p^{55}\, q^{31} + 30018431791\, p^{56}\, q^{41}$$
$$+ 6520048325\, p^{55}\, q^{34} + 8318489564\, p^{55}\, q^{35} + 513709890\, q^{68}\, p^{27} + 225817640\, q^{68}\, p^{25} + 109\, q^{16}\, p^{4} + 272\, q^{16}\, p^{5} + 42155770\, p^{29}\, q^{26}$$

$$+ 9695\, q^{81}\, p^{14} + 96\, q^{15}\, p^{4} + 50852083\, p^{79}\, q^{25} + 43338001889\, p^{86}\, q^{54} + 30788007\, p^{79}\, q^{24} + 210371616\, p^{81}\, q^{29} + 138601566\, p^{81}\, q^{28}$$
$$+ 52809919898\, p^{87}\, q^{57} + 235\, q^{15}\, p^{5} + 597\, q^{16}\, p^{6} + 1704\, p^{37}\, q^{6} + 5052103545\, p^{55}\, q^{33} + 552070342\, p^{82}\, q^{32} + 58525052400\, p^{87}\, q^{58}$$
$$+ 383179381\, p^{82}\, q^{31} + 15\, q^{111}\, p^{26} + 59\, q^{111}\, p^{27} + 3\, q^{111}\, p^{25} + 842871\, q^{49}\, p^{13} + 182351\, q^{48}\, p^{11} + 10741\, q^{46}\, p^{8} + 2152616\, q^{121}\, p^{78}$$
$$+ 31617137711\, p^{93}\, q^{85} + 5915072\, p^{49}\, q^{16} + 1704\, q^{37}\, p^{6} + 718799801\, p^{86}\, q^{35} + 446\, q^{36}\, p^{5} + 110561130\, p^{94}\, q^{113} + 11454221\, p^{115}\, q^{106}$$
$$+ 43546600\, p^{109}\, q^{108} + 319339293501\, p^{61}\, q^{69} + 176978992\, p^{84}\, q^{30} + 89245263410\, p^{88}\, q^{66} + 21924834\, p^{78}\, q^{23} + 9410913494\, p^{85}\, q^{44}$$
$$+ 3461561657\, p^{88}\, q^{42} + 2577787960\, p^{84}\, q^{38} + 70311832638\, p^{87}\, q^{60} + 38000741521\, p^{86}\, q^{53} + 236\, p^{52}\, q^{6} + 261156687279\, p^{58}\, q^{70}$$
$$+ 58726515426\, p^{46}\, q^{72} + 3611\, q^{115}\, p^{37} + 42039503744\, q^{81}\, p^{49} + 22188730232\, p^{39}\, q^{60} + 39604055463\, p^{42}\, q^{60} + 32957738093\, p^{41}\, q^{60}$$
$$+ 17944039023\, p^{38}\, q^{61} + 27172490743\, p^{40}\, q^{60} + 101657\, p^{116}\, q^{122} + 40310653\, q^{98}\, p^{36} + 4371191\, p^{24}\, q^{22} + 37583\, q^{86}\, p^{17}$$
$$+ 1494171\, p^{18}\, q^{25} + 27020691643\, p^{85}\, q^{94} + 32525032819\, p^{77}\, q^{95} + 8446747058\, p^{89}\, q^{47} + 94515\, p^{16}\, q^{17} + 47224484893\, p^{93}\, q^{72}$$
$$+ 42462970009\, p^{93}\, q^{68} + 410873\, q^{48}\, p^{12} + q^{9}\, p + 325992879442\, p^{61}\, q^{66} + 339946749620\, p^{62}\, q^{67} + 2490546\, q^{85}\, p^{22} + 10995042\, q^{86}\, p^{25}$$
$$+ 7602109707\, p^{100}\, q^{87} + 406254\, p^{84}\, q^{19} + 668782350\, p^{95}\, q^{42} + 11059965321\, p^{100}\, q^{79} + q^{12}\, p + 373\, q^{38}\, p^{5} + 79\, p^{123}\, q^{48}$$
$$+ 19553369456\, p^{95}\, q^{87} + 72821444472\, p^{52}\, q^{80} + 17853650816\, q^{93}\, p^{57} + 432485788\, p^{65}\, q^{26} + 128208023\, p^{64}\, q^{23} + 1242187524\, p^{66}\, q^{29}$$
$$+ 261\, p^{41}\, q^{5} + 31\, q^{59}\, p^{6} + 147\, p^{20}\, q^{4} + 38\, p^{18}\, q^{3} + 8811\, p^{25}\, q^{8} + 145064\, p^{27}\, q^{12} + 39073\, p^{26}\, q^{10} + 1456675132\, q^{103}\, p^{58}$$
$$+ 2139762\, p^{29}\, q^{17} + 11454221\, p^{30}\, q^{21} + 6756293\, p^{29}\, q^{20} + 4700246\, p^{29}\, q^{19} + 15978274\, p^{30}\, q^{22} + 473300\, p^{28}\, q^{14} + 235080\, q^{120}\, p^{59}$$
$$+ 377252\, q^{120}\, p^{61} + 578075\, q^{120}\, p^{63} + 3892\, q^{19}\, p^{8} + 24951197788\, p^{56}\, q^{40} + 372\, p^{129}\, q^{125} + 71670\, p^{110}\, q^{125} + 37591\, q^{35}\, p^{9} + 748\, q^{55}\, p^{7}$$
$$+ 146\, q^{54}\, p^{6} + 15805755\, p^{27}\, q^{24} + 1469770\, p^{83}\, q^{122} + 44553\, p^{126}\, q^{82} + 2644\, p^{119}\, q^{44} + 96663682231\, p^{56}\, q^{49} + 52\, p^{108}\, q^{24}$$
$$+ 191335\, q^{119}\, p^{55} + 75816\, q^{119}\, p^{52} + 252809\, q^{119}\, p^{56} + 104879\, q^{119}\, p^{53} + 142723\, q^{119}\, p^{54} + 105036\, q^{120}\, p^{56} + 329568\, q^{119}\, p^{57}$$
$$+ 107928385639\, p^{56}\, q^{50} + 52\, p^{4}\, q^{11} + 270\, p^{6}\, q^{12} + 112\, p^{5}\, q^{11} + 26002867\, p^{28}\, q^{25} + 966\, p^{9}\, q^{11} + 448\, p^{8}\, q^{10} + 6111560673\, p^{101}\, q^{87}$$
$$+ 505011371\, p^{96}\, q^{42} + 8723634970\, p^{101}\, q^{79} + 176784\, q^{103}\, p^{29} + 182192522\, p^{55}\, q^{23} + 86270\, q^{36}\, p^{10} + 38569\, q^{36}\, p^{9} + 89075\, q^{37}\, p^{10}$$
$$+ 238708821\, p^{107}\, q^{102} + 18958776\, p^{68}\, q^{20} + 2989171\, p^{20}\, q^{25} + 13890\, p^{94}\, q^{128} + 13189\, p^{93}\, q^{128} + p^{135}\, q^{120} + 8\, p^{133}\, q^{101} + 7\, p^{134}\, q^{119}$$
$$+ 41353836841\, p^{92}\, q^{64} + 20813518125\, p^{91}\, q^{55} + 11588850503\, p^{91}\, q^{51} + 5659190574\, p^{90}\, q^{46} + 2132536\, q^{65}\, p^{16} + 552\, p^{131}\, q^{112}$$
$$+ 316\, p^{126}\, q^{61} + 992\, p^{128}\, q^{75} + 119873255\, p^{27}\, q^{33} + 259668028\, p^{31}\, q^{32} + 208029760\, p^{30}\, q^{32} + 238708821\, p^{29}\, q^{34} + 252497004\, p^{30}\, q^{33}$$
$$+ 155516825\, p^{28}\, q^{33} + 199318120\, p^{29}\, q^{33} + 17962\, p^{25}\, q^{9} + 71670\, p^{26}\, q^{11} + 89100183004\, p^{78}\, q^{52} + 78078279370\, p^{78}\, q^{51} + 918\, p^{129}\, q^{82}$$
$$+ 84\, p^{121}\, q^{43} + 28\, p^{122}\, q^{44} + 49540385732\, p^{56}\, q^{44} + 20545830647\, p^{39}\, q^{56} + 5729282700\, p^{74}\, q^{36} + 606\, q^{114}\, p^{33} + 1879\, q^{115}\, p^{36}$$

$$+ 257\, q^{114}\, p^{32} + 11783\, p^{12}\, q^{15} + 13583823172\, p^{84}\, q^{45} + 128419786\, p^{79}\, q^{27} + 2031443750\, p^{82}\, q^{36} + 822\, p^{128}\, q^{124} + 75774397834\, q^{56}\, p^{47}$$
$$+ 55064045200\, p^{86}\, q^{56} + 20437994213\, p^{85}\, q^{48} + 1255899\, p^{73}\, q^{17} + 63077367867\, q^{55}\, p^{46} + 47923691\, p^{31}\, q^{25} + 82452687\, p^{31}\, q^{27}$$
$$+ 129099599\, p^{32}\, q^{28} + 2324715840\, q^{71}\, p^{32} + p^{134}\, q^{106} + 925\, q^{44}\, p^{6} + 12\, q^{33}\, p^{3} + 10\, q^{34}\, p^{3} + 12431\, q^{44}\, p^{8} + 102852554683\, p^{87}\, q^{66}$$
$$+ 26291507\, p^{77}\, q^{23} + 11058122379\, p^{84}\, q^{44} + 3430\, q^{45}\, p^{7} + 22619\, p^{59}\, q^{10} + 39508985\, p^{21}\, q^{39} + 3052893289\, p^{83}\, q^{38}$$
$$+ 81242378135\, p^{86}\, q^{60} + 44135793684\, p^{85}\, q^{53} + 60781268\, p^{78}\, q^{25} + 61363076977\, p^{86}\, q^{57} + 50234415702\, p^{85}\, q^{54}$$
$$+ 10076143359\, p^{99}\, q^{86} + 1032667\, p^{114}\, q^{48} + 3965469871\, p^{95}\, q^{50} + 4270\, p^{72}\, q^{11} + 17827169465\, p^{98}\, q^{74} + 14085460300\, p^{98}\, q^{67}$$
$$+ 17592061800\, p^{98}\, q^{73} + 7904167716\, p^{99}\, q^{89} + 17940408506\, p^{98}\, q^{76} + 17816299762\, p^{98}\, q^{77} + 5313227163\, p^{100}\, q^{91}$$
$$+ 13104937727\, p^{99}\, q^{81} + 10236661\, p^{76}\, q^{21} + 15197549\, p^{77}\, q^{22} + 37026958\, p^{78}\, q^{24} + 9360366185\, p^{99}\, q^{87} + 542810\, p^{83}\, q^{19}$$
$$+ 874707086\, p^{94}\, q^{42} + 13871674081\, p^{99}\, q^{79} + 563\, p^{32}\, q^{5} + 8872\, p^{64}\, q^{10} + 250839813\, p^{80}\, q^{29} + 2143259\, p^{74}\, q^{18} + 166059450\, p^{80}\, q^{28}$$
$$+ 38438901471\, p^{93}\, q^{82} + 268\, p^{86}\, q^{13} + 5655724\, q^{52}\, p^{16} + 248530253\, p^{92}\, q^{36} + 42783903\, p^{90}\, q^{30} + 110859360\, p^{91}\, q^{33}$$
$$+ 657710581\, p^{93}\, q^{40} + 492247350\, p^{93}\, q^{39} + 344893465\, p^{92}\, q^{37} + 8\, q^{107}\, p^{22} + 26056\, q^{78}\, p^{14} + 73\, q^{13}\, p^{4} + 137\, q^{12}\, p^{5} + 5917409\, p^{120}\, q^{88}$$
$$+ 1488723\, p^{121}\, q^{103} + 45\, p^{79}\, q^{10} + 8321\, q^{78}\, p^{13} + 18\, p^{125}\, q^{52} + 292\, p^{130}\, q^{85} + 185\, p^{130}\, q^{83} + 67\, p^{125}\, q^{54} + 3052893289\, q^{83}\, p^{38}$$
$$+ 2031443750\, q^{82}\, p^{36} + 2715704322\, q^{82}\, p^{37} + 284790\, p^{21}\, q^{16} + 24\, q^{12}\, p^{3} + 747960\, p^{22}\, q^{18} + 7\, p^{12}\, q^{2} + 9844\, q^{47}\, p^{8} + 10405269\, p^{50}\, q^{17}$$
$$+ 48183965\, p^{51}\, q^{20} + 484\, p^{7}\, q^{12} + 1460\, p^{10}\, q^{11} + 686\, p^{9}\, q^{10} + 395853\, q^{49}\, p^{12} + 18\, p^{10}\, q^{3} + 5\, p^{9}\, q^{2} + 143678579788\, p^{56}\, q^{53}$$
$$+ 19704409\, p^{24}\, q^{28} + 1394952\, p^{29}\, q^{16} + 33606549\, p^{74}\, q^{116} + 129446595203\, p^{61}\, q^{50} + 1168640805\, p^{58}\, q^{28} + 66074432519\, p^{61}\, q^{45}$$
$$+ 39604055463\, p^{60}\, q^{42} + 17940408506\, p^{60}\, q^{38} + 47161668008\, p^{60}\, q^{43} + 14357613020\, p^{60}\, q^{37} + 22188730232\, p^{60}\, q^{39} + 158141\, q^{66}\, p^{13}$$
$$+ 147\, p^{132}\, q^{107} + 511\, p^{131}\, q^{102} + 2\, q^{123}\, p^{44} + 3378348\, p^{23}\, q^{22} + 822\, p^{12}\, q^{8} + 270\, p^{12}\, q^{6} + 52\, p^{11}\, q^{4} + 112\, p^{11}\, q^{5} + 155778241699\, p^{56}\, q^{54}$$
$$+ 177743199305\, p^{57}\, q^{55} + 3004107015\, p^{31}\, q^{57} + 11825458128\, p^{93}\, q^{94} + 484\, p^{12}\, q^{7} + 1321\, p^{12}\, q^{9} + 2792\, p^{13}\, q^{10} + 477\, p^{127}\, q^{127}$$
$$+ 686\, p^{126}\, q^{127} + 3004107015\, q^{105}\, p^{79} + 1044577\, p^{22}\, q^{19} + 525601\, p^{22}\, q^{17} + 2523030\, p^{23}\, q^{21} + 1433836\, p^{22}\, q^{20} + 143678579788\, p^{53}\, q^{56}$$
$$+ 123879126608\, p^{52}\, q^{55} + 1869904\, p^{31}\, q^{16} + 4639\, q^{27}\, p^{7} + 27233855310\, q^{77}\, p^{44} + 29698695290\, q^{78}\, p^{45} + 9084545772\, q^{77}\, p^{39}$$
$$+ 14536394389\, q^{77}\, p^{41} + 22310222740\, q^{77}\, p^{43} + 32931335465\, q^{77}\, p^{45} + 802133\, p^{19}\, q^{21} + 80573517\, q^{97}\, p^{37} + 543645159\, p^{103}\, q^{52}$$
$$+ 75774397834\, p^{56}\, q^{47} + q^{29}\, p^{2} + 224061595497\, p^{79}\, q^{77} + 200634488326\, p^{80}\, q^{78} + 253243425272\, p^{79}\, q^{73} + 233377189940\, p^{79}\, q^{76}$$
$$+ 248102243063\, p^{79}\, q^{74} + 241439321783\, p^{79}\, q^{75} + 4\, p^{134}\, q^{113} + 37856\, q^{42}\, p^{9} + 248921240172\, p^{79}\, q^{67} + 258606760591\, p^{79}\, q^{71}$$
$$+ 256767005368\, p^{79}\, q^{72} + 253838805831\, p^{79}\, q^{68} + 7241024\, q^{66}\, p^{18} + 752481870\, q^{68}\, p^{28} + 257128465256\, p^{79}\, q^{69}$$

$$+ 258727944387\, p^{79} q^{70} + 56607552077\, p^{92} q^{73} + 85916885273\, p^{56} q^{48} + 1161\, q^{42} p^{6} + 2523030\, p^{21} q^{23} + 55668559388\, p^{92} q^{76}$$
$$+ 81373197\, q^{98} p^{38} + 56586417\, q^{97} p^{36} + 5\, p^{21} q^{2} + 43546600\, p^{28} q^{27} + 69496899\, p^{29} q^{28} + 469614\, q^{120} p^{62} + 1012982\, q^{120} p^{66}$$
$$+ 704098\, q^{120} p^{64} + 2701166963\, p^{88} q^{41} + 1588110822\, p^{88} q^{39} + 1095450048\, p^{87} q^{37} + 363745789\, p^{86} q^{33} + 7600260\, p^{24} q^{24}$$
$$+ 294456825032\, p^{66} q^{59} + 378492\, q^{50} p^{12} + 69915\, q^{49} p^{10} + 814822\, q^{50} p^{13} + p^{135} q^{121} + 22983354780\, p^{87} q^{94} + 237175270\, p^{75} q^{112}$$
$$+ 402531819\, p^{82} q^{111} + 2792\, p^{10} q^{13} + 5555727\, q^{76} p^{20} + 2893067\, q^{76} p^{19} + 4570196\, q^{77} p^{20} + 56305951\, q^{110} p^{55} + 73501478\, q^{109} p^{54}$$
$$+ 39456766172\, q^{90} p^{59} + 47263264578\, q^{90} p^{61} + 55012014231\, q^{90} p^{63} + 51171863301\, q^{90} p^{62} + 58726515426\, q^{90} p^{64}$$
$$+ 62257136585\, q^{90} p^{65} + 10769605013\, p^{99} q^{85} + 176338192\, p^{92} q^{35} + 3995016833\, p^{32} q^{57} + 6880361953\, p^{34} q^{58} + 5245550964\, p^{33} q^{57}$$
$$+ 2392\, p^{116} q^{38} + p^{95} q^{14} + 4783\, p^{9} q^{17} + 123180\, q^{121} p^{60} + 2\, q^{112} p^{26} + 328768\, q^{122} p^{69} + 237\, p^{89} q^{14} + 841\, p^{94} q^{17} + 1581\, p^{95} q^{18}$$
$$+ 321700\, p^{110} q^{38} + 23549\, p^{13} q^{16} + p^{130} q^{70} + 5\, p^{134} q^{114} + 3\, p^{134} q^{111} + 7\, p^{134} q^{118} + 80747143\, p^{34} q^{25} + 160182\, p^{122} q^{114}$$
$$+ 344279\, p^{122} q^{110} + 61051\, p^{122} q^{118} + 473300\, p^{122} q^{108} + 405675\, p^{122} q^{109} + 89373600\, q^{81} p^{27} + 86333051\, p^{108} q^{106}$$
$$+ 161120792\, p^{97} q^{111} + 167700410268\, p^{81} q^{80} + 128425\, p^{122} q^{115} + 252497004\, p^{106} q^{103} + 142326324711\, p^{68} q^{85}$$
$$+ 37078026711\, p^{87} q^{54} + 45069260808\, p^{88} q^{57} + 460541665\, p^{83} q^{32} + 50043824998\, p^{88} q^{58} + 76804983147\, p^{89} q^{66}$$
$$+ 7939804479\, p^{86} q^{44} + 2157264894\, p^{85} q^{38} + 60351234178\, p^{88} q^{60} + 32445407669\, p^{87} q^{53} + 79345\, p^{14} q^{19} + 151664\, p^{15} q^{20} + 69\, q^{74} p^{9}$$
$$+ 1092872\, p^{20} q^{21} + 29699766\, p^{51} q^{19} + 119046884\, p^{52} q^{22} + 182912784\, q^{54} p^{23} + 66741\, p^{125} q^{77} + 64\, p^{6} q^{7} + 10840978\, q^{28} p^{22}$$
$$+ 39614\, p^{127} q^{98} + 78916\, p^{126} q^{89} + 57758\, p^{125} q^{76} + 69915\, p^{126} q^{87} + 257128465256\, p^{69} q^{79} + 344756205836\, p^{72} q^{65}$$
$$+ 341154276698\, p^{73} q^{66} + 278396121495\, p^{72} q^{60} + 225454000971\, p^{72} q^{57} + 122084325738\, p^{67} q^{86} + 4018796886\, q^{58} p^{32}$$
$$+ 154770\, p^{60} q^{12} + 149529336298\, p^{72} q^{85} + 156295083770\, p^{76} q^{84} + 151244886205\, p^{77} q^{84} + 276428322948\, p^{71} q^{78}$$
$$+ 9657596613\, p^{37} q^{71} + 46854729938\, p^{77} q^{47} + 12859004305\, p^{76} q^{40} + 10135659900\, p^{76} q^{39} + 33055529656\, p^{86} q^{52} + 82837\, p^{126} q^{90}$$
$$+ 76379\, p^{125} q^{78} + 39638\, p^{126} q^{81} + 65007\, p^{126} q^{86} + 240197\, p^{24} q^{14} + 452440\, p^{25} q^{15} + 1026123\, p^{25} q^{17} + 5165908\, p^{26} q^{21}$$
$$+ 2989171\, p^{25} q^{20} + 2132956\, p^{25} q^{19} + 211522\, q^{26} p^{13} + 4672904877\, p^{97} q^{54} + 112891206\, q^{98} p^{39} + 52017\, p^{115} q^{124} + 42106\, p^{116} q^{124}$$
$$+ 81860\, p^{109} q^{125} + 92571\, p^{108} q^{125} + 117198\, p^{15} q^{19} + 1165421067\, p^{55} q^{28} + 62065973524\, p^{58} q^{45} + 37080594577\, p^{57} q^{42}$$
$$+ 17218260556\, p^{57} q^{38} + 43901533904\, p^{57} q^{43} + 13871674081\, p^{57} q^{37} + 21158634034\, p^{57} q^{39} + 182192522\, q^{55} p^{23} + 76358288\, q^{54} p^{21}$$
$$+ 47574211\, q^{54} p^{20} + 14724045\, p^{28} q^{23} + 119604961402\, p^{56} q^{51} + 54457366\, p^{27} q^{29} + 1539952\, q^{52} p^{14} + 1624157209\, q^{56} p^{29}$$
$$+ 163748\, q^{50} p^{11} + 26357132\, p^{31} q^{23} + 2909992\, p^{17} q^{31} + 33863162\, p^{26} q^{28} + 131568850488\, p^{56} q^{52} + 21115420\, p^{26} q^{26} + 2801\, q^{81} p^{13}$$

$$+ 5555727\, p^{76}\, q^{20} + 12534344\, p^{26}\, q^{24} + 417\, q^{124}\, p^{54} + 147\, q^{124}\, p^{52} + 2584897553\, p^{102}\, q^{60} + 47923691\, p^{25}\, q^{31} + 173504\, q^{49}\, p^{11}$$
$$+ 471861\, p^{112}\, q^{42} + 747548\, p^{114}\, q^{47} + 17452\, p^{13}\, q^{15} + 3127784\, p^{121}\, q^{92} + 4767826\, p^{119}\, q^{72} + 1291976\, p^{115}\, q^{51} + 3620929\, p^{118}\, q^{65}$$
$$+ 562853\, p^{24}\, q^{16} + 29822\, q^{24}\, p^{10} + 1773\, p^{9}\, q^{13} + 41\, p^{40}\, q^{4} + 6331\, p^{75}\, q^{12} + 57572102\, p^{32}\, q^{25} + 99905888\, p^{32}\, q^{27} + 155516825\, p^{33}\, q^{28}$$
$$+ 387060282\, p^{71}\, q^{27} + 3743\, p^{10}\, q^{14} + 16755578730\, p^{80}\, q^{98} + 13\, p^{116}\, q^{32} + 41\, p^{119}\, q^{38} + 2284867188\, p^{77}\, q^{34} + 12993453290\, p^{78}\, q^{41}$$
$$+ 177679581\, p^{74}\, q^{26} + 1891334378\, p^{76}\, q^{33} + 81303842\, p^{73}\, q^{24} + 11825458128\, p^{94}\, q^{93} + 15\, p^{121}\, q^{41} + 251\, p^{124}\, q^{53} + 34\, p^{118}\, q^{36}$$
$$+ 47830680156\, p^{74}\, q^{93} + 73424009601\, p^{90}\, q^{69} + 75230210641\, p^{90}\, q^{70} + 46854729938\, p^{89}\, q^{59} + 15248\, p^{20}\, q^{10} + 1984\, p^{19}\, q^{7}$$
$$+ 3892\, p^{19}\, q^{8} + 27293760478\, p^{75}\, q^{96} + 20341123997\, p^{70}\, q^{97} + 19578980815\, p^{69}\, q^{97} + 9664437696\, p^{62}\, q^{98} + 119604961402\, p^{85}\, q^{80}$$
$$+ 989\, p^{72}\, q^{10} + 45\, p^{58}\, q^{6} + 603\, p^{131}\, q^{109} + 11\, p^{118}\, q^{35} + 320\, p^{125}\, q^{57} + 268\, p^{123}\, q^{50} + 2083651819\, p^{88}\, q^{40} + 5346\, p^{128}\, q^{115}$$
$$+ 1855323\, p^{20}\, q^{23} + 1783377886\, p^{36}\, q^{37} + 1245255584\, p^{35}\, q^{36} + 370052496881\, p^{65}\, q^{68} + 144088090193\, p^{52}\, q^{71} + 15686517271\, p^{97}\, q^{65}$$
$$+ 12336872226\, p^{97}\, q^{62} + 33990270\, p^{72}\, q^{22} + 129784639\, p^{73}\, q^{25} + 43478899\, p^{21}\, q^{40} + 760\, q^{117}\, p^{38} + 62141\, q^{25}\, p^{11} + 71670\, q^{26}\, p^{11}$$
$$+ 107611\, q^{25}\, p^{12} + 4\, p^{100}\, q^{17} + 32\, p^{106}\, q^{22} + 10640\, p^{128}\, q^{109} + 179581812113\, p^{60}\, q^{79} + 2701166963\, p^{95}\, q^{48} + 1825337893\, p^{94}\, q^{45}$$
$$+ 350\, p^{131}\, q^{118} + 30528\, p^{57}\, q^{10} + 582\, p^{128}\, q^{73} + 495\, p^{131}\, q^{114} + 575\, p^{131}\, q^{111} + 197141698\, q^{108}\, p^{57} + 14363544\, p^{117}\, q^{99}$$
$$+ 17443668\, p^{117}\, q^{97} + 6342\, p^{51}\, q^{8} + 5838156\, p^{62}\, q^{17} + 48553826\, p^{64}\, q^{21} + 3312749\, p^{61}\, q^{16} + 187032757\, p^{65}\, q^{24} + 17897730\, p^{63}\, q^{19}$$
$$+ 14085460300\, p^{69}\, q^{38} + 33863162\, p^{28}\, q^{26} + 17816299762\, p^{38}\, q^{59} + 20545\, p^{17}\, q^{12} + 46231\, p^{17}\, q^{14} + 13118\, p^{17}\, q^{11}$$
$$+ 16754232153\, p^{97}\, q^{66} + 105036\, p^{80}\, q^{16} + 854297\, p^{84}\, q^{20} + 363485405\, p^{93}\, q^{38} + 1444418277\, p^{94}\, q^{44} + 15589738338\, p^{98}\, q^{69}$$
$$+ 3\, p^{133}\, q^{97} + 1540742124\, p^{75}\, q^{32} + 1097787804\, p^{75}\, q^{31} + 601\, q^{56}\, p^{7} + 91742944\, p^{96}\, q^{113} + 101102784\, p^{95}\, q^{113} + 82600195\, p^{97}\, q^{113}$$
$$+ 89197\, p^{18}\, q^{15} + 31243\, p^{17}\, q^{13} + 22035742518\, p^{89}\, q^{93} + 19763105574\, p^{90}\, q^{93} + 125593\, q^{26}\, p^{12} + 114962015550\, p^{87}\, q^{75}$$
$$+ 8912900269\, p^{84}\, q^{43} + 28520222163\, p^{85}\, q^{50} + 2369681\, p^{20}\, q^{24} + 10\, p^{133}\, q^{102} + q^{108}\, p^{22} + 13827\, p^{9}\, q^{23} + p^{134}\, q^{107} + 987713691\, q^{100}\, p^{50}$$
$$+ 805617619\, q^{100}\, p^{49} + 294399938\, q^{101}\, p^{46} + 650563494\, q^{100}\, p^{48} + 519952775\, q^{100}\, p^{47} + 189815062\, p^{93}\, q^{36} + 32409239\, p^{91}\, q^{30}$$
$$+ 84420959\, p^{92}\, q^{33} + 505011371\, p^{94}\, q^{40} + 376406501\, p^{94}\, q^{39} + 264635412\, p^{93}\, q^{37} + 67\, p^{82}\, q^{11} + 68537683081\, p^{46}\, q^{69}$$
$$+ 42462970009\, p^{43}\, q^{68} + 196451263459\, p^{54}\, q^{68} + 181197492422\, p^{53}\, q^{67} + 5297087\, p^{119}\, q^{73} + 44145150\, p^{70}\, q^{22} + 165816734\, p^{71}\, q^{25}$$
$$+ 82837\, p^{46}\, q^{10} + 842871\, p^{49}\, q^{13} + 17637809\, p^{52}\, q^{18} + 43\, q^{96}\, p^{16} + 5157978367\, q^{83}\, p^{40} + 45528517665\, p^{89}\, q^{87} + 2663480\, p^{121}\, q^{96}$$
$$+ 26268220\, q^{57}\, p^{19} + 8456343\, q^{57}\, p^{17} + 2484251\, q^{56}\, p^{15} + 15168879\, q^{57}\, p^{18} + 44071958\, q^{57}\, p^{20} + 69426603\, q^{58}\, p^{21} + 613061\, q^{55}\, p^{13}$$
$$+ 71856214\, q^{57}\, p^{21} + 4807673\, q^{56}\, p^{16} + 110826925\, q^{58}\, p^{22} + 172673294\, q^{58}\, p^{23} + 116999303534\, p^{87}\, q^{71} + 110504099782\, p^{87}\, q^{68}$$

$$+ 117661214896\, p^{87}\, q^{72} + 263088647\, q^{58}\, p^{24} + 813293946\, q^{59}\, p^{27} + 392639510\, q^{58}\, p^{25} + 574820061\, q^{58}\, p^{26} + 2005211\, p^{121}\, q^{100}$$
$$+ 106971286481\, p^{87}\, q^{67} + 116632941776\, p^{87}\, q^{74} + 306820\, q^{34}\, p^{12} + 329784\, q^{35}\, p^{12} + 78929\, q^{34}\, p^{10} + 1830902\, q^{35}\, p^{15}$$
$$+ 1657894\, p^{121}\, q^{102} + 1075065\, q^{35}\, p^{14} + 2005211\, q^{36}\, p^{15} + 51733127\, q^{38}\, p^{22} + 5911110\, q^{37}\, p^{17} + 9329768\, q^{37}\, p^{18} + 21615131\, q^{37}\, p^{20}$$
$$+ 654913\, q^{36}\, p^{13} + 14363544\, q^{37}\, p^{19} + 207\, q^{76}\, p^{10} + 289104\, p^{122}\, q^{111} + 546784\, p^{122}\, q^{107} + 234597814761\, p^{79}\, q^{65}$$
$$+ 223525160487\, p^{80}\, q^{66} + 100883586774\, p^{78}\, q^{53} + 27233855310\, p^{77}\, q^{44} + 73082676\, p^{70}\, q^{23} + 3781708\, p^{18}\, q^{30} + 5940151\, q^{72}\, p^{19}$$
$$+ 16942145\, q^{73}\, p^{21} + 84604\, q^{64}\, p^{12} + 75062163\, p^{91}\, q^{32} + 9116204092\, p^{96}\, q^{57} + 118\, p^{125}\, q^{55} + 2\, p^{112}\, q^{26} + p^{132}\, q^{85} + 5\, q^{74}\, p^{8}$$
$$+ 90010623338\, p^{48}\, q^{57} + 3234037\, p^{121}\, q^{87} + 3184512\, p^{121}\, q^{86} + 1345559\, p^{122}\, q^{98} + 4238673\, p^{120}\, q^{78} + 2638291\, p^{121}\, q^{81}$$
$$+ 3624578\, p^{120}\, q^{76} + 3262487\, p^{121}\, q^{89} + 3934714\, p^{120}\, q^{77} + 499\, p^{125}\, q^{58} + 591\, p^{131}\, q^{110} + 61\, p^{122}\, q^{45} + 607\, p^{131}\, q^{108} + 3240767\, p^{121}\, q^{90}$$
$$+ 4423\, q^{119}\, p^{45} + 11239\, q^{119}\, p^{47} + 7150\, q^{119}\, p^{46} + 470963906\, p^{69}\, q^{27} + 2529056234\, p^{70}\, q^{32} + 17218260556\, p^{79}\, q^{98}$$
$$+ 6021139332\, p^{40}\, q^{82} + 3184512\, q^{50}\, p^{15} + 48\, q^{39}\, p^{4} + 3092\, q^{46}\, p^{7} + 127825647781\, p^{79}\, q^{56} + 113348917953\, p^{78}\, q^{54}$$
$$+ 179581812113\, p^{79}\, q^{60} + 140677864390\, p^{79}\, q^{57} + 7900746408\, p^{76}\, q^{38} + p\, q^{11} + 2194\, p^{8}\, q^{16} + 3688511039\, p^{96}\, q^{51}$$
$$+ 1769848957\, p^{95}\, q^{46} + 14583521928\, p^{97}\, q^{64} + 6970271310\, p^{96}\, q^{55} + 1186\, p^{7}\, q^{16} + 3518592\, p^{86}\, q^{23} + 65385554\, p^{90}\, q^{31} + 34301\, q^{25}\, p^{10}$$
$$+ 191335\, p^{81}\, q^{17} + 22610025\, p^{89}\, q^{28} + 109\, p^{16}\, q^{4} + 30\, p^{14}\, q^{3} + 91269\, p^{112}\, q^{124} + 71767293860\, p^{46}\, q^{58} + 783\, p^{14}\, q^{7} + 2328\, p^{14}\, q^{9}$$
$$+ 1389\, p^{14}\, q^{8} + 5876606\, q^{47}\, p^{16} + 3944457266\, p^{56}\, q^{32} + 832558549\, p^{55}\, q^{27} + 2974271712\, p^{56}\, q^{31} + 31041578096\, p^{57}\, q^{41}$$
$$+ 6683332415\, p^{56}\, q^{34} + 8547711266\, p^{56}\, q^{35} + 1613\, p^{38}\, q^{6} + 2953\, p^{22}\, q^{7} + 6161\, p^{22}\, q^{8} + 91269\, p^{24}\, q^{12} + 25641\, p^{23}\, q^{10} + 4915\, p^{15}\, q^{10}$$
$$+ 5893\, p^{9}\, q^{18} + 4254\, p^{11}\, q^{13} + 4438\, p^{12}\, q^{12} + 146692960\, p^{90}\, q^{113} + 129725066\, p^{96}\, q^{112} + 82452687\, p^{105}\, q^{109} + 258938\, q^{32}\, p^{12}$$
$$+ 64826\, q^{31}\, p^{10} + 180821274705\, p^{59}\, q^{54} + 203091919636\, p^{60}\, q^{55} + 16763338\, p^{69}\, q^{20} + 80849041258\, p^{79}\, q^{52} + 70718928464\, p^{79}\, q^{51}$$
$$+ 35800412\, p^{31}\, q^{24} + 1523\, p^{24}\, q^{6} + 526\, p^{23}\, q^{5} + 326637\, p^{29}\, q^{13} + 3781708\, p^{30}\, q^{18} + 199318120\, p^{107}\, q^{103} + 1870696\, q^{66}\, p^{16}$$
$$+ 368\, q^{117}\, p^{37} + 13154\, p^{128}\, q^{106} + 11\, p^{101}\, q^{18} + 131714907648\, p^{58}\, q^{51} + 145369228270\, p^{58}\, q^{52} + 173229800860\, p^{53}\, q^{69}$$
$$+ 711377\, p^{87}\, q^{21} + 126526126098\, p^{60}\, q^{50} + 2282375196\, q^{94}\, p^{46} + 3300\, p^{23}\, q^{7} + 5157978367\, p^{96}\, q^{53} + 4254\, p^{13}\, q^{11} + 3053\, p^{11}\, q^{12}$$
$$+ 17112078\, q^{108}\, p^{46} + 2733961\, q^{107}\, p^{39} + 832558549\, p^{81}\, q^{109} + 30788007\, p^{57}\, q^{112} + 38470741\, q^{109}\, p^{51} + 262653736\, p^{112}\, q^{85}$$
$$+ 358325682\, p^{111}\, q^{75} + 59637409\, p^{107}\, q^{49} + 24229610\, p^{106}\, q^{44} + 21386\, p^{94}\, q^{20} + 70687077\, q^{74}\, p^{24} + 180550131\, p^{52}\, q^{23}$$
$$+ 14995\, p^{128}\, q^{96} + 437115424\, q^{79}\, p^{30} + 4816962401\, q^{80}\, p^{38} + 15\, q^{110}\, p^{25} + 10440497\, p^{96}\, q^{31} + 3429048\, p^{95}\, q^{28} + 8014168250\, p^{70}\, q^{36}$$
$$+ 137364173590\, p^{72}\, q^{52} + 121636432215\, p^{72}\, q^{51} + 163\, p^{44}\, q^{5} + 57758\, p^{60}\, q^{11} + 177679581\, q^{74}\, p^{26} + 471655465\, q^{92}\, p^{38}$$

$$+ 75062163\, q^{91} p^{32} + 110859360\, q^{91} p^{33} + 8597\, p^{20} q^{9} + 52017\, p^{21} q^{12} + 73909292164\, p^{59} q^{46} + 6021139332\, p^{96} q^{54} + 8595\, p^{74} q^{12}$$
$$+ 36669\, p^{43} q^{9} + 13890\, p^{42} q^{8} + 39604055463\, p^{94} q^{76} + 39006810969\, p^{94} q^{77} + 39812917757\, p^{94} q^{73} + 8822646\, p^{19} q^{33}$$
$$+ 22628347\, p^{22} q^{32} + 19402033461\, q^{80} p^{44} + 52078771\, q^{76} p^{24} + 31234001\, q^{76} p^{23} + 133702832\, q^{76} p^{26} + 9116204092\, q^{79} p^{40}$$
$$+ 403219368\, q^{77} p^{29} + 84495362\, q^{76} p^{25} + 270573201\, q^{77} p^{28} + 3182453589\, q^{79} p^{36} + 2371324313\, q^{79} p^{35} + 1262921403\, q^{79} p^{33}$$
$$+ 1743003172\, q^{79} p^{34} + 901324786\, q^{79} p^{32} + q^{65} p^{6} + 215934003430\, p^{71} q^{56} + 4208050604\, p^{67} q^{33} + 79955343\, p^{64} q^{22}$$
$$+ 287427060\, p^{65} q^{25} + 463527\, q^{32} p^{13} + 8003335631\, q^{80} p^{40} + 10143985872\, q^{80} p^{41} + 15788568761\, q^{80} p^{43} + 12720740536\, q^{80} p^{42}$$
$$+ 1180823015\, q^{106} p^{92} + 5\, p^{134} q^{115} + 26086250162\, p^{63} q^{94} + 117585445819\, p^{50} q^{70} + 11479457266\, p^{38} q^{72} + 5300308139\, p^{59} q^{33}$$
$$+ 176618865898\, p^{61} q^{53} + 5490927\, p^{53} q^{16} + 10135659900\, p^{97} q^{60} + 16787289221\, p^{98} q^{71} + 361370226\, p^{106} q^{101}$$
$$+ 56607552077\, p^{73} q^{92} + 135058553799\, p^{81} q^{83} + 129446595203\, p^{75} q^{86} + 2229626070\, p^{106} q^{78} + 131568850488\, p^{80} q^{84}$$
$$+ 161120792\, p^{39} q^{25} + 34814\, p^{33} q^{9} + 160088\, p^{34} q^{11} + 8560962751\, p^{69} q^{36} + 144088090193\, p^{71} q^{52} + 127805149885\, p^{71} q^{51}$$
$$+ 5586\, p^{31} q^{7} + 14471\, p^{32} q^{8} + 329784\, p^{35} q^{12} + 78929\, p^{34} q^{10} + 5911110\, p^{37} q^{17} + 35618552\, p^{38} q^{21} + 1167977\, p^{36} q^{14} + 164\, p^{25} q^{4}$$
$$+ 24046325\, p^{38} q^{20} + 15891938\, p^{38} q^{19} + 57658310\, p^{39} q^{22} + 82600195\, p^{39} q^{23} + 295645222\, p^{39} q^{27} + 444130765\, p^{40} q^{28}$$
$$+ 654913\, p^{36} q^{13} + 2005211\, p^{36} q^{15} + 50891846637\, p^{44} q^{68} + 60449984965\, p^{45} q^{68} + 239250\, p^{19} q^{17} + 2133\, p^{49} q^{7}$$
$$+ 131714907648\, p^{78} q^{85} + 125944943580\, p^{79} q^{85} + 123879126608\, p^{81} q^{84} + 4322\, p^{26} q^{7} + p^{130} q^{71} + 3378348\, p^{22} q^{23} + 11\, p^{132} q^{91}$$
$$+ 543551\, q^{26} p^{15} + 97219697\, q^{78} p^{26} + 26291507\, q^{77} p^{23} + 1001198\, p^{27} q^{16} + 5804064\, p^{24} q^{23} + 377252\, p^{75} q^{16} + 131115\, p^{17} q^{17}$$
$$+ 3991218\, q^{96} p^{29} + 35572128\, q^{35} p^{22} + 2670\, q^{114} p^{35} + 1175591876\, p^{57} q^{28} + 65147472072\, p^{60} q^{45} + 39006810969\, p^{59} q^{42}$$
$$+ 17816299762\, p^{59} q^{38} + 46360891298\, p^{59} q^{43} + 14289995329\, p^{59} q^{37} + 21987857564\, p^{59} q^{39} + 8796\, p^{102} q^{24} + 5225682975\, p^{64} q^{101}$$
$$+ 5677284928\, p^{65} q^{101} + 215934003430\, p^{65} q^{80} + 98221380075\, p^{49} q^{71} + 193\, p^{43} q^{5} + 6123691894\, p^{70} q^{35} + 153941957305\, p^{72} q^{53}$$
$$+ 44009518807\, p^{71} q^{44} + 167700410268\, p^{55} q^{56} + 146193919259\, p^{54} q^{55} + 8003335631\, p^{96} q^{56} + 8080490109\, p^{97} q^{58} + 66741\, p^{59} q^{11}$$
$$+ 344279\, q^{26} p^{14} + 646221\, q^{27} p^{15} + 7900746408\, p^{60} q^{98} + 6087799749\, p^{60} q^{99} + 10571178582\, p^{63} q^{98} + 11479457266\, p^{64} q^{98}$$
$$+ 12376760457\, p^{65} q^{98} + 17769903413\, p^{67} q^{97} + 18716856615\, p^{68} q^{97} + 27231835854\, p^{74} q^{96} + 8770809838\, p^{61} q^{98}$$
$$+ 64382075557\, p^{59} q^{87} + 70311832638\, p^{60} q^{87} + 8857312202\, p^{55} q^{95} + 9668280255\, p^{54} q^{94} + 185835337\, p^{92} q^{112} + 199522274\, p^{91} q^{112}$$
$$+ 13229345\, q^{29} p^{22} + 4423\, p^{42} q^{7} + 51915692\, p^{30} q^{26} + 20157\, p^{26} q^{9} + 81860\, p^{27} q^{11} + 3259\, p^{77} q^{12} + 1363803250\, p^{104} q^{60}$$
$$+ 83715957291\, p^{55} q^{82} + 372\, p^{58} q^{7} + 10640\, p^{27} q^{8} + 188015\, p^{29} q^{12} + 49205\, p^{28} q^{10} + 2909992\, p^{31} q^{17} + 16051297\, p^{32} q^{21}$$

$$+ 9545055\, p^{31} q^{20} + 6561515\, p^{31} q^{19} + 22628347\, p^{32} q^{22} + 625805\, p^{30} q^{14} + 5187\, q^{29} p^{7} + 59679\, q^{30} p^{10} + 3429048\, q^{95} p^{28}$$
$$+ 1630984\, q^{94} p^{26} + 12366\, q^{29} p^{8} + 1877\, q^{28} p^{6} + 14706282\, q^{95} p^{31} + 22746638\, q^{95} p^{32} + 34436268\, q^{95} p^{33} + 74438736\, q^{95} p^{35}$$
$$+ 51103239\, q^{95} p^{34} + 4927\, q^{28} p^{7} + 26914\, q^{29} p^{9} + 1900416\, p^{78} q^{19} + 131568850488\, p^{52} q^{56} + 112802221458\, p^{51} q^{55} + 138\, p^{19} q^{4}$$
$$+ 37\, p^{17} q^{3} + 9289814\, q^{95} p^{30} + 692029\, q^{93} p^{24} + 78218952\, q^{96} p^{36} + 5722352\, q^{95} p^{29} + 7906\, p^{24} q^{8} + 125593\, p^{26} q^{12} + 34301\, p^{25} q^{10}$$
$$+ 35928594\, p^{89} q^{29} + 4817765\, p^{87} q^{24} + 5804064\, p^{23} q^{24} + 7046321\, p^{22} q^{26} + 7458140\, p^{23} q^{25} + 4118258\, p^{21} q^{25} + 5583711\, p^{22} q^{25}$$
$$+ 70959\, p^{65} q^{12} + 26448785597\, p^{82} q^{47} + 6970271310\, p^{81} q^{40} + 5424306556\, p^{81} q^{39} + 5034148\, p^{73} q^{19} + 145548335834\, p^{85} q^{69}$$
$$+ 147848816542\, p^{85} q^{70} + 1306399722\, q^{106} p^{66} + 32099\, q^{95} p^{21} + 9692797432\, p^{83} q^{100} + 539651963\, p^{36} q^{31} + 1025839679\, p^{36} q^{34}$$
$$+ 1245255584\, p^{36} q^{35} + 1783377886\, p^{37} q^{36} + 426351048\, p^{36} q^{30} + 675560287\, p^{36} q^{32} + 332983787\, p^{36} q^{29} + 36490718977\, p^{69} q^{94}$$
$$+ 6683332415\, p^{102} q^{80} + 4516738850\, p^{102} q^{88} + 43901533904\, p^{43} q^{57} + 211086\, q^{30} p^{12} + 193\, p^{93} q^{131} + 163\, p^{92} q^{131}$$
$$+ 373937261599\, p^{67} q^{70} + 169976242493\, p^{55} q^{74} + 186893708872\, p^{56} q^{74} + 204009270831\, p^{57} q^{74} + 221102386873\, p^{58} q^{74}$$
$$+ 309502486580\, p^{62} q^{72} + 89373600\, p^{81} q^{27} + 108436\, p^{81} q^{125} + 169674698\, p^{30} q^{31} + 252497004\, p^{33} q^{30} + 4238673\, q^{58} p^{16}$$
$$+ 2321493\, q^{57} p^{15} + 1129597\, q^{57} p^{14} + 13571999\, q^{59} p^{18} + 565625\, q^{56} p^{13} + 22610025\, q^{108} p^{47} + 2\, q^{83} p^{10} + 80\, q^{85} p^{12} + 18\, q^{84} p^{11}$$
$$+ 2644\, q^{92} p^{17} + q^{84} p^{10} + 39\, q^{89} p^{13} + 1043\, q^{89} p^{15} + 428\, q^{88} p^{14} + 1740\, q^{88} p^{15} + 20\, q^{87} p^{12} + 42\, q^{86} p^{12} + 150\, q^{87} p^{13} + 237\, q^{89} p^{14}$$
$$+ 8\, q^{85} p^{11} + 330\, q^{91} p^{15} + 79\, q^{88} p^{13} + 126\, q^{90} p^{14} + 3\, q^{86} p^{11} + 22416637\, q^{60} p^{19} + 59992095\, q^{61} p^{21} + 7459682\, q^{59} p^{17}$$
$$+ 38282584\, q^{60} p^{20} + 10410271384\, p^{43} q^{83} + 7671344158\, p^{41} q^{82} + 153640470\, q^{61} p^{23} + 97232281\, q^{61} p^{22} + 342738817\, q^{62} p^{25}$$
$$+ 509547174\, q^{62} p^{26} + 225914340\, q^{62} p^{24} + 24069027410\, p^{62} q^{94} + 711471112\, q^{63} p^{27} + 1023365558\, q^{63} p^{28} + 454142\, q^{70} p^{15}$$
$$+ 89614\, q^{69} p^{13} + 75521575\, q^{107} p^{50} + 143874543\, q^{107} p^{53} + 179443\, q^{36} p^{11} + 8903818914\, p^{76} q^{101} + 8903388071\, p^{77} q^{101} + 8\, p^{55} q^{5}$$
$$+ 6865\, q^{106} p^{27} + 39497206\, p^{30} q^{25} + 67361519\, p^{30} q^{27} + 106114191\, p^{31} q^{28} + 164\, q^{25} p^{4} + 2197454656\, p^{95} q^{47} + 8445325\, p^{87} q^{25}$$
$$+ 12583384\, q^{78} p^{22} + 377252\, q^{75} p^{16} + 199289\, q^{74} p^{15} + 2357377\, q^{77} p^{19} + 1242187524\, p^{107} q^{70} + 10093991\, q^{34} p^{19}$$
$$+ 204009270831\, p^{62} q^{79} + 171225791973\, p^{54} q^{72} + 129\, p^{77} q^{10} + 100843720245\, p^{50} q^{73} + 138601566\, q^{81} p^{28} + 1540742124\, p^{104} q^{61}$$
$$+ 1921317000\, p^{104} q^{63} + 2661799075\, p^{105} q^{72} + 1085841873\, p^{103} q^{56} + 2324715840\, p^{104} q^{65} + 1727138725\, p^{104} q^{62}$$
$$+ 2137719887\, p^{106} q^{82} + 2008787045\, p^{106} q^{84} + 1262921403\, p^{103} q^{57} + 2079415388\, p^{106} q^{83} + 337924\, p^{124} q^{84} + 123180\, p^{121} q^{60}$$
$$+ 189519\, p^{122} q^{66} + 3820\, p^{127} q^{120} + 2638\, p^{111} q^{31} + 170203\, p^{125} q^{101} + 8079\, p^{126} q^{119} + 109351801\, p^{30} q^{29} + 94323566\, p^{35} q^{25}$$
$$+ 6299075034\, p^{73} q^{36} + 376109887089\, p^{69} q^{70} + 311143921008\, p^{63} q^{73} + 1526\, q^{119} p^{43} + 42\, q^{116} p^{33} + 17486425\, p^{118} q^{88}$$

$$+ 3814509\, p^{119} q^{103} + 9369747\, p^{119} q^{92} + 12782078\, p^{116} q^{65} + 16353588\, p^{117} q^{72} + 1743003172\, p^{79} q^{34} + 10143985872\, p^{80} q^{41}$$
$$+ 133702832\, p^{76} q^{26} + 1456675132\, p^{78} q^{33} + 10007564143\, p^{100} q^{70} + 657710581\, p^{96} q^{43} + 8413637\, q^{36} p^{18} + 19272086\, q^{36} p^{20}$$
$$+ 31854191\, q^{37} p^{21} + 40285165991\, p^{48} q^{80} + 1964\, q^{30} p^{6} + 606\, q^{29} p^{5} + 5586\, q^{31} p^{7} + 12046031944\, p^{99} q^{83} + 72282\, p^{78} q^{15}$$
$$+ 4605391\, p^{113} q^{51} + 1630984\, p^{110} q^{42} + 2682620\, p^{112} q^{47} + 7900746408\, p^{98} q^{60} + 13284689935\, p^{99} q^{71} + 351217815660\, p^{63} q^{66}$$
$$+ 362401990827\, p^{64} q^{67} + 15589738338\, p^{69} q^{98} + 674883414\, p^{108} q^{92} + 197438246887\, p^{74} q^{82} + 177743199305\, p^{79} q^{81}$$
$$+ 193031965878\, p^{75} q^{82} + 5501092864\, q^{88} p^{44} + 202456\, p^{99} q^{26} + 63754368\, p^{114} q^{96} + 13487\, p^{93} q^{19} + 6539857\, p^{106} q^{40}$$
$$+ 4524437\, p^{106} q^{39} + 1488854\, p^{104} q^{34} + 23046295473\, q^{89} p^{53} + 19918913118\, q^{89} p^{52} + 26448785597\, q^{89} p^{54} + 28471281765\, q^{90} p^{56}$$
$$+ 30112753578\, q^{89} p^{55} + 253068897519\, p^{58} q^{71} + 56586417\, p^{97} q^{36} + 9289814\, p^{95} q^{30} + 24814295\, p^{96} q^{33} + 30\, p^{133} q^{122} + 9399\, p^{57} q^{9}$$
$$+ 269875842452\, p^{73} q^{78} + 13528859624\, p^{99} q^{80} + 8632959623\, p^{99} q^{88} + 57548708678\, p^{80} q^{91} + 1168640805\, p^{78} q^{108} + 234803\, q^{31} p^{12}$$
$$+ 797568\, q^{32} p^{14} + 3814381434\, p^{90} q^{102} + 2492864906\, p^{92} q^{103} + 2798782632\, p^{93} q^{102} + 3466582280\, p^{91} q^{102} + 3126808240\, p^{92} q^{102}$$
$$+ 4516738850\, p^{88} q^{102} + 4165978624\, p^{89} q^{102} + 16942145\, p^{115} q^{63} + 29327596\, p^{115} q^{67} + 4854622584\, p^{97} q^{96} + 1532227001\, p^{106} q^{68}$$
$$+ 5689847979\, p^{96} q^{96} + 5052103545\, p^{81} q^{103} + 5663700264\, p^{88} q^{101} + 39497206\, p^{25} q^{30} + 26784944075\, p^{93} q^{87} + 3346571\, p^{17} q^{32}$$
$$+ 208495361783\, p^{75} q^{58} + 224720736879\, p^{75} q^{59} + 70687077\, p^{74} q^{24} + 29452914\, p^{73} q^{22} + 113432516\, p^{74} q^{25} + 3\, p^{25} q^{2}$$
$$+ 272172038\, q^{109} p^{62} + 33\, p^{51} q^{5} + 7525100\, q^{35} p^{18} + 164\, q^{26} p^{4} + 40641342\, q^{36} p^{22} + 174805348\, q^{107} p^{54} + 138601566\, q^{108} p^{55}$$
$$+ 259668028\, p^{104} q^{105} + 560266\, q^{34} p^{13} + 1941090694\, p^{99} q^{52} + 1469413898\, p^{98} q^{49} + 103434773\, p^{38} q^{24} + 9329768\, p^{37} q^{18}$$
$$+ 193958360\, p^{38} q^{26} + 6539857\, q^{96} p^{30} + 1877\, p^{28} q^{6} + 603\, p^{27} q^{5} + 334189\, p^{123} q^{75} + 34037\, p^{116} q^{43} + 29822\, p^{126} q^{112} + 1322\, p^{110} q^{29}$$
$$+ 359018\, p^{124} q^{85} + 315495\, p^{124} q^{83} + 75816\, p^{119} q^{52} + 276444\, p^{122} q^{68} + 1168\, p^{115} q^{130} + 1341264908\, p^{39} q^{33} + 3329236\, p^{36} q^{16}$$
$$+ 1891334378\, p^{103} q^{60} + 4590\, p^{76} q^{12} + 197329941323\, p^{81} q^{65} + 5212297353\, p^{33} q^{61} + 85024\, q^{102} p^{27} + 664286861\, p^{39} q^{30}$$
$$+ 513602223\, p^{39} q^{29} + 9598597\, p^{113} q^{54} + 32219296\, p^{107} q^{111} + 49500648168\, p^{45} q^{72} + 1072993350\, p^{39} q^{32} + 10262645\, p^{18} q^{38}$$
$$+ 675560287\, p^{32} q^{36} + 259878560\, p^{27} q^{38} + 125370381\, p^{25} q^{37} + 169719149\, p^{26} q^{37} + 987918855\, p^{33} q^{37} + 101308820419\, p^{88} q^{75}$$
$$+ 40456731175\, p^{93} q^{81} + 849067057\, p^{39} q^{31} + 1659083250\, p^{39} q^{34} + 2031504873\, p^{39} q^{35} + 2857591305\, p^{40} q^{36} + 1808411\, p^{28} q^{17}$$
$$+ 9535378\, p^{29} q^{21} + 5599827\, p^{28} q^{20} + 3919572\, p^{28} q^{19} + 13229345\, p^{29} q^{22} + 405675\, p^{27} q^{14} + p^{107} q^{134} + 278971996709\, p^{59} q^{62}$$
$$+ 283630514147\, p^{60} q^{61} + 256767005368\, p^{57} q^{64} + 269875842452\, p^{58} q^{63} + 278971996709\, p^{62} q^{59} + 199318120\, p^{103} q^{107}$$
$$+ 20437994213\, q^{88} p^{51} + 17410219668\, q^{88} p^{50} + 354453654652\, p^{65} q^{71} + 100601287603\, p^{51} q^{75} + 87929734640\, p^{50} q^{75}$$

$$+ 469614\, q^{74}\, p^{16} + 1437648\, q^{76}\, p^{18} + 572092157\, p^{83}\, q^{110} + 769657370\, p^{106}\, q^{61} + 973099603\, p^{106}\, q^{63} + 1385208068\, p^{107}\, q^{72}$$
$$+ 540240760\, p^{105}\, q^{56} + 34040421\, q^{42}\, p^{20} + 82284777\, q^{43}\, p^{22} + 110561130\, q^{42}\, p^{23} + 51448365\, q^{42}\, p^{21} + 76153162\, q^{42}\, p^{22}$$
$$+ 80573517\, q^{99}\, p^{39} + 110740251\, q^{99}\, p^{40} + 150044917\, q^{99}\, p^{41} + 14141613\, q^{85}\, p^{25} + 452270912\, p^{89}\, q^{110} + 3250789\, q^{84}\, p^{22}$$
$$+ 5952629\, q^{84}\, p^{23} + 10514129\, q^{84}\, p^{24} + 38470741\, q^{85}\, p^{27} + 35011\, q^{77}\, p^{14} + 3844973827\, p^{62}\, q^{32} + 771309753\, p^{61}\, q^{27}$$
$$+ 2851205149\, p^{62}\, q^{31} + 32934842330\, p^{63}\, q^{41} + 14724045\, p^{23}\, q^{28} + 80226645263\, p^{87}\, q^{83} + 66302731487\, p^{80}\, q^{90}$$
$$+ 116999303534\, p^{65}\, q^{49} + 344756205836\, p^{64}\, q^{71} + 538\, q^{110}\, p^{28} + 1626685\, q^{120}\, p^{69} + 2132536\, q^{120}\, p^{71} + 2701901\, q^{120}\, p^{73}$$
$$+ 3312749\, q^{120}\, p^{75} + 170\, p^{127}\, q^{64} + 368335\, q^{115}\, p^{47} + 177869\, q^{115}\, p^{45} + 100053\, q^{113}\, p^{40} + 195\, q^{110}\, p^{27} + 7\, q^{103}\, p^{19} + 67\, q^{104}\, p^{21}$$
$$+ 9379\, q^{114}\, p^{37} + 5\, q^{98}\, p^{16} + 45835\, q^{114}\, p^{40} + 727740\, q^{118}\, p^{57} + 923706\, q^{118}\, p^{58} + 2\, q^{92}\, p^{13} + 15\, q^{99}\, p^{17} + 164\, q^{100}\, p^{19} + q^{97}\, p^{15}$$
$$+ 88\, q^{99}\, p^{18} + q^{104}\, p^{19} + 22\, q^{105}\, p^{21} + 423\, q^{106}\, p^{24} + 3213\, q^{107}\, p^{27} + 59\, q^{109}\, p^{25} + 6269\, q^{110}\, p^{31} + 109071\, q^{117}\, p^{48} + 155441\, q^{117}\, p^{49}$$
$$+ 715191\, q^{117}\, p^{54} + 542810\, q^{117}\, p^{53} + 379338581994\, p^{69}\, q^{69} + 1226212009\, p^{88}\, q^{107} + 1081587563\, p^{106}\, q^{64} + 457029771\, p^{105}\, q^{55}$$
$$+ 54849306640\, p^{91}\, q^{81} + 169674698\, p^{105}\, q^{106} + 165816734\, p^{65}\, q^{111} + 485871110\, p^{73}\, q^{110} + 513602223\, p^{97}\, q^{107} + p^{14}\, q$$
$$+ 24046325\, p^{20}\, q^{38} + 3725371\, q^{103}\, p^{35} + 1488854\, q^{102}\, p^{32} + 22746638\, q^{104}\, p^{41} + 16274438\, q^{104}\, p^{40} + 601\, p^{129}\, q^{80} + 446\, p^{131}\, q^{100}$$
$$+ 73700\, p^{110}\, q^{35} + 78929\, p^{126}\, q^{102} + 26914\, p^{127}\, q^{107} + 17962\, p^{127}\, q^{111} + 99816\, p^{124}\, q^{73} + 526\, p^{113}\, q^{131} + 82284777\, p^{114}\, q^{93}$$
$$+ 114512265\, p^{110}\, q^{59} + 97219697\, p^{110}\, q^{58} + 146692960\, p^{113}\, q^{90} + 154326763\, p^{96}\, q^{38} + 636090243\, p^{97}\, q^{44} + 7365483450\, p^{101}\, q^{69}$$
$$+ 8014168250\, p^{100}\, q^{66} + 33606549\, p^{116}\, q^{74} + 13029674\, p^{118}\, q^{95} + 13894214\, p^{118}\, q^{94} + 2909992\, p^{119}\, q^{105} + 5115528\, p^{118}\, q^{104}$$
$$+ 275683045251\, p^{78}\, q^{69} + 276977378228\, p^{78}\, q^{70} + 274046172786\, p^{78}\, q^{72} + 272570095765\, p^{78}\, q^{68} + 267697478664\, p^{78}\, q^{67}$$
$$+ 94052\, q^{118}\, p^{50} + 276428322948\, p^{78}\, q^{71} + 65859\, q^{118}\, p^{49} + 2855\, p^{63}\, q^{9} + 263995663264\, p^{78}\, q^{74} + 256514911488\, p^{78}\, q^{75}$$
$$+ 269875842452\, p^{78}\, q^{73} + 247570719613\, p^{78}\, q^{76} + 237323946193\, p^{78}\, q^{77} + 213657180369\, p^{79}\, q^{78} + 7724589048\, p^{70}\, q^{101}$$
$$+ 8045593242\, p^{71}\, q^{101} + 74340832416\, p^{87}\, q^{84} + 63557397030\, p^{89}\, q^{83} + 38656661845\, p^{66}\, q^{93} + 1120846\, p^{110}\, q^{41} + 5034148\, p^{117}\, q^{63}$$
$$+ 2\, p^{132}\, q^{86} + 14\, p^{133}\, q^{104} + q^{107}\, p^{21} + 118459209430\, p^{50}\, q^{58} + 21138971219\, p^{41}\, q^{73} + 161210619877\, p^{53}\, q^{71} + 40352107737\, p^{90}\, q^{87}$$
$$+ 3142\, p^{73}\, q^{11} + 116301597\, p^{39}\, q^{24} + 10262645\, p^{38}\, q^{18} + 219831459\, p^{39}\, q^{26} + 1925\, p^{29}\, q^{6} + 607\, p^{28}\, q^{5} + 1543018108\, p^{40}\, q^{33}$$
$$+ 3643586\, p^{37}\, q^{16} + 757247555\, p^{40}\, q^{30} + 583566529\, p^{40}\, q^{29} + 1230754415\, p^{40}\, q^{32} + 2731501574\, p^{104}\, q^{67} + 469772006\, p^{101}\, q^{48}$$
$$+ 1091057309\, p^{102}\, q^{54} + 80573517\, p^{99}\, q^{39} + 57747794\, p^{98}\, q^{37} + 110740251\, p^{99}\, q^{40} + 69216453473\, p^{90}\, q^{79} + 4402\, q^{86}\, p^{15}$$
$$+ 17194\, q^{88}\, p^{17} + 1215\, q^{86}\, p^{14} + 361370226\, p^{30}\, q^{35} + 35734770051\, q^{81}\, p^{48} + 34017329027\, q^{80}\, p^{47} + 35484672423\, p^{91}\, q^{87}$$

$$+ 59968563974\, p^{91} q^{79} + 38844857563\, p^{91} q^{86} + 35752317764\, p^{44} q^{74} + 6461325\, q^{38} p^{17} + 5\, p^{133} q^{99} + 2182605940\, p^{55} q^{30}$$
$$+ 580589057\, p^{54} q^{26} + 1606509103\, p^{55} q^{29} + 1345559\, q^{38} p^{14} + 56641462327\, p^{87} q^{87} + 44257820716\, p^{90} q^{86} + 66540999177\, p^{84} q^{88}$$
$$+ 54574857299\, p^{89} q^{85} + 4927\, p^{28} q^{7} + 12366\, p^{29} q^{8} + 258938\, p^{32} q^{12} + 64826\, p^{31} q^{10} + 4309926\, p^{34} q^{17} + 24852814\, p^{35} q^{21}$$
$$+ 888523\, p^{33} q^{14} + 3461561657\, q^{88} p^{42} + 32445407669\, p^{49} q^{83} + 334832091910\, p^{64} q^{72} + 266963785190\, p^{60} q^{73}$$
$$+ 334061354671\, p^{74} q^{67} + 1174513883\, p^{108} q^{80} + 909319820\, p^{108} q^{88} + 530434365\, p^{75} q^{29} + 358944718\, p^{75} q^{28} + 878784\, p^{66} q^{15}$$
$$+ 3170777754\, p^{55} q^{99} + 333074731025\, p^{63} q^{71} + 7565988624\, p^{85} q^{43} + 24402842747\, p^{86} q^{50} + 153457156571\, p^{54} q^{74}$$
$$+ 238708821\, p^{34} q^{29} + 116632941776\, p^{74} q^{87} + 122841156411\, p^{77} q^{86} + 29206319425\, p^{93} q^{86} + 107538528732\, p^{83} q^{84}$$
$$+ 44113452\, p^{59} q^{112} + 2958493369\, p^{99} q^{97} + 1965820302\, p^{104} q^{92} + 2696638185\, p^{101} q^{95} + 92696\, p^{94} q^{126} + 73090\, q^{114} p^{41}$$
$$+ 1092537512\, p^{84} q^{108} + 4208050604\, p^{103} q^{69} + 4621215204\, p^{102} q^{66} + 39604055463\, p^{76} q^{94} + 1000052248\, p^{107} q^{67}$$
$$+ 160734107\, p^{104} q^{48} + 1008\, p^{105} q^{24} + 659145\, p^{123} q^{82} + 52787\, p^{116} q^{44} + 177869\, p^{91} q^{21} + 4998277\, p^{98} q^{31} + 1603871\, p^{97} q^{28}$$
$$+ 3969135922\, p^{99} q^{95} + 81303842\, p^{112} q^{63} + 131177456\, p^{112} q^{67} + 18230428\, p^{109} q^{48} + 19587\, p^{96} q^{21} + 550661\, p^{103} q^{31}$$
$$+ 162611\, p^{102} q^{28} + 36269194728\, p^{83} q^{93} + 28748824120\, p^{68} q^{95} + 14486\, p^{95} q^{128} + 1043\, p^{89} q^{15} + 1327\, p^{91} q^{16} + 783\, p^{122} q^{129}$$
$$+ 25\, q^{126} p^{56} + 352178861556\, p^{69} q^{73} + 101961600296\, p^{81} q^{86} + 95656999260\, p^{82} q^{86} + 341154276698\, p^{66} q^{73} + 297688422946\, p^{63} q^{74}$$
$$+ 578075\, p^{120} q^{63} + 360885963544\, p^{72} q^{70} + 156054\, p^{113} q^{41} + 9329768\, p^{118} q^{99} + 11199326\, p^{118} q^{97} + 24\, p^{66} q^{7} + 4605391\, q^{85} p^{23}$$
$$+ 8205668\, q^{85} p^{24} + 233728998\, q^{88} p^{33} + 37\, p^{94} q^{15} + 33426\, p^{117} q^{45} + 1322\, p^{107} q^{26} + 43\, p^{96} q^{16} + 390119\, p^{98} q^{124} + 78032\, p^{120} q^{55}$$
$$+ 124014\, p^{110} q^{36} + 15082\, q^{72} p^{12} + 5710\, q^{71} p^{11} + 6923088231\, q^{90} p^{47} + 1503751845\, p^{80} q^{34} + 8857312202\, p^{81} q^{41}$$
$$+ 114512265\, p^{77} q^{26} + 1262921403\, p^{79} q^{33} + 13\, p^{77} q^{9} + 18230428\, q^{109} p^{48} + 6412455\, q^{118} p^{69} + 7\, q^{78} p^{9} + 67\, q^{82} p^{11}$$
$$+ 363834349053\, p^{71} q^{71} + 346900051\, q^{109} p^{64} + 171225791973\, p^{64} q^{82} + 43901533904\, p^{93} q^{79} + 218986082966\, p^{69} q^{81}$$
$$+ 66566372085\, p^{91} q^{74} + 58098512146\, p^{91} q^{67} + 65381779034\, p^{91} q^{71} + 26448785597\, p^{89} q^{54} + 35657033255\, p^{90} q^{58}$$
$$+ 43341119037\, p^{90} q^{60} + 23046295473\, p^{89} q^{53} + 18610985\, q^{102} p^{38} + 179018877143\, p^{65} q^{82} + 3068825281\, p^{101} q^{94} + 7643166\, p^{104} q^{117}$$
$$+ 3781708\, p^{106} q^{118} + 29567284\, p^{86} q^{117} + 29226806\, p^{87} q^{117} + 165973601959\, p^{83} q^{77} + 145369228270\, p^{84} q^{78} + 182959393171\, p^{83} q^{73}$$
$$+ 171792319054\, p^{83} q^{76} + 1934733002\, q^{106} p^{72} + 2142013897\, q^{106} p^{75} + 2215096863\, q^{106} p^{77} + 2015345161\, q^{106} p^{73}$$
$$+ 2185703746\, q^{106} p^{76} + 2084869392\, q^{106} p^{74} + 1746201481\, q^{106} p^{70} + 1844487865\, q^{106} p^{71} + 9081122220\, p^{68} q^{100} + 24229610\, q^{106} p^{44}$$
$$+ 102402932275\, p^{71} q^{88} + 71179456439\, p^{90} q^{68} + 1435567023\, p^{107} q^{85} + 171743\, p^{89} q^{20} + 69436024\, q^{94} p^{34} + 100555628\, q^{94} p^{35}$$

$$+ 33071\, p^{127}\, q^{104} + 251\, q^{124}\, p^{53} + 48366\, p^{124}\, q^{69} + 38768\, p^{127}\, q^{95} + 58918\, p^{124}\, q^{70} + 425\, p^{115}\, q^{34} + 77401271425\, p^{90}\, q^{72}$$
$$+ 197438246887\, p^{62}\, q^{54} + 218348468759\, p^{63}\, q^{55} + 77529098685\, p^{62}\, q^{46} + 2\, p^{27}\, q^{2} + 141151946575\, p^{76}\, q^{85} + 20602646\, q^{107}\, p^{45}$$
$$+ 4524437\, q^{106}\, p^{39} + 312939761\, q^{108}\, p^{60} + 9399\, p^{79}\, q^{127} + 65007\, p^{86}\, q^{126} + 69915\, p^{87}\, q^{126} + 37856\, p^{127}\, q^{94} + 1481\, p^{117}\, q^{39}$$
$$+ 42008\, p^{125}\, q^{74} + 2729\, p^{117}\, q^{40} + 38160395823\, p^{94}\, q^{78} + 2371324313\, q^{101}\, p^{57} + 2717378445\, q^{101}\, p^{58} + 3585250\, q^{100}\, p^{32}$$
$$+ 358219679959\, p^{72}\, q^{67} + 3232366439\, q^{102}\, p^{62} + 2901642972\, q^{102}\, p^{61} + 4460\, p^{61}\, q^{9} + 21544614\, p^{114}\, q^{61} + 44071958\, p^{116}\, q^{79}$$
$$+ 15891938\, p^{117}\, q^{98} + 13316877\, p^{112}\, q^{53} + 69426603\, p^{115}\, q^{78} + 10995042\, p^{111}\, q^{50} + 46905831\, p^{116}\, q^{87} + 47709662\, p^{116}\, q^{86}$$
$$+ 1993626\, p^{95}\, q^{27} + 143806189\, p^{103}\, q^{46} + 311539886\, p^{104}\, q^{51} + 57658310\, p^{97}\, q^{114} + 71681991023\, p^{88}\, q^{83} + 7110312858\, p^{52}\, q^{94}$$
$$+ 573608184\, q^{71}\, p^{28} + 834481066\, q^{71}\, p^{29} + 32219296\, p^{111}\, q^{107} + 399208719\, p^{79}\, q^{111} + 910708\, q^{109}\, p^{39} + 596498\, q^{109}\, p^{38}$$
$$+ 438469\, q^{108}\, p^{36} + 36\, q^{83}\, p^{11} + 2544447255\, q^{87}\, p^{40} + 20920\, p^{123}\, q^{61} + 12\, p^{54}\, q^{5} + 11059965321\, p^{36}\, q^{57} + 17574062485\, p^{38}\, q^{58}$$
$$+ 675705774\, p^{73}\, q^{29} + 460924754\, p^{73}\, q^{28} + 11237793436\, p^{36}\, q^{58} + 8066181\, q^{94}\, p^{29} + 8723634970\, p^{35}\, q^{57} + 42904847\, p^{113}\, q^{62}$$
$$+ 76766787\, p^{115}\, q^{84} + 30788007\, p^{112}\, q^{57} + 76832027\, p^{115}\, q^{83} + 17040299\, p^{116}\, q^{101} + 76358288\, p^{115}\, q^{82} + 2904601468\, p^{103}\, q^{64}$$
$$+ 1286435706\, p^{102}\, q^{55} + 31882294840\, p^{41}\, q^{58} + 31041578096\, p^{95}\, q^{79} + 2134336442\, q^{105}\, p^{68} + 2279397507\, q^{105}\, p^{69}$$
$$+ 2661799075\, q^{105}\, p^{72} + 2545379352\, q^{105}\, p^{71} + 2920699832\, q^{105}\, p^{75} + 3002713021\, q^{105}\, p^{77} + 2229626070\, q^{106}\, p^{78}$$
$$+ 2764366634\, q^{105}\, p^{73} + 2971526991\, q^{105}\, p^{76} + 54425\, p^{107}\, q^{126} + 5631560\, p^{68}\, q^{18} + 3\, q^{105}\, p^{20} + 13826\, q^{109}\, p^{31} + 1395\, q^{109}\, p^{28}$$
$$+ 3213\, q^{109}\, p^{29} + 555\, q^{109}\, p^{27} + 4\, q^{100}\, p^{17} + 115192552\, q^{86}\, p^{30} + 23647102\, q^{85}\, p^{26} + 8560962751\, p^{67}\, q^{100} + 614916760\, p^{93}\, q^{108}$$
$$+ 650563494\, q^{88}\, p^{36} + 887940222\, q^{88}\, p^{37} + 1195326006\, q^{88}\, p^{38} + 1588110822\, q^{88}\, p^{39} + 210688612536\, p^{67}\, q^{81} + 123576773788\, p^{59}\, q^{82}$$
$$+ 2133\, p^{87}\, q^{129} + 59905\, p^{85}\, q^{126} + 207829\, p^{93}\, q^{125} + 4460\, p^{75}\, q^{127} + 582\, p^{73}\, q^{128} + 11011\, p^{80}\, q^{127} + 7934\, p^{78}\, q^{127} + 6626\, p^{77}\, q^{127}$$
$$+ 5469\, p^{76}\, q^{127} + 513709890\, p^{68}\, q^{27} + 2731501574\, p^{69}\, q^{32} + 1857\, p^{130}\, q^{101} + 312\, p^{131}\, q^{119} + 109\, p^{132}\, q^{120} + 4879832\, q^{94}\, p^{28}$$
$$+ 42288310882\, p^{43}\, q^{56} + 146\, p^{82}\, q^{130} + 3118794446\, q^{104}\, p^{69} + 100555628\, p^{101}\, q^{42} + 184370607\, p^{103}\, q^{47} + 17218260556\, q^{57}\, p^{38}$$
$$+ 102606316465\, p^{88}\, q^{74} + 92981739190\, p^{88}\, q^{67} + 2213228309\, p^{56}\, q^{30} + 585157402\, p^{55}\, q^{26} + 1624157209\, p^{56}\, q^{29}$$
$$+ 21642317907\, p^{39}\, q^{58} + 108\, p^{33}\, q^{4} + 78916\, p^{47}\, q^{10} + 814822\, p^{50}\, q^{13} + 17361990\, p^{53}\, q^{18} + 221041885\, p^{94}\, q^{111} + 101444454288\, p^{49}\, q^{57}$$
$$+ 1064746\, p^{108}\, q^{38} + 18075\, p^{122}\, q^{122} + 3\, q^{64}\, p^{6} + 521\, q^{69}\, p^{9} + 102402932275\, p^{88}\, q^{71} + 96219759436\, p^{88}\, q^{68} + 103158492224\, p^{88}\, q^{72}$$
$$+ 1156509\, p^{64}\, q^{15} + 3462254331\, q^{104}\, p^{71} + 3738490047\, q^{104}\, p^{73} + 3927580173\, q^{104}\, p^{75} + 179018877143\, p^{71}\, q^{54} + 62257136585\, p^{71}\, q^{46}$$
$$+ 189042806033\, p^{72}\, q^{55} + 499\, q^{125}\, p^{58} + 1125949\, p^{116}\, q^{53} + 965622\, p^{115}\, q^{50} + 187458967205\, p^{76}\, q^{82} + 160182\, p^{114}\, q^{122}$$

$$+ 1515247\, p^{117}\, q^{57} + 3309626\, p^{119}\, q^{69} + 3769284\, p^{119}\, q^{70} + 42367\, p^{110}\, q^{34} + 1568675\, p^{122}\, q^{95} + 1625889\, p^{122}\, q^{94} + 3003922\, p^{120}\, q^{74}$$
$$+ 206037\, p^{112}\, q^{40} + 131454\, p^{112}\, q^{39} + 47161668008\, p^{76}\, q^{93} + 5940151\, q^{117}\, p^{64} + 6945756\, q^{117}\, p^{65} + 120\, p^{32}\, q^{4} + 625805\, p^{106}\, q^{122}$$
$$+ 416214\, p^{123}\, q^{105} + 797568\, p^{122}\, q^{104} + 2143259\, p^{118}\, q^{62} + 2334832305\, q^{93}\, p^{45} + 49842311\, q^{91}\, p^{31} + 344893465\, q^{92}\, p^{37} + 2274\, q^{78}\, p^{12}$$
$$+ 13730\, q^{80}\, p^{14} + 756\, q^{77}\, p^{11} + 2\, q^{113}\, p^{27} + 32445407669\, p^{53}\, q^{87} + 207313\, p^{95}\, q^{125} + q^{13}\, p + 13872428\, q^{89}\, p^{27} + 29498391\, q^{88}\, p^{28}$$
$$+ 46563031\, q^{88}\, p^{29} + 18230428\, q^{88}\, p^{27} + 15\, q^{67}\, p^{7} + 2535\, q^{69}\, p^{10} + 712446610\, q^{99}\, p^{47} + 25891614\, p^{70}\, q^{21} + 6558357029\, p^{35}\, q^{69}$$
$$+ 444203200\, q^{99}\, p^{45} + 1951\, p^{130}\, q^{103} + 1333\, p^{129}\, q^{84} + 37078026711\, p^{54}\, q^{87} + 4833\, p^{93}\, q^{18} + 318\, q^{65}\, p^{8} + 211879465\, q^{97}\, p^{40}$$
$$+ 2438\, p^{129}\, q^{88} + 50657\, q^{117}\, p^{46} + 2866995\, q^{94}\, p^{27} + 155441\, q^{87}\, p^{19} + 1546\, q^{79}\, p^{12} + 516044\, q^{88}\, p^{21} + 2\, p^{109}\, q^{134} + 18230428\, p^{88}\, q^{27}$$
$$+ 14126985116\, p^{99}\, q^{78} + 230\, q^{66}\, p^{8} + 24\, q^{66}\, p^{7} + 983\, q^{67}\, p^{9} + 160\, q^{67}\, p^{8} + 80\, q^{124}\, p^{51} + 2644\, p^{92}\, q^{17} + 13528859624\, p^{37}\, q^{56} + q^{59}\, p^{5}$$
$$+ 37\, q^{65}\, p^{7} + 722\, q^{68}\, p^{9} + 5\, q^{63}\, p^{6} + 56\, q^{64}\, p^{7} + 4270\, q^{72}\, p^{11} + 3142\, q^{73}\, p^{11} + 57747794\, q^{98}\, p^{37} + 57747794\, q^{99}\, p^{38} + 73\, q^{69}\, p^{8}$$
$$+ 111\, q^{68}\, p^{8} + 1427151\, p^{97}\, q^{122} + 57091\, q^{82}\, p^{16} + 2\, q^{58}\, p^{5} + 154326763\, q^{98}\, p^{40} + 240197\, p^{122}\, q^{112} + 23549\, p^{123}\, q^{120} + 46231\, p^{122}\, q^{119}$$
$$+ 177764185948\, p^{53}\, q^{68} + 163010009937\, p^{52}\, q^{67} + 28164342855\, p^{52}\, q^{87} + 1743003172\, q^{102}\, p^{57} + 2003712739\, q^{102}\, p^{58} + 170\, q^{72}\, p^{9}$$
$$+ 15639\, q^{76}\, p^{13} + 1608\, q^{75}\, p^{11} + 104879\, q^{83}\, p^{17} + 406254\, q^{84}\, p^{19} + 29094\, q^{81}\, p^{15} + 246855\, q^{83}\, p^{18} + 316\, q^{75}\, p^{10} + 1360847\, p^{109}\, q^{40}$$
$$+ 910708\, p^{109}\, q^{39} + 298049\, p^{107}\, q^{34} + 109071\, q^{88}\, p^{19} + 368335\, q^{89}\, p^{21} + 25705\, q^{87}\, p^{17} + 1958963\, q^{90}\, p^{24} + 7718471\, q^{91}\, p^{27}$$
$$+ 13661\, q^{86}\, p^{16} + 1294775\, q^{93}\, p^{25} + 20389976\, q^{94}\, p^{31} + 110\, q^{73}\, p^{9} + 1377\, q^{71}\, p^{10} + 367\, q^{70}\, p^{9} + 3\, p^{110}\, q^{134} + 1890\, q^{70}\, p^{10}$$
$$+ 469772006\, q^{101}\, p^{48} + 584047169\, q^{101}\, p^{49} + 1499313074\, q^{101}\, p^{54} + 630539821\, q^{102}\, p^{51} + 1264847410\, q^{101}\, p^{53} + q^{60}\, p^{5} + 81\, q^{63}\, p^{7}$$
$$+ 14\, q^{61}\, p^{6} + 321509772\, q^{100}\, p^{45} + 411141919\, q^{100}\, p^{46} + 6331\, q^{75}\, p^{12} + 29\, q^{71}\, p^{8} + 4590\, q^{76}\, p^{12} + 692\, q^{73}\, p^{10} + 19226071959\, p^{96}\, q^{85}$$
$$+ 373915767\, p^{89}\, q^{35} + 424065\, p^{78}\, q^{17} + 48440839\, p^{86}\, q^{28} + 7602543\, p^{83}\, q^{23} + 137431331\, p^{87}\, q^{31} + 28071915514\, p^{94}\, q^{64}$$
$$+ 13853162399\, p^{93}\, q^{55} + 7565988624\, p^{93}\, q^{51} + 3670379307\, p^{92}\, q^{46} + 756\, q^{84}\, p^{13} + 189815062\, p^{100}\, q^{43} + 3721268\, q^{116}\, p^{58}$$
$$+ 4570196\, q^{116}\, p^{59} + 11018796\, q^{116}\, p^{64} + 3514259\, q^{117}\, p^{61} + 9414832\, q^{116}\, p^{63} + 6686973\, q^{116}\, p^{61} + 7971746\, q^{116}\, p^{62}$$
$$+ 12762419\, p^{111}\, q^{111} + 6830646741\, p^{102}\, q^{75} + 160734107\, p^{88}\, q^{32} + 17853650816\, p^{93}\, q^{57} + 2953784311\, p^{91}\, q^{44} + 29944507956\, p^{95}\, q^{69}$$
$$+ 1881752\, p^{81}\, q^{20} + 767226736\, p^{90}\, q^{38} + 31830159730\, p^{94}\, q^{66} + 11223720131\, p^{97}\, q^{61} + 13461719929\, p^{97}\, q^{63} + 37982\, p^{114}\, q^{125}$$
$$+ 61507325\, p^{69}\, q^{114} + 22670312\, p^{65}\, q^{115} + 49697210\, p^{67}\, q^{114} + 55504651\, p^{68}\, q^{114} + 116301597\, p^{97}\, q^{112} + 67361519\, p^{106}\, q^{109}$$
$$+ 4\, q^{94}\, p^{14} + 2321493\, q^{121}\, p^{79} + 22315\, q^{113}\, p^{37} + 5\, p^{121}\, q^{40} + 17788465002\, p^{61}\, q^{95} + 235080\, p^{77}\, q^{16} + 5501092864\, p^{92}\, q^{48}$$
$$+ 3697319406\, p^{91}\, q^{45} + 29996565144\, p^{94}\, q^{65} + 24069027410\, p^{94}\, q^{62} + 15788568761\, p^{93}\, q^{56} + 1395\, q^{108}\, p^{27} + 182\, q^{108}\, p^{25}$$

$$+ 16216067516\, p^{94} q^{58} + 20050593326\, p^{94} q^{60} + 31831228000\, p^{95} q^{71} + 12058108959\, p^{93} q^{54} + 19532\, p^{71} q^{12} + 10410271384\, p^{93} q^{53}$$
$$+ 66603892\, p^{59} q^{21} + 247244841\, p^{60} q^{24} + 1499313074\, q^{82} p^{35} + 11190395\, p^{93} q^{29} + 4807673\, p^{56} q^{16} + 25098108\, p^{58} q^{19}$$
$$+ 69915\, p^{49} q^{10} + 128623237093\, p^{53} q^{75} + 114194107758\, p^{52} q^{75} + 143776735399\, p^{54} q^{75} + 163987102702\, p^{56} q^{76}$$
$$+ 192072865773\, p^{57} q^{75} + 159516072820\, p^{55} q^{75} + 175677218195\, p^{56} q^{75} + 539027\, q^{77} p^{17} + 299623\, q^{76} p^{16} + 1515247\, q^{79} p^{19}$$
$$+ 2997949\, q^{79} p^{20} + 18108399\, q^{79} p^{23} + 5672492\, q^{79} p^{21} + 10316014\, q^{79} p^{22} + 8371188\, q^{80} p^{22} + 25354016\, q^{80} p^{24} + 1900416\, q^{78} p^{19}$$
$$+ 3721268\, q^{78} p^{20} + 923706\, q^{78} p^{18} + 437\, q^{64} p^{8} + 1338197430\, q^{86} p^{37} + 15\, p^{119} q^{37} + 3430\, p^{129} q^{91} + 1728\, p^{127} q^{71}$$
$$+ 31831228000\, p^{65} q^{41} + 6379745715\, p^{64} q^{34} + 8322727495\, p^{64} q^{35} + 183465243813\, p^{66} q^{53} + 55354635258\, p^{65} q^{44}$$
$$+ 189042806033\, p^{55} q^{72} + 20754154\, p^{109} q^{111} + 358944718\, p^{61} q^{108} + 119712126\, p^{83} q^{114} + 161733611\, p^{88} q^{113} + 363745789\, p^{103} q^{50}$$
$$+ 8903481\, q^{119} p^{80} + 1408382\, q^{112} p^{45} + 996011\, q^{112} p^{44} + 2653276\, q^{113} p^{49} + 895071\, q^{111} p^{42} + 1890\, p^{70} q^{10} + 84\, p^{56} q^{6}$$
$$+ 18201078926\, q^{82} p^{45} + 298049\, q^{107} p^{34} + 2388861\, q^{116} p^{56} + 5128\, p^{100} q^{22} + 6891\, p^{101} q^{23} + 700\, p^{119} q^{130} + 81447143852\, p^{88} q^{81}$$
$$+ 12058108959\, q^{82} p^{43} + 51527802808\, q^{92} p^{79} + 17\, q^{90} p^{13} + 15639\, p^{76} q^{13} + 35011\, p^{77} q^{14} + 480\, p^{131} q^{101} + 119\, p^{132} q^{119} + 35\, p^{133} q^{120}$$
$$+ 1187735\, p^{28} q^{16} + 16232740985\, p^{98} q^{70} + 1130478294\, p^{94} q^{43} + 18063566\, q^{29} p^{23} + 29327596\, q^{69} p^{21} + 185215756\, q^{70} p^{25}$$
$$+ 284717154\, q^{70} p^{26} + 3020244\, q^{52} p^{15} + 28842626\, q^{54} p^{19} + 70959\, p^{124} q^{71} + 1240\, p^{116} q^{37} + 86213\, p^{126} q^{91} + p^{90} q^{12}$$
$$+ 2715704322\, p^{54} q^{99} + 417067860\, p^{87} q^{34} + 29847131\, p^{84} q^{26} + 238194092\, q^{109} p^{61} + 74438736\, q^{101} p^{41} + 7183538313\, p^{99} q^{90}$$
$$+ 9084545772\, p^{97} q^{59} + 195592170113\, p^{77} q^{81} + 1702251\, p^{19} q^{24} + 215198750163\, p^{63} q^{79} + 73909292164\, p^{46} q^{59} + 42475874\, p^{93} q^{32}$$
$$+ 5516026220\, p^{98} q^{57} + 1283479516\, p^{97} q^{47} + 4792680\, p^{89} q^{25} + 2974271712\, q^{56} p^{31} + 6683332415\, q^{56} p^{34} + 3944457266\, q^{56} p^{32}$$
$$+ 21673742\, q^{34} p^{21} + 14939444\, q^{34} p^{20} + 24852814\, q^{35} p^{21} + 11\, q^{108} p^{23} + 398102478\, p^{53} q^{25} + 55668559388\, p^{60} q^{44}$$
$$+ 140677864390\, p^{57} q^{79} + 13676531919\, p^{72} q^{99} + 17816299762\, p^{77} q^{98} + 129\, q^{77} p^{10} + 381759\, q^{109} p^{37} + 12505\, q^{19} p^{10} + 7168\, q^{19} p^{9}$$
$$+ 15248\, q^{20} p^{10} + 137564161272\, p^{59} q^{81} + 50234415702\, p^{51} q^{82} + 585157402\, q^{55} p^{26} + 832558549\, q^{55} p^{27} + 5165486036\, q^{56} p^{33}$$
$$+ 8547711266\, q^{56} p^{35} + 607079\, p^{111} q^{41} + 17243235972\, p^{98} q^{72} + 14869802632\, p^{98} q^{68} + 2641487\, p^{19} q^{26} + 6561515\, p^{19} q^{31}$$
$$+ 82452687\, p^{27} q^{31} + 109351801\, p^{29} q^{30} + 293107268\, p^{103} q^{49} + 123080199\, p^{102} q^{44} + 7\, p^{103} q^{19} + 15082\, p^{124} q^{64} + 9944755\, q^{53} p^{17}$$
$$+ 2213228309\, q^{56} p^{30} + 404205169\, q^{55} p^{25} + 274083662\, q^{55} p^{24} + 1069073943\, q^{106} p^{93} + 256514911488\, p^{75} q^{78} + 308494134\, q^{109} p^{63}$$
$$+ 338116830423\, p^{62} q^{68} + 380053740529\, p^{68} q^{67} + 814\, p^{18} q^{6} + 312\, p^{17} q^{5} + 525601\, q^{22} p^{17} + 17523885592\, q^{87} p^{49}$$
$$+ 20702440423\, q^{87} p^{50} + 1725\, p^{26} q^{6} + 575\, p^{25} q^{5} + 197457545474\, p^{73} q^{56} + 3706787856\, p^{69} q^{33} + 67636809\, p^{66} q^{22}$$

$$+ 246539344\, p^{67}\, q^{25} + 374064299\, p^{67}\, q^{26} + 109568070\, p^{66}\, q^{23} + 404\, q^{93}\, p^{16} + 28\, q^{92}\, p^{14} + 61\, q^{91}\, p^{14} + 34962\, p^{126}\, q^{80} + 15770\, p^{128}\, q^{100}$$
$$+ 147257891\, q^{36}\, p^{26} + 79816314\, q^{36}\, p^{24} + 69216453473\, p^{46}\, q^{57} + 12307587243\, q^{88}\, p^{48} + 446\, p^{36}\, q^{5} + 1338197430\, q^{99}\, p^{50}$$
$$+ 887940222\, q^{99}\, p^{48} + 1095450048\, q^{99}\, p^{49} + 1764437\, p^{118}\, q^{61} + 4531227\, p^{120}\, q^{79} + 45267397158\, p^{78}\, q^{93} + 40734133\, q^{99}\, p^{37}$$
$$+ 811719301\, q^{108}\, p^{69} + 1000052248\, q^{107}\, p^{67} + 1622686\, p^{30}\, q^{16} + 3844973827\, q^{104}\, p^{74} + 4018796886\, q^{104}\, p^{78} + 4015343714\, q^{104}\, p^{77}$$
$$+ 3013644598\, q^{105}\, p^{78} + 3984739997\, q^{104}\, p^{76} + 27020691643\, p^{94}\, q^{85} + 584047169\, p^{87}\, q^{35} + 4903577\, p^{118}\, q^{67} + 7939804479\, q^{92}\, p^{50}$$
$$+ 12883923782\, q^{92}\, p^{53} + 13850\, q^{31}\, p^{8} + 26392853026\, p^{58}\, q^{40} + 981501\, q^{34}\, p^{14} + 35928594\, q^{107}\, p^{47} + 94599865\, q^{107}\, p^{51} + 52\, q^{112}\, p^{28}$$
$$+ 167775919\, p^{101}\, q^{109} + p^{51}\, q^{4} + 1120846\, q^{95}\, p^{26} + 1993626\, q^{95}\, p^{27} + 607079\, q^{95}\, p^{25} + 28158697\, p^{55}\, q^{19} + 116727875\, p^{56}\, q^{22}$$
$$+ 333074731025\, p^{71}\, q^{63} + 319619960684\, p^{71}\, q^{62} + 304629204050\, p^{71}\, q^{61} + 29745\, q^{106}\, p^{29} + 56117875608\, p^{88}\, q^{86} + 1169494\, p^{31}\, q^{15}$$
$$+ 91226824\, p^{33}\, q^{26} + 26914\, p^{29}\, q^{9} + 115134\, p^{30}\, q^{11} + 25749163367\, p^{57}\, q^{40} + 81\, p^{63}\, q^{7} + 2330532\, p^{93}\, q^{26} + 295645222\, p^{27}\, q^{39}$$
$$+ 1156096407\, p^{33}\, q^{38} + 8066181\, q^{107}\, p^{42} + 5722352\, q^{107}\, p^{41} + 3991218\, q^{107}\, p^{40} + 1603871\, q^{108}\, p^{39} + 131714907648\, p^{51}\, q^{58}$$
$$+ 29996565144\, p^{65}\, q^{94} + 865228\, p^{123}\, q^{88} + 283040\, p^{124}\, q^{103} + 39\, p^{89}\, q^{13} + 2197454656\, p^{89}\, q^{41} + 1283479516\, p^{89}\, q^{39}$$
$$+ 887940222\, p^{88}\, q^{37} + 293107268\, p^{87}\, q^{33} + 36728895\, p^{115}\, q^{69} + 44145150\, p^{114}\, q^{66} + 31234001\, p^{113}\, q^{60} + 40620332\, p^{115}\, q^{70}$$
$$+ 55504651\, p^{114}\, q^{68} + 3112831\, p^{51}\, q^{15} + 11237793436\, p^{58}\, q^{36} + 1601238\, p^{51}\, q^{14} + 180\, q^{115}\, p^{33} + 425\, q^{115}\, p^{34} + 927\, q^{115}\, p^{35}$$
$$+ 8054\, q^{49}\, p^{8} + 153317\, q^{51}\, p^{11} + 359018\, q^{51}\, p^{12} + 65007\, q^{50}\, p^{10} + 320694683\, p^{32}\, q^{32} + 303498018\, p^{30}\, q^{34} + 316311692\, p^{31}\, q^{33}$$
$$+ 30426\, p^{118}\, q^{47} + 3\, p^{116}\, q^{31} + 2438\, p^{48}\, q^{7} + 243581538582\, p^{72}\, q^{58} + 261317933914\, p^{72}\, q^{59} + 125370381\, p^{37}\, q^{25} + 31155\, p^{31}\, q^{9}$$
$$+ 138130\, p^{32}\, q^{11} + 65363045\, p^{113}\, q^{99} + 82600195\, p^{113}\, q^{97} + 28842626\, p^{82}\, q^{117} + 109213427\, q^{36}\, p^{25} + 195811268\, q^{36}\, p^{27}$$
$$+ 298384903\, q^{37}\, p^{28} + 4828490\, q^{35}\, p^{17} + 283040\, q^{33}\, p^{12} + 69829\, q^{32}\, p^{10} + 57429244\, q^{36}\, p^{23} + 69216453473\, p^{79}\, q^{90} + 57091\, p^{82}\, q^{16}$$
$$+ 39006810969\, p^{42}\, q^{59} + 779183\, p^{97}\, q^{123} + 55668559388\, p^{44}\, q^{60} + 5405\, q^{30}\, p^{7} + 1925\, q^{29}\, p^{6} + 38\, q^{20}\, p^{3} + 14887270604\, q^{92}\, p^{54}$$
$$+ 13853162399\, q^{93}\, p^{55} + 201935\, p^{45}\, q^{11} + 432444\, p^{46}\, q^{12} + 1808411\, q^{28}\, p^{17} + 192072865773\, p^{79}\, q^{61} + 215198750163\, p^{79}\, q^{63}$$
$$+ 204009270831\, p^{79}\, q^{62} + 153700917353\, p^{79}\, q^{58} + 2690702\, q^{28}\, p^{18} + 5599827\, q^{28}\, p^{20} + 9535378\, q^{29}\, p^{21} + 10418886\, q^{90}\, p^{27}$$
$$+ 15686517271\, p^{39}\, q^{71} + 19670014766\, p^{40}\, q^{71} + 24412017708\, p^{41}\, q^{71} + 1101284330\, p^{41}\, q^{31} + 2190134940\, p^{41}\, q^{34}$$
$$+ 2696638185\, p^{41}\, q^{35} + 3750965580\, p^{42}\, q^{36} + 2521608028\, p^{38}\, q^{37} + 8322727495\, p^{101}\, q^{72} + 6974537117\, p^{101}\, q^{68} + 7131791967\, q^{79}\, p^{39}$$
$$+ 5516026220\, q^{79}\, p^{38} + 3635873578\, q^{78}\, p^{36} + 12982518\, q^{94}\, p^{30} + 2682620\, q^{89}\, p^{24} + 54425\, q^{29}\, p^{10} + 1805\, q^{27}\, p^{6} + 82312434548\, p^{58}\, q^{47}$$
$$+ 93657441871\, p^{58}\, q^{48} + 4998277\, q^{105}\, p^{38} + 2216020\, q^{105}\, p^{36} + 3362603\, q^{105}\, p^{37} + 115827551418\, p^{84}\, q^{82} + 4833\, q^{118}\, p^{43} + 5250\, p^{39}\, q^{7}$$

$$+ 5165486036\, p^{56}\, q^{33} + 5869998\, p^{50}\, q^{16} + 6775833266\, p^{75}\, q^{37} + 166728559702\, p^{79}\, q^{59} + 8954\, q^{48}\, p^{8} + 4380945958\, p^{96}\, q^{52}$$
$$+ 3288274850\, p^{95}\, q^{49} + 1076\, p^{123}\, q^{128} + 19704409\, p^{28}\, q^{24} + 12695918\, p^{60}\, q^{18} + 2152616\, p^{58}\, q^{15} + 4515319823\, q^{92}\, p^{47}$$
$$+ 9410913494\, q^{92}\, p^{51} + 128425\, p^{21}\, q^{14} + 243744\, p^{22}\, q^{15} + 82984\, p^{21}\, q^{13} + 31519\, p^{21}\, q^{11} + 4738564636\, q^{95}\, p^{51} + 5051964843\, q^{94}\, p^{50}$$
$$+ 454099\, p^{23}\, q^{16} + 7241024\, p^{66}\, q^{18} + 246917\, q^{27}\, p^{13} + 200559067\, q^{99}\, p^{42} + 3919572\, q^{28}\, p^{19} + 78032\, q^{81}\, p^{16} + 1049\, p^{116}\, q^{130}$$
$$+ 187458967205\, p^{60}\, q^{54} + 209458407442\, p^{61}\, q^{55} + 75603162655\, p^{60}\, q^{46} + 655132227\, q^{103}\, p^{53} + 782235917\, q^{103}\, p^{54}$$
$$+ 772149957\, q^{104}\, p^{56} + 1262921403\, q^{103}\, p^{57} + 925659205\, q^{103}\, p^{55} + 1085841873\, q^{103}\, p^{56} + 543645159\, q^{103}\, p^{52} + 24296093\, p^{29}\, q^{24}$$
$$+ 80747143\, p^{25}\, q^{34} + 129099599\, p^{28}\, q^{32} + 601\, p^{56}\, q^{7} + 211012090\, p^{31}\, q^{31} + 59518821\, p^{24}\, q^{34} + 30873862606\, p^{83}\, q^{94}$$
$$+ 113459021657\, p^{50}\, q^{57} + 1069073943\, p^{106}\, q^{93} + 16526302650\, p^{90}\, q^{52} + 37982\, p^{125}\, q^{114} + 16671\, p^{125}\, q^{118} + 92571\, p^{125}\, q^{108}$$
$$+ 71670\, p^{125}\, q^{110} + 376406501\, q^{94}\, p^{39} + 43338001889\, p^{50}\, q^{82} + 31452829359\, p^{48}\, q^{82} + 54329581\, p^{96}\, q^{35} + 152\, p^{132}\, q^{115}$$
$$+ 2663480\, q^{40}\, p^{15} + 410873\, p^{48}\, q^{12} + 190160\, p^{47}\, q^{11} + 155779600\, q^{97}\, p^{39} + 17243235972\, p^{72}\, q^{98} + 50713542\, p^{33}\, q^{24} + 416214\, p^{31}\, q^{13}$$
$$+ 5115528\, p^{32}\, q^{18} + 1081587563\, q^{72}\, p^{30} + 256054554\, q^{71}\, p^{26} + 530641101\, q^{61}\, p^{26} + 237175270\, q^{61}\, p^{24} + 101102784\, p^{23}\, q^{41}$$
$$+ 143562442\, p^{24}\, q^{41} + 157651403\, p^{24}\, q^{42} + 200491796\, p^{25}\, q^{41} + 275651883\, p^{26}\, q^{41} + 757247555\, p^{30}\, q^{40} + 373439860\, p^{27}\, q^{41}$$
$$+ 583566529\, p^{29}\, q^{40} + 4\, p^{122}\, q^{42} + 75774397834\, p^{80}\, q^{89} + 81447143852\, p^{81}\, q^{88} + 107988446\, p^{26}\, q^{34} + 208029760\, p^{32}\, q^{30}$$
$$+ 185554438\, p^{28}\, q^{34} + 142471055\, p^{27}\, q^{34} + 219344905\, p^{28}\, q^{35} + 42288310882\, p^{93}\, q^{80} + 8\, p^{134}\, q^{121} + 5490927\, q^{53}\, p^{16} + 12\, p^{33}\, q^{3}$$
$$+ 207829\, p^{43}\, q^{11} + 441390\, p^{44}\, q^{12} + 2145\, p^{11}\, q^{11} + 1201009\, p^{18}\, q^{24} + 29643296\, p^{30}\, q^{24} + 1406\, p^{23}\, q^{6} + 495\, p^{22}\, q^{5} + 285344\, p^{28}\, q^{13}$$
$$+ 3205618\, p^{29}\, q^{18} + 8\, p^{15}\, q^{2} + 48\, p^{70}\, q^{8} + 2901642972\, p^{75}\, q^{34} + 16140295885\, p^{76}\, q^{41} + 228498532\, p^{72}\, q^{26} + 2379714251\, p^{74}\, q^{33}$$
$$+ 104934343\, p^{71}\, q^{24} + 1291\, p^{22}\, q^{6} + 462\, p^{21}\, q^{5} + 259668028\, p^{32}\, q^{31} + 966\, p^{125}\, q^{127} + 2194\, p^{120}\, q^{128} + 31309820\, q^{94}\, p^{32}$$
$$+ 91226824\, p^{26}\, q^{33} + 164826514\, p^{29}\, q^{32} + 2570821\, q^{91}\, p^{25} + 47082329\, q^{94}\, p^{33} + 9412007\, q^{92}\, p^{28} + 70712062298\, p^{62}\, q^{88}$$
$$+ 65559705096\, p^{61}\, q^{88} + 303135\, p^{15}\, q^{23} + 152\, p^{21}\, q^{4} + 38\, p^{19}\, q^{3} + 9737\, p^{26}\, q^{8} + 165956\, p^{28}\, q^{12} + 44046\, p^{27}\, q^{10} + 2507105\, p^{30}\, q^{17}$$
$$+ 13624381\, p^{31}\, q^{21} + 8069896\, p^{30}\, q^{20} + 5580242\, p^{30}\, q^{19} + 19106639\, p^{31}\, q^{22} + 546784\, p^{29}\, q^{14} + 573608184\, p^{65}\, q^{108}$$
$$+ 5729282700\, q^{74}\, p^{36} + 7485315593\, q^{74}\, p^{37} + 9664437696\, q^{74}\, p^{38} + 12336872226\, q^{74}\, p^{39} + 97232281\, p^{114}\, q^{75} + 14341041\, p^{110}\, q^{49}$$
$$+ 5635633\, p^{109}\, q^{44} + 76164570\, p^{115}\, q^{85} + 16220493892\, p^{95}\, q^{89} + 115134\, p^{125}\, q^{106} + 203\, p^{98}\, q^{18} + 37944\, p^{113}\, q^{38} + 28\, p^{92}\, q^{14}$$
$$+ 142723\, q^{82}\, p^{17} + 17063594868\, p^{94}\, q^{90} + 54620269090\, p^{44}\, q^{59} + 93842331373\, p^{55}\, q^{81} + 93303458342\, p^{54}\, q^{80} + 8788892\, p^{27}\, q^{22}$$
$$+ 40010919486\, p^{94}\, q^{74} + 33542767936\, p^{94}\, q^{67} + 741173\, q^{91}\, p^{23} + 4526998\, q^{91}\, p^{26} + 15292438\, q^{92}\, p^{29} + 1408382\, q^{91}\, p^{24}$$

$$+ 75603162655\, p^{90} q^{76} + 77724936225\, p^{90} q^{73} + 16754232153\, p^{70} q^{39} + 73085577245\, p^{71} q^{47} + 20961798119\, p^{70} q^{40}$$
$$+ 112485263462\, p^{71} q^{50} + 38656661845\, p^{70} q^{43} + 31830159730\, p^{70} q^{42} + 54620269090\, p^{59} q^{44} + 333603087\, p^{27} q^{40}$$
$$+ 1197649529\, p^{77} q^{32} + 847375206\, p^{77} q^{31} + 113348917953\, p^{82} q^{58} + 4802667837\, p^{78} q^{37} + 123576773788\, p^{82} q^{59} + 40310653\, p^{100} q^{38}$$
$$+ 408377664\, p^{62} q^{108} + 10729704744\, p^{100} q^{72} + 9081122220\, p^{100} q^{68} + 30018431791\, p^{41} q^{56} + 6\, p^{82} q^{10} + 424065\, p^{119} q^{58}$$
$$+ 3213\, p^{107} q^{27} + 25824\, p^{125} q^{116} + 17040299\, q^{35} p^{20} + 28254544\, q^{36} p^{21} + 27465503799\, q^{88} p^{53} + 31452829359\, q^{88} p^{54}$$
$$+ 34017329027\, q^{89} p^{56} + 45069260808\, q^{88} p^{57} + 35734770051\, q^{88} p^{55} + 40285165991\, q^{88} p^{56} + 23790608795\, q^{88} p^{52} + 607\, q^{28} p^{5}$$
$$+ 35\, q^{24} p^{3} + 1082779688\, p^{68} q^{29} + 59852106\, p^{83} q^{27} + 241842427\, q^{43} p^{25} + 171808039\, q^{43} p^{24} + 335014416\, q^{43} p^{26}$$
$$+ 614916760\, q^{43} p^{28} + 457130479\, q^{43} p^{27} + 674883414\, q^{44} p^{28} + 457029771\, q^{81} p^{31} + 655798465\, q^{81} p^{32} + 68189663\, q^{80} p^{26}$$
$$+ 107633083\, q^{80} p^{27} + 925659205\, q^{81} p^{33} + 42144378\, q^{80} p^{25} + 5152286419\, p^{43} q^{37} + 1174513883\, q^{56} p^{28} + 16968519\, q^{54} p^{18}$$
$$+ 2485692305\, p^{34} q^{42} + 143562442\, p^{41} q^{24} + 12126593\, p^{40} q^{18} + 275651883\, p^{41} q^{26} + 1992573512\, p^{42} q^{33} + 4261154\, p^{39} q^{16}$$
$$+ 960500197\, p^{42} q^{30} + 735475159\, p^{42} q^{29} + 1580175819\, p^{42} q^{32} + 128208023\, p^{72} q^{113} + 109568070\, p^{70} q^{113} + 118961615\, p^{71} q^{113}$$
$$+ 67636809\, p^{70} q^{114} + 137166797\, p^{73} q^{113} + 145691848\, p^{74} q^{113} + 153640470\, p^{75} q^{113} + 64826\, p^{105} q^{126} + 62141\, p^{111} q^{125}$$
$$+ 311143921008\, p^{73} q^{63} + 297688422946\, p^{73} q^{62} + 282878203936\, p^{73} q^{61} + 5187\, p^{29} q^{7} + 13154\, p^{30} q^{8} + 283040\, p^{33} q^{12}$$
$$+ 69829\, p^{32} q^{10} + 4828490\, p^{35} q^{17} + 28254544\, p^{36} q^{21} + 981501\, p^{34} q^{14} + 105736065143\, p^{58} q^{49} + 118459209430\, p^{58} q^{50}$$
$$+ 2577299\, q^{73} p^{18} + 2691\, p^{119} q^{128} + 10236661\, q^{76} p^{21} + 177942025\, q^{77} p^{27} + 71985467\, q^{77} p^{25} + 114512265\, q^{77} p^{26} + 44113452\, q^{77} p^{24}$$
$$+ 137364173590\, p^{64} q^{84} + 93116067466\, p^{60} q^{85} + 138242970677\, p^{51} q^{69} + 11449293\, q^{35} p^{19} + 149350\, q^{33} p^{11} + 895071\, q^{94} p^{25}$$
$$+ 14939444\, p^{34} q^{20} + 10093991\, p^{34} q^{19} + 35572128\, p^{35} q^{22} + 50032165\, p^{35} q^{23} + 1020\, p^{126} q^{126} + 1460\, p^{125} q^{126} + 167775919\, p^{35} q^{27}$$
$$+ 256958230\, p^{36} q^{28} + 79245722278\, p^{47} q^{57} + 109351801\, p^{107} q^{106} + 33071\, q^{32} p^{9} + 30112753578\, p^{47} q^{81} + 145064\, q^{27} p^{12}$$
$$+ 223525160487\, p^{70} q^{56} + 4436631453\, p^{66} q^{33} + 85968128\, p^{63} q^{22} + 306981752\, p^{64} q^{25} + 23806708\, q^{117} p^{77} + 65147472072\, p^{45} q^{60}$$
$$+ 126393675869\, p^{58} q^{81} + 5\, p^{56} q^{5} + 1325270\, q^{32} p^{15} + 711377\, p^{115} q^{49} + 246917\, p^{27} q^{13} + 2690702\, p^{28} q^{18} + 33619\, p^{117} q^{124}$$
$$+ 1208475\, p^{107} q^{37} + 550661\, p^{105} q^{33} + 28104607\, p^{111} q^{54} + 36770018\, q^{75} p^{23} + 4226387\, q^{74} p^{19} + 12221108\, q^{75} p^{21}$$
$$+ 107633083\, p^{109} q^{56} + 228498532\, p^{110} q^{64} + 89373600\, p^{109} q^{55} + 272252070\, p^{112} q^{80} + 236385042\, p^{112} q^{88} + 36986803\, p^{113} q^{103}$$
$$+ 129250968\, p^{113} q^{92} + 1488854\, p^{102} q^{32} + 166154\, p^{98} q^{25} + 256054554\, p^{110} q^{65} + 306981752\, p^{111} q^{72} + 224061595497\, p^{77} q^{79}$$
$$+ 75111\, p^{117} q^{47} + 143678579788\, p^{80} q^{83} + 284257068\, q^{95} p^{39} + 383030076\, q^{95} p^{40} + 509335741\, q^{95} p^{41} + 51084\, p^{115} q^{42} + 425\, p^{102} q^{21}$$

$$+ 3291\, p^{108} q^{28} + 2958493369\, p^{39} q^{37} + 84919661009\, p^{59} q^{47} + 96792453106\, p^{59} q^{48} + 5245550964\, p^{57} q^{33} + 5782834\, p^{51} q^{16}$$
$$+ 1341264908\, p^{33} q^{39} + 42783903\, q^{106} p^{46} + 1488854\, q^{104} p^{34} + 177869\, q^{91} p^{21} + 73845359\, p^{56} q^{21} + 268562210\, p^{57} q^{24}$$
$$+ 62470661938\, p^{87} q^{86} + 171225791973\, p^{72} q^{54} + 58726515426\, p^{72} q^{46} + 179872808496\, p^{73} q^{55} + 63754368\, p^{22} q^{40}$$
$$+ 1548129001\, p^{107} q^{75} + 26448785597\, p^{47} q^{82} + 22035742518\, p^{93} q^{89} + 25149972454\, p^{46} q^{81} + 577928005\, p^{98} q^{106}$$
$$+ 185900201005\, p^{82} q^{66} + 21890055660\, p^{79} q^{44} + 56931311\, p^{72} q^{23} + 104403673043\, p^{81} q^{56} + 190307362819\, p^{56} q^{57}$$
$$+ 173238193294\, p^{54} q^{58} + 218473731549\, p^{60} q^{56} + 3017200\, q^{35} p^{16} + 1657894\, q^{34} p^{15} + 40759\, p^{118} q^{123} + 17574062485\, p^{78} q^{98}$$
$$+ 17055900024\, p^{84} q^{97} + 18054917724\, p^{83} q^{97} + 2881001\, p^{68} q^{17} + 3670379307\, q^{92} p^{46} + 5501092864\, q^{92} p^{48} + 11058122379\, q^{92} p^{52}$$
$$+ 6639225811\, q^{92} p^{49} + 48\, p^{39} q^{4} + 40285165991\, p^{80} q^{48} + 26583088718\, p^{79} q^{45} + 11043654005\, p^{69} q^{37} + 85076553750\, p^{71} q^{48}$$
$$+ 55458786244\, p^{70} q^{45} + 811719301\, p^{67} q^{28} + 18779\, p^{52} q^{9} + 28960596211\, p^{91} q^{89} + 371827\, p^{124} q^{99} + 1187\, p^{106} q^{25} + 12433\, p^{110} q^{32}$$
$$+ 2367477\, q^{108} p^{40} + 352600696622\, p^{64} q^{70} + 76238057065\, p^{49} q^{75} + 17789860\, q^{118} p^{85} + 17361990\, q^{118} p^{83} + 17637809\, q^{118} p^{84}$$
$$+ 17815458\, q^{118} p^{86} + 17486425\, q^{118} p^{88} + 17713489\, q^{118} p^{87} + 17138223\, q^{118} p^{89} + 16109018\, q^{118} p^{91} + 16676245\, q^{118} p^{90}$$
$$+ 2142013897\, q^{61} p^{30} + 743372560\, q^{62} p^{27} + 1548129001\, q^{61} p^{29} + 771309753\, q^{61} p^{27} + 1101736780\, q^{61} p^{28} + 303188425993\, p^{60} q^{69}$$
$$+ 50974628484\, p^{87} q^{88} + 56117875608\, p^{86} q^{88} + 100053\, q^{96} p^{23} + 5\, p^{69} q^{7} + 612\, p^{125} q^{128} + 806\, p^{104} q^{23} + 440800\, p^{124} q^{93}$$
$$+ 406025\, p^{124} q^{97} + 6\, p^{19} q^{2} + 150115012587\, p^{52} q^{70} + 34232740236\, p^{43} q^{72} + 1321\, p^{9} q^{12} + 623\, p^{7} q^{13} + 822\, p^{8} q^{12}$$
$$+ 28471281765\, q^{80} p^{46} + 795123644\, p^{32} q^{37} + 539651963\, p^{31} q^{36} + 7\, p^{17} q^{2} + 161\, p^{23} q^{4} + 38\, p^{21} q^{3} + 19272086\, p^{36} q^{20}$$
$$+ 12876959\, p^{36} q^{19} + 46042524\, p^{37} q^{22} + 65363045\, p^{37} q^{23} + 226545298\, p^{37} q^{27} + 343532263\, p^{38} q^{28} + 560266\, p^{34} q^{13}$$
$$+ 1657894\, p^{34} q^{15} + 371827\, q^{37} p^{12} + 1258594\, q^{37} p^{14} + 2347731\, q^{38} p^{15} + 15625\, q^{35} p^{8} + 5812\, q^{35} p^{7} + 741166\, q^{38} p^{13}$$
$$+ 187684\, q^{37} p^{11} + 14887270604\, q^{82} p^{44} + 7288881\, q^{105} p^{39} + 550661\, q^{103} p^{31} + 853272777\, p^{89} q^{108} + 608265\, q^{35} p^{13} + 74539\, q^{33} p^{10}$$
$$+ 160088\, q^{34} p^{11} + 170203\, q^{35} p^{11} + 3584226792\, p^{98} q^{54} + 81860\, p^{125} q^{109} + 100\, p^{97} q^{17} + 606\, p^{103} q^{22} + 31519\, p^{125} q^{115}$$
$$+ 138130\, q^{32} p^{11} + 179269830943\, p^{80} q^{80} + 28842626\, p^{54} q^{19} + 118540547\, p^{55} q^{22} + 117661214896\, p^{72} q^{87} + 3590688778\, q^{93} p^{47}$$
$$+ 577928005\, p^{30} q^{38} + 143158107\, p^{94} q^{36} + 24229610\, p^{92} q^{30} + 63470380\, p^{93} q^{33} + 383030076\, p^{95} q^{40} + 284257068\, p^{95} q^{39}$$
$$+ 200559067\, p^{94} q^{37} + 559017\, q^{104} p^{32} + 924892\, q^{104} p^{33} + 323693715846\, p^{61} q^{68} + 5300308139\, p^{33} q^{59} + 383512140\, p^{25} q^{59}$$
$$+ 6910381182\, p^{34} q^{59} + 8903388071\, p^{35} q^{59} + 47686334626\, p^{93} q^{73} + 47161668008\, p^{93} q^{76} + 5290775132\, q^{58} p^{33} + 19106639\, p^{22} q^{31}$$
$$+ 182362454\, p^{53} q^{23} + 7971746\, q^{74} p^{20} + 735471649\, q^{78} p^{31} + 231964245\, q^{78} p^{28} + 589701124\, q^{77} p^{30} + 347198666\, q^{78} p^{29}$$

$$+ 151835828\, q^{78}\, p^{27} + 509858945\, q^{78}\, p^{30} + 21544614\, q^{75}\, p^{22} + 18179616\, q^{76}\, p^{22} + 2003712739\, q^{78}\, p^{34} + 5513339986\, p^{102}\, q^{85}$$
$$+ 7906\, q^{24}\, p^{8} + 53307\, q^{24}\, p^{11} + 370373\, p^{106}\, q^{123} + 46360891298\, p^{93}\, q^{77} + 177764185948\, p^{68}\, q^{83} + 2992872101\, p^{38}\, q^{38}$$
$$+ 112891206\, q^{97}\, p^{38} + 2350338817\, p^{35}\, q^{40} + 3969135922\, p^{41}\, q^{37} + 165973601959\, p^{59}\, q^{53} + 106971286481\, p^{49}\, q^{69}$$
$$+ 3520683915\, p^{39}\, q^{38} + 6965283811\, p^{101}\, q^{85} + 102852554683\, p^{49}\, q^{70} + 238194092\, q^{75}\, p^{27} + 272172038\, q^{74}\, p^{27} + 408377664\, q^{74}\, p^{28}$$
$$+ 601044455\, q^{74}\, p^{29} + 116632941776\, p^{62}\, q^{49} + 8217688531\, p^{91}\, q^{49} + 267175024\, p^{70}\, q^{111} + 823180135\, p^{82}\, q^{109} + 763373049\, p^{85}\, q^{109}$$
$$+ 45532318\, p^{56}\, q^{20} + 392639510\, p^{58}\, q^{25} + 476\, p^{57}\, q^{7} + 8109679\, p^{65}\, q^{18} + 110504099782\, p^{68}\, q^{87} + 113386619241\, p^{69}\, q^{87} + p^{15}\, q$$
$$+ 1844\, p^{50}\, q^{7} + 88573842011\, p^{89}\, q^{75} + 373937261599\, p^{70}\, q^{67} + 782235917\, q^{82}\, p^{33} + 552070342\, q^{82}\, p^{32} + 880772\, p^{93}\, q^{123}$$
$$+ 613061\, p^{81}\, q^{123} + 292245\, p^{82}\, q^{124} + 2330532\, q^{93}\, p^{26} + 517101\, q^{92}\, p^{23} + 1707384\, p^{92}\, q^{122} + 57658310\, p^{22}\, q^{39} + 3182453589\, p^{57}\, q^{100}$$
$$+ 414766761\, p^{27}\, q^{42} + 816039675\, p^{29}\, q^{43} + 960500197\, p^{30}\, q^{42} + 556028338\, p^{28}\, q^{42} + 735475159\, p^{29}\, q^{42} + 1577\, p^{51}\, q^{7} + 86621\, p^{57}\, q^{11}$$
$$+ 853360\, p^{60}\, q^{14} + 423065\, p^{59}\, q^{13} + 31139049\, p^{73}\, q^{116} + 58918\, p^{70}\, q^{124} + 24092\, p^{71}\, q^{125} + 219831459\, p^{97}\, q^{110} + 225012000\, p^{89}\, q^{112}$$
$$+ 21929885\, p^{113}\, q^{106} + 93053822\, q^{102}\, p^{43} + 138772480738\, p^{52}\, q^{57} + 190307362819\, p^{57}\, q^{56} + 4015343714\, p^{59}\, q^{32} + 826542342\, p^{58}\, q^{27}$$
$$+ 3002713021\, p^{59}\, q^{31} + 32957738093\, p^{60}\, q^{41} + 6910381182\, p^{59}\, q^{34} + 8903388071\, p^{59}\, q^{35} + 20\, p^{43}\, q^{4} + 856238676\, p^{30}\, q^{41}$$
$$+ 1101284330\, p^{31}\, q^{41} + 1239179420\, p^{31}\, q^{42} + 1400176493\, p^{32}\, q^{41} + 1760541682\, p^{33}\, q^{41} + 172389\, q^{93}\, p^{22} + 21513\, q^{92}\, p^{19}$$
$$+ 3010\, p^{121}\, q^{127} + 623\, p^{129}\, q^{123} + 2367477\, q^{96}\, p^{28} + 6717\, q^{85}\, p^{15} + 1914125192\, p^{34}\, q^{40} + 388041461\, p^{99}\, q^{107} + 9566080121\, p^{69}\, q^{100}$$
$$+ 10007564143\, p^{70}\, q^{100} + 11319910554\, p^{75}\, q^{100} + 8322727495\, p^{72}\, q^{101} + 11195168576\, p^{74}\, q^{100} + 10729704744\, p^{72}\, q^{100}$$
$$+ 10997171728\, p^{73}\, q^{100} + 82432082458\, p^{84}\, q^{86} + 388041461\, q^{37}\, p^{29} + 1291976\, q^{85}\, p^{21} + 854297\, q^{84}\, p^{20} + 370373\, p^{13}\, q^{30}$$
$$+ 1022684\, p^{15}\, q^{30} + 19568\, p^{66}\, q^{11} + 42155770\, p^{26}\, q^{29} + 126679\, q^{31}\, p^{11} + 426351048\, p^{106}\, q^{100} + 9248243\, p^{69}\, q^{19}$$
$$+ 218986082966\, p^{81}\, q^{69} + 221028297185\, p^{81}\, q^{70} + 85\, p^{132}\, q^{122} + 6718\, p^{82}\, q^{14} + 1115\, p^{76}\, q^{11} + 93303458342\, p^{80}\, q^{54}$$
$$+ 115294718434\, p^{81}\, q^{57} + 6266398115\, p^{78}\, q^{38} + 82749435472\, p^{80}\, q^{53} + q^{76}\, p^{8} + 148657546173\, p^{81}\, q^{60} + 13461719929\, p^{39}\, q^{73}$$
$$+ 361507554601\, p^{64}\, q^{68} + 180443404\, p^{40}\, q^{25} + 36322\, p^{34}\, q^{9} + 170203\, p^{35}\, q^{11} + 5715\, p^{32}\, q^{7} + 14968\, p^{33}\, q^{8} + 351625\, p^{36}\, q^{12}$$
$$+ 82844\, p^{35}\, q^{10} + 6461325\, p^{38}\, q^{17} + 39508985\, p^{39}\, q^{21} + 1258594\, p^{37}\, q^{14} + 26537312\, p^{39}\, q^{20} + 17443668\, p^{39}\, q^{19} + 63754368\, p^{40}\, q^{22}$$
$$+ 91742944\, p^{40}\, q^{23} + 333603087\, p^{40}\, q^{27} + 498901083\, p^{41}\, q^{28} + 699523\, p^{37}\, q^{13} + 2178459\, p^{37}\, q^{15} + 1879\, q^{100}\, p^{21} + 165\, p^{132}\, q^{112}$$
$$+ 42\, p^{127}\, q^{61} + 159\, p^{129}\, q^{75} + 13154\, q^{30}\, p^{8} + 71840968\, q^{88}\, p^{30} + 3991826203\, q^{83}\, p^{39} + 161120792\, p^{25}\, q^{39} + 47161668008\, p^{43}\, q^{60}$$
$$+ 22241154328\, p^{39}\, q^{61} + 131548317054\, p^{62}\, q^{50} + 1153796214\, p^{59}\, q^{28} + 66566372085\, p^{62}\, q^{45} + 39940870286\, p^{61}\, q^{42}$$

$$+ 17944039023\, p^{61} q^{38} + 47654702918\, p^{61} q^{43} + 14328581339\, p^{61} q^{37} + 22241154328\, p^{61} q^{39} + 92742986\, p^{64} q^{112}$$
$$+ 287427060\, p^{71} q^{111} + 246539344\, p^{69} q^{111} + 225817640\, p^{68} q^{111} + 205291861\, p^{67} q^{111} + 35800412\, p^{105} q^{112} + 3671204948\, p^{56} q^{99}$$
$$+ 1065517403\, p^{74} q^{108} + 15197549\, q^{77} p^{22} + 332983787\, q^{36} p^{29} + 4833\, q^{93} p^{18} + 15367\, q^{34} p^{8} + 36322\, q^{34} p^{9} + 1167977\, q^{36} p^{14}$$
$$+ 27294729\, q^{117} p^{80} + 26268220\, q^{117} p^{79} + 20952563\, q^{117} p^{75} + 22416637\, q^{117} p^{76} + 25098108\, q^{117} p^{78} + 69069184244\, p^{47} q^{72}$$
$$+ 106872970134\, p^{50} q^{72} + 93158161119\, p^{49} q^{72} + 55012014231\, p^{46} q^{73} + 80547500606\, p^{48} q^{72} + 17875021853\, p^{95} q^{88}$$
$$+ 26052757333\, p^{95} q^{83} + 868804000\, q^{74} p^{30} + 187458967205\, p^{54} q^{60} + 1429\, p^{119} q^{129} + 972\, p^{121} q^{129} + 927\, p^{117} q^{130} + 159\, q^{61} p^{7}$$
$$+ 2855\, q^{63} p^{9} + 16680638\, q^{82} p^{24} + 46039269\, q^{82} p^{26} + 144970421\, p^{68} q^{112} + 2392\, q^{98} p^{20} + 760\, q^{98} p^{19} + 156295083770\, p^{52} q^{60}$$
$$+ 101308820419\, p^{48} q^{61} + 213657180369\, p^{57} q^{58} + 175814\, p^{59} q^{12} + 233377189940\, p^{60} q^{57} + 14203478653\, p^{74} q^{99}$$
$$+ 225954702944\, p^{58} q^{58} + 55064045200\, p^{56} q^{86} + 848722\, q^{120} p^{65} + 272570095765\, p^{58} q^{68} + 303498018\, p^{34} q^{30} + 1945635012\, q^{87} p^{39}$$
$$+ 736325622\, p^{31} q^{38} + 219831459\, p^{26} q^{39} + 744289\, p^{84} q^{123} + 256767005368\, p^{72} q^{79} + 55354635258\, p^{71} q^{92} + 511806\, q^{33} p^{13}$$
$$+ 598134\, p^{63} q^{14} + 293119\, p^{62} q^{13} + 1175591876\, p^{79} q^{108} + 12983730\, p^{103} q^{116} + 11183771\, p^{104} q^{116} + 9545055\, p^{105} q^{116}$$
$$+ 8069896\, p^{106} q^{116} + 6756293\, p^{116} q^{107} + 518\, p^{130} q^{88} + 35618552\, p^{21} q^{38} + 835358\, p^{110} q^{120} + 9801996488\, p^{86} q^{45}$$
$$+ 1442617778\, p^{84} q^{36} + 40285165991\, p^{88} q^{56} + 14703289560\, p^{87} q^{48} + 123879126608\, p^{84} q^{81} + 142711485\, p^{38} q^{25} + 33071\, p^{32} q^{9}$$
$$+ 149350\, p^{33} q^{11} + 199289\, p^{74} q^{15} + 110740251\, q^{96} p^{37} + 37069204\, q^{96} p^{34} + 54329581\, q^{96} p^{35} + 154326763\, q^{96} p^{38}$$
$$+ 103434773\, p^{24} q^{38} + 46042524\, p^{22} q^{37} + 46854729938\, q^{89} p^{59} + 55904960351\, q^{89} p^{61} + 64822181854\, q^{89} p^{63} + 60411891560\, q^{89} p^{62}$$
$$+ 69069184244\, q^{89} p^{64} + 76804983147\, q^{89} p^{66} + 73085577245\, q^{89} p^{65} + 65546134394\, q^{90} p^{66} + 51365700358\, q^{89} p^{60}$$
$$+ 42427673262\, q^{89} p^{58} + 65363045\, p^{23} q^{37} + 380053740529\, p^{69} q^{68} + 1589\, q^{59} p^{8} + 76069929\, q^{84} p^{28} + 213432097\, q^{85} p^{31}$$
$$+ 117257778\, q^{84} p^{29} + 176978992\, q^{84} p^{30} + 241842427\, p^{93} q^{111} + 20671394\, q^{81} p^{24} + 59852106\, q^{83} p^{27} + 93836871\, q^{83} p^{28}$$
$$+ 143874543\, q^{83} p^{29} + 13316877\, q^{112} p^{53} + 20671394\, q^{112} p^{55} + 10514129\, q^{112} p^{52} + 16680638\, q^{112} p^{54} + 6674245\, q^{34} p^{18}$$
$$+ 444130765\, p^{28} q^{40} + 2105171579\, p^{36} q^{38} + 849067057\, p^{31} q^{39} + 1072993350\, p^{32} q^{39} + 1294775\, q^{111} p^{43} + 1839722\, q^{111} p^{44}$$
$$+ 2570821\, q^{111} p^{45} + 1958963\, q^{112} p^{46} + 93657441871\, p^{48} q^{58} + 2284867188\, q^{102} p^{59} + 2584897553\, q^{102} p^{60} + 85916885273\, p^{88} q^{80}$$
$$+ 151793302492\, p^{53} q^{57} + 1773\, p^{123} q^{127} + 59518821\, p^{34} q^{24} + 463527\, p^{32} q^{13} + 5868826\, p^{33} q^{18} + 498548374\, p^{99} q^{106} + 199\, p^{122} q^{131}$$
$$+ 235\, p^{121} q^{131} + 38\, p^{115} q^{133} + 112485263462\, p^{50} q^{71} + 125944943580\, p^{51} q^{57} + 3309626\, q^{67} p^{17} + 179269830943\, p^{56} q^{56}$$
$$+ 371827\, p^{99} q^{124} + 19242579\, p^{101} q^{37} + 383179381\, p^{105} q^{54} + 5405\, p^{129} q^{106} + 3\, p^{102} q^{18} + 4018796886\, p^{58} q^{32} + 834253484\, p^{57} q^{27}$$

$$+ 3013644598\, p^{58}\, q^{31} + 32525032819\, p^{59}\, q^{41} + 6880361953\, p^{58}\, q^{34} + 8842944193\, p^{58}\, q^{35} + 1396\, p^{40}\, q^{6} + 17769903413\, p^{69}\, q^{39}$$
$$+ 76804983147\, p^{70}\, q^{47} + 22183271870\, p^{69}\, q^{40} + 117585445819\, p^{70}\, q^{50} + 40654261953\, p^{69}\, q^{43} + 33542767936\, p^{69}\, q^{42}$$
$$+ 797568\, p^{104}\, q^{122} + 361955\, p^{114}\, q^{120} + 1488723\, p^{103}\, q^{121} + 198\, q^{125}\, p^{56} + 1870696\, p^{66}\, q^{16} + 24\, p^{127}\, q^{60} + 48\, p^{128}\, q^{66}$$
$$+ 3688511039\, p^{51}\, q^{96} + 2701166963\, p^{48}\, q^{95} + 14536394389\, p^{59}\, q^{95} + 3288274850\, p^{49}\, q^{95} + 3965469871\, p^{50}\, q^{95} + 1239179420\, p^{42}\, q^{31}$$
$$+ 2485692305\, p^{42}\, q^{34} + 3068825281\, p^{42}\, q^{35} + 4245679890\, p^{43}\, q^{36} + 404\, p^{93}\, q^{16} + 330\, p^{91}\, q^{15} + 987918855\, p^{37}\, q^{33} + 2711903\, p^{34}\, q^{16}$$
$$+ 12433\, p^{104}\, q^{26} + 930039\, p^{117}\, q^{55} + 372654\, p^{114}\, q^{45} + 692029\, p^{93}\, q^{24} + 248921240172\, p^{57}\, q^{69} + 12779826\, q^{91}\, p^{28} + 134018913\, q^{93}\, p^{35}$$
$$+ 1130478294\, q^{94}\, p^{43} + 874707086\, q^{94}\, p^{42} + 189815062\, q^{93}\, p^{36} + 1444418277\, q^{94}\, p^{44} + 657710581\, q^{93}\, p^{40} + 20602646\, q^{91}\, p^{29}$$
$$+ 37264353\, q^{83}\, p^{26} + 836753226\, p^{33}\, q^{36} + 343532263\, p^{28}\, q^{38} + 226545298\, p^{27}\, q^{37} + 1214837889\, p^{34}\, q^{37} + 160\, p^{67}\, q^{8} + 1325270\, p^{32}\, q^{15}$$
$$+ 107988446\, p^{34}\, q^{26} + 1608\, p^{61}\, q^{125} + 38000741521\, p^{50}\, q^{83} + 151244886205\, p^{84}\, q^{77} + 131714907648\, p^{85}\, q^{78} + 165655377016\, p^{84}\, q^{73}$$
$$+ 156295083770\, p^{84}\, q^{76} + 351625\, q^{36}\, p^{12} + 14968\, q^{33}\, p^{8} + 2638942317\, q^{73}\, p^{33} + 8705867597\, p^{100}\, q^{85} + 498597\, q^{110}\, p^{39}$$
$$+ 86213\, p^{45}\, q^{10} + 865228\, p^{48}\, q^{13} + 17789860\, p^{51}\, q^{18} + 20162945080\, p^{45}\, q^{44} + 25868259871\, p^{46}\, q^{45} + 22746638\, p^{95}\, q^{32}$$
$$+ 2570821\, p^{91}\, q^{25} + 11108213640\, p^{45}\, q^{40} + 52576678888\, p^{45}\, q^{71} + 539\, p^{131}\, q^{103} + 236\, p^{130}\, q^{84} + 517101\, p^{92}\, q^{23} + 20114\, p^{85}\, q^{16}$$
$$+ 3520683915\, p^{38}\, q^{39} + 1883373\, q^{114}\, p^{50} + 221041885\, p^{42}\, q^{25} + 7540211\, p^{40}\, q^{17} + 1427151\, p^{39}\, q^{14} + 31570329\, p^{41}\, q^{20}$$
$$+ 20530053\, p^{41}\, q^{19} + 76153162\, p^{42}\, q^{22} + 110561130\, p^{42}\, q^{23} + 414766761\, p^{42}\, q^{27} + 614916760\, p^{43}\, q^{28} + 2510423\, p^{39}\, q^{15}$$
$$+ 6974537117\, p^{68}\, q^{101} + 7365483450\, p^{69}\, q^{101} + 2228999923\, p^{57}\, q^{30} + 585712239\, p^{56}\, q^{26} + 1630806905\, p^{57}\, q^{29} + 47477688\, p^{41}\, q^{21}$$
$$+ 259878560\, p^{109}\, q^{98} + 460541665\, p^{104}\, q^{53} + 17\, q^{53}\, p^{5} + 372\, q^{58}\, p^{7} + 359018\, p^{51}\, q^{12} + 163748\, p^{50}\, q^{11} + 9305659\, p^{55}\, q^{17}$$
$$+ 27293760478\, p^{61}\, q^{40} + 14341041\, q^{87}\, p^{26} + 2653276\, q^{87}\, p^{23} + 4817765\, q^{87}\, p^{24} + 89552724784\, p^{62}\, q^{47} + 102606316465\, p^{62}\, q^{48}$$
$$+ 2220795\, q^{115}\, p^{53} + 6404631\, q^{88}\, p^{25} + 150479\, p^{24}\, q^{13} + 1168\, p^{21}\, q^{6} + 426\, p^{20}\, q^{5} + 13827\, p^{23}\, q^{9} + 53307\, p^{24}\, q^{11} + 1494171\, p^{25}\, q^{18}$$
$$+ 71179456439\, q^{90}\, p^{68} + 73424009601\, q^{90}\, p^{69} + 77401271425\, q^{90}\, p^{72} + 76564361079\, q^{90}\, p^{71} + 76817361661\, q^{90}\, p^{75}$$
$$+ 73909292164\, q^{90}\, p^{77} + 62065973524\, q^{91}\, p^{78} + 77724936225\, q^{90}\, p^{73} + 75603162655\, q^{90}\, p^{76} + 248973\, p^{73}\, q^{15} + 160768164\, q^{102}\, p^{45}$$
$$+ 207494705\, q^{102}\, p^{46} + 888523\, q^{33}\, p^{14} + 1481\, q^{117}\, p^{39} + 30426\, q^{118}\, p^{47} + 45245\, q^{118}\, p^{48} + 2729\, q^{117}\, p^{40} + 38021236\, q^{108}\, p^{49}$$
$$+ 29498391\, q^{108}\, p^{48} + 48440839\, q^{108}\, p^{50} + 32950983\, q^{68}\, p^{21} + 6412455\, q^{67}\, p^{18} + 455863529\, p^{35}\, q^{31} + 583931793\, p^{33}\, q^{34}$$
$$+ 474482730\, p^{32}\, q^{34} + 711420613\, p^{34}\, q^{34} + 858331060\, p^{35}\, q^{34} + 583931793\, p^{34}\, q^{33} + 3\, p^{134}\, q^{110} + 37509741\, q^{92}\, p^{31} + 32409239\, q^{91}\, p^{30}$$
$$+ 24229610\, q^{92}\, p^{30} + 123080199\, q^{92}\, p^{34} + 15639\, p^{123}\, q^{60} + 24977\, p^{124}\, q^{66} + 21544614\, p^{61}\, q^{114} + 7706\, p^{96}\, q^{20} + 454099\, p^{120}\, q^{113}$$

$$+ 57548708678\, p^{91} q^{80} + 6558357029\, p^{69} q^{35} + 161210619877\, p^{71} q^{53} + 1689641499\, p^{89} q^{40} + 46511894742\, p^{70} q^{44}$$
$$+ 3927580173\, p^{32} q^{61} + 3692\, p^{120} q^{47} + 2121279400\, p^{72} q^{32} + 75816\, p^{84} q^{17} + 1526548567\, p^{72} q^{31} + 76238057065\, p^{75} q^{49}$$
$$+ 278396121495\, p^{76} q^{64} + 105736065143\, p^{49} q^{58} + 12782078\, q^{116} p^{65} + 426\, p^{131} q^{116} + 186893708872\, p^{74} q^{56} + 3442165264\, p^{70} q^{33}$$
$$+ 61507325\, p^{67} q^{22} + 225817640\, p^{68} q^{25} + 344091920\, p^{68} q^{26} + 100164025\, p^{67} q^{23} + 1624157209\, p^{107} q^{80} + 1226212009\, p^{107} q^{88}$$
$$+ 924411508\, q^{108} p^{71} + 1626330161\, p^{107} q^{78} + 176618865898\, p^{53} q^{61} + 117538370130\, p^{49} q^{63} + 147240026181\, p^{51} q^{62}$$
$$+ 202445766780\, p^{64} q^{54} + 221605535272\, p^{65} q^{55} + 77401271425\, p^{64} q^{46} + 5\, p^{132} q^{88} + 179018877143\, p^{54} q^{71} + 127805149885\, p^{51} q^{71}$$
$$+ 54763\, p^{126} q^{84} + 539\, p^{33} q^{5} + 114962015550\, p^{61} q^{49} + 89114279336\, p^{83} q^{86} + 188934\, q^{105} p^{31} + 28597\, q^{105} p^{28} + 105051\, q^{105} p^{30}$$
$$+ 56104\, q^{105} p^{29} + 141151946575\, p^{60} q^{51} + 156295083770\, p^{60} q^{52} + 33556\, p^{45} q^{9} + 12431\, p^{44} q^{8} + 722\, p^{127} q^{68} + 756\, p^{125} q^{59}$$
$$+ 526\, p^{131} q^{113} + 205291861\, q^{69} p^{25} + 18958776\, q^{68} p^{20} + 10535472\, q^{68} p^{19} + 702290933\, p^{33} q^{35} + 1038782405\, p^{35} q^{35}$$
$$+ 1497173093\, p^{36} q^{36} + 455863529\, p^{31} q^{35} + 6123691894\, q^{70} p^{35} + 19815210959\, q^{55} p^{39} + 24013560773\, p^{81} q^{96} + 2379714251\, q^{103} p^{62}$$
$$+ 2129720535\, q^{103} p^{61} + 8\, p^{14} q^{2} + 460924754\, p^{63} q^{108} + 45549932271\, p^{84} q^{91} + 5405\, p^{30} q^{7} + 13850\, p^{31} q^{8} + 306820\, p^{34} q^{12}$$
$$+ 74539\, p^{33} q^{10} + 5364282\, p^{36} q^{17} + 31854191\, p^{37} q^{21} + 1075065\, p^{35} q^{14} + 3\, p^{124} q^{47} + 165\, p^{24} q^{4} + 37\, p^{22} q^{3} + 21615131\, p^{37} q^{20}$$
$$+ 14363544\, p^{37} q^{19} + 51733127\, p^{38} q^{22} + 73777073\, p^{38} q^{23} + 259878560\, p^{38} q^{27} + 392209862\, p^{39} q^{28} + 608265\, p^{35} q^{13}$$
$$+ 1830902\, p^{35} q^{15} + 1725\, q^{26} p^{6} + 575\, q^{25} p^{5} + 633040484\, q^{105} p^{57} + 5115528\, p^{18} q^{32} + p^{115} q^{29} + 147\, p^{124} q^{52} + 1577\, p^{129} q^{85}$$
$$+ 1113\, p^{129} q^{83} + 2185703746\, p^{30} q^{60} + 563588848\, p^{26} q^{59} + 417\, p^{124} q^{54} + 33821068526\, p^{86} q^{92} + 55904960351\, p^{89} q^{61}$$
$$+ 64822181854\, p^{89} q^{63} + 3072564\, p^{98} q^{30} + 8413230\, p^{99} q^{33} + 144532\, p^{101} q^{27} + 10418886\, p^{109} q^{46} + 23647102\, p^{110} q^{51}$$
$$+ 8066181\, p^{107} q^{42} + 13872428\, p^{109} q^{47} + 4634629922\, p^{60} q^{100} + 22241154328\, p^{75} q^{97} + 16254\, p^{101} q^{24} + 128419786\, p^{57} q^{109}$$
$$+ 128623237093\, p^{83} q^{61} + 145998297539\, p^{83} q^{63} + 137512985371\, p^{83} q^{62} + 6626\, p^{59} q^{9} + 161210619877\, p^{83} q^{65} + 361370226\, p^{35} q^{30}$$
$$+ 21890055660\, q^{79} p^{44} + 17853650816\, q^{79} p^{43} + 11525548452\, q^{79} p^{41} + 1456675132\, q^{78} p^{33} + 6686973\, q^{75} p^{20} + 1043272620\, q^{78} p^{32}$$
$$+ 14418274911\, q^{79} p^{42} + 381541682\, p^{34} q^{31} + 381541682\, p^{31} q^{34} + 480846499\, p^{33} q^{33} + 568805078\, p^{35} q^{32} + 392019897\, p^{32} q^{33}$$
$$+ 392019897\, p^{33} q^{32} + 474482730\, p^{34} q^{32} + 858331060\, p^{34} q^{35} + 568805078\, p^{32} q^{35} + 234597814761\, p^{65} q^{79} + 102606316465\, p^{74} q^{88}$$
$$+ 103226757033\, p^{73} q^{88} + 299623\, q^{120} p^{60} + 8\, q^{114} p^{29} + 454142\, q^{121} p^{66} + 182162\, q^{120} p^{58} + 46707186\, p^{55} q^{20} + 399208719\, p^{57} q^{25}$$
$$+ 448314175\, p^{98} q^{107} + 530641101\, p^{75} q^{110} + 788255839\, p^{84} q^{109} + 516173944\, p^{64} q^{108} + 2213228309\, p^{80} q^{106} + 157651403\, p^{42} q^{24}$$
$$+ 13029674\, p^{41} q^{18} + 305056401\, p^{42} q^{26} + 2237404789\, p^{43} q^{33} + 4554520\, p^{40} q^{16} + 1069073943\, p^{43} q^{30} + 816039675\, p^{43} q^{29}$$

$$+ 1769314662\, p^{43}\, q^{32} + 2857591305\, p^{36}\, q^{40} + 4540457600\, p^{42}\, q^{37} + 4105768106\, p^{40}\, q^{38} + 1580175819\, p^{32}\, q^{42} + 2190134940\, p^{34}\, q^{41}$$
$$+ 516044\, p^{88}\, q^{21} + 1383447256\, p^{43}\, q^{31} + 2798782632\, p^{43}\, q^{34} + 3464586864\, p^{43}\, q^{35} + 4767953748\, p^{44}\, q^{36} + 1069073943\, p^{30}\, q^{43}$$
$$+ 378241851690\, p^{69}\, q^{67} + 390119\, q^{38}\, p^{12} + 812725\, p^{96}\, q^{123} + 1091057309\, q^{82}\, p^{34} + 21929885\, p^{30}\, q^{23} + 432444\, p^{124}\, q^{90}$$
$$+ 378492\, p^{124}\, q^{86} + 469932\, p^{123}\, q^{78} + 268459\, p^{124}\, q^{81} + 194702\, p^{125}\, q^{98} + 3092\, p^{90}\, q^{129} + 185\, p^{83}\, q^{130} + 395853\, p^{124}\, q^{87}$$
$$+ 423114\, p^{124}\, q^{89} + 79245722278\, p^{89}\, q^{79} + 93303458342\, p^{56}\, q^{82} + 74547365749\, p^{54}\, q^{82} + 37591\, p^{127}\, q^{101} + 2691\, p^{128}\, q^{119}$$
$$+ 1186\, p^{129}\, q^{120} + 342\, p^{113}\, q^{31} + 67864444379\, p^{89}\, q^{82} + 159516072820\, p^{61}\, q^{81} + 3112831\, p^{121}\, q^{85} + 5868826\, p^{18}\, q^{33}$$
$$+ 16051297\, p^{21}\, q^{32} + 45389511720\, p^{70}\, q^{93} + 377620\, p^{123}\, q^{76} + 423065\, p^{123}\, q^{77} + 3963426710\, p^{103}\, q^{68} + 7643166\, p^{19}\, q^{32}$$
$$+ 35800412\, p^{24}\, q^{31} + 437\, p^{64}\, q^{8} + 11183771\, p^{20}\, q^{32} + 45267397158\, p^{93}\, q^{78} + 36728895\, p^{67}\, q^{21} + 144970421\, p^{68}\, q^{24} + 13338024\, p^{66}\, q^{19}$$
$$+ 11479457266\, p^{72}\, q^{38} + 2228999923\, p^{79}\, q^{106} + 195592170113\, p^{55}\, q^{59} + 62257136585\, p^{46}\, q^{71} + 73085577245\, p^{47}\, q^{71}$$
$$+ 85076553750\, p^{48}\, q^{71} + 171792319054\, p^{53}\, q^{60} + 224061595497\, p^{59}\, q^{57} + 165973601959\, p^{53}\, q^{59} + 45267397158\, p^{43}\, q^{58}$$
$$+ 1603871\, q^{97}\, p^{28} + 320\, q^{79}\, p^{11} + 4\, p^{133}\, q^{98} + 2\, p^{131}\, q^{78} + 376273478985\, p^{70}\, q^{68} + 180364476377\, p^{83}\, q^{74} + 173229800860\, p^{83}\, q^{67}$$
$$+ 184524456571\, p^{83}\, q^{71} + 184354811936\, p^{83}\, q^{72} + 177764185948\, p^{83}\, q^{68} + 176618865898\, p^{83}\, q^{75} + 175677218195\, p^{75}\, q^{56}$$
$$+ 3173514340\, p^{71}\, q^{33} + 55504651\, p^{68}\, q^{22} + 205291861\, p^{69}\, q^{25} + 314179183\, p^{69}\, q^{26} + 90874313\, p^{68}\, q^{23} + 15770\, q^{36}\, p^{8}$$
$$+ 28071915514\, p^{64}\, q^{94} + 452440\, p^{111}\, q^{121} + 2881001\, p^{119}\, q^{68} + 2908855\, p^{121}\, q^{83} + 54620269090\, p^{92}\, q^{77} + 1309533\, p^{63}\, q^{15} + 2\, p^{134}\, q^{108}$$
$$+ 1363803250\, p^{76}\, q^{32} + 968358180\, p^{76}\, q^{31} + 87019770649\, p^{60}\, q^{47} + 99358721110\, p^{60}\, q^{48} + 5911\, q^{79}\, p^{13} + 283219255\, p^{35}\, q^{29}$$
$$+ 1404704\, q^{114}\, p^{49} + 185826\, q^{106}\, p^{32} + 12779826\, p^{108}\, q^{45} + 21673742\, p^{115}\, q^{102} + 3072564\, p^{106}\, q^{38} + 28254544\, p^{115}\, q^{100}$$
$$+ 104174434\, p^{114}\, q^{89} + 160871783\, p^{113}\, q^{76} + 167256162\, p^{113}\, q^{77} + 62590434\, p^{115}\, q^{91} + 118540547\, p^{114}\, q^{81} + 118961615\, p^{113}\, q^{71}$$
$$+ 5722352\, p^{107}\, q^{41} + 2216020\, p^{105}\, q^{36} + 375684\, p^{71}\, q^{15} + 26537312\, q^{39}\, p^{20} + 996011\, p^{92}\, q^{24} + 84420959\, q^{103}\, p^{44} + 460541665\, q^{104}\, p^{53}$$
$$+ 380612900\, q^{104}\, p^{52} + 552070342\, q^{104}\, p^{54} + 655798465\, q^{104}\, p^{55} + 36504325529\, p^{43}\, q^{71} + 194702\, q^{38}\, p^{11} + 17443668\, q^{39}\, p^{19}$$
$$+ 69024351967\, p^{86}\, q^{86} + 75705562347\, p^{85}\, q^{86} + 71681991023\, p^{83}\, q^{88} + 42215264529\, p^{85}\, q^{91} + 3\, p^{132}\, q^{87} + 9\, p^{132}\, q^{90} + p^{131}\, q^{77}$$
$$+ p^{131}\, q^{76} + 37078026711\, p^{49}\, q^{82} + 2215096863\, p^{59}\, q^{30} + 574820061\, p^{58}\, q^{26} + 1610822519\, p^{59}\, q^{29} + 147240026181\, p^{62}\, q^{51}$$
$$+ 163567793096\, p^{62}\, q^{52} + 177021541\, p^{57}\, q^{23} + 744289\, p^{52}\, q^{13} + 16464775\, p^{55}\, q^{18} + 2908855\, p^{53}\, q^{15} + 11368998123\, p^{60}\, q^{36}$$
$$+ 1469770\, p^{53}\, q^{14} + 625866808\, p^{89}\, q^{109} + 444130765\, p^{96}\, q^{108} + 197293\, p^{113}\, q^{122} + 416214\, p^{105}\, q^{123} + 325524163\, p^{73}\, q^{111}$$
$$+ 585157402\, p^{81}\, q^{110} + 585712239\, p^{80}\, q^{110} + 709622\, p^{105}\, q^{122} + 126393675869\, p^{81}\, q^{58} + 5428157182\, p^{77}\, q^{37} + 137564161272\, p^{81}\, q^{59}$$

$$+ 33172263279\, p^{41} q^{61} + 4816962401\, p^{98} q^{56} + 4802667837\, p^{99} q^{58} + 50974628484\, p^{88} q^{87} + 202342975879\, p^{57} q^{57} + 6\, p^{132} q^{89}$$
$$+ 207193367738\, p^{72} q^{56} + 3963426710\, p^{68} q^{33} + 73814303\, p^{65} q^{22} + 267175024\, p^{66} q^{25} + 68395291923\, p^{87} q^{85} + 67864444379\, p^{82} q^{89}$$
$$+ 4767826\, p^{64} q^{17} + 40620332\, p^{66} q^{21} + 2701901\, p^{63} q^{16} + 159000535\, p^{67} q^{24} + 14827434\, p^{65} q^{19} + 12376760457\, p^{71} q^{38}$$
$$+ 50657\, q^{90} p^{19} + 11239\, q^{89} p^{17} + 2812\, q^{87} p^{15} + 120006\, q^{92} p^{21} + 7150\, q^{90} p^{17} + 20009\, q^{90} p^{18} + 30426\, q^{89} p^{18} + 11509\, p^{77} q^{13}$$
$$+ 4367\, q^{67} p^{10} + 1728\, q^{65} p^{9} + 31506\, q^{69} p^{12} + 12448\, q^{68} p^{11} + 677050\, q^{76} p^{17} + 3514259\, q^{75} p^{19} + 1314\, q^{66} p^{9} + 3358\, q^{68} p^{10}$$
$$+ 2143259\, q^{74} p^{18} + 35802\, q^{73} p^{13} + 248973\, q^{73} p^{15} + 1033045\, q^{74} p^{17} + 124413\, q^{72} p^{14} + 307494\, q^{72} p^{15} + 19532\, q^{71} p^{12}$$
$$+ 8492720\, q^{77} p^{21} + 24977\, q^{70} p^{12} + 840913\, q^{75} p^{17} + 1764437\, q^{75} p^{18} + 58047\, q^{71} p^{13} + 99053\, q^{73} p^{14} + 9739\, q^{69} p^{11} + 157667\, q^{75} p^{15}$$
$$+ 45873\, q^{72} p^{13} + 77928\, q^{74} p^{14} + 7510\, q^{70} p^{11} + 853360\, p^{122} q^{76} + 944595\, p^{122} q^{77} + 891363\, p^{123} q^{90} + 881549\, p^{123} q^{89}$$
$$+ 16373755\, p^{25} q^{26} + 814822\, p^{123} q^{86} + 1037166\, p^{122} q^{78} + 613061\, p^{123} q^{81} + 390119\, p^{124} q^{98} + 285880817836\, p^{59} q^{69} + 9\, p^{46} q^{4}$$
$$+ 3461561657\, q^{94} p^{48} + 185900201005\, p^{54} q^{70} + 1532227001\, p^{68} q^{30} + 28636782\, p^{64} q^{20} + 1869904\, p^{16} q^{31} + 625805\, p^{14} q^{30}$$
$$+ 633128844\, p^{31} q^{37} + 426351048\, p^{30} q^{36} + 35787310186\, p^{94} q^{80} + 3921966926\, p^{72} q^{34} + 21138971219\, p^{73} q^{41} + 842871\, p^{123} q^{87}$$
$$+ 854297\, p^{116} q^{52} + p^{117} q^{32} + 5\, p^{120} q^{38} + 395026405\, q^{45} p^{26} + 199522274\, q^{45} p^{24} + 403677292\, p^{66} q^{26} + 118961615\, p^{65} q^{23}$$
$$+ 164842781254\, p^{54} q^{57} + 14328581339\, p^{37} q^{61} + 6722456982\, p^{34} q^{62} + 11319910554\, p^{36} q^{61} + 6830646741\, p^{34} q^{61}$$
$$+ 8844256684\, p^{35} q^{61} + 1392242\, p^{82} q^{122} + 290645067071\, p^{59} q^{68} + 5508820\, q^{44} p^{16} + 8974853\, q^{43} p^{17} + 3038785\, q^{43} p^{15}$$
$$+ 5312341\, q^{43} p^{16} + 376109887089\, p^{70} q^{69} + 27501907771\, p^{82} q^{95} + 24508394101\, p^{84} q^{95} + 18986055604\, p^{89} q^{94}$$
$$+ 26870281939\, p^{77} q^{96} + 14085460300\, p^{67} q^{98} + 21899653434\, p^{73} q^{97} + 21512329640\, p^{72} q^{97} + 370052496881\, p^{71} q^{68}$$
$$+ 9248243\, p^{117} q^{67} + 83715957291\, p^{81} q^{54} + 103217144035\, p^{82} q^{57} + 5516026220\, p^{79} q^{38} + 74112171716\, p^{81} q^{53}$$
$$+ 133767001661\, p^{82} q^{60} + 278396121495\, p^{60} q^{72} + 261317933914\, p^{59} q^{72} + 197457545474\, p^{56} q^{73} + 6589337092\, q^{95} p^{53}$$
$$+ 12856186\, p^{99} q^{34} + 160768164\, p^{102} q^{45} + 74438736\, p^{101} q^{41} + 82432082458\, p^{86} q^{84} + 55914694748\, p^{90} q^{83} + 383030076\, p^{96} q^{41}$$
$$+ 69436024\, p^{94} q^{34} + 6317403400\, p^{102} q^{82} + 5809521523\, p^{102} q^{84} + 735160158\, p^{91} q^{108} + 31882294840\, p^{95} q^{78} + 104403673043\, p^{56} q^{81}$$
$$+ 104403673043\, p^{55} q^{80} + 894568\, p^{45} q^{13} + 17486425\, p^{48} q^{18} + 395853\, p^{49} q^{12} + 182351\, p^{48} q^{11} + 119873255\, p^{103} q^{109} + p^{133} q^{95}$$
$$+ 423\, p^{106} q^{24} + 292245\, p^{124} q^{82} + 21513\, p^{117} q^{44} + 4423\, q^{91} p^{17} + 133373311318\, p^{51} q^{70} + 8691\, p^{124} q^{122} + 22953102213\, p^{82} q^{96}$$
$$+ 91226824\, p^{103} q^{110} + 109462698915\, p^{59} q^{49} + 167678267411\, p^{83} q^{66} + 19402033461\, p^{80} q^{44} + 49632523\, p^{73} q^{23}$$
$$+ 93303458342\, p^{82} q^{56} + 2485974\, p^{69} q^{17} + 35734770051\, p^{81} q^{48} + 23613513257\, p^{80} q^{45} + 283630514147\, p^{61} q^{60}$$

$$+ 240242627775\, p^{56}\, q^{65} + 269875842452\, p^{63}\, q^{58} + 240242627775\, p^{65}\, q^{56} + 917187777\, q^{83}\, p^{34} + 134018913\, p^{101}\, q^{43}$$
$$+ 11223720131\, q^{75}\, p^{39} + 15576983137\, q^{74}\, p^{40} + 19461766560\, q^{74}\, p^{41} + 256767005368\, p^{64}\, q^{57} + 60411891560\, p^{89}\, q^{62}$$
$$+ 73085577245\, p^{89}\, q^{65} + 966\, p^{127}\, q^{125} + 6989709326\, p^{98}\, q^{92} + 47686334626\, p^{43}\, q^{63} + 39812917757\, p^{42}\, q^{63} + 56607552077\, p^{44}\, q^{63}$$
$$+ 77401271425\, p^{46}\, q^{64} + 89937992028\, p^{47}\, q^{63} + 66614042660\, p^{45}\, q^{63} + 77724936225\, p^{46}\, q^{63} + 3635873578\, p^{58}\, q^{100}$$
$$+ 4121024523\, p^{59}\, q^{100} + 6874950846\, p^{64}\, q^{100} + 3899490267\, p^{61}\, q^{101} + 6299075034\, p^{63}\, q^{100} + 5172441662\, p^{61}\, q^{100}$$
$$+ 5729282700\, p^{62}\, q^{100} + 11011\, p^{56}\, q^{9} + 210077794357\, p^{56}\, q^{59} + 13583823172\, p^{91}\, q^{52} + 166728559702\, p^{59}\, q^{79} + 200634488326\, p^{56}\, q^{58}$$
$$+ 12779826\, q^{108}\, p^{45} + 1208475\, q^{107}\, p^{37} + 718799801\, q^{101}\, p^{50} + 565641470\, q^{99}\, p^{46} + 187093185443\, p^{55}\, q^{58} + 225673009369\, p^{61}\, q^{56}$$
$$+ 274046172786\, p^{72}\, q^{78} + 15532960196\, p^{92}\, q^{93} + 74112171716\, p^{53}\, q^{81} + 117538370130\, p^{63}\, q^{49} + 44071958\, p^{57}\, q^{20}$$
$$+ 383512140\, p^{59}\, q^{25} + 63\, p^{124}\, q^{132} + 16957608908\, p^{40}\, q^{73} + 54849306640\, p^{81}\, q^{91} + 4309926\, q^{34}\, p^{17} + 201935\, p^{91}\, q^{125}$$
$$+ 200559067\, p^{99}\, q^{42} + 373915767\, p^{101}\, q^{47} + 164\, p^{130}\, q^{126} + 28250505\, p^{99}\, q^{36} + 142471055\, p^{109}\, q^{102} + 27058649941\, p^{93}\, q^{61}$$
$$+ 31877850377\, p^{93}\, q^{63} + 40032\, p^{80}\, q^{15} + 38\, p^{116}\, q^{133} + 2142013897\, p^{61}\, q^{30} + 548768909\, p^{60}\, q^{26} + 1548129001\, p^{61}\, q^{29}$$
$$+ 149529336298\, p^{64}\, q^{51} + 166651621854\, p^{64}\, q^{52} + 167256162\, p^{59}\, q^{23} + 11195168576\, p^{62}\, q^{36} + 27383012\, q^{90}\, p^{29} + 20114\, q^{120}\, p^{51}$$
$$+ 1581\, q^{118}\, p^{41} + 23669246\, q^{116}\, p^{70} + 26135435\, q^{116}\, p^{71} + 6161\, p^{128}\, q^{114} + 3262\, p^{128}\, q^{118} + 76676468671\, p^{82}\, q^{88} + 117257778\, q^{107}\, p^{52}$$
$$+ 59637409\, q^{107}\, p^{49} + 54574857299\, p^{85}\, q^{89} + 63557397030\, p^{83}\, q^{89} + 40352107737\, p^{87}\, q^{90} + 55914694748\, p^{83}\, q^{90}$$
$$+ 36520190197\, p^{90}\, q^{88} + 45959808651\, p^{88}\, q^{88} + 41126611410\, p^{89}\, q^{88} + 1161\, p^{130}\, q^{94} + 16\, p^{120}\, q^{39} + 769\, p^{128}\, q^{74} + 272252070\, p^{80}\, q^{112}$$
$$+ 268562210\, p^{79}\, q^{112} + 69946445\, p^{95}\, q^{114} + 65363045\, p^{99}\, q^{113} + 57429244\, p^{100}\, q^{113} + 42155770\, p^{107}\, q^{110} + 68501167\, p^{103}\, q^{111}$$
$$+ 82284777\, p^{93}\, q^{114} + 68762659\, p^{89}\, q^{115} + 88248693\, p^{92}\, q^{114} + 44145150\, p^{66}\, q^{114} + 103217144035\, p^{57}\, q^{82} + 163567793096\, p^{84}\, q^{74}$$
$$+ 155338234233\, p^{84}\, q^{67} + 166537740459\, p^{84}\, q^{71} + 166651621854\, p^{84}\, q^{72} + 159663177127\, p^{84}\, q^{68} + 160428135251\, p^{84}\, q^{75}$$
$$+ 2804358\, p^{95}\, q^{121} + 29643296\, p^{24}\, q^{30} + 7826950805\, p^{45}\, q^{38} + 13058104153\, p^{45}\, q^{41} + 17589388914\, p^{45}\, q^{43} + 15219005216\, p^{45}\, q^{42}$$
$$+ 363485405\, q^{98}\, p^{43} + 5740\, q^{36}\, p^{7} + 39614\, q^{38}\, p^{9} + 446870602\, q^{103}\, p^{51} + 363745789\, q^{103}\, p^{50} + 3692\, q^{89}\, p^{16} + 12822\, q^{91}\, p^{18}$$
$$+ 1568675\, q^{41}\, p^{14} + 7189\, p^{50}\, q^{8} + 6384284\, p^{61}\, q^{17} + 52487654\, p^{63}\, q^{21} + 3624578\, p^{60}\, q^{16} + 200629493\, p^{64}\, q^{24} + 19438138\, p^{62}\, q^{19}$$
$$+ 14869802632\, p^{68}\, q^{38} + 841240\, q^{41}\, p^{13} + 981942768\, q^{45}\, p^{29} + 200405\, q^{39}\, p^{11} + 924892\, q^{103}\, p^{32} + 23806708\, q^{59}\, p^{19}$$
$$+ 63439658\, q^{60}\, p^{21} + 1916\, q^{34}\, p^{6} + 129250968\, q^{44}\, p^{23} + 36427941\, q^{43}\, p^{20} + 146\, p^{130}\, q^{82} + 11\, p^{122}\, q^{43} + 2\, p^{123}\, q^{44} + 88248693\, q^{44}\, p^{22}$$
$$+ 55332203\, q^{43}\, p^{21} + 73501478\, q^{82}\, p^{27} + 28104607\, q^{82}\, p^{25} + 1268\, q^{60}\, p^{8} + 44\, q^{50}\, p^{5} + 24\, q^{52}\, p^{5} + 1740\, p^{88}\, q^{15} + 2255\, p^{90}\, q^{16}$$

$$+ 63802956340\, p^{45} q^{59} + 187093185443\, p^{78} q^{81} + 927643271\, p^{32} q^{38} + 55458786244\, q^{91} p^{66} + 43341119037\, q^{90} p^{60}$$
$$+ 35657033255\, q^{90} p^{58} + 14808179\, q^{80} p^{23} + 4563613\, q^{80} p^{21} + 56305951\, q^{81} p^{26} + 34589520\, q^{81} p^{25} + 58098512146\, q^{91} p^{67}$$
$$+ 6976321\, q^{78} p^{21} + 60449984965\, q^{91} p^{68} + 62471257596\, q^{91} p^{69} + 4700246\, p^{19} q^{29} + 11686074608\, p^{68} q^{37} + 89245263410\, p^{70} q^{48}$$
$$+ 58098512146\, p^{69} q^{45} + 869332309\, p^{66} q^{28} + 3\, q^{57} p^{5} + 20958\, p^{51} q^{9} + 26002867\, p^{25} q^{28} + 9944755\, p^{53} q^{17} + 248530253\, q^{100} p^{44}$$
$$+ 1163905772\, p^{67} q^{29} + 314179183\, p^{110} q^{67} + 46563031\, p^{107} q^{48} + 51084\, p^{94} q^{21} + 1428338\, p^{101} q^{31} + 438469\, p^{100} q^{28}$$
$$+ 119990243\, q^{43} p^{23} + 85967576096\, p^{87} q^{82} + 238138878450\, p^{69} q^{80} + 27383012\, q^{107} p^{46} + 46563031\, q^{107} p^{48} + 247570719613\, p^{76} q^{78}$$
$$+ 279318766655\, p^{59} q^{70} + 105051\, p^{106} q^{31} + 328768\, p^{67} q^{14} + 158141\, p^{66} q^{13} + 6874950846\, p^{72} q^{36} + 45069260808\, p^{79} q^{48}$$
$$+ 29698695290\, p^{78} q^{45} + 43546600\, p^{27} q^{28} + 2135352\, p^{16} q^{32} + 202952876448\, p^{65} q^{54} + 221028297185\, p^{66} q^{55} + 76564361079\, p^{65} q^{46}$$
$$+ 149184320588\, p^{65} q^{51} + 166537740459\, p^{65} q^{52} + 10997171728\, p^{63} q^{36} + 2417173731\, p^{105} q^{70} + 132627191663\, p^{65} q^{50}$$
$$+ 39350729134\, p^{64} q^{42} + 47224484893\, p^{64} q^{43} + 21512329640\, p^{64} q^{39} + 26566788547\, p^{64} q^{40} + 88910215223\, p^{65} q^{47}$$
$$+ 102402932275\, p^{65} q^{48} + 48800429111\, p^{91} q^{83} + 32177175098\, p^{91} q^{88} + 12782078\, p^{71} q^{20} + 65100285399\, p^{81} q^{52}$$
$$+ 56731398469\, p^{81} q^{51} + 42008\, p^{62} q^{11} + 32219296\, p^{29} q^{25} + 26870281939\, p^{59} q^{40} + 314179183\, q^{69} p^{26} + 131177456\, q^{69} p^{24} + 8\, p^{16} q^{2}$$
$$+ 159\, p^{22} q^{4} + 38\, p^{20} q^{3} + 17040299\, p^{35} q^{20} + 11449293\, p^{35} q^{19} + 40641342\, p^{36} q^{22} + 57429244\, p^{36} q^{23} + 195811268\, p^{36} q^{27}$$
$$+ 298384903\, p^{37} q^{28} + p^{122} q^{41} + 36\, p^{125} q^{53} + 4\, p^{119} q^{36} + 94323566\, q^{35} p^{25} + 167775919\, q^{35} p^{27} + 256958230\, q^{36} p^{28}$$
$$+ 134018913\, p^{93} q^{35} + 50032165\, q^{35} p^{23} + 53885\, p^{85} q^{17} + 379338581994\, p^{67} q^{67} + 51084\, q^{115} p^{42} + 16\, q^{97} p^{16} + 62519\, q^{113} p^{39}$$
$$+ 35\, p^{127} q^{132} + 12433\, q^{110} p^{32} + 493\, q^{107} p^{25} + 23443\, q^{110} p^{33} + 3291\, q^{108} p^{28} + 55332203\, p^{115} q^{93} + 71985467\, p^{111} q^{59}$$
$$+ 60781268\, p^{111} q^{58} + 99288090\, p^{114} q^{90} + 248973\, p^{121} q^{63} + 469772006\, q^{88} p^{35} + 15999526105\, p^{85} q^{97} + 376273478985\, p^{68} q^{70}$$
$$+ 2\, p^{134} q^{109} + 293107268\, q^{103} p^{49} + 250839813\, q^{107} p^{56} + 296411078\, q^{107} p^{57} + 298049\, q^{102} p^{29} + 162611\, q^{102} p^{28} + 14706282\, q^{105} p^{41}$$
$$+ 10440497\, q^{105} p^{40} + 203091919636\, p^{55} q^{60} + 241439321783\, p^{61} q^{57} + 237323946193\, p^{59} q^{58} + 498548374\, q^{37} p^{30} + 511806\, p^{33} q^{13}$$
$$+ 1488723\, p^{33} q^{15} + 2507105\, q^{30} p^{17} + 133153702500\, p^{64} q^{50} + 1101736780\, p^{61} q^{28} + 66216615676\, p^{64} q^{45} + 39812917757\, p^{63} q^{42}$$
$$+ 17592061800\, p^{63} q^{38} + 47686334626\, p^{63} q^{43} + 13984737246\, p^{63} q^{37} + 21899653434\, p^{63} q^{39} + 26987940082\, p^{63} q^{40}$$
$$+ 89722405231\, p^{64} q^{47} + 103158492224\, p^{64} q^{48} + 25749163367\, p^{79} q^{96} + 26392853026\, p^{78} q^{96} + 22893825879\, p^{85} q^{95}$$
$$+ 26052757333\, p^{83} q^{95} + 202524948\, q^{87} p^{32} + 14706282\, p^{95} q^{31} + 4879832\, p^{94} q^{28} + 460\, q^{85} p^{13} + 2197454656\, q^{89} p^{41}$$
$$+ 1689641499\, q^{89} p^{40} + 218\, q^{96} p^{17} + 146193919259\, p^{82} q^{81} + 498548374\, p^{106} q^{99} + 664286861\, p^{106} q^{97} + 406025\, q^{39} p^{12}$$

$$+ 16232740985\, p^{70} q^{98} + 17592061800\, p^{73} q^{98} + 21987857564\, p^{77} q^{97} + 16787289221\, p^{71} q^{98} + 91258\, q^{38} p^{10} + 76542\, p^{113} q^{124}$$
$$+ 53231450416\, p^{58} q^{44} + 779183\, q^{39} p^{13} + 2510423\, q^{39} p^{15} + 361988824291\, p^{70} q^{65} + 361988824291\, p^{71} q^{66} + 296674543849\, p^{70} q^{60}$$
$$+ 242467827486\, p^{70} q^{57} + 83102807321\, p^{68} q^{89} + 66302731487\, q^{56} p^{46} + 56104\, p^{107} q^{31} + 54849306640\, q^{55} p^{45} + p^{77} q^{131}$$
$$+ 3312749\, p^{120} q^{75} + 78929\, p^{102} q^{126} + 3010\, p^{127} q^{121} + 89114279336\, p^{86} q^{83} + 1548129001\, p^{75} q^{107} + 54457366\, p^{29} q^{27}$$
$$+ 86333051\, p^{30} q^{28} + 3234037\, p^{49} q^{15} + 39660\, p^{97} q^{127} + 12431\, p^{92} q^{128} + 10811337391\, p^{56} q^{36} + 1692800\, p^{49} q^{14} + 156\, q^{28} p^{4}$$
$$+ 2910158442\, q^{93} p^{46} + 636090243\, q^{92} p^{39} + 495\, p^{114} q^{131} + 462\, p^{115} q^{131} + 165\, p^{112} q^{132} + 132791824149\, p^{63} q^{50} + 1131351538\, p^{60} q^{28}$$
$$+ 66614042660\, p^{63} q^{45} + 40010919486\, p^{62} q^{42} + 17827169465\, p^{62} q^{38} + 47830680156\, p^{62} q^{43} + 14203478653\, p^{62} q^{37}$$
$$+ 22144158369\, p^{62} q^{39} + 8903481\, p^{56} q^{17} + 27231835854\, p^{62} q^{40} + 89937992028\, p^{63} q^{47} + 103226757033\, p^{63} q^{48} + 6019934745\, p^{51} q^{94}$$
$$+ 105736065143\, p^{78} q^{87} + 18610985\, q^{98} p^{34} + 7\, q^{123} p^{45} + 123080199\, q^{102} p^{44} + 3899490267\, p^{101} q^{61} + 4775111466\, p^{101} q^{63}$$
$$+ 13\, q^{116} p^{32} + 367221298354\, p^{65} q^{69} + 3738490047\, q^{63} p^{32} + 189519\, q^{70} p^{14} + 185826\, p^{106} q^{32} + 19947\, p^{102} q^{25} + 7449344172\, p^{71} q^{36}$$
$$+ 130058987091\, p^{73} q^{52} + 114972606419\, p^{73} q^{51} + 43\, p^{120} q^{40} + 215517714057\, p^{68} q^{81} + 119740\, p^{82} q^{125} + 8788892\, p^{109} q^{114}$$
$$+ 13229345\, p^{107} q^{114} + 18736291\, p^{103} q^{115} + 15978274\, p^{106} q^{114} + 167\, p^{123} q^{131} + 3738490047\, p^{63} q^{32} + 743372560\, p^{62} q^{27}$$
$$+ 2764366634\, p^{63} q^{31} + 115565340741\, p^{66} q^{49} + 99\, p^{34} q^{4} + 410\, p^{37} q^{5} + 361988824291\, p^{65} q^{70} + 232863886286\, p^{58} q^{73}$$
$$+ 10840978\, p^{114} q^{108} + 12607677811\, p^{82} q^{99} + 11237793436\, p^{78} q^{100} + 6520048325\, p^{81} q^{102} + 159\, p^{114} q^{132} + 484\, p^{124} q^{129}$$
$$+ 623\, p^{123} q^{129} + 372\, p^{125} q^{129} + 448\, p^{126} q^{128} + 312\, p^{119} q^{131} + 297688422946\, p^{62} q^{73} + 282878203936\, p^{61} q^{73} + 11532\, p^{128} q^{108}$$
$$+ 9737\, p^{128} q^{110} + 14700104\, p^{70} q^{20} + 72821444472\, p^{80} q^{52} + 63579439563\, p^{80} q^{51} + 136\, p^{45} q^{5} + 49510\, p^{61} q^{11} + 26056\, p^{122} q^{58}$$
$$+ 195\, p^{110} q^{27} + 309342578133\, p^{65} q^{60} + 300205192281\, p^{63} q^{60} + 319668011325\, p^{64} q^{61} + 300205192281\, p^{60} q^{63}$$
$$+ 315981112686\, p^{62} q^{62} + 722\, p^{68} q^{9} + 509335741\, p^{95} q^{41} + 93053822\, p^{93} q^{34} + 1404704\, p^{87} q^{22} + 8040223362\, p^{101} q^{82}$$
$$+ 7357598323\, p^{101} q^{84} + 71959095971\, p^{81} q^{89} + 305759655474\, p^{64} q^{60} + 290466243147\, p^{64} q^{59} + 258606760591\, p^{65} q^{57}$$
$$+ 757247555\, p^{106} q^{96} + 3610131652\, q^{104} p^{72} + 3297518817\, q^{104} p^{70} + 96663682231\, p^{80} q^{87} + 91475965367\, p^{81} q^{87} + 410873\, p^{124} q^{88}$$
$$+ 149350\, p^{125} q^{103} + 17\, p^{90} q^{13} + 298\, p^{131} q^{96} + 258606760591\, p^{57} q^{65} + 309342578133\, p^{60} q^{65} + 293431838364\, p^{59} q^{65}$$
$$+ 347932148309\, p^{63} q^{65} + 363834349053\, p^{65} q^{65} + 373449587018\, p^{66} q^{66} + 323893764806\, p^{61} q^{65} + 356988105865\, p^{64} q^{65}$$
$$+ 336833558295\, p^{62} q^{65} + 276428322948\, p^{58} q^{65} + 1853705057\, q^{93} p^{44} + 1455809039\, q^{93} p^{43} + 27293760478\, p^{96} q^{75} + 566478\, p^{80} q^{18}$$
$$+ 2856773\, p^{82} q^{21} + 4190350\, p^{83} q^{22} + 3358\, p^{68} q^{10} + 18979982130\, p^{97} q^{82} + 17055900024\, p^{97} q^{84} + 9710265\, p^{119} q^{91}$$

$$+ 14827434\, p^{117}\, q^{71} + p^{85}\, q^{132} + 395853\, p^{87}\, q^{124} + 66741\, p^{77}\, q^{125} + 40010919486\, p^{74}\, q^{94} + 2360820677\, p^{50}\, q^{97} + 264738661\, p^{89}\, q^{34}$$
$$+ 18524336\, p^{86}\, q^{26} + 1410756421\, p^{91}\, q^{41} + 812595373\, p^{91}\, q^{39} + 565641470\, p^{90}\, q^{37} + 184370607\, p^{89}\, q^{33} + 19682691\, q^{115}\, p^{64}$$
$$+ 16942145\, q^{115}\, p^{63} + 12221108\, q^{115}\, p^{61} + 14454587\, q^{115}\, p^{62} + 1077387721\, p^{91}\, q^{40} + 22701907739\, p^{90}\, q^{92} + 44\, p^{86}\, q^{131} + 33\, p^{85}\, q^{131}$$
$$+ 24\, p^{84}\, q^{131} + 8\, p^{81}\, q^{131} + 12\, p^{82}\, q^{131} + 57\, p^{87}\, q^{131} + p^{84}\, q^{132} + 13\, q^{104}\, p^{20} + 806\, q^{104}\, p^{23} + 257\, q^{104}\, p^{22} + 342\, q^{105}\, p^{23} + 1187\, q^{106}\, p^{25}$$
$$+ 2985\, q^{106}\, p^{26} + 97\, q^{105}\, p^{22} + 411141919\, p^{90}\, q^{36} + 335014416\, p^{110}\, q^{93} + 185215756\, p^{66}\, q^{111} + 1165421067\, p^{81}\, q^{108}$$
$$+ 589701124\, p^{106}\, q^{59} + 2801\, p^{81}\, q^{13} + 71840968\, p^{88}\, q^{30} + 1444418277\, p^{92}\, q^{42} + 2484251\, q^{121}\, p^{80} + 992\, p^{75}\, q^{128} + 61051\, p^{118}\, q^{122}$$
$$+ 21158634034\, p^{97}\, q^{79} + 395026405\, p^{91}\, q^{110} + 15039\, p^{107}\, q^{29} + 354119\, p^{113}\, q^{43} + 17\, p^{83}\, q^{131} + 1230754415\, p^{32}\, q^{40}$$
$$+ 2463245161\, p^{36}\, q^{39} + 2031504873\, p^{35}\, q^{39} + 2764366634\, q^{63}\, p^{31} + 3844973827\, q^{62}\, p^{32} + 5116469317\, q^{62}\, p^{33} + 181877\, p^{84}\, q^{18}$$
$$+ 75603162655\, p^{46}\, q^{60} + 136814296559\, p^{51}\, q^{59} + 242467827486\, p^{57}\, q^{70} + 106971286481\, p^{67}\, q^{87} + 42144378\, p^{80}\, q^{25}$$
$$+ 25354016\, p^{80}\, q^{24} + 174805348\, p^{82}\, q^{29} + 114599086\, p^{82}\, q^{28} + 318313192\, p^{83}\, q^{31} + 18108399\, p^{79}\, q^{23} + 15\, p^{69}\, q^{129} + 1033045\, p^{74}\, q^{17}$$
$$+ 56671644330\, p^{44}\, q^{62} + 1321\, p^{127}\, q^{124} + 138772480738\, p^{79}\, q^{84} + 105647693567\, p^{85}\, q^{82} + 107538528732\, p^{84}\, q^{83}$$
$$+ 7183538313\, p^{46}\, q^{37} + 42355009\, p^{58}\, q^{20} + 2084869392\, p^{62}\, q^{30} + 530641101\, p^{61}\, q^{26} + 1502147474\, p^{62}\, q^{29} + 160871783\, p^{60}\, q^{23}$$
$$+ 38134224034\, q^{89}\, p^{57} + 202107817153\, p^{66}\, q^{54} + 218986082966\, p^{67}\, q^{55} + 75230210641\, p^{66}\, q^{46} + 147848816542\, p^{66}\, q^{51}$$
$$+ 165316094797\, p^{66}\, q^{52} + 10729704744\, p^{64}\, q^{36} + 131222484126\, p^{66}\, q^{50} + 38633186980\, p^{65}\, q^{42} + 46454008935\, p^{65}\, q^{43}$$
$$+ 20989557972\, p^{65}\, q^{39} + 25976392585\, p^{65}\, q^{40} + 87516944406\, p^{66}\, q^{47} + 100974590965\, p^{66}\, q^{48} + 1065517403\, p^{62}\, q^{28}$$
$$+ 65381779034\, p^{65}\, q^{45} + 17243235972\, p^{64}\, q^{38} + 13676531919\, p^{64}\, q^{37} + 8456343\, p^{57}\, q^{17} + 380053740529\, p^{67}\, q^{68} + 160734107\, q^{104}\, p^{48}$$
$$+ 63077367867\, p^{90}\, q^{81} + 9657596613\, p^{71}\, q^{37} + 75733606169\, p^{73}\, q^{48} + 49500648168\, p^{72}\, q^{45} + 692500836\, p^{69}\, q^{28}$$
$$+ 239987701230\, q^{66}\, p^{56} + 16353588\, q^{117}\, p^{72} + 7724589048\, p^{101}\, q^{70} + 492247350\, p^{97}\, q^{43} + 1000052248\, p^{69}\, q^{29}$$
$$+ 297688422946\, p^{74}\, q^{63} + 284387965780\, p^{74}\, q^{62} + 269831577154\, p^{74}\, q^{61} + 257128465256\, q^{67}\, p^{57} + 29693\, p^{47}\, q^{9} + 10741\, p^{46}\, q^{8}$$
$$+ 19553369456\, p^{87}\, q^{95} + 262055\, q^{97}\, p^{25} + 97338\, p^{125}\, q^{80} + 38569\, p^{127}\, q^{100} + 968358180\, q^{105}\, p^{60} + 735471649\, q^{105}\, p^{58} + 156054\, q^{95}\, p^{23}$$
$$+ 755474\, q^{96}\, p^{26} + 403306\, q^{96}\, p^{25} + 1419958200\, q^{106}\, p^{67} + 79245\, q^{93}\, p^{21} + 1532227001\, q^{106}\, p^{68} + 1641542607\, q^{106}\, p^{69} + p^{13}\, q$$
$$+ 3969135922\, p^{37}\, q^{41} + 29333615\, p^{53}\, q^{19} + 119542419\, p^{54}\, q^{22} + 2824759412\, q^{94}\, p^{47} + 1992573512\, p^{33}\, q^{42} + 4854622584\, p^{39}\, q^{40}$$
$$+ 3287393027\, p^{36}\, q^{41} + 417\, p^{82}\, q^{12} + 23\, p^{102}\, q^{19} + 45873\, p^{123}\, q^{64} + 179872808496\, p^{55}\, q^{73} + 122294201146\, p^{52}\, q^{74} + 12\, q^{81}\, p^{10} + q^{80}\, p^{9}$$
$$+ 417\, q^{82}\, p^{12} + 164\, p^{26}\, q^{4} + 137\, p^{124}\, q^{131} + 499\, p^{121}\, q^{130} + 389\, p^{117}\, q^{131} + 272\, p^{120}\, q^{131} + 597\, p^{120}\, q^{130} + 37\, p^{119}\, q^{133} + 8\, p^{121}\, q^{134}$$

$$+ 335\, p^{123} q^{130} + 33\, p^{111} q^{133} + 4018796886\, p^{104} q^{78} + 42966086510\, p^{45} q^{74} + 51171863301\, p^{46} q^{74} + 60411891560\, p^{47} q^{74}$$
$$+ 70712062298\, p^{48} q^{74} + p^{94} q^{133} + 312944619317\, p^{61} q^{70} + 137364173590\, p^{52} q^{72} + 910708\, q^{97} p^{27} + 606\, p^{29} q^{5} + 169170\, p^{120} q^{117}$$
$$+ 19164231353\, p^{46} q^{83} + 251\, p^{83} q^{12} + 117198\, p^{121} q^{117} + 44404893918\, p^{52} q^{84} + 33261376340\, p^{51} q^{85} + 57755375834\, p^{54} q^{84}$$
$$+ 65100285399\, p^{55} q^{84} + 72821444472\, p^{56} q^{84} + 225673009369\, p^{75} q^{80} + 211\, p^{130} q^{125} + 17073500475\, p^{47} q^{85} + 28520222163\, p^{50} q^{85}$$
$$+ 24248363248\, p^{49} q^{85} + 11982969105\, p^{46} q^{86} + 20437994213\, p^{48} q^{85} + 321700\, p^{98} q^{26} + 91742944\, p^{113} q^{96} + 21513\, p^{92} q^{19}$$
$$+ 10440497\, p^{105} q^{40} + 7288881\, p^{105} q^{39} + 1215\, p^{86} q^{14} + 2399992\, p^{103} q^{34} + 5891093466\, p^{70} q^{102} + 3077722687\, q^{96} p^{50}$$
$$+ 2083651819\, q^{96} p^{48} + 8321\, p^{78} q^{13} + 1689641499\, q^{96} p^{47} + 10811337391\, p^{80} q^{100} + 6722456982\, p^{74} q^{102} + 6571199584\, p^{73} q^{102}$$
$$+ 11059965321\, p^{79} q^{100} + 691439\, q^{99} p^{28} + 2216020\, q^{100} p^{31} + 7619283323\, p^{42} q^{40} + 6366626377\, p^{86} q^{43} + 20702440423\, p^{87} q^{50}$$
$$+ 284790\, p^{115} q^{120} + 6989709326\, p^{44} q^{38} + 7377114109\, p^{43} q^{39} + 11581604141\, p^{44} q^{41} + 11825458128\, p^{42} q^{43} + 10191292415\, p^{41} q^{43}$$
$$+ 13608194273\, p^{43} q^{43} + 15532960196\, p^{44} q^{43} + 13468633856\, p^{44} q^{42} + 1976\, p^{130} q^{104} + 983\, p^{127} q^{69} + 1276\, p^{130} q^{95}$$
$$+ 8632959623\, p^{88} q^{99} + 64\, p^{130} q^{129} + 90874313\, p^{68} q^{113} + 7\, p^{18} q^{2} + 37591\, p^{35} q^{9} + 5799\, p^{33} q^{7} + 15367\, p^{34} q^{8} + 548768909\, q^{60} p^{26}$$
$$+ 247244841\, q^{60} p^{24} + 160871783\, q^{60} p^{23} + 102293981\, q^{60} p^{22} + 1584584807\, q^{60} p^{29} + 1131351538\, q^{60} p^{28} + 358325682\, q^{61} p^{25}$$
$$+ 794763528\, q^{60} p^{27} + 22701907739\, p^{46} q^{44} + 28960596211\, p^{47} q^{45} + 12400307146\, p^{46} q^{40} + 8051720\, p^{41} q^{17} + 1502059\, p^{40} q^{14}$$
$$+ 34040421\, p^{42} q^{20} + 22018058\, p^{42} q^{19} + 82284777\, p^{43} q^{22} + 119990243\, p^{43} q^{23} + 674883414\, p^{44} q^{28} + 2663480\, p^{40} q^{15}$$
$$+ 66302731487\, p^{90} q^{80} + 20602646\, p^{91} q^{29} + 2682620\, p^{89} q^{24} + 4331318679\, q^{74} p^{35} + 9366627201\, p^{45} q^{39} + 112802221458\, p^{85} q^{81}$$
$$+ 91475965367\, p^{87} q^{81} + 11190395\, q^{107} p^{43} + 15292438\, q^{107} p^{44} + 114599086\, q^{108} p^{54} + 806\, p^{113} q^{32} + 76069929\, q^{108} p^{52}$$
$$+ 65147472072\, p^{91} q^{76} + 66614042660\, p^{91} q^{73} + 59\, p^{109} q^{25} + 229190681\, q^{91} p^{35} + 321509772\, q^{91} p^{36} + 76564361079\, q^{65} p^{46}$$
$$+ 116999303534\, q^{65} p^{49} + 102402932275\, q^{65} p^{48} + 166537740459\, q^{65} p^{52} + 202952876448\, q^{65} p^{54} + 221028297185\, q^{66} p^{55}$$
$$+ 132627191663\, q^{65} p^{50} + 184524456571\, q^{65} p^{53} + 149184320588\, q^{65} p^{51} + 88910215223\, q^{65} p^{47} + 436906\, q^{42} p^{12} + 93434\, q^{41} p^{10}$$
$$+ 864035\, q^{42} p^{13} + 93948083\, q^{45} p^{22} + 93462\, q^{40} p^{10} + 39255\, p^{127} q^{99} + 39660\, q^{39} p^{9} + 1345559\, p^{98} q^{122} + 150479\, p^{123} q^{112}$$
$$+ 15698\, p^{124} q^{120} + 31243\, p^{123} q^{119} + 24762792\, q^{44} p^{19} + 429659\, q^{41} p^{12} + 1625889\, q^{42} p^{14} + 16109018\, q^{45} p^{18} + 99288090\, q^{46} p^{22}$$
$$+ 59066646\, q^{44} p^{21} + 38694113\, q^{44} p^{20} + 62590434\, q^{45} p^{21} + 424221433\, q^{46} p^{26} + 212654025\, q^{46} p^{24} + 1707384\, q^{44} p^{14}$$
$$+ 302857904\, q^{46} p^{25} + 585005543\, q^{46} p^{27} + 9710265\, q^{45} p^{17} + 440800\, q^{43} p^{12} + 146692960\, q^{46} p^{23} + 26897377\, p^{109} q^{110}$$
$$+ 20754154\, p^{111} q^{109} + 428\, q^{118} p^{39} + 13730\, q^{122} p^{56} + 19069\, q^{122} p^{57} + 46364\, q^{122} p^{60} + 35011\, q^{122} p^{59} + 99053\, q^{122} p^{63}$$

$$+ 154401\, q^{122}\, p^{65} + 72540\, q^{123}\, p^{66} + 60503\, q^{122}\, p^{61} + 124413\, q^{122}\, p^{64} + 77928\, q^{122}\, p^{62} + 26056\, q^{122}\, p^{58} + 2510423\, p^{97}\, q^{121}$$
$$+ 220\, p^{128}\, q^{128} + 38569\, p^{100}\, q^{127} + 39255\, p^{99}\, q^{127} + 39614\, p^{98}\, q^{127} + 15\, q^{119}\, p^{37} + 41\, q^{119}\, p^{38} + 100\, q^{119}\, p^{39} + 2409\, p^{57}\, q^{8}$$
$$+ 143158107\, q^{100}\, p^{42} + 38\, p^{133}\, q^{116} + 26\, p^{132}\, q^{94} + 9\, p^{130}\, q^{74} + 13118\, p^{119}\, q^{125} + 28597\, p^{108}\, q^{31} + 2760\, p^{89}\, q^{129} + 15\, p^{67}\, q^{7}$$
$$+ 2958493369\, p^{97}\, q^{99} + 2857591305\, p^{96}\, q^{100} + 7826950805\, p^{38}\, q^{45} + 71767293860\, p^{58}\, q^{46} + 152\, p^{115}\, q^{132} + 36\, p^{113}\, q^{133} + 138\, p^{117}\, q^{132}$$
$$+ 147\, p^{116}\, q^{132} + 1197649529\, p^{104}\, q^{59} + 10432591448\, p^{39}\, q^{46} + 45788926\, p^{88}\, q^{116} + 82749435472\, p^{56}\, q^{83} + 185826\, p^{104}\, q^{30} + 14\, p^{61}\, q^{6}$$
$$+ 438469\, p^{108}\, q^{36} + 56104\, p^{105}\, q^{29} + 1294775\, p^{111}\, q^{43} + p^{135}\, q^{128} + 16373755\, p^{111}\, q^{110} + 1470205\, q^{121}\, p^{74} + 5911\, p^{79}\, q^{13}$$
$$+ 4594\, p^{128}\, q^{116} + 16194580533\, p^{81}\, q^{98} + 20162945080\, p^{91}\, q^{92} + 2837976506\, p^{51}\, q^{97} + 11787325\, p^{118}\, q^{75} + 10323810\, p^{119}\, q^{85}$$
$$+ 509858945\, p^{106}\, q^{58} + 32409239\, p^{106}\, q^{45} + 43209963\, p^{113}\, q^{102} + 7926307\, p^{104}\, q^{38} + 57429244\, p^{113}\, q^{100} + 225012000\, p^{112}\, q^{89}$$
$$+ 372000722\, p^{111}\, q^{76} + 383512140\, p^{111}\, q^{77} + 138200959\, p^{113}\, q^{91} + 274083662\, p^{112}\, q^{81} + 287427060\, p^{111}\, q^{71} + 14706282\, p^{105}\, q^{41}$$
$$+ 5656003\, p^{103}\, q^{36} + 585005543\, p^{109}\, q^{90} + 1065517403\, p^{108}\, q^{74} + 1023365558\, p^{108}\, q^{73} + 45245\, p^{88}\, q^{18} + 275651883\, p^{110}\, q^{95}$$
$$+ 305056401\, p^{110}\, q^{94} + 47923691\, p^{111}\, q^{105} + 76345122\, p^{110}\, q^{104} + 2901642972\, p^{102}\, q^{61} + 3573753015\, p^{102}\, q^{63} + 9465569\, p^{110}\, q^{113}$$
$$+ 11872596\, p^{109}\, q^{113} + 7458140\, p^{111}\, q^{113} + 30978258408\, p^{70}\, q^{95} + 29944507956\, p^{69}\, q^{95} + 6244869135\, p^{56}\, q^{97} + 276\, q^{101}\, p^{20}$$
$$+ 39940870286\, p^{75}\, q^{94} + 4830285122\, p^{103}\, q^{72} + 2052488804\, p^{101}\, q^{56} + 544039537\, p^{85}\, q^{110} + 4272688922\, p^{102}\, q^{65}$$
$$+ 3232366439\, p^{102}\, q^{62} + 3767312533\, p^{104}\, q^{82} + 3500569897\, p^{104}\, q^{84} + 1153796214\, p^{77}\, q^{108} + 2371324313\, p^{101}\, q^{57}$$
$$+ 3644054011\, p^{104}\, q^{83} + 2237404789\, p^{103}\, q^{93} + 2696638185\, p^{95}\, q^{101} + 33071\, p^{104}\, q^{127} + 360\, p^{86}\, q^{130} + 15764\, p^{99}\, q^{128} + 236\, p^{84}\, q^{130}$$
$$+ 3430\, p^{91}\, q^{129} + 4727\, p^{95}\, q^{129} + 4103\, p^{93}\, q^{129} + 4423\, p^{94}\, q^{129} + 5004\, p^{96}\, q^{129} + 606\, p^{89}\, q^{130} + 432\, p^{87}\, q^{130} + 1965820302\, p^{92}\, q^{104}$$
$$+ 1408452457\, p^{90}\, q^{106} + 261928231\, p^{105}\, q^{52} + 4436631453\, p^{103}\, q^{70} + 16957608908\, p^{63}\, q^{96} + 14205118339\, p^{61}\, q^{96}$$
$$+ 12859004305\, p^{60}\, q^{96} + 27412536780\, p^{67}\, q^{95} + 126071024656\, p^{82}\, q^{83} + 3182453589\, p^{79}\, q^{36} + 381362942\, p^{85}\, q^{111}$$
$$+ 351217815660\, p^{70}\, q^{73} + 283219255\, p^{107}\, q^{101} + 303188425993\, p^{76}\, q^{67} + 362401990827\, p^{69}\, q^{72} + 350797113340\, p^{68}\, q^{73}$$
$$+ 309502486580\, p^{64}\, q^{74} + 352178861556\, p^{73}\, q^{69} + 4796\, p^{53}\, q^{8} + 606\, p^{47}\, q^{6} + 358219679959\, p^{67}\, q^{72} + 361507554601\, p^{68}\, q^{72}$$
$$+ 368342887958\, p^{70}\, q^{71} + 1075065\, p^{122}\, q^{101} + 3020244\, p^{121}\, q^{84} + 2125737\, p^{119}\, q^{66} + 1437648\, p^{118}\, q^{60} + 40799214\, q^{45}\, p^{20}$$
$$+ 25971584\, q^{45}\, p^{19} + 2930193\, q^{42}\, p^{15} + 3127784\, q^{44}\, p^{15} + 208370\, q^{42}\, p^{11} + 1146998386\, q^{47}\, p^{29} + 207313\, q^{41}\, p^{11} + 880772\, q^{43}\, p^{13}$$
$$+ 15447922\, q^{44}\, p^{18} + 39507044198\, p^{84}\, q^{92} + 1672370\, q^{43}\, p^{14} + 9369747\, q^{44}\, p^{17} + 12822\, q^{118}\, p^{45} + 20009\, q^{118}\, p^{46} + 283056193\, q^{45}\, p^{25}$$
$$+ 542841221\, q^{45}\, p^{27} + 794917609\, q^{46}\, p^{28} + 138200959\, q^{45}\, p^{23} + 4775111466\, p^{73}\, q^{35} + 128623237093\, p^{75}\, q^{53} + 35752317764\, p^{74}\, q^{44}$$

$$+ 45873\, p^{72}\, q^{13} + 99053\, p^{73}\, q^{14} + 288359535200\, p^{76}\, q^{65} + 279318766655\, p^{77}\, q^{66} + 225939748709\, p^{76}\, q^{60} + 179581812113\, p^{76}\, q^{57}$$
$$+ 143776735399\, p^{75}\, q^{54} + 47263264578\, p^{75}\, q^{46} + 148657546173\, p^{76}\, q^{55} + 367221298354\, p^{67}\, q^{71} + 29\, p^{109}\, q^{133}$$
$$+ 169976242493\, p^{62}\, q^{81} + 246855\, q^{118}\, p^{53} + 330155\, q^{118}\, p^{54} + 75111\, q^{117}\, p^{47} + 299665\, q^{117}\, p^{51} + 406254\, q^{117}\, p^{52} + 1193123096\, p^{71}\, q^{30}$$
$$+ 119604961402\, p^{80}\, q^{85} + 15770\, p^{100}\, q^{128} + 292\, p^{85}\, q^{130} + 518\, p^{88}\, q^{130} + 15372\, p^{97}\, q^{128} + 113459021657\, p^{79}\, q^{86}$$
$$+ 350797113340\, p^{73}\, q^{68} + 35802\, p^{123}\, q^{63} + 122841156411\, p^{59}\, q^{50} + 172673294\, p^{78}\, q^{113} + 268251139\, p^{84}\, q^{112} + 636090243\, q^{97}\, p^{44}$$
$$+ 12653394832\, p^{88}\, q^{97} + 256958230\, p^{100}\, q^{108} + 457130479\, p^{93}\, q^{109} + q^{101}\, p^{17} + 67\, q^{101}\, p^{19} + 2485974\, q^{119}\, p^{67} + 1255899\, q^{119}\, p^{63}$$
$$+ 1511324\, q^{119}\, p^{64} + 1801007\, q^{119}\, p^{65} + 2881001\, q^{119}\, p^{68} + 2125737\, q^{119}\, p^{66} + 11\, q^{101}\, p^{18} + 425\, q^{102}\, p^{21} + 2237404789\, p^{93}\, q^{103}$$
$$+ 2485692305\, p^{94}\, q^{102} + 2485692305\, p^{102}\, q^{94} + 7046321\, p^{110}\, q^{114} + 5212297353\, p^{103}\, q^{75} + 25705\, p^{87}\, q^{17} + 4767826\, q^{119}\, p^{72}$$
$$+ 3769284\, q^{119}\, p^{70} + 539027\, q^{119}\, p^{59} + 181877\, q^{118}\, p^{52} + 6891\, q^{113}\, p^{35} + 61030258\, q^{85}\, p^{28} + 94599865\, q^{85}\, p^{29} + 6327388\, q^{112}\, p^{50}$$
$$+ 13984737246\, p^{73}\, q^{99} + 2220795\, q^{83}\, p^{21} + 17977421\, q^{84}\, p^{25} + 29847131\, q^{84}\, p^{26} + 36000518\, p^{116}\, q^{75} + 4817765\, p^{112}\, q^{49}$$
$$+ 29699766\, p^{117}\, q^{85} + 50842803700\, p^{52}\, q^{83} + 14401315\, p^{58}\, q^{18} + 2484251\, p^{56}\, q^{15} + 4830285122\, p^{64}\, q^{33} + 97232281\, p^{61}\, q^{22}$$
$$+ 342738817\, p^{62}\, q^{25} + 234731416034\, p^{68}\, q^{56} + 307779821469\, p^{68}\, q^{60} + 253838805831\, p^{68}\, q^{57} + 370052496881\, p^{68}\, q^{65}$$
$$+ 373937261599\, p^{69}\, q^{66} + 1065160499\, p^{29}\, q^{46} + 272252070\, q^{56}\, p^{24} + 5062765\, q^{55}\, p^{16} + 9654885\, q^{54}\, p^{17} + 2780646\, q^{54}\, p^{15}$$
$$+ 5292076\, q^{54}\, p^{16} + 585712239\, q^{56}\, p^{26} + 1992128240\, p^{31}\, q^{47} + 1408452457\, p^{30}\, q^{46} + 88910215223\, p^{71}\, q^{89} + 89937992028\, p^{73}\, q^{89}$$
$$+ 88573842011\, p^{75}\, q^{89} + 89552724784\, p^{74}\, q^{89} + 87019770649\, p^{76}\, q^{89} + 82312434548\, p^{78}\, q^{89} + 84919661009\, p^{77}\, q^{89}$$
$$+ 71767293860\, p^{78}\, q^{90} + 319619960684\, p^{74}\, q^{65} + 312944619317\, p^{75}\, q^{66} + 254263766891\, p^{74}\, q^{60} + 204009270831\, p^{74}\, q^{57}$$
$$+ 747548\, p^{89}\, q^{22} + 2279397507\, p^{105}\, q^{69} + 2529056234\, p^{104}\, q^{66} + 11532\, p^{108}\, q^{128} + 129446595203\, p^{50}\, q^{61} + 180821274705\, p^{54}\, q^{59}$$
$$+ 32934842330\, p^{41}\, q^{63} + 1976\, p^{32}\, q^{6} + 283056193\, p^{45}\, q^{25} + 542841221\, p^{45}\, q^{27} + 59066646\, p^{44}\, q^{21} + 199522274\, p^{45}\, q^{24}$$
$$+ 395026405\, p^{45}\, q^{26} + 3024852260\, p^{46}\, q^{33} + 1408452457\, p^{46}\, q^{30} + 1065160499\, p^{46}\, q^{29} + 2372215881\, p^{46}\, q^{32} + 1838965159\, p^{46}\, q^{31}$$
$$+ 3814381434\, p^{46}\, q^{34} + 4758773997\, p^{46}\, q^{35} + 6449955838\, p^{47}\, q^{36} + 194702\, p^{38}\, q^{11} + 406025\, p^{39}\, q^{12} + 91258\, p^{38}\, q^{10} + 812725\, p^{40}\, q^{13}$$
$$+ 1301541207\, p^{87}\, q^{107} + 7110312858\, p^{42}\, q^{84} + 550661\, q^{105}\, p^{33} + 1428338\, q^{105}\, p^{35} + 2045291\, q^{106}\, p^{37} + 898607\, q^{105}\, p^{34}$$
$$+ 311539886\, q^{85}\, p^{32} + 45\, q^{58}\, p^{6} + 1973\, q^{58}\, p^{8} + 285\, q^{59}\, p^{7} + 992\, q^{61}\, p^{8} + 35\, p^{24}\, q^{3} + 14704948\, p^{43}\, q^{18} + 5084944\, p^{42}\, q^{16}$$
$$+ 9592531553\, p^{47}\, q^{38} + 16220493892\, p^{47}\, q^{41} + 22035742518\, p^{47}\, q^{43} + 18986055604\, p^{47}\, q^{42} + 11532324761\, p^{47}\, q^{39}$$
$$+ 35484672423\, p^{87}\, q^{91} + 1526548567\, p^{105}\, q^{64} + 655798465\, p^{104}\, q^{55} + 13058104153\, p^{91}\, q^{95} + 115\, p^{62}\, q^{7} + 6\, p^{134}\, q^{117} + 3274202\, p^{92}\, q^{26}$$

$$+ 56320572\, p^{115}\, q^{74} + 20530053\, p^{117}\, q^{95} + 22018058\, p^{117}\, q^{94} + 4418729\, p^{118}\, q^{105} + 7643166\, p^{117}\, q^{104} + 3024852260\, p^{103}\, q^{90}$$
$$+ 3089087718\, p^{101}\, q^{59} + 1338197430\, p^{99}\, q^{50} + 6722456982\, p^{102}\, q^{74} + 4962531080\, p^{102}\, q^{67} + 6571199584\, p^{102}\, q^{73}$$
$$+ 3294994796\, p^{103}\, q^{89} + 6893699180\, p^{102}\, q^{76} + 6910381182\, p^{102}\, q^{77} + 2167586077\, p^{104}\, q^{91} + 5052103545\, p^{103}\, q^{81}$$
$$+ 8697601978\, p^{90}\, q^{98} + 887940222\, p^{99}\, q^{48} + 73777073\, p^{98}\, q^{113} + 58918\, p^{66}\, q^{12} + 23046295473\, p^{83}\, q^{47} + 6021139332\, p^{82}\, q^{40}$$
$$+ 4672904877\, p^{82}\, q^{39} + 4226387\, p^{74}\, q^{19} + 128966314302\, p^{86}\, q^{69} + 131222484126\, p^{86}\, q^{70} + 31370485\, p^{104}\, q^{113} + 12534344\, p^{110}\, q^{112}$$
$$+ 321700\, q^{110}\, p^{38} + 1286435706\, p^{81}\, q^{34} + 7671344158\, p^{82}\, q^{41} + 97219697\, p^{78}\, q^{26} + 1085841873\, p^{80}\, q^{33} + 16490006107\, p^{96}\, q^{87}$$
$$+ 16483\, q^{114}\, p^{38} + 12650\, q^{113}\, p^{36} + 27923\, q^{114}\, p^{39} + 73814303\, p^{71}\, q^{114} + 160871783\, p^{76}\, q^{113} + 9116204092\, p^{57}\, q^{96}$$
$$+ 24412017708\, p^{65}\, q^{95} + 18342\, p^{115}\, q^{126} + 20157\, p^{110}\, q^{127} + 13850\, p^{105}\, q^{128} + 66831\, p^{119}\, q^{121} + p^{135}\, q^{127} + 5\, p^{134}\, q^{128} + 53\, p^{131}\, q^{128}$$
$$+ 9032\, p^{123}\, q^{123} + 95016\, p^{121}\, q^{59} + 42\, p^{103}\, q^{20} + 13827\, p^{127}\, q^{113} + 57091\, p^{120}\, q^{54} + 3868072886\, q^{104}\, p^{81} + 3339439934\, q^{104}\, p^{85}$$
$$+ 3500569897\, q^{104}\, p^{84} + 2779223635\, q^{104}\, p^{88} + 2372215881\, q^{104}\, p^{90} + 1685118955\, q^{105}\, p^{91} + 3163497928\, q^{104}\, p^{86}$$
$$+ 2577047885\, q^{104}\, p^{89} + 3767312533\, q^{104}\, p^{82} + 226545298\, p^{99}\, q^{109} + 259878560\, p^{98}\, q^{109} + 1625889\, p^{94}\, q^{122} + 65559705096\, p^{88}\, q^{61}$$
$$+ 75733606169\, p^{88}\, q^{63} + 238138878450\, q^{67}\, p^{56} + 151835828\, p^{58}\, q^{109} + 206744718\, p^{76}\, q^{27} + 159267777516\, p^{58}\, q^{53}$$
$$+ 7904167716\, p^{47}\, q^{37} + 160768164\, q^{91}\, p^{34} + 159\, p^{27}\, q^{4} + 597\, p^{30}\, q^{5} + 2763102871\, p^{56}\, q^{100} + 38569\, p^{36}\, q^{9} + 5830\, p^{34}\, q^{7} + 15625\, p^{35}\, q^{8}$$
$$+ 25364497529\, p^{47}\, q^{44} + 32177175098\, p^{48}\, q^{45} + 13738027534\, p^{47}\, q^{40} + 8532664\, p^{42}\, q^{17} + 1568675\, p^{41}\, q^{14} + 36427941\, p^{43}\, q^{20}$$
$$+ 23437299\, p^{43}\, q^{19} + 88248693\, p^{44}\, q^{22} + 129250968\, p^{44}\, q^{23} + 735160158\, p^{45}\, q^{28} + 2804358\, p^{41}\, q^{15} + 2760\, p^{47}\, q^{7}$$
$$+ 253068897519\, p^{71}\, q^{58} + 271080911767\, p^{71}\, q^{59} + 9366627201\, p^{39}\, q^{45} + 12400307146\, p^{40}\, q^{46} + 31830159730\, p^{42}\, q^{70}$$
$$+ 2577047885\, p^{32}\, q^{47} + 1838965159\, p^{31}\, q^{46} + 33\, p^{133}\, q^{121} + 205650\, p^{44}\, q^{11} + 438543\, p^{45}\, q^{12} + 4672904877\, p^{39}\, q^{82}$$
$$+ 240513284421\, p^{60}\, q^{75} + 9\, q^{62}\, p^{6} + 2792\, p^{123}\, q^{126} + 1984\, p^{117}\, q^{129} + 19183\, p^{60}\, q^{10} + 30343409\, q^{109}\, p^{50} + 323693715846\, p^{75}\, q^{68}$$
$$+ 145691848\, p^{113}\, q^{74} + 47477688\, p^{115}\, q^{95} + 51448365\, p^{115}\, q^{94} + 9545055\, p^{116}\, q^{105} + 16051297\, p^{115}\, q^{104} + 29847131\, p^{110}\, q^{52}$$
$$+ 6830094\, p^{108}\, q^{43} + 298049\, p^{102}\, q^{29} + 137166797\, p^{113}\, q^{73} + 10861148\, p^{118}\, q^{74} + 4830668\, p^{120}\, q^{95} + 5084944\, p^{120}\, q^{94}$$
$$+ 1169494\, p^{121}\, q^{105} + 2135352\, p^{120}\, q^{104} + 8725857620\, p^{74}\, q^{101} + 25364497529\, p^{92}\, q^{89} + 143776735399\, p^{61}\, q^{82} + 5870\, q^{120}\, p^{48}$$
$$+ 356988105865\, p^{71}\, q^{72} + 360885963544\, p^{70}\, q^{72} + 347098934999\, p^{67}\, q^{73} + 373449587018\, p^{70}\, q^{70} + 93836871\, q^{108}\, p^{53}$$
$$+ 61030258\, q^{108}\, p^{51} + 76817361661\, p^{46}\, q^{61} + 47830680156\, p^{43}\, q^{62} + 4\, p^{24}\, q^{2} + 26987940082\, p^{40}\, q^{63} + 10\, p^{34}\, q^{3} + 11108213640\, p^{40}\, q^{45}$$
$$+ 14609185207\, p^{41}\, q^{46} + 6\, p^{47}\, q^{4} + 31570329\, p^{95}\, q^{116} + 29057095\, p^{96}\, q^{116} + 2388861\, q^{80}\, p^{20} + 1314\, p^{127}\, q^{70} + 3\, p^{118}\, q^{34} + p^{114}\, q^{28}$$

$$+ 5793781\, q^{46} p^{16} + 56\, p^{64} q^{7} + 1630984\, p^{94} q^{26} + 14704948\, p^{118} q^{93} + 15197549\, p^{114} q^{59} + 27040861\, q^{46} p^{19} + 9989433\, q^{46} p^{17}$$
$$+ 1491917728\, p^{84} q^{107} + 1022684\, p^{121} q^{106} + 112\, p^{90} q^{131} + 14939444\, p^{102} q^{116} + 2985\, q^{110} p^{30} + 1008\, q^{105} p^{24} + 5915072\, q^{120} p^{87}$$
$$+ 5490927\, q^{120} p^{83} + 4807673\, q^{120} p^{80} + 4531227\, q^{120} p^{79} + 39073\, p^{110} q^{126} + 34301\, p^{111} q^{126} + 20898\, p^{117} q^{125} + 3\, p^{131} q^{134}$$
$$+ 3\, p^{132} q^{134} + 2\, p^{134} q^{134} + p^{135} q^{134} + 2\, p^{133} q^{134} + 3195646\, q^{45} p^{15} + 1730015\, q^{45} p^{14} + 17138223\, q^{47} p^{18} + 44379872\, q^{47} p^{20}$$
$$+ 27951140\, q^{47} p^{19} + 333603087\, p^{109} q^{96} + 253\, p^{71} q^{9} + 109071\, p^{88} q^{19} + 3\, q^{89} p^{12} + 841\, q^{94} p^{17} + 84\, q^{93} p^{15} + 7\, q^{91} p^{13} + 207\, q^{94} p^{16}$$
$$+ 42367\, q^{102} p^{26} + 94550\, q^{103} p^{28} + 16676245\, q^{46} p^{18} + 42706378\, q^{46} p^{20} + 68762659\, q^{47} p^{21} + 106554344\, q^{95} p^{36} + 890977\, q^{44} p^{13}$$
$$+ 11195168576\, p^{36} q^{62} + 14203478653\, p^{37} q^{62} + 17827169465\, p^{38} q^{62} + 22144158369\, p^{39} q^{62} + 134949963\, p^{105} q^{107} + 115\, q^{102} p^{20}$$
$$+ 23\, q^{102} p^{19} + 3\, q^{102} p^{18} + 79345\, p^{117} q^{122} + 65841524\, q^{46} p^{21} + 5670253\, q^{45} p^{16} + p^{120} q^{37} + 811\, p^{130} q^{91} + 318\, p^{128} q^{71}$$
$$+ 236385042\, q^{48} p^{24} + 104174434\, q^{47} p^{22} + 154583977\, q^{47} p^{23} + 223525160487\, p^{56} q^{70} + 1521294845\, q^{47} p^{30} + 85967576096\, p^{82} q^{87}$$
$$+ 3584226792\, p^{38} q^{82} + 159\, p^{132} q^{109} + p^{119} q^{35} + 45\, p^{126} q^{57} + 42\, p^{124} q^{50} + 17452\, p^{123} q^{121} + 1746201481\, p^{106} q^{70} + 664\, q^{81} p^{12}$$
$$+ 129\, p^{113} q^{30} + 2255\, p^{120} q^{46} + 180\, p^{115} q^{33} + 1740\, p^{121} q^{48} + 753776066\, q^{72} p^{29} + 516173944\, q^{72} p^{28} + 346900051\, q^{72} p^{27}$$
$$+ 122841156411\, p^{50} q^{59} + 46280509093\, p^{45} q^{73} + 24069027410\, p^{42} q^{74} + 38587346949\, p^{44} q^{73} + 26086250162\, p^{42} q^{73}$$
$$+ 31877850377\, p^{43} q^{73} + 867587744\, q^{93} p^{41} + 84420959\, q^{92} p^{33} + 56836773\, q^{92} p^{32} + 1130478294\, q^{93} p^{42} + 1532650013\, p^{105} q^{92}$$
$$+ 14703289560\, q^{88} p^{49} + 2229626070\, p^{58} q^{30} + 582242476\, p^{57} q^{26} + 1626330161\, p^{58} q^{29} + 144648786827\, p^{61} q^{51}$$
$$+ 160428135251\, p^{61} q^{52} + 31694\, p^{46} q^{9} + 11598\, p^{45} q^{8} + 9801996488\, p^{91} q^{50} + 992\, p^{61} q^{8} + 162656876330\, p^{73} q^{54}$$
$$+ 55012014231\, p^{73} q^{46} + 169976242493\, p^{74} q^{55} + 20602646\, p^{107} q^{45} + 30867794\, p^{114} q^{102} + 4998277\, p^{105} q^{38} + 40641342\, p^{114} q^{100}$$
$$+ 154583977\, p^{113} q^{89} + 247244841\, p^{112} q^{76} + 255936612\, p^{112} q^{77} + 93948083\, p^{114} q^{91} + 182192522\, p^{113} q^{81} + 187032757\, p^{112} q^{71}$$
$$+ 9289814\, p^{106} q^{41} + 3585250\, p^{104} q^{36} + 4256881\, p^{119} q^{71} + 3195646\, p^{121} q^{91} + 53231450416\, p^{44} q^{58} + 62065973524\, p^{45} q^{58}$$
$$+ 147257891\, p^{100} q^{110} + 169719149\, p^{99} q^{110} + 193958360\, p^{98} q^{110} + 3170777754\, q^{81} p^{37} + 1286435706\, q^{81} p^{34} + 1761744702\, q^{81} p^{35}$$
$$+ 4172421672\, q^{81} p^{38} + 31882294840\, p^{78} q^{95} + 28985150516\, p^{84} q^{94} + 26566788547\, p^{72} q^{96} + 15686517271\, p^{65} q^{97}$$
$$+ 2372215881\, p^{32} q^{46} + 4165978624\, p^{34} q^{47} + 3024852260\, p^{33} q^{46} + 6974537117\, p^{68} q^{35} + 48819254725\, p^{69} q^{44}$$
$$+ 167678267411\, p^{70} q^{53} + 31041578096\, p^{79} q^{95} + 225012000\, p^{24} q^{47} + 664769749\, p^{27} q^{48} + 321701394\, p^{25} q^{47} + 452270912\, p^{26} q^{47}$$
$$+ 3294994796\, p^{33} q^{47} + 2284867188\, p^{102} q^{59} + 987713691\, p^{100} q^{50} + 3706787856\, p^{103} q^{67} + 155516825\, p^{108} q^{103} + 650563494\, p^{100} q^{48}$$
$$+ 1499313074\, p^{101} q^{54} + 112891206\, p^{98} q^{39} + 80573517\, p^{97} q^{37} + 154326763\, p^{98} q^{40} + 7046321\, p^{114} q^{110} + 9465569\, p^{113} q^{110}$$

$$+ 12534344\, p^{112}\, q^{110} + 45835\, q^{96}\, p^{22} + 2337140\, q^{101}\, p^{32} + 898607\, q^{102}\, p^{31} + 3725371\, q^{101}\, p^{33} + 37944\, q^{98}\, p^{23} + 100883586774\, p^{58}\, q^{83}$$
$$+ 91241539\, p^{99}\, q^{112} + 18063566\, p^{113}\, q^{107} + 10135659900\, q^{76}\, p^{39} + 1460\, p^{126}\, q^{125} + 1234769998\, q^{74}\, p^{31} + 46854729938\, q^{77}\, p^{47}$$
$$+ 42904847\, p^{62}\, q^{113} + 31234001\, p^{60}\, q^{113} + 36770018\, p^{61}\, q^{113} + 18179616\, p^{60}\, q^{114} + 49632523\, p^{63}\, q^{113} + 56931311\, p^{64}\, q^{113}$$
$$+ 64765802\, p^{65}\, q^{113} + 63470380\, p^{103}\, q^{43} + 52\, p^{132}\, q^{125} + 2733961\, p^{97}\, q^{29} + 542841221\, p^{91}\, q^{109} + 1194231\, p^{80}\, q^{19} + 57151\, q^{106}\, p^{30}$$
$$+ 9366627201\, p^{97}\, q^{91} + 8492720\, q^{115}\, p^{59} + 5672492\, q^{115}\, p^{57} + 6976321\, q^{115}\, p^{58} + 1881752\, q^{116}\, p^{55} + 24013560773\, p^{96}\, q^{81}$$
$$+ 219441\, q^{64}\, p^{13} + 27040861\, p^{90}\, q^{117} + 15447922\, p^{92}\, q^{118} + 8895961401\, p^{95}\, q^{94} + 2392\, q^{116}\, p^{38} + 14030385234\, p^{84}\, q^{98}$$
$$+ 32957738093\, p^{95}\, q^{76} + 32525032819\, p^{95}\, q^{77} + 32934842330\, p^{95}\, q^{73} + 3\, p^{57}\, q^{5} + 1316370629\, p^{71}\, q^{107} + 29643296\, p^{106}\, q^{112}$$
$$+ 9305659\, q^{119}\, p^{81} + 13738027534\, p^{96}\, q^{89} + 33164557846\, p^{95}\, q^{74} + 27412536780\, p^{95}\, q^{67} + 159\, q^{112}\, p^{29} + p^{16}\, q + 1043272620\, p^{78}\, q^{32}$$
$$+ 735471649\, p^{78}\, q^{31} + 100883586774\, p^{83}\, q^{58} + 4215899890\, p^{79}\, q^{37} + 110177220118\, p^{83}\, q^{59} + 206037\, q^{112}\, p^{40} + 112\, p^{46}\, q^{5}$$
$$+ 487878\, p^{107}\, q^{35} + 213657180369\, p^{78}\, q^{79} + 7\, p^{124}\, q^{134} + 52\, p^{125}\, q^{132} + 44\, p^{126}\, q^{132} + p^{122}\, q^{135} + 39367\, p^{127}\, q^{96} + 272172038\, p^{74}\, q^{27}$$
$$+ 26357132\, p^{105}\, q^{113} + p^{121}\, q^{135} + 30867794\, p^{102}\, q^{114} + 15805755\, p^{109}\, q^{112} + 19704409\, p^{108}\, q^{112} + 7458140\, p^{113}\, q^{111}$$
$$+ 26549214\, p^{103}\, q^{114} + 24852814\, p^{101}\, q^{115} + 24046325\, p^{98}\, q^{116} + 28254544\, p^{100}\, q^{115} + 45549932271\, p^{91}\, q^{84} + 8796\, q^{102}\, p^{24}$$
$$+ 2953784311\, q^{91}\, p^{44} + 2953784311\, q^{92}\, p^{45} + 812595373\, q^{91}\, p^{39} + 65100285399\, p^{52}\, q^{81} + 136241486424\, p^{82}\, q^{82} + 2328\, p^{122}\, q^{127}$$
$$+ 24660564562\, p^{60}\, q^{93} + 878784\, q^{121}\, p^{70} + 12448\, p^{68}\, q^{11} + 151664\, p^{116}\, q^{121} + 515371839\, p^{102}\, q^{50} + 8278815\, p^{89}\, q^{26}$$
$$+ 21234026452\, p^{95}\, q^{86} + 1951\, p^{33}\, q^{6} + 302857904\, p^{46}\, q^{25} + 585005543\, p^{46}\, q^{27} + 62590434\, p^{45}\, q^{21} + 212654025\, p^{46}\, q^{24}$$
$$+ 424221433\, p^{46}\, q^{26} + 3294994796\, p^{47}\, q^{33} + 1521294845\, p^{47}\, q^{30} + 1146998386\, p^{47}\, q^{29} + 2577047885\, p^{47}\, q^{32} + 1992128240\, p^{47}\, q^{31}$$
$$+ 4165978624\, p^{47}\, q^{34} + 5210688149\, p^{47}\, q^{35} + 7027915437\, p^{48}\, q^{36} + 200405\, p^{39}\, q^{11} + 419333\, p^{40}\, q^{12} + 92707\, p^{39}\, q^{10} + 841240\, p^{41}\, q^{13}$$
$$+ 15447922\, p^{44}\, q^{18} + 5312341\, p^{43}\, q^{16} + 10501300782\, p^{48}\, q^{38} + 17875021853\, p^{48}\, q^{41} + 24385002206\, p^{48}\, q^{43} + 20966832329\, p^{48}\, q^{42}$$
$$+ 12653394832\, p^{48}\, q^{39} + 8632959623\, p^{48}\, q^{37} + 156\, p^{28}\, q^{4} + 583\, p^{31}\, q^{5} + 39255\, p^{37}\, q^{9} + 5812\, p^{35}\, q^{7} + 15770\, p^{36}\, q^{8}$$
$$+ 28125602671\, p^{48}\, q^{44} + 35484672423\, p^{49}\, q^{45} + 15106772819\, p^{48}\, q^{40} + 8974853\, p^{43}\, q^{17} + 1625889\, p^{42}\, q^{14} + 38694113\, p^{44}\, q^{20}$$
$$+ 24762792\, p^{44}\, q^{19} + 93948083\, p^{45}\, q^{22} + 138200959\, p^{45}\, q^{23} + 794917609\, p^{46}\, q^{28} + 2930193\, p^{42}\, q^{15} + 5292076\, p^{120}\, q^{82}$$
$$+ 13058104153\, p^{41}\, q^{45} + 17063594868\, p^{42}\, q^{46} + 5210688149\, p^{35}\, q^{47} + 3814381434\, p^{34}\, q^{46} + 909319820\, p^{28}\, q^{48} + 625866808\, p^{27}\, q^{47}$$
$$+ 1327\, q^{91}\, p^{16} + 600\, q^{90}\, p^{15} + 39638\, p^{55}\, q^{10} + 4621215204\, p^{70}\, q^{34} + 24412017708\, p^{71}\, q^{41} + 339268346\, q^{48}\, p^{25} + 1012982\, p^{70}\, q^{16}$$
$$+ 33055529656\, p^{50}\, q^{84} + 98900555051\, p^{69}\, q^{88} + 9410913494\, p^{44}\, q^{85} + 231544946062\, p^{74}\, q^{80} + 3484142873\, p^{101}\, q^{60}$$

$$+ 6151654096\, p^{102}\, q^{71} + 8164283357\, p^{86}\, q^{100} + q^{90}\, p^{12} + 25302099\, p^{62}\, q^{114} + 28684315\, q^{48}\, p^{19} + 478717299\, q^{48}\, p^{26} + 4052462\, p^{93}\, q^{27}$$
$$+ 630539821\, p^{102}\, q^{51} + 294399938\, p^{101}\, q^{46} + 2185703746\, p^{60}\, q^{30} + 563588848\, p^{59}\, q^{26} + 1584584807\, p^{60}\, q^{29} + 148877166747\, p^{63}\, q^{51}$$
$$+ 165655377016\, p^{63}\, q^{52} + 172673294\, p^{58}\, q^{23} + 15861183\, p^{56}\, q^{18} + 2780646\, p^{54}\, q^{15} + 11319910554\, p^{61}\, q^{36} + 213657180369\, p^{58}\, q^{57}$$
$$+ 543551\, p^{110}\, q^{121} + 73403893\, q^{49}\, p^{21} + 5631560\, p^{118}\, q^{68} + 5490927\, p^{120}\, q^{83} + 1830902\, p^{121}\, q^{101} + 5655724\, p^{120}\, q^{84}$$
$$+ 1532650013\, q^{105}\, p^{92} + 4232688\, p^{118}\, q^{66} + 2893067\, p^{117}\, q^{60} + 10202186\, q^{47}\, p^{17} + 805617619\, p^{100}\, q^{49} + 344893465\, p^{99}\, q^{44}$$
$$+ 1057498138\, p^{101}\, q^{52} + 17063594868\, p^{90}\, q^{94} + 383179381\, q^{82}\, p^{31} + 97219697\, q^{110}\, p^{58} + 26002867\, p^{111}\, q^{108} + 3441227629\, p^{99}\, q^{96}$$
$$+ 6469530213\, p^{94}\, q^{97} + 7377114109\, p^{93}\, q^{97} + 258727944387\, p^{57}\, q^{66} + 332983787\, p^{107}\, q^{100} + 5677284928\, p^{71}\, q^{35}$$
$$+ 145998297539\, p^{73}\, q^{53} + 41353836841\, p^{72}\, q^{44} + 12225642741\, p^{87}\, q^{47} + 275683045251\, p^{58}\, q^{67} + 22599413\, q^{83}\, p^{25} + 1464756\, q^{82}\, p^{20}$$
$$+ 715191\, q^{82}\, p^{19} + 4077541539\, p^{103}\, q^{86} + 3825297677\, p^{103}\, q^{87} + 5245550964\, p^{103}\, q^{79} + 38896581\, p^{65}\, q^{114} + 6865\, q^{109}\, p^{30} + 32\, q^{106}\, p^{22}$$
$$+ 113599\, q^{114}\, p^{42} + 435339\, q^{118}\, p^{55} + 566478\, q^{118}\, p^{56} + 34\, q^{100}\, p^{18} + 1402018\, q^{120}\, p^{68} + 42\, q^{103}\, p^{20} + 180\, q^{103}\, p^{21} + 606\, q^{103}\, p^{22}$$
$$+ 89722405231\, p^{72}\, q^{89} + 87516944406\, p^{70}\, q^{89} + 238194092\, p^{75}\, q^{27} + 77529098685\, q^{90}\, p^{74} + 75230210641\, q^{90}\, p^{70} + 317561\, q^{103}\, p^{30}$$
$$+ 61328964540\, p^{85}\, q^{88} + 45788926\, q^{48}\, p^{20} + 2290\, p^{129}\, q^{116} + 1043272620\, p^{104}\, q^{58} + 62590434\, p^{91}\, q^{115} + 80\, p^{85}\, q^{12}$$
$$+ 177512307\, p^{85}\, q^{113} + 360\, p^{50}\, q^{6} + 6910381182\, p^{77}\, q^{102} + 5245550964\, p^{79}\, q^{103} + 6683332415\, p^{80}\, q^{102} + 6880361953\, p^{78}\, q^{102}$$
$$+ 6804195454\, p^{79}\, q^{102} + 6830646741\, p^{75}\, q^{102} + 6893699180\, p^{76}\, q^{102} + 33863162\, p^{110}\, q^{108} + 21987857564\, p^{39}\, q^{59}$$
$$+ 26870281939\, p^{40}\, q^{59} + 32525032819\, p^{41}\, q^{59} + 267697478664\, p^{58}\, q^{69} + 96792453106\, p^{77}\, q^{88} + 79245722278\, p^{79}\, q^{89}$$
$$+ 85916885273\, p^{80}\, q^{88} + 93657441871\, p^{78}\, q^{88} + 90010623338\, p^{79}\, q^{88} + 101308820419\, p^{75}\, q^{88} + 99358721110\, p^{76}\, q^{88} + 4112\, p^{123}\, q^{56}$$
$$+ 9739\, p^{125}\, q^{67} + 1984\, p^{129}\, q^{117} + 5710\, p^{125}\, q^{65} + 12680\, p^{122}\, q^{123} + 352178861556\, p^{67}\, q^{63} + 339946749620\, p^{67}\, q^{62}$$
$$+ 325925737421\, p^{67}\, q^{61} + 362401990827\, p^{67}\, q^{64} + 24335061751\, q^{67}\, p^{40} + 29944507956\, q^{67}\, p^{41} + 44050948605\, q^{67}\, p^{43}$$
$$+ 36490718977\, q^{67}\, p^{42} + 52692901360\, q^{67}\, p^{44} + 213661517\, q^{63}\, p^{24} + 137166797\, q^{63}\, p^{23} + 24248363248\, p^{87}\, q^{51} + 5051964843\, p^{86}\, q^{42}$$
$$+ 42039503744\, p^{87}\, q^{55} + 11982969105\, p^{86}\, q^{46} + 80547500606\, p^{88}\, q^{64} + 261275004\, p^{82}\, q^{30} + 1057498138\, p^{84}\, q^{35} + 485871110\, q^{63}\, p^{26}$$
$$+ 79955343\, q^{64}\, p^{22} + 25227869971\, q^{66}\, p^{40} + 1385208068\, q^{64}\, p^{29} + 3312749\, q^{61}\, p^{16} + 1807827\, q^{60}\, p^{15} + 17897730\, q^{63}\, p^{19} + 5\, p^{80}\, q^{131}$$
$$+ 3\, p^{79}\, q^{131} + 325524163\, q^{63}\, p^{25} + 2763102871\, q^{80}\, p^{36} + 37069204\, q^{102}\, p^{40} + 1193123096\, q^{71}\, p^{30} + 1187735\, p^{108}\, q^{120}$$
$$+ 976051860\, q^{64}\, p^{28} + 287427060\, q^{65}\, p^{25} + 112\, q^{46}\, p^{5} + 606\, q^{47}\, p^{6} + 3\, p^{49}\, q^{4} + 159516072820\, p^{81}\, q^{61} + 179872808496\, p^{81}\, q^{63}$$
$$+ 169976242493\, p^{81}\, q^{62} + 167678267411\, p^{53}\, q^{70} + 2417173731\, q^{66}\, p^{31} + 28985150516\, p^{94}\, q^{84} + 10007564143\, q^{66}\, p^{36}$$

$$+ 7724589048\, q^{66}\, p^{35} + 4436631453\, q^{66}\, p^{33} + 5891093466\, q^{66}\, p^{34} + 3297518817\, q^{66}\, p^{32} + 20341123997\, q^{66}\, p^{39} + 16232740985\, q^{66}\, p^{38}$$
$$+ 12280437530\, q^{67}\, p^{37} + 10397788363\, q^{65}\, p^{36} + 72540\, p^{70}\, q^{13} + 200634488326\, p^{58}\, q^{56} + 154401\, p^{71}\, q^{14} + 373937261599\, p^{66}\, q^{69}$$
$$+ 83180102128\, p^{85}\, q^{85} + 59105413605\, p^{89}\, q^{84} + 52093288083\, p^{90}\, q^{84} + 288359535200\, p^{60}\, q^{71} + 2535\, p^{67}\, q^{126} + 2337140\, q^{104}\, p^{35}$$
$$+ 42215264529\, p^{91}\, q^{85} + 19704409\, p^{112}\, q^{108} + 215934003430\, p^{56}\, q^{71} + 1408382\, p^{112}\, q^{45} + 9360366185\, p^{87}\, q^{99} + 7939804479\, p^{92}\, q^{50}$$
$$+ 769\, p^{62}\, q^{8} + 20539219716\, p^{84}\, q^{96} + 3518592\, q^{113}\, p^{50} + 9739\, p^{69}\, q^{11} + 17869583255\, p^{96}\, q^{86} + 55157445115\, q^{77}\, p^{48}$$
$$+ 74528057885\, q^{77}\, p^{50} + 97479862188\, q^{77}\, p^{52} + 85574839539\, q^{77}\, p^{51} + 110177220118\, q^{77}\, p^{53} + 123576773788\, q^{77}\, p^{54}$$
$$+ 126393675869\, q^{78}\, p^{55} + 64382075557\, q^{77}\, p^{49} + 7857163\, p^{115}\, q^{108} + 16373755\, p^{110}\, q^{111} + 5165486036\, p^{103}\, q^{80} + 3563105478\, p^{103}\, q^{88}$$
$$+ 388041461\, p^{107}\, q^{99} + 513602223\, p^{107}\, q^{97} + 410\, p^{99}\, q^{131} + 373\, p^{98}\, q^{131} + 335\, p^{97}\, q^{131} + 226\, p^{94}\, q^{131} + 261\, p^{95}\, q^{131} + 446\, p^{100}\, q^{131}$$
$$+ 48\, p^{97}\, q^{132} + 33172263279\, p^{95}\, q^{75} + 727740\, p^{79}\, q^{18} + 3631480\, p^{81}\, q^{21} + 5337539\, p^{82}\, q^{22} + 4367\, p^{67}\, q^{10} + 22953102213\, p^{96}\, q^{82}$$
$$+ 130\, p^{132}\, q^{118} + 81\, p^{129}\, q^{73} + 159\, p^{132}\, q^{114} + 164\, p^{132}\, q^{111} + 8872\, p^{126}\, q^{72} + 12431\, p^{128}\, q^{92} + 1938\, p^{122}\, q^{51} + 44379872\, p^{89}\, q^{116}$$
$$+ 42706378\, p^{90}\, q^{116} + 29313\, p^{125}\, q^{72} + 35219\, p^{127}\, q^{92} + 6717\, p^{121}\, q^{51} + 40799214\, p^{91}\, q^{116} + 38694113\, p^{92}\, q^{116} + 2\, q^{40}\, p^{3}$$
$$+ 55668559388\, p^{76}\, q^{92} + 38282584\, p^{76}\, q^{116} + 40413119\, p^{77}\, q^{116} + 238708821\, p^{102}\, q^{107} + 11\, q^{45}\, p^{4} + 12583384\, p^{114}\, q^{58}$$
$$+ 27040861\, p^{117}\, q^{90} + 1101284330\, p^{95}\, q^{105} + 73\, q^{48}\, p^{5} + 230\, p^{128}\, q^{70} + 478717299\, p^{88}\, q^{110} + 503107834\, p^{87}\, q^{110} + 525014854\, p^{86}\, q^{110}$$
$$+ 42355009\, p^{78}\, q^{116} + 44071958\, p^{79}\, q^{116} + 164826514\, p^{104}\, q^{107} + 13730\, p^{122}\, q^{56} + 31506\, p^{124}\, q^{67} + 3892\, p^{128}\, q^{117} + 19532\, p^{124}\, q^{65}$$
$$+ 211522\, p^{110}\, q^{123} + 11783\, p^{124}\, q^{121} + 11581\, q^{115}\, p^{39} + 19587\, q^{115}\, p^{40} + 32099\, q^{115}\, p^{41} + 1641542607\, p^{67}\, q^{30} + 31139049\, p^{63}\, q^{20}$$
$$+ 925\, p^{92}\, q^{130} + 73\, p^{88}\, q^{131} + 6244869135\, p^{97}\, q^{56} + 6266398115\, p^{98}\, q^{58} + 6775833266\, p^{61}\, q^{99} + 13249936364\, p^{66}\, q^{98} + 1276\, p^{41}\, q^{6}$$
$$+ 15372\, p^{128}\, q^{97} + 13189\, p^{128}\, q^{93} + 337924\, p^{52}\, q^{12} + 153317\, p^{51}\, q^{11} + 703187\, p^{53}\, q^{13} + 1392242\, p^{54}\, q^{14} + 15219005216\, p^{42}\, q^{45}$$
$$+ 19763105574\, p^{43}\, q^{46} + 17523885592\, p^{87}\, q^{49} + 84919661009\, p^{89}\, q^{77} + 71767293860\, p^{90}\, q^{78} + 6449955838\, p^{36}\, q^{47}$$
$$+ 4758773997\, p^{35}\, q^{46} + 182912784\, p^{54}\, q^{23} + 159\, p^{61}\, q^{7} + 67\, q^{125}\, p^{54} + 1984304016\, p^{105}\, q^{67} + 334061467\, p^{102}\, q^{48} + 853272777\, p^{28}\, q^{47}$$
$$+ 2142403246\, p^{31}\, q^{48} + 7904167716\, p^{37}\, q^{47} + 1226212009\, p^{29}\, q^{48} + 161733611\, p^{23}\, q^{48} + 1631298629\, p^{30}\, q^{48} + 355254928\, p^{25}\, q^{49}$$
$$+ 108520119\, p^{22}\, q^{48} + 71299036\, p^{21}\, q^{48} + 4526998\, p^{91}\, q^{26} + 9930872\, p^{63}\, q^{18} + 1637009\, p^{61}\, q^{15} + 221095\, p^{120}\, q^{116} + 1704934\, q^{115}\, p^{52}$$
$$+ 27\, p^{123}\, q^{133} + 20539219716\, p^{96}\, q^{84} + 1758\, q^{113}\, p^{33} + 677050\, q^{119}\, p^{60} + 8069896\, p^{116}\, q^{106} + 50713542\, p^{103}\, q^{112} + 80747143\, p^{102}\, q^{111}$$
$$+ 94323566\, p^{101}\, q^{111} + 63273075\, p^{105}\, q^{110} + 432444\, p^{90}\, q^{124} + 31519\, p^{115}\, q^{125} + 217599\, q^{117}\, p^{50} + 258337\, q^{115}\, p^{46}$$
$$+ 151793302492\, p^{83}\, q^{79} + 16220493892\, p^{89}\, q^{95} + 21788385794\, p^{83}\, q^{96} + 14609185207\, p^{90}\, q^{95} + 305192332249\, p^{62}\, q^{61}$$

$$+ 313395196616\, p^{63}\, q^{61} + 285616009477\, p^{59}\, q^{63} + 292783104944\, p^{60}\, q^{62} + 305192332249\, p^{61}\, q^{62} + 30018431791\, p^{95}\, q^{80}$$
$$+ 451744\, p^{65}\, q^{14} + 219441\, p^{64}\, q^{13} + 668782350\, p^{94}\, q^{41} + 123080199\, p^{92}\, q^{34} + 1883373\, p^{86}\, q^{22} + 10121444938\, p^{100}\, q^{82}$$
$$+ 9218216937\, p^{100}\, q^{84} + 7602543\, q^{113}\, p^{53} + 5952629\, q^{113}\, p^{52} + 9598597\, q^{113}\, p^{54} + 11985863\, q^{113}\, p^{55} + 14808179\, q^{113}\, p^{56}$$
$$+ 11982969105\, p^{90}\, q^{50} + 1268\, p^{60}\, q^{8} + 27465503799\, p^{48}\, q^{83} + 131177456\, p^{69}\, q^{24} + 10571178582\, p^{73}\, q^{38} + 163987102702\, p^{76}\, q^{56}$$
$$+ 2904601468\, p^{72}\, q^{33} + 284717154\, p^{70}\, q^{26} + 3573753015\, p^{73}\, q^{34} + 19461766560\, p^{74}\, q^{41} + 370428776904\, p^{71}\, q^{69} + 5586\, p^{129}\, q^{105}$$
$$+ 8595\, p^{124}\, q^{62} + 30528\, p^{126}\, q^{79} + 1916\, p^{34}\, q^{6} + 321701394\, p^{47}\, q^{25} + 625866808\, p^{47}\, q^{27} + 65841524\, p^{46}\, q^{21} + 225012000\, p^{47}\, q^{24}$$
$$+ 452270912\, p^{47}\, q^{26} + 3563105478\, p^{48}\, q^{33} + 1631298629\, p^{48}\, q^{30} + 1226212009\, p^{48}\, q^{29} + 2779223635\, p^{48}\, q^{32} + 2142403246\, p^{48}\, q^{31}$$
$$+ 4516738850\, p^{48}\, q^{34} + 5663700264\, p^{48}\, q^{35} + 7602109707\, p^{49}\, q^{36} + 204619\, p^{40}\, q^{11} + 429659\, p^{41}\, q^{12} + 93462\, p^{40}\, q^{10} + 864035\, p^{42}\, q^{13}$$
$$+ 16109018\, p^{45}\, q^{18} + 5508820\, p^{44}\, q^{16} + 11412301473\, p^{49}\, q^{38} + 19553369456\, p^{49}\, q^{41} + 26784944075\, p^{49}\, q^{43} + 22983354780\, p^{49}\, q^{42}$$
$$+ 13781887917\, p^{49}\, q^{39} + 9360366185\, p^{49}\, q^{37} + 13571999\, p^{59}\, q^{18} + 2321493\, p^{57}\, q^{15} + 39614\, p^{38}\, q^{9} + 5740\, p^{36}\, q^{7} + 15764\, p^{37}\, q^{8}$$
$$+ 30955651243\, p^{49}\, q^{44} + 38844857563\, p^{50}\, q^{45} + 16490006107\, p^{49}\, q^{40} + 9369747\, p^{44}\, q^{17} + 1672370\, p^{43}\, q^{14} + 40799214\, p^{45}\, q^{20}$$
$$+ 25971584\, p^{45}\, q^{19} + 99288090\, p^{46}\, q^{22} + 146692960\, p^{46}\, q^{23} + 853272777\, p^{47}\, q^{28} + 3038785\, p^{43}\, q^{15} + 17589388914\, p^{43}\, q^{45}$$
$$+ 22701907739\, p^{44}\, q^{46} + 2779223635\, p^{32}\, q^{48} + 9592531553\, p^{38}\, q^{47} + 503107834\, p^{26}\, q^{49} + 89552724784\, p^{89}\, q^{74} + 80163790452\, p^{89}\, q^{67}$$
$$+ 88910215223\, p^{89}\, q^{71} + 83102807321\, p^{89}\, q^{68} + 89722405231\, p^{89}\, q^{72} + 246569530\, q^{49}\, p^{24} + 168013680\, q^{49}\, p^{23} + 21138971219\, p^{63}\, q^{95}$$
$$+ 19461766560\, p^{62}\, q^{95} + 3362603\, p^{105}\, q^{37} + 1509549\, p^{103}\, q^{33} + 73501478\, p^{109}\, q^{54} + 526288\, p^{102}\, q^{30} + 1360847\, p^{96}\, q^{27}$$
$$+ 97899702\, p^{104}\, q^{46} + 213432097\, p^{105}\, q^{51} + 54457366\, p^{107}\, q^{109} + 69436024\, p^{102}\, q^{42} + 126164863\, p^{104}\, q^{47} + 5165486036\, p^{80}\, q^{103}$$
$$+ 39812917757\, p^{73}\, q^{94} + 36427941\, p^{116}\, q^{93} + 44113452\, p^{112}\, q^{59} + 1077387721\, p^{45}\, q^{96} + 846560947\, p^{44}\, q^{96} + 1945635012\, p^{49}\, q^{97}$$
$$+ 22797113691\, p^{64}\, q^{95} + 14141613\, q^{111}\, p^{51} + 10966741\, q^{110}\, p^{48} + 114512265\, q^{110}\, p^{59} + 14341041\, q^{110}\, p^{49} + 18524336\, q^{110}\, p^{50}$$
$$+ 4052462\, q^{109}\, p^{43} + 2866995\, q^{109}\, p^{42} + 5635633\, q^{109}\, p^{44} + 41\, p^{132}\, q^{96} + 136\, p^{91}\, q^{131} + 112243783\, q^{49}\, p^{22} + 1264847410\, q^{83}\, p^{35}$$
$$+ 18986055604\, p^{94}\, q^{89} + 66566372085\, p^{45}\, q^{62} + 77529098685\, p^{46}\, q^{62} + 89552724784\, p^{47}\, q^{62} + 102606316465\, p^{48}\, q^{62}$$
$$+ 901324786\, p^{79}\, q^{32} + 633040484\, p^{79}\, q^{31} + 89100183004\, p^{84}\, q^{58} + 3671204948\, p^{80}\, q^{37} + 97479862188\, p^{84}\, q^{59} + 13044\, q^{95}\, p^{20}$$
$$+ 7904167716\, p^{89}\, q^{99} + 44\, p^{132}\, q^{126} + 1515247\, q^{117}\, p^{57} + 1900416\, q^{117}\, p^{58} + 2143259\, q^{118}\, p^{62} + 1764437\, q^{118}\, p^{61} + 414\, p^{122}\, q^{130}$$
$$+ 350\, p^{118}\, q^{131} + 1322\, q^{110}\, p^{29} + 276428322948\, p^{65}\, q^{58} + 668782350\, q^{95}\, p^{42} + 114962015550\, p^{49}\, q^{61} + 6722456982\, p^{62}\, q^{34}$$
$$+ 8725857620\, p^{62}\, q^{35} + 708\, p^{90}\, q^{130} + 811\, p^{91}\, q^{130} + 55458786244\, p^{45}\, q^{70} + 5116469317\, p^{62}\, q^{33} + 184354811936\, p^{64}\, q^{53}$$

$$+ 56607552077\, p^{63}\, q^{44} + 106853122\, p^{59}\, q^{22} + 21386\, q^{94}\, p^{20} + 237634\, q^{94}\, p^{23} + 51084\, q^{94}\, p^{21} + 113599\, q^{94}\, p^{22} + 3077722687\, p^{86}\, q^{40}$$
$$+ 2360820677\, p^{86}\, q^{39} + 1619191868\, p^{85}\, q^{37} + 3965469871\, p^{86}\, q^{41} + 543645159\, p^{84}\, q^{33} + 17073500475\, p^{89}\, q^{51} + 8388910086\, p^{88}\, q^{46}$$
$$+ 58726515426\, p^{90}\, q^{64} + 30112753578\, p^{89}\, q^{55} + 239987701230\, p^{70}\, q^{80} + 1410756421\, q^{91}\, p^{41} + 2334832305\, q^{91}\, p^{43}$$
$$+ 3697319406\, q^{91}\, p^{45} + 339516322731\, p^{62}\, q^{66} + 352178861556\, p^{63}\, q^{67} + 29313\, p^{72}\, q^{125} + 4592878\, p^{116}\, q^{109} + 153941957305\, p^{53}\, q^{72}$$
$$+ 6874950846\, p^{36}\, q^{72} + 601044455\, p^{74}\, q^{29} + 408377664\, p^{74}\, q^{28} + 1012630\, p^{65}\, q^{15} + 11368998123\, p^{36}\, q^{60} + 2003712739\, p^{102}\, q^{58}$$
$$+ 1220641\, q^{122}\, p^{80} + 66074432519\, p^{45}\, q^{61} + 40010919486\, p^{42}\, q^{62} + 56356668479\, p^{44}\, q^{61} + 39940870286\, p^{42}\, q^{61}$$
$$+ 47654702918\, p^{43}\, q^{61} + 35105397104\, p^{68}\, q^{94} + 21899653434\, p^{39}\, q^{63} + 27231835854\, p^{40}\, q^{62} + 33164557846\, p^{41}\, q^{62} + 196717\, p^{90}\, q^{125}$$
$$+ q^{115}\, p^{29} + 5\, q^{115}\, p^{30} + q^{114}\, p^{28} + 16763338\, p^{116}\, q^{67} + 20958\, p^{85}\, q^{127} + 27574\, p^{88}\, q^{127} + 25390\, p^{87}\, q^{127} + 23168\, p^{86}\, q^{127}$$
$$+ 6756293\, p^{107}\, q^{116} + 5599827\, p^{108}\, q^{116} + 21673742\, p^{102}\, q^{115} + 21615131\, p^{99}\, q^{116} + 24296093\, p^{107}\, q^{112} + 327754\, p^{104}\, q^{31}$$
$$+ 64765802\, p^{113}\, q^{65} + 79955343\, p^{114}\, q^{72} + 31243\, p^{119}\, q^{123} + 20162945080\, p^{44}\, q^{45} + 25868259871\, p^{45}\, q^{46} + 4727\, p^{41}\, q^{7}$$
$$+ 27233855310\, p^{92}\, q^{59} + 45389511720\, p^{93}\, q^{70} + 3590688778\, p^{89}\, q^{43} + 2220795\, p^{115}\, q^{53} + 1883373\, p^{114}\, q^{50} + 11532324761\, p^{39}\, q^{47}$$
$$+ 13738027534\, p^{40}\, q^{47} + 3563105478\, p^{33}\, q^{48} + 2279397507\, p^{67}\, q^{31} + 102852554683\, p^{70}\, q^{49} + 344756205836\, p^{71}\, q^{64} + 244628\, p^{56}\, q^{12}$$
$$+ 811\, p^{45}\, q^{6} + 4516738850\, p^{34}\, q^{48} + 5663700264\, p^{35}\, q^{48} + 1736745360\, p^{30}\, q^{49} + 325524163\, p^{63}\, q^{25} + 229829642506\, p^{69}\, q^{56}$$
$$+ 1301541207\, p^{29}\, q^{49} + 962141679\, p^{28}\, q^{49} + 4645271105\, p^{65}\, q^{33} + 91759269\, p^{62}\, q^{22} + 369372283\, p^{25}\, q^{50} + 701068088\, p^{27}\, q^{49}$$
$$+ 4590\, p^{124}\, q^{60} + 7510\, p^{125}\, q^{66} + 1043\, p^{121}\, q^{47} + 4524437\, p^{97}\, q^{30} + 12277874\, p^{98}\, q^{33} + 276742037\, q^{94}\, p^{38} + 39350729134\, p^{72}\, q^{94}$$
$$+ 2975731977\, q^{104}\, p^{87} + 3644054011\, q^{104}\, p^{83} + 898531239\, p^{92}\, q^{107} + 1148489416\, p^{82}\, q^{108} + 676177534\, p^{72}\, q^{109} + 4256881\, q^{119}\, p^{71}$$
$$+ 5297087\, q^{119}\, p^{73} + 6384284\, q^{119}\, p^{75} + 5838156\, q^{119}\, p^{74} + 6927436\, q^{119}\, p^{76} + 7972097\, q^{119}\, p^{78} + 7459682\, q^{119}\, p^{77} + 5812\, p^{101}\, q^{129}$$
$$+ 372654\, q^{114}\, p^{45} + 237634\, q^{113}\, p^{42} + 256033\, q^{114}\, p^{44} + 156054\, q^{113}\, p^{41} + 202304435\, p^{63}\, q^{110} + 177679581\, p^{62}\, q^{110}$$
$$+ 37264353\, p^{53}\, q^{110} + 284717154\, p^{66}\, q^{110} + 23647102\, p^{51}\, q^{110} + 771309753\, p^{75}\, q^{109} + 608\, q^{116}\, p^{36} + 3965469871\, q^{86}\, p^{41}$$
$$+ 334061467\, p^{88}\, q^{34} + 23647102\, p^{85}\, q^{26} + 49632523\, p^{113}\, q^{63} + 10966741\, p^{110}\, q^{48} + 81814157\, p^{113}\, q^{67} + 1578195230\, p^{82}\, q^{107}$$
$$+ 1927129966\, p^{106}\, q^{85} + 244646\, p^{88}\, q^{20} + 43901533904\, p^{79}\, q^{93} + 1769848957\, p^{90}\, q^{41} + 1026690087\, p^{90}\, q^{39} + 712446610\, p^{89}\, q^{37}$$
$$+ 233728998\, p^{88}\, q^{33} + 5800498897\, p^{99}\, q^{92} + 13468633856\, p^{92}\, q^{94} + 15219005216\, p^{91}\, q^{94} + 12277874\, q^{98}\, p^{33} + 28250505\, q^{99}\, p^{36}$$
$$+ 7926307\, q^{98}\, p^{32} + 3514259\, p^{117}\, q^{61} + 8456343\, p^{119}\, q^{79} + 3743\, p^{126}\, q^{122} + 3944457266\, q^{104}\, p^{80} + 3995016833\, q^{104}\, p^{79}$$
$$+ 13781887917\, p^{97}\, q^{87} + 10302557482\, p^{58}\, q^{96} + 25958803061\, p^{66}\, q^{95} + 8844256684\, p^{75}\, q^{101} + 102599\, p^{111}\, q^{37} + 48338\, p^{109}\, q^{33}$$

$$+ 5152286419\, p^{99}\, q^{93} + 6193551315\, p^{98}\, q^{93} + 930039\, p^{81}\, q^{19} + 7826950805\, p^{98}\, q^{91} + 19815210959\, p^{97}\, q^{81} + 27172490743\, p^{96}\, q^{76}$$
$$+ 26870281939\, p^{96}\, q^{77} + 26987940082\, p^{96}\, q^{73} + 11532324761\, p^{97}\, q^{89} + 27231835854\, p^{96}\, q^{74} + 22183271870\, p^{96}\, q^{67}$$
$$+ 2045291\, p^{106}\, q^{37} + 924892\, p^{104}\, q^{33} + 46039269\, p^{110}\, q^{54} + 317561\, p^{103}\, q^{30} + 169719149\, p^{110}\, q^{99} + 219831459\, p^{110}\, q^{97} + 476\, p^{74}\, q^{10}$$
$$+ 22\, p^{60}\, q^{6} + 6366626377\, p^{93}\, q^{50} + 582\, p^{63}\, q^{8} + 7510\, p^{70}\, q^{11} + 14902628457\, p^{97}\, q^{86} + 3934714\, q^{59}\, p^{16} + 9414832\, p^{73}\, q^{20}$$
$$+ 50842803700\, p^{83}\, q^{52} + 44135793684\, p^{83}\, q^{51} + 29313\, p^{64}\, q^{11} + 9668280255\, p^{82}\, q^{42} + 2052488804\, p^{80}\, q^{35} + 32445407669\, p^{83}\, q^{49}$$
$$+ 137364173590\, p^{84}\, q^{64} + 509858945\, p^{78}\, q^{30} + 74112171716\, p^{83}\, q^{55} + 22042182692\, p^{82}\, q^{46} + 41\, q^{98}\, p^{17} + 43\, q^{107}\, p^{23} + 1322\, q^{107}\, p^{26}$$
$$+ 7182\, q^{108}\, p^{29} + 159\, q^{107}\, p^{24} + 2893067\, p^{76}\, q^{19} + 32\, p^{41}\, q^{4} + 335\, p^{131}\, q^{97} + 129\, p^{132}\, q^{105} + 69\, p^{127}\, q^{62} + 193\, p^{131}\, q^{93} + 56\, p^{129}\, q^{72}$$
$$+ 8\, p^{125}\, q^{51} + 163\, p^{131}\, q^{92} + 339268346\, p^{48}\, q^{25} + 664769749\, p^{48}\, q^{27} + 68762659\, p^{47}\, q^{21} + 236385042\, p^{48}\, q^{24} + 478717299\, p^{48}\, q^{26}$$
$$+ 3825297677\, p^{49}\, q^{33} + 1736745360\, p^{49}\, q^{30} + 1301541207\, p^{49}\, q^{29} + 2975731977\, p^{49}\, q^{32} + 2287505832\, p^{49}\, q^{31} + 4861689128\, p^{49}\, q^{34}$$
$$+ 6111560673\, p^{49}\, q^{35} + 8164283357\, p^{50}\, q^{36} + 207313\, p^{41}\, q^{11} + 436906\, p^{42}\, q^{12} + 93434\, p^{41}\, q^{10} + 880772\, p^{43}\, q^{13} + 16676245\, p^{46}\, q^{18}$$
$$+ 5670253\, p^{45}\, q^{16} + 12313011059\, p^{50}\, q^{38} + 21234026452\, p^{50}\, q^{41} + 29206319425\, p^{50}\, q^{43} + 25010436584\, p^{50}\, q^{42} + 14902628457\, p^{50}\, q^{39}$$
$$+ 10076143359\, p^{50}\, q^{37} + 39660\, p^{39}\, q^{9} + 15642\, p^{38}\, q^{8} + 33821068526\, p^{50}\, q^{44} + 42215264529\, p^{51}\, q^{45} + 17869583255\, p^{50}\, q^{40}$$
$$+ 9710265\, p^{45}\, q^{17} + 1707384\, p^{44}\, q^{14} + 42706378\, p^{46}\, q^{20} + 27040861\, p^{46}\, q^{19} + 104174434\, p^{47}\, q^{22} + 154583977\, p^{47}\, q^{23}$$
$$+ 909319820\, p^{48}\, q^{28} + 3127784\, p^{44}\, q^{15} + 20033744609\, p^{58}\, q^{93} + 29244165497\, p^{46}\, q^{46} + 16220493892\, p^{41}\, q^{47} + 367221298354\, p^{69}\, q^{65}$$
$$+ 369145599494\, p^{70}\, q^{66} + 7027915437\, p^{36}\, q^{48} + 2287505832\, p^{31}\, q^{49} + 303188425993\, p^{69}\, q^{60} + 248921240172\, p^{69}\, q^{57}$$
$$+ 525014854\, p^{26}\, q^{50} + 87019770649\, p^{89}\, q^{76} + 89937992028\, p^{89}\, q^{73} + 255381061\, q^{50}\, p^{24} + 3142\, p^{63}\, q^{125} + 143158107\, p^{100}\, q^{42}$$
$$+ 264738661\, p^{102}\, q^{47} + 9535378\, p^{115}\, q^{107} + 20530053\, p^{95}\, q^{117} + 733\, p^{87}\, q^{14} + 103728\, p^{107}\, q^{125} + 17875021853\, p^{88}\, q^{95}$$
$$+ 270860\, p^{108}\, q^{35} + 28\, p^{130}\, q^{131} + 20\, p^{131}\, q^{131} + 29\, p^{128}\, q^{132} + 248921240172\, q^{79}\, p^{67} + 59992095\, p^{115}\, q^{75} + 8445325\, p^{111}\, q^{49}$$
$$+ 3274202\, p^{110}\, q^{44} + 48183965\, p^{116}\, q^{85} + 37\, p^{121}\, q^{42} + 2916\, p^{80}\, q^{128} + 215\, p^{76}\, q^{129} + 3814381434\, p^{102}\, q^{90} + 4121024523\, p^{100}\, q^{59}$$
$$+ 283219255\, p^{101}\, q^{107} + 526288\, q^{106}\, p^{34} + 17769903413\, q^{69}\, p^{39} + 22144158369\, p^{74}\, q^{97} + 5297087\, q^{63}\, p^{17} + 11011\, q^{56}\, p^{9}$$
$$+ 28158697\, p^{81}\, q^{117} + 3003922\, q^{62}\, p^{16} + 674883414\, p^{92}\, q^{108} + 14827434\, q^{65}\, p^{19} + 22619\, q^{59}\, p^{10} + 173087434\, p^{70}\, q^{112}$$
$$+ 73082676\, p^{66}\, q^{113} + 200629493\, p^{72}\, q^{112} + 159000535\, p^{69}\, q^{112} + 187032757\, p^{71}\, q^{112} + 52399\, p^{117}\, q^{123} + 1163905772\, q^{67}\, p^{29}$$
$$+ 41062\, q^{120}\, p^{53} + 29024\, q^{120}\, p^{52} + 57091\, q^{120}\, p^{54} + 78032\, q^{120}\, p^{55} + 1641542607\, q^{67}\, p^{30} + 5\, q^{69}\, p^{7} + 1788853401\, p^{98}\, q^{50}$$
$$+ 8725857620\, p^{101}\, q^{74} + 6558357029\, p^{101}\, q^{67} + 8550908567\, p^{101}\, q^{73} + 4165978624\, p^{102}\, q^{89} + 8903818914\, p^{101}\, q^{76}$$

$$+ 8903388071\, p^{101} q^{77} + 2756353039\, p^{103} q^{91} + 6520048325\, p^{102} q^{81} + 3476\, q^{55} p^{8} + 292\, q^{51} p^{6} + 5\, q^{56} p^{5} + 46511894742\, p^{92} q^{66}$$
$$+ 252480694\, p^{86} q^{32} + 26583088718\, p^{91} q^{57} + 4515319823\, p^{89} q^{44} + 131568850488\, p^{84} q^{80} + 66741\, q^{59} p^{11} + 139276\, q^{120} p^{57}$$
$$+ 24\, p^{52} q^{5} + 522193\, p^{64} q^{14} + 254809\, p^{63} q^{13} + 30528\, q^{57} p^{10} + 246855\, p^{83} q^{18} + 1291976\, p^{85} q^{21} + 187032757\, q^{65} p^{24}$$
$$+ 2701901\, q^{63} p^{16} + 679178\, q^{62} p^{14} + 1113\, q^{53} p^{7} + 9081122220\, q^{68} p^{36} + 2279397507\, q^{67} p^{31} + 5602694707\, q^{67} p^{34}$$
$$+ 3118794446\, q^{67} p^{32} + 4208050604\, q^{67} p^{33} + 7365483450\, q^{67} p^{35} + 764493\, q^{61} p^{14} + 44050948605\, p^{93} q^{69} + 2997949\, p^{79} q^{20}$$
$$+ 1195326006\, p^{88} q^{38} + 26135435\, q^{65} p^{20} + 118961615\, q^{65} p^{23} + 44579541\, q^{65} p^{21} + 73814303\, q^{65} p^{22} + 67636809\, q^{66} p^{22}$$
$$+ 51916893040\, p^{82} q^{91} + 175814\, q^{59} p^{12} + 207\, p^{126} q^{60} + 367\, p^{127} q^{66} + 39\, p^{123} q^{47} + 811719301\, q^{67} p^{28} + 173087434\, q^{66} p^{24}$$
$$+ 403677292\, q^{66} p^{26} + 869332309\, q^{66} p^{28} + 597912402\, q^{66} p^{27} + 267175024\, q^{66} p^{25} + 11\, q^{113} p^{28} + 1242187524\, q^{66} p^{29}$$
$$+ 16353588\, q^{64} p^{19} + 28636782\, q^{64} p^{20} + 4767826\, q^{64} p^{17} + 9009895\, q^{64} p^{18} + 1309533\, q^{63} p^{15} + 9399\, q^{57} p^{9} + 334189\, q^{61} p^{13}$$
$$+ 57758\, q^{60} p^{11} + 154770\, q^{60} p^{12} + 8205668\, q^{112} p^{51} + 83102807321\, q^{68} p^{47} + 2916\, q^{56} p^{8} + 2410506\, q^{64} p^{16} + 134970\, q^{61} p^{12}$$
$$+ 8371188\, q^{114} p^{56} + 3984739997\, p^{32} q^{60} + 8903818914\, p^{35} q^{60} + 6893699180\, p^{34} q^{60} + 2920699832\, p^{31} q^{61} + 5273973354\, p^{33} q^{60}$$
$$+ 1129597\, q^{122} p^{79} + 11429843169\, p^{84} q^{99} + 9592531553\, p^{89} q^{98} + 44379872\, p^{116} q^{89} + 66603892\, p^{115} q^{77} + 25971584\, p^{117} q^{91}$$
$$+ 46707186\, p^{116} q^{81} + 44579541\, p^{115} q^{71} + 63439658\, p^{115} q^{76} + 392639510\, p^{78} q^{111} + 383512140\, p^{77} q^{111} + 372000722\, p^{76} q^{111}$$
$$+ 27574\, p^{127} q^{88} + 14968\, p^{128} q^{103} + 123180\, q^{76} p^{15} + 37026958\, p^{112} q^{58} + 65841524\, p^{115} q^{90} + 23613513257\, q^{91} p^{56}$$
$$+ 26583088718\, q^{91} p^{57} + 36246776476\, q^{91} p^{60} + 32931335465\, q^{91} p^{59} + 46280509093\, q^{91} p^{63} + 52576678888\, q^{91} p^{65}$$
$$+ 46511894742\, q^{92} p^{66} + 39606058963\, q^{91} p^{61} + 49500648168\, q^{91} p^{64} + 42966086510\, q^{91} p^{62} + 29698695290\, q^{91} p^{58}$$
$$+ 1195326006\, p^{98} q^{48} + 317\, p^{128} q^{127} + 33542767936\, p^{42} q^{69} + 35283\, p^{73} q^{125} + 128966314302\, p^{69} q^{86} + 131222484126\, p^{70} q^{86}$$
$$+ 144648786827\, p^{75} q^{85} + 18716856615\, p^{39} q^{68} + 142711485\, p^{98} q^{111} + 125901250985\, p^{50} q^{68} + 14703289560\, p^{88} q^{49}$$
$$+ 763373049\, p^{109} q^{85} + 79898\, p^{91} q^{20} + 42144378\, p^{111} q^{56} + 92742986\, p^{112} q^{64} + 34589520\, p^{111} q^{55} + 116727875\, p^{114} q^{80}$$
$$+ 108520119\, p^{114} q^{88} + 18736291\, p^{115} q^{103} + 59066646\, p^{115} q^{92} + 142326324711\, p^{51} q^{68} + 128966314302\, p^{50} q^{67} + 391000066\, p^{84} q^{111}$$
$$+ 33990270\, p^{64} q^{114} + 113386619241\, p^{49} q^{67} + 47082329\, q^{103} p^{42} + 84732089\, q^{105} p^{47} + 1672370\, p^{93} q^{122} + 764043278\, p^{84} q^{34}$$
$$+ 56305951\, p^{81} q^{26} + 12280437530\, p^{69} q^{99} + 7449344172\, p^{65} q^{100} + 11043654005\, p^{67} q^{99} + 11686074608\, p^{68} q^{99} + 84604\, p^{64} q^{12}$$
$$+ 30112753578\, p^{81} q^{47} + 8003335631\, p^{80} q^{40} + 6244869135\, p^{80} q^{39} + 5940151\, p^{72} q^{19} + 163010009937\, p^{84} q^{69} + 165316094797\, p^{84} q^{70}$$
$$+ 23314176196\, p^{40} q^{68} + 167700410268\, p^{80} q^{81} + 28748824120\, p^{41} q^{68} + 32805126183\, p^{47} q^{46} + 18986055604\, p^{42} q^{47}$$

$$+ 8632959623\, p^{37}\, q^{48} + 22035742518\, p^{43}\, q^{47} + 10501300782\, p^{38}\, q^{48} + 2975731977\, p^{32}\, q^{49} + 12653394832\, p^{39}\, q^{48}$$
$$+ 6111560673\, p^{35}\, q^{49} + 4861689128\, p^{34}\, q^{49} + 2425110625\, p^{31}\, q^{50} + 3825297677\, p^{33}\, q^{49} + 1835917884\, p^{30}\, q^{50} + 763373049\, p^{27}\, q^{51}$$
$$+ 1371728708\, p^{29}\, q^{50} + 734131415\, p^{27}\, q^{50} + 1010844694\, p^{28}\, q^{50} + 4270\, p^{64}\, q^{125} + 143776735399\, p^{82}\, q^{61} + 162656876330\, p^{82}\, q^{63}$$
$$+ 153457156571\, p^{82}\, q^{62} + 18779\, p^{127}\, q^{84} + 5309459455\, p^{87}\, q^{43} + 17410219668\, p^{88}\, q^{50} + 1973\, p^{58}\, q^{8} + 21821\, p^{126}\, q^{114}$$
$$+ 10128\, p^{126}\, q^{118} + 49205\, p^{126}\, q^{108} + 39073\, p^{126}\, q^{110} + 8547711266\, p^{101}\, q^{80} + 5663700264\, p^{101}\, q^{88} + q^{30}\, p^{2} + 7934\, p^{58}\, q^{9}$$
$$+ 179018877143\, p^{82}\, q^{65} + 612\, p^{128}\, q^{125} + 6123691894\, p^{66}\, q^{101} + 6558357029\, p^{67}\, q^{101} + 7189\, q^{50}\, p^{8} + 1408382\, p^{91}\, q^{24}$$
$$+ 164842781254\, p^{82}\, q^{79} + 1356318857\, p^{90}\, q^{40} + 253\, p^{65}\, q^{127} + 4208050604\, q^{103}\, p^{69} + 25364497529\, p^{89}\, q^{92} + 29452914\, p^{63}\, q^{114}$$
$$+ 1101736780\, p^{108}\, q^{75} + 4907529391\, p^{82}\, q^{103} + 12126593\, p^{96}\, q^{118} + 18\, q^{72}\, p^{8} + 171\, q^{92}\, p^{15} + 21929885\, p^{106}\, q^{113} + 15891938\, p^{98}\, q^{117}$$
$$+ 8788892\, p^{114}\, q^{109} + 5599827\, p^{116}\, q^{108} + 21115420\, p^{110}\, q^{110} + 5627583952\, p^{95}\, q^{97} + 89722405231\, p^{47}\, q^{64} + 224061595497\, p^{57}\, q^{59}$$
$$+ 117661214896\, p^{64}\, q^{49} + 372000722\, p^{60}\, q^{25} + 8935584777\, p^{37}\, q^{72} + 2134336442\, p^{68}\, q^{31} + 98221380075\, p^{71}\, q^{49}$$
$$+ 334832091910\, p^{72}\, q^{64} + 221003\, p^{57}\, q^{12} + 355254928\, p^{49}\, q^{25} + 701068088\, p^{49}\, q^{27} + 71299036\, p^{48}\, q^{21} + 246569530\, p^{49}\, q^{24}$$
$$+ 503107834\, p^{49}\, q^{26} + 4077541539\, p^{50}\, q^{33} + 1835917884\, p^{50}\, q^{30} + 1371728708\, p^{50}\, q^{29} + 3163497928\, p^{50}\, q^{32} + 2425110625\, p^{50}\, q^{31}$$
$$+ 5195651130\, p^{50}\, q^{34} + 6547675464\, p^{50}\, q^{35} + 8705867597\, p^{51}\, q^{36} + 208370\, p^{42}\, q^{11} + 440800\, p^{43}\, q^{12} + 890977\, p^{44}\, q^{13}$$
$$+ 17138223\, p^{47}\, q^{18} + 5793781\, p^{46}\, q^{16} + 13190222585\, p^{51}\, q^{38} + 22893825879\, p^{51}\, q^{41} + 31617137711\, p^{51}\, q^{43} + 27020691643\, p^{51}\, q^{42}$$
$$+ 15999526105\, p^{51}\, q^{39} + 10769605013\, p^{51}\, q^{37} + 36684791223\, p^{51}\, q^{44} + 45549932271\, p^{52}\, q^{45} + 19226071959\, p^{51}\, q^{40} + 9989433\, p^{46}\, q^{17}$$
$$+ 1730015\, p^{45}\, q^{14} + 44379872\, p^{47}\, q^{20} + 27951140\, p^{47}\, q^{19} + 108520119\, p^{48}\, q^{22} + 161733611\, p^{48}\, q^{23} + 962141679\, p^{49}\, q^{28}$$
$$+ 3195646\, p^{45}\, q^{15} + 36520190197\, p^{48}\, q^{46} + 25364497529\, p^{44}\, q^{47} + 15106772819\, p^{40}\, q^{48} + 7602109707\, p^{36}\, q^{49} + 3163497928\, p^{32}\, q^{50}$$
$$+ 1054571757\, p^{28}\, q^{51} + 100601287603\, p^{61}\, q^{85} + 144088090193\, p^{65}\, q^{84} + 150115012587\, p^{66}\, q^{84} + 2812\, p^{121}\, q^{49} + 9\, q^{46}\, p^{4}$$
$$+ 48366\, q^{67}\, p^{12} + 6\, q^{47}\, p^{4} + 276977378228\, p^{58}\, q^{66} + 293521942293\, p^{59}\, q^{67} + 350797113340\, p^{68}\, q^{63} + 338116830423\, p^{68}\, q^{62}$$
$$+ 323693715846\, p^{68}\, q^{61} + 361507554601\, p^{68}\, q^{64} + 22188730232\, p^{76}\, q^{97} + 1161\, p^{42}\, q^{6} + 315495\, p^{53}\, q^{12} + 142362\, p^{52}\, q^{11}$$
$$+ 659145\, p^{54}\, q^{13} + 1308633\, p^{55}\, q^{14} + 11465\, p^{124}\, q^{63} + 136814296559\, p^{85}\, q^{77} + 118459209430\, p^{86}\, q^{78} + 148877166747\, p^{85}\, q^{73}$$
$$+ 141151946575\, p^{85}\, q^{76} + 6721225\, p^{114}\, q^{55} + 398102478\, p^{83}\, q^{111} + 424221433\, p^{90}\, q^{110} + 114194107758\, p^{84}\, q^{61}$$
$$+ 130058987091\, p^{84}\, q^{63} + 122294201146\, p^{84}\, q^{62} + 144088090193\, p^{84}\, q^{65} + 69226848\, p^{101}\, q^{112} + 33863162\, p^{108}\, q^{110}$$
$$+ 26897377\, p^{110}\, q^{109} + 79816314\, p^{100}\, q^{112} + 57572102\, p^{104}\, q^{111} + 103434773\, p^{98}\, q^{112} + 47923691\, p^{105}\, q^{111} + 51915692\, p^{106}\, q^{110}$$

$$+ 8708620916\, p^{93}\, q^{96} + 1539952\, p^{84}\, q^{122} + 13781887917\, p^{87}\, q^{97} + 110504099782\, p^{49}\, q^{68} + 98900555051\, p^{48}\, q^{67}$$
$$+ 272570095765\, p^{68}\, q^{58} + 20\, p^{30}\, q^{3} + 1626330161\, p^{78}\, q^{107} + 73700\, p^{101}\, q^{26} + 585005543\, p^{90}\, q^{109} + 117785431\, p^{66}\, q^{112}$$
$$+ 470963906\, p^{67}\, q^{109} + 1727138725\, q^{74}\, p^{32} + 973099603\, q^{73}\, p^{30} + 228498532\, q^{72}\, p^{26} + 10701\, p^{103}\, q^{25} + 2901642972\, q^{75}\, p^{34}$$
$$+ 139893015675\, q^{78}\, p^{56} + 101435\, p^{107}\, q^{32} + 24660564562\, q^{76}\, p^{43} + 20050593326\, q^{76}\, p^{42} + 30038304623\, q^{76}\, p^{44}$$
$$+ 39456766172\, q^{77}\, p^{46} + 36246776476\, q^{76}\, p^{45} + 519952775\, p^{89}\, q^{36} + 1186\, p^{120}\, q^{129} + 153700917353\, q^{78}\, p^{57} + 195247805829\, q^{78}\, p^{60}$$
$$+ 181565960091\, q^{78}\, p^{59} + 232863886286\, q^{78}\, p^{63} + 253068897519\, q^{78}\, p^{65} + 242467827486\, q^{79}\, p^{66} + 208495361783\, q^{78}\, p^{61}$$
$$+ 243581538582\, q^{78}\, p^{64} + 221102386873\, q^{78}\, p^{62} + 167652342726\, q^{78}\, p^{58} + 47654702918\, p^{75}\, q^{93} + 14869802632\, p^{68}\, q^{98}$$
$$+ 675705774\, q^{73}\, p^{29} + 460924754\, q^{73}\, p^{28} + 308494134\, q^{73}\, p^{27} + 4767953748\, p^{100}\, q^{92} + 131454\, q^{112}\, p^{39} + 102599\, q^{111}\, p^{37}$$
$$+ 1626685\, q^{67}\, p^{16} + 16140295885\, q^{76}\, p^{41} + 1769848957\, p^{46}\, q^{95} + 18979982130\, p^{82}\, q^{97} + 12859004305\, q^{76}\, p^{40} + 5172441662\, q^{75}\, p^{36}$$
$$+ 6775833266\, q^{75}\, p^{37} + 8770809838\, q^{75}\, p^{38} + 2372215881\, p^{104}\, q^{90} + 5116469317\, p^{103}\, q^{74} + 4988328629\, p^{103}\, q^{73}$$
$$+ 2577047885\, p^{104}\, q^{89} + 5273973354\, p^{103}\, q^{76} + 5300308139\, p^{103}\, q^{77} + 1685118955\, p^{105}\, q^{91} + 3868072886\, p^{104}\, q^{81}$$
$$+ 4645271105\, p^{103}\, q^{71} + 2857591305\, p^{100}\, q^{96} + 782235917\, p^{103}\, q^{54} + 40734133\, p^{99}\, q^{37} + 78218952\, p^{100}\, q^{40} + 56586417\, p^{100}\, q^{39}$$
$$+ 3163497928\, p^{104}\, q^{86} + 2975731977\, p^{104}\, q^{87} + 3995016833\, p^{104}\, q^{79} + 8049512\, q^{117}\, p^{66} + 9248243\, q^{117}\, p^{67} + 9654885\, q^{119}\, p^{82}$$
$$+ 3944457266\, p^{104}\, q^{80} + 2779223635\, p^{104}\, q^{88} + 3610131652\, p^{64}\, q^{32} + 711471112\, p^{63}\, q^{27} + 2661799075\, p^{64}\, q^{31}$$
$$+ 113386619241\, p^{67}\, q^{49} + 87\, p^{35}\, q^{4} + 373\, p^{38}\, q^{5} + 63579439563\, p^{51}\, q^{80} + 40413119\, p^{59}\, q^{20} + 2015345161\, p^{63}\, q^{30} + 509547174\, p^{62}\, q^{26}$$
$$+ 1447506956\, p^{63}\, q^{29} + 153640470\, p^{61}\, q^{23} + 199926791257\, p^{67}\, q^{54} + 215517714057\, p^{68}\, q^{55} + 73424009601\, p^{67}\, q^{46}$$
$$+ 145548335834\, p^{67}\, q^{51} + 163010009937\, p^{67}\, q^{52} + 10397788363\, p^{65}\, q^{36} + 128966314302\, p^{67}\, q^{50} + 37673887032\, p^{66}\, q^{42}$$
$$+ 45389511720\, p^{66}\, q^{43} + 20341123997\, p^{66}\, q^{39} + 25227869971\, p^{66}\, q^{40} + 85569002295\, p^{67}\, q^{47} + 98900555051\, p^{67}\, q^{48}$$
$$+ 1023365558\, p^{63}\, q^{28} + 64125427644\, p^{66}\, q^{45} + 16787289221\, p^{65}\, q^{38} + 13284689935\, p^{65}\, q^{37} + 7972097\, p^{58}\, q^{17} + 27574\, p^{48}\, q^{9}$$
$$+ 9844\, p^{47}\, q^{8} + 444130765\, p^{108}\, q^{96} + 367\, p^{70}\, q^{9} + 8708620916\, p^{96}\, q^{93} + 16490006107\, p^{87}\, q^{96} + 6674245\, p^{118}\, q^{102} + 8413637\, p^{118}\, q^{100}$$
$$+ 15292438\, p^{92}\, q^{29} + 155441\, p^{87}\, q^{19} + 1023365558\, p^{73}\, q^{108} + 12816480783\, q^{66}\, p^{37} + 8045593242\, q^{65}\, p^{35} + 65873985678\, p^{54}\, q^{83}$$
$$+ 381759\, q^{99}\, p^{27} + 19587\, q^{96}\, p^{21} + 62519\, q^{97}\, p^{23} + 2974271712\, q^{105}\, p^{80} + 3309626\, p^{67}\, q^{17} + 15764\, p^{128}\, q^{99} + 91\, q^{47}\, p^{5} + 136\, q^{45}\, p^{5}$$
$$+ 515371839\, p^{86}\, q^{34} + 37264353\, p^{83}\, q^{26} + 32\, q^{41}\, p^{4} + 3624578\, q^{60}\, p^{16} + 108436\, p^{55}\, q^{11} + 1037166\, p^{58}\, q^{14} + 517700\, p^{57}\, q^{13}$$
$$+ 10861148\, q^{62}\, p^{18} + 37591\, p^{101}\, q^{127} + 16194580533\, q^{55}\, p^{38} + 48183965\, q^{51}\, p^{20} + 11018796\, p^{116}\, q^{64} + 15861183\, p^{118}\, q^{80} + 2\, p^{133}\, q^{96}$$

$$+ 4563613\, p^{115}\, q^{56} + 3429048\, q^{108}\, p^{41} + 4879832\, q^{108}\, p^{42} + 119873255\, p^{109}\, q^{103} + 63439658\, p^{60}\, q^{21} + 237175270\, p^{61}\, q^{24}$$
$$+ 4531227\, p^{57}\, q^{16} + 23806708\, p^{59}\, q^{19} + 65007\, p^{50}\, q^{10} + 30978258408\, p^{66}\, q^{41} + 6151654096\, p^{65}\, q^{34} + 8045593242\, p^{65}\, q^{35}$$
$$+ 181197492422\, p^{67}\, q^{53} + 54189737305\, p^{66}\, q^{44} + 11588850503\, p^{45}\, q^{85} + 6379745715\, p^{102}\, q^{72} + 5291446182\, p^{102}\, q^{68} + 480\, p^{101}\, q^{131}$$
$$+ 58\, p^{98}\, q^{132} + 38\, p^{133}\, q^{118} + 5\, p^{130}\, q^{73} + 37\, p^{133}\, q^{114} + 33\, p^{133}\, q^{111} + 24\, p^{129}\, q^{70} + 7718006949\, p^{101}\, q^{83} + 38470454782\, p^{51}\, q^{84}$$
$$+ 185900201005\, p^{66}\, q^{82} + 14132808521\, p^{46}\, q^{85} + 218473731549\, p^{76}\, q^{80} + 40352107737\, p^{49}\, q^{46} + 28960596211\, p^{45}\, q^{47}$$
$$+ 32805126183\, p^{46}\, q^{47} + 17875021853\, p^{41}\, q^{48} + 20966832329\, p^{42}\, q^{48} + 9360366185\, p^{37}\, q^{49} + 24385002206\, p^{43}\, q^{48}$$
$$+ 11412301473\, p^{38}\, q^{49} + 4077541539\, p^{33}\, q^{50} + 13781887917\, p^{39}\, q^{49} + 16490006107\, p^{40}\, q^{49} + 10076143359\, p^{37}\, q^{50}$$
$$+ 5513339986\, p^{34}\, q^{51} + 8164283357\, p^{36}\, q^{50} + 5195651130\, p^{34}\, q^{50} + 6547675464\, p^{35}\, q^{50} + 1435567023\, p^{29}\, q^{51} + 1927129966\, p^{30}\, q^{51}$$
$$+ 2552927477\, p^{31}\, q^{51} + 2668744673\, p^{31}\, q^{52} + 3339439934\, p^{32}\, q^{51} + 4315782380\, p^{33}\, q^{51} + 1839722\, p^{111}\, q^{44} + 464372151\, p^{76}\, q^{29}$$
$$+ 312939761\, p^{76}\, q^{28} + 755794\, p^{67}\, q^{15} + 11058122379\, p^{92}\, q^{52} + 42155770\, p^{110}\, q^{107} + 14583521928\, p^{72}\, q^{39} + 64822181854\, p^{73}\, q^{47}$$
$$+ 18328504846\, p^{72}\, q^{40} + 100843720245\, p^{73}\, q^{50} + 95656999260\, p^{86}\, q^{82} + 10410271384\, q^{93}\, p^{53} + 7565988624\, q^{93}\, p^{51} + 14471\, p^{128}\, q^{104}$$
$$+ 15708\, p^{125}\, q^{69} + 14486\, p^{128}\, q^{95} + 19568\, p^{125}\, q^{70} + 115\, p^{116}\, q^{34} + 362401990827\, p^{72}\, q^{69} + 1584584807\, p^{76}\, q^{107} + 2008787045\, p^{84}\, q^{106}$$
$$+ 317\, p^{127}\, q^{128} + 130\, p^{118}\, q^{132} + 119\, p^{119}\, q^{132} + 109\, p^{120}\, q^{132} + 96\, p^{121}\, q^{132} + 167\, p^{131}\, q^{123} + 159\, p^{107}\, q^{24} + 119740\, p^{125}\, q^{82}$$
$$+ 7999\, p^{118}\, q^{44} + 12\, p^{131}\, q^{82} + 2\, p^{126}\, q^{53} + 2347731\, p^{98}\, q^{121} + 24\, p^{133}\, q^{124} + 6404631\, q^{111}\, p^{48} + 4792680\, q^{111}\, p^{47} + 8\, p^{131}\, q^{81}$$
$$+ 44\, p^{131}\, q^{86} + 120\, p^{132}\, q^{104} + 15\, p^{129}\, q^{69} + 298\, p^{96}\, q^{131} + 12225642741\, q^{89}\, p^{49} + 6165799\, p^{110}\, q^{46} + 14141613\, p^{111}\, q^{51}$$
$$+ 4879832\, p^{108}\, q^{42} + 8278815\, p^{110}\, q^{47} + 132627191663\, p^{71}\, q^{86} + 1631298629\, p^{88}\, q^{106} + 1666493176\, p^{103}\, q^{59} + 718799801\, p^{101}\, q^{50}$$
$$+ 369372283\, p^{50}\, q^{25} + 734131415\, p^{50}\, q^{27} + 73403893\, p^{49}\, q^{21} + 255381061\, p^{50}\, q^{24} + 525014854\, p^{50}\, q^{26} + 4315782380\, p^{51}\, q^{33}$$
$$+ 1927129966\, p^{51}\, q^{30} + 1435567023\, p^{51}\, q^{29} + 3339439934\, p^{51}\, q^{32} + 2552927477\, p^{51}\, q^{31} + 5513339986\, p^{51}\, q^{34} + 6965283811\, p^{51}\, q^{35}$$
$$+ 9218216937\, p^{52}\, q^{36} + 14030385234\, p^{52}\, q^{38} + 24508394101\, p^{52}\, q^{41} + 33983258249\, p^{52}\, q^{43} + 28985150516\, p^{52}\, q^{42}$$
$$+ 17055900024\, p^{52}\, q^{39} + 11429843169\, p^{52}\, q^{37} + 39507044198\, p^{52}\, q^{44} + 48800429111\, p^{53}\, q^{45} + 20539219716\, p^{52}\, q^{40}$$
$$+ 10202186\, p^{47}\, q^{17} + 45788926\, p^{48}\, q^{20} + 28684315\, p^{48}\, q^{19} + 112243783\, p^{49}\, q^{22} + 168013680\, p^{49}\, q^{23} + 1010844694\, p^{50}\, q^{28}$$
$$+ 44257820716\, p^{50}\, q^{46} + 36871755176\, p^{47}\, q^{47} + 28125602671\, p^{44}\, q^{48} + 19553369456\, p^{41}\, q^{49} + 12313011059\, p^{38}\, q^{50}$$
$$+ 6965283811\, p^{35}\, q^{51} + 3500569897\, p^{32}\, q^{52} + 34232740236\, p^{72}\, q^{43} + 347098934999\, p^{63}\, q^{69} + 12883923782\, p^{44}\, q^{83} + 2\, q^{109}\, p^{23}$$
$$+ 2\, q^{110}\, p^{24} + 14510691074\, p^{86}\, q^{47} + 28071915514\, p^{72}\, q^{42} + 2881001\, q^{68}\, p^{17} + 30955651243\, p^{87}\, q^{92} + 1938\, q^{85}\, p^{14} + 29745\, p^{107}\, q^{30}$$

$$+ 3\, p^{64}\, q^{6} + 16763338\, q^{69}\, p^{20} + 9248243\, q^{69}\, p^{19} + 878784\, q^{66}\, p^{15} + 5631560\, q^{68}\, p^{18} + 10418886\, p^{90}\, q^{27} + 8842944193\, p^{101}\, q^{78}$$
$$+ 26\, q^{42}\, p^{4} + 2\, p^{78}\, q^{131} + 20\, q^{43}\, p^{4} + 16\, q^{44}\, p^{4} + 4331318679\, p^{62}\, q^{101} + 19183\, q^{60}\, p^{10} + 516044\, p^{115}\, q^{48} + 63470380\, q^{93}\, p^{33}$$
$$+ 93053822\, q^{93}\, p^{34} + 42475874\, q^{93}\, p^{32} + 505011371\, q^{94}\, p^{40} + 668782350\, q^{94}\, p^{41} + 3899490267\, q^{75}\, p^{35} + 5952629\, p^{113}\, q^{52}$$
$$+ 31139049\, p^{116}\, q^{73} + 927\, p^{115}\, q^{35} + 14328581339\, p^{99}\, q^{75} + 19069\, p^{122}\, q^{57} + 1581\, p^{118}\, q^{41} + 1879\, p^{115}\, q^{36} + 14559\, p^{121}\, q^{53}$$
$$+ 10071411603\, p^{90}\, q^{49} + 3\, q^{39}\, p^{3} + 4\, q^{38}\, p^{3} + 13661\, p^{120}\, q^{50} + 236\, q^{52}\, p^{6} + 996011\, p^{112}\, q^{44} + 4700246\, p^{117}\, q^{107} + 918\, q^{54}\, p^{7}$$
$$+ 91475065\, p^{87}\, q^{30} + 1825337893\, p^{91}\, q^{42} + 7934\, q^{58}\, p^{9} + 118\, q^{81}\, p^{11} + 25\, q^{80}\, p^{10} + 10769605013\, p^{85}\, q^{99} + 2409\, q^{57}\, p^{8} + 52\, p^{112}\, q^{28}$$
$$+ 841\, p^{119}\, q^{42} + 5\, p^{106}\, q^{21} + 1115\, p^{60}\, q^{125} + 11\, p^{133}\, q^{129} + 63\, p^{132}\, q^{124} + 2763102871\, p^{100}\, q^{56} + 2717378445\, p^{101}\, q^{58} + 559017\, p^{104}\, q^{32}$$
$$+ 61500\, p^{100}\, q^{25} + 104934343\, p^{112}\, q^{65} + 128208023\, p^{113}\, q^{72} + 15248\, p^{116}\, q^{126} + 319619960684\, p^{62}\, q^{71} + 25868259871\, p^{91}\, q^{90}$$
$$+ 20162945080\, p^{92}\, q^{91} + 96219759436\, p^{48}\, q^{68} + 85569002295\, p^{47}\, q^{67} + 344756205836\, p^{65}\, q^{72} + 319339293501\, p^{75}\, q^{67}$$
$$+ 179581812113\, p^{57}\, q^{76} + 9821651\, p^{112}\, q^{111} + 1125949\, q^{83}\, p^{20} + 330155\, q^{82}\, p^{18} + 373915767\, q^{89}\, p^{35} + 46905831\, p^{87}\, q^{116}$$
$$+ 8388910086\, q^{90}\, p^{48} + 11982969105\, q^{90}\, p^{50} + 16526302650\, q^{90}\, p^{52} + 14132808521\, q^{90}\, p^{51} + 19164231353\, q^{90}\, p^{53}$$
$$+ 25149972454\, q^{90}\, p^{55} + 22042182692\, q^{90}\, p^{54} + 20813518125\, q^{91}\, p^{55} + 10071411603\, q^{90}\, p^{49} + 27558\, q^{74}\, p^{13} + 4634629922\, p^{76}\, q^{36}$$
$$+ 155778241699\, p^{80}\, q^{82} + 165655377016\, p^{73}\, q^{84} + 165973601959\, p^{77}\, q^{83} + 52809919898\, p^{57}\, q^{87} + 58525052400\, p^{58}\, q^{87}$$
$$+ 9535378\, p^{107}\, q^{115} + 11454221\, p^{106}\, q^{115} + 7857163\, p^{108}\, q^{115} + 6406264\, p^{109}\, q^{115} + 8003335631\, p^{56}\, q^{96} + 6021139332\, p^{54}\, q^{96}$$
$$+ 5157978367\, p^{53}\, q^{96} + 48189061275\, p^{51}\, q^{46} + 41126611410\, p^{48}\, q^{47} + 45528517665\, p^{49}\, q^{47} + 32177175098\, p^{45}\, q^{48}$$
$$+ 36520190197\, p^{46}\, q^{48} + 41126611410\, p^{47}\, q^{48} + 26784944075\, p^{43}\, q^{49} + 22983354780\, p^{42}\, q^{49} + 14902628457\, p^{39}\, q^{50}$$
$$+ 30955651243\, p^{44}\, q^{49} + 17869583255\, p^{40}\, q^{50} + 8705867597\, p^{36}\, q^{51} + 35484672423\, p^{45}\, q^{49} + 21234026452\, p^{41}\, q^{50}$$
$$+ 25010436584\, p^{42}\, q^{50} + 29206319425\, p^{43}\, q^{50} + 10769605013\, p^{37}\, q^{51} + 13190222585\, p^{38}\, q^{51} + 15999526105\, p^{39}\, q^{51}$$
$$+ 17055900024\, p^{39}\, q^{52} + 19226071959\, p^{40}\, q^{51} + 22893825879\, p^{41}\, q^{51} + 5809521523\, p^{34}\, q^{52} + 4536023034\, p^{33}\, q^{52}$$
$$+ 7357598323\, p^{35}\, q^{52} + 12046031944\, p^{37}\, q^{53} + 14030385234\, p^{38}\, q^{52} + 9218216937\, p^{36}\, q^{52} + 11429843169\, p^{37}\, q^{52}$$
$$+ 1984304016\, p^{69}\, q^{31} + 93158161119\, p^{72}\, q^{49} + 323010056619\, p^{73}\, q^{64} + 198000\, p^{58}\, q^{12} + 38633186980\, p^{71}\, q^{94} + 3038785\, p^{93}\, q^{121}$$
$$+ p^{123}\, q^{135} + 142362\, p^{125}\, q^{84} + 46364\, p^{122}\, q^{60} + 72540\, p^{123}\, q^{66} + 2194\, p^{128}\, q^{120} + 1008\, p^{112}\, q^{31} + 82844\, p^{126}\, q^{101} + 4783\, p^{127}\, q^{119}$$
$$+ 760417\, p^{108}\, q^{121} + 36322\, p^{102}\, q^{127} + 49205\, p^{108}\, q^{126} + 14995\, p^{96}\, q^{128} + 34814\, p^{103}\, q^{127} + 604928372\, p^{98}\, q^{45} + 5677284928\, p^{101}\, q^{65}$$
$$+ 4331318679\, p^{101}\, q^{62} + 10640\, p^{109}\, q^{128} + 286804998\, q^{96}\, p^{40} + 5\, q^{96}\, p^{15} + 15\, q^{95}\, p^{15} + 284257068\, p^{97}\, q^{41} + 51103239\, p^{95}\, q^{34}$$

$$+ 4907529391\, p^{103}\, q^{82} + 4536023034\, p^{103}\, q^{84} + 487878\, q^{101}\, p^{29} + 270860\, q^{101}\, p^{28} + p^{84}\, q^{10} + 72282\, p^{121}\, q^{58} + 555\, p^{109}\, q^{27}$$
$$+ 8597\, p^{127}\, q^{116} + 6165799\, q^{110}\, p^{46} + 129784639\, p^{111}\, q^{63} + 5627583952\, p^{97}\, q^{95} + 63487\, p^{114}\, q^{124} + 6611870792\, p^{95}\, q^{96}$$
$$+ 275683045251\, p^{67}\, q^{58} + 60351234178\, q^{76}\, p^{48} + 81242378135\, q^{76}\, p^{50} + 105882555349\, q^{76}\, p^{52} + 93116067466\, q^{76}\, p^{51}$$
$$+ 119466505765\, q^{76}\, p^{53} + 148657546173\, q^{76}\, p^{55} + 133767001661\, q^{76}\, p^{54} + 137564161272\, q^{77}\, p^{55} + 70311832638\, q^{76}\, p^{49}$$
$$+ 59968563974\, q^{91}\, p^{79} + 49540385732\, p^{92}\, q^{80} + 361955\, p^{120}\, q^{114} + 284790\, p^{120}\, q^{115} + 835358\, p^{120}\, q^{110} + 1001198\, p^{120}\, q^{109}$$
$$+ 127500\, p^{120}\, q^{118} + 1187735\, p^{120}\, q^{108} + 2399992\, q^{102}\, p^{33} + 23\, p^{29}\, q^{3} + 73501478\, p^{82}\, q^{27} + 171808039\, p^{112}\, q^{93} + 270573201\, p^{108}\, q^{59}$$
$$+ 1205\, p^{83}\, q^{13} + 231964245\, p^{108}\, q^{58} + 302857904\, p^{111}\, q^{90} + 147240026181\, p^{74}\, q^{85} + 102852554683\, p^{66}\, q^{87} + 5195651130\, p^{102}\, q^{86}$$
$$+ 101444454288\, p^{79}\, q^{87} + 85569002295\, p^{69}\, q^{89} + 180821274705\, p^{82}\, q^{77} + 159267777516\, p^{83}\, q^{78} + 200595920901\, p^{82}\, q^{73}$$
$$+ 187458967205\, p^{82}\, q^{76} + 763373049\, p^{51}\, q^{27} + 4536023034\, p^{52}\, q^{33} + 33\, p^{25}\, q^{3} + 3500569897\, p^{52}\, q^{32} + 2668744673\, p^{52}\, q^{31}$$
$$+ 5809521523\, p^{52}\, q^{34} + 7357598323\, p^{52}\, q^{35} + 14819898076\, p^{53}\, q^{38} + 26052757333\, p^{53}\, q^{41} + 36269194728\, p^{53}\, q^{43}$$
$$+ 30873862606\, p^{53}\, q^{42} + 18054917724\, p^{53}\, q^{39} + 12046031944\, p^{53}\, q^{37} + 42246138145\, p^{53}\, q^{44} + 51916893040\, p^{54}\, q^{45}$$
$$+ 21788385794\, p^{53}\, q^{40} + 1054571757\, p^{51}\, q^{28} + 27648265\, q^{98}\, p^{35} + 52093288083\, p^{52}\, q^{46} + 50029362794\, p^{50}\, q^{47} + 45959808651\, p^{48}\, q^{48}$$
$$+ 40352107737\, p^{46}\, q^{49} + 33821068526\, p^{44}\, q^{50} + 20539219716\, p^{40}\, q^{52} + 27020691643\, p^{42}\, q^{51} + 14819898076\, p^{38}\, q^{53}$$
$$+ 1264847410\, p^{101}\, q^{53} + 4861689128\, p^{102}\, q^{87} + 376406501\, p^{97}\, q^{42} + 6804195454\, p^{102}\, q^{79} + 16140295885\, p^{60}\, q^{95} + 11\, p^{108}\, q^{23}$$
$$+ 3182453589\, p^{100}\, q^{57} + 712446610\, p^{99}\, q^{47} + 521\, p^{69}\, q^{9} + 583566529\, p^{107}\, q^{96} + 1308633\, p^{81}\, q^{122} + 4734452691\, p^{103}\, q^{83}$$
$$+ 6611870792\, p^{96}\, q^{95} + 105051\, p^{105}\, q^{30} + 9\, p^{62}\, q^{6} + 25749163367\, p^{96}\, q^{79} + 73090\, q^{95}\, p^{22} + 13487\, q^{93}\, p^{19} + 34037\, q^{93}\, p^{20}$$
$$+ 19242579\, q^{101}\, p^{37} + 532438\, p^{114}\, q^{46} + 315232\, q^{95}\, p^{24} + 2360820677\, q^{86}\, p^{39} + 15625\, p^{128}\, q^{101} + 1429\, p^{129}\, q^{119} + 597\, p^{130}\, q^{120}$$
$$+ 97\, p^{114}\, q^{31} + 4526998\, p^{110}\, q^{45} + 10093991\, p^{117}\, q^{102} + 12876959\, p^{117}\, q^{100} + 2798782632\, p^{102}\, q^{93} + 6989709326\, p^{92}\, q^{98}$$
$$+ 5210688149\, p^{89}\, q^{101} + 4758773997\, p^{90}\, q^{101} + 3077722687\, q^{86}\, p^{40} + 471494\, q^{116}\, p^{50} + 342402\, q^{116}\, p^{49} + 244646\, q^{116}\, p^{48}$$
$$+ 171743\, q^{116}\, p^{47} + 15698\, p^{120}\, q^{124} + 20545\, p^{119}\, q^{124} + 5513339986\, p^{85}\, q^{102} + 3464586864\, p^{93}\, q^{101} + 3068825281\, p^{94}\, q^{101} + 5\, p^{114}\, q^{134}$$
$$+ 4\, p^{112}\, q^{134} + 4\, p^{113}\, q^{134} + 6449955838\, p^{89}\, q^{100} + 6547675464\, p^{86}\, q^{101} + 6479762995\, p^{91}\, q^{99} + 4315782380\, p^{85}\, q^{103}$$
$$+ 4734452691\, p^{83}\, q^{103} + 150\, p^{87}\, q^{13} + 4536023034\, p^{84}\, q^{103} + 4077541539\, p^{86}\, q^{103} + 3563105478\, p^{88}\, q^{103} + 3825297677\, p^{87}\, q^{103}$$
$$+ 3294994796\, p^{89}\, q^{103} + 2756353039\, p^{91}\, q^{103} + 3024852260\, p^{90}\, q^{103} + 2167586077\, p^{91}\, q^{104} + 5800498897\, p^{92}\, q^{99} + 4\, p^{23}\, q^{2}$$
$$+ 290645067071\, p^{68}\, q^{59} + 3768\, p^{44}\, q^{7} + 73\, p^{132}\, q^{123} + 377620\, q^{60}\, p^{13} + 26421\, q^{58}\, p^{10} + 263995663264\, p^{74}\, q^{78} + 9566080121\, q^{67}\, p^{36}$$

$$+ 562853\, p^{120}\, q^{112} + 94515\, p^{120}\, q^{119} + 49202\, p^{121}\, q^{120} + 9930872\, q^{63}\, p^{18} + 1283479516\, q^{89}\, p^{39} + 2083651819\, q^{88}\, p^{40}$$
$$+ 2701166963\, q^{88}\, p^{41} + 3112831\, q^{121}\, p^{85} + 3260144\, q^{121}\, p^{88} + 3240767\, q^{121}\, p^{90} + 3184512\, q^{121}\, p^{86} + 3020244\, q^{121}\, p^{84}$$
$$+ 2638291\, q^{121}\, p^{81} + 13316877\, q^{83}\, p^{24} + 1163905772\, p^{69}\, q^{107} + 202342975879\, p^{79}\, q^{79} + 205291861\, p^{111}\, q^{67} + 29498391\, p^{108}\, q^{48}$$
$$+ 32099\, p^{95}\, q^{21} + 898607\, p^{102}\, q^{31} + 270860\, p^{101}\, q^{28} + 597\, p^{131}\, q^{106} + 239987701230\, p^{66}\, q^{56} + 1610822519\, p^{77}\, q^{107}$$
$$+ 310886478018\, p^{66}\, q^{60} + 127825647781\, p^{56}\, q^{79} + 258727944387\, p^{66}\, q^{57} + 12225642741\, q^{87}\, p^{47} + 14703289560\, q^{87}\, p^{48}$$
$$+ 368342887958\, p^{66}\, q^{65} + 376109887089\, p^{67}\, q^{66} + 58100697068\, p^{53}\, q^{83} + 299623\, p^{76}\, q^{16} + 306820\, p^{102}\, q^{124} + 138\, p^{132}\, q^{117}$$
$$+ 29\, p^{128}\, q^{65} + 73\, p^{128}\, q^{67} + 25\, p^{126}\, q^{56} + 32889708716\, p^{92}\, q^{61} + 38587346949\, p^{92}\, q^{63} + 2653276\, p^{113}\, q^{49} + 327857016356\, p^{66}\, q^{74}$$
$$+ 334061354671\, p^{67}\, q^{74} + 338116830423\, p^{68}\, q^{74} + 339946749620\, p^{69}\, q^{74} + 4111\, p^{54}\, q^{8} + 518\, p^{48}\, q^{6} + 370428776904\, p^{69}\, q^{71}$$
$$+ 112891206\, p^{97}\, q^{38} + 11134743235\, p^{42}\, q^{81} + 44046\, p^{109}\, q^{126} + 269831577154\, p^{62}\, q^{75} + 255631051868\, p^{61}\, q^{75} + 417067860\, q^{102}\, p^{49}$$
$$+ 515371839\, q^{102}\, p^{50} + 6827188617\, p^{91}\, q^{48} + 4580769289\, p^{90}\, q^{45} + 36504325529\, p^{93}\, q^{65} + 29475100675\, p^{93}\, q^{62}$$
$$+ 19402033461\, p^{92}\, q^{56} + 319619960684\, p^{65}\, q^{74} + 294546227987\, p^{64}\, q^{75} + 282878203936\, p^{63}\, q^{75} + 304629204050\, p^{65}\, q^{75}$$
$$+ 303188425993\, p^{67}\, q^{76} + 323693715846\, p^{68}\, q^{75} + 312944619317\, p^{66}\, q^{75} + 319339293501\, p^{67}\, q^{75} + 352600696622\, p^{66}\, q^{72}$$
$$+ 48338\, q^{103}\, p^{27} + 48189061275\, p^{90}\, q^{85} + 50029362794\, p^{89}\, q^{86} + 62470661938\, p^{86}\, q^{87} + 179872808496\, p^{63}\, q^{81} + 2306076747\, p^{37}\, q^{83}$$
$$+ 3\, q^{125}\, p^{50} + 15837\, p^{112}\, q^{127} + 17962\, p^{111}\, q^{127} + 5830\, p^{102}\, q^{129} + 8217688531\, q^{87}\, p^{45} + 10071411603\, q^{87}\, p^{46} + 2577787960\, q^{84}\, p^{38}$$
$$+ 202524948\, p^{104}\, q^{49} + 84420959\, p^{103}\, q^{44} + 31854191\, p^{115}\, q^{99} + 39508985\, p^{115}\, q^{97} + 42\, p^{75}\, q^{9} + 75521575\, q^{86}\, p^{29} + 48440839\, q^{86}\, p^{28}$$
$$+ 30343409\, q^{86}\, p^{27} + 202524948\, q^{104}\, p^{49} + 596498\, p^{98}\, q^{27} + 42783903\, p^{106}\, q^{46} + 94599865\, p^{107}\, q^{51} + 31309820\, p^{104}\, q^{42}$$
$$+ 55774272\, p^{106}\, q^{47} + 91241539\, p^{112}\, q^{99} + 116301597\, p^{112}\, q^{97} + 207\, p^{76}\, q^{10} + 9412007\, q^{108}\, p^{44} + 6830094\, q^{108}\, p^{43}$$
$$+ 55914694748\, p^{53}\, q^{46} + 2510423\, p^{121}\, q^{97} + 2178459\, p^{121}\, q^{99} + 3585250\, q^{104}\, p^{36} + 3260144\, p^{121}\, q^{88} + 888523\, p^{122}\, q^{103} + 25\, p^{80}\, q^{10}$$
$$+ 54574857299\, p^{51}\, q^{47} + 59105413605\, p^{52}\, q^{47} + 69829\, p^{104}\, q^{126} + 50974628484\, p^{49}\, q^{48} + 56117875608\, p^{50}\, q^{48} + 61328964540\, p^{51}\, q^{48}$$
$$+ 45528517665\, p^{47}\, q^{49} + 50974628484\, p^{48}\, q^{49} + 56641462327\, p^{49}\, q^{49} + 44257820716\, p^{46}\, q^{50} + 31617137711\, p^{43}\, q^{51}$$
$$+ 38844857563\, p^{45}\, q^{50} + 62470661938\, p^{50}\, q^{49} + 50029362794\, p^{47}\, q^{50} + 36684791223\, p^{44}\, q^{51} + 24508394101\, p^{41}\, q^{52}$$
$$+ 56117875608\, p^{48}\, q^{50} + 62470661938\, p^{49}\, q^{50} + 42215264529\, p^{45}\, q^{51} + 48189061275\, p^{46}\, q^{51} + 54574857299\, p^{47}\, q^{51}$$
$$+ 61328964540\, p^{48}\, q^{51} + 33983258249\, p^{43}\, q^{52} + 28985150516\, p^{42}\, q^{52} + 39507044198\, p^{44}\, q^{52} + 55914694748\, p^{46}\, q^{53}$$
$$+ 59105413605\, p^{47}\, q^{52} + 45549932271\, p^{45}\, q^{52} + 52093288083\, p^{46}\, q^{52} + 21788385794\, p^{40}\, q^{53} + 30873862606\, p^{42}\, q^{53}$$

$$+ 26052757333\, p^{41} q^{53} + 36269194728\, p^{43} q^{53} + 48800429111\, p^{45} q^{53} + 42246138145\, p^{44} q^{53} + 51916893040\, p^{45} q^{54}$$
$$+ 18054917724\, p^{39} q^{53} + 8326171195\, p^{53} q^{94} + 98253272146\, p^{83} q^{85} + 47574211\, p^{54} q^{20} + 403088966\, p^{56} q^{25} + 13608194273\, p^{93} q^{93}$$
$$+ 1958963\, p^{112} q^{46} + p^{41} q^{3} + 12680\, p^{123} q^{122} + 2438\, q^{48} p^{7} + 708\, q^{46} p^{6} + 207193367738\, p^{64} q^{80} + 509547174\, p^{110} q^{74} + 20009\, p^{90} q^{18}$$
$$+ 143562442\, p^{112} q^{95} + 157651403\, p^{112} q^{94} + 26357132\, p^{113} q^{105} + 42813250\, p^{112} q^{104} + 117257778\, p^{107} q^{52} + 11239\, p^{89} q^{17}$$
$$+ 27851866\, p^{105} q^{43} + 1208475\, p^{99} q^{29} + 485871110\, p^{110} q^{73} + 3072564\, q^{106} p^{38} + 9657596613\, p^{65} q^{99} + 41\, q^{40} p^{4} + 49600\, q^{53} p^{10}$$
$$+ 20958\, q^{51} p^{9} + 27058649941\, p^{61} q^{93} + 268459\, q^{55} p^{12} + 119740\, q^{54} p^{11} + 6775833266\, p^{99} q^{61} + 8208230819\, p^{99} q^{63}$$
$$+ 73424009601\, p^{46} q^{67} + 333074731025\, p^{65} q^{73} + 284387965780\, p^{62} q^{74} + 323010056619\, p^{64} q^{73} + 351217815660\, p^{73} q^{70}$$
$$+ 4570196\, p^{116} q^{59} + 197293\, p^{122} q^{113} + 2392\, p^{98} q^{20} + 356988105865\, p^{72} q^{71} + 71959095971\, p^{89} q^{81} + 917187777\, p^{102} q^{53}$$
$$+ 2255\, q^{90} p^{16} + 35687\, q^{101} p^{25} + 5128\, q^{100} p^{22} + 12650\, q^{100} p^{23} + 28841\, q^{100} p^{24} + 43338001889\, p^{82} q^{50} + 13853162399\, p^{81} q^{43}$$
$$+ 126665627\, p^{101} q^{110} + 381362942\, p^{111} q^{85} + 530641101\, p^{110} q^{75} + 91475065\, p^{106} q^{49} + 37509741\, p^{105} q^{44} + 91759269\, p^{114} q^{74}$$
$$+ 31570329\, p^{116} q^{95} + 34040421\, p^{116} q^{94} + 6561515\, p^{117} q^{105} + 11183771\, p^{116} q^{104} + 34037\, p^{93} q^{20} + 370052496881\, p^{68} q^{71}$$
$$+ 368342887958\, p^{71} q^{70} + 58047\, p^{71} q^{13} + 124413\, p^{72} q^{14} + 20033744609\, p^{93} q^{58} + 24660564562\, p^{93} q^{60} + 38633186980\, p^{94} q^{71}$$
$$+ 14887270604\, p^{92} q^{54} + 24977\, p^{70} q^{12} + 12883923782\, p^{92} q^{53} + 1619191868\, p^{99} q^{51} + 767226736\, p^{98} q^{46} + 6874950846\, p^{100} q^{64}$$
$$+ 3170777754\, p^{99} q^{55} + 27851866\, p^{93} q^{31} + 9412007\, p^{92} q^{28} + 338116830423\, p^{74} q^{68} + 55064045200\, p^{80} q^{50} + 17853650816\, p^{79} q^{43}$$
$$+ 99816\, q^{63} p^{12} + 448314175\, p^{107} q^{98} + 451744\, q^{65} p^{14} + 42008\, q^{62} p^{11} + 25891614\, q^{70} p^{21} + 38896581\, q^{71} p^{22} + 64765802\, q^{71} p^{23}$$
$$+ 104934343\, q^{71} p^{24} + 1032667\, p^{88} q^{22} + 43478899\, p^{96} q^{115} + 55332203\, p^{93} q^{115} + 59066646\, p^{92} q^{115} + 40641342\, p^{100} q^{114}$$
$$+ 46042524\, p^{99} q^{114} + 51733127\, p^{98} q^{114} + 43209963\, p^{102} q^{113} + 51448365\, p^{94} q^{115} + 47477688\, p^{95} q^{115} + 39508985\, p^{97} q^{115}$$
$$+ 35618552\, p^{98} q^{115} + 6317403400\, p^{82} q^{102} + 5891093466\, p^{102} q^{70} + 363485405\, p^{98} q^{43} + 1728\, p^{65} q^{9} + 2379714251\, q^{74} p^{33}$$
$$+ 24951197788\, p^{96} q^{80} + 25891614\, p^{66} q^{115} + 89197\, p^{118} q^{121} + 5\, q^{37} p^{3} + 3250789\, p^{114} q^{52} + 147286464\, q^{72} p^{25} + 53307\, p^{112} q^{125}$$
$$+ 2992872101\, p^{98} q^{98} + 53\, p^{128} q^{131} + 70\, p^{127} q^{131} + 40\, p^{131} q^{129} + 64\, p^{129} q^{130} + 123\, p^{127} q^{130} + 45\, p^{130} q^{130} + 91\, p^{128} q^{130} + 29\, p^{132} q^{128}$$
$$+ 35\, p^{133} q^{112} + 2\, p^{128} q^{61} + 14\, p^{130} q^{75} + 3620929\, q^{118} p^{65} + 5631560\, q^{118} p^{68} + 4232688\, q^{118} p^{66} + 4903577\, q^{118} p^{67} + 2577299\, q^{118} p^{63}$$
$$+ 3069383\, q^{118} p^{64} + 274083662\, p^{81} q^{112} + 128623237093\, p^{61} q^{83} + 3118794446\, p^{104} q^{69} + 3442165264\, p^{103} q^{66}$$
$$+ 221605535272\, p^{71} q^{81} + 10939\, p^{63} q^{10} + 59518821\, p^{102} q^{112} + 47709662\, p^{86} q^{116} + 252809\, q^{80} p^{17} + 8413230\, q^{99} p^{33}$$
$$+ 12856186\, q^{99} p^{34} + 19242579\, q^{99} p^{35} + 59595521913\, p^{54} q^{46} + 63557397030\, p^{53} q^{47} + 66540999177\, p^{52} q^{48} + 68395291923\, p^{51} q^{49}$$

$$+ 69024351967\, p^{50}\, q^{50} + 68395291923\, p^{49}\, q^{51} + 63557397030\, p^{47}\, q^{53} + 66540999177\, p^{48}\, q^{52} + 59595521913\, p^{46}\, q^{54}$$
$$+ 56731398469\, p^{51}\, q^{81} + 55064045200\, p^{50}\, q^{80} + 15642\, p^{98}\, q^{128} + 3768\, p^{92}\, q^{129} + 14289995329\, p^{37}\, q^{59} + 46454008935\, p^{71}\, q^{93}$$
$$+ 75356355\, p^{55}\, q^{21} + 272252070\, p^{56}\, q^{24} + 296411078\, p^{79}\, q^{29} + 197141698\, p^{79}\, q^{28} + 454142\, p^{70}\, q^{15} + 2577299\, p^{73}\, q^{18}$$
$$+ 12221108\, p^{75}\, q^{21} + 44113452\, p^{77}\, q^{24} + 18179616\, p^{76}\, q^{22} + 71985467\, p^{77}\, q^{25} + 57755375834\, p^{84}\, q^{54} + 70718928464\, p^{85}\, q^{57}$$
$$+ 3584226792\, p^{82}\, q^{38} + 50842803700\, p^{84}\, q^{53} + 93116067466\, p^{85}\, q^{60} + 117585445819\, p^{86}\, q^{66} + 12883923782\, p^{83}\, q^{44}$$
$$+ 31234001\, p^{76}\, q^{23} + 63579439563\, p^{85}\, q^{56} + 1511324\, p^{72}\, q^{17} + 23790608795\, p^{84}\, q^{48} + 15788740138\, p^{83}\, q^{45} + 15106772819\, p^{96}\, q^{88}$$
$$+ 21788385794\, p^{96}\, q^{83} + 1077387721\, p^{96}\, q^{45} + 9657596613\, p^{99}\, q^{65} + 7485315593\, p^{99}\, q^{62} + 157667\, p^{75}\, q^{15} + 4380945958\, p^{52}\, q^{96}$$
$$+ 13029674\, p^{95}\, q^{118} + 17443668\, p^{97}\, q^{117} + 235080\, p^{120}\, q^{59} + 115\, p^{102}\, q^{20} + 25641\, p^{126}\, q^{113} + p^{76}\, q^{8} + 142723\, p^{119}\, q^{54}$$
$$+ 2379239528\, p^{81}\, q^{36} + 151835828\, p^{78}\, q^{27} + 14363544\, p^{99}\, q^{117} + 3781708\, p^{118}\, q^{106} + 3520683915\, p^{98}\, q^{97} + 4747673646\, p^{98}\, q^{95}$$
$$+ 3969135922\, p^{95}\, q^{99} + 5313227163\, p^{91}\, q^{100} + 2492864906\, p^{103}\, q^{92} + 3287393027\, p^{100}\, q^{95} + 6079124151\, p^{83}\, q^{102}$$
$$+ 4245679890\, p^{93}\, q^{100} + 4861689128\, p^{87}\, q^{102} + 5195651130\, p^{86}\, q^{102} + 4767953748\, p^{92}\, q^{100} + 66375\, p^{123}\, q^{116} + 1900416\, p^{117}\, q^{58}$$
$$+ 2544447255\, q^{96}\, p^{49} + 3620191\, p^{112}\, q^{48} + 81373197\, p^{98}\, q^{38} + 5034148\, q^{73}\, p^{19} + 14454587\, q^{74}\, p^{21} + 1511324\, q^{72}\, p^{17}$$
$$+ 60937356\, q^{75}\, p^{24} + 206744718\, q^{76}\, p^{27} + 7485315593\, p^{62}\, q^{99} + 13\, p^{104}\, q^{20} + 20769\, p^{121}\, q^{54} + 7011\, p^{128}\, q^{113} + 285344\, p^{108}\, q^{123}$$
$$+ 848722\, q^{71}\, p^{16} + 35011\, p^{122}\, q^{59} + 3309626\, q^{119}\, p^{69} + 5838156\, q^{62}\, p^{17} + 1853705057\, q^{92}\, p^{43} + 2352574171\, q^{92}\, p^{44} + 16676\, q^{53}\, p^{9}$$
$$+ 145691848\, q^{62}\, p^{23} + 20952563\, q^{61}\, p^{19} + 518\, q^{48}\, p^{6} + 2133\, q^{49}\, p^{7} + 13249936364\, p^{38}\, q^{70} + 8560962751\, p^{36}\, q^{69}$$
$$+ 11043654005\, p^{37}\, q^{69} + 163\, q^{44}\, p^{5} + 12058108959\, q^{93}\, p^{54} + 5309459455\, q^{93}\, p^{49} + 4387115938\, q^{93}\, p^{48} + 6366626377\, q^{93}\, p^{50}$$
$$+ 1844\, q^{50}\, p^{7} + 8912900269\, q^{93}\, p^{52} + 432485788\, q^{65}\, p^{26} + 56320572\, q^{62}\, p^{21} + 229829642506\, p^{56}\, q^{69} + 6342\, q^{51}\, p^{8} + 1577\, q^{51}\, p^{7}$$
$$+ 18779\, q^{52}\, p^{9} + 5550\, q^{52}\, p^{8} + 1333\, q^{52}\, p^{7} + 56356668479\, p^{75}\, q^{92} + 44553\, q^{54}\, p^{10} + 12695918\, q^{60}\, p^{18} + 423065\, q^{59}\, p^{13}$$
$$+ 1980573\, q^{59}\, p^{15} + 6927436\, q^{60}\, p^{17} + 1037166\, q^{58}\, p^{14} + 2152616\, q^{58}\, p^{15} + 198000\, q^{58}\, p^{12} + 221003\, q^{57}\, p^{12} + 52487654\, q^{63}\, p^{21}$$
$$+ 676177534\, q^{64}\, p^{27} + 306981752\, q^{64}\, p^{25} + 460036389\, q^{64}\, p^{26} + 128208023\, q^{64}\, p^{23} + 200629493\, q^{64}\, p^{24} + 360\, q^{50}\, p^{6} + 244628\, q^{56}\, p^{12}$$
$$+ 39638\, q^{55}\, p^{10} + 4111\, q^{54}\, p^{8} + 6384284\, q^{61}\, p^{17} + 39279\, p^{124}\, q^{68} + 36000518\, q^{61}\, p^{20} + 11787325\, q^{61}\, p^{18} + 517700\, q^{57}\, p^{13}$$
$$+ 944595\, q^{59}\, p^{14} + 4796\, q^{53}\, p^{8} + 2545379352\, q^{65}\, p^{31} + 924411508\, q^{65}\, p^{28} + 1934733002\, q^{64}\, p^{30} + 1316370629\, q^{65}\, p^{29}$$
$$+ 638111528\, q^{65}\, p^{27} + 1844487865\, q^{65}\, p^{30} + 91759269\, q^{62}\, p^{22} + 86621\, q^{57}\, p^{11} + 108436\, q^{55}\, p^{11} + 76379\, q^{58}\, p^{11} + 1637009\, q^{61}\, p^{15}$$
$$+ 34962\, q^{56}\, p^{10} + 469932\, q^{58}\, p^{13} + 853360\, q^{60}\, p^{14} + 159\, p^{112}\, q^{29} + 49600\, p^{126}\, q^{83} + 9995\, p^{121}\, q^{52} + 59905\, p^{126}\, q^{85} + 85968128\, q^{63}\, p^{22}$$

$$+ 12772\, q^{55}\, p^{9} + 97338\, q^{56}\, p^{11} + 6151654096\, q^{65}\, p^{34} + 54189737305\, q^{66}\, p^{44} + 37673887032\, q^{66}\, p^{42} + 45389511720\, q^{66}\, p^{43}$$
$$+ 30978258408\, q^{66}\, p^{41} + 4645271105\, q^{65}\, p^{33} + 777310\, p^{107}\, q^{36} + 33606549\, q^{62}\, p^{20} + 19438138\, q^{62}\, p^{19} + 1746201481\, q^{66}\, p^{30}$$
$$+ 3462254331\, q^{65}\, p^{32} + 432\, q^{49}\, p^{6} + 3\, q^{49}\, p^{4} + 1973231\, q^{113}\, p^{48} + 1043844\, q^{113}\, p^{46} + 5\, q^{48}\, p^{4} + 57\, q^{49}\, p^{5} + 4833\, p^{118}\, q^{43}$$
$$+ 7906\, p^{128}\, q^{112} + 49510\, p^{125}\, q^{75} + 1469413898\, q^{87}\, p^{38} + 14664\, q^{54}\, p^{9} + 9009895\, q^{118}\, p^{72} + 471861\, q^{112}\, p^{42} + 23437299\, p^{93}\, q^{117}$$
$$+ 24762792\, p^{92}\, q^{117} + 28684315\, p^{88}\, q^{117} + 27951140\, p^{89}\, q^{117} + 115\, q^{116}\, p^{34} + 15197549\, q^{114}\, p^{59} + 10316014\, q^{114}\, p^{57}$$
$$+ 12583384\, q^{114}\, p^{58} + 51365700358\, q^{76}\, p^{47} + 6087799749\, p^{99}\, q^{60} + 10397788363\, p^{100}\, q^{71} + 13826\, p^{105}\, q^{27} + 11525548452\, p^{57}\, q^{95}$$
$$+ 1325270\, p^{104}\, q^{121} + 343532263\, p^{108}\, q^{98} + 59105413605\, p^{84}\, q^{89} + 50029362794\, p^{86}\, q^{89} + 655132227\, p^{103}\, q^{53} + 15589738338\, q^{67}\, p^{38}$$
$$+ 31139049\, q^{63}\, p^{20} + 8492720\, p^{77}\, q^{21} + 12583384\, p^{78}\, q^{22} + 1764437\, p^{75}\, q^{18} + 12046031944\, p^{83}\, q^{99} + 11412301473\, p^{87}\, q^{98}$$
$$+ 10501300782\, p^{88}\, q^{98} + 9366627201\, p^{91}\, q^{97} + 1197298\, p^{69}\, q^{16} + 22\, q^{115}\, p^{31} + 60781268\, q^{78}\, p^{25} + 633040484\, q^{79}\, p^{31}$$
$$+ 3671204948\, q^{80}\, p^{37} + 166059450\, q^{108}\, p^{56} + 9801996488\, q^{86}\, p^{45} + 4201369495\, q^{87}\, p^{42} + 7939804479\, q^{86}\, p^{44} + 5051964843\, q^{86}\, p^{42}$$
$$+ 6366626377\, q^{86}\, p^{43} + 101435\, p^{104}\, q^{29} + 2330532\, p^{110}\, q^{43} + 864035\, p^{94}\, q^{123} + 1240\, q^{116}\, p^{37} + 5\, p^{22}\, q^{2} + 293521942293\, p^{67}\, q^{59}$$
$$+ 66074432519\, p^{91}\, q^{75} + 224720736879\, p^{59}\, q^{75} + 269831577154\, p^{61}\, q^{74} + 4103\, p^{43}\, q^{7} + 8109679\, p^{118}\, q^{71} + 5670253\, p^{120}\, q^{91}$$
$$+ 1831566131\, p^{70}\, q^{31} + 87748086791\, p^{73}\, q^{49} + 309502486580\, p^{74}\, q^{64} + 216075456\, q^{83}\, p^{30} + 261275004\, q^{82}\, p^{30} + 174805348\, q^{82}\, p^{29}$$
$$+ 144648786827\, p^{51}\, q^{61} + 160428135251\, p^{52}\, q^{61} + 103226757033\, p^{48}\, q^{63} + 116632941776\, p^{49}\, q^{62} + 131548317054\, p^{50}\, q^{62} + 6\, p^{89}\, q^{132}$$
$$+ 9\, p^{90}\, q^{132} + 11\, p^{91}\, q^{132} + 16\, p^{92}\, q^{132} + 226545298\, p^{109}\, q^{99} + 295645222\, p^{109}\, q^{97} + 692\, p^{73}\, q^{10} + 31\, p^{59}\, q^{6} + 1622686\, p^{120}\, q^{106}$$
$$+ 200595920901\, p^{63}\, q^{54} + 220706615515\, p^{64}\, q^{55} + 77724936225\, p^{63}\, q^{46} + 67864444379\, p^{54}\, q^{47} + 71681991023\, p^{53}\, q^{48}$$
$$+ 76676468671\, p^{54}\, q^{48} + 80226645263\, p^{53}\, q^{49} + 74340832416\, p^{52}\, q^{49} + 85967576096\, p^{54}\, q^{49} + 75705562347\, p^{51}\, q^{50}$$
$$+ 82432082458\, p^{52}\, q^{50} + 89114279336\, p^{53}\, q^{50} + 74340832416\, p^{49}\, q^{52} + 75705562347\, p^{50}\, q^{51} + 83180102128\, p^{51}\, q^{51}$$
$$+ 95656999260\, p^{54}\, q^{50} + 82432082458\, p^{50}\, q^{52} + 90728903451\, p^{52}\, q^{51} + 71681991023\, p^{48}\, q^{53} + 98253272146\, p^{53}\, q^{51}$$
$$+ 105647693567\, p^{54}\, q^{51} + 90728903451\, p^{51}\, q^{52} + 107538528732\, p^{53}\, q^{52} + 99133670882\, p^{52}\, q^{52} + 115827551418\, p^{54}\, q^{52}$$
$$+ 89114279336\, p^{50}\, q^{53} + 107538528732\, p^{52}\, q^{53} + 98253272146\, p^{51}\, q^{53} + 116853250990\, p^{53}\, q^{53} + 126071024656\, p^{54}\, q^{53}$$
$$+ 80226645263\, p^{49}\, q^{53} + 85967576096\, p^{49}\, q^{54} + 76676468671\, p^{48}\, q^{54} + 115827551418\, p^{52}\, q^{54} + 136241486424\, p^{54}\, q^{54}$$
$$+ 157128833799\, p^{55}\, q^{55} + 95656999260\, p^{50}\, q^{54} + 126071024656\, p^{53}\, q^{54} + 105647693567\, p^{51}\, q^{54} + 67864444379\, p^{47}\, q^{54}$$
$$+ 10143985872\, p^{56}\, q^{95} + 11134743235\, p^{55}\, q^{94} + 1515247\, p^{79}\, q^{19} + 298384903\, p^{99}\, q^{108} + 252480694\, p^{104}\, q^{50} + 251\, q^{83}\, p^{12}$$

$$+ 131177456\, p^{67}\, q^{112} + 12720740536\, p^{56}\, q^{94} + 351217815660\, p^{66}\, q^{63} + 339516322731\, p^{66}\, q^{62} + 1408452457\, p^{106}\, q^{90}$$
$$+ 2851205149\, p^{105}\, q^{74} + 2764366634\, p^{105}\, q^{73} + 1521294845\, p^{106}\, q^{89} + 2971526991\, p^{105}\, q^{76} + 3002713021\, p^{105}\, q^{77}$$
$$+ 981942768\, p^{107}\, q^{91} + 2182605940\, p^{106}\, q^{81} + 2545379352\, p^{105}\, q^{71} + 1835917884\, p^{106}\, q^{86} + 1736745360\, p^{106}\, q^{87}$$
$$+ 2228999923\, p^{106}\, q^{79} + 2197454656\, p^{47}\, q^{95} + 1601238\, q^{51}\, p^{14} + 781776\, q^{51}\, p^{13} + 3921966926\, p^{102}\, q^{64} + 1761744702\, p^{101}\, q^{55}$$
$$+ 13154851\, p^{100}\, q^{35} + 9995\, p^{84}\, q^{15} + 638111528\, p^{71}\, q^{109} + 154777159\, p^{61}\, q^{110} + 206744718\, p^{60}\, q^{109} + 981942768\, p^{91}\, q^{107}$$
$$+ 5128\, q^{114}\, p^{36} + 256033\, p^{92}\, q^{22} + 811719301\, p^{108}\, q^{69} + 916912428\, p^{107}\, q^{66} + 15999526105\, p^{97}\, q^{85} + 294399938\, p^{90}\, q^{35}$$
$$+ 329568\, p^{79}\, q^{17} + 38021236\, p^{87}\, q^{28} + 5952629\, p^{84}\, q^{23} + 108520951\, p^{88}\, q^{31} + 22797113691\, p^{95}\, q^{64} + 11134743235\, p^{94}\, q^{55}$$
$$+ 6019934745\, p^{94}\, q^{51} + 2910158442\, p^{93}\, q^{46} + 126164863\, p^{89}\, q^{32} + 14418274911\, p^{94}\, q^{57} + 2352574171\, p^{92}\, q^{44} + 24335061751\, p^{96}\, q^{69}$$
$$+ 1464756\, p^{82}\, q^{20} + 604928372\, p^{91}\, q^{38} + 25958803061\, p^{95}\, q^{66} + 182162\, p^{78}\, q^{16} + 4387115938\, p^{93}\, q^{48} + 2953784311\, p^{92}\, q^{45}$$
$$+ 24412017708\, p^{95}\, q^{65} + 19461766560\, p^{95}\, q^{62} + 12720740536\, p^{94}\, q^{56} + 12993453290\, p^{95}\, q^{58} + 16140295885\, p^{95}\, q^{60}$$
$$+ 25976392585\, p^{96}\, q^{71} + 9668280255\, p^{94}\, q^{54} + 15082\, p^{72}\, q^{12} + 8326171195\, p^{94}\, q^{53} + 17\, p^{53}\, q^{5} + 74601\, p^{88}\, q^{126} + 13890\, p^{128}\, q^{94}$$
$$+ 428\, p^{118}\, q^{39} + 13348\, p^{126}\, q^{74} + 848\, p^{118}\, q^{40} + 45\, p^{57}\, q^{126} + 12448\, q^{125}\, p^{68} + 741173\, q^{113}\, p^{45} + 202456\, q^{110}\, p^{37} + 692029\, q^{112}\, p^{43}$$
$$+ 325992879442\, p^{66}\, q^{61} + 370373\, p^{123}\, q^{106} + 11\, q^{93}\, p^{14} + 13338024\, q^{117}\, p^{70} + 14827434\, q^{117}\, p^{71} + 3750965580\, p^{100}\, q^{94} + 42\, q^{75}\, p^{9}$$
$$+ 6193551315\, p^{93}\, q^{98} + 202456\, p^{110}\, q^{37} + 94550\, p^{108}\, q^{33} + 354119\, q^{113}\, p^{43} + 315232\, q^{112}\, p^{41} + 294456825032\, p^{59}\, q^{66}$$
$$+ 310362176831\, p^{60}\, q^{67} + 255936612\, p^{77}\, q^{112} + 28164342855\, p^{49}\, q^{84} + 4\, p^{38}\, q^{3} + 47263264578\, p^{90}\, q^{61} + 55012014231\, p^{90}\, q^{63}$$
$$+ 8895961401\, p^{94}\, q^{95} + 13738027534\, p^{89}\, q^{96} + 4700246\, p^{107}\, q^{117} + 5580242\, p^{106}\, q^{117} + 10093991\, p^{102}\, q^{117} + 8822646\, p^{103}\, q^{117}$$
$$+ 17452\, p^{121}\, q^{123} + 22241154328\, p^{97}\, q^{75} + 435339\, p^{81}\, q^{18} + 2220795\, p^{83}\, q^{21} + 3250789\, p^{84}\, q^{22} + 2535\, p^{69}\, q^{10} + 15545499065\, p^{98}\, q^{82}$$
$$+ 14030385234\, p^{98}\, q^{84} + 110\, p^{55}\, q^{6} + 207494705\, p^{90}\, q^{34} + 14341041\, p^{87}\, q^{26} + 1112508990\, p^{92}\, q^{41} + 636090243\, p^{92}\, q^{39}$$
$$+ 444203200\, p^{91}\, q^{37} + 143806189\, p^{90}\, q^{33} + 846560947\, p^{92}\, q^{40} + 321509772\, p^{91}\, q^{36} + 55774272\, p^{89}\, q^{30} + 1130478294\, p^{93}\, q^{42}$$
$$+ 17218260556\, p^{98}\, q^{79} + 361370226\, p^{101}\, q^{106} + 17768069138\, p^{92}\, q^{92} + 31831228000\, p^{71}\, q^{95} + 7131791967\, p^{57}\, q^{97}$$
$$+ 18328504846\, p^{64}\, q^{96} + 814822\, p^{86}\, q^{123} + 11412301473\, p^{98}\, q^{87} + 715191\, p^{82}\, q^{19} + 6479762995\, p^{99}\, q^{91} + 16194580533\, p^{98}\, q^{81}$$
$$+ 22188730232\, p^{97}\, q^{76} + 21987857564\, p^{97}\, q^{77} + 21899653434\, p^{97}\, q^{73} + 9592531553\, p^{98}\, q^{89} + 22144158369\, p^{97}\, q^{74}$$
$$+ 17769903413\, p^{97}\, q^{67} + 5051964843\, p^{94}\, q^{50} + 5710\, p^{71}\, q^{11} + 12313011059\, p^{98}\, q^{86} + 13154851\, q^{101}\, p^{36} + 5870\, q^{88}\, p^{16}$$
$$+ 59679\, p^{126}\, q^{106} + 88\, p^{99}\, q^{18} + 109462698915\, p^{77}\, q^{87} + 131548317054\, p^{86}\, q^{74} + 122084325738\, p^{86}\, q^{67} + 132627191663\, p^{86}\, q^{71}$$

$$+ 133153702500\, p^{86}\, q^{72} + 125901250985\, p^{86}\, q^{68} + 129446595203\, p^{86}\, q^{75} + 230068\, p^{69}\, q^{14} + 109451\, p^{68}\, q^{13} + 7718471\, q^{109}\, p^{45}$$
$$+ 129\, p^{59}\, q^{126} + 3358\, p^{68}\, q^{126} + 14902628457\, p^{86}\, q^{97} + 2269\, p^{62}\, q^{125} + 1624157209\, q^{107}\, p^{80} + 27923\, q^{97}\, p^{22} + 13104937727\, p^{81}\, q^{99}$$
$$+ 11341454828\, p^{77}\, q^{100} + 13528859624\, p^{80}\, q^{99} + 6151654096\, p^{71}\, q^{102} + 8842944193\, p^{78}\, q^{101} + 8723634970\, p^{79}\, q^{101}$$
$$+ 3880839147\, p^{101}\, q^{92} + 426351048\, p^{100}\, q^{106} + 35572128\, p^{101}\, q^{114} + 36986803\, p^{103}\, q^{113} + 31854191\, p^{99}\, q^{115} + 3631480\, q^{115}\, p^{55}$$
$$+ 1630806905\, p^{79}\, q^{107} + 33055529656\, p^{84}\, q^{50} + 10410271384\, p^{83}\, q^{43} + 2\, p^{109}\, q^{23} + 5812\, p^{129}\, q^{101} + 700\, p^{130}\, q^{119} + 272\, p^{131}\, q^{120}$$
$$+ 22\, p^{115}\, q^{31} + 35687\, p^{111}\, q^{35} + 73090\, p^{114}\, q^{41} + 61500\, p^{111}\, q^{36} + 7\, p^{78}\, q^{9} + 542810\, p^{117}\, q^{53} + 471494\, p^{116}\, q^{50} + 727740\, p^{118}\, q^{57}$$
$$+ 1626685\, p^{120}\, q^{69} + 1870696\, p^{120}\, q^{70} + 19947\, p^{111}\, q^{34} + 841240\, p^{123}\, q^{95} + 864035\, p^{123}\, q^{94} + 1470205\, p^{121}\, q^{74} + 100053\, p^{113}\, q^{40}$$
$$+ 62519\, p^{113}\, q^{39} + 234803\, p^{124}\, q^{105} + 463527\, p^{123}\, q^{104} + 1033045\, p^{119}\, q^{62} + 4423\, p^{129}\, q^{94} + 100\, p^{119}\, q^{39} + 3591\, p^{127}\, q^{74} + 218\, p^{119}\, q^{40}$$
$$+ 124871\, p^{113}\, q^{123} + 188015\, p^{107}\, q^{124} + 28\, p^{131}\, q^{130} + 840913\, p^{119}\, q^{61} + 2321493\, p^{121}\, q^{79} + 342402\, p^{116}\, q^{49} + 3\, p^{70}\, q^{7} + 5715\, p^{129}\, q^{104}$$
$$+ 4367\, p^{126}\, q^{69} + 4727\, p^{129}\, q^{95} + 5610\, p^{126}\, q^{70} + 23\, p^{117}\, q^{34} + 11\, p^{113}\, q^{28} + 207\, p^{120}\, q^{42} + p^{107}\, q^{21} + 5619259822\, q^{91}\, p^{47}$$
$$+ 19272086\, p^{100}\, q^{116} + 150479\, p^{112}\, q^{123} + 194702\, p^{98}\, q^{125} + 211086\, p^{106}\, q^{124} + 14664\, p^{82}\, q^{127} + 82837\, p^{90}\, q^{126} + 78916\, p^{89}\, q^{126}$$
$$+ 283040\, p^{103}\, q^{124} + 258938\, p^{104}\, q^{124} + 200405\, p^{97}\, q^{125} + 204619\, p^{96}\, q^{125} + p^{135}\, q^{126} + 18\, p^{126}\, q^{133} + 24\, p^{124}\, q^{133} + 123\, p^{130}\, q^{127}$$
$$+ 5\, p^{134}\, q^{127} + 144\, p^{129}\, q^{128} + 91\, p^{130}\, q^{128} + 143518914\, q^{85}\, p^{30} + 869332309\, q^{108}\, p^{70} + 6827188617\, q^{91}\, p^{48} + 9801996488\, q^{91}\, p^{50}$$
$$+ 13583823172\, q^{91}\, p^{52} + 11588850503\, q^{91}\, p^{51} + 15788740138\, q^{91}\, p^{53} + 18201078926\, q^{91}\, p^{54} + 8217688531\, q^{91}\, p^{49}$$
$$+ 339946749620\, p^{74}\, q^{69} + 11108213640\, p^{96}\, q^{91} + 210774642091\, p^{59}\, q^{76} + 240513284421\, p^{61}\, q^{76} + 266963785190\, p^{63}\, q^{76}$$
$$+ 254263766891\, p^{62}\, q^{76} + 278396121495\, p^{64}\, q^{76} + 296674543849\, p^{66}\, q^{76} + 288359535200\, p^{65}\, q^{76} + 279318766655\, p^{66}\, q^{77}$$
$$+ 225939748709\, p^{60}\, q^{76} + 559831821\, p^{84}\, q^{110} + 65873985678\, p^{53}\, q^{82} + 344893465\, q^{99}\, p^{44} + 189815062\, q^{100}\, p^{43}$$
$$+ 195247805829\, p^{58}\, q^{76} + 17\, p^{123}\, q^{46} + 606\, p^{130}\, q^{89} + 432\, p^{130}\, q^{87} + 215\, p^{129}\, q^{76} + 708\, p^{130}\, q^{90} + 285\, p^{129}\, q^{77} + 373\, p^{131}\, q^{98}$$
$$+ 372\, p^{129}\, q^{78} + 115294718434\, p^{57}\, q^{81} + 8217688531\, p^{87}\, q^{45} + 1199306099\, p^{85}\, q^{36} + 34017329027\, p^{89}\, q^{56} + 12307587243\, p^{88}\, q^{48}$$
$$+ 131454\, q^{97}\, p^{24} + 7241024\, q^{118}\, p^{70} + 3620191\, q^{112}\, p^{48} + 2682620\, q^{112}\, p^{47} + 10861148\, q^{118}\, p^{74} + 9930872\, q^{118}\, p^{73}$$
$$+ 133767001661\, p^{60}\, q^{82} + 11058122379\, p^{44}\, q^{84} + 7565988624\, p^{43}\, q^{85} + 44\, p^{50}\, q^{5} + 8345158900\, p^{97}\, q^{92} + 235981118051\, p^{73}\, q^{80}$$
$$+ 2997949\, q^{116}\, p^{57} + 193\, q^{43}\, p^{5} + 197438246887\, p^{82}\, q^{74} + 191746592851\, p^{82}\, q^{67} + 202952876448\, p^{82}\, q^{71} + 202445766780\, p^{82}\, q^{72}$$
$$+ 196451263459\, p^{82}\, q^{68} + 327754\, q^{105}\, p^{32} + 105051\, q^{106}\, p^{31} + 193031965878\, p^{82}\, q^{75} + 901324786\, q^{104}\, p^{57} + 26422\, p^{104}\, q^{27}$$
$$+ 890977\, p^{123}\, q^{92} + 1156509\, p^{121}\, q^{72} + 299665\, p^{117}\, q^{51} + 848722\, p^{120}\, q^{65} + 2005211\, p^{100}\, q^{121} + 1197298\, p^{120}\, q^{67} + 33619\, p^{124}\, q^{117}$$

$$+ 2484251\, p^{121}\, q^{80} + 566478\, p^{118}\, q^{56} + 812725\, p^{123}\, q^{96} + 18\, p^{84}\, q^{11} + 1309533\, p^{121}\, q^{73} + 1511324\, p^{119}\, q^{64} + 760\, p^{98}\, q^{19} + p^{104}\, q^{19}$$
$$+ 4270\, p^{125}\, q^{64} + 11011\, p^{127}\, q^{80} + 5740\, p^{129}\, q^{100} + 654913\, p^{123}\, q^{100} + 560266\, p^{123}\, q^{102} + 107611\, p^{124}\, q^{111} + 188015\, p^{124}\, q^{107}$$
$$+ 1168\, p^{130}\, q^{115} + 881549\, p^{89}\, q^{123} + 9\, p^{128}\, q^{63} + 562853\, p^{112}\, q^{120} + 377620\, p^{76}\, q^{123} + 175814\, p^{77}\, q^{124} + 1951\, p^{103}\, q^{130} + 2274\, q^{124}\, p^{58}$$
$$+ 4\, q^{119}\, p^{36} + q^{122}\, p^{41} + 11\, q^{122}\, p^{43} + 61\, q^{122}\, p^{45} + 3\, p^{26}\, q^{2} + 360885963544\, p^{66}\, q^{64} + 3\, p^{105}\, q^{20} + 6718\, p^{122}\, q^{54} + 221095\, p^{116}\, q^{120}$$
$$+ 1101736780\, p^{75}\, q^{108} + 17977421\, p^{111}\, q^{52} + 176784\, p^{103}\, q^{29} + 85968128\, p^{114}\, q^{73} + 4052462\, p^{109}\, q^{43} + 2129720535\, p^{103}\, q^{61}$$
$$+ 2638942317\, p^{103}\, q^{63} + 3610131652\, p^{104}\, q^{72} + 1503751845\, p^{102}\, q^{56} + 3173514340\, p^{103}\, q^{65} + 2379714251\, p^{103}\, q^{62}$$
$$+ 2856358859\, p^{105}\, q^{82} + 2668744673\, p^{105}\, q^{84} + 1743003172\, p^{102}\, q^{57} + 2770507603\, p^{105}\, q^{83} + 164\, q^{117}\, p^{36} + 8051720\, q^{119}\, p^{95}$$
$$+ 5911110\, q^{119}\, p^{99} + 6461325\, q^{119}\, p^{98} + 4309926\, q^{119}\, p^{102} + 3346571\, q^{119}\, p^{104} + 1869904\, q^{120}\, p^{105} + 5364282\, q^{119}\, p^{100}$$
$$+ 3814509\, q^{119}\, p^{103} + 7540211\, q^{119}\, p^{96} + 4828490\, q^{119}\, p^{101} + 7007293\, q^{119}\, p^{97} + 8532664\, q^{119}\, p^{94} + 8974853\, q^{119}\, p^{93} + 3012\, q^{122}\, p^{52}$$
$$+ 4548\, q^{122}\, p^{53} + 6718\, q^{122}\, p^{54} + 703187\, q^{123}\, p^{83} + 2369681\, p^{112}\, q^{116} + 909319820\, p^{88}\, q^{108} + 43\, p^{113}\, q^{29} + 16676\, p^{127}\, q^{83}$$
$$+ 3012\, p^{122}\, q^{52} + 20958\, p^{127}\, q^{85} + 21386\, q^{116}\, p^{42} + 1444418277\, q^{92}\, p^{42} + 1112508990\, q^{92}\, p^{41} + 12448\, p^{125}\, q^{68} + 42475874\, q^{104}\, p^{43}$$
$$+ 31309820\, q^{104}\, p^{42} + 56836773\, q^{104}\, p^{44} + 65385554\, q^{105}\, p^{46} + 126164863\, q^{104}\, p^{47} + 75062163\, q^{104}\, p^{45} + 97899702\, q^{104}\, p^{46}$$
$$+ 126\, p^{90}\, q^{14} + 848\, p^{96}\, q^{18} + 166154\, p^{111}\, q^{38} + 102402\, p^{123}\, q^{114} + 211522\, p^{123}\, q^{110} + 40759\, p^{123}\, q^{118} + 285344\, p^{123}\, q^{108}$$
$$+ 246917\, p^{123}\, q^{109} + 193571\, p^{115}\, q^{121} + 82984\, p^{123}\, q^{115} + 443\, p^{95}\, q^{17} + 327754\, q^{104}\, p^{31} + 3300\, p^{129}\, q^{113} + 11509\, p^{123}\, q^{59}$$
$$+ 246917\, p^{109}\, q^{123} + 12816480783\, p^{70}\, q^{99} + 8014168250\, p^{66}\, q^{100} + 846560947\, q^{92}\, p^{40} + 16483\, p^{114}\, q^{38} + 11\, p^{93}\, q^{14} + 31309820\, p^{94}\, q^{32}$$
$$+ 4215899890\, p^{99}\, q^{57} + 962637088\, p^{98}\, q^{47} + 3536231\, p^{90}\, q^{25} + 2213228309\, p^{106}\, q^{80} + 1631298629\, p^{106}\, q^{88} + 7706\, q^{96}\, p^{20}$$
$$+ 3052893289\, p^{98}\, q^{53} + 98\, q^{120}\, p^{41} + 43\, q^{120}\, p^{40} + 1941090694\, q^{84}\, p^{37} + 210371616\, q^{107}\, p^{55} + 470963906\, p^{109}\, q^{67} + 71840968\, p^{106}\, q^{48}$$
$$+ 79245\, p^{93}\, q^{21} + 2216020\, p^{100}\, q^{31} + 691439\, p^{99}\, q^{28} + 2132536\, p^{120}\, q^{71} + 1730015\, p^{122}\, q^{91} + 29693\, p^{89}\, q^{127} + 1115\, p^{125}\, q^{60}$$
$$+ 1890\, p^{126}\, q^{66} + 237\, p^{122}\, q^{47} + 42\, p^{86}\, q^{12} + 49328\, p^{112}\, q^{37} + 23443\, p^{110}\, q^{33} + 14726\, p^{108}\, q^{30} + p^{65}\, q^{6} + 244646\, p^{116}\, q^{48} + 1964\, p^{130}\, q^{106}$$
$$+ 258337\, p^{115}\, q^{46} + 2274\, p^{78}\, q^{12} + 968358180\, p^{105}\, q^{60} + 2670\, p^{101}\, q^{22} + 3575\, p^{102}\, q^{23} + 1761744702\, q^{101}\, p^{55} + 2052488804\, q^{101}\, p^{56}$$
$$+ 28831495450\, p^{95}\, q^{81} + 197329941323\, p^{65}\, q^{81} + 293119\, q^{62}\, p^{13} + 109568070\, q^{66}\, p^{23} + 2132536\, p^{65}\, q^{16} + 40620332\, q^{66}\, p^{21}$$
$$+ 41126611410\, p^{88}\, q^{89} + 36871755176\, p^{89}\, q^{89} + 32805126183\, p^{90}\, q^{89} + 10191292415\, p^{95}\, q^{93} + 5602694707\, p^{69}\, q^{102}$$
$$+ 1456675132\, p^{103}\, q^{58} + 45528517665\, p^{87}\, q^{89} + 1470205\, q^{62}\, p^{15} + 1199306099\, q^{85}\, p^{36} + 3591\, q^{62}\, p^{9} + 718799801\, q^{86}\, p^{35}$$
$$+ 515371839\, q^{86}\, p^{34} + 19568\, q^{66}\, p^{11} + 476\, q^{57}\, p^{7} + 11686074608\, q^{68}\, p^{37} + 2134336442\, q^{68}\, p^{31} + 5291446182\, q^{68}\, p^{34}$$

$$+ 2929099687\, q^{68}\, p^{32} + 374064299\, q^{67}\, p^{26} + 556232371\, q^{67}\, p^{27} + 3963426710\, q^{68}\, p^{33} + 6974537117\, q^{68}\, p^{35} + 246539344\, q^{67}\, p^{25}$$
$$+ 207\, p^{94}\, q^{16} + 171\, p^{92}\, q^{15} + 6269\, p^{105}\, q^{26} + 435339\, p^{118}\, q^{55} + 177869\, p^{115}\, q^{45} + 70\, p^{131}\, q^{127} + 89\, p^{126}\, q^{131} + 35\, p^{132}\, q^{127} + 16\, p^{133}\, q^{127}$$
$$+ 22\, p^{132}\, q^{129} + 6\, p^{134}\, q^{126} + 733\, p^{122}\, q^{49} + 3142\, p^{125}\, q^{63} + 5624\, p^{129}\, q^{99} + 17\, p^{130}\, q^{132} + p^{135}\, q^{131} + 1601238\, p^{122}\, q^{85} + 1402018\, p^{120}\, q^{68}$$
$$+ 1469770\, p^{122}\, q^{83} + 406254\, p^{117}\, q^{52} + 1637009\, p^{121}\, q^{75} + 7182\, p^{108}\, q^{29} + 172389\, p^{114}\, q^{43} + 91269\, p^{124}\, q^{112} + 10155\, p^{125}\, q^{120}$$
$$+ 20545\, p^{124}\, q^{119} + 13826\, p^{109}\, q^{31} + 608265\, p^{123}\, q^{101} + 1539952\, p^{122}\, q^{84} + 1012982\, p^{120}\, q^{66} + 677050\, p^{119}\, q^{60} + 5830\, p^{129}\, q^{102}$$
$$+ 1925\, p^{130}\, q^{107} + 13\, p^{112}\, q^{27} + 145998297539\, p^{63}\, q^{83} + 110\, p^{130}\, q^{81} + 360\, p^{130}\, q^{86} + 50234415702\, p^{54}\, q^{85} + 105882555349\, p^{60}\, q^{84}$$
$$+ 56731398469\, p^{55}\, q^{85} + 1428338\, p^{105}\, q^{35} + 27923\, p^{97}\, q^{22} + 100164025\, p^{113}\, q^{69} + 117785431\, p^{112}\, q^{66} + 84495362\, p^{111}\, q^{60}$$
$$+ 109568070\, p^{113}\, q^{70} + 144970421\, p^{112}\, q^{68} + 60937356\, p^{112}\, q^{61} + 115276208\, p^{114}\, q^{86} + 114139400\, p^{114}\, q^{79} + 37944\, p^{98}\, q^{23}$$
$$+ 35618552\, p^{115}\, q^{98} + 37264353\, p^{110}\, q^{53} + 172673294\, p^{113}\, q^{78} + 30343409\, p^{109}\, q^{50} + 112243783\, p^{114}\, q^{87} + 49328\, p^{99}\, q^{24}$$
$$+ 1973231\, p^{113}\, q^{48} + 164\, p^{126}\, q^{130} + 204\, p^{127}\, q^{129} + 17410219668\, p^{48}\, q^{86} + 20702440423\, p^{49}\, q^{86} + 4515319823\, p^{92}\, q^{47}$$
$$+ 17977421\, p^{84}\, q^{25} + 75521575\, p^{86}\, q^{29} + 10514129\, p^{84}\, q^{24} + 38470741\, p^{85}\, q^{27} + 14704948\, p^{93}\, q^{118} + 43338001889\, p^{54}\, q^{86}$$
$$+ 24248363248\, p^{51}\, q^{87} + 38000741521\, p^{53}\, q^{86} + 28520222163\, p^{51}\, q^{86} + 33055529656\, p^{52}\, q^{86} + 15106772819\, p^{88}\, q^{96}$$
$$+ 28250505\, q^{100}\, p^{37} + 56931311\, p^{113}\, q^{64} + 20671394\, p^{112}\, q^{55} + 73845359\, p^{115}\, q^{80} + 71299036\, p^{115}\, q^{88} + 12983730\, p^{116}\, q^{103}$$
$$+ 38694113\, p^{116}\, q^{92} + 25354016\, p^{112}\, q^{56} + 6079124151\, p^{102}\, q^{83} + 3575\, q^{102}\, p^{23} + 10701\, q^{103}\, p^{25} + 1317\, q^{102}\, p^{22} + 7377114109\, p^{97}\, q^{93}$$
$$+ 89100183004\, p^{58}\, q^{84} + 199926791257\, p^{69}\, q^{82} + 214575503262\, p^{74}\, q^{81} + 492247350\, q^{93}\, p^{39} + 363485405\, q^{93}\, p^{38} + 248530253\, q^{92}\, p^{36}$$
$$+ 122294201146\, p^{62}\, q^{84} + 167678267411\, p^{66}\, q^{83} + 15708\, q^{67}\, p^{11} + 109451\, q^{68}\, p^{13} + 368335\, p^{89}\, q^{21} + 3464586864\, p^{101}\, q^{93}$$
$$+ 563\, p^{131}\, q^{104} + 160\, p^{128}\, q^{69} + 261\, p^{131}\, q^{95} + 30\, p^{122}\, q^{133} + 33\, p^{121}\, q^{133} + 38\, p^{117}\, q^{133} + 38\, p^{118}\, q^{133} + 4540457600\, p^{99}\, q^{94}$$
$$+ 5796925\, q^{101}\, p^{34} + 734131415\, p^{86}\, q^{109} + 1082779688\, q^{107}\, p^{68} + 50891846637\, p^{68}\, q^{92} + 1038782405\, p^{101}\, q^{101} + 97338\, p^{80}\, q^{125}$$
$$+ 16676\, p^{83}\, q^{127} + 86213\, p^{91}\, q^{126} + 1589\, p^{77}\, q^{128} + 471861\, p^{94}\, q^{24} + 111\, p^{68}\, q^{8} + 235\, p^{131}\, q^{121} + 2139762\, p^{119}\, q^{107} + 1201009\, p^{118}\, q^{112}$$
$$+ 2132956\, p^{117}\, q^{111} + 2989171\, p^{116}\, q^{111} + 802133\, p^{117}\, q^{115} + 1433836\, p^{114}\, q^{116} + 848\, q^{118}\, p^{40} + 9737\, p^{110}\, q^{128} + 2641487\, p^{110}\, q^{117}$$
$$+ 132263\, q^{123}\, p^{69} + 3\, q^{127}\, p^{57} + 6\, q^{126}\, p^{54} + 1377\, q^{126}\, p^{65} + 989\, q^{126}\, p^{64} + 9061\, q^{120}\, p^{49} + 9\, p^{129}\, q^{68} + 13\, p^{127}\, q^{59} + 36\, p^{133}\, q^{113}$$
$$+ 1494171\, p^{111}\, q^{118} + 1342103\, p^{113}\, q^{117} + 1704\, p^{99}\, q^{130} + 1505\, p^{97}\, q^{130} + 5715\, p^{104}\, q^{129} + 5405\, p^{106}\, q^{129} + 1916\, p^{102}\, q^{130}$$
$$+ 1792\, p^{100}\, q^{130} + 6\, p^{134}\, q^{125} + 2369681\, p^{116}\, q^{112} + 3243745\, p^{115}\, q^{112} + 1026123\, p^{119}\, q^{111} + p^{126}\, q^{52} + 33\, p^{131}\, q^{85} + 17\, p^{131}\, q^{83}$$
$$+ 6\, p^{126}\, q^{54} + 23\, p^{133}\, q^{107} + 99\, p^{132}\, q^{102} + 131121\, p^{83}\, q^{125} + 182351\, p^{125}\, q^{88} + 74539\, p^{126}\, q^{103} + 7\, p^{91}\, q^{13} + 1167977\, p^{100}\, q^{122}$$

$$+ 3726365\, p^{116} q^{110} + 4118258\, p^{111} q^{115} + 1936478\, p^{115} q^{114} + 2576121\, p^{114} q^{114} + 3378348\, p^{113} q^{114} + 1342103\, p^{117} q^{113}$$
$$+ 3243745\, p^{112} q^{115} + 2523030\, p^{113} q^{115} + 339516322731\, p^{70} q^{74} + 307779821469\, p^{68} q^{76} + 325925737421\, p^{69} q^{75}$$
$$+ 339516322731\, p^{74} q^{70} + 347932148309\, p^{73} q^{71} + 1672370\, p^{122} q^{93} + 68395291923\, p^{85} q^{87} + 325925737421\, p^{75} q^{69}$$
$$+ 285880817836\, p^{67} q^{77} + 81242378135\, p^{76} q^{50} + 27058649941\, p^{75} q^{43} + 22048387004\, p^{75} q^{42} + 387060282\, p^{65} q^{109} + 498597\, p^{97} q^{26}$$
$$+ 129725066\, p^{112} q^{96} + 33426\, p^{91} q^{19} + 16274438\, p^{104} q^{40} + 11456069\, p^{104} q^{39} + 1938\, p^{85} q^{14} + 320\, p^{79} q^{11} + 3773211\, p^{102} q^{34}$$
$$+ 692500836\, p^{67} q^{108} + 73\, p^{131} q^{88} + p^{128} q^{60} + 3\, p^{129} q^{66} + 47304649918\, p^{81} q^{92} + 1546\, p^{79} q^{12} + 676431439\, p^{106} q^{60}$$
$$+ 39497206\, p^{111} q^{106} + 539651963\, p^{100} q^{105} + 177743199305\, p^{81} q^{79} + 110177220118\, p^{59} q^{83} + 50842803700\, p^{53} q^{84} + 79\, p^{78} q^{10}$$
$$+ 10343894\, p^{119} q^{88} + 2416815\, p^{120} q^{103} + 5508820\, p^{120} q^{92} + 6945756\, p^{117} q^{65} + 9009895\, p^{118} q^{72} + 2490546\, p^{114} q^{51} + 895071\, p^{111} q^{42}$$
$$+ 1446337\, p^{113} q^{47} + 190160\, p^{89} q^{125} + 35576\, p^{121} q^{121} + 757247555\, p^{96} q^{106} + 12400307146\, p^{90} q^{96} + 7701675350\, p^{95} q^{95}$$
$$+ 13190222585\, p^{85} q^{98} + 11532324761\, p^{89} q^{97} + 14819898076\, p^{83} q^{98} + 2\, p^{28} q^{2} + 11108213640\, p^{91} q^{96} + 1095450048\, q^{87} p^{37}$$
$$+ 334061467\, q^{88} p^{34} + 805617619\, q^{87} p^{36} + 417067860\, q^{87} p^{34} + 584047169\, q^{87} p^{35} + 172164689\, q^{86} p^{31} + 1427151\, p^{122} q^{97}$$
$$+ 1258594\, p^{122} q^{99} + 48553826\, q^{64} p^{21} + 14869802632\, q^{68} p^{38} + 91200\, p^{93} q^{126} + 46231\, p^{119} q^{122} + 14664\, p^{127} q^{82} + 752\, p^{120} q^{44}$$
$$+ 13\, p^{109} q^{24} + 187684\, p^{99} q^{125} + 1526\, p^{119} q^{43} + 3645\, p^{129} q^{112} + 16082\, p^{126} q^{75} + 6331\, p^{124} q^{61} + 5004\, p^{129} q^{96} + 26392853026\, p^{96} q^{78}$$
$$+ 22048387004\, p^{94} q^{61} + 26086250162\, p^{94} q^{63} + 23437299\, p^{117} q^{93} + 26291507\, p^{113} q^{59} + 53885\, q^{119} p^{51} + 37583\, q^{119} p^{50}$$
$$+ 293521942293\, p^{77} q^{69} + 294456825032\, p^{77} q^{70} + 324954956996\, p^{74} q^{73} + 334677130777\, p^{73} q^{73} + 633128844\, p^{99} q^{105}$$
$$+ 6561515\, p^{105} q^{117} + 18063566\, p^{107} q^{113} + 16483\, p^{98} q^{22} + 22315\, p^{99} q^{23} + 28841\, p^{100} q^{24} + 292783104944\, p^{76} q^{74}$$
$$+ 319668011325\, p^{72} q^{75} + 16274438\, p^{96} q^{32} + 1839722\, p^{92} q^{25} + 487878\, q^{107} p^{35} + 777310\, q^{107} p^{36} + 49842311\, p^{105} q^{45}$$
$$+ 8718721\, p^{102} q^{36} + 59518821\, p^{112} q^{102} + 12277874\, p^{103} q^{38} + 79816314\, p^{112} q^{100} + 321701394\, p^{111} q^{89} + 548768909\, p^{110} q^{76}$$
$$+ 563588848\, p^{110} q^{77} + 199522274\, p^{112} q^{91} + 404205169\, p^{111} q^{81} + 432485788\, p^{110} q^{71} + 22746638\, p^{104} q^{41} + 869332309\, p^{108} q^{70}$$
$$+ 193571\, p^{121} q^{115} + 543551\, p^{121} q^{110} + 646221\, p^{121} q^{109} + 89197\, p^{121} q^{118} + 760417\, p^{121} q^{108} + 243744\, p^{121} q^{114} + 1082779688\, p^{107} q^{68}$$
$$+ 2337140\, p^{104} q^{35} + 45835\, p^{96} q^{22} + 159000535\, p^{112} q^{69} + 185215756\, p^{111} q^{66} + 133702832\, p^{110} q^{60} + 173087434\, p^{112} q^{70}$$
$$+ 225817640\, p^{111} q^{68} + 98318677\, p^{111} q^{61} + 173306116\, p^{113} q^{86} + 177021541\, p^{113} q^{79} + 62519\, p^{97} q^{23} + 51733127\, p^{114} q^{98}$$
$$+ 59852106\, p^{109} q^{53} + 263088647\, p^{112} q^{78} + 48440839\, p^{108} q^{50} + 168013680\, p^{113} q^{87} + 81712\, p^{98} q^{24} + 40654261953\, q^{93} p^{67}$$
$$+ 235080\, q^{77} p^{16} + 46364\, q^{76} p^{14} + 60503\, q^{75} p^{14} + 26914\, p^{107} q^{127} + 11783\, p^{121} q^{124} + q^{95} p^{14} + 1693\, p^{118} q^{129} + 12\, p^{132} q^{131}$$

$$+ 336833558295\, p^{74} q^{71} + 290466243147\, p^{77} q^{72} + 310362176831\, p^{69} q^{76} + 372442\, p^{112} q^{121} + 179443\, p^{100} q^{125} + 1601238\, p^{85} q^{122}$$
$$+ 13190222585\, p^{98} q^{85} + 229190681\, p^{91} q^{35} + 252809\, p^{80} q^{17} + 29498391\, p^{88} q^{28} + 4605391\, p^{85} q^{23} + 84732089\, p^{89} q^{31}$$
$$+ 18328504846\, p^{96} q^{64} + 8857312202\, p^{95} q^{55} + 4738564636\, p^{95} q^{51} + 2282375196\, p^{94} q^{46} + 97899702\, p^{90} q^{32} + 11525548452\, p^{95} q^{57}$$
$$+ 1853705057\, p^{93} q^{44} + 19578980815\, p^{97} q^{69} + 1125949\, p^{83} q^{20} + 471655465\, p^{92} q^{38} + 20961798119\, p^{96} q^{66} + 139276\, p^{79} q^{16}$$
$$+ 3461561657\, p^{94} q^{48} + 2334832305\, p^{93} q^{45} + 19670014766\, p^{96} q^{65} + 15576983137\, p^{96} q^{62} + 10143985872\, p^{95} q^{56}$$
$$+ 10302557482\, p^{96} q^{58} + 12859004305\, p^{96} q^{60} + 20989557972\, p^{97} q^{71} + 7671344158\, p^{95} q^{54} + 11465\, p^{73} q^{12} + 6589337092\, p^{95} q^{53}$$
$$+ 8200\, p^{117} q^{42} + 67\, p^{104} q^{21} + 538\, p^{110} q^{28} + 1788853401\, p^{50} q^{98} + 38160395823\, p^{78} q^{94} + 31617137711\, p^{85} q^{93} + 530434365\, p^{107} q^{61}$$
$$+ 675705774\, p^{107} q^{63} + 976051860\, p^{108} q^{72} + 371522318\, p^{106} q^{56} + 753776066\, p^{107} q^{64} + 312981913\, p^{106} q^{55} + 5462\, p^{104} q^{25}$$
$$+ 53066\, p^{108} q^{32} + 22628347\, p^{104} q^{114} + 10840978\, p^{108} q^{114} + 16051297\, p^{104} q^{115} + 836271926\, p^{109} q^{80} + 664769749\, p^{109} q^{88}$$
$$+ 4605391\, q^{113} p^{51} + 983\, p^{67} q^{9} + 16755578730\, p^{98} q^{80} + 10501300782\, p^{98} q^{88} + 14819898076\, p^{98} q^{83} + 95016\, p^{77} q^{15}$$
$$+ 2824759412\, p^{94} q^{47} + 10995042\, p^{86} q^{25} + 46563031\, p^{88} q^{29} + 6327388\, p^{86} q^{24} + 23660673\, p^{87} q^{27} + 17574062485\, p^{98} q^{78}$$
$$+ 14205118339\, p^{96} q^{61} + 16957608908\, p^{96} q^{63} + 21512329640\, p^{97} q^{72} + 18716856615\, p^{97} q^{68} + 8697601978\, p^{98} q^{90}$$
$$+ 11553783039\, p^{96} q^{59} + 20341123997\, p^{97} q^{70} + 1455809039\, p^{93} q^{43} + 20920\, p^{75} q^{13} + 46364\, p^{76} q^{14} + 5612157902\, p^{95} q^{52}$$
$$+ 4201369495\, p^{94} q^{49} + 1332551\, q^{100} p^{30} + 115192552\, q^{106} p^{50} + 176978992\, q^{106} p^{52} + 143518914\, q^{106} p^{51} + 216075456\, q^{106} p^{53}$$
$$+ 261275004\, q^{106} p^{54} + 91475065\, q^{106} p^{49} + 70311832638\, p^{76} q^{49} + 261317933914\, p^{77} q^{64} + 8066181\, p^{94} q^{29} + 177512307\, p^{113} q^{85}$$
$$+ 237175270\, p^{112} q^{75} + 38021236\, p^{108} q^{49} + 15292438\, p^{107} q^{44} + 13044\, p^{95} q^{20} + 229190681\, q^{101} p^{45} + 69436024\, q^{102} p^{42}$$
$$+ 176338192\, q^{101} p^{44} + 100555628\, q^{101} p^{42} + 134018913\, q^{101} p^{43} + 3072564\, q^{98} p^{30} + 4524437\, q^{97} p^{30} + 406025\, p^{97} q^{124} + 2855\, p^{73} q^{127}$$
$$+ 39638\, p^{81} q^{126} + 27172490743\, p^{76} q^{96} + 1588110822\, p^{97} q^{48} + 119990243\, p^{113} q^{93} + 177942025\, p^{109} q^{59} + 151835828\, p^{109} q^{58}$$
$$+ 212654025\, p^{112} q^{90} + 117198\, p^{117} q^{121} + 73\, p^{67} q^{128} + 13229345\, p^{114} q^{107} + 22018058\, p^{94} q^{117} + 188934\, p^{105} q^{31} + 7\, p^{127} q^{58}$$
$$+ 31\, p^{133} q^{110} + 26\, p^{133} q^{108} + 834253484\, p^{79} q^{109} + 403677292\, p^{70} q^{110} + 374064299\, p^{69} q^{110} + 2235465\, p^{118} q^{109} + 1837756\, p^{118} q^{110}$$
$$+ 3378348\, p^{114} q^{113} + 2523030\, p^{115} q^{113} + 1494171\, p^{118} q^{111} + 578768\, p^{118} q^{115} + 1258594\, p^{99} q^{122} + 4458641\, p^{113} q^{113}$$
$$+ 665014\, p^{119} q^{113} + 13661\, q^{120} p^{50} + 3726365\, p^{110} q^{116} + 2989171\, p^{111} q^{116} + 607133\, p^{117} q^{116} + 169170\, p^{117} q^{120} + 4371191\, p^{114} q^{112}$$
$$+ 1044577\, p^{117} q^{114} + 747960\, p^{118} q^{114} + 1092872\, p^{116} q^{115} + 1855323\, p^{113} q^{116} + 1465677\, p^{115} q^{115} + 826542342\, p^{78} q^{109}$$
$$+ 344091920\, p^{68} q^{110} + 2507105\, p^{119} q^{106} + 3919572\, p^{108} q^{117} + 290645067071\, p^{77} q^{68} + 13730\, p^{80} q^{14} + 856238676\, p^{95} q^{106}$$

$$+ 42246138145\, p^{92} q^{83} + 28125602671\, p^{92} q^{88} + 2269\, p^{74} q^{11} + 331949180926\, p^{74} q^{72} + 313395196616\, p^{75} q^{73} + 72282\, q^{121} p^{58}$$
$$+ 230068\, q^{122} p^{67} + 276444\, q^{122} p^{68} + 3\, q^{116} p^{31} + q^{117} p^{32} + 7\, q^{117} p^{33} + 187213\, q^{123} p^{71} + 3992\, p^{129} q^{111} + 10939\, p^{126} q^{73}$$
$$+ 965622\, q^{115} p^{50} + 516044\, q^{115} p^{48} + 711377\, q^{115} p^{49} + 3003922\, q^{120} p^{74} + 4238673\, q^{120} p^{78} + 3934714\, q^{120} p^{77} + 3624578\, q^{120} p^{76}$$
$$+ 61\, p^{130} q^{79} + 93948083\, p^{91} q^{114} + 15\, p^{95} q^{15} + 12822\, p^{118} q^{45} + 538\, p^{108} q^{26} + 16\, p^{97} q^{16} + 29094\, p^{121} q^{55} + 358325682\, p^{75} q^{111}$$
$$+ 15545499065\, p^{82} q^{98} + 735471649\, p^{105} q^{58} + 29\, p^{65} q^{128} + 741166\, p^{98} q^{123} + 473300\, p^{108} q^{122} + 1030\, p^{124} q^{56} + 2535\, p^{126} q^{67}$$
$$+ 927\, p^{130} q^{117} + 1377\, p^{126} q^{65} + 2237\, p^{127} q^{72} + 3768\, p^{129} q^{92} + 460\, p^{123} q^{51} + 7741\, p^{125} q^{121} + 5250\, p^{129} q^{97} + 4103\, p^{129} q^{93}$$
$$+ 1975\, p^{130} q^{105} + 2269\, p^{125} q^{62} + 9399\, p^{127} q^{79} + p^{60} q^{5} + 5\, p^{74} q^{8} + 715191\, p^{117} q^{54} + 1158789\, p^{118} q^{59} + 76542\, p^{124} q^{113} + 608\, p^{100} q^{20}$$
$$+ 114962015550\, p^{75} q^{87} + 1613\, p^{98} q^{130} + 1857\, p^{101} q^{130} + 70687077\, p^{112} q^{62} + 119046884\, p^{114} q^{84} + 50852083\, p^{111} q^{57}$$
$$+ 119712126\, p^{114} q^{83} + 24852814\, p^{115} q^{101} + 119542419\, p^{114} q^{82} + 24669\, p^{108} q^{127} + 25824\, p^{116} q^{125} + 15367\, p^{102} q^{128} + 1161\, p^{94} q^{130}$$
$$+ 5457\, p^{98} q^{129} + 5624\, p^{99} q^{129} + 1622686\, q^{120} p^{106} + 91226824\, p^{110} q^{103} + 2953\, p^{129} q^{114} + 1693\, p^{129} q^{118} + 200634488326\, p^{78} q^{80}$$
$$+ 5290775132\, p^{103} q^{78} + 7357598323\, p^{84} q^{101} + 27951140\, p^{117} q^{89} + 40413119\, p^{116} q^{77} + 16109018\, p^{118} q^{91} + 28158697\, p^{117} q^{81}$$
$$+ 26135435\, p^{116} q^{71} + 38282584\, p^{116} q^{76} + 5444657760\, p^{98} q^{94} + 2031443750\, p^{100} q^{54} + 211879465\, p^{97} q^{40} + 155779600\, p^{97} q^{39}$$
$$+ 110740251\, p^{96} q^{37} + 114194107758\, p^{61} q^{84} + 130058987091\, p^{63} q^{84} + 63579439563\, p^{56} q^{85} + 85574839539\, p^{59} q^{85}$$
$$+ 78078279370\, p^{58} q^{85} + 49038884292\, p^{55} q^{86} + 70718928464\, p^{57} q^{85} + 161210619877\, p^{65} q^{83} + 32487546700\, p^{95} q^{72}$$
$$+ 28748824120\, p^{95} q^{68} + 1539757902\, p^{83} q^{107} + 202107817153\, p^{70} q^{82} + 173229800860\, p^{67} q^{83} + 97479862188\, p^{59} q^{84}$$
$$+ 44135793684\, p^{53} q^{85} + 12400307146\, p^{96} q^{90} + 190307362819\, p^{79} q^{80} + 24402842747\, p^{50} q^{86} + 9414832\, p^{116} q^{63}$$
$$+ 1442617778\, p^{100} q^{52} + 1095450048\, p^{99} q^{49} + 166154\, q^{98} p^{25} + 471655465\, p^{98} q^{44} + 5602694707\, p^{102} q^{69} + 6123691894\, p^{101} q^{66}$$
$$+ 794917609\, p^{108} q^{90} + 1502147474\, p^{107} q^{74} + 1447506956\, p^{107} q^{73} + 65859\, p^{87} q^{18} + 373439860\, p^{109} q^{95} + 414766761\, p^{109} q^{94}$$
$$+ 63273075\, p^{110} q^{105} + 99905888\, p^{109} q^{104} + 140\, p^{132} q^{106} + 444203200\, p^{99} q^{45} + 208040168\, p^{98} q^{41} + 37069204\, p^{96} q^{34}$$
$$+ 117558253\, p^{114} q^{85} + 153640470\, p^{113} q^{75} + 23660673\, p^{109} q^{49} + 9412007\, p^{108} q^{44} + 16526302650\, p^{46} q^{84} + 19918913118\, p^{47} q^{84}$$
$$+ 23790608795\, p^{48} q^{84} + 16483\, q^{98} p^{22} + 4830668\, q^{120} p^{95} + 3643586\, q^{120} p^{99} + 3955930\, q^{120} p^{98} + 2711903\, q^{120} p^{102}$$
$$+ 2135352\, q^{120} p^{104} + 1169494\, q^{121} p^{105} + 3329236\, q^{120} p^{100} + 2416815\, q^{120} p^{103} + 4554520\, q^{120} p^{96} + 3017200\, q^{120} p^{101}$$
$$+ 4261154\, q^{120} p^{97} + 5084944\, q^{120} p^{94} + 5312341\, q^{120} p^{93} + 5034148\, q^{117} p^{63} + 4634629922\, p^{100} q^{60} + 8045593242\, p^{101} q^{71}$$
$$+ 1984304016\, q^{105} p^{67} + 11553783039\, p^{59} q^{96} + 426\, p^{116} q^{131} + 3991826203\, p^{53} q^{97} + 1469413898\, p^{49} q^{98} + 5424306556\, p^{55} q^{97}$$

$$+ 39006810969\, p^{77}\, q^{94} + 15576983137\, p^{62}\, q^{96} + 3380729074\, p^{52}\, q^{97} + 4672904877\, p^{54}\, q^{97} + 14700104\, p^{116}\, q^{66} + 10236661\, p^{115}\, q^{60}$$
$$+ 18958776\, p^{116}\, q^{68} + 17637809\, p^{118}\, q^{84} + 17361990\, p^{118}\, q^{83} + 4828490\, p^{119}\, q^{101} + 16968519\, p^{118}\, q^{82} + 546784\, p^{107}\, q^{122}$$
$$+ 711471112\, p^{73}\, q^{109} + 29847131\, p^{52}\, q^{110} + 152001406957\, q^{77}\, p^{56} + 318313192\, q^{83}\, p^{31} + 33542767936\, p^{67}\, q^{94}$$
$$+ 166728559702\, q^{77}\, p^{57} + 210774642091\, q^{77}\, p^{60} + 196317539541\, q^{77}\, p^{59} + 250204956409\, q^{77}\, p^{63} + 271080911767\, q^{77}\, p^{65}$$
$$+ 261156687279\, q^{78}\, p^{66} + 224720736879\, q^{77}\, p^{61} + 261317933914\, q^{77}\, p^{64} + 237936407201\, q^{77}\, p^{62} + 181565960091\, q^{77}\, p^{58}$$
$$+ 126071024656\, p^{83}\, q^{82} + 132791824149\, p^{73}\, q^{86} + 133153702500\, p^{72}\, q^{86} + 20989557972\, p^{71}\, q^{97} + 23790608795\, p^{88}\, q^{52}$$
$$+ 1371728708\, p^{86}\, q^{107} + 6891\, q^{101}\, p^{23} + 16254\, q^{101}\, p^{24} + 9\, q^{88}\, p^{12} + q^{87}\, p^{11} + 42367\, q^{110}\, p^{34} + 73700\, q^{110}\, p^{35} + 372442\, p^{121}\, q^{112}$$
$$+ 66831\, p^{121}\, q^{119} + 34443\, p^{122}\, q^{120} + 1131351538\, p^{76}\, q^{108} + 1502147474\, p^{74}\, q^{107} + 69426603\, p^{78}\, q^{115} + 14328581339\, p^{75}\, q^{99} + p^{30}\, q^{2}$$
$$+ 10496556230\, p^{81}\, q^{100} + 10121444938\, p^{82}\, q^{100} + 9218216937\, p^{84}\, q^{100} + 8705867597\, p^{85}\, q^{100} + 12856186\, q^{102}\, p^{37} + 2399992\, q^{103}\, p^{34}$$
$$+ 8718721\, q^{102}\, p^{36} + 3773211\, q^{102}\, p^{34} + 5796925\, q^{102}\, p^{35} + 1428338\, q^{101}\, p^{31} + 12221108\, p^{115}\, q^{61} + 26268220\, p^{117}\, q^{79}$$
$$+ 10262645\, p^{118}\, q^{98} + 7602543\, p^{113}\, q^{53} + 42355009\, p^{116}\, q^{78} + 6327388\, p^{112}\, q^{50} + 29226806\, p^{117}\, q^{87} + 29567284\, p^{117}\, q^{86}$$
$$+ 10076143359\, p^{86}\, q^{99} + 347932148309\, p^{71}\, q^{73} + 285880817836\, p^{77}\, q^{67} + 119466505765\, p^{76}\, q^{53} + 32889708716\, p^{75}\, q^{44}$$
$$+ 271080911767\, p^{77}\, q^{65} + 261156687279\, p^{78}\, q^{66} + 210774642091\, p^{77}\, q^{60} + 166728559702\, p^{77}\, q^{57} + 133767001661\, p^{76}\, q^{54}$$
$$+ 4232688\, p^{70}\, q^{18} + 19682691\, p^{72}\, q^{21} + 1993626\, p^{109}\, q^{41} + 307779821469\, p^{76}\, q^{68} + 350782011239\, p^{72}\, q^{72} + 11465\, q^{73}\, p^{12}$$
$$+ 424065\, q^{78}\, p^{17} + 95016\, q^{77}\, p^{15} + 20920\, q^{75}\, p^{13} + 182162\, q^{78}\, p^{16} + 12313011059\, p^{86}\, q^{98} + 10432591448\, p^{90}\, q^{97} + 160734107\, q^{88}\, p^{32}$$
$$+ 91475065\, q^{87}\, p^{30} + 18524336\, q^{86}\, p^{26} + 19402033461\, q^{92}\, p^{56} + 2910158442\, q^{90}\, p^{43} + 2282375196\, q^{90}\, p^{42} + 3670379307\, q^{90}\, p^{44}$$
$$+ 4580769289\, q^{90}\, p^{45} + 21890055660\, q^{92}\, p^{57} + 30038304623\, q^{92}\, p^{60} + 27233855310\, q^{92}\, p^{59} + 38587346949\, q^{92}\, p^{63}$$
$$+ 44009518807\, q^{92}\, p^{65} + 32889708716\, q^{92}\, p^{61} + 41353836841\, q^{92}\, p^{64} + 35752317764\, q^{92}\, p^{62} + 24508469148\, q^{92}\, p^{58}$$
$$+ 59637409\, q^{87}\, p^{29} + 38021236\, q^{87}\, p^{28} + 1769848957\, q^{90}\, p^{41} + 1356318857\, q^{90}\, p^{40} + 519952775\, q^{89}\, p^{36} + 712446610\, q^{89}\, p^{37}$$
$$+ 962637088\, q^{89}\, p^{38} + 9664437696\, p^{74}\, q^{38} + 152001406957\, p^{77}\, q^{56} + 2644\, q^{119}\, p^{44} + 5804064\, p^{113}\, q^{112} + 88\, q^{118}\, p^{37} + 34\, q^{118}\, p^{36}$$
$$+ 3\, q^{118}\, p^{34} + 11\, q^{118}\, p^{35} + 4402\, q^{121}\, p^{50} + 9995\, q^{121}\, p^{52} + 6717\, q^{121}\, p^{51} + 14559\, q^{121}\, p^{53} + 29094\, q^{121}\, p^{55} + 20769\, q^{121}\, p^{54}$$
$$+ 9695\, q^{122}\, p^{55} + 2812\, q^{121}\, p^{49} + 1740\, q^{121}\, p^{48} + 2507105\, p^{106}\, q^{119} + 657731751\, p^{95}\, q^{107} + 91200\, p^{126}\, q^{93} + 92707\, p^{126}\, q^{97}$$
$$+ 239250\, p^{119}\, q^{117} + 1010844694\, p^{86}\, q^{108} + 158141\, q^{123}\, p^{70} + 221102386873\, p^{74}\, q^{58} + 237936407201\, p^{74}\, q^{59} + 255381061\, p^{86}\, q^{112}$$
$$+ 369372283\, p^{86}\, q^{111} + 219344905\, p^{101}\, q^{108} + 18779\, p^{84}\, q^{127} + 10514129\, p^{112}\, q^{52} + 52487654\, p^{115}\, q^{73} + 93053822\, p^{102}\, q^{43} + 8\, q^{125}\, p^{51}$$

$$+ 33983258249\, p^{84} q^{93} + q^{124} p^{46} + 1758\, p^{113} q^{33} + 17194\, p^{119} q^{48} + 1187\, p^{111} q^{30} + 20009\, p^{118} q^{46} + 10299115978\, p^{94} q^{94} + 215\, q^{60} p^{7}$$
$$+ 180443404\, p^{96} q^{111} + 332983787\, p^{100} q^{107} + 1835917884\, p^{86} q^{106} + 237634\, p^{113} q^{42} + 161\, p^{113} q^{132} + 4272688922\, q^{102} p^{65}$$
$$+ 5291446182\, q^{102} p^{68} + 4621215204\, q^{102} p^{66} + 4962531080\, q^{102} p^{67} + 3573753015\, q^{102} p^{63} + 3921966926\, q^{102} p^{64} + 2\, p^{50} q^{4}$$
$$+ 325992879442\, p^{70} q^{75} + 336833558295\, p^{71} q^{74} + 331949180926\, p^{72} q^{74} + 499\, p^{130} q^{121} + 25868259871\, p^{90} q^{91} + 1054571757\, p^{85} q^{108}$$
$$+ 692500836\, p^{108} q^{67} + 108520951\, p^{105} q^{48} + 120006\, p^{92} q^{21} + 3362603\, p^{99} q^{31} + 1064746\, p^{98} q^{28} + 7\, p^{133} q^{131} + p^{135} q^{133} + 16\, p^{127} q^{133}$$
$$+ 1769314662\, p^{104} q^{93} + 73700\, q^{101} p^{26} + 46042524\, p^{114} q^{99} + 57658310\, p^{114} q^{97} + 293431838364\, p^{77} q^{71} + 309342578133\, p^{76} q^{71}$$
$$+ 14726\, p^{106} q^{28} + 1879\, p^{100} q^{21} + 100974590965\, p^{70} q^{88} + 305759655474\, p^{76} q^{72} + 342383870870\, p^{72} q^{73} + 323893764806\, p^{75} q^{71}$$
$$+ 305192332249\, p^{75} q^{74} + 6827188617\, q^{88} p^{45} + 8388910086\, q^{88} p^{46} + 10208794264\, q^{88} p^{47} + 5796925\, p^{102} q^{35} + 113599\, p^{94} q^{22}$$
$$+ 374064299\, p^{110} q^{69} + 428570490\, p^{109} q^{66} + 206037\, p^{96} q^{24} + 664\, p^{81} q^{12} + 312939761\, p^{108} q^{60} + 403677292\, p^{110} q^{70}$$
$$+ 513709890\, p^{109} q^{68} + 238194092\, p^{109} q^{61} + 4402\, p^{86} q^{15} + 6\, q^{82} p^{10} + 147\, q^{84} p^{12} + 310886478018\, p^{76} q^{70} + 365144070\, p^{110} q^{92}$$
$$+ 5383746\, p^{99} q^{32} + 607079\, p^{95} q^{25} + 834481066\, p^{107} q^{65} + 601044455\, p^{107} q^{62} + 823180135\, p^{109} q^{82} + 788255839\, p^{109} q^{84}$$
$$+ 437115424\, p^{106} q^{57} + 808318955\, p^{109} q^{83} + 126665627\, p^{110} q^{101} + 4245679890\, p^{100} q^{93} + 369372283\, p^{111} q^{86} + 399208719\, p^{111} q^{79}$$
$$+ 156054\, p^{95} q^{23} + 5870\, p^{88} q^{16} + 103434773\, p^{112} q^{98} + 143874543\, p^{107} q^{53} + 574820061\, p^{110} q^{78} + 115192552\, p^{106} q^{50}$$
$$+ 355254928\, p^{111} q^{87} + 211879465\, q^{96} p^{39} + 108520951\, q^{105} p^{48} + 172164689\, q^{105} p^{50} + 261928231\, q^{105} p^{52} + 213432097\, q^{105} p^{51}$$
$$+ 318313192\, q^{105} p^{53} + 457029771\, q^{105} p^{55} + 383179381\, q^{105} p^{54} + 312981913\, q^{106} p^{55} + 137431331\, q^{105} p^{49} + 150044917\, q^{95} p^{37}$$
$$+ 1719521521\, p^{100} q^{53} + 11872596\, p^{113} q^{109} + 15805755\, p^{112} q^{109} + 12336872226\, p^{74} q^{39} + 55904960351\, p^{75} q^{47}$$
$$+ 15576983137\, p^{74} q^{40} + 87929734640\, p^{75} q^{50} + 29475100675\, p^{74} q^{43} + 24069027410\, p^{74} q^{42} + 33426\, q^{117} p^{45} + 2823\, q^{118} p^{42}$$
$$+ 229829642506\, p^{67} q^{80} + 223525160487\, p^{66} q^{80} + 2463245161\, p^{97} q^{100} + 474482730\, p^{104} q^{102} + 711420613\, p^{102} q^{102}$$
$$+ 583931793\, p^{103} q^{102} + 1760541682\, p^{95} q^{103} + 858331060\, p^{102} q^{101} + 89\, p^{131} q^{126} + 129\, p^{106} q^{23} + 8974853\, p^{119} q^{93} + 5165908\, p^{115} q^{110}$$
$$+ 12856186\, p^{102} q^{37} + 261275004\, p^{106} q^{54} + 221003\, p^{124} q^{79} + 25705\, p^{119} q^{49} + 31155\, p^{127} q^{105} + 77928\, p^{122} q^{62} + 2045291\, p^{99} q^{30}$$
$$+ 5656003\, p^{100} q^{33} + 1692800\, p^{87} q^{122} + 127500\, p^{118} q^{120} + 18\, p^{128} q^{64} + 84\, p^{130} q^{80} + 78\, p^{132} q^{100} + 305192332249\, p^{74} q^{75}$$
$$+ 313395196616\, p^{73} q^{75} + 278971996709\, p^{77} q^{74} + 283630514147\, p^{76} q^{75} + 295210546733\, p^{75} q^{75} + 270657396665\, p^{77} q^{75}$$
$$+ 3991218\, p^{96} q^{29} + 24508394101\, p^{95} q^{84} + 116645\, p^{62} q^{12} + 38134224034\, p^{79} q^{47} + 10302557482\, p^{78} q^{40} + 8080490109\, p^{78} q^{39}$$
$$+ 285616009477\, p^{77} q^{73} + 315981112686\, p^{74} q^{74} + 300205192281\, p^{76} q^{73} + 655798465\, p^{81} q^{32} + 67874843905\, p^{86} q^{58}$$

$$+ 457029771\, p^{81} q^{31} + 1333\, p^{52} q^{7} + 8935584777\, p^{64} q^{99} + 5635633\, p^{92} q^{27} + 876010623\, p^{101} q^{51} + 411141919\, p^{100} q^{46}$$
$$+ 8049512\, p^{70} q^{19} + 199926791257\, p^{82} q^{69} + 202107817153\, p^{82} q^{70} + 57747794\, p^{99} q^{38} + 323893764806\, p^{71} q^{75}$$
$$+ 324954956996\, p^{73} q^{74} + 309342578133\, p^{71} q^{76} + 300205192281\, p^{73} q^{76} + 283630514147\, p^{75} q^{76} + 292783104944\, p^{74} q^{76}$$
$$+ 272913863565\, p^{76} q^{76} + 260823963151\, p^{77} q^{76} + 305759655474\, p^{72} q^{76} + 310886478018\, p^{70} q^{76} + 917187777\, q^{102} p^{53}$$
$$+ 677050\, p^{76} q^{17} + 76069929\, p^{84} q^{28} + 11985863\, p^{81} q^{23} + 213432097\, p^{85} q^{31} + 290645067071\, p^{68} q^{77} + 293521942293\, p^{69} q^{77}$$
$$+ 290466243147\, p^{72} q^{77} + 293431838364\, p^{71} q^{77} + 270657396665\, p^{75} q^{77} + 249647748445\, p^{77} q^{77} + 225954702944\, p^{78} q^{78}$$
$$+ 285616009477\, p^{73} q^{77} + 260823963151\, p^{76} q^{77} + 278971996709\, p^{74} q^{77} + 294456825032\, p^{70} q^{77} + 918\, p^{54} q^{7} + 94550\, q^{108} p^{33}$$
$$+ 53066\, q^{108} p^{32} + 19106639\, p^{105} q^{114} + 972\, p^{129} q^{121} + 333603087\, p^{96} q^{109} + p^{52} q^{4} + 7619283323\, p^{96} q^{94} + 368335\, p^{115} q^{47}$$
$$+ 1707384\, p^{122} q^{92} + 2410506\, p^{120} q^{72} + 639265\, p^{116} q^{51} + 1801007\, p^{119} q^{65} + 6379745715\, p^{72} q^{102} + 1008\, q^{112} p^{31} + 2213\, q^{112} p^{32}$$
$$+ 4534\, q^{112} p^{33} + 1410756421\, p^{95} q^{45} + 12376760457\, p^{98} q^{65} + 9664437696\, p^{98} q^{62} + 253\, q^{71} p^{9} + 476\, q^{74} p^{10} + 48\, q^{70} p^{8}$$
$$+ 2083651819\, p^{96} q^{48} + 13571999\, q^{118} p^{77} + 8456343\, q^{119} p^{79} + 15861183\, q^{118} p^{80} + 14401315\, q^{118} p^{78} + 15168879\, q^{118} p^{79}$$
$$+ 11787325\, q^{118} p^{75} + 12695918\, q^{118} p^{76} + 8547711266\, p^{80} q^{101} + 8318489564\, p^{81} q^{101} + 109213427\, p^{100} q^{111} + 71299036\, p^{88} q^{115}$$
$$+ 48183965\, p^{85} q^{116} + 927\, q^{101} p^{21} + 105882555349\, p^{76} q^{52} + 93116067466\, p^{76} q^{51} + 60351234178\, p^{76} q^{48} + 39606058963\, p^{75} q^{45}$$
$$+ 250204956409\, p^{77} q^{63} + 237936407201\, p^{77} q^{62} + 224720736879\, p^{77} q^{61} + 221028297185\, p^{70} q^{81} + 119466505765\, p^{60} q^{83}$$
$$+ 7718471\, p^{91} q^{27} + 6880361953\, p^{102} q^{78} + 21513\, q^{117} p^{44} + 13487\, q^{117} p^{43} + 32\, q^{114} p^{30} + 129\, q^{113} p^{30} + 8200\, q^{117} p^{42}$$
$$+ 11368998123\, p^{76} q^{100} + 8550908567\, p^{73} q^{101} + 56104\, q^{107} p^{31} + 691439\, q^{108} p^{37} + 13826\, q^{105} p^{27} + 53066\, q^{104} p^{28} + 101435\, q^{104} p^{29}$$
$$+ 26422\, q^{104} p^{27} + 131878\, p^{85} q^{18} + 104934343\, p^{65} q^{112} + 306981752\, p^{72} q^{111} + 457130479\, p^{109} q^{93} + 1606509103\, p^{81} q^{107} + 2\, p^{83} q^{10}$$
$$+ 182162\, p^{120} q^{58} + 657731751\, p^{107} q^{95} + 735475159\, p^{107} q^{94} + 106114191\, p^{108} q^{105} + 164826514\, p^{107} q^{104} + 181565960091\, p^{77} q^{58}$$
$$+ 196317539541\, p^{77} q^{59} + 40\, p^{129} q^{131} + 196717\, p^{125} q^{90} + 163748\, p^{125} q^{86} + 198000\, p^{124} q^{78} + 108436\, p^{125} q^{81} + 91258\, p^{126} q^{98}$$
$$+ 173504\, p^{125} q^{87} + 190160\, p^{125} q^{89} + 154770\, p^{124} q^{76} + 175814\, p^{124} q^{77} + 4817765\, q^{112} p^{49} + 2178459\, p^{99} q^{121} + 6357\, p^{120} q^{126}$$
$$+ 414\, p^{130} q^{122} + 3053\, p^{124} q^{125} + 42144378\, q^{111} p^{56} + 28104607\, q^{111} p^{54} + 22599413\, q^{111} p^{53} + 404\, q^{120} p^{43} + 207\, q^{120} p^{42}$$
$$+ 752\, q^{120} p^{44} + 600\, q^{121} p^{46} + 3692\, q^{120} p^{47} + 1327\, q^{120} p^{45} + 2255\, q^{120} p^{46} + 23\, q^{117} p^{34} + 109451\, q^{123} p^{68} + 17138223\, p^{118} q^{89}$$
$$+ 23806708\, p^{117} q^{77} + 16464775\, p^{118} q^{81} + 22416637\, p^{117} q^{76} + 6461325\, p^{119} q^{98} + 25098108\, p^{117} q^{78} + 17713489\, p^{118} q^{87}$$
$$+ 17815458\, p^{118} q^{86} + 2485974\, p^{119} q^{67} + 17977421\, q^{111} p^{52} + 16676245\, p^{118} q^{90} + 4592878\, p^{109} q^{116} + 52399\, p^{123} q^{117}$$

$$+ 10236661\, q^{115} p^{60} + 6597\, p^{115} q^{38} + 4\, p^{94} q^{14} + 1091057309\, q^{102} p^{54} + 5508820\, q^{120} p^{92} + 8040223362\, p^{82} q^{101} + 7718006949\, p^{83} q^{101}$$
$$+ 76345122\, p^{104} q^{110} + 4807673\, p^{120} q^{80} + 1194231\, p^{117} q^{56} + 1097787804\, p^{105} q^{61} + 1378158648\, p^{105} q^{63} + 1934733002\, p^{106} q^{72}$$
$$+ 772149957\, p^{104} q^{56} + 14126985116\, p^{78} q^{99} + 373915767\, q^{101} p^{47} + 171808039\, p^{93} q^{112} + 876010623\, q^{101} p^{51} + 1057498138\, q^{101} p^{52}$$
$$+ 11509\, q^{77} p^{13} + 321700\, q^{98} p^{26} + 505011371\, q^{96} p^{42} + 2552927477\, p^{105} q^{85} + 308494134\, p^{109} q^{63} + 166059450\, p^{108} q^{56}$$
$$+ 346900051\, p^{109} q^{64} + 138601566\, p^{108} q^{55} + 403088966\, p^{111} q^{80} + 339268346\, p^{111} q^{88} + 50713542\, p^{112} q^{103} + 185835337\, p^{112} q^{92}$$
$$+ 2337140\, p^{101} q^{32} + 262055\, p^{97} q^{25} + 387060282\, p^{109} q^{65} + 460036389\, p^{110} q^{72} + 342402\, p^{87} q^{20} + 1199306099\, p^{100} q^{51}$$
$$+ 565641470\, p^{99} q^{46} + 5225682975\, p^{101} q^{64} + 2379239528\, p^{100} q^{55} + 247244841\, p^{76} q^{112} + 1174513883\, p^{80} q^{108} + 8345158900\, p^{92} q^{97}$$
$$+ 403088966\, p^{80} q^{111} + 500011372\, p^{92} q^{109} + 373439860\, p^{95} q^{109} + 1993626\, q^{109} p^{41} + 7\, p^{134} q^{123} + 1395\, p^{108} q^{27} + 15248\, p^{126} q^{116}$$
$$+ 12\, p^{126} q^{55} + 3339439934\, p^{104} q^{85} + 278\, p^{129} q^{126} + 448\, p^{128} q^{126} + 1026690087\, q^{97} p^{46} + 7183538313\, p^{90} q^{99} + 37\, p^{65} q^{7}$$
$$+ 1120846\, p^{95} q^{26} + 247145279\, p^{110} q^{96} + 170\, p^{72} q^{9} + 75111\, p^{89} q^{19} + 1394952\, p^{120} q^{107} + 689505\, p^{120} q^{111} + 1588110822\, q^{97} p^{48}$$
$$+ 24296093\, p^{112} q^{107} + 342383870870\, p^{73} q^{72} + 319668011325\, p^{75} q^{72} + 2733961\, q^{97} p^{29} + 99905888\, p^{104} q^{109} + 847375206\, p^{105} q^{59}$$
$$+ 4112\, p^{80} q^{13} + 428570490\, p^{66} q^{109} + 608\, q^{100} p^{20} + 2837976506\, q^{85} p^{39} + 6019934745\, q^{85} p^{42} + 4738564636\, q^{85} p^{41}$$
$$+ 3688511039\, q^{85} p^{40} + 876010623\, q^{85} p^{35} + 325992879442\, p^{75} q^{70} + 310362176831\, p^{76} q^{69} + 471494\, p^{86} q^{20} + 208040168\, p^{95} q^{38}$$
$$+ 846560947\, p^{96} q^{44} + 9566080121\, p^{100} q^{69} + 1321\, p^{124} q^{127} + 686\, p^{127} q^{126} + 18997105\, p^{117} q^{96} + 10363869523\, p^{99} q^{66}$$
$$+ 60449984965\, p^{91} q^{68} + 66216615676\, p^{91} q^{72} + 12876959\, p^{100} q^{117} + 11449293\, p^{101} q^{117} + 49540385732\, q^{92} p^{80} + 3919572\, p^{117} q^{108}$$
$$+ 4111\, p^{82} q^{128} + 3476\, p^{81} q^{128} + 4309926\, p^{119} q^{102} + 5364282\, p^{119} q^{100} + 22413\, p^{127} q^{109} + 15\, p^{99} q^{17} + 97\, p^{105} q^{22} + 10194\, p^{127} q^{115}$$
$$+ 34589520\, q^{111} p^{55} + 7540211\, p^{119} q^{96} + q^{126} p^{52} + 17897730\, p^{117} q^{73} + 3205618\, p^{118} q^{107} + 5165908\, p^{110} q^{115} + 699523\, p^{99} q^{123}$$
$$+ 410873\, p^{88} q^{124} + 1255899\, p^{119} q^{63} + 2213\, p^{104} q^{24} + 120006\, p^{115} q^{44} + 1392242\, p^{122} q^{82} + 4830285122\, q^{103} p^{72}$$
$$+ 4436631453\, q^{103} p^{70} + 772149957\, p^{80} q^{32} + 540240760\, p^{80} q^{31} + 78078279370\, p^{85} q^{58} + 3170777754\, p^{81} q^{37} + 85574839539\, p^{85} q^{59}$$
$$+ 7971746\, p^{74} q^{20} + 44404893918\, p^{84} q^{52} + 38470454782\, p^{84} q^{51} + 8326171195\, p^{83} q^{42} + 1761744702\, p^{81} q^{35} + 28164342855\, p^{84} q^{49}$$
$$+ 121636432215\, p^{85} q^{64} + 437115424\, p^{79} q^{30} + 65100285399\, p^{84} q^{55} + 19164231353\, p^{83} q^{46} + 198\, p^{80} q^{11} + 285\, p^{59} q^{7}$$
$$+ 1502059\, p^{122} q^{96} + 217599\, p^{86} q^{19} + 36\, p^{83} q^{11} + 2701901\, p^{120} q^{73} + 37673887032\, p^{70} q^{94} + 122841156411\, p^{86} q^{77}$$
$$+ 105736065143\, p^{87} q^{78} + 132791824149\, p^{86} q^{73} + 126526126098\, p^{86} q^{76} + 100601287603\, p^{85} q^{61} + 114972606419\, p^{85} q^{63}$$
$$+ 107923651771\, p^{85} q^{62} + 127805149885\, p^{85} q^{65} + 976051860\, p^{72} q^{108} + 1242187524\, p^{70} q^{107} + 316\, q^{126} p^{61} + 8049512\, p^{117} q^{66}$$

$$+ 5555727\, p^{116}\, q^{60} + 10535472\, p^{117}\, q^{68} + 10169108\, p^{119}\, q^{84} + 9944755\, p^{119}\, q^{83} + 3017200\, p^{120}\, q^{101} + 9654885\, p^{119}\, q^{82}$$
$$+ 191746592851\, p^{67}\, q^{82} + 19763105574\, p^{93}\, q^{90} + 210077794357\, p^{77}\, q^{80} + 2079415388\, p^{83}\, q^{106} + 2137719887\, p^{82}\, q^{106}$$
$$+ 137512985371\, p^{62}\, q^{83} + 220706615515\, p^{72}\, q^{81} + 836271926\, p^{80}\, q^{109} + 25354016\, p^{56}\, q^{112} + 129784639\, p^{63}\, q^{111} + 98318677\, p^{61}\, q^{111}$$
$$+ 84495362\, p^{60}\, q^{111} + 71985467\, p^{59}\, q^{111} + 962141679\, p^{87}\, q^{108} + 8445325\, p^{49}\, q^{111} + 10995042\, p^{50}\, q^{111} + 113432516\, p^{62}\, q^{111}$$
$$+ 29699766\, p^{85}\, q^{117} + 208029760\, p^{104}\, q^{106} + 7\, p^{134}\, q^{124} + 813293946\, p^{77}\, q^{109} + 317561\, q^{106}\, p^{33} + 147286464\, p^{64}\, q^{111}$$
$$+ 460036389\, p^{72}\, q^{110} + 432485788\, p^{71}\, q^{110} + 128425\, p^{115}\, q^{122} + 517101\, q^{113}\, p^{44} + 3611\, q^{99}\, p^{21} + 4254\, p^{125}\, q^{123} + 29082\, p^{127}\, q^{106}$$
$$+ 34\, p^{100}\, q^{18} + 3127784\, p^{92}\, q^{121} + 182362454\, p^{83}\, q^{113} + 182192522\, p^{81}\, q^{113} + 182912784\, p^{82}\, q^{113} + 180550131\, p^{84}\, q^{113} + 2638\, q^{111}\, p^{31}$$
$$+ 5462\, q^{111}\, p^{32} + 10701\, q^{111}\, p^{33} + 35687\, q^{111}\, p^{35} + 19947\, q^{111}\, p^{34} + 1187\, q^{111}\, p^{30} + 28841\, q^{112}\, p^{36} + 493\, q^{111}\, p^{29} + 9369747\, q^{119}\, p^{92}$$
$$+ 583566529\, p^{96}\, q^{107} + 1925\, p^{107}\, q^{130} + 539\, p^{103}\, q^{131} + 316311692\, p^{103}\, q^{105} + 59595521913\, p^{90}\, q^{82} + 1394952\, p^{107}\, q^{120}$$
$$+ 79955343\, p^{72}\, q^{114} + 205650\, p^{92}\, q^{125} + 303498018\, p^{102}\, q^{106} + 532438\, q^{114}\, p^{46} + 747548\, q^{114}\, p^{47} + 1032667\, q^{114}\, p^{48} + 1446337\, q^{113}\, p^{47}$$
$$+ 4190350\, q^{114}\, p^{53} + 2490546\, q^{114}\, p^{51} + 3250789\, q^{114}\, p^{52} + 1291976\, q^{115}\, p^{51} + 5337539\, q^{114}\, p^{54} + 6721225\, q^{114}\, p^{55}$$
$$+ 38470454782\, p^{52}\, q^{85} + 80849041258\, p^{57}\, q^{84} + 14510691074\, p^{47}\, q^{86} + 492247350\, q^{97}\, p^{43} + 383030076\, q^{96}\, p^{41} + 37069204\, p^{102}\, q^{40}$$
$$+ 26479918\, p^{102}\, q^{39} + 4105768106\, p^{98}\, q^{96} + 4548\, p^{83}\, q^{14} + 756\, p^{77}\, q^{11} + 848722\, p^{71}\, q^{16} + 225914340\, p^{74}\, q^{112} + 404205169\, p^{81}\, q^{111}$$
$$+ 263088647\, p^{78}\, q^{112} + 11456069\, p^{97}\, q^{32} + 1294775\, p^{93}\, q^{25} + 272172038\, p^{109}\, q^{62} + 391000066\, p^{111}\, q^{84} + 197141698\, p^{108}\, q^{57}$$
$$+ 398102478\, p^{111}\, q^{83} + 69226848\, p^{112}\, q^{101} + 402531819\, p^{111}\, q^{82} + 664286861\, p^{97}\, q^{106} + 21386\, p^{116}\, q^{42} + 180\, p^{103}\, q^{21} + 1395\, p^{109}\, q^{28}$$
$$+ 1678303637\, p^{105}\, q^{65} + 1234769998\, p^{105}\, q^{62} + 1578195230\, p^{107}\, q^{82} + 1491917728\, p^{107}\, q^{84} + 901324786\, p^{104}\, q^{57}$$
$$+ 1539757902\, p^{107}\, q^{83} + 74539\, p^{103}\, q^{126} + 13348\, p^{62}\, q^{10} + 4796\, p^{83}\, q^{128} + 1736979\, p^{89}\, q^{122} + 4\, p^{134}\, q^{130} + 894568\, p^{91}\, q^{123}$$
$$+ 1740013\, p^{90}\, q^{122} + 13249936364\, p^{98}\, q^{66} + 78032\, p^{81}\, q^{16} + 639265\, p^{85}\, q^{20} + 276742037\, p^{94}\, q^{38} + 1112508990\, p^{95}\, q^{44}$$
$$+ 12280437530\, p^{99}\, q^{69} + 1666493176\, q^{103}\, p^{59} + 578075\, p^{73}\, q^{16} + 7600260\, p^{112}\, q^{112} + 6469530213\, p^{97}\, q^{94} + 219344905\, p^{108}\, q^{101}$$
$$+ 1958963\, p^{90}\, q^{24} + 45259\, p^{113}\, q^{125} + 79\, p^{88}\, q^{13} + 3476\, p^{128}\, q^{81} + 7189\, p^{128}\, q^{86} + 10741\, p^{128}\, q^{90} + 7934\, p^{127}\, q^{78} + 6626\, p^{127}\, q^{77}$$
$$+ 5457\, p^{129}\, q^{98} + 9844\, p^{128}\, q^{89} + 5469\, p^{127}\, q^{76} + 8054\, p^{128}\, q^{87} + 1721193\, p^{122}\, q^{88} + 511806\, p^{123}\, q^{103} + 12\, p^{81}\, q^{10} + 32\, p^{114}\, q^{30}$$
$$+ 600\, p^{121}\, q^{46} + 42\, p^{116}\, q^{33} + 428\, p^{122}\, q^{48} + 42106\, p^{124}\, q^{116} + 923706\, p^{118}\, q^{58} + 6865\, p^{106}\, q^{27} + 93434\, p^{95}\, q^{126} + 211086\, p^{124}\, q^{106}$$
$$+ 61\, p^{91}\, q^{14} + 428\, p^{97}\, q^{18} + 81712\, p^{112}\, q^{38} + 63487\, p^{124}\, q^{114} + 125593\, p^{124}\, q^{110} + 26486\, p^{124}\, q^{118} + 165956\, p^{124}\, q^{108} + 145064\, p^{124}\, q^{109}$$
$$+ 52017\, p^{124}\, q^{115} + 218\, p^{96}\, q^{17} + 1317\, p^{102}\, q^{22} + 1758\, p^{103}\, q^{23} + 1075065\, p^{101}\, q^{122} + 880772\, p^{123}\, q^{93} + 779183\, p^{123}\, q^{97}$$

$$+ 699523\, p^{123}\, q^{99} + 26486\, p^{118}\, q^{124} + 14968\, p^{103}\, q^{128} + 2\, p^{86}\, q^{132} + 303135\, p^{113}\, q^{121} + 2638\, p^{105}\, q^{25} + 26422\, p^{109}\, q^{32} + 113599\, p^{114}\, q^{42}$$
$$+ 7182\, p^{107}\, q^{28} + 927\, p^{101}\, q^{21} + 1721193\, p^{88}\, q^{122} + 1973\, p^{78}\, q^{128} + 171743\, p^{116}\, q^{47} + 196451263459\, p^{68}\, q^{82} + 6686973\, p^{116}\, q^{61}$$
$$+ 15168879\, p^{118}\, q^{79} + 4190350\, p^{114}\, q^{53} + 3518592\, p^{113}\, q^{50} + 8718721\, p^{100}\, q^{34} + 110859360\, p^{103}\, q^{45} + 51103239\, p^{102}\, q^{41}$$
$$+ 19457570\, p^{100}\, q^{36} + 107988446\, p^{110}\, q^{102} + 42288310882\, p^{80}\, q^{93} + 60503\, p^{122}\, q^{61} + 92696\, p^{126}\, q^{94} + 7706\, p^{116}\, q^{40} + 4382\, p^{116}\, q^{39}$$
$$+ 116645\, p^{124}\, q^{74} + 132263\, p^{123}\, q^{69} + 1317\, p^{114}\, q^{34} + 93434\, p^{126}\, q^{95} + 158141\, p^{123}\, q^{70} + 69829\, p^{126}\, q^{104} + 180215084\, p^{80}\, q^{113}$$
$$+ 4111\, p^{128}\, q^{82} + 171\, p^{121}\, q^{44} + 2\, p^{110}\, q^{24} + 404\, p^{120}\, q^{43} + 1523\, p^{130}\, q^{112} + 4460\, p^{127}\, q^{75} + 1608\, p^{125}\, q^{61} + 170203\, p^{101}\, q^{125}$$
$$+ 31506\, p^{67}\, q^{124} + 221003\, p^{79}\, q^{124} + 39279\, p^{68}\, q^{124} + 48366\, p^{69}\, q^{124} + 198000\, p^{78}\, q^{124} + 244628\, p^{80}\, q^{124} + 19568\, p^{70}\, q^{125}$$
$$+ 19532\, p^{65}\, q^{124} + 24977\, p^{66}\, q^{124} + 1830902\, p^{101}\, q^{121} + 1730015\, p^{91}\, q^{122} + 22\, p^{129}\, q^{132} + 890977\, p^{92}\, q^{123} + 469932\, p^{78}\, q^{123}$$
$$+ 565625\, p^{80}\, q^{123} + 268459\, p^{81}\, q^{124} + 517700\, p^{79}\, q^{123} + 423065\, p^{77}\, q^{123} + 18099475321\, p^{94}\, q^{59} + 30978258408\, p^{95}\, q^{70}$$
$$+ 2334832305\, p^{91}\, q^{43} + 25302099\, p^{114}\, q^{62} + 48320268\, p^{116}\, q^{84} + 18108399\, p^{113}\, q^{57} + 48115325\, p^{116}\, q^{83} + 11449293\, p^{117}\, q^{101}$$
$$+ 47574211\, p^{116}\, q^{82} + 2715704322\, p^{99}\, q^{54} + 764043278\, q^{102}\, p^{52} + 39064952\, q^{97}\, p^{35} + 106554344\, p^{95}\, q^{36} + 17865448\, p^{93}\, q^{30}$$
$$+ 47082329\, p^{94}\, q^{33} + 286804998\, p^{96}\, q^{40} + 211879465\, p^{96}\, q^{39} + 150044917\, p^{95}\, q^{37} + 888523\, p^{103}\, q^{122} + 1657894\, p^{102}\, q^{121}$$
$$+ 454099\, p^{113}\, q^{120} + 657710581\, p^{43}\, q^{96} + 32177175098\, p^{88}\, q^{91} + 3126808240\, p^{102}\, q^{92} + 476\, p^{129}\, q^{79} + 769\, p^{74}\, q^{128} + 12772\, p^{81}\, q^{127}$$
$$+ 40456731175\, p^{81}\, q^{93} + 3725371\, p^{103}\, q^{35} + 73090\, p^{95}\, q^{22} + 246539344\, p^{111}\, q^{69} + 743372560\, p^{74}\, q^{109} + p^{120}\, q^{135} + 187213\, p^{123}\, q^{71}$$
$$+ 3\, p^{89}\, q^{12} + 3611\, p^{115}\, q^{37} + 201935\, p^{125}\, q^{91} + 5\, p^{88}\, q^{132} + 3\, p^{134}\, q^{132} + p^{135}\, q^{132} + 6970271310\, p^{55}\, q^{96} + 3259\, q^{124}\, p^{59} + 1314\, p^{66}\, q^{9}$$
$$+ 20545830647\, p^{97}\, q^{80} + 284717154\, p^{110}\, q^{66} + 206744718\, p^{109}\, q^{60} + 267175024\, p^{111}\, q^{70} + 344091920\, p^{110}\, q^{68} + 154777159\, p^{110}\, q^{61}$$
$$+ 2812\, p^{87}\, q^{15} + 255381061\, p^{112}\, q^{86} + 268562210\, p^{112}\, q^{79} + 100053\, p^{96}\, q^{23} + 3692\, p^{89}\, q^{16} + 73777073\, p^{113}\, q^{98} + 93836871\, p^{108}\, q^{53}$$
$$+ 392639510\, p^{111}\, q^{78} + 75521575\, p^{107}\, q^{50} + 246569530\, p^{112}\, q^{87} + 131454\, p^{97}\, q^{24} + 2121279400\, p^{104}\, q^{64} + 925659205\, p^{103}\, q^{55}$$
$$+ 12653394832\, p^{97}\, q^{88} + 18054917724\, p^{97}\, q^{83} + 123180\, p^{76}\, q^{15} + 526288\, q^{102}\, p^{30} + 27851866\, q^{105}\, p^{43} + 20389976\, q^{105}\, p^{42}$$
$$+ 37509741\, q^{105}\, p^{44} + 49842311\, q^{105}\, p^{45} + 464372151\, q^{107}\, p^{60} + 403219368\, q^{107}\, p^{59} + 675705774\, q^{107}\, p^{63} + 834481066\, q^{107}\, p^{65}$$
$$+ 530434365\, q^{107}\, p^{61} + 753776066\, q^{107}\, p^{64} + 601044455\, q^{107}\, p^{62} + 347198666\, q^{107}\, p^{58} + 5383746\, q^{104}\, p^{37} + 7926307\, q^{104}\, p^{38} + q^{66}\, p^{6}$$
$$+ 36\, q^{125}\, p^{53} + 3\, p^{87}\, q^{132} + 3590688778\, p^{93}\, q^{47} + 14141613\, p^{85}\, q^{25} + 59637409\, p^{87}\, q^{29} + 8205668\, p^{85}\, q^{24} + 30343409\, p^{86}\, q^{27}$$
$$+ 19242579\, p^{99}\, q^{35} + p^{29}\, q^{2} + 21642317907\, p^{97}\, q^{78} + 17788465002\, p^{95}\, q^{61} + 21138971219\, p^{95}\, q^{63} + 26566788547\, p^{96}\, q^{72}$$
$$+ 23314176196\, p^{96}\, q^{68} + 2\, q^{128}\, p^{61} + 10432591448\, p^{97}\, q^{90} + 4645271105\, q^{103}\, p^{71} + 4988328629\, q^{103}\, p^{73} + 5212297353\, q^{103}\, p^{75}$$

$$+ 5116469317\, q^{103}\, p^{74} + 5273973354\, q^{103}\, p^{76} + 5290775132\, q^{103}\, p^{78} + 5300308139\, q^{103}\, p^{77} + 14536394389\, p^{95}\, q^{59}$$
$$+ 25227869971\, p^{96}\, q^{70} + 1853705057\, p^{92}\, q^{43} + 28960596211\, p^{89}\, q^{91} + 38438901471\, p^{82}\, q^{93} + 27558\, p^{74}\, q^{13} + 60503\, p^{75}\, q^{14}$$
$$+ 989\, q^{72}\, p^{10} + 2269\, q^{74}\, p^{11} + 7110312858\, p^{94}\, q^{52} + 5309459455\, p^{93}\, q^{49} + 25971584\, p^{91}\, q^{117} + 67361519\, p^{109}\, q^{106}$$
$$+ 13871674081\, p^{79}\, q^{99} + 1756\, p^{128}\, q^{121} + 6539857\, q^{106}\, p^{40} + 12982518\, q^{106}\, p^{42} + 812595373\, q^{97}\, p^{45} + 113432516\, p^{111}\, q^{62}$$
$$+ 180550131\, p^{113}\, q^{84} + 81798281\, p^{110}\, q^{57} + 182362454\, p^{113}\, q^{83} + 35572128\, p^{114}\, q^{101} + 182912784\, p^{113}\, q^{82} + 98\, q^{95}\, p^{16} + 848\, q^{96}\, p^{18}$$
$$+ 13\, q^{77}\, p^{9} + 79\, q^{78}\, p^{10} + 24\, q^{76}\, p^{9} + 124014\, q^{110}\, p^{36} + 12433\, q^{104}\, p^{26} + 752481870\, p^{68}\, q^{108} + 7619283323\, p^{94}\, q^{96} + 7\, p^{123}\, q^{134}$$
$$+ 3643586\, p^{120}\, q^{99} + 4261154\, p^{120}\, q^{97} + 886110\, q^{121}\, p^{107} + 372\, p^{78}\, q^{129} + 107611\, p^{111}\, q^{124} + 1692800\, p^{122}\, q^{87} + 1652606\, p^{122}\, q^{86}$$
$$+ 741166\, p^{123}\, q^{98} + 2152616\, p^{121}\, q^{78} + 1308633\, p^{122}\, q^{81} + 1807827\, p^{121}\, q^{76} + 1736979\, p^{122}\, q^{89} + 1980573\, p^{121}\, q^{77} + 1740013\, p^{122}\, q^{90}$$
$$+ 2274\, p^{124}\, q^{58} + 1877\, p^{130}\, q^{108} + 1725\, p^{130}\, q^{110} + 330\, p^{121}\, q^{45} + 664\, p^{124}\, q^{55} + 15\, p^{111}\, q^{26} + p^{71}\, q^{130} + 14559\, p^{83}\, q^{15}$$
$$+ 17589388914\, p^{91}\, q^{93} + 119990243\, p^{93}\, q^{113} + 119046884\, p^{84}\, q^{114} + 15978274\, p^{114}\, q^{106} + 200559067\, q^{94}\, p^{37} + 35802\, p^{73}\, q^{13}$$
$$+ 77928\, p^{74}\, q^{14} + 381759\, p^{99}\, q^{27} + 27383012\, p^{107}\, q^{46} + 61030258\, p^{108}\, q^{51} + 20389976\, p^{105}\, q^{42} + 35928594\, p^{107}\, q^{47} + 11239\, p^{119}\, q^{47}$$
$$+ 27648265\, p^{101}\, q^{38} + 4775111466\, p^{63}\, q^{101} + 2\, p^{108}\, q^{134} + 11581604141\, p^{92}\, q^{95} + 189519\, q^{122}\, p^{66} + 170\, p^{64}\, q^{127} + 8872\, p^{72}\, q^{126}$$
$$+ 7095\, p^{71}\, q^{126} + 34232740236\, p^{64}\, q^{93} + 233728998\, q^{103}\, p^{48} + 9\, q^{128}\, p^{63} + 5\, q^{128}\, p^{62} + q^{128}\, p^{60} + 55330026\, p^{108}\, q^{108} + 3069383\, p^{118}\, q^{64}$$
$$+ 1481\, p^{97}\, q^{19} + 240197\, p^{112}\, q^{122} + 463527\, p^{104}\, q^{123} + 23\, p^{107}\, q^{133} + 20\, p^{106}\, q^{133} + 10\, p^{102}\, q^{133} + 12\, p^{103}\, q^{133} + 159\, p^{109}\, q^{132}$$
$$+ 164\, p^{110}\, q^{132} + 12993453290\, p^{58}\, q^{95} + 162656876330\, p^{63}\, q^{82} + 4382\, p^{97}\, q^{20} + 303135\, p^{121}\, q^{113} + 5337539\, q^{82}\, p^{22}$$
$$+ 91704956578\, p^{57}\, q^{83} + 8492720\, p^{115}\, q^{59} + 597912402\, p^{70}\, q^{109} + 1625\, p^{130}\, q^{111} + 2855\, p^{127}\, q^{73} + 1291\, p^{130}\, q^{114} + 814\, p^{130}\, q^{118}$$
$$+ 84\, q^{121}\, p^{43} + 37\, q^{121}\, p^{42} + 171\, q^{121}\, p^{44} + 15639\, q^{123}\, p^{60} + 11509\, q^{123}\, p^{59} + 8321\, q^{123}\, p^{58} + q^{120}\, p^{37} + 5\, q^{120}\, p^{38} + 4\, q^{122}\, p^{42}$$
$$+ 237\, q^{122}\, p^{47} + 428\, q^{122}\, p^{48} + 16\, q^{120}\, p^{39} + p^{108}\, q^{22} + 1805\, p^{130}\, q^{109} + 17\, p^{132}\, q^{130} + 5799\, p^{103}\, q^{129} + 1396\, p^{96}\, q^{130} + 1215\, p^{122}\, q^{50}$$
$$+ 67\, p^{117}\, q^{35} + 1546\, p^{124}\, q^{57} + 98\, p^{120}\, q^{41} + 164\, p^{117}\, q^{36} + 1205\, p^{123}\, q^{53} + 15367\, p^{128}\, q^{102} + 5187\, p^{129}\, q^{107} + 203\, p^{118}\, q^{38} + 67\, p^{115}\, q^{32}$$
$$+ 3\, p^{111}\, q^{25} + 1992573512\, p^{103}\, q^{94} + 543480\, q^{121}\, p^{67} + 81798281\, q^{110}\, p^{57} + p^{135}\, q^{125} + 12\, p^{131}\, q^{132} + 11\, p^{129}\, q^{133} + 5\, p^{133}\, q^{132}$$
$$+ 68189663\, q^{110}\, p^{56} + 4382\, q^{116}\, p^{39} + 13044\, q^{116}\, p^{41} + 7706\, q^{116}\, p^{40} + 8278815\, q^{110}\, p^{47} + 54212\, q^{121}\, p^{57} + 2190134940\, p^{95}\, q^{102}$$
$$+ 147257891\, p^{110}\, q^{100} + 359018\, p^{85}\, q^{124} + 337924\, p^{84}\, q^{124} + 378492\, p^{86}\, q^{124} + 57758\, p^{76}\, q^{125} + 625866808\, p^{109}\, q^{89}$$
$$+ 1131351538\, p^{108}\, q^{76} + 1153796214\, p^{108}\, q^{77} + 395026405\, p^{110}\, q^{91} + 832558549\, p^{109}\, q^{81} + 924411508\, p^{108}\, q^{71} + 734131415\, p^{109}\, q^{86}$$
$$+ 701068088\, p^{109}\, q^{87} + 834253484\, p^{109}\, q^{79} + 1214837889\, p^{102}\, q^{99} + 133702832\, p^{60}\, q^{110} + 177942025\, p^{59}\, q^{109} + 9329768\, p^{99}\, q^{118}$$

$$+ 11199326\, p^{97} q^{118} + 10262645\, p^{98} q^{118} + 8413637\, p^{100} q^{118} + 6674245\, p^{102} q^{118} + 7525100\, p^{101} q^{118} + 5868826\, p^{103} q^{118}$$
$$+ 4418729\, p^{105} q^{118} + 5115528\, p^{104} q^{118} + 2909992\, p^{105} q^{119} + 1659083250\, p^{102} q^{97} + 5740\, p^{100} q^{129} + 1276\, p^{95} q^{130} + 2328\, p^{127} q^{122}$$
$$+ 5\, p^{115} q^{134} + 6\, p^{116} q^{134} + 7\, p^{118} q^{134} + 8\, p^{120} q^{134} + 7\, p^{119} q^{134} + 6\, p^{117} q^{134} + 927643271\, p^{104} q^{98} + 1400176493\, p^{95} q^{104}$$
$$+ 795123644\, p^{99} q^{104} + 927643271\, p^{98} q^{104} + 474482730\, p^{102} q^{104} + 320694683\, p^{104} q^{104} + 211012090\, p^{105} q^{105} + 675560287\, p^{100} q^{104}$$
$$+ 392019897\, p^{103} q^{104} + 1230754415\, p^{96} q^{104} + 11934\, p^{127} q^{114} + 5893\, p^{127} q^{118} + 24669\, p^{127} q^{108} + 20157\, p^{127} q^{110} + 108\, p^{132} q^{103}$$
$$+ 24\, p^{131} q^{84} + 1497173093\, p^{100} q^{100} + 1580175819\, p^{104} q^{94} + 381759\, p^{109} q^{37} + 176784\, p^{107} q^{33} + 692\, q^{126} p^{63} + 476\, q^{126} p^{62}$$
$$+ 2\, q^{126} p^{53} + 1479039088\, p^{101} q^{99} + 33990270\, p^{114} q^{64} + 11985863\, p^{113} q^{55} + 45532318\, p^{116} q^{80} + 45788926\, p^{116} q^{88}$$
$$+ 8822646\, p^{117} q^{103} + 24762792\, p^{117} q^{92} + 14808179\, p^{113} q^{56} + 1760541682\, p^{103} q^{95} + 1400176493\, p^{104} q^{95} + 1992573512\, p^{94} q^{103}$$
$$+ 987918855\, p^{103} q^{99} + 1736745360\, p^{87} q^{106} + 568805078\, p^{101} q^{104} + 1072993350\, p^{97} q^{104} + 1580175819\, p^{94} q^{104}$$
$$+ 1769314662\, p^{93} q^{104} + 354119\, p^{93} q^{23} + 13661\, p^{86} q^{16} + 193958360\, p^{110} q^{98} + 318313192\, p^{105} q^{53} + 48338\, p^{103} q^{27}$$
$$+ 1168640805\, p^{108} q^{78} + 31155\, p^{105} q^{127} + 5250\, p^{97} q^{129} + 498901083\, p^{95} q^{108} + 556028338\, p^{94} q^{108} + 153941957305\, p^{64} q^{83}$$
$$+ 20\, p^{93} q^{132} + 26\, p^{94} q^{132} + 22413\, p^{109} q^{127} + 14471\, p^{104} q^{128} + 29822\, p^{112} q^{126} + 29082\, p^{106} q^{127} + 21821\, p^{114} q^{126} + 25641\, p^{113} q^{126}$$
$$+ 6275\, p^{124} q^{123} + 124014\, p^{100} q^{26} + 43478899\, p^{115} q^{96} + 3991218\, p^{107} q^{40} + 2733961\, p^{107} q^{39} + 898607\, p^{105} q^{34} + 342738817\, p^{74} q^{111}$$
$$+ 580589057\, p^{82} q^{110} + 1033045\, q^{119} p^{62} + 840913\, q^{119} p^{61} + 218348468759\, p^{73} q^{81} + 8912900269\, p^{93} q^{52} + 38896581\, p^{114} q^{65}$$
$$+ 48553826\, p^{115} q^{72} + 540240760\, q^{105} p^{56} + 28125602671\, p^{88} q^{92} + 209458407442\, p^{75} q^{81} + 270860\, q^{108} p^{35} + 202952876448\, p^{71} q^{82}$$
$$+ 20\, p^{133} q^{106} + 6639225811\, p^{92} q^{49} + p^{126} q^{135} + p^{130} q^{135} + p^{129} q^{135} + p^{133} q^{135} + p^{135} q^{135} + p^{136} q^{136} + p^{131} q^{135} + p^{134} q^{135} + p^{127} q^{135}$$
$$+ p^{132} q^{135} + p^{128} q^{135} + p^{125} q^{135} + p^{124} q^{135} + 1065160499\, p^{90} q^{107} + 38844857563\, p^{86} q^{91} + 59\, p^{111} q^{27} + 8321\, p^{123} q^{58} + 4927\, p^{129} q^{108}$$
$$+ 4322\, p^{129} q^{110} + 112\, p^{131} q^{125} + 25705\, q^{119} p^{49} + 25189\, p^{122} q^{121} + 87\, p^{132} q^{101} + 37\, p^{133} q^{119} + 8\, p^{134} q^{120} + 12126593\, p^{118} q^{96}$$
$$+ 3274202\, q^{110} p^{44} + 4526998\, q^{110} p^{45} + 2670\, q^{101} p^{22} + 19947\, q^{102} p^{25} + 119542419\, p^{82} q^{114} + 173306116\, p^{86} q^{113}$$
$$+ 168013680\, p^{87} q^{113} + 166154\, q^{111} p^{38} + 18958776\, q^{116} p^{68} + 21268009\, q^{116} p^{69} + 241842427\, p^{111} q^{93} + 403219368\, p^{107} q^{59}$$
$$+ 1861\, p^{82} q^{13} + 5804064\, p^{112} q^{113} + 5583711\, p^{111} q^{114} + 20952563\, p^{117} q^{75} + 17789860\, p^{118} q^{85} + 347198666\, p^{107} q^{58}$$
$$+ 424221433\, p^{110} q^{90} + 743372560\, p^{109} q^{74} + 711471112\, p^{109} q^{73} + 30426\, p^{89} q^{18} + 200491796\, p^{111} q^{95} + 221041885\, p^{111} q^{94}$$
$$+ 35800412\, p^{112} q^{105} + 57572102\, p^{111} q^{104} + 176978992\, p^{106} q^{52} + 17194\, p^{88} q^{17} + 67\, p^{101} q^{19} + 124413\, p^{122} q^{64} + 244628\, p^{124} q^{80}$$
$$+ 86270\, p^{126} q^{100} + 42475874\, p^{104} q^{43} + 1836699\, p^{98} q^{29} + 5583711\, p^{114} q^{111} + 99053\, p^{122} q^{63} + 112\, p^{125} q^{131} + 8\, p^{122} q^{134}$$

$$+ 16680638\, p^{112}\, q^{54} + 39497206\, p^{106}\, q^{111} + 604928372\, q^{98}\, p^{45} + 37856\, p^{94}\, q^{127} + 8954\, p^{88}\, q^{128} + 165956\, p^{108}\, q^{124} + 38768\, p^{95}\, q^{127}$$
$$+ 5\, p^{73}\, q^{130} + 22\, p^{76}\, q^{130} + 149350\, p^{103}\, q^{125} + p^{135}\, q^{124} + 4\, p^{130}\, q^{134} + 5\, p^{128}\, q^{134} + 4\, p^{129}\, q^{134} + 9844\, p^{89}\, q^{128} + 6342\, p^{85}\, q^{128}$$
$$+ 35219\, p^{92}\, q^{127} + 82984\, p^{115}\, q^{123} + 14\, p^{75}\, q^{130} + 9\, p^{74}\, q^{130} + 25189\, p^{121}\, q^{122} + 8054\, p^{87}\, q^{128} + 3\, p^{72}\, q^{130} + 476\, p^{79}\, q^{129} + 1113\, p^{83}\, q^{129}$$
$$+ 748\, p^{81}\, q^{129} + 918\, p^{82}\, q^{129} + 110\, p^{81}\, q^{130} + 1333\, p^{84}\, q^{129} + 1577\, p^{85}\, q^{129} + 1844\, p^{86}\, q^{129} + 31\, p^{77}\, q^{130} + 34443\, p^{120}\, q^{122}$$
$$+ 102402\, p^{114}\, q^{123} + 376406501\, q^{97}\, p^{42} + 2641487\, p^{117}\, q^{110} + 3235066\, p^{117}\, q^{109} + 1855323\, p^{116}\, q^{113} + 830933\, p^{119}\, q^{112}$$
$$+ 2235465\, p^{109}\, q^{118} + 8595\, q^{124}\, p^{62} + 126\, q^{122}\, p^{46} + q^{121}\, p^{39} + 116645\, q^{124}\, p^{74} + 285\, p^{77}\, q^{129} + 8954\, p^{128}\, q^{88} + 5799\, p^{129}\, q^{103}$$
$$+ 5550\, p^{128}\, q^{84} + 11465\, q^{124}\, p^{63} + 15082\, q^{124}\, p^{64} + 756\, q^{123}\, p^{52} + 150\, q^{123}\, p^{49} + 79\, q^{123}\, p^{48} + 4112\, q^{123}\, p^{56} + 5911\, q^{123}\, p^{57} + 15\, q^{121}\, p^{41}$$
$$+ 5\, q^{121}\, p^{40} + 6\, p^{125}\, q^{134} + 6\, p^{126}\, q^{134} + 7095\, p^{126}\, q^{71} + 88\, p^{118}\, q^{37} + 11598\, p^{128}\, q^{91} + 4\, p^{133}\, q^{133} + 2\, p^{134}\, q^{133} + 1702251\, p^{117}\, q^{112}$$
$$+ 1837756\, p^{110}\, q^{118} + 1702251\, p^{112}\, q^{117} + 8811\, p^{128}\, q^{111} + 35283\, p^{125}\, q^{73} + 1044577\, p^{114}\, q^{117} + 452634\, p^{117}\, q^{117} + 331946\, p^{118}\, q^{117}$$
$$+ 1433836\, p^{116}\, q^{114} + 953760\, p^{118}\, q^{113} + 1936478\, p^{114}\, q^{115} + 1092872\, p^{115}\, q^{116} + 1252796\, p^{110}\, q^{119} + 525601\, p^{114}\, q^{119}$$
$$+ 665014\, p^{113}\, q^{119} + 239250\, p^{117}\, q^{119} + 131115\, p^{119}\, q^{119} + 68862\, p^{120}\, q^{120} + 410070\, p^{115}\, q^{119} + 178581\, p^{118}\, q^{119} + 1026123\, p^{111}\, q^{119}$$
$$+ 315503\, p^{116}\, q^{119} + 830933\, p^{112}\, q^{119} + 1513118\, p^{109}\, q^{119} + 1808411\, p^{108}\, q^{119} + p^{97}\, q^{15} + 2690702\, p^{108}\, q^{118} + 525601\, p^{119}\, q^{114}$$
$$+ 410070\, p^{119}\, q^{115} + 3235066\, p^{109}\, q^{117} + 4118258\, p^{115}\, q^{111} + 1252796\, p^{119}\, q^{110} + 1167977\, p^{122}\, q^{100} + 981501\, p^{122}\, q^{102}$$
$$+ 1513118\, p^{119}\, q^{109} + 802133\, p^{115}\, q^{117} + 607133\, p^{116}\, q^{117} + 2139762\, p^{107}\, q^{119} + 747960\, p^{114}\, q^{118} + 1201009\, p^{112}\, q^{118} + 953760\, p^{113}\, q^{118}$$
$$+ 578768\, p^{115}\, q^{118} + 331946\, p^{117}\, q^{118} + 441628\, p^{116}\, q^{118} + 245589\, p^{118}\, q^{118} + 178581\, p^{119}\, q^{118} + 1808411\, p^{119}\, q^{108} + 1327\, p^{120}\, q^{45}$$
$$+ p^{99}\, q^{16} + 2801\, p^{123}\, q^{55} + 61\, p^{110}\, q^{26} + 67\, q^{117}\, p^{35} + 820962\, p^{116}\, q^{116} + 12366\, p^{107}\, q^{128} + 13154\, p^{106}\, q^{128} + 2690702\, p^{118}\, q^{108}$$
$$+ 36322\, p^{127}\, q^{102} + 12366\, p^{128}\, q^{107} + 109351801\, p^{106}\, q^{107} + p^{135}\, q^{130} + 335\, p^{130}\, q^{123} + 556232371\, p^{69}\, q^{109} + 79898\, q^{116}\, p^{45}$$
$$+ 118345\, q^{116}\, p^{46} + 19438138\, p^{117}\, q^{74} + 8051720\, p^{119}\, q^{95} + 8532664\, p^{119}\, q^{94} + 1869904\, p^{120}\, q^{105} + 3346571\, p^{119}\, q^{104} + 438543\, p^{91}\, q^{124}$$
$$+ 910708\, p^{97}\, q^{27} + 65385554\, p^{105}\, q^{46} + 143518914\, p^{106}\, q^{51} + 47082329\, p^{103}\, q^{42} + 84732089\, p^{105}\, q^{47} + 93462\, p^{126}\, q^{96} + 40032\, p^{121}\, q^{56}$$
$$+ 58047\, p^{123}\, q^{65} + 89614\, p^{123}\, q^{67} + 7168\, p^{127}\, q^{117} + 84604\, p^{124}\, q^{72} + 20114\, p^{120}\, q^{51} + 89044\, p^{126}\, q^{92} + p^{87}\, q^{11} + 314179183\, p^{67}\, q^{110}$$
$$+ 794763528\, p^{76}\, q^{109} + 125370381\, p^{111}\, q^{99} + 161120792\, p^{111}\, q^{97} + 316\, p^{75}\, q^{10} + 86621\, p^{79}\, q^{125} + 79\, p^{126}\, q^{58} + 164\, p^{132}\, q^{110} + 7\, p^{123}\, q^{45}$$
$$+ 156\, p^{132}\, q^{108} + 544039537\, p^{110}\, q^{85} + 52787\, p^{92}\, q^{20} + 771309753\, p^{109}\, q^{75} + 48\, p^{132}\, q^{97} + 17\, p^{133}\, q^{105} + 5\, p^{128}\, q^{62} + 20\, p^{132}\, q^{93}$$
$$+ 3\, p^{130}\, q^{72} + 16\, p^{132}\, q^{92} + 9\, p^{132}\, q^{132} + 137431331\, p^{105}\, q^{49} + 56836773\, p^{104}\, q^{44} + 276\, q^{116}\, p^{35} + 471655465\, q^{98}\, p^{44}$$
$$+ 767226736\, q^{98}\, p^{46} + 962637088\, q^{98}\, p^{47} + 1195326006\, q^{98}\, p^{48} + 1283479516\, q^{97}\, p^{47} + 238171\, p^{100}\, q^{27} + 17112078\, p^{108}\, q^{46}$$

$$+ 38470741\, p^{109}\, q^{51} + 12982518\, p^{106}\, q^{42} + 22610025\, p^{108}\, q^{47} + 455863529\, p^{101}\, q^{105} + 50852083\, p^{57}\, q^{111} + 46039269\, p^{54}\, q^{110}$$
$$+ 256054554\, p^{65}\, q^{110} + 120006\, q^{115}\, p^{44} + 34037\, q^{116}\, p^{43} + 70959\, p^{71}\, q^{124} + 84604\, p^{72}\, q^{124} + 37944\, q^{113}\, p^{38} + 195\, q^{109}\, p^{26}$$
$$+ 284257068\, q^{97}\, p^{41} + 7826950805\, p^{91}\, q^{98} + 4152296519\, p^{97}\, q^{97} + 4854622584\, p^{96}\, q^{97} + 136\, p^{131}\, q^{91} + 37\, p^{129}\, q^{71}$$
$$+ 7027915437\, p^{88}\, q^{100} + 6965283811\, p^{85}\, q^{101} + 7602109707\, p^{87}\, q^{100} + 344279\, p^{110}\, q^{122} + 608265\, p^{101}\, q^{123} + 99816\, q^{124}\, p^{73}$$
$$+ 1861\, p^{123}\, q^{54} + 8\, p^{114}\, q^{29} + 4796\, p^{128}\, q^{83} + 756\, p^{123}\, q^{52} + 6342\, p^{128}\, q^{85} + 3358\, p^{126}\, q^{68} + 1406\, p^{130}\, q^{113} + 3259\, p^{124}\, q^{59} + 1030\, q^{124}\, p^{56}$$
$$+ 1049\, p^{130}\, q^{116} + 134970\, q^{124}\, p^{75} + 2801\, q^{123}\, p^{55} + 5710\, q^{125}\, p^{65} + 38\, p^{133}\, q^{115} + 1215\, q^{122}\, p^{50} + 1938\, q^{122}\, p^{51} + 733\, q^{122}\, p^{49} + q^{129}\, p^{65}$$
$$+ 29094\, p^{81}\, q^{15} + 34303921731\, p^{81}\, q^{94} + 79345\, p^{122}\, q^{117} + 32487546700\, p^{72}\, q^{95} + 35787310186\, p^{80}\, q^{94} + 26784944075\, p^{87}\, q^{93}$$
$$+ 20961798119\, p^{66}\, q^{96} + 33164557846\, p^{74}\, q^{95} + 305056401\, p^{94}\, q^{110} + 69496899\, p^{108}\, q^{107} + 302857904\, p^{90}\, q^{111} + 129099599\, p^{104}\, q^{108}$$
$$+ 172389\, q^{114}\, p^{43} + 52787\, q^{116}\, p^{44} + 116727875\, p^{80}\, q^{114} + 63439658\, p^{76}\, q^{115} + 110826925\, p^{78}\, q^{114} + 114139400\, p^{79}\, q^{114}$$
$$+ 37080594577\, p^{79}\, q^{94} + 1124039244\, p^{83}\, q^{108} + 12\, q^{126}\, p^{55} + 234803\, p^{105}\, q^{124} + 1268\, p^{76}\, q^{128} + 816039675\, p^{93}\, q^{107}$$
$$+ 228498532\, p^{64}\, q^{110} + 22183271870\, p^{67}\, q^{96} + 11223720131\, p^{61}\, q^{97} + 5516026220\, p^{57}\, q^{98} + 13461719929\, p^{63}\, q^{97}$$
$$+ 10135659900\, p^{60}\, q^{97} + 12336872226\, p^{62}\, q^{97} + 1976\, p^{104}\, q^{130} + 3052893289\, p^{53}\, q^{98} + 2157264894\, p^{51}\, q^{98} + 147\, p^{84}\, q^{12}$$
$$+ 2577787960\, p^{52}\, q^{98} + 1619191868\, p^{51}\, q^{99} + 3584226792\, p^{54}\, q^{98} + 4172421672\, p^{55}\, q^{98} + 4816962401\, p^{56}\, q^{98} + 812595373\, p^{97}\, q^{45}$$
$$+ 7449344172\, p^{100}\, q^{65} + 5729282700\, p^{100}\, q^{62} + 55774272\, q^{106}\, p^{47} + 71840968\, q^{106}\, p^{48} + 10741\, p^{90}\, q^{128} + 981501\, p^{102}\, q^{122}$$
$$+ 13\, p^{128}\, q^{133} + 9\, p^{130}\, q^{133} + p^{135}\, q^{122} + 14724045\, p^{113}\, q^{108} + 11456069\, q^{104}\, p^{39} + 24814295\, q^{103}\, p^{40} + 34436268\, q^{103}\, p^{41}$$
$$+ 81712\, q^{98}\, p^{24} + 3\, p^{134}\, q^{131} + 5062765\, q^{120}\, p^{81} + 5782834\, q^{120}\, p^{85} + 5655724\, q^{120}\, p^{84} + 5917409\, q^{120}\, p^{88} + 5793781\, q^{120}\, p^{90}$$
$$+ 3195646\, q^{121}\, p^{91} + 5869998\, q^{120}\, p^{86} + 5876606\, q^{120}\, p^{89} + 5292076\, q^{120}\, p^{82} + 1526\, q^{93}\, p^{17} + 752\, q^{92}\, p^{16} + 4826\, q^{95}\, p^{19} + 8200\, q^{94}\, p^{19}$$
$$+ 2823\, q^{94}\, p^{18} + 5312341\, p^{120}\, q^{93} + 675560287\, p^{104}\, q^{100} + 1425875698\, p^{98}\, q^{102} + 185826\, q^{104}\, p^{30} + 4563613\, q^{115}\, p^{56} + 3\, q^{79}\, p^{9}$$
$$+ 179381\, p^{123}\, q^{111} + 326637\, p^{123}\, q^{107} + 1389\, p^{128}\, q^{122} + 429659\, p^{95}\, q^{124} + 153317\, p^{85}\, q^{125} + 552\, p^{112}\, q^{131} + 575\, p^{111}\, q^{131} + 607\, p^{108}\, q^{131}$$
$$+ 603\, p^{109}\, q^{131} + 1964\, p^{106}\, q^{130} + 511\, p^{102}\, q^{131} + 583\, p^{105}\, q^{131} + 1975\, p^{105}\, q^{130} + 2617\, p^{115}\, q^{129} + 14\, p^{104}\, q^{133} + p^{106}\, q^{134} + 7741\, p^{121}\, q^{125}$$
$$+ 16082\, p^{75}\, q^{126} + 1406\, p^{113}\, q^{130} + 1625\, p^{111}\, q^{130} + 1291\, p^{114}\, q^{130} + 1523\, p^{112}\, q^{130} + 4594\, p^{116}\, q^{128} + 1877\, p^{108}\, q^{130} + 3645\, p^{112}\, q^{129}$$
$$+ 3300\, p^{113}\, q^{129} + 2\, p^{96}\, q^{133} + 783\, p^{129}\, q^{122} + 12505\, p^{117}\, q^{126} + 3892\, p^{117}\, q^{128} + 78\, p^{100}\, q^{132} + 4\, p^{98}\, q^{133} + 99\, p^{102}\, q^{132} + 87\, p^{101}\, q^{132}$$
$$+ 61500\, q^{100}\, p^{25} + 49328\, q^{99}\, p^{24} + 238171\, q^{100}\, p^{27} + 8080490109\, p^{58}\, q^{97} + 9084545772\, p^{59}\, q^{97} + 24335061751\, p^{69}\, q^{96}$$
$$+ 23314176196\, p^{68}\, q^{96} + 33172263279\, p^{75}\, q^{95} + 19670014766\, p^{65}\, q^{96} + 32934842330\, p^{73}\, q^{95} + 4226387\, q^{117}\, p^{62} + 2213\, q^{104}\, p^{24}$$

$$+ 2856773\, q^{115}\, p^{54} + 48\, p^{66}\, q^{128} + 5\, p^{132}\, q^{133} + 5\, p^{127}\, q^{134} + 5790\, p^{125}\, q^{122} + 67\, p^{132}\, q^{99} + p^{125}\, q^{49} + 26002867\, p^{108}\, q^{111}$$
$$+ 29206319425\, p^{86}\, q^{93} + 891363\, p^{90}\, q^{123} + 39367\, p^{96}\, q^{127} + 11598\, p^{91}\, q^{128} + 89075\, p^{99}\, q^{126} + 36669\, p^{93}\, q^{127} + 82844\, p^{101}\, q^{126}$$
$$+ 86270\, p^{100}\, q^{126} + 4915\, p^{126}\, q^{121} + 84\, p^{80}\, q^{130} + p^{76}\, q^{131} + 45\, p^{78}\, q^{130} + 61\, p^{79}\, q^{130} + 15532960196\, p^{93}\, q^{92} + 5337539\, p^{114}\, q^{54}$$
$$+ 29452914\, p^{114}\, q^{63} + 6404631\, p^{111}\, q^{48} + 49697210\, p^{114}\, q^{67} + 574820061\, p^{78}\, q^{110} + 563588848\, p^{77}\, q^{110} + 548768909\, p^{76}\, q^{110}$$
$$+ 17040299\, p^{101}\, q^{116} + 49328\, q^{112}\, p^{37} + 8796\, q^{112}\, p^{34} + 16254\, q^{112}\, p^{35} + 81712\, q^{112}\, p^{38} + 1158789\, q^{118}\, p^{59} + 1437648\, q^{118}\, p^{60}$$
$$+ 179381\, p^{111}\, q^{123} + 9\, p^{68}\, q^{129} + 56\, p^{72}\, q^{129} + 24\, p^{70}\, q^{129} + 37\, p^{71}\, q^{129} + p^{70}\, q^{130} + 81\, p^{73}\, q^{129} + 115\, p^{74}\, q^{129} + 159\, p^{75}\, q^{129} + p^{135}\, q^{123}$$
$$+ 1546\, q^{124}\, p^{57} + 268\, q^{123}\, p^{50} + 1205\, q^{123}\, p^{53} + 1861\, q^{123}\, p^{54} + 664\, q^{124}\, p^{55} + q^{119}\, p^{35} + 28\, q^{122}\, p^{44} + 4590\, q^{124}\, p^{60} + 6331\, q^{124}\, p^{61}$$
$$+ 39\, q^{123}\, p^{47} + 460\, q^{123}\, p^{51} + 2190134940\, p^{102}\, q^{95} + 2521608028\, p^{98}\, q^{99} + 1156096407\, p^{103}\, q^{98} + 392209862\, p^{97}\, q^{108}$$
$$+ 1543018108\, p^{96}\, q^{103} + 48240105\, q^{109}\, p^{52} + 368\, q^{99}\, p^{19} + 45\, q^{79}\, p^{10} + 198\, q^{80}\, p^{11} + 2031504873\, p^{101}\, q^{97} + 16968519\, q^{118}\, p^{82}$$
$$+ 2350338817\, p^{101}\, q^{96} + 37583\, p^{119}\, q^{50} + 54212\, p^{121}\, q^{57} + 41062\, p^{120}\, q^{53} + 4826\, p^{117}\, q^{41} + 5128\, p^{114}\, q^{36} + 2670\, p^{114}\, q^{35}$$
$$+ 2130284306\, p^{99}\, q^{99} + p^{95}\, q^{133} + 702290933\, p^{103}\, q^{101} + 568805078\, p^{104}\, q^{101} + 1214837889\, p^{99}\, q^{102} + 836753226\, p^{103}\, q^{100}$$
$$+ 1245255584\, p^{100}\, q^{101} + 987918855\, p^{99}\, q^{103} + 1341264908\, p^{97}\, q^{103} + 1156096407\, p^{98}\, q^{103} + 836753226\, p^{100}\, q^{103}$$
$$+ 583931793\, p^{102}\, q^{103} + 702290933\, p^{101}\, q^{103} + 480846499\, p^{103}\, q^{103} + 392019897\, p^{104}\, q^{103} + 930039\, q^{117}\, p^{55} + 1194231\, q^{117}\, p^{56}$$
$$+ 1914125192\, p^{96}\, q^{102} + 1659083250\, p^{97}\, q^{102} + 858331060\, p^{101}\, q^{102} + 1025839679\, p^{100}\, q^{102} + 23660673\, q^{109}\, p^{49}$$
$$+ 1740998703\, p^{101}\, q^{98} + 1425875698\, p^{102}\, q^{98} + 2663480\, p^{96}\, q^{121} + 1543018108\, p^{103}\, q^{96} + 2463245161\, p^{100}\, q^{97} + 1914125192\, p^{102}\, q^{96}$$
$$+ 1230754415\, p^{104}\, q^{96} + 2521608028\, p^{99}\, q^{98} + 1341264908\, p^{103}\, q^{97} + 69\, p^{74}\, q^{9} + 1740998703\, p^{98}\, q^{101} + 2105171579\, p^{98}\, q^{100}$$
$$+ 1783377886\, p^{99}\, q^{100} + 1783377886\, p^{100}\, q^{99} + 2105171579\, p^{100}\, q^{98} + 1072993350\, p^{104}\, q^{97} + 2350338817\, p^{96}\, q^{101}$$
$$+ 2031504873\, p^{97}\, q^{101} + 795123644\, p^{104}\, q^{99} + 1025839679\, p^{102}\, q^{100} + 1479039088\, p^{99}\, q^{101} + 1245255584\, p^{101}\, q^{100} + 3053\, p^{125}\, q^{124}$$
$$+ 1725\, p^{110}\, q^{130} + 2953\, p^{114}\, q^{129} + 1805\, p^{109}\, q^{130} + 4783\, p^{119}\, q^{127} + 3992\, p^{111}\, q^{129} + 147\, p^{107}\, q^{132} + 156\, p^{108}\, q^{132} + 3262\, p^{118}\, q^{128}$$
$$+ 3820\, p^{120}\, q^{127} + 1076\, p^{128}\, q^{123} + 3\, p^{97}\, q^{133} + 5\, p^{99}\, q^{133} + 17\, p^{105}\, q^{133} + 6275\, p^{123}\, q^{124} + 10155\, p^{120}\, q^{125} + 4438\, p^{124}\, q^{124}$$
$$+ 5346\, p^{115}\, q^{128} + 822\, p^{124}\, q^{128} + 4\, p^{134}\, q^{129} + 126679\, p^{105}\, q^{125} + 755474\, p^{96}\, q^{26} + 180443404\, p^{111}\, q^{96} + 110\, p^{73}\, q^{9} + 50657\, p^{90}\, q^{19}$$
$$+ 460\, p^{85}\, q^{13} + 252497004\, p^{103}\, q^{106} + 24814295\, p^{103}\, q^{40} + 17601459\, p^{103}\, q^{39} + 3012\, p^{84}\, q^{14} + 499\, p^{78}\, q^{11} + 212654025\, p^{90}\, q^{112}$$
$$+ 129250968\, p^{92}\, q^{113} + 5796925\, p^{101}\, q^{34} + 75062163\, p^{104}\, q^{45} + 34436268\, p^{103}\, q^{41} + 13154851\, p^{101}\, q^{36} + 80747143\, p^{111}\, q^{102}$$
$$+ 428\, p^{88}\, q^{14} + 14724045\, p^{108}\, q^{113} + 18610985\, p^{102}\, q^{38} + 109213427\, p^{111}\, q^{100} + 452270912\, p^{110}\, q^{89} + 794763528\, p^{109}\, q^{76}$$

$$+ 813293946\, p^{109} q^{77} + 283056193\, p^{111} q^{91} + 585157402\, p^{110} q^{81} + 638111528\, p^{109} q^{71} + 525014854\, p^{110} q^{86} + 503107834\, p^{110} q^{87}$$
$$+ 582242476\, p^{110} q^{79} + 237634\, p^{94} q^{23} + 9061\, p^{87} q^{16} + 142711485\, p^{111} q^{98} + 216075456\, p^{106} q^{53} + 826542342\, p^{109} q^{78}$$
$$+ 381541682\, p^{102} q^{105} + 60781268\, p^{58} q^{111} + 735475159\, p^{94} q^{107} + 841\, q^{119} p^{42} + 1043\, q^{121} p^{47} + p^{124} q^{46} + 91\, p^{131} q^{89} + 57\, p^{131} q^{87}$$
$$+ 22\, p^{130} q^{76} + 112\, p^{131} q^{90} + 31\, p^{130} q^{77} + 58\, p^{132} q^{98} + 45\, p^{130} q^{78} + 1652606\, p^{86} q^{122} + 134970\, p^{124} q^{75} + 13487\, p^{117} q^{43}$$
$$+ 15837\, p^{127} q^{112} + 493\, p^{111} q^{29} + 153317\, p^{125} q^{85} + 131121\, p^{125} q^{83} + 29024\, p^{120} q^{52} + 109451\, p^{123} q^{68} + 3536231\, q^{111} p^{46}$$
$$+ 97232281\, p^{75} q^{114} + 91759269\, p^{74} q^{114} + 865228\, p^{88} q^{123} + 405675\, p^{109} q^{122} + 144\, p^{128} q^{129} + 100\, p^{129} q^{129} + 18\, p^{133} q^{126}$$
$$+ 13\, p^{133} q^{128} + 172164689\, p^{105} q^{50} + 8822833\, p^{101} q^{35} + 6717\, p^{85} q^{15} + 172389\, p^{93} q^{22} + 556232371\, p^{109} q^{69} + 632617994\, p^{108} q^{66}$$
$$+ 32\, p^{132} q^{95} + 5187\, p^{107} q^{129} + 315232\, p^{95} q^{24} + 73\, p^{69} q^{8} + 1030\, p^{80} q^{12} + 464372151\, p^{107} q^{60} + 597912402\, p^{109} q^{70}$$
$$+ 752481870\, p^{108} q^{68} + 29621080\, p^{84} q^{117} + 358944718\, p^{108} q^{61} + 460924754\, p^{108} q^{63} + 676177534\, p^{109} q^{72} + 250839813\, p^{107} q^{56}$$
$$+ 516173944\, p^{108} q^{64} + 210371616\, p^{107} q^{55} + 585712239\, p^{110} q^{80} + 478717299\, p^{110} q^{88} + 68501167\, p^{111} q^{103} + 330\, q^{121} p^{45}$$
$$+ 35802\, q^{123} p^{63} + 58047\, q^{123} p^{65} + 20920\, q^{123} p^{61} + 45873\, q^{123} p^{64} + 27558\, q^{123} p^{62} + 654913\, p^{100} q^{123} + 423114\, p^{89} q^{124}$$
$$+ 76379\, p^{78} q^{125} + 40032\, q^{121} p^{56} + 218\, q^{119} p^{40} + 443\, q^{119} p^{41} + 262612923\, p^{111} q^{92} + 3585250\, p^{100} q^{32} + 403306\, p^{96} q^{25}$$
$$+ 573608184\, p^{108} q^{65} + 408377664\, p^{108} q^{62} + 580589057\, p^{110} q^{82} + 559831821\, p^{110} q^{84} + 296411078\, p^{107} q^{57} + 572092157\, p^{110} q^{83}$$
$$+ 94323566\, p^{111} q^{101} + 5911110\, p^{119} q^{99} + 7007293\, p^{119} q^{97} + 3205618\, p^{107} q^{118} + 7\, q^{127} p^{58} + 8691\, p^{122} q^{124} + 85968128\, p^{73} q^{114}$$
$$+ 102293981\, p^{76} q^{114} + 155516825\, p^{103} q^{108} + 167256162\, p^{77} q^{113} + 272064396\, p^{83} q^{112} + 274021577\, p^{82} q^{112} + 1022684\, q^{121} p^{106}$$
$$+ 321701394\, p^{89} q^{111} + 339268346\, p^{88} q^{111} + 355254928\, p^{87} q^{111} + 243744\, p^{114} q^{121} + 195811268\, p^{100} q^{109} + 365144070\, p^{92} q^{110}$$
$$+ q^{99} p^{16} + 185554438\, p^{102} q^{108} + 79245\, q^{115} p^{43} + 106853122\, p^{77} q^{114} + 36728895\, p^{69} q^{115} + 40620332\, p^{70} q^{115} + 59992095\, p^{75} q^{115}$$
$$+ 28636782\, p^{72} q^{116} + 56320572\, p^{74} q^{115} + 48553826\, p^{72} q^{115} + 52487654\, p^{73} q^{115} + 177021541\, p^{79} q^{113} + 3575\, q^{113} p^{34}$$
$$+ 247145279\, p^{96} q^{110} + 29\, p^{133} q^{109} + 3\, p^{127} q^{57} + 3\, p^{125} q^{50} + 4254\, p^{123} q^{125} + 5790\, p^{122} q^{125} + 2045\, p^{126} q^{124} + 511806\, p^{103} q^{123}$$
$$+ 145064\, p^{109} q^{124} + 31694\, p^{90} q^{127} + 92707\, p^{97} q^{126} + 91258\, p^{98} q^{126} + 93462\, p^{96} q^{126} + 138130\, p^{104} q^{125} + 5550\, p^{84} q^{128}$$
$$+ 33556\, p^{91} q^{127} + 115134\, p^{106} q^{125} + 125593\, p^{110} q^{124} + 8079\, p^{119} q^{126} + 31\, p^{110} q^{133} + 15625\, p^{101} q^{128} + 560266\, p^{102} q^{123}$$
$$+ 19183\, p^{76} q^{126} + 182351\, p^{88} q^{125} + 49202\, p^{120} q^{121} + 606\, p^{107} q^{131} + 597\, p^{106} q^{131} + 7\, p^{100} q^{133} + 8\, p^{101} q^{133} + 4915\, p^{121} q^{126}$$
$$+ 419333\, p^{96} q^{124} + 289104\, p^{111} q^{122} + 2237\, p^{72} q^{127} + 34962\, p^{80} q^{126} + 30528\, p^{79} q^{126} + 440800\, p^{93} q^{124} + 436906\, p^{94} q^{124}$$
$$+ 142362\, p^{84} q^{125} + 173504\, p^{87} q^{125} + 163748\, p^{86} q^{125} + 367\, p^{66} q^{127} + 18\, p^{64} q^{128} + 1728\, p^{71} q^{127} + 983\, p^{69} q^{127} + 722\, p^{68} q^{127}$$

$$+ 521\, p^{67}\, q^{127} + 1314\, p^{70}\, q^{127} + 26421\, p^{78}\, q^{126} + 22619\, p^{77}\, q^{126} + 94515\, p^{119}\, q^{120} + 67\, p^{99}\, q^{132} + 26\, p^{108}\, q^{133} + 11934\, p^{114}\, q^{127}$$
$$+ 5893\, p^{118}\, q^{127} + 7011\, p^{113}\, q^{128} + 4639\, p^{109}\, q^{129} + 4927\, p^{108}\, q^{129} + 4322\, p^{110}\, q^{129} + 6161\, p^{114}\, q^{128} + 8811\, p^{111}\, q^{128} + 563\, p^{104}\, q^{131}$$
$$+ 484\, p^{129}\, q^{124} + 21\, p^{133}\, q^{125} + q^{125}\, p^{49} + 236385042\, p^{88}\, q^{112} + 29643296\, p^{112}\, q^{106} + 89044\, p^{92}\, q^{126} + 275651883\, p^{95}\, q^{110}$$
$$+ 61500\, q^{111}\, p^{36} + 295645222\, p^{97}\, q^{109} + 110\, q^{127}\, p^{63} + 42\, q^{127}\, p^{61} + 24\, q^{127}\, p^{60} + 13\, q^{127}\, p^{59} + 69\, q^{127}\, p^{62} + 44579541\, p^{71}\, q^{115}$$
$$+ 246569530\, p^{87}\, q^{112} + 283056193\, p^{91}\, q^{111} + 87663956\, p^{107}\, q^{107} + 262653736\, p^{85}\, q^{112} + 262612923\, p^{92}\, q^{111} + 1464756\, q^{116}\, p^{54}$$
$$+ 639265\, q^{116}\, p^{51} + 854297\, q^{116}\, p^{52} + 1125949\, q^{116}\, p^{53} + 32950983\, p^{68}\, q^{115} + 335014416\, p^{93}\, q^{110} + 29327596\, p^{67}\, q^{115} + 38\, p^{133}\, q^{117}$$
$$+ p^{129}\, q^{65} + 5\, p^{129}\, q^{67} + p^{127}\, q^{56} + 13827\, p^{113}\, q^{127} + 4371191\, p^{112}\, q^{114} + 5610\, p^{70}\, q^{126} + 4367\, p^{69}\, q^{126} + 79\, p^{58}\, q^{126} + 689505\, p^{111}\, q^{120}$$
$$+ 441628\, p^{118}\, q^{116} + 315503\, p^{119}\, q^{116} + 10194\, p^{115}\, q^{127} + 591\, p^{110}\, q^{131} + 8597\, p^{116}\, q^{127} + 3743\, p^{122}\, q^{126} + 7168\, p^{117}\, q^{127}$$
$$+ 2290\, p^{116}\, q^{129} + 10128\, p^{118}\, q^{126} + 96\, p^{132}\, q^{121} + 7906\, p^{112}\, q^{128} + 108\, p^{103}\, q^{132} + 120\, p^{104}\, q^{132} + 129\, p^{105}\, q^{132} + 140\, p^{106}\, q^{132}$$
$$+ 1773\, p^{127}\, q^{123} + 2792\, p^{126}\, q^{123} + 66375\, p^{116}\, q^{123} + 160088\, p^{102}\, q^{125} + 7189\, p^{86}\, q^{128} + 601\, p^{80}\, q^{129} + 842871\, p^{87}\, q^{123} + 254809\, p^{73}\, q^{123}$$
$$+ 334189\, p^{75}\, q^{123} + 154770\, p^{76}\, q^{124} + 293119\, p^{74}\, q^{123} + 219441\, p^{72}\, q^{123} + p^{135}\, q^{129} + 9\, p^{133}\, q^{130}$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 18, *is:*

$$1 + 10278553\, p^{47}\, q^{16} + 306333568881\, p^{105}\, q^{68} + 34573564\, q^{42}\, p^{19} + 177599892786\, p^{106}\, q^{102} + 104424952282\, p^{40}\, q^{61}$$
$$+ 484618764263\, p^{81}\, q^{106} + 370264870600\, p^{104}\, q^{68} + 1798\, p^{65}\, q^{8} + 1242511163\, p^{38}\, q^{31} + 2537415193\, p^{38}\, q^{34} + 3157018723\, p^{38}\, q^{35}$$
$$+ 4650905364\, p^{39}\, q^{36} + 959153819\, p^{38}\, q^{30} + 1592454257\, p^{38}\, q^{32} + 732183550\, p^{38}\, q^{29} + 3402651859\, p^{125}\, q^{93} + 3061869970\, p^{125}\, q^{97}$$
$$+ 1469234557227\, p^{70}\, q^{96} + 2142321\, p^{18}\, q^{26} + 106488575318\, p^{52}\, q^{99} + 43\, q^{21}\, p^{3} + 191745\, q^{28}\, p^{12} + 551344\, q^{28}\, p^{14} + 1053000\, q^{29}\, p^{15}$$
$$+ 74895927015\, q^{55}\, p^{40} + 91855642097\, q^{55}\, p^{41} + 134714852661\, q^{55}\, p^{43} + 5149899394106\, p^{71}\, q^{79} + 335054173781\, p^{58}\, q^{98}$$
$$+ 796233073618\, p^{64}\, q^{97} + p^{10}\, q + 2300439615298\, p^{88}\, q^{93} + 116566119\, p^{36}\, q^{24} + 10103866\, p^{35}\, q^{18} + 220920455\, p^{36}\, q^{26}$$
$$+ 2320837101880\, p^{64}\, q^{87} + 2519358538660\, p^{65}\, q^{87} + 1074655600984\, p^{52}\, q^{69} + 2568487674635\, p^{60}\, q^{68} + 4532551137456\, p^{71}\, q^{83}$$
$$+ 10940\, q^{26}\, p^{8} + 4878\, q^{26}\, p^{7} + 28439\, q^{28}\, p^{9} + 111700731741\, q^{55}\, p^{42} + 207152625442\, q^{56}\, p^{45} + 161169248389\, q^{55}\, p^{44} + 1822\, q^{25}\, p^{6}$$
$$+ 682\, q^{26}\, p^{5} + 2484262246373\, p^{82}\, q^{94} + 10534125686\, p^{88}\, q^{36} + 539545143\, p^{90}\, q^{29} + 62790279\, p^{88}\, q^{24} + 179080404\, p^{68}\, q^{128}$$
$$+ 251\, q^{57}\, p^{6} + 58488587881\, p^{104}\, q^{54} + 1756702622\, p^{100}\, q^{37} + 3783822074\, p^{101}\, q^{40} + 2750597641\, p^{101}\, q^{39} + 2244080570\, q^{44}\, p^{30}$$

$$+ 1007974302432\, p^{53} q^{80} + 63620762018\, p^{38} q^{60} + 2641236326640\, p^{80} q^{61} + 3151510812426\, p^{80} q^{63} + 2894003430669\, p^{80} q^{62}$$
$$+ 176071346333\, p^{43} q^{59} + 2282370720362\, p^{86} q^{94} + 50476331\, p^{33} q^{23} + 119909369\, p^{28} q^{30} + 210984447\, p^{126} q^{63} + 418945525\, p^{130} q^{99}$$
$$+ 32295244\, p^{123} q^{49} + 553702783\, q^{51} p^{24} + 369850304\, q^{51} p^{23} + 161561061\, q^{52} p^{21} + 12349184642\, p^{32} q^{59} + 38556268706\, p^{75} q^{116}$$
$$+ 1198242098970\, p^{63} q^{93} + 1680451039\, q^{44} p^{29} + 4511158156221\, p^{84} q^{84} + 4588226551593\, p^{82} q^{85} + 4672436885320\, p^{81} q^{85}$$
$$+ 4540256800113\, p^{78} q^{86} + 3538956140609\, p^{72} q^{88} + 84744105001\, p^{73} q^{39} + 466915147714\, p^{74} q^{47} + 108625730823\, p^{73} q^{40}$$
$$+ 781490635679\, p^{74} q^{50} + 764172308796\, p^{93} q^{59} + 1859128006671\, p^{94} q^{70} + 59369140649\, p^{90} q^{43} + 26674872032\, p^{61} q^{112}$$
$$+ 10390028657\, p^{57} q^{113} + 35375361770\, p^{63} q^{112} + 22916753891\, p^{60} q^{112} + 30826981765\, p^{62} q^{112} + 1628\, q^{116} p^{24} + 14254\, q^{117} p^{27}$$
$$+ 2194\, q^{117} p^{25} + 215935971967\, p^{73} q^{43} + 173339000029\, p^{73} q^{42} + 3711626239\, q^{109} p^{47} + 41019614500\, p^{97} q^{116} + 180533905\, p^{24} q^{39}$$
$$+ 126619246\, p^{23} q^{39} + 2627632560\, p^{35} q^{37} + 1753292698\, p^{34} q^{36} + 6107486\, p^{16} q^{39} + 10113650\, p^{17} q^{39} + 833497723715\, p^{55} q^{87}$$
$$+ 959058356950\, p^{56} q^{87} + 81175299\, p^{67} q^{20} + 5373\, q^{47} p^{7} + 49479\, q^{49} p^{9} + 1524349\, q^{52} p^{13} + 1547\, q^{45} p^{6} + 891479\, p^{21} q^{19}$$
$$+ 448615\, p^{21} q^{17} + 22\, q^{88} p^{10} + 2\, q^{87} p^{9} + 39\, q^{87} p^{10} + 590206166\, q^{68} p^{24} + 1422797457\, q^{68} p^{26} + 13799823\, q^{66} p^{17} + 943621844\, p^{54} q^{25}$$
$$+ 27080679\, q^{127} p^{56} + 2395577647172\, p^{60} q^{80} + 5638884\, q^{125} p^{47} + 390524\, p^{26} q^{14} + 1772836\, p^{27} q^{17} + 9681484\, p^{28} q^{21}$$
$$+ 5524460\, p^{27} q^{20} + 3854660\, p^{27} q^{19} + 62726342\, q^{134} p^{100} + 61313002\, q^{134} p^{101} + 11563038\, q^{128} p^{55} + 520100693\, p^{26} q^{42}$$
$$+ 2820541855452\, p^{92} q^{75} + 13799823\, p^{66} q^{17} + 177606462\, p^{131} q^{107} + 148331\, p^{113} q^{27} + 2214714\, p^{22} q^{21} + 1354295\, q^{115} p^{32}$$
$$+ 369850304\, p^{130} q^{102} + 1225416\, p^{21} q^{20} + 1772003835\, p^{85} q^{30} + 4226489\, p^{136} q^{121} + 52377167603\, p^{89} q^{42} + 548\, p^{53} q^{6}$$
$$+ 9721425\, p^{76} q^{18} + 52087726\, p^{78} q^{21} + 82110467\, p^{79} q^{22} + 110513\, p^{13} q^{22} + 5490397\, p^{46} q^{15} + 2941420\, p^{46} q^{14} + 19020545\, p^{91} q^{23}$$
$$+ 1176690651\, q^{51} p^{26} + 253025041\, q^{52} p^{22} + 69386632471\, q^{54} p^{40} + 1691688316779\, p^{94} q^{92} + 10139173\, p^{20} q^{30}$$
$$+ 2140697963840\, p^{76} q^{95} + 3892\, p^{9} q^{16} + 474608\, p^{84} q^{16} + 51805994428\, p^{38} q^{56} + 1804454185748\, p^{94} q^{91} + 8295\, p^{10} q^{17}$$
$$+ 35644\, p^{14} q^{16} + 4349709715842\, p^{84} q^{85} + 1442\, p^{66} q^{8} + 2927013476\, p^{94} q^{35} + 3924997709585\, p^{87} q^{73} + 4214694186688\, p^{87} q^{76}$$
$$+ 26224879583\, p^{53} q^{36} + 12\, p^{36} q^{3} + 180\, p^{48} q^{5} + 277904115\, q^{55} p^{22} + 15\, p^{48} q^{4} + 2066023868415\, p^{94} q^{72} + 1634148538077\, p^{94} q^{68}$$
$$+ 95895208\, p^{33} q^{25} + 172549886\, p^{33} q^{27} + 275999935\, p^{34} q^{28} + 2676991\, p^{32} q^{16} + 2159095314300\, p^{59} q^{80} + 4267365725032\, p^{87} q^{77}$$
$$+ 4041886886510\, p^{88} q^{78} + 1334180\, q^{67} p^{14} + 4748305744\, p^{52} q^{30} + 3472135066\, p^{52} q^{29} + 674783\, p^{123} q^{39} + 34226\, p^{135} q^{54}$$
$$+ 3092\, p^{131} q^{41} + 132697\, p^{137} q^{64} + 140457\, p^{143} q^{106} + 166821\, p^{139} q^{73} + 211372\, p^{67} q^{12} + 1176690651\, p^{51} q^{26} + 148700733346\, p^{90} q^{47}$$
$$+ 128771591052\, p^{42} q^{57} + 439422466080\, p^{105} q^{93} + 746775\, p^{27} q^{15} + 142875525\, p^{131} q^{79} + 69400123487\, p^{38} q^{71} + 275662442\, p^{82} q^{25}$$

$$+ 1334339468\, p^{84}\, q^{29} + 164861378\, p^{82}\, q^{24} + 582774\, q^{113}\, p^{29} + 13569383235\, q^{86}\, p^{36} + 3297764\, q^{73}\, p^{16} + 196191541490\, p^{45}\, q^{83}$$
$$+ 384223\, q^{29}\, p^{13} + 13343\, q^{28}\, p^{8} + 1877186823\, p^{82}\, q^{126} + 100259570\, q^{125}\, p^{57} + 70107386099\, p^{107}\, q^{108} + 982490156915\, p^{85}\, q^{55}$$
$$+ 223313835065\, p^{84}\, q^{46} + 2495708733004\, p^{86}\, q^{64} + 3154029225\, p^{80}\, q^{30} + 46930860598\, q^{108}\, p^{58} + 15189886513\, p^{82}\, q^{35}$$
$$+ 370264870600\, p^{85}\, q^{49} + 4214694186688\, p^{76}\, q^{87} + 20185993322\, q^{90}\, p^{39} + 1737867510\, q^{88}\, p^{31} + 2264351011197\, p^{73}\, q^{58}$$
$$+ 2505275368382\, p^{73}\, q^{59} + 3151510812426\, p^{63}\, q^{80} + 3472135066\, q^{52}\, p^{29} + 2124925386189\, p^{63}\, q^{87} + 31449936\, p^{24}\, q^{29}$$
$$+ 205773795\, p^{40}\, q^{24} + 16293197\, p^{39}\, q^{18} + 402748471\, p^{40}\, q^{26} + 2403\, p^{30}\, q^{6} + 3282670080\, p^{41}\, q^{33} + 5550611\, p^{38}\, q^{16}$$
$$+ 1516369839\, p^{41}\, q^{30} + 1146247069\, p^{41}\, q^{29} + 2564900595\, p^{41}\, q^{32} + 96\, q^{75}\, p^{8} + 2537415193\, p^{34}\, q^{38} + 382\, p^{71}\, q^{8}$$
$$+ 22491112492\, p^{71}\, q^{34} + 141538223330\, p^{72}\, q^{41} + 116874\, q^{52}\, p^{10} + 148542132\, p^{50}\, q^{21} + 553702783\, p^{51}\, q^{24} + 814049339\, p^{51}\, q^{25}$$
$$+ 864709\, q^{31}\, p^{14} + 1046752421\, p^{122}\, q^{116} + 2863679831\, p^{96}\, q^{36} + 398077015\, p^{94}\, q^{30} + 1144776085\, p^{95}\, q^{33} + 4859462991\, p^{116}\, q^{58}$$
$$+ 4388114102801\, p^{71}\, q^{67} + 528214714103\, p^{85}\, q^{51} + 90146483237\, p^{84}\, q^{42} + 2248227\, p^{61}\, q^{14} + 1075117\, p^{60}\, q^{13} + 516547329214\, p^{57}\, q^{94}$$
$$+ 937058114669\, p^{51}\, q^{72} + 477040049773\, p^{47}\, q^{73} + 5058102212050\, p^{70}\, q^{78} + 4491616050298\, p^{72}\, q^{84} + 4756175757609\, p^{74}\, q^{84}$$
$$+ 3930966276387\, p^{70}\, q^{85} + 3739603098690\, p^{69}\, q^{85} + 2915596624775\, p^{66}\, q^{86} + 5125640655317\, p^{76}\, q^{83} + 5179215566163\, p^{81}\, q^{82}$$
$$+ 5175169715356\, p^{78}\, q^{83} + 3615670\, p^{136}\, q^{122} + 58407419920\, p^{110}\, q^{106} + 18871253561\, p^{36}\, q^{83} + 2835018430904\, p^{89}\, q^{69}$$
$$+ 2995105566587\, p^{89}\, q^{70} + 48895118096\, p^{85}\, q^{40} + 37177586496\, p^{85}\, q^{39} + 23123183845\, p^{84}\, q^{37} + 1287537181726\, p^{88}\, q^{59}$$
$$+ 63616334872\, p^{85}\, q^{41} + 7007851212\, p^{83}\, q^{33} + 41445755317\, q^{70}\, p^{36} + 501472691090\, p^{51}\, q^{56} + 403454782489\, p^{50}\, q^{55}$$
$$+ 1481153\, q^{66}\, p^{14} + 401277023132\, p^{88}\, q^{51} + 168367828839\, p^{87}\, q^{46} + 1970986106658\, p^{89}\, q^{64} + 760664402960\, p^{88}\, q^{55}$$
$$+ 408316132800\, p^{85}\, q^{107} + 13504146\, p^{28}\, q^{22} + 2634326967629\, p^{93}\, q^{84} + 272379\, q^{65}\, p^{12} + 206819\, p^{58}\, q^{11} + p\, q + 906456756\, p^{98}\, q^{34}$$
$$+ 1552294\, q^{48}\, p^{13} + 10969081\, q^{49}\, p^{16} + 5849545\, q^{48}\, p^{15} + 15568235151\, p^{101}\, q^{45} + 6378854571\, p^{100}\, q^{41} + 8812652845\, p^{31}\, q^{70}$$
$$+ 4852771574730\, p^{69}\, q^{78} + 1887734039537\, p^{86}\, q^{61} + 2288061828651\, p^{86}\, q^{63} + 1444253793107\, p^{60}\, q^{88} + 709\, q^{27}\, p^{5}$$
$$+ 5489725058547\, p^{81}\, q^{77} + 5344328485457\, p^{82}\, q^{78} + 5196412246076\, p^{81}\, q^{73} + 5460897579740\, p^{81}\, q^{76} + 8295\, p^{17}\, q^{10} + 1206\, p^{16}\, q^{7}$$
$$+ 3892\, p^{16}\, q^{9} + 59565942\, q^{51}\, p^{19} + 123\, q^{17}\, p^{4} + 843\, q^{18}\, p^{6} + 321\, q^{17}\, p^{5} + 5340000567792\, p^{77}\, q^{82} + 1210170030100\, p^{91}\, q^{61}$$
$$+ 1487215827056\, p^{91}\, q^{63} + 90216235\, q^{132}\, p^{80} + 81934312\, q^{132}\, p^{79} + 20508480\, p^{22}\, q^{30} + 115\, q^{68}\, p^{7} + 350480090\, p^{50}\, q^{23} + 2755\, q^{17}\, p^{8}$$
$$+ 106703\, q^{28}\, p^{11} + 330834\, q^{28}\, p^{13} + 16293197\, p^{135}\, q^{114} + 10103866\, p^{135}\, q^{118} + 21629925\, p^{135}\, q^{111} + 174\, p^{31}\, q^{4} + 2571484092\, q^{121}\, p^{65}$$
$$+ 46398168\, p^{131}\, q^{70} + 245298\, q^{112}\, p^{27} + 562484011\, q^{125}\, p^{66} + 263955\, p^{134}\, q^{57} + 209916965920\, p^{43}\, q^{74} + 55185314\, p^{49}\, q^{19}$$

$$+ 230553396\, p^{50}\, q^{22} + 184931983309\, p^{42}\, q^{68} + 7\, p^{20}\, q^{2} + 903135283739\, p^{51}\, q^{67} + 1059199932055\, p^{52}\, q^{68} + 228365523555\, p^{43}\, q^{69}$$
$$+ 932661428\, q^{121}\, p^{59} + 1891211583\, q^{121}\, p^{63} + 1603701105\, q^{121}\, p^{62} + 2213440824\, q^{121}\, p^{64} + 1349402694\, q^{121}\, p^{61} + 18712507\, p^{48}\, q^{17}$$
$$+ 89322020\, p^{49}\, q^{20} + 814049339\, q^{51}\, p^{25} + 238791\, p^{26}\, q^{13} + 2640287\, p^{27}\, q^{18} + 11601646\, p^{26}\, q^{23} + 263845\, p^{18}\, q^{18} + 257178\, p^{17}\, q^{19}$$
$$+ 818\, p^{96}\, q^{14} + 10795015\, p^{22}\, q^{27} + 434141240358\, p^{104}\, q^{70} + 5313062620436\, p^{81}\, q^{74} + 5401694123790\, p^{81}\, q^{75}$$
$$+ 4033997421827\, p^{81}\, q^{67} + 4886763242452\, p^{81}\, q^{71} + 5053575166508\, p^{81}\, q^{72} + 4269071382874\, p^{81}\, q^{68} + 637937\, p^{21}\, q^{18}$$
$$+ 1140309296564\, p^{58}\, q^{88} + 273963496394\, p^{84}\, q^{47} + 9150500189\, q^{76}\, p^{32} + 37444113\, q^{56}\, p^{18} + 287062615\, q^{57}\, p^{22}$$
$$+ 204755176997\, p^{105}\, q^{102} + 2977141\, q^{55}\, p^{14} + 20953993\, q^{56}\, p^{17} + 651107\, q^{54}\, p^{12} + 449487908\, q^{57}\, p^{23} + 1349402694\, p^{92}\, q^{32}$$
$$+ 338692572403\, p^{97}\, q^{57} + 407445532\, q^{96}\, p^{31} + 623321573\, q^{96}\, p^{32} + 935890718\, q^{96}\, p^{33} + 9766\, q^{25}\, p^{8} + 3402508712055\, p^{70}\, q^{63}$$
$$+ 2924356863496\, p^{70}\, q^{61} + 3163894666794\, p^{70}\, q^{62} + 12710103144\, p^{121}\, q^{93} + 69386632471\, p^{54}\, q^{40} + 2504906949\, p^{52}\, q^{28}$$
$$+ 148194376836\, p^{54}\, q^{44} + 191314311125\, p^{55}\, q^{45} + 131711\, p^{114}\, q^{143} + 13505\, p^{11}\, q^{17} + 37716\, q^{31}\, p^{9} + 56193619168\, p^{54}\, q^{39}$$
$$+ 35862469597\, p^{54}\, q^{37} + 504965\, q^{31}\, p^{13} + 136768\, q^{30}\, p^{11} + 2894003430669\, p^{62}\, q^{80} + p^{9}\, q + 63471516678\, p^{96}\, q^{47} + 108649307\, p^{88}\, q^{25}$$
$$+ 124094489478\, p^{54}\, q^{43} + 103085943888\, p^{54}\, q^{42} + 2641236326640\, p^{61}\, q^{80} + 45101031754\, p^{54}\, q^{38} + 84932779421\, p^{54}\, q^{41}$$
$$+ 12025445\, p^{25}\, q^{24} + 15850301374\, p^{53}\, q^{34} + 20493641512\, p^{53}\, q^{35} + 20747\, q^{59}\, p^{9} + 9175997679\, p^{53}\, q^{32} + 6861565741\, p^{53}\, q^{31}$$
$$+ 2084785539269\, p^{86}\, q^{62} + 2705645587254\, p^{86}\, q^{65} + 12183170\, p^{20}\, q^{31} + 654389662\, q^{125}\, p^{67} + 1781517671\, p^{52}\, q^{27}$$
$$+ 12127850894\, p^{53}\, q^{33} + 53315\, q^{61}\, p^{10} + 340414668566\, p^{45}\, q^{69} + 1702161\, q^{123}\, p^{41} + 3937375\, q^{123}\, p^{43} + 3262759377\, q^{75}\, p^{29}$$
$$+ 6879948097\, q^{75}\, p^{31} + 4776230605\, q^{75}\, p^{30} + 2190944143\, q^{75}\, p^{28} + 103374\, p^{54}\, q^{10} + 23733715152\, p^{69}\, q^{34} + 146624588849\, p^{70}\, q^{41}$$
$$+ 1417550408826\, p^{96}\, q^{92} + 6889763250\, q^{93}\, p^{37} + 4084035029781\, p^{83}\, q^{87} + 3974796888115\, p^{84}\, q^{87} + 907161988\, p^{126}\, q^{109}$$
$$+ 17416\, p^{98}\, q^{17} + 187090\, p^{104}\, q^{22} + 411703515\, p^{126}\, q^{115} + 370551\, q^{92}\, p^{18} + 435854829\, p^{29}\, q^{35} + 484712379\, p^{33}\, q^{31} + 3\, q^{62}\, p^{5}$$
$$+ 4051435307062\, p^{88}\, q^{79} + 99190589\, p^{35}\, q^{24} + 8798747\, p^{34}\, q^{18} + 186425775\, p^{35}\, q^{26} + 1156061615\, p^{35}\, q^{33} + 6221439\, q^{126}\, p^{49}$$
$$+ 3343409061\, q^{59}\, p^{28} + 20262954\, q^{58}\, p^{17} + 107955471\, q^{59}\, p^{20} + 3149179\, q^{90}\, p^{20} + 4733216487\, q^{59}\, p^{29} + 457237154\, q^{59}\, p^{23}$$
$$+ 6604409990\, q^{59}\, p^{30} + 1078483922\, q^{60}\, p^{25} + 289519396\, q^{59}\, p^{22} + 179070295\, q^{59}\, p^{21} + 27097\, q^{116}\, p^{27} + 451\, q^{113}\, p^{21} + 2366\, q^{114}\, p^{23}$$
$$+ q^{64}\, p^{5} + 2504906949\, q^{52}\, p^{28} + 903765220\, q^{53}\, p^{25} + 13569383235\, p^{86}\, q^{36} + 205387268114\, p^{89}\, q^{48} + 718707087163\, p^{90}\, q^{56} + 99\, p^{38}\, q^{4}$$
$$+ 121345390526\, p^{88}\, q^{45} + 2540\, p^{35}\, q^{6} + 190460\, p^{18}\, q^{17} + 93959\, p^{15}\, q^{18} + p^{11}\, q + 4\, p^{3}\, q^{3} + 7970488\, p^{105}\, q^{28} + 527092\, p^{99}\, q^{21}$$
$$+ 1782481094105\, p^{91}\, q^{65} + 1345822813942\, p^{91}\, q^{62} + 3323747240756\, p^{69}\, q^{63} + 2863849528723\, p^{69}\, q^{61} + 3094523123540\, p^{69}\, q^{62}$$

$$+ 455364858234\, p^{90}\, q^{53} + 846199371303\, p^{91}\, q^{58} + 1081208336254\, p^{91}\, q^{60} + 2417224865122\, p^{92}\, q^{71} + 534028016719\, p^{90}\, q^{54}$$
$$+ 71982601\, p^{131}\, q^{73} + 184034\, p^{68}\, q^{12} + 53098\, q^{112}\, p^{25} + 4842845978670\, p^{73}\, q^{83} + 4145978573943\, p^{70}\, q^{84} + 2888490001176\, p^{65}\, q^{85}$$
$$+ 1348687237981\, p^{58}\, q^{86} + 1518473162827\, p^{59}\, q^{86} + 2495708733004\, p^{64}\, q^{86} + 1748416589746\, p^{61}\, q^{87} + 2667820814274\, p^{64}\, q^{85}$$
$$+ 2300439615298\, p^{93}\, q^{88} + 2234\, p^{16}\, q^{8} + 24\, p^{12}\, q^{3} + 6\, p^{11}\, q^{2} + 505\, p^{15}\, q^{6} + 200\, p^{14}\, q^{5} + 90216235\, p^{132}\, q^{80} + 62726342\, p^{134}\, q^{100}$$
$$+ 2686558202338\, p^{93}\, q^{83} + 1123745593\, q^{97}\, p^{34} + 1970235\, q^{30}\, p^{16} + 412937\, p^{61}\, q^{12} + 404663937241\, p^{78}\, q^{47} + 91589471171\, p^{77}\, q^{40}$$
$$+ 70871276288\, p^{77}\, q^{39} + 51159\, p^{15}\, q^{16} + 25924\, p^{14}\, q^{15} + 121343\, q^{29}\, p^{11} + 4909416417\, q^{120}\, p^{67} + 116190776983\, p^{40}\, q^{70}$$
$$+ 28111276729\, p^{82}\, q^{37} + 1518473162827\, p^{86}\, q^{59} + 76885240359\, p^{83}\, q^{41} + 8596403812\, p^{81}\, q^{33} + 639777354\, p^{79}\, q^{26}$$
$$+ 3295031346476\, p^{87}\, q^{69} + 10951172666\, p^{82}\, q^{34} + 3472278037036\, p^{87}\, q^{70} + p^{3}\, q + 2\, p^{2}\, q^{2} + 59353711699\, p^{83}\, q^{40} + 21701751\, p^{75}\, q^{19}$$
$$+ 45336456239\, p^{83}\, q^{39} + 3472135066\, p^{101}\, q^{124} + p\, q^{2} + 72876\, p^{67}\, q^{11} + 2737218671462\, p^{92}\, q^{74} + 1887734039537\, p^{92}\, q^{67} + 705\, q^{34}\, p^{5}$$
$$+ 2540\, q^{35}\, p^{6} + 2969278524363\, p^{82}\, q^{92} + 2161449231324\, p^{69}\, q^{92} + 1053000\, p^{29}\, q^{15} + 592316\, q^{83}\, p^{16} + 20823650108\, p^{119}\, q^{80}$$
$$+ 3319058047\, p^{116}\, q^{56} + 290497\, q^{82}\, p^{15} + 19877\, q^{25}\, p^{9} + 39\, p^{44}\, q^{4} + 637937\, p^{18}\, q^{21} + p^{2}\, q + 4463285297774\, p^{86}\, q^{81} + 540576\, p^{79}\, q^{15}$$
$$+ 1242873282473\, p^{100}\, q^{83} + 466138\, q^{27}\, p^{14} + 890762\, q^{28}\, p^{15} + 10052912\, p^{91}\, q^{22} + 223313835065\, p^{107}\, q^{69} + 207696780873\, p^{106}\, q^{66}$$
$$+ 487319113513\, p^{105}\, q^{75} + 9185984725\, p^{117}\, q^{64} + 200049\, p^{13}\, q^{25} + 263955\, p^{96}\, q^{19} + 268068147952\, p^{108}\, q^{93} + 1326226513\, p^{98}\, q^{35}$$
$$+ 79\, p^{81}\, q^{9} + 4987220031\, q^{44}\, p^{33} + 8056141860\, q^{44}\, p^{35} + 11524752202\, q^{45}\, p^{36} + 2961392203\, q^{44}\, p^{31} + 487792\, q^{125}\, p^{41}$$
$$+ 771711\, q^{125}\, p^{42} + 6370382965\, q^{44}\, p^{34} + 3863964909\, q^{44}\, p^{32} + 341237325\, q^{90}\, p^{28} + 90512486\, q^{89}\, p^{25} + 153162393\, q^{89}\, p^{26}$$
$$+ 449487908\, p^{130}\, q^{96} + 18772780933\, p^{39}\, q^{44} + 15398424512\, p^{38}\, q^{44} + 198\, q^{92}\, p^{12} + 114\, q^{93}\, p^{12} + 5\, q^{90}\, p^{10} + 2431926305\, p^{95}\, q^{35}$$
$$+ 5559556145174\, p^{74}\, q^{79} + 80511189803\, p^{106}\, q^{108} + 49999030007\, p^{80}\, q^{116} + 51749717957\, p^{81}\, q^{116} + 3846506060279\, p^{66}\, q^{68}$$
$$+ 4410836103816\, p^{73}\, q^{85} + 3325683626210\, p^{68}\, q^{86} + 2118668660\, q^{80}\, p^{29} + 3154029225\, q^{80}\, p^{30} + 270717615\, q^{78}\, p^{24}$$
$$+ 22768328668\, q^{81}\, p^{36} + 4615858021\, q^{80}\, p^{31} + 13186992878\, q^{80}\, p^{34} + 6647682296\, q^{80}\, p^{32} + 9430074442\, q^{80}\, p^{33}$$
$$+ 18192092466\, q^{80}\, p^{35} + 160939233\, q^{78}\, p^{23} + 1397487566\, q^{80}\, p^{28} + 241648785\, q^{79}\, p^{24} + 639777354\, q^{79}\, p^{26} + 6673671\, q^{40}\, p^{16}$$
$$+ 2024680\, q^{39}\, p^{14} + 10908233097\, q^{73}\, p^{32} + 28721937\, q^{135}\, p^{107} + 71982601\, q^{131}\, p^{73} + 44013367\, p^{20}\, q^{40} + 12521095403\, p^{44}\, q^{37}$$
$$+ 728208\, p^{50}\, q^{12} + 325832\, p^{49}\, q^{11} + 21140519\, p^{54}\, q^{17} + 100266516735\, p^{60}\, q^{40} + 1974064068\, p^{83}\, q^{126} + 142777\, q^{46}\, p^{10}$$
$$+ 5535497\, p^{18}\, q^{31} + 101616977158\, p^{97}\, q^{50} + 1056124502014\, p^{100}\, q^{74} + 673242493590\, p^{100}\, q^{67} + 1007974302432\, p^{100}\, q^{73}$$
$$+ 944205850707\, p^{101}\, q^{89} + 1139554576522\, p^{100}\, q^{76} + 1173583949410\, p^{100}\, q^{77} + 754783249163\, p^{102}\, q^{91} + 1084893960723\, p^{101}\, q^{81}$$

$$+ 95023660\, p^{28} q^{29} + 34776440\, p^{23} q^{31} + 70067296\, p^{26} q^{30} + 25008665757\, q^{86} p^{38} + 118850\, p^{130} q^{46} + 1176144\, p^{140} q^{113}$$
$$+ 406217\, p^{131} q^{51} + 1470093\, p^{140} q^{108} + 998867\, p^{61} q^{13} + 2096731\, p^{62} q^{14} + 106911\, q^{109} p^{24} + 27301\, p^{110} q^{23} + 2226705928671\, p^{58} q^{75}$$
$$+ 2494642281229\, p^{59} q^{74} + 2746328653581\, p^{60} q^{74} + 2505275368382\, p^{59} q^{73} + 3745155\, q^{72} p^{16} + 1917715\, q^{71} p^{15} + 816151\, q^{71} p^{14}$$
$$+ 372796\, q^{70} p^{13} + 6993465\, q^{73} p^{17} + 41185585255\, q^{84} p^{39} + 54041798744\, q^{84} p^{40} + 70157019525\, q^{84} p^{41} + 54041798744\, p^{69} q^{113}$$
$$+ 2848116202\, q^{81} p^{30} + 327127329\, q^{97} p^{31} + 395900960199\, p^{61} q^{47} + 464048488823\, p^{61} q^{48} + 10349418659\, p^{74} q^{32}$$
$$+ 7315844845\, p^{74} q^{31} + 146922\, q^{95} p^{18} + 1143191\, q^{99} p^{22} + 2353038\, q^{99} p^{23} + 9331129870\, p^{31} q^{60} + 416404352\, p^{43} q^{25}$$
$$+ 809506340\, p^{43} q^{27} + 82409827\, p^{42} q^{21} + 291961932\, p^{43} q^{24} + 584809049\, p^{43} q^{26} + 4987220031\, p^{44} q^{33} + 2244080570\, p^{44} q^{30}$$
$$+ 1680451039\, p^{44} q^{29} + 3863964909\, p^{44} q^{32} + 2961392203\, p^{44} q^{31} + 6370382965\, p^{44} q^{34} + 8056141860\, p^{44} q^{35} + 11524752202\, p^{45} q^{36}$$
$$+ 76785360\, q^{101} p^{30} + 11955758\, q^{100} p^{26} + 590414486\, q^{103} p^{36} + 854763978\, q^{103} p^{37} + 1218555449\, q^{103} p^{38} + 1712087325\, q^{103} p^{39}$$
$$+ 125276\, p^{142} q^{90} + 12122\, p^{145} q^{126} + 2737218671462\, p^{74} q^{92} + 37169189\, p^{57} q^{18} + 5980310\, p^{55} q^{15} + 1612182640613\, p^{55} q^{71}$$
$$+ 2780141380106\, q^{91} p^{72} + 3082562589044\, q^{91} p^{75} + 3209625292705\, q^{91} p^{77} + 2982729917623\, q^{92} p^{78} + 2894003430669\, q^{91} p^{73}$$
$$+ 3154372683296\, q^{91} p^{76} + 2995322826473\, q^{91} p^{74} + 2521653622514\, q^{91} p^{70} + 3787492945\, p^{115} q^{55} + 6522839\, p^{102} q^{26}$$
$$+ 2655425312842\, q^{91} p^{71} + 18138320319\, p^{63} q^{33} + 288168626\, p^{60} q^{22} + 854763978\, p^{103} q^{37} + 100134899\, p^{100} q^{30} + 297914576\, p^{101} q^{33}$$
$$+ 29679182673\, p^{107} q^{54} + 165685523\, q^{111} p^{39} + 238240212\, q^{111} p^{40} + 337423023\, q^{111} p^{41} + 1080189431\, p^{61} q^{25} + 64848968\, p^{122} q^{128}$$
$$+ 79214671\, p^{121} q^{128} + 20162388190\, p^{113} q^{61} + 62997050358\, p^{115} q^{79} + 38470825570\, p^{116} q^{98} + 8532385251\, p^{111} q^{53}$$
$$+ 78407581989\, p^{114} q^{78} + 5850499219\, p^{110} q^{50} + 72701173766\, p^{115} q^{87} + 72857302112\, p^{115} q^{86} + 128584425508\, q^{75} p^{41}$$
$$+ 20981057\, p^{69} q^{18} + 107243195\, p^{71} q^{21} + 100911797543\, q^{75} p^{40} + 172451780\, p^{106} q^{35} + 41185585255\, p^{114} q^{69} + 39259563205\, p^{113} q^{66}$$
$$+ 22916753891\, p^{112} q^{60} + 45336456239\, p^{114} q^{70} + 48895118096\, p^{113} q^{68} + 1692963010006\, p^{67} q^{56} + 2490066620680\, p^{67} q^{60}$$
$$+ 1882090487779\, p^{67} q^{57} + 3516019318876\, p^{67} q^{65} + 3846506060279\, p^{68} q^{66} + 9347648841\, p^{37} q^{42} + 9751274419\, p^{38} q^{41}$$
$$+ 11803672092\, p^{39} q^{41} + 187153586666\, p^{57} q^{44} + 8336482010\, p^{39} q^{39} + 9959231773\, p^{40} q^{39} + 15966099822\, p^{58} q^{33}$$
$$+ 4301311235521\, p^{87} q^{79} + 867138364996\, p^{60} q^{53} + 11535180\, p^{52} q^{16} + 2609349379\, p^{31} q^{43} + 11927203401\, p^{40} q^{40}$$
$$+ 659640826954\, p^{79} q^{50} + 176955701242\, p^{78} q^{43} + 39325319\, q^{134} p^{84} + 54484922186\, p^{70} q^{37} + 577992016034\, p^{72} q^{48}$$
$$+ 337131442439\, p^{71} q^{45} + 3173974577\, p^{68} q^{28} + 38306\, p^{53} q^{9} + 8803290978\, p^{95} q^{122} + 272217413119\, p^{44} q^{72} + 1511701276\, q^{106} p^{41}$$
$$+ 2784643453\, q^{106} p^{43} + 4891287524\, q^{106} p^{45} + 25112929\, q^{128} p^{58} + 93000472\, q^{131} p^{75} + 82110467\, q^{131} p^{74} + 11072287\, q^{57} p^{16}$$

$$+ 2188136335021\, p^{69} q^{58} + 2887589\, q^{56} p^{14} + 36672321\, q^{58} p^{18} + 108857778\, q^{58} p^{20} + 64154115\, q^{58} p^{19} + 706653345\, q^{59} p^{24}$$
$$+ 13648\, p^{62} q^{9} + 90829293692\, p^{40} q^{58} + 4282036060453\, p^{87} q^{80} + 110746573\, q^{38} p^{23} + 37372987846\, p^{36} q^{59} + 7299291651\, q^{54} p^{31}$$
$$+ 4531446647054\, p^{85} q^{74} + 3325683626210\, p^{85} q^{67} + 4108315338576\, p^{85} q^{71} + 4269071382874\, p^{85} q^{72} + 3536923134926\, p^{85} q^{68}$$
$$+ 4629030614119\, p^{85} q^{75} + 3348357967556\, p^{90} q^{75} + 1193318\, p^{68} q^{14} + 553750\, p^{67} q^{13} + 67350495232\, q^{89} p^{43} + 52377167603\, q^{89} p^{42}$$
$$+ 85749462335\, q^{89} p^{44} + 119848379024\, q^{90} p^{46} + 167306564856\, q^{89} p^{47} + 108134893744\, q^{89} p^{45} + 135108701808\, q^{89} p^{46}$$
$$+ 4275\, q^{142} p^{73} + 6515\, p^{146} q^{123} + p^{115} q^{19} + 5\, p^{120} q^{23} + 717\, p^{147} q^{136} + 2780\, p^{146} q^{132} + 18465\, p^{143} q^{85} + 2\, q^{142} p^{58}$$
$$+ 1449598712956\, p^{93} q^{95} + 1548711581\, q^{79} p^{28} + 397983119\, q^{79} p^{25} + 2339267858\, q^{79} p^{29} + 107147948707\, q^{82} p^{42}$$
$$+ 53914589733\, q^{81} p^{39} + 591956283364\, q^{81} p^{50} + 70272043349\, q^{81} p^{40} + 90641175953\, q^{81} p^{41} + 1238895078128\, p^{100} q^{80}$$
$$+ 1115583908818\, p^{100} q^{88} + 1446729\, q^{124} p^{42} + 928704\, q^{124} p^{41} + 582774\, q^{124} p^{40} + 180586\, q^{125} p^{39} + 1005763876\, q^{79} p^{27}$$
$$+ 3184793239384\, p^{64} q^{66} + 3516019318876\, p^{65} q^{67} + 280244830058\, p^{72} q^{107} + 7422\, q^{33} p^{7} + 771711\, q^{111} p^{28} + 309531\, q^{110} p^{26}$$
$$+ 764172308796\, q^{94} p^{60} + 107759\, q^{35} p^{10} + 4486377\, q^{36} p^{16} + 7897\, p^{37} q^{7} + 285196\, p^{53} q^{11} + 2887589\, p^{56} q^{14} + 1404971\, p^{55} q^{13}$$
$$+ 3548771845028\, p^{69} q^{64} + 651107\, p^{54} q^{12} + 1828\, p^{43} q^{6} + 2501797049447\, p^{94} q^{81} + 1415080229730\, p^{70} q^{54} + 410351131606\, p^{70} q^{46}$$
$$+ 1612182640613\, p^{71} q^{55} + 1970129320047\, p^{61} q^{61} + 2114054765918\, p^{65} q^{59} + 912613640262\, p^{89} q^{57} + 4363218888\, p^{84} q^{32}$$
$$+ 2124925386189\, p^{90} q^{66} + 107717682293\, p^{87} q^{44} + 25008665757\, p^{86} q^{38} + 36582740\, q^{100} p^{28} + 8728620\, q^{99} p^{25} + 15884155\, q^{99} p^{26}$$
$$+ 61298149\, q^{100} p^{29} + 32106084\, p^{77} q^{20} + 2380694898770\, p^{91} q^{69} + 2521653622514\, p^{91} q^{70} + 24775227663\, q^{117} p^{73}$$
$$+ 26793321906\, q^{117} p^{74} + 1065144037844\, p^{90} q^{59} + 1130516744269\, p^{55} q^{83} + 448089072311\, p^{89} q^{106} + 8596403812\, q^{120} p^{72}$$
$$+ 7007851212\, q^{120} p^{70} + 719\, q^{124} p^{30} + 8299\, q^{125} p^{34} + 1844717848143\, p^{58} q^{64} + 240498273\, p^{70} q^{128} + 75219436\, p^{66} q^{129}$$
$$+ 135902177\, p^{37} q^{24} + 11513900\, p^{36} q^{18} + 259693842\, p^{37} q^{26} + 2079094371578\, p^{86} q^{95} + 1394724537565\, p^{74} q^{98}$$
$$+ 1774944997538\, p^{78} q^{97} + 5450327956818\, p^{73} q^{79} + 127913476116\, q^{100} p^{54} + 107113221416\, q^{100} p^{53} + 73334204761\, q^{100} p^{51}$$
$$+ 88989198509\, q^{100} p^{52} + 16298988713\, q^{46} p^{37} + 221384689\, p^{109} q^{38} + 133\, q^{116} p^{22} + 506\, q^{116} p^{23} + 6\, q^{112} p^{18} + 202902\, p^{94} q^{18}$$
$$+ 107118\, p^{93} q^{17} + 1040834916304\, p^{75} q^{52} + 895065224669\, p^{75} q^{51} + 49999030007\, p^{73} q^{37} + 544559296476\, p^{75} q^{48}$$
$$+ 318388627830\, p^{74} q^{45} + 2807049214\, p^{71} q^{28} + 4124778382\, p^{71} q^{29} + 3477629879609\, p^{76} q^{63} + 3209625292705\, p^{76} q^{62}$$
$$+ 2944272273313\, p^{76} q^{61} + 187012583231\, p^{88} q^{47} + 755\, p^{51} q^{6} + 719298082155\, p^{66} q^{99} + 66362660122\, p^{87} q^{42} + 2277071045\, p^{83} q^{30}$$
$$+ 11047271413\, p^{85} q^{35} + 2788709074615\, p^{92} q^{85} + 115414\, p^{82} q^{141} + 275098\, p^{81} q^{140} + 615292712682\, p^{51} q^{83} + 4902712338\, p^{121} q^{107}$$

$$+ 2961569639\, p^{121} q^{111} + 10412288213\, p^{120} q^{102} + 12127850894\, p^{120} q^{100} + 15293302104\, p^{120} q^{96} + 18192092466\, p^{118} q^{73}$$
$$+ 25141665\, q^{132} p^{70} + 18227883\, q^{133} p^{72} + 45702377\, q^{132} p^{74} + 34417298\, q^{132} p^{72} + 39807685\, q^{132} p^{73} + 52087726\, q^{132} p^{75}$$
$$+ 10139173\, p^{133} q^{123} + 21234210\, q^{132} p^{69} + 3155\, p^{81} q^{11} + 313730459\, p^{72} q^{128} + 275662442\, p^{71} q^{128} + 26116323702\, p^{56} q^{109}$$
$$+ 180458041928\, p^{45} q^{84} + 11\, p^{59} q^{5} + 1061318256581\, p^{74} q^{52} + 914021004120\, p^{74} q^{51} + 51749717957\, p^{72} q^{37} + 558654480487\, p^{74} q^{48}$$
$$+ 326373156585\, p^{73} q^{45} + 2941790655\, p^{70} q^{28} + 4308775261\, p^{70} q^{29} + 3514205545227\, p^{75} q^{63} + 3247441057785\, p^{75} q^{62}$$
$$+ 2982729917623\, p^{75} q^{61} + 5794683\, p^{68} q^{16} + 2033606221488\, p^{80} q^{96} + 5687461469257\, p^{76} q^{79} + 45782142\, p^{132} q^{116}$$
$$+ 3030585666\, q^{76} p^{29} + 4450843880\, q^{76} p^{30} + 171476007\, p^{54} q^{21} + 656259496\, p^{55} q^{24} + 12151146\, q^{41} p^{17} + 19816464\, q^{41} p^{18}$$
$$+ 21629925\, q^{42} p^{18} + 31497728\, q^{41} p^{19} + 48903649\, q^{41} p^{20} + 296771063569\, p^{47} q^{83} + 825017894855\, q^{90} p^{57} + 233395\, p^{140} q^{80}$$
$$+ 19095\, p^{133} q^{48} + 143753\, p^{143} q^{110} + 372796\, p^{140} q^{83} + 285196\, p^{142} q^{100} + 3766750851502\, p^{88} q^{84} + 2264156868716\, p^{58} q^{72}$$
$$+ 5094294434\, p^{123} q^{79} + 306277468\, p^{118} q^{49} + 1338137494\, p^{126} q^{105} + 1603701105\, p^{121} q^{62} + 39987513444\, p^{104} q^{52}$$
$$+ 137019039286\, p^{95} q^{111} + 93420948036\, p^{102} q^{110} + 110947026991\, p^{102} q^{109} + 289519396\, p^{131} q^{94} + 2165224\, p^{121} q^{39}$$
$$+ 241648785\, p^{129} q^{74} + 2017085784557\, p^{59} q^{64} + 2367758231227\, p^{61} q^{64} + 2713343168099\, p^{63} q^{64} + 2542224187451\, p^{62} q^{64}$$
$$+ 2878942017560\, p^{64} q^{64} + 3036819199951\, p^{65} q^{64} + 2192048278765\, p^{60} q^{64} + 332384993\, p^{118} q^{125} + 2969278524363\, p^{92} q^{82}$$
$$+ 1955797910423\, p^{62} q^{60} + 6430986275\, q^{76} p^{31} + 9760808275\, q^{75} p^{32} + 13650544907\, q^{75} p^{33} + 3745155\, p^{72} q^{16} + 9749061132\, p^{65} q^{31}$$
$$+ 122\, p^{36} q^{4} + 679853304310\, p^{68} q^{49} + 205773795\, p^{24} q^{40} + 74315739\, p^{21} q^{41} + 50513370044\, q^{96} p^{46} + 28452515656\, q^{95} p^{43}$$
$$+ 285384250253\, q^{95} p^{54} + 36725981528\, q^{95} p^{44} + 46930860598\, q^{95} p^{45} + 143709255\, p^{23} q^{40} + 439422466080\, p^{93} q^{105}$$
$$+ 33135964\, q^{134} p^{82} + 375491335744\, p^{47} q^{60} + 439422466080\, p^{48} q^{60} + 8242\, p^{56} q^{8} + 124279396750\, p^{80} q^{42} + 21253680024\, p^{78} q^{35}$$
$$+ 496932099341\, p^{81} q^{49} + 3145892759301\, p^{82} q^{64} + 4450843880\, p^{76} q^{30} + 1270412097465\, p^{81} q^{55} + 298676279611\, p^{80} q^{46} + 5\, q^{108} p^{16}$$
$$+ q^{107} p^{15} + 107763499898\, p^{106} q^{106} + 32366293650\, p^{42} q^{44} + 44746557081\, p^{44} q^{44} + 60614582596\, p^{45} q^{45} + 22694151320\, p^{40} q^{44}$$
$$+ 38200844765\, p^{43} q^{44} + 27210479800\, p^{41} q^{44} + 19542670409\, p^{40} q^{43} + 144443\, p^{44} q^{10} + 1534434\, p^{47} q^{13} + 34408076\, p^{50} q^{18}$$
$$+ 263525983780\, p^{57} q^{46} + 26\, p^{31} q^{3} + 2357149292\, p^{64} q^{27} + 13455339624\, p^{65} q^{32} + 86784781\, p^{31} q^{26} + 25472\, p^{27} q^{9} + 106703\, p^{28} q^{11}$$
$$+ 251\, p^{57} q^{6} + 10153\, p^{71} q^{10} + 110715139\, p^{22} q^{41} + 402748471\, p^{26} q^{40} + 1125908746\, p^{30} q^{39} + 3926876\, q^{107} p^{28} + 66295469\, q^{109} p^{35}$$
$$+ 889603663\, q^{110} p^{43} + 648871846\, q^{110} p^{42} + 100906589\, q^{109} p^{36} + 454988676\, q^{109} p^{40} + 6996163\, q^{107} p^{29} + 2997899579879\, p^{61} q^{72}$$
$$+ 2033606221488\, p^{57} q^{73} + 1223650375442\, p^{53} q^{74} + 28242533230\, q^{54} p^{36} + 30230222857\, q^{55} p^{36} + 22020034333\, q^{54} p^{35}$$

$$+ 12968633419\, q^{54}\, p^{33} + 16990706423\, q^{54}\, p^{34} + 9787240997\, q^{54}\, p^{32} + 234866996983\, p^{109}\, q^{92} + 17097797470\, p^{60}\, q^{33}$$
$$+ 976034533471\, p^{62}\, q^{53} + 11561814\, p^{54}\, q^{16} + 59369140649\, p^{110}\, q^{63} + 1072988\, p^{18}\, q^{23} + 42082283\, p^{32}\, q^{23} + 2215116427\, p^{67}\, q^{27}$$
$$+ 12990852748\, p^{68}\, q^{32} + 89500669744\, p^{71}\, q^{39} + 484618764263\, p^{72}\, q^{47} + 114265116369\, p^{71}\, q^{40} + 803578913603\, p^{72}\, q^{50}$$
$$+ 224609167393\, p^{71}\, q^{43} + 180956555937\, p^{71}\, q^{42} + 1004177\, p^{97}\, q^{21} + 15247403\, p^{103}\, q^{28} + 544559296476\, p^{105}\, q^{78}$$
$$+ 140735395754\, p^{78}\, q^{42} + 24234477349\, p^{76}\, q^{35} + 555515831396\, p^{79}\, q^{49} + 3411121606538\, p^{80}\, q^{64} + 5094294434\, p^{74}\, q^{30}$$
$$+ 1394724537565\, p^{79}\, q^{55} + 333307147357\, p^{78}\, q^{46} + 30670\, q^{65}\, p^{10} + 9871\, q^{64}\, p^{9} + 240942\, q^{66}\, p^{12} + 401973850\, p^{98}\, q^{32}$$
$$+ 31839748\, p^{94}\, q^{25} + 187012583231\, p^{106}\, q^{65} + 131288089404\, p^{106}\, q^{62} + 337131442439\, p^{108}\, q^{82} + 340414668566\, p^{108}\, q^{84}$$
$$+ 79028659519\, p^{105}\, q^{57} + 339732379870\, p^{108}\, q^{83} + 122965980997\, p^{109}\, q^{101} + 7281090\, q^{136}\, p^{117} + 5635189\, q^{136}\, p^{119}$$
$$+ 3081770\, q^{137}\, p^{120} + 9130026\, q^{136}\, p^{115} + 6430274\, q^{136}\, p^{118} + 13182281\, q^{136}\, p^{111} + 8183483\, q^{136}\, p^{116} + 12151146\, q^{136}\, p^{112}$$
$$+ 352982642\, p^{66}\, q^{126} + 464212677264\, q^{105}\, p^{74} + 360405709563\, q^{105}\, p^{70} + 2944272273313\, p^{77}\, q^{92} + 1146247069\, p^{29}\, q^{41}$$
$$+ 2813791275\, p^{33}\, q^{40} + 5698324307\, p^{37}\, q^{39} + 2088\, p^{27}\, q^{6} + 682\, p^{26}\, q^{5} + 13915226\, p^{124}\, q^{48} + 3094523123540\, p^{62}\, q^{69}$$
$$+ 1600351068493\, p^{55}\, q^{70} + 335241435087\, p^{107}\, q^{92} + 5980310\, q^{55}\, p^{15} + 285196\, q^{53}\, p^{11} + 1453029\, q^{54}\, p^{13} + 110276\, p^{53}\, q^{10}$$
$$+ 24170116324\, p^{68}\, q^{34} + 147963691475\, p^{69}\, q^{41} + 1374689306575\, p^{68}\, q^{54} + 408316132800\, p^{68}\, q^{46} + 1579643596332\, p^{69}\, q^{55}$$
$$+ 24286021640\, q^{63}\, p^{34} + 18138320319\, q^{63}\, p^{33} + 32140345136\, q^{63}\, p^{35} + 55410067177\, q^{64}\, p^{37} + 69795361726\, q^{63}\, p^{38}$$
$$+ 42062678811\, q^{63}\, p^{36} + 54462200230\, q^{63}\, p^{37} + 6350779\, p^{67}\, q^{16} + 757924\, q^{122}\, p^{38} + 569858125687\, p^{48}\, q^{73} + 1819290086238\, p^{56}\, q^{72}$$
$$+ 2036119545601\, p^{57}\, q^{72} + 1038054215100\, p^{101}\, q^{86} + 2484262246373\, p^{59}\, q^{71} + 12558557\, p^{90}\, q^{22} + 273963496394\, p^{106}\, q^{69}$$
$$+ 254027039344\, p^{105}\, q^{66} + 1702161\, p^{123}\, q^{41} + 278959680274\, p^{44}\, q^{70} + 21211\, p^{12}\, q^{17} + 56193619168\, q^{54}\, p^{39} + 2542224187451\, p^{64}\, q^{62}$$
$$+ 2240172198336\, p^{61}\, q^{63} + 2402128119626\, p^{63}\, q^{62} + 2488063713029\, p^{65}\, q^{61} + 2713343168099\, p^{64}\, q^{63} + 2560529814306\, p^{63}\, q^{63}$$
$$+ 2858518715953\, p^{65}\, q^{63} + 2674830752848\, p^{65}\, q^{62} + 2402128119626\, p^{62}\, q^{63} + 1844717848143\, p^{64}\, q^{58} + 1913405648270\, p^{63}\, q^{59}$$
$$+ 3383190\, q^{113}\, p^{32} + 123554371963\, p^{97}\, q^{51} + 50513370044\, p^{96}\, q^{46} + 689878038773\, p^{98}\, q^{64} + 249387368122\, p^{97}\, q^{55}$$
$$+ 42433254\, p^{87}\, q^{23} + 1071371097\, p^{91}\, q^{31} + 1712294\, p^{82}\, q^{17} + 341237325\, p^{90}\, q^{28} + 3505609628617\, p^{63}\, q^{72} + 2317737594875\, p^{94}\, q^{75}$$
$$+ 7311992\, p^{78}\, q^{18} + 39807685\, p^{80}\, q^{21} + 62646023\, p^{81}\, q^{22} + 26149\, p^{66}\, q^{10} + 2251218290009\, p^{95}\, q^{82} + 68979805653\, p^{96}\, q^{114}$$
$$+ 58458716249\, p^{101}\, q^{113} + 4\, q^{41}\, p^{3} + 2924356863496\, p^{83}\, q^{92} + 327891286280\, p^{59}\, q^{99} + 151579992498\, p^{55}\, q^{100}$$
$$+ 246651595778\, p^{57}\, q^{99} + 285384250253\, p^{58}\, q^{99} + 100234\, p^{129}\, q^{141} + 186711\, p^{120}\, q^{142} + 141271\, p^{127}\, q^{141} + 15927709\, q^{101}\, p^{27}$$

$$+ 776017712848\, p^{96} q^{99} + 6\, p^{146} q^{78} + 11498\, p^{108} q^{21} + 19938781152\, p^{111} q^{112} + 908050811306\, p^{94} q^{99} + 1026432222022\, p^{90} q^{100}$$
$$+ 973408212352\, p^{93} q^{99} + 932269587189\, p^{84} q^{102} + 861223767824\, p^{91} q^{101} + 815343843130\, p^{92} q^{101} + 1546963663\, q^{123} p^{67}$$
$$+ 861720527306\, p^{96} q^{98} + 936352829701\, p^{95} q^{98} + 7\, p^{39} q^{3} + 810092618320\, p^{94} q^{100} + 752267078667\, p^{95} q^{100} + 17788302\, q^{132} p^{68}$$
$$+ 14775879\, q^{132} p^{67} + 92199776\, p^{27} q^{30} + 5639023267704\, p^{75} q^{79} + 179667692\, p^{58} q^{21} + 706653345\, p^{59} q^{24} + 13005553798\, p^{61} q^{32}$$
$$+ 2359424417\, p^{60} q^{27} + 9523064680\, p^{61} q^{31} + 134396140090\, p^{62} q^{41} + 23370891357\, p^{61} q^{34} + 30786295958\, p^{61} q^{35}$$
$$+ 1349402694\, p^{121} q^{61} + 3343409061\, p^{125} q^{94} + 54716357\, p^{115} q^{40} + 37084044\, p^{115} q^{39} + 3470337980\, p^{123} q^{74} + 2990638655\, p^{122} q^{69}$$
$$+ 9389038\, p^{113} q^{34} + 3265998208\, p^{125} q^{95} + 3366607044\, p^{122} q^{70} + 2020656649\, p^{125} q^{104} + 27748949046\, p^{43} q^{42} + 179080404\, p^{128} q^{68}$$
$$+ 94510435\, p^{126} q^{59} + 66551197\, p^{132} q^{113} + 22694151320\, p^{44} q^{40} + 1698514837553\, p^{60} q^{86} + 16704396323\, p^{40} q^{42}$$
$$+ 16874853828\, p^{41} q^{41} + 19938781152\, p^{42} q^{41} + 19542670409\, p^{43} q^{40} + 412\, q^{42} p^{5} + 40788531\, p^{75} q^{20} + 623679893083\, p^{85} q^{52}$$
$$+ 309410\, q^{21} p^{16} + 710821086685\, p^{54} q^{56} + 580695556441\, p^{53} q^{55} + 281\, p^{72} q^{8} + 10684612\, p^{129} q^{57} + 4721656\, p^{127} q^{50}$$
$$+ 29341080227\, q^{118} p^{81} + 290022689\, p^{25} q^{40} + 2274788967\, p^{66} q^{27} + 13220024599\, p^{67} q^{32} + 3074983927\, p^{115} q^{54} + 3789\, p^{14} q^{10}$$
$$+ 3077\, p^{12} q^{11} + 2058\, p^{10} q^{12} + 1082\, p^{8} q^{13} + 208299385\, p^{69} q^{128} + 1576549504615\, p^{59} q^{60} + 3108639809470\, p^{66} q^{85}$$
$$+ 3325683626210\, p^{67} q^{85} + 3949002206510\, p^{69} q^{84} + 2449062051310\, p^{63} q^{85} + 1217927\, q^{128} p^{48} + 830225\, q^{128} p^{47}$$
$$+ 1704205300725\, p^{60} q^{60} + 1417550408826\, p^{57} q^{61} + 527725466590\, p^{48} q^{64} + 715988628005\, p^{50} q^{64} + 944205850707\, p^{52} q^{64}$$
$$+ 825082501034\, p^{51} q^{64} + 1073175468021\, p^{53} q^{64} + 1358909102561\, p^{55} q^{64} + 1211608686204\, p^{54} q^{64} + 1416578574959\, p^{55} q^{65}$$
$$+ 616923903455\, p^{49} q^{64} + 1654667916985\, p^{62} q^{58} + 1344675291114\, p^{58} q^{59} + 1460436094153\, p^{59} q^{59} + 30533\, p^{113} q^{25}$$
$$+ 6943611\, p^{19} q^{30} + 336\, p^{13} q^{6} + 63\, p^{12} q^{4} + 137\, p^{12} q^{5} + 626\, p^{13} q^{7} + 1786\, p^{13} q^{9} + 675205064754\, q^{94} p^{59} + 441700656\, p^{56} q^{23}$$
$$+ 74769\, q^{130} p^{45} + 11593\, q^{127} p^{37} + 65495\, q^{129} p^{43} + 6552638\, q^{134} p^{70} + 7824325\, q^{134} p^{71} + 45101031754\, q^{54} p^{38} + 38470825570\, q^{55} p^{37}$$
$$+ 1605866422\, p^{63} q^{26} + 448688543\, p^{62} q^{23} + 4949247915\, p^{64} q^{29} + 542\, p^{39} q^{5} + 7006265583\, p^{64} q^{30} + 106418603\, p^{60} q^{20}$$
$$+ 4145978573943\, p^{69} q^{83} + 26235\, q^{83} p^{13} + 18195\, p^{60} q^{9} + 26916835\, q^{109} p^{33} + 42697153\, q^{109} p^{34} + 16579605\, q^{109} p^{32}$$
$$+ 331457393\, q^{110} p^{40} + 467021774\, q^{110} p^{41} + 57\, q^{70} p^{7} + 200\, q^{73} p^{8} + 29530387\, q^{132} p^{71} + 228620\, q^{99} p^{20} + 50656\, q^{98} p^{18}$$
$$+ 26224879583\, q^{53} p^{36} + 11440322291\, p^{42} q^{38} + 2288061828651\, p^{63} q^{86} + 2084785539269\, p^{62} q^{86} + 3739603098690\, p^{68} q^{84}$$
$$+ 1887734039537\, p^{61} q^{86} + 161608368\, p^{36} q^{25} + 1229006312\, q^{100} p^{36} + 666761125\, q^{101} p^{35} + 3785870389472\, p^{89} q^{80} + 34605\, p^{30} q^{9}$$
$$+ 152959\, p^{31} q^{11} + 2711\, q^{63} p^{8} + 97131\, q^{65} p^{11} + 35692\, q^{64} p^{10} + 3280\, q^{62} p^{8} + 6265733281\, q^{84} p^{33} + 8864366686\, q^{84} p^{34}$$

$$+ 12364622561\, q^{84} p^{35} + 23123183845\, p^{116} q^{69} + 22228048785\, p^{115} q^{66} + 12874575703\, p^{114} q^{60} + 25576677676\, p^{116} q^{70}$$
$$+ 27952212062\, p^{115} q^{68} + 1324681802366\, p^{57} q^{60} + 1449598712956\, p^{58} q^{60} + 41445755317\, p^{83} q^{117} + 1514259357547\, p^{64} q^{56}$$
$$+ 87063\, p^{114} q^{27} + 35862469597\, q^{54} p^{37} + 20493641512\, q^{53} p^{35} + 4480087262261\, p^{85} q^{83} + 4769962081064\, p^{82} q^{84}$$
$$+ 4749342423547\, p^{77} q^{85} + 4464704163410\, p^{76} q^{86} + 3924997709585\, p^{73} q^{87} + 354040755509\, p^{47} q^{59} + 234866996983\, p^{61} q^{44}$$
$$+ 200\, p^{73} q^{8} + 2191212247\, p^{116} q^{54} + 64748203\, p^{56} q^{19} + 287062615\, p^{57} q^{22} + 454988676\, p^{113} q^{44} + 1082\, p^{13} q^{8} + 10908233097\, p^{73} q^{32}$$
$$+ 7732836135\, p^{73} q^{31} + 11601646\, p^{23} q^{26} + 86\, p^{14} q^{4} + 510504259609\, p^{49} q^{60} + 17539213528\, p^{61} q^{33} + 1026432222022\, p^{63} q^{53}$$
$$+ 11467303\, p^{55} q^{16} + 4514175127368\, p^{80} q^{86} + 244963045288\, p^{62} q^{44} + 64646936\, p^{57} q^{19} + 289150782\, p^{58} q^{22}$$
$$+ 160175088804\, p^{108} q^{100} + 54898356642\, q^{94} p^{45} + 360382411768\, p^{100} q^{61} + 455364858234\, p^{100} q^{63} + 2997899579879\, p^{92} q^{81}$$
$$+ 2599386355543\, p^{92} q^{87} + 3004678138011\, p^{92} q^{79} + 2700103690789\, p^{92} q^{86} + 318271751\, q^{99} p^{32} + 20770816166\, q^{85} p^{37}$$
$$+ 1062535\, q^{88} p^{18} + 143704825\, q^{92} p^{27} + 49702018\, q^{92} p^{25} + 332881072458\, p^{97} q^{105} + 12957347282\, p^{115} q^{62} + 42254416404\, p^{117} q^{84}$$
$$+ 7676292739\, p^{114} q^{57} + 41445755317\, p^{117} q^{83} + 18955940877\, p^{118} q^{101} + 40419113256\, p^{117} q^{82} + 28497882\, q^{40} p^{19} + 7241648\, q^{41} p^{16}$$
$$+ 856631936\, p^{29} q^{39} + 644089590\, p^{28} q^{39} + 14775879\, p^{86} q^{21} + 88564194930\, p^{90} q^{114} + 5460897579740\, p^{76} q^{81} + 701950512\, p^{62} q^{24}$$
$$+ 62040297\, p^{60} q^{19} + 10778780\, p^{58} q^{16} + q^{14} p + 76749126795\, p^{94} q^{114} + 69795361726\, p^{90} q^{115} + 69926\, p^{138} q^{136} + 135108\, p^{137} q^{135}$$
$$+ 3505609628617\, p^{72} q^{63} + 3251642312281\, p^{72} q^{62} + 2997899579879\, p^{72} q^{61} + 2470694\, q^{91} p^{20} + 1135456\, q^{91} p^{19} + 1917681\, q^{92} p^{20}$$
$$+ 107515255783\, q^{105} p^{59} + 142162497018\, q^{105} p^{61} + 182894142974\, q^{105} p^{63} + 161790533114\, q^{105} p^{62} + 205387268114\, q^{105} p^{64}$$
$$+ 229149927286\, q^{105} p^{65} + 59876455\, q^{96} p^{27} + 137019039286\, p^{42} q^{58} + 441700656\, p^{130} q^{97} + 204930267\, p^{131} q^{105}$$
$$+ 174867029\, p^{126} q^{62} + 457071688\, p^{130} q^{93} + 313730459\, p^{128} q^{72} + 35154287\, p^{124} q^{51} + 454207890\, p^{130} q^{92} + 219810073\, p^{25} q^{38}$$
$$+ 135902177\, p^{24} q^{37} + 3863964909\, p^{109} q^{121} + 2020098847\, p^{38} q^{33} + 3988837\, p^{35} q^{16} + 12349184642\, p^{94} q^{121} + 1546311\, p^{51} q^{13}$$
$$+ 37308488\, p^{54} q^{18} + 615254254\, p^{94} q^{31} + 192463958\, p^{93} q^{28} + 6152111\, p^{52} q^{15} + 37372987846\, p^{59} q^{36} + 3140647\, p^{52} q^{14}$$
$$+ 2011740299285\, p^{58} q^{79} + 137302\, p^{48} q^{10} + 2279095406\, p^{27} q^{58} + 3265998208\, p^{28} q^{58} + 9089937849\, p^{31} q^{59} + 4609712444\, p^{29} q^{58}$$
$$+ 6413679106\, p^{30} q^{58} + 939163843692\, p^{70} q^{51} + 42832106878\, p^{68} q^{36} + 1084175163063\, p^{70} q^{52} + 79146803\, p^{125} q^{56}$$
$$+ 57921559\, p^{131} q^{117} + 182788860\, p^{127} q^{65} + 254220206\, p^{127} q^{67} + 57822\, p^{40} q^{9} + 22302\, p^{39} q^{8} + 5673\, p^{103} q^{18} + q^{15} p$$
$$+ 81934312\, p^{132} q^{79} + 174709625\, p^{61} q^{21} + 1119034351235\, p^{59} q^{56} + 19203498\, q^{124} p^{49} + 13915226\, q^{124} p^{48} + 596\, p^{146} q^{91}$$
$$+ 15487568551\, p^{78} q^{34} + 104292453946\, p^{79} q^{41} + 933846388\, p^{75} q^{26} + 11990944607\, p^{77} q^{33} + 2737218671462\, p^{61} q^{79} + 74124\, p^{58} q^{10}$$

$$+ 1579643596332\, p^{55} q^{69} + 34573564\, p^{111} q^{134} + 947863\, q^{37} p^{13} + 2976295\, q^{37} p^{15} + 21\, q^{142} p^{61} + 5550611\, q^{38} p^{16} + 7620\, q^{34} p^{7}$$
$$+ 2545\, q^{33} p^{6} + 49479\, p^{49} q^{9} + 17337\, p^{48} q^{8} + 35437428\, q^{51} p^{18} + 72701173766\, p^{66} q^{38} + 19742419\, p^{59} q^{17} + 56376649158\, p^{66} q^{37}$$
$$+ 577981068487\, p^{68} q^{48} + 336008277236\, p^{67} q^{45} + 3443317939\, p^{64} q^{28} + 1828\, q^{43} p^{6} + 458\, q^{41} p^{5} + 42\, q^{22} p^{3} + 42\, q^{23} p^{3}$$
$$+ 1933752677194\, p^{57} q^{68} + 582920053813\, p^{48} q^{69} + 146624588849\, p^{41} q^{70} + 225369591985\, p^{55} q^{46} + 902256476381\, p^{71} q^{100}$$
$$+ 429744748514\, p^{89} q^{52} + 2194\, p^{55} q^{7} + 4982818185882\, p^{78} q^{84} + 1772836\, p^{136} q^{126} + 524198007487\, p^{87} q^{52} + 276353035247\, p^{44} q^{71}$$
$$+ 142155\, p^{42} q^{10} + 93196771789\, p^{67} q^{39} + 487679240292\, p^{68} q^{47} + 118050835667\, p^{67} q^{40} + 793805748178\, p^{68} q^{50}$$
$$+ 226961228260\, p^{67} q^{43} + 184167294726\, p^{67} q^{42} + 920195712278\, p^{68} q^{51} + 43260574488\, p^{66} q^{36} + 1059199932055\, p^{68} q^{52}$$
$$+ 5765353813734\, p^{77} q^{78} + 55465566\, p^{72} q^{20} + 773412778093\, p^{82} q^{52} + 658126651047\, p^{82} q^{51} + 125276\, p^{63} q^{11}$$
$$+ 191314311125\, p^{98} q^{108} + 1980928848\, p^{126} q^{99} + 364370\, p^{108} q^{25} + 5176747\, p^{112} q^{32} + 12025445\, p^{24} q^{25} + 94510435\, p^{94} q^{27}$$
$$+ 16205172921\, p^{102} q^{46} + 616634355\, p^{108} q^{40} + 435585011\, p^{108} q^{39} + 113265671\, p^{106} q^{34} + 43475583172\, p^{116} q^{96}$$
$$+ 40491648191\, p^{103} q^{51} + 14540775\, p^{21} q^{30} + 265449\, q^{122} p^{36} + 455040\, q^{122} p^{37} + 119\, p^{80} q^{9} + 401212263\, p^{118} q^{50}$$
$$+ 935890718\, p^{120} q^{57} + 573604154\, p^{119} q^{53} + 53056209\, p^{116} q^{41} + 23629846\, p^{113} q^{36} + 15063488\, p^{113} q^{35} + 30769712553\, p^{77} q^{36}$$
$$+ 331837233676\, p^{47} q^{58} + 2534045063872\, p^{92} q^{72} + 2025968741624\, p^{92} q^{68} + 183950195\, p^{71} q^{22} + 743461784\, p^{72} q^{25} + 240164\, p^{56} q^{11}$$
$$+ 2534126\, p^{59} q^{14} + 1220688\, p^{58} q^{13} + 240430677\, p^{112} q^{41} + 336\, q^{13} p^{6} + 97131\, p^{65} q^{11} + 56\, p^{42} q^{4} + 12328047472\, q^{121} p^{83}$$
$$+ 13375722339\, q^{121} p^{87} + 156437005\, p^{131} q^{80} + 103656632\, p^{133} q^{100} + 32834422165\, p^{66} q^{35} + 277307355613\, p^{67} q^{44}$$
$$+ 1210786083771\, p^{68} q^{53} + 1172558\, p^{19} q^{22} + 216124\, p^{14} q^{23} + 4886763242452\, p^{72} q^{82} + 6221439\, p^{126} q^{49} + 2465\, p^{31} q^{6}$$
$$+ 14335823400\, q^{45} p^{37} + 463288261\, p^{44} q^{25} + 907161988\, p^{44} q^{27} + 90764764\, p^{43} q^{21} + 323580913\, p^{44} q^{24} + 653061407\, p^{44} q^{26}$$
$$+ 5652441389\, p^{45} q^{33} + 2521810764\, p^{45} q^{30} + 1882659280\, p^{45} q^{29} + 4367362685\, p^{45} q^{32} + 3337722792\, p^{45} q^{31} + 7239254491\, p^{45} q^{34}$$
$$+ 9178506327\, p^{45} q^{35} + 13071703856\, p^{46} q^{36} + 122917\, p^{51} q^{10} + 24637839689\, p^{66} q^{34} + 148124631642\, p^{67} q^{41} + 105495658016\, p^{41} q^{57}$$
$$+ 80351417049\, p^{40} q^{56} + 20138582347\, q^{46} p^{38} + 642069373\, p^{128} q^{79} + 253962\, p^{37} q^{11} + 539149\, p^{38} q^{12} + 120866\, p^{37} q^{10} + 58698\, p^{42} q^{9}$$
$$+ 22203\, p^{41} q^{8} + 1102258\, p^{39} q^{13} + 1305227\, q^{79} p^{16} + 15189886513\, q^{118} p^{71} + 5330930\, q^{80} p^{18} + 4152965130\, q^{117} p^{59}$$
$$+ 4941609441\, q^{117} p^{60} + 741120\, q^{108} p^{26} + 170156\, q^{108} p^{24} + 16908\, q^{128} p^{39} + 30533\, q^{128} p^{40} + 53098\, q^{128} p^{41} + 93196771789\, q^{67} p^{39}$$
$$+ 591956283364\, p^{81} q^{50} + 156864666436\, p^{80} q^{43} + p^{152} q^{138} + 3594135\, p^{138} q^{88} + 1246560\, p^{140} q^{112} + 119547\, p^{141} q^{128}$$
$$+ 1416502012948\, p^{54} q^{73} + 914021004120\, p^{51} q^{74} + 1238895078128\, p^{53} q^{73} + 1076083630457\, p^{52} q^{73} + 928093988966\, p^{51} q^{73}$$

$$+ 336008277236\, q^{67} p^{45} + 3209625292705\, p^{91} q^{77} + 2982729917623\, p^{92} q^{78} + 7570395349\, p^{111} q^{117} + 4\, p^{144} q^{67} + 2\, p^{145} q^{71} + 2\, p^{141} q^{55}$$
$$+ 7\, p^{93} q^{148} + 5\, p^{92} q^{148} + 1371906\, p^{110} q^{140} + 642069373\, p^{79} q^{128} + 4721656\, q^{103} p^{26} + 608345\, q^{103} p^{23} + 1260041\, q^{103} p^{24}$$
$$+ 1755660\, q^{104} p^{25} + 14325364\, q^{108} p^{31} + 1950075816931\, p^{69} q^{93} + 2151371\, p^{137} q^{77} + 1836415\, p^{137} q^{76} + 27097\, p^{126} q^{37}$$
$$+ 1887734039537\, p^{67} q^{92} + 4152965130\, p^{117} q^{59} + 1311545906\, p^{123} q^{113} + 228620\, p^{99} q^{20} + 3157018723\, p^{35} q^{38} + 26\, p^{150} q^{122}$$
$$+ 46905\, p^{144} q^{103} + 28006\, p^{141} q^{75} + 30384\, p^{142} q^{81} + 6145\, p^{146} q^{124} + 19761\, p^{140} q^{69} + p^{118} q^{21} + 17\, p^{124} q^{27} + 3163894666794\, p^{62} q^{70}$$
$$+ 3\, q^{42} p^{3} + 15841\, q^{61} p^{9} + 47045\, q^{62} p^{10} + 18195\, q^{60} p^{9} + 104\, q^{51} p^{5} + 62799448\, p^{105} q^{32} + 4791020\, p^{101} q^{25} + 209916965920\, p^{79} q^{110}$$
$$+ 4152965130\, q^{94} p^{36} + 182788860\, q^{88} p^{26} + 3285242905652\, p^{64} q^{81} + 5638884\, q^{106} p^{28} + 1217927\, q^{105} p^{25} + 2367121\, q^{105} p^{26}$$
$$+ 793805748178\, p^{103} q^{85} + 21767254573\, p^{55} q^{109} + 10314134\, p^{117} q^{38} + 377593252643\, p^{89} q^{107} + 5317\, p^{27} q^{7} + 13343\, p^{28} q^{8}$$
$$+ 251250\, p^{30} q^{12} + 63627\, p^{29} q^{10} + 4226489\, p^{32} q^{17} + 24989348\, p^{33} q^{21} + 14511177\, p^{32} q^{20} + 9820828\, p^{32} q^{19} + 35806697\, p^{33} q^{22}$$
$$+ 864709\, p^{31} q^{14} + 115745709171\, p^{81} q^{42} + 19723804295\, p^{79} q^{35} + 465862838408\, p^{82} q^{49} + 2995105566587\, p^{83} q^{64}$$
$$+ 4122187247\, p^{77} q^{30} + 1201946862414\, p^{82} q^{55} + 280244830058\, p^{81} q^{46} + 212153386254\, p^{94} q^{109} + 1974064068\, p^{70} q^{27}$$
$$+ 11904985752\, p^{71} q^{32} + 781882\, p^{137} q^{128} + 15245921771\, q^{117} p^{68} + 17017139760\, q^{117} p^{69} + 1882090487779\, p^{86} q^{96}$$
$$+ 1819290086238\, p^{81} q^{97} + 1814611336561\, p^{80} q^{97} + 6726947748\, q^{95} p^{38} + 202415140280\, q^{95} p^{52} + 156293891\, q^{125} p^{59}$$
$$+ 82110467\, p^{131} q^{74} + 117068618\, q^{126} p^{60} + 4477730\, p^{85} q^{19} + 371707673\, p^{25} q^{42} + 1709852941\, p^{31} q^{40} + 856058824\, p^{28} q^{41}$$
$$+ 510504259609\, p^{60} q^{49} + 6772963960\, p^{40} q^{37} + 3015237927\, p^{34} q^{39} + 329505465\, p^{41} q^{25} + 237735\, p^{36} q^{11} + 502935\, p^{37} q^{12}$$
$$+ 114573\, p^{36} q^{10} + 10113650\, p^{39} q^{17} + 66551197\, p^{40} q^{21} + 1868075\, p^{38} q^{14} + 44013367\, p^{40} q^{20} + 28497882\, p^{40} q^{19} + 110715139\, p^{41} q^{22}$$
$$+ 161943247\, p^{41} q^{23} + 631271819\, p^{41} q^{27} + 976183635\, p^{42} q^{28} + 1025690\, p^{38} q^{13} + 3274553\, p^{38} q^{15} + 62790279\, q^{88} p^{24}$$
$$+ 166952336\, p^{53} q^{21} + 634698926\, p^{54} q^{24} + 124248792\, p^{69} q^{21} + 4755692518\, p^{37} q^{38} + 3216546160324\, p^{91} q^{82} + 6506\, p^{105} q^{19}$$
$$+ 1668483\, p^{16} q^{29} + 592316\, p^{83} q^{16} + 2465\, q^{31} p^{6} + 86784781\, p^{26} q^{31} + 2803017645\, p^{125} q^{99} + 555637\, p^{107} q^{25} + 7767352\, p^{111} q^{32}$$
$$+ 4539969875997\, p^{86} q^{79} + 4445\, q^{25} p^{7} + 8\, q^{18} p^{2} + 581\, q^{23} p^{5} + 1686\, q^{24} p^{6} + 60027575\, p^{23} q^{34} + 23561504\, p^{90} q^{23} + 933480\, p^{70} q^{14}$$
$$+ 428750\, p^{69} q^{13} + 5563045522720\, p^{80} q^{79} + 518838636022\, p^{83} q^{50} + 135772915407\, p^{82} q^{43} + 283957\, p^{31} q^{12} + 70886\, p^{30} q^{10}$$
$$+ 4900139\, p^{33} q^{17} + 29423698\, p^{34} q^{21} + 17136145\, p^{33} q^{20} + 11531075\, p^{33} q^{19} + 42377211\, p^{34} q^{22} + 988022\, p^{32} q^{14} + 2882403\, p^{74} q^{16}$$
$$+ 95895208\, p^{25} q^{33} + 141330405\, p^{27} q^{32} + 247094143\, p^{31} q^{30} + 193437287\, p^{29} q^{31} + 295689001\, p^{33} q^{29} + 1909657781\, p^{98} q^{36}$$
$$+ 395900960199\, p^{106} q^{92} + 130753713108\, p^{108} q^{102} + 7007851212\, q^{83} p^{33} + 17017139760\, q^{84} p^{36} + 4895383738\, q^{83} p^{32}$$

$$+ 6830041\, p^{125}\, q^{133} + 8\, p^{151}\, q^{136} + 43\, p^{150}\, q^{132} + 8486801529\, p^{71}\, q^{31} + 663251126648\, p^{74}\, q^{49} + 3780067597633\, p^{75}\, q^{64}$$
$$+ 1507950113806\, p^{62}\, q^{57} + 180956555937\, p^{42}\, q^{71} + 3669967302871\, p^{80}\, q^{65} + 1553354831376\, p^{58}\, q^{61} + 227124800974\, p^{43}\, q^{70}$$
$$+ 1594699691225\, p^{63}\, q^{57} + 17136145\, p^{20}\, q^{33} + 58147944\, p^{24}\, q^{32} + 70074431\, p^{24}\, q^{33} + 79214671\, p^{25}\, q^{32} + 106481683\, p^{26}\, q^{32}$$
$$+ 196208142\, p^{30}\, q^{30} + 60027575\, p^{34}\, q^{23} + 11123932\, p^{136}\, q^{113} + 4030538472888\, p^{86}\, q^{85} + 9751274419\, p^{41}\, q^{38} + 2965879060\, p^{87}\, q^{32}$$
$$+ 661430958389\, p^{92}\, q^{57} + 75751734864\, p^{90}\, q^{44} + 1748173411233\, p^{94}\, q^{69} + 21238190\, p^{80}\, q^{20} + 17208468950\, p^{89}\, q^{38}$$
$$+ 1570996621371\, p^{93}\, q^{66} + 8247867146\, p^{38}\, q^{40} + 5217886830\, p^{35}\, q^{41} + 6772963960\, p^{37}\, q^{40} + 4369589639\, p^{33}\, q^{43}$$
$$+ 3394847010\, p^{32}\, q^{43} + 5566466477\, p^{34}\, q^{43} + 8771791701\, p^{36}\, q^{43} + 7021184937\, p^{35}\, q^{43} + 10090307707\, p^{36}\, q^{44} + 11803672092\, p^{41}\, q^{39}$$
$$+ 20454488\, p^{51}\, q^{17} + 100796624\, p^{52}\, q^{20} + 150\, q^{99}\, p^{14} + 6075132130\, p^{35}\, q^{42} + 10858215104\, p^{37}\, q^{43} + 11440322291\, p^{38}\, q^{42}$$
$$+ 7570395349\, p^{36}\, q^{42} + 211655265398\, p^{99}\, q^{56} + 241267395921\, p^{100}\, q^{58} + 674530917310\, p^{51}\, q^{60} + 588868785329\, p^{50}\, q^{60}$$
$$+ 395900960199\, p^{47}\, q^{61} + 2684251394711\, p^{77}\, q^{93} + 1365650867018\, p^{62}\, q^{56} + 555637\, q^{128}\, p^{46} + 179667692\, p^{95}\, q^{132}$$
$$+ 179192289\, p^{96}\, q^{132} + 6453219\, q^{118}\, p^{38} + 6726947748\, p^{115}\, q^{58} + 1337321026\, p^{121}\, q^{116} + 4514175127368\, p^{73}\, q^{67} + 26149\, q^{66}\, p^{10}$$
$$+ 2990638655\, q^{84}\, p^{31} + 75895024961\, q^{88}\, p^{43} + 5679726856\, p^{118}\, q^{63} + 1059304\, q^{69}\, p^{14} + 184034\, q^{68}\, p^{12} + 42082283\, p^{23}\, q^{32}$$
$$+ 380593636\, p^{120}\, q^{123} + 1100202233721\, p^{100}\, q^{75} + 149798845\, p^{28}\, q^{31} + 240285779\, p^{32}\, q^{29} + 52236853813\, p^{104}\, q^{112}$$
$$+ 2240172198336\, p^{92}\, q^{90} + 1955797910423\, p^{93}\, q^{91} + 1417550408826\, p^{92}\, q^{96} + 184348\, q^{106}\, p^{23} + 31752\, q^{106}\, p^{21} + 875276\, p^{120}\, q^{36}$$
$$+ 1449598712956\, p^{60}\, q^{58} + 49999030007\, q^{73}\, p^{37} + 19861514429\, q^{74}\, p^{34} + 37780202199\, q^{73}\, p^{36} + 20823650108\, q^{73}\, p^{34}$$
$$+ 28218947999\, q^{73}\, p^{35} + 1553354831376\, p^{61}\, q^{58} + 205387268114\, q^{89}\, p^{48} + 5565065448\, q^{85}\, p^{33} + 7897084956\, q^{85}\, p^{34}$$
$$+ 29341080227\, p^{72}\, q^{35} + 1223650375442\, p^{74}\, q^{53} + 266619377131\, p^{73}\, q^{44} + 261387975406\, p^{46}\, q^{82} + 146378568716\, p^{43}\, q^{81}$$
$$+ 1106170920160\, p^{54}\, q^{81} + 183394757916\, p^{44}\, q^{81} + 227701664651\, p^{45}\, q^{81} + 4170044253961\, p^{67}\, q^{69} + 2969278524363\, p^{61}\, q^{71}$$
$$+ 2788709074615\, p^{85}\, q^{92} + 1347533447579\, p^{77}\, q^{99} + 2976295\, p^{116}\, q^{138} + 305712553638\, p^{90}\, q^{108} + 167101510896\, p^{74}\, q^{110}$$
$$+ 278959680274\, p^{83}\, q^{109} + 17208468950\, p^{115}\, q^{64} + 37780202199\, p^{117}\, q^{80} + 43104207963\, p^{117}\, q^{88} + 15916545331\, p^{118}\, q^{103}$$
$$+ 30786295958\, p^{118}\, q^{92} + 6359362124\, p^{114}\, q^{56} + 19624675580\, p^{115}\, q^{65} + 30703869178\, p^{116}\, q^{72} + 5196412246076\, p^{72}\, q^{80}$$
$$+ 1172037\, p^{136}\, q^{128} + 2138996617744\, p^{95}\, q^{85} + 7567821832\, p^{88}\, q^{35} + 1402509751534\, p^{66}\, q^{94} + 4445\, p^{25}\, q^{7} + 186425775\, q^{35}\, p^{26}$$
$$+ 99190589\, q^{35}\, p^{24} + 8125046076\, q^{72}\, p^{31} + 4053203\, p^{77}\, q^{17} + 755735917\, p^{85}\, q^{28} + 95902699\, p^{82}\, q^{23} + 2312114396\, p^{86}\, q^{31}$$
$$+ 14170216356\, p^{40}\, q^{41} + 14170216356\, p^{41}\, q^{40} + 108125722377\, p^{91}\, q^{113} + 70854831166\, p^{83}\, q^{115} + 65440254214\, p^{80}\, q^{115}$$

$$+ 62997050358\, p^{79}\, q^{115} + 13321447127\, p^{43}\, q^{38} + 19096640774\, p^{100}\, q^{45} + 7847852923\, p^{99}\, q^{41} + 1123745593\, p^{97}\, q^{34}$$
$$+ 12521095403\, p^{37}\, q^{44} + 13881745544\, p^{42}\, q^{39} + 13321447127\, p^{38}\, q^{43} + 13881745544\, p^{39}\, q^{42} + 19938781152\, p^{41}\, q^{42}$$
$$+ 23379655371\, p^{43}\, q^{41} + 16202784999\, p^{39}\, q^{43} + 64748203\, p^{134}\, q^{97} + 6075247\, p^{50}\, q^{15} + 34014418033\, p^{57}\, q^{36} + 3152400\, p^{50}\, q^{14}$$
$$+ 18772780933\, p^{44}\, q^{39} + 23612502033\, p^{42}\, q^{42} + 13798663099\, p^{99}\, q^{43} + 1285552072464\, p^{56}\, q^{61} + 976034533471\, p^{53}\, q^{62}$$
$$+ 687821433008\, p^{50}\, q^{63} + 92809545852\, p^{87}\, q^{114} + 93196771789\, p^{86}\, q^{114} + 93052700038\, p^{85}\, q^{114} + 91897273728\, p^{88}\, q^{114}$$
$$+ 113934624453\, p^{89}\, q^{113} + 112043037887\, p^{95}\, q^{112} + 118292325723\, p^{94}\, q^{112} + 103085943888\, p^{99}\, q^{111} + 90474530207\, p^{89}\, q^{114}$$
$$+ 67585733335\, p^{81}\, q^{115} + 69400123487\, p^{82}\, q^{115} + 72701173766\, p^{87}\, q^{115} + 55426120039\, p^{84}\, q^{116} + 72857302112\, p^{86}\, q^{115}$$
$$+ 71926442230\, p^{84}\, q^{115} + 72597633517\, p^{85}\, q^{115} + 1576549504615\, p^{60}\, q^{59} + 3789570395209\, p^{81}\, q^{66} + 220466388291\, p^{78}\, q^{44}$$
$$+ 306850871\, p^{71}\, q^{23} + 1520551640068\, p^{80}\, q^{56} + 1217894540005\, p^{79}\, q^{54} + 2395577647172\, p^{80}\, q^{60} + 1720327850013\, p^{80}\, q^{57}$$
$$+ 54265120517\, p^{77}\, q^{38} + 1056124502014\, p^{79}\, q^{53} + 8462943\, q^{77}\, p^{18} + 11613\, p^{106}\, q^{20} + 1228941683285\, p^{55}\, q^{62}$$
$$+ 1365650867018\, p^{56}\, q^{62} + 1507950113806\, p^{57}\, q^{62} + 1654667916985\, p^{58}\, q^{62} + 1691688316779\, p^{59}\, q^{61} + 1158476579206\, p^{55}\, q^{61}$$
$$+ 861223767824\, p^{52}\, q^{62} + 1037268221783\, p^{54}\, q^{61} + 3477629879609\, p^{90}\, q^{77} + 3247441057785\, p^{91}\, q^{78} + 1319605502352\, p^{93}\, q^{64}$$
$$+ 495311142198\, p^{92}\, q^{55} + 254431380366\, p^{92}\, q^{51} + 105603093395\, p^{91}\, q^{46} + 2566287034\, p^{78}\, q^{29} + 1705200216\, p^{78}\, q^{28}$$
$$+ 2432878\, p^{69}\, q^{15} + 14\, p^{35}\, q^{3} + 33200442\, p^{135}\, q^{104} + 45473848\, p^{134}\, q^{86} + 214\, p^{47}\, q^{5} + 2863849528723\, p^{92}\, q^{84} + 503369\, p^{137}\, q^{130}$$
$$+ 15732317\, p^{72}\, q^{18} + 81934312\, p^{74}\, q^{21} + 332992110\, p^{76}\, q^{24} + 129633969\, p^{75}\, q^{22} + 540693085\, p^{76}\, q^{25} + 981499904759\, p^{83}\, q^{54}$$
$$+ 1377718586324\, p^{84}\, q^{57} + 40917637094\, p^{81}\, q^{38} + 846133898687\, p^{83}\, q^{53} + 1950075816931\, p^{84}\, q^{60} + 3108639809470\, p^{85}\, q^{66}$$
$$+ 170432269928\, p^{82}\, q^{44} + 220694648\, p^{75}\, q^{23} + 1210905068093\, p^{84}\, q^{56} + 8790165\, p^{71}\, q^{17} + 360405709563\, p^{83}\, q^{48}$$
$$+ 211999286736\, p^{82}\, q^{45} + 12\, q^{36}\, p^{3} + 1404266164\, p^{36}\, q^{33} + 4514175127368\, p^{86}\, q^{80} + 3367877478037\, p^{65}\, q^{66}$$
$$+ 3701116852947\, p^{66}\, q^{67} + 2234444454112\, p^{62}\, q^{85} + 3520651619604\, p^{67}\, q^{84} + 1189967895406\, p^{57}\, q^{86} + 5030865113491\, p^{73}\, q^{82}$$
$$+ 4698510882035\, p^{72}\, q^{83} + 21753\, q^{37}\, p^{8} + 29722777\, p^{64}\, q^{18} + 4482975\, p^{62}\, q^{15} + 142152017336\, p^{64}\, q^{41} + 12082713\, q^{107}\, p^{30}$$
$$+ 59929729\, q^{108}\, p^{34} + 8454134\, q^{108}\, p^{30} + 4041886886510\, p^{75}\, q^{65} + 4267365725032\, p^{76}\, q^{66} + 2722791699281\, p^{75}\, q^{60}$$
$$+ 1994506619467\, p^{75}\, q^{57} + 729\, p^{129}\, q^{36} + 51495\, p^{144}\, q^{117} + 33800\, p^{138}\, q^{63} + 103374\, p^{143}\, q^{99} + 363082\, p^{95}\, q^{19} + 1401045113913\, p^{74}\, q^{54}$$
$$+ 387145628166\, p^{74}\, q^{46} + 1569153758168\, p^{75}\, q^{55} + 4084035029781\, p^{66}\, q^{70} + 6596\, p^{145}\, q^{131} + 61\, p^{122}\, q^{26} + 71512\, p^{140}\, q^{74} + 14\, p^{118}\, q^{22}$$
$$+ 27222\, p^{139}\, q^{66} + 4349709715842\, p^{68}\, q^{69} + 17\, p^{73}\, q^{7} + 4172525667700\, p^{66}\, q^{71} + 2608683\, p^{110}\, q^{139} + 24286021640\, p^{63}\, q^{34}$$

$$+ 32140345136\, p^{63}\, q^{35} + 1115583908818\, p^{65}\, q^{53} + 261889615674\, p^{64}\, q^{44} + 51978374820\, p^{110}\, q^{62} + 147963691475\, p^{112}\, q^{84}$$
$$+ 31089065819\, p^{109}\, q^{57} + 146624588849\, p^{112}\, q^{83} + 58458716249\, p^{113}\, q^{101} + 144471183501\, p^{112}\, q^{82} + 3472278037036\, p^{70}\, q^{87}$$
$$+ 3637917442865\, p^{71}\, q^{87} + 62646023\, q^{81}\, p^{22} + 261046819\, p^{96}\, q^{30} + 758451625\, p^{97}\, q^{33} + 8643981\, p^{112}\, q^{33} + 231183395\, p^{118}\, q^{48}$$
$$+ 3937375\, p^{110}\, q^{30} + 191001896\, p^{117}\, q^{46} + 4363218888\, q^{84}\, p^{32} + 76885240359\, q^{83}\, p^{41} + 318478615034\, p^{107}\, q^{93} + 1637399666\, p^{97}\, q^{35}$$
$$+ 866528161\, q^{125}\, p^{69} + 42654860\, p^{129}\, q^{63} + 6268105\, q^{79}\, p^{18} + 3396588115\, q^{86}\, p^{32} + 2011748477\, q^{87}\, p^{31} + 4909416417\, q^{86}\, p^{33}$$
$$+ 14725212450\, p^{117}\, q^{106} + 46398168\, q^{83}\, p^{22} + 82746156\, q^{83}\, p^{23} + 2797547233\, p^{77}\, q^{29} + 1865506414\, p^{77}\, q^{28} + 2710402\, p^{68}\, q^{15}$$
$$+ 3118759\, q^{135}\, p^{70} + 599001\, q^{129}\, p^{48} + 401974\, q^{129}\, p^{47} + 6268105\, q^{135}\, p^{74} + 5330930\, q^{135}\, p^{73} + 617679\, q^{133}\, p^{57} + 21314\, q^{122}\, p^{32}$$
$$+ 4464\, q^{123}\, p^{31} + 20262954\, q^{136}\, p^{95} + 12404444028\, p^{113}\, q^{58} + 54462200230\, p^{116}\, q^{90} + 17007800\, p^{106}\, q^{30} + 51\, p^{63}\, q^{6}$$
$$+ 1026432222022\, p^{53}\, q^{63} + 904382591363\, p^{52}\, q^{63} + 1157192169939\, p^{54}\, q^{63} + 1514259357547\, p^{56}\, q^{64} + 1594699691225\, p^{57}\, q^{63}$$
$$+ 1296063097314\, p^{55}\, q^{63} + 1442237574350\, p^{56}\, q^{63} + 54661\, q^{95}\, p^{17} + 8082\, q^{94}\, p^{15} + 263955\, q^{96}\, p^{19} + 189116\, q^{97}\, p^{19} + 450177\, q^{97}\, p^{20}$$
$$+ 1004177\, q^{97}\, p^{21} + 9297\, p^{55}\, q^{8} + 994\, p^{49}\, q^{6} + 1202999690601\, p^{56}\, q^{60} + 1691688316779\, p^{61}\, q^{59} + 1098806314605\, p^{54}\, q^{62}$$
$$+ 732726\, p^{98}\, q^{21} + 11101635\, p^{104}\, q^{28} + 791442533307\, p^{51}\, q^{63} + 260181266\, q^{98}\, p^{31} + 6616776868\, p^{85}\, q^{123} + 1160281095\, p^{127}\, q^{81}$$
$$+ 1474974338\, p^{127}\, q^{86} + 132645040978\, p^{79}\, q^{42} + 22763586701\, p^{77}\, q^{35} + 526950538109\, p^{80}\, q^{49} + 3285242905652\, p^{81}\, q^{64}$$
$$+ 4776230605\, p^{75}\, q^{30} + 1334976125894\, p^{80}\, q^{55} + 316443729838\, p^{79}\, q^{46} + 202896635019\, q^{75}\, p^{43} + 162275045511\, q^{75}\, p^{42}$$
$$+ 251413560772\, q^{75}\, p^{44} + 363383074811\, q^{76}\, p^{46} + 454405029575\, q^{75}\, p^{47} + 308826670893\, q^{75}\, p^{45} + 376153377670\, q^{75}\, p^{46}$$
$$+ 1605866422\, p^{127}\, q^{90} + 1444508078\, p^{126}\, q^{78} + 135286092335\, p^{66}\, q^{108} + 1332171944\, p^{126}\, q^{77} + 979327844\, p^{128}\, q^{98}$$
$$+ 1586025670\, p^{127}\, q^{89} + 1220845267\, p^{126}\, q^{76} + 1520037785\, p^{127}\, q^{87} + 44746557081\, p^{109}\, q^{109} + 131867163107\, p^{68}\, q^{109}$$
$$+ 1869360\, q^{134}\, p^{64} + 2360215\, q^{134}\, p^{65} + 71157805959\, q^{64}\, p^{38} + 127290141\, p^{90}\, q^{26} + 113934624453\, q^{64}\, p^{40} + 175772142295\, q^{64}\, p^{42}$$
$$+ 142152017336\, q^{64}\, p^{41} + 215460520057\, q^{64}\, p^{43} + 315722169504\, q^{64}\, p^{45} + 261889615674\, q^{64}\, p^{44} + 324192171883\, q^{65}\, p^{45}$$
$$+ 90474530207\, q^{64}\, p^{39} + 17571935\, p^{21}\, q^{31} + 4347466320565\, p^{70}\, q^{83} + 913\, p^{60}\, q^{7} + 1233612\, p^{30}\, q^{15} + 121694579\, p^{29}\, q^{29}$$
$$+ 106481683\, p^{32}\, q^{26} + 28439\, p^{28}\, q^{9} + 121343\, p^{29}\, q^{11} + 40\, q^{71}\, p^{7} + 6522839\, p^{127}\, q^{51} + 42\, p^{23}\, q^{3} + 21629925\, p^{42}\, q^{18} + 7241648\, p^{41}\, q^{16}$$
$$+ 135418356164\, p^{109}\, q^{100} + 2407\, p^{146}\, q^{133} + 29196\, p^{144}\, q^{97} + 897\, p^{136}\, q^{49} + 327\, p^{131}\, q^{38} + 305876633222\, p^{98}\, q^{105}$$
$$+ 20138582347\, p^{46}\, q^{38} + 36065772680\, p^{46}\, q^{41} + 51061180965\, p^{46}\, q^{43} + 43082462455\, p^{46}\, q^{42} + 3257708575163\, p^{90}\, q^{74}$$
$$+ 2288061828651\, p^{90}\, q^{67} + 2899117394555\, p^{90}\, q^{71} + 4038184440469\, p^{73}\, q^{65} + 4301311235521\, p^{74}\, q^{66} + 2754481940467\, p^{73}\, q^{60}$$

$$+ 2033606221488\, p^{73} q^{57} + 24664005283\, p^{46} q^{39} + 315722169504\, p^{108} q^{89} + 349029569878\, p^{107} q^{76} + 363383074811\, p^{107} q^{77}$$
$$+ 244963045288\, p^{109} q^{91} + 332654181631\, p^{108} q^{81} + 261387975406\, p^{107} q^{71} + 336008277236\, p^{108} q^{86} + 330990022252\, p^{108} q^{87}$$
$$+ 318388627830\, p^{108} q^{79} + 22124\, q^{38} p^{8} + 2180626212\, q^{102} p^{39} + 132141679341\, q^{104} p^{59} + 174035748181\, q^{104} p^{61}$$
$$+ 223050845882\, q^{104} p^{63} + 197685231006\, q^{104} p^{62} + 250020340158\, q^{104} p^{64} + 308117588919\, q^{104} p^{66} + 296455\, q^{40} p^{11}$$
$$+ 14756355112\, q^{109} p^{53} + 28812819351\, p^{94} q^{118} + 53699539082\, q^{106} p^{56} + 63471516678\, q^{106} p^{57} + 100272559644\, q^{106} p^{60}$$
$$+ 86719161265\, q^{106} p^{59} + 148700733346\, q^{106} p^{63} + 187012583231\, q^{106} p^{65} + 168367828839\, q^{107} p^{66} + 115132898310\, q^{106} p^{61}$$
$$+ 167306564856\, q^{106} p^{64} + 131288089404\, q^{106} p^{62} + 74462308532\, q^{106} p^{58} + 508522314378\, p^{105} q^{90} + 555515831396\, p^{104} q^{74}$$
$$+ 526950538109\, p^{104} q^{73} + 527725466590\, p^{105} q^{89} + 606706915361\, p^{104} q^{76} + 628584681382\, p^{104} q^{77} + 414984559524\, p^{106} q^{91}$$
$$+ 577992016034\, p^{105} q^{81} + 465862838408\, p^{104} q^{71} + 569838704653\, p^{105} q^{86} + 558623157222\, p^{105} q^{87} + 558654480487\, p^{105} q^{79}$$
$$+ 569858125687\, p^{105} q^{80} + 544511777240\, p^{105} q^{88} + 606487\, q^{40} p^{12} + 13182281\, q^{42} p^{17} + 2521810764\, q^{45} p^{30} + 187153586666\, p^{44} q^{57}$$
$$+ 131711\, q^{39} p^{10} + 463288261\, q^{44} p^{25} + 323580913\, q^{44} p^{24} + 653061407\, q^{44} p^{26} + 907161988\, q^{44} p^{27} + 1387916598\, q^{45} p^{28}$$
$$+ 3649644509779\, p^{88} q^{85} + 27222\, q^{87} p^{14} + 10755\, q^{86} p^{13} + 5652441389\, q^{45} p^{33} + 9178506327\, q^{45} p^{35} + 13071703856\, q^{46} p^{36}$$
$$+ 3337722792\, q^{45} p^{31} + 7239254491\, q^{45} p^{34} + 4367362685\, q^{45} p^{32} + 23449668\, q^{43} p^{18} + 803033006725\, p^{50} q^{69} + 7805130\, q^{42} p^{16}$$
$$+ 667692285109\, p^{52} q^{58} + 752267078667\, p^{53} q^{58} + 413653980465\, p^{48} q^{59} + 479810239090\, p^{49} q^{59} + 1442237574350\, p^{63} q^{56}$$
$$+ 551240189\, q^{84} p^{27} + 2944909\, q^{79} p^{17} + 652287\, q^{78} p^{15} + 10884219\, q^{80} p^{19} + 9266026\, q^{81} p^{19} + 18227883\, q^{81} p^{20} + 34417298\, q^{81} p^{21}$$
$$+ 95902699\, q^{82} p^{23} + 456996530\, p^{105} q^{129} + 9940817\, q^{124} p^{47} + 37\, p^{27} q^{3} + 3764607900\, p^{122} q^{71} + 1243\, p^{88} q^{12} + 24418670\, p^{114} q^{37}$$
$$+ 4947297623\, p^{124} q^{91} + 14694878857\, p^{59} q^{113} + 365018172165\, p^{107} q^{90} + 384841467563\, p^{106} q^{74} + 363854819931\, p^{106} q^{73}$$
$$+ 3894243\, p^{18} q^{29} + 28476768\, p^{23} q^{30} + 5008229\, p^{116} q^{137} + 1683416\, p^{86} q^{18} + 238484598320\, p^{108} q^{95} + 253594277693\, p^{108} q^{94}$$
$$+ 78346354753\, p^{109} q^{105} + 103992238086\, p^{108} q^{104} + 18552989\, p^{125} q^{130} + 23099158\, p^{124} q^{130} + 19874277\, p^{126} q^{129}$$
$$+ 17571935\, p^{122} q^{132} + 10884219\, q^{134} p^{73} + 12685181\, q^{134} p^{74} + 1933538943411\, p^{80} q^{58} + 1115512561\, p^{125} q^{71} + 6611946\, p^{117} q^{37}$$
$$+ 1616455194\, p^{127} q^{91} + 43544371898\, p^{76} q^{37} + 2159095314300\, p^{80} q^{59} + 25620445229\, p^{105} q^{115} + 37\, q^{27} p^{3} + 4962673188\, q^{63} p^{29}$$
$$+ 7004860224\, q^{63} p^{30} + 9776541708\, q^{64} p^{31} + 655428296365\, p^{88} q^{54} + 1038888240736\, p^{89} q^{58} + 1319605502352\, p^{89} q^{60}$$
$$+ 560692447120\, p^{88} q^{53} + 10077384414\, q^{103} p^{45} + 13016431037\, q^{103} p^{46} + 16643648771\, q^{103} p^{47} + 13457575991\, q^{64} p^{32}$$
$$+ 24543557530\, q^{64} p^{34} + 18286373862\, q^{64} p^{33} + 32556635316\, q^{64} p^{35} + 56051682444\, q^{65} p^{37} + 42702774321\, q^{64} p^{36}$$

$$+ 27080679\, q^{97} p^{26} + 7968457\, q^{92} p^{22} + 72131597620\, q^{65} p^{38} + 2814787037\, p^{107} q^{123} + 115951669197\, q^{65} p^{40} + 179550419937\, q^{65} p^{42}$$
$$+ 144941893560\, q^{65} p^{41} + 220484373361\, q^{65} p^{43} + 268461129285\, q^{65} p^{44} + 330990022252\, q^{66} p^{45} + 91897273728\, q^{65} p^{39}$$
$$+ 397160939724\, q^{66} p^{46} + 16543077674\, p^{58} q^{112} + 655062973535\, q^{66} p^{49} + 558623157222\, q^{66} p^{48} + 1011552877954\, q^{66} p^{52}$$
$$+ 1305436151357\, q^{66} p^{54} + 1513054573131\, q^{67} p^{55} + 762555960079\, q^{66} p^{50} + 1153023511548\, q^{66} p^{53} + 881358393330\, q^{66} p^{51}$$
$$+ 472831320874\, q^{66} p^{47} + 5030865113491\, p^{71} q^{80} + 172451780\, q^{106} p^{35} + 257755568\, q^{106} p^{36} + 104292453946\, p^{112} q^{74}$$
$$+ 370551\, p^{92} q^{18} + 72976548576\, p^{114} q^{95} + 76749126795\, p^{114} q^{94} + 25620445229\, p^{115} q^{105} + 35270379971\, p^{114} q^{104}$$
$$+ 11996663999\, p^{109} q^{52} + 197603\, p^{91} q^{17} + 2129613901\, p^{107} q^{43} + 46691446\, p^{101} q^{29} + 97520371034\, p^{112} q^{73} + 114690281876\, p^{43} q^{84}$$
$$+ 233404946560\, q^{101} p^{59} + 267274374922\, q^{101} p^{60} + 53315\, p^{61} q^{10} + 2189474331548\, p^{76} q^{58} + 2431957827315\, p^{76} q^{59}$$
$$+ 229207636062\, p^{106} q^{67} + 21075322342\, p^{103} q^{48} + 39325319\, p^{134} q^{84} + 11563038\, p^{128} q^{55} + 361578614068\, q^{89} p^{51}$$
$$+ 301870137331\, q^{89} p^{50} + 51312294595\, q^{87} p^{41} + 4181389\, q^{41} p^{15} + 52027016366\, p^{108} q^{109} + 7\, p^{147} q^{85} + 29\, p^{150} q^{123} + 6431625\, p^{90} q^{21}$$
$$+ 85695977\, q^{92} p^{26} + 27961068\, q^{92} p^{24} + 3789570395209\, p^{66} q^{81} + 1755478999331\, p^{58} q^{82} + 37694629\, q^{43} p^{19} + 327127329\, p^{97} q^{31}$$
$$+ 100259570\, p^{96} q^{28} + 193437287\, p^{31} q^{29} + 6889763250\, q^{116} p^{60} + 1011266835935\, p^{94} q^{98} + 1011552877954\, p^{87} q^{101}$$
$$+ 15398424512\, p^{115} q^{109} + 34014418033\, p^{96} q^{117} + 788162308669\, p^{97} q^{98} + 206449\, p^{79} q^{14} + 27952212062\, q^{85} p^{38}$$
$$+ 127913476116\, p^{99} q^{53} + 2069612\, q^{81} p^{17} + 4301306186\, q^{87} p^{33} + 29530387\, q^{82} p^{21} + 4496546\, q^{81} p^{18} + 204129619\, p^{95} q^{29}$$
$$+ 354040755509\, p^{94} q^{106} + 1709852941\, p^{40} q^{31} + 3554861292\, p^{40} q^{34} + 4447845884\, p^{40} q^{35} + 6485183305\, p^{41} q^{36}$$
$$+ 24170116324\, q^{119} p^{85} + 23171060922\, q^{119} p^{83} + 23733715152\, q^{119} p^{84} + 24473134485\, q^{119} p^{86} + 24661443103\, q^{119} p^{88}$$
$$+ 24637839689\, q^{119} p^{87} + 24543557530\, q^{119} p^{89} + 23893040733\, q^{119} p^{91} + 24286021640\, q^{119} p^{90} + 17887905372\, q^{120} p^{91}$$
$$+ 1310327814752\, p^{76} q^{99} + 2848823748\, q^{109} p^{46} + 28721937\, p^{135} q^{107} + 409735357\, q^{107} p^{38} + 717949315824\, p^{52} q^{59}$$
$$+ 2027158084329\, p^{57} q^{71} + 487679240292\, p^{85} q^{106} + 3402508712055\, p^{63} q^{70} + 4199102117817\, p^{68} q^{68} + 27661293\, q^{125} p^{52}$$
$$+ 2686558202338\, p^{60} q^{70} + 59565942\, p^{134} q^{102} + 544559296476\, p^{48} q^{75} + 663251126648\, p^{49} q^{74} + 781490635679\, p^{50} q^{74}$$
$$+ 675498389703\, p^{49} q^{73} + 19761\, p^{84} q^{13} + 903970186\, p^{73} q^{126} + 8294198\, p^{134} q^{122} + 13457575991\, q^{121} p^{89} + 11904985752\, q^{121} p^{82}$$
$$+ 1487215827056\, p^{90} q^{62} + 1961560691015\, p^{90} q^{65} + 17434413\, p^{71} q^{18} + 90216235\, p^{73} q^{21} + 12728224151\, p^{98} q^{42}$$
$$+ 31033572430\, p^{100} q^{47} + 4672436885320\, p^{72} q^{68} + 132645040978\, p^{111} q^{74} + 490851\, p^{91} q^{18} + 90829293692\, p^{113} q^{95}$$
$$+ 95712506695\, p^{113} q^{94} + 31517319944\, p^{114} q^{105} + 43105301647\, p^{113} q^{104} + 15568235151\, p^{108} q^{52} + 262879\, p^{90} q^{17}$$

$$+ 2784643453\, p^{106}\, q^{43} + 61298149\, p^{100}\, q^{29} + 124279396750\, p^{111}\, q^{73} + 365684076\, p^{75}\, q^{24} + 142875525\, p^{74}\, q^{22} + 591088839\, p^{75}\, q^{25}$$
$$+ 187090\, q^{131}\, p^{49} + 9849\, q^{123}\, p^{32} + 208795308\, p^{34}\, q^{27} + 3081770\, p^{33}\, q^{16} + 16470896773\, q^{71}\, p^{33} + 792613261\, q^{71}\, p^{25}$$
$$+ 22491112492\, q^{71}\, p^{34} + 30330871033\, q^{71}\, p^{35} + 332384993\, p^{35}\, q^{28} + 2661\, q^{141}\, p^{67} + 66823\, q^{141}\, p^{79} + 3769\, q^{141}\, p^{68} + 5262\, q^{141}\, p^{69}$$
$$+ 54604\, q^{141}\, p^{78} + 80913\, q^{141}\, p^{80} + 1627\, q^{142}\, p^{70} + 1243\, q^{141}\, p^{65} + 1836\, q^{141}\, p^{66} + 4\, p^{69}\, q^{6} + 739\, p^{148}\, q^{121} + 16\, p^{137}\, q^{46} + 129\, q^{142}\, p^{64}$$
$$+ 4903385853\, p^{92}\, q^{124} + 2\, p^{147}\, q^{83} + 3\, p^{149}\, q^{100} + 1086295\, q^{80}\, p^{16} + 331457393\, p^{110}\, q^{40} + 231781761\, p^{110}\, q^{39} + 59929729\, p^{108}\, q^{34}$$
$$+ 2009356708984\, p^{66}\, q^{58} + 17017139760\, p^{117}\, q^{69} + 18871253561\, p^{117}\, q^{70} + 9474337803\, p^{116}\, q^{62} + 5600608698\, p^{115}\, q^{57}$$
$$+ 1045041708427\, p^{82}\, q^{54} + 1469234557227\, p^{83}\, q^{57} + 44310870904\, p^{80}\, q^{38} + 902256476381\, p^{82}\, q^{53} + 2071033431119\, p^{83}\, q^{60}$$
$$+ 3295031346476\, p^{84}\, q^{66} + 183394757916\, p^{81}\, q^{44} + 241964861\, p^{74}\, q^{23} + 1293179439364\, p^{83}\, q^{56} + 9751152\, p^{70}\, q^{17}$$
$$+ 387386866408\, p^{82}\, q^{48} + 227701664651\, p^{81}\, q^{45} + 112\, q^{143}\, p^{68} + 290497\, p^{82}\, q^{15} + 3936227562\, p^{37}\, q^{37} + 1260041\, p^{103}\, q^{24}$$
$$+ 20808793\, p^{52}\, q^{17} + 2179431\, q^{40}\, p^{14} + 2331864394522\, p^{65}\, q^{88} + 2495708733004\, p^{67}\, q^{89} + 2888490001176\, p^{68}\, q^{88}$$
$$+ 2519358538660\, p^{66}\, q^{88} + 2705645587254\, p^{67}\, q^{88} + 1961560691015\, p^{63}\, q^{88} + 2145279071980\, p^{64}\, q^{88} + 1176144\, q^{40}\, p^{13}$$
$$+ 32654493239\, p^{102}\, q^{49} + 11996663999\, p^{101}\, q^{44} + 331837233676\, p^{106}\, q^{95} + 354040755509\, p^{106}\, q^{94} + 106808604360\, p^{107}\, q^{105}$$
$$+ 140232207812\, p^{106}\, q^{104} + 18031719\, q^{40}\, p^{18} + 1546963663\, p^{86}\, q^{30} + 463\, p^{54}\, q^{6} + 658782698\, p^{104}\, q^{37} + 229993733\, p^{102}\, q^{33}$$
$$+ 23227730078\, p^{108}\, q^{54} + 76785360\, p^{101}\, q^{30} + 46066617519\, p^{90}\, q^{42} + 3548771845028\, p^{64}\, q^{69} + 959083\, p^{137}\, q^{127} + 15206466\, p^{136}\, q^{109}$$
$$+ 4410836103816\, p^{68}\, q^{80} + 584576799281\, q^{105}\, p^{83} + 558623157222\, q^{105}\, p^{87} + 340379\, p^{63}\, q^{12} + 363854819931\, p^{80}\, q^{47}$$
$$+ 81192160671\, p^{79}\, q^{40} + 62561953325\, p^{79}\, q^{39} + 2897\, p^{53}\, q^{7} + 33135964\, p^{71}\, q^{19} + 4145978573943\, p^{83}\, q^{69} + 4347466320565\, p^{83}\, q^{70}$$
$$+ 1005763876\, p^{74}\, q^{126} + 1624127\, p^{131}\, q^{133} + 24775227663\, p^{80}\, q^{36} + 1220845267\, p^{77}\, q^{27} + 89378274\, p^{67}\, q^{129} + 2655425312842\, p^{62}\, q^{82}$$
$$+ 16432404903\, q^{116}\, p^{66} + 18536144560\, q^{116}\, p^{67} + 43955970957\, p^{67}\, q^{113} + 97520371034\, p^{73}\, q^{112} + 327\, q^{115}\, p^{22} + 10778780\, q^{137}\, p^{95}$$
$$+ 11561814\, q^{137}\, p^{99} + 11467303\, q^{137}\, p^{98} + 11414345\, q^{137}\, p^{102} + 10969081\, q^{137}\, p^{104} + 11584211\, q^{137}\, p^{100} + 11224960\, q^{137}\, p^{103}$$
$$+ 11072287\, q^{137}\, p^{96} + 11535180\, q^{137}\, p^{101} + 11303546\, q^{137}\, p^{97} + 10426889\, q^{137}\, p^{94} + 10023693\, q^{137}\, p^{93} + 1464815\, q^{134}\, p^{63}$$
$$+ 303099063\, q^{108}\, p^{38} + 33198045\, q^{107}\, p^{32} + 53051551\, q^{107}\, p^{33} + 6209397254\, p^{70}\, q^{30} + 85948933\, p^{66}\, q^{20} + 413653980465\, p^{94}\, q^{105}$$
$$+ 49\, p^{128}\, q^{32} + 22063\, p^{143}\, q^{86} + 3584\, p^{146}\, q^{130} + 49479\, p^{144}\, q^{104} + 2035\, p^{137}\, q^{53} + 1138\, p^{134}\, q^{45} + 26149\, p^{143}\, q^{87} + 18\, p^{125}\, q^{28}$$
$$+ 3163894666794\, p^{83}\, q^{91} + 26025\, q^{97}\, p^{17} + 732726\, q^{98}\, p^{21} + 73488\, q^{97}\, p^{18} + 1906419782\, q^{81}\, p^{29} + 2395577647172\, p^{73}\, q^{93} + 3\, p^{4}\, q^{2}$$
$$+ 7\, p^{5}\, q^{3} + 1522723\, p^{23}\, q^{19} + 742407\, p^{23}\, q^{17} + 3793652\, p^{24}\, q^{21} + 2124206\, p^{23}\, q^{20} + 403454782489\, p^{55}\, q^{50} + 58254019001\, q^{80}\, p^{39}$$

$$+ 243108567585\, q^{80}\, p^{45} + 539\, p^{76}\, q^{9} + 11593\, q^{116}\, p^{26} + 68443\, q^{117}\, p^{29} + 812233103857\, q^{78}\, p^{51} + 404663937241\, q^{78}\, p^{47}$$
$$+ 88716\, q^{21}\, p^{13} + 4004\, q^{24}\, p^{7} + 15547871\, p^{24}\, q^{26} + 34708400\, p^{26}\, q^{27} + 19874277\, p^{24}\, q^{27} + 252471841\, p^{89}\, q^{27}$$
$$+ 1201763801183\, p^{100}\, q^{78} + 54898356642\, q^{108}\, p^{59} + 60055444824\, p^{109}\, q^{107} + 91815503253\, p^{105}\, q^{108} + 87340775409\, p^{81}\, q^{114}$$
$$+ 57368530591\, p^{77}\, q^{115} + 1398696680422\, p^{54}\, q^{69} + 491692891022\, p^{47}\, q^{70} + 4589574705\, p^{122}\, q^{105} + 6664424528\, p^{121}\, q^{104}$$
$$+ 6837610863\, p^{117}\, q^{62} + 4032670658\, p^{116}\, q^{57} + 12364622561\, p^{118}\, q^{69} + 13748880354\, p^{118}\, q^{70} + 42697153\, p^{109}\, q^{34}$$
$$+ 11928516945\, p^{121}\, q^{95} + 12349184642\, p^{121}\, q^{94} + 32192\, q^{117}\, p^{28} + 4562\, q^{116}\, p^{25} + 35960238\, q^{135}\, p^{94} + 14335224687\, p^{119}\, q^{74}$$
$$+ 238240212\, p^{111}\, q^{40} + 165685523\, p^{111}\, q^{39} + 1266894132100\, q^{78}\, p^{54} + 1394724537565\, q^{79}\, p^{55} + 690276928416\, q^{78}\, p^{50}$$
$$+ 1100202233721\, q^{78}\, p^{53} + 12404444028\, p^{58}\, q^{113} + q^{4}\, p + p\, q^{3} + 3\, q^{4}\, p^{2} + 132476335\, p^{68}\, q^{21} + 97\, p^{15}\, q^{4} + 352524362091\, p^{55}\, q^{49}$$
$$+ 4822\, q^{20}\, p^{8} + 74520236\, p^{125}\, q^{125} + 5778\, p^{46}\, q^{7} + 2452951098698\, p^{70}\, q^{59} + 2225742598225\, p^{70}\, q^{58} + 333307147357\, q^{78}\, p^{46}$$
$$+ 582229559320\, q^{78}\, p^{49} + 487319113513\, q^{78}\, p^{48} + 948725891723\, q^{78}\, p^{52} + 34499832059\, p^{75}\, q^{36} + 24916474\, p^{131}\, q^{122} + 5\, p^{4}\, q^{3}$$
$$+ 27\, p^{13}\, q^{3} + 608\, p^{16}\, q^{6} + 238\, p^{15}\, q^{5} + 72013\, p^{16}\, q^{16} + 32384\, p^{13}\, q^{17} + 7315844845\, p^{122}\, q^{79} + 40\, p^{71}\, q^{7} + 452944492\, p^{117}\, q^{49}$$
$$+ 1857515070\, p^{125}\, q^{105} + 2359295943\, p^{120}\, q^{62} + 1992786601\, p^{120}\, q^{61} + 2775379116\, p^{124}\, q^{104} + 4733216487\, p^{124}\, q^{94}$$
$$+ 80988525\, p^{114}\, q^{40} + 55280571\, p^{114}\, q^{39} + 5062179511\, p^{122}\, q^{74} + 305876633222\, p^{55}\, q^{48} + 3944492458691\, p^{71}\, q^{65}$$
$$+ 4238877648247\, p^{72}\, q^{66} + 2724356080581\, p^{71}\, q^{60} + 2027158084329\, p^{71}\, q^{57} + 2\, p^{3}\, q^{2} + 23561504\, q^{90}\, p^{23} + 1869360\, q^{89}\, p^{19}$$
$$+ 6431625\, q^{90}\, p^{21} + 4363218888\, p^{121}\, q^{69} + 14069815\, p^{112}\, q^{34} + 4609712444\, p^{124}\, q^{95} + 4895383738\, p^{121}\, q^{70} + 42377211\, p^{22}\, q^{34}$$
$$+ 50476331\, p^{23}\, q^{33} + 24989348\, p^{21}\, q^{33} + 35806697\, p^{22}\, q^{33} + 263514301562\, p^{55}\, q^{47} + 1330764796\, p^{114}\, q^{49} + 1072988\, p^{23}\, q^{18} + 7\, p^{13}\, q^{2}$$
$$+ 7536\, q^{78}\, p^{11} + 642069373\, q^{74}\, p^{25} + 183\, p^{79}\, q^{9} + 590414486\, p^{117}\, q^{50} + 1380807167\, p^{119}\, q^{57} + 846568913\, p^{118}\, q^{53}$$
$$+ 279994706297\, p^{44}\, q^{69} + 79391428\, p^{115}\, q^{41} + 34798707\, p^{112}\, q^{36} + 22368198\, p^{112}\, q^{35} + 495311142198\, q^{92}\, p^{55} + 1085986078\, q^{73}\, p^{26}$$
$$+ 432586664\, q^{73}\, p^{24} + 263578114\, q^{73}\, p^{23} + 156437005\, q^{73}\, p^{22} + 10471\, p^{18}\, q^{10} + 1464\, p^{17}\, q^{7} + 4904\, p^{17}\, q^{9} + 2755\, p^{17}\, q^{8}$$
$$+ 43785\, q^{26}\, p^{10} + 526950538109\, p^{49}\, q^{80} + 127913476116\, p^{53}\, q^{99} + 222938822781\, p^{45}\, q^{57} + 174205279703\, p^{44}\, q^{56} + 6178\, p^{45}\, q^{7}$$
$$+ 2408363621041\, p^{69}\, q^{59} + 167\, q^{32}\, p^{4} + 11\, q^{7}\, p^{3} + 676178\, q^{53}\, p^{12} + 1493207\, q^{53}\, p^{13} + 283294727\, q^{56}\, p^{22} + 10\, p^{37}\, q^{3} + 1164476\, q^{27}\, p^{16}$$
$$+ 2534045063872\, p^{72}\, q^{92} + 173698\, p^{22}\, q^{14} + 333933\, p^{23}\, q^{15} + 110513\, p^{22}\, q^{13} + 40715\, p^{22}\, q^{11} + 3171647031\, p^{125}\, q^{96}$$
$$+ 758451625\, p^{120}\, q^{56} + 1737867510\, p^{122}\, q^{65} + 2312114396\, p^{122}\, q^{67} + 297999658\, p^{126}\, q^{117} + 2848116202\, p^{123}\, q^{72} + 348963389\, p^{119}\, q^{51}$$
$$+ 3442747146\, p^{125}\, q^{92} + 514\, p^{86}\, q^{11} + 17\, p^{6}\, q^{4} + 28\, p^{6}\, q^{5} + 64\, p^{7}\, q^{6} + 1748416589746\, p^{87}\, q^{61} + 2124925386189\, p^{87}\, q^{63}$$

$$+ 1705200216\, p^{75}\, q^{125} + 282084718\, p^{116}\, q^{46} + 1972908142\, p^{115}\, q^{52} + 85685621752\, p^{40}\, q^{57} + 788162308669\, p^{56}\, q^{55}$$
$$+ 12840414\, p^{111}\, q^{33} + 18\, p^{66}\, q^{6} + 343660856\, p^{117}\, q^{48} + 5819494\, p^{109}\, q^{30} + 384271223204\, p^{49}\, q^{56} + 305876633222\, p^{48}\, q^{55}$$
$$+ 647060039508\, p^{55}\, q^{54} + 968\, p^{19}\, q^{6} + 364\, p^{18}\, q^{5} + 580695556441\, p^{55}\, q^{53} + 38\, p^{26}\, q^{3} + 682\, p^{35}\, q^{5} + 495311142198\, p^{98}\, q^{61}$$
$$+ 621735976063\, p^{98}\, q^{63} + 76189480\, p^{133}\, q^{85} + 440491706230\, p^{50}\, q^{56} + 352524362091\, p^{49}\, q^{55} + 979327844\, p^{55}\, q^{25}$$
$$+ 6888252673\, p^{66}\, q^{30} + 101550230\, p^{62}\, q^{20} + 580640\, p^{136}\, q^{131} + 1184951511\, p^{111}\, q^{45} + 5456276472\, p^{121}\, q^{71} + 1836\, p^{87}\, q^{12}$$
$$+ 36307022\, p^{113}\, q^{37} + 6962984460\, p^{123}\, q^{91} + 1490305006\, q^{89}\, p^{31} + 406256397\, q^{89}\, p^{28} + 985538716\, q^{89}\, p^{30} + 639326331\, q^{89}\, p^{29}$$
$$+ 55391\, q^{21}\, p^{12} + 137921\, q^{21}\, p^{14} + 265738\, q^{22}\, p^{15} + 69364\, p^{113}\, q^{26} + 238068\, p^{20}\, q^{16} + 182894142974\, p^{90}\, q^{48} + 108134893744\, p^{89}\, q^{45}$$
$$+ 1609600737552\, p^{92}\, q^{65} + 1210170030100\, p^{92}\, q^{62} + 644599104973\, p^{91}\, q^{56} + 84962275314\, q^{87}\, p^{43} + 484968481562\, p^{86}\, q^{51}$$
$$+ 81916653079\, p^{85}\, q^{42} + 959083\, p^{26}\, q^{16} + 10796\, p^{21}\, q^{9} + 68262\, p^{22}\, q^{12} + 10471\, p^{10}\, q^{18} + 63985\, p^{18}\, q^{14} + 17271\, p^{18}\, q^{11}$$
$$+ 124401\, p^{19}\, q^{15} + 42520\, p^{18}\, q^{13} + 152726754\, q^{119}\, p^{48} + 27532\, p^{18}\, q^{12} + 154\, q^{33}\, p^{4} + 2295352335251\, p^{72}\, q^{93} + 2292450061088\, p^{70}\, q^{92}$$
$$+ 907693595432\, p^{86}\, q^{55} + 204522945231\, p^{85}\, q^{46} + 2320837101880\, p^{87}\, q^{64} + 2848116202\, p^{81}\, q^{30} + 13748880354\, p^{83}\, q^{35}$$
$$+ 338816701444\, p^{86}\, q^{49} + 36\, q^{16}\, p^{3} + 197580073\, q^{70}\, p^{22} + 327980136\, q^{70}\, p^{23} + 530938929\, q^{70}\, p^{24} + 1877186823\, q^{71}\, p^{27} + 123\, p^{17}\, q^{4}$$
$$+ 34\, p^{15}\, q^{3} + 11996597571\, p^{87}\, q^{36} + 19434\, p^{21}\, q^{10} + 2407\, p^{20}\, q^{7} + 4822\, p^{20}\, q^{8} + 2264156868716\, p^{81}\, q^{95} + 5166357\, p^{22}\, q^{24}$$
$$+ 4009694149472\, p^{88}\, q^{77} + 3780067597633\, p^{89}\, q^{78} + 24588699\, p^{67}\, q^{18} + 9665590125\, p^{66}\, q^{31} + 109\, p^{37}\, q^{4} + 686719659159\, p^{69}\, q^{49}$$
$$+ 5299404321977\, p^{81}\, q^{81} + 844351\, q^{63}\, p^{13} + 135108\, p^{16}\, q^{18} + 1942051\, q^{63}\, p^{14} + 12939\, p^{13}\, q^{14} + 9184\, p^{13}\, q^{13} + 534028016719\, p^{63}\, q^{99}$$
$$+ 1891211583\, q^{90}\, p^{32} + 107759\, p^{143}\, q^{118} + 142155\, p^{143}\, q^{111} + 82478\, p^{139}\, q^{70} + 45473848\, p^{67}\, q^{19} + 517753234867\, p^{55}\, q^{52}$$
$$+ 33469\, q^{21}\, p^{11} + 397110\, p^{22}\, q^{16} + 22763586701\, q^{77}\, p^{35} + 30769712553\, q^{77}\, p^{36} + 51025890232\, q^{78}\, p^{38} + 1702161\, q^{112}\, p^{30}$$
$$+ 2322398554\, p^{126}\, q^{88} + 1119\, p^{92}\, q^{13} + 1102608464\, p^{127}\, q^{103} + 1402\, q^{14}\, p^{8} + 789\, q^{14}\, p^{7} + 132\, q^{35}\, p^{4} + p^{8}\, q + 9572812495\, q^{98}\, p^{41}$$
$$+ 3242485891\, p^{124}\, q^{102} + 1539602713\, p^{125}\, q^{107} + 976183635\, p^{125}\, q^{111} + 3637372477873\, p^{70}\, q^{64} + 622632\, p^{55}\, q^{12} + 1694\, p^{44}\, q^{6}$$
$$+ 8526462412\, q^{77}\, p^{32} + 16630635099\, q^{77}\, p^{34} + 11990944607\, q^{77}\, p^{33} + 4615858021\, p^{122}\, q^{73} + 92364\, p^{99}\, q^{19} + 3695288945\, p^{124}\, q^{100}$$
$$+ 3232510594\, p^{120}\, q^{64} + 2165224\, p^{114}\, q^{32} + 146556\, p^{110}\, q^{25} + 62796\, p^{100}\, q^{19} + 2213440824\, p^{121}\, q^{64} + 5400820041\, p^{123}\, q^{80}$$
$$+ 2657832659\, p^{125}\, q^{100} + 458586847638\, p^{55}\, q^{51} + 825585242\, p^{113}\, q^{46} + 3\, p^{42}\, q^{3} + 3519913\, q^{34}\, p^{16} + 4900139\, q^{33}\, p^{17} + 1886219\, q^{33}\, p^{15}$$
$$+ 3081770\, q^{33}\, p^{16} + 103656632\, p^{53}\, q^{20} + 1081208336254\, p^{62}\, q^{93} + 503369\, p^{16}\, q^{23} + 3955376435398\, p^{88}\, q^{76} + 173698\, p^{14}\, q^{22}$$
$$+ 3669967302871\, p^{88}\, q^{73} + 335457\, p^{46}\, q^{11} + 738967\, p^{47}\, q^{12} + 3\, q^{76}\, p^{7} + 26\, q^{78}\, p^{8} + 20\, p^{5}\, q^{5} + 93000472\, p^{131}\, q^{75} + 44448\, p^{20}\, q^{12}$$

$$+ 7732836135\, p^{122}\, q^{80} + 4463107640\, p^{124}\, q^{96} + 776\, p^{85}\, q^{11} + 1123745593\, p^{119}\, q^{56} + 7457\, p^{19}\, q^{9} + 2351\, q^{14}\, p^{9} + 4993\, q^{15}\, p^{10}$$
$$+ 4852771574730\, p^{75}\, q^{84} + 4108315338576\, p^{71}\, q^{85} + 630874\, p^{16}\, q^{24} + 2282370720362\, p^{94}\, q^{86} + 9\, q^{6}\, p^{3} + 45\, p^{6}\, q^{6} + 6358\, p^{13}\, q^{12}$$
$$+ 2571484092\, p^{121}\, q^{65} + 3396588115\, p^{121}\, q^{67} + 396928791\, p^{125}\, q^{117} + 5872\, p^{14}\, q^{11} + 12\, p^{5}\, q^{4} + 12\, p^{4}\, q^{5} + 3\, q^{5}\, p^{2}$$
$$+ 4182089175\, p^{122}\, q^{72} + 519910556\, p^{118}\, q^{51} + 4903385853\, p^{124}\, q^{92} + 9\, p^{6}\, q^{3} + 4154704336\, p^{122}\, q^{106} + 360052680517\, p^{96}\, q^{105}$$
$$+ 35862469597\, p^{116}\, q^{99} + 41019614500\, p^{116}\, q^{97} + 3\, p^{5}\, q^{2} + 5108751702524\, p^{83}\, q^{80} + 175600789766\, p^{108}\, q^{99} + 207152625442\, p^{108}\, q^{97}$$
$$+ 617\, q^{24}\, p^{5} + q^{16}\, p + 12122\, q^{27}\, p^{8} + 1404047\, p^{83}\, q^{17} + 46398168\, q^{131}\, p^{70} + 181\, q^{23}\, p^{4} + 8360988\, p^{20}\, q^{29} + 27961068\, p^{129}\, q^{61} + 9\, p^{4}\, q^{4}$$
$$+ 7\, p^{3}\, q^{5} + 42682\, q^{122}\, p^{33} + 149877\, q^{122}\, p^{35} + 241320\, q^{123}\, p^{37} + 81668\, q^{122}\, p^{34} + 5\, q^{4}\, p^{3} + q^{5}\, p + 145\, q^{34}\, p^{4} + 5872\, p^{11}\, q^{14}$$
$$+ 6358\, p^{12}\, q^{13} + 108221\, p^{20}\, q^{14} + 27174\, p^{20}\, q^{11} + 209034\, p^{21}\, q^{15} + 70328\, p^{20}\, q^{13} + 271155\, p^{54}\, q^{11} + 2782468\, p^{57}\, q^{14} + 1349442\, p^{56}\, q^{13}$$
$$+ 54\, p^{135}\, q^{43} + 682\, q^{35}\, p^{5} + 2346341016\, p^{125}\, q^{102} + 1116375293\, p^{126}\, q^{107} + 717378642\, p^{126}\, q^{111} + 3154029225\, p^{123}\, q^{73} + 188\, q^{24}\, p^{4}$$
$$+ 87340775409\, p^{39}\, q^{72} + 177613978539\, p^{42}\, q^{72} + 141538223330\, p^{41}\, q^{72} + 65440254214\, p^{38}\, q^{73} + 111729999141\, p^{40}\, q^{72}$$
$$+ 1752227739198\, p^{95}\, q^{90} + 3228400029324\, p^{63}\, q^{68} + p^{4}\, q + 2\, p^{2}\, q^{3} + 70797327\, p^{118}\, q^{130} + 6885\, q^{43}\, p^{7} + 99\, q^{38}\, p^{4} + 83134\, q^{23}\, p^{12}$$
$$+ 50013\, q^{27}\, p^{10} + 25472\, q^{27}\, p^{9} + 56678\, q^{28}\, p^{10} + 3\, q^{28}\, p^{2} + 11513900\, p^{135}\, q^{117} + 1394\, q^{22}\, p^{6} + 91\, p^{6}\, q^{8} + 21112407\, q^{55}\, p^{17}$$
$$+ 1010315443\, q^{56}\, p^{25} + 2150215402\, q^{56}\, p^{27} + 3171647031\, q^{57}\, p^{28} + 441700656\, q^{56}\, p^{23} + 4463107640\, q^{57}\, p^{29} + 8803290978\, q^{58}\, p^{31}$$
$$+ 6191919894\, q^{57}\, p^{30} + 606706915361\, p^{77}\, q^{49} + 3615114929506\, p^{78}\, q^{64} + 212310\, q^{124}\, p^{38} + 2129839\, q^{126}\, p^{46} + 1946547\, q^{113}\, p^{31}$$
$$+ 68262\, p^{12}\, q^{22} + 26149107\, q^{124}\, p^{50} + 5691604542\, p^{72}\, q^{30} + 1496345007229\, p^{77}\, q^{55} + 363383074811\, p^{76}\, q^{46} + 13\, q^{8}\, p^{3} + 16\, q^{9}\, p^{3}$$
$$+ 144\, p^{8}\, q^{7} + 7885\, p^{15}\, q^{11} + 51780\, q^{48}\, p^{9} + 28080120\, q^{65}\, p^{18} + 2780\, q^{21}\, p^{7} + 10796\, q^{21}\, p^{9} + 23352\, q^{22}\, p^{10} + 100\, p^{7}\, q^{7} + 4\, q^{7}\, p^{2}$$
$$+ 155656359524\, p^{76}\, q^{42} + 29\, p^{8}\, q^{4} + 53\, p^{8}\, q^{5} + 123\, p^{9}\, q^{6} + 26981458084\, p^{74}\, q^{35} + 1400482\, q^{28}\, p^{16} + 176\, q^{22}\, p^{4}$$
$$+ 53252915931\, p^{82}\, q^{116} + 54484922186\, p^{83}\, q^{116} + 4802906880416\, p^{83}\, q^{83} + 49954471042\, p^{37}\, q^{60} + 104635757154\, p^{98}\, q^{51}$$
$$+ 42638829190\, p^{97}\, q^{46} + 593502306241\, p^{99}\, q^{64} + 212838734457\, p^{98}\, q^{55} + 35182270\, p^{88}\, q^{23} + 897811493\, p^{92}\, q^{31} + 284313333\, p^{91}\, q^{28}$$
$$+ 718176095921\, p^{77}\, q^{50} + 194982521623\, p^{76}\, q^{43} + 2114054765918\, p^{94}\, q^{88} + 2452951098698\, p^{94}\, q^{83} + 64646936\, q^{134}\, p^{96}$$
$$+ 23099158\, p^{29}\, q^{23} + 66823\, q^{74}\, p^{12} + 27630599546\, p^{35}\, q^{58} + 20182758598\, p^{34}\, q^{57} + 61313002\, p^{52}\, q^{19} + 262645561\, p^{53}\, q^{22}$$
$$+ 278440566135\, q^{104}\, p^{65} + 152175782703\, q^{104}\, p^{60} + 113936294075\, q^{104}\, p^{58} + 79587760\, q^{99}\, p^{29} + 129181392\, q^{99}\, p^{30}$$
$$+ 10684612\, q^{96}\, p^{24} + 36440969\, q^{98}\, p^{27} + 61851934\, q^{98}\, p^{28} + 102238101\, q^{98}\, p^{29} + 254027039344\, q^{105}\, p^{66} + 1106170920160\, p^{99}\, q^{72}$$
$$+ 850456315768\, p^{99}\, q^{68} + 11498\, q^{108}\, p^{21} + 5662\, q^{21}\, p^{8} + 50618\, p^{105}\, q^{21} + 771711\, p^{111}\, q^{28} + 32646434\, p^{118}\, q^{42} + 1108\, q^{20}\, p^{6}$$

$$+ 16722531\, p^{131}\, q^{124} + 266034\, p^{14}\, q^{24} + 157530\, q^{121}\, p^{34} + 23099158\, p^{130}\, q^{124} + 1624127\, p^{20}\, q^{22} + 13\, p^{8}\, q^{3} + 4\, p^{7}\, q^{2}$$
$$+ 1056124502014\, q^{79}\, p^{53} + 777376939051\, q^{79}\, p^{51} + 384841467563\, q^{79}\, p^{47} + 410351131606\, p^{46}\, q^{70} + 53\, p^{5}\, q^{8}$$
$$+ 5450327956818\, p^{80}\, q^{74} + 5534727871217\, p^{80}\, q^{75} + 4173034572788\, p^{80}\, q^{67} + 5030865113491\, p^{80}\, q^{71} + 5196412246076\, p^{80}\, q^{72}$$
$$+ 4410836103816\, p^{80}\, q^{68} + 2750597641\, q^{101}\, p^{39} + 3783822074\, q^{101}\, p^{40} + 3695288945\, p^{100}\, q^{124} + 20664420645\, q^{102}\, p^{47}$$
$$+ 26097929534\, q^{102}\, p^{48} + 1287537181726\, p^{59}\, q^{88} + 251365457698\, p^{85}\, q^{47} + 22\, q^{32}\, p^{3} + 332881072458\, p^{48}\, q^{56} + 263514301562\, p^{47}\, q^{55}$$
$$+ 756404143250\, p^{92}\, q^{58} + 969394017635\, p^{92}\, q^{60} + 2186655488046\, p^{93}\, q^{71} + 477430526815\, p^{91}\, q^{54} + 158851\, p^{69}\, q^{12}$$
$$+ 406431099779\, p^{91}\, q^{53} + 9127075\, q^{85}\, p^{20} + 11429323749\, q^{72}\, p^{32} + 29341080227\, q^{72}\, p^{35} + 21704615410\, q^{72}\, p^{34} + 7732836135\, q^{73}\, p^{31}$$
$$+ 15854752910\, q^{72}\, p^{33} + 131288089404\, p^{91}\, q^{47} + 240498273\, p^{83}\, q^{25} + 1168546526\, p^{85}\, q^{29} + 143067947\, p^{83}\, q^{24} + 781882\, p^{25}\, q^{16}$$
$$+ 107717682293\, q^{87}\, p^{44} + 161561061\, p^{52}\, q^{21} + 610157146\, p^{53}\, q^{24} + 1682111177\, q^{119}\, p^{58} + 29\, p^{4}\, q^{8} + 8539254\, p^{26}\, q^{22}$$
$$+ 318319\, p^{142}\, q^{103} + 253065\, p^{139}\, q^{75} + 275098\, p^{140}\, q^{81} + 31515\, p^{144}\, q^{124} + 182457\, p^{138}\, q^{69} + 25\, p^{116}\, q^{21} + 220\, p^{122}\, q^{27} + 28\, p^{5}\, q^{6}$$
$$+ 137880\, q^{123}\, p^{36} + 76116\, q^{123}\, p^{35} + 35253\, p^{54}\, q^{9} + 120296692029\, p^{42}\, q^{56} + 1036100971\, q^{57}\, p^{25} + 2220279832\, q^{57}\, p^{27}$$
$$+ 108699795\, q^{56}\, p^{20} + 64748203\, q^{56}\, p^{19} + 6132911\, q^{53}\, p^{15} + 297816\, q^{52}\, p^{11} + 37490188\, q^{55}\, p^{18} + 3050189\, q^{54}\, p^{14} + 16\, q^{102}\, p^{14}$$
$$+ 727\, q^{33}\, p^{5} + 34408076\, q^{50}\, p^{18} + 764172308796\, p^{59}\, q^{93} + 5794683\, q^{68}\, p^{16} + 2998609\, q^{67}\, p^{15} + 1026432222022\, p^{100}\, q^{90}$$
$$+ 384289774181\, p^{98}\, q^{59} + 23733715152\, p^{34}\, q^{69} + 5611728196655\, p^{80}\, q^{77} + 5487711416286\, p^{81}\, q^{78} + 5336960626154\, p^{80}\, q^{73}$$
$$+ 5588817365073\, p^{80}\, q^{76} + 3066597\, p^{136}\, q^{123} + 253065\, p^{78}\, q^{14} + 981499904759\, p^{99}\, q^{70} + 28452515656\, p^{95}\, q^{43} + 13803075\, q^{129}\, p^{58}$$
$$+ 166\, q^{21}\, p^{4} + 2067\, q^{19}\, p^{7} + 3366\, q^{18}\, p^{8} + 122917\, q^{51}\, p^{10} + 46905\, q^{50}\, p^{9} + 64458479\, q^{55}\, p^{19} + 697742\, q^{52}\, p^{12} + 3104811\, q^{53}\, p^{14}$$
$$+ 175062073\, q^{55}\, p^{21} + 107641360\, q^{55}\, p^{20} + 177647078\, q^{56}\, p^{21} + 1529669740\, q^{57}\, p^{26} + 689131527\, q^{57}\, p^{24} + 2407\, q^{20}\, p^{7}$$
$$+ 387085228836\, p^{105}\, q^{95} + 413653980465\, p^{105}\, q^{94} + 49954471042\, p^{93}\, q^{116} + 47975379297\, p^{94}\, q^{116} + 123355718710\, p^{106}\, q^{105}$$
$$+ 161105474856\, p^{105}\, q^{104} + 2322398554\, p^{65}\, q^{27} + 13375722339\, p^{66}\, q^{32} + p^{5}\, q + 40\, q^{7}\, p^{5} + 11\, p^{7}\, q^{3} + 4\, p^{6}\, q^{2} + 68979805653\, p^{39}\, q^{57}$$
$$+ 190460\, p^{17}\, q^{18} + 6428634901\, p^{123}\, q^{84} + 1670083520\, p^{120}\, q^{60} + 2965879060\, p^{121}\, q^{66} + 180627\, p^{16}\, q^{19} + 17\, q^{6}\, p^{4} + 23449668\, p^{135}\, q^{110}$$
$$+ 22\, p^{7}\, q^{4} + 40\, p^{7}\, q^{5} + 91\, p^{8}\, q^{6} + 1747\, q^{18}\, p^{7} + 909377298523\, q^{79}\, p^{52} + 1217894540005\, q^{79}\, p^{54} + 659640826954\, q^{79}\, p^{50}$$
$$+ 172549886\, p^{126}\, q^{120} + 6809064\, p^{110}\, q^{31} + 3472135066\, p^{124}\, q^{101} + 275999935\, p^{125}\, q^{119} + 316443729838\, q^{79}\, p^{46}$$
$$+ 555515831396\, q^{79}\, p^{49} + 464212677264\, q^{79}\, p^{48} + 5\, q^{23}\, p^{2} + 5516730651\, p^{122}\, q^{75} + 159557992\, p^{115}\, q^{43} + 856058824\, p^{125}\, q^{112}$$
$$+ 3299671\, p^{109}\, q^{29} + 176955701242\, q^{78}\, p^{43} + 220466388291\, q^{78}\, p^{44} + 66785785619\, q^{78}\, p^{39} + 6866\, p^{146}\, q^{122} + 89378274\, q^{86}\, p^{24}$$

$$+ 6616776868\, p^{123} q^{85} + 6209397254\, p^{123} q^{83} + 666761125\, p^{118} q^{52} + 3862855524\, p^{121} q^{68} + 9017\, q^{20} p^{9} + 19434\, q^{21} p^{10}$$
$$+ 1737100768841\, p^{56} q^{68} + 11905\, p^{93} q^{15} + 906456756\, p^{119} q^{55} + 207568476\, p^{116} q^{45} + 1636419\, p^{106} q^{26} + 39692\, q^{114} p^{26}$$
$$+ 18209\, q^{109} p^{22} + 4\, q^{26} p^{2} + 187\, q^{29} p^{4} + 12939\, p^{14} q^{13} + 18313\, p^{95} q^{16} + 8841\, p^{14} q^{12} + 238068\, p^{16} q^{20} + 54484922186\, q^{70} p^{37}$$
$$+ 305876633222\, p^{105} q^{98} + 7627\, p^{40} q^{7} + 377593252643\, p^{107} q^{89} + 423041471202\, p^{106} q^{76} + 439705172009\, p^{106} q^{77}$$
$$+ 294317004302\, p^{108} q^{91} + 403138899183\, p^{107} q^{81} + 319536302396\, p^{106} q^{71} + 403847329458\, p^{107} q^{86} + 397160939724\, p^{107} q^{87}$$
$$+ 387145628166\, p^{107} q^{79} + 2976891\, p^{22} q^{22} + 2227\, p^{145} q^{89} + 32654493239\, q^{104} p^{51} + 26437178272\, q^{104} p^{50} + 4103016366\, q^{102} p^{41}$$
$$+ 717\, q^{17} p^{6} + 17781351\, q^{36} p^{19} + 749\, q^{31} p^{5} + 2521\, q^{32} p^{6} + 1553354831376\, p^{95} q^{92} + 551240189\, p^{84} q^{27} + 747\, q^{30} p^{5}$$
$$+ 37444113\, p^{135} q^{97} + 7281090\, q^{36} p^{17} + 210891271\, q^{69} p^{22} + 348402725\, q^{69} p^{23} + 8\, q^{15} p^{2} + 137\, q^{18} p^{4} + 968\, q^{19} p^{6} + 364\, q^{18} p^{5}$$
$$+ q^{44} p^{3} + q^{6} p + 22\, q^{7} p^{4} + 91189414543\, p^{39} q^{70} + 71926442230\, p^{38} q^{69} + 20454488\, q^{51} p^{17} + 4\, q^{6} p^{2} + 705\, p^{34} q^{5}$$
$$+ 86490572205\, q^{78} p^{40} + 140735395754\, q^{78} p^{42} + 110871775191\, q^{78} p^{41} + 9436572\, q^{130} p^{59} + 8841\, p^{12} q^{14} + 18521\, p^{14} q^{14}$$
$$+ 36797\, p^{15} q^{15} + 20567012\, p^{26} q^{25} + 26428838\, p^{25} q^{27} + 45046041\, p^{27} q^{27} + 74520236\, p^{28} q^{28} + 513250\, q^{120} p^{35} + 157530\, q^{119} p^{32}$$
$$+ 7\, q^{20} p^{2} + 57911\, q^{44} p^{9} + 10652198\, q^{48} p^{16} + 183\, q^{30} p^{4} + 155393208\, p^{51} q^{21} + 583023770\, p^{52} q^{24} + 3054\, q^{15} p^{9} + 6492\, q^{16} p^{10}$$
$$+ 1778\, q^{15} p^{8} + 7\, q^{12} p^{2} + 508617425101\, p^{77} q^{48} + 297835350026\, p^{76} q^{45} + 835393818\, q^{90} p^{30} + 200\, q^{14} p^{5} + 86\, q^{14} p^{4} + 174\, q^{31} p^{4}$$
$$+ 32\, q^{29} p^{3} + 693068342\, p^{128} q^{80} + 404346659\, p^{130} q^{100} + 17311\, q^{24} p^{9} + 7585\, q^{23} p^{8} + 3584\, q^{23} p^{7} + 984097927047\, p^{77} q^{52}$$
$$+ 843774393664\, p^{77} q^{51} + 478\, p^{9} q^{9} + 1023\, p^{10} q^{10} + 577981068487\, q^{105} p^{85} + 544511777240\, q^{105} p^{88} + 508522314378\, q^{105} p^{90}$$
$$+ 414984559524\, q^{106} p^{91} + 569838704653\, q^{105} p^{86} + 582920053813\, q^{105} p^{84} + 5\, q^{52} p^{4} + 40\, q^{55} p^{5} + 577992016034\, q^{105} p^{81}$$
$$+ 157228805\, p^{129} q^{115} + 3061869970\, p^{56} q^{28} + 253594277693\, p^{59} q^{45} + 137019039286\, p^{58} q^{42} + 58093413773\, p^{58} q^{38}$$
$$+ 166159374315\, p^{58} q^{43} + 45805150856\, p^{58} q^{37} + 72976548576\, p^{58} q^{39} + 29\, q^{30} p^{3} + 4\, q^{69} p^{6} + 27\, q^{13} p^{3} + 2578357\, p^{17} q^{29} + 317\, p^{8} q^{9}$$
$$+ 125276\, q^{63} p^{11} + 182231957621\, p^{105} q^{103} + 4349709715842\, p^{85} q^{84} + 34\, p^{28} q^{3} + 2202920203058\, p^{94} q^{87} + 252471841\, p^{126} q^{64}$$
$$+ 319824730\, p^{114} q^{44} + 4673\, q^{113} p^{23} + 5068101707\, p^{53} q^{30} + 1248030720\, p^{52} q^{26} + 3695288945\, p^{53} q^{29} + 70\, q^{9} p^{5} + 164\, q^{10} p^{6}$$
$$+ 317\, p^{9} q^{8} + 1448755\, p^{17} q^{26} + 11224960\, q^{50} p^{16} + 19980905\, q^{50} p^{17} + 100234\, p^{12} q^{24} + 27722\, p^{10} q^{23} + 1045041708427\, p^{71} q^{99}$$
$$+ 1448784208390\, p^{75} q^{98} + 1496345007229\, p^{76} q^{98} + 1799749601340\, p^{79} q^{97} + 1933752677194\, p^{85} q^{96} + 298676279611\, p^{73} q^{107}$$
$$+ 3944492458691\, p^{88} q^{82} + 28799628827\, p^{78} q^{36} + 175642133\, q^{103} p^{33} + 16293197\, q^{39} p^{18} + 228554422326\, p^{105} q^{101}$$
$$+ 34708400\, p^{27} q^{26} + 1933549246330\, p^{87} q^{62} + 2519358538660\, p^{87} q^{65} + q^{10} p + 41\, p^{77} q^{8} + 28242533230\, p^{54} q^{36}$$

$$+ 491072985017\, p^{47}\, q^{69} + 1550390268510\, p^{55}\, q^{68} + 1343438798950\, p^{54}\, q^{67} + 58485\, q^{41}\, p^{9} + 3854660\, q^{27}\, p^{19} + 1772836\, q^{27}\, p^{17}$$
$$+ 24543557530\, p^{119}\, q^{89} + 24234477349\, p^{118}\, q^{77} + 21704615410\, p^{119}\, q^{81} + 22763586701\, p^{118}\, q^{76} + 13783798815\, p^{120}\, q^{98}$$
$$+ 25646948231\, p^{118}\, q^{78} + 24637839689\, p^{119}\, q^{87} + 24473134485\, p^{119}\, q^{86} + 24286021640\, p^{119}\, q^{90} + 268461129285\, p^{88}\, q^{109}$$
$$+ 273627785788\, p^{87}\, q^{109} + 4963337130649\, p^{70}\, q^{79} + 539\, q^{22}\, p^{5} + 1535\, q^{23}\, p^{6} + 5685510\, p^{47}\, q^{15} + 3021653\, p^{47}\, q^{14}$$
$$+ 1633208423586\, p^{91}\, q^{64} + 621735976063\, p^{90}\, q^{55} + 44448\, q^{20}\, p^{12} + 108221\, q^{20}\, p^{14} + 209034\, q^{21}\, p^{15} + 323721802371\, p^{90}\, q^{51}$$
$$+ 135108701808\, p^{89}\, q^{46} + 484\, q^{105}\, p^{17} + 6\, q^{103}\, p^{14} + 350480090\, q^{50}\, p^{23} + 2700103690789\, p^{61}\, q^{67} + 2400267395362\, p^{60}\, q^{66}$$
$$+ 64\, q^{103}\, p^{15} + 2474406398\, q^{100}\, p^{38} + 51312294595\, p^{87}\, q^{41} + 5565065448\, p^{85}\, q^{33} + 35\, q^{9}\, p^{4} + 1398696680422\, p^{69}\, q^{54}$$
$$+ 410495604872\, p^{69}\, q^{46} + 1600351068493\, p^{70}\, q^{55} + 300763\, q^{125}\, p^{40} + 220385\, q^{29}\, p^{12} + 646102\, q^{29}\, p^{14} + 220\, p^{8}\, q^{8} + 204\, p^{7}\, q^{9}$$
$$+ 17271\, p^{11}\, q^{18} + 29710349984\, p^{87}\, q^{39} + 18536144560\, p^{86}\, q^{37} + 5376576890\, p^{54}\, q^{30} + 1315621023\, p^{53}\, q^{26} + 3908915732\, p^{54}\, q^{29}$$
$$+ 3463059187\, q^{62}\, p^{28} + 263514301562\, p^{106}\, q^{98} + 4947297623\, q^{62}\, p^{29} + 6962984460\, q^{62}\, p^{30} + 9662627331\, q^{62}\, p^{31}$$
$$+ 39259563205\, p^{87}\, q^{40} + 62726342\, q^{53}\, p^{19} + 34\, q^{28}\, p^{3} + 70\, p^{9}\, q^{5} + 164\, p^{10}\, q^{6} + 439705172009\, p^{76}\, q^{47} + 100911797543\, p^{75}\, q^{40}$$
$$+ 1448755\, p^{136}\, q^{127} + 21817\, p^{11}\, q^{19} + 27532\, p^{12}\, q^{18} + 3366607044\, q^{122}\, p^{70} + 3764607900\, q^{122}\, p^{71} + 78407581989\, p^{75}\, q^{39}$$
$$+ 140457\, q^{47}\, p^{10} + 53837\, q^{47}\, p^{9} + 137302\, q^{48}\, p^{10} + 1522723\, p^{19}\, q^{23} + 414785\, p^{15}\, q^{24} + 25254743\, p^{135}\, q^{109} + 55541\, q^{46}\, p^{9} + 204\, p^{9}\, q^{7}$$
$$+ 35\, p^{9}\, q^{4} + 54118877\, q^{131}\, p^{71} + 13798663099\, q^{99}\, p^{43} + 55185314\, q^{49}\, p^{19} + 1548711581\, p^{74}\, q^{125} + 4182089175\, q^{122}\, p^{72}$$
$$+ 6430986275\, q^{122}\, p^{77} + 4615858021\, q^{122}\, p^{73} + 5974743551\, q^{122}\, p^{76} + 5062179511\, q^{122}\, p^{74} + 5516730651\, q^{122}\, p^{75} + 12082713\, q^{123}\, p^{46}$$
$$+ 15\, p^{58}\, q^{5} + 253473685137\, p^{105}\, q^{100} + 3\, q^{27}\, p^{2} + 27174\, q^{20}\, p^{11} + 339166641085\, p^{108}\, q^{85} + 3149179\, p^{90}\, q^{20} + 457071688\, p^{93}\, q^{130}$$
$$+ 266434892\, p^{89}\, q^{131} + 948725891723\, p^{101}\, q^{75} + 890762\, p^{28}\, q^{15} + 42243632\, p^{25}\, q^{29} + 144\, p^{7}\, q^{8} + 123\, p^{6}\, q^{9} + 1645576937272\, p^{78}\, q^{56}$$
$$+ 60293125606\, p^{75}\, q^{38} + 1720327850013\, p^{73}\, q^{96} + 14750208\, p^{23}\, q^{27} + 2516\, q^{36}\, p^{6} + 619\, q^{37}\, p^{5} + 42423444\, p^{68}\, q^{19}$$
$$+ 1310327814752\, p^{77}\, q^{54} + 2264351011197\, p^{80}\, q^{95} + 959058356950\, p^{66}\, q^{97} + 1520551640068\, q^{80}\, p^{56} + 4635161965369\, p^{80}\, q^{69}$$
$$+ 4842845978670\, p^{80}\, q^{70} + 7897\, q^{37}\, p^{7} + 4970602333332\, p^{84}\, q^{79} + 2564848329634\, p^{78}\, q^{60} + 1856671863530\, p^{78}\, q^{57} + 70328\, q^{20}\, p^{13}$$
$$+ 348402725\, p^{69}\, q^{23} + 25924\, p^{15}\, q^{14} + 51159\, p^{16}\, q^{15} + 10652198\, p^{48}\, q^{16} + 3879801891377\, p^{78}\, q^{65} + 4042150846101\, p^{79}\, q^{66}$$
$$+ 1139554576522\, p^{77}\, q^{53} + 242042273740\, p^{76}\, q^{44} + 210891271\, p^{69}\, q^{22} + 839851534\, p^{70}\, q^{25} + 12035\, p^{15}\, q^{12} + 17891\, p^{15}\, q^{13} + p^{99}\, q^{12}$$
$$+ 142247\, p^{138}\, q^{68} + 77104\, p^{136}\, q^{59} + 120866\, p^{143}\, q^{116} + 189915\, p^{142}\, q^{94} + 22590\, p^{144}\, q^{127} + 144443\, p^{143}\, q^{109} + 981\, p^{128}\, q^{35}$$
$$+ 90437930\, p^{133}\, q^{88} + 739\, q^{32}\, p^{5} + 39472360\, q^{131}\, p^{69} + 9930719\, q^{132}\, p^{65} + 27887424\, q^{131}\, p^{67} + 33313314\, q^{131}\, p^{68}$$

$$+ 4390079109385\, q^{78}\, p^{67} + 31497728\, p^{134}\, q^{112} + 859162708231\, p^{61}\, q^{94} + 149006269316\, p^{97}\, q^{52} + 97532165061\, p^{96}\, q^{49}$$
$$+ 8888102\, p^{127}\, q^{52} + 6967167745\, p^{65}\, q^{30} + 104270261\, p^{61}\, q^{20} + 4004\, p^{24}\, q^{7} + 10684612\, q^{129}\, p^{57} + 11799054\, q^{126}\, p^{51}$$
$$+ 2494642281229\, p^{94}\, q^{79} + 33946771\, p^{61}\, q^{18} + 5271119\, p^{59}\, q^{15} + 20228330\, p^{134}\, q^{116} + 107955471\, p^{133}\, q^{94} + 71157805959\, p^{115}\, q^{89}$$
$$+ 74763349499\, p^{114}\, q^{77} + 53223193996\, p^{116}\, q^{91} + 67585733335\, p^{115}\, q^{81} + 49593345009\, p^{114}\, q^{71} + 70871276288\, p^{114}\, q^{76}$$
$$+ 14985347230\, q^{90}\, p^{38} + 7953944828\, q^{90}\, p^{36} + 2780\, p^{21}\, q^{7} + 742407\, p^{17}\, q^{23} + 5662\, p^{21}\, q^{8} + p^{12}\, q + 54118877\, p^{131}\, q^{71}$$
$$+ 101550230\, p^{133}\, q^{91} + 88839\, p^{56}\, q^{10} + 2516\, p^{36}\, q^{6} + 9097616937\, q^{69}\, p^{31} + 16838555\, p^{77}\, q^{19} + 12968633419\, p^{54}\, q^{33}$$
$$+ 352982642\, q^{87}\, p^{27} + 10988330458\, q^{90}\, p^{37} + 8627400\, q^{126}\, p^{50} + 7861\, q^{38}\, p^{7} + 83134\, p^{23}\, q^{12} + 60204934\, p^{130}\, q^{68} + 31839748\, p^{128}\, q^{59}$$
$$+ 137\, p^{18}\, q^{4} + 36\, p^{16}\, q^{3} + 23352\, p^{22}\, q^{10} + 416308006527\, p^{57}\, q^{49} + 1229246\, q^{122}\, p^{39} + 42682\, q^{120}\, p^{31} + 477971825586\, p^{57}\, q^{50}$$
$$+ 1315621023\, q^{53}\, p^{26} + 412\, p^{42}\, q^{5} + 1586025670\, p^{64}\, q^{26} + 440614309\, p^{63}\, q^{23} + 4907277136\, p^{65}\, q^{29} + 499\, p^{40}\, q^{5} + 50749882\, q^{130}\, p^{67}$$
$$+ 76736914\, p^{131}\, q^{115} + 9787240997\, p^{54}\, q^{32} + 1884292486\, p^{53}\, q^{27} + 7299291651\, p^{54}\, q^{31} + 404663937241\, p^{106}\, q^{75}$$
$$+ 105603093395\, q^{91}\, p^{46} + 4646446859\, q^{89}\, p^{34} + 861720527306\, p^{55}\, q^{57} + 31547045878\, p^{35}\, q^{62} + 11799054\, p^{102}\, q^{27} + 4551\, p^{101}\, q^{17}$$
$$+ 49962\, p^{107}\, q^{22} + 323580913\, p^{129}\, q^{109} + 11904985752\, p^{121}\, q^{82} + 55077\, p^{13}\, q^{19} + 5266917\, p^{23}\, q^{23} + 91855642097\, p^{55}\, q^{41}$$
$$+ 16990706423\, p^{54}\, q^{34} + 22020034333\, p^{54}\, q^{35} + 111700731741\, p^{55}\, q^{42} + 48484306115\, p^{55}\, q^{38} + 134714852661\, p^{55}\, q^{43}$$
$$+ 148542132\, q^{50}\, p^{21} + 126444115431\, p^{98}\, q^{52} + 82875958941\, p^{97}\, q^{49} + 122571\, p^{116}\, q^{29} + 38470825570\, p^{55}\, q^{37} + 60533867543\, p^{55}\, q^{39}$$
$$+ 4110029534\, q^{55}\, p^{29} + 474608\, q^{84}\, p^{16} + 498\, q^{21}\, p^{5} + 12558557\, q^{131}\, p^{63} + 690276928416\, p^{78}\, q^{50} + 186293357214\, p^{77}\, q^{43}$$
$$+ 133343\, p^{81}\, q^{14} + 15965\, p^{75}\, q^{11} + 12041769\, q^{93}\, p^{23} + 17643169\, q^{94}\, p^{24} + 32679156\, p^{62}\, q^{18} + 5026408\, p^{60}\, q^{15}$$
$$+ 2485861862614\, p^{93}\, q^{74} + 1698514837553\, p^{93}\, q^{67} + 58147944\, p^{32}\, q^{24} + 1822\, p^{25}\, q^{6} + 617\, p^{24}\, q^{5} + 442271\, p^{30}\, q^{13} + 5535497\, p^{31}\, q^{18}$$
$$+ 5669462709\, q^{55}\, p^{30} + 6647682296\, q^{121}\, p^{73} + 59929729\, p^{119}\, q^{45} + 5294\, p^{98}\, q^{16} + 260181266\, p^{122}\, q^{55} + 484155\, p^{109}\, q^{26}$$
$$+ 8526462412\, q^{121}\, p^{76} + 2657832659\, p^{53}\, q^{28} + 207152625442\, p^{56}\, q^{45} + 161169248389\, p^{55}\, q^{44} + 3793652\, p^{21}\, q^{24} + 7585\, p^{23}\, q^{8}$$
$$+ 119547\, p^{25}\, q^{12} + 32610\, p^{24}\, q^{10} + 30\, p^{45}\, q^{4} + 42520\, p^{13}\, q^{18} + 206449\, q^{79}\, p^{14} + 148441684262\, p^{77}\, q^{42} + 25646948231\, p^{75}\, q^{35}$$
$$+ 582229559320\, p^{78}\, q^{49} + 3521642593183\, p^{79}\, q^{64} + 5400820041\, p^{73}\, q^{30} + 1448784208390\, p^{78}\, q^{55} + 349029569878\, p^{77}\, q^{46}$$
$$+ 22590\, q^{26}\, p^{9} + 17643169\, q^{129}\, p^{59} + 99451\, p^{17}\, q^{16} + 1825379128501\, q^{93}\, p^{68} + 235843827\, q^{67}\, p^{22} + 12579\, q^{76}\, p^{11} + 6\, q^{51}\, p^{4}$$
$$+ 417\, q^{14}\, p^{6} + 3495\, p^{96}\, q^{15} + 204931851\, q^{99}\, p^{31} + 5850499219\, q^{103}\, p^{43} + 63765\, q^{84}\, p^{14} + 381885962\, q^{100}\, p^{33} + 573604154\, q^{100}\, p^{34}$$
$$+ 168\, q^{13}\, p^{5} + 6\, q^{21}\, p^{2} + 4\, q^{25}\, p^{2} + 2614678\, p^{123}\, q^{42} + 258023532063\, q^{79}\, p^{45} + 4363218888\, q^{121}\, p^{69} + 5456276472\, q^{121}\, p^{71}$$

$$+ 7896489111\, q^{121}\, p^{75} + 9150500189\, q^{121}\, p^{77} + 6879948097\, q^{122}\, p^{78} + 6041948535\, q^{121}\, p^{72} + 12760\, q^{22}\, p^{9} + 6596\, q^{22}\, p^{8}$$
$$+ 136161\, p^{23}\, q^{13} + 1108\, p^{20}\, q^{6} + 410\, p^{19}\, q^{5} + 74895927015\, p^{55}\, q^{40} + 12760\, p^{22}\, q^{9} + 49025\, p^{23}\, q^{11} + 6\, q^{22}\, p^{2} + 279322493087\, p^{105}\, q^{99}$$
$$+ 332881072458\, p^{105}\, q^{97} + 5974743551\, q^{77}\, p^{31} + 2213440824\, q^{89}\, p^{32} + 3232510594\, q^{89}\, p^{33} + 1268452008\, q^{90}\, p^{31}$$
$$+ 38556268706\, q^{78}\, p^{37} + 66295469\, q^{118}\, p^{44} + 1366418\, p^{24}\, q^{18} + 216124\, p^{23}\, q^{14} + 414785\, p^{24}\, q^{15} + 19397485\, p^{49}\, q^{17}$$
$$+ 93571577\, p^{50}\, q^{20} + 1666984279\, p^{73}\, q^{27} + 6428634901\, p^{69}\, q^{30} + 90437930\, p^{65}\, q^{20} + p^{152}\, q^{139} + 11123932\, q^{40}\, p^{17} + 3926876\, q^{125}\, p^{46}$$
$$+ 356555\, q^{124}\, p^{39} + 2162890491\, p^{109}\, q^{45} + 27996151964\, p^{116}\, q^{102} + 409735357\, p^{107}\, q^{38} + 33227017147\, p^{116}\, q^{100} + 323916\, p^{25}\, q^{14}$$
$$+ 620007\, p^{26}\, q^{15} + 1448755\, p^{26}\, q^{17} + 7784271\, p^{27}\, q^{21} + 4423174\, p^{26}\, q^{20} + 3106082\, p^{26}\, q^{19} + 57511478\, p^{50}\, q^{19} + 242270602\, p^{51}\, q^{22}$$
$$+ 17011440894\, p^{33}\, q^{70} + 40419113256\, p^{36}\, q^{71} + 12328047472\, p^{32}\, q^{70} + 3065576604901\, p^{88}\, q^{69} + 3234558737102\, p^{88}\, q^{70}$$
$$+ 54041798744\, p^{84}\, q^{40} + 41185585255\, p^{84}\, q^{39} + 9884716243\, p^{83}\, q^{34} + 25576677676\, p^{83}\, q^{37} + 1402509751534\, p^{87}\, q^{59}$$
$$+ 70157019525\, p^{84}\, q^{41} + 7786678130\, p^{82}\, q^{33} + 572595905\, p^{80}\, q^{26} + 1933549246330\, p^{62}\, q^{87} + 2705645587254\, p^{65}\, q^{86}$$
$$+ 107243195\, p^{132}\, q^{82} + 11955758\, p^{127}\, q^{53} + 50749882\, q^{86}\, p^{23} + 129360129\, q^{87}\, p^{25} + 27887424\, q^{86}\, p^{22} + 369850304\, p^{51}\, q^{23}$$
$$+ 4963337130649\, p^{74}\, q^{83} + 4327735585759\, p^{71}\, q^{84} + 54265120517\, q^{77}\, p^{38} + 91589471171\, q^{77}\, p^{40} + 148441684262\, q^{77}\, p^{42}$$
$$+ 6680404\, p^{25}\, q^{22} + 2476855\, p^{19}\, q^{25} + 3862855524\, q^{121}\, p^{68} + 527725466590\, q^{105}\, p^{89} + 582924914144\, q^{105}\, p^{82} + 3925225496\, p^{72}\, q^{29}$$
$$+ 7\, q^{19}\, p^{2} + 2662514074\, p^{72}\, q^{28} + 360052680517\, p^{105}\, q^{96} + 5849545\, p^{48}\, q^{15} + 3084435\, p^{48}\, q^{14} + 937959\, p^{24}\, q^{17} + 4875215\, p^{25}\, q^{21}$$
$$+ 2744257\, p^{24}\, q^{20} + 1953212\, p^{24}\, q^{19} + 30230222857\, p^{55}\, q^{36} + 5638884\, p^{125}\, q^{47} + 505\, q^{15}\, p^{6} + 984\, q^{15}\, p^{7} + 14618800\, p^{135}\, q^{115}$$
$$+ 48027771101\, p^{74}\, q^{37} + 2640287\, q^{27}\, p^{18} + 5524460\, q^{27}\, p^{20} + 9681484\, q^{28}\, p^{21} + 2317737594875\, p^{78}\, q^{59} + 2820541855452\, p^{78}\, q^{61}$$
$$+ 2081145527803\, p^{78}\, q^{58} + 3348357967556\, p^{78}\, q^{63} + 3082562589044\, p^{78}\, q^{62} + 6146393\, q^{114}\, p^{34} + 38\, q^{26}\, p^{3} + 582229559320\, p^{104}\, q^{75}$$
$$+ 732183550\, p^{29}\, q^{38} + 21463\, q^{43}\, p^{8} + 40\, q^{25}\, p^{3} + 5\, q^{24}\, p^{2} + 860356633\, p^{52}\, q^{25} + 15547871\, p^{129}\, q^{127} + 22302\, q^{39}\, p^{8}$$
$$+ 639777354\, p^{74}\, q^{127} + 24687061\, q^{115}\, p^{38} + 7779\, q^{39}\, p^{7} + 57822\, q^{40}\, p^{9} + 2303\, q^{39}\, p^{6} + 22352\, q^{40}\, p^{8} + 9\, q^{16}\, p^{2} + 3971969\, q^{89}\, p^{20}$$
$$+ 746318472\, q^{93}\, p^{31} + 192463958\, q^{93}\, p^{28} + 308955014\, q^{93}\, p^{29} + 117068618\, q^{93}\, p^{27} + 18\, q^{10}\, p^{3} + 668454\, p^{19}\, q^{20} + 494066\, p^{19}\, q^{19}$$
$$+ 359418\, p^{19}\, q^{18} + 7627\, q^{40}\, p^{7} + 211\, q^{11}\, p^{6} + 384289774181\, p^{59}\, q^{98} + 2214714\, p^{21}\, q^{22} + 109\, q^{37}\, p^{4} + 2\, q^{95}\, p^{11} + 44\, q^{10}\, p^{4} + 89\, q^{10}\, p^{5}$$
$$+ 499\, q^{40}\, p^{5} + 22320406\, p^{129}\, q^{60} + 42433254\, p^{130}\, q^{66} + 3784\, q^{106}\, p^{19} + 43483\, q^{121}\, p^{32} + 84578\, q^{121}\, p^{33} + 22840819\, p^{19}\, q^{38}$$
$$+ 3505609628617\, p^{81}\, q^{90} + 3228400029324\, p^{85}\, q^{90} + 3323747240756\, p^{84}\, q^{90} + 2858518715953\, p^{88}\, q^{90} + 2560529814306\, p^{90}\, q^{90}$$
$$+ 2256439337084\, p^{91}\, q^{91} + 3117938360040\, p^{86}\, q^{90} + 2713343168099\, p^{89}\, q^{90} + 28920421\, p^{89}\, q^{23} + 3463451484633\, p^{82}\, q^{90}$$

$$+ 2295352335251\, p^{60}\, q^{81} + 773412778093\, p^{52}\, q^{82} + 98681421\, q^{132}\, p^{81} + 107243195\, q^{132}\, p^{82} + 71057945\, q^{133}\, p^{84}$$
$$+ 19861514429\, p^{74}\, q^{34} + 128584425508\, p^{75}\, q^{41} + 40360\, q^{119}\, p^{30} + 1232090113\, p^{71}\, q^{26} + 15172468184\, p^{73}\, q^{33} + 257178\, p^{136}\, q^{134}$$
$$+ 8475699684\, p^{96}\, q^{122} + 2087\, q^{41}\, p^{6} + 530938929\, p^{70}\, q^{24} + 127290141\, p^{127}\, q^{63} + 18138320319\, p^{120}\, q^{90} + 61851934\, q^{125}\, p^{55}$$
$$+ 49025\, q^{23}\, p^{11} + 18267632828\, p^{120}\, q^{87} + 18101217318\, p^{120}\, q^{86} + 10376121056\, p^{121}\, q^{98} + 18832228532\, p^{119}\, q^{78} + 7861\, p^{38}\, q^{7}$$
$$+ 22\, p^{32}\, q^{3} + 15854752910\, p^{120}\, q^{81} + 16630635099\, p^{119}\, q^{76} + 323916\, p^{14}\, q^{25} + 342001\, p^{17}\, q^{20} + 18286373862\, p^{120}\, q^{89}$$
$$+ 17750382076\, p^{119}\, q^{77} + 112867757\, p^{121}\, q^{50} + q^{31}\, p^{2} + 83771\, p^{19}\, q^{14} + 21817\, p^{19}\, q^{11} + 162305\, p^{20}\, q^{15} + 55077\, p^{19}\, q^{13} + 35196\, p^{19}\, q^{12}$$
$$+ 156591\, q^{61}\, p^{11} + 334485\, q^{47}\, p^{11} + 122\, q^{36}\, p^{4} + 1140303\, q^{84}\, p^{17} + 302889190\, p^{26}\, q^{38} + 70854654\, p^{130}\, q^{69} + 1606\, p^{103}\, q^{17}$$
$$+ 2351\, p^{144}\, q^{139} + 1481153\, p^{66}\, q^{14} + 693842\, p^{65}\, q^{13} + 3437198264\, q^{100}\, p^{39} + 6378854571\, q^{100}\, p^{41} + 4711991036\, q^{100}\, p^{40}$$
$$+ 846568913\, q^{100}\, p^{35} + 2288061828651\, q^{90}\, p^{67} + 4093033\, p^{116}\, q^{35} + 261046819\, p^{123}\, q^{57} + 14069815\, p^{119}\, q^{41} + 6611946\, p^{116}\, q^{36}$$
$$+ 159789426\, p^{122}\, q^{53} + 449\, p^{10}\, q^{8} + 278\, p^{10}\, q^{7} + 1786800\, q^{64}\, p^{14} + 4619270942\, q^{68}\, p^{29} + 1246\, q^{21}\, p^{6} + 453\, q^{20}\, p^{5} + 3169\, q^{22}\, p^{7}$$
$$+ 39\, q^{17}\, p^{3} + 105197\, p^{115}\, q^{28} + 520994\, p^{119}\, q^{34} + 85948933\, q^{66}\, p^{20} + 385977853\, q^{67}\, p^{23} + 687\, p^{10}\, q^{9} + 1466\, p^{11}\, q^{10} + 13022\, p^{19}\, q^{10}$$
$$+ 1747\, p^{18}\, q^{7} + 6082\, p^{18}\, q^{9} + 3366\, p^{18}\, q^{8} + 482323\, p^{18}\, q^{20} + 911902\, p^{20}\, q^{20} + 1659287\, p^{21}\, q^{21} + 142155\, q^{42}\, p^{10}$$
$$+ 1782481094105\, p^{88}\, q^{62} + 2331864394522\, p^{88}\, q^{65} + 717\, p^{17}\, q^{6} + 277\, p^{16}\, q^{5} + 1683600\, p^{72}\, q^{15} + 5250682\, q^{69}\, p^{16} + 397110\, q^{22}\, p^{16}$$
$$+ 1720327850013\, q^{80}\, p^{57} + 98681421\, p^{132}\, q^{81} + 1572896231\, p^{111}\, q^{46} + 4103016366\, p^{112}\, q^{51} + 882263907\, p^{109}\, q^{42}$$
$$+ 2064520841\, p^{111}\, q^{47} + 730300\, p^{86}\, q^{17} + 7316933\, q^{130}\, p^{58} + 17750382076\, p^{76}\, q^{34} + 117171234988\, p^{77}\, q^{41} + 1085986078\, p^{73}\, q^{26}$$
$$+ 13650544907\, p^{75}\, q^{33} + 466051351\, p^{72}\, q^{24} + 15822515\, p^{25}\, q^{25} + 1774338761\, p^{72}\, q^{27} + 31836104\, q^{48}\, p^{18} + 1534434\, q^{47}\, p^{13}$$
$$+ 5685510\, q^{47}\, p^{15} + 18712507\, q^{48}\, p^{17} + 144060\, q^{45}\, p^{10} + 2941420\, q^{46}\, p^{14} + 5490397\, q^{46}\, p^{15} + 732985\, q^{46}\, p^{12} + 722110\, q^{45}\, p^{12}$$
$$+ 917296\, q^{85}\, p^{17} + 4477730\, q^{85}\, p^{19} + 56621\, q^{80}\, p^{13} + 182457\, q^{84}\, p^{15} + 66235224\, q^{132}\, p^{77} + 23171060922\, q^{70}\, p^{34}$$
$$+ 17467974721\, q^{69}\, p^{33} + 592597275363\, q^{94}\, p^{58} + 406950548322\, q^{103}\, p^{67} + 269792152267\, q^{103}\, p^{63} + 301870137331\, q^{103}\, p^{64}$$
$$+ 12691911617\, q^{69}\, p^{32} + 376330\, q^{62}\, p^{12} + 408316132800\, p^{46}\, q^{68} + 335590584076\, q^{103}\, p^{65} + 338816701444\, q^{104}\, p^{67}$$
$$+ 443971223582\, q^{103}\, p^{68} + 370713061570\, q^{103}\, p^{66} + 5\, p^{40}\, q^{3} + 9871\, p^{64}\, q^{9} + 178278670677\, p^{97}\, q^{53} + 19190379\, q^{70}\, p^{18}$$
$$+ 107243195\, q^{71}\, p^{21} + 65851667\, q^{70}\, p^{20} + 35956045811\, q^{79}\, p^{37} + 79\, q^{81}\, p^{9} + 9751152\, q^{70}\, p^{17} + 2432878\, q^{69}\, p^{15} + 36216530\, q^{70}\, p^{19}$$
$$+ 155393208\, q^{51}\, p^{21} + 115799641\, p^{132}\, q^{83} + 15884155\, p^{127}\, q^{54} + 10392\, q^{16}\, p^{11} + 693842\, q^{65}\, p^{13} + 1226209556\, p^{106}\, q^{126}$$
$$+ 3998037314\, q^{90}\, p^{34} + 2771931141\, q^{90}\, p^{33} + 35357\, q^{77}\, p^{12} + 2087089\, q^{85}\, p^{18} + 14775879\, q^{86}\, p^{21} + 37169189\, q^{135}\, p^{96}$$

$$+ 64458479\, q^{134}\, p^{98} + 14540775\, p^{123}\, q^{132} + 48903649\, p^{112}\, q^{133} + 39333263\, p^{114}\, q^{133} + 17136145\, p^{120}\, q^{133} + 412937\, p^{141}\, q^{92}$$
$$+ 7457\, p^{144}\, q^{134} + 250\, p^{124}\, q^{29} + 66295469\, p^{109}\, q^{35} + 860588798\, p^{108}\, q^{41} + 257755568\, p^{106}\, q^{36} + 85948933\, q^{133}\, p^{87} + 448615\, p^{17}\, q^{21}$$
$$+ 20131302545\, p^{110}\, q^{56} + 52377167603\, p^{111}\, q^{64} + 16734892314\, p^{110}\, q^{55} + 108625730823\, p^{113}\, q^{80} + 115951669197\, p^{113}\, q^{88}$$
$$+ 39211532926\, p^{114}\, q^{103} + 83408695923\, p^{114}\, q^{92} + 112867757\, p^{103}\, q^{32} + 8728620\, p^{99}\, q^{25} + 59152323335\, p^{111}\, q^{65}$$
$$+ 90641175953\, p^{112}\, q^{72} + 5679726856\, q^{90}\, p^{35} + 9474337803\, q^{91}\, p^{37} + 93052700038\, p^{68}\, q^{39} + 491072985017\, p^{69}\, q^{47}$$
$$+ 118099284231\, p^{68}\, q^{40} + 803033006725\, p^{69}\, q^{50} + 228310760261\, p^{68}\, q^{43} + 184931983309\, p^{68}\, q^{42} + 1781517671\, q^{52}\, p^{27}$$
$$+ 860356633\, q^{52}\, p^{25} + 1248030720\, q^{52}\, p^{26} + 387894518\, q^{52}\, p^{23} + 610157146\, q^{53}\, p^{24} + 583023770\, q^{52}\, p^{24} + 183\, p^{30}\, q^{4}$$
$$+ 64458479\, p^{134}\, q^{98} + 73918731\, p^{132}\, q^{78} + 165867\, p^{13}\, q^{24} + 376253\, q^{85}\, p^{16} + 373\, q^{11}\, p^{7} + p\, q^{17} + 34605\, q^{30}\, p^{9} + 492214\, p^{94}\, q^{19}$$
$$+ 36752\, q^{118}\, p^{29} + 16768\, q^{118}\, p^{28} + 1111522\, q^{127}\, p^{46} + 4140072670\, q^{92}\, p^{35} + 841999015347\, p^{58}\, q^{54} + 1011266835935\, p^{59}\, q^{55}$$
$$+ 732985\, p^{141}\, q^{107} + 1546311\, p^{140}\, q^{102} + 730300\, p^{136}\, q^{67} + 189116\, p^{134}\, q^{56} + 45867\, p^{130}\, q^{44} + 100906589\, p^{109}\, q^{36} + 7516650\, q^{86}\, p^{20}$$
$$+ 3651611\, q^{86}\, p^{19} + 1683416\, q^{86}\, p^{18} + 16117\, q^{16}\, p^{12} + 110\, p^{129}\, q^{34} + 4827\, p^{139}\, q^{61} + 143753\, p^{43}\, q^{10} + 6193718\, p^{21}\, q^{26}$$
$$+ 4423174\, p^{20}\, q^{26} + 7784271\, p^{21}\, q^{27} + 1506736\, p^{46}\, q^{13} + 33200442\, p^{49}\, q^{18} + 244447892931\, p^{56}\, q^{46} + 1433032\, q^{31}\, p^{15}$$
$$+ 21253680024\, q^{78}\, p^{35} + 63985\, p^{14}\, q^{18} + 135108\, p^{18}\, q^{16} + 2394\, q^{38}\, p^{6} + 106703\, p^{142}\, q^{125} + 79444\, p^{131}\, q^{47} + 539149\, p^{141}\, q^{115}$$
$$+ 65495\, p^{129}\, q^{43} + 1786800\, p^{139}\, q^{89} + 186711\, p^{142}\, q^{120} + 18\, p^{99}\, q^{13} + 119339568001\, p^{96}\, q^{50} + 1217894540005\, p^{99}\, q^{74}$$
$$+ 784526340320\, p^{99}\, q^{67} + 1164059860592\, p^{99}\, q^{73} + 1073175468021\, p^{100}\, q^{89} + 1310327814752\, p^{99}\, q^{76} + 1347533447579\, p^{99}\, q^{77}$$
$$+ 861223767824\, p^{101}\, q^{91} + 1247252063464\, p^{100}\, q^{81} + 11414345\, q^{51}\, p^{16} + 3152400\, q^{50}\, p^{14} + 10743631\, q^{69}\, p^{17}$$
$$+ 1557627695734\, p^{71}\, q^{96} + 132141679341\, q^{94}\, p^{49} + 7434\, q^{41}\, p^{7} + 26\, q^{31}\, p^{3} + 2207\, q^{40}\, p^{6} + 706836\, q^{44}\, p^{12} + 143753\, q^{43}\, p^{10}$$
$$+ 694342418428\, p^{57}\, q^{53} + 153\, p^{49}\, q^{5} + 69926\, p^{17}\, q^{15} + 24261\, p^{16}\, q^{13} + 16117\, p^{16}\, q^{12} + 32162775774\, q^{56}\, p^{36} + 7718121788\, q^{55}\, p^{31}$$
$$+ 18102712608\, q^{55}\, p^{34} + 10376121056\, q^{55}\, p^{32} + 26428838\, p^{27}\, q^{25} + 58485\, p^{41}\, q^{9} + 22352\, p^{40}\, q^{8} + 35644\, p^{16}\, q^{14}$$
$$+ 904382591363\, p^{101}\, q^{90} + 327891286280\, p^{99}\, q^{59} + 180627\, p^{19}\, q^{16} + 21926\, q^{42}\, p^{8} + 35196\, p^{12}\, q^{19} + 12750\, p^{52}\, q^{8} + 278\, q^{98}\, p^{14}$$
$$+ 1408\, p^{46}\, q^{6} + 1193318\, q^{68}\, p^{14} + 17\, q^{73}\, p^{7} + 6\, q^{97}\, p^{12} + 13783798815\, q^{55}\, p^{33} + 23516397641\, q^{55}\, p^{35} + 668454\, p^{20}\, q^{19}$$
$$+ 20981057\, q^{69}\, p^{18} + 200049\, p^{25}\, q^{13} + 17311\, p^{24}\, q^{9} + 68859\, p^{25}\, q^{11} + 2142321\, p^{26}\, q^{18} + 56379830676\, p^{67}\, q^{37} + 582920053813\, p^{69}\, q^{48}$$
$$+ 339166641085\, p^{68}\, q^{45} + 3403608534\, p^{65}\, q^{28} + 147963691475\, q^{69}\, p^{41} + 6552638\, q^{83}\, p^{19} + 3128064\, q^{49}\, p^{14} + 19397485\, q^{49}\, p^{17}$$
$$+ 14335823400\, p^{45}\, q^{37} + 53604\, q^{37}\, p^{9} + 2032096845\, p^{119}\, q^{59} + 108559\, p^{101}\, q^{20} + 745303842\, p^{125}\, q^{113} + 123\, q^{60}\, p^{6} + 96\, p^{75}\, q^{8}$$

$$+ 1064548460\, p^{118} q^{54} + 410\, q^{19} p^{5} + 42\, q^{19} p^{3} + 46905\, p^{50} q^{9} + 16227\, p^{49} q^{8} + 72857302112\, p^{67} q^{38} + 19115453\, p^{60} q^{17}$$
$$+ 171021232\, p^{62} q^{21} + 89322020\, q^{49} p^{20} + 82409827\, p^{111} q^{132} + 1184922902976\, p^{100} q^{86} + 485126118\, q^{93} p^{30} + 12558557\, q^{90} p^{22}$$
$$+ 10052912\, q^{91} p^{22} + 12728224151\, q^{98} p^{42} + 18\, q^{99} p^{13} + 460\, q^{100} p^{15} + 115\, p^{68} q^{7} + 104635757154\, q^{102} p^{55} + 596\, q^{62} p^{7}$$
$$+ 123554371963\, q^{102} p^{56} + 33200442\, q^{49} p^{18} + 10426889\, p^{59} q^{16} + 1654667916985\, p^{95} q^{91} + 342001\, p^{20} q^{17} + 482323\, p^{20} q^{18}$$
$$+ 359418\, p^{18} q^{19} + 1972908142\, q^{101} p^{38} + 228831\, q^{87} p^{16} + 98584428527\, q^{83} p^{42} + 1115512561\, q^{82} p^{28} + 313\, q^{56} p^{6} + 41127\, q^{63} p^{10}$$
$$+ 110719\, q^{64} p^{11} + 513250\, p^{120} q^{35} + 692160639\, p^{63} q^{24} + 60455726\, p^{61} q^{19} + 1470093\, q^{45} p^{13} + 573762\, p^{141} q^{114}$$
$$+ 5156362068104\, p^{79} q^{83} + 7174\, q^{42} p^{7} + 4764130243758\, p^{85} q^{79} + 519910556\, q^{118} p^{51} + 2\, q^{70} p^{6} + q^{72} p^{6} + 270985070\, p^{131} q^{99}$$
$$+ 19203498\, p^{124} q^{49} + 10392\, p^{16} q^{11} + 103656632\, q^{53} p^{20} + 404346659\, q^{53} p^{23} + 166952336\, q^{53} p^{21} + 262645561\, q^{53} p^{22}$$
$$+ 270985070\, q^{54} p^{22} + 2563274\, q^{84} p^{18} + 826438\, p^{121} q^{37} + 82478\, q^{83} p^{14} + 9024012\, p^{25} q^{23} + 2564848329634\, p^{93} q^{75}$$
$$+ 8462943\, p^{77} q^{18} + 45702377\, p^{79} q^{21} + 71982601\, p^{80} q^{22} + 41\, q^{18} p^{3} + 8\, q^{17} p^{2} + 159\, q^{20} p^{4} + 2\, q^{98} p^{12} + 7885\, q^{15} p^{11}$$
$$+ 370264870600\, q^{104} p^{68} + 147\, q^{19} p^{4} + q^{8} p + 5\, q^{9} p^{2} + 5008229\, q^{37} p^{16} + 11454576084\, p^{57} q^{32} + 2150215402\, p^{56} q^{27}$$
$$+ 8475699684\, p^{57} q^{31} + 112043037887\, p^{58} q^{41} + 20182758598\, p^{57} q^{34} + 26341187005\, p^{57} q^{35} + 2303\, p^{39} q^{6} + 192\, q^{27} p^{4} + 43721\, q^{33} p^{9}$$
$$+ 17945\, q^{32} p^{8} + 7161\, q^{32} p^{7} + 30670\, p^{65} q^{10} + 2484262246373\, p^{94} q^{82} + 20288354\, p^{122} q^{46} + 875276\, p^{117} q^{33} + 409194\, p^{115} q^{30}$$
$$+ 21234210\, q^{84} p^{21} + 678483828\, p^{129} q^{89} + 640418916\, p^{129} q^{87} + 491413385\, p^{128} q^{76} + 738967\, q^{47} p^{12} + 6134391\, q^{87} p^{20}$$
$$+ 692160639\, p^{129} q^{90} + 540693085\, p^{128} q^{77} + 431466341\, p^{130} q^{98} + 591088839\, p^{128} q^{78} + 584576799281\, p^{48} q^{70} + 207568476\, p^{108} q^{37}$$
$$+ 72930434\, p^{106} q^{33} + 7\, q^{13} p^{2} + 466051351\, p^{129} q^{81} + 616647339\, p^{129} q^{86} + 544989924863\, p^{57} q^{51} + 617203593798\, p^{57} q^{52}$$
$$+ 164965330815\, p^{85} q^{45} + 18871253561\, p^{83} q^{36} + 959058356950\, p^{87} q^{56} + 279829243422\, p^{86} q^{48} + 903970186\, p^{80} q^{27}$$
$$+ 12957347282\, q^{91} p^{38} + 124248792\, p^{132} q^{84} + 30\, q^{14} p^{3} + 34\, q^{15} p^{3} + 117475790982\, q^{69} p^{40} + 12168135\, q^{87} p^{21} + 23149235\, q^{87} p^{22}$$
$$+ 223708094\, q^{68} p^{22} + 66235224\, p^{132} q^{77} + 58944027\, p^{132} q^{76} + 466051351\, q^{72} p^{24} + 1354295\, q^{121} p^{38} + 373\, p^{11} q^{7} + 969\, p^{11} q^{9}$$
$$+ 2058\, p^{12} q^{10} + 613\, q^{11} p^{8} + 93571577\, p^{133} q^{103} + 8031181\, p^{64} q^{16} + 60632951\, q^{71} p^{20} + 33135964\, q^{71} p^{19} + 17434413\, q^{71} p^{18}$$
$$+ 36316104\, p^{133} q^{77} + 32106084\, p^{133} q^{76} + 48122\, p^{14} q^{17} + 69926\, p^{15} q^{17} + 2114054765918\, p^{88} q^{94} + 3021653\, q^{47} p^{14} + 22203\, q^{41} p^{8}$$
$$+ 613\, p^{11} q^{8} + 4725082\, q^{70} p^{16} + 211\, p^{11} q^{6} + 44\, p^{10} q^{4} + 85948933\, p^{133} q^{87} + 98300531\, p^{133} q^{90} + 89\, p^{10} q^{5} + 4960249\, q^{88} p^{20}$$
$$+ 1344231\, q^{87} p^{18} + 6492\, p^{16} q^{10} + 826438\, q^{121} p^{37} + 278\, q^{10} p^{7} + 4721656\, p^{103} q^{26} + 32691496237\, p^{67} q^{35} + 279441109492\, p^{68} q^{44}$$
$$+ 1230205953594\, p^{69} q^{53} + 2708623100\, p^{116} q^{55} + 14805048\, p^{65} q^{17} + 984\, p^{15} q^{7} + 3054\, p^{15} q^{9} + 1778\, p^{15} q^{8} + 5344328485457\, p^{78} q^{82}$$

$$+ 5033101600652\, p^{83} q^{81} + 5318619616317\, p^{79} q^{82} + 5058102212050\, p^{75} q^{83} + 616634355\, p^{113} q^{45} + 2938360599\, q^{55} p^{28}$$
$$+ 179192289\, p^{57} q^{21} + 699909565\, p^{58} q^{24} + 39987513444\, p^{101} q^{49} + 14756355112\, p^{100} q^{44} + 60665210224\, p^{102} q^{52} + 832662\, p^{18} q^{22}$$
$$+ 309166261939\, p^{57} q^{47} + 360052680517\, p^{57} q^{48} + 52984\, p^{92} q^{16} + 6861565741\, q^{53} p^{31} + p^{6} q + 16\, p^{9} q^{3} + 5\, p^{8} q^{2} + 5\, q^{8} p^{2} + q^{7} p$$
$$+ 14\, q^{35} p^{3} + 634698926\, q^{54} p^{24} + 1378492265\, q^{54} p^{26} + 2803017645\, q^{54} p^{28} + 1980928848\, q^{54} p^{27} + 943621844\, q^{54} p^{25}$$
$$+ 14750208\, p^{27} q^{23} + 33800\, p^{90} q^{15} + 932269587189\, p^{69} q^{51} + 43169330403\, p^{67} q^{36} + 1074655600984\, p^{69} q^{52} + 301870137331\, p^{89} q^{50}$$
$$+ 5416\, p^{59} q^{8} + 4987220031\, p^{109} q^{120} + 2657832659\, q^{53} p^{28} + 4748305744\, q^{52} p^{30} + 3695288945\, q^{53} p^{29} + 1884292486\, q^{53} p^{27}$$
$$+ 5068101707\, q^{53} p^{30} + 3908915732\, q^{54} p^{29} + 3343409061\, p^{94} q^{125} + 2063566990\, p^{84} q^{126} + 45805150856\, p^{37} q^{58}$$
$$+ 959696131989\, p^{91} q^{59} + 230553396\, q^{50} p^{22} + 2292450061088\, p^{92} q^{70} + 2028021563\, q^{76} p^{28} + 75895024961\, p^{88} q^{43}$$
$$+ 35182270\, q^{88} p^{23} + 19051369\, q^{88} p^{22} + 334275\, q^{45} p^{11} + 325193\, q^{43} p^{11} + 335457\, q^{46} p^{11} + 1164476\, p^{137} q^{126}$$
$$+ 3521642593183\, p^{64} q^{79} + 5980461\, q^{49} p^{15} + 144443\, q^{44} p^{10} + 1506736\, q^{46} p^{13} + 2161449231324\, p^{92} q^{69} + 3084435\, q^{48} p^{14}$$
$$+ 28181952\, p^{78} q^{20} + 22228048785\, p^{87} q^{38} + 21\, p^{11} q^{3} + 6\, p^{10} q^{2} + 28920421\, q^{89} p^{23} + 74770285\, q^{90} p^{25} + 127290141\, q^{90} p^{26}$$
$$+ 15539034\, q^{89} p^{22} + 136161\, p^{13} q^{23} + 241964861\, q^{74} p^{23} + 591088839\, q^{75} p^{25} + 933846388\, q^{75} p^{26} + 142875525\, q^{74} p^{22} + 542\, q^{39} p^{5}$$
$$+ 96423077514\, p^{88} q^{44} + 40715\, p^{11} q^{22} + 36899878\, q^{53} p^{18} + 61313002\, q^{52} p^{19} + 100796624\, q^{52} p^{20} + 1606\, q^{103} p^{17}$$
$$+ 1933549246330\, p^{91} q^{66} + 242270602\, q^{51} p^{22} + 3862855524\, p^{85} q^{32} + 34798707\, q^{117} p^{41} + 1702161\, p^{112} q^{30} + 82939944\, p^{119} q^{46}$$
$$+ 58529\, q^{43} p^{9} + 825017894855\, p^{90} q^{57} + 15732317\, q^{72} p^{18} + 50402772\, q^{73} p^{20} + 3698767\, p^{114} q^{33} + 98960607\, p^{120} q^{48}$$
$$+ 43475583172\, q^{57} p^{37} + 20808793\, q^{52} p^{17} + 36273335\, q^{52} p^{18} + 508481592176\, q^{93} p^{56} + 17833188171\, p^{120} q^{85} + 330771\, q^{44} p^{11}$$
$$+ 417\, p^{14} q^{6} + 168\, p^{13} q^{5} + 73\, p^{13} q^{4} + 27019789\, p^{135} q^{108} + 105498\, q^{82} p^{14} + 1037268221783\, p^{61} q^{54} + 1228941683285\, p^{62} q^{55}$$
$$+ 335241435087\, p^{61} q^{46} + 291800\, q^{119} p^{33} + 15487568551\, p^{119} q^{75} + 6541\, q^{44} p^{7} + 1486354046\, p^{127} q^{97} + 1609286093\, p^{127} q^{93}$$
$$+ 7897084956\, p^{85} q^{34} + 449395060\, p^{82} q^{26} + 15850301374\, q^{53} p^{34} + 8178532\, q^{129} p^{56} + 250020340158\, p^{89} q^{49} + 98681421\, q^{72} p^{21}$$
$$+ 693068342\, q^{73} p^{25} + 170181685\, q^{72} p^{22} + 285290817\, q^{72} p^{23} + 7127\, q^{118} p^{27} + p^{7} q + 55465566\, q^{72} p^{20} + 6133079\, q^{51} p^{15}$$
$$+ 632031330945\, p^{59} q^{51} + 717949315824\, p^{59} q^{52} + 57911\, p^{44} q^{9} + 21463\, p^{43} q^{8} + 32223\, p^{55} q^{9} + 93062\, q^{27} p^{11} + 9940817\, p^{106} q^{29}$$
$$+ 467021774\, p^{112} q^{43} + 776017712848\, p^{57} q^{54} + 936352829701\, p^{58} q^{55} + 4531446647054\, q^{79} p^{68} + 8790165\, q^{71} p^{17}$$
$$+ 487319113513\, p^{78} q^{48} + 285581716389\, p^{77} q^{45} + 937959\, p^{17} q^{24} + 4900139\, p^{136} q^{120} + 664353454\, p^{128} q^{105} + 702616635\, p^{123} q^{62}$$
$$+ 2352365669\, p^{125} q^{79} + 132621798\, p^{120} q^{49} + 56939\, q^{45} p^{9} + 20142\, q^{45} p^{8} + 73382991\, p^{124} q^{126} + q^{71} p^{6} + 182788860\, p^{88} q^{26}$$

$$+ 22916753891\, p^{93} q^{41} + 1398696680422\, p^{99} q^{84} + 3414817463\, p^{91} q^{34} + 33313314\, p^{85} q^{22} + 1423577855186\, p^{99} q^{82} + 279931\, p^{105} q^{23}$$
$$+ 4292344189215\, p^{74} q^{86} + 959083\, p^{16} q^{26} + 1172037\, p^{17} q^{25} + 5263287111930\, p^{82} q^{80} + 509797\, p^{15} q^{25} + 2941790655\, q^{70} p^{28}$$
$$+ 8486801529\, q^{71} p^{31} + 4308775261\, q^{70} p^{29} + 6209397254\, q^{70} p^{30} + 1974064068\, q^{70} p^{27} + 187\, p^{29} q^{4} + 3761260\, p^{82} q^{18}$$
$$+ 21234210\, p^{84} q^{21} + 118850\, p^{107} q^{23} + 43544371898\, q^{76} p^{37} + 6\, q^{11} p^{2} + 23360036706\, q^{91} p^{40} + 40239418793\, q^{91} p^{42}$$
$$+ 57368530591\, q^{76} p^{38} + 32678350743\, q^{76} p^{36} + 758451625\, q^{97} p^{33} + 502867776\, q^{97} p^{32} + 185096946139\, q^{103} p^{60}$$
$$+ 12710103144\, p^{60} q^{32} + 2325734010\, p^{59} q^{27} + 9331129870\, p^{60} q^{31} + 129551051468\, p^{61} q^{41} + 22727946681\, p^{60} q^{34}$$
$$+ 29870100797\, p^{60} q^{35} + 20142\, p^{145} q^{108} + 2741\, p^{136} q^{51} + 3\, p^{116} q^{20} + 1747\, p^{146} q^{135} + 22352\, p^{145} q^{113} + 1143191\, p^{99} q^{22}$$
$$+ 1715712\, p^{100} q^{23} + 781882\, p^{16} q^{25} + 661139234\, p^{88} q^{129} + 24234477349\, q^{76} p^{35} + 41096787737\, q^{77} p^{37} + 148194376836\, q^{54} p^{44}$$
$$+ 63\, q^{12} p^{4} + 17750382076\, q^{76} p^{34} + 12832483074\, q^{76} p^{33} + 616647339\, q^{67} p^{24} + 6616776868\, q^{68} p^{30} + 14805048\, q^{65} p^{17}$$
$$+ 553750\, q^{67} p^{13} + 2710402\, q^{68} p^{15} + 23561504\, q^{130} p^{63} + 28920421\, q^{130} p^{64} + 35182270\, q^{130} p^{65} + 443740\, q^{80} p^{15}$$
$$+ 103085943888\, q^{54} p^{42} + 124094489478\, q^{54} p^{43} + 84932779421\, q^{54} p^{41} + 1448784208390\, p^{98} q^{75} + 116874\, p^{52} q^{10}$$
$$+ 24473134485\, p^{67} q^{34} + 148466466314\, p^{68} q^{41} + 6413679106\, p^{95} q^{123} + 5962458925\, p^{82} q^{123} + 4308775261\, p^{83} q^{124}$$
$$+ 12127850894\, q^{53} p^{33} + 1933538943411\, p^{58} q^{80} + 3894678\, q^{64} p^{15} + 48433382\, q^{66} p^{19} + 19020545\, q^{130} p^{62} + 12041769\, q^{130} p^{60}$$
$$+ 15208614\, q^{130} p^{61} + 6251216\, q^{131} p^{60} + 1444253793107\, p^{65} q^{93} + 6831\, p^{107} q^{20} + 16713349\, p^{63} q^{17} + 154714016\, p^{65} q^{21}$$
$$+ 9088304\, p^{62} q^{16} + 640418916\, p^{66} q^{24} + 53918029\, p^{64} q^{19} + 70854831166\, p^{70} q^{38} + 1046752421\, p^{37} q^{31} + 2118047521\, p^{37} q^{34}$$
$$+ 2627632560\, p^{37} q^{35} + 3892018879\, p^{38} q^{36} + 810677968\, p^{37} q^{30} + 1337321026\, p^{37} q^{32} + 620941208\, p^{37} q^{29} + 2803017645\, p^{54} q^{28}$$
$$+ 222938822781\, p^{57} q^{45} + 120296692029\, p^{56} q^{42} + 51805994428\, p^{56} q^{38} + 145349343026\, p^{56} q^{43} + 41019614500\, p^{56} q^{37}$$
$$+ 64813869916\, p^{56} q^{39} + 45473848\, q^{67} p^{19} + 81175299\, q^{67} p^{20} + 140372963\, q^{67} p^{21} + 25\, q^{72} p^{7} + 4421775\, q^{126} p^{48}$$
$$+ 2063566990\, q^{69} p^{27} + 3594135\, q^{65} p^{15} + 1464\, q^{17} p^{7} + 8\, q^{14} p^{2} + 21\, q^{11} p^{3} + 6\, q^{10} p^{2} + 5405042\, p^{75} q^{17} + 986575643\, p^{83} q^{28}$$
$$+ 126015576\, p^{80} q^{23} + 2990638655\, p^{84} q^{31} + 540576\, q^{79} p^{15} + 1229246\, q^{114} p^{31} + 93571577\, q^{50} p^{20} + 57511478\, q^{50} p^{19}$$
$$+ 313730459\, p^{81} q^{25} + 1513101430\, p^{83} q^{29} + 188599514\, p^{81} q^{24} + 16908\, q^{114} p^{25} + 8749\, q^{112} p^{23} + 69364\, q^{113} p^{26} + 30533\, q^{113} p^{25}$$
$$+ 5376576890\, q^{54} p^{30} + 548\, q^{53} p^{6} + 51\, q^{54} p^{5} + 380\, q^{55} p^{6} + 9\, q^{50} p^{4} + 110333064\, q^{81} p^{23} + 34309\, q^{82} p^{13} + 231520\, q^{83} p^{15}$$
$$+ 6428634901\, q^{69} p^{30} + 9175997679\, q^{53} p^{32} + 3064719685\, q^{69} p^{28} + 4474466385\, q^{69} p^{29} + 367827385\, q^{68} p^{23} + 4629030614119\, p^{68} q^{78}$$
$$+ 16930\, q^{80} p^{12} + 10376121056\, p^{55} q^{32} + 1980928848\, p^{54} q^{27} + 7718121788\, p^{55} q^{31} + 98737703224\, p^{56} q^{41} + 18102712608\, p^{55} q^{34}$$

$$+ 23516397641\, p^{55} q^{35} + 2144330160\, q^{68} p^{27} + 925959333\, q^{68} p^{25} + 112\, q^{16} p^{4} + 277\, q^{16} p^{5} + 25\, p^{72} q^{7} + 56016774\, p^{29} q^{26} + p^{17} q$$
$$+ 133343\, q^{81} p^{14} + 97\, q^{15} p^{4} + 397983119\, p^{79} q^{25} + 784526340320\, p^{86} q^{54} + 241648785\, p^{79} q^{24} + 1906419782\, p^{81} q^{29}$$
$$+ 1252745354\, p^{81} q^{28} + 1095947446998\, p^{87} q^{57} + 238\, q^{15} p^{5} + 608\, q^{16} p^{6} + 2457\, p^{37} q^{6} + 13783798815\, p^{55} q^{33} + 5456276472\, p^{82} q^{32}$$
$$+ 1243921719982\, p^{87} q^{58} + 3764607900\, p^{82} q^{31} + 209\, q^{88} p^{11} + 193147\, q^{111} p^{26} + 395234\, q^{111} p^{27} + 89523\, q^{111} p^{25} + 1560433\, q^{49} p^{13}$$
$$+ 331187\, q^{48} p^{11} + 19314\, q^{46} p^{8} + 9760808275\, q^{121} p^{78} + 513250\, q^{118} p^{33} + 1139\, q^{115} p^{23} + 2568487674635\, p^{93} q^{85} + 10969081\, p^{49} q^{16}$$
$$+ 2457\, q^{37} p^{6} + 9804915316\, p^{86} q^{35} + 650\, q^{36} p^{5} + 95712506695\, p^{94} q^{113} + 22791827684\, p^{115} q^{106} + 52027016366\, p^{109} q^{108}$$
$$+ 2863849528723\, p^{61} q^{69} + 2015639442\, p^{84} q^{30} + 2519358538660\, p^{88} q^{66} + 160939233\, p^{78} q^{23} + 131867163107\, p^{85} q^{44}$$
$$+ 59152323335\, p^{88} q^{42} + 31040068679\, p^{84} q^{38} + 1570996621371\, p^{87} q^{60} + 673242493590\, p^{86} q^{53} + 650\, p^{52} q^{6}$$
$$+ 2225742598225\, p^{58} q^{70} + 403138899183\, p^{46} q^{72} + 16122794\, q^{115} p^{37} + 496932099341\, q^{81} p^{49} + 80243617663\, p^{39} q^{60}$$
$$+ 152396433938\, p^{42} q^{60} + 124156437838\, p^{41} q^{60} + 65997142854\, p^{38} q^{61} + 100266516735\, p^{40} q^{60} + 1046752421\, p^{116} q^{122}$$
$$+ 1909657781\, q^{98} p^{36} + 5166357\, p^{24} q^{22} + 94577684\, p^{133} q^{89} + 730300\, q^{86} p^{17} + 1720141\, p^{18} q^{25} + 2351205230226\, p^{85} q^{94}$$
$$+ 2189474331548\, p^{77} q^{95} + 167306564856\, p^{89} q^{47} + 99451\, p^{16} q^{17} + 1558\, q^{113} p^{22} + 282761\, q^{118} p^{32} + 81668\, q^{119} p^{31}$$
$$+ 2295352335251\, p^{93} q^{72} + 1825379128501\, p^{93} q^{68} + 740276\, q^{48} p^{12} + q^{9} p + 2599386355543\, p^{61} q^{66} + 2910205907089\, p^{62} q^{67}$$
$$+ 33313314\, q^{85} p^{22} + 152794628\, q^{86} p^{25} + 1153023511548\, p^{100} q^{87} + 5440441\, p^{84} q^{19} + 21813718875\, p^{95} q^{42}$$
$$+ 1223650375442\, p^{100} q^{79} + q^{12} p + 580\, q^{38} p^{5} + 23596583\, p^{123} q^{48} + 137880\, q^{117} p^{30} + 2009356708984\, p^{95} q^{87}$$
$$+ 866631882967\, p^{52} q^{80} + 586468891128\, q^{93} p^{57} + 1557253201\, p^{65} q^{26} + 430113836\, p^{64} q^{23} + 4837442950\, p^{66} q^{29} + 458\, p^{41} q^{5}$$
$$+ 9\, q^{80} p^{8} + 4845501\, q^{124} p^{45} + 156\, q^{59} p^{6} + 159\, p^{20} q^{4} + 41\, p^{18} q^{3} + 9766\, p^{25} q^{8} + 165302\, p^{27} q^{12} + 43785\, p^{26} q^{10}$$
$$+ 139129216657\, q^{103} p^{58} + 2578357\, p^{29} q^{17} + 14540775\, p^{30} q^{21} + 8360988\, p^{29} q^{20} + 5761106\, p^{29} q^{19} + 20508480\, p^{30} q^{22}$$
$$+ 551344\, p^{28} q^{14} + 1388424428\, q^{120} p^{59} + 1992786601\, q^{120} p^{61} + 2771931141\, q^{120} p^{63} + 4047\, q^{19} p^{8} + 21238190\, q^{133} p^{73}$$
$$+ 80351417049\, p^{56} q^{40} + 25131367\, p^{129} q^{125} + 1105292642\, p^{110} q^{125} + 7\, q^{100} p^{13} + 11\, p^{67} q^{6} + 49136\, q^{35} p^{9} + 2194\, q^{55} p^{7} + 463\, q^{54} p^{6}$$
$$+ 19874277\, p^{27} q^{24} + 8812652845\, p^{83} q^{122} + 1877186823\, p^{126} q^{82} + 42697153\, p^{119} q^{44} + 384271223204\, p^{56} q^{49} + 170156\, p^{108} q^{24}$$
$$+ 906456756\, q^{119} p^{55} + 449687866\, q^{119} p^{52} + 1123745593\, q^{119} p^{56} + 573604154\, q^{119} p^{53} + 724501311\, q^{119} p^{54} + 758451625\, q^{120} p^{56}$$
$$+ 1380807167\, q^{119} p^{57} + 440491706230\, p^{56} q^{50} + 52\, p^{4} q^{11} + 271\, p^{6} q^{12} + 112\, p^{5} q^{11} + 33589039\, p^{28} q^{25} + 969\, p^{9} q^{11}$$
$$+ 1354295\, p^{121} q^{38} + 449\, p^{8} q^{10} + 282761\, p^{118} q^{32} + 1011552877954\, p^{101} q^{87} + 18372245033\, p^{96} q^{42} + 1061318256581\, p^{101} q^{79}$$

$$+ 26149107\, q^{103}\, p^{29} + 431466341\, p^{55}\, q^{23} + 114573\, q^{36}\, p^{10} + 51495\, q^{36}\, p^{9} + 120866\, q^{37}\, p^{10} + 152946094861\, p^{107}\, q^{102}$$
$$+ 76189480\, p^{68}\, q^{20} + 3503458\, p^{20}\, q^{25} + 1070466511\, p^{94}\, q^{128} + 1078483922\, p^{93}\, q^{128} + 7601380\, p^{135}\, q^{120} + 100796624\, p^{133}\, q^{101}$$
$$+ 13427760\, p^{134}\, q^{119} + 1472757685959\, p^{92}\, q^{64} + 556743743744\, p^{91}\, q^{55} + 287945227811\, p^{91}\, q^{51} + 119848379024\, p^{90}\, q^{46}$$
$$+ 7475968\, q^{65}\, p^{16} + 110715139\, p^{131}\, q^{112} + 143704825\, p^{126}\, q^{61} + 443707314\, p^{128}\, q^{75} + 172549886\, p^{27}\, q^{33} + 390989289\, p^{31}\, q^{32}$$
$$+ 308125164\, p^{30}\, q^{32} + 360573951\, p^{29}\, q^{34} + 380593636\, p^{30}\, q^{33} + 227191747\, p^{28}\, q^{33} + 295689001\, p^{29}\, q^{33} + 1105\, q^{110}\, p^{20}$$
$$+ 22462\, q^{112}\, p^{24} + 19877\, p^{25}\, q^{9} + 80401\, p^{26}\, q^{11} + 948725891723\, p^{78}\, q^{52} + 812233103857\, p^{78}\, q^{51} + 498976574\, p^{129}\, q^{82}$$
$$+ 11445296\, p^{121}\, q^{43} + 9958957\, p^{122}\, q^{44} + 174205279703\, p^{56}\, q^{44} + 64813869916\, p^{39}\, q^{56} + 36208720616\, p^{74}\, q^{36} + 3698767\, q^{114}\, p^{33}$$
$$+ 10314134\, q^{115}\, p^{36} + 2165224\, q^{114}\, p^{32} + 12035\, p^{12}\, q^{15} + 3092\, q^{112}\, p^{22} + 278\, q^{110}\, p^{19} + 56361164\, q^{134}\, p^{90} + 33946771\, q^{135}\, p^{92}$$
$$+ 180458041928\, p^{84}\, q^{45} + 1005763876\, p^{79}\, q^{27} + 20793952532\, p^{82}\, q^{36} + 42243632\, p^{128}\, q^{124} + 286304332150\, q^{56}\, p^{47}$$
$$+ 1042867748160\, p^{86}\, q^{56} + 306333568881\, p^{85}\, q^{48} + 6993465\, p^{73}\, q^{17} + 225369591985\, q^{55}\, p^{46} + 64848968\, p^{31}\, q^{25} + 114699197\, p^{31}\, q^{27}$$
$$+ 185342352\, p^{32}\, q^{28} + 11904985752\, q^{71}\, p^{32} + 49863351\, p^{134}\, q^{106} + 1694\, q^{44}\, p^{6} + 20\, q^{33}\, p^{3} + 16\, q^{34}\, p^{3} + 20886\, q^{44}\, p^{8}$$
$$+ 2718370670313\, p^{87}\, q^{66} + 180007030\, p^{77}\, q^{23} + 144529385660\, p^{84}\, q^{44} + 6178\, q^{45}\, p^{7} + 66916\, p^{59}\, q^{10} + 59178576\, p^{21}\, q^{39}$$
$$+ 1402\, p^{145}\, q^{139} + 12122\, p^{126}\, q^{145} + 9766\, p^{128}\, q^{145} + 2545\, p^{120}\, q^{147} + 619\, p^{116}\, q^{148} + 2117312\, q^{131}\, p^{56} + 5686253\, p^{138}\, q^{96}$$
$$+ 10113650\, p^{136}\, q^{114} + 6430274\, p^{136}\, q^{118} + 13182281\, p^{136}\, q^{111} + 25141665\, p^{132}\, q^{70} + 34249120474\, p^{83}\, q^{38} + 1698514837553\, p^{86}\, q^{60}$$
$$+ 730945950568\, p^{85}\, q^{53} + 443707314\, p^{78}\, q^{25} + 1189967895406\, p^{86}\, q^{57} + 850456315768\, p^{85}\, q^{54} + 1343438798950\, p^{99}\, q^{86}$$
$$+ 1023624252\, p^{114}\, q^{48} + 139129216657\, p^{95}\, q^{50} + 30384\, p^{72}\, q^{11} + 1394724537565\, p^{98}\, q^{74} + 907693595432\, p^{98}\, q^{67}$$
$$+ 1334976125894\, p^{98}\, q^{73} + 1211608686204\, p^{99}\, q^{89} + 1496345007229\, p^{98}\, q^{76} + 1536677819323\, p^{98}\, q^{77} + 976034533471\, p^{100}\, q^{91}$$
$$+ 1424054054276\, p^{99}\, q^{81} + 66235224\, p^{76}\, q^{21} + 104599183\, p^{77}\, q^{22} + 270717615\, p^{78}\, q^{24} + 30334872\, q^{135}\, p^{106} + 45473848\, q^{134}\, p^{86}$$
$$+ 48433382\, q^{134}\, p^{87} + 1305436151357\, p^{99}\, q^{87} + 6552638\, p^{83}\, q^{19} + 55185314\, q^{134}\, p^{104} + 25703329883\, p^{94}\, q^{42} + 1401045113913\, p^{99}\, q^{79}$$
$$+ 739\, p^{32}\, q^{5} + 61313002\, p^{134}\, q^{101} + 8798747\, p^{135}\, q^{119} + 35692\, p^{64}\, q^{10} + 9239\, q^{120}\, p^{29} + 2118668660\, p^{80}\, q^{29} + 12545323\, p^{74}\, q^{18}$$
$$+ 1397487566\, p^{80}\, q^{28} + 2724356080581\, p^{93}\, q^{82} + 10755\, p^{86}\, q^{13} + 11535180\, q^{52}\, p^{16} + 5834782993\, p^{92}\, q^{36} + 835393818\, p^{90}\, q^{30}$$
$$+ 2359295943\, p^{91}\, q^{33} + 17276758920\, p^{93}\, q^{40} + 12874575703\, p^{93}\, q^{39} + 8109539526\, p^{92}\, q^{37} + 49962\, q^{107}\, p^{22} + 253065\, q^{78}\, p^{14}$$
$$+ 73\, q^{13}\, p^{4} + 137\, q^{12}\, p^{5} + 18329716982\, p^{120}\, q^{88} + 7287475444\, p^{121}\, q^{103} + 1200\, p^{79}\, q^{10} + 89257\, q^{78}\, p^{13} + 27661293\, p^{125}\, q^{52}$$
$$+ 367827385\, p^{130}\, q^{85} + 327980136\, p^{130}\, q^{83} + 47828962\, p^{125}\, q^{54} + 34249120474\, q^{83}\, p^{38} + 20793952532\, q^{82}\, p^{36} + 28111276729\, q^{82}\, p^{37}$$

$$+ 1400482\, p^{137}\, q^{125} + 309410\, p^{21}\, q^{16} + 24\, q^{12}\, p^{3} + 832662\, p^{22}\, q^{18} + 7\, p^{12}\, q^{2} + 3628\, q^{110}\, p^{21} + 18352\, q^{47}\, p^{8} + 64154115\, p^{134}\, q^{95}$$
$$+ 19980905\, p^{50}\, q^{17} + 97415663\, p^{51}\, q^{20} + 485\, p^{7}\, q^{12} + 1466\, p^{10}\, q^{11} + 687\, p^{9}\, q^{10} + 736548\, q^{49}\, p^{12} + 18\, p^{10}\, q^{3} + 5\, p^{9}\, q^{2} + 241320\, p^{116}\, q^{30}$$
$$+ 636956664433\, p^{56}\, q^{53} + 25131367\, p^{24}\, q^{28} + 1668483\, p^{29}\, q^{16} + 35956045811\, p^{74}\, q^{116} + 623805485845\, p^{61}\, q^{50} + 513250\, p^{118}\, q^{33}$$
$$+ 3265998208\, p^{58}\, q^{28} + 281707218406\, p^{61}\, q^{45} + 152396433938\, p^{60}\, q^{42} + 63620762018\, p^{60}\, q^{38} + 185475561384\, p^{60}\, q^{43}$$
$$+ 49954471042\, p^{60}\, q^{37} + 80243617663\, p^{60}\, q^{39} + 622076\, q^{66}\, p^{13} + 116510745\, p^{132}\, q^{107} + 242270602\, p^{131}\, q^{102} + 5819494\, q^{123}\, p^{44}$$
$$+ 3946839\, p^{23}\, q^{22} + 825\, p^{12}\, q^{8} + 271\, p^{12}\, q^{6} + 52\, p^{11}\, q^{4} + 112\, p^{11}\, q^{5} + 710821086685\, p^{56}\, q^{54} + 861720527306\, p^{57}\, q^{55} + 674783\, q^{123}\, p^{39}$$
$$+ 8475699684\, p^{31}\, q^{57} + 1576549504615\, p^{93}\, q^{94} + 485\, p^{12}\, q^{7} + 1327\, p^{12}\, q^{9} + 2816\, p^{13}\, q^{10} + 26874903\, p^{127}\, q^{127} + 34708400\, p^{126}\, q^{127}$$
$$+ 558654480487\, q^{105}\, p^{79} + 1172558\, p^{22}\, q^{19} + 580640\, p^{22}\, q^{17} + 2917109\, p^{23}\, q^{21} + 1624127\, p^{22}\, q^{20} + 636956664433\, p^{53}\, q^{56}$$
$$+ 517753234867\, p^{52}\, q^{55} + 2306167\, p^{31}\, q^{16} + 5317\, q^{27}\, p^{7} + 231675705181\, q^{77}\, p^{44} + 272247115471\, q^{78}\, p^{45} + 70871276288\, q^{77}\, p^{39}$$
$$+ 117171234988\, q^{77}\, p^{41} + 186293357214\, q^{77}\, p^{43} + 285581716389\, q^{77}\, p^{45} + 891479\, p^{19}\, q^{21} + 3319058047\, q^{97}\, p^{37}$$
$$+ 49466678579\, p^{103}\, q^{52} + 36216530\, q^{134}\, p^{83} + 286304332150\, p^{56}\, q^{47} + 2\, q^{29}\, p^{2} + 5704093783173\, p^{79}\, q^{77} + 5603091688009\, p^{80}\, q^{78}$$
$$+ 5450327956818\, p^{79}\, q^{73} + 5687461469257\, p^{79}\, q^{76} + 5559556145174\, p^{79}\, q^{74} + 5639023267704\, p^{79}\, q^{75} + 28497882\, p^{134}\, q^{113}$$
$$+ 58698\, q^{42}\, p^{9} + 4292344189215\, p^{79}\, q^{67} + 5149899394106\, p^{79}\, q^{71} + 5313062620436\, p^{79}\, q^{72} + 4531446647054\, p^{79}\, q^{68}$$
$$+ 26361255\, q^{66}\, p^{18} + 3173974577\, q^{68}\, p^{28} + 4756175757609\, p^{79}\, q^{69} + 4963337130649\, p^{79}\, q^{70} + 2641236326640\, p^{92}\, q^{73}$$
$$+ 332881072458\, p^{56}\, q^{48} + 1969\, q^{42}\, p^{6} + 63281059\, q^{134}\, p^{94} + 2917109\, p^{21}\, q^{23} + 15\, q^{79}\, p^{8} + 2889922203527\, p^{92}\, q^{76}$$
$$+ 3787492945\, q^{98}\, p^{38} + 2348599188\, q^{97}\, p^{36} + 6\, p^{21}\, q^{2} + 57804840\, p^{28}\, q^{27} + 95023660\, p^{29}\, q^{28} + 2359295943\, q^{120}\, p^{62}$$
$$+ 4301306186\, q^{120}\, p^{66} + 3232510594\, q^{120}\, p^{64} + 45634590152\, p^{88}\, q^{41} + 26297268363\, p^{88}\, q^{39} + 16432404903\, p^{87}\, q^{37}$$
$$+ 4909416417\, p^{86}\, q^{33} + 9191130\, p^{24}\, q^{24} + 484\, p^{97}\, q^{14} + 2202920203058\, p^{66}\, q^{59} + 728208\, q^{50}\, p^{12} + 133227\, q^{49}\, p^{10} + 1558281\, q^{50}\, p^{13}$$
$$+ 6514109\, p^{135}\, q^{121} + 2202920203058\, p^{87}\, q^{94} + 3\, q^{101}\, p^{13} + 835610\, q^{133}\, p^{58} + 1115899\, q^{133}\, p^{59} + 3971969\, q^{133}\, p^{64} + 3149179\, q^{133}\, p^{63}$$
$$+ 1917681\, q^{133}\, p^{61} + 2470694\, q^{133}\, p^{62} + 110871775191\, p^{75}\, q^{112} + 180956555937\, p^{82}\, q^{111} + 2816\, p^{10}\, q^{13} + 36316104\, q^{76}\, p^{20}$$
$$+ 19184953\, q^{76}\, p^{19} + 32106084\, q^{77}\, p^{20} + 16734892314\, q^{110}\, p^{55} + 17996640711\, q^{109}\, p^{54} + 1065144037844\, q^{90}\, p^{59}$$
$$+ 1339221004771\, q^{90}\, p^{61} + 1641152902254\, q^{90}\, p^{63} + 1487215827056\, q^{90}\, p^{62} + 1799756826379\, q^{90}\, p^{64} + 1961560691015\, q^{90}\, p^{65}$$
$$+ 1374689306575\, p^{99}\, q^{85} + 4140072670\, p^{92}\, q^{35} + 11454576084\, p^{32}\, q^{57} + 21121596640\, p^{34}\, q^{58} + 15293302104\, p^{33}\, q^{57}$$
$$+ 16122794\, p^{116}\, q^{38} + 1327\, p^{95}\, q^{14} + 4904\, p^{9}\, q^{17} + 1126431258\, q^{121}\, p^{60} + 117472\, q^{112}\, p^{26} + 2990638655\, q^{122}\, p^{69} + 14354\, p^{89}\, q^{14}$$

$$+ 77104\, p^{94}\, q^{17} + 31839748\, q^{128}\, p^{59} + 1755660\, q^{128}\, p^{49} + 2490467\, q^{128}\, p^{50} + 42423444\, q^{134}\, p^{85} + 146922\, p^{95}\, q^{18} + 159557992\, p^{110}\, q^{38}$$
$$+ 24261\, p^{13}\, q^{16} + 82746156\, p^{130}\, q^{70} + 609\, p^{126}\, q^{32} + 211372\, p^{141}\, q^{86} + 14946\, p^{144}\, q^{130} + 325832\, p^{142}\, q^{104} + 25604584\, p^{134}\, q^{114}$$
$$+ 34573564\, p^{134}\, q^{111} + 15512601\, p^{134}\, q^{118} + 115077344\, p^{34}\, q^{25} + 22668\, p^{135}\, q^{53} + 11498\, p^{132}\, q^{45} + 240942\, p^{141}\, q^{87} + 242\, p^{123}\, q^{28}$$
$$+ 1244\, p^{127}\, q^{34} + 52984\, p^{137}\, q^{61} + 1463222224\, p^{122}\, q^{114} + 2609349379\, p^{122}\, q^{110} + 724757676\, p^{122}\, q^{118} + 3337722792\, p^{122}\, q^{108}$$
$$+ 2961392203\, p^{122}\, q^{109} + 807084067\, q^{81}\, p^{27} + 80511189803\, p^{108}\, q^{106} + 120296692029\, p^{97}\, q^{111} + 3926876\, p^{125}\, q^{46}$$
$$+ 5391783411735\, p^{81}\, q^{80} + 1242511163\, p^{122}\, q^{115} + 2\, p^{43}\, q^{3} + 158340427088\, p^{106}\, q^{103} + 3536923134926\, p^{68}\, q^{85}$$
$$+ 719298082155\, p^{87}\, q^{54} + 1003192288894\, p^{88}\, q^{57} + 4895383738\, p^{83}\, q^{32} + 1140309296564\, p^{88}\, q^{58} + 2320837101880\, p^{89}\, q^{66}$$
$$+ 119561825131\, p^{86}\, q^{44} + 27952212062\, p^{85}\, q^{38} + 1444253793107\, p^{88}\, q^{60} + 616304462834\, p^{87}\, q^{53} + 83771\, p^{14}\, q^{19} + 162305\, p^{15}\, q^{20}$$
$$+ 1008\, q^{74}\, p^{9} + 1225416\, p^{20}\, q^{21} + 59565942\, p^{51}\, q^{19} + 253025041\, p^{52}\, q^{22} + 418945525\, q^{54}\, p^{23} + 2028021563\, p^{125}\, q^{77} + 64\, p^{6}\, q^{7}$$
$$+ 13504146\, q^{28}\, p^{22} + 1435692450\, p^{127}\, q^{98} + 2357149292\, p^{126}\, q^{89} + 1865506414\, p^{125}\, q^{76} + 2274788967\, p^{126}\, q^{87}$$
$$+ 4756175757609\, p^{69}\, q^{79} + 4002345436236\, p^{72}\, q^{65} + 4282036060453\, p^{73}\, q^{66} + 2747118896826\, p^{72}\, q^{60} + 2036119545601\, p^{72}\, q^{57}$$
$$+ 3123126075577\, p^{67}\, q^{86} + 321636\, p^{140}\, q^{82} + 11928516945\, q^{58}\, p^{32} + 450017\, p^{60}\, q^{12} + 4269071382874\, p^{72}\, q^{85}$$
$$+ 4923424558937\, p^{76}\, q^{84} + 4967006746825\, p^{77}\, q^{84} + 5242000177393\, p^{71}\, q^{78} + 53252915931\, p^{37}\, q^{71} + 423041471202\, p^{77}\, q^{47}$$
$$+ 96419380474\, p^{76}\, q^{40} + 74763349499\, p^{76}\, q^{39} + 573540776080\, p^{86}\, q^{52} + 10492\, q^{110}\, p^{22} + 130\, q^{102}\, p^{15} + 585\, q^{109}\, p^{19}$$
$$+ 2378478517\, p^{126}\, q^{90} + 2190944143\, p^{125}\, q^{78} + 1774338761\, p^{126}\, q^{81} + 2215116427\, p^{126}\, q^{86} + 266034\, p^{24}\, q^{14} + 509797\, p^{25}\, q^{15}$$
$$+ 1172037\, p^{25}\, q^{17} + 6193718\, p^{26}\, q^{21} + 3503458\, p^{25}\, q^{20} + 2476855\, p^{25}\, q^{19} + 238791\, q^{26}\, p^{13} + 211655265398\, p^{97}\, q^{54}$$
$$+ 5224927386\, q^{98}\, p^{39} + 710\, p^{93}\, q^{13} + 732183550\, p^{115}\, q^{124} + 620941208\, p^{116}\, q^{124} + 1242808601\, p^{109}\, q^{125} + 1387916598\, p^{108}\, q^{125}$$
$$+ 3937375\, p^{123}\, q^{43} + 124401\, p^{15}\, q^{19} + 2938360599\, p^{55}\, q^{28} + 238484598320\, p^{58}\, q^{45} + 128771591052\, p^{57}\, q^{42} + 55023412316\, p^{57}\, q^{38}$$
$$+ 155874214858\, p^{57}\, q^{43} + 43475583172\, p^{57}\, q^{37} + 68979805653\, p^{57}\, q^{39} + 431466341\, q^{55}\, p^{23} + 171476007\, q^{54}\, p^{21} + 105952001\, q^{54}\, p^{20}$$
$$+ q^{55}\, p^{4} + 18552989\, p^{28}\, q^{23} + 501472691090\, p^{56}\, q^{51} + 73382991\, p^{27}\, q^{29} + 3140647\, q^{52}\, p^{14} + 4295681852\, q^{56}\, p^{29} + 318319\, q^{50}\, p^{11}$$
$$+ 34776440\, p^{31}\, q^{23} + 3615670\, p^{17}\, q^{31} + 44329682\, p^{26}\, q^{28} + 16172010\, p^{136}\, q^{108} + 567049814174\, p^{56}\, q^{52} + 26874903\, p^{26}\, q^{26}$$
$$+ 44364\, q^{81}\, p^{13} + 36316104\, p^{76}\, q^{20} + 15547871\, p^{26}\, q^{24} + 79587760\, q^{124}\, p^{54} + 46691446\, q^{124}\, p^{52} + 223308551291\, p^{102}\, q^{60}$$
$$+ 64848968\, p^{25}\, q^{31} + 325832\, q^{49}\, p^{11} + 337423023\, p^{112}\, q^{42} + 778848739\, p^{114}\, q^{47} + 17891\, p^{13}\, q^{15} + 13005553798\, p^{121}\, q^{92}$$
$$+ 12055222565\, p^{119}\, q^{72} + 1558173855\, p^{115}\, q^{51} + 7567821832\, p^{118}\, q^{65} + 630874\, p^{24}\, q^{16} + 32610\, q^{24}\, p^{10} + 1786\, p^{9}\, q^{13} + 77\, p^{40}\, q^{4}$$

$$+ 54604\, p^{75} q^{12} + 79214671\, p^{32} q^{25} + 141330405\, p^{32} q^{27} + 227191747\, p^{33} q^{28} + 1877186823\, p^{71} q^{27} + 3789\, p^{10} q^{14}$$
$$+ 1608606148741\, p^{80} q^{98} + 826438\, p^{116} q^{32} + 3940779\, p^{119} q^{38} + 16630635099\, p^{77} q^{34} + 110871775191\, p^{78} q^{41} + 1010195559\, p^{74} q^{26}$$
$$+ 12832483074\, p^{76} q^{33} + 432586664\, p^{73} q^{24} + 1576549504615\, p^{94} q^{93} + 5176747\, p^{121} q^{41} + 61298149\, p^{124} q^{53} + 2536622\, p^{118} q^{36}$$
$$+ 2485861862614\, p^{74} q^{93} + 2605932004268\, p^{90} q^{69} + 2756632087695\, p^{90} q^{70} + 1174730850924\, p^{89} q^{59} + 16016\, p^{20} q^{10} + 2067\, p^{19} q^{7}$$
$$+ 4047\, p^{19} q^{8} + 1856671863530\, p^{75} q^{96} + 1293179439364\, p^{70} q^{97} + 1210905068093\, p^{69} q^{97} + 556743743744\, p^{62} q^{98}$$
$$+ 4731384830386\, p^{85} q^{80} + 8150\, p^{72} q^{10} + 25112929\, p^{128} q^{58} + 201\, p^{58} q^{6} + 149992983\, p^{131} q^{109} + 1532531\, p^{118} q^{35}$$
$$+ 100259570\, p^{125} q^{57} + 43630227\, p^{123} q^{50} + 34834111077\, p^{88} q^{40} + 219810073\, p^{128} q^{115} + 2124206\, p^{20} q^{23} + 3230247534\, p^{36} q^{37}$$
$$+ 2168684494\, p^{35} q^{36} + 3649644509779\, p^{65} q^{68} + 1087605990818\, p^{52} q^{71} + 876582675490\, p^{97} q^{65} + 644599104973\, p^{97} q^{62}$$
$$+ 1084256\, q^{123} p^{40} + 2614678\, q^{123} p^{42} + 170181685\, p^{72} q^{22} + 693068342\, p^{73} q^{25} + 66551197\, p^{21} q^{40} + 10314134\, q^{117} p^{38}$$
$$+ 68859\, q^{25} p^{11} + 80401\, q^{26} p^{11} + 119547\, q^{25} p^{12} + 7295\, p^{100} q^{17} + 79444\, p^{106} q^{22} + 463288261\, p^{128} q^{109} + 2485861862614\, p^{60} q^{79}$$
$$+ 92513635043\, p^{95} q^{48} + 54898356642\, p^{94} q^{45} + 49741463\, p^{131} q^{118} + 81420\, p^{57} q^{10} + 354567247\, p^{128} q^{73} + 87338401\, p^{131} q^{114}$$
$$+ 123347083\, p^{131} q^{111} + 39822752652\, q^{108} p^{57} + 3299671\, p^{124} q^{44} + 60632951\, q^{133} p^{82} + 65851667\, q^{133} p^{83} + 2394\, p^{147} q^{115}$$
$$+ 28242533230\, p^{117} q^{99} + 32162775774\, p^{117} q^{97} + 13916\, p^{51} q^{8} + 17588612\, p^{62} q^{17} + 160940992\, p^{64} q^{21} + 9574741\, p^{61} q^{16}$$
$$+ 661139234\, p^{65} q^{24} + 56361164\, p^{63} q^{19} + 71926442230\, p^{69} q^{38} + 44329682\, p^{28} q^{26} + 60973040996\, p^{38} q^{59} + 21211\, p^{17} q^{12}$$
$$+ 48122\, p^{17} q^{14} + 13505\, p^{17} q^{11} + 959058356950\, p^{97} q^{66} + 1086295\, p^{80} q^{16} + 10986772\, p^{84} q^{20} + 9478324382\, p^{93} q^{38}$$
$$+ 43061350385\, p^{94} q^{44} + 1057058315058\, p^{98} q^{69} + 108699795\, p^{133} q^{97} + 9760808275\, p^{75} q^{32} + 6879948097\, p^{75} q^{31} + 1877\, q^{56} p^{7}$$
$$+ 85685621752\, p^{96} q^{113} + 90829293692\, p^{95} q^{113} + 80351417049\, p^{97} q^{113} + 93959\, p^{18} q^{15} + 32384\, p^{17} q^{13} + 2192048278765\, p^{89} q^{93}$$
$$+ 2076637676682\, p^{90} q^{93} + 141271\, q^{26} p^{12} + 4139223580391\, p^{87} q^{75} + 114690281876\, p^{84} q^{43} + 443971223582\, p^{85} q^{50}$$
$$+ 2744257\, p^{20} q^{24} + 97415663\, p^{133} q^{102} + 30626\, q^{108} p^{22} + 14946\, p^{9} q^{23} + 46948554\, p^{134} q^{107} + 59931105248\, q^{100} p^{50}$$
$$+ 48558678853\, q^{100} p^{49} + 19996674271\, q^{101} p^{46} + 38997365335\, q^{100} p^{48} + 31033572430\, q^{100} p^{47} + 11\, q^{89} p^{10} + 42\, q^{91} p^{11}$$
$$+ 58551348\, q^{134} p^{91} + 4941609441\, p^{93} q^{36} + 702616635\, p^{91} q^{30} + 1992786601\, p^{92} q^{33} + 14694878857\, p^{94} q^{40} + 10920056418\, p^{94} q^{39}$$
$$+ 6889763250\, p^{93} q^{37} + 2279\, p^{82} q^{11} + 410495604872\, p^{46} q^{69} + 228310760261\, p^{43} q^{68} + 1374689306575\, p^{54} q^{68}$$
$$+ 1184922902976\, p^{53} q^{67} + 13186992878\, p^{119} q^{73} + 197580073\, p^{70} q^{22} + 792613261\, p^{71} q^{25} + 142777\, p^{46} q^{10} + 1560433\, p^{49} q^{13}$$
$$+ 36273335\, p^{52} q^{18} + 12387\, q^{96} p^{16} + 59353711699\, q^{83} p^{40} + 55077\, p^{140} q^{134} + 9239\, p^{120} q^{29} + 7070\, p^{139} q^{62} + 59990\, p^{143} q^{93}$$

$$+ 12905\, p^{141}\, q^{72} + 51780\, p^{144}\, q^{105} + 9574741\, p^{137}\, q^{92} + 3081770\, p^{137}\, q^{120} + 3184793239384\, p^{89}\, q^{87} + 11454576084\, p^{121}\, q^{96}$$
$$+ 64646936\, q^{57}\, p^{19} + 20669669\, q^{57}\, p^{17} + 5849673\, q^{56}\, p^{15} + 37169189\, q^{57}\, p^{18} + 109106301\, q^{57}\, p^{20} + 179667692\, q^{58}\, p^{21}$$
$$+ 1404971\, q^{55}\, p^{13} + 179192289\, q^{57}\, p^{21} + 11303546\, q^{56}\, p^{16} + 289150782\, q^{58}\, p^{22} + 454693147\, q^{58}\, p^{23} + 3637917442865\, p^{87}\, q^{71}$$
$$+ 3108639809470\, p^{87}\, q^{68} + 3789570395209\, p^{87}\, q^{72} + 699909565\, q^{58}\, p^{24} + 2325734010\, q^{59}\, p^{27} + 1056257711\, q^{58}\, p^{25}$$
$$+ 1564959326\, q^{58}\, p^{26} + 9175997679\, p^{121}\, q^{100} + 2915596624775\, p^{87}\, q^{67} + 4042150846101\, p^{87}\, q^{74} + 391067\, q^{34}\, p^{12} + 428384\, q^{35}\, p^{12}$$
$$+ 100661\, q^{34}\, p^{10} + 2405403\, q^{35}\, p^{15} + 7918467301\, p^{121}\, q^{102} + 1405110\, q^{35}\, p^{14} + 2685442\, q^{36}\, p^{15} + 76736914\, q^{38}\, p^{22} + 8183483\, q^{37}\, p^{17}$$
$$+ 13021456\, q^{37}\, p^{18} + 30740180\, q^{37}\, p^{20} + 869522\, q^{36}\, p^{13} + 20228330\, q^{37}\, p^{19} + 2981\, q^{76}\, p^{10} + 2282955974\, p^{122}\, q^{111}$$
$$+ 3736349464\, p^{122}\, q^{107} + 3784167627273\, p^{79}\, q^{65} + 3924997709585\, p^{80}\, q^{66} + 1100202233721\, p^{78}\, q^{53} + 231675705181\, p^{77}\, q^{44}$$
$$+ 327980136\, p^{70}\, q^{23} + 87063\, q^{114}\, p^{27} + 4663821\, p^{18}\, q^{30} + 30115291\, q^{72}\, p^{19} + 90216235\, q^{73}\, p^{21} + 305689\, q^{64}\, p^{12} + 1603701105\, p^{91}\, q^{32}$$
$$+ 392597330998\, p^{96}\, q^{57} + 61851934\, p^{125}\, q^{55} + 117472\, p^{112}\, q^{26} + 132476335\, p^{132}\, q^{85} + 142\, q^{74}\, p^{8} + 360052680517\, p^{48}\, q^{57}$$
$$+ 13375722339\, p^{121}\, q^{87} + 13220024599\, p^{121}\, q^{86} + 7718121788\, p^{122}\, q^{98} + 13650544907\, p^{120}\, q^{78} + 11429323749\, p^{121}\, q^{81}$$
$$+ 11990944607\, p^{120}\, q^{76} + 13457575991\, p^{121}\, q^{89} + 12832483074\, p^{120}\, q^{77} + 125769365\, p^{125}\, q^{58} + 136478209\, p^{131}\, q^{110}$$
$$+ 14325364\, p^{122}\, q^{45} + 163751560\, p^{131}\, q^{108} + 13382331965\, p^{121}\, q^{90} + 59929729\, q^{119}\, p^{45} + 113265671\, q^{119}\, p^{47} + 82939944\, q^{119}\, p^{46}$$
$$+ 2063566990\, p^{69}\, q^{27} + 12328047472\, p^{70}\, q^{32} + 1593258396442\, p^{79}\, q^{98} + 53918029\, p^{134}\, q^{89} + 64782100882\, p^{40}\, q^{82} + 6075247\, q^{50}\, p^{15}$$
$$+ 86\, q^{39}\, p^{4} + 5778\, q^{46}\, p^{7} + 1586381037438\, p^{79}\, q^{56} + 1266894132100\, p^{78}\, q^{54} + 2485861862614\, p^{79}\, q^{60} + 1792335104275\, p^{79}\, q^{57}$$
$$+ 57368530591\, p^{76}\, q^{38} + p\, q^{11} + 2234\, p^{8}\, q^{16} + 144810748762\, p^{96}\, q^{51} + 59392476928\, p^{95}\, q^{46} + 796233073618\, p^{97}\, q^{64}$$
$$+ 290095205412\, p^{96}\, q^{55} + 1206\, p^{7}\, q^{16} + 50749882\, p^{86}\, q^{23} + 1268452008\, p^{90}\, q^{31} + 37948\, q^{25}\, p^{10} + 2069612\, p^{81}\, q^{17} + 406256397\, p^{89}\, q^{28}$$
$$+ 112\, p^{16}\, q^{4} + 30\, p^{14}\, q^{3} + 1146247069\, p^{112}\, q^{124} + 282380696778\, p^{46}\, q^{58} + 257\, q^{95}\, p^{13} + 789\, p^{14}\, q^{7} + 2351\, p^{14}\, q^{9} + 1402\, p^{14}\, q^{8}$$
$$+ 10278553\, q^{47}\, p^{16} + 10934567194\, p^{56}\, q^{32} + 2070022844\, p^{55}\, q^{27} + 8112155748\, p^{56}\, q^{31} + 105495658016\, p^{57}\, q^{41} + 19171657819\, p^{56}\, q^{34}$$
$$+ 24963301951\, p^{56}\, q^{35} + 2394\, p^{38}\, q^{6} + 3169\, p^{22}\, q^{7} + 6596\, p^{22}\, q^{8} + 100234\, p^{24}\, q^{12} + 27722\, p^{23}\, q^{10} + 4993\, p^{15}\, q^{10} + 6082\, p^{9}\, q^{18}$$
$$+ 4301\, p^{11}\, q^{13} + 4486\, p^{12}\, q^{12} + 111312127384\, p^{90}\, q^{113} + 105495658016\, p^{96}\, q^{112} + 78346354753\, p^{105}\, q^{109} + 318450\, q^{32}\, p^{12}$$
$$+ 78276\, q^{31}\, p^{10} + 908050811306\, p^{59}\, q^{54} + 1085608183463\, p^{60}\, q^{55} + 5\, p^{61}\, q^{5} + 71057945\, p^{69}\, q^{20} + 909377298523\, p^{79}\, q^{52}$$
$$+ 777376939051\, p^{79}\, q^{51} + 47821494\, p^{31}\, q^{24} + 1686\, p^{24}\, q^{6} + 581\, p^{23}\, q^{5} + 384223\, p^{29}\, q^{13} + 4663821\, p^{30}\, q^{18} + 136603151640\, p^{107}\, q^{103}$$
$$+ 6913747\, q^{66}\, p^{16} + 6611946\, q^{117}\, p^{37} + 613055440\, p^{128}\, q^{106} + 14655\, p^{101}\, q^{18} + 588675623407\, p^{58}\, q^{51} + 667692285109\, p^{58}\, q^{52}$$

$$+ 1230205953594\, p^{53} q^{69} + 12168135\, p^{87} q^{21} + 37490188\, p^{135} q^{98} + 40788531\, p^{133} q^{78} + 588868785329\, p^{60} q^{50} + 69319433204\, q^{94} p^{46}$$
$$+ 51975790\, q^{129} p^{64} + 3584\, p^{23} q^{7} + 208143129739\, p^{96} q^{53} + 4301\, p^{13} q^{11} + 3077\, p^{11} q^{12} + 3767268746\, q^{108} p^{46} + 585922603\, q^{107} p^{39}$$
$$+ 272217413119\, p^{81} q^{109} + 13895616072\, p^{57} q^{112} + 9667703160\, q^{109} p^{51} + 148466466314\, p^{112} q^{85} + 140735395754\, p^{111} q^{75}$$
$$+ 10359712712\, p^{107} q^{49} + 3711626239\, p^{106} q^{44} + 1115899\, p^{94} q^{20} + 399003487\, q^{74} p^{24} + 387894518\, p^{52} q^{23} + 1036100971\, p^{128} q^{96}$$
$$+ 3470337980\, q^{79} p^{30} + 44310870904\, q^{80} p^{38} + 146556\, q^{110} p^{25} + 407445532\, p^{96} q^{31} + 125769365\, p^{95} q^{28} + 41445755317\, p^{70} q^{36}$$
$$+ 1084893960723\, p^{72} q^{52} + 937058114669\, p^{72} q^{51} + 327\, p^{44} q^{5} + 173048\, p^{60} q^{11} + 1010195559\, q^{74} p^{26} + 11123145680\, q^{92} p^{38}$$
$$+ 1603701105\, q^{91} p^{32} + 2359295943\, q^{91} p^{33} + 9017\, p^{20} q^{9} + 55391\, p^{21} q^{12} + 3\, p^{133} q^{37} + 300778090946\, p^{59} q^{46} + 246651595778\, p^{96} q^{54}$$
$$+ 66823\, p^{74} q^{12} + 58529\, p^{43} q^{9} + 21926\, p^{42} q^{8} + 2380911340980\, p^{94} q^{76} + 2431957827315\, p^{94} q^{77} + 2159095314300\, p^{94} q^{73}$$
$$+ 11531075\, p^{19} q^{33} + 30000546\, p^{22} q^{32} + 196162227061\, q^{80} p^{44} + 332992110\, q^{76} p^{24} + 199977473\, q^{76} p^{23} + 857845329\, q^{76} p^{26}$$
$$+ 81192160671\, q^{79} p^{40} + 2797547233\, q^{77} p^{29} + 540693085\, q^{76} p^{25} + 1865506414\, q^{77} p^{28} + 26793321906\, q^{79} p^{36} + 19723804295\, q^{79} p^{35}$$
$$+ 10279773969\, q^{79} p^{33} + 14335224687\, q^{79} p^{34} + 7267932194\, q^{79} p^{32} + 25\, q^{65} p^{6} + 539\, p^{144} q^{77} + 1813708547299\, p^{71} q^{56}$$
$$+ 18101217318\, p^{67} q^{33} + 266434892\, p^{64} q^{22} + 1024895857\, p^{65} q^{25} + 571725\, q^{32} p^{13} + 75763535910\, q^{80} p^{40} + 97520371034\, q^{80} p^{41}$$
$$+ 156864666436\, q^{80} p^{43} + 124279396750\, q^{80} p^{42} + 395900960199\, q^{106} p^{92} + 22840819\, p^{134} q^{115} + 1065144037844\, p^{63} q^{94}$$
$$+ 807775959110\, p^{50} q^{70} + 67585733335\, p^{38} q^{72} + 16570695945\, p^{59} q^{33} + 922694422660\, p^{61} q^{53} + 11584211\, p^{53} q^{16}$$
$$+ 508481592176\, p^{97} q^{60} + 1201946862414\, p^{98} q^{71} + 197900685953\, p^{106} q^{101} + 2641236326640\, p^{73} q^{92} + 5033101600652\, p^{81} q^{83}$$
$$+ 4390079109385\, p^{75} q^{86} + 454405029575\, p^{106} q^{78} + 4930555166816\, p^{80} q^{84} + 253427054\, p^{39} q^{25} + 43721\, p^{33} q^{9} + 203869\, p^{34} q^{11}$$
$$+ 42254416404\, p^{69} q^{36} + 1087605990818\, p^{71} q^{52} + 940768453473\, p^{71} q^{51} + 6866\, p^{31} q^{7} + 17945\, p^{32} q^{8} + 428384\, p^{35} q^{12}$$
$$+ 100661\, p^{34} q^{10} + 8183483\, p^{37} q^{17} + 52242892\, p^{38} q^{21} + 1556425\, p^{36} q^{14} + 190\, p^{25} q^{4} + 34900337\, p^{38} q^{20} + 22840819\, p^{38} q^{19}$$
$$+ 87338401\, p^{39} q^{22} + 126619246\, p^{39} q^{23} + 478305857\, p^{39} q^{27} + 745303842\, p^{40} q^{28} + 869522\, p^{36} q^{13} + 2685442\, p^{36} q^{15}$$
$$+ 279441109492\, p^{44} q^{68} + 339166641085\, p^{45} q^{68} + 257178\, p^{19} q^{17} + 4524\, p^{49} q^{7} + 4770147717971\, p^{78} q^{85} + 4764130243758\, p^{79} q^{85}$$
$$+ 4863317688086\, p^{81} q^{84} + 4878\, p^{26} q^{7} + 1936\, q^{105} p^{18} + 95902699\, p^{130} q^{71} + 3946839\, p^{22} q^{23} + 171021232\, p^{132} q^{91} + 620007\, q^{26} p^{15}$$
$$+ 710106176\, q^{78} p^{26} + 180007030\, q^{77} p^{23} + 1164476\, p^{27} q^{16} + 6936683\, p^{24} q^{23} + 2499836\, p^{75} q^{16} + 138862\, p^{17} q^{17} + 163676329\, q^{96} p^{29}$$
$$+ 49741463\, q^{35} p^{22} + 9957644\, q^{114} p^{35} + 3171647031\, p^{57} q^{28} + 268068147952\, p^{60} q^{45} + 144930188804\, p^{59} q^{42} + 60973040996\, p^{59} q^{38}$$
$$+ 176071346333\, p^{59} q^{43} + 47975379297\, p^{59} q^{37} + 76749126795\, p^{59} q^{39} + 1782887\, p^{102} q^{24} + 49496\, q^{115} p^{27} + 105197\, q^{115} p^{28}$$

$$+ 429744748514\, p^{64}\, q^{101} + 476126791914\, p^{65}\, q^{101} + 3669967302871\, p^{65}\, q^{80} + 122571\, q^{116}\, p^{29} + 241320\, q^{116}\, p^{30} + 12472\, q^{113}\, p^{24}$$
$$+ 688847820444\, p^{49}\, q^{71} + 371\, p^{43}\, q^{5} + 31172896345\, p^{70}\, q^{35} + 1247252063464\, p^{72}\, q^{53} + 276353035247\, p^{71}\, q^{44}$$
$$+ 788162308669\, p^{55}\, q^{56} + 647060039508\, p^{54}\, q^{55} + 338692572403\, p^{96}\, q^{56} + 390504170822\, p^{97}\, q^{58} + 189915\, p^{59}\, q^{11} + 390524\, q^{26}\, p^{14}$$
$$+ 746775\, q^{27}\, p^{15} + 437752855403\, p^{60}\, q^{98} + 374146108781\, p^{60}\, q^{99} + 621735976063\, p^{63}\, q^{98} + 689878038773\, p^{64}\, q^{98}$$
$$+ 760664402960\, p^{65}\, q^{98} + 1042867748160\, p^{67}\, q^{97} + 1127132933469\, p^{68}\, q^{97} + 1792335104275\, p^{74}\, q^{96} + 495311142198\, p^{61}\, q^{98}$$
$$+ 327\, q^{91}\, p^{12} + 1402509751534\, p^{59}\, q^{87} + 1570996621371\, p^{60}\, q^{87} + 335054173781\, p^{55}\, q^{95} + 327891286280\, p^{54}\, q^{94}$$
$$+ 129551051468\, p^{92}\, q^{112} + 134396140090\, p^{91}\, q^{112} + 5\, p^{145}\, q^{151} + 4\, p^{146}\, q^{151} + 4\, p^{147}\, q^{151} + 7\, p^{140}\, q^{151} + 13\, p^{145}\, q^{150} + 16722531\, q^{29}\, p^{22}$$
$$+ 7174\, p^{42}\, q^{7} + 70067296\, p^{30}\, q^{26} + 22590\, p^{26}\, q^{9} + 93062\, p^{27}\, q^{11} + 35357\, p^{77}\, q^{12} + 152175782703\, p^{104}\, q^{60} + 1201946862414\, p^{55}\, q^{82}$$
$$+ 1338\, p^{58}\, q^{7} + 12122\, p^{27}\, q^{8} + 220385\, p^{29}\, q^{12} + 56678\, p^{28}\, q^{10} + 3615670\, p^{31}\, q^{17} + 21045381\, p^{32}\, q^{21} + 12183170\, p^{31}\, q^{20}$$
$$+ 8294198\, p^{31}\, q^{19} + 30000546\, p^{32}\, q^{22} + 750706\, p^{30}\, q^{14} + 6145\, q^{29}\, p^{7} + 70886\, q^{30}\, p^{10} + 125769365\, q^{95}\, p^{28} + 55657435\, q^{94}\, p^{26}$$
$$+ 14534\, q^{29}\, p^{8} + 2210\, q^{28}\, p^{6} + 502894109\, q^{95}\, p^{31} + 765763044\, q^{95}\, p^{32} + 1144776085\, q^{95}\, p^{33} + 2431926305\, q^{95}\, p^{35}$$
$$+ 1682111177\, q^{95}\, p^{34} + 5735\, q^{28}\, p^{7} + 31515\, q^{29}\, p^{9} + 14669862\, p^{78}\, q^{19} + 567049814174\, p^{52}\, q^{56} + 458586847638\, p^{51}\, q^{55} + 147\, p^{19}\, q^{4}$$
$$+ 39\, p^{17}\, q^{3} + 323811626\, q^{95}\, p^{30} + 22320406\, q^{93}\, p^{24} + 2863679831\, q^{96}\, p^{36} + 204129619\, q^{95}\, p^{29} + 8657\, p^{24}\, q^{8} + 141271\, p^{26}\, q^{12}$$
$$+ 37948\, p^{25}\, q^{10} + 639326331\, p^{89}\, q^{29} + 75219436\, p^{87}\, q^{24} + 6936683\, p^{23}\, q^{24} + 8539254\, p^{22}\, q^{26} + 9024012\, p^{23}\, q^{25} + 4875215\, p^{21}\, q^{25}$$
$$+ 6680404\, p^{22}\, q^{25} + 272379\, p^{65}\, q^{12} + 319536302396\, p^{82}\, q^{47} + 70272043349\, p^{81}\, q^{40} + 53914589733\, p^{81}\, q^{39} + 27186659\, p^{73}\, q^{19}$$
$$+ 3739603098690\, p^{85}\, q^{69} + 3930966276387\, p^{85}\, q^{70} + 207696780873\, q^{106}\, p^{66} + 1810896\, q^{95}\, p^{21} + 1242873282473\, p^{83}\, q^{100}$$
$$+ 874664416\, p^{36}\, q^{31} + 1753292698\, p^{36}\, q^{34} + 2168684494\, p^{36}\, q^{35} + 3230247534\, p^{37}\, q^{36} + 55185314\, p^{134}\, q^{104} + 81175299\, p^{133}\, q^{86}$$
$$+ 679663829\, p^{36}\, q^{30} + 1113869930\, p^{36}\, q^{32} + 522383051\, p^{36}\, q^{29} + 1748173411233\, p^{69}\, q^{94} + 928093988966\, p^{102}\, q^{80}$$
$$+ 855206433678\, p^{102}\, q^{88} + 155874214858\, p^{43}\, q^{57} + 251250\, q^{30}\, p^{12} + 288168626\, p^{93}\, q^{131} + 285116967\, p^{92}\, q^{131}$$
$$+ 4289853158374\, p^{67}\, q^{70} + 1593258396442\, p^{55}\, q^{74} + 1799749601340\, p^{56}\, q^{74} + 2019659766301\, p^{57}\, q^{74} + 2251799582582\, p^{58}\, q^{74}$$
$$+ 3251642312281\, p^{62}\, q^{72} + 7\, p^{68}\, q^{6} + 807084067\, p^{81}\, q^{27} + 162305\, p^{133}\, q^{138} + 331187\, p^{105}\, q^{142} + 96150\, p^{98}\, q^{143} + 2662514074\, p^{81}\, q^{125}$$
$$+ 24\, q^{119}\, p^{23} + 247094143\, p^{30}\, q^{31} + 380593636\, p^{33}\, q^{30} + 10778780\, q^{58}\, p^{16} + 5686253\, q^{57}\, p^{15} + 2782468\, q^{57}\, p^{14} + 35960238\, q^{59}\, p^{18}$$
$$+ 1349442\, q^{56}\, p^{13} + 4891287524\, q^{108}\, p^{47} + 274\, q^{83}\, p^{10} + 3769\, q^{85}\, p^{12} + 1130\, q^{84}\, p^{11} + 146480\, q^{92}\, p^{17} + 179\, q^{84}\, p^{10} + 3819\, q^{89}\, p^{13}$$
$$+ 46348\, q^{89}\, p^{15} + 19939\, q^{88}\, p^{14} + 62558\, q^{88}\, p^{15} + 1836\, q^{87}\, p^{12} + 2661\, q^{86}\, p^{12} + 7758\, q^{87}\, p^{13} + 14354\, q^{89}\, p^{14} + 776\, q^{85}\, p^{11}$$

$$+ 24294\, q^{91} p^{15} + 5484\, q^{88} p^{13} + 10176\, q^{90} p^{14} + 514\, q^{86} p^{11} + 62040297\, q^{60} p^{19} + 174709625\, q^{61} p^{21} + 19742419\, q^{59} p^{17}$$
$$+ 106418603\, q^{60} p^{20} + 125171648422\, p^{43} q^{83} + 83736987617\, p^{41} q^{82} + 454207890\, q^{61} p^{23} + 285116967\, q^{61} p^{22} + 1075547039\, q^{62} p^{25}$$
$$+ 1616455194\, q^{62} p^{26} + 701950512\, q^{62} p^{24} + 959696131989\, p^{62} q^{94} + 2378478517\, q^{63} p^{27} + 3463241565\, q^{63} p^{28} + 2167796\, q^{70} p^{15}$$
$$+ 428750\, q^{69} p^{13} + 19603706\, p^{128} q^{57} + 8627400\, p^{126} q^{50} + 13016431037\, q^{107} p^{50} + 24463670204\, q^{107} p^{53} + 2559\, p^{119} q^{147}$$
$$+ 8295\, p^{136} q^{143} + 14946\, p^{130} q^{144} + 17311\, p^{129} q^{144} + 13343\, p^{125} q^{145} + 10471\, p^{135} q^{143} + 10940\, p^{127} q^{145} + 237735\, q^{36} p^{11}$$
$$+ 984097927047\, p^{76} q^{101} + 1014959628596\, p^{77} q^{101} + 40\, p^{55} q^{5} + 3094070\, q^{106} p^{27} + 52593645\, p^{30} q^{25} + 92199776\, p^{30} q^{27}$$
$$+ 149798845\, p^{31} q^{28} + 190\, q^{25} p^{4} + 74462308532\, p^{95} q^{47} + 129360129\, p^{87} q^{25} + 93000472\, q^{78} p^{22} + 2499836\, q^{75} p^{16} + 1268107\, q^{74} p^{15}$$
$$+ 16838555\, q^{77} p^{19} + 242337359436\, p^{107} q^{70} + 13427760\, q^{34} p^{19} + 2995322826473\, p^{62} q^{79} + 1424054054276\, p^{54} q^{72} + 2234\, p^{77} q^{10}$$
$$+ 794708378192\, p^{50} q^{73} + 1252745354\, q^{81} p^{28} + 174035748181\, p^{104} q^{61} + 223050845882\, p^{104} q^{63} + 413906299072\, p^{105} q^{72}$$
$$+ 101616977158\, p^{103} q^{56} + 278440566135\, p^{104} q^{65} + 197685231006\, p^{104} q^{62} + 489529688047\, p^{106} q^{82} + 491072985017\, p^{106} q^{84}$$
$$+ 119339568001\, p^{103} q^{57} + 491692891022\, p^{106} q^{83} + 4474466385\, p^{124} q^{84} + 1126431258\, p^{121} q^{60} + 2011748477\, p^{122} q^{66}$$
$$+ 129461161\, p^{127} q^{120} + 4573954\, p^{111} q^{31} + 2504906949\, p^{125} q^{101} + 208795308\, p^{126} q^{119} + 154208303\, p^{30} q^{29} + 126\, p^{148} q^{103}$$
$$+ 26\, p^{145} q^{75} + 136934848\, p^{35} q^{25} + 37780202199\, p^{73} q^{36} + 137\, p^{141} q^{148} + 4651962040800\, p^{69} q^{70} + 3528310697104\, p^{63} q^{73}$$
$$+ 29971192\, q^{119} p^{43} + 1450771\, q^{116} p^{33} + 54\, q^{135} p^{43} + 466138\, p^{126} q^{139} + 32789260035\, p^{118} q^{88} + 12398936223\, p^{119} q^{103}$$
$$+ 23370891357\, p^{119} q^{92} + 14469351916\, p^{116} q^{65} + 22768328668\, p^{117} q^{72} + 14335224687\, p^{79} q^{34} + 97520371034\, p^{80} q^{41}$$
$$+ 857845329\, p^{76} q^{26} + 11136604780\, p^{78} q^{33} + 846133898687\, p^{100} q^{70} + 24025670069\, p^{96} q^{43} + 11513900\, q^{36} p^{18} + 26874690\, q^{36} p^{20}$$
$$+ 45782142\, q^{37} p^{21} + 439628657870\, p^{48} q^{80} + 2403\, q^{30} p^{6} + 743\, q^{29} p^{5} + 6866\, q^{31} p^{7} + 1415080229730\, p^{99} q^{83} + 652287\, p^{78} q^{15}$$
$$+ 3010564726\, p^{113} q^{51} + 648871846\, p^{110} q^{42} + 1511701276\, p^{112} q^{47} + 437752855403\, p^{98} q^{60} + 1045041708427\, p^{99} q^{71}$$
$$+ 2994033581481\, p^{63} q^{66} + 3320748905531\, p^{64} q^{67} + 1057058315058\, p^{69} q^{98} + 281707218406\, p^{108} q^{92} + 5149899394106\, p^{74} q^{82}$$
$$+ 5454888837335\, p^{79} q^{81} + 5242000177393\, p^{75} q^{82} + 30334872\, p^{135} q^{106} + 59322\, q^{116} p^{28} + 265449\, q^{117} p^{31} + 96423077514\, q^{88} p^{44}$$
$$+ 15884155\, p^{99} q^{26} + 68979805653\, p^{114} q^{96} + 658603\, p^{93} q^{19} + 1092557403\, p^{106} q^{40} + 778848739\, p^{106} q^{39} + 203463327\, p^{104} q^{34}$$
$$+ 506903533274\, q^{89} p^{53} + 429744748514\, q^{89} p^{52} + 593502306241\, q^{89} p^{54} + 718707087163\, q^{90} p^{56} + 689878038773\, q^{89} p^{55}$$
$$+ 2251218290009\, p^{58} q^{71} + 2348599188\, p^{97} q^{36} + 323811626\, p^{95} q^{30} + 935890718\, p^{96} q^{33} + 12183170\, p^{133} q^{122} + 26279\, p^{57} q^{9}$$
$$+ 5534727871217\, p^{73} q^{78} + 1416502012948\, p^{99} q^{80} + 1261269051588\, p^{99} q^{88} + 3268621757614\, p^{80} q^{91} + 317\, p^{145} q^{144} + 211\, p^{142} q^{147}$$

$$+ 278\, p^{143}\, q^{146} + 308826670893\, p^{78}\, q^{108} + 64154115\, q^{134}\, p^{95} + 283957\, q^{31}\, p^{12} + 988022\, q^{32}\, p^{14} + 17945\, p^{145}\, q^{121} + 2\, p^{111}\, q^{17}$$
$$+ 791442533307\, p^{90}\, q^{102} + 623805485845\, p^{92}\, q^{103} + 674530917310\, p^{93}\, q^{102} + 754783249163\, p^{91}\, q^{102} + 715631449655\, p^{92}\, q^{102}$$
$$+ 855206433678\, p^{88}\, q^{102} + 825082501034\, p^{89}\, q^{102} + 14985347230\, p^{115}\, q^{63} + 25008665757\, p^{115}\, q^{67} + 950820850391\, p^{97}\, q^{96}$$
$$+ 251365457698\, p^{106}\, q^{68} + 1042572193299\, p^{96}\, q^{96} + 803578913603\, p^{81}\, q^{103} + 980109133676\, p^{88}\, q^{101} + 52593645\, p^{25}\, q^{30}$$
$$+ 2400267395362\, p^{93}\, q^{87} + 4226489\, p^{17}\, q^{32} + 2226705928671\, p^{75}\, q^{58} + 2470071245959\, p^{75}\, q^{59} + 399003487\, p^{74}\, q^{24}$$
$$+ 156437005\, p^{73}\, q^{22} + 642069373\, p^{74}\, q^{25} + 4\, p^{25}\, q^{2} + 66468261442\, q^{109}\, p^{62} + 6\, p^{78}\, q^{146} + 13505\, p^{136}\, q^{142} + 104\, p^{51}\, q^{5}$$
$$+ 10103866\, q^{35}\, p^{18} + 194\, q^{26}\, p^{4} + 57921559\, q^{36}\, p^{22} + 29679182673\, q^{107}\, p^{54} + 28021416234\, q^{108}\, p^{55} + 161105474856\, p^{104}\, q^{105}$$
$$+ 715888\, q^{34}\, p^{13} + 106488575318\, p^{99}\, q^{52} + 69892324204\, p^{98}\, q^{49} + 157228805\, p^{38}\, q^{24} + 13021456\, p^{37}\, q^{18} + 302889190\, p^{38}\, q^{26}$$
$$+ 261046819\, q^{96}\, p^{30} + 2210\, p^{28}\, q^{6} + 709\, p^{27}\, q^{5} + 3794156663\, p^{123}\, q^{75} + 108020634\, p^{116}\, q^{43} + 631271819\, p^{126}\, q^{112} + 2206222\, p^{110}\, q^{29}$$
$$+ 4619270942\, p^{124}\, q^{85} + 4308775261\, p^{124}\, q^{83} + 449687866\, p^{119}\, q^{52} + 2638687922\, p^{122}\, q^{68} + 110746573\, p^{115}\, q^{130} + 2393515609\, p^{39}\, q^{33}$$
$$+ 4486377\, p^{36}\, q^{16} + 185096946139\, p^{103}\, q^{60} + 44196\, p^{76}\, q^{12} + 3538956140609\, p^{81}\, q^{65} + 17539213528\, p^{33}\, q^{61} + 11799054\, q^{102}\, p^{27}$$
$$+ 1125908746\, p^{39}\, q^{30} + 856631936\, p^{39}\, q^{29} + 5815609083\, p^{113}\, q^{54} + 43082462455\, p^{107}\, q^{111} + 332654181631\, p^{45}\, q^{72}$$
$$+ 1881148359\, p^{39}\, q^{32} + 14618800\, p^{18}\, q^{38} + 1113869930\, p^{32}\, q^{36} + 411703515\, p^{27}\, q^{38} + 189211970\, p^{25}\, q^{37} + 259693842\, p^{26}\, q^{37}$$
$$+ 1691264088\, p^{33}\, q^{37} + 3879801891377\, p^{88}\, q^{75} + 2747118896826\, p^{93}\, q^{81} + 1463222224\, p^{39}\, q^{31} + 3015237927\, p^{39}\, q^{34}$$
$$+ 3762190931\, p^{39}\, q^{35} + 5513453000\, p^{40}\, q^{36} + 2147986\, p^{28}\, q^{17} + 11922233\, p^{29}\, q^{21} + 6830041\, p^{28}\, q^{20} + 4735192\, p^{28}\, q^{19}$$
$$+ 16722531\, p^{29}\, q^{22} + 466138\, p^{27}\, q^{14} + 46948554\, p^{107}\, q^{134} + 1804454185748\, p^{59}\, q^{62} + 1831128297547\, p^{60}\, q^{61}$$
$$+ 1676616809552\, p^{57}\, q^{64} + 1752227739198\, p^{58}\, q^{63} + 1804454185748\, p^{62}\, q^{59} + 136603151640\, p^{103}\, q^{107} + 401277023132\, q^{88}\, p^{51}$$
$$+ 335590584076\, q^{88}\, p^{50} + 3944492458691\, p^{65}\, q^{71} + 895065224669\, p^{51}\, q^{75} + 764137028133\, p^{50}\, q^{75} + 2882403\, q^{74}\, p^{16}$$
$$+ 63779848\, p^{134}\, q^{99} + 9721425\, q^{76}\, p^{18} + 227124800974\, p^{83}\, q^{110} + 115132898310\, p^{106}\, q^{61} + 148700733346\, p^{106}\, q^{63}$$
$$+ 280244830058\, p^{107}\, q^{72} + 67009397204\, p^{105}\, q^{56} + 53964010\, q^{42}\, p^{20} + 136478209\, q^{43}\, p^{22} + 181210496\, q^{42}\, p^{23} + 82409827\, q^{42}\, p^{21}$$
$$+ 123347083\, q^{42}\, p^{22} + 4256464056\, q^{99}\, p^{39} + 5815609083\, q^{99}\, p^{40} + 7847852923\, q^{99}\, p^{41} + 179080404\, q^{85}\, p^{25} + 215460520057\, p^{89}\, q^{110}$$
$$+ 39472360\, q^{84}\, p^{22} + 70854654\, q^{84}\, p^{23} + 123241216\, q^{84}\, p^{24} + 478641042\, q^{85}\, p^{27} + 307125\, q^{77}\, p^{14} + 13230852206\, p^{62}\, q^{32}$$
$$+ 2379631579\, p^{61}\, q^{27} + 9662627331\, p^{62}\, q^{31} + 138618281881\, p^{63}\, q^{41} + 18552989\, p^{23}\, q^{28} + 4084035029781\, p^{87}\, q^{83}$$
$$+ 3528310697104\, p^{80}\, q^{90} + 637531757991\, p^{65}\, q^{49} + 13112980\, q^{133}\, p^{70} + 15522891\, q^{133}\, p^{71} + 3707105576935\, p^{64}\, q^{71}$$

$$+ 1194039\, q^{110}\, p^{28} + 6265733281\, q^{120}\, p^{69} + 7786678130\, q^{120}\, p^{71} + 9430074442\, q^{120}\, p^{73} + 11136604780\, q^{120}\, p^{75} + 153162393\, p^{127}\, q^{64}$$
$$+ 547228689\, q^{115}\, p^{47} + 303099063\, q^{115}\, p^{45} + 117864864\, q^{113}\, p^{40} + 621391\, q^{110}\, p^{27} + 17408\, q^{103}\, p^{19} + 78633\, q^{104}\, p^{21}$$
$$+ 24418670\, q^{114}\, p^{37} + 5294\, q^{98}\, p^{16} + 80988525\, q^{114}\, p^{40} + 2003982174\, q^{118}\, p^{57} + 2431926305\, q^{118}\, p^{58} + 1119\, q^{92}\, p^{13} + 11424\, q^{99}\, p^{17}$$
$$+ 62796\, q^{100}\, p^{19} + 2218\, q^{97}\, p^{15} + 34226\, q^{99}\, p^{18} + 10786\, q^{104}\, p^{19} + 50618\, q^{105}\, p^{21} + 401974\, q^{106}\, p^{24} + 2129839\, q^{107}\, p^{27}$$
$$+ 233896\, q^{109}\, p^{25} + 6809064\, q^{110}\, p^{31} + 343660856\, q^{117}\, p^{48} + 452944492\, q^{117}\, p^{49} + 1539022066\, q^{117}\, p^{54} + 1229006312\, q^{117}\, p^{53}$$
$$+ 4511158156221\, p^{69}\, q^{69} + 388363276349\, p^{88}\, q^{107} + 167306564856\, p^{106}\, q^{64} + 56387597841\, p^{105}\, q^{55} + 3251642312281\, p^{91}\, q^{81}$$
$$+ 123355718710\, p^{105}\, q^{106} + 59152323335\, p^{65}\, q^{111} + 156864666436\, p^{73}\, q^{110} + 244447892931\, p^{97}\, q^{107} + p^{14}\, q + 34900337\, p^{20}\, q^{38}$$
$$+ 6\, p^{136}\, q^{43} + 401212263\, q^{103}\, p^{35} + 148657505\, q^{102}\, p^{32} + 2541469723\, q^{104}\, p^{41} + 1851325689\, q^{104}\, p^{40} + 432586664\, p^{129}\, q^{80}$$
$$+ 262645561\, p^{131}\, q^{100} + 46878521\, p^{110}\, q^{35} + 1674073788\, p^{126}\, q^{102} + 798114731\, p^{127}\, q^{107} + 520100693\, p^{127}\, q^{111} + 2118668660\, p^{124}\, q^{73}$$
$$+ 15\, p^{145}\, q^{74} + 2\, p^{144}\, q^{66} + 42\, p^{150}\, q^{131} + 98686171\, p^{113}\, q^{131} + 22788208\, q^{135}\, p^{85} + 19190379\, q^{135}\, p^{83} + 20981057\, q^{135}\, p^{84}$$
$$+ 24588699\, q^{135}\, p^{86} + 28080120\, q^{135}\, p^{88} + 26361255\, q^{135}\, p^{87} + 29722777\, q^{135}\, p^{89} + 32679156\, q^{135}\, p^{91} + 31263062\, q^{135}\, p^{90}$$
$$+ 80243617663\, p^{114}\, q^{93} + 33441537878\, p^{110}\, q^{59} + 28452515656\, p^{110}\, q^{58} + 111312127384\, p^{113}\, q^{90} + 5600608698\, p^{96}\, q^{38}$$
$$+ 26116323702\, p^{97}\, q^{44} + 674089683507\, p^{101}\, q^{69} + 616304462834\, p^{100}\, q^{66} + 35956045811\, p^{116}\, q^{74} + 27630599546\, p^{118}\, q^{95}$$
$$+ 28812819351\, p^{118}\, q^{94} + 10197712473\, p^{119}\, q^{105} + 14446268356\, p^{118}\, q^{104} + 4852771574730\, p^{78}\, q^{69} + 5058102212050\, p^{78}\, q^{70}$$
$$+ 5401694123790\, p^{78}\, q^{72} + 4629030614119\, p^{78}\, q^{68} + 4390079109385\, p^{78}\, q^{67} + 401212263\, q^{118}\, p^{50} + 5242000177393\, p^{78}\, q^{71}$$
$$+ 306277468\, q^{118}\, p^{49} + 11676\, p^{63}\, q^{9} + 5639023267704\, p^{78}\, q^{74} + 5712929320473\, p^{78}\, q^{75} + 5534727871217\, p^{78}\, q^{73} + 2303\, p^{147}\, q^{114}$$
$$+ 142\, p^{140}\, q^{57} + 5755266452052\, p^{78}\, q^{76} + 5765353813734\, p^{78}\, q^{77} + 5688651307533\, p^{79}\, q^{78} + 724201170872\, p^{70}\, q^{101}$$
$$+ 773412778093\, p^{71}\, q^{101} + 3974796888115\, p^{87}\, q^{84} + 3637372477873\, p^{89}\, q^{83} + 1570996621371\, p^{66}\, q^{93} + 757924\, p^{122}\, q^{38}$$
$$+ 157530\, p^{119}\, q^{32} + 467021774\, p^{110}\, q^{41} + 7953944828\, p^{117}\, q^{63} + 140372963\, p^{132}\, q^{86} + 89322020\, p^{133}\, q^{104} + 19414\, q^{107}\, p^{21}$$
$$+ 515488768161\, p^{50}\, q^{58} + 137872732606\, p^{41}\, q^{73} + 1248585797225\, p^{53}\, q^{71} + 2994033581481\, p^{90}\, q^{87} + 24796\, p^{73}\, q^{11}$$
$$+ 180533905\, p^{39}\, q^{24} + 14618800\, p^{38}\, q^{18} + 350573748\, p^{39}\, q^{26} + 2308\, p^{29}\, q^{6} + 727\, p^{28}\, q^{5} + 2813791275\, p^{40}\, q^{33} + 5008229\, p^{37}\, q^{16}$$
$$+ 1311545906\, p^{40}\, q^{30} + 994610392\, p^{40}\, q^{29} + 2204943304\, p^{40}\, q^{32} + 338816701444\, p^{104}\, q^{67} + 32037299082\, p^{101}\, q^{48}$$
$$+ 87940835839\, p^{102}\, q^{54} + 4256464056\, p^{99}\, q^{39} + 2708623100\, p^{98}\, q^{37} + 5815609083\, p^{99}\, q^{40} + 3531190713168\, p^{90}\, q^{79} + 109529\, q^{86}\, p^{15}$$
$$+ 448374\, q^{88}\, p^{17} + 36666\, q^{86}\, p^{14} + 565091573\, p^{30}\, q^{35} + 413906299072\, q^{81}\, p^{48} + 363854819931\, q^{80}\, p^{47} + 2798086580284\, p^{91}\, q^{87}$$

$$+ 3267213355381\, p^{91} q^{79} + 2910205907089\, p^{91} q^{86} + 259648313482\, p^{44} q^{74} + 97131\, p^{142} q^{88} + 55359\, p^{144} q^{115} + 3628\, p^{132} q^{43}$$
$$+ 110719\, p^{142} q^{89} + 9130026\, q^{38} p^{17} + 105952001\, p^{133} q^{99} + 5669462709\, p^{55} q^{30} + 1378492265\, p^{54} q^{26} + 4110029534\, p^{55} q^{29}$$
$$+ 1868075\, q^{38} p^{14} + 3540797733210\, p^{87} q^{87} + 3117938360040\, p^{90} q^{86} + 3766750851502\, p^{84} q^{88} + 3442687507804\, p^{89} q^{85}$$
$$+ 5735\, p^{28} q^{7} + 14534\, p^{29} q^{8} + 318450\, p^{32} q^{12} + 78276\, p^{31} q^{10} + 5635189\, p^{34} q^{17} + 34364906\, p^{35} q^{21} + 1119693\, p^{33} q^{14}$$
$$+ 59152323335\, q^{88} p^{42} + 434141240358\, p^{49} q^{83} + 3756869503893\, p^{64} q^{72} + 2754481940467\, p^{60} q^{73} + 4539969875997\, p^{74} q^{67}$$
$$+ 326373156585\, p^{108} q^{80} + 324192171883\, p^{108} q^{88} + 3262759377\, p^{75} q^{29} + 2190944143\, p^{75} q^{28} + 3294049\, p^{66} q^{15}$$
$$+ 180301213378\, p^{55} q^{99} + 3463451484633\, p^{63} q^{71} + 104434453875\, p^{85} q^{43} + 3412832\, q^{129} p^{53} + 6188141\, q^{129} p^{55} + 2484268\, q^{129} p^{52}$$
$$+ 4624958\, q^{129} p^{54} + 406950548322\, p^{86} q^{50} + 1401045113913\, p^{54} q^{74} + 360573951\, p^{34} q^{29} + 4042150846101\, p^{74} q^{87}$$
$$+ 4515032259853\, p^{77} q^{86} + 2490066620680\, p^{93} q^{86} + 4651962040800\, p^{83} q^{84} + 106418603\, q^{133} p^{93} + 19544068942\, p^{59} q^{112}$$
$$+ 710821086685\, p^{99} q^{97} + 539960036063\, p^{104} q^{92} + 667692285109\, p^{101} q^{95} + 57\, p^{146} q^{83} + 67\, p^{148} q^{100} + 2325734010\, p^{94} q^{126}$$
$$+ 116730589\, q^{114} p^{41} + 340414668566\, p^{84} q^{108} + 3077\, p^{142} q^{141} + q^{143} p^{61} + 278\, p^{134} q^{43} + 9871\, p^{144} q^{89} + 481403114317\, p^{103} q^{69}$$
$$+ 442523076448\, p^{102} q^{66} + 2380911340980\, p^{76} q^{94} + 17\, p^{146} q^{80} + 46\, p^{149} q^{110} + 186152185164\, p^{107} q^{67} + 16867145600\, p^{104} q^{48}$$
$$+ 599001\, p^{105} q^{24} + 5962458925\, p^{123} q^{82} + 150767190\, p^{116} q^{44} + 5100489\, p^{91} q^{21} + 260181266\, p^{98} q^{31} + 79146803\, p^{97} q^{28}$$
$$+ 841999015347\, p^{99} q^{95} + 35375361770\, p^{112} q^{63} + 57318978932\, p^{112} q^{67} + 4785357531\, p^{109} q^{48} + 1357173\, p^{96} q^{21} + 70992404\, p^{103} q^{31}$$
$$+ 20666911\, p^{102} q^{28} + 2686558202338\, p^{83} q^{93} + 1453468712942\, p^{68} q^{95} + 1056257711\, p^{95} q^{128} + 46348\, p^{89} q^{15} + 72986\, p^{91} q^{16}$$
$$+ 47821494\, p^{122} q^{129} + p^{138} q^{46} + 20\, q^{109} p^{17} + 3\, q^{106} p^{15} + 12\, q^{105} p^{15} + 683\, q^{137} p^{51} + 6\, q^{135} p^{41} + 678\, p^{145} q^{84} + 1338\, p^{146} q^{95}$$
$$+ 2\, p^{128} q^{30} + 257\, p^{140} q^{58} + 46956213\, q^{126} p^{56} + 4930555166816\, p^{69} q^{73} + 4463285297774\, p^{81} q^{86} + 4388114102801\, p^{82} q^{86}$$
$$+ 4282036060453\, p^{66} q^{73} + 3531190713168\, p^{63} q^{74} + 2771931141\, p^{120} q^{63} + 5033101600652\, p^{72} q^{70} + 168832104\, p^{113} q^{41}$$
$$+ 22020034333\, p^{118} q^{99} + 24963301951\, p^{118} q^{97} + 213\, p^{66} q^{7} + 60204934\, q^{85} p^{23} + 105359530\, q^{85} p^{24} + 3742167855\, q^{88} p^{33}$$
$$+ 8082\, p^{94} q^{15} + 139756933\, p^{117} q^{45} + 1111522\, p^{107} q^{26} + 12387\, p^{96} q^{16} + 4110029534\, p^{98} q^{124} + 609118735\, p^{120} q^{55}$$
$$+ 71841861\, p^{110} q^{36} + 97119\, q^{72} p^{12} + 36907\, q^{71} p^{11} + 148700733346\, q^{90} p^{47} + 13186992878\, p^{80} q^{34} + 90641175953\, p^{81} q^{41}$$
$$+ 783012257\, p^{77} q^{26} + 10279773969\, p^{79} q^{33} + 386\, p^{77} q^{9} + 4785357531\, q^{109} p^{48} + 51262773\, p^{134} q^{88} + 12364622561\, q^{118} p^{69}$$
$$+ 267\, q^{78} p^{9} + 2279\, q^{82} p^{11} + 5067741076167\, p^{71} q^{71} + 85749462335\, q^{109} p^{64} + 256126\, p^{98} q^{142} + 506\, p^{130} q^{37} + 35357\, p^{141} q^{76}$$
$$+ 3145892759301\, p^{64} q^{82} + 2746328653581\, p^{93} q^{79} + 4491616050298\, p^{69} q^{81} + 2995322826473\, p^{91} q^{74} + 2084785539269\, p^{91} q^{67}$$

$$+ 2655425312842\, p^{91} q^{71} + 593502306241\, p^{89} q^{54} + 940584456381\, p^{90} q^{58} + 1198242098970\, p^{90} q^{60} + 506903533274\, p^{89} q^{53}$$
$$+ 1558173855\, q^{102} p^{38} + 3393105722264\, p^{65} q^{82} + 717949315824\, p^{101} q^{94} + 18315285989\, p^{104} q^{117} + 11670202665\, p^{106} q^{118}$$
$$+ 43169330403\, p^{86} q^{117} + 43260574488\, p^{87} q^{117} + 5164873784744\, p^{83} q^{77} + 4982818185882\, p^{84} q^{78} + 4842845978670\, p^{83} q^{73}$$
$$+ 5125640655317\, p^{83} q^{76} + 341991000035\, q^{106} p^{72} + 404663937241\, q^{106} p^{75} + 439705172009\, q^{106} p^{77} + 363854819931\, q^{106} p^{73}$$
$$+ 423041471202\, q^{106} p^{76} + 384841467563\, q^{106} p^{74} + 296771063569\, q^{106} p^{70} + 319536302396\, q^{106} p^{71} + 730945950568\, p^{68} q^{100}$$
$$+ 3711626239\, q^{106} p^{44} + 3393105722264\, p^{71} q^{88} + 2449062051310\, p^{90} q^{68} + 408316132800\, p^{107} q^{85} + 3971969\, p^{89} q^{20}$$
$$+ 2032096845\, q^{94} p^{34} + 2927013476\, q^{94} p^{35} + 1026765320\, p^{127} q^{104} + 61298149\, q^{124} p^{53} + 1334339468\, p^{124} q^{69} + 1564959326\, p^{127} q^{95}$$
$$+ 1513101430\, p^{124} q^{70} + 3940779\, p^{115} q^{34} + 3031383748349\, p^{90} q^{72} + 1098806314605\, p^{62} q^{54} + 1296063097314\, p^{63} q^{55}$$
$$+ 350830292978\, p^{62} q^{46} + 3\, p^{27} q^{2} + 48433382\, p^{134} q^{87} + 56361164\, p^{134} q^{90} + 4702050045707\, p^{76} q^{85} + 3767268746\, q^{107} p^{45}$$
$$+ 778848739\, q^{106} p^{39} + 63753592997\, q^{108} p^{60} + 1010195559\, p^{79} q^{127} + 2215116427\, p^{86} q^{126} + 2274788967\, p^{87} q^{126}$$
$$+ 1591639248\, p^{127} q^{94} + 15762169\, p^{117} q^{39} + 1548711581\, p^{125} q^{74} + 23629846\, p^{117} q^{40} + 2470071245959\, p^{94} q^{78} + 2288\, p^{144} q^{82}$$
$$+ 174299520348\, q^{101} p^{57} + 202415140280\, q^{101} p^{58} + 249523607\, q^{100} p^{32} + 4463285297774\, p^{72} q^{67} + 287945227811\, q^{102} p^{62}$$
$$+ 254431380366\, q^{102} p^{61} + 15841\, p^{61} q^{9} + 15065812216\, p^{114} q^{61} + 48027771101\, p^{116} q^{79} + 30230222857\, p^{117} q^{98}$$
$$+ 6378854571\, p^{112} q^{53} + 60293125606\, p^{115} q^{78} + 4383190217\, p^{111} q^{50} + 56376649158\, p^{116} q^{87} + 56379830676\, p^{116} q^{86}$$
$$+ 75591315\, p^{95} q^{27} + 13016431037\, p^{103} q^{46} + 32654493239\, p^{104} q^{51} + 10052912\, q^{131} p^{62} + 64813869916\, p^{97} q^{114}$$
$$+ 3865545808911\, p^{88} q^{83} + 233404946560\, p^{52} q^{94} + 2807049214\, q^{71} p^{28} + 4124778382\, q^{71} p^{29} + 43082462455\, p^{111} q^{107}$$
$$+ 168199403721\, p^{79} q^{111} + 319824730\, q^{109} p^{39} + 221384689\, q^{109} p^{38} + 139756933\, q^{108} p^{36} + 1627\, q^{83} p^{11} + 39259563205\, q^{87} p^{40}$$
$$+ 586236774\, p^{123} q^{61} + 51\, p^{54} q^{5} + 1200\, p^{143} q^{74} + 336\, p^{142} q^{66} + 539\, p^{148} q^{131} + 2711\, p^{145} q^{90} + 2527\, p^{146} q^{99} + 34014418033\, p^{36} q^{57}$$
$$+ 58093413773\, p^{38} q^{58} + 3713050249\, p^{73} q^{29} + 2510245928\, p^{73} q^{28} + q^{32} p^{2} + 35759527537\, p^{36} q^{58} + 252249378\, q^{94} p^{29}$$
$$+ 26341187005\, p^{35} q^{57} + 23360036706\, p^{113} q^{62} + 71926442230\, p^{115} q^{84} + 13895616072\, p^{112} q^{57} + 70854831166\, p^{115} q^{83}$$
$$+ 30595295872\, p^{116} q^{101} + 69400123487\, p^{115} q^{82} + 301870137331\, p^{103} q^{64} + 104635757154\, p^{102} q^{55} + 112043037887\, p^{41} q^{58}$$
$$+ 2251799582582\, p^{95} q^{79} + 306333568881\, q^{105} p^{68} + 333286315150\, q^{105} p^{69} + 413906299072\, q^{105} p^{72} + 387386866408\, q^{105} p^{71}$$
$$+ 487319113513\, q^{105} p^{75} + 527794118376\, q^{105} p^{77} + 454405029575\, q^{106} p^{78} + 439628657870\, q^{105} p^{73} + 508617425101\, q^{105} p^{76}$$
$$+ 1116375293\, p^{107} q^{126} + 22788208\, p^{68} q^{18} + 19095\, q^{105} p^{20} + 9958957\, q^{109} p^{31} + 1809210\, q^{109} p^{28} + 3299671\, q^{109} p^{29}$$

$$+ 955843\, q^{109}\, p^{27} + 7295\, q^{100}\, p^{17} + 1546963663\, q^{86}\, p^{30} + 296374507\, q^{85}\, p^{26} + 673242493590\, p^{67}\, q^{100} + 2\, p^{143}\, q^{62} + 123\, p^{147}\, q^{93}$$
$$+ 268068147952\, p^{93}\, q^{108} + 10534125686\, q^{88}\, p^{36} + 14469351916\, q^{88}\, p^{37} + 19624675580\, q^{88}\, p^{38} + 26297268363\, q^{88}\, p^{39}$$
$$+ 4033997421827\, p^{67}\, q^{81} + 1965561548344\, p^{59}\, q^{82} + 640418916\, p^{87}\, q^{129} + 2144330160\, p^{85}\, q^{126} + 3402651859\, p^{93}\, q^{125}$$
$$+ 710106176\, p^{75}\, q^{127} + 354567247\, p^{73}\, q^{128} + 1085986078\, p^{80}\, q^{127} + 933846388\, p^{78}\, q^{127} + 857845329\, p^{77}\, q^{127} + 783012257\, p^{76}\, q^{127}$$
$$+ 2144330160\, p^{68}\, q^{27} + 12691911617\, p^{69}\, q^{32} + 387894518\, p^{130}\, q^{101} + 42377211\, p^{131}\, q^{119} + 24989348\, p^{132}\, q^{120} + 1008\, p^{144}\, q^{79}$$
$$+ 114\, p^{141}\, q^{60} + 617\, p^{148}\, q^{129} + 156293891\, q^{94}\, p^{28} + 145349343026\, p^{43}\, q^{56} + 306850871\, p^{82}\, q^{130} + 402153078003\, q^{104}\, p^{69}$$
$$+ 6895965904\, p^{101}\, q^{42} + 16643648771\, p^{103}\, q^{47} + 55023412316\, q^{57}\, p^{38} + 3784167627273\, p^{88}\, q^{74} + 2705645587254\, p^{88}\, q^{67}$$
$$+ 5942595152\, p^{56}\, q^{30} + 1435692450\, p^{55}\, q^{26} + 4295681852\, p^{56}\, q^{29} + 72976548576\, p^{39}\, q^{58} + 154\, p^{33}\, q^{4} + 140457\, p^{47}\, q^{10}$$
$$+ 1558281\, p^{50}\, q^{13} + 36899878\, p^{53}\, q^{18} + 144930188804\, p^{94}\, q^{111} + 416308006527\, p^{49}\, q^{57} + 303099063\, p^{108}\, q^{38} + 312378180\, p^{122}\, q^{122}$$
$$+ 37\, q^{64}\, p^{6} + 3682\, q^{69}\, p^{9} + 3393105722264\, p^{88}\, q^{71} + 2888490001176\, p^{88}\, q^{68} + 3538956140609\, p^{88}\, q^{72} + 3894678\, p^{64}\, q^{15}$$
$$+ 465862838408\, q^{104}\, p^{71} + 526950538109\, q^{104}\, p^{73} + 582229559320\, q^{104}\, p^{75} + 1423577855186\, p^{71}\, q^{54} + 407885367792\, p^{71}\, q^{46}$$
$$+ 1614948663175\, p^{72}\, q^{55} + 125769365\, q^{125}\, p^{58} + 1756702622\, p^{116}\, q^{53} + 1218555449\, p^{115}\, q^{50} + 5305707282435\, p^{76}\, q^{82}$$
$$+ 1463222224\, p^{114}\, q^{122} + 2863679831\, p^{117}\, q^{57} + 8864366686\, p^{119}\, q^{69} + 9884716243\, p^{119}\, q^{70} + 29971192\, p^{110}\, q^{34}$$
$$+ 8803290978\, p^{122}\, q^{95} + 9089937849\, p^{122}\, q^{94} + 10279773969\, p^{120}\, q^{74} + 168832104\, p^{112}\, q^{40} + 116730589\, p^{112}\, q^{39}$$
$$+ 2631324090184\, p^{76}\, q^{93} + 9185984725\, q^{117}\, p^{64} + 10534125686\, q^{117}\, p^{65} + 223704\, p^{142}\, q^{96} + 167\, p^{32}\, q^{4} + 149\, q^{120}\, p^{25}$$
$$+ 697742\, p^{101}\, q^{141} + 715090\, p^{102}\, q^{141} + 156591\, p^{92}\, q^{142} + 4154704336\, p^{106}\, q^{122} + 3437762269\, p^{123}\, q^{105} + 5037199152\, p^{122}\, q^{104}$$
$$+ 4867291633\, p^{118}\, q^{62} + 7127\, q^{126}\, p^{35} + 309531\, q^{127}\, p^{43} + 193147\, q^{127}\, p^{42} + 14254\, q^{126}\, p^{36} + 148331\, q^{126}\, p^{40} + 250\, q^{124}\, p^{29}$$
$$+ 51\, p^{147}\, q^{90} + 51\, p^{148}\, q^{99} + p^{31}\, q^{2} + 63753592997\, q^{93}\, p^{45} + 1071371097\, q^{91}\, p^{31} + 8109539526\, q^{92}\, p^{37} + 28006\, q^{78}\, p^{12} + 166821\, q^{80}\, p^{14}$$
$$+ 9813\, q^{77}\, p^{11} + 148331\, q^{113}\, p^{27} + 616304462834\, p^{53}\, q^{87} + 3265998208\, p^{95}\, q^{125} + q^{13}\, p + 252471841\, q^{89}\, p^{27} + 479872654\, q^{88}\, p^{28}$$
$$+ 751715474\, q^{88}\, p^{29} + 299696398\, q^{88}\, p^{27} + 36672321\, p^{135}\, q^{95} + 137880\, p^{117}\, q^{30} + 291800\, p^{119}\, q^{33} + 36273335\, p^{135}\, q^{101}$$
$$+ 5635189\, p^{136}\, q^{119} + 91\, q^{137}\, p^{48} + 160\, q^{67}\, p^{7} + 15275\, q^{69}\, p^{10} + 9\, p^{147}\, q^{150} + 7\, p^{141}\, q^{151} + 3\, p^{149}\, q^{151} + 2\, p^{151}\, q^{151} + p^{152}\, q^{151} + 2\, p^{150}\, q^{151}$$
$$+ 3\, p^{148}\, q^{151} + 112\, p^{148}\, q^{142} + 18\, p^{143}\, q^{150} + 24556160\, q^{133}\, p^{74} + 37556401877\, q^{99}\, p^{47} + 115799641\, p^{70}\, q^{21} + 31853881869\, p^{35}\, q^{69}$$
$$+ 3784\, p^{106}\, q^{19} + 23227730078\, q^{99}\, p^{45} + 350480090\, p^{130}\, q^{103} + 561492128\, p^{129}\, q^{84} + 719298082155\, p^{54}\, q^{87} + 276043\, p^{93}\, q^{18}$$
$$+ 15756\, p^{111}\, q^{23} + 1798\, q^{65}\, p^{8} + 8633684287\, q^{97}\, p^{40} + 661139234\, p^{129}\, q^{88} + 191001896\, q^{117}\, p^{46} + 94510435\, q^{94}\, p^{27} + 2950277\, q^{87}\, p^{19}$$

$$+ 21893\, q^{79}\, p^{12} + 9930719\, q^{88}\, p^{21} + 1970235\, p^{137}\, q^{123} + 12533\, p^{83}\, q^{143} + 40822958\, p^{109}\, q^{134} + 62646023\, q^{131}\, p^{72} + 299696398\, p^{88}\, q^{27}$$
$$+ 1377932381682\, p^{99}\, q^{78} + 1442\, q^{66}\, p^{8} + 213\, q^{66}\, p^{7} + 5644\, q^{67}\, p^{9} + 1135\, q^{67}\, p^{8} + 4\, p^{145}\, q^{72} + 180\, p^{148}\, q^{105} + 35154287\, q^{124}\, p^{51}$$
$$+ 146480\, p^{92}\, q^{17} + 41019614500\, p^{37}\, q^{56} + 11\, q^{59}\, p^{5} + 285\, q^{65}\, p^{7} + 76189480\, q^{133}\, p^{85} + 4575\, q^{68}\, p^{9} + 51\, q^{63}\, p^{6} + 368\, q^{64}\, p^{7}$$
$$+ 30384\, q^{72}\, p^{11} + 24796\, q^{73}\, p^{11} + 2708623100\, q^{98}\, p^{37} + 3074983927\, q^{99}\, p^{38} + 678\, q^{69}\, p^{8} + 15206466\, q^{136}\, p^{109} + 16172010\, q^{136}\, p^{108}$$
$$+ 27019789\, q^{135}\, p^{108} + 888\, q^{68}\, p^{8} + 8112155748\, p^{97}\, q^{122} + 732028\, q^{82}\, p^{16} + 7\, p^{151}\, q^{140} + 15\, q^{58}\, p^{5} + 7115791979\, q^{98}\, p^{40}$$
$$+ 1983035412\, p^{122}\, q^{112} + 380593636\, p^{123}\, q^{120} + 595360313\, p^{122}\, q^{119} + 2\, q^{91}\, p^{10} + 1210786083771\, p^{53}\, q^{68} + 1038054215100\, p^{52}\, q^{67}$$
$$+ 524198007487\, p^{52}\, q^{87} + 144810748762\, q^{102}\, p^{57} + 168492161511\, q^{102}\, p^{58} + 1765\, q^{72}\, p^{9} + 134929\, q^{76}\, p^{13} + 15965\, q^{75}\, p^{11}$$
$$+ 1404047\, q^{83}\, p^{17} + 5440441\, q^{84}\, p^{19} + 360897\, q^{81}\, p^{15} + 3118759\, q^{83}\, p^{18} + 3903\, q^{75}\, p^{10} + 454988676\, p^{109}\, q^{40} + 319824730\, p^{109}\, q^{39}$$
$$+ 82939944\, p^{107}\, q^{34} + 10492\, p^{110}\, q^{22} + 2360215\, q^{88}\, p^{19} + 8030549\, q^{89}\, p^{21} + 575467\, q^{87}\, p^{17} + 42654860\, q^{90}\, p^{24} + 174867029\, q^{91}\, p^{27}$$
$$+ 295151\, q^{86}\, p^{16} + 39971713\, q^{93}\, p^{25} + 615254254\, q^{94}\, p^{31} + 1349\, q^{73}\, p^{9} + 10153\, q^{71}\, p^{10} + 2913\, q^{70}\, p^{9} + 37694629\, p^{110}\, q^{134}$$
$$+ 12533\, q^{70}\, p^{10} + 83\, p^{146}\, q^{84} + 201\, p^{147}\, q^{95} + 32\, p^{141}\, q^{58} + 32037299082\, q^{101}\, p^{48} + 39987513444\, q^{101}\, p^{49} + 106488575318\, q^{101}\, p^{54}$$
$$+ 49772975594\, q^{102}\, p^{51} + 88989198509\, q^{101}\, p^{53} + 4904\, p^{136}\, q^{144} + 9855403\, p^{107}\, q^{137} + 285\, p^{146}\, q^{88} + 45702377\, p^{132}\, q^{74} + 7\, q^{60}\, p^{5}$$
$$+ 474\, q^{63}\, p^{7} + 92\, q^{61}\, p^{6} + 19096640774\, q^{100}\, p^{45} + 24463670204\, q^{100}\, p^{46} + 54604\, q^{75}\, p^{12} + 382\, q^{71}\, p^{8} + 44196\, q^{76}\, p^{12} + 6453\, q^{73}\, p^{10}$$
$$+ 192\, p^{126}\, q^{149} + 1535\, p^{130}\, q^{147} + 1933752677194\, p^{96}\, q^{85} + 6579618712\, p^{89}\, q^{35} + 3468729\, p^{78}\, q^{17} + 654389662\, p^{86}\, q^{28}$$
$$+ 82746156\, p^{83}\, q^{23} + 2011748477\, p^{87}\, q^{31} + 27097\, q^{126}\, p^{37} + 1174730850924\, p^{94}\, q^{64} + 437752855403\, p^{93}\, q^{55} + 223308551291\, p^{93}\, q^{51}$$
$$+ 92420029399\, p^{92}\, q^{46} + 19761\, q^{84}\, p^{13} + 812\, p^{138}\, q^{54} + 49\, p^{134}\, q^{41} + 3819\, p^{140}\, q^{64} + 5373\, p^{146}\, q^{106} + 4275\, p^{142}\, q^{73} + p^{122}\, q^{24}$$
$$+ 3903\, p^{143}\, q^{78} + 11282700204\, p^{100}\, q^{43} + 450177\, q^{133}\, p^{56} + 18916\, q^{124}\, p^{34} + 4859462991\, q^{116}\, p^{58} + 5808917427\, q^{116}\, p^{59}$$
$$+ 12653534894\, q^{116}\, p^{64} + 5834782993\, q^{117}\, p^{61} + 10988330458\, q^{116}\, p^{63} + 8109539526\, q^{116}\, p^{61} + 9474337803\, q^{116}\, p^{62}$$
$$+ 23612502033\, p^{111}\, q^{111} + 12\, p^{128}\, q^{31} + 125\, p^{134}\, q^{42} + 2\, p^{123}\, q^{25} + 104\, p^{133}\, q^{40} + 1243\, p^{141}\, q^{65} + 812233103857\, p^{102}\, q^{75}$$
$$+ 2571484092\, p^{88}\, q^{32} + 586468891128\, p^{93}\, q^{57} + 66468261442\, p^{91}\, q^{44} + 1557049909185\, p^{95}\, q^{69} + 18227883\, p^{81}\, q^{20}$$
$$+ 14985347230\, p^{90}\, q^{38} + 1402509751534\, p^{94}\, q^{66} + 574397294200\, p^{97}\, q^{61} + 718707087163\, p^{97}\, q^{63} + 644089590\, p^{114}\, q^{125}$$
$$+ 17891\, p^{140}\, q^{138} + 41185585255\, p^{69}\, q^{114} + 19624675580\, p^{65}\, q^{115} + 33343857663\, p^{67}\, q^{114} + 37177586496\, p^{68}\, q^{114}$$
$$+ 98737703224\, p^{97}\, q^{112} + 68832764580\, p^{106}\, q^{109} + 2098\, q^{94}\, p^{14} + 6993465\, q^{136}\, p^{80} + 170156\, q^{129}\, p^{45} + 106911\, q^{129}\, p^{44}$$
$$+ 416452\, q^{130}\, p^{49} + 89523\, q^{128}\, p^{42} + 10349418659\, q^{121}\, p^{79} + 36307022\, q^{113}\, p^{37} + 3383190\, p^{121}\, q^{40} + 756404143250\, p^{61}\, q^{95}$$

$$+ 1836415\, p^{77}\, q^{16} + 142162497018\, p^{92}\, q^{48} + 84175217047\, p^{91}\, q^{45} + 1287537181726\, p^{94}\, q^{65} + 959696131989\, p^{94}\, q^{62}$$
$$+ 508481592176\, p^{93}\, q^{56} + 1440275\, q^{108}\, p^{27} + 364370\, q^{108}\, p^{25} + 592597275363\, p^{94}\, q^{58} + 764172308796\, p^{94}\, q^{60}$$
$$+ 1755478999331\, p^{95}\, q^{71} + 374146108781\, p^{93}\, q^{54} + 115414\, p^{71}\, q^{12} + 317425954027\, p^{93}\, q^{53} + 179070295\, p^{59}\, q^{21} + 709260328\, p^{60}\, q^{24}$$
$$+ 15189886513\, q^{82}\, p^{35} + 308955014\, p^{93}\, q^{29} + 11303546\, p^{56}\, q^{16} + 64154115\, p^{58}\, q^{19} + 133227\, p^{49}\, q^{10} + 309410\, p^{137}\, q^{132}$$
$$+ 1201763801183\, p^{53}\, q^{75} + 1040834916304\, p^{52}\, q^{75} + 1377932381682\, p^{54}\, q^{75} + 1740595806437\, p^{56}\, q^{76} + 1994506619467\, p^{57}\, q^{75}$$
$$+ 1569153758168\, p^{55}\, q^{75} + 1774944997538\, p^{56}\, q^{75} + 4053203\, q^{77}\, p^{17} + 2151371\, q^{76}\, p^{16} + 12685181\, q^{79}\, p^{19} + 24556160\, q^{79}\, p^{20}$$
$$+ 142909694\, q^{79}\, p^{23} + 45702377\, q^{79}\, p^{21} + 82110467\, q^{79}\, p^{22} + 71982601\, q^{80}\, p^{22} + 214229924\, q^{80}\, p^{24} + 14669862\, q^{78}\, p^{19}$$
$$+ 28181952\, q^{78}\, p^{20} + 7311992\, q^{78}\, p^{18} + 2227\, q^{64}\, p^{8} + 18536144560\, q^{86}\, p^{37} + 2470859\, p^{119}\, q^{37} + 701950512\, p^{129}\, q^{91}$$
$$+ 449395060\, p^{127}\, q^{71} + 144941893560\, p^{65}\, q^{41} + 24543557530\, p^{64}\, q^{34} + 32556635316\, p^{64}\, q^{35} + 1153023511548\, p^{66}\, q^{53}$$
$$+ 268461129285\, p^{65}\, q^{44} + 1614948663175\, p^{55}\, q^{72} + 10755\, q^{140}\, p^{67} + 2540\, p^{147}\, q^{118} + 1969\, p^{147}\, q^{111} + 274\, p^{143}\, q^{70} + 19397485\, p^{136}\, q^{104}$$
$$+ 24588699\, p^{135}\, q^{86} + 333933\, p^{138}\, q^{130} + 32366293650\, p^{109}\, q^{111} + 73512169356\, p^{61}\, q^{108} + 91189414543\, p^{83}\, q^{114}$$
$$+ 115951669197\, p^{88}\, q^{113} + 32862762658\, p^{103}\, q^{50} + 20823650108\, q^{119}\, p^{80} + 860588798\, q^{112}\, p^{45} + 637952135\, q^{112}\, p^{44}$$
$$+ 1851325689\, q^{113}\, p^{49} + 471099533\, q^{111}\, p^{42} + 12533\, p^{70}\, q^{10} + 313\, p^{56}\, q^{6} + 211999286736\, q^{82}\, p^{45} + 82939944\, q^{107}\, p^{34}$$
$$+ 3319058047\, q^{116}\, p^{56} + 822505\, p^{100}\, q^{22} + 1233418\, p^{101}\, q^{23} + 60027575\, p^{119}\, q^{130} + 4002345436236\, p^{88}\, q^{81} + 135772915407\, q^{82}\, p^{43}$$
$$+ 3004678138011\, q^{92}\, p^{79} + 1116\, p^{146}\, q^{94} + 1694\, p^{147}\, q^{109} + p^{132}\, q^{35} + 682\, p^{148}\, q^{127} + 1597\, p^{146}\, q^{96} + 2591\, q^{90}\, p^{13} + 134929\, p^{76}\, q^{13}$$
$$+ 307125\, p^{77}\, q^{14} + 253025041\, p^{131}\, q^{101} + 29423698\, p^{132}\, q^{119} + 17136145\, p^{133}\, q^{120} + 1400482\, p^{28}\, q^{16} + 1130516744269\, p^{98}\, q^{70}$$
$$+ 33441537878\, p^{94}\, q^{43} + 23099158\, q^{29}\, p^{23} + 124248792\, q^{69}\, p^{21} + 839851534\, q^{70}\, p^{25} + 1300432374\, q^{70}\, p^{26} + 6152111\, q^{52}\, p^{15}$$
$$+ 63779848\, q^{54}\, p^{19} + 1704123459\, p^{124}\, q^{71} + 10435627\, p^{116}\, q^{37} + 2386011246\, p^{126}\, q^{91} + 528\, p^{90}\, q^{12} + 152447455266\, p^{54}\, q^{99}$$
$$+ 6142216333\, p^{87}\, q^{34} + 342961531\, p^{84}\, q^{26} + 57921992337\, q^{109}\, p^{61} + 5139278376\, q^{101}\, p^{41} + 1157192169939\, p^{99}\, q^{90}$$
$$+ 447126420829\, p^{97}\, q^{59} + 5489725058547\, p^{77}\, q^{81} + 1953212\, p^{19}\, q^{24} + 20487\, q^{120}\, p^{30} + 3257708575163\, p^{63}\, q^{79}$$
$$+ 300778090946\, p^{46}\, q^{59} + 1126431258\, p^{93}\, q^{32} + 290095205412\, p^{98}\, q^{57} + 53699539082\, p^{97}\, q^{47} + 90512486\, p^{89}\, q^{25}$$
$$+ 8112155748\, q^{56}\, p^{31} + 19171657819\, q^{56}\, p^{34} + 10934567194\, q^{56}\, p^{32} + 29423698\, q^{34}\, p^{21} + 20069463\, q^{34}\, p^{20} + 34364906\, q^{35}\, p^{21}$$
$$+ 74769\, q^{108}\, p^{23} + 903765220\, p^{53}\, q^{25} + 223877771908\, p^{60}\, q^{44} + 1792335104275\, p^{57}\, q^{79} + 1106170920160\, p^{72}\, q^{99}$$
$$+ 1536677819323\, p^{77}\, q^{98} + 2234\, q^{77}\, p^{10} + 150767190\, q^{109}\, p^{37} + 13022\, q^{19}\, p^{10} + 7457\, q^{19}\, p^{9} + 16016\, q^{20}\, p^{10} + 2066023868415\, p^{59}\, q^{81}$$

$$+ 658126651047\, p^{51}\, q^{82} + 1435692450\, q^{55}\, p^{26} + 2070022844\, q^{55}\, p^{27} + 14562318441\, q^{56}\, p^{33} + 24963301951\, q^{56}\, p^{35} + 169627\, p^{121}\, q^{142}$$
$$+ 337423023\, p^{111}\, q^{41} + 1270412097465\, p^{98}\, q^{72} + 982490156915\, p^{98}\, q^{68} + 3106082\, p^{19}\, q^{26} + 8294198\, p^{19}\, q^{31} + 114699197\, p^{27}\, q^{31}$$
$$+ 154208303\, p^{29}\, q^{30} + 26437178272\, p^{103}\, q^{49} + 9667703160\, p^{102}\, q^{44} + 17408\, p^{103}\, q^{19} + 639326331\, p^{124}\, q^{64} + 21039273\, q^{53}\, p^{17}$$
$$+ 5942595152\, q^{56}\, p^{30} + 979327844\, q^{55}\, p^{25} + 656259496\, q^{55}\, p^{24} + 375491335744\, q^{106}\, p^{93} + 5712929320473\, p^{75}\, q^{78}$$
$$+ 75751734864\, q^{109}\, p^{63} + 3009521649035\, p^{62}\, q^{68} + 4030538472888\, p^{68}\, q^{67} + 843\, p^{18}\, q^{6} + 321\, p^{17}\, q^{5} + 580640\, q^{22}\, p^{17}$$
$$+ 308117588919\, q^{87}\, p^{49} + 370713061570\, q^{87}\, p^{50} + 1964\, p^{26}\, q^{6} + 654\, p^{25}\, q^{5} + 1814611336561\, p^{73}\, q^{56} + 17467974721\, p^{69}\, q^{33}$$
$$+ 247124573\, p^{66}\, q^{22} + 963550638\, p^{67}\, q^{25} + 1474974338\, p^{67}\, q^{26} + 402574696\, p^{66}\, q^{23} + 37823\, q^{93}\, p^{16} + 4827\, q^{92}\, p^{14} + 7070\, q^{91}\, p^{14}$$
$$+ 22\, p^{96}\, q^{148} + 1666984279\, p^{126}\, q^{80} + 903765220\, p^{128}\, q^{100} + 220920455\, q^{36}\, p^{26} + 116566119\, q^{36}\, p^{24} + 263525983780\, p^{46}\, q^{57}$$
$$+ 229149927286\, q^{88}\, p^{48} + 650\, p^{36}\, q^{5} + 72024693893\, q^{99}\, p^{50} + 47081029879\, q^{99}\, p^{48} + 58488587881\, q^{99}\, p^{49} + 4140072670\, p^{118}\, q^{61}$$
$$+ 14434166074\, p^{120}\, q^{79} + 2722791699281\, p^{78}\, q^{93} + 2191212247\, q^{99}\, p^{37} + 19051369\, q^{131}\, p^{65} + 180458041928\, q^{108}\, p^{69}$$
$$+ 186152185164\, q^{107}\, p^{67} + 1970235\, p^{30}\, q^{16} + 555515831396\, q^{104}\, p^{74} + 647530722219\, q^{104}\, p^{78} + 628584681382\, q^{104}\, p^{77}$$
$$+ 544559296476\, q^{105}\, p^{78} + 606706915361\, q^{104}\, p^{76} + 2351205230226\, p^{94}\, q^{85} + 8643713056\, p^{87}\, q^{35} + 9804915316\, p^{118}\, q^{67}$$
$$+ 211284340022\, q^{92}\, p^{50} + 360382411768\, q^{92}\, p^{53} + 16854\, q^{31}\, p^{8} + 90829293692\, p^{58}\, q^{40} + 1942051\, p^{139}\, q^{90} + 93062\, p^{142}\, q^{126}$$
$$+ 490851\, p^{135}\, q^{62} + 2394938\, p^{139}\, q^{93} + 895805\, p^{137}\, q^{72} + 1552294\, p^{140}\, q^{105} + 1259219\, q^{34}\, p^{14} + 6376052415\, q^{107}\, p^{47}$$
$$+ 16205172921\, q^{107}\, p^{51} + 487792\, q^{112}\, p^{28} + 122965980997\, p^{101}\, q^{109} + 6\, p^{51}\, q^{4} + 44219505\, q^{95}\, p^{26} + 75591315\, q^{95}\, p^{27}$$
$$+ 25112929\, q^{95}\, p^{25} + 64458479\, p^{55}\, q^{19} + 283294727\, p^{56}\, q^{22} + 3463451484633\, p^{71}\, q^{63} + 3216546160324\, p^{71}\, q^{62}$$
$$+ 2969278524363\, p^{71}\, q^{61} + 9940817\, q^{106}\, p^{29} + 3516019318876\, p^{88}\, q^{86} + 1433032\, p^{31}\, q^{15} + 129461161\, p^{33}\, q^{26} + 31515\, p^{29}\, q^{9}$$
$$+ 136768\, p^{30}\, q^{11} + 85685621752\, p^{57}\, q^{40} + 160167\, q^{120}\, p^{33} + 474\, p^{63}\, q^{7} + 69382721\, p^{93}\, q^{26} + 478305857\, p^{27}\, q^{39} + 2020098847\, p^{33}\, q^{38}$$
$$+ 1572896231\, q^{107}\, p^{42} + 1147134631\, q^{107}\, p^{41} + 825585242\, q^{107}\, p^{40} + 435585011\, q^{108}\, p^{39} + 588675623407\, p^{51}\, q^{58}$$
$$+ 1287537181726\, p^{65}\, q^{94} + 12035\, p^{141}\, q^{138} + 6967167745\, p^{123}\, q^{88} + 3009281158\, p^{124}\, q^{103} + 3819\, p^{89}\, q^{13} + 40315389537\, p^{89}\, q^{41}$$
$$+ 23119373918\, p^{89}\, q^{39} + 14469351916\, p^{88}\, q^{37} + 4301306186\, p^{87}\, q^{33} + 31040068679\, p^{115}\, q^{69} + 29710349984\, p^{114}\, q^{66}$$
$$+ 17276758920\, p^{113}\, q^{60} + 34249120474\, p^{115}\, q^{70} + 37177586496\, p^{114}\, q^{68} + 6133079\, p^{51}\, q^{15} + 35759527537\, p^{58}\, q^{36} + 3156394\, p^{51}\, q^{14}$$
$$+ 2344062\, q^{115}\, p^{33} + 3940779\, q^{115}\, p^{34} + 6453219\, q^{115}\, p^{35} + 16227\, q^{49}\, p^{8} + 308987\, q^{51}\, p^{11} + 715090\, q^{51}\, p^{12} + 128453\, q^{50}\, p^{10}$$
$$+ 491168309\, p^{32}\, q^{32} + 465818595\, p^{30}\, q^{34} + 484712379\, p^{31}\, q^{33} + 172451780\, p^{118}\, q^{47} + 455040\, p^{116}\, q^{31} + 4942\, p^{48}\, q^{7}$$

$$+ 2264156868716\, p^{72} q^{58} + 2501797049447\, p^{72} q^{59} + 189211970\, p^{37} q^{25} + 37716\, p^{31} q^{9} + 169627\, p^{32} q^{11} + 69386632471\, p^{113} q^{99}$$
$$+ 80351417049\, p^{113} q^{97} + 40419113256\, p^{82} q^{117} + 161608368\, q^{36} p^{25} + 297999658\, q^{36} p^{27} + 470133881\, q^{37} p^{28} + 6430274\, q^{35} p^{17}$$
$$+ 354212\, q^{33} p^{12} + 85806\, q^{32} p^{10} + 82826560\, q^{36} p^{23} + 3531190713168\, p^{79} q^{90} + 732028\, p^{82} q^{16} + 144930188804\, p^{42} q^{59}$$
$$+ 5942595152\, p^{97} q^{123} + 223877771908\, p^{44} q^{60} + 6515\, q^{30} p^{7} + 1809210\, q^{125} p^{44} + 490649\, q^{121} p^{36} + 1194039\, q^{125} p^{43} + 2308\, q^{29} p^{6}$$
$$+ 42\, q^{20} p^{3} + 424050996638\, q^{92} p^{54} + 437752855403\, q^{93} p^{55} + 334275\, p^{45} q^{11} + 732985\, p^{46} q^{12} + 2147986\, q^{28} p^{17}$$
$$+ 2737218671462\, p^{79} q^{61} + 3257708575163\, p^{79} q^{63} + 2995322826473\, p^{79} q^{62} + 2011740299285\, p^{79} q^{58} + 3222059\, q^{28} p^{18}$$
$$+ 6830041\, q^{28} p^{20} + 11922233\, q^{29} p^{21} + 210984447\, q^{90} p^{27} + 89500669744\, p^{39} q^{71} + 114265116369\, p^{40} q^{71} + 144471183501\, p^{41} q^{71}$$
$$+ 1983035412\, p^{41} q^{31} + 4158909256\, p^{41} q^{34} + 5217886830\, p^{41} q^{35} + 7570395349\, p^{42} q^{36} + 4755692518\, p^{38} q^{37}$$
$$+ 821100602917\, p^{101} q^{72} + 623679893083\, p^{101} q^{68} + 62561953325\, q^{79} p^{39} + 47693744247\, q^{79} p^{38} + 28799628827\, q^{78} p^{36}$$
$$+ 398077015\, q^{94} p^{30} + 51975790\, q^{89} p^{24} + 63627\, q^{29} p^{10} + 2088\, q^{27} p^{6} + 331837233676\, p^{58} q^{47} + 387085228836\, p^{58} q^{48}$$
$$+ 722448721\, q^{105} p^{38} + 343660856\, q^{105} p^{36} + 502269000\, q^{105} p^{37} + 4769962081064\, p^{84} q^{82} + 46878521\, q^{118} p^{43} + 7779\, p^{39} q^{7}$$
$$+ 14562318441\, p^{56} q^{33} + 11224960\, p^{50} q^{16} + 45865687182\, p^{75} q^{37} + 2243420379248\, p^{79} q^{59} + 17337\, q^{48} p^{8} + 174299520348\, p^{96} q^{52}$$
$$+ 113936294075\, p^{95} q^{49} + 52593645\, p^{123} q^{128} + 25131367\, p^{28} q^{24} + 35047256\, p^{60} q^{18} + 5492019\, p^{58} q^{15} + 115132898310\, q^{92} p^{47}$$
$$+ 254431380366\, q^{92} p^{51} + 137921\, p^{21} q^{14} + 265738\, p^{22} q^{15} + 88716\, p^{21} q^{13} + 33469\, p^{21} q^{11} + 168492161511\, q^{95} p^{51}$$
$$+ 161040756022\, q^{94} p^{50} + 503369\, p^{23} q^{16} + 26361255\, p^{66} q^{18} + 282409\, q^{27} p^{13} + 10465432075\, q^{99} p^{42} + 4735192\, q^{28} p^{19}$$
$$+ 895805\, q^{81} p^{16} + 96142945\, p^{116} q^{130} + 973408212352\, p^{60} q^{54} + 1158476579206\, p^{61} q^{55} + 318478615034\, p^{60} q^{46}$$
$$+ 59931105248\, q^{103} p^{53} + 72024693893\, q^{103} p^{54} + 82875958941\, q^{104} p^{56} + 119339568001\, q^{103} p^{57} + 85879890907\, q^{103} p^{55}$$
$$+ 101616977158\, q^{103} p^{56} + 49466678579\, q^{103} p^{52} + 31449936\, p^{29} q^{24} + 115077344\, p^{25} q^{34} + 185342352\, p^{28} q^{32} + 1877\, p^{56} q^{7}$$
$$+ 312378180\, p^{31} q^{31} + 83721820\, p^{24} q^{34} + 1636419\, q^{127} p^{47} + 2452951098698\, p^{83} q^{94} + 477971825586\, p^{50} q^{57} + 3495\, q^{138} p^{57}$$
$$+ 27222\, q^{139} p^{66} + 375491335744\, p^{106} q^{93} + 385408393752\, p^{90} q^{52} + 644089590\, p^{125} q^{114} + 332384993\, p^{125} q^{118}$$
$$+ 1387916598\, p^{125} q^{108} + 1105292642\, p^{125} q^{110} + 10920056418\, q^{94} p^{39} + 555842015314\, p^{50} q^{82} + 387386866408\, p^{48} q^{82}$$
$$+ 2003982174\, p^{96} q^{35} + 52242892\, p^{132} q^{115} + 3880853\, q^{40} p^{15} + 740276\, p^{48} q^{12} + 334485\, p^{47} q^{11} + 6359362124\, q^{97} p^{39}$$
$$+ 1270412097465\, p^{72} q^{98} + 70074431\, p^{33} q^{24} + 504965\, p^{31} q^{13} + 6514109\, p^{32} q^{18} + 5691604542\, q^{72} p^{30} + 1232090113\, q^{71} p^{26}$$
$$+ 1617598729\, q^{61} p^{26} + 707680304\, q^{61} p^{24} + 161943247\, p^{23} q^{41} + 232854502\, p^{24} q^{41} + 261645798\, p^{24} q^{42} + 329505465\, p^{25} q^{41}$$

$$+ 459316879\, p^{26}\, q^{41} + 1311545906\, p^{30}\, q^{40} + 631271819\, p^{27}\, q^{41} + 994610392\, p^{29}\, q^{40} + 4573954\, p^{122}\, q^{42} + 3785870389472\, p^{80}\, q^{89}$$
$$+ 4002345436236\, p^{81}\, q^{88} + 156020022\, p^{26}\, q^{34} + 308125164\, p^{32}\, q^{30} + 275999935\, p^{28}\, q^{34} + 208795308\, p^{27}\, q^{34} + 332384993\, p^{28}\, q^{35}$$
$$+ 2754481940467\, p^{93}\, q^{80} + 9820828\, p^{134}\, q^{121} + 11584211\, q^{53}\, p^{16} + 20\, p^{33}\, q^{3} + 325193\, p^{43}\, q^{11} + 706836\, p^{44}\, q^{12} + 2158\, p^{11}\, q^{11}$$
$$+ 1366418\, p^{18}\, q^{24} + 38968012\, p^{30}\, q^{24} + 1535\, p^{23}\, q^{6} + 539\, p^{22}\, q^{5} + 330834\, p^{28}\, q^{13} + 3894243\, p^{29}\, q^{18} + 8\, p^{15}\, q^{2} + 516\, p^{70}\, q^{8}$$
$$+ 18832228532\, p^{75}\, q^{34} + 123103720944\, p^{76}\, q^{41} + 1160281095\, p^{72}\, q^{26} + 14434166074\, p^{74}\, q^{33} + 498976574\, p^{71}\, q^{24} + 1394\, p^{22}\, q^{6}$$
$$+ 498\, p^{21}\, q^{5} + 15140620\, q^{128}\, p^{56} + 8728620\, q^{128}\, p^{54} + 6508313\, q^{128}\, p^{53} + 4791020\, q^{128}\, p^{52} + 35182270\, p^{130}\, q^{65} + 50749882\, p^{130}\, q^{67}$$
$$+ 15140620\, p^{128}\, q^{56} + 390989289\, p^{32}\, q^{31} + 44329682\, p^{125}\, q^{127} + 95895208\, p^{120}\, q^{128} + 932661428\, q^{94}\, p^{32} + 129461161\, p^{26}\, q^{33}$$
$$+ 240285779\, p^{29}\, q^{32} + 61234582\, q^{91}\, p^{25} + 1388424428\, q^{94}\, p^{33} + 234927148\, q^{92}\, p^{28} + 1782481094105\, p^{62}\, q^{88} + 1609600737552\, p^{61}\, q^{88}$$
$$+ 333933\, p^{15}\, q^{23} + 166\, p^{21}\, q^{4} + 42\, p^{19}\, q^{3} + 10940\, p^{26}\, q^{8} + 191745\, p^{28}\, q^{12} + 50013\, p^{27}\, q^{10} + 3066597\, p^{30}\, q^{17} + 17571935\, p^{31}\, q^{21}$$
$$+ 10139173\, p^{30}\, q^{20} + 6943611\, p^{30}\, q^{19} + 24916474\, p^{31}\, q^{22} + 646102\, p^{29}\, q^{14} + 121345390526\, p^{65}\, q^{108} + 36208720616\, q^{74}\, p^{36}$$
$$+ 48027771101\, q^{74}\, p^{37} + 62997050358\, q^{74}\, p^{38} + 81751094348\, q^{74}\, p^{39} + 66785785619\, p^{114}\, q^{75} + 4613671594\, p^{110}\, q^{49}$$
$$+ 1623545552\, p^{109}\, q^{44} + 72597633517\, p^{115}\, q^{85} + 1844717848143\, p^{95}\, q^{89} + 1696614011\, p^{125}\, q^{106} + 50656\, p^{98}\, q^{18} + 54716357\, p^{113}\, q^{38}$$
$$+ 4827\, p^{92}\, q^{14} + 1712294\, q^{82}\, p^{17} + 1913405648270\, p^{94}\, q^{90} + 212153386254\, p^{44}\, q^{59} + 1270412097465\, p^{55}\, q^{81} + 1164059860592\, p^{54}\, q^{80}$$
$$+ 10795015\, p^{27}\, q^{22} + 2243420379248\, p^{94}\, q^{74} + 1518473162827\, p^{94}\, q^{67} + 19020545\, q^{91}\, p^{23} + 104896974\, q^{91}\, p^{26} + 375154208\, q^{92}\, p^{29}$$
$$+ 34693922\, q^{91}\, p^{24} + 3422052268594\, p^{90}\, q^{76} + 3151510812426\, p^{90}\, q^{73} + 636527\, p^{112}\, q^{141} + 678\, p^{84}\, q^{145} + 13648\, p^{91}\, q^{144}$$
$$+ 91189414543\, p^{70}\, q^{39} + 489529688047\, p^{71}\, q^{47} + 116190776983\, p^{70}\, q^{40} + 807958549407\, p^{71}\, q^{50} + 227124800974\, p^{70}\, q^{43}$$
$$+ 183313223248\, p^{70}\, q^{42} + 212153386254\, p^{59}\, q^{44} + 551513718\, p^{27}\, q^{40} + 8526462412\, p^{77}\, q^{32} + 5974743551\, p^{77}\, q^{31}$$
$$+ 1755478999331\, p^{82}\, q^{58} + 38556268706\, p^{78}\, q^{37} + 1965561548344\, p^{82}\, q^{59} + 2474406398\, p^{100}\, q^{38} + 84175217047\, p^{62}\, q^{108}$$
$$+ 956445641199\, p^{100}\, q^{72} + 730945950568\, p^{100}\, q^{68} + 60204934\, q^{130}\, p^{68} + 98737703224\, p^{41}\, q^{56} + 412\, p^{82}\, q^{10} + 1682111177\, p^{119}\, q^{58}$$
$$+ 2129839\, p^{107}\, q^{27} + 470133881\, p^{125}\, q^{116} + 23315193\, q^{35}\, p^{20} + 39817910\, q^{36}\, p^{21} + 560692447120\, q^{88}\, p^{53} + 655428296365\, q^{88}\, p^{54}$$
$$+ 796233073618\, q^{89}\, p^{56} + 1003192288894\, q^{88}\, p^{57} + 760664402960\, q^{88}\, p^{55} + 876582675490\, q^{88}\, p^{56} + 476126791914\, q^{88}\, p^{52}$$
$$+ 727\, q^{28}\, p^{5} + 41\, q^{24}\, p^{3} + 4619270942\, p^{68}\, q^{29} + 630326408\, p^{83}\, q^{27} + 1917715\, p^{138}\, q^{82} + 159005\, p^{133}\, q^{53} + 2\, p^{87}\, q^{9} + 370551\, p^{135}\, q^{61}$$
$$+ 416404352\, q^{43}\, p^{25} + 291961932\, q^{43}\, p^{24} + 584809049\, q^{43}\, p^{26} + 1105292642\, q^{43}\, p^{28} + 809506340\, q^{43}\, p^{27} + 1242808601\, q^{44}\, p^{28}$$
$$+ 4182089175\, q^{81}\, p^{31} + 6041948535\, q^{81}\, p^{32} + 572595905\, q^{80}\, p^{26} + 903970186\, q^{80}\, p^{27} + 8596403812\, q^{81}\, p^{33} + 354567247\, q^{80}\, p^{25}$$

$$+ 10858215104\, p^{43} q^{37} + 3061869970\, q^{56} p^{28} + 37308488\, q^{54} p^{18} + 4829190528\, p^{34} q^{42} + 232854502\, p^{41} q^{24} + 18031719\, p^{40} q^{18}$$
$$+ 459316879\, p^{41} q^{26} + 3801181226\, p^{42} q^{33} + 6107486\, p^{39} q^{16} + 1740383665\, p^{42} q^{30} + 1311407309\, p^{42} q^{29} + 2961569639\, p^{42} q^{32}$$
$$+ 70272043349\, p^{72} q^{113} + 59353711699\, p^{70} q^{113} + 64782100882\, p^{71} q^{113} + 45336456239\, p^{70} q^{114} + 75763535910\, p^{73} q^{113}$$
$$+ 81192160671\, p^{74} q^{113} + 86490572205\, p^{75} q^{113} + 74769\, p^{130} q^{45} + 4\, p^{94} q^{11} + 1481153\, p^{139} q^{87} + 1692\, p^{121} q^{28} + 8299\, p^{125} q^{34}$$
$$+ 152959\, p^{142} q^{122} + 18394078\, q^{136} p^{92} + 79444\, q^{131} p^{47} + 123223\, q^{131} p^{48} + 184348\, q^{130} p^{47} + 822505\, q^{131} p^{53} + 406217\, q^{131} p^{51}$$
$$+ 582678\, q^{131} p^{52} + 1143191\, q^{131} p^{54} + 1566529\, q^{131} p^{55} + 1338137494\, p^{105} q^{126} + 976183635\, p^{111} q^{125} + 22124\, p^{145} q^{115}$$
$$+ 1105\, p^{133} q^{43} + 35692\, p^{143} q^{89} + 3528310697104\, p^{73} q^{63} + 3268621757614\, p^{73} q^{62} + 3009762759791\, p^{73} q^{61} + 6145\, p^{29} q^{7}$$
$$+ 15728\, p^{30} q^{8} + 354212\, p^{33} q^{12} + 85806\, p^{32} q^{10} + 6430274\, p^{35} q^{17} + 39817910\, p^{36} q^{21} + 1259219\, p^{34} q^{14} + 448280140991\, p^{58} q^{49}$$
$$+ 515488768161\, p^{58} q^{50} + 14097880\, q^{73} p^{18} + 115077344\, p^{119} q^{128} + 66235224\, q^{76} p^{21} + 1220845267\, q^{77} p^{27} + 491413385\, q^{77} p^{25}$$
$$+ 783012257\, q^{77} p^{26} + 301241688\, q^{77} p^{24} + 2835018430904\, p^{64} q^{84} + 1825379128501\, p^{60} q^{85} + 932269587189\, p^{51} q^{69}$$
$$+ 15512601\, q^{35} p^{19} + 186711\, q^{33} p^{11} + 31839748\, q^{94} p^{25} + 20069463\, p^{34} q^{20} + 13427760\, p^{34} q^{19} + 49741463\, p^{35} q^{22} + 70797327\, p^{35} q^{23}$$
$$+ 45046041\, p^{126} q^{126} + 57804840\, p^{125} q^{126} + 250487831\, p^{35} q^{27} + 396928791\, p^{36} q^{28} + 3\, p^{146} q^{77} + 21140519\, q^{136} p^{99}$$
$$+ 21112407\, q^{136} p^{98} + 20454488\, q^{136} p^{102} + 19397485\, q^{136} p^{104} + 10652198\, q^{137} p^{105} + 21039273\, q^{136} p^{100} + 19980905\, q^{136} p^{103}$$
$$+ 20669669\, q^{136} p^{96} + 20808793\, q^{136} p^{101} + 20953993\, q^{136} p^{97} + 19742419\, q^{136} p^{94} + 19115453\, q^{136} p^{93} + 571725\, p^{121} q^{140}$$
$$+ 104\, q^{113} p^{20} + 309166261939\, p^{47} q^{57} + 93481403854\, p^{107} q^{106} + 40750\, q^{32} p^{9} + 3021653\, p^{106} q^{139} + 49136\, p^{144} q^{118} + 58698\, p^{144} q^{111}$$
$$+ 26235\, p^{140} q^{70} + 341991000035\, p^{47} q^{81} + 165302\, q^{27} p^{12} + 1797955774491\, p^{70} q^{56} + 18267632828\, p^{66} q^{33} + 274158171\, p^{63} q^{22}$$
$$+ 1047666181\, p^{64} q^{25} + 32678350743\, q^{117} p^{77} + 268068147952\, p^{45} q^{60} + 1847704226995\, p^{58} q^{81} + 29\, p^{56} q^{5} + 1650658\, q^{32} p^{15}$$
$$+ 943270608\, p^{115} q^{49} + 431\, q^{94} p^{13} + 21880\, q^{115} p^{26} + 282409\, p^{27} q^{13} + 3222059\, p^{28} q^{18} + 522383051\, p^{117} q^{124} + 282084718\, p^{107} q^{37}$$
$$+ 98960607\, p^{105} q^{33} + 10465432075\, p^{111} q^{54} + 220694648\, q^{75} p^{23} + 24374256\, q^{74} p^{19} + 73918731\, q^{75} p^{21} + 26116323702\, p^{109} q^{56}$$
$$+ 67350495232\, p^{110} q^{64} + 21767254573\, p^{109} q^{55} + 137872732606\, p^{112} q^{80} + 144941893560\, p^{112} q^{88} + 48022629290\, p^{113} q^{103}$$
$$+ 104424952282\, p^{113} q^{92} + 148657505\, p^{102} q^{32} + 11563038\, p^{98} q^{25} + 75895024961\, p^{110} q^{65} + 115745709171\, p^{111} q^{72} + 7536\, q^{142} p^{75}$$
$$+ 5704093783173\, p^{77} q^{79} + 257755568\, p^{117} q^{47} + 5108751702524\, p^{80} q^{83} + 5\, p^{151} q^{129} + 9191631056\, q^{95} p^{39} + 12404444028\, q^{95} p^{40}$$
$$+ 16543077674\, q^{95} p^{41} + 113389344\, p^{115} q^{42} + 177980\, p^{102} q^{21} + 2689546\, p^{108} q^{28} + 5698324307\, p^{39} q^{37} + 354040755509\, p^{59} q^{47}$$
$$+ 413653980465\, p^{59} q^{48} + 15293302104\, p^{57} q^{33} + 11414345\, p^{51} q^{16} + 2393515609\, p^{33} q^{39} + 3887\, q^{108} p^{20} + 6376052415\, q^{106} p^{46}$$

$$+ 203463327\, q^{104}\, p^{34} + 5100489\, q^{91}\, p^{21} + 9007\, q^{115}\, p^{25} + 177647078\, p^{56}\, q^{21} + 689131527\, p^{57}\, q^{24} + 3701116852947\, p^{87}\, q^{86}$$
$$+ 18195\, p^{93}\, q^{144} + 116874\, p^{101}\, q^{143} + 1424054054276\, p^{72}\, q^{54} + 403138899183\, p^{72}\, q^{46} + 1608606148741\, p^{73}\, q^{55} + 98686171\, p^{22}\, q^{40}$$
$$+ 333307147357\, p^{107}\, q^{75} + 319536302396\, p^{47}\, q^{82} + 2192048278765\, p^{93}\, q^{89} + 280244830058\, p^{46}\, q^{81} + 263514301562\, p^{98}\, q^{106}$$
$$+ 3637917442865\, p^{82}\, q^{66} + 208573987972\, p^{79}\, q^{44} + 285290817\, p^{72}\, q^{23} + 1449056133914\, p^{81}\, q^{56} + 950820850391\, p^{56}\, q^{57}$$
$$+ 841999015347\, p^{54}\, q^{58} + 1202999690601\, p^{60}\, q^{56} + 3988837\, q^{35}\, p^{16} + 2138160\, q^{34}\, p^{15} + 565091573\, p^{118}\, q^{123}$$
$$+ 1569153758168\, p^{78}\, q^{98} + 1772283403419\, p^{84}\, q^{97} + 1797955774491\, p^{83}\, q^{97} + p^{32}\, q^{2} + 11756489\, p^{68}\, q^{17} + 92420029399\, q^{92}\, p^{46}$$
$$+ 142162497018\, q^{92}\, p^{48} + 303977194278\, q^{92}\, p^{52} + 174035748181\, q^{92}\, p^{49} + 86\, p^{39}\, q^{4} + 439628657870\, p^{80}\, q^{48} + 258023532063\, p^{79}\, q^{45}$$
$$+ 1632406\, p^{88}\, q^{139} + 6107486\, p^{114}\, q^{137} + 1668483\, p^{137}\, q^{124} + 88716\, p^{140}\, q^{132} + 5794683\, p^{137}\, q^{85} + 110513\, p^{140}\, q^{131} + 5843\, p^{117}\, q^{26}$$
$$+ 6268105\, p^{135}\, q^{74} + 1558\, p^{113}\, q^{22} + 2950277\, p^{134}\, q^{66} + 55426120039\, p^{69}\, q^{37} + 582924914144\, p^{71}\, q^{48} + 339732379870\, p^{70}\, q^{45}$$
$$+ 3267826803\, p^{67}\, q^{28} + 41273\, p^{52}\, q^{9} + 44196\, p^{141}\, q^{77} + 2542224187451\, p^{91}\, q^{89} + 3908915732\, p^{124}\, q^{99} + 830225\, p^{106}\, q^{25}$$
$$+ 11445296\, p^{110}\, q^{32} + 20\, p^{150}\, q^{120} + 34\, p^{150}\, q^{125} + 616634355\, q^{108}\, p^{40} + 3637372477873\, p^{64}\, q^{70} + 647530722219\, p^{49}\, q^{75}$$
$$+ 32362826597\, q^{118}\, p^{85} + 31172896345\, q^{118}\, p^{83} + 31853881869\, q^{118}\, p^{84} + 32691496237\, q^{118}\, p^{86} + 32789260035\, q^{118}\, p^{88}$$
$$+ 32834422165\, q^{118}\, p^{87} + 32556635316\, q^{118}\, p^{89} + 31547045878\, q^{118}\, p^{91} + 32140345136\, q^{118}\, p^{90} + 6881288734\, q^{61}\, p^{30}$$
$$+ 2386011246\, q^{62}\, p^{27} + 4903385853\, q^{61}\, p^{29} + 2379631579\, q^{61}\, p^{27} + 3442747146\, q^{61}\, p^{28} + 2634326967629\, p^{60}\, q^{69}$$
$$+ 3367877478037\, p^{87}\, q^{88} + 3516019318876\, p^{86}\, q^{88} + 5610161\, q^{96}\, p^{23} + 83\, p^{69}\, q^{7} + 33589039\, p^{125}\, q^{128} + 416452\, p^{104}\, q^{23}$$
$$+ 4831629713\, p^{124}\, q^{93} + 4295681852\, p^{124}\, q^{97} + 7\, p^{19}\, q^{2} + 1084175163063\, p^{52}\, q^{70} + 220859398686\, p^{43}\, q^{72} + 1327\, p^{9}\, q^{12} + 626\, p^{7}\, q^{13}$$
$$+ 825\, p^{8}\, q^{12} + 298676279611\, q^{80}\, p^{46} + 1337321026\, p^{32}\, q^{37} + 874664416\, p^{31}\, q^{36} + 8\, p^{17}\, q^{2} + 181\, p^{23}\, q^{4} + 43\, p^{21}\, q^{3} + 26874690\, p^{36}\, q^{20}$$
$$+ 17781351\, p^{36}\, q^{19} + 66922056\, p^{37}\, q^{22} + 96142945\, p^{37}\, q^{23} + 351657004\, p^{37}\, q^{27} + 552422765\, p^{38}\, q^{28} + 715888\, p^{34}\, q^{13}$$
$$+ 2138160\, p^{34}\, q^{15} + 342001\, p^{136}\, q^{133} + 502935\, q^{37}\, p^{12} + 1711189\, q^{37}\, p^{14} + 3274553\, q^{38}\, p^{15} + 20598\, q^{35}\, p^{8} + 7775\, q^{35}\, p^{7}$$
$$+ 1025690\, q^{38}\, p^{13} + 253962\, q^{37}\, p^{11} + 12151146\, p^{136}\, q^{112} + 170432269928\, q^{82}\, p^{44} + 1023624252\, q^{105}\, p^{39} + 70992404\, q^{103}\, p^{31}$$
$$+ 315722169504\, p^{89}\, q^{108} + 791992\, q^{35}\, p^{13} + 93262\, q^{33}\, p^{10} + 203869\, q^{34}\, p^{11} + 221007\, q^{35}\, p^{11} + 180301213378\, p^{98}\, q^{54}$$
$$+ 1242808601\, p^{125}\, q^{109} + 26025\, p^{97}\, q^{17} + 278221\, p^{103}\, q^{22} + 552422765\, p^{125}\, q^{115} + 169627\, q^{32}\, p^{11} + 30670\, p^{143}\, q^{88} + 1349\, p^{144}\, q^{80}$$
$$+ 91\, p^{137}\, q^{48} + 1828\, p^{147}\, q^{110} + 2913\, p^{144}\, q^{83} + 2897\, p^{146}\, q^{100} + 99\, p^{149}\, q^{115} + 5492232887046\, p^{80}\, q^{80} + 63779848\, p^{54}\, q^{19}$$
$$+ 277904115\, p^{55}\, q^{22} + 3789570395209\, p^{72}\, q^{87} + 100272559644\, q^{93}\, p^{47} + 959153819\, p^{30}\, q^{38} + 4152965130\, p^{94}\, q^{36} + 586236774\, p^{92}\, q^{30}$$

$$+ 1670083520\, p^{93}\, q^{33} + 12404444028\, p^{95}\, q^{40} + 9191631056\, p^{95}\, q^{39} + 5808917427\, p^{94}\, q^{37} + 84705375\, q^{104}\, p^{32} + 132621798\, q^{104}\, p^{33}$$
$$+ 2788709074615\, p^{61}\, q^{68} + 16570695945\, p^{33}\, q^{59} + 1070466511\, p^{25}\, q^{59} + 21974281004\, p^{34}\, q^{59} + 28812819351\, p^{35}\, q^{59}$$
$$+ 2395577647172\, p^{93}\, q^{73} + 2631324090184\, p^{93}\, q^{76} + 15966099822\, q^{58}\, p^{33} + 4\, q^{86}\, p^{9} + 37308488\, q^{135}\, p^{99} + 24916474\, p^{22}\, q^{31}$$
$$+ 404346659\, p^{53}\, q^{23} + 45496857\, q^{74}\, p^{20} + 5516730651\, q^{78}\, p^{31} + 1705200216\, q^{78}\, p^{28} + 4122187247\, q^{77}\, p^{30} + 2566287034\, q^{78}\, p^{29}$$
$$+ 1111689331\, q^{78}\, p^{27} + 3794156663\, q^{78}\, p^{30} + 129633969\, q^{75}\, p^{22} + 116840895\, q^{76}\, p^{22} + 15487568551\, q^{78}\, p^{34} + 920195712278\, p^{102}\, q^{85}$$
$$+ 8657\, q^{24}\, p^{8} + 58373\, q^{24}\, p^{11} + 3120930892\, p^{106}\, q^{123} + 2684251394711\, p^{93}\, q^{77} + 3930966276387\, p^{68}\, q^{83} + 5761241055\, p^{38}\, q^{38}$$
$$+ q^{45}\, p^{3} + 4625008282\, q^{97}\, p^{38} + 4447845884\, p^{35}\, q^{40} + 7987347311\, p^{41}\, q^{37} + 810092618320\, p^{59}\, q^{53} + 686719659159\, p^{49}\, q^{69}$$
$$+ 6921349296\, p^{39}\, q^{38} + 1059199932055\, p^{101}\, q^{85} + 689733756888\, p^{49}\, q^{70} + 1444508078\, q^{75}\, p^{27} + 1556562412\, q^{74}\, p^{27}$$
$$+ 2352365669\, q^{74}\, p^{28} + 3491222480\, q^{74}\, p^{29} + 567774840464\, p^{62}\, q^{49} + 197685231006\, p^{91}\, q^{49} + 98584428527\, p^{70}\, q^{111}$$
$$+ 276353035247\, p^{82}\, q^{109} + 279441109492\, p^{85}\, q^{109} + 108699795\, p^{56}\, q^{20} + 1056257711\, p^{58}\, q^{25} + 1597\, p^{57}\, q^{7} + 28080120\, p^{65}\, q^{18}$$
$$+ 3108639809470\, p^{68}\, q^{87} + 3295031346476\, p^{69}\, q^{87} + p^{15}\, q + 4094\, p^{50}\, q^{7} + 3615114929506\, p^{89}\, q^{75} + 4289853158374\, p^{70}\, q^{67}$$
$$+ 7786678130\, q^{82}\, p^{33} + 5456276472\, q^{82}\, p^{32} + 6761124762\, p^{93}\, q^{123} + 5691604542\, p^{81}\, q^{123} + 4124778382\, p^{82}\, q^{124} + 7\, p^{151}\, q^{141}$$
$$+ p^{152}\, q^{141} + 52\, p^{149}\, q^{142} + 69382721\, q^{93}\, p^{26} + 15208614\, q^{92}\, p^{23} + 9523064680\, p^{92}\, q^{122} + 87338401\, p^{22}\, q^{39} + 208143129739\, p^{57}\, q^{100}$$
$$+ 717378642\, p^{27}\, q^{42} + 1489707525\, p^{29}\, q^{43} + 1740383665\, p^{30}\, q^{42} + 976183635\, p^{28}\, q^{42} + 1311407309\, p^{29}\, q^{42} + 3684\, p^{51}\, q^{7}$$
$$+ 223704\, p^{57}\, q^{11} + 2394938\, p^{60}\, q^{14} + 1149556\, p^{59}\, q^{13} + 33328319300\, p^{73}\, q^{116} + 1513101430\, p^{70}\, q^{124} + 1115512561\, p^{71}\, q^{125}$$
$$+ 145349343026\, p^{97}\, q^{110} + 142152017336\, p^{89}\, q^{112} + 34044715571\, p^{113}\, q^{106} + 7348733847\, q^{102}\, p^{43} + 617203593798\, p^{52}\, q^{57}$$
$$+ 950820850391\, p^{57}\, q^{56} + 12349184642\, p^{59}\, q^{32} + 2279095406\, p^{58}\, q^{27} + 9089937849\, p^{59}\, q^{31} + 124156437838\, p^{60}\, q^{41}$$
$$+ 21974281004\, p^{59}\, q^{34} + 28812819351\, p^{59}\, q^{35} + 46\, p^{43}\, q^{4} + 1516369839\, p^{30}\, q^{41} + 1983035412\, p^{31}\, q^{41} + 2282955974\, p^{31}\, q^{42}$$
$$+ 2564900595\, p^{32}\, q^{41} + 3282670080\, p^{33}\, q^{41} + 6251216\, q^{93}\, p^{22} + 869901\, q^{92}\, p^{19} + 106481683\, p^{121}\, q^{127} + 38968012\, p^{129}\, q^{123}$$
$$+ 100259570\, q^{96}\, p^{28} + 142247\, q^{85}\, p^{15} + 3554861292\, p^{34}\, q^{40} + 206500021060\, p^{99}\, q^{107} + 788797516028\, p^{69}\, q^{100}$$
$$+ 846133898687\, p^{70}\, q^{100} + 1100202233721\, p^{75}\, q^{100} + 821100602917\, p^{72}\, q^{101} + 1056124502014\, p^{74}\, q^{100} + 956445641199\, p^{72}\, q^{100}$$
$$+ 1007974302432\, p^{73}\, q^{100} + 4170044253961\, p^{84}\, q^{86} + 409194\, q^{123}\, p^{38} + 620941208\, q^{37}\, p^{29} + 17788302\, q^{85}\, p^{21} + 10986772\, q^{84}\, p^{20}$$
$$+ 442271\, p^{13}\, q^{30} + 6\, q^{75}\, p^{7} + 1233612\, p^{15}\, q^{30} + 84457\, p^{66}\, q^{11} + 56016774\, p^{26}\, q^{29} + 152959\, q^{31}\, p^{11} + 219103602363\, p^{106}\, q^{100}$$
$$+ 39325319\, p^{69}\, q^{19} + 4491616050298\, p^{81}\, q^{69} + 4698510882035\, p^{81}\, q^{70} + 23561504\, p^{130}\, q^{63} + 17571935\, p^{132}\, q^{122} + 8888102\, q^{127}\, p^{52}$$

$$+ 105498\, p^{82}\, q^{14} + 12579\, p^{76}\, q^{11} + 1164059860592\, p^{80}\, q^{54} + 1641715430942\, p^{81}\, q^{57} + 51025890232\, p^{78}\, q^{38} + 1007974302432\, p^{80}\, q^{53}$$
$$+ 65\, q^{76}\, p^{8} + 2295352335251\, p^{81}\, q^{60} + 84744105001\, p^{39}\, q^{73} + 3442687507804\, p^{64}\, q^{68} + 290022689\, p^{40}\, q^{25} + 46507\, p^{34}\, q^{9}$$
$$+ 221007\, p^{35}\, q^{11} + 7161\, p^{32}\, q^{7} + 18924\, p^{33}\, q^{8} + 465929\, p^{36}\, q^{12} + 107759\, p^{35}\, q^{10} + 9130026\, p^{38}\, q^{17} + 59178576\, p^{39}\, q^{21}$$
$$+ 1711189\, p^{37}\, q^{14} + 39333263\, p^{39}\, q^{20} + 25604584\, p^{39}\, q^{19} + 98686171\, p^{40}\, q^{22} + 143709255\, p^{40}\, q^{23} + 551513718\, p^{40}\, q^{27}$$
$$+ 856058824\, p^{41}\, q^{28} + 947863\, p^{37}\, q^{13} + 2976295\, p^{37}\, q^{15} + 373238\, q^{100}\, p^{21} + 74315739\, p^{132}\, q^{112} + 85695977\, p^{127}\, q^{61}$$
$$+ 270717615\, p^{129}\, q^{75} + 15728\, q^{30}\, p^{8} + 1153856384\, q^{88}\, p^{30} + 45336456239\, q^{83}\, p^{39} + 253427054\, p^{25}\, q^{39} + 185475561384\, p^{43}\, q^{60}$$
$$+ 83408695923\, p^{39}\, q^{61} + 656944747443\, p^{62}\, q^{50} + 3343409061\, p^{59}\, q^{28} + 294317004302\, p^{62}\, q^{45} + 159311354520\, p^{61}\, q^{42}$$
$$+ 65997142854\, p^{61}\, q^{38} + 194239740319\, p^{61}\, q^{43} + 51712766429\, p^{61}\, q^{37} + 83408695923\, p^{61}\, q^{39} + 40315389537\, p^{64}\, q^{112}$$
$$+ 107147948707\, p^{71}\, q^{111} + 90146483237\, p^{69}\, q^{111} + 81916653079\, p^{68}\, q^{111} + 73967939677\, p^{67}\, q^{111} + 46483093007\, p^{105}\, q^{112}$$
$$+ 211655265398\, p^{56}\, q^{99} + 258023532063\, p^{74}\, q^{108} + 104599183\, q^{77}\, p^{22} + 522383051\, q^{36}\, p^{29} + 276043\, q^{93}\, p^{18} + 19835\, q^{34}\, p^{8}$$
$$+ 46507\, q^{34}\, p^{9} + 1556425\, q^{36}\, p^{14} + 37780202199\, q^{117}\, p^{80} + 36208720616\, q^{117}\, p^{79} + 28799628827\, q^{117}\, p^{75} + 30769712553\, q^{117}\, p^{76}$$
$$+ 37\, p^{139}\, q^{52} + 412\, p^{143}\, q^{71} + 278\, p^{139}\, q^{55} + 34499832059\, q^{117}\, p^{78} + 484618764263\, p^{47}\, q^{72} + 803578913603\, p^{50}\, q^{72}$$
$$+ 684076692637\, p^{49}\, q^{72} + 396188447150\, p^{46}\, q^{73} + 577992016034\, p^{48}\, q^{72} + 1930842408835\, p^{95}\, q^{88} + 2225742598225\, p^{95}\, q^{83}$$
$$+ 5094294434\, q^{74}\, p^{30} + 973408212352\, p^{54}\, q^{60} + 83721820\, p^{119}\, q^{129} + 58147944\, p^{121}\, q^{129} + 82826560\, p^{117}\, q^{130} + 937959\, p^{136}\, q^{129}$$
$$+ 746\, q^{61}\, p^{7} + 11676\, q^{63}\, p^{9} + 164861378\, q^{82}\, p^{24} + 449395060\, q^{82}\, p^{26} + 63616334872\, p^{68}\, q^{112} + 323394\, q^{98}\, p^{20} + 133264\, q^{98}\, p^{19}$$
$$+ 767374416996\, p^{52}\, q^{60} + 464048488823\, p^{48}\, q^{61} + 1136117570143\, p^{57}\, q^{58} + 486817\, p^{59}\, q^{12} + 1324681802366\, p^{60}\, q^{57}$$
$$+ 1217894540005\, p^{74}\, q^{99} + 1239802547479\, p^{58}\, q^{58} + 1042867748160\, p^{56}\, q^{86} + 3742167855\, q^{120}\, p^{65} + 2138996617744\, p^{58}\, q^{68}$$
$$+ 465818595\, p^{34}\, q^{30} + 29710349984\, q^{87}\, p^{39} + 4192555\, p^{138}\, q^{90} + 165302\, p^{141}\, q^{126} + 1135456\, p^{134}\, q^{62} + 5026408\, p^{138}\, q^{93}$$
$$+ 2069612\, p^{136}\, q^{72} + 3084435\, p^{139}\, q^{105} + 170156\, p^{129}\, q^{45} + 11\, p^{93}\, q^{11} + 3294049\, p^{138}\, q^{87} + 3887\, p^{120}\, q^{28} + 18916\, p^{124}\, q^{34}$$
$$+ 283957\, p^{141}\, q^{122} + 4221699\, p^{137}\, q^{82} + 373238\, p^{132}\, q^{53} + 4\, p^{86}\, q^{9} + 869901\, p^{134}\, q^{61} + 1242511163\, p^{31}\, q^{38} + 350573748\, p^{26}\, q^{39}$$
$$+ 6428634901\, p^{84}\, q^{123} + 5313062620436\, p^{72}\, q^{79} + 2417224865122\, p^{71}\, q^{92} + 642311\, q^{33}\, p^{13} + 1942051\, p^{63}\, q^{14} + 921485\, p^{62}\, q^{13}$$
$$+ 318388627830\, p^{79}\, q^{108} + 25455768590\, p^{103}\, q^{116} + 22997490513\, p^{104}\, q^{116} + 20641358576\, p^{105}\, q^{116} + 18404121131\, p^{106}\, q^{116}$$
$$+ 16298988713\, p^{116}\, q^{107} + 417367237\, p^{130}\, q^{88} + 52242892\, p^{21}\, q^{38} + 4369589639\, p^{110}\, q^{120} + 149863782712\, p^{86}\, q^{45}$$
$$+ 17017139760\, p^{84}\, q^{36} + 876582675490\, p^{88}\, q^{56} + 254027039344\, p^{87}\, q^{48} + 4863317688086\, p^{84}\, q^{81} + 219810073\, p^{38}\, q^{25} + 40750\, p^{32}\, q^{9}$$

$$+ 186711\, p^{33}\, q^{11} + 1268107\, p^{74}\, q^{15} + 4032670658\, q^{96}\, p^{37} + 1380807167\, q^{96}\, p^{34} + 2003982174\, q^{96}\, p^{35} + 5600608698\, q^{96}\, p^{38}$$
$$+ 157228805\, p^{24}\, q^{38} + 66922056\, p^{22}\, q^{37} + 1174730850924\, q^{89}\, p^{59} + 1472757685959\, q^{89}\, p^{61} + 1799756826379\, q^{89}\, p^{63}$$
$$+ 1633208423586\, q^{89}\, p^{62} + 1970986106658\, q^{89}\, p^{64} + 2320837101880\, q^{89}\, p^{66} + 2145279071980\, q^{89}\, p^{65} + 2124925386189\, q^{90}\, p^{66}$$
$$+ 1319605502352\, q^{89}\, p^{60} + 1038888240736\, q^{89}\, p^{58} + 96142945\, p^{23}\, q^{37} + 4349709715842\, p^{69}\, q^{68} + 5416\, q^{59}\, p^{8} + 866528161\, q^{84}\, p^{28}$$
$$+ 2638687922\, q^{85}\, p^{31} + 1334339468\, q^{84}\, p^{29} + 2015639442\, q^{84}\, p^{30} + 152396433938\, p^{93}\, q^{111} + 188599514\, q^{81}\, p^{24} + 630326408\, q^{83}\, p^{27}$$
$$+ 986575643\, q^{83}\, p^{28} + 1513101430\, q^{83}\, p^{29} + 6378854571\, q^{112}\, p^{53} + 9572812495\, q^{112}\, p^{55} + 5139278376\, q^{112}\, p^{52} + 7847852923\, q^{112}\, p^{54}$$
$$+ 8798747\, q^{34}\, p^{18} + 745303842\, p^{28}\, q^{40} + 3892018879\, p^{36}\, q^{38} + 1463222224\, p^{31}\, q^{39} + 1881148359\, p^{32}\, q^{39} + 648871846\, q^{111}\, p^{43}$$
$$+ 882263907\, q^{111}\, p^{44} + 1184951511\, q^{111}\, p^{45} + 1147134631\, q^{112}\, p^{46} + 387085228836\, p^{48}\, q^{58} + 194652789687\, q^{102}\, p^{59}$$
$$+ 223308551291\, q^{102}\, p^{60} + 4038184440469\, p^{88}\, q^{80} + 694342418428\, p^{53}\, q^{57} + 70067296\, p^{123}\, q^{127} + 83721820\, p^{34}\, q^{24} + 571725\, p^{32}\, q^{13}$$
$$+ 7601380\, p^{33}\, q^{18} + 241040130395\, p^{99}\, q^{106} + 24916474\, p^{122}\, q^{131} + 30000546\, p^{121}\, q^{131} + 34900337\, p^{115}\, q^{133} + 807958549407\, p^{50}\, q^{71}$$
$$+ 544989924863\, p^{51}\, q^{57} + 12779716\, q^{67}\, p^{17} + 51975790\, p^{129}\, q^{64} + 868392731434\, p^{56}\, q^{56} + 3908915732\, p^{99}\, q^{124} + 1395280775\, p^{101}\, q^{37}$$
$$+ 47081029879\, p^{105}\, q^{54} + 423302514\, p^{129}\, q^{106} + 9259\, p^{102}\, q^{18} + 11928516945\, p^{58}\, q^{32} + 2220279832\, p^{57}\, q^{27} + 8803290978\, p^{58}\, q^{31}$$
$$+ 118292325723\, p^{59}\, q^{41} + 21121596640\, p^{58}\, q^{34} + 27630599546\, p^{58}\, q^{35} + 2207\, p^{40}\, q^{6} + 92379916372\, p^{69}\, q^{39} + 491692891022\, p^{70}\, q^{47}$$
$$+ 117475790982\, p^{69}\, q^{40} + 807775959110\, p^{70}\, q^{50} + 228365523555\, p^{69}\, q^{43} + 184645612090\, p^{69}\, q^{42} + 5037199152\, p^{104}\, q^{122}$$
$$+ 2393515609\, p^{114}\, q^{120} + 7287475444\, p^{103}\, q^{121} + 79146803\, q^{125}\, p^{56} + 6913747\, p^{66}\, q^{16} + 69382721\, p^{127}\, q^{60} + 129360129\, p^{128}\, q^{66}$$
$$+ 144810748762\, p^{51}\, q^{96} + 92513635043\, p^{48}\, q^{95} + 592597275363\, p^{59}\, q^{95} + 113936294075\, p^{49}\, q^{95} + 139129216657\, p^{50}\, q^{95}$$
$$+ 2282955974\, p^{42}\, q^{31} + 4829190528\, p^{42}\, q^{34} + 6075132130\, p^{42}\, q^{35} + 8771791701\, p^{43}\, q^{36} + 37823\, p^{93}\, q^{16} + 7970488\, q^{125}\, p^{48}$$
$$+ 24294\, p^{91}\, q^{15} + 1691264088\, p^{37}\, q^{33} + 3519913\, p^{34}\, q^{16} + 3369086\, p^{104}\, q^{26} + 1909657781\, p^{117}\, q^{55} + 435585011\, p^{114}\, q^{45}$$
$$+ 22320406\, p^{93}\, q^{24} + 1975563564909\, p^{57}\, q^{69} + 284313333\, q^{91}\, p^{28} + 3494742645\, q^{93}\, p^{35} + 33441537878\, q^{94}\, p^{43} + 25703329883\, q^{94}\, p^{42}$$
$$+ 4941609441\, q^{93}\, p^{36} + 43061350385\, q^{94}\, p^{44} + 17276758920\, q^{93}\, p^{40} + 451741312\, q^{91}\, p^{29} + 393989078\, q^{83}\, p^{26} + 1404266164\, p^{33}\, q^{36}$$
$$+ 552422765\, p^{28}\, q^{38} + 351657004\, p^{27}\, q^{37} + 2118047521\, p^{34}\, q^{37} + 1135\, p^{67}\, q^{8} + 1650658\, p^{32}\, q^{15} + 156020022\, p^{34}\, q^{26}$$
$$+ 234927148\, p^{61}\, q^{125} + 518838636022\, p^{50}\, q^{83} + 4967006746825\, p^{84}\, q^{77} + 4770147717971\, p^{85}\, q^{78} + 4635161965369\, p^{84}\, q^{73}$$
$$+ 4923424558937\, p^{84}\, q^{76} + 465929\, q^{36}\, p^{12} + 18924\, q^{33}\, p^{8} + 15172468184\, q^{73}\, p^{33} + 1210786083771\, p^{100}\, q^{85} + 231781761\, q^{110}\, p^{39}$$
$$+ 144060\, p^{45}\, q^{10} + 1552294\, p^{48}\, q^{13} + 35437428\, p^{51}\, q^{18} + 484\, q^{139}\, p^{56} + 818\, q^{139}\, p^{57} + 3214\, q^{139}\, p^{60} + 2098\, q^{139}\, p^{59} + 10176\, q^{139}\, p^{63}$$

$$+ 19939\, q^{139} p^{65} + 7758\, q^{140} p^{66} + 4827\, q^{139} p^{61} + 14354\, q^{139} p^{64} + 7070\, q^{139} p^{62} + 1327\, q^{139} p^{58} + 52027016366\, p^{45} q^{44}$$
$$+ 70107386099\, p^{46} q^{45} + 765763044\, p^{95} q^{32} + 61234582\, p^{91} q^{25} + 26163232671\, p^{45} q^{40} + 1138\, q^{108} p^{19} + 2117\, q^{109} p^{20}$$
$$+ 337131442439\, p^{45} q^{71} + 230553396\, p^{131} q^{103} + 348402725\, p^{130} q^{84} + 15208614\, p^{92} q^{23} + 376253\, p^{85} q^{16} + 6921349296\, p^{38} q^{39}$$
$$+ 1712087325\, q^{114} p^{50} + 371707673\, p^{42} q^{25} + 11123932\, p^{40} q^{17} + 2024680\, p^{39} q^{14} + 48903649\, p^{41} q^{20} + 31497728\, p^{41} q^{19}$$
$$+ 123347083\, p^{42} q^{22} + 181210496\, p^{42} q^{23} + 717378642\, p^{42} q^{27} + 1105292642\, p^{43} q^{28} + 3577492\, p^{39} q^{15} + 623679893083\, p^{68} q^{101}$$
$$+ 674089683507\, p^{69} q^{101} + 6191919894\, p^{57} q^{30} + 1486354046\, p^{56} q^{26} + 4463107640\, p^{57} q^{29} + 74315739\, p^{41} q^{21}$$
$$+ 161169248389\, p^{109} q^{98} + 48558678853\, p^{104} q^{53} + 844351\, p^{90} q^{140} + 67\, q^{53} p^{5} + 1338\, q^{58} p^{7} + 715090\, p^{51} q^{12} + 318319\, p^{50} q^{11}$$
$$+ 21112407\, p^{55} q^{17} + 104424952282\, p^{61} q^{40} + 216406262\, q^{87} p^{26} + 42433254\, q^{87} p^{23} + 75219436\, q^{87} p^{24} + 414984559524\, p^{62} q^{47}$$
$$+ 487192099477\, p^{62} q^{48} + 2474406398\, q^{115} p^{53} + 108649307\, q^{88} p^{25} + 165867\, p^{24} q^{13} + 1246\, p^{21} q^{6} + 453\, p^{20} q^{5} + 14946\, p^{23} q^{9}$$
$$+ 58373\, p^{24} q^{11} + 1720141\, p^{25} q^{18} + 2449062051310\, q^{90} p^{68} + 2605932004268\, q^{90} p^{69} + 3031383748349\, q^{90} p^{72}$$
$$+ 2899117394555\, q^{90} p^{71} + 3348357967556\, q^{90} p^{75} + 3477629879609\, q^{90} p^{77} + 3247441057785\, q^{91} p^{78} + 3151510812426\, q^{90} p^{73}$$
$$+ 3422052268594\, q^{90} p^{76} + 1467003\, p^{73} q^{15} + 12168135\, q^{132} p^{66} + 12581790319\, q^{102} p^{45} + 16205172921\, q^{102} p^{46} + 749\, p^{122} q^{148}$$
$$+ 739\, p^{121} q^{148} + 1119693\, q^{33} p^{14} + 15762169\, q^{117} p^{39} + 172451780\, q^{118} p^{47} + 231183395\, q^{118} p^{48} + 23629846\, q^{117} p^{40}$$
$$+ 7996958371\, q^{108} p^{49} + 6285425082\, q^{108} p^{48} + 10077384414\, q^{108} p^{50} + 34693922\, q^{129} p^{62} + 3094070\, q^{126} p^{47} + 7968457\, q^{131} p^{61}$$
$$+ 132476335\, q^{68} p^{21} + 24588699\, q^{67} p^{18} + 724757676\, p^{35} q^{31} + 943374088\, p^{33} q^{34} + 753146734\, p^{32} q^{34} + 1170456435\, p^{34} q^{34}$$
$$+ 1438909700\, p^{35} q^{34} + 943374088\, p^{34} q^{33} + 37694629\, p^{134} q^{110} + 897811493\, q^{92} p^{31} + 702616635\, q^{91} p^{30} + 586236774\, q^{92} p^{30}$$
$$+ 2894755544\, q^{92} p^{34} + 485126118\, p^{123} q^{60} + 877212739\, p^{124} q^{66} + 17086925\, q^{136} p^{107} + 16293197\, q^{135} p^{114} + 19816464\, q^{135} p^{112}$$
$$+ 18031719\, q^{135} p^{113} + 14618800\, q^{135} p^{115} + 15065812216\, p^{61} q^{114} + 617679\, p^{96} q^{20} + 2813791275\, p^{120} q^{113} + 3268621757614\, p^{91} q^{80}$$
$$+ 31853881869\, p^{69} q^{35} + 1248585797225\, p^{71} q^{53} + 30700627975\, p^{89} q^{40} + 278959680274\, p^{70} q^{44} + 13005553798\, p^{32} q^{61}$$
$$+ 72930434\, p^{120} q^{47} + 279931\, q^{130} p^{48} + 118850\, q^{130} p^{46} + 4496546\, q^{135} p^{72} + 38957\, q^{129} p^{42} + 4852241\, q^{131} p^{59} + 2825484\, q^{131} p^{57}$$
$$+ 3724201\, q^{131} p^{58} + 11429323749\, p^{72} q^{32} + 1140303\, p^{84} q^{17} + 8125046076\, p^{72} q^{31} + 647530722219\, p^{75} q^{49} + 3745360812217\, p^{76} q^{64}$$
$$+ 16908\, p^{128} q^{39} + 282761\, p^{121} q^{35} + 448280140991\, p^{49} q^{58} + 14469351916\, q^{116} p^{65} + 66922056\, p^{131} q^{116} + 1799749601340\, p^{74} q^{56}$$
$$+ 17011440894\, p^{70} q^{33} + 235843827\, p^{67} q^{22} + 925959333\, p^{68} q^{25} + 1422797457\, p^{68} q^{26} + 385977853\, p^{67} q^{23} + 396188447150\, p^{107} q^{80}$$
$$+ 388363276349\, p^{107} q^{88} + 211999286736\, q^{108} p^{71} + 376153377670\, p^{107} q^{78} + 922694422660\, p^{53} q^{61} + 593554989933\, p^{49} q^{63}$$

$$+ 754783249163\, p^{51}\, q^{62} + 1211608686204\, p^{64}\, q^{54} + 1416578574959\, p^{65}\, q^{55} + 377593252643\, p^{64}\, q^{46} + 154714016\, p^{132}\, q^{88}$$
$$+ 1423577855186\, p^{54}\, q^{71} + 940768453473\, p^{51}\, q^{71} + 2063566990\, p^{126}\, q^{84} + 727\, p^{33}\, q^{5} + 539960036063\, p^{61}\, q^{49} + 4094\, p^{146}\, q^{103}$$
$$+ 1655\, p^{143}\, q^{75} + 4289853158374\, p^{83}\, q^{86} + 27961068\, q^{129}\, p^{61} + 5610161\, q^{130}\, p^{57} + 42654860\, q^{129}\, p^{63} + 22320406\, q^{129}\, p^{60}$$
$$+ 38967147\, q^{105}\, p^{31} + 7970488\, q^{105}\, p^{28} + 23596583\, q^{105}\, p^{30} + 13915226\, q^{105}\, p^{29} + 674530917310\, p^{60}\, q^{51} + 767374416996\, p^{60}\, q^{52}$$
$$+ 56939\, p^{45}\, q^{9} + 20886\, p^{44}\, q^{8} + 296374507\, p^{127}\, q^{68} + 156293891\, p^{125}\, q^{59} + 98686171\, p^{131}\, q^{113} + 884520953\, q^{69}\, p^{25} + 76189480\, q^{68}\, p^{20}$$
$$+ 42423444\, q^{68}\, p^{19} + 1156061615\, p^{33}\, q^{35} + 1774440796\, p^{35}\, q^{35} + 2658371750\, p^{36}\, q^{36} + 724757676\, p^{31}\, q^{35} + 31172896345\, q^{70}\, p^{35}$$
$$+ 60533867543\, q^{55}\, p^{39} + 2036119545601\, p^{81}\, q^{96} + 239548699945\, q^{103}\, p^{62} + 211284340022\, q^{103}\, p^{61} + 8\, p^{14}\, q^{2} + 95727240915\, p^{63}\, q^{108}$$
$$+ 3094523123540\, p^{84}\, q^{91} + 6515\, p^{30}\, q^{7} + 16854\, p^{31}\, q^{8} + 391067\, p^{34}\, q^{12} + 93262\, p^{33}\, q^{10} + 7281090\, p^{36}\, q^{17} + 45782142\, p^{37}\, q^{21}$$
$$+ 1405110\, p^{35}\, q^{14} + 9940817\, p^{124}\, q^{47} + 188\, p^{24}\, q^{4} + 42\, p^{22}\, q^{3} + 30740180\, p^{37}\, q^{20} + 20228330\, p^{37}\, q^{19} + 76736914\, p^{38}\, q^{22}$$
$$+ 110746573\, p^{38}\, q^{23} + 411703515\, p^{38}\, q^{27} + 644089590\, p^{39}\, q^{28} + 791992\, p^{35}\, q^{13} + 2405403\, p^{35}\, q^{15} + 3\, p^{53}\, q^{4} + 1964\, q^{26}\, p^{6} + 654\, q^{25}\, p^{5}$$
$$+ 79028659519\, q^{105}\, p^{57} + 6514109\, p^{18}\, q^{32} + 212310\, p^{115}\, q^{29} + 46691446\, p^{124}\, q^{52} + 590206166\, p^{129}\, q^{85} + 530938929\, p^{129}\, q^{83}$$
$$+ 6761124762\, p^{30}\, q^{60} + 1591639248\, p^{26}\, q^{59} + 79587760\, p^{124}\, q^{54} + 2700103690789\, p^{86}\, q^{92} + 1472757685959\, p^{89}\, q^{61}$$
$$+ 1799756826379\, p^{89}\, q^{63} + 164938132\, p^{98}\, q^{30} + 484641554\, p^{99}\, q^{33} + 4\, p^{147}\, q^{84} + 15\, p^{148}\, q^{95} + 15927709\, p^{101}\, q^{27}$$
$$+ 2848823748\, p^{109}\, q^{46} + 7348733847\, p^{110}\, q^{51} + 1572896231\, p^{107}\, q^{42} + 3711626239\, p^{109}\, q^{47} + 291800\, q^{120}\, p^{34} + 520994\, q^{119}\, p^{34}$$
$$+ 28181952\, q^{133}\, p^{75} + 73918731\, q^{132}\, p^{78} + 317425954027\, p^{60}\, q^{100} + 1645576937272\, p^{75}\, q^{97} + 2484268\, p^{101}\, q^{24}$$
$$+ 31089065819\, p^{57}\, q^{109} + 2292450061088\, p^{83}\, q^{61} + 2756632087695\, p^{83}\, q^{63} + 2521653622514\, p^{83}\, q^{62} + 20747\, p^{59}\, q^{9}$$
$$+ 3234558737102\, p^{83}\, q^{65} + 565091573\, p^{35}\, q^{30} + 208573987972\, q^{79}\, p^{44} + 167101510896\, q^{79}\, p^{43} + 104292453946\, q^{79}\, p^{41}$$
$$+ 11136604780\, q^{78}\, p^{33} + 40788531\, q^{75}\, p^{20} + 7896489111\, q^{78}\, p^{32} + 132645040978\, q^{79}\, p^{42} + 595360313\, p^{34}\, q^{31} + 595360313\, p^{31}\, q^{34}$$
$$+ 762839525\, p^{33}\, q^{33} + 919926424\, p^{35}\, q^{32} + 611058806\, p^{32}\, q^{33} + 611058806\, p^{33}\, q^{32} + 753146734\, p^{34}\, q^{32} + 1438909700\, p^{34}\, q^{35}$$
$$+ 919926424\, p^{32}\, q^{35} + 3784167627273\, p^{65}\, q^{79} + 3784167627273\, p^{74}\, q^{88} + 3669967302871\, p^{73}\, q^{88} + 1670083520\, q^{120}\, p^{60}$$
$$+ 356555\, q^{114}\, p^{29} + 2965879060\, q^{121}\, p^{66} + 1144776085\, q^{120}\, p^{58} + 107641360\, p^{55}\, q^{20} + 1036100971\, p^{57}\, q^{25} + 52087726\, p^{132}\, q^{75}$$
$$+ q^{135}\, p^{40} + 19761\, q^{140}\, p^{69} + 192\, q^{137}\, p^{49} + 225369591985\, p^{98}\, q^{107} + 176955701242\, p^{75}\, q^{110} + 279994706297\, p^{84}\, q^{109}$$
$$+ 108134893744\, p^{64}\, q^{108} + 477040049773\, p^{80}\, q^{106} + 261645798\, p^{42}\, q^{24} + 19816464\, p^{41}\, q^{18} + 520100693\, p^{42}\, q^{26} + 4369589639\, p^{43}\, q^{33}$$
$$+ 6673671\, p^{40}\, q^{16} + 1983204811\, p^{43}\, q^{30} + 1489707525\, p^{43}\, q^{29} + 3394847010\, p^{43}\, q^{32} + 5513453000\, p^{36}\, q^{40} + 9347648841\, p^{42}\, q^{37}$$

$$+ 8247867146\, p^{40}\, q^{38} + 2961569639\, p^{32}\, q^{42} + 4158909256\, p^{34}\, q^{41} + 9930719\, p^{88}\, q^{21} + 2609349379\, p^{43}\, q^{31} + 5566466477\, p^{43}\, q^{34}$$
$$+ 7021184937\, p^{43}\, q^{35} + 10090307707\, p^{44}\, q^{36} + 1983204811\, p^{30}\, q^{43} + 40360\, q^{123}\, p^{34} + 30115291\, q^{134}\, p^{81} + 4170044253961\, p^{69}\, q^{67}$$
$$+ 539149\, q^{38}\, p^{12} + 6191919894\, p^{96}\, q^{123} + 10951172666\, q^{82}\, p^{34} + 28476768\, p^{30}\, q^{23} + 4962673188\, p^{124}\, q^{90} + 4740922559\, p^{124}\, q^{86}$$
$$+ 4776230605\, p^{123}\, q^{78} + 3925225496\, p^{124}\, q^{81} + 2938360599\, p^{125}\, q^{98} + 692160639\, p^{90}\, q^{129} + 327980136\, p^{83}\, q^{130} + 4837442950\, p^{124}\, q^{87}$$
$$+ 4949247915\, p^{124}\, q^{89} + 3793644445720\, p^{89}\, q^{79} + 1372915458707\, p^{56}\, q^{82} + 1045041708427\, p^{54}\, q^{82} + 1248030720\, p^{127}\, q^{101}$$
$$+ 115077344\, p^{128}\, q^{119} + 70074431\, p^{129}\, q^{120} + 1946547\, p^{113}\, q^{31} + 3707105576935\, p^{89}\, q^{82} + 2534045063872\, p^{61}\, q^{81} + 37444113\, q^{135}\, p^{97}$$
$$+ 37490188\, q^{135}\, p^{98} + 36899878\, q^{135}\, p^{100} + 35437428\, q^{135}\, p^{102} + 36273335\, q^{135}\, p^{101} + 34408076\, q^{135}\, p^{103} + 31836104\, q^{135}\, p^{105}$$
$$+ 33200442\, q^{135}\, p^{104} + 12990852748\, p^{121}\, q^{85} + 7601380\, p^{18}\, q^{33} + 21045381\, p^{21}\, q^{32} + 2071033431119\, p^{70}\, q^{93} + 4122187247\, p^{123}\, q^{76}$$
$$+ 4450843880\, p^{123}\, q^{77} + 443971223582\, p^{103}\, q^{68} + 9820828\, p^{19}\, q^{32} + 47821494\, p^{24}\, q^{31} + 2227\, p^{64}\, q^{8} + 14511177\, p^{20}\, q^{32}$$
$$+ 2722791699281\, p^{93}\, q^{78} + 140372963\, p^{67}\, q^{21} + 590206166\, p^{68}\, q^{24} + 48433382\, p^{66}\, q^{19} + 67585733335\, p^{72}\, q^{38}$$
$$+ 466915147714\, p^{79}\, q^{106} + 4\, q^{81}\, p^{8} + 1011266835935\, p^{55}\, q^{59} + 407885367792\, p^{46}\, q^{71} + 489529688047\, p^{47}\, q^{71} + 582924914144\, p^{48}\, q^{71}$$
$$+ 867138364996\, p^{53}\, q^{60} + 1230501278548\, p^{59}\, q^{57} + 810092618320\, p^{53}\, q^{59} + 166159374315\, p^{43}\, q^{58} + 79146803\, q^{97}\, p^{28} + 5728\, q^{79}\, p^{11}$$
$$+ 107641360\, p^{133}\, q^{98} + 129633969\, p^{131}\, q^{78} + 4480087262261\, p^{70}\, q^{68} + 4963337130649\, p^{83}\, q^{74} + 3705400657251\, p^{83}\, q^{67}$$
$$+ 4532551137456\, p^{83}\, q^{71} + 4698510882035\, p^{83}\, q^{72} + 3930966276387\, p^{83}\, q^{68} + 5058102212050\, p^{83}\, q^{75} + 1774944997538\, p^{75}\, q^{56}$$
$$+ 16470896773\, p^{71}\, q^{33} + 223708094\, p^{68}\, q^{22} + 884520953\, p^{69}\, q^{25} + 1364314283\, p^{69}\, q^{26} + 367827385\, p^{68}\, q^{23} + 149877\, q^{118}\, p^{31}$$
$$+ 21262\, q^{36}\, p^{8} + 1174730850924\, p^{64}\, q^{94} + 2961569639\, p^{111}\, q^{121} + 7897084956\, p^{119}\, q^{68} + 12328047472\, p^{121}\, q^{83}$$
$$+ 2944272273313\, p^{92}\, q^{77} + 2206222\, q^{124}\, p^{43} + 3299671\, q^{124}\, p^{44} + 4192555\, p^{63}\, q^{15} + 43921848\, p^{134}\, q^{108} + 9150500189\, p^{76}\, q^{32}$$
$$+ 6430986275\, p^{76}\, q^{31} + 375491335744\, p^{60}\, q^{47} + 439422466080\, p^{60}\, q^{48} + 71512\, q^{79}\, p^{13} + 435854829\, p^{35}\, q^{29} + 1330764796\, q^{114}\, p^{49}$$
$$+ 45968545\, q^{106}\, p^{32} + 2870529483\, p^{108}\, q^{45} + 34981124894\, p^{115}\, q^{102} + 547228689\, p^{106}\, q^{38} + 41697265777\, p^{115}\, q^{100}$$
$$+ 90474530207\, p^{114}\, q^{89} + 91589471171\, p^{113}\, q^{76} + 96419380474\, p^{113}\, q^{77} + 68066076387\, p^{115}\, q^{91} + 87340775409\, p^{114}\, q^{81}$$
$$+ 64782100882\, p^{113}\, q^{71} + 1147134631\, p^{107}\, q^{41} + 343660856\, p^{105}\, q^{36} + 1917715\, p^{71}\, q^{15} + 39333263\, q^{39}\, p^{20} + 27961068\, p^{92}\, q^{24}$$
$$+ 7720463496\, q^{103}\, p^{44} + 48558678853\, q^{104}\, p^{53} + 39987513444\, q^{104}\, p^{52} + 58488587881\, q^{104}\, p^{54} + 69892324204\, q^{104}\, p^{55}$$
$$+ 224609167393\, p^{43}\, q^{71} + 81175299\, q^{133}\, p^{86} + 269268\, q^{38}\, p^{11} + 25604584\, q^{39}\, p^{19} + 3873452858224\, p^{86}\, q^{86} + 4030538472888\, p^{85}\, q^{86}$$
$$+ 3865545808911\, p^{83}\, q^{88} + 3009521649035\, p^{85}\, q^{91} + 147821280\, p^{132}\, q^{87} + 166407715\, p^{132}\, q^{90} + 116840895\, p^{131}\, q^{77}$$

$$+ 104599183\, p^{131}\, q^{76} + 465862838408\, p^{49}\, q^{82} + 6604409990\, p^{59}\, q^{30} + 1564959326\, p^{58}\, q^{26} + 4733216487\, p^{59}\, q^{29}$$
$$+ 754783249163\, p^{62}\, q^{51} + 861223767824\, p^{62}\, q^{52} + 449487908\, p^{57}\, q^{23} + 1524349\, p^{52}\, q^{13} + 37490188\, p^{55}\, q^{18} + 6132911\, p^{53}\, q^{15}$$
$$+ 38830982845\, p^{60}\, q^{36} + 3104811\, p^{53}\, q^{14} + 261889615674\, p^{89}\, q^{109} + 222938822781\, p^{96}\, q^{108} + 1709852941\, p^{113}\, q^{122}$$
$$+ 3437762269\, p^{105}\, q^{123} + 124279396750\, p^{73}\, q^{111} + 220859398686\, p^{81}\, q^{110} + 215935971967\, p^{80}\, q^{110} + 4589574705\, p^{105}\, q^{122}$$
$$+ 1847704226995\, p^{81}\, q^{58} + 41096787737\, p^{77}\, q^{37} + 2066023868415\, p^{81}\, q^{59} + 129551051468\, p^{41}\, q^{61} + 249387368122\, p^{98}\, q^{56}$$
$$+ 285384250253\, p^{99}\, q^{58} + 3367877478037\, p^{88}\, q^{87} + 1042572193299\, p^{57}\, q^{57} + 160940992\, p^{132}\, q^{89} + 1819290086238\, p^{72}\, q^{56}$$
$$+ 17833188171\, p^{68}\, q^{33} + 257373442\, p^{65}\, q^{22} + 996701657\, p^{66}\, q^{25} + 3152400\, p^{103}\, q^{139} + 3846506060279\, p^{87}\, q^{85}$$
$$+ 3707105576935\, p^{82}\, q^{89} + 15780407\, p^{64}\, q^{17} + 147821280\, p^{66}\, q^{21} + 8570845\, p^{63}\, q^{16} + 616647339\, p^{67}\, q^{24} + 51262773\, p^{65}\, q^{19}$$
$$+ 69400123487\, p^{71}\, q^{38} + 1464815\, q^{90}\, p^{19} + 345466\, q^{89}\, p^{17} + 83360\, q^{87}\, p^{15} + 4002949\, q^{92}\, p^{21} + 262879\, q^{90}\, p^{17} + 642418\, q^{90}\, p^{18}$$
$$+ 830745\, q^{89}\, p^{18} + 110336\, p^{77}\, q^{13} + 22063\, q^{67}\, p^{10} + 8284\, q^{65}\, p^{9} + 158851\, q^{69}\, p^{12} + 62292\, q^{68}\, p^{11} + 4698449\, q^{76}\, p^{17} + 21701751\, q^{75}\, p^{19}$$
$$+ 6866\, q^{66}\, p^{9} + 18465\, q^{68}\, p^{10} + 12545323\, q^{74}\, p^{18} + 233395\, q^{73}\, p^{13} + 1467003\, q^{73}\, p^{15} + 6170688\, q^{74}\, p^{17} + 708142\, q^{72}\, p^{14}$$
$$+ 1683600\, q^{72}\, p^{15} + 115414\, q^{71}\, p^{12} + 58944027\, q^{77}\, p^{21} + 136025\, q^{70}\, p^{12} + 5405042\, q^{75}\, p^{17} + 11083564\, q^{75}\, p^{18} + 321636\, q^{71}\, p^{13}$$
$$+ 609376\, q^{73}\, p^{14} + 52819\, q^{69}\, p^{11} + 1087627\, q^{75}\, p^{15} + 275098\, q^{72}\, p^{13} + 520209\, q^{74}\, p^{14} + 44338\, q^{70}\, p^{11} + 5974743551\, p^{122}\, q^{76}$$
$$+ 6430986275\, p^{122}\, q^{77} + 7004860224\, p^{123}\, q^{90} + 7006265583\, p^{123}\, q^{89} + 20567012\, p^{25}\, q^{26} + 6770805005\, p^{123}\, q^{86} + 6879948097\, p^{122}\, q^{78}$$
$$+ 5691604542\, p^{123}\, q^{81} + 4110029534\, p^{124}\, q^{98} + 2408363621041\, p^{59}\, q^{69} + 25\, p^{46}\, q^{4} + 107515255783\, q^{94}\, p^{48} + 1415080229730\, p^{54}\, q^{70}$$
$$+ 6616776868\, p^{68}\, q^{30} + 94577684\, p^{64}\, q^{20} + 11513900\, q^{135}\, p^{117} + 13021456\, q^{135}\, p^{116} + 10103866\, q^{135}\, p^{118} + 8798747\, q^{135}\, p^{119}$$
$$+ 2306167\, p^{16}\, q^{31} + 750706\, p^{14}\, q^{30} + 1046752421\, p^{31}\, q^{37} + 679663829\, p^{30}\, q^{36} + 198\, p^{141}\, q^{61} + 2505275368382\, p^{94}\, q^{80}$$
$$+ 21704615410\, p^{72}\, q^{34} + 137872732606\, p^{73}\, q^{41} + 6888252673\, p^{123}\, q^{87} + 1395280775\, p^{116}\, q^{52} + 490649\, p^{117}\, q^{32} + 2344062\, p^{120}\, q^{38}$$
$$+ 2\, q^{63}\, p^{5} + 724358573\, q^{45}\, p^{26} + 356225135\, q^{45}\, p^{24} + 1520037785\, p^{66}\, q^{26} + 417367237\, p^{65}\, q^{23} + 776017712848\, p^{54}\, q^{57}$$
$$+ 51712766429\, p^{37}\, q^{61} + 23893040733\, p^{34}\, q^{62} + 40111334082\, p^{36}\, q^{61} + 23370891357\, p^{34}\, q^{61} + 30786295958\, p^{35}\, q^{61}$$
$$+ 8486801529\, p^{82}\, q^{122} + 2351205230226\, p^{59}\, q^{68} + 8886411\, q^{44}\, p^{16} + 14205644\, q^{43}\, p^{17} + 4756157\, q^{43}\, p^{15} + 8355669\, q^{43}\, p^{16}$$
$$+ 4651962040800\, p^{70}\, q^{69} + 2251218290009\, p^{82}\, q^{95} + 2188136335021\, p^{84}\, q^{95} + 2017085784557\, p^{89}\, q^{94} + 1958550557516\, p^{77}\, q^{96}$$
$$+ 907693595432\, p^{67}\, q^{98} + 1520551640068\, p^{73}\, q^{97} + 1449056133914\, p^{72}\, q^{97} + 4588226551593\, p^{71}\, q^{68} + 198\, p^{92}\, q^{12}$$
$$+ 13569383235\, p^{117}\, q^{67} + 1106170920160\, p^{81}\, q^{54} + 1557627695734\, p^{82}\, q^{57} + 47693744247\, p^{79}\, q^{38} + 956445641199\, p^{81}\, q^{53}$$

$$+ 2186655488046\, p^{82}\, q^{60} + 2747118896826\, p^{60}\, q^{72} + 2501797049447\, p^{59}\, q^{72} + 1814611336561\, p^{56}\, q^{73} + 241267395921\, q^{95}\, p^{53}$$
$$+ 724501311\, p^{99}\, q^{34} + 12581790319\, p^{102}\, q^{45} + 5139278376\, p^{101}\, q^{41} + 4170044253961\, p^{86}\, q^{84} + 3402508712055\, p^{90}\, q^{83} + 3\, p^{131}\, q^{34}$$
$$+ 2\, p^{90}\, q^{148} + 13895616072\, p^{96}\, q^{41} + 2032096845\, p^{94}\, q^{34} + 940768453473\, p^{102}\, q^{82} + 932269587189\, p^{102}\, q^{84} + 294317004302\, p^{91}\, q^{108}$$
$$+ 2226705928671\, p^{95}\, q^{78} + 1449056133914\, p^{56}\, q^{81} + 1334976125894\, p^{55}\, q^{80} + 264324\, p^{129}\, q^{46} + 2179431\, p^{139}\, q^{113} + 873159\, p^{130}\, q^{51}$$
$$+ 2844505\, p^{139}\, q^{108} + 2\, p^{142}\, q^{58} + 1470093\, p^{45}\, q^{13} + 31836104\, p^{48}\, q^{18} + 4822\, p^{145}\, q^{133} + 88839\, p^{143}\, q^{97} + 3378\, p^{135}\, q^{49} + 1139\, p^{130}\, q^{38}$$
$$+ 736548\, p^{49}\, q^{12} + 331187\, p^{48}\, q^{11} + 99455482050\, p^{103}\, q^{109} + 108857778\, p^{133}\, q^{95} + 401974\, p^{106}\, q^{24} + 4124778382\, p^{124}\, q^{82}$$
$$+ 100906589\, p^{117}\, q^{44} + 197603\, q^{91}\, p^{17} + 939163843692\, p^{51}\, q^{70} + 193437287\, p^{124}\, q^{122} + 2027158084329\, p^{82}\, q^{96}$$
$$+ 83902929956\, p^{103}\, q^{110} + 479810239090\, p^{59}\, q^{49} + 3472278037036\, p^{83}\, q^{66} + 196162227061\, p^{80}\, q^{44} + 263578114\, p^{73}\, q^{23}$$
$$+ 1372915458707\, p^{82}\, q^{56} + 10743631\, p^{69}\, q^{17} + 413906299072\, p^{81}\, q^{48} + 243108567585\, p^{80}\, q^{45} + 1831128297547\, p^{61}\, q^{60}$$
$$+ 1580690800662\, p^{56}\, q^{65} + 1752227739198\, p^{63}\, q^{58} + 1580690800662\, p^{65}\, q^{56} + 9884716243\, q^{83}\, p^{34} + 9146275369\, p^{101}\, q^{43}$$
$$+ 78407581989\, q^{75}\, p^{39} + 105001105771\, q^{74}\, p^{40} + 133532370563\, q^{74}\, p^{41} + 1676616809552\, p^{64}\, q^{57} + 1633208423586\, p^{89}\, q^{62}$$
$$+ 2145279071980\, p^{89}\, q^{65} + 64748203\, q^{134}\, p^{97} + 63779848\, q^{134}\, p^{99} + 36672321\, q^{135}\, p^{95} + 44329682\, p^{127}\, q^{125} + 1158476579206\, p^{98}\, q^{92}$$
$$+ 209346202484\, p^{43}\, q^{63} + 171088743312\, p^{42}\, q^{63} + 254016292959\, p^{44}\, q^{63} + 377593252643\, p^{46}\, q^{64} + 432467075565\, p^{47}\, q^{63}$$
$$+ 305712553638\, p^{45}\, q^{63} + 365018172165\, p^{46}\, q^{63} + 241267395921\, p^{58}\, q^{100} + 277697724384\, p^{59}\, q^{100} + 506903533274\, p^{64}\, q^{100}$$
$$+ 303977194278\, p^{61}\, q^{101} + 455364858234\, p^{63}\, q^{100} + 360382411768\, p^{61}\, q^{100} + 406431099779\, p^{62}\, q^{100} + 29196\, p^{56}\, q^{9}$$
$$+ 1119034351235\, p^{56}\, q^{59} + 343409895079\, p^{91}\, q^{52} + 2243420379248\, p^{59}\, q^{79} + 1034659367503\, p^{56}\, q^{58} + 2870529483\, q^{108}\, p^{45}$$
$$+ 282084718\, q^{107}\, p^{37} + 6133079\, p^{102}\, q^{138} + 49466678579\, q^{101}\, p^{50} + 29679182673\, q^{99}\, p^{46} + 936352829701\, p^{55}\, q^{58}$$
$$+ 1285552072464\, p^{61}\, q^{56} + 5401694123790\, p^{72}\, q^{78} + 1831128297547\, p^{92}\, q^{93} + 956445641199\, p^{53}\, q^{81} + 593554989933\, p^{63}\, q^{49}$$
$$+ 109106301\, p^{57}\, q^{20} + 1070466511\, p^{59}\, q^{25} + 4791020\, p^{128}\, q^{52} + 29530387\, p^{132}\, q^{71} + 58551348\, p^{134}\, q^{91} + 11922233\, p^{124}\, q^{132}$$
$$+ 108625730823\, p^{40}\, q^{73} + 3251642312281\, p^{81}\, q^{91} + 5635189\, q^{34}\, p^{17} + 3463059187\, p^{91}\, q^{125} + 10465432075\, p^{99}\, q^{42}$$
$$+ 25431977478\, p^{101}\, q^{47} + 14750208\, p^{130}\, q^{126} + 1539022066\, p^{99}\, q^{36} + 110947026991\, p^{109}\, q^{102} + 18712507\, q^{136}\, p^{105}$$
$$+ 969394017635\, p^{93}\, q^{61} + 1198242098970\, p^{93}\, q^{63} + 443740\, p^{80}\, q^{15} + 30740180\, p^{116}\, q^{133} + 6881288734\, p^{61}\, q^{30} + 1609286093\, p^{60}\, q^{26}$$
$$+ 4903385853\, p^{61}\, q^{29} + 825082501034\, p^{64}\, q^{51} + 944205850707\, p^{64}\, q^{52} + 457237154\, p^{59}\, q^{23} + 41194270193\, p^{62}\, q^{36} + 16854\, p^{145}\, q^{122}$$
$$+ 539545143\, q^{90}\, p^{29} + 229993733\, q^{120}\, p^{51} + 22368198\, q^{118}\, p^{41} + 25576677676\, q^{116}\, p^{70} + 28111276729\, q^{116}\, p^{71} + 253427054\, p^{128}\, q^{114}$$

$$+ 136934848\, p^{128} q^{118} + 1229246\, p^{122} q^{39} + 3944492458691\, p^{82} q^{88} + 19996674271\, q^{107} p^{52} + 10359712712\, q^{107} p^{49}$$
$$+ 3442687507804\, p^{85} q^{89} + 3637372477873\, p^{83} q^{89} + 2994033581481\, p^{87} q^{90} + 3402508712055\, p^{83} q^{90} + 2858518715953\, p^{90} q^{88}$$
$$+ 3207385038338\, p^{88} q^{88} + 3036819199951\, p^{89} q^{88} + 457237154\, p^{130} q^{94} + 3698767\, p^{120} q^{39} + 397983119\, p^{128} q^{74}$$
$$+ 137872732606\, p^{80} q^{112} + 133532370563\, p^{79} q^{112} + 72976548576\, p^{95} q^{114} + 69386632471\, p^{99} q^{113} + 63887614261\, p^{100} q^{113}$$
$$+ 51061180965\, p^{107} q^{110} + 70230368899\, p^{103} q^{111} + 80243617663\, p^{93} q^{114} + 71157805959\, p^{89} q^{115} + 83408695923\, p^{92} q^{114}$$
$$+ 29710349984\, p^{66} q^{114} + 1557627695734\, p^{57} q^{82} + 4756175757609\, p^{84} q^{74} + 3520651619604\, p^{84} q^{67} + 4327735585759\, p^{84} q^{71}$$
$$+ 4491616050298\, p^{84} q^{72} + 3739603098690\, p^{84} q^{68} + 4852771574730\, p^{84} q^{75} + 33313314\, p^{131} q^{68} + 17643169\, p^{129} q^{59}$$
$$+ 11928516945\, p^{95} q^{121} + 38968012\, p^{24} q^{30} + 17671791468\, p^{45} q^{38} + 31438830962\, p^{45} q^{41} + 44324879234\, p^{45} q^{43}$$
$$+ 37476114790\, p^{45} q^{42} + 16734892314\, q^{98} p^{43} + 7857\, q^{36} p^{7} + 55359\, q^{38} p^{9} + 40491648191\, q^{103} p^{51} + 32862762658\, q^{103} p^{50}$$
$$+ 132697\, q^{89} p^{16} + 490851\, q^{91} p^{18} + 2329646\, q^{41} p^{14} + 15100\, p^{50} q^{8} + 18394078\, p^{61} q^{17} + 166407715\, p^{63} q^{21} + 10023693\, p^{60} q^{16}$$
$$+ 678483828\, p^{64} q^{24} + 58551348\, p^{62} q^{19} + 72597633517\, p^{68} q^{38} + 1246560\, q^{41} p^{13} + 1882659280\, q^{45} p^{29} + 283568\, q^{39} p^{11}$$
$$+ 112867757\, q^{103} p^{32} + 63281059\, q^{59} p^{19} + 177406582\, q^{60} p^{21} + 2559\, q^{34} p^{6} + 222275055\, q^{44} p^{23} + 59143102\, q^{43} p^{20}$$
$$+ 306850871\, p^{130} q^{82} + 6809064\, p^{122} q^{43} + 5819494\, p^{123} q^{44} + 149992983\, q^{44} p^{22} + 90764764\, q^{43} p^{21} + 9017\, p^{133} q^{144}$$
$$+ 715711262\, q^{82} p^{27} + 275662442\, q^{82} p^{25} + 4632\, q^{60} p^{8} + 126\, q^{50} p^{5} + 83\, q^{52} p^{5} + 62558\, p^{88} q^{15} + 99130\, p^{90} q^{16}$$
$$+ 253594277693\, p^{45} q^{59} + 5487711416286\, p^{78} q^{81} + 1592454257\, p^{32} q^{38} + 1933549246330\, q^{91} p^{66} + 1198242098970\, q^{90} p^{60}$$
$$+ 940584456381\, q^{90} p^{58} + 126015576\, q^{80} p^{23} + 39807685\, q^{80} p^{21} + 509013517\, q^{81} p^{26} + 313730459\, q^{81} p^{25} + 2084785539269\, q^{91} p^{67}$$
$$+ 52087726\, q^{78} p^{21} + 8\, p^{151} q^{135} + 5\, p^{150} q^{113} + p^{150} q^{108} + 2234444454112\, q^{91} p^{68} + 2380694898770\, q^{91} p^{69} + 5761106\, p^{19} q^{29}$$
$$+ 56061199918\, p^{68} q^{37} + 584576799281\, p^{70} q^{48} + 340414668566\, p^{69} q^{45} + 3344794300\, p^{66} q^{28} + 22\, q^{57} p^{5} + 44184\, p^{51} q^{9}$$
$$+ 33589039\, p^{25} q^{28} + 5\, q^{61} p^{5} + 21039273\, p^{53} q^{17} + 14756355112\, q^{100} p^{44} + 4740922559\, p^{67} q^{29} + 94498004987\, p^{110} q^{67}$$
$$+ 8167389379\, p^{107} q^{48} + 2386333\, p^{94} q^{21} + 123290231\, p^{101} q^{31} + 36582740\, p^{100} q^{28} + 201378152\, q^{43} p^{23} + 4172525667700\, p^{87} q^{82}$$
$$+ 92\, p^{147} q^{92} + 42\, p^{150} q^{134} + 145\, p^{149} q^{119} + 83\, p^{148} q^{101} + 2\, p^{146} q^{76} + 25\, p^{149} q^{107} + 104\, p^{148} q^{102} + 4635161965369\, p^{69} q^{80}$$
$$+ 4927093960\, q^{107} p^{46} + 8167389379\, q^{107} p^{48} + 5755266452052\, p^{76} q^{78} + 17938649\, q^{136} p^{106} + 2452951098698\, p^{59} q^{70}$$
$$+ 28312911\, p^{106} q^{31} + 1334180\, p^{67} q^{14} + 622076\, p^{66} q^{13} + 39190882772\, p^{72} q^{36} + 464212677264\, p^{79} q^{48} + 272247115471\, p^{78} q^{45}$$
$$+ 57804840\, p^{27} q^{28} + 2676991\, p^{16} q^{32} + 1261269051588\, p^{65} q^{54} + 1468220338127\, p^{66} q^{55} + 388363276349\, p^{65} q^{46}$$

$$+ 855206433678\, p^{65}\, q^{51} + 980109133676\, p^{65}\, q^{52} + 42062678811\, p^{63}\, q^{36} + 360405709563\, p^{105}\, q^{70} + 741027046902\, p^{65}\, q^{50}$$
$$+ 175772142295\, p^{64}\, q^{42} + 215460520057\, p^{64}\, q^{43} + 90474530207\, p^{64}\, q^{39} + 113934624453\, p^{64}\, q^{40} + 461613628504\, p^{65}\, q^{47}$$
$$+ 544511777240\, p^{65}\, q^{48} + 3163894666794\, p^{91}\, q^{83} + 2674830752848\, p^{91}\, q^{88} + 60632951\, p^{71}\, q^{20} + 821100602917\, p^{81}\, q^{52}$$
$$+ 699783307531\, p^{81}\, q^{51} + 140564\, p^{62}\, q^{11} + 42243632\, p^{29}\, q^{25} + 95712506695\, p^{59}\, q^{40} + 1364314283\, q^{69}\, p^{26} + 561492128\, q^{69}\, p^{24}$$
$$+ 9\, p^{16}\, q^{2} + 176\, p^{22}\, q^{4} + 42\, p^{20}\, q^{3} + 23315193\, p^{35}\, q^{20} + 15512601\, p^{35}\, q^{19} + 57921559\, p^{36}\, q^{22} + 82826560\, p^{36}\, q^{23} + 297999658\, p^{36}\, q^{27}$$
$$+ 470133881\, p^{37}\, q^{28} + 3014400\, p^{122}\, q^{41} + 36582740\, p^{125}\, q^{53} + 1511687\, p^{119}\, q^{36} + 136934848\, q^{35}\, p^{25} + 250487831\, q^{35}\, p^{27}$$
$$+ 396928791\, q^{36}\, p^{28} + 3494742645\, p^{93}\, q^{35} + 70797327\, q^{35}\, p^{23} + q^{56}\, p^{4} + 917296\, p^{85}\, q^{17} + 3873452858224\, p^{67}\, q^{67}$$
$$+ 113389344\, q^{115}\, p^{42} + 8186\, q^{97}\, p^{16} + 80988525\, q^{113}\, p^{39} + 505\, p^{147}\, q^{138} + 6193718\, p^{127}\, q^{132} + 11445296\, q^{110}\, p^{32} + 555637\, q^{107}\, p^{25}$$
$$+ 18743179\, q^{110}\, p^{33} + 2689546\, q^{108}\, p^{28} + 63620762018\, p^{115}\, q^{93} + 25703329883\, p^{111}\, q^{59} + 21813718875\, p^{111}\, q^{58}$$
$$+ 88564194930\, p^{114}\, q^{90} + 1891211583\, p^{121}\, q^{63} + 7567821832\, q^{88}\, p^{35} + 1737100768841\, p^{85}\, q^{97} + 4480087262261\, p^{68}\, q^{70}$$
$$+ 3324\, p^{137}\, q^{54} + 250\, p^{133}\, q^{41} + 14354\, p^{139}\, q^{64} + 18352\, p^{145}\, q^{106} + 16930\, p^{141}\, q^{73} + 40822958\, p^{134}\, q^{109} + 26437178272\, q^{103}\, p^{49}$$
$$+ 42638829190\, q^{107}\, p^{56} + 50513370044\, q^{107}\, p^{57} + 35154287\, q^{102}\, p^{29} + 20666911\, q^{102}\, p^{28} + 1970430186\, q^{105}\, p^{41} + 1429830414\, q^{105}\, p^{40}$$
$$+ 1085608183463\, p^{55}\, q^{60} + 1417550408826\, p^{61}\, q^{57} + 1344675291114\, p^{59}\, q^{58} + 810677968\, q^{37}\, p^{30} + 642311\, p^{33}\, q^{13} + 1886219\, p^{33}\, q^{15}$$
$$+ 2950277\, q^{134}\, p^{66} + 3651611\, q^{134}\, p^{67} + 8790165\, q^{136}\, p^{82} + 3066597\, q^{30}\, p^{17} + 8\, p^{121}\, q^{24} + 15965\, p^{142}\, q^{78} + 71057945\, p^{133}\, q^{84}$$
$$+ 715988628005\, p^{64}\, q^{50} + 3442747146\, p^{61}\, q^{28} + 315722169504\, p^{64}\, q^{45} + 171088743312\, p^{63}\, q^{42} + 69795361726\, p^{63}\, q^{38}$$
$$+ 209346202484\, p^{63}\, q^{43} + 54462200230\, p^{63}\, q^{37} + 88564194930\, p^{63}\, q^{39} + 111312127384\, p^{63}\, q^{40} + 448089072311\, p^{64}\, q^{47}$$
$$+ 527725466590\, p^{64}\, q^{48} + 2019659766301\, p^{79}\, q^{96} + 1994506619467\, p^{78}\, q^{96} + 2138996617744\, p^{85}\, q^{95} + 2225742598225\, p^{83}\, q^{95}$$
$$+ 20857539\, p^{127}\, q^{55} + 2965879060\, q^{87}\, p^{32} + 502894109\, p^{95}\, q^{31} + 156293891\, p^{94}\, q^{28} + 14706\, q^{85}\, p^{13} + 40315389537\, q^{89}\, p^{41}$$
$$+ 30700627975\, q^{89}\, p^{40} + 38043\, q^{96}\, p^{17} + 1810896\, q^{132}\, p^{58} + 39\, q^{143}\, p^{66} + 7868185\, q^{136}\, p^{81} + 12472\, q^{129}\, p^{40} + 3156394\, p^{102}\, q^{139}$$
$$+ 768076\, p^{89}\, q^{140} + 6152111\, p^{101}\, q^{138} + 110\, q^{119}\, p^{24} + 5179215566163\, p^{82}\, q^{81} + 241040130395\, p^{106}\, q^{99} + 286304332150\, p^{106}\, q^{97}$$
$$+ 573762\, q^{39}\, p^{12} + 1130516744269\, p^{70}\, q^{98} + 1334976125894\, p^{73}\, q^{98} + 1740595806437\, p^{77}\, q^{97} + 1201946862414\, p^{71}\, q^{98}$$
$$+ 126660\, q^{38}\, p^{10} + 994610392\, p^{113}\, q^{124} + 199857167602\, p^{58}\, q^{44} + 1102258\, q^{39}\, p^{13} + 3577492\, q^{39}\, p^{15} + 3865545808911\, p^{70}\, q^{65}$$
$$+ 4172525667700\, p^{71}\, q^{66} + 2686558202338\, p^{70}\, q^{60} + 2006864460889\, p^{70}\, q^{57} + 2667820814274\, p^{68}\, q^{89} + 244447892931\, q^{56}\, p^{46}$$
$$+ 20288354\, p^{107}\, q^{31} + 191314311125\, q^{55}\, p^{45} + 116840895\, p^{77}\, q^{131} + 11136604780\, p^{120}\, q^{75} + 1674073788\, p^{102}\, q^{126}$$

$$+ 106481683\, p^{127}\, q^{121} + 4289853158374\, p^{86}\, q^{83} + 333307147357\, p^{75}\, q^{107} + 73382991\, p^{29}\, q^{27} + 119909369\, p^{30}\, q^{28} + 5980461\, p^{49}\, q^{15}$$
$$+ 1486354046\, p^{97}\, q^{127} + 1080189431\, p^{92}\, q^{128} + 32162775774\, p^{56}\, q^{36} + 3128064\, p^{49}\, q^{14} + 193\, q^{28}\, p^{4} + 80323966251\, q^{93}\, p^{46}$$
$$+ 15065812216\, q^{92}\, p^{39} + 87338401\, p^{114}\, q^{131} + 76736914\, p^{115}\, q^{131} + 74315739\, p^{112}\, q^{132} + 687821433008\, p^{63}\, q^{50} + 3402651859\, p^{60}\, q^{28}$$
$$+ 305712553638\, p^{63}\, q^{45} + 165573587721\, p^{62}\, q^{42} + 68066076387\, p^{62}\, q^{38} + 202236376616\, p^{62}\, q^{43} + 53223193996\, p^{62}\, q^{37}$$
$$+ 86196515664\, p^{62}\, q^{39} + 20953993\, p^{56}\, q^{17} + 108125722377\, p^{62}\, q^{40} + 432467075565\, p^{63}\, q^{47} + 508522314378\, p^{63}\, q^{48}$$
$$+ 194652789687\, p^{51}\, q^{94} + 4296393968877\, p^{78}\, q^{87} + 2685442\, p^{117}\, q^{138} + 906456756\, q^{98}\, p^{34} + 8454134\, q^{123}\, p^{45} + 9667703160\, q^{102}\, p^{44}$$
$$+ 303977194278\, p^{101}\, q^{61} + 385408393752\, p^{101}\, q^{63} + 826438\, q^{116}\, p^{32} + 267\, p^{75}\, q^{144} + 9\, p^{73}\, q^{145} + 1349\, p^{80}\, q^{144} + 749\, p^{78}\, q^{144}$$
$$+ 539\, p^{77}\, q^{144} + 386\, p^{76}\, q^{144} + 1008\, p^{79}\, q^{144} + 3766750851502\, p^{65}\, q^{69} + 13382331965\, q^{63}\, p^{32} + 20857539\, q^{127}\, p^{55} + 933480\, q^{70}\, p^{14}$$
$$+ 11\, q^{67}\, p^{6} + 45968545\, p^{106}\, q^{32} + 3478953\, p^{102}\, q^{25} + 40419113256\, p^{71}\, q^{36} + 1076083630457\, p^{73}\, q^{52} + 928093988966\, p^{73}\, q^{51}$$
$$+ 5711678\, p^{120}\, q^{40} + 42433254\, q^{130}\, p^{66} + 4269071382874\, p^{68}\, q^{81} + 2807049214\, p^{82}\, q^{125} + 18772780933\, p^{109}\, q^{114}$$
$$+ 24664005283\, p^{107}\, q^{114} + 31737248719\, p^{103}\, q^{115} + 27975925782\, p^{106}\, q^{114} + 20508480\, p^{123}\, q^{131} + 13382331965\, p^{63}\, q^{32}$$
$$+ 2386011246\, p^{62}\, q^{27} + 9747588213\, p^{63}\, q^{31} + 655062973535\, p^{66}\, q^{49} + 145\, p^{34}\, q^{4} + 619\, p^{37}\, q^{5} + 3865545808911\, p^{65}\, q^{70}$$
$$+ 2264351011197\, p^{58}\, q^{73} + 25\, p^{147}\, q^{88} + 21593942573\, p^{114}\, q^{108} + 1423577855186\, p^{82}\, q^{99} + 1201763801183\, p^{78}\, q^{100}$$
$$+ 937058114669\, p^{81}\, q^{102} + 59178576\, p^{114}\, q^{132} + 31449936\, p^{124}\, q^{129} + 38968012\, p^{123}\, q^{129} + 25131367\, p^{125}\, q^{129} + 26428838\, p^{126}\, q^{128}$$
$$+ 42377211\, p^{119}\, q^{131} + 3268621757614\, p^{62}\, q^{73} + 3009762759791\, p^{61}\, q^{73} + 511995524\, p^{128}\, q^{108} + 416404352\, p^{128}\, q^{110}$$
$$+ 65851667\, p^{70}\, q^{20} + 866631882967\, p^{80}\, q^{52} + 739715504431\, p^{80}\, q^{51} + 288\, p^{45}\, q^{5} + 156591\, p^{61}\, q^{11} + 502894109\, p^{122}\, q^{58}$$
$$+ 621391\, p^{110}\, q^{27} + 2300439615298\, p^{65}\, q^{60} + 2076637676682\, p^{63}\, q^{60} + 2367758231227\, p^{64}\, q^{61} + 2076637676682\, p^{60}\, q^{63}$$
$$+ 2256439337084\, p^{62}\, q^{62} + 4575\, p^{68}\, q^{9} + 16543077674\, p^{95}\, q^{41} + 2434996721\, p^{93}\, q^{34} + 23149235\, p^{87}\, q^{22} + 1087605990818\, p^{101}\, q^{82}$$
$$+ 1074655600984\, p^{101}\, q^{84} + 3756869503893\, p^{81}\, q^{89} + 2192048278765\, p^{64}\, q^{60} + 2017085784557\, p^{64}\, q^{59} + 1752545138895\, p^{65}\, q^{57}$$
$$+ 309166261939\, p^{106}\, q^{96} + 496932099341\, q^{104}\, p^{72} + 434141240358\, q^{104}\, p^{70} + 4282036060453\, p^{80}\, q^{87} + 4238877648247\, p^{81}\, q^{87}$$
$$+ 4907277136\, p^{124}\, q^{88} + 2184249384\, p^{125}\, q^{103} + 2591\, p^{90}\, q^{13} + 287062615\, p^{131}\, q^{96} + 1752545138895\, p^{57}\, q^{65} + 2300439615298\, p^{60}\, q^{65}$$
$$+ 2114054765918\, p^{59}\, q^{65} + 2858518715953\, p^{63}\, q^{65} + 3207385038338\, p^{65}\, q^{65} + 3540797733210\, p^{66}\, q^{66} + 2488063713029\, p^{61}\, q^{65}$$
$$+ 3036819199951\, p^{64}\, q^{65} + 2674830752848\, p^{62}\, q^{65} + 1930842408835\, p^{58}\, q^{65} + 50121240144\, q^{93}\, p^{44} + 39016383333\, q^{93}\, p^{43}$$
$$+ 1856671863530\, p^{96}\, q^{75} + 5330930\, p^{80}\, q^{18} + 29530387\, p^{82}\, q^{21} + 46398168\, p^{83}\, q^{22} + 18465\, p^{68}\, q^{10} + 1813708547299\, p^{97}\, q^{82}$$

$$+ 1772283403419\, p^{97} q^{84} + 23893040733\, p^{119} q^{91} + 20793952532\, p^{117} q^{71} + 132476335\, p^{85} q^{132} + 4837442950\, p^{87} q^{124}$$
$$+ 2028021563\, p^{77} q^{125} + 2243420379248\, p^{74} q^{94} + 101616977158\, p^{50} q^{97} + 1102258\, p^{140} q^{114} + 4646446859\, p^{89} q^{34}$$
$$+ 254220206\, p^{86} q^{26} + 30826981765\, p^{91} q^{41} + 17501549430\, p^{91} q^{39} + 10988330458\, p^{90} q^{37} + 3232510594\, p^{89} q^{33}$$
$$+ 17208468950\, q^{115} p^{64} + 14985347230\, q^{115} p^{63} + 11123145680\, q^{115} p^{61} + 12957347282\, q^{115} p^{62} + 23360036706\, p^{91} q^{40}$$
$$+ 2240172198336\, p^{90} q^{92} + 235843827\, p^{86} q^{131} + 223708094\, p^{85} q^{131} + 210891271\, p^{84} q^{131} + 170181685\, p^{81} q^{131} + 183950195\, p^{82} q^{131}$$
$$+ 247124573\, p^{87} q^{131} + 124248792\, p^{84} q^{132} + 30579\, q^{104} p^{20} + 16117\, p^{137} q^{141} + 416452\, q^{104} p^{23} + 187090\, q^{104} p^{22} + 279931\, q^{105} p^{23}$$
$$+ 830225\, q^{106} p^{25} + 1636419\, q^{106} p^{26} + 123223\, q^{105} p^{22} + 7953944828\, p^{90} q^{36} + 185475561384\, p^{110} q^{93} + 66362660122\, p^{66} q^{111}$$
$$+ 62040297\, q^{134} p^{93} + 332654181631\, p^{81} q^{108} + 86719161265\, p^{106} q^{59} + 44364\, p^{81} q^{13} + 1153856384\, p^{88} q^{30} + 34904567514\, p^{92} q^{42}$$
$$+ 6358\, p^{141} q^{140} + 2816\, p^{143} q^{140} + 4301\, p^{142} q^{140} + 12035\, p^{138} q^{141} + 10908233097\, q^{121} p^{80} + 32223\, p^{144} q^{98} + 443707314\, p^{75} q^{128}$$
$$+ 724757676\, p^{118} q^{122} + 1799749601340\, p^{97} q^{79} + 1755660\, p^{128} q^{49} + 11\, q^{142} p^{60} + 202236376616\, p^{91} q^{110} + 6996163\, p^{107} q^{29}$$
$$+ 331457393\, p^{113} q^{43} + 197580073\, p^{83} q^{131} + 2204943304\, p^{32} q^{40} + 4650905364\, p^{36} q^{39} + 3762190931\, p^{35} q^{39} + 9747588213\, q^{63} p^{31}$$
$$+ 13230852206\, q^{62} p^{32} + 17887905372\, q^{62} p^{33} + 2563274\, p^{84} q^{18} + 318478615034\, p^{46} q^{60} + 632031330945\, p^{51} q^{59} + 7\, q^{68} p^{6}$$
$$+ 2006864460889\, p^{57} q^{70} + 2915596624775\, p^{67} q^{87} + 354567247\, p^{80} q^{25} + 214229924\, p^{80} q^{24} + 1704123459\, p^{82} q^{29}$$
$$+ 1115512561\, p^{82} q^{28} + 3366607044\, p^{83} q^{31} + 142909694\, p^{79} q^{23} + 123241216\, p^{69} q^{129} + 6170688\, p^{74} q^{17} + 244963045288\, p^{44} q^{62}$$
$$+ 56016774\, p^{127} q^{124} + 4970602333332\, p^{79} q^{84} + 4588226551593\, p^{85} q^{82} + 4651962040800\, p^{84} q^{83} + 16298988713\, p^{46} q^{37}$$
$$+ 108857778\, p^{58} q^{20} + 6962984460\, p^{62} q^{30} + 1617598729\, p^{61} q^{26} + 4947297623\, p^{62} q^{29} + 457071688\, p^{60} q^{23} + 912613640262\, q^{89} p^{57}$$
$$+ 1305436151357\, p^{66} q^{54} + 1513054573131\, p^{67} q^{55} + 397160939724\, p^{66} q^{46} + 881358393330\, p^{66} q^{51} + 1011552877954\, p^{66} q^{52}$$
$$+ 42702774321\, p^{64} q^{36} + 762555960079\, p^{66} q^{50} + 179550419937\, p^{65} q^{42} + 220484373361\, p^{65} q^{43} + 91897273728\, p^{65} q^{39}$$
$$+ 115951669197\, p^{65} q^{40} + 472831320874\, p^{66} q^{47} + 558623157222\, p^{66} q^{48} + 3463059187\, p^{62} q^{28} + 324192171883\, p^{65} q^{45}$$
$$+ 71157805959\, p^{64} q^{38} + 55410067177\, p^{64} q^{37} + 20669669\, p^{57} q^{17} + 4030538472888\, p^{67} q^{68} + 16867145600\, q^{104} p^{48}$$
$$+ 3505609628617\, p^{90} q^{81} + 53252915931\, p^{71} q^{37} + 569858125687\, p^{73} q^{48} + 332654181631\, p^{72} q^{45} + 3064719685\, p^{69} q^{28}$$
$$+ 1640558610370\, q^{66} p^{56} + 68443\, p^{117} q^{29} + 22768328668\, q^{117} p^{72} + 724201170872\, p^{101} q^{70} + 20131302545\, p^{97} q^{43}$$
$$+ 4474466385\, p^{69} q^{29} + 3531190713168\, p^{74} q^{63} + 3267213355381\, p^{74} q^{62} + 3004678138011\, p^{74} q^{61} + 1882090487779\, q^{67} p^{57}$$
$$+ 53837\, p^{47} q^{9} + 19314\, p^{46} q^{8} + 2009356708984\, p^{87} q^{95} + 8\, p^{150} q^{115} + 15140620\, q^{97} p^{25} + 2510245928\, p^{125} q^{80} + 1315621023\, p^{127} q^{100}$$

$$+ 124063140342\, q^{105}\, p^{60} + 92513635043\, q^{105}\, p^{58} + 7316933\, q^{95}\, p^{23} + 34784906\, q^{96}\, p^{26} + 19603706\, q^{96}\, p^{25} + 229207636062\, q^{106}\, p^{67}$$
$$+ 3108289\, q^{93}\, p^{21} + 251365457698\, q^{106}\, p^{68} + 273963496394\, q^{106}\, p^{69} + p^{13}\, q + 7987347311\, p^{37}\, q^{41} + 62726342\, p^{53}\, q^{19}$$
$$+ 270985070\, p^{54}\, q^{22} + 86719161265\, q^{94}\, p^{47} + 3801181226\, p^{33}\, q^{42} + 9959231773\, p^{39}\, q^{40} + 6485183305\, p^{36}\, q^{41} + 9717\, p^{82}\, q^{12}$$
$$+ 27304\, p^{102}\, q^{19} + 985538716\, p^{123}\, q^{64} + 1608606148741\, p^{55}\, q^{73} + 1061318256581\, p^{52}\, q^{74} + 598\, q^{81}\, p^{10} + 119\, q^{80}\, p^{9} + 9717\, q^{82}\, p^{12}$$
$$+ 194\, p^{26}\, q^{4} + 16722531\, p^{124}\, q^{131} + 42082283\, p^{121}\, q^{130} + 57921559\, p^{117}\, q^{131} + 35806697\, p^{120}\, q^{131} + 50476331\, p^{120}\, q^{130}$$
$$+ 20069463\, p^{119}\, q^{133} + 9820828\, p^{121}\, q^{134} + 28476768\, p^{123}\, q^{130} + 53964010\, p^{111}\, q^{133} + 647530722219\, p^{104}\, q^{78} + 318388627830\, p^{45}\, q^{74}$$
$$+ 387145628166\, p^{46}\, q^{74} + 466915147714\, p^{47}\, q^{74} + 558654480487\, p^{48}\, q^{74} + 107955471\, p^{94}\, q^{133} + 2924356863496\, p^{61}\, q^{70}$$
$$+ 1084893960723\, p^{52}\, q^{72} + 46956213\, q^{97}\, p^{27} + 743\, p^{29}\, q^{5} + 1404266164\, p^{120}\, q^{117} + 242337359436\, p^{46}\, q^{83} + 7196\, p^{83}\, q^{12}$$
$$+ 1113869930\, p^{121}\, q^{117} + 674089683507\, p^{52}\, q^{84} + 528214714103\, p^{51}\, q^{85} + 916370224009\, p^{54}\, q^{84} + 1057058315058\, p^{55}\, q^{84}$$
$$+ 1210905068093\, p^{56}\, q^{84} + 5534727871217\, p^{75}\, q^{80} + 18552989\, p^{130}\, q^{125} + 251365457698\, p^{47}\, q^{85} + 443971223582\, p^{50}\, q^{85}$$
$$+ 370264870600\, p^{49}\, q^{85} + 186152185164\, p^{46}\, q^{86} + 306333568881\, p^{48}\, q^{85} + 20857539\, p^{98}\, q^{26} + 85685621752\, p^{113}\, q^{96} + 869901\, p^{92}\, q^{19}$$
$$+ 1429830414\, p^{105}\, q^{40} + 1023624252\, p^{105}\, q^{39} + 36666\, p^{86}\, q^{14} + 267937408\, p^{103}\, q^{34} + 615292712682\, p^{70}\, q^{102} + 119339568001\, q^{96}\, p^{50}$$
$$+ 79028659519\, q^{96}\, p^{48} + 89257\, p^{78}\, q^{13} + 17\, p^{80}\, q^{146} + 63471516678\, q^{96}\, p^{47} + 1238895078128\, p^{80}\, q^{100} + 777376939051\, p^{74}\, q^{102}$$
$$+ 739715504431\, p^{73}\, q^{102} + 1223650375442\, p^{79}\, q^{100} + 47828962\, q^{99}\, p^{28} + 159789426\, q^{100}\, p^{31} + 16704396323\, p^{42}\, q^{40}$$
$$+ 94498004987\, p^{86}\, q^{43} + 370713061570\, p^{87}\, q^{50} + 2020098847\, p^{115}\, q^{120} + 15398424512\, p^{44}\, q^{38} + 16202784999\, p^{43}\, q^{39}$$
$$+ 27210479800\, p^{44}\, q^{41} + 27748949046\, p^{42}\, q^{43} + 23379655371\, p^{41}\, q^{43} + 32681196888\, p^{43}\, q^{43} + 38200844765\, p^{44}\, q^{43}$$
$$+ 32366293650\, p^{44}\, q^{42} + 330072801\, p^{130}\, q^{104} + 342961531\, p^{127}\, q^{69} + 454693147\, p^{130}\, q^{95} + 1261269051588\, p^{88}\, q^{99} + 2\, p^{77}\, q^{7}$$
$$+ 1628\, p^{116}\, q^{24} + 2499836\, p^{137}\, q^{78} + 2977141\, p^{139}\, q^{98} + 278221\, p^{131}\, q^{50} + 44448\, p^{141}\, q^{133} + 2887589\, p^{139}\, q^{97} + 187090\, p^{131}\, q^{49}$$
$$+ 49496\, p^{126}\, q^{38} + 6936683\, p^{130}\, q^{129} + 48895118096\, p^{68}\, q^{113} + 8\, p^{18}\, q^{2} + 49136\, p^{35}\, q^{9} + 7422\, p^{33}\, q^{7} + 19835\, p^{34}\, q^{8}$$
$$+ 1609286093\, q^{60}\, p^{26} + 709260328\, q^{60}\, p^{24} + 457071688\, q^{60}\, p^{23} + 288168626\, q^{60}\, p^{22} + 60455726\, q^{134}\, p^{92} + 53918029\, q^{134}\, p^{89}$$
$$+ 51262773\, q^{134}\, p^{88} + 4831629713\, q^{60}\, p^{29} + 3402651859\, q^{60}\, p^{28} + 1080189431\, q^{61}\, p^{25} + 2359424417\, q^{60}\, p^{27} + 60055444824\, p^{46}\, q^{44}$$
$$+ 80511189803\, p^{47}\, q^{45} + 29949059667\, p^{46}\, q^{40} + 12151146\, p^{41}\, q^{17} + 2179431\, p^{40}\, q^{14} + 53964010\, p^{42}\, q^{20} + 34573564\, p^{42}\, q^{19}$$
$$+ 136478209\, p^{43}\, q^{22} + 201378152\, p^{43}\, q^{23} + 1242808601\, p^{44}\, q^{28} + 3880853\, p^{40}\, q^{15} + 3528310697104\, p^{90}\, q^{80} + 451741312\, p^{91}\, q^{29}$$
$$+ 51975790\, p^{89}\, q^{24} + 26981458084\, q^{74}\, p^{35} + 260076\, q^{132}\, p^{52} + 21593942573\, p^{45}\, q^{39} + 373238\, q^{132}\, p^{53} + 409194\, p^{123}\, q^{38}$$

$$+ 84578\, p^{120}\, q^{32} + 34605\, p^{144}\, q^{123} + 18\, p^{113}\, q^{19} + 75\, p^{118}\, q^{23} + 2755\, p^{145}\, q^{136} + 10796\, p^{144}\, q^{132} + 184034\, p^{141}\, q^{85}$$
$$+ 4672436885320\, p^{85}\, q^{81} + 4238877648247\, p^{87}\, q^{81} + 2129613901\, q^{107}\, p^{43} + 2848823748\, q^{107}\, p^{44} + 23227730078\, q^{108}\, p^{54}$$
$$+ 3383190\, p^{113}\, q^{32} + 15568235151\, q^{108}\, p^{52} + 37823\, p^{137}\, q^{60} + 17311\, p^{144}\, q^{129} + 3154372683296\, p^{91}\, q^{76} + 2894003430669\, p^{91}\, q^{73}$$
$$+ 233896\, p^{109}\, q^{25} + 4867291633\, q^{91}\, p^{35} + 6837610863\, q^{91}\, p^{36} + 245298\, q^{126}\, p^{41} + 388363276349\, q^{65}\, p^{46} + 637531757991\, q^{65}\, p^{49}$$
$$+ 544511777240\, q^{65}\, p^{48} + 980109133676\, q^{65}\, p^{52} + 1261269051588\, q^{65}\, p^{54} + 1468220338127\, q^{66}\, p^{55} + 741027046902\, q^{65}\, p^{50}$$
$$+ 1115583908818\, q^{65}\, p^{53} + 855206433678\, q^{65}\, p^{51} + 461613628504\, q^{65}\, p^{47} + 663672\, q^{42}\, p^{12} + 139533\, q^{41}\, p^{10} + 1312041\, q^{42}\, p^{13}$$
$$+ 163751560\, q^{45}\, p^{22} + 136081\, q^{40}\, p^{10} + 1378492265\, p^{127}\, q^{99} + 56803\, q^{39}\, p^{9} + 7718121788\, p^{98}\, q^{122} + 1516369839\, p^{123}\, q^{112}$$
$$+ 295689001\, p^{124}\, q^{120} + 465818595\, p^{123}\, q^{119} + 40822958\, q^{44}\, p^{19} + 636527\, q^{41}\, p^{12} + 2473644\, q^{42}\, p^{14} + 27019789\, q^{45}\, p^{18}$$
$$+ 177606462\, q^{46}\, p^{22} + 99295233\, q^{44}\, p^{21} + 64387871\, q^{44}\, p^{20} + 107911954\, q^{45}\, p^{21} + 798114731\, q^{46}\, p^{26} + 389585329\, q^{46}\, p^{24}$$
$$+ 2733173\, q^{44}\, p^{14} + 142\, q^{96}\, p^{13} + 562082021\, q^{46}\, p^{25} + 1116375293\, q^{46}\, p^{27} + 16172010\, q^{45}\, p^{17} + 687136\, q^{43}\, p^{12} + 265459183\, q^{46}\, p^{23}$$
$$+ 1786\, p^{144}\, q^{140} + 38200844765\, p^{109}\, q^{110} + 32366293650\, p^{111}\, q^{109} + 9957644\, q^{118}\, p^{39} + 327127329\, q^{122}\, p^{56} + 407445532\, q^{122}\, p^{57}$$
$$+ 746318472\, q^{122}\, p^{60} + 615254254\, q^{122}\, p^{59} + 1268452008\, q^{122}\, p^{63} + 1737867510\, q^{122}\, p^{65} + 1340898920\, q^{123}\, p^{66} + 897811493\, q^{122}\, p^{61}$$
$$+ 1490305006\, q^{122}\, p^{64} + 1071371097\, q^{122}\, p^{62} + 502894109\, q^{122}\, p^{58} + 10934567194\, p^{97}\, q^{121} + 15822515\, p^{128}\, q^{128} + 1558281\, p^{103}\, q^{140}$$
$$+ 1546311\, p^{102}\, q^{140} + 1315621023\, p^{100}\, q^{127} + 1378492265\, p^{99}\, q^{127} + 1435692450\, p^{98}\, q^{127} + 2470859\, q^{119}\, p^{37} + 3940779\, q^{119}\, p^{38}$$
$$+ 6146393\, q^{119}\, p^{39} + 7223\, p^{57}\, q^{8} + 8532385251\, q^{100}\, p^{42} + 272379\, p^{141}\, q^{88} + 3615670\, p^{122}\, q^{136} + 1970235\, p^{123}\, q^{137} + 30740180\, p^{133}\, q^{116}$$
$$+ 179070295\, p^{132}\, q^{94} + 142909694\, p^{130}\, q^{74} + 275999935\, p^{119}\, q^{125} + 542\, p^{148}\, q^{114} + 16\, p^{141}\, q^{57} + 14325364\, p^{108}\, q^{31}$$
$$+ 678483828\, p^{89}\, q^{129} + 368\, p^{146}\, q^{89} + 75\, q^{118}\, p^{23} + 302\, q^{118}\, p^{24} + 2795\, q^{127}\, p^{35} + 160\, p^{67}\, q^{7} + 61\, p^{127}\, q^{31} + 541\, p^{133}\, q^{42} + 12\, p^{122}\, q^{25}$$
$$+ 451\, p^{132}\, q^{40} + 5484\, p^{140}\, q^{65} + 1872\, q^{123}\, p^{30} + 2386333\, q^{132}\, p^{59} + 1357173\, q^{132}\, p^{57} + 710821086685\, p^{97}\, q^{99} + 38957\, q^{111}\, p^{24}$$
$$+ 694342418428\, p^{96}\, q^{100} + 17671791468\, p^{38}\, q^{45} + 282380696778\, p^{58}\, q^{46} + 52242892\, p^{115}\, q^{132} + 44013367\, p^{113}\, q^{133}$$
$$+ 39817910\, p^{117}\, q^{132} + 45782142\, p^{116}\, q^{132} + 132141679341\, p^{104}\, q^{59} + 24664005283\, p^{39}\, q^{46} + 56051682444\, p^{88}\, q^{116}$$
$$+ 1293179439364\, p^{56}\, q^{83} + 32295244\, p^{104}\, q^{30} + 92\, p^{61}\, q^{6} + 139756933\, p^{108}\, q^{36} + 13915226\, p^{105}\, q^{29} + 648871846\, p^{111}\, q^{43}$$
$$+ 126660\, p^{143}\, q^{115} + 10492\, p^{131}\, q^{43} + 305689\, p^{141}\, q^{89} + 43721\, p^{144}\, q^{120} + 3\, p^{101}\, q^{13} + 1720141\, p^{135}\, q^{128} + 192\, p^{149}\, q^{126}$$
$$+ 27748949046\, p^{111}\, q^{110} + 7267932194\, q^{121}\, p^{74} + 71512\, p^{79}\, q^{13} + 21\, p^{142}\, q^{61} + 36\, p^{120}\, q^{24} + 54604\, p^{141}\, q^{78} + 96150\, p^{143}\, q^{98}$$
$$+ 189211970\, p^{128}\, q^{116} + 1614948663175\, p^{81}\, q^{98} + 1715712\, q^{130}\, p^{53} + 1233418\, q^{130}\, p^{52} + 2353038\, q^{130}\, p^{54} + 2107047484928\, p^{91}\, q^{92}$$

$$+ 123554371963\, p^{51}\, q^{97} + 21253680024\, p^{118}\, q^{75} + 24170116324\, p^{119}\, q^{85} + 74462308532\, p^{106}\, q^{58} + 4891287524\, p^{106}\, q^{45}$$
$$+ 53154272889\, p^{113}\, q^{102} + 943270608\, p^{104}\, q^{38} + 63887614261\, p^{113}\, q^{100} + 142152017336\, p^{112}\, q^{89} + 148441684262\, p^{111}\, q^{76}$$
$$+ 155656359524\, p^{111}\, q^{77} + 108125722377\, p^{113}\, q^{91} + 141538223330\, p^{112}\, q^{81} + 107147948707\, p^{111}\, q^{71} + 1970430186\, p^{105}\, q^{41}$$
$$+ 590414486\, p^{103}\, q^{36} + 254016292959\, p^{109}\, q^{90} + 258023532063\, p^{108}\, q^{74} + 243108567585\, p^{108}\, q^{73} + 1062535\, p^{88}\, q^{18}$$
$$+ 166159374315\, p^{110}\, q^{95} + 176071346333\, p^{110}\, q^{94} + 55756228780\, p^{111}\, q^{105} + 74861373047\, p^{110}\, q^{104} + 127\, p^{109}\, q^{18} + 1268107\, p^{138}\, q^{79}$$
$$+ 27\, p^{104}\, q^{15} + 41\, p^{106}\, q^{16} + 28439\, p^{144}\, q^{125} + 11613\, p^{133}\, q^{47} + 254431380366\, p^{102}\, q^{61} + 323721802371\, p^{102}\, q^{63} + 20886\, p^{109}\, q^{145}$$
$$+ 53604\, p^{116}\, q^{144} + 32\, q^{95}\, p^{12} + 484\, q^{97}\, p^{14} + 4\, q^{94}\, p^{11} + 19542670409\, p^{110}\, q^{113} + 22694151320\, p^{109}\, q^{113} + 16704396323\, p^{111}\, q^{113}$$
$$+ 1658155886661\, p^{70}\, q^{95} + 1557049909185\, p^{69}\, q^{95} + 291682288580\, p^{56}\, q^{97} + 108559\, q^{101}\, p^{20} + 2317737594875\, p^{75}\, q^{94}$$
$$+ 591956283364\, p^{103}\, q^{72} + 149006269316\, p^{101}\, q^{56} + p^{143}\, q^{152} + p^{147}\, q^{152} + 228310760261\, p^{85}\, q^{110} + 401277023132\, p^{102}\, q^{65}$$
$$+ 287945227811\, p^{102}\, q^{62} + 688847820444\, p^{104}\, q^{82} + 686719659159\, p^{104}\, q^{84} + 297835350026\, p^{77}\, q^{108} + 364\, p^{148}\, q^{135} + 2207\, p^{147}\, q^{113}$$
$$+ 1547\, p^{147}\, q^{108} + 130\, p^{138}\, q^{51} + 174299520348\, p^{101}\, q^{57} + 689733756888\, p^{104}\, q^{83} + 588868785329\, p^{103}\, q^{93} + 27301\, q^{110}\, p^{23}$$
$$+ 667692285109\, p^{95}\, q^{101} + 1026765320\, p^{104}\, q^{127} + 385977853\, p^{86}\, q^{130} + 943621844\, p^{99}\, q^{128} + 348402725\, p^{84}\, q^{130}$$
$$+ 701950512\, p^{91}\, q^{129} + 699909565\, p^{95}\, q^{129} + 709260328\, p^{93}\, q^{129} + 706653345\, p^{94}\, q^{129} + 689131527\, p^{96}\, q^{129} + 430113836\, p^{89}\, q^{130}$$
$$+ 402574696\, p^{87}\, q^{130} + 539960036063\, p^{92}\, q^{104} + 432467075565\, p^{90}\, q^{106} + 9849\, p^{123}\, q^{32} + 2998609\, p^{138}\, q^{86} + 83134\, p^{141}\, q^{130}$$
$$+ 3128064\, p^{139}\, q^{104} + 32037299082\, p^{105}\, q^{52} + 518838636022\, p^{103}\, q^{70} + 825017894855\, p^{63}\, q^{96} + 661430958389\, p^{61}\, q^{96}$$
$$+ 586468891128\, p^{60}\, q^{96} + 36752\, q^{124}\, p^{35} + 68443\, q^{124}\, p^{36} + 1348687237981\, p^{67}\, q^{95} + 4930614887618\, p^{82}\, q^{83} + 26793321906\, p^{79}\, q^{36}$$
$$+ 184931983309\, p^{85}\, q^{111} + 8\, p^{115}\, q^{150} + 10\, p^{116}\, q^{150} + 5108751702524\, p^{70}\, q^{73} + 170129496546\, p^{107}\, q^{101} + 4515032259853\, p^{76}\, q^{67}$$
$$+ 2\, q^{77}\, p^{7} + 4863317688086\, p^{69}\, q^{72} + 4731384830386\, p^{68}\, q^{73} + 3793644445720\, p^{64}\, q^{74} + 4930555166816\, p^{73}\, q^{69} + 11563\, p^{53}\, q^{8}$$
$$+ 1262\, p^{47}\, q^{6} + 1199\, q^{101}\, p^{16} + 4463285297774\, p^{67}\, q^{72} + 4672436885320\, p^{68}\, q^{72} + 4930614887618\, p^{70}\, q^{71} + 6410813925\, p^{122}\, q^{101}$$
$$+ 12691911617\, p^{121}\, q^{84} + 6142216333\, p^{119}\, q^{66} + 3494742645\, p^{118}\, q^{60} + 48122\, p^{139}\, q^{136} + 69635032\, q^{45}\, p^{20} + 43921848\, q^{45}\, p^{19}$$
$$+ 4474348\, q^{42}\, p^{15} + 5021930\, q^{44}\, p^{15} + 317451\, q^{42}\, p^{11} + 2315918233\, q^{47}\, p^{29} + 307877\, q^{41}\, p^{11} + 1371906\, q^{43}\, p^{13} + 25254743\, q^{44}\, p^{18}$$
$$+ 2863849528723\, p^{84}\, q^{92} + 2608683\, q^{43}\, p^{14} + 15206466\, q^{44}\, p^{17} + 92408996\, q^{118}\, p^{45} + 127061603\, q^{118}\, p^{46} + 511995524\, q^{45}\, p^{25}$$
$$+ 1009717755\, q^{45}\, p^{27} + 1539602713\, q^{46}\, p^{28} + 243710705\, q^{45}\, p^{23} + 28218947999\, p^{73}\, q^{35} + 1201763801183\, p^{75}\, q^{53}$$
$$+ 259648313482\, p^{74}\, q^{44} + 275098\, p^{72}\, q^{13} + 609376\, p^{73}\, q^{14} + 4009694149472\, p^{76}\, q^{65} + 4214694186688\, p^{77}\, q^{66}$$

$$+ 2684251394711\, p^{76} q^{60} + 1958550557516\, p^{76} q^{57} + 1377932381682\, p^{75} q^{54} + 376153377670\, p^{75} q^{46} + 1536677819323\, p^{76} q^{55}$$
$$+ 4388114102801\, p^{67} q^{71} + 64387871\, p^{109} q^{133} + 2780141380106\, p^{62} q^{81} + p^{152} q^{140} + 24\, p^{150} q^{141} + 658603\, p^{134} q^{60} + 100234\, p^{141} q^{129}$$
$$+ 251250\, p^{141} q^{123} + 278\, p^{110} q^{19} + 1139\, p^{115} q^{23} + 2664199\, p^{139} q^{95} + 9849\, p^{121} q^{30} + 20487\, p^{123} q^{33} + 3140647\, p^{139} q^{101}$$
$$+ 715888\, p^{140} q^{119} + 846568913\, q^{118} p^{53} + 1064548460\, q^{118} p^{54} + 257755568\, q^{117} p^{47} + 761493017\, q^{117} p^{51} + 972170789\, q^{117} p^{52}$$
$$+ 5962458925\, p^{71} q^{30} + 4731384830386\, p^{80} q^{85} + 903765220\, p^{100} q^{128} + 367827385\, p^{85} q^{130} + 417367237\, p^{88} q^{130}$$
$$+ 1010315443\, p^{97} q^{128} + 4539969875997\, p^{79} q^{86} + 4731384830386\, p^{73} q^{68} + 835393818\, p^{123} q^{63} + 552606668941\, p^{59} q^{50}$$
$$+ 100911797543\, p^{78} q^{113} + 147963691475\, p^{84} q^{112} + 10392\, p^{137} q^{142} + 26\, p^{122} q^{150} + 22\, p^{121} q^{150} + 12\, p^{117} q^{150} + 14\, p^{118} q^{150}$$
$$+ 26116323702\, q^{97} p^{44} + 4301\, p^{140} q^{142} + 1580690800662\, p^{88} q^{97} + 160175088804\, p^{100} q^{108} + 223877771908\, p^{93} q^{109} + 4551\, q^{101} p^{17}$$
$$+ 41890\, q^{101} p^{19} + 6988380553\, q^{119} p^{67} + 3998037314\, q^{119} p^{63} + 4646446859\, q^{119} p^{64} + 5361175607\, q^{119} p^{65} + 7897084956\, q^{119} p^{68}$$
$$+ 6142216333\, q^{119} p^{66} + 14655\, q^{101} p^{18} + 177980\, q^{102} p^{21} + 588868785329\, p^{93} q^{103} + 632031330945\, p^{94} q^{102} + 228620\, p^{133} q^{54}$$
$$+ 12760\, p^{144} q^{131} + 188\, p^{121} q^{26} + 206449\, p^{139} q^{74} + 46\, p^{117} q^{22} + 83360\, p^{138} q^{66} + 632031330945\, p^{102} q^{94} + 22462\, p^{129} q^{41}$$
$$+ 830745\, p^{135} q^{64} + 738967\, p^{141} q^{106} + 1086295\, p^{137} q^{73} + 1467003\, p^{138} q^{80} + 1493207\, p^{140} q^{100} + 123223\, p^{131} q^{48} + 687136\, p^{141} q^{110}$$
$$+ 2167796\, p^{138} q^{83} + 16202784999\, p^{110} q^{114} + 690276928416\, p^{103} q^{75} + 575467\, p^{87} q^{17} + 2129839\, p^{126} q^{46} + p^{44} q^{3}$$
$$+ 12055222565\, q^{119} p^{72} + 9884716243\, q^{119} p^{70} + 2032096845\, q^{119} p^{59} + 666761125\, q^{118} p^{52} + 15063488\, q^{113} p^{35} + 755735917\, q^{85} p^{28}$$
$$+ 1168546526\, q^{85} p^{29} + 3244992068\, q^{112} p^{50} + 1164059860592\, p^{73} q^{99} + 25141665\, q^{83} p^{21} + 208299385\, q^{84} p^{25} + 342961531\, q^{84} p^{26}$$
$$+ 38556268706\, p^{116} q^{75} + 2541469723\, p^{112} q^{49} + 42832106878\, p^{117} q^{85} + 724201170872\, p^{52} q^{83} + 36672321\, p^{58} q^{18} + 5849673\, p^{56} q^{15}$$
$$+ 18286373862\, p^{64} q^{33} + 285116967\, p^{61} q^{22} + 1075547039\, p^{62} q^{25} + 1737100768841\, p^{68} q^{56} + 2568487674635\, p^{68} q^{60}$$
$$+ 1933752677194\, p^{68} q^{57} + 3649644509779\, p^{68} q^{65} + 3974796888115\, p^{69} q^{66} + 2095015740\, p^{29} q^{46} + 674504529\, q^{56} p^{24}$$
$$+ 11467303\, q^{55} p^{16} + 21140519\, q^{54} p^{17} + 6075026\, q^{54} p^{15} + 11561814\, q^{54} p^{16} + 1486354046\, q^{56} p^{26} + 4154704336\, p^{31} q^{47}$$
$$+ 2814787037\, p^{30} q^{46} + 3145892759301\, p^{71} q^{89} + 3411121606538\, p^{73} q^{89} + 3615114929506\, p^{75} q^{89} + 3521642593183\, p^{74} q^{89}$$
$$+ 3690082202078\, p^{76} q^{89} + 3780067597633\, p^{78} q^{89} + 3745360812217\, p^{77} q^{89} + 3514205545227\, p^{78} q^{90} + 4051435307062\, p^{74} q^{65}$$
$$+ 4296393968877\, p^{75} q^{66} + 2746328653581\, p^{74} q^{60} + 2019659766301\, p^{74} q^{57} + 15539034\, p^{89} q^{22} + 333286315150\, p^{105} q^{69}$$
$$+ 308117588919\, p^{104} q^{66} + 511995524\, p^{108} q^{128} + 623805485845\, p^{50} q^{61} + 53315\, p^{143} q^{92} + 2067\, p^{146} q^{134} + 17\, p^{126} q^{29}$$
$$+ 908050811306\, p^{54} q^{59} + 138618281881\, p^{41} q^{63} + 2521\, p^{32} q^{6} + 511995524\, p^{45} q^{25} + 1009717755\, p^{45} q^{27} + 99295233\, p^{44} q^{21}$$

$$+ 356225135\, p^{45} q^{24} + 724358573\, p^{45} q^{26} + 6362513223\, p^{46} q^{33} + 2814787037\, p^{46} q^{30} + 2095015740\, p^{46} q^{29} + 4902712338\, p^{46} q^{32}$$
$$+ 3736349464\, p^{46} q^{31} + 8170048419\, p^{46} q^{34} + 10384930098\, p^{46} q^{35} + 14725212450\, p^{47} q^{36} + 269268\, p^{38} q^{11} + 573762\, p^{39} q^{12}$$
$$+ 126660\, p^{38} q^{10} + 1176144\, p^{40} q^{13} + 397160939724\, p^{87} q^{107} + 90146483237\, p^{42} q^{84} + 98960607\, q^{105} p^{33} + 231183395\, q^{105} p^{35}$$
$$+ 378634726\, q^{106} p^{37} + 152726754\, q^{105} p^{34} + 3862855524\, q^{85} p^{32} + 201\, q^{58} p^{6} + 6293\, q^{58} p^{8} + 1116\, q^{59} p^{7} + 3910\, q^{61} p^{8}$$
$$+ 12579\, p^{142} q^{77} + 719\, q^{123} p^{29} + 41\, p^{24} q^{3} + 23449668\, p^{43} q^{18} + 7805130\, p^{42} q^{16} + 22791827684\, p^{47} q^{38} + 41085234058\, p^{47} q^{41}$$
$$+ 58407419920\, p^{47} q^{43} + 49180582989\, p^{47} q^{42} + 27975925782\, p^{47} q^{39} + 2798086580284\, p^{87} q^{91} + 205387268114\, p^{105} q^{64}$$
$$+ 69892324204\, p^{104} q^{55} + 1654667916985\, p^{91} q^{95} + 812\, p^{99} q^{15} + 596\, p^{62} q^{7} + 17781351\, p^{134} q^{117} + 85695977\, p^{92} q^{26}$$
$$+ 47693744247\, p^{115} q^{74} + 35759527537\, p^{117} q^{95} + 37372987846\, p^{117} q^{94} + 13027057410\, p^{118} q^{105} + 18315285989\, p^{117} q^{104}$$
$$+ 687821433008\, p^{103} q^{90} + 233404946560\, p^{101} q^{59} + 72024693893\, p^{99} q^{50} + 777376939051\, p^{102} q^{74} + 484968481562\, p^{102} q^{67}$$
$$+ 739715504431\, p^{102} q^{73} + 715988628005\, p^{103} q^{89} + 843774393664\, p^{102} q^{76} + 871526982817\, p^{102} q^{77} + 567774840464\, p^{104} q^{91}$$
$$+ 803578913603\, p^{103} q^{81} + 1296063097314\, p^{90} q^{98} + 47081029879\, p^{99} q^{48} + 74895927015\, p^{98} q^{113} + 928704\, p^{124} q^{41} + 240942\, p^{66} q^{12}$$
$$+ 296771063569\, p^{83} q^{47} + 64782100882\, p^{82} q^{40} + 49593345009\, p^{82} q^{39} + 24374256\, p^{74} q^{19} + 3520651619604\, p^{86} q^{69}$$
$$+ 3705400657251\, p^{86} q^{70} + 7316933\, p^{130} q^{58} + 43105301647\, p^{104} q^{113} + 23379655371\, p^{110} q^{112} + 159557992\, q^{110} p^{38}$$
$$+ 12055222565\, p^{81} q^{34} + 83736987617\, p^{82} q^{41} + 710106176\, p^{78} q^{26} + 9430074442\, p^{80} q^{33} + 1821378981797\, p^{96} q^{87} + 40750\, p^{144} q^{121}$$
$$+ 6\, p^{110} q^{17} + 37084044\, q^{114} p^{38} + 23629846\, q^{113} p^{36} + 1471450\, p^{133} q^{60} + 165867\, p^{140} q^{129} + 442271\, p^{140} q^{123} + 585\, p^{109} q^{19}$$
$$+ 2366\, p^{114} q^{23} + 5492019\, p^{138} q^{95} + 20487\, p^{120} q^{30} + 42682\, p^{122} q^{33} + 6152111\, p^{138} q^{101} + 1259219\, p^{139} q^{119} + 55280571\, q^{114} p^{39}$$
$$+ 49593345009\, p^{71} q^{114} + 91589471171\, p^{76} q^{113} + 392597330998\, p^{57} q^{96} + 1140309296564\, p^{65} q^{95} + 411703515\, p^{115} q^{126}$$
$$+ 584809049\, p^{110} q^{127} + 664353454\, p^{105} q^{128} + 2288\, p^{82} q^{144} + 41127\, p^{90} q^{143} + 4551\, p^{136} q^{52} + 34309\, p^{140} q^{71} + 140564\, p^{142} q^{91}$$
$$+ 52819\, p^{142} q^{84} + 17416\, p^{136} q^{55} + 74124\, p^{143} q^{95} + 242\, p^{125} q^{30} + 18313\, p^{137} q^{58} + 753146734\, p^{119} q^{121} + 2142321\, p^{135} q^{127}$$
$$+ 2476855\, p^{134} q^{128} + 6680404\, p^{131} q^{128} + 196208142\, p^{123} q^{123} + 932661428\, p^{121} q^{59} + 47685\, p^{103} q^{20} + 402748471\, p^{127} q^{113}$$
$$+ 484641554\, p^{120} q^{54} + 684076692637\, q^{104} p^{81} + 679853304310\, q^{104} p^{85} + 686719659159\, q^{104} p^{84} + 637531757991\, q^{104} p^{88}$$
$$+ 593554989933\, q^{104} p^{90} + 487192099477\, q^{105} p^{91} + 669244827622\, q^{104} p^{86} + 616923903455\, q^{104} p^{89} + 688847820444\, q^{104} p^{82}$$
$$+ 148194376836\, p^{99} q^{109} + 161169248389\, p^{98} q^{109} + 825\, p^{145} q^{141} + 9089937849\, p^{94} q^{122} + 10423\, p^{145} q^{99} + 598\, q^{143} p^{72} + 412\, q^{143} p^{71}$$
$$+ 3\, p^{151} q^{126} + 10153\, p^{143} q^{82} + 1609600737552\, p^{88} q^{61} + 1961560691015\, p^{88} q^{63} + 1692963010006\, q^{67} p^{56} + 90437930\, q^{133} p^{88}$$

$$+ 36725981528\, p^{58}\, q^{109} + 1332171944\, p^{76}\, q^{27} + 752267078667\, p^{58}\, q^{53} + 18404121131\, p^{47}\, q^{37} + 3414817463\, q^{91}\, p^{34} + 192\, p^{27}\, q^{4}$$
$$+ 747\, p^{30}\, q^{5} + 178278670677\, p^{56}\, q^{100} + 51495\, p^{36}\, q^{9} + 7620\, p^{34}\, q^{7} + 20598\, p^{35}\, q^{8} + 68832764580\, p^{47}\, q^{44} + 91815503253\, p^{48}\, q^{45}$$
$$+ 34044715571\, p^{47}\, q^{40} + 13182281\, p^{42}\, q^{17} + 2329646\, p^{41}\, q^{14} + 59143102\, p^{43}\, q^{20} + 37694629\, p^{43}\, q^{19} + 149992983\, p^{44}\, q^{22}$$
$$+ 222275055\, p^{44}\, q^{23} + 1387916598\, p^{45}\, q^{28} + 4181389\, p^{41}\, q^{15} + 5373\, p^{47}\, q^{7} + 2251218290009\, p^{71}\, q^{58} + 2484262246373\, p^{71}\, q^{59}$$
$$+ 21593942573\, p^{39}\, q^{45} + 29949059667\, p^{40}\, q^{46} + 183313223248\, p^{42}\, q^{70} + 5466814268\, p^{32}\, q^{47} + 3736349464\, p^{31}\, q^{46}$$
$$+ 14511177\, p^{133}\, q^{121} + 330771\, p^{44}\, q^{11} + 722110\, p^{45}\, q^{12} + 49593345009\, p^{39}\, q^{82} + 2722791699281\, p^{60}\, q^{75} + 70\, q^{62}\, p^{6}$$
$$+ 92199776\, p^{123}\, q^{126} + 116566119\, p^{117}\, q^{129} + 59990\, p^{60}\, q^{10} + 7720463496\, q^{109}\, p^{50} + 4770147717971\, p^{75}\, q^{68} + 81192160671\, p^{113}\, q^{74}$$
$$+ 58093413773\, p^{115}\, q^{95} + 60973040996\, p^{115}\, q^{94} + 20641358576\, p^{116}\, q^{105} + 28608886746\, p^{115}\, q^{104} + 9146275369\, p^{110}\, q^{52}$$
$$+ 1610739318\, p^{108}\, q^{43} + 35154287\, p^{102}\, q^{29} + 75763535910\, p^{113}\, q^{73} + 1199\, p^{101}\, q^{16} + 19723804295\, p^{118}\, q^{74} + 15966099822\, p^{120}\, q^{95}$$
$$+ 16570695945\, p^{120}\, q^{94} + 6055672232\, p^{121}\, q^{105} + 8717911286\, p^{120}\, q^{104} + 909377298523\, p^{74}\, q^{101} + 818\, q^{96}\, p^{14}$$
$$+ 2367758231227\, p^{92}\, q^{89} + 2417224865122\, p^{61}\, q^{82} + 98960607\, q^{120}\, p^{48} + 5179215566163\, p^{71}\, q^{72} + 5033101600652\, p^{70}\, q^{72}$$
$$+ 4514175127368\, p^{67}\, q^{73} + 4802906880416\, p^{70}\, q^{70} + 2\, q^{144}\, p^{66} + 47\, q^{144}\, p^{71} + 16\, q^{144}\, p^{69} + 9\, q^{144}\, p^{68} + 4\, q^{144}\, p^{67} + 29\, q^{144}\, p^{70}$$
$$+ 19096640774\, q^{108}\, p^{53} + 12581790319\, q^{108}\, p^{51} + 335241435087\, p^{46}\, q^{61} + 202236376616\, p^{43}\, q^{62} + 5\, p^{24}\, q^{2} + 111312127384\, p^{40}\, q^{63}$$
$$+ 16\, p^{34}\, q^{3} + 26163232671\, p^{40}\, q^{45} + 36065772680\, p^{41}\, q^{46} + 5268252\, p^{108}\, q^{138} + 19\, p^{47}\, q^{4} + 45805150856\, p^{95}\, q^{116}$$
$$+ 43475583172\, p^{96}\, q^{116} + 21238190\, q^{80}\, p^{20} + 393989078\, p^{127}\, q^{70} + 900683\, p^{118}\, q^{34} + 180586\, p^{114}\, q^{28} + 9855403\, q^{46}\, p^{16} + 368\, p^{64}\, q^{7}$$
$$+ 55657435\, p^{94}\, q^{26} + 29870100797\, p^{118}\, q^{93} + 10920056418\, p^{114}\, q^{59} + 4486377\, p^{117}\, q^{137} + 2\, p^{150}\, q^{110} + 46948554\, q^{46}\, p^{19}$$
$$+ 17086925\, q^{46}\, p^{17} + 410495604872\, p^{84}\, q^{107} + 5466814268\, p^{121}\, q^{106} + 274158171\, p^{90}\, q^{131} + 27996151964\, p^{102}\, q^{116} + 3937375\, q^{110}\, p^{30}$$
$$+ 599001\, q^{105}\, p^{24} + 18267632828\, q^{120}\, p^{87} + 17011440894\, q^{120}\, p^{83} + 15172468184\, q^{120}\, p^{80} + 14434166074\, q^{120}\, p^{79}$$
$$+ 809506340\, p^{110}\, q^{126} + 717378642\, p^{111}\, q^{126} + 396928791\, p^{117}\, q^{125} + 1172558\, p^{131}\, q^{134} + 891479\, p^{132}\, q^{134} + 494066\, p^{134}\, q^{134}$$
$$+ 359418\, p^{135}\, q^{134} + 668454\, p^{133}\, q^{134} + 5268252\, q^{45}\, p^{15} + 2844505\, q^{45}\, p^{14} + 30334872\, q^{47}\, p^{18} + 79877946\, q^{47}\, p^{20} + 49863351\, q^{47}\, p^{19}$$
$$+ 187153586666\, p^{109}\, q^{96} + 2288\, p^{71}\, q^{9} + 2360215\, p^{88}\, q^{19} + 817\, q^{89}\, p^{12} + 77104\, q^{94}\, p^{17} + 11905\, q^{93}\, p^{15} + 1731\, q^{91}\, p^{13} + 26577\, q^{94}\, p^{16}$$
$$+ 6522839\, q^{102}\, p^{26} + 15247403\, q^{103}\, p^{28} + 28721937\, q^{46}\, p^{18} + 74822047\, q^{46}\, p^{20} + 124987556\, q^{47}\, p^{21} + 3462636430\, q^{95}\, p^{36}$$
$$+ 1424761\, q^{44}\, p^{13} + 41194270193\, p^{36}\, q^{62} + 53223193996\, p^{37}\, q^{62} + 68066076387\, p^{38}\, q^{62} + 86196515664\, p^{39}\, q^{62}$$
$$+ 106808604360\, p^{105}\, q^{107} + 72737\, q^{102}\, p^{20} + 27304\, q^{102}\, p^{19} + 9259\, q^{102}\, p^{18} + 874664416\, p^{117}\, q^{122} + 116510745\, q^{46}\, p^{21}$$

$$+ 9388537\, q^{45} p^{16} + 1450771\, p^{120} q^{37} + 448688543\, p^{130} q^{91} + 275662442\, p^{128} q^{71} + 456996530\, q^{48} p^{24} + 191389318\, q^{47} p^{22}$$
$$+ 287281517\, q^{47} p^{23} + 1797955774491\, p^{56} q^{70} + 3120930892\, q^{47} p^{30} + 4172525667700\, p^{82} q^{87} + 37552101509\, p^{38} q^{82}$$
$$+ 99295233\, p^{132} q^{109} + 900683\, p^{119} q^{35} + 59876455\, p^{126} q^{57} + 26149107\, p^{124} q^{50} + 308125164\, p^{123} q^{121} + 37\, q^{101} p^{14}$$
$$+ 296771063569\, p^{106} q^{70} + 282761\, q^{121} p^{35} + 12905\, q^{81} p^{12} + 1084256\, p^{113} q^{30} + 53051551\, p^{120} q^{46} + 2344062\, p^{115} q^{33}$$
$$+ 62799448\, p^{121} q^{48} + 3925225496\, q^{72} p^{29} + 2662514074\, q^{72} p^{28} + 1774338761\, q^{72} p^{27} + 552606668941\, p^{50} q^{59}$$
$$+ 326373156585\, p^{45} q^{73} + 168199403721\, p^{42} q^{74} + 266619377131\, p^{44} q^{73} + 173339000029\, p^{42} q^{73} + 215935971967\, p^{43} q^{73}$$
$$+ 22916753891\, q^{93} p^{41} + 1992786601\, q^{92} p^{33} + 1349402694\, q^{92} p^{32} + 30061900623\, q^{93} p^{42} + 5872\, p^{142} q^{139} + 464048488823\, p^{105} q^{92}$$
$$+ 278440566135\, q^{88} p^{49} + 6413679106\, p^{58} q^{30} + 1529669740\, p^{57} q^{26} + 4609712444\, p^{58} q^{29} + 715631449655\, p^{61} q^{51}$$
$$+ 815343843130\, p^{61} q^{52} + 55541\, p^{46} q^{9} + 20142\, p^{45} q^{8} + 239548699945\, p^{91} q^{50} + 3910\, p^{61} q^{8} + 1416502012948\, p^{73} q^{54}$$
$$+ 396188447150\, p^{73} q^{46} + 1593258396442\, p^{74} q^{55} + 3767268746\, p^{107} q^{45} + 43311657631\, p^{114} q^{102} + 722448721\, p^{105} q^{38}$$
$$+ 51844863855\, p^{114} q^{100} + 113934624453\, p^{113} q^{89} + 117171234988\, p^{112} q^{76} + 123103720944\, p^{112} q^{77} + 86196515664\, p^{114} q^{91}$$
$$+ 111729999141\, p^{113} q^{81} + 83736987617\, p^{112} q^{71} + 1511701276\, p^{106} q^{41} + 452944492\, p^{104} q^{36} + 10951172666\, p^{119} q^{71}$$
$$+ 13230852206\, p^{121} q^{91} + 199857167602\, p^{44} q^{58} + 238484598320\, p^{45} q^{58} + 113603859836\, p^{100} q^{110} + 124094489478\, p^{99} q^{110}$$
$$+ 134714852661\, p^{98} q^{110} + 11\, q^{93} p^{11} + 30703869178\, q^{81} p^{37} + 12055222565\, q^{81} p^{34} + 16675606958\, q^{81} p^{35} + 40917637094\, q^{81} p^{38}$$
$$+ 10278553\, p^{106} q^{137} + 96\, p^{145} q^{78} + p^{113} q^{18} + 1798\, p^{145} q^{88} + 42\, p^{150} q^{133} + 29\, p^{148} q^{97} + 109\, p^{149} q^{116} + 5388\, q^{138} p^{58} + 36666\, q^{139} p^{67}$$
$$+ 48650\, q^{139} p^{68} + 34309\, q^{140} p^{71} + 15100\, p^{145} q^{103} + 7536\, p^{142} q^{75} + 2226705928671\, p^{78} q^{95} + 2408363621041\, p^{84} q^{94}$$
$$+ 1641715430942\, p^{72} q^{96} + 876582675490\, p^{65} q^{97} + 4902712338\, p^{32} q^{46} + 9158207831\, p^{34} q^{47} + 6362513223\, p^{33} q^{46}$$
$$+ 32362826597\, p^{68} q^{35} + 279994706297\, p^{69} q^{44} + 1242873282473\, p^{70} q^{53} + 2251799582582\, p^{79} q^{95} + 423302514\, p^{24} q^{47}$$
$$+ 1338137494\, p^{27} q^{48} + 613055440\, p^{25} q^{47} + 873630781\, p^{26} q^{47} + 7113625171\, p^{33} q^{47} + 194652789687\, p^{102} q^{59}$$
$$+ 59931105248\, p^{100} q^{50} + 406950548322\, p^{103} q^{67} + 116994038094\, p^{108} q^{103} + 38997365335\, p^{100} q^{48} + 106488575318\, p^{101} q^{54}$$
$$+ 5224927386\, p^{98} q^{39} + 3319058047\, p^{97} q^{37} + 7115791979\, p^{98} q^{40} + 19991\, p^{142} q^{79} + 16202784999\, p^{114} q^{110} + 19542670409\, p^{113} q^{110}$$
$$+ 23379655371\, p^{112} q^{110} + 2825484\, q^{96} p^{22} + 193626339\, q^{101} p^{32} + 94090965\, q^{102} p^{31} + 297914576\, q^{101} p^{33} + 3183305\, q^{98} p^{23}$$
$$+ 2405403\, p^{118} q^{138} + 1658155886661\, p^{58} q^{83} + 84932779421\, p^{99} q^{112} + 29949059667\, p^{113} q^{107} + 74763349499\, q^{76} p^{39}$$
$$+ 57804840\, p^{126} q^{125} + 69\, q^{86} p^{10} + 119547\, p^{128} q^{141} + 7315844845\, q^{74} p^{31} + 423041471202\, q^{77} p^{47} + 23360036706\, p^{62} q^{113}$$

$$+ 17276758920\, p^{60}\, q^{113} + 20162388190\, p^{61}\, q^{113} + 12874575703\, p^{60}\, q^{114} + 26873379879\, p^{63}\, q^{113} + 30700627975\, p^{64}\, q^{113}$$
$$+ 34834111077\, p^{65}\, q^{113} + 5850499219\, p^{103}\, q^{43} + 9681484\, p^{132}\, q^{125} + 1491\, q^{126}\, p^{33} + 3379\, q^{126}\, p^{34} + 69364\, q^{127}\, p^{40} + 117472\, q^{127}\, p^{41}$$
$$+ 3\, q^{116}\, p^{20} + 129999760\, p^{97}\, q^{29} + 39692\, p^{127}\, q^{39} + 244963045288\, p^{91}\, q^{109} + 10884219\, p^{80}\, q^{19} + 17007800\, q^{106}\, p^{30}$$
$$+ 1365650867018\, p^{97}\, q^{91} + 8015957767\, q^{115}\, p^{59} + 5600608698\, q^{115}\, p^{57} + 6726947748\, q^{115}\, p^{58} + 2708623100\, q^{116}\, p^{55}$$
$$+ 2036119545601\, p^{96}\, q^{81} + 768076\, q^{64}\, p^{13} + 112\, q^{85}\, p^{10} + 29\, q^{83}\, p^{9} + 42062678811\, p^{90}\, q^{117} + 30786295958\, p^{92}\, q^{118}$$
$$+ 1344675291114\, p^{95}\, q^{94} + 16122794\, q^{116}\, p^{38} + 1579643596332\, p^{84}\, q^{98} + 2140697963840\, p^{95}\, q^{76} + 2189474331548\, p^{95}\, q^{77}$$
$$+ 1933538943411\, p^{95}\, q^{73} + 24\, p^{130}\, q^{34} + 1119\, p^{140}\, q^{61} + 22\, p^{57}\, q^{5} + 261387975406\, p^{71}\, q^{107} + 41085234058\, p^{106}\, q^{112} + 4421775\, p^{126}\, q^{48}$$
$$+ 21704615410\, q^{119}\, p^{81} + 1676616809552\, p^{96}\, q^{89} + 2011740299285\, p^{95}\, q^{74} + 1348687237981\, p^{95}\, q^{67} + 928704\, q^{112}\, p^{29} + p^{16}\, q$$
$$+ 17938649\, p^{136}\, q^{106} + 7896489111\, p^{78}\, q^{32} + 5516730651\, p^{78}\, q^{31} + 1658155886661\, p^{83}\, q^{58} + 35956045811\, p^{79}\, q^{37}$$
$$+ 1859128006671\, p^{83}\, q^{59} + 168832104\, q^{112}\, p^{40} + 248\, p^{46}\, q^{5} + 127061603\, p^{107}\, q^{35} + 5688651307533\, p^{78}\, q^{79} + 5761106\, p^{124}\, q^{134}$$
$$+ 9681484\, p^{125}\, q^{132} + 7784271\, p^{126}\, q^{132} + 5535497\, p^{122}\, q^{135} + 1529669740\, p^{127}\, q^{96} + 1556562412\, p^{74}\, q^{27} + 38436895550\, p^{105}\, q^{113}$$
$$+ 6514109\, p^{121}\, q^{135} + 43311657631\, p^{102}\, q^{114} + 27210479800\, p^{109}\, q^{112} + 31438830962\, p^{108}\, q^{112} + 16704396323\, p^{113}\, q^{111}$$
$$+ 39211532926\, p^{103}\, q^{114} + 38311985308\, p^{101}\, q^{115} + 38470825570\, p^{98}\, q^{116} + 41697265777\, p^{100}\, q^{115} + 3094523123540\, p^{91}\, q^{84}$$
$$+ 1782887\, q^{102}\, p^{24} + 66468261442\, q^{91}\, p^{44} + 73512169356\, q^{92}\, p^{45} + 17501549430\, q^{91}\, p^{39} + 821100602917\, p^{52}\, q^{81}$$
$$+ 5067741076167\, p^{82}\, q^{82} + 86784781\, p^{122}\, q^{127} + 15732317\, q^{135}\, p^{81} + 863526849841\, p^{60}\, q^{93} + 4895383738\, q^{121}\, p^{70} + 62292\, p^{68}\, q^{11}$$
$$+ 1337321026\, p^{116}\, q^{121} + 40491648191\, p^{102}\, q^{50} + 153162393\, p^{89}\, q^{26} + 2079094371578\, p^{95}\, q^{86} + 2545\, p^{33}\, q^{6} + 562082021\, p^{46}\, q^{25}$$
$$+ 1116375293\, p^{46}\, q^{27} + 107911954\, p^{45}\, q^{21} + 389585329\, p^{46}\, q^{24} + 798114731\, p^{46}\, q^{26} + 7113625171\, p^{47}\, q^{33} + 3120930892\, p^{47}\, q^{30}$$
$$+ 2315918233\, p^{47}\, q^{29} + 5466814268\, p^{47}\, q^{32} + 4154704336\, p^{47}\, q^{31} + 9158207831\, p^{47}\, q^{34} + 11670202665\, p^{47}\, q^{35} + 16476805365\, p^{48}\, q^{36}$$
$$+ 283568\, p^{39}\, q^{11} + 606487\, p^{40}\, q^{12} + 131711\, p^{39}\, q^{10} + 1246560\, p^{41}\, q^{13} + 25254743\, p^{44}\, q^{18} + 8355669\, p^{43}\, q^{16} + 25620445229\, p^{48}\, q^{38}$$
$$+ 46483093007\, p^{48}\, q^{41} + 66349607676\, p^{48}\, q^{43} + 55756228780\, p^{48}\, q^{42} + 31517319944\, p^{48}\, q^{39} + 20641358576\, p^{48}\, q^{37} + 193\, p^{28}\, q^{4}$$
$$+ 749\, p^{31}\, q^{5} + 53604\, p^{37}\, q^{9} + 7775\, p^{35}\, q^{7} + 21262\, p^{36}\, q^{8} + 78346354753\, p^{48}\, q^{44} + 103992238086\, p^{49}\, q^{45} + 38436895550\, p^{48}\, q^{40}$$
$$+ 14205644\, p^{43}\, q^{17} + 2473644\, p^{42}\, q^{14} + 64387871\, p^{44}\, q^{20} + 40822958\, p^{44}\, q^{19} + 163751560\, p^{45}\, q^{22} + 243710705\, p^{45}\, q^{23}$$
$$+ 1539602713\, p^{46}\, q^{28} + 4474348\, p^{42}\, q^{15} + 16470896773\, p^{120}\, q^{82} + 31438830962\, p^{41}\, q^{45} + 43082462455\, p^{42}\, q^{46} + 11670202665\, p^{35}\, q^{47}$$
$$+ 8170048419\, p^{34}\, q^{46} + 1857515070\, p^{28}\, q^{48} + 1226209556\, p^{27}\, q^{47} + 72986\, q^{91}\, p^{16} + 33800\, q^{90}\, p^{15} + 96150\, p^{55}\, q^{10}$$

$$+ 23171060922\, p^{70} q^{34} + 144471183501\, p^{71} q^{41} + 664353454\, q^{48} p^{25} + 4725082\, p^{70} q^{16} + 481403114317\, p^{50} q^{84} + 1068\, q^{106} p^{18}$$
$$+ 47\, q^{82} p^{9} + 3065576604901\, p^{69} q^{88} + 243\, q^{106} p^{17} + 27\, q^{104} p^{15} + 6597\, q^{109} p^{21} + 117\, q^{107} p^{17} + 558\, q^{107} p^{18} + 2130\, q^{107} p^{19}$$
$$+ 131867163107\, p^{44} q^{85} + 5450327956818\, p^{74} q^{80} + 20\, q^{135} p^{42} + 267274374922\, p^{101} q^{60} + 658126651047\, p^{102} q^{71} + 72013\, p^{137} q^{137}$$
$$+ 1184922902976\, p^{86} q^{100} + 528\, q^{90} p^{12} + p^{109} q^{150} + 17501549430\, p^{62} q^{114} + 52621928\, q^{48} p^{19} + 950136160\, q^{48} p^{26}$$
$$+ 117068618\, p^{93} q^{27} + 49772975594\, p^{102} q^{51} + 19996674271\, p^{101} q^{46} + 6761124762\, p^{60} q^{30} + 1591639248\, p^{59} q^{26}$$
$$+ 4831629713\, p^{60} q^{29} + 791442533307\, p^{63} q^{51} + 904382591363\, p^{63} q^{52} + 454693147\, p^{58} q^{23} + 37444113\, p^{56} q^{18} + 6075026\, p^{54} q^{15}$$
$$+ 40111334082\, p^{61} q^{36} + 1136117570143\, p^{58} q^{57} + 3394847010\, p^{110} q^{121} + 141117534\, q^{49} p^{21} + 11047271413\, p^{118} q^{68}$$
$$+ 17011440894\, p^{120} q^{83} + 8550471228\, p^{121} q^{101} + 17467974721\, p^{120} q^{84} + 464048488823\, q^{105} p^{92} + 8643713056\, p^{118} q^{66}$$
$$+ 4941609441\, p^{117} q^{60} + 17938649\, q^{47} p^{17} + 48558678853\, p^{100} q^{49} + 17996640711\, p^{99} q^{44} + 73775808930\, p^{101} q^{52}$$
$$+ 1913405648270\, p^{90} q^{94} + 3764607900\, q^{82} p^{31} + 28452515656\, q^{110} p^{58} + 7457\, p^{134} q^{144} + 727\, p^{125} q^{148} + 705\, p^{119} q^{148} + 132\, p^{118} q^{149}$$
$$+ 145\, p^{119} q^{149} + 154\, p^{120} q^{149} + 167\, p^{121} q^{149} + 984\, p^{146} q^{138} + 682\, p^{127} q^{148} + 709\, p^{126} q^{148} + 747\, p^{123} q^{148} + 743\, p^{124} q^{148}$$
$$+ 37476114790\, p^{111} q^{108} + 776017712848\, p^{99} q^{96} + 1119034351235\, p^{94} q^{97} + 1202999690601\, p^{93} q^{97} + 1821378981797\, p^{57} q^{66}$$
$$+ 188029897608\, p^{107} q^{100} + 30330871033\, p^{71} q^{35} + 1238895078128\, p^{73} q^{53} + 272217413119\, p^{72} q^{44} + 207696780873\, p^{87} q^{47}$$
$$+ 2079094371578\, p^{58} q^{67} + 240498273\, q^{83} p^{25} + 15522891\, q^{82} p^{20} + 7824325\, q^{82} p^{19} + 780241468727\, p^{103} q^{86}$$
$$+ 762555960079\, p^{103} q^{87} + 781490635679\, p^{103} q^{79} + 26297268363\, p^{65} q^{114} + 5819494\, q^{109} p^{30} + 79444\, q^{106} p^{22} + 165685523\, q^{114} p^{42}$$
$$+ 1326226513\, q^{118} p^{55} + 1637399666\, q^{118} p^{56} + 22668\, q^{100} p^{18} + 5565065448\, q^{120} p^{68} + 47685\, q^{103} p^{20} + 119565\, q^{103} p^{21}$$
$$+ 278221\, q^{103} p^{22} + 3285242905652\, p^{72} q^{89} + 2995105566587\, p^{70} q^{89} + 1444508078\, p^{75} q^{27} + 3257708575163\, q^{90} p^{74}$$
$$+ 2756632087695\, q^{90} p^{70} + 43630227\, q^{103} p^{30} + 3649644509779\, p^{85} q^{88} + 84735585\, q^{48} p^{20} + 135902177\, p^{129} q^{116}$$
$$+ 113936294075\, p^{104} q^{58} + 68066076387\, p^{91} q^{115} + 3769\, p^{85} q^{12} + 455040\, p^{122} q^{37} + 27\, p^{150} q^{140} + 118099284231\, p^{85} q^{113} + 874\, p^{50} q^{6}$$
$$+ 727\, p^{148} q^{120} + 727\, p^{148} q^{125} + 871526982817\, p^{77} q^{102} + 781490635679\, p^{79} q^{103} + 928093988966\, p^{80} q^{102} + 895065224669\, p^{78} q^{102}$$
$$+ 914021004120\, p^{79} q^{102} + 812233103857\, p^{75} q^{102} + 843774393664\, p^{76} q^{102} + 44324879234\, p^{110} q^{108} + 76749126795\, p^{39} q^{59}$$
$$+ 95712506695\, p^{40} q^{59} + 118292325723\, p^{41} q^{59} + 2188136335021\, p^{58} q^{69} + 4009694149472\, p^{77} q^{88} + 3793644445720\, p^{79} q^{89}$$
$$+ 4038184440469\, p^{80} q^{88} + 4041886886510\, p^{78} q^{88} + 4051435307062\, p^{79} q^{88} + 3879801891377\, p^{75} q^{88} + 3955376435398\, p^{76} q^{88}$$
$$+ 208499594\, p^{123} q^{56} + 654389662\, p^{125} q^{67} + 116566119\, p^{129} q^{117} + 479872654\, p^{125} q^{65} + 19877\, p^{128} q^{144} + 247094143\, p^{122} q^{123}$$

$$+ 3117938360040\, p^{67} q^{63} + 2910205907089\, p^{67} q^{62} + 2700103690789\, p^{67} q^{61} + 3320748905531\, p^{67} q^{64} + 118050835667\, q^{67} p^{40}$$
$$+ 148124631642\, q^{67} p^{41} + 226961228260\, q^{67} p^{43} + 184167294726\, q^{67} p^{42} + 277307355613\, q^{67} p^{44} + 692160639\, q^{63} p^{24}$$
$$+ 440614309\, q^{63} p^{23} + 442523076448\, p^{87} q^{51} + 73967939677\, p^{86} q^{42} + 833497723715\, p^{87} q^{55} + 186152185164\, p^{86} q^{46}$$
$$+ 2145279071980\, p^{88} q^{64} + 2555112841\, p^{82} q^{30} + 12364622561\, p^{84} q^{35} + 1605866422\, q^{63} p^{26} + 266434892\, q^{64} p^{22}$$
$$+ 117331155807\, q^{66} p^{40} + 4949247915\, q^{64} p^{29} + 9574741\, q^{61} p^{16} + 5026408\, q^{60} p^{15} + 56361164\, q^{63} p^{19} + 156437005\, p^{80} q^{131}$$
$$+ 142875525\, p^{79} q^{131} + 1064647844\, q^{63} p^{25} + 24775227663\, q^{80} p^{36} + 3010564726\, q^{102} p^{40} + 5962458925\, q^{71} p^{30}$$
$$+ 5652441389\, p^{108} q^{120} + 3443317939\, q^{64} p^{28} + 1024895857\, q^{65} p^{25} + 248\, q^{46} p^{5} + 1262\, q^{47} p^{6} + 11\, p^{49} q^{4} + 2534045063872\, p^{81} q^{61}$$
$$+ 3031383748349\, p^{81} q^{63} + 2780141380106\, p^{81} q^{62} + 1242873282473\, p^{53} q^{70} + 9665590125\, q^{66} p^{31} + 2408363621041\, p^{94} q^{84}$$
$$+ 43260574488\, q^{66} p^{36} + 32834422165\, q^{66} p^{35} + 18267632828\, q^{66} p^{33} + 24637839689\, q^{66} p^{34} + 13375722339\, q^{66} p^{32}$$
$$+ 92809545852\, q^{66} p^{39} + 72701173766\, q^{66} p^{38} + 56379830676\, q^{67} p^{37} + 43104207963\, q^{65} p^{36} + 372796\, p^{70} q^{13}$$
$$+ 1034659367503\, p^{58} q^{56} + 816151\, p^{71} q^{14} + 3974796888115\, p^{66} q^{69} + 4199102117817\, p^{85} q^{85} + 3548771845028\, p^{89} q^{84}$$
$$+ 3323747240756\, p^{90} q^{84} + 2724356080581\, p^{60} q^{71} + 412573895\, p^{67} q^{126} + 306277468\, q^{104} p^{35} + 3009521649035\, p^{91} q^{85}$$
$$+ 31438830962\, p^{112} q^{108} + 1813708547299\, p^{56} q^{71} + 860588798\, p^{112} q^{45} + 860\, p^{73} q^{143} + 1305436151357\, p^{87} q^{99}$$
$$+ 211284340022\, p^{92} q^{50} + 3280\, p^{62} q^{8} + 1975563564909\, p^{84} q^{96} + 2372546741\, q^{113} p^{50} + 4004\, p^{129} q^{146} + 3584\, p^{130} q^{146} + 99\, p^{115} q^{149}$$
$$+ 2308\, p^{124} q^{147} + 187\, p^{124} q^{149} + 193\, p^{125} q^{149} + 2210\, p^{125} q^{147} + 1686\, p^{129} q^{147} + 1822\, p^{128} q^{147} + 2088\, p^{126} q^{147} + 1964\, p^{127} q^{147}$$
$$+ 2465\, p^{122} q^{147} + 5317\, p^{126} q^{146} + 4878\, p^{127} q^{146} + 6082\, p^{135} q^{144} + 7585\, p^{130} q^{145} + 5662\, p^{132} q^{145} + 6596\, p^{131} q^{145} + 52819\, p^{69} q^{11}$$
$$+ 1882090487779\, p^{96} q^{86} + 19184953\, q^{134} p^{77} + 508617425101\, q^{77} p^{48} + 718176095921\, q^{77} p^{50} + 984097927047\, q^{77} p^{52}$$
$$+ 843774393664\, q^{77} p^{51} + 1139554576522\, q^{77} p^{53} + 1310327814752\, q^{77} p^{54} + 1448784208390\, q^{78} p^{55} + 606706915361\, q^{77} p^{49}$$
$$+ 2206222\, p^{124} q^{43} + 6515\, p^{123} q^{146} + 6866\, p^{122} q^{146} + 6145\, p^{124} q^{146} + 17671791468\, p^{115} q^{108} + 27748949046\, p^{110} q^{111}$$
$$+ 794708378192\, p^{103} q^{80} + 741027046902\, p^{103} q^{88} + 206500021060\, p^{107} q^{99} + 244447892931\, p^{107} q^{97} + 58485\, p^{144} q^{112}$$
$$+ 9766\, p^{145} q^{128} + 270985070\, p^{99} q^{131} + 277904115\, p^{98} q^{131} + 283294727\, p^{97} q^{131} + 289519396\, p^{94} q^{131} + 289150782\, p^{95} q^{131}$$
$$+ 262645561\, p^{100} q^{131} + 177647078\, p^{97} q^{132} + 2081145527803\, p^{95} q^{75} + 6268105\, p^{79} q^{18} + 34417298\, p^{81} q^{21} + 54118877\, p^{82} q^{22}$$
$$+ 22063\, p^{67} q^{10} + 2027158084329\, p^{96} q^{82} + 34364906\, p^{132} q^{118} + 214229924\, p^{129} q^{73} + 59178576\, p^{132} q^{114} + 82409827\, p^{132} q^{111}$$
$$+ 807084067\, p^{126} q^{72} + 1080189431\, p^{128} q^{92} + 94090965\, p^{122} q^{51} + 55410067177\, p^{89} q^{116} + 54462200230\, p^{90} q^{116}$$

$$+ 1252745354\, p^{125} q^{72} + 1617598729\, p^{127} q^{92} + 148657505\, p^{121} q^{51} + 53223193996\, p^{91} q^{116} + 51712766429\, p^{92} q^{116} + 5\, q^{40} p^{3}$$
$$+ 2889922203527\, p^{76} q^{92} + 41096787737\, p^{76} q^{116} + 43544371898\, p^{77} q^{116} + 152946094861\, p^{102} q^{107} + 30\, q^{45} p^{4} + 9191631056\, p^{114} q^{58}$$
$$+ 42062678811\, p^{117} q^{90} + 387085228836\, p^{95} q^{105} + 180\, q^{48} p^{5} + 240498273\, p^{128} q^{70} + 220484373361\, p^{88} q^{110} + 224338372365\, p^{87} q^{110}$$
$$+ 226961228260\, p^{86} q^{110} + 45865687182\, p^{78} q^{116} + 48027771101\, p^{79} q^{116} + 121199245096\, p^{104} q^{107} + 327127329\, p^{122} q^{56}$$
$$+ 1016119998\, p^{124} q^{67} + 161608368\, p^{128} q^{117} + 751715474\, p^{124} q^{65} + 22462\, q^{129} p^{41} + 3\, p^{151} q^{125} + 1983204811\, p^{110} q^{123} + 12\, p^{149} q^{148}$$
$$+ 7\, p^{148} q^{150} + 5\, p^{149} q^{150} + 4\, p^{150} q^{150} + 2\, p^{151} q^{150} + 5\, p^{150} q^{149} + 4\, p^{151} q^{147} + 5\, p^{144} q^{151} + 6\, p^{142} q^{151} + 6\, p^{143} q^{151} + 431\, p^{94} q^{13}$$
$$+ 240285779\, p^{124} q^{121} + 37084044\, q^{115} p^{39} + 54716357\, q^{115} p^{40} + 79391428\, q^{115} p^{41} + 6770805005\, p^{67} q^{30} + 98300531\, p^{63} q^{20}$$
$$+ 454207890\, p^{92} q^{130} + 257373442\, p^{88} q^{131} + 3887\, p^{108} q^{20} + 291682288580\, p^{97} q^{56} + 335054173781\, p^{98} q^{58} + 424050996638\, p^{61} q^{99}$$
$$+ 833497723715\, p^{66} q^{98} + 2087\, p^{41} q^{6} + 1010315443\, p^{128} q^{97} + 1078483922\, p^{128} q^{93} + 697742\, p^{52} q^{12} + 308987\, p^{51} q^{11}$$
$$+ 1493207\, p^{53} q^{13} + 3050189\, p^{54} q^{14} + 8030549\, q^{132} p^{64} + 6431625\, q^{132} p^{63} + 4002949\, q^{132} p^{61} + 5100489\, q^{132} p^{62}$$
$$+ 37476114790\, p^{42} q^{45} + 51061180965\, p^{43} q^{46} + 308117588919\, p^{87} q^{49} + 3745360812217\, p^{89} q^{77} + 3514205545227\, p^{90} q^{78}$$
$$+ 14725212450\, p^{36} q^{47} + 10384930098\, p^{35} q^{46} + 418945525\, p^{54} q^{23} + 746\, p^{61} q^{7} + 47828962\, q^{125} p^{54} + 279829243422\, p^{105} q^{67}$$
$$+ 26097929534\, p^{102} q^{48} + 1696614011\, p^{28} q^{47} + 4589574705\, p^{31} q^{48} + 18404121131\, p^{37} q^{47} + 2543434552\, p^{29} q^{48} + 308909746\, p^{23} q^{48}$$
$$+ 3437762269\, p^{30} q^{48} + 715382914\, p^{25} q^{49} + 204930267\, p^{22} q^{48} + 133226764\, p^{21} q^{48} + 104896974\, p^{91} q^{26} + 31263062\, p^{63} q^{18}$$
$$+ 4762572\, p^{61} q^{15} + 1691264088\, p^{120} q^{116} + 1972908142\, q^{115} p^{52} + 10139173\, p^{123} q^{133} + 1975563564909\, p^{96} q^{84} + 571725\, p^{140} q^{121}$$
$$+ 243\, p^{106} q^{17} + 40\, p^{146} q^{82} + 5711678\, q^{113} p^{33} + 2434996721\, q^{119} p^{60} + 18404121131\, p^{116} q^{106} + 58315039149\, p^{103} q^{112}$$
$$+ 78046552978\, p^{102} q^{111} + 86175401123\, p^{101} q^{111} + 66349607676\, p^{105} q^{110} + 4960249\, q^{133} p^{65} + 4962673188\, p^{90} q^{124}$$
$$+ 552422765\, p^{115} q^{125} + 590414486\, q^{117} p^{50} + 409735357\, q^{115} p^{46} + 5156362068104\, p^{83} q^{79} + 1844717848143\, p^{89} q^{95}$$
$$+ 2006864460889\, p^{83} q^{96} + 1752227739198\, p^{90} q^{95} + 2107047484928\, p^{62} q^{61} + 2240172198336\, p^{63} q^{61} + 1913405648270\, p^{59} q^{63}$$
$$+ 1955797910423\, p^{60} q^{62} + 2107047484928\, p^{61} q^{62} + 2264351011197\, p^{95} q^{80} + 1632406\, p^{65} q^{14} + 768076\, p^{64} q^{13}$$
$$+ 19544068942\, p^{94} q^{41} + 2894755544\, p^{92} q^{34} + 27887424\, p^{86} q^{22} + 1248585797225\, p^{100} q^{82} + 1230205953594\, p^{100} q^{84}$$
$$+ 4711991036\, q^{113} p^{53} + 3783822074\, q^{113} p^{52} + 5815609083\, q^{113} p^{54} + 7115791979\, q^{113} p^{55} + 8633684287\, q^{113} p^{56}$$
$$+ 269792152267\, p^{90} q^{50} + 4632\, p^{60} q^{8} + 360405709563\, p^{48} q^{83} + 561492128\, p^{69} q^{24} + 65440254214\, p^{73} q^{38} + 1740595806437\, p^{76} q^{56}$$
$$+ 15854752910\, p^{72} q^{33} + 1300432374\, p^{70} q^{26} + 20823650108\, p^{73} q^{34} + 133532370563\, p^{74} q^{41} + 4769962081064\, p^{71} q^{69}$$

$$+ 456996530\, p^{129}\, q^{105} + 451741312\, p^{124}\, q^{62} + 1556562412\, p^{126}\, q^{79} + 2559\, p^{34}\, q^{6} + 613055440\, p^{47}\, q^{25} + 1226209556\, p^{47}\, q^{27}$$
$$+ 116510745\, p^{46}\, q^{21} + 423302514\, p^{47}\, q^{24} + 873630781\, p^{47}\, q^{26} + 7900782080\, p^{48}\, q^{33} + 3437762269\, p^{48}\, q^{30} + 2543434552\, p^{48}\, q^{29}$$
$$+ 6055672232\, p^{48}\, q^{32} + 4589574705\, p^{48}\, q^{31} + 10197712473\, p^{48}\, q^{34} + 13027057410\, p^{48}\, q^{35} + 18315285989\, p^{49}\, q^{36} + 296455\, p^{40}\, q^{11}$$
$$+ 636527\, p^{41}\, q^{12} + 136081\, p^{40}\, q^{10} + 1312041\, p^{42}\, q^{13} + 27019789\, p^{45}\, q^{18} + 8886411\, p^{44}\, q^{16} + 28608886746\, p^{49}\, q^{38}$$
$$+ 52236853813\, p^{49}\, q^{41} + 74861373047\, p^{49}\, q^{43} + 62784656633\, p^{49}\, q^{42} + 35270379971\, p^{49}\, q^{39} + 22997490513\, p^{49}\, q^{37}$$
$$+ 35960238\, p^{59}\, q^{18} + 5686253\, p^{57}\, q^{15} + 55359\, p^{38}\, q^{9} + 7857\, p^{36}\, q^{7} + 21753\, p^{37}\, q^{8} + 88568456245\, p^{49}\, q^{44} + 116994038094\, p^{50}\, q^{45}$$
$$+ 43105301647\, p^{49}\, q^{40} + 15206466\, p^{44}\, q^{17} + 2608683\, p^{43}\, q^{14} + 69635032\, p^{45}\, q^{20} + 43921848\, p^{45}\, q^{19} + 177606462\, p^{46}\, q^{22}$$
$$+ 265459183\, p^{46}\, q^{23} + 1696614011\, p^{47}\, q^{28} + 4756157\, p^{43}\, q^{15} + 44324879234\, p^{43}\, q^{45} + 60055444824\, p^{44}\, q^{46} + 6055672232\, p^{32}\, q^{48}$$
$$+ 22791827684\, p^{38}\, q^{47} + 1026765320\, p^{26}\, q^{49} + 3521642593183\, p^{89}\, q^{74} + 2495708733004\, p^{89}\, q^{67} + 3145892759301\, p^{89}\, q^{71}$$
$$+ 2667820814274\, p^{89}\, q^{68} + 3285242905652\, p^{89}\, q^{72} + 490248103\, q^{49}\, p^{24} + 330072801\, q^{49}\, p^{23} + 940584456381\, p^{63}\, q^{95}$$
$$+ 846199371303\, p^{62}\, q^{95} + 502269000\, p^{105}\, q^{37} + 175642133\, p^{103}\, q^{33} + 17996640711\, p^{109}\, q^{54} + 58222844\, p^{102}\, q^{30} + 59876455\, p^{96}\, q^{27}$$
$$+ 10359712712\, p^{104}\, q^{46} + 26097929534\, p^{105}\, q^{51} + 60055444824\, p^{107}\, q^{109} + 5523475487\, p^{102}\, q^{42} + 13284105208\, p^{104}\, q^{47}$$
$$+ 794708378192\, p^{80}\, q^{103} + 2159095314300\, p^{73}\, q^{94} + 49954471042\, p^{116}\, q^{93} + 19544068942\, p^{112}\, q^{59} + 39822752652\, p^{45}\, q^{96}$$
$$+ 31089065819\, p^{44}\, q^{96} + 22302\, p^{114}\, q^{145} + 1262\, p^{106}\, q^{147} + 104\, p^{102}\, q^{148} + 78276\, p^{122}\, q^{143} + 82875958941\, p^{49}\, q^{97}$$
$$+ 1038888240736\, p^{64}\, q^{95} + 5523475487\, q^{111}\, p^{51} + 3602690240\, q^{110}\, p^{48} + 33441537878\, q^{110}\, p^{59} + 4613671594\, q^{110}\, p^{49}$$
$$+ 5850499219\, q^{110}\, p^{50} + 1204302270\, q^{109}\, p^{43} + 882263907\, q^{109}\, p^{42} + 1623545552\, q^{109}\, p^{44} + 121343\, p^{124}\, q^{142} + 136768\, p^{123}\, q^{142}$$
$$+ 107759\, p^{118}\, q^{143} + 126660\, p^{115}\, q^{143} + 179192289\, p^{132}\, q^{96} + 280422152\, p^{91}\, q^{131} + 218044506\, q^{49}\, p^{22} + 13748880354\, q^{83}\, p^{35}$$
$$+ 41\, p^{137}\, q^{47} + 2017085784557\, p^{94}\, q^{89} + 294317004302\, p^{45}\, q^{62} + 350830292978\, p^{46}\, q^{62} + 414984559524\, p^{47}\, q^{62}$$
$$+ 487192099477\, p^{48}\, q^{62} + 7267932194\, p^{79}\, q^{32} + 5062179511\, p^{79}\, q^{31} + 1557049909185\, p^{84}\, q^{58} + 33328319300\, p^{80}\, q^{37}$$
$$+ 1748173411233\, p^{84}\, q^{59} + 835610\, q^{95}\, p^{20} + 1211608686204\, p^{89}\, q^{99} + 7784271\, p^{132}\, q^{126} + 2863679831\, q^{117}\, p^{57} + 3462636430\, q^{117}\, p^{58}$$
$$+ 4867291633\, q^{118}\, p^{62} + 4140072670\, q^{118}\, p^{61} + 34776440\, p^{122}\, q^{130} + 49741463\, p^{118}\, q^{131} + 2206222\, q^{110}\, p^{29} + 1930842408835\, p^{65}\, q^{58}$$
$$+ 21813718875\, q^{95}\, p^{42} + 539960036063\, p^{49}\, q^{61} + 23893040733\, p^{62}\, q^{34} + 31547045878\, p^{62}\, q^{35} + 440614309\, p^{90}\, q^{130}$$
$$+ 448688543\, p^{91}\, q^{130} + 339732379870\, p^{45}\, q^{70} + 17887905372\, p^{62}\, q^{33} + 1073175468021\, p^{64}\, q^{53} + 254016292959\, p^{63}\, q^{44}$$
$$+ 289519396\, p^{59}\, q^{22} + 1115899\, q^{94}\, p^{20} + 9436572\, q^{94}\, p^{23} + 2386333\, q^{94}\, p^{21} + 4852241\, q^{94}\, p^{22} + 43955970957\, p^{86}\, q^{40}$$

$$+ 33343857663\, p^{86}\, q^{39} + 20770816166\, p^{85}\, q^{37} + 57318978932\, p^{86}\, q^{41} + 6265733281\, p^{84}\, q^{33} + 361578614068\, p^{89}\, q^{51}$$
$$+ 151313543876\, p^{88}\, q^{46} + 1799756826379\, p^{90}\, q^{64} + 689878038773\, p^{89}\, q^{55} + 4842845978670\, p^{70}\, q^{80} + 30826981765\, q^{91}\, p^{41}$$
$$+ 51978374820\, q^{91}\, p^{43} + 84175217047\, q^{91}\, p^{45} + 2798086580284\, p^{62}\, q^{66} + 3117938360040\, p^{63}\, q^{67} + 1252745354\, p^{72}\, q^{125} + 51\, p^{99}\, q^{148}$$
$$+ 40\, p^{98}\, q^{148} + 29\, p^{97}\, q^{148} + 11\, p^{94}\, q^{148} + 15\, p^{95}\, q^{148} + 22462\, p^{112}\, q^{24} + 12521095403\, p^{116}\, q^{109} + 4\, q^{142}\, p^{59} + 1247252063464\, p^{53}\, q^{72}$$
$$+ 39190882772\, p^{36}\, q^{72} + 3491222480\, p^{74}\, q^{29} + 2352365669\, p^{74}\, q^{28} + 3594135\, p^{65}\, q^{15} + 38830982845\, p^{36}\, q^{60} + 168492161511\, p^{102}\, q^{58}$$
$$+ 7732836135\, q^{122}\, p^{80} + 281707218406\, p^{45}\, q^{61} + 165573587721\, p^{42}\, q^{62} + 234866996983\, p^{44}\, q^{61} + 159311354520\, p^{42}\, q^{61}$$
$$+ 194239740319\, p^{43}\, q^{61} + 1634148538077\, p^{68}\, q^{94} + 93959\, p^{138}\, q^{135} + 88564194930\, p^{39}\, q^{63} + 108125722377\, p^{40}\, q^{62}$$
$$+ 134396140090\, p^{41}\, q^{62} + 3463241565\, p^{90}\, q^{125} + 11\, p^{147}\, q^{86} + 153\, p^{148}\, q^{104} + 212310\, q^{115}\, p^{29} + 409194\, q^{115}\, p^{30} + 180586\, q^{114}\, p^{28}$$
$$+ 18536144560\, p^{116}\, q^{67} + 1422797457\, p^{85}\, q^{127} + 1557253201\, p^{88}\, q^{127} + 1520037785\, p^{87}\, q^{127} + 1474974338\, p^{86}\, q^{127}$$
$$+ 16298988713\, p^{107}\, q^{116} + 14335823400\, p^{108}\, q^{116} + 34981124894\, p^{102}\, q^{115} + 35862469597\, p^{99}\, q^{116} + 14706\, p^{140}\, q^{68} + 8082\, p^{138}\, q^{59}$$
$$+ 21753\, p^{145}\, q^{116} + 19051369\, p^{131}\, q^{65} + 27887424\, p^{131}\, q^{67} + 8178532\, p^{129}\, q^{56} + 36065772680\, p^{107}\, q^{112} + 52926525\, p^{104}\, q^{31}$$
$$+ 34834111077\, p^{113}\, q^{65} + 53914589733\, p^{114}\, q^{72} + 465818595\, p^{119}\, q^{123} + 52027016366\, p^{44}\, q^{45} + 70107386099\, p^{45}\, q^{46} + 7434\, p^{41}\, q^{7}$$
$$+ 859162708231\, p^{92}\, q^{59} + 2071033431119\, p^{93}\, q^{70} + 67350495232\, p^{89}\, q^{43} + 2474406398\, p^{115}\, q^{53} + 1712087325\, p^{114}\, q^{50}$$
$$+ 27975925782\, p^{39}\, q^{47} + 2\, q^{43}\, p^{3} + 34044715571\, p^{40}\, q^{47} + 7900782080\, p^{33}\, q^{48} + 9527550720\, p^{67}\, q^{31} + 689733756888\, p^{70}\, q^{49}$$
$$+ 3707105576935\, p^{71}\, q^{64} + 591569\, p^{56}\, q^{12} + 1547\, p^{45}\, q^{6} + 10197712473\, p^{34}\, q^{48} + 13027057410\, p^{35}\, q^{48} + 3762355143\, p^{30}\, q^{49}$$
$$+ 1064647844\, p^{63}\, q^{25} + 1772283403419\, p^{69}\, q^{56} + 2775379116\, p^{29}\, q^{49} + 2020656649\, p^{28}\, q^{49} + 18329716982\, p^{65}\, q^{33}$$
$$+ 280422152\, p^{62}\, q^{22} + 765498705\, p^{25}\, q^{50} + 1450974575\, p^{27}\, q^{49} + 308955014\, p^{124}\, q^{60} + 562484011\, p^{125}\, q^{66} + 45968545\, p^{121}\, q^{47}$$
$$+ 208499594\, p^{97}\, q^{30} + 609118735\, p^{98}\, q^{33} + 8015957767\, q^{94}\, p^{38} + 2066023868415\, p^{72}\, q^{94} + 655062973535\, q^{104}\, p^{87}$$
$$+ 689733756888\, q^{104}\, p^{83} + 28080120\, p^{135}\, q^{88} + 335241435087\, p^{92}\, q^{107} + 337131442439\, p^{82}\, q^{108} + 183394757916\, p^{72}\, q^{109}$$
$$+ 10951172666\, q^{119}\, p^{71} + 13186992878\, q^{119}\, p^{73} + 15487568551\, q^{119}\, p^{75} + 14335224687\, q^{119}\, p^{74} + 16630635099\, q^{119}\, p^{76}$$
$$+ 18832228532\, q^{119}\, p^{78} + 17750382076\, q^{119}\, p^{77} + 583023770\, p^{101}\, q^{129} + 435585011\, q^{114}\, p^{45} + 238240212\, q^{113}\, p^{42}$$
$$+ 319824730\, q^{114}\, p^{44} + 168832104\, q^{113}\, p^{41} + 59369140649\, p^{63}\, q^{110} + 51978374820\, p^{62}\, q^{110} + 11282700204\, p^{53}\, q^{110}$$
$$+ 84962275314\, p^{66}\, q^{110} + 7348733847\, p^{51}\, q^{110} + 220466388291\, p^{75}\, q^{109} + 94577684\, q^{133}\, p^{89} + 98300531\, q^{133}\, p^{90} + 101550230\, q^{133}\, p^{91}$$
$$+ 104270261\, q^{133}\, p^{92} + 32106084\, q^{133}\, p^{76} + 6611946\, q^{116}\, p^{36} + 57318978932\, q^{86}\, p^{41} + 5361175607\, p^{88}\, q^{34} + 296374507\, p^{85}\, q^{26}$$

$$+ 26873379879\, p^{113} q^{63} + 3602690240\, p^{110} q^{48} + 43955970957\, p^{113} q^{67} + 407885367792\, p^{82} q^{107} + 487679240292\, p^{106} q^{85}$$
$$+ 4960249\, p^{88} q^{20} + 2746328653581\, p^{79} q^{93} + 35375361770\, p^{90} q^{41} + 20185993322\, p^{90} q^{39} + 12653534894\, p^{89} q^{37}$$
$$+ 3742167855\, p^{88} q^{33} + 59565942\, q^{134} p^{102} + 57511478\, q^{134} p^{103} + 1037268221783\, p^{99} q^{92} + 1691688316779\, p^{92} q^{94}$$
$$+ 1804454185748\, p^{91} q^{94} + 609118735\, q^{98} p^{33} + 1539022066\, q^{99} p^{36} + 401973850\, q^{98} p^{32} + 5834782993\, p^{117} q^{61}$$
$$+ 19861514429\, p^{119} q^{79} + 114699197\, p^{126} q^{122} + 675498389703\, q^{104} p^{80} + 663251126648\, q^{104} p^{79} + 1640558610370\, p^{97} q^{87}$$
$$+ 451886360455\, p^{58} q^{96} + 1243921719982\, p^{66} q^{95} + 948725891723\, p^{75} q^{101} + 76285918\, p^{111} q^{37} + 26916835\, p^{109} q^{33}$$
$$+ 19816464\, p^{135} q^{112} + 973408212352\, p^{99} q^{93} + 1085608183463\, p^{98} q^{93} + 9266026\, p^{81} q^{19} + 1228941683285\, p^{98} q^{91}$$
$$+ 1819290086238\, p^{97} q^{81} + 1912363990217\, p^{96} q^{76} + 1958550557516\, p^{96} q^{77} + 1720327850013\, p^{96} q^{73} + 1514259357547\, p^{97} q^{89}$$
$$+ 1792335104275\, p^{96} q^{74} + 1189967895406\, p^{96} q^{67} + 32192\, p^{125} q^{36} + 3050189\, p^{139} q^{99} + 869522\, p^{140} q^{117} + 1464815\, p^{134} q^{63}$$
$$+ 378634726\, p^{106} q^{37} + 132621798\, p^{104} q^{33} + 13798663099\, p^{110} q^{54} + 43630227\, p^{103} q^{30} + 124094489478\, p^{110} q^{99}$$
$$+ 145349343026\, p^{110} q^{97} + 5060\, p^{74} q^{10} + 123\, p^{60} q^{6} + 185096946139\, p^{93} q^{50} + 2711\, p^{63} q^{8} + 44338\, p^{70} q^{11} + 1692963010006\, p^{97} q^{86}$$
$$+ 10426889\, q^{59} p^{16} + 50402772\, p^{73} q^{20} + 724201170872\, p^{83} q^{52} + 615292712682\, p^{83} q^{51} + 110719\, p^{64} q^{11} + 835610\, p^{133} q^{58}$$
$$+ 20747\, p^{144} q^{94} + 20886\, p^{145} q^{109} + 75\, p^{130} q^{35} + 4878\, p^{146} q^{127} + 260076\, p^{132} q^{52} + 1712294\, p^{136} q^{71} + 4482975\, p^{138} q^{91} + 37\, p^{101} q^{14}$$
$$+ 2432878\, p^{138} q^{84} + 732726\, p^{132} q^{55} + 2194\, p^{117} q^{25} + 69364\, p^{127} q^{40} + 1062535\, p^{135} q^{65} + 107147948707\, p^{82} q^{42}$$
$$+ 18192092466\, p^{80} q^{35} + 434141240358\, p^{83} q^{49} + 2835018430904\, p^{84} q^{64} + 3794156663\, p^{78} q^{30} + 1130516744269\, p^{83} q^{55}$$
$$+ 261387975406\, p^{82} q^{46} + 17416\, q^{98} p^{17} + 118850\, q^{107} p^{23} + 1111522\, q^{107} p^{26} + 4845501\, q^{108} p^{29} + 264324\, q^{107} p^{24} + 19184953\, p^{76} q^{19}$$
$$+ 65\, p^{41} q^{4} + 283294727\, p^{131} q^{97} + 133226764\, p^{132} q^{105} + 104896974\, p^{127} q^{62} + 288168626\, p^{131} q^{93} + 188599514\, p^{129} q^{72}$$
$$+ 20666911\, p^{125} q^{51} + 285116967\, p^{131} q^{92} + 664353454\, p^{48} q^{25} + 1338137494\, p^{48} q^{27} + 124987556\, p^{47} q^{21} + 456996530\, p^{48} q^{24}$$
$$+ 950136160\, p^{48} q^{26} + 8717911286\, p^{49} q^{33} + 3762355143\, p^{49} q^{30} + 2775379116\, p^{49} q^{29} + 6664424528\, p^{49} q^{32} + 5037199152\, p^{49} q^{31}$$
$$+ 11280963277\, p^{49} q^{34} + 14446268356\, p^{49} q^{35} + 20226890598\, p^{50} q^{36} + 307877\, p^{41} q^{11} + 663672\, p^{42} q^{12} + 139533\, p^{41} q^{10}$$
$$+ 1371906\, p^{43} q^{13} + 28721937\, p^{46} q^{18} + 9388537\, p^{45} q^{16} + 31737248719\, p^{50} q^{38} + 58315039149\, p^{50} q^{41} + 83902929956\, p^{50} q^{43}$$
$$+ 70230368899\, p^{50} q^{42} + 39211532926\, p^{50} q^{39} + 25455768590\, p^{50} q^{37} + 56803\, p^{39} q^{9} + 22124\, p^{38} q^{8} + 99455482050\, p^{50} q^{44}$$
$$+ 130753713108\, p^{51} q^{45} + 48022629290\, p^{50} q^{40} + 16172010\, p^{45} q^{17} + 2733173\, p^{44} q^{14} + 74822047\, p^{46} q^{20} + 46948554\, p^{46} q^{19}$$
$$+ 191389318\, p^{47} q^{22} + 287281517\, p^{47} q^{23} + 1857515070\, p^{48} q^{28} + 5021930\, p^{44} q^{15} + 671735479920\, p^{58} q^{93} + 81245418965\, p^{46} q^{46}$$

$$+ 41085234058\, p^{41} q^{47} + 3766750851502\, p^{69} q^{65} + 4084035029781\, p^{70} q^{66} + 16476805365\, p^{36} q^{48} + 5037199152\, p^{31} q^{49}$$
$$+ 2634326967629\, p^{69} q^{60} + 1975563564909\, p^{69} q^{57} + 1102608464\, p^{26} q^{50} + 3690082202078\, p^{89} q^{76} + 7970488\, p^{125} q^{48}$$
$$+ 3411121606538\, p^{89} q^{73} + 522632826\, q^{50} p^{24} + 341237325\, p^{63} q^{125} + 8532385251\, p^{100} q^{42} + 20664420645\, p^{102} q^{47}$$
$$+ 20138582347\, p^{115} q^{107} + 35759527537\, p^{95} q^{117} + 27222\, p^{87} q^{14} + 1539602713\, p^{107} q^{125} + 1930842408835\, p^{88} q^{95} + 92408996\, p^{108} q^{35}$$
$$+ 3946839\, p^{130} q^{131} + 2976891\, p^{131} q^{131} + 4875215\, p^{128} q^{132} + 4292344189215\, q^{79} p^{67} + 41\, p^{145} q^{76} + 248\, p^{148} q^{107} + 755\, p^{147} q^{102}$$
$$+ 746\, p^{146} q^{92} + 147\, p^{149} q^{134} + 705\, p^{148} q^{119} + 650\, p^{147} q^{101} + 6\, p^{141} q^{56} + p^{137} q^{44} + 51025890232\, p^{115} q^{75} + 3445001812\, p^{111} q^{49}$$
$$+ 1204302270\, p^{110} q^{44} + 56061199918\, p^{116} q^{85} + 7767352\, p^{121} q^{42} + 18\, p^{147} q^{87} + 42\, p^{150} q^{130} + 693068342\, p^{80} q^{128}$$
$$+ 301241688\, p^{76} q^{129} + 791442533307\, p^{102} q^{90} + 277697724384\, p^{100} q^{59} + 170129496546\, p^{101} q^{107} + 113265671\, q^{106} p^{34}$$
$$+ 92379916372\, q^{69} p^{39} + 1586381037438\, p^{74} q^{97} + 16713349\, q^{63} p^{17} + 29196\, q^{56} p^{9} + 39190882772\, p^{81} q^{117} + 9088304\, q^{62} p^{16}$$
$$+ 281707218406\, p^{92} q^{108} + 51262773\, q^{65} p^{19} + 66916\, q^{59} p^{10} + 76885240359\, p^{70} q^{112} + 39259563205\, p^{66} q^{113} + 90641175953\, p^{72} q^{112}$$
$$+ 70157019525\, p^{69} q^{112} + 83736987617\, p^{71} q^{112} + 679663829\, p^{117} q^{123} + 4740922559\, q^{67} p^{29} + 381885962\, q^{120} p^{53}$$
$$+ 297914576\, q^{120} p^{52} + 484641554\, q^{120} p^{54} + 609118735\, q^{120} p^{55} + 6770805005\, q^{67} p^{30} + 83\, q^{69} p^{7} + 85879890907\, p^{98} q^{50}$$
$$+ 909377298523\, p^{101} q^{74} + 573540776080\, p^{101} q^{67} + 866631882967\, p^{101} q^{73} + 825082501034\, p^{102} q^{89} + 984097927047\, p^{101} q^{76}$$
$$+ 1014959628596\, p^{101} q^{77} + 656944747443\, p^{103} q^{91} + 937058114669\, p^{102} q^{81} + 9297\, q^{55} p^{8} + 755\, q^{51} p^{6} + 29\, q^{56} p^{5}$$
$$+ 1748416589746\, p^{92} q^{66} + 3396588115\, p^{86} q^{32} + 741098799680\, p^{91} q^{57} + 85749462335\, p^{89} q^{44} + 4930555166816\, p^{84} q^{80}$$
$$+ 189915\, q^{59} p^{11} + 935890718\, q^{120} p^{57} + 83\, p^{52} q^{5} + 1786800\, p^{64} q^{14} + 844351\, p^{63} q^{13} + 81420\, q^{57} p^{10} + 3118759\, p^{83} q^{18}$$
$$+ 17788302\, p^{85} q^{21} + 2\, q^{54} p^{4} + 661139234\, q^{65} p^{24} + 8570845\, q^{63} p^{16} + 2096731\, q^{62} p^{14} + 2897\, q^{53} p^{7} + 42832106878\, q^{68} p^{36}$$
$$+ 9527550720\, q^{67} p^{31} + 24473134485\, q^{67} p^{34} + 13220024599\, q^{67} p^{32} + 49\, q^{108} p^{17} + 18101217318\, q^{67} p^{33} + 32691496237\, q^{67} p^{35}$$
$$+ 2248227\, q^{61} p^{14} + 1950075816931\, p^{93} q^{69} + 24556160\, p^{79} q^{20} + 19624675580\, p^{88} q^{38} + 90437930\, q^{65} p^{20} + 417367237\, q^{65} p^{23}$$
$$+ 154714016\, q^{65} p^{21} + 257373442\, q^{65} p^{22} + 247124573\, q^{66} p^{22} + 3216546160324\, p^{82} q^{91} + 486817\, q^{59} p^{12} + 117068618\, p^{126} q^{60}$$
$$+ 216406262\, p^{127} q^{66} + 17007800\, p^{123} q^{47} + 3267826803\, q^{67} p^{28} + 640418916\, q^{66} p^{24} + 1520037785\, q^{66} p^{26} + 3344794300\, q^{66} p^{28}$$
$$+ 2274788967\, q^{66} p^{27} + 996701657\, q^{66} p^{25} + 300763\, q^{113} p^{28} + 4837442950\, q^{66} p^{29} + 53918029\, q^{64} p^{19} + 94577684\, q^{64} p^{20}$$
$$+ 15780407\, q^{64} p^{17} + 29722777\, q^{64} p^{18} + 4192555\, q^{63} p^{15} + 26279\, q^{57} p^{9} + 998867\, q^{61} p^{13} + 173048\, q^{60} p^{11} + 450017\, q^{60} p^{12}$$
$$+ 13021456\, p^{135} q^{116} + 63281059\, p^{134} q^{94} + 4103016366\, q^{112} p^{51} + 487679240292\, q^{68} p^{47} + 8242\, q^{56} p^{8} + 8031181\, q^{64} p^{16}$$

$$+ 412937\, q^{61}\, p^{12} + 6359362124\, q^{114}\, p^{56} + 12710103144\, p^{32}\, q^{60} + 29870100797\, p^{35}\, q^{60} + 22727946681\, p^{34}\, q^{60} + 9523064680\, p^{31}\, q^{61}$$
$$+ 17097797470\, p^{33}\, q^{60} + 67\, p^{100}\, q^{148} + p^{97}\, q^{149} + 7315844845\, q^{122}\, p^{79} + 1398696680422\, p^{84}\, q^{99} + 1358909102561\, p^{89}\, q^{98}$$
$$+ 55410067177\, p^{116}\, q^{89} + 57368530591\, p^{115}\, q^{77} + 41194270193\, p^{117}\, q^{91} + 51749717957\, p^{116}\, q^{81} + 37552101509\, p^{115}\, q^{71}$$
$$+ 54265120517\, p^{115}\, q^{76} + 162275045511\, p^{78}\, q^{111} + 155656359524\, p^{77}\, q^{111} + 148441684262\, p^{76}\, q^{111} + 1557253201\, p^{127}\, q^{88}$$
$$+ 765498705\, p^{128}\, q^{103} + 924998\, q^{76}\, p^{15} + 16543077674\, p^{112}\, q^{58} + 69795361726\, p^{115}\, q^{90} + 644599104973\, q^{91}\, p^{56}$$
$$+ 741098799680\, q^{91}\, p^{57} + 1081208336254\, q^{91}\, p^{60} + 959696131989\, q^{91}\, p^{59} + 1487215827056\, q^{91}\, p^{63} + 1782481094105\, q^{91}\, p^{65}$$
$$+ 1748416589746\, q^{92}\, p^{66} + 1210170030100\, q^{91}\, p^{61} + 1633208423586\, q^{91}\, p^{64} + 1345822813942\, q^{91}\, p^{62} + 846199371303\, q^{91}\, p^{58}$$
$$+ 56387597841\, p^{98}\, q^{48} + 20567012\, p^{128}\, q^{127} + 184645612090\, p^{42}\, q^{69} + 1397487566\, p^{73}\, q^{125} + 3520651619604\, p^{69}\, q^{86}$$
$$+ 3705400657251\, p^{70}\, q^{86} + 4629030614119\, p^{75}\, q^{85} + 1946547\, p^{122}\, q^{40} + 93052700038\, p^{39}\, q^{68} + 111700731741\, p^{98}\, q^{111}$$
$$+ 793805748178\, p^{50}\, q^{68} + 278440566135\, p^{88}\, q^{49} + 279441109492\, p^{109}\, q^{85} + 2470694\, p^{91}\, q^{20} + 15353380746\, p^{111}\, q^{56}$$
$$+ 40315389537\, p^{112}\, q^{64} + 12728224151\, p^{111}\, q^{55} + 84744105001\, p^{114}\, q^{80} + 91897273728\, p^{114}\, q^{88} + 31737248719\, p^{115}\, q^{103}$$
$$+ 65997142854\, p^{115}\, q^{92} + 920195712278\, p^{51}\, q^{68} + 780241468727\, p^{50}\, q^{67} + 13803075\, p^{129}\, q^{58} + 184645612090\, p^{84}\, q^{111}$$
$$+ 36316104\, q^{133}\, p^{77} + q^{65}\, p^{5} + 23119373918\, p^{64}\, q^{114} + 669244827622\, p^{49}\, q^{67} + 4383190217\, q^{103}\, p^{42} + 10503710154\, q^{105}\, p^{47}$$
$$+ 9331129870\, p^{93}\, q^{122} + 8864366686\, p^{84}\, q^{34} + 509013517\, p^{81}\, q^{26} + 916370224009\, p^{69}\, q^{99} + 560692447120\, p^{65}\, q^{100}$$
$$+ 784526340320\, p^{67}\, q^{99} + 850456315768\, p^{68}\, q^{99} + 305689\, p^{64}\, q^{12} + 341991000035\, p^{81}\, q^{47} + 75763535910\, p^{80}\, q^{40}$$
$$+ 58254019001\, p^{80}\, q^{39} + 30115291\, p^{72}\, q^{19} + 3949002206510\, p^{84}\, q^{69} + 4145978573943\, p^{84}\, q^{70} + 118099284231\, p^{40}\, q^{68}$$
$$+ 5391783411735\, p^{80}\, q^{81} + 148466466314\, p^{41}\, q^{68} + 93481403854\, p^{47}\, q^{46} + 49180582989\, p^{42}\, q^{47} + 20641358576\, p^{37}\, q^{48}$$
$$+ 58407419920\, p^{43}\, q^{47} + 11613\, q^{106}\, p^{20} + 25620445229\, p^{38}\, q^{48} + 6664424528\, p^{32}\, q^{49} + 31517319944\, p^{39}\, q^{48} + 14446268356\, p^{35}\, q^{49}$$
$$+ 11280963277\, p^{34}\, q^{49} + 5493225488\, p^{31}\, q^{50} + 8717911286\, p^{33}\, q^{49} + 4091440622\, p^{30}\, q^{50} + 1674073788\, p^{27}\, q^{51} + 3009281158\, p^{29}\, q^{50}$$
$$+ 1563409751\, p^{27}\, q^{50} + 2184249384\, p^{28}\, q^{50} + 406256397\, p^{64}\, q^{125} + 2417224865122\, p^{82}\, q^{61} + 2899117394555\, p^{82}\, q^{63}$$
$$+ 2655425312842\, p^{82}\, q^{62} + 1364314283\, p^{127}\, q^{84} + 84962275314\, p^{87}\, q^{43} + 335590584076\, p^{88}\, q^{50} + 49136\, p^{118}\, q^{144} + 6293\, p^{58}\, q^{8}$$
$$+ 478305857\, p^{126}\, q^{114} + 250487831\, p^{126}\, q^{118} + 1009717755\, p^{126}\, q^{108} + 809506340\, p^{126}\, q^{110} + 1076083630457\, p^{101}\, q^{80}$$
$$+ 980109133676\, p^{101}\, q^{88} + 2\, q^{30}\, p^{2} + 23429\, p^{58}\, q^{9} + 3393105722264\, p^{82}\, q^{65} + 484155\, q^{127}\, p^{44} + 741120\, q^{127}\, p^{45} + 33589039\, p^{128}\, q^{125}$$
$$+ 524198007487\, p^{66}\, q^{101} + 573540776080\, p^{67}\, q^{101} + 15100\, q^{50}\, p^{8} + 34693922\, p^{91}\, q^{24} + 5318619616317\, p^{82}\, q^{79} + 26873379879\, p^{90}\, q^{40}$$

$$+ 182788860\, p^{65}\, q^{127} + 481403114317\, q^{103}\, p^{69} + 2367758231227\, p^{89}\, q^{92} + 20185993322\, p^{63}\, q^{114} + 272247115471\, p^{108}\, q^{75}$$
$$+ 729\, p^{117}\, q^{24} + 1087627\, p^{138}\, q^{78} + 1404971\, p^{140}\, q^{98} + 807958549407\, p^{82}\, q^{103} + 26341187005\, p^{96}\, q^{118} + 281\, q^{72}\, p^{8} + 17141\, q^{92}\, p^{15}$$
$$+ 34044715571\, p^{106}\, q^{113} + 3\, q^{53}\, p^{4} + 30230222857\, p^{98}\, q^{117} + 1440275\, q^{126}\, p^{45} + 743\, q^{114}\, p^{22} + 18772780933\, p^{114}\, q^{109}$$
$$+ 14335823400\, p^{116}\, q^{108} + 32681196888\, p^{110}\, q^{110} + 4900139\, q^{136}\, p^{120} + 2676991\, q^{137}\, p^{121} + 1034659367503\, p^{95}\, q^{97}$$
$$+ 40788531\, q^{133}\, p^{78} + 45496857\, q^{133}\, p^{79} + 448089072311\, p^{47}\, q^{64} + 1230501278548\, p^{57}\, q^{59} + 616923903455\, p^{64}\, q^{49}$$
$$+ 1078483922\, p^{60}\, q^{25} + 51749717957\, p^{37}\, q^{72} + 9337185026\, p^{68}\, q^{31} + 688847820444\, p^{71}\, q^{49} + 3756869503893\, p^{72}\, q^{64} + 558129\, p^{57}\, q^{12}$$
$$+ 715382914\, p^{49}\, q^{25} + 1450974575\, p^{49}\, q^{27} + 133226764\, p^{48}\, q^{21} + 490248103\, p^{49}\, q^{24} + 1026765320\, p^{49}\, q^{26} + 9557801869\, p^{50}\, q^{33}$$
$$+ 4091440622\, p^{50}\, q^{30} + 3009281158\, p^{50}\, q^{29} + 7287475444\, p^{50}\, q^{32} + 5493225488\, p^{50}\, q^{31} + 12398936223\, p^{50}\, q^{34} + 15916545331\, p^{50}\, q^{35}$$
$$+ 22195213571\, p^{51}\, q^{36} + 317451\, p^{42}\, q^{11} + 687136\, p^{43}\, q^{12} + 1424761\, p^{44}\, q^{13} + 30334872\, p^{47}\, q^{18} + 9855403\, p^{46}\, q^{16}$$
$$+ 34981124894\, p^{51}\, q^{38} + 64677300849\, p^{51}\, q^{41} + 93420948036\, p^{51}\, q^{43} + 78046552978\, p^{51}\, q^{42} + 43311657631\, p^{51}\, q^{39}$$
$$+ 27996151964\, p^{51}\, q^{37} + 110947026991\, p^{51}\, q^{44} + 145183406367\, p^{52}\, q^{45} + 53154272889\, p^{51}\, q^{40} + 17086925\, p^{46}\, q^{17} + 2844505\, p^{45}\, q^{14}$$
$$+ 79877946\, p^{47}\, q^{20} + 49863351\, p^{47}\, q^{19} + 204930267\, p^{48}\, q^{22} + 308909746\, p^{48}\, q^{23} + 2020656649\, p^{49}\, q^{28} + 5268252\, p^{45}\, q^{15}$$
$$+ 106808604360\, p^{48}\, q^{46} + 68832764580\, p^{44}\, q^{47} + 38436895550\, p^{40}\, q^{48} + 18315285989\, p^{36}\, q^{49} + 7287475444\, p^{32}\, q^{50}$$
$$+ 2346341016\, p^{28}\, q^{51} + 2025968741624\, p^{61}\, q^{85} + 3065576604901\, p^{65}\, q^{84} + 3295031346476\, p^{66}\, q^{84} + 19603706\, q^{128}\, p^{57}$$
$$+ 15884155\, q^{127}\, p^{54} + 84705375\, p^{121}\, q^{49} + 25\, q^{46}\, p^{4} + 211372\, q^{67}\, p^{12} + 19\, q^{47}\, p^{4} + 2009356708984\, p^{58}\, q^{66} + 2282370720362\, p^{59}\, q^{67}$$
$$+ 3228400029324\, p^{68}\, q^{63} + 3009521649035\, p^{68}\, q^{62} + 2788709074615\, p^{68}\, q^{61} + 3442687507804\, p^{68}\, q^{64} + 1697246789722\, p^{76}\, q^{97}$$
$$+ 1969\, p^{42}\, q^{6} + 676178\, p^{53}\, q^{12} + 297816\, p^{52}\, q^{11} + 1453029\, p^{54}\, q^{13} + 2977141\, p^{55}\, q^{14} + 539545143\, p^{124}\, q^{63} + 4749342423547\, p^{85}\, q^{77}$$
$$+ 4540256800113\, p^{86}\, q^{78} + 4410836103816\, p^{85}\, q^{73} + 4702050045707\, p^{85}\, q^{76} + 1809210\, p^{125}\, q^{44} + 5224927386\, p^{114}\, q^{55}$$
$$+ 183313223248\, p^{83}\, q^{111} + 209346202484\, p^{90}\, q^{110} + 2161449231324\, p^{84}\, q^{61} + 2605932004268\, p^{84}\, q^{63} + 2380694898770\, p^{84}\, q^{62}$$
$$+ 3065576604901\, p^{84}\, q^{65} + 91\, q^{105}\, p^{16} + 71274238874\, p^{101}\, q^{112} + 44324879234\, p^{108}\, q^{110} + 38200844765\, p^{110}\, q^{109}$$
$$+ 78048037677\, p^{100}\, q^{112} + 62784656633\, p^{104}\, q^{111} + 91855642097\, p^{98}\, q^{112} + 55756228780\, p^{105}\, q^{111} + 58407419920\, p^{106}\, q^{110}$$
$$+ 1324681802366\, p^{93}\, q^{96} + 9097616937\, p^{84}\, q^{122} + 1640558610370\, p^{87}\, q^{97} + 679853304310\, p^{49}\, q^{68} + 569838704653\, p^{48}\, q^{67}$$
$$+ 2138996617744\, p^{68}\, q^{58} + 29\, p^{30}\, q^{3} + 376153377670\, p^{78}\, q^{107} + 41\, p^{150}\, q^{135} + 77\, p^{149}\, q^{113} + 30\, p^{149}\, q^{108} + 8888102\, p^{101}\, q^{26}$$
$$+ 254016292959\, p^{90}\, q^{109} + 51312294595\, p^{66}\, q^{112} + 119561825131\, p^{67}\, q^{109} + 10349418659\, q^{74}\, p^{32} + 5400820041\, q^{73}\, p^{30}$$

$$+ 1160281095\, q^{72}\, p^{26} + 2490467\, p^{103}\, q^{25} + 18832228532\, q^{75}\, p^{34} + 1645576937272\, q^{78}\, p^{56} + 33198045\, p^{107}\, q^{32}$$
$$+ 194982521623\, q^{76}\, p^{43} + 155656359524\, q^{76}\, p^{42} + 242042273740\, q^{76}\, p^{44} + 349029569878\, q^{77}\, p^{46} + 297835350026\, q^{76}\, p^{45}$$
$$+ 9185984725\, p^{89}\, q^{36} + 70074431\, p^{120}\, q^{129} + 1856671863530\, q^{78}\, p^{57} + 2564848329634\, q^{78}\, p^{60} + 2317737594875\, q^{78}\, p^{59}$$
$$+ 3348357967556\, q^{78}\, p^{63} + 3879801891377\, q^{78}\, p^{65} + 4042150846101\, q^{79}\, p^{66} + 2820541855452\, q^{78}\, p^{61} + 3615114929506\, q^{78}\, p^{64}$$
$$+ 3082562589044\, q^{78}\, p^{62} + 2081145527803\, q^{78}\, p^{58} + 2564848329634\, p^{75}\, q^{93} + 982490156915\, p^{68}\, q^{98} + 3713050249\, q^{73}\, p^{29}$$
$$+ 2510245928\, q^{73}\, p^{28} + 1666984279\, q^{73}\, p^{27} + 922694422660\, p^{100}\, q^{92} + 116730589\, q^{112}\, p^{39} + 76285918\, q^{111}\, p^{37} + 6350779\, q^{67}\, p^{16}$$
$$+ 123103720944\, q^{76}\, p^{41} + 59392476928\, p^{46}\, q^{95} + 1813708547299\, p^{82}\, q^{97} + 96419380474\, q^{76}\, p^{40} + 34499832059\, q^{75}\, p^{36}$$
$$+ 45865687182\, q^{75}\, p^{37} + 60293125606\, q^{75}\, p^{38} + 593554989933\, p^{104}\, q^{90} + 659640826954\, p^{103}\, q^{74} + 626712966563\, p^{103}\, q^{73}$$
$$+ 616923903455\, p^{104}\, q^{89} + 718176095921\, p^{103}\, q^{76} + 742922184622\, p^{103}\, q^{77} + 487192099477\, p^{105}\, q^{91} + 684076692637\, p^{104}\, q^{81}$$
$$+ 555842015314\, p^{103}\, q^{71} + 694342418428\, p^{100}\, q^{96} + 72024693893\, p^{103}\, q^{54} + 2191212247\, p^{99}\, q^{37} + 4711991036\, p^{100}\, q^{40}$$
$$+ 3437198264\, p^{100}\, q^{39} + 669244827622\, p^{104}\, q^{86} + 655062973535\, p^{104}\, q^{87} + 663251126648\, p^{104}\, q^{79} + 11996597571\, q^{117}\, p^{66}$$
$$+ 13569383235\, q^{117}\, p^{67} + 22491112492\, q^{119}\, p^{82} + 675498389703\, p^{104}\, q^{80} + 637531757991\, p^{104}\, q^{88} + 13457575991\, p^{64}\, q^{32}$$
$$+ 2378478517\, p^{63}\, q^{27} + 9776541708\, p^{64}\, q^{31} + 669244827622\, p^{67}\, q^{49} + 132\, p^{35}\, q^{4} + 580\, p^{38}\, q^{5} + 739715504431\, p^{51}\, q^{80}$$
$$+ 107955471\, p^{59}\, q^{20} + 7004860224\, p^{63}\, q^{30} + 1616455194\, p^{62}\, q^{26} + 4962673188\, p^{63}\, q^{29} + 454207890\, p^{61}\, q^{23} + 1343438798950\, p^{67}\, q^{54}$$
$$+ 1550390268510\, p^{68}\, q^{55} + 403847329458\, p^{67}\, q^{46} + 903135283739\, p^{67}\, q^{51} + 1038054215100\, p^{67}\, q^{52} + 43104207963\, p^{65}\, q^{36}$$
$$+ 780241468727\, p^{67}\, q^{50} + 182363836713\, p^{66}\, q^{42} + 224338372365\, p^{66}\, q^{43} + 92809545852\, p^{66}\, q^{39} + 117331155807\, p^{66}\, q^{40}$$
$$+ 481566166283\, p^{67}\, q^{47} + 569838704653\, p^{67}\, q^{48} + 3463241565\, p^{63}\, q^{28} + 330990022252\, p^{66}\, q^{45} + 72131597620\, p^{65}\, q^{38}$$
$$+ 56051682444\, p^{65}\, q^{37} + 20262954\, p^{58}\, q^{17} + 51780\, p^{48}\, q^{9} + 18352\, p^{47}\, q^{8} + 222938822781\, p^{108}\, q^{96} + 2913\, p^{70}\, q^{9}$$
$$+ 1324681802366\, p^{96}\, q^{93} + 1821378981797\, p^{87}\, q^{96} + 17424759014\, p^{118}\, q^{102} + 20493641512\, p^{118}\, q^{100} + 375154208\, p^{92}\, q^{29}$$
$$+ 2950277\, p^{87}\, q^{19} + 243108567585\, p^{73}\, q^{108} + 56376649158\, q^{66}\, p^{37} + 32789260035\, q^{65}\, p^{35} + 981499904759\, p^{54}\, q^{83} + 27975823\, q^{99}\, p^{27}$$
$$+ 1357173\, q^{96}\, p^{21} + 4252064\, q^{97}\, p^{23} + 569858125687\, q^{105}\, p^{80} + 38957\, p^{111}\, q^{24} + 12779716\, p^{67}\, q^{17} + 943621844\, p^{128}\, q^{99} + 214\, q^{47}\, p^{5}$$
$$+ 288\, q^{45}\, p^{5} + 6988380553\, p^{86}\, q^{34} + 393989078\, p^{83}\, q^{26} + 65\, q^{41}\, p^{4} + 10023693\, q^{60}\, p^{16} + 256126\, p^{55}\, q^{11} + 2664199\, p^{58}\, q^{14}$$
$$+ 1287803\, p^{57}\, q^{13} + 32679156\, q^{62}\, p^{18} + 1248030720\, p^{101}\, q^{127} + 48484306115\, q^{55}\, p^{38} + 97415663\, q^{51}\, p^{20} + 12653534894\, p^{116}\, q^{64}$$
$$+ 28218947999\, p^{118}\, q^{80} + 109106301\, p^{133}\, q^{96} + 4625008282\, p^{115}\, q^{56} + 860588798\, q^{108}\, p^{41} + 1184951511\, q^{108}\, p^{42}$$

$$+ 99455482050\, p^{109}\, q^{103} + 177406582\, p^{60}\, q^{21} + 707680304\, p^{61}\, q^{24} + 11072287\, p^{57}\, q^{16} + 63281059\, p^{59}\, q^{19} + 128453\, p^{50}\, q^{10}$$
$$+ 146943419141\, p^{66}\, q^{41} + 24661443103\, p^{65}\, q^{34} + 32789260035\, p^{65}\, q^{35} + 1184922902976\, p^{67}\, q^{53} + 273627785788\, p^{66}\, q^{44}$$
$$+ 164965330815\, p^{45}\, q^{85} + 699783307531\, p^{102}\, q^{72} + 528214714103\, p^{102}\, q^{68} + 253025041\, p^{101}\, q^{131} + 175062073\, p^{98}\, q^{132}$$
$$+ 23315193\, p^{133}\, q^{118} + 126015576\, p^{130}\, q^{73} + 39333263\, p^{133}\, q^{114} + 53964010\, p^{133}\, q^{111} + 143067947\, p^{129}\, q^{70} + 1084175163063\, p^{101}\, q^{83}$$
$$+ 119565\, p^{132}\, q^{50} + 27174\, p^{142}\, q^{133} + 1349442\, p^{140}\, q^{97} + 78633\, p^{132}\, q^{49} + 21880\, p^{127}\, q^{38} + 571817194442\, p^{51}\, q^{84}$$
$$+ 3637917442865\, p^{66}\, q^{82} + 204522945231\, p^{46}\, q^{85} + 5588817365073\, p^{76}\, q^{80} + 121199245096\, p^{49}\, q^{46} + 80511189803\, p^{45}\, q^{47}$$
$$+ 93481403854\, p^{46}\, q^{47} + 46483093007\, p^{41}\, q^{48} + 55756228780\, p^{42}\, q^{48} + 22997490513\, p^{37}\, q^{49} + 66349607676\, p^{43}\, q^{48}$$
$$+ 28608886746\, p^{38}\, q^{49} + 9557801869\, p^{33}\, q^{50} + 35270379971\, p^{39}\, q^{49} + 43105301647\, p^{40}\, q^{49} + 25455768590\, p^{37}\, q^{50}$$
$$+ 13541142660\, p^{34}\, q^{51} + 20226890598\, p^{36}\, q^{50} + 12398936223\, p^{34}\, q^{50} + 15916545331\, p^{35}\, q^{50} + 3242485891\, p^{29}\, q^{51}$$
$$+ 4421381321\, p^{30}\, q^{51} + 5952851957\, p^{31}\, q^{51} + 6410813925\, p^{31}\, q^{52} + 7918467301\, p^{32}\, q^{51} + 10412288213\, p^{33}\, q^{51} + 2\, q^{82}\, p^{8}$$
$$+ 882263907\, p^{111}\, q^{44} + 2711\, p^{90}\, q^{145} + 3030585666\, p^{76}\, q^{29} + 2028021563\, p^{76}\, q^{28} + 2998609\, p^{67}\, q^{15} + 303977194278\, p^{92}\, q^{52}$$
$$+ 51061180965\, p^{110}\, q^{107} + 87340775409\, p^{72}\, q^{39} + 477040049773\, p^{73}\, q^{47} + 111729999141\, p^{72}\, q^{40} + 794708378192\, p^{73}\, q^{50}$$
$$+ 4388114102801\, p^{86}\, q^{82} + 317425954027\, q^{93}\, p^{53} + 223308551291\, q^{93}\, p^{51} + 715382914\, p^{128}\, q^{104} + 866528161\, p^{125}\, q^{69}$$
$$+ 1056257711\, p^{128}\, q^{95} + 986575643\, p^{125}\, q^{70} + 2470859\, p^{116}\, q^{34} + 3\, p^{151}\, q^{148} + 9\, p^{149}\, q^{149} + 7\, p^{150}\, q^{148} + 17\, p^{147}\, q^{149}$$
$$+ 2329646\, p^{112}\, q^{139} + p^{152}\, q^{142} + 40\, p^{148}\, q^{146} + 56939\, p^{144}\, q^{108} + 57822\, p^{144}\, q^{113} + 9259\, p^{135}\, q^{51} + 12\, p^{115}\, q^{20} + 3366\, p^{145}\, q^{135}$$
$$+ 4863317688086\, p^{72}\, q^{69} + 349029569878\, p^{76}\, q^{107} + 491072985017\, p^{84}\, q^{106} + 20567012\, p^{127}\, q^{128} + 34364906\, p^{118}\, q^{132}$$
$$+ 29423698\, p^{119}\, q^{132} + 24989348\, p^{120}\, q^{132} + 21045381\, p^{121}\, q^{132} + 20508480\, p^{131}\, q^{123} + 264324\, p^{107}\, q^{24} + 2807049214\, p^{125}\, q^{82}$$
$$+ 66295469\, p^{118}\, q^{44} + 183950195\, p^{131}\, q^{82} + 21234181\, p^{126}\, q^{53} + 10376121056\, p^{98}\, q^{121} + 551344\, p^{139}\, q^{125} + 830225\, p^{128}\, q^{47}$$
$$+ 3274553\, p^{138}\, q^{115} + p^{56}\, q^{4} + 3577492\, p^{138}\, q^{114} + 2405403\, p^{138}\, q^{118} + 4474348\, p^{138}\, q^{111} + 6552638\, p^{134}\, q^{70} + 11224960\, p^{137}\, q^{103}$$
$$+ 14669862\, p^{134}\, q^{75} + 63\, p^{94}\, q^{12} + 9127075\, p^{133}\, q^{68} + 4852241\, p^{131}\, q^{59} + 1233418\, p^{130}\, q^{52} + 7824325\, p^{134}\, q^{71} + 17588612\, p^{136}\, q^{91}$$
$$+ 150\, p^{99}\, q^{14} + 10743631\, p^{136}\, q^{84} + 3183305\, p^{130}\, q^{55} + 9007\, p^{115}\, q^{25} + 300763\, p^{125}\, q^{40} + 4960249\, p^{133}\, q^{65} + 8360988\, p^{133}\, q^{124}$$
$$+ 2680735608\, q^{111}\, p^{48} + 2064520841\, q^{111}\, p^{47} + 170181685\, p^{131}\, q^{81} + 235843827\, p^{131}\, q^{86} + 141117534\, p^{132}\, q^{104} + 123241216\, p^{129}\, q^{69}$$
$$+ 42682\, p^{120}\, q^{31} + 395234\, p^{126}\, q^{42} + 287062615\, p^{96}\, q^{131} + 250020340158\, q^{89}\, p^{49} + 2129613901\, p^{110}\, q^{46} + 5523475487\, p^{111}\, q^{51}$$
$$+ 1184951511\, p^{108}\, q^{42} + 2784643453\, p^{110}\, q^{47} + 3877343979505\, p^{71}\, q^{86} + 414785\, p^{129}\, q^{138} + 509797\, p^{128}\, q^{138} + 461613628504\, p^{88}\, q^{106}$$

$$+ 161040756022\, p^{103}\, q^{59} + 49466678579\, p^{101}\, q^{50} + 765498705\, p^{50}\, q^{25} + 1563409751\, p^{50}\, q^{27} + 141117534\, p^{49}\, q^{21} + 522632826\, p^{50}\, q^{24}$$
$$+ 1102608464\, p^{50}\, q^{26} + 10412288213\, p^{51}\, q^{33} + 4421381321\, p^{51}\, q^{30} + 3242485891\, p^{51}\, q^{29} + 7918467301\, p^{51}\, q^{32} + 5952851957\, p^{51}\, q^{31}$$
$$+ 13541142660\, p^{51}\, q^{34} + 17424759014\, p^{51}\, q^{35} + 24201532918\, p^{52}\, q^{36} + 38311985308\, p^{52}\, q^{38} + 71274238874\, p^{52}\, q^{41}$$
$$+ 103348133799\, p^{52}\, q^{43} + 86175401123\, p^{52}\, q^{42} + 47536024095\, p^{52}\, q^{39} + 30595295872\, p^{52}\, q^{37} + 122965980997\, p^{52}\, q^{44}$$
$$+ 160175088804\, p^{53}\, q^{45} + 58458716249\, p^{52}\, q^{40} + 17938649\, p^{47}\, q^{17} + 84735585\, p^{48}\, q^{20} + 52621928\, p^{48}\, q^{19} + 218044506\, p^{49}\, q^{22}$$
$$+ 330072801\, p^{49}\, q^{23} + 2184249384\, p^{50}\, q^{28} + 136603151640\, p^{50}\, q^{46} + 107763499898\, p^{47}\, q^{47} + 78346354753\, p^{44}\, q^{48}$$
$$+ 52236853813\, p^{41}\, q^{49} + 31737248719\, p^{38}\, q^{50} + 17424759014\, p^{35}\, q^{51} + 8550471228\, p^{32}\, q^{52} + 220859398686\, p^{72}\, q^{43}$$
$$+ 3323747240756\, p^{63}\, q^{69} + 157428798202\, p^{44}\, q^{83} + 45867\, q^{109}\, p^{23} + 65495\, q^{110}\, p^{24} + 229207636062\, p^{86}\, q^{47} + 177613978539\, p^{72}\, q^{42}$$
$$+ 11756489\, q^{68}\, p^{17} + 2599386355543\, p^{87}\, q^{92} + 48650\, q^{85}\, p^{14} + 2689546\, q^{125}\, p^{45} + 122571\, q^{124}\, p^{37} + 12082713\, p^{107}\, q^{30} + 37\, p^{64}\, q^{6}$$
$$+ 71057945\, q^{69}\, p^{20} + 39325319\, q^{69}\, p^{19} + 3294049\, q^{66}\, p^{15} + 22788208\, q^{68}\, p^{18} + 210984447\, p^{90}\, q^{27} + 1040834916304\, p^{101}\, q^{78}$$
$$+ 56\, q^{42}\, p^{4} + 129633969\, p^{78}\, q^{131} + 46\, q^{43}\, p^{4} + 39\, q^{44}\, p^{4} + 343409895079\, p^{62}\, q^{101} + 59990\, q^{60}\, p^{10} + 722448721\, p^{115}\, q^{48}$$
$$+ 1670083520\, q^{93}\, p^{33} + 2434996721\, q^{93}\, p^{34} + 1126431258\, q^{93}\, p^{32} + 14694878857\, q^{94}\, p^{40} + 19544068942\, q^{94}\, p^{41}$$
$$+ 25646948231\, q^{75}\, p^{35} + 3783822074\, p^{113}\, q^{52} + 33328319300\, p^{116}\, q^{73} + 6453219\, p^{115}\, q^{35} + 1266894132100\, p^{99}\, q^{75}$$
$$+ 407445532\, p^{122}\, q^{57} + 22368198\, p^{118}\, q^{41} + 10314134\, p^{115}\, q^{36} + 249523607\, p^{121}\, q^{53} + 223050845882\, p^{90}\, q^{49} + 7\, q^{39}\, p^{3} + 8\, q^{38}\, p^{3}$$
$$+ 175642133\, p^{120}\, q^{50} + 650\, q^{52}\, p^{6} + 637952135\, p^{112}\, q^{44} + 5610161\, p^{130}\, q^{57} + 13071703856\, p^{117}\, q^{107} + 2527\, q^{54}\, p^{7} + 149877\, p^{118}\, q^{31}$$
$$+ 1340898920\, p^{87}\, q^{30} + 40239418793\, p^{91}\, q^{42} + 23429\, q^{58}\, p^{9} + 1446729\, p^{124}\, q^{42} + 3155\, q^{81}\, p^{11} + 860\, q^{80}\, p^{10} + 1374689306575\, p^{85}\, q^{99}$$
$$+ 7223\, q^{57}\, p^{8} + 1731\, p^{140}\, q^{62} + 18195\, p^{144}\, q^{93} + 3155\, p^{142}\, q^{72} + 17337\, p^{145}\, q^{105} + 487792\, p^{112}\, q^{28} + 20707905\, p^{119}\, q^{42} + 31752\, p^{106}\, q^{21}$$
$$+ 192463958\, p^{60}\, q^{125} + 2744257\, p^{133}\, q^{129} + 11922233\, p^{132}\, q^{124} + 178278670677\, p^{100}\, q^{56} + 202415140280\, p^{101}\, q^{58} + 84705375\, p^{104}\, q^{32}$$
$$+ 6508313\, p^{100}\, q^{25} + 45634590152\, p^{112}\, q^{65} + 70272043349\, p^{113}\, q^{72} + 351657004\, p^{116}\, q^{126} + 3216546160324\, p^{62}\, q^{71}$$
$$+ 2402128119626\, p^{91}\, q^{90} + 2107047484928\, p^{92}\, q^{91} + 577981068487\, p^{48}\, q^{68} + 481566166283\, p^{47}\, q^{67} + 4002345436236\, p^{65}\, q^{72}$$
$$+ 4540256800113\, p^{75}\, q^{67} + 1958550557516\, p^{57}\, q^{76} + 19938781152\, p^{112}\, q^{111} + 13112980\, q^{83}\, p^{20} + 3761260\, q^{82}\, p^{18}$$
$$+ 6579618712\, q^{89}\, p^{35} + 56376649158\, p^{87}\, q^{116} + 182894142974\, q^{90}\, p^{48} + 269792152267\, q^{90}\, p^{50} + 385408393752\, q^{90}\, p^{52}$$
$$+ 323721802371\, q^{90}\, p^{51} + 455364858234\, q^{90}\, p^{53} + 621735976063\, q^{90}\, p^{55} + 534028016719\, q^{90}\, p^{54} + 556743743744\, q^{91}\, p^{55}$$
$$+ 223050845882\, q^{90}\, p^{49} + 196192\, q^{74}\, p^{13} + 32678350743\, p^{76}\, q^{36} + 5263287111930\, p^{80}\, q^{82} + 4635161965369\, p^{73}\, q^{84}$$

$$+ 5164873784744\, p^{77} q^{83} + 1095947446998\, p^{57} q^{87} + 1243921719982\, p^{58} q^{87} + 1108\, p^{147} q^{133} + 8242\, p^{145} q^{97} + 192\, p^{137} q^{49}$$
$$+ 77\, p^{132} q^{38} + 20138582347\, p^{107} q^{115} + 22791827684\, p^{106} q^{115} + 17671791468\, p^{108} q^{115} + 15398424512\, p^{109} q^{115}$$
$$+ 338692572403\, p^{56} q^{96} + 246651595778\, p^{54} q^{96} + 208143129739\, p^{53} q^{96} + 152946094861\, p^{51} q^{46} + 123355718710\, p^{48} q^{47}$$
$$+ 140232207812\, p^{49} q^{47} + 6662\, q^{114} p^{24} + 91815503253\, p^{45} q^{48} + 106808604360\, p^{46} q^{48} + 123355718710\, p^{47} q^{48}$$
$$+ 74861373047\, p^{43} q^{49} + 62784656633\, p^{42} q^{49} + 39211532926\, p^{39} q^{50} + 88568456245\, p^{44} q^{49} + 48022629290\, p^{40} q^{50}$$
$$+ 22195213571\, p^{36} q^{51} + 103992238086\, p^{45} q^{49} + 58315039149\, p^{41} q^{50} + 70230368899\, p^{42} q^{50} + 83902929956\, p^{43} q^{50}$$
$$+ 27996151964\, p^{37} q^{51} + 34981124894\, p^{38} q^{51} + 43311657631\, p^{39} q^{51} + 47536024095\, p^{39} q^{52} + 53154272889\, p^{40} q^{51}$$
$$+ 64677300849\, p^{41} q^{51} + 14695886584\, p^{34} q^{52} + 11272245156\, p^{33} q^{52} + 18955940877\, p^{35} q^{52} + 33227017147\, p^{37} q^{53}$$
$$+ 38311985308\, p^{38} q^{52} + 24201532918\, p^{36} q^{52} + 30595295872\, p^{37} q^{52} + 9097616937\, p^{69} q^{31} + 684076692637\, p^{72} q^{49}$$
$$+ 3785870389472\, p^{73} q^{64} + 523123\, p^{58} q^{12} + 2741\, p^{102} q^{17} + 1965561548344\, p^{71} q^{94} + 137921\, p^{139} q^{132} + 11756489\, p^{136} q^{85}$$
$$+ 173698\, p^{139} q^{131} + 11593\, p^{116} q^{26} + 12685181\, p^{134} q^{74} + 3092\, p^{112} q^{22} + 6134391\, p^{133} q^{66} + 3108289\, p^{132} q^{60} + 266034\, p^{139} q^{129}$$
$$+ 750706\, p^{139} q^{123} + 1138\, p^{108} q^{19} + 4673\, p^{113} q^{23} + 10778780\, p^{137} q^{95} + 40360\, p^{119} q^{30} + 84578\, p^{121} q^{33} + 11535180\, p^{137} q^{101}$$
$$+ 2138160\, p^{138} q^{119} + 988022\, p^{139} q^{121} + 22302\, p^{145} q^{114} + 3495\, p^{138} q^{57} + 484\, p^{105} q^{17} + 3\, p^{148} q^{91} + 12710103144\, p^{93} q^{121}$$
$$+ 4663821\, p^{123} q^{135} + 3064719685\, p^{125} q^{84} + 746318472\, p^{122} q^{60} + 1340898920\, p^{123} q^{66} + 95895208\, p^{128} q^{120} + 3014400\, p^{112} q^{31}$$
$$+ 1781517671\, p^{126} q^{101} + 156020022\, p^{127} q^{119} + 8186\, p^{137} q^{56} + 2117\, p^{133} q^{44} + 864709\, p^{122} q^{139} + 513\, p^{127} q^{33} + 46507\, p^{144} q^{119}$$
$$+ 116874\, p^{143} q^{101} + 4367362685\, p^{108} q^{121} + 1176690651\, p^{102} q^{127} + 1009717755\, p^{108} q^{126} + 1036100971\, p^{96} q^{128}$$
$$+ 1102608464\, p^{103} q^{127} + 28021416234\, p^{98} q^{45} + 476126791914\, p^{101} q^{65} + 343409895079\, p^{101} q^{62} + 463288261\, p^{109} q^{128}$$
$$+ 24261\, p^{140} q^{137} + 3\, p^{77} q^{146} + 10390028657\, q^{96} p^{40} + 3495\, q^{96} p^{15} + 5388\, q^{95} p^{15} + 11580205752\, p^{97} q^{41} + 1682111177\, p^{95} q^{34}$$
$$+ 807958549407\, p^{103} q^{82} + 803033006725\, p^{103} q^{84} + 46691446\, q^{101} p^{29} + 27661293\, q^{101} p^{28} + 179\, p^{84} q^{10} + 765763044\, p^{121} q^{58}$$
$$+ 955843\, p^{109} q^{27} + 259693842\, p^{127} q^{116} + 2129613901\, q^{110} p^{46} + 46066617519\, p^{111} q^{63} + 1034659367503\, p^{97} q^{95}$$
$$+ 856631936\, p^{114} q^{124} + 16\, q^{96} p^{12} + 1136117570143\, p^{95} q^{96} + 127\, q^{109} p^{18} + 2079094371578\, p^{67} q^{58} + 527794118376\, q^{76} p^{48}$$
$$+ 742922184622\, q^{76} p^{50} + 1014959628596\, q^{76} p^{52} + 871526982817\, q^{76} p^{51} + 1173583949410\, q^{76} p^{53} + 1536677819323\, q^{76} p^{55}$$
$$+ 1347533447579\, q^{76} p^{54} + 1496345007229\, q^{77} p^{55} + 628584681382\, q^{76} p^{49} + 3267213355381\, q^{91} p^{79} + 3009762759791\, p^{92} q^{80}$$
$$+ 2393515609\, p^{120} q^{114} + 2020098847\, p^{120} q^{115} + 4369589639\, p^{120} q^{110} + 4987220031\, p^{120} q^{109} + 1156061615\, p^{120} q^{118}$$

$$+ 5652441389\, p^{120} q^{108} + 229993733\, q^{102} p^{33} + 32\, p^{29} q^{3} + 715711262\, p^{82} q^{27} + 124156437838\, p^{112} q^{93} + 54898356642\, p^{108} q^{59}$$
$$+ 26235\, p^{83} q^{13} + 46930860598\, p^{108} q^{58} + 171088743312\, p^{111} q^{90} + 4531446647054\, p^{74} q^{85} + 20\, q^{136} p^{44} + 64\, q^{138} p^{50} + 254\, q^{138} p^{52}$$
$$+ 130\, q^{138} p^{51} + 460\, q^{138} p^{53} + 1357\, q^{138} p^{55} + 812\, q^{138} p^{54} + 27\, q^{138} p^{49} + 26235\, q^{140} p^{70} + 2718370670313\, p^{66} q^{87}$$
$$+ 903135283739\, p^{102} q^{86} + 8\, q^{117} p^{21} + 4301311235521\, p^{79} q^{87} + 2835018430904\, p^{69} q^{89} + 5340000567792\, p^{82} q^{77}$$
$$+ 5175169715356\, p^{83} q^{78} + 5030865113491\, p^{82} q^{73} + 5305707282435\, p^{82} q^{76} + 277\, p^{148} q^{137} + 35437428\, p^{135} q^{102} + 17086925\, p^{136} q^{107}$$
$$+ 1674073788\, p^{51} q^{27} + 11272245156\, p^{52} q^{33} + 40\, p^{25} q^{3} + 8550471228\, p^{52} q^{32} + 6410813925\, p^{52} q^{31} + 14695886584\, p^{52} q^{34}$$
$$+ 18955940877\, p^{52} q^{35} + 41697265777\, p^{53} q^{38} + 78048037677\, p^{53} q^{41} + 113603859836\, p^{53} q^{43} + 94548124129\, p^{53} q^{42}$$
$$+ 51844863855\, p^{53} q^{39} + 33227017147\, p^{53} q^{37} + 135418356164\, p^{53} q^{44} + 175600789766\, p^{54} q^{45} + 63887614261\, p^{53} q^{40}$$
$$+ 2346341016\, p^{51} q^{28} + 1326226513\, q^{98} p^{35} + 170129496546\, p^{52} q^{46} + 158340427088\, p^{50} q^{47} + 141462275353\, p^{48} q^{48}$$
$$+ 121199245096\, p^{46} q^{49} + 99455482050\, p^{44} q^{50} + 58458716249\, p^{40} q^{52} + 78046552978\, p^{42} q^{51} + 41697265777\, p^{38} q^{53}$$
$$+ 88989198509\, p^{101} q^{53} + 881358393330\, p^{102} q^{87} + 15353380746\, p^{97} q^{42} + 914021004120\, p^{102} q^{79} + 671735479920\, p^{60} q^{95}$$
$$+ 74769\, p^{108} q^{23} + 3789\, p^{143} q^{139} + 208143129739\, p^{100} q^{57} + 37556401877\, p^{99} q^{47} + 3682\, p^{69} q^{9} + 12939\, p^{139} q^{140}$$
$$+ 263525983780\, p^{107} q^{96} + 8125046076\, p^{81} q^{122} + 807775959110\, p^{103} q^{83} + 1136117570143\, p^{96} q^{95} + 2795\, q^{118} p^{26} + 553750\, q^{140} p^{86}$$
$$+ 23596583\, p^{105} q^{30} + 70\, p^{62} q^{6} + 2019659766301\, p^{96} q^{79} + 3724201\, q^{95} p^{22} + 658603\, q^{93} p^{19} + 1471450\, q^{93} p^{20} + 1395280775\, q^{101} p^{37}$$
$$+ 585922603\, p^{114} q^{46} + 13803075\, q^{95} p^{24} + 33343857663\, q^{86} p^{39} + 860356633\, p^{128} q^{101} + 83721820\, p^{129} q^{119} + 50476331\, p^{130} q^{120}$$
$$+ 1229246\, p^{114} q^{31} + 1610739318\, p^{110} q^{45} + 22195213571\, p^{117} q^{102} + 26224879583\, p^{117} q^{100} + 674530917310\, p^{102} q^{93}$$
$$+ 1158476579206\, p^{92} q^{98} + 944205850707\, p^{89} q^{101} + 904382591363\, p^{90} q^{101} + 43955970957\, q^{86} p^{40} + 854763978\, q^{116} p^{50}$$
$$+ 658782698\, q^{116} p^{49} + 502269000\, q^{116} p^{48} + 378634726\, q^{116} p^{47} + 295689001\, p^{120} q^{124} + 360573951\, p^{119} q^{124} + 70328\, p^{133} q^{140}$$
$$+ 920195712278\, p^{85} q^{102} + 767374416996\, p^{93} q^{101} + 717949315824\, p^{94} q^{101} + 25604584\, p^{114} q^{134} + 31497728\, p^{112} q^{134}$$
$$+ 28497882\, p^{113} q^{134} + 1073175468021\, p^{89} q^{100} + 1038054215100\, p^{86} q^{101} + 1098806314605\, p^{91} q^{99} + 793805748178\, p^{85} q^{103}$$
$$+ 807775959110\, p^{83} q^{103} + 7758\, p^{87} q^{13} + 803033006725\, p^{84} q^{103} + 780241468727\, p^{86} q^{103} + 741027046902\, p^{88} q^{103}$$
$$+ 762555960079\, p^{87} q^{103} + 715988628005\, p^{89} q^{103} + 656944747443\, p^{91} q^{103} + 687821433008\, p^{90} q^{103} + 567774840464\, p^{91} q^{104}$$
$$+ 1037268221783\, p^{92} q^{99} + 47045\, p^{143} q^{91} + 15275\, p^{143} q^{84} + 5294\, p^{137} q^{55} + 23429\, p^{144} q^{95} + 71\, p^{126} q^{30} + 5388\, p^{138} q^{58}$$
$$+ 17271\, p^{135} q^{142} + 5\, p^{23} q^{2} + 2351205230226\, p^{68} q^{59} + 6541\, p^{44} q^{7} + 14540775\, p^{132} q^{123} + 3\, p^{91} q^{148} + 1075117\, q^{60} p^{13} + 9184\, p^{140} q^{140}$$

$$+ 3169\, p^{131} q^{146} + 122\, p^{117} q^{149} + 21\, p^{150} q^{142} + 727\, p^{120} q^{148} + 1176144\, p^{113} q^{140} + 74124\, q^{58} p^{10} + 5639023267704\, p^{74} q^{78}$$
$$+ 9266026\, q^{134} p^{72} + 43169330403\, q^{67} p^{36} + 3282670080\, p^{120} q^{112} + 943374088\, p^{120} q^{119} + 611058806\, p^{121} q^{120} + 31263062\, q^{63} p^{18}$$
$$+ 23119373918\, q^{89} p^{39} + 34834111077\, q^{88} p^{40} + 45634590152\, q^{88} p^{41} + 12990852748\, q^{121} p^{85} + 13455339624\, q^{121} p^{88}$$
$$+ 13382331965\, q^{121} p^{90} + 13220024599\, q^{121} p^{86} + 12691911617\, q^{121} p^{84} + 11429323749\, q^{121} p^{81} + 143067947\, q^{83} p^{24} + 1199\, p^{137} q^{52}$$
$$+ 9717\, p^{141} q^{71} + 223313835065\, p^{69} q^{107} + 448615\, p^{136} q^{132} + 5641382775907\, p^{79} q^{79} + 73967939677\, p^{111} q^{67} + 6285425082\, p^{108} q^{48}$$
$$+ 1810896\, p^{95} q^{21} + 94090965\, p^{102} q^{31} + 27661293\, p^{101} q^{28} + 191389318\, p^{131} q^{106} + 1640558610370\, p^{66} q^{56} + 363383074811\, p^{77} q^{107}$$
$$+ 6\, p^{151} q^{143} + 2400267395362\, p^{66} q^{60} + 1586381037438\, p^{56} q^{79} + 1821378981797\, p^{66} q^{57} + 207696780873\, q^{87} p^{47}$$
$$+ 254027039344\, q^{87} p^{48} + 3367877478037\, p^{66} q^{65} + 3701116852947\, p^{67} q^{66} + 327\, p^{141} q^{62} + 4632\, p^{145} q^{93} + 598\, p^{143} q^{72}$$
$$+ 4942\, p^{146} q^{105} + 305689\, p^{89} q^{141} + 846133898687\, p^{53} q^{83} + 2151371\, p^{76} q^{16} + 3242485891\, p^{102} q^{124} + 39817910\, p^{132} q^{117}$$
$$+ 108649307\, p^{128} q^{65} + 152794628\, p^{128} q^{67} + 46956213\, p^{126} q^{56} + 254\, q^{101} p^{15} + 1086615655046\, p^{92} q^{61} + 1339221004771\, p^{92} q^{63}$$
$$+ 1851325689\, p^{113} q^{49} + 4301311235521\, p^{66} q^{74} + 4539969875997\, p^{67} q^{74} + 4764130243758\, p^{68} q^{74} + 4970602333332\, p^{69} q^{74}$$
$$+ 23149235\, q^{131} p^{66} + 10423\, p^{54} q^{8} + 1131\, p^{48} q^{6} + 4769962081064\, p^{69} q^{71} + 4625008282\, p^{97} q^{38} + 115745709171\, p^{42} q^{81}$$
$$+ 907161988\, p^{109} q^{126} + 3247441057785\, p^{62} q^{75} + 2982729917623\, p^{61} q^{75} + 32654493239\, q^{102} p^{49} + 40491648191\, q^{102} p^{50}$$
$$+ 161790533114\, p^{91} q^{48} + 95727240915\, p^{90} q^{45} + 1444253793107\, p^{93} q^{65} + 1081208336254\, p^{93} q^{62} + 574397294200\, p^{92} q^{56}$$
$$+ 4051435307062\, p^{65} q^{74} + 3780067597633\, p^{64} q^{75} + 3514205545227\, p^{63} q^{75} + 4041886886510\, p^{65} q^{75} + 4515032259853\, p^{67} q^{76}$$
$$+ 4770147717971\, p^{68} q^{75} + 4296393968877\, p^{66} q^{75} + 4540256800113\, p^{67} q^{75} + 4238877648247\, p^{66} q^{72} + 8627400\, q^{103} p^{27}$$
$$+ 3228400029324\, p^{90} q^{85} + 3320748905531\, p^{89} q^{86} + 3701116852947\, p^{86} q^{87} + 3031383748349\, p^{63} q^{81} + 25576677676\, p^{37} q^{83}$$
$$+ 15247403\, q^{125} p^{50} + 459316879\, p^{112} q^{127} + 520100693\, p^{111} q^{127} + 553702783\, p^{102} q^{129} + 135286092335\, q^{87} p^{45}$$
$$+ 168367828839\, q^{87} p^{46} + 31040068679\, q^{84} p^{38} + 21214029835\, p^{104} q^{49} + 7720463496\, p^{103} q^{44} + 2024680\, p^{114} q^{139} + 221007\, p^{142} q^{118}$$
$$+ 317451\, p^{142} q^{111} + 231520\, p^{138} q^{70} + 728208\, p^{141} q^{103} + 652287\, p^{138} q^{75} + 708142\, p^{139} q^{81} + 63627\, p^{143} q^{124} + 474608\, p^{137} q^{69}$$
$$+ 77\, p^{115} q^{21} + p^{92} q^{10} + 609\, p^{121} q^{27} + 2\, p^{98} q^{12} + 376253\, p^{137} q^{68} + 202902\, p^{135} q^{59} + 253962\, p^{142} q^{116} + 486817\, p^{141} q^{94}$$
$$+ 43785\, p^{143} q^{127} + 330771\, p^{142} q^{109} + 2795\, p^{127} q^{35} + 998867\, p^{140} q^{92} + 13022\, p^{143} q^{134} + 719\, p^{123} q^{29} + 45101031754\, p^{115} q^{99}$$
$$+ 51805994428\, p^{115} q^{97} + 749\, p^{75} q^{9} + 1016119998\, q^{86} p^{29} + 654389662\, q^{86} p^{28} + 412573895\, q^{86} p^{27} + 21214029835\, q^{104} p^{49}$$
$$+ 2248227\, p^{92} q^{139} + 2096731\, p^{91} q^{139} + 3128064\, p^{104} q^{139} + 6075247\, p^{103} q^{138} + 5980461\, p^{104} q^{138} + 1786800\, p^{89} q^{139}$$

$$+ 1075117\, p^{93}\, q^{140} + 1942051\, p^{90}\, q^{139} + 36440969\, p^{98}\, q^{27} + 6376052415\, p^{106}\, q^{46} + 16205172921\, p^{107}\, q^{51} + 3445001812\, p^{104}\, q^{42}$$
$$+ 8224970075\, p^{106}\, q^{47} + 84932779421\, p^{112}\, q^{99} + 98737703224\, p^{112}\, q^{97} + 2981\, p^{76}\, q^{10} + 2162890491\, q^{108}\, p^{44} + 1610739318\, q^{108}\, p^{43}$$
$$+ 188029897608\, p^{53}\, q^{46} + 10934567194\, p^{121}\, q^{97} + 9787240997\, p^{121}\, q^{99} + 452944492\, q^{104}\, p^{36} + 13455339624\, p^{121}\, q^{88}$$
$$+ 5493225488\, p^{122}\, q^{103} + 860\, p^{80}\, q^{10} + 177599892786\, p^{51}\, q^{47} + 197900685953\, p^{52}\, q^{47} + 1450974575\, p^{104}\, q^{126} + 327\, p^{91}\, q^{12}$$
$$+ 161105474856\, p^{49}\, q^{48} + 2741\, q^{102}\, p^{17} + 78\, q^{97}\, p^{13} + 182231957621\, p^{50}\, q^{48} + 204755176997\, p^{51}\, q^{48} + 140232207812\, p^{47}\, q^{49}$$
$$+ 161105474856\, p^{48}\, q^{49} + 183801546616\, p^{49}\, q^{49} + 136603151640\, p^{46}\, q^{50} + 93420948036\, p^{43}\, q^{51} + 116994038094\, p^{45}\, q^{50}$$
$$+ 21314\, q^{121}\, p^{31} + 208267219347\, p^{50}\, q^{49} + 158340427088\, p^{47}\, q^{50} + 110947026991\, p^{44}\, q^{51} + 71274238874\, p^{41}\, q^{52}$$
$$+ 182231957621\, p^{48}\, q^{50} + 208267219347\, p^{49}\, q^{50} + 130753713108\, p^{45}\, q^{51} + 152946094861\, p^{46}\, q^{51} + 177599892786\, p^{47}\, q^{51}$$
$$+ 204755176997\, p^{48}\, q^{51} + 103348133799\, p^{43}\, q^{52} + 86175401123\, p^{42}\, q^{52} + 122965980997\, p^{44}\, q^{52} + 188029897608\, p^{46}\, q^{53}$$
$$+ 197900685953\, p^{47}\, q^{52} + 145183406367\, p^{45}\, q^{52} + 170129496546\, p^{46}\, q^{52} + 63887614261\, p^{40}\, q^{53} + 94548124129\, p^{42}\, q^{53}$$
$$+ 78048037677\, p^{41}\, q^{53} + 113603859836\, p^{43}\, q^{53} + 160175088804\, p^{45}\, q^{53} + 135418356164\, p^{44}\, q^{53} + 175600789766\, p^{45}\, q^{54}$$
$$+ 51844863855\, p^{39}\, q^{53} + 277697724384\, p^{53}\, q^{94} + 4480087262261\, p^{83}\, q^{85} + 105952001\, p^{54}\, q^{20} + 1010315443\, p^{56}\, q^{25}$$
$$+ 1704205300725\, p^{93}\, q^{93} + 1147134631\, p^{112}\, q^{46} + 4\, p^{41}\, q^{3} + 247094143\, p^{123}\, q^{122} + 4942\, q^{48}\, p^{7} + 1408\, q^{46}\, p^{6} + 3411121606538\, p^{64}\, q^{80}$$
$$+ 167101510896\, p^{110}\, q^{74} + 642418\, p^{90}\, q^{18} + 112043037887\, p^{112}\, q^{95} + 118292325723\, p^{112}\, q^{94} + 38436895550\, p^{113}\, q^{105}$$
$$+ 52236853813\, p^{112}\, q^{104} + 19996674271\, p^{107}\, q^{52} + 345466\, p^{89}\, q^{17} + 3602690240\, p^{105}\, q^{43} + 79587760\, p^{99}\, q^{29} + 156864666436\, p^{110}\, q^{73}$$
$$+ 547228689\, q^{106}\, p^{38} + 655428296365\, p^{65}\, q^{99} + 77\, q^{40}\, p^{4} + 110276\, q^{53}\, p^{10} + 44184\, q^{51}\, p^{9} + 969394017635\, p^{61}\, q^{93} + 622632\, q^{55}\, p^{12}$$
$$+ 271155\, q^{54}\, p^{11} + 424050996638\, p^{99}\, q^{61} + 534028016719\, p^{99}\, q^{63} + 403847329458\, p^{46}\, q^{67} + 4038184440469\, p^{65}\, q^{73}$$
$$+ 3267213355381\, p^{62}\, q^{74} + 3785870389472\, p^{64}\, q^{73} + 5108751702524\, p^{73}\, q^{70} + 5808917427\, p^{116}\, q^{59} + 1709852941\, p^{122}\, q^{113}$$
$$+ 323394\, p^{98}\, q^{20} + 5179215566163\, p^{72}\, q^{71} + 3756869503893\, p^{89}\, q^{81} + 73334204761\, p^{102}\, q^{53} + 99130\, q^{90}\, p^{16} + 63\, q^{94}\, p^{12}$$
$$+ 4791020\, q^{101}\, p^{25} + 822505\, q^{100}\, p^{22} + 1715712\, q^{100}\, p^{23} + 3412832\, q^{100}\, p^{24} + 555842015314\, p^{82}\, q^{50} + 146378568716\, p^{81}\, q^{43}$$
$$+ 103348133799\, p^{101}\, q^{110} + 184931983309\, p^{111}\, q^{85} + 176955701242\, p^{110}\, q^{75} + 13284105208\, p^{106}\, q^{49} + 4785357531\, p^{105}\, q^{44}$$
$$+ 62561953325\, p^{114}\, q^{74} + 45805150856\, p^{116}\, q^{95} + 47975379297\, p^{116}\, q^{94} + 16476805365\, p^{117}\, q^{105} + 22997490513\, p^{116}\, q^{104}$$
$$+ 1471450\, p^{93}\, q^{20} + 4588226551593\, p^{68}\, q^{71} + 4930614887618\, p^{71}\, q^{70} + 321636\, p^{71}\, q^{13} + 708142\, p^{72}\, q^{14} + 671735479920\, p^{93}\, q^{58}$$
$$+ 863526849841\, p^{93}\, q^{60} + 1965561548344\, p^{94}\, q^{71} + 424050996638\, p^{92}\, q^{54} + 136025\, p^{70}\, q^{12} + 360382411768\, p^{92}\, q^{53}$$

$$+ 87940835839\, p^{99}\, q^{51} + 35714886122\, p^{98}\, q^{46} + 506903533274\, p^{100}\, q^{64} + 180301213378\, p^{99}\, q^{55} + 746318472\, p^{93}\, q^{31}$$
$$+ 234927148\, p^{92}\, q^{28} + 4764130243758\, p^{74}\, q^{68} + 626712966563\, p^{80}\, q^{50} + 167101510896\, p^{79}\, q^{43} + 340379\, q^{63}\, p^{12}$$
$$+ 225369591985\, p^{107}\, q^{98} + 1632406\, q^{65}\, p^{14} + 140564\, q^{62}\, p^{11} + 115799641\, q^{70}\, p^{21} + 183950195\, q^{71}\, p^{22} + 306850871\, q^{71}\, p^{23}$$
$$+ 498976574\, q^{71}\, p^{24} + 19051369\, p^{88}\, q^{22} + 55023412316\, p^{96}\, q^{115} + 63620762018\, p^{93}\, q^{115} + 65997142854\, p^{92}\, q^{115}$$
$$+ 51844863855\, p^{100}\, q^{114} + 56193619168\, p^{99}\, q^{114} + 60533867543\, p^{98}\, q^{114} + 53154272889\, p^{102}\, q^{113} + 60973040996\, p^{94}\, q^{115}$$
$$+ 58093413773\, p^{95}\, q^{115} + 51805994428\, p^{97}\, q^{115} + 48484306115\, p^{98}\, q^{115} + 940768453473\, p^{82}\, q^{102} + 615292712682\, p^{102}\, q^{70}$$
$$+ 16734892314\, p^{98}\, q^{43} + 8284\, p^{65}\, q^{9} + 14434166074\, q^{74}\, p^{33} + 9\, q^{85}\, p^{9} + 129\, q^{89}\, p^{11} + 73\, q^{90}\, p^{11} + 2033606221488\, p^{96}\, q^{80}$$
$$+ 22228048785\, p^{66}\, q^{115} + 919926424\, p^{118}\, q^{121} + 10\, q^{37}\, p^{3} + 2750597641\, p^{114}\, q^{52} + 6\, q^{110}\, p^{17} + q^{109}\, p^{16} + 49\, q^{112}\, p^{19} + 125\, q^{111}\, p^{19}$$
$$+ 20\, q^{111}\, p^{18} + 9849\, q^{121}\, p^{30} + 1004177\, q^{132}\, p^{56} + 715888\, p^{119}\, q^{140} + 1135456\, q^{134}\, p^{62} + 527092\, q^{132}\, p^{54} + 743461784\, q^{72}\, p^{25}$$
$$+ 65\, p^{149}\, q^{112} + 856058824\, p^{112}\, q^{125} + 716397195285\, p^{98}\, q^{98} + 6680404\, p^{128}\, q^{131} + 8539254\, p^{127}\, q^{131} + 5166357\, p^{131}\, q^{129}$$
$$+ 6936683\, p^{129}\, q^{130} + 11601646\, p^{127}\, q^{130} + 5266917\, p^{130}\, q^{130} + 9024012\, p^{128}\, q^{130} + 4875215\, p^{132}\, q^{128} + 48903649\, p^{133}\, q^{112}$$
$$+ 49702018\, p^{128}\, q^{61} + 160939233\, p^{130}\, q^{75} + 55541\, p^{144}\, q^{107} + 122917\, p^{143}\, q^{102} + 36666\, p^{139}\, q^{67} + 7567821832\, q^{118}\, p^{65}$$
$$+ 11047271413\, q^{118}\, p^{68} + 8643713056\, q^{118}\, p^{66} + 9804915316\, q^{118}\, p^{67} + 5679726856\, q^{118}\, p^{63} + 6579618712\, q^{118}\, p^{64} + q^{83}\, p^{8}$$
$$+ 16\, q^{84}\, p^{9} + 141538223330\, p^{81}\, q^{112} + 2292450061088\, p^{61}\, q^{83} + 6831\, q^{107}\, p^{20} + 402153078003\, p^{104}\, q^{69} + 370713061570\, p^{103}\, q^{66}$$
$$+ 4886763242452\, p^{71}\, q^{81} + 41127\, p^{63}\, q^{10} + 64677300849\, p^{102}\, q^{112} + 37716\, p^{144}\, q^{122} + q^{99}\, p^{12} + 3155\, q^{142}\, p^{72} + 56379830676\, p^{86}\, q^{116}$$
$$+ 2479198\, q^{80}\, p^{17} + 484641554\, q^{99}\, p^{33} + 724501311\, q^{99}\, p^{34} + 1064548460\, q^{99}\, p^{35} + 206500021060\, p^{54}\, q^{46} + 219103602363\, p^{53}\, q^{47}$$
$$+ 228554422326\, p^{52}\, q^{48} + 234411306498\, p^{51}\, q^{49} + 236395396893\, p^{50}\, q^{50} + 234411306498\, p^{49}\, q^{51} + 219103602363\, p^{47}\, q^{53}$$
$$+ 228554422326\, p^{48}\, q^{52} + 206500021060\, p^{46}\, q^{54} + 699783307531\, p^{51}\, q^{81} + 626712966563\, p^{50}\, q^{80} + 979327844\, p^{98}\, q^{128}$$
$$+ 707680304\, p^{92}\, q^{129} + 41\, q^{106}\, p^{16} + 279\, q^{108}\, p^{18} + 47975379297\, p^{37}\, q^{59} + 2186655488046\, p^{71}\, q^{93} + 175062073\, p^{55}\, q^{21}$$
$$+ 674504529\, p^{56}\, q^{24} + 2339267858\, p^{79}\, q^{29} + 1548711581\, p^{79}\, q^{28} + 2167796\, p^{70}\, q^{15} + 14097880\, p^{73}\, q^{18} + 73918731\, p^{75}\, q^{21}$$
$$+ 301241688\, p^{77}\, q^{24} + 116840895\, p^{76}\, q^{22} + 491413385\, p^{77}\, q^{25} + 916370224009\, p^{84}\, q^{54} + 1284251257122\, p^{85}\, q^{57}$$
$$+ 37552101509\, p^{82}\, q^{38} + 788797516028\, p^{84}\, q^{53} + 1825379128501\, p^{85}\, q^{60} + 2915596624775\, p^{86}\, q^{66} + 157428798202\, p^{83}\, q^{44}$$
$$+ 199977473\, p^{76}\, q^{23} + 1127132933469\, p^{85}\, q^{56} + 7868185\, p^{72}\, q^{17} + 333286315150\, p^{84}\, q^{48} + 196191541490\, p^{83}\, q^{45}$$
$$+ 1752545138895\, p^{96}\, q^{88} + 2006864460889\, p^{96}\, q^{83} + 39822752652\, p^{96}\, q^{45} + 655428296365\, p^{99}\, q^{65} + 477430526815\, p^{99}\, q^{62}$$

$$+ 1087627\, p^{75} q^{15} + 174299520348\, p^{52} q^{96} + 27630599546\, p^{95} q^{118} + 16\, p^{150} q^{144} + 15841\, p^{92} q^{144} + 110276\, p^{100} q^{143} + 103374\, p^{99} q^{143}$$
$$+ 32162775774\, p^{97} q^{117} + 1388424428\, p^{120} q^{59} + 72737\, p^{102} q^{20} + 551513718\, p^{126} q^{113} + 65\, p^{76} q^{8} + 724501311\, p^{119} q^{54}$$
$$+ 22768328668\, p^{81} q^{36} + 1111689331\, p^{78} q^{27} + 743\, p^{131} q^{39} + 580\, p^{148} q^{115} + 28242533230\, p^{99} q^{117} + 11670202665\, p^{118} q^{106}$$
$$+ 8183483\, p^{136} q^{116} + 35960238\, p^{135} q^{94} + 788162308669\, p^{98} q^{97} + 936352829701\, p^{98} q^{95} + 841999015347\, p^{95} q^{99}$$
$$+ 976034533471\, p^{91} q^{100} + 623805485845\, p^{103} q^{92} + 752267078667\, p^{100} q^{95} + 939163843692\, p^{83} q^{102} + 867138364996\, p^{93} q^{100}$$
$$+ 881358393330\, p^{87} q^{102} + 903135283739\, p^{86} q^{102} + 922694422660\, p^{92} q^{100} + 810677968\, p^{123} q^{116} + 3462636430\, p^{117} q^{58}$$
$$+ 97532165061\, q^{96} p^{49} + 1970430186\, p^{112} q^{48} + 3787492945\, p^{98} q^{38} + 27186659\, q^{73} p^{19} + 81934312\, q^{74} p^{21} + 7868185\, q^{72} p^{17}$$
$$+ 365684076\, q^{75} p^{24} + 1332171944\, q^{76} p^{27} + 477430526815\, p^{62} q^{99} + p^{147} q^{82} + 30579\, p^{104} q^{20} + 318271751\, p^{121} q^{54}$$
$$+ 290022689\, p^{128} q^{113} + 123\, p^{149} q^{136} + 498\, p^{148} q^{132} + 888\, p^{145} q^{85} + 747\, p^{148} q^{123} + 1287803\, p^{140} q^{96} + 2521810764\, p^{108} q^{123}$$
$$+ 163507\, p^{78} q^{140} + 97119\, p^{81} q^{141} + 196192\, p^{79} q^{140} + 134929\, p^{77} q^{140} + 233395\, p^{80} q^{140} + 4221699\, q^{71} p^{16} + 615254254\, p^{122} q^{59}$$
$$+ 8864366686\, q^{119} p^{69} + 2\, p^{149} q^{99} + 15\, p^{149} q^{105} + 17588612\, q^{62} p^{17} + 45192982161\, q^{92} p^{43} + 57921992337\, q^{92} p^{44} + 38306\, q^{53} p^{9}$$
$$+ 41\, q^{77} p^{8} + 448688543\, q^{62} p^{23} + 60455726\, q^{61} p^{19} + 5673\, q^{103} p^{18} + 1131\, q^{48} p^{6} + 4524\, q^{49} p^{7} + 70854831166\, p^{38} q^{70}$$
$$+ 42254416404\, p^{36} q^{69} + 55426120039\, p^{37} q^{69} + 327\, q^{44} p^{5} + 374146108781\, q^{93} p^{54} + 152175782703\, q^{93} p^{49} + 124063140342\, q^{93} p^{48}$$
$$+ 185096946139\, q^{93} p^{50} + 4094\, q^{50} p^{7} + 267274374922\, q^{93} p^{52} + 1557253201\, q^{65} p^{26} + 171021232\, q^{62} p^{21} + 1772283403419\, p^{56} q^{69}$$
$$+ 13916\, q^{51} p^{8} + 3684\, q^{51} p^{7} + 41273\, q^{52} p^{9} + 12750\, q^{52} p^{8} + 3276\, q^{52} p^{7} + 2820541855452\, p^{75} q^{92} + 103374\, q^{54} p^{10}$$
$$+ 35047256\, q^{60} p^{18} + 1149556\, q^{59} p^{13} + 5271119\, q^{59} p^{15} + 19115453\, q^{60} p^{17} + 2664199\, q^{58} p^{14} + 5492019\, q^{58} p^{15} + 523123\, q^{58} p^{12}$$
$$+ 558129\, q^{57} p^{12} + 166407715\, q^{63} p^{21} + 2357149292\, q^{64} p^{27} + 1047666181\, q^{64} p^{25} + 1586025670\, q^{64} p^{26} + 430113836\, q^{64} p^{23}$$
$$+ 678483828\, q^{64} p^{24} + 874\, q^{50} p^{6} + 591569\, q^{56} p^{12} + 96150\, q^{55} p^{10} + 683\, q^{102} p^{16} + 10423\, q^{54} p^{8} + 18394078\, q^{61} p^{17}$$
$$+ 1168546526\, p^{124} q^{68} + 104270261\, q^{61} p^{20} + 33946771\, q^{61} p^{18} + 1287803\, q^{57} p^{13} + 2534126\, q^{59} p^{14} + 11563\, q^{53} p^{8}$$
$$+ 9749061132\, q^{65} p^{31} + 3403608534\, q^{65} p^{28} + 7006265583\, q^{64} p^{30} + 4907277136\, q^{65} p^{29} + 2322398554\, q^{65} p^{27} + 6967167745\, q^{65} p^{30}$$
$$+ 280422152\, q^{62} p^{22} + 223704\, q^{57} p^{11} + 256126\, q^{55} p^{11} + 206819\, q^{58} p^{11} + 4762572\, q^{61} p^{15} + 88839\, q^{56} p^{10} + 1220688\, q^{58} p^{13}$$
$$+ 2394938\, q^{60} p^{14} + 928704\, p^{112} q^{29} + 1974064068\, p^{126} q^{83} + 193626339\, p^{121} q^{52} + 2144330160\, p^{126} q^{85} + 274158171\, q^{63} p^{22}$$
$$+ 32223\, q^{55} p^{9} + 240164\, q^{56} p^{11} + 24661443103\, q^{65} p^{34} + 84578\, q^{120} p^{32} + 273627785788\, q^{66} p^{44} + 182363836713\, q^{66} p^{42}$$
$$+ 224338372365\, q^{66} p^{43} + 146943419141\, q^{66} p^{41} + 18329716982\, q^{65} p^{33} + 191001896\, p^{107} q^{36} + 101550230\, q^{62} p^{20} + 58551348\, q^{62} p^{19}$$

$$+ 6888252673\, q^{66} p^{30} + 13455339624\, q^{65} p^{32} + 994\, q^{49} p^{6} + 11\, q^{49} p^{4} + 1429830414\, q^{113} p^{48} + 34408076\, p^{135} q^{103} + 825585242\, q^{113} p^{46}$$
$$+ 15\, q^{48} p^{4} + 153\, q^{49} p^{5} + 46878521\, p^{118} q^{43} + 329505465\, p^{128} q^{112} + 1705200216\, p^{125} q^{75} + 22228048785\, q^{87} p^{38} + 35253\, q^{54} p^{9}$$
$$+ 18\, q^{113} p^{19} + 4\, q^{114} p^{19} + 39\, q^{114} p^{20} + 194\, q^{114} p^{21} + 16675606958\, q^{118} p^{72} + 9\, p^{144} q^{68} + 4\, p^{142} q^{59} + 337423023\, q^{112} p^{42}$$
$$+ 38830982845\, p^{93} q^{117} + 40111334082\, p^{92} q^{117} + 43104207963\, p^{88} q^{117} + 42702774321\, p^{89} q^{117} + 2470859\, q^{116} p^{34}$$
$$+ 10920056418\, q^{114} p^{59} + 7676292739\, q^{114} p^{57} + 9191631056\, q^{114} p^{58} + 620007\, p^{127} q^{138} + 10153\, p^{82} q^{143} + 439705172009\, q^{76} p^{47}$$
$$+ 374146108781\, p^{99} q^{60} + 902256476381\, p^{100} q^{71} + 4421775\, p^{105} q^{27} + 451886360455\, p^{57} q^{95} + 6664424528\, p^{104} q^{121}$$
$$+ 191314311125\, p^{108} q^{98} + 3548771845028\, p^{84} q^{89} + 3320748905531\, p^{86} q^{89} + 59931105248\, p^{103} q^{53} + 72857302112\, q^{67} p^{38}$$
$$+ 98300531\, q^{63} p^{20} + 10\, q^{74} p^{7} + 58944027\, p^{77} q^{21} + 93000472\, p^{78} q^{22} + 11083564\, p^{75} q^{18} + 1415080229730\, p^{83} q^{99}$$
$$+ 1468220338127\, p^{87} q^{98} + 1416578574959\, p^{88} q^{98} + 1365650867018\, p^{91} q^{97} + 5250682\, p^{69} q^{16} + 757924\, q^{115} p^{31} + 443707314\, q^{78} p^{25}$$
$$+ 5062179511\, q^{79} p^{31} + 33328319300\, q^{80} p^{37} + 33535327261\, q^{108} p^{56} + 149863782712\, q^{86} p^{45} + 66362660122\, q^{87} p^{42}$$
$$+ 119561825131\, q^{86} p^{44} + 73967939677\, q^{86} p^{42} + 94498004987\, q^{86} p^{43} + 19203498\, p^{104} q^{29} + 889603663\, p^{110} q^{43}$$
$$+ 6604409990\, p^{94} q^{123} + 2403\, p^{147} q^{123} + p^{121} q^{23} + 321\, p^{148} q^{136} + 1246\, p^{147} q^{132} + 4575\, p^{144} q^{85} + 10435627\, q^{116} p^{37} + 6\, p^{22} q^{2}$$
$$+ 2282370720362\, p^{67} q^{59} + 26361255\, p^{135} q^{87} + 31263062\, p^{135} q^{90} + 746775\, p^{138} q^{126} + 169627\, p^{142} q^{121} + 49\, p^{108} q^{17}$$
$$+ 3082562589044\, p^{91} q^{75} + 2470071245959\, p^{59} q^{75} + 3004678138011\, p^{61} q^{74} + 6885\, p^{43} q^{7} + 15189886513\, p^{118} q^{71}$$
$$+ 17887905372\, p^{120} q^{91} + 8812652845\, p^{70} q^{31} + 675498389703\, p^{73} q^{49} + 3793644445720\, p^{74} q^{64} + 2277071045\, q^{83} p^{30}$$
$$+ 2555112841\, q^{82} p^{30} + 1704123459\, q^{82} p^{29} + 6597\, p^{109} q^{21} + 715631449655\, p^{51} q^{61} + 815343843130\, p^{52} q^{61} + 508522314378\, p^{48} q^{63}$$
$$+ 567774840464\, p^{49} q^{62} + 656944747443\, p^{50} q^{62} + 160940992\, p^{89} q^{132} + 166407715\, p^{90} q^{132} + 171021232\, p^{91} q^{132}$$
$$+ 174709625\, p^{92} q^{132} + 148194376836\, p^{109} q^{99} + 174205279703\, p^{109} q^{97} + 6453\, p^{73} q^{10} + 156\, p^{59} q^{6} + 7113625171\, p^{120} q^{106}$$
$$+ 1157192169939\, p^{63} q^{54} + 1358909102561\, p^{64} q^{55} + 365018172165\, p^{63} q^{46} + 241040130395\, p^{54} q^{47} + 253473685137\, p^{53} q^{48}$$
$$+ 279322493087\, p^{54} q^{48} + 291167247282\, p^{53} q^{49} + 262102169966\, p^{52} q^{49} + 321392528390\, p^{54} q^{49} + 266521427194\, p^{51} q^{50}$$
$$+ 298503989666\, p^{52} q^{50} + 332153434432\, p^{53} q^{50} + 262102169966\, p^{49} q^{52} + 266521427194\, p^{50} q^{51} + 300988772729\, p^{51} q^{51}$$
$$+ 367232114879\, p^{54} q^{50} + 298503989666\, p^{50} q^{52} + 337662830172\, p^{52} q^{51} + 253473685137\, p^{48} q^{53} + 376337887445\, p^{53} q^{51}$$
$$+ 416751673225\, p^{54} q^{51} + 337662830172\, p^{51} q^{52} + 423557096812\, p^{53} q^{52} + 379421067689\, p^{52} q^{52} + 469784788741\, p^{54} q^{52}$$
$$+ 332153434432\, p^{50} q^{53} + 423557096812\, p^{52} q^{53} + 376337887445\, p^{51} q^{53} + 473575524479\, p^{53} q^{53} + 526083005668\, p^{54} q^{53}$$

$$+ 291167247282\, p^{49}\, q^{53} + 321392528390\, p^{49}\, q^{54} + 279322493087\, p^{48}\, q^{54} + 469784788741\, p^{52}\, q^{54} + 585313956046\, p^{54}\, q^{54}$$
$$+ 716397195285\, p^{55}\, q^{55} + 367232114879\, p^{50}\, q^{54} + 526083005668\, p^{53}\, q^{54} + 416751673225\, p^{51}\, q^{54} + 241040130395\, p^{47}\, q^{54}$$
$$+ 390504170822\, p^{56}\, q^{95} + 384289774181\, p^{55}\, q^{94} + 12685181\, p^{79}\, q^{19} + 175600789766\, p^{99}\, q^{108} + 26437178272\, p^{104}\, q^{50} + 7196\, q^{83}\, p^{12}$$
$$+ 57318978932\, p^{67}\, q^{112} + 447126420829\, p^{56}\, q^{94} + 2994033581481\, p^{66}\, q^{63} + 2798086580284\, p^{66}\, q^{62} + 432467075565\, p^{106}\, q^{90}$$
$$+ 464212677264\, p^{105}\, q^{74} + 439628657870\, p^{105}\, q^{73} + 448089072311\, p^{106}\, q^{89} + 508617425101\, p^{105}\, q^{76} + 527794118376\, p^{105}\, q^{77}$$
$$+ 350830292978\, p^{107}\, q^{91} + 484618764263\, p^{106}\, q^{81} + 387386866408\, p^{105}\, q^{71} + 481566166283\, p^{106}\, q^{86} + 472831320874\, p^{106}\, q^{87}$$
$$+ 466915147714\, p^{106}\, q^{79} + 11424\, p^{136}\, q^{54} + 955\, p^{132}\, q^{41} + 46348\, p^{138}\, q^{64} + 53837\, p^{144}\, q^{106} + 56621\, p^{140}\, q^{73} + 74462308532\, p^{47}\, q^{95}$$
$$+ 3156394\, q^{51}\, p^{14} + 1546311\, q^{51}\, p^{13} + 361578614068\, p^{102}\, q^{64} + 126444115431\, p^{101}\, q^{55} + 846568913\, p^{100}\, q^{35} + 182457\, p^{84}\, q^{15}$$
$$+ 170432269928\, p^{71}\, q^{109} + 45192982161\, p^{61}\, q^{110} + 50121240144\, p^{60}\, q^{109} + 350830292978\, p^{91}\, q^{107} + 15762169\, q^{114}\, p^{36} + 776\, p^{68}\, q^{142}$$
$$+ 7968457\, p^{92}\, q^{22} + 180458041928\, p^{108}\, q^{69} + 168367828839\, p^{107}\, q^{66} + 1105\, p^{110}\, q^{20} + 42520\, p^{140}\, q^{135} + 1737100768841\, p^{97}\, q^{85}$$
$$+ 5679726856\, p^{90}\, q^{35} + 2944909\, p^{79}\, q^{17} + 562484011\, p^{87}\, q^{28} + 70854654\, p^{84}\, q^{23} + 1737867510\, p^{88}\, q^{31} + 1038888240736\, p^{95}\, q^{64}$$
$$+ 384289774181\, p^{94}\, q^{55} + 194652789687\, p^{94}\, q^{51} + 80323966251\, p^{93}\, q^{46} + 2213440824\, p^{89}\, q^{32} + 516547329214\, p^{94}\, q^{57}$$
$$+ 57921992337\, p^{92}\, q^{44} + 1377718586324\, p^{96}\, q^{69} + 15522891\, p^{82}\, q^{20} + 12957347282\, p^{91}\, q^{38} + 1243921719982\, p^{95}\, q^{66}$$
$$+ 1554896\, p^{78}\, q^{16} + 124063140342\, p^{93}\, q^{48} + 73512169356\, p^{92}\, q^{45} + 1140309296564\, p^{95}\, q^{65} + 846199371303\, p^{95}\, q^{62}$$
$$+ 447126420829\, p^{94}\, q^{56} + 519263563973\, p^{95}\, q^{58} + 671735479920\, p^{95}\, q^{60} + 1557627695734\, p^{96}\, q^{71} + 327891286280\, p^{94}\, q^{54}$$
$$+ 97119\, p^{72}\, q^{12} + 277697724384\, p^{94}\, q^{53} + 67\, p^{53}\, q^{5} + 2322398554\, p^{88}\, q^{126} + 1070466511\, p^{128}\, q^{94} + 9957644\, p^{118}\, q^{39}$$
$$+ 1005763876\, p^{126}\, q^{74} + 15063488\, p^{118}\, q^{40} + 59876455\, p^{57}\, q^{126} + 755735917\, q^{125}\, p^{68} + q^{113}\, p^{18} + 5843\, q^{127}\, p^{36} + 188\, q^{121}\, p^{26}$$
$$+ 616634355\, q^{113}\, p^{45} + 108020634\, q^{110}\, p^{37} + 467021774\, q^{112}\, p^{43} + 2599386355543\, p^{66}\, q^{61} + 3120930892\, p^{123}\, q^{106} + 3214\, q^{93}\, p^{14}$$
$$+ 18871253561\, q^{117}\, p^{70} + 20793952532\, q^{117}\, p^{71} + 810092618320\, p^{100}\, q^{94} + 749\, q^{75}\, p^{9} + 1085608183463\, p^{93}\, q^{98} + 108020634\, p^{110}\, q^{37}$$
$$+ 38063430\, p^{108}\, q^{33} + 331457393\, q^{113}\, p^{43} + 240430677\, q^{112}\, p^{41} + 2202920203058\, p^{59}\, q^{66} + 2490066620680\, p^{60}\, q^{67}$$
$$+ 123103720944\, p^{77}\, q^{112} + 21211\, p^{141}\, q^{136} + 402153078003\, p^{49}\, q^{84} + 8\, p^{38}\, q^{3} + 1339221004771\, p^{90}\, q^{61} + 1641152902254\, p^{90}\, q^{63}$$
$$+ 1344675291114\, p^{94}\, q^{95} + 1676616809552\, p^{89}\, q^{96} + 3\, p^{62}\, q^{5} + 13071703856\, p^{107}\, q^{117} + 14725212450\, p^{106}\, q^{117}$$
$$+ 22195213571\, p^{102}\, q^{117} + 20226890598\, p^{103}\, q^{117} + 308125164\, p^{121}\, q^{123} + 1645576937272\, p^{97}\, q^{75} + 4496546\, p^{81}\, q^{18}$$
$$+ 25141665\, p^{83}\, q^{21} + 39472360\, p^{84}\, q^{22} + 15275\, p^{69}\, q^{10} + 1612182640613\, p^{98}\, q^{82} + 1579643596332\, p^{98}\, q^{84} + 380\, p^{55}\, q^{6}$$

$$+ 3998037314\, p^{90} q^{34} + 216406262\, p^{87} q^{26} + 26674872032\, p^{92} q^{41} + 15065812216\, p^{92} q^{39} + 9474337803\, p^{91} q^{37} + 2771931141\, p^{90} q^{33}$$
$$+ 20162388190\, p^{92} q^{40} + 6837610863\, p^{91} q^{36} + 985538716\, p^{89} q^{30} + 30061900623\, p^{93} q^{42} + 1593258396442\, p^{98} q^{79}$$
$$+ 10052912\, p^{131} q^{62} + 35047256\, p^{135} q^{93} + 18227883\, p^{133} q^{72} + 18712507\, p^{136} q^{105} + 1440275\, p^{126} q^{45} + 73\, p^{90} q^{11} + 489078\, q^{140} p^{85}$$
$$+ 197900685953\, p^{101} q^{106} + 1970129320047\, p^{92} q^{92} + 1755478999331\, p^{71} q^{95} + 338692572403\, p^{57} q^{97} + 912613640262\, p^{64} q^{96}$$
$$+ 6770805005\, p^{86} q^{123} + 1468220338127\, p^{98} q^{87} + 7824325\, p^{82} q^{19} + 1098806314605\, p^{99} q^{91} + 1614948663175\, p^{98} q^{81}$$
$$+ 1697246789722\, p^{97} q^{76} + 1740595806437\, p^{97} q^{77} + 1520551640068\, p^{97} q^{73} + 1358909102561\, p^{98} q^{89} + 1586381037438\, p^{97} q^{74}$$
$$+ 1042867748160\, p^{97} q^{67} + 161040756022\, p^{94} q^{50} + 36907\, p^{71} q^{11} + 1513054573131\, p^{98} q^{86} + 972170789\, q^{101} p^{36} + 175392\, q^{88} p^{16}$$
$$+ 1226209556\, p^{126} q^{106} + 34226\, p^{99} q^{18} + 4267365725032\, p^{77} q^{87} + 4292344189215\, p^{86} q^{74} + 3123126075577\, p^{86} q^{67}$$
$$+ 3877343979505\, p^{86} q^{71} + 4033997421827\, p^{86} q^{72} + 3325683626210\, p^{86} q^{68} + 4390079109385\, p^{86} q^{75} + 1059304\, p^{69} q^{14}$$
$$+ 489078\, p^{68} q^{13} + 2162890491\, q^{109} p^{45} + 18209\, p^{109} q^{22} + 94510435\, p^{59} q^{126} + 1084256\, p^{123} q^{40} + 478641042\, p^{68} q^{126}$$
$$+ 1692963010006\, p^{86} q^{97} + 284313333\, p^{62} q^{125} + 396188447150\, q^{107} p^{80} + 2117312\, q^{97} p^{22} + 1424054054276\, p^{81} q^{99}$$
$$+ 1173583949410\, p^{77} q^{100} + 1416502012948\, p^{80} q^{99} + 658126651047\, p^{71} q^{102} + 1040834916304\, p^{78} q^{101} + 1061318256581\, p^{79} q^{101}$$
$$+ 815343843130\, p^{101} q^{92} + 219103602363\, p^{100} q^{106} + 47536024095\, p^{101} q^{114} + 48022629290\, p^{103} q^{113} + 45101031754\, p^{99} q^{115}$$
$$+ 3787492945\, q^{115} p^{55} + 387145628166\, p^{79} q^{107} + 60632951\, p^{133} q^{82} + 6508313\, p^{128} q^{53} + 481403114317\, p^{84} q^{50}$$
$$+ 125171648422\, p^{83} q^{43} + 45867\, p^{109} q^{23} + 583023770\, p^{129} q^{101} + 60027575\, p^{130} q^{119} + 35806697\, p^{131} q^{120} + 757924\, p^{115} q^{31}$$
$$+ 333933\, p^{130} q^{138} + 1920\, q^{132} p^{42} + 2366\, q^{130} p^{39} + 188\, q^{127} p^{32} + 32646434\, p^{111} q^{35} + 209034\, p^{138} q^{132} + 116730589\, p^{114} q^{41}$$
$$+ 50394340\, p^{111} q^{36} + 267\, p^{78} q^{9} + 1229006312\, p^{117} q^{53} + 854763978\, p^{116} q^{50} + 2003982174\, p^{118} q^{57} + 6265733281\, p^{120} q^{69}$$
$$+ 7007851212\, p^{120} q^{70} + 20707905\, p^{111} q^{34} + 6413679106\, p^{123} q^{95} + 6604409990\, p^{123} q^{94} + 7267932194\, p^{121} q^{74} + 117864864\, p^{113} q^{40}$$
$$+ 80988525\, p^{113} q^{39} + 2543434552\, p^{124} q^{105} + 3762355143\, p^{123} q^{104} + 3414817463\, p^{119} q^{62} + 22788208\, p^{135} q^{85} + 265738\, p^{138} q^{131}$$
$$+ 21880\, p^{115} q^{26} + 706653345\, p^{129} q^{94} + 6146393\, p^{119} q^{39} + 639777354\, p^{127} q^{74} + 9389038\, p^{119} q^{40} + p^{71} q^{6} + 1311545906\, p^{113} q^{123}$$
$$+ 2095015740\, p^{107} q^{124} + 3946839\, p^{131} q^{130} + 2894755544\, p^{119} q^{61} + 10349418659\, p^{121} q^{79} + 9388537\, p^{108} q^{137} + 24556160\, p^{133} q^{74}$$
$$+ 5809\, p^{111} q^{22} + 12168135\, p^{132} q^{66} + 6251216\, p^{131} q^{60} + 414785\, p^{138} q^{129} + 658782698\, p^{116} q^{49} + 57\, p^{70} q^{7} + 490248103\, p^{129} q^{104}$$
$$+ 551240189\, p^{126} q^{69} + 699909565\, p^{129} q^{95} + 630326408\, p^{126} q^{70} + 1511687\, p^{117} q^{34} + 300763\, p^{113} q^{28} + 12840414\, p^{120} q^{42}$$
$$+ 19414\, p^{107} q^{21} + 869901\, q^{134} p^{61} + 506\, q^{130} p^{37} + 1233612\, p^{138} q^{123} + 131288089404\, q^{91} p^{47} + 33227017147\, p^{100} q^{116}$$

$$+ 1516369839\, p^{112}\, q^{123} + 2938360599\, p^{98}\, q^{125} + 2315918233\, p^{106}\, q^{124} + 1232090113\, p^{82}\, q^{127} + 2378478517\, p^{90}\, q^{126}$$
$$+ 2357149292\, p^{89}\, q^{126} + 3009281158\, p^{103}\, q^{124} + 2775379116\, p^{104}\, q^{124} + 3061869970\, p^{97}\, q^{125} + 3171647031\, p^{96}\, q^{125}$$
$$+ 2640287\, p^{135}\, q^{126} + 5524460\, p^{126}\, q^{133} + 8360988\, p^{124}\, q^{133} + 11601646\, p^{130}\, q^{127} + 3106082\, p^{134}\, q^{127} + 12025445\, p^{129}\, q^{128}$$
$$+ 9024012\, p^{130}\, q^{128} + 1772003835\, q^{85}\, p^{30} + 196191541490\, q^{108}\, p^{70} + 161790533114\, q^{91}\, p^{48} + 239548699945\, q^{91}\, p^{50}$$
$$+ 343409895079\, q^{91}\, p^{52} + 287945227811\, q^{91}\, p^{51} + 406431099779\, q^{91}\, p^{53} + 477430526815\, q^{91}\, p^{54} + 197685231006\, q^{91}\, p^{49}$$
$$+ 4970602333332\, p^{74}\, q^{69} + 1507950113806\, p^{96}\, q^{91} + 2431957827315\, p^{59}\, q^{76} + 2944272273313\, p^{61}\, q^{76} + 3477629879609\, p^{63}\, q^{76}$$
$$+ 3209625292705\, p^{62}\, q^{76} + 3745360812217\, p^{64}\, q^{76} + 4267365725032\, p^{66}\, q^{76} + 4009694149472\, p^{65}\, q^{76} + 4214694186688\, p^{66}\, q^{77}$$
$$+ 2684251394711\, p^{60}\, q^{76} + 228365523555\, p^{84}\, q^{110} + 27174\, p^{133}\, q^{142} + 7161\, p^{121}\, q^{146} + 902256476381\, p^{53}\, q^{82} + 17996640711\, q^{99}\, p^{44}$$
$$+ 11282700204\, q^{100}\, p^{43} + 2189474331548\, p^{58}\, q^{76} + 12082713\, p^{123}\, q^{46} + 430113836\, p^{130}\, q^{89} + 402574696\, p^{130}\, q^{87}$$
$$+ 301241688\, p^{129}\, q^{76} + 440614309\, p^{130}\, q^{90} + 332992110\, p^{129}\, q^{77} + 277904115\, p^{131}\, q^{98} + 365684076\, p^{129}\, q^{78} + 1641715430942\, p^{57}\, q^{81}$$
$$+ 135286092335\, p^{87}\, q^{45} + 15245921771\, p^{85}\, q^{36} + 796233073618\, p^{89}\, q^{56} + 229149927286\, p^{88}\, q^{48} + 8178532\, q^{97}\, p^{24}$$
$$+ 13748880354\, q^{118}\, p^{70} + 1970430186\, q^{112}\, p^{48} + 1511701276\, q^{112}\, p^{47} + 19723804295\, q^{118}\, p^{74} + 18192092466\, q^{118}\, p^{73}$$
$$+ 2186655488046\, p^{60}\, q^{82} + 144529385660\, p^{44}\, q^{84} + 104434453875\, p^{43}\, q^{85} + 126\, p^{50}\, q^{5} + 1285552072464\, p^{97}\, q^{92}$$
$$+ 5336960626154\, p^{73}\, q^{80} + 2279\, q^{142}\, p^{71} + 4032670658\, q^{116}\, p^{57} + 371\, q^{43}\, p^{5} + 5149899394106\, p^{82}\, q^{74} + 3877343979505\, p^{82}\, q^{67}$$
$$+ 4719816283743\, p^{82}\, q^{71} + 4886763242452\, p^{82}\, q^{72} + 4108315338576\, p^{82}\, q^{68} + 62799448\, q^{105}\, p^{32} + 28312911\, q^{106}\, p^{31}$$
$$+ 11799054\, p^{126}\, q^{51} + 5242000177393\, p^{82}\, q^{75} + 97532165061\, q^{104}\, p^{57} + 6221439\, p^{104}\, q^{27} + 6881288734\, p^{123}\, q^{92}$$
$$+ 6041948535\, p^{121}\, q^{72} + 761493017\, p^{117}\, q^{51} + 3742167855\, p^{120}\, q^{65} + 9175997679\, p^{100}\, q^{121} + 4909416417\, p^{120}\, q^{67}$$
$$+ 522383051\, p^{124}\, q^{117} + 10908233097\, p^{121}\, q^{80} + 1637399666\, p^{118}\, q^{56} + 558\, p^{135}\, q^{46} + 2130\, p^{107}\, q^{19} + 8749\, p^{112}\, q^{23} + 20262954\, p^{136}\, q^{95}$$
$$+ 76116\, p^{118}\, q^{30} + 160167\, p^{120}\, q^{33} + 20808793\, p^{136}\, q^{101} + 3519913\, p^{137}\, q^{119} + 6191919894\, p^{123}\, q^{96} + 1130\, p^{84}\, q^{11}$$
$$+ 6647682296\, p^{121}\, q^{73} + q^{121}\, p^{23} + 2\, q^{123}\, p^{25} + 15\, q^{123}\, p^{26} + 1650658\, p^{138}\, q^{121} + 4646446859\, p^{119}\, q^{64} + 133264\, p^{98}\, q^{19}$$
$$+ 2710402\, q^{138}\, p^{85} + 3594135\, q^{138}\, p^{88} + 4192555\, q^{138}\, p^{90} + 2998609\, q^{138}\, p^{86} + 2432878\, q^{138}\, p^{84} + 1683600\, q^{138}\, p^{81} + 10786\, p^{104}\, q^{19}$$
$$+ 406256397\, p^{125}\, q^{64} + 1085986078\, p^{127}\, q^{80} + 610157146\, p^{129}\, q^{100} + 5068101707\, p^{123}\, q^{100} + 4421381321\, p^{123}\, q^{102}$$
$$+ 1311407309\, p^{124}\, q^{111} + 2095015740\, p^{124}\, q^{107} + 110746573\, p^{130}\, q^{115} + 7006265583\, p^{89}\, q^{123} + 74770285\, p^{128}\, q^{63}$$
$$+ 3282670080\, p^{112}\, q^{120} + 4122187247\, p^{76}\, q^{123} + 3030585666\, p^{77}\, q^{124} + 350480090\, p^{103}\, q^{130} + 204129619\, q^{124}\, p^{58} + 21211\, p^{136}\, q^{141}$$

$$+ 897\, p^{104} q^{17} + 71\, q^{126} p^{30} + 5809\, q^{131} p^{42} + 50656\, q^{135} p^{55} + 73488\, q^{135} p^{56} + 47685\, q^{133} p^{50} + 30579\, q^{133} p^{49} + 19095\, q^{133} p^{48}$$
$$+ 11613\, q^{133} p^{47} + 64\, p^{138} q^{50} + 35644\, p^{137} q^{139} + 110513\, p^{131} q^{140} + 3684\, p^{102} q^{146} + 1511687\, q^{119} p^{36} + 56678\, p^{143} q^{125}$$
$$+ 31752\, p^{132} q^{47} + 269268\, p^{142} q^{115} + 27301\, p^{130} q^{43} + 768076\, p^{140} q^{89} + 93262\, p^{143} q^{120} + 7\, p^{100} q^{13} + 3014400\, q^{122} p^{41}$$
$$+ 6809064\, q^{122} p^{43} + 14325364\, q^{122} p^{45} + 2540\, p^{118} q^{147} + 4\, p^{26} q^{2} + 3184793239384\, p^{66} q^{64} + 54\, q^{110} p^{18} + 27186659\, q^{134} p^{80}$$
$$+ 24374256\, q^{134} p^{79} + 14669862\, q^{134} p^{75} + 16838555\, q^{134} p^{76} + 21701751\, q^{134} p^{78} + 14254\, p^{126} q^{36} + 1453029\, p^{140} q^{99}$$
$$+ 465929\, p^{141} q^{117} + 642418\, p^{135} q^{63} + 19095\, p^{105} q^{20} + 204931851\, p^{122} q^{54} + 1691264088\, p^{116} q^{120} + 272247115471\, p^{75} q^{108}$$
$$+ 6895965904\, p^{111} q^{52} + 26149107\, p^{103} q^{29} + 58254019001\, p^{114} q^{73} + 1204302270\, p^{109} q^{43} + 211284340022\, p^{103} q^{61}$$
$$+ 269792152267\, p^{103} q^{63} + 496932099341\, p^{104} q^{72} + 123554371963\, p^{102} q^{56} + 335590584076\, p^{103} q^{65} + 239548699945\, p^{103} q^{62}$$
$$+ 582924914144\, p^{105} q^{82} + 582920053813\, p^{105} q^{84} + 144810748762\, p^{102} q^{57} + 584576799281\, p^{105} q^{83} + 558\, p^{107} q^{18} + 6170688\, p^{136} q^{79}$$
$$+ 130\, p^{102} q^{15} + 192\, p^{104} q^{16} + 117472\, p^{127} q^{41} + 3971969\, p^{133} q^{64} + 3021653\, p^{139} q^{106} + 5330930\, p^{135} q^{73} + 6993465\, p^{136} q^{80}$$
$$+ 6132911\, p^{138} q^{100} + 599001\, p^{129} q^{48} + p^{65} q^{5} + 2608683\, p^{139} q^{110} + 4144991\, q^{117} p^{36} + 21121596640\, q^{119} p^{95} + 16990706423\, q^{119} p^{99}$$
$$+ 18102712608\, q^{119} p^{98} + 13541142660\, q^{119} p^{102} + 11280963277\, q^{119} p^{104} + 7900782080\, q^{120} p^{105} + 15850301374\, q^{119} p^{100}$$
$$+ 12398936223\, q^{119} p^{103} + 20182758598\, q^{119} p^{96} + 14695886584\, q^{119} p^{101} + 19171657819\, q^{119} p^{97} + 21974281004\, q^{119} p^{94}$$
$$+ 22727946681\, q^{119} p^{93} + p^{147} q^{81} + 123290231\, q^{122} p^{52} + 159789426\, q^{122} p^{53} + 204931851\, q^{122} p^{54} + 6209397254\, q^{123} p^{83}$$
$$+ 7987347311\, p^{112} q^{116} + 9751152\, p^{136} q^{83} + 1143191\, p^{131} q^{54} + 3183305\, q^{130} p^{55} + 4252064\, q^{130} p^{56} + 324192171883\, p^{88} q^{108}$$
$$+ 582774\, p^{113} q^{29} + 1300432374\, p^{127} q^{83} + 123290231\, p^{122} q^{52} + 1422797457\, p^{127} q^{85} + 606487\, p^{113} q^{141} + 76285918\, q^{116} p^{42}$$
$$+ 789\, p^{146} q^{139} + 34904567514\, q^{92} p^{42} + 26674872032\, q^{92} p^{41} + 755735917\, p^{125} q^{68} + 4613671594\, q^{104} p^{43} + 3445001812\, q^{104} p^{42}$$
$$+ 6107860359\, q^{104} p^{44} + 8167389379\, q^{105} p^{46} + 13284105208\, q^{104} p^{47} + 7996958371\, q^{104} p^{45} + 10359712712\, q^{104} p^{46} + 10176\, p^{90} q^{14}$$
$$+ 104811\, p^{96} q^{18} + 113389344\, p^{111} q^{38} + 1125908746\, p^{123} q^{114} + 1983204811\, p^{123} q^{110} + 565091573\, p^{123} q^{118} + 2521810764\, p^{123} q^{108}$$
$$+ 2244080570\, p^{123} q^{109} + 1592454257\, p^{115} q^{121} + 959153819\, p^{123} q^{115} + 54661\, p^{95} q^{17} + 52926525\, q^{104} p^{31} + 205773795\, p^{129} q^{113}$$
$$+ 398077015\, p^{123} q^{59} + 2244080570\, p^{109} q^{123} + 981499904759\, p^{70} q^{99} + 616304462834\, p^{66} q^{100} + 20162388190\, q^{92} p^{40}$$
$$+ 37084044\, p^{114} q^{38} + 3214\, p^{93} q^{14} + 932661428\, p^{94} q^{32} + 246651595778\, p^{99} q^{57} + 45085125804\, p^{98} q^{47} + 74770285\, p^{90} q^{25}$$
$$+ 3369086\, p^{127} q^{49} + 477040049773\, p^{106} q^{80} + 461613628504\, p^{106} q^{88} + 617679\, q^{96} p^{20} + 151579992498\, p^{98} q^{53} + 19020545\, p^{130} q^{62}$$
$$+ 62040297\, p^{134} q^{93} + 34417298\, p^{132} q^{72} + 31836104\, p^{135} q^{105} + 2689546\, p^{125} q^{45} + 129\, p^{89} q^{11} + 8643981\, q^{120} p^{41} + 5711678\, q^{120} p^{40}$$

$$+ 13505\, p^{142}\, q^{136} + 23123183845\, q^{84}\, p^{37} + 35714886122\, q^{107}\, p^{55} + 119561825131\, p^{109}\, q^{67} + 10503710154\, p^{106}\, q^{48} + 3108289\, p^{93}\, q^{21}$$
$$+ 159789426\, p^{100}\, q^{31} + 47828962\, p^{99}\, q^{28} + 272379\, p^{88}\, q^{141} + 7786678130\, p^{120}\, q^{71} + 9662627331\, p^{122}\, q^{91} + 1586025670\, p^{89}\, q^{127}$$
$$+ 192463958\, p^{125}\, q^{60} + 352982642\, p^{126}\, q^{66} + 28312911\, p^{122}\, q^{47} + 2661\, p^{86}\, q^{12} + 18924\, p^{145}\, q^{120} + 13343\, p^{145}\, q^{125} + 3784\, p^{134}\, q^{47}$$
$$+ q^{138}\, p^{46} + 53056209\, p^{112}\, q^{37} + 18743179\, p^{110}\, q^{33} + 1244\, q^{127}\, p^{34} + 114573\, p^{117}\, q^{143} + 58485\, p^{112}\, q^{144} + 58698\, p^{111}\, q^{144}$$
$$+ 58529\, p^{110}\, q^{144} + 3628\, q^{132}\, p^{43} + 2194\, q^{128}\, p^{36} + 228620\, q^{133}\, p^{54} + 72737\, q^{133}\, p^{51} + 108559\, q^{133}\, p^{52} + 159005\, q^{133}\, p^{53} + 10\, p^{74}\, q^{7}$$
$$+ 8454134\, p^{108}\, q^{30} + 25\, p^{65}\, q^{6} + 502269000\, p^{116}\, q^{48} + 165302\, p^{126}\, q^{141} + 12472\, p^{113}\, q^{24} + 287281517\, p^{130}\, q^{106} + 409735357\, p^{115}\, q^{46}$$
$$+ 740276\, p^{105}\, q^{141} + 223704\, p^{96}\, q^{142} + 728208\, p^{103}\, q^{141} + 173048\, p^{93}\, q^{142} + 28006\, p^{78}\, q^{12} + 124063140342\, p^{105}\, q^{60} + 582678\, p^{101}\, q^{22}$$
$$+ 873159\, p^{102}\, q^{23} + 126444115431\, q^{101}\, p^{55} + 149006269316\, q^{101}\, p^{56} + 2264156868716\, p^{95}\, q^{81} + 3538956140609\, p^{65}\, q^{81}$$
$$+ 921485\, q^{62}\, p^{13} + 402574696\, q^{66}\, p^{23} + 7475968\, p^{65}\, q^{16} + 147821280\, q^{66}\, p^{21} + 3036819199951\, p^{88}\, q^{89} + 2878942017560\, p^{89}\, q^{89}$$
$$+ 2713343168099\, p^{90}\, q^{89} + 1449598712956\, p^{95}\, q^{93} + 571817194442\, p^{69}\, q^{102} + 139129216657\, p^{103}\, q^{58} + 3184793239384\, p^{87}\, q^{89}$$
$$+ 4482975\, q^{62}\, p^{15} + 15245921771\, q^{85}\, p^{36} + 13648\, q^{62}\, p^{9} + 9804915316\, q^{86}\, p^{35} + 6988380553\, q^{86}\, p^{34} + 84457\, q^{66}\, p^{11} + 53098\, p^{112}\, q^{25}$$
$$+ 1597\, q^{57}\, p^{7} + 56061199918\, q^{68}\, p^{37} + 9337185026\, q^{68}\, p^{31} + 24170116324\, q^{68}\, p^{34} + 12990852748\, q^{68}\, p^{32} + 1474974338\, q^{67}\, p^{26}$$
$$+ 2215116427\, q^{67}\, p^{27} + 17833188171\, q^{68}\, p^{33} + 32362826597\, q^{68}\, p^{35} + 963550638\, q^{67}\, p^{25} + 44196\, q^{141}\, p^{77} + 26577\, p^{94}\, q^{16}$$
$$+ 17141\, p^{92}\, q^{15} + 2367121\, p^{105}\, q^{26} + 1326226513\, p^{118}\, q^{55} + 303099063\, p^{115}\, q^{45} + 8539254\, p^{131}\, q^{127} + 10795015\, p^{126}\, q^{131}$$
$$+ 6193718\, p^{132}\, q^{127} + 4423174\, p^{133}\, q^{127} + 3793652\, p^{132}\, q^{129} + 3854660\, p^{134}\, q^{126} + 52926525\, p^{122}\, q^{49} + 341237325\, p^{125}\, q^{63}$$
$$+ 21701751\, p^{134}\, q^{78} + 21112407\, p^{136}\, q^{98} + 17408\, p^{134}\, q^{50} + 634698926\, p^{129}\, q^{99} + 2917109\, p^{130}\, q^{132} + 832662\, p^{135}\, q^{131}$$
$$+ 9337185026\, p^{122}\, q^{85} + 5565065448\, p^{120}\, q^{68} + 8812652845\, p^{122}\, q^{83} + 2490467\, p^{128}\, q^{50} + 3\, p^{140}\, q^{52} + 47\, p^{144}\, q^{71} + 38\, p^{140}\, q^{55}$$
$$+ 972170789\, p^{117}\, q^{52} + 263955\, q^{134}\, p^{57} + 363082\, q^{134}\, p^{58} + 490851\, q^{135}\, p^{62} + 370551\, q^{135}\, p^{61} + 3\, q^{127}\, p^{29} + 1493207\, p^{100}\, q^{140}$$
$$+ 2473644\, p^{111}\, q^{139} + 7896489111\, p^{121}\, q^{75} + 162305\, p^{138}\, q^{133} + 4845501\, p^{108}\, q^{29} + 231781761\, p^{114}\, q^{43} + 1062535\, q^{135}\, p^{65}$$
$$+ 2087089\, q^{135}\, p^{68} + 1344231\, q^{135}\, p^{66} + 1683416\, q^{135}\, p^{67} + 642418\, q^{135}\, p^{63} + 830745\, q^{135}\, p^{64} + 1146247069\, p^{124}\, q^{112}$$
$$+ 227191747\, p^{125}\, q^{120} + 360573951\, p^{124}\, q^{119} + 9958957\, p^{109}\, q^{31} + 541\, p^{111}\, q^{20} + 27532\, p^{141}\, q^{135} + 4748305744\, p^{123}\, q^{101}$$
$$+ 9097616937\, p^{122}\, q^{84} + 4301306186\, p^{120}\, q^{66} + 2434996721\, p^{119}\, q^{60} + 20953993\, p^{136}\, q^{97} + 553702783\, p^{129}\, q^{102} + 265459183\, p^{130}\, q^{107}$$
$$+ 356555\, p^{124}\, q^{39} + 245298\, p^{112}\, q^{27} + 2756632087695\, p^{63}\, q^{83} + 285290817\, p^{130}\, q^{81} + 385977853\, p^{130}\, q^{86} + 850456315768\, p^{54}\, q^{85}$$
$$+ 1950075816931\, p^{60}\, q^{84} + 982490156915\, p^{55}\, q^{85} + 231183395\, p^{105}\, q^{35} + 2117312\, p^{97}\, q^{22} + 54041798744\, p^{113}\, q^{69}$$

$$+ 51312294595\, p^{112} q^{66} + 30061900623\, p^{111} q^{60} + 59353711699\, p^{113} q^{70} + 63616334872\, p^{112} q^{68} + 26674872032\, p^{112} q^{61}$$
$$+ 93196771789\, p^{114} q^{86} + 81751094348\, p^{114} q^{79} + 3183305\, p^{98} q^{23} + 48484306115\, p^{115} q^{98} + 11282700204\, p^{110} q^{53}$$
$$+ 100911797543\, p^{113} q^{78} + 7720463496\, p^{109} q^{50} + 92809545852\, p^{114} q^{87} + 4624958\, p^{99} q^{24} + 1429830414\, p^{113} q^{48} + 14750208\, p^{126} q^{130}$$
$$+ 15547871\, p^{127} q^{129} + 279829243422\, p^{48} q^{86} + 338816701444\, p^{49} q^{86} + 115132898310\, p^{92} q^{47} + 208299385\, p^{84} q^{25}$$
$$+ 1016119998\, p^{86} q^{29} + 123241216\, p^{84} q^{24} + 478641042\, p^{85} q^{27} + 29870100797\, p^{93} q^{118} + 8082\, q^{138} p^{59} + 17141\, q^{138} p^{61}$$
$$+ 784526340320\, p^{54} q^{86} + 442523076448\, p^{51} q^{87} + 673242493590\, p^{53} q^{86} + 484968481562\, p^{51} q^{86} + 573540776080\, p^{52} q^{86}$$
$$+ 1752545138895\, p^{88} q^{96} + 1756702622\, q^{100} p^{37} + 30700627975\, p^{113} q^{64} + 9572812495\, p^{112} q^{55} + 65440254214\, p^{115} q^{80}$$
$$+ 72131597620\, p^{115} q^{88} + 25455768590\, p^{116} q^{103} + 51712766429\, p^{116} q^{92} + 11580205752\, p^{112} q^{56} + 939163843692\, p^{102} q^{83}$$
$$+ 238068\, p^{137} q^{133} + 873159\, q^{102} p^{23} + 2490467\, q^{103} p^{25} + 406217\, q^{102} p^{22} + 1202999690601\, p^{97} q^{93} + 1557049909185\, p^{58} q^{84}$$
$$+ 4327735585759\, p^{69} q^{82} + 5313062620436\, p^{74} q^{81} + 12874575703\, q^{93} p^{39} + 9478324382\, q^{93} p^{38} + 5834782993\, q^{92} p^{36}$$
$$+ 2380694898770\, p^{62} q^{84} + 65\, p^{145} q^{77} + 3472278037036\, p^{66} q^{83} + 72876\, q^{67} p^{11} + 489078\, q^{68} p^{13} + 8030549\, p^{89} q^{21}$$
$$+ 767374416996\, p^{101} q^{93} + 218044506\, p^{131} q^{104} + 208299385\, p^{128} q^{69} + 289150782\, p^{131} q^{95} + 12183170\, p^{122} q^{133} + 14511177\, p^{121} q^{133}$$
$$+ 26874690\, p^{117} q^{133} + 23315193\, p^{118} q^{133} + 908050811306\, p^{99} q^{94} + 449687866\, q^{101} p^{34} + 277307355613\, p^{86} q^{109}$$
$$+ 204522945231\, q^{107} p^{68} + 2025968741624\, p^{68} q^{92} + 379421067689\, p^{101} q^{101} + 2510245928\, p^{80} q^{125} + 1300432374\, p^{83} q^{127}$$
$$+ 2386011246\, p^{91} q^{126} + 540693085\, p^{77} q^{128} + 17643169\, p^{94} q^{24} + 888\, p^{68} q^{8} + 3682\, p^{144} q^{84} + 6293\, p^{145} q^{95} + 15\, p^{127} q^{30}$$
$$+ 1327\, p^{139} q^{58} + 254\, p^{138} q^{52} + 2279\, p^{142} q^{71} + 1357\, p^{138} q^{55} + 30000546\, p^{131} q^{121} + 8170048419\, p^{119} q^{107} + 5217886830\, p^{118} q^{112}$$
$$+ 7570395349\, p^{117} q^{111} + 9347648841\, p^{116} q^{111} + 3892018879\, p^{117} q^{115} + 5698324307\, p^{114} q^{116} + 2147986\, p^{136} q^{125}$$
$$+ 15063488\, q^{118} p^{40} + 416404352\, p^{110} q^{128} + 8771791701\, p^{110} q^{117} + 2015639442\, q^{123} p^{69} + 34784906\, q^{127} p^{57} + 27975823\, q^{126} p^{54}$$
$$+ 299696398\, q^{126} p^{65} + 252471841\, q^{126} p^{64} + 132621798\, q^{120} p^{49} + 105359530\, p^{129} q^{68} + 55657435\, p^{127} q^{59} + 44013367\, p^{133} q^{113}$$
$$+ 6075132130\, p^{111} q^{118} + 5513453000\, p^{113} q^{117} + 418945525\, p^{99} q^{130} + 441700656\, p^{97} q^{130} + 490248103\, p^{104} q^{129}$$
$$+ 423302514\, p^{106} q^{129} + 369850304\, p^{102} q^{130} + 404346659\, p^{100} q^{130} + 4735192\, p^{134} q^{125} + 7987347311\, p^{116} q^{112} + 9751274419\, p^{115} q^{112}$$
$$+ 4829190528\, p^{119} q^{111} + 15927709\, p^{126} q^{52} + 223708094\, p^{131} q^{85} + 197580073\, p^{131} q^{83} + 27975823\, p^{126} q^{54} + 74822047\, p^{133} q^{107}$$
$$+ 155393208\, p^{132} q^{102} + 2941790655\, p^{83} q^{125} + 1491\, q^{120} p^{27} + 3403608534\, p^{125} q^{88} + 1563409751\, p^{126} q^{103} + 1731\, p^{91} q^{13}$$
$$+ 6861565741\, p^{100} q^{122} + 555637\, p^{128} q^{46} + 3880853\, p^{138} q^{113} + 1782887\, p^{129} q^{51} + 5268252\, p^{138} q^{108} + 36\, p^{150} q^{137} + 13648\, p^{144} q^{91}$$

$$+ 2147986\, p^{125}\, q^{136} + 1164476\, p^{126}\, q^{137} + 10858215104\, p^{116}\, q^{110} + 11440322291\, p^{111}\, q^{115} + 6921349296\, p^{115}\, q^{114}$$
$$+ 8336482010\, p^{114}\, q^{114} + 9959231773\, p^{113}\, q^{114} + 5513453000\, p^{117}\, q^{113} + 9751274419\, p^{112}\, q^{115} + 8247867146\, p^{113}\, q^{115}$$
$$+ 5156362068104\, p^{70}\, q^{74} + 4749342423547\, p^{68}\, q^{76} + 4982818185882\, p^{69}\, q^{75} + 128453\, p^{143}\, q^{103} + 89257\, p^{140}\, q^{75} + 97119\, p^{141}\, q^{81}$$
$$+ 14534\, p^{145}\, q^{124} + 63765\, p^{139}\, q^{69} + 8\, p^{117}\, q^{21} + 71\, p^{123}\, q^{27} + 5156362068104\, p^{74}\, q^{70} + 5263287111930\, p^{73}\, q^{71} + 9331129870\, p^{122}\, q^{93}$$
$$+ 3846506060279\, p^{85}\, q^{87} + 4982818185882\, p^{75}\, q^{69} + 4464704163410\, p^{67}\, q^{77} + 742922184622\, p^{76}\, q^{50} + 202896635019\, p^{75}\, q^{43}$$
$$+ 162275045511\, p^{75}\, q^{42} + 96423077514\, p^{65}\, q^{109} + 27080679\, p^{97}\, q^{26} + 105495658016\, p^{112}\, q^{96} + 1135456\, p^{91}\, q^{19} + 1851325689\, p^{104}\, q^{40}$$
$$+ 1330764796\, p^{104}\, q^{39} + 48650\, p^{85}\, q^{14} + 5728\, p^{79}\, q^{11} + 348963389\, p^{102}\, q^{34} + 149863782712\, p^{67}\, q^{108} + 257373442\, p^{131}\, q^{88}$$
$$+ 39971713\, p^{128}\, q^{60} + 75219436\, p^{129}\, q^{66} + 2997899579879\, p^{81}\, q^{92} + 21893\, p^{79}\, q^{12} + 100272559644\, p^{106}\, q^{60} + 49180582989\, p^{111}\, q^{106}$$
$$+ 253473685137\, p^{100}\, q^{105} + 1778\, p^{145}\, q^{138} + 22590\, p^{127}\, q^{144} + 323394\, q^{133}\, p^{55} + 636527\, p^{141}\, q^{112} + 68859\, p^{142}\, q^{128} + 1632406\, p^{139}\, q^{88}$$
$$+ p^{149}\, q^{98} + 1467003\, q^{138}\, p^{80} + 360897\, q^{138}\, p^{72} + 127\, q^{135}\, p^{44} + 5060\, p^{143}\, q^{79} + 142247\, q^{138}\, p^{68} + 580\, p^{115}\, q^{148} + 65\, p^{112}\, q^{149}$$
$$+ 27722\, p^{130}\, q^{143} + 3\, q^{131}\, p^{34} + 77\, q^{132}\, p^{38} + 2782468\, q^{139}\, p^{96} + 5\, q^{143}\, p^{63} + 2\, q^{143}\, p^{62} + 54\, p^{110}\, q^{18} + 520209\, p^{139}\, q^{79} + 12\, p^{105}\, q^{15}$$
$$+ 16\, p^{107}\, q^{16} + 710\, p^{140}\, q^{60} + 1686\, p^{147}\, q^{129} + 5728\, p^{142}\, q^{74} + 1836\, p^{141}\, q^{66} + 1394\, p^{147}\, q^{131} + 3\, p^{124}\, q^{26} + 11676\, p^{144}\, q^{90}$$
$$+ 7161\, p^{146}\, q^{121} + 323916\, p^{128}\, q^{139} + 390524\, p^{127}\, q^{139} + 137\, p^{148}\, q^{141} + 336\, p^{66}\, q^{142} + 5454888837335\, p^{81}\, q^{79} + 1859128006671\, p^{59}\, q^{83}$$
$$+ 788797516028\, p^{53}\, q^{84} + 1655\, p^{78}\, q^{10} + 24661443103\, p^{119}\, q^{88} + 9557801869\, p^{120}\, q^{103} + 17539213528\, p^{120}\, q^{92}$$
$$+ 10534125686\, p^{117}\, q^{65} + 16675606958\, p^{118}\, q^{72} + 2180626212\, p^{114}\, q^{51} + 471099533\, p^{111}\, q^{42} + 1092557403\, p^{113}\, q^{47}$$
$$+ 3443317939\, p^{89}\, q^{125} + 491168309\, p^{121}\, q^{121} + 309166261939\, p^{96}\, q^{106} + 1594699691225\, p^{90}\, q^{96} + 1239802547479\, p^{95}\, q^{95}$$
$$+ 1550390268510\, p^{85}\, q^{98} + 1514259357547\, p^{89}\, q^{97} + 1600351068493\, p^{83}\, q^{98} + 3\, p^{28}\, q^{2} + 1507950113806\, p^{91}\, q^{96}$$
$$+ 16432404903\, q^{87}\, p^{37} + 5361175607\, q^{88}\, p^{34} + 11996597571\, q^{87}\, p^{36} + 6142216333\, q^{87}\, p^{34} + 8643713056\, q^{87}\, p^{35} + 2312114396\, q^{86}\, p^{31}$$
$$+ 8112155748\, p^{122}\, q^{97} + 7299291651\, p^{122}\, q^{99} + 160940992\, q^{64}\, p^{21} + 72597633517\, q^{68}\, p^{38} + 2359424417\, p^{93}\, q^{126} + 1053000\, p^{138}\, q^{124}$$
$$+ 21234210\, p^{132}\, q^{69} + 32192\, p^{117}\, q^{28} + 157530\, p^{121}\, q^{34} + 1433032\, p^{138}\, q^{122} + 595360313\, p^{119}\, q^{122} + 1232090113\, p^{127}\, q^{82}$$
$$+ 26916835\, p^{120}\, q^{44} + 106911\, p^{109}\, q^{24} + 2803017645\, p^{99}\, q^{125} + 29971192\, p^{119}\, q^{43} + 232854502\, p^{129}\, q^{112} + 1111689331\, p^{126}\, q^{75}$$
$$+ 70\, p^{148}\, q^{144} + 375154208\, p^{124}\, q^{61} + 27301\, q^{130}\, p^{43} + 4698449\, p^{136}\, q^{77} + 4053203\, p^{136}\, q^{76} + 59322\, p^{125}\, q^{37} + 278\, p^{146}\, q^{143}$$
$$+ 32\, q^{141}\, p^{58} + 33135964\, p^{134}\, q^{82} + 3412832\, p^{129}\, q^{53} + 29\, p^{83}\, q^{9} + 7968457\, p^{131}\, q^{61} + 689131527\, p^{129}\, q^{96} + 791992\, p^{140}\, q^{118}$$
$$+ 1312041\, p^{140}\, q^{111} + 1404047\, p^{136}\, q^{70} + 3152400\, p^{139}\, q^{103} + 3468729\, p^{136}\, q^{75} + 16\, p^{96}\, q^{12} + 2087089\, p^{135}\, q^{68} + 1115899\, p^{133}\, q^{59}$$

$$+ 947863\, p^{140} q^{116} + 2534126\, p^{139} q^{94} + 141271\, p^{141} q^{127} + 1424761\, p^{140} q^{109} + 16768\, p^{125} q^{35} + 2\, p^{82} q^{8} + 3745155\, p^{137} q^{81}$$
$$+ 220385\, p^{141} q^{124} + 2563274\, p^{135} q^{69} + 451\, p^{113} q^{21} + 5\, p^{90} q^{10} + 3379\, p^{119} q^{27} + 42\, q^{142} p^{62} + 25254743\, q^{135} p^{109} + 23449668\, q^{135} p^{110}$$
$$+ 1994506619467\, p^{96} q^{78} + 859162708231\, p^{94} q^{61} + 1065144037844\, p^{94} q^{63} + 38830982845\, p^{117} q^{93} + 14694878857\, p^{113} q^{59}$$
$$+ 348963389\, q^{119} p^{51} + 267937408\, q^{119} p^{50} + 4923424558937\, p^{77} q^{69} + 5125640655317\, p^{77} q^{70} + 5563045522720\, p^{74} q^{73}$$
$$+ 5492232887046\, p^{73} q^{73} + 279322493087\, p^{99} q^{105} + 16476805365\, p^{105} q^{117} + 29949059667\, p^{107} q^{113} + 1566529\, p^{98} q^{22}$$
$$+ 35047256\, q^{135} p^{93} + 2353038\, p^{99} q^{23} + 3412832\, p^{100} q^{24} + 192\, q^{104} p^{16} + 5704093783173\, p^{76} q^{74} + 5487711416286\, p^{72} q^{75}$$
$$+ 623321573\, p^{96} q^{32} + 49702018\, p^{92} q^{25} + 127061603\, q^{107} p^{35} + 191001896\, q^{107} p^{36} + 2676991\, p^{137} q^{121} + 6285425082\, p^{105} q^{45}$$
$$+ 761493017\, p^{102} q^{36} + 64677300849\, p^{112} q^{102} + 1218555449\, p^{103} q^{38} + 78048037677\, p^{112} q^{100} + 175772142295\, p^{111} q^{89}$$
$$+ 186293357214\, p^{110} q^{76} + 194982521623\, p^{110} q^{77} + 134396140090\, p^{112} q^{91} + 177613978539\, p^{111} q^{81} + 135772915407\, p^{110} q^{71}$$
$$+ 2541469723\, p^{104} q^{41} + 196191541490\, p^{108} q^{70} + 1592454257\, p^{121} q^{115} + 3394847010\, p^{121} q^{110} + 3863964909\, p^{121} q^{109}$$
$$+ 919926424\, p^{121} q^{118} + 4367362685\, p^{121} q^{108} + 1881148359\, p^{121} q^{114} + 204522945231\, p^{107} q^{68} + 306277468\, p^{104} q^{35}$$
$$+ 2825484\, p^{96} q^{22} + 70157019525\, p^{112} q^{69} + 66362660122\, p^{111} q^{66} + 39016383333\, p^{110} q^{60} + 76885240359\, p^{112} q^{70}$$
$$+ 81916653079\, p^{111} q^{68} + 34904567514\, p^{111} q^{61} + 118050835667\, p^{113} q^{86} + 105001105771\, p^{113} q^{79} + 4252064\, p^{97} q^{23}$$
$$+ 60533867543\, p^{114} q^{98} + 14756355112\, p^{109} q^{53} + 128584425508\, p^{112} q^{78} + 10077384414\, p^{108} q^{50} + 117331155807\, p^{113} q^{87}$$
$$+ 6188141\, p^{98} q^{24} + 1698514837553\, q^{93} p^{67} + 1836415\, q^{77} p^{16} + 369417\, q^{76} p^{14} + 440224\, q^{75} p^{14} + 798114731\, p^{107} q^{127}$$
$$+ 240285779\, p^{121} q^{124} + 1327\, q^{95} p^{14} + 99190589\, p^{118} q^{129} + 211\, p^{147} q^{142} + 35196\, p^{141} q^{134} + 4265\, p^{121} q^{29} + 4762572\, p^{138} q^{92}$$
$$+ 2214714\, p^{132} q^{131} + 5318619616317\, p^{74} q^{71} + 5460897579740\, p^{77} q^{72} + 4967006746825\, p^{69} q^{76} + 2564900595\, p^{112} q^{121}$$
$$+ 2657832659\, p^{100} q^{125} + 9337185026\, p^{85} q^{122} + 1550390268510\, p^{98} q^{85} + 4867291633\, p^{91} q^{35} + 2479198\, p^{80} q^{17} + 479872654\, p^{88} q^{28}$$
$$+ 60204934\, p^{85} q^{23} + 1490305006\, p^{89} q^{31} + 912613640262\, p^{96} q^{64} + 335054173781\, p^{95} q^{55} + 168492161511\, p^{95} q^{51}$$
$$+ 69319433204\, p^{94} q^{46} + 1891211583\, p^{90} q^{32} + 451886360455\, p^{95} q^{57} + 50121240144\, p^{93} q^{44} + 1210905068093\, p^{97} q^{69}$$
$$+ 13112980\, p^{83} q^{20} + 11123145680\, p^{92} q^{38} + 1095947446998\, p^{96} q^{66} + 1305227\, p^{79} q^{16} + 107515255783\, p^{94} q^{48} + 63753592997\, p^{93} q^{45}$$
$$+ 1003192288894\, p^{96} q^{65} + 741098799680\, p^{96} q^{62} + 390504170822\, p^{95} q^{56} + 451886360455\, p^{96} q^{58} + 586468891128\, p^{96} q^{60}$$
$$+ 1372915458707\, p^{97} q^{71} + 285384250253\, p^{95} q^{54} + 80913\, p^{73} q^{12} + 241267395921\, p^{95} q^{53} + 50394340\, p^{117} q^{42} + 78633\, p^{104} q^{21}$$
$$+ 1194039\, p^{110} q^{28} + 5550611\, p^{115} q^{137} + 85879890907\, p^{50} q^{98} + 2470071245959\, p^{78} q^{94} + 2568487674635\, p^{85} q^{93}$$

$$+ 92420029399\, p^{107} q^{61} + 119848379024\, p^{107} q^{63} + 227701664651\, p^{108} q^{72} + 53699539082\, p^{106} q^{56} + 135108701808\, p^{107} q^{64}$$
$$+ 45085125804\, p^{106} q^{55} + 1755660\, p^{104} q^{25} + 23638180\, p^{108} q^{32} + 35270379971\, p^{104} q^{114} + 21593942573\, p^{108} q^{114}$$
$$+ 28608886746\, p^{104} q^{115} + 266619377131\, p^{109} q^{80} + 268461129285\, p^{109} q^{88} + 3010564726\, q^{113} p^{51} + 5644\, p^{67} q^{9}$$
$$+ 1608606148741\, p^{98} q^{80} + 1416578574959\, p^{98} q^{88} + 1600351068493\, p^{98} q^{83} + 780237\, p^{77} q^{15} + 86719161265\, p^{94} q^{47}$$
$$+ 152794628\, p^{86} q^{25} + 751715474\, p^{88} q^{29} + 89378274\, p^{86} q^{24} + 352982642\, p^{87} q^{27} + 1569153758168\, p^{98} q^{78} + 661430958389\, p^{96} q^{61}$$
$$+ 825017894855\, p^{96} q^{63} + 1449056133914\, p^{97} q^{72} + 1127132933469\, p^{97} q^{68} + 1296063097314\, p^{98} q^{90} + 516547329214\, p^{96} q^{59}$$
$$+ 1293179439364\, p^{97} q^{70} + 39016383333\, p^{93} q^{43} + 163507\, p^{75} q^{13} + 369417\, p^{76} q^{14} + 202415140280\, p^{95} q^{52} + 132141679341\, p^{94} q^{49}$$
$$+ 100134899\, q^{100} p^{30} + 16643648771\, q^{106} p^{50} + 25431977478\, q^{106} p^{52} + 20664420645\, q^{106} p^{51} + 31033572430\, q^{106} p^{53}$$
$$+ 37556401877\, q^{106} p^{54} + 13284105208\, q^{106} p^{49} + 628584681382\, p^{76} q^{49} + 3690082202078\, p^{77} q^{64} + 252249378\, p^{94} q^{29}$$
$$+ 118099284231\, p^{113} q^{85} + 110871775191\, p^{112} q^{75} + 7996958371\, p^{108} q^{49} + 2848823748\, p^{107} q^{44} + 835610\, p^{95} q^{20} + 21\, p^{142} q^{150}$$
$$+ p^{152} q^{148} + 3\, p^{151} q^{149} + p^{152} q^{149} + 15568235151\, q^{101} p^{45} + 5523475487\, q^{102} p^{42} + 11996663999\, q^{101} p^{44} + 6895965904\, q^{101} p^{42}$$
$$+ 9146275369\, q^{101} p^{43} + 164938132\, q^{98} p^{30} + 208499594\, q^{97} p^{30} + 4295681852\, p^{97} q^{124} + 572595905\, p^{73} q^{127} + 1774338761\, p^{81} q^{126}$$
$$+ 1912363990217\, p^{76} q^{96} + 67009397204\, p^{97} q^{48} + 100266516735\, p^{113} q^{93} + 43061350385\, p^{109} q^{59} + 36725981528\, p^{109} q^{58}$$
$$+ 138618281881\, p^{112} q^{90} + 18916\, q^{119} p^{29} + 8299\, q^{119} p^{28} + 1946547\, q^{122} p^{40} + 1113869930\, p^{117} q^{121} + 152794628\, p^{67} q^{128}$$
$$+ 24664005283\, p^{114} q^{107} + 37372987846\, p^{94} q^{117} + 38967147\, p^{105} q^{31} + 937959\, p^{129} q^{136} + 503369\, p^{130} q^{137} + 44219505\, p^{127} q^{58}$$
$$+ 59143102\, p^{133} q^{110} + 69635032\, p^{133} q^{108} + 776\, p^{142} q^{68} + 431\, p^{140} q^{59} + 259648313482\, p^{79} q^{109} + 125171648422\, p^{70} q^{110}$$
$$+ 114690281876\, p^{69} q^{110} + 8056141860\, p^{118} q^{109} + 7021184937\, p^{118} q^{110} + 196192\, p^{140} q^{79} + 3\, p^{106} q^{15} + 5\, p^{108} q^{16}$$
$$+ 9959231773\, p^{114} q^{113} + 8247867146\, p^{115} q^{113} + 6075132130\, p^{118} q^{111} + 335457\, p^{142} q^{107} + 715090\, p^{141} q^{102} + 295151\, p^{137} q^{67}$$
$$+ 73488\, p^{135} q^{56} + 18209\, p^{131} q^{44} + 7861\, p^{146} q^{115} + 7241648\, p^{137} q^{112} + 3157018723\, p^{118} q^{115} + 63985\, p^{135} q^{139} + 8\, p^{138} q^{151}$$
$$+ 7299291651\, p^{99} q^{122} + 11927203401\, p^{113} q^{113} + 3554861292\, p^{119} q^{113} + 175642133\, q^{120} p^{50} + 10858215104\, p^{110} q^{116}$$
$$+ 9347648841\, p^{111} q^{116} + 3230247534\, p^{117} q^{116} + 1404266164\, p^{117} q^{120} + 3887\, q^{125} p^{33} + 1692\, q^{125} p^{32} + 11803672092\, p^{114} q^{112}$$
$$+ 4650905364\, p^{117} q^{114} + 3762190931\, p^{118} q^{114} + 4755692518\, p^{116} q^{115} + 6772963960\, p^{113} q^{116} + 5761241055\, p^{115} q^{115} + 20\, p^{111} q^{18}$$
$$+ 251413560772\, p^{78} q^{109} + 104434453875\, p^{68} q^{110} + 9158207831\, p^{119} q^{106} + 11524752202\, p^{108} q^{117} + 4702050045707\, p^{77} q^{68}$$
$$+ 166821\, p^{80} q^{14} + 331837233676\, p^{95} q^{106} + 2924356863496\, p^{92} q^{83} + 2488063713029\, p^{92} q^{88} + 19991\, p^{74} q^{11}$$

$$+ 5454888837335\, p^{74} q^{72} + 5603091688009\, p^{75} q^{73} + 765763044\, q^{121} p^{58} + 2312114396\, q^{122} p^{67} + 2638687922\, q^{122} p^{68}$$
$$+ 455040\, q^{116} p^{31} + 220\, p^{126} q^{31} + 1920\, p^{132} q^{42} + 49\, p^{121} q^{25} + 1558\, p^{131} q^{40} + 19939\, p^{139} q^{65} + 490649\, q^{117} p^{32} + 875276\, q^{117} p^{33}$$
$$+ 2555112841\, q^{123} p^{71} + 261645798\, p^{129} q^{111} + 903970186\, p^{126} q^{73} + 10063\, q^{122} p^{31} + 681\, q^{122} p^{28} + 4464\, q^{122} p^{30} + 1825\, q^{122} p^{29}$$
$$+ 1218555449\, q^{115} p^{50} + 722448721\, q^{115} p^{48} + 943270608\, q^{115} p^{49} + 10279773969\, q^{120} p^{74} + 13650544907\, q^{120} p^{78}$$
$$+ 12832483074\, q^{120} p^{77} + 11990944607\, q^{120} p^{76} + 3379\, q^{119} p^{27} + 241964861\, p^{130} q^{79} + 8355669\, p^{110} q^{137} + 86196515664\, p^{91} q^{114}$$
$$+ 12\, p^{148} q^{149} + 5388\, p^{95} q^{15} + 92408996\, p^{118} q^{45} + 741120\, p^{108} q^{26} + 8186\, p^{97} q^{16} + 401973850\, p^{121} q^{55} + 140735395754\, p^{75} q^{111}$$
$$+ 2457\, p^{147} q^{116} + 27\, p^{138} q^{49} + 12\, p^{133} q^{38} + 453\, p^{148} q^{133} + 1877\, p^{146} q^{97} + 1612182640613\, p^{82} q^{98} + 123\, p^{147} q^{144} + 55077\, p^{134} q^{140}$$
$$+ 92513635043\, p^{105} q^{58} + 108649307\, p^{65} q^{128} + 146556\, q^{128} p^{43} + 233896\, q^{128} p^{44} + 364370\, q^{128} p^{45} + 264324\, q^{129} p^{46}$$
$$+ 5669462709\, p^{98} q^{123} + 3337722792\, p^{108} q^{122} + 11\, p^{143} q^{64} + 19\, p^{149} q^{106} + 9\, p^{145} q^{73} + p^{141} q^{54} + 10\, p^{146} q^{79} + 41\, p^{150} q^{129}$$
$$+ 129999760\, p^{124} q^{56} + 412573895\, p^{126} q^{67} + 82826560\, p^{130} q^{117} + 299696398\, p^{126} q^{65} + 509797\, p^{138} q^{128} + 509013517\, p^{127} q^{72}$$
$$+ 707680304\, p^{129} q^{92} + 58222844\, p^{123} q^{51} + 185342352\, p^{125} q^{121} + 674504529\, p^{129} q^{97} + 709260328\, p^{129} q^{93} + 144060\, p^{143} q^{108}$$
$$+ 136081\, p^{143} q^{113} + 27304\, p^{134} q^{51} + 39\, p^{114} q^{20} + 6082\, p^{144} q^{135} + 308909746\, p^{130} q^{105} + 284313333\, p^{125} q^{62} + 1010195559\, p^{127} q^{79}$$
$$+ 7\, p^{60} q^{5} + 9088304\, q^{137} p^{91} + 924998\, p^{138} q^{77} + 11593\, p^{127} q^{37} + 780237\, p^{138} q^{76} + 1448755\, p^{127} q^{136} + 781882\, p^{128} q^{137}$$
$$+ 3894678\, q^{138} p^{89} + 1917715\, q^{138} p^{82} + 142\, p^{74} q^{8} + 1539022066\, p^{117} q^{54} + 220\, q^{126} p^{31} + 3\, q^{126} p^{28} + 17\, q^{126} p^{29}$$
$$+ 2927013476\, p^{118} q^{59} + 994610392\, p^{124} q^{113} + 159005\, p^{100} q^{20} + 4139223580391\, p^{75} q^{87} + 431466341\, p^{98} q^{130} + 387894518\, p^{101} q^{130}$$
$$+ 30826981765\, p^{112} q^{62} + 92379916372\, p^{114} q^{84} + 18372245033\, p^{111} q^{57} + 91189414543\, p^{114} q^{83} + 38311985308\, p^{115} q^{101}$$
$$+ 89500669744\, p^{114} q^{82} + 724358573\, p^{108} q^{127} + 470133881\, p^{116} q^{125} + 814049339\, p^{102} q^{128} + 457237154\, p^{94} q^{130} + 656259496\, p^{98} q^{129}$$
$$+ 634698926\, p^{99} q^{129} + 7113625171\, q^{120} p^{106} + 83902929956\, p^{110} q^{103} + 180533905\, p^{129} q^{114} + 99190589\, p^{129} q^{118}$$
$$+ 5603091688009\, p^{78} q^{80} + 1260041\, q^{129} p^{50} + 764137028133\, p^{103} q^{78} + 1074655600984\, p^{84} q^{101} + 42702774321\, p^{117} q^{89}$$
$$+ 43544371898\, p^{116} q^{77} + 31547045878\, p^{118} q^{91} + 39190882772\, p^{117} q^{81} + 28111276729\, p^{116} q^{71} + 41096787737\, p^{116} q^{76}$$
$$+ 1011266835935\, p^{98} q^{94} + 127913476116\, p^{100} q^{54} + 8633684287\, p^{97} q^{40} + 6359362124\, p^{97} q^{39} + 4032670658\, p^{96} q^{37}$$
$$+ 2161449231324\, p^{61} q^{84} + 2605932004268\, p^{63} q^{84} + 1127132933469\, p^{56} q^{85} + 1634148538077\, p^{59} q^{85} + 1453468712942\, p^{58} q^{85}$$
$$+ 907693595432\, p^{55} q^{86} + 1284251257122\, p^{57} q^{85} + 3234558737102\, p^{65} q^{83} + 1847704226995\, p^{95} q^{72} + 1453468712942\, p^{95} q^{68}$$
$$+ 410351131606\, p^{83} q^{107} + 4532551137456\, p^{70} q^{82} + 3705400657251\, p^{67} q^{83} + 1748173411233\, p^{59} q^{84} + 730945950568\, p^{53} q^{85}$$

$$+ 1594699691225\, p^{96} q^{90} + 5563045522720\, p^{79} q^{80} + 406950548322\, p^{50} q^{86} + 650\, p^{148} q^{117} + 73\, p^{142} q^{63} + 10988330458\, p^{116} q^{63}$$
$$+ 88989198509\, p^{100} q^{52} + 58488587881\, p^{99} q^{49} + 11563038\, q^{98} p^{25} + 21767254573\, p^{98} q^{44} + 571817194442\, p^{102} q^{69}$$
$$+ 524198007487\, p^{101} q^{66} + 305712553638\, p^{108} q^{90} + 316443729838\, p^{107} q^{74} + 298676279611\, p^{107} q^{73} + 1344231\, p^{87} q^{18}$$
$$+ 199857167602\, p^{109} q^{95} + 212153386254\, p^{109} q^{94} + 66349607676\, p^{110} q^{105} + 88568456245\, p^{109} q^{104} + 124987556\, p^{132} q^{106}$$
$$+ 23227730078\, p^{99} q^{45} + 9572812495\, p^{98} q^{41} + 1380807167\, p^{96} q^{34} + 7885\, p^{142} q^{138} + 93052700038\, p^{114} q^{85} + 86490572205\, p^{113} q^{75}$$
$$+ 6107860359\, p^{109} q^{49} + 2162890491\, p^{108} q^{44} + 19991\, p^{79} q^{142} + 223313835065\, p^{46} q^{84} + 273963496394\, p^{47} q^{84}$$
$$+ 333286315150\, p^{48} q^{84} + 1566529\, q^{98} p^{22} + 78\, q^{100} p^{14} + 15966099822\, q^{120} p^{95} + 12968633419\, q^{120} p^{99} + 13783798815\, q^{120} p^{98}$$
$$+ 10412288213\, q^{120} p^{102} + 8717911286\, q^{120} p^{104} + 6055672232\, q^{121} p^{105} + 12127850894\, q^{120} p^{100} + 9557801869\, q^{120} p^{103}$$
$$+ 15293302104\, q^{120} p^{96} + 11272245156\, q^{120} p^{101} + 14562318441\, q^{120} p^{97} + 16570695945\, q^{120} p^{94} + 17097797470\, q^{120} p^{93}$$
$$+ 7953944828\, q^{117} p^{63} + 317425954027\, p^{100} q^{60} + 773412778093\, p^{101} q^{71} + 279829243422\, q^{105} p^{67} + 516547329214\, p^{59} q^{96}$$
$$+ 66922056\, p^{116} q^{131} + 178278670677\, p^{53} q^{97} + 69892324204\, p^{49} q^{98} + 249387368122\, p^{55} q^{97} + 2431957827315\, p^{77} q^{94}$$
$$+ 190460\, p^{135} q^{136} + 99451\, p^{136} q^{137} + 1405110\, p^{118} q^{139} + 741098799680\, p^{62} q^{96} + 149006269316\, p^{52} q^{97} + 211655265398\, p^{54} q^{97}$$
$$+ 16432404903\, p^{116} q^{66} + 9478324382\, p^{115} q^{60} + 20770816166\, p^{116} q^{68} + 31853881869\, p^{118} q^{84} + 31172896345\, p^{118} q^{83}$$
$$+ 14695886584\, p^{119} q^{101} + 30330871033\, p^{118} q^{82} + 3736349464\, p^{107} q^{122} + 196162227061\, p^{73} q^{109} + 8\, p^{151} q^{139} + 9146275369\, p^{52} q^{110}$$
$$+ 844351\, p^{140} q^{90} + 50013\, p^{143} q^{126} + 197603\, p^{136} q^{62} + 1075117\, p^{140} q^{93} + 360897\, p^{138} q^{72} + 740276\, p^{141} q^{105} + 3\, p^{111} q^{150} + 5\, p^{113} q^{150}$$
$$+ 13022\, p^{134} q^{143} + 16\, p^{119} q^{150} + p^{121} q^{151} + 1697246789722\, q^{77} p^{56} + 3366607044\, q^{83} p^{31} + 1518473162827\, p^{67} q^{94}$$
$$+ 1912363990217\, q^{77} p^{57} + 2631324090184\, q^{77} p^{60} + 2380911340980\, q^{77} p^{59} + 3422052268594\, q^{77} p^{63} + 3955376435398\, q^{77} p^{65}$$
$$+ 4139223580391\, q^{78} p^{66} + 2889922203527\, q^{77} p^{61} + 3690082202078\, q^{77} p^{64} + 3154372683296\, q^{77} p^{62} + 2140697963840\, q^{77} p^{58}$$
$$+ 4930614887618\, p^{83} q^{82} + 4173034572788\, p^{73} q^{86} + 4033997421827\, p^{72} q^{86} + 1372915458707\, p^{71} q^{97} + 476126791914\, p^{88} q^{52}$$
$$+ 403847329458\, p^{86} q^{107} + 2194\, p^{128} q^{36} + 114573\, p^{143} q^{117} + 99130\, p^{137} q^{63} + 271155\, p^{142} q^{99} + 1233418\, q^{101} p^{23} + 2484268\, q^{101} p^{24}$$
$$+ 1243\, q^{88} p^{12} + 336\, q^{87} p^{11} + 29971192\, q^{110} p^{34} + 46878521\, q^{110} p^{35} + 4756157\, p^{110} q^{138} + 2564900595\, p^{121} q^{112} + 753146734\, p^{121} q^{119}$$
$$+ 484712379\, p^{122} q^{120} + 285581716389\, p^{76} q^{108} + 316443729838\, p^{74} q^{107} + 60293125606\, p^{78} q^{115} + 1266894132100\, p^{75} q^{99} + 2\, p^{30} q^{2}$$
$$+ 1247252063464\, p^{81} q^{100} + 1248585797225\, p^{82} q^{100} + 1230205953594\, p^{84} q^{100} + 1210786083771\, p^{85} q^{100} + 1097559323\, q^{102} p^{37}$$
$$+ 267937408\, q^{103} p^{34} + 761493017\, q^{102} p^{36} + 348963389\, q^{102} p^{34} + 519910556\, q^{102} p^{35} + 123290231\, q^{101} p^{31} + 11123145680\, p^{115} q^{61}$$

$$+ 36208720616\, p^{117} q^{79} + 23516397641\, p^{118} q^{98} + 4711991036\, p^{113} q^{53} + 45865687182\, p^{116} q^{78} + 3244992068\, p^{112} q^{50}$$
$$+ 43260574488\, p^{117} q^{87} + 43169330403\, p^{117} q^{86} + 1343438798950\, p^{86} q^{99} + 5263287111930\, p^{71} q^{73} + 4464704163410\, p^{77} q^{67}$$
$$+ 1173583949410\, p^{76} q^{53} + 251413560772\, p^{75} q^{44} + 3955376435398\, p^{77} q^{65} + 4139223580391\, p^{78} q^{66} + 2631324090184\, p^{77} q^{60}$$
$$+ 1912363990217\, p^{77} q^{57} + 1347533447579\, p^{76} q^{54} + 16\, q^{107} p^{16} + 981\, q^{118} p^{25} + 46\, q^{117} p^{22} + 209\, q^{117} p^{23} + 729\, q^{117} p^{24}$$
$$+ 19190379\, p^{70} q^{18} + 98681421\, p^{72} q^{21} + 637952135\, p^{109} q^{41} + 4749342423547\, p^{76} q^{68} + 5299404321977\, p^{72} q^{72} + 80913\, q^{73} p^{12}$$
$$+ 3468729\, q^{78} p^{17} + 780237\, q^{77} p^{15} + 163507\, q^{75} p^{13} + 1554896\, q^{78} p^{16} + 265449\, p^{122} q^{36} + 21140519\, p^{136} q^{99} + 4486377\, p^{137} q^{117}$$
$$+ 676178\, p^{100} q^{141} + 1513054573131\, p^{86} q^{98} + 1442237574350\, p^{90} q^{97} + 2571484092\, q^{88} p^{32} + 1340898920\, q^{87} p^{30}$$
$$+ 254220206\, q^{86} p^{26} + 574397294200\, q^{92} p^{56} + 59369140649\, q^{90} p^{43} + 46066617519\, q^{90} p^{42} + 75751734864\, q^{90} p^{44}$$
$$+ 95727240915\, q^{90} p^{45} + 661430958389\, q^{92} p^{57} + 969394017635\, q^{92} p^{60} + 859162708231\, q^{92} p^{59} + 1339221004771\, q^{92} p^{63}$$
$$+ 1609600737552\, q^{92} p^{65} + 1086615655046\, q^{92} p^{61} + 1472757685959\, q^{92} p^{64} + 1210170030100\, q^{92} p^{62} + 756404143250\, q^{92} p^{58}$$
$$+ 877212739\, q^{87} p^{29} + 562484011\, q^{87} p^{28} + 35375361770\, q^{90} p^{41} + 26873379879\, q^{90} p^{40} + 9185984725\, q^{89} p^{36} + 12653534894\, q^{89} p^{37}$$
$$+ 17208468950\, q^{89} p^{38} + 62997050358\, p^{74} q^{38} + 1697246789722\, p^{77} q^{56} + 42697153\, q^{119} p^{44} + 3761260\, q^{135} p^{71} + 513\, q^{120} p^{26}$$
$$+ 36\, q^{120} p^{24} + 49\, q^{121} p^{25} + 681\, q^{125} p^{31} + 242\, q^{123} p^{28} + 61\, q^{122} p^{26} + 14170216356\, p^{113} q^{112} + 4093033\, q^{118} p^{37} + 2536622\, q^{118} p^{36}$$
$$+ 900683\, q^{118} p^{34} + 1532531\, q^{118} p^{35} + 112867757\, q^{121} p^{50} + 193626339\, q^{121} p^{52} + 148657505\, q^{121} p^{51} + 249523607\, q^{121} p^{53}$$
$$+ 401973850\, q^{121} p^{55} + 318271751\, q^{121} p^{54} + 260181266\, q^{122} p^{55} + 84705375\, q^{121} p^{49} + 62799448\, q^{121} p^{48} + 9158207831\, p^{106} q^{119}$$
$$+ 282380696778\, p^{95} q^{107} + 57511478\, p^{134} q^{103} + 2359424417\, p^{126} q^{93} + 2150215402\, p^{126} q^{97} + 642311\, p^{120} q^{140} + 12760\, p^{131} q^{144}$$
$$+ 1753292698\, p^{119} q^{117} + 336008277236\, p^{86} q^{108} + p^{140} q^{152} + 2277071045\, q^{123} p^{70} + 2251799582582\, p^{74} q^{58} + 2494642281229\, p^{74} q^{59}$$
$$+ 148124631642\, p^{86} q^{112} + 133\, p^{131} q^{37} + 40\, p^{148} q^{98} + 184167294726\, p^{86} q^{111} + 145183406367\, p^{101} q^{108} + 1364314283\, p^{84} q^{127}$$
$$+ 5139278376\, p^{112} q^{52} + 44310870904\, p^{115} q^{73} + 7348733847\, p^{102} q^{43} + 20666911\, q^{125} p^{51} + 2634326967629\, p^{84} q^{93}$$
$$+ 6996163\, q^{124} p^{46} + 5711678\, p^{113} q^{33} + 152726754\, p^{119} q^{48} + 2614678\, p^{111} q^{30} + 127061603\, p^{118} q^{46} + 1460436094153\, p^{94} q^{94}$$
$$+ 913\, q^{60} p^{7} + 128771591052\, p^{96} q^{111} + 188029897608\, p^{100} q^{107} + 481566166283\, p^{86} q^{106} + 238240212\, p^{113} q^{42} + 1172037\, p^{128} q^{136}$$
$$+ 630874\, p^{129} q^{137} + 66551197\, p^{113} q^{132} + 401277023132\, q^{102} p^{65} + 528214714103\, q^{102} p^{68} + 442523076448\, q^{102} p^{66}$$
$$+ 484968481562\, q^{102} p^{67} + 323721802371\, q^{102} p^{63} + 361578614068\, q^{102} p^{64} + 9\, p^{50} q^{4} + 5175169715356\, p^{70} q^{75}$$
$$+ 5318619616317\, p^{71} q^{74} + 5454888837335\, p^{72} q^{74} + 42082283\, p^{130} q^{121} + 302\, p^{118} q^{24} + 440224\, p^{139} q^{78} + 622632\, p^{141} q^{98}$$

$$+ 238\, p^{138}\, q^{148} + 277\, p^{137}\, q^{148} + 890762\, p^{125}\, q^{138} + 1327\, p^{144}\, q^{141} + 34\, p^{125}\, q^{150} + 364\, p^{135}\, q^{148} + 147\, p^{134}\, q^{149} + 137\, p^{135}\, q^{149}$$
$$+ 123\, p^{136}\, q^{149} + 112\, p^{137}\, q^{149} + 200\, p^{139}\, q^{148} + 168\, p^{140}\, q^{148} + 478\, p^{144}\, q^{144} + 176\, p^{131}\, q^{149} + 336\, p^{140}\, q^{147} + 271\, p^{141}\, q^{147}$$
$$+ 505\, p^{138}\, q^{147} + 373\, p^{142}\, q^{146} + 789\, p^{139}\, q^{146} + 984\, p^{138}\, q^{146} + 626\, p^{140}\, q^{146} + 79\, p^{72}\, q^{144} + 6453\, p^{80}\, q^{143} + 5060\, p^{79}\, q^{143}$$
$$+ 2402128119626\, p^{90}\, q^{91} + 339166641085\, p^{85}\, q^{108} + 149863782712\, p^{108}\, q^{67} + 13374500290\, p^{105}\, q^{48} + 4002949\, p^{92}\, q^{21}$$
$$+ 204931851\, p^{99}\, q^{31} + 61851934\, p^{98}\, q^{28} + 1624127\, p^{133}\, q^{131} + 482323\, p^{135}\, q^{133} + 4423174\, p^{127}\, q^{133} + 37\, q^{139}\, p^{52} + 78\, q^{139}\, p^{53}$$
$$+ 150\, q^{139}\, p^{54} + p^{151}\, q^{122} + 510504259609\, p^{104}\, q^{93} + 8888102\, q^{101}\, p^{26} + 56193619168\, p^{114}\, q^{99} + 64813869916\, p^{114}\, q^{97}$$
$$+ 5305707282435\, p^{77}\, q^{71} + 21629925\, q^{135}\, p^{111} + 5340000567792\, p^{76}\, q^{71} + 5638884\, p^{106}\, q^{28} + 373238\, p^{100}\, q^{21}$$
$$+ 3234558737102\, p^{70}\, q^{88} + 5489725058547\, p^{76}\, q^{72} + 5391783411735\, p^{72}\, q^{73} + 5344328485457\, p^{75}\, q^{71} + 5688651307533\, p^{75}\, q^{74}$$
$$+ 12\, q^{115}\, p^{20} + q^{115}\, p^{19} + 121345390526\, q^{88}\, p^{45} + 151313543876\, q^{88}\, p^{46} + 187012583231\, q^{88}\, p^{47} + 519910556\, p^{102}\, q^{35}$$
$$+ 4852241\, p^{94}\, q^{22} + 114690281876\, p^{110}\, q^{69} + 107717682293\, p^{109}\, q^{66} + 10684612\, p^{96}\, q^{24} + 12905\, p^{81}\, q^{12} + 63753592997\, p^{108}\, q^{60}$$
$$+ 125171648422\, p^{110}\, q^{70} + 131867163107\, p^{109}\, q^{68} + 57921992337\, p^{109}\, q^{61} + 109529\, p^{86}\, q^{15} + 412\, q^{82}\, p^{10} + 5262\, q^{84}\, p^{12}$$
$$+ 5164873784744\, p^{76}\, q^{70} + 194239740319\, p^{110}\, q^{92} + 318271751\, p^{99}\, q^{32} + 25112929\, p^{95}\, q^{25} + 151313543876\, p^{107}\, q^{65}$$
$$+ 105603093395\, p^{107}\, q^{62} + 276353035247\, p^{109}\, q^{82} + 279994706297\, p^{109}\, q^{84} + 63471516678\, p^{106}\, q^{57} + 278959680274\, p^{109}\, q^{83}$$
$$+ 103348133799\, p^{110}\, q^{101} + 867138364996\, p^{100}\, q^{93} + 184167294726\, p^{111}\, q^{86} + 168199403721\, p^{111}\, q^{79} + 7316933\, p^{95}\, q^{23}$$
$$+ 175392\, p^{88}\, q^{16} + 91855642097\, p^{112}\, q^{98} + 24463670204\, p^{107}\, q^{53} + 202896635019\, p^{110}\, q^{78} + 16643648771\, p^{106}\, q^{50}$$
$$+ 182363836713\, p^{111}\, q^{87} + 7676292739\, q^{96}\, p^{39} + 13374500290\, q^{105}\, p^{48} + 21075322342\, q^{105}\, p^{50} + 32037299082\, q^{105}\, p^{52}$$
$$+ 26097929534\, q^{105}\, p^{51} + 38997365335\, q^{105}\, p^{53} + 56387597841\, q^{105}\, p^{55} + 47081029879\, q^{105}\, p^{54} + 45085125804\, q^{106}\, p^{55}$$
$$+ 16867145600\, q^{105}\, p^{49} + 4859462991\, q^{95}\, p^{37} + 107113221416\, p^{100}\, q^{53} + 12558557\, p^{131}\, q^{63} + 83771\, p^{134}\, q^{139} + 156\, p^{94}\, q^{147}$$
$$+ 22694151320\, p^{113}\, q^{109} + 27210479800\, p^{112}\, q^{109} + 7241648\, p^{112}\, q^{137} + 3104811\, p^{100}\, q^{139} + 3577492\, p^{114}\, q^{138} + 81751094348\, p^{74}\, q^{39}$$
$$+ 454405029575\, p^{75}\, q^{47} + 105001105771\, p^{74}\, q^{40} + 764137028133\, p^{75}\, q^{50} + 209916965920\, p^{74}\, q^{43} + 168199403721\, p^{74}\, q^{42}$$
$$+ 139756933\, q^{117}\, p^{45} + 32646434\, q^{118}\, p^{42} + 4173034572788\, p^{67}\, q^{80} + 3924997709585\, p^{66}\, q^{80} + 636956664433\, p^{97}\, q^{100}$$
$$+ 234411306498\, p^{104}\, q^{102} + 300988772729\, p^{102}\, q^{102} + 266521427194\, p^{103}\, q^{102} + 515488768161\, p^{95}\, q^{103} + 337662830172\, p^{102}\, q^{101}$$
$$+ 9721425\, q^{135}\, p^{77} + 14097880\, q^{135}\, p^{80} + 11083564\, q^{135}\, p^{78} + 12545323\, q^{135}\, p^{79} + 7311992\, q^{135}\, p^{75} + 8462943\, q^{135}\, p^{76} + q^{118}\, p^{21}$$
$$+ 1825\, q^{124}\, p^{31} + 59322\, q^{125}\, p^{37} + 220\, q^{122}\, p^{27} + 1692\, q^{121}\, p^{28} + 4265\, q^{121}\, p^{29} + 609\, q^{121}\, p^{27} + 19835\, p^{145}\, q^{119} + 41273\, p^{144}\, q^{101}$$

$$+ 10795015\, p^{131}\, q^{126} + 184348\, p^{106}\, q^{23} + 22727946681\, p^{119}\, q^{93} + 13321447127\, p^{115}\, q^{110} + 1097559323\, p^{102}\, q^{37}$$
$$+ 37556401877\, p^{106}\, q^{54} + 2218\, p^{138}\, q^{56} + 585\, p^{134}\, q^{44} + 149\, p^{128}\, q^{33} + 3491222480\, p^{124}\, q^{79} + 203463327\, p^{119}\, q^{49} + 950136160\, p^{127}\, q^{105}$$
$$+ 1071371097\, p^{122}\, q^{62} + 129181392\, p^{99}\, q^{30} + 381885962\, p^{100}\, q^{33} + 11072287\, p^{137}\, q^{96} + 83771\, p^{139}\, q^{134} + 18394078\, p^{136}\, q^{92}$$
$$+ 18916\, p^{119}\, q^{29} + 9665590125\, p^{87}\, q^{122} + 1156061615\, p^{118}\, q^{120} + 90512486\, p^{128}\, q^{64} + 49496\, p^{115}\, q^{27} + 263578114\, p^{130}\, q^{80}$$
$$+ 166952336\, p^{132}\, q^{100} + 5688651307533\, p^{74}\, q^{75} + 5603091688009\, p^{73}\, q^{75} + 5687461469257\, p^{77}\, q^{74} + 5765353813734\, p^{76}\, q^{75}$$
$$+ 5743029358468\, p^{75}\, q^{75} + 5755266452052\, p^{77}\, q^{75} + 2527\, p^{99}\, q^{146} + 3892\, p^{144}\, q^{137} + 163676329\, p^{96}\, q^{29} + 2188136335021\, p^{95}\, q^{84}$$
$$+ 376330\, p^{62}\, q^{12} + 384841467563\, p^{79}\, q^{47} + 86490572205\, p^{78}\, q^{40} + 66785785619\, p^{78}\, q^{39} + 5588817365073\, p^{77}\, q^{73}$$
$$+ 5641382775907\, p^{74}\, q^{74} + 5611728196655\, p^{76}\, q^{73} + 6041948535\, p^{81}\, q^{32} + 1348687237981\, p^{86}\, q^{58} + 4182089175\, p^{81}\, q^{31}$$
$$+ 3276\, p^{52}\, q^{7} + 593502306241\, p^{64}\, q^{99} + 143704825\, p^{92}\, q^{27} + 60665210224\, p^{101}\, q^{51} + 24463670204\, p^{100}\, q^{46} + 36216530\, p^{70}\, q^{19}$$
$$+ 4327735585759\, p^{82}\, q^{69} + 4532551137456\, p^{82}\, q^{70} + 3074983927\, p^{99}\, q^{38} + 5344328485457\, p^{71}\, q^{75} + 5563045522720\, p^{73}\, q^{74}$$
$$+ 5340000567792\, p^{71}\, q^{76} + 5611728196655\, p^{73}\, q^{76} + 5765353813734\, p^{75}\, q^{76} + 5704093783173\, p^{74}\, q^{76} + 5794528274518\, p^{76}\, q^{76}$$
$$+ 5791147413678\, p^{77}\, q^{76} + 5489725058547\, p^{72}\, q^{76} + 5164873784744\, p^{70}\, q^{76} + 73334204761\, q^{102}\, p^{53} + 4698449\, p^{76}\, q^{17}$$
$$+ 866528161\, p^{84}\, q^{28} + 110333064\, p^{81}\, q^{23} + 2638687922\, p^{85}\, q^{31} + 4702050045707\, p^{68}\, q^{77} + 4923424558937\, p^{69}\, q^{77}$$
$$+ 5460897579740\, p^{72}\, q^{77} + 5305707282435\, p^{71}\, q^{77} + 5755266452052\, p^{75}\, q^{77} + 5794528274518\, p^{77}\, q^{77} + 5743029358468\, p^{78}\, q^{78}$$
$$+ 5588817365073\, p^{73}\, q^{77} + 5791147413678\, p^{76}\, q^{77} + 5687461469257\, p^{74}\, q^{77} + 5125640655317\, p^{70}\, q^{77} + 204\, p^{146}\, q^{144} + p^{152}\, q^{143}$$
$$+ 2527\, p^{54}\, q^{7} + 53\, p^{145}\, q^{148} + 38063430\, q^{108}\, p^{33} + 23638180\, q^{108}\, p^{32} + 31517319944\, p^{105}\, q^{114} + 58147944\, p^{129}\, q^{121}$$
$$+ 187153586666\, p^{96}\, q^{109} + 5\, p^{52}\, q^{4} + 1230501278548\, p^{96}\, q^{94} + 547228689\, p^{115}\, q^{47} + 9523064680\, p^{122}\, q^{92} + 8596403812\, p^{120}\, q^{72}$$
$$+ 1097559323\, p^{116}\, q^{51} + 5361175607\, p^{119}\, q^{65} + 699783307531\, p^{72}\, q^{102} + 3014400\, q^{112}\, p^{31} + 5176747\, q^{112}\, p^{32} + 8643981\, q^{112}\, p^{33}$$
$$+ 87063\, q^{126}\, p^{39} + 49496\, q^{126}\, p^{38} + 32192\, q^{125}\, p^{36} + 46930860598\, p^{95}\, q^{45} + 760664402960\, p^{98}\, q^{65} + 556743743744\, p^{98}\, q^{62}$$
$$+ 2288\, q^{71}\, p^{9} + 5060\, q^{74}\, p^{10} + 516\, q^{70}\, p^{8} + 79028659519\, p^{96}\, q^{48} + 24234477349\, q^{118}\, p^{77} + 19861514429\, q^{119}\, p^{79}$$
$$+ 28218947999\, q^{118}\, p^{80} + 25646948231\, q^{118}\, p^{78} + 26981458084\, q^{118}\, p^{79} + 21253680024\, q^{118}\, p^{75} + 22763586701\, q^{118}\, p^{76}$$
$$+ 1076083630457\, p^{80}\, q^{101} + 1084893960723\, p^{81}\, q^{101} + 94548124129\, p^{100}\, q^{111} + 72131597620\, p^{88}\, q^{115} + 56061199918\, p^{85}\, q^{116}$$
$$+ 1471450\, q^{133}\, p^{60} + 11756489\, q^{136}\, p^{85} + 9751152\, q^{136}\, p^{83} + 10743631\, q^{136}\, p^{84} + 12779716\, q^{136}\, p^{86} + 14805048\, q^{136}\, p^{88}$$
$$+ 13799823\, q^{136}\, p^{87} + 15780407\, q^{136}\, p^{89} + 17588612\, q^{136}\, p^{91} + 16713349\, q^{136}\, p^{90} + 608345\, q^{130}\, p^{50} + 260076\, q^{101}\, p^{21}$$

$$+ 1014959628596\, p^{76} q^{52} + 871526982817\, p^{76} q^{51} + 527794118376\, p^{76} q^{48} + 308826670893\, p^{75} q^{45} + 3422052268594\, p^{77} q^{63}$$
$$+ 3154372683296\, p^{77} q^{62} + 2889922203527\, p^{77} q^{61} + 4698510882035\, p^{70} q^{81} + 2071033431119\, p^{60} q^{83} + 174867029\, p^{91} q^{27}$$
$$+ 895065224669\, p^{102} q^{78} + 100906589\, q^{117} p^{44} + 71841861\, q^{117} p^{43} + 674783\, q^{114} p^{30} + 1084256\, q^{113} p^{30} + 50394340\, q^{117} p^{42}$$
$$+ 1139554576522\, p^{76} q^{100} + 866631882967\, p^{73} q^{101} + 20288354\, q^{107} p^{31} + 207568476\, q^{108} p^{37} + 4421775\, q^{105} p^{27} + 11101635\, q^{104} p^{28}$$
$$+ 19203498\, q^{104} p^{29} + 6221439\, q^{104} p^{27} + 2087089\, p^{85} q^{18} + 45634590152\, p^{65} q^{112} + 115745709171\, p^{72} q^{111} + 223877771908\, p^{109} q^{93}$$
$$+ 403138899183\, p^{81} q^{107} + 274\, p^{83} q^{10} + 1144776085\, p^{120} q^{58} + 282380696778\, p^{107} q^{95} + 300778090946\, p^{107} q^{94}$$
$$+ 91815503253\, p^{108} q^{105} + 121199245096\, p^{107} q^{104} + 2140697963840\, p^{77} q^{58} + 2380911340980\, p^{77} q^{59} + 5166357\, p^{129} q^{131}$$
$$+ 876401\, q^{129} p^{49} + 3108289\, q^{132} p^{60} + 9574741\, q^{137} p^{92} + 3463241565\, p^{125} q^{90} + 3267826803\, p^{125} q^{86} + 3262759377\, p^{124} q^{78}$$
$$+ 2662514074\, p^{125} q^{81} + 2070022844\, p^{126} q^{98} + 3344794300\, p^{125} q^{87} + 3443317939\, p^{125} q^{89} + 2797547233\, p^{124} q^{76}$$
$$+ 3030585666\, p^{124} q^{77} + 2541469723\, q^{112} p^{49} + 9787240997\, p^{99} q^{121} + 172549886\, p^{120} q^{126} + 5673\, q^{135} p^{50} + 3378\, q^{135} p^{49}$$
$$+ 5416\, p^{145} q^{94} + 6541\, p^{146} q^{109} + 14\, p^{131} q^{35} + 1964\, p^{147} q^{127} + 7223\, p^{145} q^{96} + 6453\, p^{143} q^{80} + 484\, p^{136} q^{48} + 6885\, p^{146} q^{110}$$
$$+ 12533\, p^{143} q^{83} + 11563\, p^{145} q^{100} + 2130\, q^{134} p^{46} + 34776440\, p^{130} q^{122} + 4226489\, q^{136} p^{121} + 2306167\, q^{137} p^{122} + 95023660\, p^{124} q^{125}$$
$$+ 15353380746\, q^{111} p^{56} + 10465432075\, q^{111} p^{54} + 8532385251\, q^{111} p^{53} + 18743179\, q^{120} p^{43} + 12840414\, q^{120} p^{42} + 26916835\, q^{120} p^{44}$$
$$+ 33198045\, q^{121} p^{46} + 72930434\, q^{120} p^{47} + 38063430\, q^{120} p^{45} + 53051551\, q^{120} p^{46} + 1511687\, q^{117} p^{34} + 1772003835\, q^{123} p^{68} + p^{72} q^{6}$$
$$+ 32556635316\, p^{118} q^{89} + 32678350743\, p^{117} q^{77} + 29341080227\, p^{118} q^{81} + 30769712553\, p^{117} q^{76} + 18102712608\, p^{119} q^{98}$$
$$+ 34499832059\, p^{117} q^{78} + 32834422165\, p^{118} q^{87} + 32691496237\, p^{118} q^{86} + 6988380553\, p^{119} q^{67} + 6895965904\, q^{111} p^{52}$$
$$+ 32140345136\, p^{118} q^{90} + 12521095403\, p^{109} q^{116} + 679663829\, p^{123} q^{117} + 15208614\, p^{130} q^{61} + 9478324382\, q^{115} p^{60}$$
$$+ 24687061\, p^{115} q^{38} + 2098\, p^{94} q^{14} + 87940835839\, q^{102} p^{54} + 17539213528\, q^{120} p^{92} + 1087605990818\, p^{82} q^{101}$$
$$+ 1084175163063\, p^{83} q^{101} + 74861373047\, p^{104} q^{110} + 15172468184\, p^{120} q^{80} + 2348599188\, p^{117} q^{56} + 142162497018\, p^{105} q^{61}$$
$$+ 182894142974\, p^{105} q^{63} + 341991000035\, p^{106} q^{72} + 82875958941\, p^{104} q^{56} + 1377932381682\, p^{78} q^{99} + 382\, p^{145} q^{82} + 2035\, q^{100} p^{16}$$
$$+ 25431977478\, q^{101} p^{47} + 124156437838\, p^{93} q^{112} + 60665210224\, q^{101} p^{51} + 73775808930\, q^{101} p^{52} + 4\, p^{150} q^{112} + 110336\, q^{77} p^{13}$$
$$+ 20857539\, q^{98} p^{26} + 18372245033\, q^{96} p^{42} + 577981068487\, p^{105} q^{85} + 75751734864\, p^{109} q^{63} + 33535327261\, p^{108} q^{56}$$
$$+ 85749462335\, p^{109} q^{64} + 28021416234\, p^{108} q^{55} + 173339000029\, p^{111} q^{80} + 179550419937\, p^{111} q^{88} + 58315039149\, p^{112} q^{103}$$
$$+ 129551051468\, p^{112} q^{92} + 193626339\, p^{101} q^{32} + 15140620\, p^{97} q^{25} + 96423077514\, p^{109} q^{65} + 146378568716\, p^{110} q^{72} + 6134391\, p^{87} q^{20}$$

$$+ 73334204761\, p^{100} q^{51} + 29679182673\, p^{99} q^{46} + 429744748514\, p^{101} q^{64} + 151579992498\, p^{100} q^{55} + 5\, p^{151} q^{144} + 112\, p^{142} q^{148}$$
$$+ 70\, p^{144} q^{148} + 89\, p^{143} q^{148} + 117171234988\, p^{76} q^{112} + 2035\, q^{137} p^{53} + 1199\, q^{137} p^{52} + 326373156585\, p^{80} q^{108} + 1285552072464\, p^{92} q^{97}$$
$$+ 710\, q^{93} p^{13} + 21\, q^{92} p^{11} + 173339000029\, p^{80} q^{111} + 234866996983\, p^{92} q^{109} + 199857167602\, p^{95} q^{109} + 637952135\, q^{109} p^{41}$$
$$+ 6943611\, p^{134} q^{123} + 1440275\, p^{108} q^{27} + 351657004\, p^{126} q^{116} + 36440969\, p^{126} q^{55} + 679853304310\, p^{104} q^{85} + 380\, p^{147} q^{98}$$
$$+ 19874277\, p^{129} q^{126} + 26428838\, p^{128} q^{126} + 42638829190\, q^{97} p^{46} + p^{122} q^{151} + 1157192169939\, p^{90} q^{99} + 285\, p^{65} q^{7} + 44219505\, p^{95} q^{26}$$
$$+ 155874214858\, p^{110} q^{96} + 1765\, p^{72} q^{9} + 1869360\, p^{89} q^{19} + 6362513223\, p^{120} q^{107} + 3801181226\, p^{120} q^{111} + 67009397204\, q^{97} p^{48}$$
$$+ 36065772680\, p^{112} q^{107} + 5391783411735\, p^{73} q^{72} + 5487711416286\, p^{75} q^{72} + 129999760\, q^{97} p^{29} + 88568456245\, p^{104} q^{109}$$
$$+ 107515255783\, p^{105} q^{59} + 56621\, p^{80} q^{13} + 107717682293\, p^{66} q^{109} + 159005\, q^{100} p^{20} + 37177586496\, q^{85} p^{39} + 81916653079\, q^{85} p^{42}$$
$$+ 63616334872\, q^{85} p^{41} + 48895118096\, q^{85} p^{40} + 1765\, p^{81} q^{144} + 35692\, p^{89} q^{143} + 30670\, p^{88} q^{143} + 11047271413\, q^{85} p^{35}$$
$$+ 5175169715356\, p^{75} q^{70} + 4967006746825\, p^{76} q^{69} + 7516650\, p^{86} q^{20} + 6726947748\, p^{95} q^{38} + 31089065819\, p^{96} q^{44}$$
$$+ 788797516028\, p^{100} q^{69} + 56016774\, p^{124} q^{127} + 34708400\, p^{127} q^{126} + 34014418033\, p^{117} q^{96} + 719298082155\, p^{99} q^{66}$$
$$+ 2234444454112\, p^{91} q^{68} + 2780141380106\, p^{91} q^{72} + 1782887\, q^{129} p^{51} + 99451\, p^{137} q^{136} + 26224879583\, p^{100} q^{117}$$
$$+ 24201532918\, p^{101} q^{117} + 81668\, p^{119} q^{31} + 771711\, p^{125} q^{42} + 3009762759791\, q^{92} p^{80} + 190460\, p^{136} q^{135} + 812\, q^{99} p^{15}$$
$$+ 11524752202\, p^{117} q^{108} + 792613261\, p^{82} q^{128} + 743461784\, p^{81} q^{128} + 13541142660\, p^{119} q^{102} + 15850301374\, p^{119} q^{100}$$
$$+ 653061407\, p^{127} q^{109} + 11424\, p^{99} q^{17} + 123223\, p^{105} q^{22} + 302889190\, p^{127} q^{115} + 14655\, p^{135} q^{52} + 105498\, p^{139} q^{71} + 376330\, p^{141} q^{91}$$
$$+ 2\, p^{104} q^{14} + 158851\, p^{141} q^{84} + 50656\, p^{135} q^{55} + 206819\, p^{142} q^{95} + 719\, p^{124} q^{30} + 54661\, p^{136} q^{58} + 82478\, q^{139} p^{70} + 105498\, q^{139} p^{71}$$
$$+ 317\, p^{144} q^{145} + 12728224151\, q^{111} p^{55} + 3094070\, p^{126} q^{47} + 9130026\, p^{136} q^{115} + 20182758598\, p^{119} q^{96} + 51159\, p^{138} q^{137}$$
$$+ 15927709\, q^{126} p^{52} + 24775227663\, p^{117} q^{73} + 10384930098\, p^{118} q^{107} + 13321447127\, p^{110} q^{115} + 5376576890\, p^{99} q^{123}$$
$$+ 4907277136\, p^{88} q^{124} + 9813\, p^{142} q^{76} + 174\, p^{122} q^{149} + 183\, p^{123} q^{149} + 2403\, p^{123} q^{147} + 4445\, p^{128} q^{146} + 29\, p^{123} q^{150} + 682\, p^{118} q^{148}$$
$$+ 4822\, p^{133} q^{145} + 86\, p^{114} q^{149} + 109\, p^{116} q^{149} + 3998037314\, p^{119} q^{63} + 3\, q^{119} p^{22} + 6178\, p^{146} q^{108} + 683\, p^{137} q^{51} + 843\, p^{147} q^{135}$$
$$+ 7627\, p^{146} q^{113} + 3887\, q^{133} p^{45} + 6831\, q^{133} p^{46} + 30384\, p^{81} q^{142} + 876401\, p^{104} q^{24} + 19314\, p^{145} q^{107} + 44184\, p^{144} q^{102}$$
$$+ 221384689\, p^{115} q^{44} + 8486801529\, p^{122} q^{82} + 4477730\, q^{134} p^{68} + 5440441\, q^{134} p^{69} + 591956283364\, q^{103} p^{72} + 518838636022\, q^{103} p^{70}$$
$$+ 8657\, p^{129} q^{145} + 2521\, p^{121} q^{147} + 650\, p^{117} q^{148} + 6492\, p^{137} q^{143} + 2\, p^{54} q^{4} + 49479\, p^{104} q^{144} + 139533\, p^{112} q^{143} + 142155\, p^{111} q^{143}$$
$$+ 188\, p^{129} q^{149} + 626\, p^{146} q^{140} + 271\, p^{147} q^{141} + 2816\, p^{140} q^{143} + 1747\, p^{135} q^{146} + 2755\, p^{136} q^{145} + 2234\, p^{137} q^{145} + 3366\, p^{135} q^{145}$$

$$+ 2407\, p^{133}\, q^{146} + 1394\, p^{131}\, q^{147} + 1246\, p^{132}\, q^{147} + 1108\, p^{133}\, q^{147} + 2067\, p^{134}\, q^{146} + 1778\, p^{138}\, q^{145} + 3892\, p^{137}\, q^{144} + 3054\, p^{138}\, q^{144}$$
$$+ 1466\, p^{143}\, q^{142} + 373\, p^{146}\, q^{142} + 3789\, p^{139}\, q^{143} + 969\, p^{144}\, q^{142} + 613\, p^{145}\, q^{142} + 1464\, p^{136}\, q^{146} + 1023\, p^{143}\, q^{143} + 687\, p^{144}\, q^{143}$$
$$+ 449\, p^{145}\, q^{143} + 617\, p^{129}\, q^{148} + 581\, p^{130}\, q^{148} + 194\, p^{127}\, q^{149} + 969\, p^{142}\, q^{144} + 1327\, p^{141}\, q^{144} + 1786\, p^{140}\, q^{144} + 746\, p^{92}\, q^{146}$$
$$+ 687\, p^{143}\, q^{144} + 539\, p^{131}\, q^{148} + 190\, p^{128}\, q^{149} + 38\, p^{127}\, q^{150} + 41\, p^{129}\, q^{150} + 41\, p^{135}\, q^{150} + 9\, p^{137}\, q^{151} + 6647682296\, p^{80}\, q^{32}$$
$$+ 4615858021\, p^{80}\, q^{31} + 1453468712942\, p^{85}\, q^{58} + 30703869178\, p^{81}\, q^{37} + 1634148538077\, p^{85}\, q^{59} + 45496857\, p^{74}\, q^{20}$$
$$+ 674089683507\, p^{84}\, q^{52} + 571817194442\, p^{84}\, q^{51} + 98584428527\, p^{83}\, q^{42} + 16675606958\, p^{81}\, q^{35} + 402153078003\, p^{84}\, q^{49}$$
$$+ 2667820814274\, p^{85}\, q^{64} + 3470337980\, p^{79}\, q^{30} + 1057058315058\, p^{84}\, q^{55} + 242337359436\, p^{83}\, q^{46} + 4275\, p^{80}\, q^{11} + 1116\, p^{59}\, q^{7}$$
$$+ 8475699684\, p^{122}\, q^{96} + 3651611\, p^{86}\, q^{19} + 1627\, p^{83}\, q^{11} + 9430074442\, p^{120}\, q^{73} + 1859128006671\, p^{70}\, q^{94} + 69\, p^{143}\, q^{67}$$
$$+ 4515032259853\, p^{86}\, q^{77} + 4296393968877\, p^{87}\, q^{78} + 4173034572788\, p^{86}\, q^{73} + 4464704163410\, p^{86}\, q^{76} + 2025968741624\, p^{85}\, q^{61}$$
$$+ 2449062051310\, p^{85}\, q^{63} + 2234444454112\, p^{85}\, q^{62} + 2888490001176\, p^{85}\, q^{65} + 227701664651\, p^{72}\, q^{108} + 242337359436\, p^{70}\, q^{107}$$
$$+ 60455726\, p^{134}\, q^{92} + 57822\, p^{113}\, q^{144} + 143704825\, q^{126}\, p^{61} + 11996597571\, p^{117}\, q^{66} + 6889763250\, p^{116}\, q^{60} + 15245921771\, p^{117}\, q^{68}$$
$$+ 23733715152\, p^{119}\, q^{84} + 23171060922\, p^{119}\, q^{83} + 11272245156\, p^{120}\, q^{101} + 22491112492\, p^{119}\, q^{82} + 3877343979505\, p^{67}\, q^{82}$$
$$+ 2076637676682\, p^{93}\, q^{90} + 5611728196655\, p^{77}\, q^{80} + 491692891022\, p^{83}\, q^{106} + 489529688047\, p^{82}\, q^{106} + 50402772\, q^{133}\, p^{80}$$
$$+ 2521653622514\, p^{62}\, q^{83} + 5053575166508\, p^{72}\, q^{81} + 266619377131\, p^{80}\, q^{109} + 11580205752\, p^{56}\, q^{112} + 46066617519\, p^{63}\, q^{111}$$
$$+ 34904567514\, p^{61}\, q^{111} + 30061900623\, p^{60}\, q^{111} + 25703329883\, p^{59}\, q^{111} + 330990022252\, p^{87}\, q^{108} + 26025\, p^{136}\, q^{56} + 6597\, p^{132}\, q^{44}$$
$$+ 3445001812\, p^{49}\, q^{111} + 4383190217\, p^{50}\, q^{111} + 40239418793\, p^{62}\, q^{111} + 42832106878\, p^{85}\, q^{117} + 140232207812\, p^{104}\, q^{106}$$
$$+ 5761106\, p^{134}\, q^{124} + 242042273740\, p^{77}\, q^{109} + 72930434\, q^{106}\, p^{33} + 52377167603\, p^{64}\, q^{111} + 146378568716\, p^{72}\, q^{110}$$
$$+ 135772915407\, p^{71}\, q^{110} + 1242511163\, p^{115}\, q^{122} + 454988676\, q^{113}\, p^{44} + 527092\, q^{99}\, p^{21} + 119909369\, p^{125}\, q^{123} + 183\, p^{144}\, q^{74}$$
$$+ 39\, p^{143}\, q^{66} + 176\, p^{149}\, q^{131} + 474\, p^{146}\, q^{90} + 463\, p^{147}\, q^{99} + 988022\, p^{121}\, q^{139} + 1491\, p^{126}\, q^{33} + 100661\, p^{143}\, q^{119} + 297816\, p^{142}\, q^{101}$$
$$+ 873630781\, p^{127}\, q^{106} + 22668\, p^{100}\, q^{18} + 13005553798\, p^{92}\, q^{121} + 116190776983\, p^{83}\, q^{113} + 111729999141\, p^{81}\, q^{113}$$
$$+ 114265116369\, p^{82}\, q^{113} + 117475790982\, p^{84}\, q^{113} + 4573954\, q^{111}\, p^{31} + 7767352\, q^{111}\, p^{32} + 12840414\, q^{111}\, p^{33} + 32646434\, q^{111}\, p^{35}$$
$$+ 20707905\, q^{111}\, p^{34} + 2614678\, q^{111}\, p^{30} + 34798707\, q^{112}\, p^{36} + 1446729\, q^{111}\, p^{29} + 25\, q^{132}\, p^{37} + 2780\, p^{132}\, q^{146} + 26577\, q^{137}\, p^{59}$$
$$+ 52984\, q^{137}\, p^{61} + 99130\, q^{137}\, p^{63} + 933480\, q^{139}\, p^{83} + 17416\, q^{136}\, p^{55} + 4551\, q^{136}\, p^{52} + 26025\, q^{136}\, p^{56} + 7295\, q^{136}\, p^{53} + 11424\, q^{136}\, p^{54}$$
$$+ 8186\, q^{137}\, p^{56} + 38043\, q^{136}\, p^{57} + 8\, q^{132}\, p^{36} + 1200\, p^{74}\, q^{143} + 2545\, p^{147}\, q^{120} + 2210\, p^{147}\, q^{125} + 243\, p^{136}\, q^{47} + 428384\, p^{118}\, q^{141}$$

$$+ 72986\, q^{137}\, p^{62} + 228831\, q^{137}\, p^{66} + 132697\, q^{137}\, p^{64} + 23370891357\, q^{119}\, p^{92} + 263525983780\, p^{96}\, q^{107} + 142777\, p^{143}\, q^{107}$$
$$+ 308987\, p^{142}\, q^{102} + 109529\, p^{138}\, q^{67} + q^{130}\, p^{32} + 265459183\, p^{107}\, q^{130} + 230553396\, p^{103}\, q^{131} + 876401\, p^{129}\, q^{49} + 212310\, p^{124}\, q^{38}$$
$$+ 43483\, p^{121}\, q^{32} + 182231957621\, p^{103}\, q^{105} + 3463451484633\, p^{90}\, q^{82} + 124401\, p^{134}\, q^{138} + 307877\, p^{112}\, q^{142} + 140457\, p^{106}\, q^{143}$$
$$+ 2\, p^{151}\, q^{124} + 37823\, q^{137}\, p^{60} + 83360\, q^{138}\, p^{66} + 18313\, q^{137}\, p^{58} + 816151\, q^{139}\, p^{82} + 6\, p^{75}\, q^{7} + 6662\, p^{114}\, q^{24} + 816151\, p^{139}\, q^{82}$$
$$+ 62796\, p^{134}\, q^{53} + 146480\, p^{136}\, q^{61} + 30626\, p^{131}\, q^{45} + 2\, p^{95}\, q^{11} + 622076\, p^{140}\, q^{87} + 681\, p^{122}\, q^{28} + 3379\, p^{126}\, q^{34} + 11083564\, p^{135}\, q^{78}$$
$$+ 11467303\, p^{137}\, q^{98} + 1260041\, p^{129}\, q^{50} + 108221\, p^{139}\, q^{133} + 11303546\, p^{137}\, q^{97} + 180586\, p^{125}\, q^{39} + 1692\, p^{125}\, q^{32} + 553750\, p^{140}\, q^{86}$$
$$+ 27722\, p^{143}\, q^{130} + 736548\, p^{141}\, q^{104} + 513\, q^{127}\, p^{33} + 18\, q^{125}\, p^{28} + 6362513223\, p^{107}\, q^{120} + 4474348\, p^{111}\, q^{138} + 53914589733\, p^{72}\, q^{114}$$
$$+ 3442747146\, p^{92}\, q^{125} + 177599892786\, p^{102}\, q^{106} + 585922603\, q^{114}\, p^{46} + 778848739\, q^{114}\, p^{47} + 1023624252\, q^{114}\, p^{48}$$
$$+ 1092557403\, q^{113}\, p^{47} + 3437198264\, q^{114}\, p^{53} + 2180626212\, q^{114}\, p^{51} + 2750597641\, q^{114}\, p^{52} + 1558173855\, q^{115}\, p^{51}$$
$$+ 4256464056\, q^{114}\, p^{54} + 5224927386\, q^{114}\, p^{55} + 623679893083\, p^{52}\, q^{85} + 1377718586324\, p^{57}\, q^{84} + 229207636062\, p^{47}\, q^{86}$$
$$+ 20131302545\, q^{97}\, p^{43} + 13895616072\, q^{96}\, p^{41} + 3010564726\, p^{102}\, q^{40} + 2180626212\, p^{102}\, q^{39} + 861720527306\, p^{98}\, q^{96} + 82478\, p^{83}\, q^{14}$$
$$+ 9813\, p^{77}\, q^{11} + 4221699\, p^{71}\, q^{16} + 104292453946\, p^{74}\, q^{112} + 177613978539\, p^{81}\, q^{111} + 128584425508\, p^{78}\, q^{112} + 502867776\, p^{97}\, q^{32}$$
$$+ 39971713\, p^{93}\, q^{25} + 66468261442\, p^{109}\, q^{62} + 184645612090\, p^{111}\, q^{84} + 39822752652\, p^{108}\, q^{57} + 183313223248\, p^{111}\, q^{83}$$
$$+ 71274238874\, p^{112}\, q^{101} + 180956555937\, p^{111}\, q^{82} + 286304332150\, p^{97}\, q^{106} + 76285918\, p^{116}\, q^{42} + 119565\, p^{103}\, q^{21} + 1809210\, p^{109}\, q^{28}$$
$$+ 229149927286\, p^{105}\, q^{65} + 161790533114\, p^{105}\, q^{62} + 407885367792\, p^{107}\, q^{82} + 410495604872\, p^{107}\, q^{84} + 97532165061\, p^{104}\, q^{57}$$
$$+ 410351131606\, p^{107}\, q^{83} + 1563409751\, p^{103}\, q^{126} + 47045\, p^{62}\, q^{10} + 83134\, p^{130}\, q^{141} + 80913\, p^{141}\, q^{80} + 6506\, p^{134}\, q^{48} + 58529\, p^{144}\, q^{110}$$
$$+ 136025\, p^{141}\, q^{83} + 110276\, p^{143}\, q^{100} + 281\, p^{145}\, q^{81} + 839851534\, p^{83}\, q^{128} + 3\, p^{76}\, q^{7} + 3380\, p^{115}\, q^{24} + 5405042\, p^{136}\, q^{78}$$
$$+ 5980310\, p^{138}\, q^{98} + 608345\, p^{130}\, q^{50} + 70328\, p^{140}\, q^{133} + 5849673\, p^{138}\, q^{97} + 2563274\, q^{135}\, p^{69} + 9776541708\, p^{89}\, q^{122}$$
$$+ 1522723\, p^{134}\, q^{130} + 81420\, p^{143}\, q^{96} + 3\, q^{125}\, p^{27} + 6597\, q^{132}\, p^{44} + 1139\, q^{130}\, p^{38} + 10492\, q^{131}\, p^{43} + 3745155\, q^{137}\, p^{81} + 5794683\, q^{137}\, p^{85}$$
$$+ 5250682\, q^{137}\, p^{84} + 7475968\, q^{137}\, p^{88} + 8570845\, q^{137}\, p^{90} + 4482975\, q^{138}\, p^{91} + 6350779\, q^{137}\, p^{86} + 8031181\, q^{137}\, p^{89} + 4221699\, q^{137}\, p^{82}$$
$$+ p^{89}\, q^{148} + 16227\, p^{104}\, q^{145} + 5008229\, p^{137}\, q^{116} + 19742419\, p^{136}\, q^{94} + 6962984460\, p^{91}\, q^{123} + 416452\, p^{130}\, q^{49} + 105197\, p^{125}\, q^{38}$$
$$+ 21314\, p^{122}\, q^{32} + 10755\, p^{140}\, q^{67} + 5980461\, p^{138}\, q^{104} + 6350779\, p^{137}\, q^{86} + 136161\, p^{140}\, q^{130} + 57911\, p^{109}\, q^{144} + 9747588213\, p^{90}\, q^{122}$$
$$+ 3\, p^{138}\, q^{47} + 895805\, q^{137}\, p^{72} + 592316\, q^{137}\, p^{70} + 19434\, p^{132}\, q^{143} + 4486\, p^{141}\, q^{141} + 7885\, p^{138}\, q^{142} + 16016\, p^{133}\, q^{143} + 5872\, p^{139}\, q^{142}$$
$$+ 15\, q^{127}\, p^{30} + q^{122}\, p^{24} + 6913747\, q^{137}\, p^{87} + 4725082\, q^{137}\, p^{83} + 3297764\, q^{137}\, p^{80} + 2882403\, q^{137}\, p^{79} + 5735\, p^{125}\, q^{146}$$

$$+ 833497723715\, p^{98}\, q^{66} + 895805\, p^{81}\, q^{16} + 9127075\, p^{85}\, q^{20} + 8015957767\, p^{94}\, q^{38} + 36725981528\, p^{95}\, q^{44} + 916370224009\, p^{99}\, q^{69}$$
$$+ 161040756022\, q^{103}\, p^{59} + 3297764\, p^{73}\, q^{16} + 16874853828\, p^{112}\, q^{112} + 1119034351235\, p^{97}\, q^{94} + 145183406367\, p^{108}\, q^{101}$$
$$+ 17434413\, q^{135}\, p^{82} + 42654860\, p^{90}\, q^{24} + 745303842\, p^{113}\, q^{125} + 5484\, p^{88}\, q^{13} + 743461784\, p^{128}\, q^{81} + 963550638\, p^{128}\, q^{86}$$
$$+ 1064647844\, p^{128}\, q^{90} + 933846388\, p^{127}\, q^{78} + 857845329\, p^{127}\, q^{77} + 656259496\, p^{129}\, q^{98} + 1047666181\, p^{128}\, q^{89} + 783012257\, p^{127}\, q^{76}$$
$$+ 996701657\, p^{128}\, q^{87} + 620007\, p^{138}\, q^{127} + 8886411\, p^{137}\, q^{109} + 9749061132\, p^{122}\, q^{88} + 4091440622\, p^{123}\, q^{103} + 598\, p^{81}\, q^{10}$$
$$+ 149877\, p^{122}\, q^{35} + 674783\, p^{114}\, q^{30} + 33198045\, p^{121}\, q^{46} + 1450771\, p^{116}\, q^{33} + 38967147\, p^{122}\, q^{48} + 620941208\, p^{124}\, q^{116}$$
$$+ 2431926305\, p^{118}\, q^{58} + 3094070\, p^{106}\, q^{27} + 2279095406\, p^{95}\, q^{126} + 76\, q^{124}\, p^{28} + 2315918233\, p^{124}\, q^{106} + 6358\, p^{140}\, q^{141} + 34226\, q^{135}\, p^{54}$$
$$+ 27304\, q^{134}\, p^{51} + 41890\, q^{134}\, p^{52} + 730300\, q^{136}\, p^{67} + 262879\, q^{136}\, p^{63} + 345466\, q^{136}\, p^{64} + 448374\, q^{136}\, p^{65} + 917296\, q^{136}\, p^{68}$$
$$+ 575467\, q^{136}\, p^{66} + 7070\, p^{91}\, q^{14} + 73488\, p^{97}\, q^{18} + 79391428\, p^{112}\, q^{38} + 856631936\, p^{124}\, q^{114} + 1489707525\, p^{124}\, q^{110}$$
$$+ 435854829\, p^{124}\, q^{118} + 1882659280\, p^{124}\, q^{108} + 1680451039\, p^{124}\, q^{109} + 732183550\, p^{124}\, q^{115} + 38043\, p^{96}\, q^{17} + 406217\, p^{102}\, q^{22}$$
$$+ 608345\, p^{103}\, q^{23} + 15\, p^{79}\, q^{8} + 30115291\, p^{134}\, q^{81} + 6410813925\, p^{101}\, q^{122} + 6761124762\, p^{123}\, q^{93} + 5942595152\, p^{123}\, q^{97}$$
$$+ 5376576890\, p^{123}\, q^{99} + 435854829\, p^{118}\, q^{124} + 765498705\, p^{103}\, q^{128} + 140372963\, p^{86}\, q^{132} + 2204943304\, p^{113}\, q^{121} + 21880\, q^{127}\, p^{38}$$
$$+ 1217927\, p^{105}\, q^{25} + 16579605\, p^{109}\, q^{32} + 25\, p^{146}\, q^{81} + 749\, p^{148}\, q^{122} + 165685523\, p^{114}\, q^{42} + 3926876\, p^{107}\, q^{28} + 260076\, p^{101}\, q^{21}$$
$$+ 9749061132\, p^{88}\, q^{122} + 591088839\, p^{78}\, q^{128} + 378634726\, p^{116}\, q^{47} + 4108315338576\, p^{68}\, q^{82} + 187\, p^{149}\, q^{124} + 93062\, p^{126}\, q^{142}$$
$$+ 179\, p^{143}\, q^{69} + 8109539526\, p^{116}\, q^{61} + 26981458084\, p^{118}\, q^{79} + 3437198264\, p^{114}\, q^{53} + 2372546741\, p^{113}\, q^{50} + 573604154\, p^{100}\, q^{34}$$
$$+ 10077384414\, p^{103}\, q^{45} + 4103016366\, p^{102}\, q^{41} + 1229006312\, p^{100}\, q^{36} + 93420948036\, p^{110}\, q^{102} + 2754481940467\, p^{80}\, q^{93}$$
$$+ 87063\, p^{126}\, q^{39} + 897811493\, p^{122}\, q^{61} + 2325734010\, p^{126}\, q^{94} + 36307022\, p^{116}\, q^{40} + 24418670\, p^{116}\, q^{39} + 2339267858\, p^{124}\, q^{74}$$
$$+ 2015639442\, p^{123}\, q^{69} + 6146393\, p^{114}\, q^{34} + 2279095406\, p^{126}\, q^{95} + 2277071045\, p^{123}\, q^{70} + 1450974575\, p^{126}\, q^{104}$$
$$+ 108625730823\, p^{80}\, q^{113} + 32\, p^{124}\, q^{150} + 4047\, p^{134}\, q^{145} + 792613261\, p^{128}\, q^{82} + 16579605\, p^{121}\, q^{44} + 65495\, p^{110}\, q^{24} + 18743179\, p^{120}\, q^{43}$$
$$+ 161943247\, p^{130}\, q^{112} + 710106176\, p^{127}\, q^{75} + 234927148\, p^{125}\, q^{61} + q^{137}\, p^{44} + 41\, q^{137}\, p^{47} + 5\, q^{137}\, p^{45} + 16\, q^{137}\, p^{46} + 14706\, q^{140}\, p^{68}$$
$$+ 2504906949\, p^{101}\, q^{125} + 4265\, p^{124}\, q^{32} + 1334180\, p^{139}\, q^{86} + 49025\, p^{142}\, q^{130} + 1560433\, p^{140}\, q^{104} + 1016119998\, p^{67}\, q^{124}$$
$$+ 3491222480\, p^{79}\, q^{124} + 1168546526\, p^{68}\, q^{124} + 1334339468\, p^{69}\, q^{124} + 3262759377\, p^{78}\, q^{124} + 3713050249\, p^{80}\, q^{124}$$
$$+ 986575643\, p^{70}\, q^{125} + 21817\, p^{134}\, q^{142} + 8841\, p^{139}\, q^{141} + 751715474\, p^{65}\, q^{124} + 877212739\, p^{66}\, q^{124} + 8550471228\, p^{101}\, q^{121}$$
$$+ 9662627331\, p^{91}\, q^{122} + 3793652\, p^{129}\, q^{132} + 6881288734\, p^{92}\, q^{123} + 4776230605\, p^{78}\, q^{123} + 5400820041\, p^{80}\, q^{123} + 3925225496\, p^{81}\, q^{124}$$

$$+ 5094294434\, p^{79} q^{123} + 4450843880\, p^{77} q^{123} + 14534\, p^{124} q^{145} + 4\, p^{151} q^{128} + p^{152} q^{136} + 6\, p^{151} q^{132} + 38\, p^{150} q^{127} + 132\, p^{149} q^{118}$$
$$+ 56\, p^{149} q^{111} + p^{145} q^{70} + 11\, p^{148} q^{94} + 39\, p^{149} q^{109} + 22\, p^{150} q^{121} + 191745\, p^{125} q^{141} + 3478953\, q^{128} p^{51} + 2367121\, q^{127} p^{48}$$
$$+ 3369086\, q^{127} p^{49} + 4721656\, q^{127} p^{50} + 621391\, q^{126} p^{43} + 9017\, p^{144} q^{133} + 240164\, p^{142} q^{97} + 10786\, p^{134} q^{49} + 3380\, p^{129} q^{38}$$
$$+ 675205064754\, p^{94} q^{59} + 1658155886661\, p^{95} q^{70} + 51978374820\, p^{91} q^{43} + 17501549430\, p^{114} q^{62} + 55426120039\, p^{116} q^{84}$$
$$+ 10390028657\, p^{113} q^{57} + 54484922186\, p^{116} q^{83} + 24201532918\, p^{117} q^{101} + 53252915931\, p^{116} q^{82} + 152447455266\, p^{99} q^{54}$$
$$+ 60665210224\, q^{102} p^{52} + 1637399666\, q^{97} p^{35} + 3462636430\, p^{95} q^{36} + 485126118\, p^{93} q^{30} + 1388424428\, p^{94} q^{33} + 10390028657\, p^{96} q^{40}$$
$$+ 7676292739\, p^{96} q^{39} + 4859462991\, p^{95} q^{37} + 654\, p^{128} q^{148} + 890762\, p^{138} q^{125} + 6\, p^{139} q^{50} + 25924\, p^{138} q^{139} + 68443\, p^{124} q^{36}$$
$$+ 6075026\, p^{138} q^{99} + 1556425\, p^{139} q^{117} + 3149179\, p^{133} q^{63} + 203869\, p^{119} q^{142} + 1636419\, p^{127} q^{47} + 5550611\, p^{137} q^{115} + 73\, q^{142} p^{63}$$
$$+ p^{55} q^{4} + 6107486\, p^{137} q^{114} + 3988837\, p^{137} q^{118} + 7805130\, p^{137} q^{111} + 13112980\, p^{133} q^{70} + 165867\, p^{129} q^{140} + 220385\, p^{124} q^{141}$$
$$+ p^{139} q^{152} + p^{138} q^{152} + 19980905\, p^{136} q^{103} + 873159\, q^{130} p^{51} + 738967\, p^{106} q^{141} + 5673\, p^{135} q^{50} + 5493225488\, p^{103} q^{122}$$
$$+ 7918467301\, p^{102} q^{121} + 4181389\, p^{138} q^{112} + 78276\, p^{143} q^{122} + 3769\, p^{141} q^{68} + 2098\, p^{139} q^{59} + 7897\, p^{146} q^{116} + 7805130\, p^{111} q^{137}$$
$$+ 323916\, p^{139} q^{128} + 2813791275\, p^{113} q^{120} + 16117\, p^{141} q^{137} + 28181952\, p^{133} q^{75} + 17408\, q^{134} p^{50} + 19414\, q^{132} p^{46}$$
$$+ 24025670069\, p^{43} q^{96} + 2674830752848\, p^{88} q^{91} + 715631449655\, p^{102} q^{92} + 399003487\, p^{129} q^{79} + 397983119\, p^{74} q^{128}$$
$$+ 1160281095\, p^{81} q^{127} + 2747118896826\, p^{81} q^{93} + 401212263\, p^{103} q^{35} + 3724201\, p^{95} q^{22} + 90146483237\, p^{111} q^{69}$$
$$+ 208573987972\, p^{74} q^{109} + 7601380\, p^{120} q^{135} + 2578357\, p^{136} q^{124} + 2555112841\, p^{123} q^{71} + 817\, p^{89} q^{12} + 16122794\, p^{115} q^{37}$$
$$+ 3463059187\, p^{125} q^{91} + 154714016\, p^{88} q^{132} + 891479\, p^{134} q^{132} + 637937\, p^{135} q^{132} + 14205644\, q^{136} p^{110} + 10113650\, q^{136} p^{114}$$
$$+ 11123932\, q^{136} p^{113} + 290095205412\, p^{55} q^{96} + 114\, p^{93} q^{12} + 25924\, p^{139} q^{138} + 252249378\, q^{124} p^{59} + 5728\, q^{142} p^{74} + 6866\, p^{66} q^{9}$$
$$+ 1814611336561\, p^{97} q^{80} + 84962275314\, p^{110} q^{66} + 50121240144\, p^{109} q^{60} + 98584428527\, p^{111} q^{70} + 104434453875\, p^{110} q^{68}$$
$$+ 45192982161\, p^{110} q^{61} + 83360\, p^{87} q^{15} + 148124631642\, p^{112} q^{86} + 133532370563\, p^{112} q^{79} + 5610161\, p^{96} q^{23} + 132697\, p^{89} q^{16}$$
$$+ 74895927015\, p^{113} q^{98} + 19096640774\, p^{108} q^{53} + 162275045511\, p^{111} q^{78} + 13016431037\, p^{107} q^{50} + 146943419141\, p^{112} q^{87}$$
$$+ 8178532\, p^{97} q^{24} + 250020340158\, p^{104} q^{64} + 85879890907\, p^{103} q^{55} + 1580690800662\, p^{97} q^{88} + 1797955774491\, p^{97} q^{83}$$
$$+ 924998\, p^{76} q^{15} + 58222844\, q^{102} p^{30} + 3602690240\, q^{105} p^{43} + 2680735608\, q^{105} p^{42} + 4785357531\, q^{105} p^{44} + 6285425082\, q^{105} p^{45}$$
$$+ 80323966251\, q^{107} p^{60} + 69319433204\, q^{107} p^{59} + 119848379024\, q^{107} p^{63} + 151313543876\, q^{107} p^{65} + 92420029399\, q^{107} p^{61}$$
$$+ 135108701808\, q^{107} p^{64} + 105603093395\, q^{107} p^{62} + 59392476928\, q^{107} p^{58} + 658782698\, q^{104} p^{37} + 943270608\, q^{104} p^{38} + 18\, q^{66} p^{6}$$

$$+ 36582740\, q^{125} p^{53} + 147821280\, p^{87} q^{132} + 100272559644\, p^{93} q^{47} + 179080404\, p^{85} q^{25} + 877212739\, p^{87} q^{29} + 105359530\, p^{85} q^{24}$$
$$+ 412573895\, p^{86} q^{27} + 1064548460\, p^{99} q^{35} + 2\, p^{29} q^{2} + 1774944997538\, p^{97} q^{78} + 756404143250\, p^{95} q^{61} + 940584456381\, p^{95} q^{63}$$
$$+ 1641715430942\, p^{96} q^{72} + 1284251257122\, p^{96} q^{68} + 49702018\, q^{128} p^{61} + 1442237574350\, p^{97} q^{90} + 555842015314\, q^{103} p^{71}$$
$$+ 626712966563\, q^{103} p^{73} + 690276928416\, q^{103} p^{75} + 659640826954\, q^{103} p^{74} + 718176095921\, q^{103} p^{76} + 764137028133\, q^{103} p^{78}$$
$$+ 742922184622\, q^{103} p^{77} + 592597275363\, p^{95} q^{59} + 1469234557227\, p^{96} q^{70} + 45192982161\, p^{92} q^{43} + 2542224187451\, p^{89} q^{91}$$
$$+ 2724356080581\, p^{82} q^{93} + 196192\, p^{74} q^{13} + 440224\, p^{75} q^{14} + 265449\, p^{117} q^{31} + 8150\, q^{72} p^{10} + 19991\, q^{74} p^{11} + 233404946560\, p^{94} q^{52}$$
$$+ 152175782703\, p^{93} q^{49} + 41194270193\, p^{91} q^{117} + 68832764580\, p^{109} q^{106} + 1401045113913\, p^{79} q^{99} + 79214671\, p^{128} q^{121}$$
$$+ 55465566\, q^{133} p^{81} + 1092557403\, q^{106} p^{40} + 2064520841\, q^{106} p^{42} + 33535327261\, q^{97} p^{45} + 40239418793\, p^{111} q^{62}$$
$$+ 117475790982\, p^{113} q^{84} + 24025670069\, p^{110} q^{57} + 116190776983\, p^{113} q^{83} + 47536024095\, p^{114} q^{101} + 114265116369\, p^{113} q^{82}$$
$$+ 18313\, q^{95} p^{16} + 104811\, q^{96} p^{18} + 386\, q^{77} p^{9} + 1655\, q^{78} p^{10} + 539\, q^{76} p^{9} + 71841861\, q^{110} p^{36} + 3369086\, q^{104} p^{26}$$
$$+ 164965330815\, p^{68} q^{108} + 174\, p^{149} q^{122} + 1230501278548\, p^{94} q^{96} + 6943611\, p^{123} q^{134} + 12968633419\, p^{120} q^{99} + 14562318441\, p^{120} q^{97}$$
$$+ 4902712338\, q^{121} p^{107} + 57\, p^{83} q^{146} + 25\, p^{81} q^{146} + 40\, p^{82} q^{146} + p^{81} q^{147} + 83\, p^{84} q^{146} + 115\, p^{85} q^{146} + 160\, p^{86} q^{146} + 35\, p^{149} q^{144}$$
$$+ 17788302\, p^{132} q^{68} + 9436572\, p^{130} q^{59} + 365684076\, p^{78} q^{129} + 39\, p^{150} q^{136} + 166\, p^{149} q^{132} + 115\, p^{146} q^{85} + 183\, p^{149} q^{123} + 8\, p^{139} q^{151}$$
$$+ 1311407309\, p^{111} q^{124} + 2069612\, q^{136} p^{72} + 1404047\, q^{136} p^{70} + 75\, q^{130} p^{35} + 9665590125\, p^{122} q^{87} + 9527550720\, p^{122} q^{86}$$
$$+ 5669462709\, p^{123} q^{98} + 9760808275\, p^{121} q^{78} + 8125046076\, p^{122} q^{81} + 8526462412\, p^{121} q^{76} + 9776541708\, p^{122} q^{89}$$
$$+ 9150500189\, p^{121} q^{77} + 9747588213\, p^{122} q^{90} + 204129619\, p^{124} q^{58} + 243710705\, p^{130} q^{108} + 201378152\, p^{130} q^{110} + 6\, p^{135} q^{41}$$
$$+ 817\, p^{141} q^{64} + 1262\, p^{147} q^{106} + 860\, p^{143} q^{73} + 150\, p^{139} q^{54} + 23638180\, p^{121} q^{45} + 102238101\, p^{124} q^{55} + 193147\, p^{111} q^{26}$$
$$+ 1650658\, p^{121} q^{138} + 2484268\, p^{129} q^{52} + 15522891\, p^{133} q^{71} + 32679156\, p^{135} q^{91} + 95902699\, p^{71} q^{130} + 231520\, p^{83} q^{15}$$
$$+ 1955797910423\, p^{91} q^{93} + 100266516735\, p^{93} q^{113} + 92379916372\, p^{84} q^{114} + 27975925782\, p^{114} q^{106} + 5808917427\, q^{94} p^{37}$$
$$+ 233395\, p^{73} q^{13} + 520209\, p^{74} q^{14} + 27975823\, p^{99} q^{27} + 4927093960\, p^{107} q^{46} + 12581790319\, p^{108} q^{51} + 2680735608\, p^{105} q^{42}$$
$$+ 6376052415\, p^{107} q^{47} + 395234\, q^{126} p^{42} + 955843\, q^{126} p^{44} + 18031719\, p^{135} q^{113} + 113265671\, p^{119} q^{47} + 1972908142\, p^{101} q^{38}$$
$$+ 385408393752\, p^{63} q^{101} + 43921848\, p^{108} q^{134} + 1553354831376\, p^{92} q^{95} + 2011748477\, q^{122} p^{66} + 153162393\, p^{64} q^{127}$$
$$+ 807084067\, p^{72} q^{126} + 715711262\, p^{71} q^{126} + 1319605502352\, p^{64} q^{93} + 21075322342\, q^{103} p^{48} + 74770285\, q^{128} p^{63} + 61234582\, q^{128} p^{62}$$
$$+ 39971713\, q^{128} p^{60} + 60614582596\, p^{108} q^{108} + 6579618712\, p^{118} q^{64} + 189116\, p^{97} q^{19} + 874\, p^{147} q^{103} + 267\, p^{144} q^{75} + 307877\, p^{142} q^{112}$$

$$+ 37948\, p^{143}\, q^{128} + 609\, q^{126}\, p^{32} + 1983035412\, p^{112}\, q^{122} + 3762355143\, p^{104}\, q^{123} + 74822047\, p^{107}\, q^{133} + 79877946\, p^{106}\, q^{133}$$
$$+ 97415663\, p^{102}\, q^{133} + 93571577\, p^{103}\, q^{133} + 99295233\, p^{109}\, q^{132} + 90764764\, p^{110}\, q^{132} + 2117\, p^{109}\, q^{20} + 63985\, p^{139}\, q^{135}$$
$$+ 519263563973\, p^{58}\, q^{95} + 2\, p^{70}\, q^{6} + 2899117394555\, p^{63}\, q^{82} + 450177\, p^{97}\, q^{20} + 2204943304\, p^{121}\, q^{113} + 54118877\, q^{82}\, p^{22}$$
$$+ 1453029\, p^{99}\, q^{140} + 21262\, p^{145}\, q^{117} + 10176\, p^{139}\, q^{63} + 209\, p^{130}\, q^{36} + 580640\, p^{131}\, q^{136} + 309410\, p^{132}\, q^{137} + 1469234557227\, p^{57}\, q^{83}$$
$$+ 200\, p^{145}\, q^{80} + 12\, p^{138}\, q^{48} + 371\, p^{148}\, q^{110} + 516\, p^{145}\, q^{83} + 548\, p^{147}\, q^{100} + 8015957767\, p^{115}\, q^{59} + 157428798202\, p^{70}\, q^{109}$$
$$+ 442271\, p^{123}\, q^{140} + 504965\, p^{122}\, q^{140} + 181210496\, p^{130}\, q^{111} + 572595905\, p^{127}\, q^{73} + 126619246\, p^{130}\, q^{114} + 70797327\, p^{130}\, q^{118}$$
$$+ 681\, p^{125}\, q^{31} + 5809\, p^{131}\, q^{42} + 21893\, p^{141}\, q^{74} + 7758\, p^{140}\, q^{66} + 3\, p^{119}\, q^{22} + 63\, q^{141}\, p^{59} + 42\, p^{142}\, q^{62} + 913\, p^{146}\, q^{93} + 79\, p^{144}\, q^{72}$$
$$+ 1131\, p^{147}\, q^{105} + 5026408\, q^{138}\, p^{93} + 20\, p^{135}\, q^{42} + 18\, p^{134}\, q^{40} + 209\, p^{142}\, q^{65} + p^{129}\, q^{31} + q^{145}\, p^{70} + 4\, q^{145}\, p^{72} + 2\, q^{145}\, p^{71}$$
$$+ 11445296\, q^{121}\, p^{43} + 7767352\, q^{121}\, p^{42} + 16579605\, q^{121}\, p^{44} + 485126118\, q^{123}\, p^{60} + 398077015\, q^{123}\, p^{59} + 323811626\, q^{123}\, p^{58}$$
$$+ 1450771\, q^{120}\, p^{37} + 2344062\, q^{120}\, p^{38} + 4573954\, q^{122}\, p^{42} + 28312911\, q^{122}\, p^{47} + 38967147\, q^{122}\, p^{48} + 3698767\, q^{120}\, p^{39} + 278\, p^{98}\, q^{14}$$
$$+ 30626\, p^{108}\, q^{22} + 222275055\, p^{130}\, q^{109} + 20981057\, p^{135}\, q^{84} + 6188141\, p^{129}\, q^{55} + 3169\, p^{146}\, q^{131} + 15\, p^{123}\, q^{26} + 16908\, p^{114}\, q^{25}$$
$$+ 998867\, p^{92}\, q^{140} + 1424761\, p^{109}\, q^{140} + 149\, p^{120}\, q^{25} + 4673\, p^{130}\, q^{40} + 62558\, p^{138}\, q^{65} + 16768\, q^{125}\, p^{35} + 14\, q^{118}\, p^{22} + 408\, q^{119}\, p^{25}$$
$$+ 9007\, q^{128}\, p^{38} + 9127075\, q^{133}\, p^{68} + 10986772\, q^{133}\, p^{69} + 2917109\, p^{132}\, q^{130} + 522632826\, p^{103}\, q^{129} + 449487908\, p^{96}\, q^{130}$$
$$+ 582774\, p^{124}\, q^{40} + 70992404\, p^{122}\, q^{50} + 2536622\, p^{117}\, q^{35} + 163676329\, p^{124}\, q^{57} + 8643981\, p^{120}\, q^{41} + 4144991\, p^{117}\, q^{36}$$
$$+ 100134899\, p^{123}\, q^{53} + 749\, p^{144}\, q^{78} + 814049339\, p^{128}\, q^{102} + 389585329\, p^{129}\, q^{107} + 9930719\, p^{132}\, q^{65} + 6453219\, p^{118}\, q^{38} + 154\, p^{149}\, q^{120}$$
$$+ 193\, p^{149}\, q^{125} + 318450\, p^{141}\, q^{121} + 117\, p^{107}\, q^{17} + 1354295\, p^{115}\, q^{32} + 89523\, p^{111}\, q^{25} + 552606668941\, p^{103}\, q^{94} + 3396588115\, q^{121}\, p^{67}$$
$$+ 24025670069\, q^{110}\, p^{57} + 3222059\, p^{135}\, q^{125} + 2214714\, p^{131}\, q^{132} + 2744257\, p^{129}\, q^{133} + 1225416\, p^{133}\, q^{132} + 20131302545\, q^{110}\, p^{56}$$
$$+ 24418670\, q^{116}\, p^{39} + 53056209\, q^{116}\, p^{41} + 36307022\, q^{116}\, p^{40} + 2784643453\, q^{110}\, p^{47} + 623321573\, q^{121}\, p^{57} + 41127\, p^{143}\, q^{90}$$
$$+ 588675623407\, p^{95}\, q^{102} + 113603859836\, p^{110}\, q^{100} + 3378\, q^{104}\, p^{18} + 4619270942\, p^{85}\, q^{124} + 4474466385\, p^{84}\, q^{124}$$
$$+ 4740922559\, p^{86}\, q^{124} + 1865506414\, p^{76}\, q^{125} + 261889615674\, p^{109}\, q^{89} + 285581716389\, p^{108}\, q^{76} + 297835350026\, p^{108}\, q^{77}$$
$$+ 202236376616\, p^{110}\, q^{91} + 272217413119\, p^{109}\, q^{81} + 211999286736\, p^{108}\, q^{71} + 277307355613\, p^{109}\, q^{86} + 273627785788\, p^{109}\, q^{87}$$
$$+ 259648313482\, p^{109}\, q^{79} + 416751673225\, p^{102}\, q^{99} + 39016383333\, p^{60}\, q^{110} + 43061350385\, p^{59}\, q^{109} + 22020034333\, p^{99}\, q^{118}$$
$$+ 24963301951\, p^{97}\, q^{118} + 23516397641\, p^{98}\, q^{118} + 20493641512\, p^{100}\, q^{118} + 17424759014\, p^{102}\, q^{118} + 18955940877\, p^{101}\, q^{118}$$
$$+ 15916545331\, p^{103}\, q^{118} + 13027057410\, p^{105}\, q^{118} + 14446268356\, p^{104}\, q^{118} + 10197712473\, p^{105}\, q^{119} + 501472691090\, p^{102}\, q^{97}$$

$$+ 610157146\, p^{100}\, q^{129} + 454693147\, p^{95}\, q^{130} + 86784781\, p^{127}\, q^{122} + 22840819\, p^{115}\, q^{134} + 20228330\, p^{116}\, q^{134} + 15512601\, p^{118}\, q^{134}$$
$$+ 11531075\, p^{120}\, q^{134} + 13427760\, p^{119}\, q^{134} + 17781351\, p^{117}\, q^{134} + 352524362091\, p^{104}\, q^{98} + 448280140991\, p^{95}\, q^{104}$$
$$+ 321392528390\, p^{99}\, q^{104} + 352524362091\, p^{98}\, q^{104} + 234411306498\, p^{102}\, q^{104} + 183801546616\, p^{104}\, q^{104} + 141462275353\, p^{105}\, q^{105}$$
$$+ 291167247282\, p^{100}\, q^{104} + 208267219347\, p^{103}\, q^{104} + 416308006527\, p^{96}\, q^{104} + 350573748\, p^{127}\, q^{114} + 186425775\, p^{127}\, q^{118}$$
$$+ 724358573\, p^{127}\, q^{108} + 584809049\, p^{127}\, q^{110} + 148542132\, p^{132}\, q^{103} + 210891271\, p^{131}\, q^{84} + 473575524479\, p^{100}\, q^{100}$$
$$+ 479810239090\, p^{104}\, q^{94} + 150767190\, p^{109}\, q^{37} + 53051551\, p^{107}\, q^{33} + 210984447\, q^{126}\, p^{63} + 174867029\, q^{126}\, p^{62} + 21234181\, q^{126}\, p^{53}$$
$$+ 469784788741\, p^{101}\, q^{99} + 23119373918\, p^{114}\, q^{64} + 7115791979\, p^{113}\, q^{55} + 49999030007\, p^{116}\, q^{80} + 56051682444\, p^{116}\, q^{88}$$
$$+ 20226890598\, p^{117}\, q^{103} + 40111334082\, p^{117}\, q^{92} + 8633684287\, p^{113}\, q^{56} + 515488768161\, p^{103}\, q^{95} + 448280140991\, p^{104}\, q^{95}$$
$$+ 955\, q^{112}\, p^{21} + 58944027\, q^{132}\, p^{76} + 552606668941\, p^{94}\, q^{103} + 1357\, q^{98}\, p^{15} + q^{92}\, p^{10} + 6506\, q^{105}\, p^{19} + 367232114879\, p^{103}\, q^{99}$$
$$+ 472831320874\, p^{87}\, q^{106} + 921485\, p^{91}\, q^{140} + 262102169966\, p^{101}\, q^{104} + 384271223204\, p^{97}\, q^{104} + 479810239090\, p^{94}\, q^{104}$$
$$+ 510504259609\, p^{93}\, q^{104} + 12041769\, p^{93}\, q^{23} + 295151\, p^{86}\, q^{16} + 134714852661\, p^{110}\, q^{98} + 38997365335\, p^{105}\, q^{53} + 8627400\, p^{103}\, q^{27}$$
$$+ 308826670893\, p^{108}\, q^{78} + 950136160\, p^{105}\, q^{127} + 674504529\, p^{97}\, q^{129} + 238484598320\, p^{95}\, q^{108} + 253594277693\, p^{94}\, q^{108}$$
$$+ 2995105566587\, p^{64}\, q^{83} + 177406582\, p^{93}\, q^{132} + 179070295\, p^{94}\, q^{132} + 653061407\, p^{109}\, q^{127} + 715382914\, p^{104}\, q^{128}$$
$$+ 631271819\, p^{112}\, q^{126} + 873630781\, p^{106}\, q^{127} + 478305857\, p^{114}\, q^{126} + 551513718\, p^{113}\, q^{126} + 154208303\, p^{124}\, q^{123} + 11955758\, p^{100}\, q^{26}$$
$$+ 55023412316\, p^{115}\, q^{96} + 825585242\, p^{107}\, q^{40} + 585922603\, p^{107}\, q^{39} + 152726754\, p^{105}\, q^{34} + 132645040978\, p^{74}\, q^{111}$$
$$+ 224609167393\, p^{82}\, q^{110} + 3414817463\, q^{119}\, p^{62} + 2894755544\, q^{119}\, p^{61} + 6134391\, q^{133}\, p^{66} + 7516650\, q^{133}\, p^{67} + 105197\, q^{125}\, p^{38}$$
$$+ 4265\, q^{124}\, p^{32} + 9239\, q^{124}\, p^{33} + 35253\, p^{144}\, q^{99} + 77\, q^{115}\, p^{21} + 5196412246076\, p^{73}\, q^{81} + 267274374922\, p^{93}\, q^{52} + 26297268363\, p^{114}\, q^{65}$$
$$+ 40917637094\, p^{115}\, q^{72} + 67009397204\, q^{105}\, p^{56} + 2488063713029\, p^{88}\, q^{92} + 5401694123790\, p^{75}\, q^{81} + 92408996\, q^{108}\, p^{35}$$
$$+ 4719816283743\, p^{71}\, q^{82} + 79877946\, p^{133}\, q^{106} + 174035748181\, p^{92}\, q^{49} + 2640287\, p^{126}\, q^{135} + 1072988\, p^{130}\, q^{135} + 1366418\, p^{129}\, q^{135}$$
$$+ 482323\, p^{133}\, q^{135} + 263845\, p^{135}\, q^{135} + 138862\, p^{136}\, q^{136} + 832662\, p^{131}\, q^{135} + 359418\, p^{134}\, q^{135} + 2142321\, p^{127}\, q^{135} + 637937\, p^{132}\, q^{135}$$
$$+ 1720141\, p^{128}\, q^{135} + 3222059\, p^{125}\, q^{135} + 3894243\, p^{124}\, q^{135} + 15841\, p^{144}\, q^{92} + 968\, p^{147}\, q^{134} + 3\, p^{127}\, q^{29} + 1481153\, p^{87}\, q^{139}$$
$$+ 1334180\, p^{86}\, q^{139} + 2234\, p^{143}\, q^{76} + 5778\, p^{146}\, q^{107} + 13916\, p^{145}\, q^{102} + 3050189\, p^{99}\, q^{139} + 18465\, p^{85}\, q^{143} + 5980310\, p^{98}\, q^{138}$$
$$+ 5\, p^{148}\, q^{92} + 7\, p^{151}\, q^{134} + 16\, p^{150}\, q^{119} + 5\, p^{149}\, q^{101} + 6\, p^{149}\, q^{102} + 6673671\, p^{113}\, q^{137} + 3880853\, p^{113}\, q^{138} + 3140647\, p^{101}\, q^{139}$$
$$+ 6075026\, p^{99}\, q^{138} + 1059304\, p^{84}\, q^{139} + 693842\, p^{88}\, q^{140} + 1193318\, p^{85}\, q^{139} + 6132911\, p^{100}\, q^{138} + 365018172165\, p^{90}\, q^{107}$$

$$+ 7422\, p^{146} q^{120} + 5735\, p^{146} q^{125} + 1068\, p^{135} q^{47} + 2910205907089\, p^{86} q^{91} + 100\, p^{146} q^{146} + 64\, p^{147} q^{146} + 63\, p^{141} q^{149} + 52\, p^{142} q^{149}$$
$$+ 64\, p^{146} q^{147} + 91\, p^{145} q^{147} + 164\, p^{143} q^{147} + 123\, p^{144} q^{147} + 204\, p^{144} q^{146} + p^{152} q^{144} + 91\, p^{147} q^{145} + 29\, p^{149} q^{145} + 53\, p^{148} q^{145}$$
$$+ 136025\, p^{83} q^{141} + 142\, p^{79} q^{145} + 3988837\, p^{118} q^{137} + 1886219\, p^{120} q^{138} + 1404971\, p^{98} q^{140} + 1349442\, p^{97} q^{140} + 3519913\, p^{119} q^{137}$$
$$+ 2138160\, p^{119} q^{138} + 2941420\, p^{107} q^{139} + 5685510\, p^{106} q^{138} + 742407\, p^{130} q^{136} + 397110\, p^{131} q^{137} + 321636\, p^{82} q^{140} + 7196\, p^{70} q^{141}$$
$$+ 1357173\, p^{132} q^{57} + 395234\, p^{111} q^{27} + 323811626\, p^{123} q^{58} + 356225135\, p^{129} q^{108} + 291961932\, p^{129} q^{110} + 13504146\, p^{131} q^{125}$$
$$+ 2087\, p^{147} q^{112} + 654\, p^{148} q^{128} + 203463327\, q^{119} p^{49} + 390989289\, p^{122} q^{121} + 12\, q^{122} p^{25} + 12579\, p^{77} q^{142} + 492214\, q^{134} p^{59}$$
$$+ 658603\, q^{134} p^{60} + 5\, q^{120} p^{23} + 1149556\, p^{94} q^{140} + 2394938\, p^{93} q^{139} + 5849545\, p^{105} q^{138} + 38\, q^{140} p^{55} + 6\, q^{139} p^{50} + 16\, q^{139} p^{51}$$
$$+ 2\, q^{139} p^{49} + p^{137} q^{152} + 161561061\, p^{132} q^{101} + 20069463\, p^{133} q^{119} + 11531075\, p^{134} q^{120} + 710\, q^{140} p^{60} + 431\, q^{140} p^{59} + 257\, q^{140} p^{58}$$
$$+ 26341187005\, p^{118} q^{96} + 1204302270\, q^{110} p^{44} + 1610739318\, q^{110} p^{45} + 582678\, q^{101} p^{22} + 3478953\, q^{102} p^{25} + 619\, p^{148} q^{116} + 2\, p^{139} q^{49}$$
$$+ p^{134} q^{38} + 159\, p^{149} q^{133} + 313\, p^{147} q^{97} + 89500669744\, p^{82} q^{114} + 118050835667\, p^{86} q^{113} + 117331155807\, p^{87} q^{113}$$
$$+ 113389344\, q^{111} p^{38} + 52621928\, q^{134} p^{105} + 897\, q^{104} p^{17} + 370\, q^{103} p^{16} + 20770816166\, q^{116} p^{68} + 23123183845\, q^{116} p^{69} + 484\, q^{136} p^{48}$$
$$+ 7434\, p^{146} q^{112} + 1822\, p^{147} q^{128} + 54661\, q^{136} p^{58} + 112\, p^{149} q^{137} + 20669669\, p^{136} q^{96} + 124401\, p^{138} q^{134} + 32384\, p^{140} q^{136}$$
$$+ 465929\, p^{117} q^{141} + 8841\, p^{141} q^{139} + 25\, p^{107} q^{149} + 30\, p^{108} q^{149} + 1547\, p^{108} q^{147} + 7627\, p^{113} q^{146} + 50013\, p^{126} q^{143} + 56678\, p^{125} q^{143}$$
$$+ 55391\, p^{132} q^{141} + p^{108} q^{150} + 126\, p^{103} q^{148} + 20598\, p^{118} q^{145} + 2\, p^{99} q^{149} + 34605\, p^{123} q^{144} + 5\, p^{101} q^{149} + 16930\, p^{73} q^{141}$$
$$+ 184034\, p^{85} q^{141} + 21893\, p^{74} q^{141} + 28006\, p^{75} q^{141} + 158851\, p^{84} q^{141} + 211372\, p^{86} q^{141} + 9813\, p^{76} q^{142} + 9717\, p^{71} q^{141} + 12905\, p^{72} q^{141}$$
$$+ 152396433938\, p^{111} q^{93} + 69319433204\, p^{107} q^{59} + 34309\, p^{82} q^{13} + 14170216356\, p^{112} q^{113} + 3274553\, p^{115} q^{138}$$
$$+ 13881745544\, p^{111} q^{114} + 28799628827\, p^{117} q^{75} + 32362826597\, p^{118} q^{85} + 63\, p^{149} q^{141} + 59392476928\, p^{107} q^{58}$$
$$+ 209346202484\, p^{110} q^{90} + 208573987972\, p^{109} q^{74} + 196162227061\, p^{109} q^{73} + 830745\, p^{89} q^{18} + 137019039286\, p^{111} q^{95}$$
$$+ 144930188804\, p^{111} q^{94} + 46483093007\, p^{112} q^{105} + 62784656633\, p^{111} q^{104} + 25431977478\, p^{106} q^{52} + 6885\, p^{110} q^{146} + 1206\, p^{146} q^{137}$$
$$+ 160\, p^{146} q^{86} + 994\, p^{147} q^{104} + 7\, p^{140} q^{53} + 5\, p^{137} q^{45} + 213\, p^{146} q^{87} + 181\, p^{149} q^{130} + 448374\, p^{88} q^{17} + 88716\, p^{132} q^{140} + 41890\, p^{101} q^{19}$$
$$+ 1490305006\, p^{122} q^{64} + 3713050249\, p^{124} q^{80} + 1884292486\, p^{126} q^{100} + 35357\, p^{76} q^{141} + 37169189\, p^{135} q^{96} + 4613671594\, p^{104} q^{43}$$
$$+ 102238101\, p^{98} q^{29} + 13881745544\, p^{114} q^{111} + 1268452008\, p^{122} q^{63} + 13504146\, p^{125} q^{131} + 8294198\, p^{122} q^{134} + 39692\, q^{127} p^{39}$$
$$+ 278221\, q^{131} p^{50} + 7847852923\, p^{112} q^{54} + 180627\, p^{137} q^{134} + 49180582989\, p^{106} q^{111} + 28021416234\, q^{98} p^{45} + 1772836\, p^{126} q^{136}$$
$$+ 959083\, p^{127} q^{137} + 2661\, p^{141} q^{67} + 591569\, p^{97} q^{141} + 237735\, p^{117} q^{142} + 143753\, p^{110} q^{143} + 474\, p^{90} q^{146} + 558129\, p^{96} q^{141} + p^{82} q^{147}$$

$$+ 1470093\, p^{108}\, q^{140} + 84457\, p^{87}\, q^{142} + 89\, p^{148}\, q^{143} + 9297\, p^{145}\, q^{98} + 486817\, p^{94}\, q^{141} + 52819\, p^{84}\, q^{142} + 408\, p^{119}\, q^{25} + 12472\, p^{129}\, q^{40}$$
$$+ 175392\, p^{137}\, q^{65} + 3066597\, p^{123}\, q^{136} + 1668483\, p^{124}\, q^{137} + 6\, q^{141}\, p^{56} + 209\, q^{142}\, p^{65} + 1591639248\, p^{94}\, q^{127} + 1024895857\, p^{88}\, q^{128}$$
$$+ 1882659280\, p^{108}\, q^{124} + 36907\, p^{142}\, q^{82} + 137\, p^{149}\, q^{135} + 499\, p^{148}\, q^{113} + 288\, p^{148}\, q^{108} + 16\, p^{139}\, q^{51} + 1564959326\, p^{95}\, q^{127}$$
$$+ 1712294\, q^{136}\, p^{71} + 2479198\, q^{136}\, p^{73} + 3468729\, q^{136}\, p^{75} + 2944909\, q^{136}\, p^{74} + 4053203\, q^{136}\, p^{76} + 5405042\, q^{136}\, p^{78} + 4698449\, q^{136}\, p^{77}$$
$$+ 30626\, q^{131}\, p^{45} + 15756\, q^{130}\, p^{42} + 18209\, q^{131}\, p^{44} + 8749\, q^{130}\, p^{41} + 126015576\, p^{73}\, q^{130} + 180007030\, p^{76}\, q^{130} + 49\, q^{136}\, p^{45}$$
$$+ 243\, q^{136}\, p^{47} + 117\, q^{136}\, p^{46} + 2184249384\, p^{103}\, q^{125} + 3894243\, p^{135}\, q^{124} + 1522723\, p^{130}\, q^{134} + 2476855\, p^{128}\, q^{134} + 1953212\, p^{129}\, q^{134}$$
$$+ 1047666181\, p^{89}\, q^{128} + 925959333\, p^{85}\, q^{128} + 1617598729\, p^{92}\, q^{127} + 959153819\, p^{115}\, q^{123} + 33946771\, p^{135}\, q^{92} + 160939233\, p^{75}\, q^{130}$$
$$+ 142909694\, p^{74}\, q^{130} + 390989289\, p^{121}\, q^{122} + 996701657\, p^{87}\, q^{128} + 56803\, p^{144}\, q^{114} + 12387\, p^{137}\, q^{57} + 110333064\, p^{72}\, q^{130}$$
$$+ 399003487\, p^{79}\, q^{129} + 530938929\, p^{83}\, q^{129} + 466051351\, p^{81}\, q^{129} + 498976574\, p^{82}\, q^{129} + 285290817\, p^{81}\, q^{130} + 561492128\, p^{84}\, q^{129}$$
$$+ 590206166\, p^{85}\, q^{129} + 616647339\, p^{86}\, q^{129} + 44\, p^{143}\, q^{149} + 2\, p^{151}\, q^{123} + 199977473\, p^{77}\, q^{130} + 484712379\, p^{120}\, q^{122}$$
$$+ 1125908746\, p^{114}\, q^{123} + p^{152}\, q^{137} + 30\, p^{150}\, q^{139} + 5317\, p^{146}\, q^{126} + 2167796\, q^{138}\, p^{83} + 3294049\, q^{138}\, p^{87} + 15353380746\, q^{97}\, p^{42}$$
$$+ q^{134}\, p^{38} + 36752\, p^{118}\, q^{29} + 8771791701\, p^{117}\, q^{110} + 10090307707\, p^{117}\, q^{109} + 6772963960\, p^{116}\, q^{113} + 62558\, q^{138}\, p^{65} + 33800\, q^{138}\, p^{63}$$
$$+ 24294\, q^{138}\, p^{62} + 46348\, q^{138}\, p^{64} + 4158909256\, p^{119}\, q^{112} + 3280\, p^{145}\, q^{91} + 14205644\, p^{136}\, q^{110} + 8056141860\, p^{109}\, q^{118}$$
$$+ 451741312\, q^{124}\, p^{62} + 20288354\, q^{122}\, p^{46} + 177980\, q^{132}\, p^{51} + 2165224\, q^{121}\, p^{39} + 458\, p^{148}\, q^{112} + 2339267858\, q^{124}\, p^{74} + 10063\, p^{122}\, q^{31}$$
$$+ 89523\, p^{128}\, q^{42} + 332992110\, p^{77}\, q^{129} + 1024895857\, p^{128}\, q^{88} + 522632826\, p^{129}\, q^{103} + 63765\, q^{139}\, p^{69} + 11905\, q^{138}\, p^{60} + 194\, p^{132}\, q^{39}$$
$$+ 884520953\, p^{128}\, q^{84} + 539545143\, q^{124}\, p^{63} + 112\, p^{143}\, q^{68} + 63\, p^{141}\, q^{59} + 639326331\, q^{124}\, p^{64} + 76785360\, q^{123}\, p^{52} + 32295244\, q^{123}\, p^{49}$$
$$+ 23596583\, q^{123}\, p^{48} + 73\, p^{149}\, q^{140} + 208499594\, q^{123}\, p^{56} + 261046819\, q^{123}\, p^{57} + 5176747\, q^{121}\, p^{41} + 3383190\, q^{121}\, p^{40} + 131711\, p^{143}\, q^{114}$$
$$+ 38043\, p^{136}\, q^{57} + 22\, p^{146}\, q^{149} + p^{152}\, q^{146} + p^{152}\, q^{145} + 11\, p^{150}\, q^{146} + 28\, p^{148}\, q^{147} + 17\, p^{149}\, q^{147} + 9\, p^{150}\, q^{147} + 4\, p^{151}\, q^{146} + 40\, p^{146}\, q^{148}$$
$$+ 28\, p^{147}\, q^{148} + 35\, p^{144}\, q^{149} + 20\, p^{148}\, q^{148} + 29\, p^{145}\, q^{149} + 16\, p^{144}\, q^{150} + 11\, p^{146}\, q^{150} + p^{152}\, q^{150} + 4735192\, p^{125}\, q^{134} + 3854660\, p^{126}\, q^{134}$$
$$+ 15965\, p^{78}\, q^{142} + 2130\, p^{134}\, q^{46} + 119565\, q^{132}\, p^{50} + 50618\, q^{132}\, p^{48} + 78633\, q^{132}\, p^{49} + 1305227\, q^{137}\, p^{74} + 2499836\, q^{137}\, p^{78}$$
$$+ 2151371\, q^{137}\, p^{77} + 1836415\, q^{137}\, p^{76} + 715711262\, p^{126}\, q^{71} + 4093033\, p^{118}\, q^{37} + 1075547039\, p^{128}\, q^{91} + 49962\, p^{131}\, q^{46}$$
$$+ 911902\, p^{133}\, q^{133} + 668454\, p^{134}\, q^{133} + 6485183305\, p^{117}\, q^{112} + 7021184937\, p^{110}\, q^{118} + 6485183305\, p^{112}\, q^{117} + 371707673\, p^{128}\, q^{111}$$
$$+ 1397487566\, p^{125}\, q^{73} + 4650905364\, p^{114}\, q^{117} + 2658371750\, p^{117}\, q^{117} + 2168684494\, p^{118}\, q^{117} + 5698324307\, p^{116}\, q^{114}$$
$$+ 4447845884\, p^{118}\, q^{113} + 6921349296\, p^{114}\, q^{115} + 4755692518\, p^{115}\, q^{116} + 250\, q^{112}\, p^{20} + 5566466477\, p^{110}\, q^{119} + 3015237927\, p^{114}\, q^{119}$$

$$+ 3554861292\, p^{113} q^{119} + 1753292698\, p^{117} q^{119} + 1170456435\, p^{119} q^{119} + 762839525\, p^{120} q^{120} + 2537415193\, p^{115} q^{119}$$
$$+ 1438909700\, p^{118} q^{119} + 4829190528\, p^{111} q^{119} + 2118047521\, p^{116} q^{119} + 4158909256\, p^{112} q^{119} + 6370382965\, p^{109} q^{119}$$
$$+ 7239254491\, p^{108} q^{119} + 238\, p^{148} q^{138} + 2218\, p^{97} q^{15} + 9178506327\, p^{108} q^{118} + 3015237927\, p^{119} q^{114} + 2537415193\, p^{119} q^{115}$$
$$+ 10090307707\, p^{109} q^{117} + 7857\, p^{146} q^{117} + 2591\, p^{140} q^{63} + 46\, p^{131} q^{36} + 384223\, p^{124} q^{140} + 11440322291\, p^{115} q^{111}$$
$$+ 5566466477\, p^{119} q^{110} + 6861565741\, p^{122} q^{100} + 5952851957\, p^{122} q^{102} + 6370382965\, p^{119} q^{109} + 3892018879\, p^{115} q^{117}$$
$$+ 3230247534\, p^{116} q^{117} + 8170048419\, p^{107} q^{119} + 3762190931\, p^{114} q^{118} + 5217886830\, p^{112} q^{118} + 4447845884\, p^{113} q^{118}$$
$$+ 3157018723\, p^{115} q^{118} + 2168684494\, p^{117} q^{118} + 2627632560\, p^{116} q^{118} + 1774440796\, p^{118} q^{118} + 1438909700\, p^{119} q^{118}$$
$$+ 7239254491\, p^{119} q^{108} + 38063430\, p^{120} q^{45} + 3324\, p^{99} q^{16} + 164938132\, p^{123} q^{55} + 309531\, p^{110} q^{26} + 2536622\, q^{117} p^{35}$$
$$+ 3936227562\, p^{116} q^{116} + 562082021\, p^{107} q^{128} + 613055440\, p^{106} q^{128} + 9178506327\, p^{118} q^{108} + 1176690651\, p^{127} q^{102}$$
$$+ 562082021\, p^{128} q^{107} + 93481403854\, p^{106} q^{107} + 1072988\, p^{135} q^{130} + 13799823\, p^{136} q^{87} + 16713349\, p^{136} q^{90} + 466138\, p^{139} q^{126}$$
$$+ 5100489\, p^{132} q^{62} + 19115453\, p^{136} q^{93} + 9266026\, p^{134} q^{72} + 10652198\, p^{137} q^{105} + 741120\, p^{127} q^{45} + 42\, p^{91} q^{11} + 28476768\, p^{130} q^{123}$$
$$+ 144529385660\, p^{69} q^{109} + 207568476\, q^{116} p^{45} + 282084718\, q^{116} p^{46} + 26793321906\, p^{117} q^{74} + 21121596640\, p^{119} q^{95}$$
$$+ 21974281004\, p^{119} q^{94} + 7900782080\, p^{120} q^{105} + 11280963277\, p^{119} q^{104} + p^{146} q^{152} + p^{150} q^{152} + p^{152} q^{152} + p^{153} q^{153} + p^{148} q^{152}$$
$$+ p^{151} q^{152} + p^{144} q^{152} + p^{149} q^{152} + p^{145} q^{152} + p^{142} q^{152} + p^{141} q^{152} + 4947297623\, p^{91} q^{124} + 46956213\, p^{97} q^{27} + 8167389379\, p^{105} q^{46}$$
$$+ 20664420645\, p^{106} q^{51} + 4383190217\, p^{103} q^{42} + 10503710154\, p^{105} q^{47} + 2220279832\, p^{126} q^{96} + 502867776\, p^{121} q^{56}$$
$$+ 1153856384\, p^{123} q^{65} + 1546963663\, p^{123} q^{67} + 220920455\, p^{127} q^{117} + 1906419782\, p^{124} q^{72} + 229993733\, p^{120} q^{51}$$
$$+ 2379631579\, p^{126} q^{92} + 336\, p^{87} q^{11} + 94498004987\, p^{67} q^{110} + 231675705181\, p^{76} q^{109} + 103085943888\, p^{111} q^{99}$$
$$+ 120296692029\, p^{111} q^{97} + 3903\, p^{75} q^{10} + 2352365669\, p^{79} q^{125} + 75591315\, p^{126} q^{58} + 90764764\, p^{132} q^{110} + 8454134\, p^{123} q^{45}$$
$$+ 107911954\, p^{132} q^{108} + 228310760261\, p^{110} q^{85} + 1917681\, p^{92} q^{20} + 220466388291\, p^{109} q^{75} + 177647078\, p^{132} q^{97} + 84735585\, p^{133} q^{105}$$
$$+ 61234582\, p^{128} q^{62} + 177406582\, p^{132} q^{93} + 110333064\, p^{130} q^{72} + 174709625\, p^{132} q^{92} + 1659287\, p^{132} q^{132} + 72986\, p^{137} q^{62}$$
$$+ 450017\, p^{141} q^{93} + 133343\, p^{139} q^{72} + 331187\, p^{142} q^{105} + 16867145600\, p^{105} q^{49} + 6107860359\, p^{104} q^{44} + 4093033\, q^{116} p^{35}$$
$$+ 21767254573\, q^{98} p^{44} + 35714886122\, q^{98} p^{46} + 45085125804\, q^{98} p^{47} + 56387597841\, q^{98} p^{48} + 107118\, p^{136} q^{60} + 32610\, p^{143} q^{129}$$
$$+ 70886\, p^{143} q^{123} + 49\, p^{112} q^{19} + 209\, p^{117} q^{23} + 4904\, p^{144} q^{136} + 342001\, p^{133} q^{136} + 180627\, p^{134} q^{137} + 19434\, p^{143} q^{132} + 489078\, p^{140} q^{85}$$
$$+ 23352\, p^{143} q^{131} + 513\, p^{120} q^{26} + 540576\, p^{138} q^{74} + 133\, p^{116} q^{22} + 228831\, p^{137} q^{66} + 53699539082\, q^{97} p^{47} + 340379\, p^{141} q^{90}$$

$$+ 25472\, p^{144} q^{126} + 21234181\, p^{100} q^{27} + 3767268746\, p^{108} q^{46} + 9667703160\, p^{109} q^{51} + 2064520841\, p^{106} q^{42} + 4891287524\, p^{108} q^{47}$$
$$+ 228554422326\, p^{101} q^{105} + 18372245033\, p^{57} q^{111} + 13798663099\, p^{54} q^{110} + 75895024961\, p^{65} q^{110} + 221384689\, q^{115} p^{44}$$
$$+ 108020634\, q^{116} p^{43} + 1704123459\, p^{71} q^{124} + 1906419782\, p^{72} q^{124} + 386\, p^{144} q^{76} + 1408\, p^{147} q^{107} + 3684\, p^{146} q^{102} + 3910\, p^{145} q^{92}$$
$$+ 410\, p^{148} q^{134} + 54716357\, q^{113} p^{38} + 1233612\, p^{123} q^{138} + 484155\, q^{109} p^{26} + 11580205752\, q^{97} p^{41} + 1228941683285\, p^{91} q^{98}$$
$$+ 868392731434\, p^{97} q^{97} + 950820850391\, p^{96} q^{97} + 144\, p^{145} q^{146} + 27\, p^{140} q^{150} + 13\, p^{150} q^{145} + 144\, p^{146} q^{145} + 280422152\, p^{131} q^{91}$$
$$+ 164861378\, p^{129} q^{71} + 1115583908818\, p^{88} q^{100} + 1059199932055\, p^{85} q^{101} + 1153023511548\, p^{87} q^{100} + 2609349379\, p^{110} q^{122}$$
$$+ 23149235\, p^{131} q^{66} + 12041769\, p^{130} q^{60} + 4748305744\, p^{101} q^{123} + 1111522\, p^{127} q^{46} + 955\, q^{132} p^{41} + 6673671\, p^{137} q^{113} + 142\, p^{145} q^{79}$$
$$+ 11\, p^{142} q^{60} + 188\, p^{149} q^{129} + 129\, p^{142} q^{64} + 214\, p^{148} q^{106} + 119\, p^{144} q^{73} + 18\, p^{140} q^{54} + 2118668660\, q^{124} p^{73} + 3478953\, p^{128} q^{51}$$
$$+ 22\, p^{149} q^{146} + 129181392\, p^{123} q^{54} + 356555\, p^{114} q^{29} + 839851534\, p^{128} q^{83} + 76785360\, p^{123} q^{52} + 925959333\, p^{128} q^{85}$$
$$+ 478641042\, p^{126} q^{68} + 143709255\, p^{130} q^{113} + 252249378\, p^{124} q^{59} + 129999760\, q^{124} p^{56} + 8\, q^{121} p^{24} + 1628\, q^{129} p^{37} + 110\, q^{129} p^{34}$$
$$+ 302\, q^{129} p^{35} + 3380\, q^{129} p^{38} + 202902\, q^{135} p^{59} + 276043\, q^{135} p^{60} + 51495\, p^{117} q^{144} + 4942\, p^{105} q^{146} + 133264\, q^{134} p^{55}$$
$$+ 189116\, q^{134} p^{56} + 16\, q^{141} p^{57} + 2\, q^{141} p^{55} + 96142945\, p^{130} q^{116} + 2566287034\, q^{124} p^{75} + 120866\, p^{116} q^{143} + 2897\, p^{100} q^{146}$$
$$+ 736548\, p^{104} q^{141} + 164938132\, q^{123} p^{55} + 479872654\, q^{125} p^{65} + 34900337\, p^{133} q^{115} + 70992404\, q^{122} p^{50} + 94090965\, q^{122} p^{51}$$
$$+ 52926525\, q^{122} p^{49} + 62790279\, q^{129} p^{65} + 630874\, p^{137} q^{129} + 502935\, p^{116} q^{141} + 335457\, p^{107} q^{142} + 573762\, p^{114} q^{141} + 360897\, p^{81} q^{15}$$
$$+ 2501797049447\, p^{81} q^{94} + 874664416\, p^{122} q^{117} + 1847704226995\, p^{72} q^{95} + 2505275368382\, p^{80} q^{94} + 2400267395362\, p^{87} q^{93}$$
$$+ 1095947446998\, p^{66} q^{96} + 2011740299285\, p^{74} q^{95} + 176071346333\, p^{94} q^{110} + 70107386099\, p^{108} q^{107} + 171088743312\, p^{90} q^{111}$$
$$+ 103992238086\, p^{104} q^{108} + 231781761\, q^{114} p^{43} + 150767190\, q^{116} p^{44} + 42423444\, p^{134} q^{85} + 397110\, p^{137} q^{131} + 39692\, p^{114} q^{26}$$
$$+ 84744105001\, p^{80} q^{114} + 54265120517\, p^{76} q^{115} + 78407581989\, p^{78} q^{114} + 81751094348\, p^{79} q^{114} + 2494642281229\, p^{79} q^{94}$$
$$+ 339732379870\, p^{83} q^{108} + 36440969\, q^{126} p^{55} + 2543434552\, p^{105} q^{124} + 491413385\, p^{76} q^{128} + 318478615034\, p^{93} q^{107}$$
$$+ 67350495232\, p^{64} q^{110} + 1189967895406\, p^{67} q^{96} + 574397294200\, p^{61} q^{97} + 290095205412\, p^{57} q^{98} + 718707087163\, p^{63} q^{97}$$
$$+ 508481592176\, p^{60} q^{97} + 644599104973\, p^{62} q^{97} + 330072801\, p^{104} q^{130} + 15728\, p^{145} q^{123} + 4\, p^{114} q^{19} + 24\, p^{119} q^{23} + 1464\, p^{146} q^{136}$$
$$+ 5662\, p^{145} q^{132} + 62292\, p^{142} q^{85} + 151579992498\, p^{53} q^{98} + 104635757154\, p^{51} q^{98} + 5262\, p^{84} q^{12} + 126444115431\, p^{52} q^{98}$$
$$+ 87940835839\, p^{51} q^{99} + 180301213378\, p^{54} q^{98} + 212838734457\, p^{55} q^{98} + 249387368122\, p^{56} q^{98} + 33535327261\, p^{97} q^{45}$$
$$+ 560692447120\, p^{100} q^{65} + 406431099779\, p^{100} q^{62} + 8224970075\, q^{106} p^{47} + 10503710154\, q^{106} p^{48} + 732028\, q^{137} p^{71} + 1086295\, q^{137} p^{73}$$

$$+ 1554896\, q^{137}\, p^{75} + 31752\, q^{132}\, p^{47} + 11498\, q^{132}\, p^{45} + 4673\, q^{130}\, p^{40} + 1558\, q^{131}\, p^{40} + 104811\, q^{135}\, p^{57} + 146922\, q^{135}\, p^{58} + 17\, q^{124}\, p^{27}$$
$$+ 295151\, q^{137}\, p^{67} + 369417\, p^{139}\, q^{77} + 4562\, p^{128}\, q^{37} + 307125\, p^{139}\, q^{76} + 2664199\, q^{139}\, p^{95} + 2\, q^{136}\, p^{42} + 1064647844\, p^{90}\, q^{128}$$
$$+ 7620\, p^{146}\, q^{119} + 12750\, p^{145}\, q^{101} + 484\, p^{139}\, q^{56} + 127\, p^{135}\, q^{44} + 36\, p^{129}\, q^{33} + 5952851957\, p^{102}\, q^{122} + 3503458\, p^{128}\, q^{133}$$
$$+ 2124206\, p^{130}\, q^{133} + 10796\, p^{132}\, q^{144} + 23352\, p^{131}\, q^{143} + 9388537\, p^{137}\, q^{108} + 330834\, p^{140}\, q^{125} + 401974\, p^{129}\, q^{47} + 1868075\, p^{139}\, q^{115}$$
$$+ p^{45}\, q^{3} + 309531\, p^{127}\, q^{43} + 8031181\, p^{137}\, q^{89} + 642311\, p^{140}\, q^{120} + 78\, p^{97}\, q^{13} + 2941420\, p^{139}\, q^{107} + 6133079\, p^{138}\, q^{102}$$
$$+ 3651611\, p^{134}\, q^{67} + 1004177\, p^{132}\, q^{56} + 233896\, p^{128}\, q^{44} + 541\, q^{111}\, p^{20} + 15756\, q^{111}\, p^{23} + 1920\, q^{111}\, p^{21} + 5809\, q^{111}\, p^{22}$$
$$+ 5535497\, p^{135}\, q^{122} + 26163232671\, p^{113}\, q^{108} + 1330764796\, q^{104}\, p^{39} + 2372546741\, q^{103}\, p^{40} + 3244992068\, q^{103}\, p^{41} + 6188141\, q^{98}\, p^{24}$$
$$+ 1172558\, p^{134}\, q^{131} + 15854752910\, q^{120}\, p^{81} + 17833188171\, q^{120}\, p^{85} + 17467974721\, q^{120}\, p^{84} + 18329716982\, q^{120}\, p^{88}$$
$$+ 18138320319\, q^{120}\, p^{90} + 13230852206\, q^{121}\, p^{91} + 18101217318\, q^{120}\, p^{86} + 18286373862\, q^{120}\, p^{89} + 16470896773\, q^{120}\, p^{82}$$
$$+ 55391\, p^{141}\, q^{132} + 2710402\, p^{138}\, q^{85} + 68262\, p^{141}\, q^{131} + 2795\, p^{118}\, q^{26} + 2944909\, p^{136}\, q^{74} + 743\, p^{114}\, q^{22} + 1344231\, p^{135}\, q^{66}$$
$$+ 107118\, q^{93}\, p^{17} + 52984\, q^{92}\, p^{16} + 363082\, q^{95}\, p^{19} + 492214\, q^{94}\, p^{19} + 202902\, q^{94}\, p^{18} + 17097797470\, p^{120}\, q^{93} + 3084435\, p^{105}\, q^{139}$$
$$+ 18352\, p^{106}\, q^{145} + 152959\, p^{122}\, q^{142} + 3276\, p^{101}\, q^{146} + 19314\, p^{107}\, q^{145} + 17337\, p^{105}\, q^{145} + 4\, p^{112}\, q^{150} + 7\, p^{114}\, q^{150} + 20\, p^{120}\, q^{150}$$
$$+ 47\, p^{82}\, q^{9} + 291167247282\, p^{104}\, q^{100} + 458586847638\, p^{98}\, q^{102} + 5271119\, p^{94}\, q^{138} + 32295244\, q^{104}\, p^{30} + 4625008282\, q^{115}\, p^{56}$$
$$+ 183\, q^{79}\, p^{9} + 1740383665\, p^{123}\, q^{111} + 2814787037\, p^{123}\, q^{107} + 64848968\, p^{128}\, q^{122} + 4609712444\, p^{95}\, q^{124} + 3173974577\, p^{85}\, q^{125}$$
$$+ 2\, p^{148}\, q^{90} + 110715139\, p^{112}\, q^{131} + 123347083\, p^{111}\, q^{131} + 163751560\, p^{108}\, q^{131} + 149992983\, p^{109}\, q^{131} + 39472360\, p^{131}\, q^{69}$$
$$+ 59322\, p^{116}\, q^{28} + 291800\, p^{120}\, q^{34} + 287281517\, p^{106}\, q^{130} + 242270602\, p^{102}\, q^{131} + 204930267\, p^{105}\, q^{131} + 2306167\, p^{137}\, q^{122}$$
$$+ 308909746\, p^{105}\, q^{130} + 157228805\, p^{115}\, q^{129} + 89322020\, p^{104}\, q^{133} + 49863351\, p^{106}\, q^{134} + 185342352\, p^{121}\, q^{125} + 1111689331\, p^{75}\, q^{126}$$
$$+ 2578357\, p^{124}\, q^{136} + 1400482\, p^{125}\, q^{137} + 143709255\, p^{113}\, q^{130} + 181210496\, p^{111}\, q^{130} + 126619246\, p^{114}\, q^{130} + 161943247\, p^{112}\, q^{130}$$
$$+ 189211970\, p^{116}\, q^{128} + 243710705\, p^{108}\, q^{130} + 232854502\, p^{112}\, q^{129} + 205773795\, p^{113}\, q^{129} + 109106301\, p^{96}\, q^{133} + 22203\, p^{145}\, q^{112}$$
$$+ 4445\, p^{146}\, q^{128} + 1102258\, p^{114}\, q^{140} + 47821494\, p^{129}\, q^{122} + 617679\, p^{133}\, q^{57} + p^{148}\, q^{88} + 297999658\, p^{117}\, q^{126} + 161608368\, p^{117}\, q^{128}$$
$$+ 166952336\, p^{100}\, q^{132} + 107641360\, p^{98}\, q^{133} + 155393208\, p^{102}\, q^{132} + 110336\, p^{76}\, q^{140} + 161561061\, p^{101}\, q^{132} + 490649\, p^{121}\, q^{36}$$
$$+ 6508313\, q^{100}\, p^{25} + 4624958\, q^{99}\, p^{24} + 21234181\, q^{100}\, p^{27} + 7223\, p^{96}\, q^{145} + 46905\, p^{103}\, q^{144} + 22\, p^{65}\, q^{143} + 2234\, p^{76}\, q^{143}$$
$$+ 47685\, p^{133}\, q^{50} + 16016\, p^{143}\, q^{133} + 591569\, p^{141}\, q^{97} + 30579\, p^{133}\, q^{49} + 9007\, p^{128}\, q^{38} + 5\, p^{151}\, q^{130} + 19190379\, p^{135}\, q^{83}$$
$$+ 2353038\, p^{130}\, q^{54} + 1068\, p^{106}\, q^{18} + 12545323\, p^{135}\, q^{79} + 254\, p^{101}\, q^{15} + 370\, p^{103}\, q^{16} + 245298\, p^{126}\, q^{41} + 8030549\, p^{132}\, q^{64}$$

$$+ 5685510\, p^{138}\, q^{106} + 10884219\, p^{134}\, q^{73} + 14097880\, p^{135}\, q^{80} + 11584211\, p^{137}\, q^{100} + 1217927\, p^{128}\, q^{48} + p^{64}\, q^{5} + 4756157\, p^{138}\, q^{110}$$
$$+ 2977141\, p^{98}\, q^{139} + 9721425\, p^{135}\, q^{77} + 8462943\, p^{135}\, q^{76} + 122571\, p^{124}\, q^{37} + 390504170822\, p^{58}\, q^{97} + 8886411\, p^{109}\, q^{137}$$
$$+ 447126420829\, p^{59}\, q^{97} + 1377718586324\, p^{69}\, q^{96} + 1284251257122\, p^{68}\, q^{96} + 2081145527803\, p^{75}\, q^{95} + 1003192288894\, p^{65}\, q^{96}$$
$$+ 1933538943411\, p^{73}\, q^{95} + 6837610863\, q^{117}\, p^{62} + 876401\, q^{104}\, p^{24} + 3074983927\, q^{115}\, p^{54} + 129360129\, p^{66}\, q^{128} + 183\, p^{74}\, q^{144}$$
$$+ 1225416\, p^{132}\, q^{133} + 3106082\, p^{127}\, q^{134} + 37308488\, p^{135}\, q^{99} + 149798845\, p^{125}\, q^{122} + 8\, p^{151}\, q^{138} + 73\, p^{140}\, q^{149} + 30\, p^{139}\, q^{150}$$
$$+ 4094\, p^{103}\, q^{146} + 201\, p^{95}\, q^{147} + 26279\, p^{144}\, q^{96} + 110\, p^{119}\, q^{24} + 163507\, p^{140}\, q^{78} + 256126\, p^{142}\, q^{98} + 119\, p^{73}\, q^{144} + 276043\, p^{135}\, q^{60}$$
$$+ 58373\, p^{142}\, q^{129} + 136768\, p^{142}\, q^{123} + 125\, p^{111}\, q^{19} + 506\, p^{116}\, q^{23} + 8295\, p^{143}\, q^{136} + 24796\, p^{142}\, q^{80} + 1936\, p^{135}\, q^{48} + 21463\, p^{145}\, q^{110}$$
$$+ 44338\, p^{142}\, q^{83} + 38306\, p^{144}\, q^{100} + 140564\, p^{91}\, q^{142} + 171476007\, p^{132}\, q^{99} + 11101635\, p^{125}\, q^{49} + 2981\, p^{143}\, q^{77} + 40\, p^{150}\, q^{128}$$
$$+ 2194\, p^{146}\, q^{98} + 36216530\, p^{134}\, q^{83} + 4624958\, p^{129}\, q^{54} + 1936\, p^{105}\, q^{18} + 24374256\, p^{134}\, q^{79} + 5484\, q^{140}\, p^{65} + 2218\, q^{138}\, p^{56}$$
$$+ 327\, q^{131}\, p^{38} + 209\, q^{130}\, p^{36} + 743\, q^{131}\, p^{39} + 61\, q^{127}\, p^{31} + 10786\, q^{134}\, p^{49} + 92364\, q^{134}\, p^{54} + 62796\, q^{134}\, p^{53} + 167\, p^{149}\, q^{121} + 460\, p^{100}\, q^{15}$$
$$+ 7\, q^{140}\, p^{53} + 18\, q^{140}\, p^{54} + 114\, q^{141}\, p^{60} + 198\, q^{141}\, p^{61} + 7281090\, p^{136}\, q^{117} + 37476114790\, p^{108}\, q^{111} + 682\, p^{148}\, q^{118} + 412\, p^{148}\, q^{111}$$
$$+ 29\, p^{144}\, q^{70} + 156\, p^{147}\, q^{94} + 327\, p^{148}\, q^{109} + 194\, p^{149}\, q^{127} + 514\, p^{142}\, q^{67} + 7779\, p^{146}\, q^{114} + 818\, p^{139}\, q^{57} + 2490066620680\, p^{86}\, q^{93}$$
$$+ 2024680\, p^{139}\, q^{114} + 1405110\, p^{139}\, q^{118} + 2473644\, p^{139}\, q^{111} + 3118759\, p^{135}\, q^{70} + 6075247\, p^{138}\, q^{103} + 7311992\, p^{135}\, q^{75} + 32\, p^{95}\, q^{12}$$
$$+ 4477730\, p^{134}\, q^{68} + 2386333\, p^{132}\, q^{59} + 1357\, p^{98}\, q^{15} + 70\, p^{147}\, q^{91} + 5021930\, p^{109}\, q^{138} + 683\, p^{102}\, q^{16} + 448615\, p^{132}\, q^{136}$$
$$+ 238068\, p^{133}\, q^{137} + 4762572\, q^{138}\, p^{92} + 12\, q^{128}\, p^{31} + 49\, q^{128}\, p^{32} + 149\, q^{128}\, p^{33} + 981\, q^{128}\, p^{35} + 408\, q^{128}\, p^{34} + 729\, q^{129}\, p^{36}$$
$$+ 49962\, q^{131}\, p^{46} + 7004860224\, p^{90}\, q^{123} + 242\, q^{125}\, p^{30} + 3214\, p^{139}\, q^{60} + 4004\, p^{146}\, q^{129} + 1711189\, p^{139}\, q^{116} + 5271119\, p^{138}\, q^{94}$$
$$+ 238791\, p^{140}\, q^{127} + 2733173\, p^{139}\, q^{109} + 36752\, p^{124}\, q^{35} + 4\, p^{81}\, q^{8} + 7868185\, p^{136}\, q^{81} + 384223\, p^{140}\, q^{124} + 5440441\, p^{134}\, q^{69}$$
$$+ 1529669740\, p^{96}\, q^{127} + 955\, p^{112}\, q^{21} + 11\, p^{89}\, q^{10} + 7127\, p^{118}\, q^{27} + 1075547039\, p^{91}\, q^{128} + 539149\, p^{115}\, q^{141} + 2\, p^{110}\, q^{150}$$
$$+ 474608\, q^{137}\, p^{69} + 133\, q^{131}\, p^{37} + 6506\, q^{134}\, p^{48} + 6\, q^{136}\, p^{43} + p^{98}\, q^{149} + 10969081\, p^{137}\, q^{104} + 12779716\, p^{136}\, q^{86} + 216124\, p^{139}\, q^{130}$$
$$+ 1980928848\, p^{99}\, q^{126} + 487792\, p^{125}\, q^{41} + 1609286093\, p^{93}\, q^{127} + 1781517671\, p^{101}\, q^{126} + 1884292486\, p^{100}\, q^{126} + 141330405\, p^{126}\, q^{121}$$
$$+ 263578114\, p^{80}\, q^{130} + 104599183\, p^{76}\, q^{131} + 220694648\, p^{78}\, q^{130} + 241964861\, p^{79}\, q^{130} + 1831128297547\, p^{93}\, q^{92} + 33469\, p^{142}\, q^{132}$$
$$+ 1193318\, p^{139}\, q^{85} + 40715\, p^{142}\, q^{131} + 1244\, p^{119}\, q^{26} + 1305227\, p^{137}\, q^{74} + 327\, p^{115}\, q^{22} + 575467\, p^{136}\, q^{66} + 4256464056\, p^{114}\, q^{54}$$
$$+ 15728\, p^{123}\, q^{145} + 2534126\, p^{94}\, q^{139} + 1287803\, p^{96}\, q^{140} + 2733173\, p^{109}\, q^{139} + 2844505\, p^{108}\, q^{139} + 1220688\, p^{95}\, q^{140} + 5490397\, p^{107}\, q^{138}$$
$$+ 20185993322\, p^{114}\, q^{63} + 2680735608\, p^{111}\, q^{48} + 33343857663\, p^{114}\, q^{67} + 523123\, p^{95}\, q^{141} + 125276\, p^{90}\, q^{142} + 622632\, p^{98}\, q^{141}$$

$$+ 202896635019\, p^{78}\, q^{110} + 194982521623\, p^{77}\, q^{110} + 186293357214\, p^{76}\, q^{110} + 30595295872\, p^{101}\, q^{116} + 53056209\, q^{112}\, p^{37}$$
$$+ 14069815\, q^{112}\, p^{34} + 22368198\, q^{112}\, p^{35} + 79391428\, q^{112}\, p^{38} + 1135\, p^{86}\, q^{145} + 23429\, p^{95}\, q^{144} + 20747\, p^{94}\, q^{144} + 317451\, p^{111}\, q^{142}$$
$$+ 325193\, p^{110}\, q^{142} + 1798\, p^{88}\, q^{145} + 137302\, p^{105}\, q^{143} + 122917\, p^{102}\, q^{143} + 2927013476\, q^{118}\, p^{59} + 3494742645\, q^{118}\, p^{60}$$
$$+ 1740383665\, p^{111}\, q^{123} + 105359530\, p^{68}\, q^{129} + 188599514\, p^{72}\, q^{129} + 143067947\, p^{70}\, q^{129} + 164861378\, p^{71}\, q^{129} + 82746156\, p^{70}\, q^{130}$$
$$+ 214229924\, p^{73}\, q^{129} + 241648785\, p^{74}\, q^{129} + 270717615\, p^{75}\, q^{129} + 1765\, p^{144}\, q^{81} + 743\, p^{148}\, q^{124} + 1130\, p^{142}\, q^{69} + 164\, p^{147}\, q^{143}$$
$$+ 15539034\, p^{131}\, q^{64} + 26\, p^{78}\, q^{8} + 4663821\, p^{135}\, q^{123} + 10278553\, p^{137}\, q^{106} + 134929\, p^{140}\, q^{77} + 21238190\, p^{133}\, q^{73} + 27186659\, p^{134}\, q^{80}$$
$$+ 21039273\, p^{136}\, q^{100} + 2367121\, p^{127}\, q^{48} + 220\, p^{145}\, q^{145} + 722110\, p^{141}\, q^{108} + 163676329\, q^{124}\, p^{57} + 7475968\, p^{137}\, q^{88} + 92364\, p^{134}\, q^{54}$$
$$+ 8749\, p^{130}\, q^{41} + 345466\, p^{136}\, q^{64} + 334485\, p^{142}\, q^{106} + 443740\, p^{138}\, q^{73} + 609376\, p^{139}\, q^{80} + 676178\, p^{141}\, q^{100} + 50618\, p^{132}\, q^{48}$$
$$+ 325193\, p^{142}\, q^{110} + 933480\, p^{139}\, q^{83} + 43630227\, q^{123}\, p^{50} + 100134899\, q^{123}\, p^{53} + 106703\, p^{125}\, q^{142} + 100661\, p^{119}\, q^{143} + 115414\, p^{141}\, q^{82}$$
$$+ 129181392\, q^{123}\, p^{54} + 102238101\, q^{124}\, p^{55} + 2\, p^{63}\, q^{5} + 900683\, q^{119}\, p^{35} + 9958957\, q^{122}\, p^{44} + 308955014\, q^{124}\, p^{60} + q^{141}\, p^{54}$$
$$+ 8355669\, p^{137}\, q^{110} + 375154208\, q^{124}\, p^{61} + 2329646\, p^{139}\, q^{112} + 200049\, p^{140}\, q^{128} + 17007800\, q^{123}\, p^{47} + 58222844\, q^{123}\, p^{51}$$
$$+ 588675623407\, p^{102}\, q^{95} + 647060039508\, p^{98}\, q^{99} + 403454782489\, p^{103}\, q^{98} + 2035\, p^{100}\, q^{16} + 207152625442\, p^{97}\, q^{108}$$
$$+ 477971825586\, p^{96}\, q^{103} + 55465566\, p^{133}\, q^{81} + 11996663999\, q^{109}\, p^{52} + 92364\, q^{99}\, p^{19} + 1200\, q^{79}\, p^{10} + 4275\, q^{80}\, p^{11}$$
$$+ 567049814174\, p^{101}\, q^{97} + 30330871033\, q^{118}\, p^{82} + 617203593798\, p^{101}\, q^{96} + 267937408\, p^{119}\, q^{50} + 623321573\, p^{121}\, q^{57}$$
$$+ 381885962\, p^{120}\, q^{53} + 34798707\, p^{117}\, q^{41} + 15762169\, p^{114}\, q^{36} + 9957644\, p^{114}\, q^{35} + 606487\, p^{141}\, q^{113} + 177980\, p^{132}\, q^{51}$$
$$+ 585313956046\, p^{99}\, q^{99} + 11905\, p^{138}\, q^{60} + 8657\, p^{145}\, q^{129} + 108857778\, p^{95}\, q^{133} + 298503989666\, p^{103}\, q^{101} + 262102169966\, p^{104}\, q^{101}$$
$$+ 416751673225\, p^{99}\, q^{102} + 332153434432\, p^{103}\, q^{100} + 423557096812\, p^{100}\, q^{101} + 367232114879\, p^{99}\, q^{103} + 440491706230\, p^{97}\, q^{103}$$
$$+ 403454782489\, p^{98}\, q^{103} + 332153434432\, p^{100}\, q^{103} + 266521427194\, p^{102}\, q^{103} + 298503989666\, p^{101}\, q^{103} + 236395396893\, p^{103}\, q^{103}$$
$$+ 208267219347\, p^{104}\, q^{103} + 1909657781\, q^{117}\, p^{55} + 2348599188\, q^{117}\, p^{56} + 250\, p^{112}\, q^{20} + 17271\, p^{142}\, q^{135} + 544989924863\, p^{96}\, q^{102}$$
$$+ 501472691090\, p^{97}\, q^{102} + 337662830172\, p^{101}\, q^{102} + 376337887445\, p^{100}\, q^{102} + 6107860359\, q^{109}\, p^{49} + 517753234867\, p^{101}\, q^{98}$$
$$+ 458586847638\, p^{102}\, q^{98} + 11454576084\, p^{96}\, q^{121} + 477971825586\, p^{103}\, q^{96} + 636956664433\, p^{100}\, q^{97} + 544989924863\, p^{102}\, q^{96}$$
$$+ 416308006527\, p^{104}\, q^{96} + 647060039508\, p^{99}\, q^{98} + 440491706230\, p^{103}\, q^{97} + 1008\, p^{74}\, q^{9} + 517753234867\, p^{98}\, q^{101} + 8570845\, p^{137}\, q^{90}$$
$$+ 282409\, p^{140}\, q^{126} + 2470694\, p^{133}\, q^{62} + 10023693\, p^{137}\, q^{93} + 4496546\, p^{135}\, q^{72} + 5849545\, p^{138}\, q^{105} + 364370\, p^{128}\, q^{45} + 21\, p^{92}\, q^{11}$$
$$+ 6913747\, p^{137}\, q^{87} + 580695556441\, p^{98}\, q^{100} + 526083005668\, p^{99}\, q^{100} + 526083005668\, p^{100}\, q^{99} + 580695556441\, p^{100}\, q^{98}$$

$$+ 384271223204\, p^{104} q^{97} + 139533\, p^{143} q^{112} + 19877\, p^{144} q^{128} + 8299\, p^{119} q^{28} + 40360\, p^{123} q^{34} + 504965\, p^{140} q^{122} + 8790165\, p^{136} q^{82}$$
$$+ 822505\, p^{131} q^{53} + 9\, p^{85} q^{9} + 1917681\, p^{133} q^{61} + 617203593798\, p^{96} q^{101} + 567049814174\, p^{97} q^{101} + 321392528390\, p^{104} q^{99}$$
$$+ 191745\, p^{141} q^{125} + 184348\, p^{130} q^{47} + 1025690\, p^{140} q^{115} + 146556\, p^{128} q^{43} + 3894678\, p^{138} q^{89} + 354212\, p^{141} q^{120} + 38\, p^{98} q^{13}$$
$$+ 1506736\, p^{140} q^{107} + 3156394\, p^{139} q^{102} + 1683416\, p^{135} q^{67} + 450177\, p^{133} q^{56} + 106911\, p^{129} q^{44} + 376337887445\, p^{102} q^{100}$$
$$+ 469784788741\, p^{99} q^{101} + 423557096812\, p^{101} q^{100} + 190\, p^{149} q^{128} + 188\, p^{127} q^{32} + 72876\, p^{142} q^{86} + 7585\, p^{145} q^{130} + 133227\, p^{143} q^{104}$$
$$+ 7295\, p^{136} q^{53} + 3887\, p^{133} q^{45} + 84457\, p^{142} q^{87} + 76\, p^{124} q^{28} + 408\, p^{128} q^{34} + 17141\, p^{138} q^{61} + 137880\, p^{123} q^{36} + 11561814\, p^{137} q^{99}$$
$$+ 2685442\, p^{138} q^{117} + 6431625\, p^{132} q^{63} + 558129\, p^{141} q^{96} + 36\, q^{129} p^{33} + 6170688\, q^{136} p^{79} + 95023660\, p^{125} q^{124} + 6\, p^{151} q^{131}$$
$$+ 201378152\, p^{110} q^{130} + 7\, p^{151} q^{133} + p^{149} q^{97} + 10\, p^{150} q^{116} + 180533905\, p^{114} q^{129} + 222275055\, p^{109} q^{130} + 156020022\, p^{119} q^{127}$$
$$+ 261645798\, p^{111} q^{129} + 116510745\, p^{107} q^{132} + 107911954\, p^{108} q^{132} + 136934848\, p^{118} q^{128} + 129461161\, p^{120} q^{127} + 52593645\, p^{128} q^{123}$$
$$+ 622076\, q^{140} p^{87} + 2\, q^{111} p^{17} + 1244\, q^{119} p^{26} + 3887\, q^{120} p^{28} + 2366\, p^{130} q^{39} + 108699795\, p^{97} q^{133} + 133343\, q^{139} p^{72} + 369417\, q^{139} p^{77}$$
$$+ 166821\, q^{139} p^{73} + 307125\, q^{139} p^{76} + 206449\, q^{139} p^{74} + 253065\, q^{139} p^{75} + 443740\, q^{138} p^{73} + 780237\, q^{138} p^{76} + 182457\, q^{138} p^{69}$$
$$+ 290497\, q^{138} p^{71} + 652287\, q^{138} p^{75} + 924998\, q^{138} p^{77} + 440224\, q^{139} p^{78} + 105952001\, p^{99} q^{133} + 84735585\, p^{105} q^{133}$$
$$+ 154208303\, p^{123} q^{124} + 227191747\, p^{120} q^{125} + 121694579\, p^{124} q^{124} + 219810073\, p^{115} q^{128} + 363082\, p^{134} q^{58} + 108559\, p^{133} q^{52}$$
$$+ 732028\, p^{137} q^{71} + 2096731\, p^{139} q^{91} + 16\, p^{102} q^{14} + 1059304\, p^{139} q^{84} + 323394\, p^{133} q^{55} + 540576\, q^{138} p^{74} + 279\, q^{135} p^{45} + 558\, q^{135} p^{46}$$
$$+ 22668\, q^{135} p^{53} + 3784\, q^{134} p^{47} + 77104\, q^{136} p^{59} + 14655\, q^{135} p^{52} + 693842\, p^{140} q^{88} + 1220688\, p^{140} q^{95} + 4464\, p^{122} q^{30} + 9239\, p^{124} q^{33}$$
$$+ 1524349\, p^{140} q^{101} + 391067\, p^{141} q^{119} + 42243632\, p^{124} q^{128} + 1953212\, p^{134} q^{129} + 1857515070\, p^{105} q^{125} + 133227\, p^{104} q^{143}$$
$$+ 26279\, p^{96} q^{144} + 35253\, p^{99} q^{144} + 32223\, p^{98} q^{144} + 29196\, p^{97} q^{144} + 1138\, q^{134} p^{45} + q^{129} p^{31} + 8\, q^{129} p^{32} + 585\, q^{134} p^{44} + 278\, q^{134} p^{43}$$
$$+ 125\, q^{134} p^{42} + 2\, q^{128} p^{30} + 1140303\, q^{136} p^{69} + 34693922\, p^{129} q^{62} + 106418603\, p^{133} q^{93} + 62646023\, p^{131} q^{72} + 52621928\, p^{134} q^{105}$$
$$+ 4845501\, p^{124} q^{45} + 209\, p^{88} q^{11} + 34784906\, p^{96} q^{26} + 128771591052\, p^{111} q^{96} + 1349\, p^{73} q^{9} + 1464815\, p^{90} q^{19} + 66823\, p^{141} q^{79}$$
$$+ p^{107} q^{15} + p^{109} q^{16} + 6\, p^{112} q^{18} + 14706\, p^{85} q^{13} + 158340427088\, p^{103} q^{106} + 2372546741\, p^{103} q^{40} + 1712087325\, p^{103} q^{39}$$
$$+ 63765\, p^{84} q^{14} + 7536\, p^{78} q^{11} + 138618281881\, p^{90} q^{112} + 104424952282\, p^{92} q^{113} + 449687866\, p^{101} q^{34} + 7996958371\, p^{104} q^{45}$$
$$+ 3244992068\, p^{103} q^{41} + 972170789\, p^{101} q^{36} + 78046552978\, p^{111} q^{102} + 19939\, p^{88} q^{14} + 26163232671\, p^{108} q^{113} + 1558173855\, p^{102} q^{38}$$
$$+ 94548124129\, p^{111} q^{100} + 215460520057\, p^{110} q^{89} + 231675705181\, p^{109} q^{76} + 242042273740\, p^{109} q^{77} + 165573587721\, p^{111} q^{91}$$
$$+ 220859398686\, p^{110} q^{81} + 170432269928\, p^{109} q^{71} + 226961228260\, p^{110} q^{86} + 224338372365\, p^{110} q^{87} + 209916965920\, p^{110} q^{79}$$

$$+ 9436572\, p^{94} q^{23} + 228831\, p^{87} q^{16} + 111700731741\, p^{111} q^{98} + 31033572430\, p^{106} q^{53} + 251413560772\, p^{109} q^{78}$$
$$+ 204755176997\, p^{102} q^{105} + 21813718875\, p^{58} q^{111} + 300778090946\, p^{94} q^{107} + 20707905\, q^{119} p^{42} + 45968545\, q^{121} p^{47}$$
$$+ 6996163\, p^{124} q^{46} + 266434892\, p^{131} q^{89} + 247124573\, p^{131} q^{87} + 180007030\, p^{130} q^{76} + 274158171\, p^{131} q^{90} + 199977473\, p^{130} q^{77}$$
$$+ 175062073\, p^{132} q^{98} + 220694648\, p^{130} q^{78} + 38306\, p^{100} q^{144} + 7\, p^{150} q^{114} + 10392\, p^{142} q^{137} + 12\, q^{133} p^{38} + 11\, p^{149} q^{104}$$
$$+ 231520\, q^{138} p^{70} + 9527550720\, p^{86} q^{122} + 2566287034\, p^{124} q^{75} + 71841861\, p^{117} q^{43} + 459316879\, p^{127} q^{112} + 1446729\, p^{111} q^{29}$$
$$+ 3173974577\, p^{125} q^{85} + 2941790655\, p^{125} q^{83} + 297914576\, p^{120} q^{52} + 1772003835\, p^{123} q^{68} + 1810896\, p^{132} q^{58} + 1572896231\, q^{111} p^{46}$$
$$+ 71\, q^{123} p^{27} + 370\, q^{137} p^{50} + 2887589\, p^{97} q^{139} + 5492019\, p^{95} q^{138} + 19184953\, p^{134} q^{77} + 16838555\, p^{134} q^{76} + 66785785619\, p^{75} q^{114}$$
$$+ 62561953325\, p^{74} q^{114} + 32\, p^{150} q^{124} + 16\, p^{144} q^{69} + 2465\, p^{147} q^{122} + 104270261\, p^{133} q^{92} + 45\, p^{147} q^{147} + 241320\, p^{123} q^{37}$$
$$+ 582678\, p^{131} q^{52} + 3761260\, p^{135} q^{71} + 9088304\, p^{137} q^{91} + 78\, p^{100} q^{14} + 5250682\, p^{137} q^{84} + 1566529\, p^{131} q^{55} + 4562\, p^{116} q^{25}$$
$$+ 148331\, p^{126} q^{40} + 2360215\, p^{134} q^{65} + 376253\, q^{137} p^{68} + 194\, q^{132} p^{39} + 451\, q^{132} p^{40} + 5\, q^{130} p^{33} + 107118\, q^{136} p^{60} + 609376\, q^{139} p^{80}$$
$$+ 6967167745\, p^{88} q^{123} + 2961392203\, p^{109} q^{122} + 12025445\, p^{128} q^{129} + 9191130\, p^{129} q^{129} + 5524460\, p^{133} q^{126} + 3503458\, p^{133} q^{128}$$
$$+ 732726\, q^{132} p^{55} + 21075322342\, p^{105} q^{50} + 666761125\, p^{101} q^{35} + 142247\, p^{85} q^{15} + 6251216\, p^{93} q^{22} + 144529385660\, p^{109} q^{69}$$
$$+ 135286092335\, p^{108} q^{66} + 2\, q^{104} p^{14} + 179667692\, p^{132} q^{95} + 389585329\, p^{107} q^{129} + 13803075\, p^{95} q^{24} + 678\, p^{69} q^{8} + 16930\, p^{80} q^{12}$$
$$+ 80323966251\, p^{107} q^{60} + 157428798202\, p^{109} q^{70} + 164965330815\, p^{108} q^{68} + 42254416404\, p^{84} q^{117} + 73512169356\, p^{108} q^{61}$$
$$+ 95727240915\, p^{108} q^{63} + 183394757916\, p^{109} q^{72} + 42638829190\, p^{107} q^{56} + 108134893744\, p^{108} q^{64} + 35714886122\, p^{107} q^{55}$$
$$+ 215935971967\, p^{110} q^{80} + 220484373361\, p^{110} q^{88} + 70230368899\, p^{111} q^{103} + 23638180\, q^{121} p^{45} + 835393818\, q^{123} p^{63}$$
$$+ 1153856384\, q^{123} p^{65} + 586236774\, q^{123} p^{61} + 985538716\, q^{123} p^{64} + 702616635\, q^{123} p^{62} + 5068101707\, p^{100} q^{123} + 4949247915\, p^{89} q^{124}$$
$$+ 2190944143\, p^{78} q^{125} + 502867776\, q^{121} p^{56} + 9389038\, q^{119} p^{40} + 14069815\, q^{119} p^{41} + 159311354520\, p^{111} q^{92} + 249523607\, p^{100} q^{32}$$
$$+ 19603706\, p^{96} q^{25} + 121345390526\, p^{108} q^{65} + 84175217047\, p^{108} q^{62} + 224609167393\, p^{110} q^{82} + 228365523555\, p^{110} q^{84}$$
$$+ 50513370044\, p^{107} q^{57} + 227124800974\, p^{110} q^{83} + 86175401123\, p^{111} q^{101} + 16990706423\, p^{119} q^{99} + 19171657819\, p^{119} q^{97}$$
$$+ 10384930098\, p^{107} q^{118} + 2825484\, p^{131} q^{57} + 44219505\, q^{127} p^{58} + 193437287\, p^{122} q^{124} + 20598\, p^{145} q^{118} + 58254019001\, p^{73} q^{114}$$
$$+ 70871276288\, p^{76} q^{114} + 15539034\, q^{131} p^{64} + 3380\, q^{115} p^{24} + 116994038094\, p^{103} q^{108} + 96419380474\, p^{77} q^{113}$$
$$+ 146624588849\, p^{83} q^{112} + 144471183501\, p^{82} q^{112} + 65851667\, p^{133} q^{83} + 8728620\, p^{128} q^{54} + 5466814268\, q^{121} p^{106} + 3378\, p^{104} q^{18}$$
$$+ 45496857\, p^{133} q^{79} + 175772142295\, p^{89} q^{111} + 179550419937\, p^{88} q^{111} + 182363836713\, p^{87} q^{111} + 334275\, p^{142} q^{108} + 9\, p^{149} q^{103}$$

$$+ 296455\, p^{142} q^{113} + 72737\, p^{133} q^{51} + 104\, p^{113} q^{20} + 10471\, p^{143} q^{135} + 110719\, p^{89} q^{142} + 1506736\, p^{107} q^{140} + 1534434\, p^{106} q^{140}$$
$$+ 1552294\, p^{105} q^{140} + 1868075\, p^{115} q^{139} + 86\, p^{149} q^{114} + 62292\, p^{85} q^{142} + 69926\, p^{136} q^{138} + 257178\, p^{134} q^{136} + 135108\, p^{135} q^{137}$$
$$+ 72876\, p^{86} q^{142} + 11\, p^{64} q^{143} + 1556425\, p^{117} q^{139} + 1711189\, p^{116} q^{139} + 651107\, p^{99} q^{141} + 1655\, p^{75} q^{143} + 3903\, p^{78} q^{143} + 2981\, p^{77} q^{143}$$
$$+ 97131\, p^{88} q^{142} + 1881148359\, p^{114} q^{121} + 2\, p^{136} q^{42} + p^{135} q^{40} + 22\, p^{143} q^{65} + 709\, p^{148} q^{126} + 4\, p^{134} q^{39} + p^{130} q^{32}$$
$$+ 135418356164\, p^{100} q^{109} + 194239740319\, p^{92} q^{110} + 3324\, q^{99} p^{16} + 130753713108\, p^{102} q^{108} + 159557992\, q^{115} p^{43}$$
$$+ 74763349499\, p^{77} q^{114} + 31040068679\, p^{69} q^{115} + 34249120474\, p^{70} q^{115} + 51025890232\, p^{75} q^{115} + 30703869178\, p^{72} q^{116}$$
$$+ 47693744247\, p^{74} q^{115} + 40917637094\, p^{72} q^{115} + 44310870904\, p^{73} q^{115} + 105001105771\, p^{79} q^{113} + 9389038\, q^{113} p^{34}$$
$$+ 155874214858\, p^{96} q^{110} + 64387871\, p^{133} q^{109} + 34784906\, p^{127} q^{57} + 15247403\, p^{125} q^{50} + 21926\, p^{145} q^{111} + 7196\, p^{141} q^{70}$$
$$+ 119909369\, p^{123} q^{125} + 149798845\, p^{122} q^{125} + 73382991\, p^{126} q^{124} + 4091440622\, p^{103} q^{123} + 6831\, p^{133} q^{46} + 266034\, p^{129} q^{139}$$
$$+ 2179431\, p^{113} q^{139} + 2088\, p^{147} q^{126} + 39\, p^{133} q^{39} + 8\, p^{129} q^{32} + 5644\, p^{144} q^{86} + 1535\, p^{147} q^{130} + 16227\, p^{145} q^{104} + 460\, p^{138} q^{53}$$
$$+ 279\, p^{135} q^{45} + 6866\, p^{144} q^{87} + 3\, p^{126} q^{28} + 5843\, p^{127} q^{36} + 651107\, p^{141} q^{99} + 237735\, p^{142} q^{117} + 262879\, p^{136} q^{63} + 3324\, q^{137} p^{54}$$
$$+ 5294\, q^{137} p^{55} + 12387\, q^{137} p^{57} + 520209\, q^{139} p^{79} + 122\, p^{149} q^{117} + 7\, p^{148} q^{93} + 9259\, q^{135} p^{51} + 49\, q^{134} p^{41} + 1087627\, q^{138} p^{78}$$
$$+ 1606\, p^{136} q^{50} + 146922\, p^{135} q^{58} + 41890\, p^{134} q^{52} + 290497\, p^{138} q^{71} + 921485\, p^{140} q^{91} + 6\, p^{103} q^{14} + 428750\, p^{140} q^{84} + 133264\, p^{134} q^{55}$$
$$+ 37\, p^{147} q^{89} + 523123\, p^{141} q^{95} + 1872\, p^{123} q^{30} + 3887\, p^{125} q^{33} + 697742\, p^{141} q^{101} + 203869\, p^{142} q^{119} + 2521\, p^{147} q^{121} + 117\, p^{136} q^{46}$$
$$+ 428384\, p^{141} q^{118} + 663672\, p^{141} q^{111} + 592316\, p^{137} q^{70} + 1558281\, p^{140} q^{103} + 1554896\, p^{137} q^{75} + 6522839\, q^{127} p^{51} + 24\, p^{141} q^{150}$$
$$+ 5\, p^{151} q^{145} + 6\, p^{151} q^{142} + 1680451039\, p^{109} q^{124} + 1605866422\, p^{90} q^{127} + 2150215402\, p^{97} q^{126} + 2070022844\, p^{98} q^{126} + 279\, p^{108} q^{18}$$
$$+ 2882403\, p^{137} q^{79} + 64\, p^{103} q^{15} + 91\, p^{105} q^{16} + 53098\, p^{128} q^{41} + 1869360\, p^{134} q^{64} + 1534434\, p^{140} q^{106} + 2479198\, p^{136} q^{73}$$
$$+ 3297764\, p^{137} q^{80} + 3104811\, p^{139} q^{100} + 279931\, p^{130} q^{48} + 1371906\, p^{140} q^{110} + 4725082\, p^{137} q^{83} + 527092\, p^{132} q^{54}$$
$$+ 2220279832\, p^{96} q^{126} + 2020656649\, p^{104} q^{125} + 884520953\, p^{84} q^{128} + 1616455194\, p^{91} q^{127} + 20487\, q^{123} p^{33} + 45867\, q^{130} p^{44}$$
$$+ 25\, q^{116} p^{21} + 1696614011\, p^{106} q^{125} + 3\, q^{133} p^{37} + 1130\, p^{69} q^{142} + 1825\, p^{124} q^{31} + 15756\, p^{130} q^{42} + 7775\, p^{146} q^{118} + 7174\, p^{146} q^{111}$$
$$+ 1627\, p^{142} q^{70} + 216124\, p^{130} q^{139} + 175392\, q^{137} p^{65} + 428750\, q^{140} p^{84} + 1068\, q^{135} p^{47} + 1936\, q^{135} p^{48} + 18\, q^{134} p^{40}$$
$$+ 1489707525\, p^{110} q^{124} + 283568\, p^{142} q^{114} + 251\, p^{96} q^{147} + 650\, p^{101} q^{147} + 548\, p^{100} q^{147} + 463\, p^{99} q^{147} + 313\, p^{97} q^{147} + 755\, p^{102} q^{147}$$
$$+ 21926\, p^{111} q^{145} + 22352\, p^{113} q^{145} + 1131\, p^{105} q^{147} + 83\, p^{101} q^{148} + 874\, p^{103} q^{147} + 994\, p^{104} q^{147} + 22203\, p^{112} q^{145} + 85806\, p^{121} q^{143}$$
$$+ 4524\, p^{104} q^{146} + 20142\, p^{108} q^{145} + 55359\, p^{115} q^{144} + 56803\, p^{114} q^{144} + 21463\, p^{110} q^{145} + 93262\, p^{120} q^{143} + 380\, p^{98} q^{147} + 2227\, p^{89} q^{145}$$

$$+ 128453\, p^{103}\, q^{143} + 1442\, p^{87}\, q^{145} + 3280\, p^{91}\, q^{145} + 213\, p^{87}\, q^{146} + 4632\, p^{93}\, q^{145} + 3910\, p^{92}\, q^{145} + 208795308\, p^{119}\, q^{126}$$
$$+ 104811\, p^{135}\, q^{57} + 621391\, p^{126}\, q^{43} + 15780407\, p^{136}\, q^{89} + 1119693\, p^{139}\, q^{120} + 142\, p^{96}\, q^{13} + 5490397\, p^{138}\, q^{107} + 11414345\, p^{137}\, q^{102}$$
$$+ 7516650\, p^{133}\, q^{67} + 2117312\, p^{131}\, q^{56} + 484155\, p^{127}\, q^{44} + 5849673\, p^{97}\, q^{138} + 1920\, p^{111}\, q^{21} + 22\, p^{88}\, q^{10} + 14254\, p^{117}\, q^{27}$$
$$+ 1194039\, p^{125}\, q^{43} + 330771\, p^{109}\, q^{142} + 8284\, p^{144}\, q^{88} + p^{83}\, q^{8} + 1683600\, p^{138}\, q^{81} + 121343\, p^{142}\, q^{124} + 1140303\, p^{136}\, q^{69} + 194\, p^{114}\, q^{21}$$
$$+ 2\, p^{91}\, q^{10} + 1491\, p^{120}\, q^{27} + 6\, p^{97}\, q^{12} + 917296\, p^{136}\, q^{68} + 492214\, p^{134}\, q^{59} + 502935\, p^{141}\, q^{116} + 1149556\, p^{140}\, q^{94} + 80401\, p^{142}\, q^{127}$$
$$+ 706836\, p^{141}\, q^{109} + 7127\, p^{126}\, q^{35} + 2559\, p^{147}\, q^{119} + 3276\, p^{146}\, q^{101} + 78\, p^{140}\, q^{56} + 20\, p^{136}\, q^{44} + 5\, p^{130}\, q^{33} + 64646936\, p^{134}\, q^{96}$$
$$+ 76116\, q^{118}\, p^{30} + 5843\, q^{117}\, p^{26} + 875276\, q^{120}\, p^{36} + 38\, q^{98}\, p^{13} + 29722777\, p^{135}\, q^{89} + 59143102\, p^{110}\, q^{133} + 860356633\, p^{101}\, q^{128}$$
$$+ 70854654\, q^{130}\, p^{69} + 39807685\, p^{132}\, q^{73} + 50402772\, p^{133}\, q^{80} + 36899878\, p^{135}\, q^{100} + 156591\, p^{142}\, q^{92} + 4047\, p^{145}\, q^{134} + 76\, p^{125}\, q^{29}$$
$$+ 3\, q^{138}\, p^{47} + 2591\, q^{140}\, p^{63} + 1119\, q^{140}\, p^{61} + 3819\, q^{140}\, p^{64} + 1731\, q^{140}\, p^{62} + 251\, p^{147}\, q^{96} + 2248227\, p^{139}\, q^{92} + 21817\, p^{142}\, q^{134}$$
$$+ 1825\, p^{122}\, q^{29} + 4\, q^{134}\, p^{39} + 4181389\, p^{112}\, q^{138} + 1560433\, p^{104}\, q^{140} + 12\, p^{150}\, q^{117} + p^{148}\, q^{89} + 2976295\, p^{138}\, q^{116} + 10426889\, p^{137}\, q^{94}$$
$$+ 390524\, p^{139}\, q^{127} + 5021930\, p^{138}\, q^{109} + 76116\, p^{123}\, q^{35} + 9\, p^{80}\, q^{8} + 15732317\, p^{135}\, q^{81} + 646102\, p^{139}\, q^{124} + 10986772\, p^{133}\, q^{69}$$
$$+ 16768\, p^{118}\, q^{28} + 81668\, p^{122}\, q^{34} + 864709\, p^{139}\, q^{122} + 17434413\, p^{135}\, q^{82} + 1715712\, p^{130}\, q^{53} + 16\, p^{84}\, q^{9} + 4002949\, p^{132}\, q^{61} + 4\, p^{151}\, q^{127}$$
$$+ 14\, p^{150}\, q^{118} + 3\, p^{150}\, q^{111} + p^{150}\, q^{109} + p^{151}\, q^{121} + 370\, p^{137}\, q^{50} + 285\, p^{88}\, q^{146} + 5416\, p^{94}\, q^{145} + 46\, q^{131}\, p^{36} + 541\, q^{133}\, p^{42}$$
$$+ 4421381321\, p^{102}\, q^{123} + 1220845267\, p^{76}\, q^{126} + 3403608534\, p^{88}\, q^{125} + 611058806\, p^{120}\, q^{121} + 1246560\, p^{112}\, q^{140} + 1312041\, p^{111}\, q^{140}$$
$$+ 177606462\, p^{107}\, q^{131} + 191389318\, p^{106}\, q^{131} + p^{152}\, q^{147} + 103656632\, p^{100}\, q^{133} + 100796624\, p^{101}\, q^{133} + 14\, q^{131}\, p^{35}$$
$$+ 141330405\, p^{121}\, q^{126} + 4463107640\, p^{96}\, q^{124} + 2282955974\, p^{111}\, q^{122} + 509013517\, p^{72}\, q^{127} + 1666984279\, p^{80}\, q^{126}$$
$$+ 1556562412\, p^{79}\, q^{126} + 412937\, p^{92}\, q^{141} + 376330\, p^{91}\, q^{141} + 450017\, p^{93}\, q^{141} + 44338\, p^{83}\, q^{142} + 1433032\, p^{122}\, q^{138}$$
$$+ 4831629713\, p^{93}\, q^{124} + 4733216487\, p^{94}\, q^{124} + 3064719685\, p^{84}\, q^{125} + 3344794300\, p^{87}\, q^{125} + 6662\, p^{129}\, q^{39} + 14805048\, p^{136}\, q^{88}$$
$$+ 69\, q^{143}\, p^{67} + 3267826803\, p^{86}\, q^{125} + 216406262\, p^{66}\, q^{127} + 90512486\, p^{64}\, q^{128} + 449395060\, p^{71}\, q^{127} + 342961531\, p^{69}\, q^{127}$$
$$+ 296374507\, p^{68}\, q^{127} + 254220206\, p^{67}\, q^{127} + 393989078\, p^{70}\, q^{127} + 1444508078\, p^{78}\, q^{126} + 1332171944\, p^{77}\, q^{126} + 943374088\, p^{119}\, q^{120}$$
$$+ 22\, p^{148}\, q^{96} + 1886219\, p^{138}\, q^{120} + 37\, p^{150}\, q^{126} + p^{143}\, q^{61} + 21314\, p^{121}\, q^{31} + 193147\, p^{127}\, q^{42} + 257\, p^{95}\, q^{13} + 9855403\, p^{137}\, q^{107}$$
$$+ 20454488\, p^{136}\, q^{102} + 171476007\, p^{99}\, q^{132} + 69635032\, p^{108}\, q^{133} + 350573748\, p^{114}\, q^{127} + 186425775\, p^{118}\, q^{127} + 290022689\, p^{113}\, q^{128}$$
$$+ 323580913\, p^{109}\, q^{129} + 356225135\, p^{108}\, q^{129} + 291961932\, p^{110}\, q^{129} + 253427054\, p^{114}\, q^{128} + 371707673\, p^{111}\, q^{128} + 218044506\, p^{104}\, q^{131}$$
$$+ 109529\, q^{138}\, p^{67} + 39\, q^{133}\, p^{39} + 250\, q^{133}\, p^{41} + 104\, q^{133}\, p^{40} + 897\, q^{136}\, p^{49} + 19414\, p^{132}\, q^{46} + 1105\, q^{133}\, p^{43} + 2117\, q^{133}\, p^{44}$$

$$+ 274\, q^{143} p^{70} + 179\, q^{143} p^{69} + 3092\, q^{131} p^{41} + 24294\, p^{138} q^{62} + 173048\, p^{142} q^{93} + 44364\, p^{140} q^{72} + 137302\, p^{143} q^{105} + 26\, p^{75} q^{145}$$
$$+ 3682\, p^{84} q^{144} + 2913\, p^{83} q^{144} + 297816\, p^{101} q^{142} + 285196\, p^{100} q^{142} + 722110\, p^{108} q^{141} + 248\, p^{107} q^{148} + 214\, p^{106} q^{148}$$
$$+ 271155\, p^{99} q^{142} + 869522\, p^{117} q^{140} + 947863\, p^{116} q^{140} + 1025690\, p^{115} q^{140} + 551344\, p^{125} q^{139} + 706836\, p^{109} q^{141} + 750706\, p^{123} q^{139}$$
$$+ 209034\, p^{132} q^{138} + 65\, p^{77} q^{145} + 325832\, p^{104} q^{142} + 66916\, p^{94} q^{143} + 88839\, p^{97} q^{143} + 81420\, p^{96} q^{143} + 47045\, p^{91} q^{143} + 51159\, p^{137} q^{138}$$
$$+ 108221\, p^{133} q^{139} + 97\, p^{149} q^{138} + 843\, p^{135} q^{147} + 825\, p^{141} q^{145} + 449\, p^{143} q^{145} + 1338\, p^{95} q^{146} + 913\, p^{93} q^{146} + 1116\, p^{94} q^{146}$$
$$+ 123\, p^{93} q^{147} + 1597\, p^{96} q^{146} + 1877\, p^{97} q^{146} + 2194\, p^{98} q^{146} + 6492\, p^{143} q^{137} + 2\, p^{83} q^{147} + 7\, p^{85} q^{147} + 25\, p^{88} q^{147} + 18\, p^{87} q^{147}$$
$$+ 11\, p^{86} q^{147} + 4\, p^{84} q^{147} + 37\, p^{89} q^{147} + 2058\, p^{143} q^{141} + 282409\, p^{126} q^{140} + 9297\, p^{98} q^{145} + 55541\, p^{107} q^{144} + 53837\, p^{106} q^{144}$$
$$+ 11563\, p^{100} q^{145} + 56939\, p^{108} q^{144} + 92\, p^{92} q^{147} + p^{88} q^{148} + 51\, p^{90} q^{147} + 70\, p^{91} q^{147} + 12750\, p^{101} q^{145} + 10423\, p^{99} q^{145}$$
$$+ 15100\, p^{103} q^{145} + 296455\, p^{113} q^{142} + 354212\, p^{120} q^{141} + 200049\, p^{128} q^{140} + 238791\, p^{127} q^{140} + 318450\, p^{121} q^{141} + 253962\, p^{116} q^{142}$$
$$+ 144443\, p^{109} q^{143} + 144060\, p^{108} q^{143} + 596\, p^{91} q^{146} + 251250\, p^{123} q^{141} + 283568\, p^{114} q^{142} + 6293\, p^{95} q^{145} + 44184\, p^{102} q^{144}$$
$$+ 41273\, p^{101} q^{144} + 173698\, p^{131} q^{139} + 221007\, p^{118} q^{142} + 8242\, p^{97} q^{145} + 137921\, p^{132} q^{139} + 36797\, p^{138} q^{138} + 269268\, p^{115} q^{142}$$
$$+ 283957\, p^{122} q^{141} + 142777\, p^{107} q^{143} + 391067\, p^{119} q^{141} + 31449936\, p^{129} q^{124} + 6830041\, p^{133} q^{125} + 11101635\, q^{125} p^{49} + 2741\, q^{136} p^{51}$$
$$+ 1606\, q^{136} p^{50} + 3\, q^{124} p^{26} + 76\, q^{125} p^{29} + 44\, p^{149} q^{143} + 18\, p^{150} q^{143} + 24796\, p^{80} q^{142} + 981\, p^{118} q^{25} + 30533\, p^{128} q^{40} + 448374\, p^{136} q^{65}$$
$$+ 112\, p^{85} q^{10} + 2516\, p^{147} q^{117} + 528\, p^{141} q^{63} + 8\, p^{132} q^{36} + 10\, p^{79} q^{146} + 56621\, q^{140} p^{73} + 71512\, q^{140} p^{74} + 44364\, q^{140} p^{72}$$
$$+ 89257\, q^{140} p^{75} + 197603\, q^{136} p^{62} + 146480\, q^{136} p^{61} + 2782468\, p^{139} q^{96} + 144941893560\, p^{88} q^{112} + 41085234058\, p^{112} q^{106}$$
$$+ 2379631579\, p^{92} q^{126} + 166159374315\, p^{95} q^{110} + 28920421\, p^{130} q^{64} + 50394340\, q^{111} p^{36} + 14775879\, p^{132} q^{67} + 4252064\, p^{130} q^{56}$$
$$+ 174205279703\, p^{97} q^{109} + 4993\, p^{138} q^{143} + 127290141\, q^{127} p^{63} + 85695977\, q^{127} p^{61} + 69382721\, q^{127} p^{60} + 55657435\, q^{127} p^{59}$$
$$+ 104896974\, q^{127} p^{62} + 327\, q^{141} p^{62} + 528\, q^{141} p^{63} + 817\, q^{141} p^{64} + 3\, q^{140} p^{52} + 142\, q^{140} p^{57} + 78\, q^{140} p^{56} + 37552101509\, p^{71} q^{115}$$
$$+ 146943419141\, p^{87} q^{112} + 165573587721\, p^{91} q^{111} + 81245418965\, p^{107} q^{107} + 148466466314\, p^{85} q^{112} + 159311354520\, p^{92} q^{111}$$
$$+ 2191212247\, q^{116} p^{54} + 1097559323\, q^{116} p^{51} + 1395280775\, q^{116} p^{52} + 514\, p^{67} q^{142} + 955843\, p^{126} q^{44} + 1756702622\, q^{116} p^{53}$$
$$+ 27952212062\, p^{68} q^{115} + 185475561384\, p^{93} q^{110} + 25008665757\, p^{67} q^{115} + 26874690\, p^{133} q^{117} + 62790279\, p^{129} q^{65}$$
$$+ 89378274\, p^{129} q^{67} + 27080679\, p^{127} q^{56} + 69\, p^{86} q^{10} + 402748471\, p^{113} q^{127} + 663672\, p^{111} q^{141} + 308987\, p^{102} q^{142} + 59990\, p^{93} q^{143}$$
$$+ 4575\, p^{85} q^{144} + 516\, p^{83} q^{145} + 11676\, p^{90} q^{144} + 8284\, p^{88} q^{144} + 6866\, p^{87} q^{144} + 5644\, p^{86} q^{144} + 9871\, p^{89} q^{144} + 240942\, p^{87} q^{141}$$
$$+ 372796\, p^{83} q^{140} + 77\, p^{113} q^{149} + 11803672092\, p^{112} q^{114} + 630326408\, p^{70} q^{126} + 551240189\, p^{69} q^{126} + 75591315\, p^{58} q^{126}$$

$$+ 3801181226\, p^{111} q^{120} + 708142\, q^{139} p^{81} + 742407\, p^{136} q^{130} + 2627632560\, p^{118} q^{116} + 2118047521\, p^{119} q^{116} + 11955758\, q^{127} p^{53}$$
$$+ 36907\, p^{82} q^{142} + 8150\, p^{143} q^{81} + 2308\, p^{147} q^{124} + 5262\, p^{141} q^{69} + 3\, p^{125} q^{27} + 1259219\, p^{119} q^{139} + 302889190\, p^{115} q^{127}$$
$$+ 136478209\, p^{110} q^{131} + 259693842\, p^{116} q^{127} + 114699197\, p^{122} q^{126} + 220920455\, p^{117} q^{127} + 135902177\, p^{116} q^{129} + 250487831\, p^{118} q^{126}$$
$$+ 21045381\, p^{132} q^{121} + 334485\, p^{106} q^{142} + 334275\, p^{108} q^{142} + 93959\, p^{135} q^{138} + 888\, p^{85} q^{145} + 329505465\, p^{112} q^{128} + 5686253\, p^{96} q^{138}$$
$$+ 148542132\, p^{103} q^{132} + 141117534\, p^{104} q^{132} + 133226764\, p^{105} q^{132} + 124987556\, p^{106} q^{132} + 70067296\, p^{127} q^{123} + 92199776\, p^{126} q^{123}$$
$$+ 3724201\, p^{131} q^{58} + 3628\, p^{110} q^{21} + 4464\, p^{123} q^{31} + 5\, p^{143} q^{63} + 38957\, p^{129} q^{42} + 1268107\, q^{138} p^{79} + q^{132} p^{35} + 48650\, p^{139} q^{68}$$
$$+ 26577\, p^{137} q^{59} + 53604\, p^{144} q^{116} + 66916\, p^{143} q^{94} + 10940\, p^{145} q^{127} + 57911\, p^{144} q^{109} + 302\, p^{129} q^{35} + 189915\, p^{94} q^{142}$$
$$+ 206819\, p^{95} q^{142} + 15275\, p^{84} q^{143} + 26149\, p^{87} q^{143} + 22063\, p^{86} q^{143} + 240164\, p^{97} q^{142} + 1053000\, p^{124} q^{138} + 136161\, p^{130} q^{140}$$
$$+ 48122\, p^{136} q^{139} + 6178\, p^{108} q^{146} + 5373\, p^{106} q^{146} + 5778\, p^{107} q^{146} + 6541\, p^{109} q^{146} + 85806\, p^{143} q^{121} + 20\, p^{109} q^{17} + 15\, p^{74} q^{145}$$
$$+ 278\, q^{139} p^{55} + 12\, q^{138} p^{48} + 39\, p^{87} q^{10} + 810677968\, p^{116} q^{123} + 27097\, p^{116} q^{27} + 2346341016\, p^{102} q^{125} + 1628\, p^{129} q^{37}$$
$$+ 110336\, p^{140} q^{76} + 6662\, q^{129} p^{39} + 4562\, q^{128} p^{37} + 1119693\, p^{120} q^{139} + 2234\, p^{145} q^{137} + 963550638\, p^{86} q^{128} + 432586664\, p^{80} q^{129}$$
$$+ 24\, q^{130} p^{34} + 340379\, p^{90} q^{141} + 1135\, p^{145} q^{86} + 4524\, p^{146} q^{104} + 78\, p^{139} q^{53} + 49\, p^{136} q^{45} + 1442\, p^{145} q^{87} + 581\, p^{148} q^{130}$$
$$+ 1524349\, p^{101} q^{140} + 6888252673\, p^{87} q^{123} + 3154029225\, p^{73} q^{123} + 3794156663\, p^{75} q^{123} + 115799641\, q^{132} p^{83} + 2797547233\, p^{76} q^{124}$$
$$+ 3470337980\, p^{74} q^{123} + 2848116202\, p^{72} q^{123} + 1366418\, p^{135} q^{129} + 2124206\, p^{133} q^{130} + 746775\, p^{126} q^{138} + 8150\, p^{81} q^{143}$$
$$+ 51780\, p^{105} q^{144} + 136081\, p^{113} q^{143} + 4\, p^{128} q^{151} + 5\, p^{129} q^{151} + 5\, p^{130} q^{151} + 2\, p^{123} q^{151} + 1466\, p^{142} q^{143} + 2058\, p^{141} q^{143}$$
$$+ 2351\, p^{139} q^{144} + 168\, p^{148} q^{140} + 40\, p^{128} q^{150} + 42\, p^{130} q^{150} + 39\, p^{136} q^{150} + 37\, p^{126} q^{150} + 1402\, p^{139} q^{145} + 3077\, p^{141} q^{142} + 9\, p^{151} q^{137}$$
$$+ 86\, p^{149} q^{139} + 2\, p^{124} q^{151} + 6\, p^{132} q^{151} + 7\, p^{134} q^{151} + 8\, p^{136} q^{151} + 8\, p^{135} q^{151} + 7\, p^{133} q^{151} + 6\, p^{131} q^{151} + 417\, p^{147} q^{139} + 200\, p^{148} q^{139}$$
$$+ p^{136} q^{152} + 96\, p^{78} q^{145} + 24261\, p^{137} q^{140} + 32384\, p^{136} q^{140} + 68262\, p^{131} q^{141} + 40715\, p^{131} q^{142} + 63627\, p^{124} q^{143} + 17891\, p^{138} q^{140}$$
$$+ 7620\, p^{119} q^{146} + 7779\, p^{114} q^{146} + 18924\, p^{120} q^{145} + 7861\, p^{115} q^{146} + 17945\, p^{121} q^{145} + 19835\, p^{119} q^{145} + 3\, p^{100} q^{149} + 7857\, p^{117} q^{146}$$
$$+ 1694\, p^{109} q^{147} + 608\, p^{147} q^{137} + 39\, p^{109} q^{149} + 46\, p^{110} q^{149} + 1828\, p^{110} q^{147} + 2394\, p^{115} q^{147} + 2303\, p^{114} q^{147} + 2207\, p^{113} q^{147}$$
$$+ 1969\, p^{111} q^{147} + 2457\, p^{116} q^{147} + 2516\, p^{117} q^{147} + 7775\, p^{118} q^{146} + 16854\, p^{122} q^{145} + 2087\, p^{112} q^{147} + 18521\, p^{139} q^{139} + 1408\, p^{107} q^{147}$$
$$+ 7174\, p^{111} q^{146} + 7434\, p^{112} q^{146} + 40750\, p^{121} q^{144} + 43721\, p^{120} q^{144} + 37716\, p^{122} q^{144} + 22124\, p^{115} q^{145} + 21262\, p^{117} q^{145}$$
$$+ 80401\, p^{127} q^{142} + 35196\, p^{134} q^{141} + 27532\, p^{135} q^{141} + 49025\, p^{130} q^{142} + 70886\, p^{123} q^{143} + 68859\, p^{128} q^{142} + 33469\, p^{132} q^{142}$$
$$+ 58373\, p^{129} q^{142} + 44448\, p^{133} q^{141} + 7422\, p^{120} q^{146} + 43785\, p^{127} q^{143} + 21753\, p^{116} q^{145} + 46507\, p^{119} q^{144} + 646102\, p^{124} q^{139}$$

$$+ 37948\, p^{128}\, q^{143} + 53315\, p^{92}\, q^{143} + 371\, p^{110}\, q^{148} + 42520\, p^{135}\, q^{140} + 318319\, p^{103}\, q^{142} + 153\, p^{104}\, q^{148} + 687136\, p^{110}\, q^{141}$$
$$+ 35644\, p^{139}\, q^{137} + 41\, p^{76}\, q^{145} + 9\, p^{103}\, q^{149} + 11\, p^{104}\, q^{149} + 15\, p^{105}\, q^{149} + 19\, p^{106}\, q^{149} + 265738\, p^{131}\, q^{138} + 200\, p^{80}\, q^{145} + 2\, p^{76}\, q^{146}$$
$$+ 382\, p^{82}\, q^{145} + 281\, p^{81}\, q^{145} + 74124\, p^{95}\, q^{143} + 732985\, p^{107}\, q^{141} + 791992\, p^{118}\, q^{140} + 613\, p^{142}\, q^{145} + 717\, p^{136}\, q^{147} + 498\, p^{132}\, q^{148}$$
$$+ 42\, p^{131}\, q^{150} + 43\, p^{132}\, q^{150} + 34\, p^{138}\, q^{150} + 36\, p^{137}\, q^{150} + 42\, p^{133}\, q^{150} + 42\, p^{134}\, q^{150} + 32610\, p^{129}\, q^{143} + 499\, p^{113}\, q^{148} + 458\, p^{112}\, q^{148}$$
$$+ 412\, p^{111}\, q^{148} + 288\, p^{108}\, q^{148} + 327\, p^{109}\, q^{148} + 542\, p^{114}\, q^{148} + 56\, p^{111}\, q^{149} + 4993\, p^{143}\, q^{138} + 25\, p^{132}\, q^{37} + 159\, p^{133}\, q^{149} + 321\, p^{136}\, q^{148}$$
$$+ 1206\, p^{137}\, q^{146} + 968\, p^{134}\, q^{147} + 336\, p^{147}\, q^{140} + 13916\, p^{102}\, q^{145} + 368\, p^{89}\, q^{146} + 330834\, p^{125}\, q^{140} + 4\, p^{127}\, q^{151} + 3\, p^{125}\, q^{151} + 3\, p^{126}\, q^{151}$$
$$+ 97\, p^{138}\, q^{149} + 86\, p^{139}\, q^{149} + 417\, p^{139}\, q^{147} + 410\, p^{134}\, q^{148} + 181\, p^{130}\, q^{149} + 166\, p^{132}\, q^{149} + 608\, p^{137}\, q^{147} + 453\, p^{133}\, q^{148} + 34\, p^{150}\, q^{138}$$
$$+ 485\, p^{146}\, q^{141} + 485\, p^{141}\, q^{146} + 2158\, p^{142}\, q^{142} + 1082\, p^{140}\, q^{145} + 1082\, p^{145}\, q^{140} + 180\, p^{105}\, q^{148} + 3054\, p^{144}\, q^{138} + 7897\, p^{116}\, q^{146}$$
$$+ 25472\, p^{126}\, q^{144} + 28439\, p^{125}\, q^{144} + 31515\, p^{124}\, q^{144} + 6\, p^{102}\, q^{149} + 12939\, p^{140}\, q^{139}$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 19, *is:*

$$1 + 15714108\, p^{47}\, q^{16} + 12336698000064\, p^{105}\, q^{68} + 48649170\, q^{42}\, p^{19} + 24273090598542\, p^{106}\, q^{102} + 301098938454\, p^{40}\, q^{61}$$
$$+ 29119770862214\, p^{81}\, q^{106} + 13831659432637\, p^{104}\, q^{68} + 6153\, p^{65}\, q^{8} + 1857968020\, p^{38}\, q^{31} + 3962210614\, p^{38}\, q^{34}$$
$$+ 5005846903\, p^{38}\, q^{35} + 7620438574\, p^{39}\, q^{36} + 1414959826\, p^{38}\, q^{30} + 2414797530\, p^{38}\, q^{32} + 1066086678\, p^{38}\, q^{29}$$
$$+ 1916558646703\, p^{125}\, q^{93} + 1903572800296\, p^{125}\, q^{97} + 34184765272978\, p^{70}\, q^{96} + 2389765\, p^{18}\, q^{26} + 2081700062852\, p^{52}\, q^{99}$$
$$+ 47\, q^{21}\, p^{3} + 212728\, q^{28}\, p^{12} + 615135\, q^{28}\, p^{14} + 1192720\, q^{29}\, p^{15} + 183909571425\, q^{55}\, p^{40} + 229616916883\, q^{55}\, p^{41}$$
$$+ 349432771859\, q^{55}\, p^{43} + 231140\, p^{129}\, q^{30} + 55867731417571\, p^{71}\, q^{79} + 6758600188960\, p^{58}\, q^{98} + 17024149017358\, p^{64}\, q^{97} + p^{10}\, q$$
$$+ 82332703098771\, p^{88}\, q^{93} + 155122063\, p^{36}\, q^{24} + 12579045\, p^{35}\, q^{18} + 300437130\, p^{36}\, q^{26} + 29049137152710\, p^{64}\, q^{87}$$
$$+ 32336871758457\, p^{65}\, q^{87} + 5006460179723\, p^{52}\, q^{69} + 14012117882037\, p^{60}\, q^{68} + 5823091\, p^{139}\, q^{46} + 57582971036006\, p^{71}\, q^{83}$$
$$+ 11902\, q^{26}\, p^{8} + 5333\, q^{26}\, p^{7} + 31553\, q^{28}\, p^{9} + 284372716382\, q^{55}\, p^{42} + 572707418546\, q^{56}\, p^{45} + 426118448618\, q^{55}\, p^{44} + 1985\, q^{25}\, p^{6}$$
$$+ 761\, q^{26}\, p^{5} + 74527002827823\, p^{82}\, q^{94} + 84946719322\, p^{88}\, q^{36} + 4725530261\, p^{90}\, q^{29} + 490268335\, p^{88}\, q^{24} + 142228095952\, p^{68}\, q^{128}$$
$$+ 693\, q^{57}\, p^{6} + 1714526554978\, p^{104}\, q^{54} + 32408058430\, p^{100}\, q^{37} + 76523627817\, p^{101}\, q^{40} + 55429778210\, p^{101}\, q^{39} + 3688356884\, q^{44}\, p^{30}$$
$$+ 7205914429072\, p^{53}\, q^{80} + 172384760820\, p^{38}\, q^{60} + 22632999840914\, p^{80}\, q^{61} + 28399540046800\, p^{80}\, q^{63} + 25424259089496\, p^{80}\, q^{62}$$

$$+ 506835957162\, p^{43}\, q^{59} + 79253050045577\, p^{86}\, q^{94} + 63665528\, p^{33}\, q^{23} + 153416646\, p^{28}\, q^{30} + 112912898625\, p^{126}\, q^{63}$$
$$+ 592117220208\, p^{130}\, q^{99} + 11504987774\, p^{123}\, q^{49} + 73880812\, p^{146}\, q^{68} + 26533932\, p^{144}\, q^{59} + 983156972\, q^{51}\, p^{24} + 650174585\, q^{51}\, p^{23}$$
$$+ 285745054\, q^{52}\, p^{21} + 29687018377\, p^{32}\, q^{59} + 4879507113817\, p^{75}\, q^{116} + 19863561254327\, p^{63}\, q^{93} + 2725578642\, q^{44}\, p^{29}$$
$$+ 93187714396497\, p^{84}\, q^{84} + 91369886721141\, p^{82}\, q^{85} + 89671621992830\, p^{81}\, q^{85} + 81748670479555\, p^{78}\, q^{86}$$
$$+ 57619451698744\, p^{72}\, q^{88} + 356229713789\, p^{73}\, q^{39} + 2339218495953\, p^{74}\, q^{47} + 463879129804\, p^{73}\, q^{40} + 4152607024783\, p^{74}\, q^{50}$$
$$+ 11613578652659\, p^{93}\, q^{59} + 38677336869825\, p^{94}\, q^{70} + 580659156310\, p^{90}\, q^{43} + 1784017130172\, p^{61}\, q^{112} + 744972154865\, p^{57}\, q^{113}$$
$$+ 2425692373403\, p^{63}\, q^{112} + 1515314911674\, p^{60}\, q^{112} + 2086848047316\, p^{62}\, q^{112} + 868832\, q^{116}\, p^{24} + 5419880\, q^{117}\, p^{27}$$
$$+ 1298831\, q^{117}\, p^{25} + 969449507564\, p^{73}\, q^{43} + 764998351246\, p^{73}\, q^{42} + 162898391788\, q^{109}\, p^{47} + 9423361255041\, p^{97}\, q^{116}$$
$$+ 252109500\, p^{24}\, q^{39} + 175025635\, p^{23}\, q^{39} + 4098057961\, p^{35}\, q^{37} + 2650068794\, p^{34}\, q^{36} + 8001190\, p^{16}\, q^{39} + 13321175\, p^{17}\, q^{39}$$
$$+ 8518864100597\, p^{55}\, q^{87} + 10005108403117\, p^{56}\, q^{87} + 224279515\, p^{67}\, q^{20} + 8904\, q^{47}\, p^{7} + 82059\, q^{49}\, p^{9} + 2626674\, q^{52}\, p^{13} + 2529\, q^{45}\, p^{6}$$
$$+ 958849\, p^{21}\, q^{19} + 476898\, p^{21}\, q^{17} + 795\, q^{88}\, p^{10} + 140\, q^{87}\, p^{9} + 1108\, q^{87}\, p^{10} + 1726047469\, q^{68}\, p^{24} + 4229473817\, q^{68}\, p^{26}$$
$$+ 36738765\, q^{66}\, p^{17} + 279085255\, p^{146}\, q^{75} + 1821269239\, p^{54}\, q^{25} + 20682431788\, q^{127}\, p^{56} + 20033440350619\, p^{60}\, q^{80}$$
$$+ 3484207216\, q^{125}\, p^{47} + 188292\, q^{128}\, p^{29} + 426910\, p^{26}\, q^{14} + 1985569\, p^{27}\, q^{17} + 11271415\, p^{28}\, q^{21} + 6312662\, p^{27}\, q^{20} + 4372681\, p^{27}\, q^{19}$$
$$+ 201707964562\, q^{134}\, p^{100} + 199132842875\, q^{134}\, p^{101} + 11917740285\, q^{128}\, p^{55} + 782764588\, p^{26}\, q^{42} + 60905696068849\, p^{92}\, q^{75}$$
$$+ 36738765\, p^{66}\, q^{17} + 358939220758\, p^{131}\, q^{107} + 19790765\, p^{113}\, q^{27} + 7\, q^{81}\, p^{7} + 2434323\, p^{22}\, q^{21} + 183314788\, q^{115}\, p^{32}$$
$$+ 557016247024\, p^{130}\, q^{102} + 1326903\, p^{21}\, q^{20} + 11549697450\, p^{85}\, q^{30} + 31924147487\, p^{136}\, q^{121} + 477987774702\, p^{89}\, q^{42} + 1217\, p^{53}\, q^{6}$$
$$+ 39875146\, p^{76}\, q^{18} + 231591015\, p^{78}\, q^{21} + 382983791\, p^{79}\, q^{22} + 116381\, p^{13}\, q^{22} + 8188104\, p^{46}\, q^{15} + 4378581\, p^{46}\, q^{14}$$
$$+ 186053690\, p^{91}\, q^{23} + 2135393775\, q^{51}\, p^{26} + 451326794\, q^{52}\, p^{22} + 166209726082\, q^{54}\, p^{40} + 75231411276081\, p^{94}\, q^{92} + 11984731\, p^{20}\, q^{30}$$
$$+ 55711750712560\, p^{76}\, q^{95} + 3936\, p^{9}\, q^{16} + 3335758\, p^{84}\, q^{16} + 126067982933\, p^{38}\, q^{56} + 76806335743680\, p^{94}\, q^{91} + 8430\, p^{10}\, q^{17}$$
$$+ 36399\, p^{14}\, q^{16} + 93502701475178\, p^{84}\, q^{85} + 5259\, p^{66}\, q^{8} + 34067925267\, p^{94}\, q^{35} + 62903596021970\, p^{87}\, q^{73} + 74180698983067\, p^{87}\, q^{76}$$
$$+ 57312436451\, p^{53}\, q^{36} + 19\, p^{36}\, q^{3} + 360\, p^{48}\, q^{5} + 534627983\, q^{55}\, p^{22} + 37\, p^{48}\, q^{4} + 45379115191352\, p^{94}\, q^{72} + 32279138923405\, p^{94}\, q^{68}$$
$$+ 123433122\, p^{33}\, q^{25} + 227109563\, p^{33}\, q^{27} + 372921186\, p^{34}\, q^{28} + 3159823\, p^{32}\, q^{16} + 17629855825141\, p^{59}\, q^{80} + 77597978277465\, p^{87}\, q^{77}$$
$$+ 79428779425566\, p^{88}\, q^{78} + 3794079\, q^{67}\, p^{14} + 9273377257\, p^{52}\, q^{30} + 6692139689\, p^{52}\, q^{29} + 381629142\, p^{123}\, q^{39} + 671954953\, p^{135}\, q^{54}$$
$$+ 41223448\, p^{131}\, q^{41} + 3103919104\, p^{137}\, q^{64} + 9320264092\, p^{143}\, q^{106} + 6307890619\, p^{139}\, q^{73} + 744\, q^{102}\, p^{13} + 628799\, p^{67}\, q^{12}$$

$$+ 2135393775\, p^{51}\, q^{26} + 1540002190262\, p^{90}\, q^{47} + 345003136527\, p^{42}\, q^{57} + 37387181105765\, p^{105}\, q^{93} + 827859\, p^{27}\, q^{15}$$
$$+ 214219467010\, p^{131}\, q^{79} + 266886658381\, p^{38}\, q^{71} + 1501384372\, p^{82}\, q^{25} + 8192895714\, p^{84}\, q^{29} + 897854929\, p^{82}\, q^{24}$$
$$+ 65190701\, q^{113}\, p^{29} + 98037603239\, q^{86}\, p^{36} + 11951304\, q^{73}\, p^{16} + 556\, p^{82}\, q^{161} + 1177185\, p^{159}\, q^{116} + 343536\, p^{160}\, q^{133}$$
$$+ 1379551197083\, p^{45}\, q^{83} + 432035\, q^{29}\, p^{13} + 14846\, q^{28}\, p^{8} + 1028629822691\, p^{82}\, q^{126} + 46726193459\, q^{125}\, p^{57}$$
$$+ 14235963321096\, p^{107}\, q^{108} + 9126479275508\, p^{85}\, q^{55} + 1673216556040\, p^{84}\, q^{46} + 29822666093228\, p^{86}\, q^{64} + 15928228098\, p^{80}\, q^{30}$$
$$+ 2046334069534\, q^{108}\, p^{58} + 88640428473\, p^{82}\, q^{35} + 3064137051015\, p^{85}\, q^{49} + 74180698983067\, p^{76}\, q^{87} + 188213782230\, q^{90}\, p^{39}$$
$$+ 13514128370\, q^{88}\, p^{31} + 13863411977546\, p^{73}\, q^{58} + 15717489692716\, p^{73}\, q^{59} + 28399540046800\, p^{63}\, q^{80} + 6692139689\, q^{52}\, p^{29}$$
$$+ 25950726942977\, p^{63}\, q^{87} + 38054263\, p^{24}\, q^{29} + 100\, q^{128}\, p^{22} + 292302808\, p^{40}\, q^{24} + 21596094\, p^{39}\, q^{18} + 584842032\, p^{40}\, q^{26}$$
$$+ 2793\, p^{30}\, q^{6} + 5320753045\, p^{41}\, q^{33} + 7151886\, p^{38}\, q^{16} + 2356054860\, p^{41}\, q^{30} + 1757620259\, p^{41}\, q^{29} + 4097345107\, p^{41}\, q^{32} + 811\, q^{75}\, p^{8}$$
$$+ 34\, p^{168}\, q^{156} + 3962210614\, p^{34}\, q^{38} + 2072\, p^{71}\, q^{8} + 81635455682\, p^{71}\, q^{34} + 592117220208\, p^{72}\, q^{41} + 207467\, q^{52}\, p^{10}$$
$$+ 250567468\, p^{50}\, q^{21} + 983156972\, p^{51}\, q^{24} + 1460848837\, p^{51}\, q^{25} + 998952\, q^{31}\, p^{14} + 1032161454923\, p^{122}\, q^{116} + 38580246227\, p^{96}\, q^{36}$$
$$+ 4596109373\, p^{94}\, q^{30} + 14212400557\, p^{95}\, q^{33} + 503314467848\, p^{116}\, q^{58} + 31925839315871\, p^{71}\, q^{67} + 4534190353822\, p^{85}\, q^{51}$$
$$+ 634510266263\, p^{84}\, q^{42} + 5075047\, p^{61}\, q^{14} + 2366776\, p^{60}\, q^{13} + 7987598302640\, p^{57}\, q^{94} + 4730622977785\, p^{51}\, q^{72}$$
$$+ 2303593073940\, p^{47}\, q^{73} + 51278495128408\, p^{70}\, q^{78} + 61303632513853\, p^{72}\, q^{84} + 69050358628510\, p^{74}\, q^{84} + 52788459719330\, p^{70}\, q^{85}$$
$$+ 48809775536429\, p^{69}\, q^{85} + 36673255229313\, p^{66}\, q^{86} + 76201696681494\, p^{76}\, q^{83} + 88252889191648\, p^{81}\, q^{82}$$
$$+ 82332703098771\, p^{78}\, q^{83} + 28336900325\, p^{136}\, q^{122} + 2\, q^{89}\, p^{8} + 12724877430490\, p^{110}\, q^{106} + 116931194567\, p^{36}\, q^{83}$$
$$+ 44450715424218\, p^{89}\, q^{69} + 48272809481167\, p^{89}\, q^{70} + 351675649364\, p^{85}\, q^{40} + 263959556434\, p^{85}\, q^{39} + 152328022133\, p^{84}\, q^{37}$$
$$+ 15040658184914\, p^{88}\, q^{59} + 463779827034\, p^{85}\, q^{41} + 42077356455\, p^{83}\, q^{33} + 149244022906\, q^{70}\, p^{36} + 1572759513684\, p^{51}\, q^{56}$$
$$+ 1207236632255\, p^{50}\, q^{55} + 4039511\, q^{66}\, p^{14} + 3994310265364\, p^{88}\, q^{51} + 1462926975356\, p^{87}\, q^{46} + 27162104429618\, p^{89}\, q^{64}$$
$$+ 8169971160065\, p^{88}\, q^{55} + 29822666093228\, p^{85}\, q^{107} + 15855032\, p^{28}\, q^{22} + 80774649389871\, p^{93}\, q^{84} + 740775\, q^{65}\, p^{12} + 437846\, p^{58}\, q^{11}$$
$$+ p\, q + 14170943908\, p^{98}\, q^{34} + 2418631\, q^{48}\, p^{13} + 17542687\, q^{49}\, p^{16} + 9117948\, q^{48}\, p^{15} + 325235929399\, p^{101}\, q^{45}$$
$$+ 119539709774\, p^{100}\, q^{41} + 29684220368\, p^{31}\, q^{70} + 47753910257001\, p^{69}\, q^{78} + 20972726969830\, p^{86}\, q^{61} + 26671204430510\, p^{86}\, q^{63}$$
$$+ 17251221816085\, p^{60}\, q^{88} + 12\, q^{112}\, p^{14} + 800\, q^{27}\, p^{5} + 112228426\, p^{146}\, q^{70} + 441825470\, p^{149}\, q^{94} + 78036743564365\, p^{81}\, q^{77}$$
$$+ 81739070840674\, p^{82}\, q^{78} + 64768249934804\, p^{81}\, q^{73} + 75037305560650\, p^{81}\, q^{76} + 8430\, p^{17}\, q^{10} + 1218\, p^{16}\, q^{7} + 3936\, p^{16}\, q^{9}$$

$$+ 101350609\, q^{51}\, p^{19} + 89623068\, p^{152}\, q^{122} + 126\, q^{17}\, p^{4} + 860\, q^{18}\, p^{6} + 326\, q^{17}\, p^{5} + 78905945446773\, p^{77}\, q^{82} + 17218704460087\, p^{91}\, q^{61}$$
$$+ 22148640776790\, p^{91}\, q^{63} + 173167384586\, q^{132}\, p^{80} + 158474038390\, q^{132}\, p^{79} + 54041563\, p^{152}\, q^{128} + 12579045\, p^{153}\, q^{136}$$
$$+ 34178316\, p^{152}\, q^{132} + 24649182\, p^{22}\, q^{30} + 605\, q^{68}\, p^{7} + 602007701\, p^{50}\, q^{23} + 2795\, q^{17}\, p^{8} + 118235\, q^{28}\, p^{11} + 367933\, q^{28}\, p^{13}$$
$$+ 82227651407\, p^{135}\, q^{114} + 57312436451\, p^{135}\, q^{118} + 101877011416\, p^{135}\, q^{111} + 218\, p^{31}\, q^{4} + 554621865666\, q^{121}\, p^{65}$$
$$+ 76523627817\, p^{131}\, q^{70} + 26533932\, q^{112}\, p^{27} + 241232637957\, q^{125}\, p^{66} + 290\, q^{133}\, p^{26} + 2235868014\, p^{134}\, q^{57} + 978312098030\, p^{43}\, q^{74}$$
$$+ 89623068\, p^{49}\, q^{19} + 392303864\, p^{50}\, q^{22} + 684942818753\, p^{42}\, q^{68} + 8\, p^{20}\, q^{2} + 3860900923208\, p^{51}\, q^{67} + 4777005620682\, p^{52}\, q^{68}$$
$$+ 890187055429\, p^{43}\, q^{69} + 200189839508\, q^{121}\, p^{59} + 405536310468\, q^{121}\, p^{63} + 343409201568\, q^{121}\, p^{62} + 475778541281\, q^{121}\, p^{64}$$
$$+ 288860162665\, q^{121}\, p^{61} + 29372348\, p^{48}\, q^{17} + 146109361\, p^{49}\, q^{20} + 1460848837\, q^{51}\, p^{25} + 260198\, p^{26}\, q^{13} + 2975231\, p^{27}\, q^{18}$$
$$+ 13450812\, p^{26}\, q^{23} + 276729\, p^{18}\, q^{18} + 269852\, p^{17}\, q^{19} + 30453\, p^{96}\, q^{14} + 12536353\, p^{22}\, q^{27} + 16953271465369\, p^{104}\, q^{70}$$
$$+ 68363038900654\, p^{81}\, q^{74} + 71799586106083\, p^{81}\, q^{75} + 42105513171711\, p^{81}\, q^{67} + 57267368720007\, p^{81}\, q^{71}$$
$$+ 61056169151221\, p^{81}\, q^{72} + 45826345134822\, p^{81}\, q^{68} + 681983\, p^{21}\, q^{18} + 13034132520426\, p^{58}\, q^{88} + 2087614986206\, p^{84}\, q^{47}$$
$$+ 39419816649\, q^{76}\, p^{32} + 72108385\, q^{56}\, p^{18} + 582780958\, q^{57}\, p^{22} + 26358826584781\, p^{105}\, q^{102} + 5555865\, q^{55}\, p^{14} + 40218717\, q^{56}\, p^{17}$$
$$+ 1194564\, q^{54}\, p^{12} + 920388761\, q^{57}\, p^{23} + 13554427136\, p^{92}\, q^{32} + 6289208415048\, p^{97}\, q^{57} + 5461387868\, q^{96}\, p^{31} + 8338787832\, q^{96}\, p^{32}$$
$$+ 12516527077\, q^{96}\, p^{33} + 10521\, q^{25}\, p^{8} + 21411267828946\, p^{70}\, q^{63} + 17449083843137\, p^{70}\, q^{61} + 19381972673218\, p^{70}\, q^{62}$$
$$+ 4278851301718\, p^{121}\, q^{93} + 166209726082\, p^{54}\, q^{40} + 4766916264\, p^{52}\, q^{28} + 382279713507\, p^{54}\, q^{44} + 515798951731\, p^{55}\, q^{45}$$
$$+ 6850160317\, p^{114}\, q^{143} + 13743\, p^{11}\, q^{17} + 43437\, q^{31}\, p^{9} + 132276002794\, p^{54}\, q^{39} + 81621633409\, p^{54}\, q^{37} + 581517\, q^{31}\, p^{13}$$
$$+ 155104\, q^{30}\, p^{11} + 25424259089496\, p^{62}\, q^{80} + p^{9}\, q + 944623693865\, p^{96}\, q^{47} + 842856824\, p^{88}\, q^{25} + 314039924589\, p^{54}\, q^{43}$$
$$+ 256034542756\, p^{54}\, q^{42} + 22632999840914\, p^{61}\, q^{80} + 104369866247\, p^{54}\, q^{38} + 207121061376\, p^{54}\, q^{41} + 13930688\, p^{25}\, q^{24}$$
$$+ 33574814188\, p^{53}\, q^{34} + 44084131212\, p^{53}\, q^{35} + 48537\, q^{59}\, p^{9} + 18872032819\, p^{53}\, q^{32} + 13914622273\, p^{53}\, q^{31}$$
$$+ 23718721245876\, p^{86}\, q^{62} + 33161779586894\, p^{86}\, q^{65} + 9\, p^{73}\, q^{6} + 14579359\, p^{20}\, q^{31} + 279918757678\, q^{125}\, p^{67} + 3349131572\, p^{52}\, q^{27}$$
$$+ 25308093567\, p^{53}\, q^{33} + 130186\, q^{61}\, p^{10} + 1376394827000\, p^{45}\, q^{69} + 841244236\, q^{123}\, p^{41} + 1745648087\, q^{123}\, p^{43} + 18495\, q^{126}\, p^{25}$$
$$+ 13070119565\, q^{75}\, p^{29} + 28120739421\, q^{75}\, p^{31} + 19319474958\, q^{75}\, p^{30} + 8698722602\, q^{75}\, p^{28} + 112159\, q^{126}\, p^{27} + 195221\, p^{54}\, q^{10}$$
$$+ 80196899506\, p^{69}\, q^{34} + 571278009463\, p^{70}\, q^{41} + 69489704234404\, p^{96}\, q^{92} + 75921577106\, q^{93}\, p^{37} + 91770671564003\, p^{83}\, q^{87}$$
$$+ 92789271965941\, p^{84}\, q^{87} + 957170957905\, p^{126}\, q^{109} + 499290\, p^{98}\, q^{17} + 7706694\, p^{104}\, q^{22} + 572707418546\, p^{126}\, q^{115} + 4663929\, q^{92}\, p^{18}$$

$$+ 605204255\, p^{29}\, q^{35} + 670896897\, p^{33}\, q^{31} + 20\, q^{62}\, p^{5} + 82356739213330\, p^{88}\, q^{79} + 130026246\, p^{35}\, q^{24} + 10798406\, p^{34}\, q^{18}$$
$$+ 249708728\, p^{35}\, q^{26} + 1695123171\, p^{35}\, q^{33} + 4618900813\, q^{126}\, p^{49} + 7630058150\, q^{59}\, p^{28} + 41215262\, q^{58}\, p^{17} + 228833141\, q^{59}\, p^{20}$$
$$+ 30488342\, q^{90}\, p^{20} + 10934768356\, q^{59}\, p^{29} + 990532117\, q^{59}\, p^{23} + 15453645318\, q^{59}\, p^{30} + 2450667772\, q^{60}\, p^{25} + 622070504\, q^{59}\, p^{22}$$
$$+ 381957831\, q^{59}\, p^{21} + 7640793\, q^{116}\, p^{27} + 202407\, q^{113}\, p^{21} + 809201\, q^{114}\, p^{23} + 10\, q^{64}\, p^{5} + 4766916264\, q^{52}\, p^{28} + 1701461391\, q^{53}\, p^{25}$$
$$+ 98037603239\, p^{86}\, q^{36} + 2046453958900\, p^{89}\, q^{48} + 8728807299398\, p^{90}\, q^{56} + 148\, p^{38}\, q^{4} + 1093857032929\, p^{88}\, q^{45} + 3230\, p^{35}\, q^{6}$$
$$+ 198732\, p^{18}\, q^{17} + 97175\, p^{15}\, q^{18} + p^{11}\, q + 4\, p^{3}\, q^{3} + 269943083\, p^{105}\, q^{28} + 11838235\, p^{99}\, q^{21} + 27845650080877\, p^{91}\, q^{65}$$
$$+ 19585535503403\, p^{91}\, q^{62} + 20259326893512\, p^{69}\, q^{63} + 16547912770886\, p^{69}\, q^{61} + 18359957671993\, p^{69}\, q^{62} + 5220576430130\, p^{90}\, q^{53}$$
$$+ 11287932303120\, p^{91}\, q^{58} + 15048717913141\, p^{91}\, q^{60} + 46483429960509\, p^{92}\, q^{71} + 6238101279847\, p^{90}\, q^{54} + 113585813153\, p^{131}\, q^{73}$$
$$+ 7984\, q^{133}\, p^{29} + 19515\, q^{133}\, p^{30} + 6457\, q^{132}\, p^{28} + 573997\, p^{68}\, q^{12} + 7142898\, q^{112}\, p^{25} + 65386231106853\, p^{73}\, q^{83}$$
$$+ 53334332767432\, p^{70}\, q^{84} + 33843433561347\, p^{65}\, q^{85} + 13996557407722\, p^{58}\, q^{86} + 16112544904408\, p^{59}\, q^{86}$$
$$+ 29822666093228\, p^{64}\, q^{86} + 20360143554756\, p^{61}\, q^{87} + 30468752147467\, p^{64}\, q^{85} + 82332703098771\, p^{93}\, q^{88} + 2256\, p^{16}\, q^{8} + 24\, p^{12}\, q^{3}$$
$$+ 6\, p^{11}\, q^{2} + 508\, p^{15}\, q^{6} + 201\, p^{14}\, q^{5} + 173167384586\, p^{132}\, q^{80} + 201707964562\, p^{134}\, q^{100} + 79428779425566\, p^{93}\, q^{83}$$
$$+ 16235435413\, q^{97}\, p^{34} + 2268629\, q^{30}\, p^{16} + 956239\, p^{61}\, q^{12} + 2369376838914\, p^{78}\, q^{47} + 457564072186\, p^{77}\, q^{40} + 348771481729\, p^{77}\, q^{39}$$
$$+ 52429\, p^{15}\, q^{16} + 26382\, p^{14}\, q^{15} + 135967\, q^{29}\, p^{11} + 923397994585\, q^{120}\, p^{67} + 445224466848\, p^{40}\, q^{70} + 167974598666\, p^{82}\, q^{37}$$
$$+ 16112544904408\, p^{86}\, q^{59} + 47311\, q^{126}\, p^{26} + 6596\, q^{126}\, p^{24} + 508361101900\, p^{83}\, q^{41} + 46806176755\, p^{81}\, q^{33} + 3001329639\, p^{79}\, q^{26}$$
$$+ 47032536995598\, p^{87}\, q^{69} + 63214103192\, p^{82}\, q^{34} + 50971017295364\, p^{87}\, q^{70} + p^{3}\, q + 2\, p^{2}\, q^{2} + 386946325596\, p^{83}\, q^{40}$$
$$+ 84046447\, p^{75}\, q^{19} + 291580144176\, p^{83}\, q^{39} + 2136410049957\, p^{101}\, q^{124} + p\, q^{2} + 224774\, p^{67}\, q^{11} + 57361934723807\, p^{92}\, q^{74}$$
$$+ 32650895374076\, p^{92}\, q^{67} + 906\, q^{34}\, p^{5} + 3230\, q^{35}\, p^{6} + 80672924915790\, p^{82}\, q^{92} + 39372630853546\, p^{69}\, q^{92} + 1192720\, p^{29}\, q^{15}$$
$$+ 3869958\, q^{83}\, p^{16} + 4082713626013\, p^{119}\, q^{80} + 341093935573\, p^{116}\, q^{56} + 1845115\, q^{82}\, p^{15} + 21363\, q^{25}\, p^{9} + 75\, p^{44}\, q^{4} + 681983\, p^{18}\, q^{21}$$
$$+ p^{2}\, q + 89287623699546\, p^{86}\, q^{81} + 2800656\, p^{79}\, q^{15} + 53664203491557\, p^{100}\, q^{83} + 514682\, q^{27}\, p^{14} + 997937\, q^{28}\, p^{15} + 100196416\, p^{91}\, q^{22}$$
$$+ 10749982562395\, p^{107}\, q^{69} + 8687272100954\, p^{106}\, q^{66} + 23098945865051\, p^{105}\, q^{75} + 1126376671464\, p^{117}\, q^{64} + 215930\, p^{13}\, q^{25}$$
$$+ 4757797\, p^{96}\, q^{19} + 27903443432034\, p^{108}\, q^{93} + 20742545994\, p^{98}\, q^{35} + 1083\, p^{81}\, q^{9} + 8552749574\, q^{44}\, p^{33} + 14243707871\, q^{44}\, p^{35}$$
$$+ 21116941414\, q^{45}\, p^{36} + 4934571447\, q^{44}\, p^{31} + 431892748\, q^{125}\, p^{41} + 633199365\, q^{125}\, p^{42} + 11090297404\, q^{44}\, p^{34} + 6530371376\, q^{44}\, p^{32}$$
$$+ 2989891140\, q^{90}\, p^{28} + 750252313\, q^{89}\, p^{25} + 1262831455\, q^{89}\, p^{26} + 602312406092\, p^{130}\, q^{96} + 35461549786\, p^{39}\, q^{44}$$

$$+ 28591889300\, p^{38}\, q^{44} + 6395\, q^{92}\, p^{12} + 4645\, q^{93}\, p^{12} + 384\, q^{90}\, p^{10} + 30359945178\, p^{95}\, q^{35} + 147088774\, p^{150}\, q^{88}$$
$$+ 66294207773813\, p^{74}\, q^{79} + 15435471476492\, p^{106}\, q^{108} + 6995181121479\, p^{80}\, q^{116} + 7403589443384\, p^{81}\, q^{116}$$
$$+ 24732712923536\, p^{66}\, q^{68} + 64753086328950\, p^{73}\, q^{85} + 44132004593373\, p^{68}\, q^{86} + 15594991\, p^{140}\, q^{50} + 10616679783\, q^{80}\, p^{29}$$
$$+ 15928228098\, q^{80}\, p^{30} + 1202067987\, q^{78}\, p^{24} + 128211651805\, q^{81}\, p^{36} + 23513280273\, q^{80}\, p^{31} + 69260025921\, q^{80}\, p^{34}$$
$$+ 34185311246\, q^{80}\, p^{32} + 48991148548\, q^{80}\, p^{33} + 96657952344\, q^{80}\, p^{35} + 713562794\, q^{78}\, p^{23} + 6955297708\, q^{80}\, p^{28} + 1126579830\, q^{79}\, p^{24}$$
$$+ 3001329639\, q^{79}\, p^{26} + 8894123\, q^{40}\, p^{16} + 2631979\, q^{39}\, p^{14} + 41625837198\, q^{73}\, p^{32} + 126075596060\, q^{135}\, p^{107} + 113585813153\, q^{131}\, p^{73}$$
$$+ p^{133}\, q^{23} + 2121\, p^{164}\, q^{152} + 30979\, p^{163}\, q^{127} + 44444\, p^{162}\, q^{111} + 1293\, p^{150}\, q^{48} + 102\, p^{145}\, q^{37} + 19797\, p^{158}\, q^{78} + 5419\, p^{154}\, q^{60}$$
$$+ 60225854\, p^{20}\, q^{40} + 22862984944\, p^{44}\, q^{37} + 1196398\, p^{50}\, q^{12} + 525526\, p^{49}\, q^{11} + 38414833\, p^{54}\, q^{17} + 281055397519\, p^{60}\, q^{40}$$
$$+ 1093857032929\, p^{83}\, q^{126} + 215791\, q^{46}\, p^{10} + 6528962\, p^{18}\, q^{31} + 1683575965299\, p^{97}\, q^{50} + 34749263645893\, p^{100}\, q^{74}$$
$$+ 18617325086629\, p^{100}\, q^{67} + 32290749953776\, p^{100}\, q^{73} + 53663054004603\, p^{101}\, q^{89} + 39630669873417\, p^{100}\, q^{76}$$
$$+ 42003558458993\, p^{100}\, q^{77} + 49223905890755\, p^{102}\, q^{91} + 46636242964871\, p^{101}\, q^{81} + 120073070\, p^{28}\, q^{29} + 42714154\, p^{23}\, q^{31}$$
$$+ 87623617\, p^{26}\, q^{30} + 184713295358\, q^{86}\, p^{38} + 431892748\, p^{130}\, q^{46} + 20305375946\, p^{140}\, q^{113} + 1440738006\, p^{131}\, q^{51}$$
$$+ 25986029963\, p^{140}\, q^{108} + 26382\, p^{157}\, q^{156} + 2277899\, p^{61}\, q^{13} + 4903382\, p^{62}\, q^{14} + 8600180\, q^{109}\, p^{24} + 3072800\, p^{110}\, q^{23}$$
$$+ 14642910066718\, p^{58}\, q^{75} + 16211745061460\, p^{59}\, q^{74} + 18295175809394\, p^{60}\, q^{74} + 15717489692716\, p^{59}\, q^{73} + 12938008\, q^{72}\, p^{16}$$
$$+ 6415939\, q^{71}\, p^{15} + 2785360\, q^{71}\, p^{14} + 1243085\, q^{70}\, p^{13} + 25028139\, q^{73}\, p^{17} + 278125793508\, q^{84}\, p^{39} + 369816454459\, q^{84}\, p^{40}$$
$$+ 486774892775\, q^{84}\, p^{41} + 4487377793055\, p^{69}\, q^{113} + 15092790706\, q^{81}\, p^{30} + 4747817843\, q^{97}\, p^{31} + 1302007221491\, p^{61}\, q^{47}$$
$$+ 1557724810371\, p^{61}\, q^{48} + 41080438832\, p^{74}\, q^{32} + 28710527379\, p^{74}\, q^{31} + 2543146\, q^{95}\, p^{18} + 24275892\, q^{99}\, p^{22} + 47715694\, q^{99}\, p^{23}$$
$$+ 22759806581\, p^{31}\, q^{60} + 631305017\, p^{43}\, q^{25} + 1256040908\, p^{43}\, q^{27} + 117848061\, p^{42}\, q^{21} + 437882934\, p^{43}\, q^{24} + 896725974\, p^{43}\, q^{26}$$
$$+ 8552749574\, p^{44}\, q^{33} + 3688356884\, p^{44}\, q^{30} + 2725578642\, p^{44}\, q^{29} + 6530371376\, p^{44}\, q^{32} + 4934571447\, p^{44}\, q^{31} + 11090297404\, p^{44}\, q^{34}$$
$$+ 14243707871\, p^{44}\, q^{35} + 21116941414\, p^{45}\, q^{36} + 1602821335\, q^{101}\, p^{30} + 243905945\, q^{100}\, p^{26} + 14227787037\, q^{103}\, p^{36}$$
$$+ 20541013551\, q^{103}\, p^{37} + 29247290502\, q^{103}\, p^{38} + 41099622304\, q^{103}\, p^{39} + 10029004987\, p^{142}\, q^{90} + 1154722114\, p^{145}\, q^{126}$$
$$+ 57361934723807\, p^{74}\, q^{92} + 73628644\, p^{57}\, q^{18} + 11137709\, p^{55}\, q^{15} + 8585396580535\, p^{55}\, q^{71} + 52275587955724\, q^{91}\, p^{72}$$
$$+ 63339082925187\, q^{91}\, p^{75} + 70204344306944\, q^{91}\, p^{77} + 70756696024848\, q^{92}\, p^{78} + 56013132986524\, q^{91}\, p^{73}$$
$$+ 66849256292574\, q^{91}\, p^{76} + 59713828068366\, q^{91}\, p^{74} + 44835345032170\, q^{91}\, p^{70} + 341093935573\, p^{115}\, q^{55} + 165268435\, p^{102}\, q^{26}$$

$$+ 48538103110162\, q^{91} p^{71} + 49688820414\, p^{63} q^{33} + 637702696\, p^{60} q^{22} + 20541013551\, p^{103} q^{37} + 1900322658\, p^{100} q^{30}$$
$$+ 6043387301\, p^{101} q^{33} + 1126376671464\, p^{107} q^{54} + 9472502395\, q^{111} p^{39} + 13463321616\, q^{111} p^{40} + 18887002840\, q^{111} p^{41}$$
$$+ 2528489926\, p^{61} q^{25} + 168748668174\, p^{122} q^{128} + 193365388098\, p^{121} q^{128} + 1500218935683\, p^{113} q^{61} + 7773486730353\, p^{115} q^{79}$$
$$+ 9180115876231\, p^{116} q^{98} + 476922649356\, p^{111} q^{53} + 8561078497670\, p^{114} q^{78} + 288860162665\, p^{110} q^{50} + 10971862479030\, p^{115} q^{87}$$
$$+ 10691688195508\, p^{115} q^{86} + 602312406092\, q^{75} p^{41} + 62634311\, p^{69} q^{18} + 346923785\, p^{71} q^{21} + 465232405048\, q^{75} p^{40}$$
$$+ 5684587583\, p^{106} q^{35} + 3794359419711\, p^{114} q^{69} + 3111903836730\, p^{113} q^{66} + 1515314911674\, p^{112} q^{60} + 4244294643708\, p^{114} q^{70}$$
$$+ 3994830592175\, p^{113} q^{68} + 14641575\, q^{150} p^{73} + 21851731\, q^{150} p^{75} + 5935171\, q^{150} p^{69} + 8106940380565\, p^{67} q^{56}$$
$$+ 13170643644700\, p^{67} q^{60} + 9232555426843\, p^{67} q^{57} + 21309103875826\, p^{67} q^{65} + 24732712923536\, p^{68} q^{66} + 16428456856\, p^{37} q^{42}$$
$$+ 17108683655\, p^{38} q^{41} + 21067837520\, p^{39} q^{41} + 520641300591\, p^{57} q^{44} + 14359703792\, p^{39} q^{39} + 17458710163\, p^{40} q^{39}$$
$$+ 37876602054\, p^{58} q^{33} + 83671133848396\, p^{87} q^{79} + 3158824944475\, p^{60} q^{53} + 19842500\, p^{52} q^{16} + 4265064712\, p^{31} q^{43}$$
$$+ 21279227370\, p^{40} q^{40} + 4259125122576\, p^{79} q^{50} + 966363419015\, p^{78} q^{43} + 6\, q^{106} p^{12} + 126620393468\, q^{134} p^{84}$$
$$+ 199132842875\, p^{70} q^{37} + 2745302142797\, p^{72} q^{48} + 1459855314511\, p^{71} q^{45} + 9621982588\, p^{68} q^{28} + 71743\, p^{53} q^{9}$$
$$+ 3530732729928\, p^{95} q^{122} + 1199339176949\, p^{44} q^{72} + 48339195506\, q^{106} p^{41} + 89212677726\, q^{106} p^{43} + 157721129635\, q^{106} p^{45}$$
$$+ 23632204948\, q^{128} p^{58} + 143522878719\, q^{131} p^{75} + 128047423081\, q^{131} p^{74} + 21840730\, q^{57} p^{16} + 11715786336899\, p^{69} q^{58}$$
$$+ 5548637\, q^{56} p^{14} + 74783701\, q^{58} p^{18} + 224101474\, q^{58} p^{20} + 131362834\, q^{58} p^{19} + 1544751226\, q^{59} p^{24} + 36514\, p^{62} q^{9}$$
$$+ 241052898685\, p^{40} q^{58} + 86250469067540\, p^{87} q^{80} + 150575879\, q^{38} p^{23} + 95354570109\, p^{36} q^{59} + 15170271733\, q^{54} p^{31}$$
$$+ 68618239302915\, p^{85} q^{74} + 41079267331968\, p^{85} q^{67} + 56797399673400\, p^{85} q^{71} + 60798928186227\, p^{85} q^{72}$$
$$+ 44896187035611\, p^{85} q^{68} + 72351767312031\, p^{85} q^{75} + 65548540154206\, p^{90} q^{75} + 3543171\, p^{68} q^{14} + 1604484\, p^{67} q^{13}$$
$$+ 622840408945\, q^{89} p^{43} + 477987774702\, q^{89} p^{42} + 804036926085\, q^{89} p^{44} + 1222562029721\, q^{90} p^{46} + 1640599338095\, q^{89} p^{47}$$
$$+ 1028629822691\, q^{89} p^{45} + 1304547622392\, q^{89} p^{46} + 1637174141\, q^{142} p^{73} + 1114477259\, p^{146} q^{123} + 10204\, p^{115} q^{19} + 66426\, p^{120} q^{23}$$
$$+ 130026246\, p^{147} q^{136} + 357715636\, p^{146} q^{132} + 4475800616\, p^{143} q^{85} + 65190701\, q^{142} p^{58} + 70721330322825\, p^{93} q^{95}$$
$$+ 7348571072\, q^{79} p^{28} + 1859852337\, q^{79} p^{25} + 11180917574\, q^{79} p^{29} + 686104730141\, q^{82} p^{42} + 315703459740\, q^{81} p^{39}$$
$$+ 4159061207644\, q^{81} p^{50} + 417338865325\, q^{81} p^{40} + 546246906475\, q^{81} p^{41} + 48538103110162\, p^{100} q^{80} + 57582971036006\, p^{100} q^{88}$$
$$+ 884579579\, q^{124} p^{42} + 606611516\, q^{124} p^{41} + 409628543\, q^{124} p^{40} + 191450148\, q^{125} p^{39} + 4742485776\, q^{79} p^{27}$$

$$+ 18210482179498\, p^{64} q^{66} + 21309103875826\, p^{65} q^{67} + 14392874531954\, p^{72} q^{107} + 8937\, q^{33} p^{7} + 63785683\, q^{111} p^{28}$$
$$+ 24847317\, q^{110} p^{26} + 12550706010001\, q^{94} p^{60} + 131177\, q^{35} p^{10} + 5601650\, q^{36} p^{16} + 10219\, p^{37} q^{7} + 513659\, p^{53} q^{11} + 5548637\, p^{56} q^{14}$$
$$+ 2634307\, p^{55} q^{13} + 22234810645623\, p^{69} q^{64} + 1194564\, p^{54} q^{12} + 2812\, p^{43} q^{6} + 72509323080804\, p^{94} q^{81} + 7122946063177\, p^{70} q^{54}$$
$$+ 1748984640646\, p^{70} q^{46} + 8585396580535\, p^{71} q^{55} + 9004091314594\, p^{61} q^{61} + 10262480950130\, p^{65} q^{59} + 10740146110241\, p^{89} q^{57}$$
$$+ 27333750549\, p^{84} q^{32} + 32343120830510\, p^{90} q^{66} + 907745784624\, p^{87} q^{44} + 184713295358\, p^{86} q^{38} + 714530835\, q^{100} p^{28}$$
$$+ 165186414\, q^{99} p^{25} + 292982848\, q^{99} p^{26} + 1178313330\, q^{100} p^{29} + 136358245\, p^{77} q^{20} + 41199256651980\, p^{91} q^{69}$$
$$+ 44835345032170\, p^{91} q^{70} + 3394173165413\, q^{117} p^{73} + 3730291338968\, q^{117} p^{74} + 13766809162453\, p^{90} q^{59} + 9588439514944\, p^{55} q^{83}$$
$$+ 34947002834344\, p^{89} q^{106} + 1694810810806\, q^{120} p^{72} + 1352455101940\, q^{120} p^{70} + 71442990\, p^{152} q^{125} + 2590678\, q^{124} p^{30}$$
$$+ 17847933\, q^{125} p^{34} + 8479356499626\, p^{58} q^{64} + 188104367472\, p^{70} q^{128} + 77838092910\, p^{66} q^{129} + 183691094\, p^{37} q^{24}$$
$$+ 14548677\, p^{36} q^{18} + 358742669\, p^{37} q^{26} + 75910809372690\, p^{86} q^{95} + 40607117539629\, p^{74} q^{98} + 54832401318585\, p^{78} q^{97}$$
$$+ 62932810632119\, p^{73} q^{79} + 2764577248340\, q^{100} p^{54} + 2280710421928\, q^{100} p^{53} + 1518258598889\, q^{100} p^{51} + 1867833945510\, q^{100} p^{52}$$
$$+ 3337\, p^{112} q^{17} + 30978647060\, q^{46} p^{37} + 9975788007\, p^{109} q^{38} + 155211\, q^{116} p^{22} + 379476\, q^{116} p^{23} + 12345\, q^{112} p^{18} + 3139099\, p^{94} q^{18}$$
$$+ 728889\, q^{135} p^{37} + 1603115\, p^{93} q^{17} + 5981832899556\, p^{75} q^{52} + 5038050121564\, p^{75} q^{51} + 203932339350\, p^{73} q^{37}$$
$$+ 2887301873663\, p^{75} q^{48} + 1537114401537\, p^{74} q^{45} + 9496061972\, p^{71} q^{28} + 14096109074\, p^{71} q^{29} + 26891541512060\, p^{76} q^{63}$$
$$+ 24180662000405\, p^{76} q^{62} + 21622373041326\, p^{76} q^{61} + 1738922028698\, p^{88} q^{47} + 1531\, p^{51} q^{6} + 18225219894758\, p^{66} q^{99}$$
$$+ 543543758854\, p^{87} q^{42} + 13342227471\, p^{83} q^{30} + 74939774639\, p^{85} q^{35} + 84598256605950\, p^{92} q^{85} + 728889\, p^{135} q^{37}$$
$$+ 8113039825\, p^{82} q^{141} + 11151973017\, p^{81} q^{140} + 4814231434770\, p^{51} q^{83} + 2733248776776\, p^{121} q^{107} + 2006032223117\, p^{121} q^{111}$$
$$+ 4250477600212\, p^{120} q^{102} + 4587354170483\, p^{120} q^{100} + 5038050121564\, p^{120} q^{96} + 2808562522962\, p^{118} q^{73} + 55429778210\, q^{132} p^{70}$$
$$+ 52452216167\, q^{133} p^{72} + 93664069260\, q^{132} p^{74} + 72922131121\, q^{132} p^{72} + 82888501561\, q^{132} p^{73} + 105229182711\, q^{132} p^{75}$$
$$+ 51643070943\, p^{133} q^{123} + 47881232714\, q^{132} p^{69} + 26102\, p^{81} q^{11} + 242872529790\, p^{72} q^{128} + 214373100887\, p^{71} q^{128}$$
$$+ 1221640915312\, p^{56} q^{109} + 1330155615238\, p^{45} q^{84} + 47\, p^{59} q^{5} + 5878352755905\, p^{74} q^{52} + 4957488915009\, p^{74} q^{51}$$
$$+ 203315189416\, p^{72} q^{37} + 2853021975224\, p^{74} q^{48} + 1518307413146\, p^{73} q^{45} + 9585657733\, p^{70} q^{28} + 14186714411\, p^{70} q^{29}$$
$$+ 26208184877823\, p^{75} q^{63} + 23592263117526\, p^{75} q^{62} + 21119868037346\, p^{75} q^{61} + 1028473\, q^{143} p^{48} + 16785073\, p^{68} q^{16}$$
$$+ 63339082925187\, p^{80} q^{96} + 72481061565455\, p^{76} q^{79} + 146074292727\, p^{132} q^{116} + 12665686218\, q^{76} p^{29} + 18776449206\, q^{76} p^{30}$$

$$+ 318826288\, p^{54} q^{21} + 1286078905\, p^{55} q^{24} + 16570960\, q^{41} p^{17} + 6\, p^{169} q^{148} + 27192140\, q^{41} p^{18} + 30224724\, q^{42} p^{18} + 43524351\, q^{41} p^{19}$$
$$+ 68102774\, q^{41} p^{20} + 2158335588648\, p^{47} q^{83} + 10224747206518\, q^{90} p^{57} + 10045929216\, p^{140} q^{80} + 250680002\, p^{133} q^{48}$$
$$+ 8324401719\, p^{143} q^{110} + 13514128370\, p^{140} q^{83} + 14096109074\, p^{142} q^{100} + 91770671564003\, p^{88} q^{84} + 13390860660776\, p^{58} q^{72}$$
$$+ 1674781240118\, p^{123} q^{79} + 42901961413\, p^{118} q^{49} + 1214136642154\, p^{126} q^{105} + 343409201568\, p^{121} q^{62} + 1143627678189\, p^{104} q^{52}$$
$$+ 19225860627203\, p^{95} q^{111} + 16547912770886\, p^{102} q^{110} + 18359957671993\, p^{102} q^{109} + 457564072186\, p^{131} q^{94} + 722998191\, p^{121} q^{39}$$
$$+ 231482050517\, p^{129} q^{74} + 9510196289187\, p^{59} q^{64} + 11763695219450\, p^{61} q^{64} + 14235963321096\, p^{63} q^{64} + 12975938835497\, p^{62} q^{64}$$
$$+ 15535176069933\, p^{64} q^{64} + 16863702851940\, p^{65} q^{64} + 10606485368500\, p^{60} q^{64} + 492639656494\, p^{118} q^{125} + 80672924915790\, p^{92} q^{82}$$
$$+ 8944274880998\, p^{62} q^{60} + 27406054890\, q^{76} p^{31} + 40341655187\, q^{75} p^{32} + 57084575734\, q^{75} p^{33} + 12938008\, p^{72} q^{16}$$
$$+ 27676300732\, p^{65} q^{31} + 173\, p^{36} q^{4} + 2877030882720\, p^{68} q^{49} + 292302808\, p^{24} q^{40} + 104367949\, p^{21} q^{41} + 742304324457\, q^{96} p^{46}$$
$$+ 377892179005\, q^{95} p^{43} + 4434176631779\, q^{95} p^{54} + 493292442225\, q^{95} p^{44} + 637908007960\, q^{95} p^{45} + 202064895\, p^{23} q^{40}$$
$$+ 37387181105765\, p^{93} q^{105} + 2811\, q^{115} p^{18} + 640\, q^{115} p^{17} + 109076094927\, q^{134} p^{82} + 1201040825445\, p^{47} q^{60} + 1434728282656\, p^{48} q^{60}$$
$$+ 17904\, p^{56} q^{8} + 727380063794\, p^{80} q^{42} + 103312068279\, p^{78} q^{35} + 3425989362275\, p^{81} q^{49} + 31564369385512\, p^{82} q^{64}$$
$$+ 18776449206\, p^{76} q^{30} + 9880202989483\, p^{81} q^{55} + 1867854247705\, p^{80} q^{46} + 5446\, q^{108} p^{16} + 1995\, q^{107} p^{15} + 18326886983665\, p^{106} q^{106}$$
$$+ 64540688933\, p^{42} q^{44} + 92709558372\, p^{44} q^{44} + 130659857512\, p^{45} q^{45} + 43630681340\, p^{40} q^{44} + 77630042079\, p^{43} q^{44}$$
$$+ 53266141859\, p^{41} q^{44} + 36851334793\, p^{40} q^{43} + 208417\, p^{44} q^{10} + 2335867\, p^{47} q^{13} + 56831336\, p^{50} q^{18} + 762497307004\, p^{57} q^{46}$$
$$+ 35\, p^{31} q^{3} + 6181503965\, p^{64} q^{27} + 38702130894\, p^{65} q^{32} + 109925455\, p^{31} q^{26} + 27939\, p^{27} q^{9} + 118235\, p^{28} q^{11} + 693\, p^{57} q^{6}$$
$$+ 41807\, p^{71} q^{10} + 156905685\, p^{22} q^{41} + 584842032\, p^{26} q^{40} + 1689120909\, p^{30} q^{39} + 172983873\, q^{107} p^{28} + 3115600844\, q^{109} p^{35}$$
$$+ 43618235379\, q^{110} p^{43} + 31947605091\, q^{110} p^{42} + 4664151958\, q^{109} p^{36} + 20160547260\, q^{109} p^{40} + 296301811\, q^{107} p^{29}$$
$$+ 19113920595562\, p^{61} q^{72} + 12156452494070\, p^{57} q^{73} + 6924201862863\, p^{53} q^{74} + 63245140676\, q^{54} p^{36} + 69405576840\, q^{55} p^{36}$$
$$+ 48538200685\, q^{54} p^{35} + 27733310465\, q^{54} p^{33} + 36881117792\, q^{54} p^{34} + 20628744687\, q^{54} p^{32} + 25289894907020\, p^{109} q^{92}$$
$$+ 42879296765\, p^{60} q^{33} + 3757718761574\, p^{62} q^{53} + 20956918\, p^{54} q^{16} + 3342097918216\, p^{110} q^{63} + 1164902\, p^{18} q^{23} + 52365704\, p^{32} q^{23}$$
$$+ 6418694601\, p^{67} q^{27} + 41281903003\, p^{68} q^{32} + 31214862\, q^{147} p^{67} + 349606289740\, p^{71} q^{39} + 2257479871777\, p^{72} q^{47}$$
$$+ 453574978165\, p^{71} q^{40} + 3973374700482\, p^{72} q^{50} + 938125332759\, p^{71} q^{43} + 742765559469\, p^{71} q^{42} + 90304557\, p^{147} q^{72}$$
$$+ 17959215\, p^{97} q^{21} + 407678381\, p^{103} q^{28} + 27955724624598\, p^{105} q^{78} + 756156819874\, p^{78} q^{42} + 108253693867\, p^{76} q^{35}$$

$$+ 3518295614610\, p^{79} q^{49} + 31547570330107\, p^{80} q^{64} + 19778929868\, p^{74} q^{30} + 9985880961899\, p^{79} q^{55} + 1916558646703\, p^{78} q^{46}$$
$$+ 89820\, q^{65} p^{10} + 29172\, q^{64} p^{9} + 684644\, q^{66} p^{12} + 6307890619\, p^{98} q^{32} + 382363629\, p^{94} q^{25} + 7675002266519\, p^{106} q^{65}$$
$$+ 5108636696674\, p^{106} q^{62} + 24211019164287\, p^{108} q^{82} + 25950726942977\, p^{108} q^{84} + 2619738530546\, p^{105} q^{57}$$
$$+ 25127105406724\, p^{108} q^{83} + 19381972673218\, p^{109} q^{101} + 48538200685\, q^{136} p^{117} + 39814839910\, q^{136} p^{119} + 27360022145\, q^{137} p^{120}$$
$$+ 57877207755\, q^{136} p^{115} + 44084131212\, q^{136} p^{118} + 77163717147\, q^{136} p^{111} + 53147401549\, q^{136} p^{116} + 72379963098\, q^{136} p^{112}$$
$$+ 184581045130\, p^{66} q^{126} + 21455546175566\, q^{105} p^{74} + 15157641361129\, q^{105} p^{70} + 67641867592480\, p^{77} q^{92} + 1757620259\, p^{29} q^{41}$$
$$+ 4480043535\, p^{33} q^{40} + 9489397265\, p^{37} q^{39} + 22\, q^{108} p^{13} + 2328\, p^{27} q^{6} + 761\, p^{26} q^{5} + 6424840137\, p^{124} q^{48} + 18359957671993\, p^{62} q^{69}$$
$$+ 8241598429374\, p^{55} q^{70} + 31312194509456\, p^{107} q^{92} + 59953069\, p^{144} q^{62} + 11137709\, q^{55} p^{15} + 513659\, q^{53} p^{11} + 2646484\, q^{54} p^{13}$$
$$+ 201828\, p^{53} q^{10} + 78900231036\, p^{68} q^{34} + 557016247024\, p^{69} q^{41} + 6483333992714\, p^{68} q^{54} + 1627783734482\, p^{68} q^{46}$$
$$+ 7872469963888\, p^{69} q^{55} + 67489968350\, q^{63} p^{34} + 49688820414\, q^{63} p^{33} + 90647053483\, q^{63} p^{35} + 166161172237\, q^{64} p^{37}$$
$$+ 206321840699\, q^{63} p^{38} + 120452381694\, q^{63} p^{36} + 158423505248\, q^{63} p^{37} + 17664958\, p^{67} q^{16} + 349173700\, q^{122} p^{38}$$
$$+ 2805472907079\, p^{48} q^{73} + 10259671325275\, p^{56} q^{72} + 11756124271147\, p^{57} q^{72} + 52788459719330\, p^{101} q^{86} + 2512259\, p^{113} q^{158}$$
$$+ 14557999680888\, p^{59} q^{71} + 115890995\, p^{90} q^{22} + 12175951358024\, p^{106} q^{69} + 9820292954950\, p^{105} q^{66} + 841244236\, p^{123} q^{41}$$
$$+ 1145549558925\, p^{44} q^{70} + 21634\, p^{12} q^{17} + 132276002794\, q^{54} p^{39} + 12975938835497\, p^{64} q^{62} + 10818205290376\, p^{61} q^{63}$$
$$+ 11918766852714\, p^{63} q^{62} + 12724877430490\, p^{65} q^{61} + 14235963321096\, p^{64} q^{63} + 13060684625148\, p^{63} q^{63}$$
$$+ 15435471476492\, p^{65} q^{63} + 14052803888787\, p^{65} q^{62} + 11918766852714\, p^{62} q^{63} + 8479356499626\, p^{64} q^{58} + 8767117904435\, p^{63} q^{59}$$
$$+ 315710418\, q^{113} p^{32} + 2077136386946\, p^{97} q^{51} + 742304324457\, p^{96} q^{46} + 15694469069019\, p^{98} q^{64} + 4470009340943\, p^{97} q^{55}$$
$$+ 312821344\, p^{87} q^{23} + 10045929216\, p^{91} q^{31} + 10102837\, p^{82} q^{17} + 2989891140\, p^{90} q^{28} + 23560303267072\, p^{63} q^{72}$$
$$+ 55490619431699\, p^{94} q^{75} + 33314837\, p^{78} q^{18} + 196458424\, p^{80} q^{21} + 324748670\, p^{81} q^{22} + 80519\, p^{66} q^{10} + 71105494490594\, p^{95} q^{82}$$
$$+ 12809427040347\, p^{96} q^{114} + 12310364437380\, p^{101} q^{113} + 8\, q^{41} p^{3} + 256\, p^{161} q^{80} + 196\, p^{167} q^{137} + 222\, p^{167} q^{144} + 56\, p^{159} q^{68}$$
$$+ 7930810\, p^{103} q^{156} + 10812938\, p^{118} q^{156} + 82356739213330\, p^{83} q^{92} + 7197298638715\, p^{59} q^{99} + 3327327048320\, p^{55} q^{100}$$
$$+ 5222928760084\, p^{57} q^{99} + 6150965557923\, p^{58} q^{99} + 2753911649\, p^{129} q^{141} + 6104488947\, p^{120} q^{142} + 3688356884\, p^{127} q^{141}$$
$$+ 351533161\, q^{101} p^{27} + 53168739393191\, p^{96} q^{99} + 443120632\, p^{146} q^{78} + 1136715\, p^{108} q^{21} + 6652549148356\, p^{111} q^{112}$$
$$+ 56767926363609\, p^{94} q^{99} + 57267368720007\, p^{90} q^{100} + 58231530277900\, p^{93} q^{99} + 47032536995598\, p^{84} q^{102}$$

$$+ 52965104756244\, p^{91} q^{101} + 52240870406594\, p^{92} q^{101} + 5956185\, q^{149} p^{66} + 463041852723\, q^{123} p^{67} + 56063362288694\, p^{96} q^{98}$$
$$+ 58129839410758\, p^{95} q^{98} + 12\, p^{39} q^{3} + 53459928493587\, p^{94} q^{100} + 51916216721308\, p^{95} q^{100} + 41099622304\, q^{132} p^{68}$$
$$+ 35051245679\, q^{132} p^{67} + 116597630\, p^{27} q^{30} + 69489704234404\, p^{75} q^{79} + 372296738\, p^{58} q^{21} + 1544751226\, p^{59} q^{24}$$
$$+ 33099815481\, p^{61} q^{32} + 5476744778\, p^{60} q^{27} + 23909951109\, p^{61} q^{31} + 405894003467\, p^{62} q^{41} + 61203418312\, p^{61} q^{34}$$
$$+ 81838072374\, p^{61} q^{35} + 288860162665\, p^{121} q^{61} + 1927288370126\, p^{125} q^{94} + 5456629732\, p^{115} q^{40} + 3784210768\, p^{115} q^{39}$$
$$+ 1080165018628\, p^{123} q^{74} + 767867818138\, p^{122} q^{69} + 805315850\, p^{113} q^{34} + 1928693326820\, p^{125} q^{95} + 869955616752\, p^{122} q^{70}$$
$$+ 1558726898688\, p^{125} q^{104} + 54272094631\, p^{43} q^{42} + 142228095952\, p^{128} q^{68} + 53250665052\, p^{126} q^{59} + 190352899828\, p^{132} q^{113}$$
$$+ 43630681340\, p^{44} q^{40} + 18437136154913\, p^{60} q^{86} + 6167\, q^{116} p^{19} + 30909218967\, p^{40} q^{42} + 31211100395\, p^{41} q^{41}$$
$$+ 37565455649\, p^{42} q^{41} + 36851334793\, p^{43} q^{40} + 652\, q^{42} p^{5} + 157254198\, p^{75} q^{20} + 5456443739258\, p^{85} q^{52} + 327293\, q^{21} p^{16}$$
$$+ 2389094002859\, p^{54} q^{56} + 1859794949826\, p^{53} q^{55} + 1672\, p^{72} q^{8} + 13727358270\, p^{129} q^{57} + 4450328256\, p^{127} q^{50}$$
$$+ 5220576430130\, q^{118} p^{81} + 53353528\, q^{153} p^{99} + 416433900\, p^{25} q^{40} + 6370600411\, p^{66} q^{27} + 40605240882\, p^{67} q^{32}$$
$$+ 276137620446\, p^{115} q^{54} + 3813\, p^{14} q^{10} + 3090\, p^{12} q^{11} + 2064\, p^{10} q^{12} + 1085\, p^{8} q^{13} + 164066421063\, p^{69} q^{128} + 6652549148356\, p^{59} q^{60}$$
$$+ 37386978791358\, p^{66} q^{85} + 41079267331968\, p^{67} q^{85} + 49365026881989\, p^{69} q^{84} + 27279022454482\, p^{63} q^{85} + 1745648087\, q^{128} p^{48}$$
$$+ 1271289919\, q^{128} p^{47} + 7382696022516\, p^{60} q^{60} + 5840187995184\, p^{57} q^{61} + 1932001251847\, p^{48} q^{64} + 2733248776776\, p^{50} q^{64}$$
$$+ 3765192085038\, p^{52} q^{64} + 3218445893174\, p^{51} q^{64} + 4376848074055\, p^{53} q^{64} + 5805365843531\, p^{55} q^{64} + 5056207948568\, p^{54} q^{64}$$
$$+ 6233219128382\, p^{55} q^{65} + 2305803396501\, p^{49} q^{64} + 7185949839027\, p^{62} q^{58} + 5385537254203\, p^{58} q^{59} + 6002251199904\, p^{59} q^{59}$$
$$+ 5219617\, p^{113} q^{25} + 8146431\, p^{19} q^{30} + 337\, p^{13} q^{6} + 63\, p^{12} q^{4} + 137\, p^{12} q^{5} + 627\, p^{13} q^{7} + 1792\, p^{13} q^{9} + 10863234017290\, q^{94} p^{59}$$
$$+ 880262855\, p^{56} q^{23} + 2785360\, q^{157} p^{100} + 303403390\, q^{130} p^{45} + 36328438\, q^{127} p^{37} + 214085836\, q^{129} p^{43} + 28016441745\, q^{134} p^{70}$$
$$+ 32408058430\, q^{134} p^{71} + 104369866247\, q^{54} p^{38} + 89765555384\, q^{55} p^{37} + 4037491235\, p^{63} q^{26} + 1063767720\, p^{62} q^{23}$$
$$+ 13275664336\, p^{64} q^{29} + 780\, p^{39} q^{5} + 19023593914\, p^{64} q^{30} + 232448199\, p^{60} q^{20} + 49686874754286\, p^{69} q^{83} + 206402\, q^{83} p^{13}$$
$$+ 44444\, p^{60} q^{9} + 1320079878\, q^{109} p^{33} + 2046350827\, q^{109} p^{34} + 835321419\, q^{109} p^{32} + 16537621352\, q^{110} p^{40} + 23127157080\, q^{110} p^{41}$$
$$+ 375\, q^{70} p^{7} + 1328\, q^{73} p^{8} + 63771183185\, q^{132} p^{71} + 5502813\, q^{99} p^{20} + 1281512\, q^{98} p^{18} + 57312436451\, q^{53} p^{36} + 20445536721\, p^{42} q^{38}$$
$$+ 26671204430510\, p^{63} q^{86} + 23718721245876\, p^{62} q^{86} + 45453893220110\, p^{68} q^{84} + 20972726969830\, p^{61} q^{86} + 217353242\, p^{36} q^{25}$$
$$+ 22650714586\, q^{100} p^{36} + 13412604787\, q^{101} p^{35} + 83320630493929\, p^{89} q^{80} + 39339\, p^{30} q^{9} + 175632\, p^{31} q^{11} + 8231\, q^{63} p^{8}$$

$$+ 272345\, q^{65}\, p^{11} + 99557\, q^{64}\, p^{10} + 9415\, q^{62}\, p^{8} + 4627613\, q^{150}\, p^{68} + 3572106\, q^{150}\, p^{67} + 39589342357\, q^{84}\, p^{33} + 56534991983\, q^{84}\, p^{34}$$
$$+ 79659873176\, q^{84}\, p^{35} + 2658542223391\, p^{116}\, q^{69} + 2190475366904\, p^{115}\, q^{66} + 1060717472447\, p^{114}\, q^{60} + 2982559350439\, p^{116}\, q^{70}$$
$$+ 2828881971321\, p^{115}\, q^{68} + 5311848088272\, p^{57}\, q^{60} + 5961333663104\, p^{58}\, q^{60} + 6901982041926\, p^{83}\, q^{117} + 6625585029614\, p^{64}\, q^{56}$$
$$+ 14590738\, p^{114}\, q^{27} + 81621633409\, q^{54}\, p^{37} + 44084131212\, q^{53}\, p^{35} + 92652736118034\, p^{85}\, q^{83} + 91235908215747\, p^{82}\, q^{84}$$
$$+ 79253050045577\, p^{77}\, q^{85} + 75221539929549\, p^{76}\, q^{86} + 62903596021970\, p^{73}\, q^{87} + 1102027939525\, p^{47}\, q^{59} + 19\, q^{79}\, p^{7}$$
$$+ 728228321386\, p^{61}\, q^{44} + 1328\, p^{73}\, q^{8} + 224336764714\, p^{116}\, q^{54} + 125280545\, p^{56}\, q^{19} + 582780958\, p^{57}\, q^{22} + 32175553308\, p^{113}\, q^{44}$$
$$+ 1085\, p^{13}\, q^{8} + 41625837198\, p^{73}\, q^{32} + 29167236794\, p^{73}\, q^{31} + 13450812\, p^{23}\, q^{26} + 86\, p^{14}\, q^{4} + 1702184250892\, p^{49}\, q^{60}$$
$$+ 45269754944\, p^{61}\, q^{33} + 4066080524616\, p^{63}\, q^{53} + 21362391\, p^{55}\, q^{16} + 87122236704723\, p^{80}\, q^{86} + 781561387801\, p^{62}\, q^{44}$$
$$+ 128625245\, p^{57}\, q^{19} + 603679248\, p^{58}\, q^{22} + 22515918048844\, p^{108}\, q^{100} + 699974566814\, q^{94}\, p^{45} + 8788276452382\, p^{100}\, q^{61}$$
$$+ 11553232438905\, p^{100}\, q^{63} + 78642312687589\, p^{92}\, q^{81} + 85245346179760\, p^{92}\, q^{87} + 73652038423232\, p^{92}\, q^{79}$$
$$+ 85125413915410\, p^{92}\, q^{86} + 5434648101\, q^{99}\, p^{32} + 143961901652\, q^{85}\, p^{37} + 9376720\, q^{88}\, p^{18} + 1450741279\, q^{92}\, p^{27} + 510227054\, q^{92}\, p^{25}$$
$$+ 33618991455619\, p^{97}\, q^{105} + 1221640915312\, p^{115}\, q^{62} + 7206101084348\, p^{117}\, q^{84} + 617853594926\, p^{114}\, q^{57} + 6901982041926\, p^{117}\, q^{83}$$
$$+ 6117732985606\, p^{118}\, q^{101} + 6578023994738\, p^{117}\, q^{82} + 9691\, p^{136}\, q^{164} + 21069\, p^{139}\, q^{163} + 26102\, p^{160}\, q^{90} + 38693631\, q^{40}\, p^{19}$$
$$+ 9824180\, q^{41}\, p^{16} + 1268377992\, p^{29}\, q^{39} + 941670650\, p^{28}\, q^{39} + 104433195\, p^{86}\, q^{21} + 13341539605615\, p^{90}\, q^{114}$$
$$+ 75037305560650\, p^{76}\, q^{81} + 1678304235\, p^{62}\, q^{24} + 134870781\, p^{60}\, q^{19} + 21906564\, p^{58}\, q^{16} + q^{14}\, p + 13237796172807\, p^{94}\, q^{114}$$
$$+ 11517151386779\, p^{90}\, q^{115} + 1695123171\, p^{138}\, q^{136} + 2650068794\, p^{137}\, q^{135} + 23560303267072\, p^{72}\, q^{63} + 21279514499975\, p^{72}\, q^{62}$$
$$+ 19113920595562\, p^{72}\, q^{61} + 25980597\, q^{91}\, p^{20} + 12394419\, q^{91}\, p^{19} + 21983387\, q^{92}\, p^{20} + 3672061862016\, q^{105}\, p^{59}$$
$$+ 5015000590415\, q^{105}\, p^{61} + 6680297295266\, q^{105}\, p^{63} + 5805795711807\, q^{105}\, p^{62} + 7640491491253\, q^{105}\, p^{64} + 8687272100954\, q^{105}\, p^{65}$$
$$+ 825897247\, q^{96}\, p^{27} + 376905101351\, p^{42}\, q^{58} + 601824427897\, p^{130}\, q^{97} + 393430900284\, p^{131}\, q^{105} + 94572422762\, p^{126}\, q^{62}$$
$$+ 586362655003\, p^{130}\, q^{93} + 242872529790\, p^{128}\, q^{72} + 14850579579\, p^{124}\, q^{51} + 575489703869\, p^{130}\, q^{92} + 305157388\, p^{25}\, q^{38}$$
$$+ 183691094\, p^{24}\, q^{37} + 2366249710846\, p^{109}\, q^{121} + 3107827307\, p^{38}\, q^{33} + 4906976\, p^{35}\, q^{16} + 4277910727448\, p^{94}\, q^{121} + 2594963\, p^{51}\, q^{13}$$
$$+ 68063022\, p^{54}\, q^{18} + 7094369378\, p^{94}\, q^{31} + 2078838635\, p^{93}\, q^{28} + 10566860\, p^{52}\, q^{15} + 95354570109\, p^{59}\, q^{36} + 5396489\, p^{52}\, q^{14}$$
$$+ 15412153056385\, p^{58}\, q^{79} + 218120\, p^{48}\, q^{10} + 4998903090\, p^{27}\, q^{58} + 7248495508\, p^{28}\, q^{58} + 21553538691\, p^{31}\, q^{59} + 10357686978\, p^{29}\, q^{58}$$
$$+ 14597448020\, p^{30}\, q^{58} + 4426618625383\, p^{70}\, q^{51} + 143913368587\, p^{68}\, q^{36} + 5220931325149\, p^{70}\, q^{52} + 37527312517\, p^{125}\, q^{56}$$

$$+ 166209726082\, p^{131} q^{117} + 119232246270\, p^{127} q^{65} + 162994941673\, p^{127} q^{67} + 77374\, p^{40} q^{9} + 29585\, p^{39} q^{8} + 333695\, p^{103} q^{18} + q^{15} p$$
$$+ 158474038390\, p^{132} q^{79} + 395814183\, p^{61} q^{21} + 4262685092007\, p^{59} q^{56} + 8582136209\, q^{124} p^{49} + 6424840137\, q^{124} p^{48}$$
$$+ 73405814\, p^{149} q^{78} + 1741055644\, p^{146} q^{91} + 74374432451\, p^{78} q^{34} + 575489703869\, p^{79} q^{41} + 3651976043\, p^{75} q^{26}$$
$$+ 54507458604\, p^{77} q^{33} + 22538556352576\, p^{61} q^{79} + 160751\, p^{58} q^{10} + 7872469963888\, p^{55} q^{69} + 133162194351\, p^{111} q^{134}$$
$$+ 228833141\, p^{151} q^{112} + 1189232\, q^{37} p^{13} + 3756623\, q^{37} p^{15} + 145042984\, q^{142} p^{61} + 7151886\, q^{38} p^{16} + 9337\, q^{34} p^{7} + 3116\, q^{33} p^{6}$$
$$+ 67268\, p^{95} q^{160} + 82059\, p^{49} q^{9} + 28624\, p^{48} q^{8} + 59941842\, q^{51} p^{18} + 235881742432\, p^{66} q^{38} + 41390850\, p^{59} q^{17} + 180046414278\, p^{66} q^{37}$$
$$+ 2396685947194\, p^{68} q^{48} + 1272303852700\, p^{67} q^{45} + 9129668726\, p^{64} q^{28} + 2812\, q^{43} p^{6} + 698\, q^{41} p^{5} + 47\, q^{22} p^{3} + 47\, q^{23} p^{3}$$
$$+ 9787021682048\, p^{57} q^{68} + 2497878138729\, p^{48} q^{69} + 571278009463\, p^{41} q^{70} + 619868932700\, p^{55} q^{46} + 27453067603384\, p^{71} q^{100}$$
$$+ 4587751777698\, p^{89} q^{52} + 437186\, q^{156} p^{81} + 4867\, p^{55} q^{7} + 82533102689305\, p^{78} q^{84} + 16552467948\, p^{136} q^{126}$$
$$+ 5053036026076\, p^{87} q^{52} + 1175011809238\, p^{44} q^{71} + 196469\, p^{42} q^{10} + 317438991748\, p^{67} q^{39} + 1982390699610\, p^{68} q^{47}$$
$$+ 408815738549\, p^{67} q^{40} + 3429779060308\, p^{68} q^{50} + 828179734042\, p^{67} q^{43} + 660128921947\, p^{67} q^{42} + 4061136449765\, p^{68} q^{51}$$
$$+ 136051122073\, p^{66} q^{36} + 4777005620682\, p^{68} q^{52} + 73333108780149\, p^{77} q^{78} + 186958281\, p^{72} q^{20} + 5902008106310\, p^{82} q^{52}$$
$$+ 4924501965903\, p^{82} q^{51} + 321660\, p^{63} q^{11} + 24531755251600\, p^{98} q^{108} + 33108\, p^{154} q^{158} + 1492436821263\, p^{126} q^{99}$$
$$+ 22305654\, p^{108} q^{25} + 408222161\, p^{112} q^{32} + 13930688\, p^{24} q^{25} + 1108564582\, p^{94} q^{27} + 369986921642\, p^{102} q^{46} + 24396616903\, p^{108} q^{40}$$
$$+ 17330528971\, p^{108} q^{39} + 3778839528\, p^{106} q^{34} + 9626083454292\, p^{116} q^{96} + 1054836448162\, p^{103} q^{51} + 17326863\, p^{21} q^{30}$$
$$+ 144344152\, q^{122} p^{36} + 226647073\, q^{122} p^{37} + 1433\, p^{80} q^{9} + 55689160147\, p^{118} q^{50} + 171689867552\, p^{120} q^{57} + 91301952774\, p^{119} q^{53}$$
$$+ 6083039942\, p^{116} q^{41} + 1901235709\, p^{113} q^{36} + 1248585653\, p^{113} q^{35} + 145175712833\, p^{77} q^{36} + 1005752408247\, p^{47} q^{58}$$
$$+ 50114422377014\, p^{92} q^{72} + 35950700908688\, p^{92} q^{68} + 596698328\, p^{71} q^{22} + 2550159153\, p^{72} q^{25} + 475005\, p^{56} q^{11} + 5347135\, p^{59} q^{14}$$
$$+ 2512259\, p^{58} q^{13} + 15305989783\, p^{112} q^{41} + 337\, q^{13} p^{6} + 272345\, p^{65} q^{11} + 98\, p^{42} q^{4} + 3281597602175\, q^{121} p^{83}$$
$$+ 3869698880739\, q^{121} p^{87} + 233578406600\, p^{131} q^{80} + 266886658381\, p^{133} q^{100} + 101732673686\, p^{66} q^{35} + 1030566147895\, p^{67} q^{44}$$
$$+ 5582814365505\, p^{68} q^{53} + 1270770\, p^{19} q^{22} + 230112\, p^{14} q^{23} + 61433163572259\, p^{72} q^{82} + 4618900813\, p^{126} q^{49} + 2915\, p^{31} q^{6}$$
$$+ 26700263787\, q^{45} p^{37} + 715975140\, p^{44} q^{25} + 1434828496\, p^{44} q^{27} + 132236435\, p^{43} q^{21} + 494689897\, p^{44} q^{24} + 1020761120\, p^{44} q^{26}$$
$$+ 9887087171\, p^{45} q^{33} + 4227431667\, p^{45} q^{30} + 3114353611\, p^{45} q^{29} + 7528430083\, p^{45} q^{32} + 5672544576\, p^{45} q^{31} + 12854709217\, p^{45} q^{34}$$
$$+ 16552467948\, p^{45} q^{35} + 24442091831\, p^{46} q^{36} + 211938\, p^{51} q^{10} + 75241201170\, p^{66} q^{34} + 521761159483\, p^{67} q^{41}$$

$$+ 277550656954\, p^{41}\, q^{57} + 202368242865\, p^{40}\, q^{56} + 38923365570\, q^{46}\, p^{38} + 496850195154\, p^{128}\, q^{79} + 318528\, p^{37}\, q^{11} + 687097\, p^{38}\, q^{12}$$
$$+ 152035\, p^{37}\, q^{10} + 81876\, p^{42}\, q^{9} + 30717\, p^{41}\, q^{8} + 1429920\, p^{39}\, q^{13} + 6553178\, q^{79}\, p^{16} + 2280710421928\, q^{118}\, p^{71} + 27186371\, q^{80}\, p^{18}$$
$$+ 492592357719\, q^{117}\, p^{59} + 588995481923\, q^{117}\, p^{60} + 42183254\, q^{108}\, p^{26} + 11358189\, q^{108}\, p^{24} + 61042094\, q^{128}\, p^{39} + 94412026\, q^{128}\, p^{40}$$
$$+ 143386717\, q^{128}\, p^{41} + 317438991748\, q^{67}\, p^{39} + 3617\, p^{117}\, q^{19} + 4159061207644\, p^{81}\, q^{50} + 932770718532\, p^{80}\, q^{43} + 14056473\, p^{152}\, q^{138}$$
$$+ 42077356455\, p^{138}\, q^{88} + 21553538691\, p^{140}\, q^{112} + 3197500474\, p^{141}\, q^{128} + 7904131798994\, p^{54}\, q^{73} + 4957488915009\, p^{51}\, q^{74}$$
$$+ 6762579814937\, p^{53}\, q^{73} + 5748634938376\, p^{52}\, q^{73} + 4854550762768\, p^{51}\, q^{73} + 1272303852700\, q^{67}\, p^{45} + 70204344306944\, p^{91}\, q^{77}$$
$$+ 70756696024848\, p^{92}\, q^{78} + 3629457211112\, p^{111}\, q^{117} + 192803317\, p^{144}\, q^{67} + 243905945\, p^{145}\, q^{71} + 47283295\, p^{141}\, q^{55} + 728\, p^{165}\, q^{154}$$
$$+ 337\, p^{165}\, q^{158} + 713562794\, p^{93}\, q^{148} + 665765007\, p^{92}\, q^{148} + 23909951109\, p^{110}\, q^{140} + 965299\, p^{157}\, q^{91} + 956239\, p^{159}\, q^{110}$$
$$+ 6406\, p^{158}\, q^{159} + 1048741\, p^{159}\, q^{112} + 496850195154\, p^{79}\, q^{128} + 134457806\, q^{103}\, p^{26} + 20101587\, q^{103}\, p^{23} + 39259395\, q^{103}\, p^{24}$$
$$+ 59201637\, q^{104}\, p^{25} + 649373163\, q^{108}\, p^{31} + 37441253140788\, p^{69}\, q^{93} + 23551794592\, p^{137}\, q^{77} + 20928233476\, p^{137}\, q^{76}$$
$$+ 53996766\, p^{126}\, q^{37} + 1528\, p^{161}\, q^{85} + 3037\, p^{165}\, q^{130} + 2412\, p^{162}\, q^{93} + 19\, p^{152}\, q^{47} + 32650895374076\, p^{67}\, q^{92} + 577\, q^{160}\, p^{77}$$
$$+ 19967085\, q^{143}\, p^{56} + 492592357719\, p^{117}\, q^{59} + 1197719803096\, p^{123}\, q^{113} + 5502813\, p^{99}\, q^{20} + 5005846903\, p^{35}\, q^{38}$$
$$+ 232692990\, p^{150}\, q^{122} + 6434767940\, p^{144}\, q^{103} + 3512242403\, p^{141}\, q^{75} + 4725530261\, p^{142}\, q^{81} + 1006714520\, p^{146}\, q^{124}$$
$$+ 2139042917\, p^{140}\, q^{69} + 23062\, p^{118}\, q^{21} + 308178\, p^{124}\, q^{27} + 19381972673218\, p^{62}\, q^{70} + 7\, q^{42}\, p^{3} + 40425\, q^{61}\, p^{9} + 119844\, q^{62}\, p^{10}$$
$$+ 44444\, q^{60}\, p^{9} + 236\, q^{51}\, p^{5} + 1930187136\, p^{105}\, q^{32} + 112228426\, p^{101}\, q^{25} + 16309065776699\, p^{79}\, q^{110} + 48594788770\, q^{94}\, p^{36}$$
$$+ 1412242311\, q^{88}\, p^{26} + 31632011767502\, p^{64}\, q^{81} + 217007542\, q^{106}\, p^{28} + 47029259\, q^{105}\, p^{25} + 86830155\, q^{105}\, p^{26}$$
$$+ 44132004593373\, p^{103}\, q^{85} + 1007714748228\, p^{55}\, q^{109} + 1537138073\, p^{117}\, q^{38} + 31564369385512\, p^{89}\, q^{107} + 728889\, q^{134}\, p^{36}$$
$$+ 5877\, p^{27}\, q^{7} + 14846\, p^{28}\, q^{8} + 285197\, p^{30}\, q^{12} + 71311\, p^{29}\, q^{10} + 5017009\, p^{32}\, q^{17} + 30950726\, p^{33}\, q^{21} + 17589089\, p^{32}\, q^{20}$$
$$+ 11813854\, p^{32}\, q^{19} + 44742019\, p^{33}\, q^{22} + 998952\, p^{31}\, q^{14} + 708180894109\, p^{81}\, q^{42} + 100178825536\, p^{79}\, q^{35} + 3356200555899\, p^{82}\, q^{49}$$
$$+ 31345592068736\, p^{83}\, q^{64} + 18157223788\, p^{77}\, q^{30} + 9756811674198\, p^{82}\, q^{55} + 1830553282795\, p^{81}\, q^{46} + 24663829582873\, p^{94}\, q^{109}$$
$$+ 6370460641\, p^{70}\, q^{27} + 42108481524\, p^{71}\, q^{32} + 4039511\, p^{105}\, q^{157} + 9505522855\, p^{137}\, q^{128} + 1948793474467\, q^{117}\, p^{68}$$
$$+ 2202222153830\, q^{117}\, p^{69} + 211569812\, q^{151}\, p^{115} + 72351767312031\, p^{86}\, q^{96} + 61858767765961\, p^{81}\, q^{97} + 59713828068366\, p^{80}\, q^{97}$$
$$+ 85390535499\, q^{95}\, p^{38} + 3041000996131\, q^{95}\, p^{52} + 70758151521\, q^{125}\, p^{59} + 128047423081\, p^{131}\, q^{74} + 64958342733\, q^{126}\, p^{60}$$
$$+ 30698597\, p^{85}\, q^{19} + 553136889\, p^{25}\, q^{42} + 2645688670\, p^{31}\, q^{40} + 1296039080\, p^{28}\, q^{41} + 1702184250892\, p^{60}\, q^{49} + 11478226999\, p^{40}\, q^{37}$$

$$+ 4788906773\, p^{34}\, q^{39} + 481529500\, p^{41}\, q^{25} + 293385\, p^{36}\, q^{11} + 630419\, p^{37}\, q^{12} + 141712\, p^{36}\, q^{10} + 13321175\, p^{39}\, q^{17} + 91838679\, p^{40}\, q^{21}$$
$$+ 2387812\, p^{38}\, q^{14} + 60225854\, p^{40}\, q^{20} + 38693631\, p^{40}\, q^{19} + 156905685\, p^{41}\, q^{22} + 231736736\, p^{41}\, q^{23} + 944062880\, p^{41}\, q^{27}$$
$$+ 1505035186\, p^{42}\, q^{28} + 1308208\, p^{38}\, q^{13} + 4200245\, p^{38}\, q^{15} + 490268335\, q^{88}\, p^{24} + 302650187\, p^{53}\, q^{21} + 1212359438\, p^{54}\, q^{24}$$
$$+ 371253641\, p^{69}\, q^{21} + 7785671836\, p^{37}\, q^{38} + 83320630493929\, p^{91}\, q^{82} + 478455\, p^{105}\, q^{19} + 1899102\, p^{16}\, q^{29} + 3869958\, p^{83}\, q^{16}$$
$$+ 2915\, q^{31}\, p^{6} + 109925455\, p^{26}\, q^{31} + 1842567430319\, p^{125}\, q^{99} + 28877797\, p^{107}\, q^{25} + 522912889\, p^{111}\, q^{32} + 84598256605950\, p^{86}\, q^{79}$$
$$+ 4805\, q^{25}\, p^{7} + 9\, q^{18}\, p^{2} + 625\, q^{23}\, p^{5} + 1815\, q^{24}\, p^{6} + 76781663\, p^{23}\, q^{34} + 2089\, q^{126}\, p^{23} + 213865047\, p^{90}\, q^{23} + 3036059\, p^{70}\, q^{14}$$
$$+ 1361764\, p^{69}\, q^{13} + 81703360627879\, p^{80}\, q^{79} + 3983217921790\, p^{83}\, q^{50} + 882887627672\, p^{82}\, q^{43} + p^{137}\, q^{26} + 326356\, p^{31}\, q^{12}$$
$$+ 80406\, p^{30}\, q^{10} + 5893949\, p^{33}\, q^{17} + 36953317\, p^{34}\, q^{21} + 21049884\, p^{33}\, q^{20} + 14056473\, p^{33}\, q^{19} + 53695848\, p^{34}\, q^{22} + 1155969\, p^{32}\, q^{14}$$
$$+ 10976033\, p^{74}\, q^{16} + 123433122\, p^{25}\, q^{33} + 183469386\, p^{27}\, q^{32} + 328325852\, p^{31}\, q^{30} + 253790463\, p^{29}\, q^{31} + 398727107\, p^{33}\, q^{29}$$
$$+ 29921192046\, p^{98}\, q^{36} + 34556161467734\, p^{106}\, q^{92} + 20259326893512\, p^{108}\, q^{102} + 42077356455\, q^{83}\, p^{33} + 110825153810\, q^{84}\, p^{36}$$
$$+ 29129891737\, q^{83}\, p^{32} + 38923365570\, p^{125}\, q^{133} + 29459654\, p^{151}\, q^{136} + 80286829\, p^{150}\, q^{132} + 29657590979\, p^{71}\, q^{31}$$
$$+ 3454307169044\, p^{74}\, q^{49} + 28955154268098\, p^{75}\, q^{64} + 6386615728182\, p^{62}\, q^{57} + 742765559469\, p^{42}\, q^{71} + 34853357705048\, p^{80}\, q^{65}$$
$$+ 6562739882323\, p^{58}\, q^{61} + 916091407494\, p^{43}\, q^{70} + 6947121154097\, p^{63}\, q^{57} + 21049884\, p^{20}\, q^{33} + 73071239\, p^{24}\, q^{32} + 89264050\, p^{24}\, q^{33}$$
$$+ 100579557\, p^{25}\, q^{32} + 136672983\, p^{26}\, q^{32} + 512057\, p^{153}\, q^{151} + 257323716\, p^{30}\, q^{30} + 76781663\, p^{34}\, q^{23} + 67538401493\, p^{136}\, q^{113}$$
$$+ 93863451134334\, p^{86}\, q^{85} + 17108683655\, p^{41}\, q^{38} + 21882834596\, p^{87}\, q^{32} + 9129081648815\, p^{92}\, q^{57} + 750933736631\, p^{90}\, q^{44}$$
$$+ 35427761483918\, p^{94}\, q^{69} + 105582672\, p^{80}\, q^{20} + 149840796063\, p^{89}\, q^{38} + 27955724624598\, p^{93}\, q^{66} + 14213057477\, p^{38}\, q^{40}$$
$$+ 8718432990\, p^{35}\, q^{41} + 11478226999\, p^{37}\, q^{40} + 7350432802\, p^{33}\, q^{43} + 5628051497\, p^{32}\, q^{43} + 9505522855\, p^{34}\, q^{43} + 15455920077\, p^{36}\, q^{43}$$
$$+ 12176377278\, p^{35}\, q^{43} + 18126104438\, p^{36}\, q^{44} + 21067837520\, p^{41}\, q^{39} + 34433809\, p^{51}\, q^{17} + 176911497\, p^{52}\, q^{20} + 11599\, q^{99}\, p^{14}$$
$$+ 10339045978\, p^{35}\, q^{42} + 19446881976\, p^{37}\, q^{43} + 20445536721\, p^{38}\, q^{42} + 13089832887\, p^{36}\, q^{42} + 4405756266946\, p^{99}\, q^{56}$$
$$+ 5567776692372\, p^{100}\, q^{58} + 2348704914945\, p^{51}\, q^{60} + 2006032223117\, p^{50}\, q^{60} + 1302007221491\, p^{47}\, q^{61} + 64854310205005\, p^{77}\, q^{93}$$
$$+ 5643533964901\, p^{62}\, q^{56} + 914637359\, q^{128}\, p^{46} + 353202981560\, p^{95}\, q^{132} + 355944984914\, p^{96}\, q^{132} + 1167764212\, q^{118}\, p^{38}$$
$$+ 614580724905\, p^{115}\, q^{58} + 1207236632255\, p^{121}\, q^{116} + 35088072397726\, p^{73}\, q^{67} + 80519\, q^{66}\, p^{10} + 18591822924\, q^{84}\, p^{31}$$
$$+ 664657209690\, q^{88}\, p^{43} + 787476496532\, p^{118}\, q^{63} + 3289441\, q^{69}\, p^{14} + 573997\, q^{68}\, p^{12} + 52365704\, p^{23}\, q^{32} + 533775298773\, p^{120}\, q^{123}$$
$$+ 37204063451562\, p^{100}\, q^{75} + 194152810\, p^{28}\, q^{31} + 319532878\, p^{32}\, q^{29} + 11766758319803\, p^{104}\, q^{112} + 38\, p^{161}\, q^{76} + 59\, p^{162}\, q^{82}$$

$$+ 83173217313004\, p^{92} q^{90} + 79409889190215\, p^{93} q^{91} + 69489704234404\, p^{92} q^{96} + 9565826\, q^{106} p^{23} + 2061844\, q^{106} p^{21}$$
$$+ 276574472\, p^{120} q^{36} + 5961333663104\, p^{60} q^{58} + 203932339350\, q^{73} p^{37} + 80798675233\, q^{74} p^{34} + 151898653280\, q^{73} p^{36}$$
$$+ 81477114095\, q^{73} p^{34} + 111895428592\, q^{73} p^{35} + 6562739882323\, p^{61} q^{58} + 2046453958900\, q^{89} p^{48} + 37055872515\, q^{85} p^{33}$$
$$+ 53054256415\, q^{85} p^{34} + 112028529593\, p^{72} q^{35} + 6924201862863\, p^{74} q^{53} + 1218201963358\, p^{73} q^{44} + 1785260116086\, p^{46} q^{82}$$
$$+ 909716706708\, p^{43} q^{81} + 8421943672685\, p^{54} q^{81} + 1158283769218\, p^{44} q^{81} + 1462178232635\, p^{45} q^{81} + 28474799547162\, p^{67} q^{69}$$
$$+ 18307835771251\, p^{61} q^{71} + 84598256605950\, p^{85} q^{92} + 45379115191352\, p^{77} q^{99} + 30224306089\, p^{116} q^{138} + 28444578483628\, p^{90} q^{108}$$
$$+ 11522887385165\, p^{74} q^{110} + 22295396537357\, p^{83} q^{109} + 1656188429702\, p^{115} q^{64} + 5886137795158\, p^{117} q^{80}$$
$$+ 8152579849610\, p^{117} q^{88} + 5582814365505\, p^{118} q^{103} + 7245252944647\, p^{118} q^{92} + 508759897929\, p^{114} q^{56} + 1910473370749\, p^{115} q^{65}$$
$$+ 3691447838322\, p^{116} q^{72} + 60390210806882\, p^{72} q^{80} + 12176377278\, p^{136} q^{128} + 75221539929549\, p^{95} q^{85} + 60477366168\, p^{88} q^{35}$$
$$+ 26365710043220\, p^{66} q^{94} + 4805\, p^{25} q^{7} + 213556\, q^{136} p^{36} + 110877\, q^{136} p^{35} + 55102\, q^{136} p^{34} + 249708728\, q^{35} p^{26} + 130026246\, q^{35} p^{24}$$
$$+ 29484424646\, q^{72} p^{31} + 15258\, q^{159} p^{82} + 424\, p^{162} q^{87} + 299\, p^{162} q^{86} + 140\, p^{162} q^{84} + 37\, p^{162} q^{81} + 17757624\, p^{77} q^{17}$$
$$+ 4882179816\, p^{85} q^{28} + 523296166\, p^{82} q^{23} + 16021685540\, p^{86} q^{31} + 25740512120\, p^{40} q^{41} + 25740512120\, p^{41} q^{40}$$
$$+ 15423370080894\, p^{91} q^{113} + 9607583891856\, p^{83} q^{115} + 8258052969136\, p^{80} q^{115} + 7773486730353\, p^{79} q^{115} + 24261356934\, p^{43} q^{38}$$
$$+ 369110505620\, p^{100} q^{45} + 136033793724\, p^{99} q^{41} + 16235435413\, p^{97} q^{34} + 22862984944\, p^{37} q^{44} + 25238217103\, p^{42} q^{39}$$
$$+ 24261356934\, p^{38} q^{43} + 25238217103\, p^{39} q^{42} + q^{126} p^{19} + 5\, q^{127} p^{20} + 37565455649\, p^{41} q^{42} + 44889280319\, p^{43} q^{41}$$
$$+ 30020098158\, p^{39} q^{43} + 203550995187\, p^{134} q^{97} + 9925816\, p^{50} q^{15} + 82227651407\, p^{57} q^{36} + 5147992\, p^{50} q^{14} + 7984\, q^{142} p^{38}$$
$$+ 188412\, q^{144} p^{46} + 35461549786\, p^{44} q^{39} + 45316418508\, p^{42} q^{42} + 242872529790\, p^{99} q^{43} + 5167373743686\, p^{56} q^{61}$$
$$+ 3757718761574\, p^{53} q^{62} + 2549743133059\, p^{50} q^{63} + 12756459990292\, p^{87} q^{114} + 12446000804662\, p^{86} q^{114}$$
$$+ 12084144553681\, p^{85} q^{114} + 13011375828933\, p^{88} q^{114} + 15223951355403\, p^{89} q^{113} + 16997208017521\, p^{95} q^{112}$$
$$+ 17277941438930\, p^{94} q^{112} + 17073060845405\, p^{99} q^{111} + 13207296390867\, p^{89} q^{114} + 8728807299398\, p^{81} q^{115}$$
$$+ 9180420482064\, p^{82} q^{115} + 10971862479030\, p^{87} q^{115} + 8518864100597\, p^{84} q^{116} + 10691688195508\, p^{86} q^{115}$$
$$+ 10005108403117\, p^{84} q^{115} + 10368025961225\, p^{85} q^{115} + 6652549148356\, p^{60} q^{59} + 38482819847765\, p^{81} q^{66} + 1224297021683\, p^{78} q^{44}$$
$$+ 999566442\, p^{71} q^{23} + 11592241983878\, p^{80} q^{56} + 8533473186909\, p^{79} q^{54} + 20033440350619\, p^{80} q^{60} + 13412250958082\, p^{80} q^{57}$$
$$+ 263190073417\, p^{77} q^{38} + 7245252944647\, p^{79} q^{53} + 36553421\, q^{77} p^{18} + 391063533\, p^{148} q^{86} + 879790\, p^{106} q^{20}$$

$$+ 4957738999152\, p^{55} q^{62} + 5643533964901\, p^{56} q^{62} + 6386615728182\, p^{57} q^{62} + 7185949839027\, p^{58} q^{62} + 7333027895495\, p^{59} q^{61}$$
$$+ 4545412505470\, p^{55} q^{61} + 3241410451328\, p^{52} q^{62} + 3974597981330\, p^{54} q^{61} + 72509323080804\, p^{90} q^{77} + 73364705218601\, p^{91} q^{78}$$
$$+ 22386020562203\, p^{93} q^{64} + 6576064380088\, p^{92} q^{55} + 3145086442165\, p^{92} q^{51} + 1139864365921\, p^{91} q^{46} + 11714895206\, p^{78} q^{29}$$
$$+ 7724088247\, p^{78} q^{28} + 7432428\, p^{69} q^{15} + 22\, p^{35} q^{3} + 140275158550\, p^{135} q^{104} + 143961901652\, p^{134} q^{86} + 1024\, p^{161} q^{161}$$
$$+ 2364\, p^{157} q^{162} + 3077\, p^{156} q^{162} + 3936\, p^{155} q^{162} + 4977\, p^{151} q^{163} + 1469\, p^{160} q^{161} + 407\, p^{47} q^{5} + 83671133848396\, p^{92} q^{84}$$
$$+ 6842740992\, p^{137} q^{130} + 53353528\, p^{72} q^{18} + 301280837\, p^{74} q^{21} + 1346967093\, p^{76} q^{24} + 498817103\, p^{75} q^{22} + 2196502254\, p^{76} q^{25}$$
$$+ 8152579849610\, p^{83} q^{54} + 12756459990292\, p^{84} q^{57} + 236364278519\, p^{81} q^{38} + 6886285298201\, p^{83} q^{53} + 19324673910107\, p^{84} q^{60}$$
$$+ 37386978791358\, p^{85} q^{66} + 1126011849034\, p^{82} q^{44} + 850814861\, p^{75} q^{23} + 10971862479030\, p^{84} q^{56} + 28711139\, p^{71} q^{17}$$
$$+ 2667590272801\, p^{83} q^{48} + 1423752113609\, p^{82} q^{45} + 19\, q^{36} p^{3} + 2091349341\, p^{36} q^{33} + 87122236704723\, p^{86} q^{80}$$
$$+ 19813072970859\, p^{65} q^{66} + 23088977412663\, p^{66} q^{67} + 24286347762156\, p^{62} q^{85} + 41633036265969\, p^{67} q^{84}$$
$$+ 12084144553681\, p^{57} q^{86} + 65233125970312\, p^{73} q^{82} + 61516025769639\, p^{72} q^{83} + 27767\, q^{37} p^{8} + 50239834\, p^{153} q^{123} + 40\, p^{168} q^{154}$$
$$+ 73492736\, p^{64} q^{18} + 10407612\, p^{62} q^{15} + 455647970702\, p^{64} q^{41} + 494909606\, q^{107} p^{30} + 2530174288\, q^{108} p^{34} + 395802952\, q^{108} p^{30}$$
$$+ 31817561800072\, p^{75} q^{65} + 35799273283587\, p^{76} q^{66} + 18800385199896\, p^{75} q^{60} + 12809427040347\, p^{75} q^{57} + 9373582\, p^{129} q^{36}$$
$$+ 3910623874\, p^{144} q^{117} + 1639426536\, p^{138} q^{63} + 9360347871\, p^{143} q^{99} + 5855342\, p^{95} q^{19} + 8103392079268\, p^{74} q^{54}$$
$$+ 1903572800296\, p^{74} q^{46} + 9626083454292\, p^{75} q^{55} + 27950251560361\, p^{66} q^{70} + 584842032\, p^{145} q^{131} + 356157\, p^{122} q^{26}$$
$$+ 4747817843\, p^{140} q^{74} + 64614\, p^{118} q^{22} + 1930187136\, p^{139} q^{66} + 30602105949285\, p^{68} q^{69} + 164\, p^{73} q^{7} + 29489484674952\, p^{66} q^{71}$$
$$+ 33099815481\, p^{110} q^{139} + 67489968350\, p^{63} q^{34} + 90647053483\, p^{63} q^{35} + 4687083120794\, p^{65} q^{53} + 886394611697\, p^{64} q^{44}$$
$$+ 2884024294376\, p^{110} q^{62} + 15605494654748\, p^{112} q^{84} + 1470464206507\, p^{109} q^{57} + 15040658184914\, p^{112} q^{83}$$
$$+ 12310364437380\, p^{113} q^{101} + 14425219495572\, p^{112} q^{82} + 50971017295364\, p^{70} q^{87} + 54953726283172\, p^{71} q^{87} + 324748670\, q^{81} p^{22}$$
$$+ 3512242403\, p^{96} q^{30} + 10956739611\, p^{97} q^{33} + 655120493\, p^{112} q^{33} + 32736069214\, p^{118} q^{48} + 246659414\, p^{110} q^{30}$$
$$+ 23614475440\, p^{117} q^{46} + 27333750549\, q^{84} p^{32} + 395636\, q^{136} p^{37} + 508361101900\, q^{83} p^{41} + 30929108378700\, p^{107} q^{93}$$
$$+ 23691986910\, p^{97} q^{35} + 369986921642\, q^{125} p^{69} + 46581984399\, p^{129} q^{63} + 30184738\, q^{79} p^{18} + 23692052093\, q^{86} p^{32}$$
$$+ 14754477547\, q^{87} p^{31} + 34503677057\, q^{86} p^{33} + 5421777609144\, p^{117} q^{106} + 269236278\, q^{83} p^{22} + 477592707\, q^{83} p^{23} + 3413647\, p^{136} q^{41}$$
$$+ 12211952789\, p^{77} q^{29} + 8077230967\, p^{77} q^{28} + 7930810\, p^{68} q^{15} + 19524003240\, q^{135} p^{70} + 1220488200\, q^{129} p^{48} + 884579579\, q^{129} p^{47}$$

$$+ 34077113264\, q^{135} p^{74} + 29921192046\, q^{135} p^{73} + 3308297103\, q^{133} p^{57} + 245\, q^{96} p^{11} + 19028602\, q^{122} p^{32} + 7281386\, q^{123} p^{31}$$
$$+ 108253693867\, q^{136} p^{95} + 896611566330\, p^{113} q^{58} + 9880202989483\, p^{116} q^{90} + 613727575\, p^{106} q^{30} + 218\, p^{63} q^{6}$$
$$+ 4066080524616\, p^{53} q^{63} + 3502607443076\, p^{52} q^{63} + 4690938569191\, p^{54} q^{63} + 6625585029614\, p^{56} q^{64} + 6947121154097\, p^{57} q^{63}$$
$$+ 5378909623415\, p^{55} q^{63} + 6130947643249\, p^{56} q^{63} + 1034413\, q^{95} p^{17} + 172781\, q^{94} p^{15} + 4757797\, q^{96} p^{19} + 3833122\, q^{97} p^{19}$$
$$+ 8514973\, q^{97} p^{20} + 17959215\, q^{97} p^{21} + 19423\, p^{55} q^{8} + 1865\, p^{49} q^{6} + 4706053952337\, p^{56} q^{60} + 7333027895495\, p^{61} q^{59}$$
$$+ 4329361838426\, p^{54} q^{62} + 14641575\, p^{98} q^{21} + 333056456\, p^{104} q^{28} + 2998135301807\, p^{51} q^{63} + 4101546526\, q^{98} p^{31}$$
$$+ 2389259470656\, p^{85} q^{123} + 750933736631\, p^{127} q^{81} + 1004340663144\, p^{127} q^{86} + 743444886424\, p^{79} q^{42} + 106015932844\, p^{77} q^{35}$$
$$+ 3480269476268\, p^{80} q^{49} + 31632011767502\, p^{81} q^{64} + 19319474958\, p^{75} q^{30} + 9956914427679\, p^{80} q^{55} + 1896654938080\, p^{79} q^{46}$$
$$+ 982458264426\, q^{75} p^{43} + 772662577360\, q^{75} p^{42} + 1238579539935\, q^{75} p^{44} + 1928693326820\, q^{76} p^{46} + 2363869806416\, q^{75} p^{47}$$
$$+ 1548599829310\, q^{75} p^{45} + 1920751952776\, q^{75} p^{46} + 1158283769218\, p^{127} q^{90} + 763972399147\, p^{126} q^{78} + 6680297295266\, p^{66} q^{108}$$
$$+ 699974566814\, p^{126} q^{77} + 969449507564\, p^{128} q^{98} + 1126011849034\, p^{127} q^{89} + 637908007960\, p^{126} q^{76} + 1048540783264\, p^{127} q^{87}$$
$$+ 10889681265157\, p^{109} q^{109} + 7369813724444\, p^{68} q^{109} + 10187146356\, q^{134} p^{64} + 12267059715\, q^{134} p^{65} + 153540\, p^{145} q^{159}$$
$$+ 216829547028\, q^{64} p^{38} + 15757079\, q^{149} p^{70} + 4800\, q^{140} p^{35} + 9433\, q^{141} p^{37} + 2011\, q^{140} p^{34} + 1122590252\, p^{90} q^{26}$$
$$+ 358939220758\, q^{64} p^{40} + 573483325055\, q^{64} p^{42} + 455647970702\, q^{64} p^{41} + 715839976287\, q^{64} p^{43} + 1089076420989\, q^{64} p^{45}$$
$$+ 886394611697\, q^{64} p^{44} + 1152820827249\, q^{65} p^{45} + 280262125884\, q^{64} p^{39} + 21199416\, p^{21} q^{31} + 53627214198375\, p^{70} q^{83}$$
$$+ 2611\, p^{60} q^{7} + 1413620\, p^{30} q^{15} + 155638853\, p^{29} q^{29} + 136672983\, p^{32} q^{26} + 31553\, p^{28} q^{9} + 135967\, p^{29} q^{11} + 289\, q^{71} p^{7}$$
$$+ 5887586880\, p^{127} q^{51} + 47\, p^{23} q^{3} + 30224724\, p^{42} q^{18} + 9824180\, p^{41} q^{16} + 20359014088382\, p^{109} q^{100} + 305157388\, p^{146} q^{133}$$
$$+ 5878411615\, p^{144} q^{97} + 90068623\, p^{136} q^{49} + 10292681\, p^{131} q^{38} + 32341034607875\, p^{98} q^{105} + 38923365570\, p^{46} q^{38}$$
$$+ 73489714165\, p^{46} q^{41} + 108007908571\, p^{46} q^{43} + 89424028362\, p^{46} q^{42} + 61858767765961\, p^{90} q^{74} + 35727567594417\, p^{90} q^{67}$$
$$+ 50435414378570\, p^{90} q^{71} + 29652706399580\, p^{73} q^{65} + 33618991455619\, p^{74} q^{66} + 17716901136291\, p^{73} q^{60}$$
$$+ 12156452494070\, p^{73} q^{57} + 48496431321\, p^{46} q^{39} + 28352842379989\, p^{108} q^{89} + 19722110498451\, p^{107} q^{76} + 21065118412440\, p^{107} q^{77}$$
$$+ 25424259089496\, p^{109} q^{91} + 23214088691541\, p^{108} q^{81} + 13129344665157\, p^{107} q^{71} + 27279022454482\, p^{108} q^{86}$$
$$+ 27766029277066\, p^{108} q^{87} + 21027463371192\, p^{108} q^{79} + 28768\, q^{38} p^{8} + 47881232714\, q^{102} p^{39} + 4166506404903\, q^{104} p^{59}$$
$$+ 5674195698763\, q^{104} p^{61} + 7537867041659\, q^{104} p^{63} + 6559928760237\, q^{104} p^{62} + 8609934981346\, q^{104} p^{64} + 11037836066316\, q^{104} p^{66}$$

$$+ 392064\, q^{40} p^{11} + 670669163263\, q^{109} p^{53} + q^{69} p^{5} + 3430\, p^{153} q^{163} + 2795\, p^{154} q^{163} + 1472\, p^{149} q^{165} + 761\, p^{145} q^{166} + 719\, p^{146} q^{166}$$
$$+ 7219142880885\, p^{94} q^{118} + 1910473370749\, q^{106} p^{56} + 2288429722154\, q^{106} p^{57} + 3777377871893\, q^{106} p^{60} + 3217336818856\, q^{106} p^{59}$$
$$+ 5886181840494\, q^{106} p^{63} + 7675002266519\, q^{106} p^{65} + 7640491491253\, q^{107} p^{66} + 4406644408847\, q^{106} p^{61} + 6741288333003\, q^{106} p^{64}$$
$$+ 5108636696674\, q^{106} p^{62} + 2722493057177\, q^{106} p^{58} + 4325\, p^{160} q^{158} + 1603115\, p^{154} q^{78} + 38\, q^{95} p^{10} + 38482819847765\, p^{105} q^{90}$$
$$+ 23885351229852\, p^{104} q^{74} + 22096910089078\, p^{104} q^{73} + 38482755730754\, p^{105} q^{89} + 27480723814718\, p^{104} q^{76}$$
$$+ 29252548864551\, p^{104} q^{77} + 34853357705048\, p^{106} q^{91} + 32343120830510\, p^{105} q^{81} + 18617325086629\, p^{104} q^{71}$$
$$+ 37386978791358\, p^{105} q^{86} + 37931027300240\, p^{105} q^{87} + 29493674330411\, p^{105} q^{79} + 30961948038082\, p^{105} q^{80}$$
$$+ 38297970260685\, p^{105} q^{88} + 800609\, q^{40} p^{12} + 18308581\, q^{42} p^{17} + 4227431667\, q^{45} p^{30} + 520641300591\, p^{44} q^{57} + 171668\, q^{39} p^{10}$$
$$+ 715975140\, q^{44} p^{25} + 494689897\, q^{44} p^{24} + 1020761120\, q^{44} p^{26} + 1434828496\, q^{44} p^{27} + 2266698709\, q^{45} p^{28} + 92432398069687\, p^{88} q^{85}$$
$$+ 284265\, q^{87} p^{14} + 113409\, q^{86} p^{13} + 9887087171\, q^{45} p^{33} + 16552467948\, q^{45} p^{35} + 24442091831\, q^{46} p^{36} + 5672544576\, q^{45} p^{31}$$
$$+ 12854709217\, q^{45} p^{34} + 7528430083\, q^{45} p^{32} + 33388496\, q^{43} p^{18} + 3584754372012\, p^{50} q^{69} + 10784583\, q^{42} p^{16}$$
$$+ 2254197597685\, p^{52} q^{58} + 2598676682348\, p^{53} q^{58} + 1314418242156\, p^{48} q^{59} + 1557088916524\, p^{49} q^{59} + 6130947643249\, p^{63} q^{56}$$
$$+ 3358552694\, q^{84} p^{27} + 14436555\, q^{79} p^{17} + 3175539\, q^{78} p^{15} + 54692336\, q^{80} p^{19} + 49323563\, q^{81} p^{19} + 95849787\, q^{81} p^{20}$$
$$+ 179421360\, q^{81} p^{21} + 523296166\, q^{82} p^{23} + 633052622339\, p^{105} q^{129} + 34886398\, p^{152} q^{87} + 14669640\, p^{152} q^{81} + 3387\, p^{127} q^{24}$$
$$+ 21403979\, p^{155} q^{110} + 4758123102\, q^{124} p^{47} + 44\, p^{27} q^{3} + 979935522555\, p^{122} q^{71} + 19886\, p^{88} q^{12} + 2235868014\, p^{114} q^{37}$$
$$+ 2316173946861\, p^{124} q^{91} + 1071638043014\, p^{59} q^{113} + 31632011767502\, p^{107} q^{90} + 19165902902840\, p^{106} q^{74}$$
$$+ 17689853554142\, p^{106} q^{73} + 4484848\, p^{18} q^{29} + 34541264\, p^{23} q^{30} + 162924762\, p^{150} q^{89} + 116969846\, p^{152} q^{117} + 40290168828\, p^{116} q^{137}$$
$$+ 12730314\, p^{86} q^{18} + 26891541512060\, p^{108} q^{95} + 27459169508576\, p^{108} q^{94} + 15140055680074\, p^{109} q^{105} + 17865542812199\, p^{108} q^{104}$$
$$+ 73489714165\, p^{125} q^{130} + 85472758966\, p^{124} q^{130} + 76225890187\, p^{126} q^{129} + 73914789540\, p^{122} q^{132} + 84046447\, q^{152} p^{96}$$
$$+ 42568575475\, q^{134} p^{73} + 48348345778\, q^{134} p^{74} + 15423370080894\, p^{80} q^{58} + 477466441295\, p^{125} q^{71} + 1025017753\, p^{117} q^{37}$$
$$+ 1185657499595\, p^{127} q^{91} + 199829273132\, p^{76} q^{37} + 17629855825141\, p^{80} q^{59} + 7618482669341\, p^{105} q^{115} + 2728805\, q^{150} p^{66}$$
$$+ 44\, q^{27} p^{3} + 12901114434\, q^{63} p^{29} + 18435751491\, q^{63} p^{30} + 26885460064\, q^{64} p^{31} + 6901982041926\, p^{88} q^{54} + 12485677696754\, p^{89} q^{58}$$
$$+ 16565011550975\, p^{89} q^{60} + 5791739173891\, p^{88} q^{53} + 248041056679\, q^{103} p^{45} + 322798881144\, q^{103} p^{46} + 416206529038\, q^{103} p^{47}$$
$$+ 37501612663\, q^{64} p^{32} + 70333544102\, q^{64} p^{34} + 51662787346\, q^{64} p^{33} + 94676310604\, q^{64} p^{35} + 173399121148\, q^{65} p^{37}$$

$$+ 126075596060\, q^{64} p^{36} + 413731801\, q^{97} p^{26} + 86053619\, q^{92} p^{22} + 226723741456\, q^{65} p^{38} + 1932001251847\, p^{107} q^{123}$$
$$+ 165186414\, p^{146} q^{72} + 376736056882\, q^{65} p^{40} + 604053070496\, q^{65} p^{42} + 479100152442\, q^{65} p^{41} + 755276933181\, q^{65} p^{43}$$
$$+ 936770683672\, q^{65} p^{44} + 1214136642154\, q^{66} p^{45} + 293612984933\, q^{65} p^{39} + 1485157188038\, q^{66} p^{46} + 1071638043014\, p^{58} q^{112}$$
$$+ 2601781617052\, q^{66} p^{49} + 2173656688424\, q^{66} p^{48} + 4284274447225\, q^{66} p^{52} + 5784030777202\, q^{66} p^{54} + 7076235288958\, q^{67} p^{55}$$
$$+ 3092901205465\, q^{66} p^{50} + 4993667701587\, q^{66} p^{53} + 3652131677483\, q^{66} p^{51} + 1803231710239\, q^{66} p^{47} + 56699635807112\, p^{71} q^{80}$$
$$+ 5684587583\, q^{106} p^{35} + 8414432863\, q^{106} p^{36} + 8620363968096\, p^{112} q^{74} + 4663929\, p^{92} q^{18} + 13053424992511\, p^{114} q^{95}$$
$$+ 13237796172807\, p^{114} q^{94} + 7618482669341\, p^{115} q^{105} + 9232555426843\, p^{114} q^{104} + 540883718985\, p^{109} q^{52} + 2399590\, p^{91} q^{17}$$
$$+ 75375182208\, p^{107} q^{43} + 989343733\, p^{101} q^{29} + 7897760679574\, p^{112} q^{73} + 819361796848\, p^{43} q^{84} + 5880990477976\, q^{101} p^{59}$$
$$+ 6856290183172\, q^{101} p^{60} + 130186\, p^{61} q^{10} + 14939575274847\, p^{76} q^{58} + 16997208017521\, p^{76} q^{59} + 9776824138247\, p^{106} q^{67}$$
$$+ 531858318000\, p^{103} q^{48} + 126620393468\, p^{134} q^{84} + 11917740285\, p^{128} q^{55} + 13036772\, q^{139} p^{48} + 3791182172967\, q^{89} p^{51}$$
$$+ 3110225787826\, q^{89} p^{50} + 414675804325\, q^{87} p^{41} + 5648670\, q^{41} p^{15} + 11918766852714\, p^{108} q^{109} + 613825764\, p^{147} q^{85}$$
$$+ 214878523\, p^{150} q^{123} + 60622474\, p^{90} q^{21} + p^{138} q^{169} + 5890\, p^{150} q^{163} + 871203584\, q^{92} p^{26} + 290765729\, q^{92} p^{24}$$
$$+ 38482819847765\, p^{66} q^{81} + 15223951355403\, p^{58} q^{82} + 54041563\, q^{43} p^{19} + 4747817843\, p^{97} q^{31} + 1367955982\, p^{96} q^{28}$$
$$+ 253790463\, p^{31} q^{29} + 721881614614\, q^{116} p^{60} + 59979113557029\, p^{94} q^{98} + 53334332767432\, p^{87} q^{101} + 5643533964901\, p^{115} q^{109}$$
$$+ 8267349226377\, p^{96} q^{117} + 53805949628372\, p^{97} q^{98} + 1115222\, p^{79} q^{14} + 196023373374\, q^{85} p^{38} + 226\, p^{143} q^{167}$$
$$+ 2537892929396\, p^{99} q^{53} + 11451566\, q^{81} p^{17} + 31958218188\, q^{87} p^{33} + 338\, q^{116} p^{17} + 162924762\, q^{82} p^{21} + 24337650\, q^{81} p^{18}$$
$$+ 2551835701\, p^{95} q^{29} + 33481276124433\, p^{94} q^{106} + 2645688670\, p^{40} q^{31} + 5745192842\, p^{40} q^{34} + 7299850527\, p^{40} q^{35}$$
$$+ 11009012033\, p^{41} q^{36} + 5263806128935\, q^{119} p^{85} + 4826768463278\, q^{119} p^{83} + 5053036026076\, q^{119} p^{84} + 5456443739258\, q^{119} p^{86}$$
$$+ 5777664364611\, q^{119} p^{88} + 5628480422217\, q^{119} p^{87} + 5902008106310\, q^{119} p^{89} + 6069792362437\, q^{119} p^{91} + 5999830247665\, q^{119} p^{90}$$
$$+ 5078144291434\, q^{120} p^{91} + 1613\, q^{153} p^{55} + 2811\, q^{153} p^{56} + 134\, q^{151} p^{47} + 42860663300446\, p^{76} q^{99} + 124728099616\, q^{109} p^{46}$$
$$+ 126075596060\, p^{135} q^{107} + 13036772\, p^{139} q^{48} + 14687053933\, q^{107} p^{38} + 2488563327806\, p^{52} q^{59} + 11313282776458\, p^{57} q^{71}$$
$$+ 33161779586894\, p^{85} q^{106} + 21411267828946\, p^{63} q^{70} + 28651758451442\, p^{68} q^{68} + 14350733918\, q^{125} p^{52} + 15621888068057\, p^{60} q^{70}$$
$$+ 195625410215\, p^{134} q^{102} + 2887301873663\, p^{48} q^{75} + 3454307169044\, p^{49} q^{74} + 4152607024783\, p^{50} q^{74} + 3391902005287\, p^{49} q^{73}$$
$$+ 170537\, p^{84} q^{13} + 467222744152\, p^{73} q^{126} + 46587907012\, p^{134} q^{122} + 4080105817542\, q^{121} p^{89} + 3110225787826\, q^{121} p^{82}$$

$$+ 20551236426286\, p^{90} q^{62} + 29119770862214\, p^{90} q^{65} + 56590539\, p^{71} q^{18} + 317461281\, p^{73} q^{21} + 206255175729\, p^{98} q^{42}$$
$$+ 612054521984\, p^{100} q^{47} + 95519\, q^{146} p^{48} + 36175318476261\, p^{72} q^{68} + 9997202955776\, p^{111} q^{74} + 5616892\, p^{91} q^{18}$$
$$+ 14939575274847\, p^{113} q^{95} + 15168589157681\, p^{113} q^{94} + 8665470671318\, p^{114} q^{105} + 10453010597389\, p^{113} q^{104}$$
$$+ 636263571138\, p^{108} q^{52} + 2899768\, p^{90} q^{17} + 89212677726\, p^{106} q^{43} + 1178313330\, p^{100} q^{29} + 9171013371743\, p^{111} q^{73}$$
$$+ 1414660120\, p^{75} q^{24} + 525796801\, p^{74} q^{22} + 2297682915\, p^{75} q^{25} + 786588834\, q^{131} p^{49} + 13036772\, q^{123} p^{32} + 278769065\, p^{34} q^{27}$$
$$+ 3686120\, p^{33} q^{16} + 59000231715\, q^{71} p^{33} + 2613523596\, q^{71} p^{25} + 81635455682\, q^{71} p^{34} + 111611477813\, q^{71} p^{35} + 455812304\, p^{35} q^{28}$$
$$+ 921548445\, q^{141} p^{67} + 5870723493\, q^{141} p^{79} + 1116376087\, q^{141} p^{68} + 1342473136\, q^{141} p^{69} + 5209924425\, q^{141} p^{78}$$
$$+ 6576755648\, q^{141} p^{80} + 989343733\, q^{142} p^{70} + 613727575\, q^{141} p^{65} + 754984542\, q^{141} p^{66} + 2\, q^{119} p^{16} + 43\, p^{69} q^{6} + 602007701\, p^{148} q^{121}$$
$$+ 17847933\, p^{137} q^{46} + 296301811\, q^{142} p^{64} + 2186917\, q^{135} p^{39} + 2348319655346\, p^{92} q^{124} + 234\, p^{156} q^{60} + 490268335\, p^{147} q^{83}$$
$$+ 596698328\, p^{149} q^{100} + 733\, q^{145} p^{39} + 14430\, q^{149} p^{50} + 8121\, p^{120} q^{21} + 2\, p^{168} q^{125} + 5801660\, q^{80} p^{16} + 7967\, p^{156} q^{160}$$
$$+ 179421360\, p^{150} q^{90} + 16537621352\, p^{110} q^{40} + 11673993337\, p^{110} q^{39} + 2530174288\, p^{108} q^{34} + 9798922650950\, p^{66} q^{58}$$
$$+ 2202222153830\, p^{117} q^{69} + 2474399058548\, p^{117} q^{70} + 1007714748228\, p^{116} q^{62} + 508759897929\, p^{115} q^{57} + 8306263085871\, p^{82} q^{54}$$
$$+ 13011375828933\, p^{83} q^{57} + 244609169562\, p^{80} q^{38} + 7025186639996\, p^{82} q^{53} + 19641140505245\, p^{83} q^{60} + 37931027300240\, p^{84} q^{66}$$
$$+ 1158283769218\, p^{81} q^{44} + 892724685\, p^{74} q^{23} + 11204819677781\, p^{83} q^{56} + 30494608\, p^{70} q^{17} + 2740355364494\, p^{82} q^{48}$$
$$+ 1462178232635\, p^{81} q^{45} + 206885\, p^{134} q^{34} + 520884\, p^{160} q^{123} + 383678\, p^{154} q^{72} + 436424\, p^{160} q^{129} + 34712\, p^{161} q^{147} + 195\, p^{132} q^{25}$$
$$+ 71311\, p^{161} q^{142} + 513315\, p^{160} q^{124} + 1855843\, p^{157} q^{96} + 6203\, p^{162} q^{153} + 1153579\, p^{159} q^{115} + p^{108} q^{12} + 407678381\, q^{143} p^{68}$$
$$+ 1845115\, p^{82} q^{15} + 6337915717\, p^{37} q^{37} + 39259395\, p^{103} q^{24} + 35907865\, p^{52} q^{17} + 2882868\, q^{40} p^{14} + 31379678200266\, p^{65} q^{88}$$
$$+ 37098365963680\, p^{67} q^{89} + 42028209107418\, p^{68} q^{88} + 34777374107181\, p^{66} q^{88} + 38334032319106\, p^{67} q^{88}$$
$$+ 25127105406724\, p^{63} q^{88} + 28158417429725\, p^{64} q^{88} + 1553001\, q^{40} p^{13} + 350798511\, p^{148} q^{85} + 767867818138\, p^{102} q^{49}$$
$$+ 248563675844\, p^{101} q^{44} + 32718161751151\, p^{106} q^{95} + 33481276124433\, p^{106} q^{94} + 18210482179498\, p^{107} q^{105}$$
$$+ 21309103875826\, p^{106} q^{104} + 24310978\, q^{40} p^{18} + 10660323601\, p^{86} q^{30} + 1076\, p^{54} q^{6} + 17416172058\, p^{104} q^{37} + 5123899326\, p^{102} q^{33}$$
$$+ 967171997418\, p^{108} q^{54} + 1602821335\, p^{101} q^{30} + 444786782231\, p^{90} q^{42} + 22234810645623\, p^{64} q^{69} + 11090297404\, p^{137} q^{127}$$
$$+ 86350195889\, p^{136} q^{109} + 45511185374877\, p^{68} q^{80} + 34777374107181\, q^{105} p^{83} + 37931027300240\, q^{105} p^{87} + 851723\, p^{63} q^{12}$$
$$+ 2316173946861\, p^{80} q^{47} + 441302843132\, p^{79} q^{40} + 335109217509\, p^{79} q^{39} + 5908\, p^{53} q^{7} + 107190313\, p^{71} q^{19}$$

$$+ 49686874754286\, p^{83} q^{69} + 53627214198375\, p^{83} q^{70} + 521206587711\, p^{74} q^{126} + 14213057477\, p^{131} q^{133} + 133247072836\, p^{80} q^{36}$$
$$+ 5247967583\, p^{77} q^{27} + 91147086861\, p^{67} q^{129} + 25326494112087\, p^{62} q^{82} + 1818845897136\, q^{116} p^{66} + 2076286016397\, q^{116} p^{67}$$
$$+ 3536084840613\, p^{67} q^{113} + 7897760679574\, p^{73} q^{112} + 233292\, q^{115} p^{22} + 78291246762\, q^{137} p^{95} + 81757405432\, q^{137} p^{99}$$
$$+ 81477114095\, q^{137} p^{98} + 80196899506\, q^{137} p^{102} + 77240757167\, q^{137} p^{104} + 81635455682\, q^{137} p^{100} + 78900231036\, q^{137} p^{103}$$
$$+ 79731711582\, q^{137} p^{96} + 81112884082\, q^{137} p^{101} + 80798675233\, q^{137} p^{97} + 76497280163\, q^{137} p^{94} + 74374432451\, q^{137} p^{93}$$
$$+ 8398552989\, q^{134} p^{63} + 2061844\, q^{150} p^{65} + 12149019173\, q^{108} p^{38} + 1290063262\, q^{107} p^{32} + 2019801406\, q^{107} p^{33}$$
$$+ 20672190172\, p^{70} q^{30} + 228968104\, p^{66} q^{20} + 36673312023241\, p^{94} q^{105} + 1506741\, p^{128} q^{32} + 4882179816\, p^{143} q^{86}$$
$$+ 481529500\, p^{146} q^{130} + 6418694601\, p^{144} q^{104} + 202993495\, p^{137} q^{53} + 53996766\, p^{134} q^{45} + 5296525547\, p^{143} q^{87} + 409622\, p^{125} q^{28}$$
$$+ 84977494406806\, p^{83} q^{91} + 642928\, q^{97} p^{17} + 14641575\, q^{98} p^{21} + 1625452\, q^{97} p^{18} + 10029004987\, q^{81} p^{29} + 51329652739390\, p^{73} q^{93}$$
$$+ 3\, p^{4} q^{2} + 7\, p^{5} q^{3} + 1663600\, p^{23} q^{19} + 801335\, p^{23} q^{17} + 4241748\, p^{24} q^{21} + 2336844\, p^{23} q^{20} + 1207236632255\, p^{55} q^{50}$$
$$+ 326065794483\, q^{80} p^{39} + 1494315797712\, q^{80} p^{45} + 3863\, p^{76} q^{9} + 3872979\, q^{116} p^{26} + 19263966\, q^{117} p^{29} + 5136096621253\, q^{78} p^{51}$$
$$+ 2369376838914\, q^{78} p^{47} + 92755\, q^{21} p^{13} + 4289\, q^{24} p^{7} + 18194514\, p^{24} q^{26} + 41895204\, p^{26} q^{27} + 23506437\, p^{24} q^{27} + 29\, q^{78} p^{7}$$
$$+ 2075223345\, p^{89} q^{27} + 44296582822476\, p^{100} q^{78} + 2425692373403\, q^{108} p^{59} + 12975938835497\, p^{109} q^{107} + 16649031596140\, p^{105} q^{108}$$
$$+ 10224747206518\, p^{81} q^{114} + 6783766173538\, p^{77} q^{115} + 6812556320368\, p^{54} q^{69} + 2136410049957\, p^{47} q^{70} + 3522815\, q^{143} p^{51}$$
$$+ 846342\, q^{142} p^{46} + 2601781617052\, p^{122} q^{105} + 3265174535365\, p^{121} q^{104} + 825191966172\, p^{117} q^{62} + 415851927065\, p^{116} q^{57}$$
$$+ 1811142426992\, p^{118} q^{69} + 2038176046219\, p^{118} q^{70} + 2046350827\, p^{109} q^{34} + 4256312853939\, p^{121} q^{95} + 4277910727448\, p^{121} q^{94}$$
$$+ 10401944\, q^{117} p^{28} + 1879944\, q^{116} p^{25} + 274282\, p^{130} q^{31} + 145175712833\, q^{135} p^{94} + 2543325673432\, p^{119} q^{74} + 13463321616\, p^{111} q^{40}$$
$$+ 9472502395\, p^{111} q^{39} + 8527770519445\, q^{78} p^{54} + 9985880961899\, q^{79} p^{55} + 4278851301718\, q^{78} p^{50} + 7249684734009\, q^{78} p^{53}$$
$$+ 896611566330\, p^{58} q^{113} + q^{4} p + p\, q^{3} + 3\, q^{4} p^{2} + 381064651\, p^{68} q^{21} + 98\, p^{15} q^{4} + 1032161454923\, p^{55} q^{49} + 4977\, q^{20} p^{8}$$
$$+ 182365853733\, p^{125} q^{125} + 9305\, p^{46} q^{7} + 13907385342550\, p^{70} q^{59} + 12310364437380\, p^{70} q^{58} + 1916558646703\, q^{78} p^{46}$$
$$+ 3539540398607\, q^{78} p^{49} + 2906774950221\, q^{78} p^{48} + 6122662590210\, q^{78} p^{52} + 149966330522\, p^{75} q^{36} + 91937101445\, p^{131} q^{122}$$
$$+ 5\, p^{4} q^{3} + 27\, p^{13} q^{3} + 614\, p^{16} q^{6} + 239\, p^{15} q^{5} + 74078\, p^{16} q^{16} + 33108\, p^{13} q^{17} + 2082300784193\, p^{122} q^{79} + 289\, p^{71} q^{7}$$
$$+ 54314497141\, p^{117} q^{49} + 4109\, q^{125} p^{23} + 81665\, q^{125} p^{26} + 12267\, q^{125} p^{24} + 1485157188038\, p^{125} q^{105} + 432754060743\, p^{120} q^{62}$$
$$+ 364748752295\, p^{120} q^{61} + 1895426700617\, p^{124} q^{104} + 2379052058177\, p^{124} q^{94} + 6925414692\, p^{114} q^{40} + 4821130817\, p^{114} q^{39}$$

$$+ 1353969473240\, p^{122} q^{74} + 876720911740\, p^{55} q^{48} + 27096736457435\, p^{71} q^{65} + 30958892959476\, p^{72} q^{66} + 16371828854299\, p^{71} q^{60}$$
$$+ 11313282776458\, p^{71} q^{57} + 2\, p^{3} q^{2} + 213865047\, q^{90} p^{23} + 17238702\, q^{89} p^{19} + 60622474\, q^{90} p^{21} + 962944074628\, p^{121} q^{69}$$
$$+ 1030185999\, p^{112} q^{34} + 2377208570519\, p^{124} q^{95} + 1089051618462\, p^{121} q^{70} + 53695848\, p^{22} q^{34} + 63665528\, p^{23} q^{33} + 30950726\, p^{21} q^{33}$$
$$+ 44742019\, p^{22} q^{33} + 739722201528\, p^{55} q^{47} + 24465\, p^{120} q^{22} + 104902278601\, p^{114} q^{49} + 1164902\, p^{23} q^{18} + 7\, p^{13} q^{2} + 47294\, q^{78} p^{11}$$
$$+ 2391156280\, q^{74} p^{25} + 1871\, p^{79} q^{9} + 70316238429\, p^{117} q^{50} + 216812109893\, p^{119} q^{57} + 115389281853\, p^{118} q^{53}$$
$$+ 1111346528483\, p^{44} q^{69} + 7760106667\, p^{115} q^{41} + 2409599328\, p^{112} q^{36} + 1589566510\, p^{112} q^{35} + 6576064380088\, q^{92} p^{55}$$
$$+ 3906090514\, q^{73} p^{26} + 1536305924\, q^{73} p^{24} + 931823441\, q^{73} p^{23} + 551318572\, q^{73} p^{22} + 10688\, p^{18} q^{10} + 1484\, p^{17} q^{7} + 4976\, p^{17} q^{9}$$
$$+ 2795\, p^{17} q^{8} + 47488\, q^{26} p^{10} + 3480269476268\, p^{49} q^{80} + 2537892929396\, p^{53} q^{99} + 632368874767\, p^{45} q^{57} + 472321960908\, p^{44} q^{56}$$
$$+ 9660\, p^{45} q^{7} + 13219926498650\, p^{69} q^{59} + 214\, q^{32} p^{4} + 11\, q^{7} p^{3} + 1205209\, q^{53} p^{12} + 2643993\, q^{53} p^{13} + 559662248\, q^{56} p^{22}$$
$$+ 211569812\, p^{151} q^{115} + 16\, p^{37} q^{3} + 1297167\, q^{27} p^{16} + 50114422377014\, p^{72} q^{92} + 183505\, p^{22} q^{14} + 356929\, p^{23} q^{15} + 116381\, p^{22} q^{13}$$
$$+ 42686\, p^{22} q^{11} + 1920751952776\, p^{125} q^{96} + 139627531935\, p^{120} q^{56} + 439013417411\, p^{122} q^{65} + 587716159499\, p^{122} q^{67}$$
$$+ 461932761344\, p^{126} q^{117} + 872614557488\, p^{123} q^{72} + 56388964071\, p^{119} q^{51} + 1896654938080\, p^{125} q^{92} + 7920\, p^{86} q^{11}$$
$$+ 346923785\, p^{150} q^{100} + 277280365\, p^{148} q^{83} + 17\, p^{6} q^{4} + 28\, p^{6} q^{5} + 64\, p^{7} q^{6} + 20360143554756\, p^{87} q^{61} + 25950726942977\, p^{87} q^{63}$$
$$+ 742304324457\, p^{75} q^{125} + 29894531048\, p^{116} q^{46} + 176718811079\, p^{115} q^{52} + 221463384959\, p^{40} q^{57} + 2713467203679\, p^{56} q^{55}$$
$$+ 834716480\, p^{111} q^{33} + 106\, p^{66} q^{6} + 41559005746\, p^{117} q^{48} + 313842918\, p^{109} q^{30} + 1153512766555\, p^{49} q^{56} + 876720911740\, p^{48} q^{55}$$
$$+ 2121838508321\, p^{55} q^{54} + 997\, p^{19} q^{6} + 373\, p^{18} q^{5} + 1859794949826\, p^{55} q^{53} + 45\, p^{26} q^{3} + 893\, p^{35} q^{5} + 10584004208827\, p^{98} q^{61}$$
$$+ 13844251044570\, p^{98} q^{63} + 184713295358\, p^{133} q^{85} + 1351259371983\, p^{50} q^{56} + 1032161454923\, p^{49} q^{55} + 1939048625\, p^{55} q^{25}$$
$$+ 18\, q^{126} p^{20} + 68\, q^{133} p^{25} + 19952678217\, p^{66} q^{30} + 236133845\, p^{62} q^{20} + 7299850527\, p^{136} q^{131} + 64958342733\, p^{111} q^{45}$$
$$+ 1224613386755\, p^{121} q^{71} + 25594\, p^{87} q^{12} + 2846496609\, p^{113} q^{37} + 2849898364451\, p^{123} q^{91} + 12310449618\, q^{89} p^{31}$$
$$+ 3335488803\, q^{89} p^{28} + 8113039825\, q^{89} p^{30} + 5252034014\, q^{89} p^{29} + 57767\, q^{21} p^{12} + 144686\, q^{21} p^{14} + 281868\, q^{22} p^{15}$$
$$+ 10363857\, p^{113} q^{26} + 250128\, p^{20} q^{16} + 1924011144734\, p^{90} q^{48} + 1028629822691\, p^{89} q^{45} + 26495850302837\, p^{92} q^{65}$$
$$+ 18572643664603\, p^{92} q^{62} + 8258052969136\, p^{91} q^{56} + 705671075356\, q^{87} p^{43} + 4368098992233\, p^{86} q^{51} + 605647597148\, p^{85} q^{42}$$
$$+ 1057719\, p^{26} q^{16} + 25553\, q^{130} p^{28} + 11217\, p^{21} q^{9} + 71691\, p^{22} q^{12} + 10688\, p^{10} q^{18} + 65928\, p^{18} q^{14} + 17660\, p^{18} q^{11} + 129350\, p^{19} q^{15}$$
$$+ 43682\, p^{18} q^{13} + 25560604576\, q^{119} p^{48} + 28205\, p^{18} q^{12} + 204\, q^{33} p^{4} + 133455208\, p^{152} q^{112} + 47806390857301\, p^{72} q^{93}$$

$$+ 42892670254688\, p^{70} q^{92} + 8839059558925\, p^{86} q^{55} + 1607929029943\, p^{85} q^{46} + 29049137152710\, p^{87} q^{64} + 15092790706\, p^{81} q^{30}$$
$$+ 84244375520\, p^{83} q^{35} + 2943475413821\, p^{86} q^{49} + 37\, q^{16} p^{3} + 615949641\, q^{70} p^{22} + 1027290899\, q^{70} p^{23} + 1672892864\, q^{70} p^{24}$$
$$+ 6291025028\, q^{71} p^{27} + 126\, p^{17} q^{4} + 34\, p^{15} q^{3} + 91496483300\, p^{87} q^{36} + 20206\, p^{21} q^{10} + 2490\, p^{20} q^{7} + 4977\, p^{20} q^{8}$$
$$+ 69112366953613\, p^{81} q^{95} + 5823298\, p^{22} q^{24} + 76230813617532\, p^{88} q^{77} + 77729306295177\, p^{89} q^{78} + 67845626\, p^{67} q^{18}$$
$$+ 28347884823\, p^{66} q^{31} + 159\, p^{37} q^{4} + 3002811530414\, p^{69} q^{49} + 86944679073723\, p^{81} q^{81} + 2074234\, q^{63} p^{13} + 140304\, p^{16} q^{18}$$
$$+ 4710998\, q^{63} p^{14} + 13093\, p^{13} q^{14} + 9268\, p^{13} q^{13} + 12680676586631\, p^{63} q^{99} + 16692064158\, q^{90} p^{32} + 5181309004\, p^{143} q^{118}$$
$$+ 7990206424\, p^{143} q^{111} + 3955994156\, p^{139} q^{70} + 125432655\, p^{67} q^{19} + 1620303095129\, p^{55} q^{52} + 34831\, q^{21} p^{11} + 56991\, p^{124} q^{25}$$
$$+ 423091\, p^{22} q^{16} + 106015932844\, q^{77} p^{35} + 145175712833\, q^{77} p^{36} + 258112868104\, q^{78} p^{38} + 148163478\, q^{112} p^{30}$$
$$+ 1379551197083\, p^{126} q^{88} + 26286\, p^{92} q^{13} + 1072853100516\, p^{127} q^{103} + 1408\, q^{14} p^{8} + 792\, q^{14} p^{7} + 183\, q^{35} p^{4} + 59\, q^{110} p^{14}$$
$$+ 114\, q^{109} p^{14} + p^{8} q + 153894529915\, q^{98} p^{41} + 2063057342960\, p^{124} q^{102} + 1328025740760\, p^{125} q^{107} + 998381647953\, p^{125} q^{111}$$
$$+ 1279\, q^{111} p^{16} + 23525370433129\, p^{70} q^{64} + 1177185\, p^{55} q^{12} + 2681\, p^{44} q^{6} + 38327602170\, q^{77} p^{32} + 76497280163\, q^{77} p^{34}$$
$$+ 54507458604\, q^{77} p^{33} + 1222415102200\, p^{122} q^{73} + 2421767\, p^{99} q^{19} + 2201502916894\, p^{124} q^{100} + 597231030831\, p^{120} q^{64}$$
$$+ 241795566\, p^{114} q^{32} + 12904785\, p^{110} q^{25} + 1897830\, p^{100} q^{19} + 475778541281\, p^{121} q^{64} + 1799696007922\, p^{123} q^{80}$$
$$+ 1799572591164\, p^{125} q^{100} + 1402995848955\, p^{55} q^{51} + 57721415826\, p^{113} q^{46} + 7\, p^{42} q^{3} + 4268436\, q^{34} p^{16} + 5893949\, q^{33} p^{17}$$
$$+ 2245198\, q^{33} p^{15} + 3686120\, q^{33} p^{16} + 186501648\, p^{53} q^{20} + 5129\, q^{139} p^{34} + 17524211657906\, p^{62} q^{93} + 540539\, p^{16} q^{23}$$
$$+ 72802480559202\, p^{88} q^{76} + 183505\, p^{14} q^{22} + 61551677801930\, p^{88} q^{73} + 502853\, p^{46} q^{11} + 1127947\, p^{47} q^{12} + 62\, q^{76} p^{7} + 352\, q^{78} p^{8}$$
$$+ 20\, p^{5} q^{5} + 143522878719\, p^{131} q^{75} + 46046\, p^{20} q^{12} + 2234104410672\, p^{122} q^{80} + 2363869806416\, p^{124} q^{96} + 10282\, p^{85} q^{11}$$
$$+ 176718811079\, p^{119} q^{56} + 7646\, p^{19} q^{9} + 2364\, q^{14} p^{9} + 5039\, q^{15} p^{10} + 72735754272257\, p^{75} q^{84} + 56797399673400\, p^{71} q^{85}$$
$$+ 683112\, p^{16} q^{24} + 79253050045577\, p^{94} q^{86} + 37987\, p^{123} q^{24} + 9\, q^{6} p^{3} + 45\, p^{6} q^{6} + 6406\, p^{13} q^{12} + 554621865666\, p^{121} q^{65}$$
$$+ 739694210034\, p^{121} q^{67} + 554194496236\, p^{125} q^{117} + 5919\, p^{14} q^{11} + 12\, p^{5} q^{4} + 12\, p^{4} q^{5} + 3\, q^{5} p^{2} + 1097554489886\, p^{122} q^{72}$$
$$+ 71623952603\, p^{118} q^{51} + 2348319655346\, p^{124} q^{92} + 9\, p^{6} q^{3} + 2455566284344\, p^{122} q^{106} + 34776699406662\, p^{96} q^{105}$$
$$+ 8899574323153\, p^{116} q^{99} + 9423361255041\, p^{116} q^{97} + 3\, p^{5} q^{2} + 87239092123309\, p^{83} q^{80} + 23560303267072\, p^{108} q^{99}$$
$$+ 25418156761441\, p^{108} q^{97} + 234892935\, p^{151} q^{110} + 672\, q^{24} p^{5} + q^{16} p + 13337\, q^{27} p^{8} + 8855521\, p^{83} q^{17} + 76523627817\, q^{131} p^{70}$$
$$+ 198\, q^{23} p^{4} + 9767088\, p^{20} q^{29} + 123\, q^{126} p^{21} + 5\, p^{166} q^{105} + 4\, p^{169} q^{143} + 31947605091\, p^{129} q^{61} + 9\, p^{4} q^{4} + 7\, p^{3} q^{5} + 32766430\, q^{122} p^{33}$$

$$+ 90068623\, q^{122}\, p^{35} + 161693373\, q^{123}\, p^{37} + 54977279\, q^{122}\, p^{34} + 5\, q^{4}\, p^{3} + q^{5}\, p + 3\, q^{67}\, p^{5} + 196\, q^{34}\, p^{4} + 5919\, p^{11}\, q^{14} + 6406\, p^{12}\, q^{13}$$
$$+ 112777\, p^{20}\, q^{14} + 28100\, p^{20}\, q^{11} + 220115\, p^{21}\, q^{15} + 73060\, p^{20}\, q^{13} + 503350\, p^{54}\, q^{11} + 5510817\, p^{57}\, q^{14} + 2607490\, p^{56}\, q^{13}$$
$$+ 14581931\, p^{135}\, q^{43} + 893\, q^{35}\, p^{5} + 1691472675798\, p^{125}\, q^{102} + 1089076420989\, p^{126}\, q^{107} + 823960490395\, p^{126}\, q^{111}$$
$$+ 973561338531\, p^{123}\, q^{73} + 208\, q^{24}\, p^{4} + 353767563189\, p^{39}\, q^{72} + 755645017023\, p^{42}\, q^{72} + 592117220208\, p^{41}\, q^{72}$$
$$+ 270903811907\, p^{38}\, q^{73} + 459821852033\, p^{40}\, q^{72} + 75037305560650\, p^{95}\, q^{90} + 7281386\, p^{140}\, q^{48} + 19073130855949\, p^{63}\, q^{68} + p^{4}\, q$$
$$+ 2\, p^{2}\, q^{3} + 185777229317\, p^{118}\, q^{130} + 10200\, q^{43}\, p^{7} + 148\, q^{38}\, p^{4} + 87997\, q^{23}\, p^{12} + 54814\, q^{27}\, p^{10} + 27939\, q^{27}\, p^{9} + 62785\, q^{28}\, p^{10}$$
$$+ 4\, q^{28}\, p^{2} + 63245140676\, p^{135}\, q^{117} + 1472\, q^{22}\, p^{6} + 91\, p^{6}\, q^{8} + 39412351\, q^{55}\, p^{17} + 2053461263\, q^{56}\, p^{25} + 4468544874\, q^{56}\, p^{27}$$
$$+ 6850160317\, q^{57}\, p^{28} + 880262855\, q^{56}\, p^{23} + 9759924765\, q^{57}\, p^{29} + 20305375946\, q^{58}\, p^{31} + 13716705276\, q^{57}\, p^{30}$$
$$+ 3543706488254\, p^{77}\, q^{49} + 30929108378700\, p^{78}\, q^{64} + 177637315\, q^{124}\, p^{38} + 1830948412\, q^{126}\, p^{46} + 191310932\, q^{113}\, p^{31} + 71691\, p^{12}\, q^{22}$$
$$+ 11345658240\, q^{124}\, p^{50} + 20422872179\, p^{72}\, q^{30} + 9899613131102\, p^{77}\, q^{55} + 1928693326820\, p^{76}\, q^{46} + 13\, q^{8}\, p^{3} + 16\, q^{9}\, p^{3} + 144\, p^{8}\, q^{7}$$
$$+ 7967\, p^{15}\, q^{11} + 83560\, q^{48}\, p^{9} + 71939907\, q^{65}\, p^{18} + 2897\, q^{21}\, p^{7} + 11217\, q^{21}\, p^{9} + 24451\, q^{22}\, p^{10} + 315025\, q^{131}\, p^{32} + 100\, p^{7}\, q^{7} + 4\, q^{7}\, p^{2}$$
$$+ 770868493901\, p^{76}\, q^{42} + 29\, p^{8}\, q^{4} + 53\, p^{8}\, q^{5} + 123\, p^{9}\, q^{6} + 111214183132\, p^{74}\, q^{35} + 1576486\, q^{28}\, p^{16} + 190\, q^{22}\, p^{4}$$
$$+ 7796713073118\, p^{82}\, q^{116} + 8169971160065\, p^{83}\, q^{116} + 91763207816150\, p^{83}\, q^{83} + 133162194351\, p^{37}\, q^{60} + 1881410734685\, p^{98}\, q^{51}$$
$$+ 670370513339\, p^{97}\, q^{46} + 14392874531954\, p^{99}\, q^{64} + 4073094859403\, p^{98}\, q^{55} + 277280365\, p^{88}\, q^{23} + 8998179528\, p^{92}\, q^{31}$$
$$+ 2664552866\, p^{91}\, q^{28} + 4277910727448\, p^{77}\, q^{50} + 981831256247\, p^{76}\, q^{43} + 79402064848947\, p^{94}\, q^{88} + 76230813617532\, p^{94}\, q^{83}$$
$$+ 202176816703\, q^{134}\, p^{96} + 27682871\, p^{29}\, q^{23} + 289563\, q^{74}\, p^{12} + 708258\, p^{133}\, q^{35} + 67538401493\, p^{35}\, q^{58} + 47306343514\, p^{34}\, q^{57}$$
$$+ 106889578\, p^{52}\, q^{19} + 480124385\, p^{53}\, q^{22} + 9776824138247\, q^{104}\, p^{65} + 4877680348467\, q^{104}\, p^{60} + 3536084840613\, q^{104}\, p^{58}$$
$$+ 1393649340\, q^{99}\, p^{29} + 2237707080\, q^{99}\, p^{30} + 155476709\, q^{96}\, p^{24} + 599267758\, q^{98}\, p^{27} + 1002136673\, q^{98}\, p^{28} + 1637174141\, q^{98}\, p^{29}$$
$$+ 9820292954950\, q^{105}\, p^{66} + 32423857909015\, p^{99}\, q^{72} + 22566515061408\, p^{99}\, q^{68} + 1136715\, q^{108}\, p^{21} + 5890\, q^{21}\, p^{8} + 2728805\, p^{105}\, q^{21}$$
$$+ 63785683\, p^{111}\, q^{28} + 5161330679\, p^{118}\, q^{42} + 1149\, q^{20}\, p^{6} + 69559922955\, p^{131}\, q^{124} + 285579\, p^{14}\, q^{24} + 77689934\, q^{121}\, p^{34}$$
$$+ 85472758966\, p^{130}\, q^{124} + 1772083\, p^{20}\, q^{22} + 13\, p^{8}\, q^{3} + 4\, p^{7}\, q^{2} + q^{100}\, p^{10} + 103\, q^{102}\, p^{12} + 7245252944647\, q^{79}\, p^{53}$$
$$+ 5119409604825\, q^{79}\, p^{51} + 2348319655346\, q^{79}\, p^{47} + 1748984640646\, p^{46}\, q^{70} + 53\, p^{5}\, q^{8} + 67483147106103\, p^{80}\, q^{74}$$
$$+ 70805723150904\, p^{80}\, q^{75} + 41859447522097\, p^{80}\, q^{67} + 56699635807112\, p^{80}\, q^{71} + 60390210806882\, p^{80}\, q^{72}$$
$$+ 45511185374877\, p^{80}\, q^{68} + 55429778210\, q^{101}\, p^{39} + 76523627817\, q^{101}\, p^{40} + 2201502916894\, p^{100}\, q^{124} + 476106004337\, q^{102}\, p^{47}$$

$$+ 607240365733\, q^{102}\, p^{48} + 15040658184914\, p^{59}\, q^{88} + 2009291724229\, p^{85}\, q^{47} + 32\, q^{32}\, p^{3} + 978254603350\, p^{48}\, q^{56}$$
$$+ 739722201528\, p^{47}\, q^{55} + 10652699552669\, p^{92}\, q^{58} + 14236714879116\, p^{92}\, q^{60} + 44296582822476\, p^{93}\, q^{71} + 5886137795158\, p^{91}\, q^{54}$$
$$+ 520594\, p^{69}\, q^{12} + 4919313446565\, p^{91}\, q^{53} + 61348046\, q^{85}\, p^{20} + 41970163409\, q^{72}\, p^{32} + 112028529593\, q^{72}\, p^{35} + 81757405432\, q^{72}\, p^{34}$$
$$+ 29167236794\, q^{73}\, p^{31} + 58950434949\, q^{72}\, p^{33} + 1438199149093\, p^{91}\, q^{47} + 1382900035\, p^{83}\, q^{25} + 7578004844\, p^{85}\, q^{29}$$
$$+ 823357854\, p^{83}\, q^{24} + 854230\, p^{25}\, q^{16} + 907745784624\, q^{87}\, p^{44} + 285745054\, p^{52}\, q^{21} + 1136738054\, p^{53}\, q^{24} + 264023879106\, q^{119}\, p^{58}$$
$$+ 29\, p^{4}\, q^{8} + 9813450\, p^{26}\, q^{22} + 14156403954\, p^{142}\, q^{103} + 8338787832\, p^{139}\, q^{75} + 11151973017\, p^{140}\, q^{81} + 2060781542\, p^{144}\, q^{124}$$
$$+ 5123899326\, p^{138}\, q^{69} + 58702\, p^{116}\, q^{21} + 768755\, p^{122}\, q^{27} + 28\, p^{5}\, q^{6} + 102279535\, q^{123}\, p^{36} + 63353747\, q^{123}\, p^{35} + 68301\, p^{54}\, q^{9}$$
$$+ 314088367125\, p^{42}\, q^{56} + 2163158999\, q^{57}\, p^{25} + 4738729207\, q^{57}\, p^{27} + 211569812\, q^{56}\, p^{20} + 125280545\, q^{56}\, p^{19} + 10812938\, q^{53}\, p^{15}$$
$$+ 521103\, q^{52}\, p^{11} + 70243917\, q^{55}\, p^{18} + 5532743\, q^{54}\, p^{14} + 3808\, q^{102}\, p^{14} + 131629\, q^{130}\, p^{30} + 913\, q^{33}\, p^{5} + 56831336\, q^{50}\, p^{18}$$
$$+ 11613578652659\, p^{59}\, q^{93} + 16785073\, q^{68}\, p^{16} + 8414888\, q^{67}\, p^{15} + 57267368720007\, p^{100}\, q^{90} + 7897760679574\, p^{98}\, q^{59}$$
$$+ 80196899506\, p^{34}\, q^{69} + 76806335743680\, p^{80}\, q^{77} + 80760346762418\, p^{81}\, q^{78} + 63997974031095\, p^{80}\, q^{73} + 73926201226431\, p^{80}\, q^{76}$$
$$+ 25002982826\, p^{136}\, q^{123} + 1279571\, p^{78}\, q^{14} + 27339186007618\, p^{99}\, q^{70} + 377892179005\, p^{95}\, q^{43} + 17157297512\, q^{129}\, p^{58} + 178\, q^{21}\, p^{4}$$
$$+ 2121\, q^{19}\, p^{7} + 3430\, q^{18}\, p^{8} + 211938\, q^{51}\, p^{10} + 80081\, q^{50}\, p^{9} + 121377597\, q^{55}\, p^{19} + 1209167\, q^{52}\, p^{12} + 5479228\, q^{53}\, p^{14}$$
$$+ 334072170\, q^{55}\, p^{21} + 203945713\, q^{55}\, p^{20} + 348188250\, q^{56}\, p^{21} + 3228028504\, q^{57}\, p^{26} + 1424358852\, q^{57}\, p^{24} + 2490\, q^{20}\, p^{7}$$
$$+ 476898\, p^{154}\, q^{150} + 35799273283587\, p^{105}\, q^{95} + 36673312023241\, p^{105}\, q^{94} + 9966694362176\, p^{93}\, q^{116} + 9899613131102\, p^{94}\, q^{116}$$
$$+ 19813072970859\, p^{106}\, q^{105} + 23088977412663\, p^{105}\, q^{104} + 6291167315\, p^{65}\, q^{27} + 39741371222\, p^{66}\, q^{32} + p^{5}\, q + 40\, q^{7}\, p^{5} + 11\, p^{7}\, q^{3}$$
$$+ 4\, p^{6}\, q^{2} + 175219841975\, p^{39}\, q^{57} + 198732\, p^{17}\, q^{18} + 2280421691609\, p^{123}\, q^{84} + 305347559715\, p^{120}\, q^{60} + 642483519310\, p^{121}\, q^{66}$$
$$+ 188632\, p^{16}\, q^{19} + 17\, q^{6}\, p^{4} + 108281522715\, p^{135}\, q^{110} + 22\, p^{7}\, q^{4} + 40\, p^{7}\, q^{5} + 91\, p^{8}\, q^{6} + 1782\, q^{18}\, p^{7} + 6110927596360\, q^{79}\, p^{52}$$
$$+ 8533473186909\, q^{79}\, p^{54} + 4259125122576\, q^{79}\, p^{50} + 320473986249\, p^{126}\, q^{120} + 409262713\, p^{110}\, q^{31} + 2136410049957\, p^{124}\, q^{101}$$
$$+ 435372405287\, p^{125}\, q^{119} + 1896654938080\, q^{79}\, p^{46} + 3518295614610\, q^{79}\, p^{49} + 2885186101601\, q^{79}\, p^{48} + 6\, q^{23}\, p^{2}$$
$$+ 1491515626810\, p^{122}\, q^{75} + 15098677478\, p^{115}\, q^{43} + 917523268336\, p^{125}\, q^{112} + 185704663\, p^{109}\, q^{29} + 966363419015\, q^{78}\, p^{43}$$
$$+ 1224297021683\, q^{78}\, p^{44} + 342712317389\, q^{78}\, p^{39} + 1226646476\, p^{146}\, q^{122} + 613825764\, q^{86}\, p^{24} + 2389259470656\, p^{123}\, q^{85}$$
$$+ 2165705327856\, p^{123}\, q^{83} + 91301952774\, p^{118}\, q^{52} + 846479828399\, p^{121}\, q^{68} + 9307\, q^{20}\, p^{9} + 20206\, q^{21}\, p^{10} + 8583165855541\, p^{56}\, q^{68}$$
$$+ 221195\, p^{93}\, q^{15} + 142938437864\, p^{119}\, q^{55} + 22248898624\, p^{116}\, q^{45} + 68884057\, p^{106}\, q^{26} + 7563198\, q^{114}\, p^{26} + 1907709\, q^{109}\, p^{22}$$

$$+ 5\, q^{26}\, p^{2} + 224\, q^{29}\, p^{4} + 13093\, p^{14}\, q^{13} + 389368\, p^{95}\, q^{16} + 8925\, p^{14}\, q^{12} + 250128\, p^{16}\, q^{20} + 199132842875\, q^{70}\, p^{37}$$
$$+ 32341034607875\, p^{105}\, q^{98} + 10518\, p^{40}\, q^{7} + 31564369385512\, p^{107}\, q^{89} + 22151627524065\, p^{106}\, q^{76} + 23632927057388\, p^{106}\, q^{77}$$
$$+ 28399540046800\, p^{108}\, q^{91} + 26072900663603\, p^{107}\, q^{81} + 14834264974144\, p^{106}\, q^{71} + 30468752147467\, p^{107}\, q^{86}$$
$$+ 30978707110098\, p^{107}\, q^{87} + 23670584904719\, p^{107}\, q^{79} + 3297819\, p^{22}\, q^{22} + 2451911803\, p^{145}\, q^{89} + 923397994585\, q^{104}\, p^{51}$$
$$+ 739694210034\, q^{104}\, p^{50} + 90654586726\, q^{102}\, p^{41} + 728\, q^{17}\, p^{6} + 22628174\, q^{36}\, p^{19} + 903\, q^{31}\, p^{5} + 3030\, q^{32}\, p^{6} + 72481061565455\, p^{95}\, q^{92}$$
$$+ 3358552694\, p^{84}\, q^{27} + 886\, q^{30}\, p^{5} + 4297\, q^{141}\, p^{36} + 1825\, q^{141}\, p^{35} + 151300449721\, p^{135}\, q^{97} + 9142026\, q^{36}\, p^{17} + 632542411\, q^{69}\, p^{22}$$
$$+ 1050384808\, q^{69}\, p^{23} + 8\, q^{15}\, p^{2} + 141\, q^{18}\, p^{4} + 997\, q^{19}\, p^{6} + 373\, q^{18}\, p^{5} + 4\, q^{44}\, p^{3} + q^{6}\, p + 22\, q^{7}\, p^{4} + 343803226390\, p^{39}\, q^{70}$$
$$+ 257816260392\, p^{38}\, q^{69} + 34433809\, q^{51}\, p^{17} + 4\, q^{6}\, p^{2} + 906\, p^{34}\, q^{5} + 450462030382\, q^{78}\, p^{40} + 756156819874\, q^{78}\, p^{42}$$
$$+ 586362655003\, q^{78}\, p^{41} + 15305989783\, q^{130}\, p^{59} + 8925\, p^{12}\, q^{14} + 18787\, p^{14}\, q^{14} + 37562\, p^{15}\, q^{15} + 24305989\, p^{26}\, q^{25} + 31570240\, p^{25}\, q^{27}$$
$$+ 54969766\, p^{27}\, q^{27} + 93043449\, p^{28}\, q^{28} + 174918648\, q^{120}\, p^{35} + 54201709\, q^{119}\, p^{32} + 8\, q^{20}\, p^{2} + 84497\, q^{44}\, p^{9} + 16650418\, q^{48}\, p^{16}$$
$$+ 224\, q^{30}\, p^{4} + 268317435\, p^{51}\, q^{21} + 1060066258\, p^{52}\, q^{24} + 3077\, q^{15}\, p^{9} + 6570\, q^{16}\, p^{10} + 1791\, q^{15}\, p^{8} + 7\, q^{12}\, p^{2} + 2914363225754\, p^{77}\, q^{48}$$
$$+ 1552605787686\, p^{76}\, q^{45} + 45\, q^{153}\, p^{50} + 17\, q^{153}\, p^{49} + 6\, q^{152}\, p^{46} + 520594\, p^{102}\, q^{159} + 39153\, p^{92}\, q^{160} + 7325387296\, q^{90}\, p^{30} + 201\, q^{14}\, p^{5}$$
$$+ 86\, q^{14}\, p^{4} + 218\, q^{31}\, p^{4} + 40\, q^{29}\, p^{3} + 538531844422\, p^{128}\, q^{80} + 583031585359\, p^{130}\, q^{100} + 18437\, q^{24}\, p^{9} + 8021\, q^{23}\, p^{8} + 3800\, q^{23}\, p^{7}$$
$$+ 6104829588889\, p^{77}\, q^{52} + 5127969902751\, p^{77}\, q^{51} + 478\, p^{9}\, q^{9} + 1024\, p^{10}\, q^{10} + 36673255229313\, q^{105}\, p^{85} + 38297970260685\, q^{105}\, p^{88}$$
$$+ 38482819847765\, q^{105}\, p^{90} + 34853357705048\, q^{106}\, p^{91} + 37386978791358\, q^{105}\, p^{86} + 35799502307389\, q^{105}\, p^{84} + 15\, q^{52}\, p^{4}$$
$$+ 118\, q^{55}\, p^{5} + 32343120830510\, q^{105}\, p^{81} + 314088367125\, p^{129}\, q^{115} + 2515856\, q^{147}\, p^{58} + 6439737398\, p^{56}\, q^{28} + 758452490499\, p^{59}\, q^{45}$$
$$+ 376905101351\, p^{58}\, q^{42} + 148995859618\, p^{58}\, q^{38} + 465619288098\, p^{58}\, q^{43} + 115562057593\, p^{58}\, q^{37} + 190352899828\, p^{58}\, q^{39} + 38\, q^{30}\, p^{3}$$
$$+ 43\, q^{69}\, p^{6} + 154967\, q^{131}\, p^{31} + 4615357\, q^{142}\, p^{50} + 27\, q^{13}\, p^{3} + 2950962\, p^{17}\, q^{29} + 317\, p^{8}\, q^{9} + 321660\, q^{63}\, p^{11}$$
$$+ 24732712923536\, p^{105}\, q^{103} + 93502701475178\, p^{85}\, q^{84} + 42\, p^{28}\, q^{3} + 79518295043649\, p^{94}\, q^{87} + 133894578026\, p^{126}\, q^{64}$$
$$+ 25901391374\, p^{114}\, q^{44} + 1153752\, q^{113}\, p^{23} + 1025\, p^{105}\, q^{14} + 10138534407\, p^{53}\, q^{30} + 2318942625\, p^{52}\, q^{26} + 7295637062\, p^{53}\, q^{29}$$
$$+ 70\, q^{9}\, p^{5} + 164\, q^{10}\, p^{6} + 317\, p^{9}\, q^{8} + 1606459\, p^{17}\, q^{26} + 18379773\, q^{50}\, p^{16} + 32838695\, q^{50}\, p^{17} + 91428350\, p^{146}\, q^{69} + 106965\, p^{12}\, q^{24}$$
$$+ 29265\, p^{10}\, q^{23} + 29851581002270\, p^{71}\, q^{99} + 43383165484225\, p^{75}\, q^{98} + 46115231034311\, p^{76}\, q^{98} + 57361934723807\, p^{79}\, q^{97}$$
$$+ 71624595725914\, p^{85}\, q^{96} + 15694469069019\, p^{73}\, q^{107} + 89165280942987\, p^{88}\, q^{82} + 141785813259\, p^{78}\, q^{36} + 4314815400\, q^{103}\, p^{33}$$
$$+ 21596094\, q^{39}\, p^{18} + 27950251560361\, p^{105}\, q^{101} + 41895204\, p^{27}\, q^{26} + 23052146878670\, p^{87}\, q^{62} + 32336871758457\, p^{87}\, q^{65} + q^{10}\, p$$

$$+ 470\, p^{77}\, q^{8} + 63245140676\, p^{54}\, q^{36} + 2063057342960\, p^{47}\, q^{69} + 7482489097553\, p^{55}\, q^{68} + 6139180834639\, p^{54}\, q^{67} + 79850\, q^{41}\, p^{9}$$
$$+ 4372681\, q^{27}\, p^{19} + 1985569\, q^{27}\, p^{17} + 5902008106310\, p^{119}\, q^{89} + 3991977890705\, p^{118}\, q^{77} + 4338794799389\, p^{119}\, q^{81}$$
$$+ 3685188043416\, p^{118}\, q^{76} + 4854550762768\, p^{120}\, q^{98} + 4301876675479\, p^{118}\, q^{78} + 5628480422217\, p^{119}\, q^{87} + 5456443739258\, p^{119}\, q^{86}$$
$$+ 5999830247665\, p^{119}\, q^{90} + 25095741172592\, p^{88}\, q^{109} + 24747436628872\, p^{87}\, q^{109} + 52240870406594\, p^{70}\, q^{79} + 575\, q^{22}\, p^{5}$$
$$+ 1638\, q^{23}\, p^{6} + 8665352\, p^{47}\, q^{15} + 4598484\, p^{47}\, q^{14} + 24904353164232\, p^{91}\, q^{64} + 7403589443384\, p^{90}\, q^{55} + 46046\, q^{20}\, p^{12}$$
$$+ 112777\, q^{20}\, p^{14} + 220115\, q^{21}\, p^{15} + 3580371086920\, p^{90}\, q^{51} + 1304547622392\, p^{89}\, q^{46} + 61122\, q^{105}\, p^{17} + 2519\, q^{103}\, p^{14}$$
$$+ 602007701\, q^{50}\, p^{23} + 14659802384331\, p^{61}\, q^{67} + 12316837231569\, p^{60}\, q^{66} + 10710\, q^{103}\, p^{15} + 45751324652\, q^{100}\, p^{38}$$
$$+ 414675804325\, p^{87}\, q^{41} + 37055872515\, p^{85}\, q^{33} + 133518583\, q^{152}\, p^{107} + 35\, q^{9}\, p^{4} + 6812556320368\, p^{69}\, q^{54} + 1691472675798\, p^{69}\, q^{46}$$
$$+ 8241598429374\, p^{70}\, q^{55} + 289974450\, q^{125}\, p^{40} + 247266\, q^{29}\, p^{12} + 728895\, q^{29}\, p^{14} + 16367\, q^{132}\, p^{29} + 220\, p^{8}\, q^{8} + 204\, p^{7}\, q^{9}$$
$$+ 17660\, p^{11}\, q^{18} + 234157992225\, p^{87}\, q^{39} + 135361331802\, p^{86}\, q^{37} + 11023451082\, p^{54}\, q^{30} + 2504417695\, p^{53}\, q^{26} + 7909947152\, p^{54}\, q^{29}$$
$$+ 8628330645\, q^{62}\, p^{28} + 29652706399580\, p^{106}\, q^{98} + 12473824867\, q^{62}\, p^{29} + 17775892702\, q^{62}\, p^{30} + 24989892508\, q^{62}\, p^{31}$$
$$+ 313227492929\, p^{87}\, q^{40} + 112119189\, q^{53}\, p^{19} + 42\, q^{28}\, p^{3} + 70\, p^{9}\, q^{5} + 164\, p^{10}\, q^{6} + 2377208570519\, p^{76}\, q^{47} + 465232405048\, p^{75}\, q^{40}$$
$$+ 14243707871\, p^{136}\, q^{127} + 22421\, p^{11}\, q^{19} + 28205\, p^{12}\, q^{18} + 869955616752\, q^{122}\, p^{70} + 979935522555\, q^{122}\, p^{71} + 355944984914\, p^{75}\, q^{39}$$
$$+ 217576\, q^{47}\, p^{10} + 84576\, q^{47}\, p^{9} + 218120\, q^{48}\, p^{10} + 1663600\, p^{19}\, q^{23} + 447071\, p^{15}\, q^{24} + 114497247830\, p^{135}\, q^{109} + 85069\, q^{46}\, p^{9}$$
$$+ 204\, p^{9}\, q^{7} + 35\, p^{9}\, q^{4} + 87817324893\, q^{131}\, p^{71} + 242872529790\, q^{99}\, p^{43} + 89623068\, q^{49}\, p^{19} + 670370513339\, p^{74}\, q^{125}$$
$$+ 1097554489886\, q^{122}\, p^{72} + 1781010242541\, q^{122}\, p^{77} + 1222415102200\, q^{122}\, p^{73} + 1634197875234\, q^{122}\, p^{76} + 1353969473240\, q^{122}\, p^{74}$$
$$+ 1491515626810\, q^{122}\, p^{75} + 4722947172\, q^{123}\, p^{46} + 61\, p^{58}\, q^{5} + 29489484674952\, p^{105}\, q^{100} + 4\, q^{27}\, p^{2} + 28100\, q^{20}\, p^{11}$$
$$+ 433412314\, p^{148}\, q^{87} + 26671204430510\, p^{108}\, q^{85} + 30488342\, p^{90}\, q^{20} + 586362655003\, p^{93}\, q^{130} + 402854329677\, p^{89}\, q^{131}$$
$$+ 34184765272978\, p^{101}\, q^{75} + 997937\, p^{28}\, q^{15} + 51632953\, p^{25}\, q^{29} + 144\, p^{7}\, q^{8} + 123\, p^{6}\, q^{9} + 11575073296485\, p^{78}\, q^{56}$$
$$+ 269647372666\, p^{75}\, q^{38} + 43383165484225\, p^{73}\, q^{96} + 17282310\, p^{23}\, q^{27} + 3260\, q^{36}\, p^{6} + 847\, q^{37}\, p^{5} + 121562819\, p^{68}\, q^{19}$$
$$+ 8480996403539\, p^{77}\, q^{54} + 66849256292574\, p^{80}\, q^{95} + 21455546175566\, p^{66}\, q^{97} + 11592241983878\, q^{80}\, p^{56} + 49223905890755\, p^{80}\, q^{69}$$
$$+ 52965104756244\, p^{80}\, q^{70} + 10219\, q^{37}\, p^{7} + 85245346179760\, p^{84}\, q^{79} + 19815911914915\, p^{78}\, q^{60} + 13360027466651\, p^{78}\, q^{57}$$
$$+ 4397606\, p^{138}\, q^{44} + 36281473\, p^{142}\, q^{56} + 73060\, q^{20}\, p^{13} + 1050384808\, p^{69}\, q^{23} + 26382\, p^{15}\, q^{14} + 52429\, p^{16}\, q^{15} + 378123\, q^{133}\, p^{34}$$
$$+ 708258\, q^{133}\, p^{35} + 194118\, q^{133}\, p^{33} + 16650418\, p^{48}\, q^{16} + 34096714200625\, p^{78}\, q^{65} + 37931258836114\, p^{79}\, q^{66}$$

$$+ 7219142880885\, p^{77} q^{53} + 1239814384123\, p^{76} q^{44} + 632542411\, p^{69} q^{22} + 2664897185\, p^{70} q^{25} + 12186\, p^{15} q^{12} + 18154\, p^{15} q^{13}$$
$$+ 463\, p^{99} q^{12} + 4314815400\, p^{138} q^{68} + 1589566510\, p^{136} q^{59} + 6021837450\, p^{143} q^{116} + 12211952789\, p^{142} q^{94} + 1434828496\, p^{144} q^{127}$$
$$+ 8628330645\, p^{143} q^{109} + 8633079\, p^{128} q^{35} + 217425320110\, p^{133} q^{88} + 911\, q^{32} p^{5} + 66273373156\, q^{131} p^{69} + 24989989897\, q^{132} p^{65}$$
$$+ 48775307901\, q^{131} p^{67} + 57037298058\, q^{131} p^{68} + 206885\, q^{134} p^{34} + 40777957059414\, q^{78} p^{67} + 124376718251\, p^{134} q^{112}$$
$$+ 14412434037478\, p^{61} q^{94} + 2543325673432\, p^{97} q^{52} + 1491515626810\, p^{96} q^{49} + 7711430280\, p^{127} q^{52} + 19531536746\, p^{65} q^{30}$$
$$+ 234892935\, p^{61} q^{20} + 4289\, p^{24} q^{7} + 13727358270\, q^{129} p^{57} + 8106706761\, q^{126} p^{51} + 1164902\, p^{148} q^{153} + 621831\, p^{149} q^{154}$$
$$+ 67641867592480\, p^{94} q^{79} + 75913553\, p^{61} q^{18} + 11069645\, p^{59} q^{15} + 89765555384\, p^{134} q^{116} + 263190073417\, p^{133} q^{94}$$
$$+ 11387414273352\, p^{115} q^{89} + 7987598302640\, p^{114} q^{77} + 9956914427679\, p^{116} q^{91} + 8728807299398\, p^{115} q^{81} + 4721208223948\, p^{114} q^{71}$$
$$+ 7414314449010\, p^{114} q^{76} + 138291163163\, q^{90} p^{38} + 72066545105\, q^{90} p^{36} + 2897\, p^{21} q^{7} + 801335\, p^{17} q^{23} + 5890\, p^{21} q^{8} + p^{12} q$$
$$+ 87817324893\, p^{131} q^{71} + 244609169562\, p^{133} q^{91} + 179325\, p^{56} q^{10} + 3260\, p^{36} q^{6} + 29563900225\, q^{69} p^{31} + 71996327\, p^{77} q^{19}$$
$$+ 27733310465\, p^{54} q^{33} + 2558755496\, q^{87} p^{27} + 100439151752\, q^{90} p^{37} + 6150619886\, q^{126} p^{50} + 10385\, q^{38} p^{7} + 87997\, p^{23} q^{12}$$
$$+ 78217668307\, p^{130} q^{68} + 29211196042\, p^{128} q^{59} + 141\, p^{18} q^{4} + 37\, p^{16} q^{3} + 24451\, p^{22} q^{10} + 1281894715909\, p^{57} q^{49}$$
$$+ 528460521\, q^{122} p^{39} + 22306142\, q^{120} p^{31} + 1503947008842\, p^{57} q^{50} + 2504417695\, q^{53} p^{26} + 652\, p^{42} q^{5} + 4116545922\, p^{64} q^{26}$$
$$+ 1078231273\, p^{63} q^{23} + 13592409467\, p^{65} q^{29} + 741\, p^{40} q^{5} + 67060536246\, q^{130} p^{67} + 202368242865\, p^{131} q^{115} + 20628744687\, p^{54} q^{32}$$
$$+ 3628910283\, p^{53} q^{27} + 15170271733\, p^{54} q^{31} + 20657735352911\, p^{106} q^{75} + 1139864365921\, q^{91} p^{46} + 39044637836\, q^{89} p^{34}$$
$$+ 3042098990988\, p^{55} q^{57} + 86350195889\, p^{35} q^{62} + 289988295\, p^{102} q^{27} + 218983\, p^{101} q^{17} + 3447895\, p^{107} q^{22} + 509072931519\, p^{129} q^{109}$$
$$+ 3110225787826\, p^{121} q^{82} + 56871\, p^{13} q^{19} + 5934150\, p^{23} q^{23} + 229616916883\, p^{55} q^{41} + 36881117792\, p^{54} q^{34} + 48538200685\, p^{54} q^{35}$$
$$+ 284372716382\, p^{55} q^{42} + 115023687867\, p^{55} q^{38} + 349432771859\, p^{55} q^{43} + 250567468\, q^{50} p^{21} + 2307255018493\, p^{98} q^{52}$$
$$+ 1353969473240\, p^{97} q^{49} + 26600813\, p^{116} q^{29} + 89765555384\, p^{55} q^{37} + 146074292727\, p^{55} q^{39} + 8529515519\, q^{55} p^{29}$$
$$+ 2975231\, p^{153} q^{144} + 3335758\, q^{84} p^{16} + 525\, q^{21} p^{5} + 24396616903\, q^{131} p^{63} + 4278851301718\, p^{78} q^{50} + 976440966362\, p^{77} q^{43}$$
$$+ 829492\, p^{81} q^{14} + 79244\, p^{75} q^{11} + 138079690\, q^{93} p^{23} + 215509342\, q^{94} p^{24} + 75494658\, p^{62} q^{18} + 10903556\, p^{60} q^{15}$$
$$+ 54832401318585\, p^{93} q^{74} + 30982335889630\, p^{93} q^{67} + 73071239\, p^{32} q^{24} + 1985\, p^{25} q^{6} + 672\, p^{24} q^{5} + 503168\, p^{30} q^{13}$$
$$+ 6528962\, p^{31} q^{18} + 11920471177\, q^{55} p^{30} + 1522499638916\, q^{121} p^{73} + 10580132160\, p^{119} q^{45} + 178571\, p^{98} q^{16} + 68187569313\, p^{122} q^{55}$$
$$+ 32538983\, p^{109} q^{26} + 2025487142765\, q^{121} p^{76} + 5181309004\, p^{53} q^{28} + 572707418546\, p^{56} q^{45} + 426118448618\, p^{55} q^{44}$$

$$+ 4241748\, p^{21} q^{24} + 8021\, p^{23} q^{8} + 128727\, p^{25} q^{12} + 34712\, p^{24} q^{10} + 63\, p^{45} q^{4} + 43682\, p^{13} q^{18} + 1115222\, q^{79} p^{14}$$
$$+ 765340630551\, p^{77} q^{42} + 109994547440\, p^{75} q^{35} + 3539540398607\, p^{78} q^{49} + 31312194509456\, p^{79} q^{64} + 20148451552\, p^{73} q^{30}$$
$$+ 9966694362176\, p^{78} q^{55} + 1927288370126\, p^{77} q^{46} + 24526\, q^{26} p^{9} + 21272091934\, q^{129} p^{59} + 102770\, p^{17} q^{16} + 34150545461783\, q^{93} p^{68}$$
$$+ 656858102\, q^{67} p^{22} + 277280365\, q^{148} p^{83} + 67268\, q^{76} p^{11} + 18\, q^{51} p^{4} + 418\, q^{14} p^{6} + 102067\, p^{96} q^{15} + 3520536921\, q^{99} p^{31}$$
$$+ 142228095952\, q^{103} p^{43} + 503392\, q^{84} p^{14} + 7080565584\, q^{100} p^{33} + 10596507086\, q^{100} p^{34} + 168\, q^{13} p^{5} + 183680901\, q^{147} p^{76} + 7\, q^{21} p^{2}$$
$$+ 5\, q^{25} p^{2} + 1220488200\, p^{123} q^{42} + 1519728720619\, q^{79} p^{45} + 962944074628\, q^{121} p^{69} + 1224613386755\, q^{121} p^{71}$$
$$+ 1851600711679\, q^{121} p^{75} + 2203969789062\, q^{121} p^{77} + 1930804391738\, q^{122} p^{78} + 1369273510643\, q^{121} p^{72} + 13364\, q^{22} p^{9}$$
$$+ 6913\, q^{22} p^{8} + 144482\, p^{23} q^{13} + 1149\, p^{20} q^{6} + 424\, p^{19} q^{5} + 183909571425\, p^{55} q^{40} + 13364\, p^{22} q^{9} + 51792\, p^{23} q^{11} + 7\, q^{22} p^{2}$$
$$+ 30958892959476\, p^{105} q^{99} + 33618991455619\, p^{105} q^{97} + 26576272800\, q^{77} p^{31} + 18368945793\, q^{89} p^{32} + 26980494155\, q^{89} p^{33}$$
$$+ 11151973017\, q^{90} p^{31} + 192358628533\, q^{78} p^{37} + 10003506696\, q^{118} p^{44} + 1496103\, p^{24} q^{18} + 176911497\, p^{151} q^{119}$$
$$+ 371253641\, p^{150} q^{102} + 359819433\, p^{150} q^{101} + 230112\, p^{23} q^{14} + 447071\, p^{24} q^{15} + 31144464\, p^{49} q^{17} + 156594776\, p^{50} q^{20}$$
$$+ 382983791\, p^{149} q^{92} + 26141079\, p^{152} q^{134} + 6043257158\, p^{73} q^{27} + 20643483798\, p^{69} q^{30} + 232541513\, p^{65} q^{20} + 11813854\, p^{152} q^{139}$$
$$+ 14904669\, q^{40} p^{17} + 2541000448\, q^{125} p^{46} + 272115743\, q^{124} p^{39} + 94572422762\, p^{109} q^{45} + 7872469963888\, p^{116} q^{102}$$
$$+ 14687053933\, p^{107} q^{38} + 8585396580535\, p^{116} q^{100} + 350818\, p^{25} q^{14} + 680567\, p^{26} q^{15} + 1606459\, p^{26} q^{17} + 8964534\, p^{27} q^{21}$$
$$+ 5002516\, p^{26} q^{20} + 3487886\, p^{26} q^{19} + 95571229\, p^{50} q^{19} + 421944157\, p^{51} q^{22} + 58759225647\, p^{33} q^{70} + 150863386266\, p^{36} q^{71}$$
$$+ 42038783707\, p^{32} q^{70} + 45834568486378\, p^{88} q^{69} + 49724061638768\, p^{88} q^{70} + 369816454459\, p^{84} q^{40} + 278125793508\, p^{84} q^{39}$$
$$+ 59934427976\, p^{83} q^{34} + 160364090823\, p^{83} q^{37} + 15605494654748\, p^{87} q^{59} + 486774892775\, p^{84} q^{41} + 44492290446\, p^{82} q^{33}$$
$$+ 2820653402\, p^{80} q^{26} + 23052146878670\, p^{62} q^{87} + 33161779586894\, p^{65} q^{86} + 203488011213\, p^{132} q^{82} + 10003506696\, p^{127} q^{53}$$
$$+ 350798511\, q^{86} p^{23} + 941323908\, q^{87} p^{25} + 194581285\, q^{86} p^{22} + 650174585\, p^{51} q^{23} + 69152049063633\, p^{74} q^{83}$$
$$+ 57326532303964\, p^{71} q^{84} + 263190073417\, q^{77} p^{38} + 457564072186\, q^{77} p^{40} + 765340630551\, q^{77} p^{42} + 188292\, p^{128} q^{29}$$
$$+ 7601374\, p^{25} q^{22} + 2754492\, p^{19} q^{25} + 846479828399\, q^{121} p^{68} + 38482755730754\, q^{105} p^{89} + 33620283278123\, q^{105} p^{82}$$
$$+ 13936407733\, p^{72} q^{29} + 8\, q^{19} p^{2} + 9360347871\, p^{72} q^{28} + 34776699406662\, p^{105} q^{96} + 9117948\, p^{48} q^{15} + 4802010\, p^{48} q^{14} + 29\, p^{78} q^{7}$$
$$+ 1021028\, p^{24} q^{17} + 5502078\, p^{25} q^{21} + 3045302\, p^{24} q^{20} + 2152455\, p^{24} q^{19} + 69405576840\, p^{55} q^{36} + 3484207216\, p^{125} q^{47} + 508\, q^{15} p^{6}$$
$$+ 990\, q^{15} p^{7} + 75749839137\, p^{135} q^{115} + 44446\, q^{133} p^{31} + 203550995187\, p^{74} q^{37} + 2975231\, q^{27} p^{18} + 6312662\, q^{27} p^{20} + 11271415\, q^{28} p^{21}$$

$$+ 17478600513117\, p^{78} q^{59} + 22336558115904\, p^{78} q^{61} + 15326836867389\, p^{78} q^{58} + 27903443432034\, p^{78} q^{63}$$
$$+ 25035257520223\, p^{78} q^{62} + 623720929\, q^{114} p^{34} + 45\, q^{26} p^{3} + 25685639314331\, p^{104} q^{75} + 1066086678\, p^{29} q^{38} + 58027014\, p^{148} q^{73}$$
$$+ 5419880\, p^{144} q^{54} + 131454292\, p^{152} q^{106} + 31082\, q^{43} p^{8} + 46\, q^{25} p^{3} + 6\, q^{24} p^{2} + 1580911207\, p^{52} q^{25} + 64540688933\, p^{129} q^{127}$$
$$+ 29585\, q^{39} p^{8} + 401523583405\, p^{74} q^{127} + 2586303823\, q^{115} p^{38} + 10488\, q^{39} p^{7} + 77374\, q^{40} p^{9} + 3188\, q^{39} p^{6} + 30256\, q^{40} p^{8} + 9\, q^{16} p^{2}$$
$$+ 35531362\, q^{89} p^{20} + 8013258023\, q^{93} p^{31} + 2078838635\, q^{93} p^{28} + 3324296477\, q^{93} p^{29} + 1272111069\, q^{93} p^{27} + 18\, q^{10} p^{3}$$
$$+ 713983\, p^{19} q^{20} + 524293\, p^{19} q^{19} + 379186\, p^{19} q^{18} + 10518\, q^{40} p^{7} + 211\, q^{11} p^{6} + 7897760679574\, p^{59} q^{98} + 2434323\, p^{21} q^{22}$$
$$+ 6808133\, p^{138} q^{45} + 24926101\, p^{141} q^{53} + 159\, q^{37} p^{4} + 381\, q^{95} p^{11} + 44\, q^{10} p^{4} + 89\, q^{10} p^{5} + 741\, q^{40} p^{5} + 26168234535\, p^{129} q^{60}$$
$$+ 57124054866\, p^{130} q^{66} + 350475\, q^{106} p^{19} + 27355305\, q^{121} p^{32} + 46684332\, q^{121} p^{33} + 29991409\, p^{19} q^{38} + 83644394917356\, p^{81} q^{90}$$
$$+ 89287623699546\, p^{85} q^{90} + 88479065808126\, p^{84} q^{90} + 89150680433679\, p^{88} q^{90} + 86944679073723\, p^{90} q^{90}$$
$$+ 83656677992712\, p^{91} q^{91} + 89671621992830\, p^{86} q^{90} + 88252889191648\, p^{89} q^{90} + 244277767\, p^{89} q^{23} + 85638202764347\, p^{82} q^{90}$$
$$+ 19997986499487\, p^{60} q^{81} + 5902008106310\, p^{52} q^{82} + 188213782230\, q^{132} p^{81} + 203488011213\, q^{132} p^{82} + 173165377654\, q^{133} p^{84}$$
$$+ 80798675233\, p^{74} q^{34} + 602312406092\, p^{75} q^{41} + 17750173\, q^{119} p^{30} + 4093883918\, p^{71} q^{26} + 58610650721\, p^{73} q^{33}$$
$$+ 4098057961\, p^{136} q^{134} + 3500796058703\, p^{96} q^{122} + 3037\, q^{41} p^{6} + 1672892864\, p^{70} q^{24} + 84955796047\, p^{127} q^{63}$$
$$+ 5012875068590\, p^{120} q^{90} + 29894531048\, q^{125} p^{55} + 153\, q^{97} p^{11} + 51792\, q^{23} p^{11} + 4683549503559\, p^{120} q^{87} + 4534190353822\, p^{120} q^{86}$$
$$+ 4071917026113\, p^{121} q^{98} + 3560181122863\, p^{119} q^{78} + 10385\, p^{38} q^{7} + 32\, p^{32} q^{3} + 3580371086920\, p^{120} q^{81} + 3041000996131\, p^{119} q^{76}$$
$$+ 350818\, p^{14} q^{25} + 361125\, p^{17} q^{20} + 4924501965903\, p^{120} q^{89} + 3298961692363\, p^{119} q^{77} + 26242796758\, p^{121} q^{50} + 2\, q^{31} p^{2}$$
$$+ 86788\, p^{19} q^{14} + 22421\, p^{19} q^{11} + 169798\, p^{20} q^{15} + 56871\, p^{19} q^{13} + 36254\, p^{19} q^{12} + 370577\, q^{61} p^{11} + 513315\, q^{47} p^{11} + 173\, q^{36} p^{4}$$
$$+ 7710901\, q^{84} p^{17} + 425224228\, p^{26} q^{38} + 90654586726\, p^{130} q^{69} + 118953\, p^{103} q^{17} + 183469386\, p^{144} q^{139} + 4039511\, p^{66} q^{14}$$
$$+ 1845790\, p^{65} q^{13} + 63771183185\, q^{100} p^{39} + 119539709774\, q^{100} p^{41} + 87817324893\, q^{100} p^{40} + 15608808377\, q^{100} p^{35}$$
$$+ 35727567594417\, q^{90} p^{67} + 572265039\, p^{116} q^{35} + 80890547585\, p^{123} q^{57} + 2771666014\, p^{119} q^{41} + 884260869\, p^{116} q^{36}$$
$$+ 42901961413\, p^{122} q^{53} + 449\, p^{10} q^{8} + 278\, p^{10} q^{7} + 4501045\, q^{64} p^{14} + 14156403954\, q^{68} p^{29} + 1305\, q^{21} p^{6} + 474\, q^{20} p^{5} + 3332\, q^{22} p^{7}$$
$$+ 40\, q^{17} p^{3} + 19967085\, p^{115} q^{28} + 149187912\, p^{119} q^{34} + 228968104\, q^{66} p^{20} + 1081426121\, q^{67} p^{23} + 688\, p^{10} q^{9} + 1469\, p^{11} q^{10}$$
$$+ 13366\, p^{19} q^{10} + 1782\, p^{18} q^{7} + 6203\, p^{18} q^{9} + 3430\, p^{18} q^{8} + 512057\, p^{18} q^{20} + 980388\, p^{20} q^{20} + 1809662\, p^{21} q^{21} + 196469\, q^{42} p^{10}$$
$$+ 22295396537357\, p^{88} q^{62} + 31379678200266\, p^{88} q^{65} + 5555865\, p^{116} q^{157} + 728\, p^{17} q^{6} + 280\, p^{16} q^{5} + 5909127\, p^{72} q^{15}$$

$$+ 15860538\, q^{69}\, p^{16} + 423091\, q^{22}\, p^{16} + 13412250958082\, q^{80}\, p^{57} + 188213782230\, p^{132}\, q^{81} + 86093643650\, p^{111}\, q^{46}$$
$$+ 253846758003\, p^{112}\, q^{51} + 38716091557\, p^{109}\, q^{42} + 112973409168\, p^{111}\, q^{47} + 5728364\, p^{86}\, q^{17} + 12306029782\, q^{130}\, p^{58}$$
$$+ 78291246762\, p^{76}\, q^{34} + 594526637392\, p^{77}\, q^{41} + 3906090514\, p^{73}\, q^{26} + 57084575734\, p^{75}\, q^{33} + 1588663089\, p^{72}\, q^{24} + 18508336\, p^{25}\, q^{25}$$
$$+ 6181436699\, p^{72}\, q^{27} + 13158\, q^{131}\, p^{28} + 91428350\, q^{146}\, p^{69} + 50239834\, q^{48}\, p^{18} + 2335867\, q^{47}\, p^{13} + 8665352\, q^{47}\, p^{15} + 29372348\, q^{48}\, p^{17}$$
$$+ 212686\, q^{45}\, p^{10} + 4378581\, q^{46}\, p^{14} + 8188104\, q^{46}\, p^{15} + 1093363\, q^{46}\, p^{12} + 1053574\, q^{45}\, p^{12} + 6669179\, q^{85}\, p^{17} + 30698597\, q^{85}\, p^{19}$$
$$+ 348273\, q^{80}\, p^{13} + 1348715\, q^{84}\, p^{15} + 130576745144\, q^{132}\, p^{77} + 10741083\, p^{140}\, q^{49} + 1280908\, p^{135}\, q^{38} + 81112884082\, q^{70}\, p^{34}$$
$$+ 58230747086\, q^{69}\, p^{33} + 9344580089629\, q^{94}\, p^{58} + 13831659432637\, q^{103}\, p^{67} + 8457275926971\, q^{103}\, p^{63} + 9647544500307\, q^{103}\, p^{64}$$
$$+ 41761971539\, q^{69}\, p^{32} + 905181\, q^{62}\, p^{12} + 1627783734482\, p^{46}\, q^{68} + 10941056202337\, q^{103}\, p^{65} + 12390740761460\, q^{104}\, p^{67}$$
$$+ 15421309497828\, q^{103}\, p^{68} + 12336698000064\, q^{103}\, p^{66} + 10\, p^{40}\, q^{3} + 29172\, p^{64}\, q^{9} + 3091244288095\, p^{97}\, q^{53} + 59697611\, q^{70}\, p^{18}$$
$$+ 346923785\, q^{71}\, p^{21} + 204279450\, q^{70}\, p^{20} + 187338508186\, q^{79}\, p^{37} + 1083\, q^{81}\, p^{9} + 30494608\, q^{70}\, p^{17} + 7432428\, q^{69}\, p^{15}$$
$$+ 112378937\, q^{70}\, p^{19} + 268317435\, q^{51}\, p^{21} + 218852244970\, p^{132}\, q^{83} + 12857091930\, p^{127}\, q^{54} + 10537\, q^{16}\, p^{11} + 1845790\, q^{65}\, p^{13}$$
$$+ 1152820827249\, p^{106}\, q^{126} + 35683337174\, q^{90}\, p^{34} + 24589435572\, q^{90}\, p^{33} + 187238\, q^{77}\, p^{12} + 14681712\, q^{85}\, p^{18} + 104433195\, q^{86}\, p^{21}$$
$$+ 149966330522\, q^{135}\, p^{96} + 203932339350\, q^{134}\, p^{98} + 64630141086\, p^{123}\, q^{132} + 160686696089\, p^{112}\, q^{133} + 137422471042\, p^{114}\, q^{133}$$
$$+ 75375958108\, p^{120}\, q^{133} + 16723908419\, p^{141}\, q^{92} + 491463790\, p^{144}\, q^{134} + 1331849\, p^{124}\, q^{29} + 3115600844\, p^{109}\, q^{35}$$
$$+ 33913968733\, p^{108}\, q^{41} + 8414432863\, p^{106}\, q^{36} + 206969745200\, q^{133}\, p^{87} + 476898\, p^{17}\, q^{21} + 1039199443312\, p^{110}\, q^{56}$$
$$+ 3294769528613\, p^{111}\, q^{64} + 855731749075\, p^{110}\, q^{55} + 11287932303120\, p^{113}\, q^{80} + 15016082940881\, p^{113}\, q^{88}$$
$$+ 9787021682048\, p^{114}\, q^{103} + 13418445228207\, p^{114}\, q^{92} + 2802796626\, p^{103}\, q^{32} + 165186414\, p^{99}\, q^{25} + 3777377871893\, p^{111}\, q^{65}$$
$$+ 7197298638715\, p^{112}\, q^{72} + 51052743642\, q^{90}\, p^{35} + 91992305837\, q^{91}\, p^{37} + 1298588\, q^{134}\, p^{37} + 327610457131\, p^{68}\, q^{39}$$
$$+ 2063057342960\, p^{69}\, q^{47} + 422693973186\, p^{68}\, q^{40} + 3584754372012\, p^{69}\, q^{50} + 860755502395\, p^{68}\, q^{43} + 684942818753\, p^{68}\, q^{42}$$
$$+ 3349131572\, q^{52}\, p^{27} + 1580911207\, q^{52}\, p^{25} + 2318942625\, q^{52}\, p^{26} + 698319212\, q^{52}\, p^{23} + 1136738054\, q^{53}\, p^{24} + 1060066258\, q^{52}\, p^{24}$$
$$+ 224\, p^{30}\, q^{4} + 48906506\, p^{142}\, q^{57} + 203932339350\, p^{134}\, q^{98} + 144245064747\, p^{132}\, q^{78} + 177482\, p^{13}\, q^{24} + 2854933\, q^{85}\, p^{16} + 373\, q^{11}\, p^{7}$$
$$+ p\, q^{17} + 39339\, q^{30}\, p^{9} + 7146457\, p^{94}\, q^{19} + 13770086\, q^{118}\, p^{29} + 7358479\, q^{118}\, p^{28} + 1302727981\, q^{127}\, p^{46} + 42171204948\, q^{92}\, p^{35}$$
$$+ 2977567894109\, p^{58}\, q^{54} + 3759631664049\, p^{59}\, q^{55} + 19023593914\, p^{141}\, q^{107} + 29563900225\, p^{140}\, q^{102} + 8180861198\, p^{136}\, q^{67}$$
$$+ 1740448590\, p^{134}\, q^{56} + 210145414\, p^{130}\, q^{44} + 4664151958\, p^{109}\, q^{36} + 54037848\, q^{86}\, p^{20} + 26840414\, q^{86}\, p^{19} + 12730314\, q^{86}\, p^{18}$$

$$+ 16371\, q^{16}\, p^{12} + 12379\, q^{117}\, p^{20} + 1613\, q^{116}\, p^{18} + 3122937\, p^{129}\, q^{34} + 663799526\, p^{139}\, q^{61} + 202948\, p^{43}\, q^{10} + 7059436\, p^{21}\, q^{26}$$
$$+ 5002516\, p^{20}\, q^{26} + 8964534\, p^{21}\, q^{27} + 2242898\, p^{46}\, q^{13} + 53583702\, p^{49}\, q^{18} + 689414126429\, p^{56}\, q^{46} + 1662117\, q^{31}\, p^{15}$$
$$+ 103312068279\, q^{78}\, p^{35} + 65928\, p^{14}\, q^{18} + 140304\, p^{18}\, q^{16} + 3237\, q^{38}\, p^{6} + 3536473290\, p^{142}\, q^{125} + 409628543\, p^{131}\, q^{47}$$
$$+ 12821224502\, p^{141}\, q^{115} + 214085836\, p^{129}\, q^{43} + 30883844445\, p^{139}\, q^{89} + 6104488947\, p^{142}\, q^{120} + 2646\, p^{99}\, q^{13} + 1851600711679\, p^{96}\, q^{50}$$
$$+ 37661655894119\, p^{99}\, q^{74} + 20336118063701\, p^{99}\, q^{67} + 35034940777984\, p^{99}\, q^{73} + 57563164938959\, p^{100}\, q^{89}$$
$$+ 42860663300446\, p^{99}\, q^{76} + 45379115191352\, p^{99}\, q^{77} + 52965104756244\, p^{101}\, q^{91} + 50435414378570\, p^{100}\, q^{81} + 19149738\, q^{51}\, p^{16}$$
$$+ 5147992\, q^{50}\, p^{14} + 32210926\, q^{69}\, p^{17} + 37204063451562\, p^{71}\, q^{96} + 1781010242541\, q^{94}\, p^{49} + 10482\, q^{41}\, p^{7} + 35\, q^{31}\, p^{3} + 3127\, q^{40}\, p^{6}$$
$$+ 1009359\, q^{44}\, p^{12} + 202948\, q^{43}\, p^{10} + 2337622778153\, p^{57}\, q^{53} + 316\, p^{49}\, q^{5} + 71960\, p^{17}\, q^{15} + 24707\, p^{16}\, q^{13} + 16371\, p^{16}\, q^{12}$$
$$+ 75749839137\, q^{56}\, p^{36} + 16449102933\, q^{55}\, p^{31} + 40290168828\, q^{55}\, p^{34} + 22425720378\, q^{55}\, p^{32} + 31570240\, p^{27}\, q^{25} + 79850\, p^{41}\, q^{9}$$
$$+ 30256\, p^{40}\, q^{8} + 36399\, p^{16}\, q^{14} + 22306142\, p^{140}\, q^{51} + 53441338719987\, p^{101}\, q^{90} + 7197298638715\, p^{99}\, q^{59} + 188632\, p^{19}\, q^{16}$$
$$+ 31009\, q^{42}\, p^{8} + 36254\, p^{12}\, q^{19} + 23864\, p^{52}\, q^{8} + 16251\, q^{98}\, p^{14} + 2375\, p^{46}\, q^{6} + 3543171\, q^{68}\, p^{14} + 164\, q^{73}\, p^{7} + 1089\, q^{97}\, p^{12}$$
$$+ 30224306089\, q^{55}\, p^{33} + 53147401549\, q^{55}\, p^{35} + 713983\, p^{20}\, q^{19} + 62634311\, q^{69}\, p^{18} + 215930\, p^{25}\, q^{13} + 18437\, p^{24}\, q^{9} + 74014\, p^{25}\, q^{11}$$
$$+ 2389765\, p^{26}\, q^{18} + 186017478596\, p^{67}\, q^{37} + 2497878138729\, p^{69}\, q^{48} + 1326616124092\, p^{68}\, q^{45} + 9320264092\, p^{65}\, q^{28}$$
$$+ 557016247024\, q^{69}\, p^{41} + 39396945\, q^{83}\, p^{19} + 4985950\, q^{49}\, p^{14} + 31144464\, q^{49}\, p^{17} + 26700263787\, p^{45}\, q^{37} + 67786\, q^{37}\, p^{9}$$
$$+ 319188798188\, p^{119}\, q^{59} + 3429943\, p^{101}\, q^{20} + 838700926160\, p^{125}\, q^{113} + 411\, q^{60}\, p^{6} + 811\, p^{75}\, q^{8} + 144622136031\, p^{118}\, q^{54} + 424\, q^{19}\, p^{5}$$
$$+ 45\, q^{19}\, p^{3} + 80081\, p^{50}\, q^{9} + 27606\, p^{49}\, q^{8} + 244186851959\, p^{67}\, q^{38} + 41346438\, p^{60}\, q^{17} + 399811575\, p^{62}\, q^{21} + 146109361\, q^{49}\, p^{20}$$
$$+ 85305\, q^{128}\, p^{28} + 221099345949\, p^{111}\, q^{132} + 56797399673400\, p^{100}\, q^{86} + 5209924425\, q^{93}\, p^{30} + 115890995\, q^{90}\, p^{22} + 100196416\, q^{91}\, p^{22}$$
$$+ 206255175729\, q^{98}\, p^{42} + 2646\, q^{99}\, p^{13} + 30745\, q^{100}\, p^{15} + 605\, p^{68}\, q^{7} + 194581285\, p^{149}\, q^{85} + 2658542223391\, q^{102}\, p^{55} + 1919\, q^{62}\, p^{7}$$
$$+ 3186972190208\, q^{102}\, p^{56} + 53583702\, q^{49}\, p^{18} + 21854605\, p^{59}\, q^{16} + 73926201226431\, p^{95}\, q^{91} + 361125\, p^{20}\, q^{17} + 512057\, p^{20}\, q^{18}$$
$$+ 379186\, p^{18}\, q^{19} + 39661774974\, q^{101}\, p^{38} + 2045980\, q^{87}\, p^{16} + 661441985319\, q^{83}\, p^{42} + 6134039128\, q^{82}\, p^{28} + 812\, q^{56}\, p^{6}$$
$$+ 109569\, q^{63}\, p^{10} + 1899102\, p^{142}\, q^{155} + 296901\, q^{64}\, p^{11} + 174918648\, p^{120}\, q^{35} + 1707743829\, p^{63}\, q^{24} + 135590390\, p^{61}\, q^{19}$$
$$+ 2141247\, q^{45}\, p^{13} + 13716705276\, p^{141}\, q^{114} + 84956389229126\, p^{79}\, q^{83} + 10373\, q^{42}\, p^{7} + 85125413915410\, p^{85}\, q^{79}$$
$$+ 71623952603\, q^{118}\, p^{51} + 31\, q^{70}\, p^{6} + 15\, q^{72}\, p^{6} + 459821852033\, p^{131}\, q^{99} + 8582136209\, p^{124}\, q^{49} + 10537\, p^{16}\, q^{11} + 186501648\, q^{53}\, p^{20}$$
$$+ 745936898\, q^{53}\, p^{23} + 302650187\, q^{53}\, p^{21} + 480124385\, q^{53}\, p^{22} + 508004750\, q^{54}\, p^{22} + 16820528\, q^{84}\, p^{18} + 313673458\, p^{121}\, q^{37}$$

$$+ 599129\, q^{83}\, p^{14} + 10357633\, p^{25}\, q^{23} + 58278865944368\, p^{93}\, q^{75} + 36553421\, p^{77}\, q^{18} + 213900295\, p^{79}\, q^{21} + 353649138\, p^{80}\, q^{22}$$
$$+ 43\, q^{18}\, p^{3} + 9\, q^{17}\, p^{2} + 168\, q^{20}\, p^{4} + 722\, q^{98}\, p^{12} + 7967\, q^{15}\, p^{11} + 13831659432637\, q^{104}\, p^{68} + 154\, q^{19}\, p^{4} + q^{8}\, p + 5\, q^{9}\, p^{2}$$
$$+ 6350679\, q^{37}\, p^{16} + 26077302591\, p^{57}\, q^{32} + 4468544874\, p^{56}\, q^{27} + 19029481413\, p^{57}\, q^{31} + 302665561091\, p^{58}\, q^{41} + 47306343514\, p^{57}\, q^{34}$$
$$+ 62688595758\, p^{57}\, q^{35} + 3188\, p^{39}\, q^{6} + 222\, q^{27}\, p^{4} + 51804\, q^{33}\, p^{9} + 21069\, q^{32}\, p^{8} + 8488\, q^{32}\, p^{7} + 89820\, p^{65}\, q^{10}$$
$$+ 74527002827823\, p^{94}\, q^{82} + 6332162801\, p^{122}\, q^{46} + 168808302\, p^{117}\, q^{33} + 63954318\, p^{115}\, q^{30} + 132011298\, q^{84}\, p^{21}$$
$$+ 686104730141\, p^{129}\, q^{89} + 634510266263\, p^{129}\, q^{87} + 377892179005\, p^{128}\, q^{76} + 1127947\, q^{47}\, p^{12} + 47296984\, q^{87}\, p^{20}$$
$$+ 708180894109\, p^{129}\, q^{90} + 416226782935\, p^{128}\, q^{77} + 598410414192\, p^{130}\, q^{98} + 455974050992\, p^{128}\, q^{78} + 2590484933085\, p^{48}\, q^{70}$$
$$+ 8398552989\, p^{108}\, q^{37} + 2469174602\, p^{106}\, q^{33} + 7\, q^{13}\, p^{2} + 444786782231\, p^{129}\, q^{81} + 605647597148\, p^{129}\, q^{86} + 1753105621533\, p^{57}\, q^{51}$$
$$+ 2030660044692\, p^{57}\, q^{52} + 1276200019008\, p^{85}\, q^{45} + 116931194567\, p^{83}\, q^{36} + 10005108403117\, p^{87}\, q^{56} + 2389259470656\, p^{86}\, q^{48}$$
$$+ 4473323579\, p^{80}\, q^{27} + 126954402514\, q^{91}\, p^{38} + 234157992225\, p^{132}\, q^{84} + 30\, q^{14}\, p^{3} + 34\, q^{15}\, p^{3} + 434884254913\, q^{69}\, p^{40}$$
$$+ 92033640\, q^{87}\, p^{21} + 172541192\, q^{87}\, p^{22} + 646244970\, q^{68}\, p^{22} + 130576745144\, p^{132}\, q^{77} + 117549826403\, p^{132}\, q^{76} + 1588663089\, q^{72}\, p^{24}$$
$$+ 480374111\, q^{121}\, p^{38} + 373\, p^{11}\, q^{7} + 970\, p^{11}\, q^{9} + 2064\, p^{12}\, q^{10} + 614\, q^{11}\, p^{8} + 251530881551\, p^{133}\, q^{103} + 19925274\, p^{64}\, q^{16}$$
$$+ 5153\, q^{128}\, p^{25} + 195945415\, q^{71}\, p^{20} + 107190313\, q^{71}\, p^{19} + 56590539\, q^{71}\, p^{18} + 95077205465\, p^{133}\, q^{77} + 85390535499\, p^{133}\, q^{76}$$
$$+ 49355\, p^{14}\, q^{17} + 71960\, p^{15}\, q^{17} + 79402064848947\, p^{88}\, q^{94} + 4598484\, q^{47}\, p^{14} + 30717\, q^{41}\, p^{8} + 614\, p^{11}\, q^{8} + 14903679\, q^{70}\, p^{16}$$
$$+ 211\, p^{11}\, q^{6} + 44\, p^{10}\, q^{4} + 206969745200\, p^{133}\, q^{87} + 236364278519\, p^{133}\, q^{90} + 89\, p^{10}\, q^{5} + 41130154\, q^{88}\, p^{20} + 10963457\, q^{87}\, p^{18}$$
$$+ 6570\, p^{16}\, q^{10} + 313673458\, q^{121}\, p^{37} + 278\, q^{10}\, p^{7} + 134457806\, p^{103}\, q^{26} + 104668017306\, p^{67}\, q^{35} + 1072853100516\, p^{68}\, q^{44}$$
$$+ 5858707627697\, p^{69}\, q^{53} + 277689066377\, p^{116}\, q^{55} + 37973141\, p^{65}\, q^{17} + 990\, p^{15}\, q^{7} + 3077\, p^{15}\, q^{9} + 1791\, p^{15}\, q^{8}$$
$$+ 81739070840674\, p^{78}\, q^{82} + 89150680433679\, p^{83}\, q^{81} + 84262509122126\, p^{79}\, q^{82} + 72771256567751\, p^{75}\, q^{83} + 43324740646\, p^{113}\, q^{45}$$
$$+ 6021837450\, q^{55}\, p^{28} + 360988620\, p^{57}\, q^{21} + 1487204186\, p^{58}\, q^{24} + 869955616752\, p^{101}\, q^{49} + 282673363768\, p^{100}\, q^{44}$$
$$+ 1478543553775\, p^{102}\, q^{52} + 5\, q^{88}\, p^{8} + 59\, q^{89}\, p^{9} + 896766\, p^{18}\, q^{22} + 912902409821\, p^{57}\, q^{47} + 1085438438424\, p^{57}\, q^{48} + 774934\, p^{92}\, q^{16}$$
$$+ 13914622273\, q^{53}\, p^{31} + p^{6}\, q + 16\, p^{9}\, q^{3} + 5\, p^{8}\, q^{2} + 744\, p^{102}\, q^{13} + 5\, q^{8}\, p^{2} + q^{7}\, p + 22\, q^{35}\, p^{3} + 1212359438\, q^{54}\, p^{24} + 2690024805\, q^{54}\, p^{26}$$
$$+ 5600943741\, q^{54}\, p^{28} + 3910623874\, q^{54}\, p^{27} + 1821269239\, q^{54}\, p^{25} + 17282310\, p^{27}\, q^{23} + 437186\, p^{90}\, q^{15} + 4250477600212\, p^{69}\, q^{51}$$
$$+ 140275158550\, p^{67}\, q^{36} + 5006460179723\, p^{69}\, q^{52} + 3110225787826\, p^{89}\, q^{50} + 13409\, p^{59}\, q^{8} + 2778425883529\, p^{109}\, q^{120}$$
$$+ 5181309004\, q^{53}\, p^{28} + 9273377257\, q^{52}\, p^{30} + 7295637062\, q^{53}\, p^{29} + 3628910283\, q^{53}\, p^{27} + 10138534407\, q^{53}\, p^{30} + 7909947152\, q^{54}\, p^{29}$$

$$+ 1927288370126\, p^{94} q^{125} + 1157339998487\, p^{84} q^{126} + 115562057593\, p^{37} q^{58} + 13073353833980\, p^{91} q^{59} + 392303864\, q^{50} p^{22}$$
$$+ 42892670254688\, p^{92} q^{70} + 8403529535\, q^{76} p^{28} + 664657209690\, p^{88} q^{43} + 277280365\, q^{88} p^{23} + 152060239\, q^{88} p^{22}$$
$$+ 382983791\, q^{149} p^{92} + 489738\, q^{45} p^{11} + 456272\, q^{43} p^{11} + 502853\, q^{46} p^{11} + 2975231\, p^{144} q^{153} + 1606459\, p^{145} q^{154}$$
$$+ 12854709217\, p^{137} q^{126} + 31312194509456\, p^{64} q^{79} + 9540159\, q^{49} p^{15} + 208417\, q^{44} p^{10} + 2242898\, q^{46} p^{13} + 39372630853546\, p^{92} q^{69}$$
$$+ 4802010\, q^{48} p^{14} + 125923599\, p^{78} q^{20} + 173165377654\, p^{87} q^{38} + 21\, p^{11} q^{3} + 6\, p^{10} q^{2} + 244277767\, q^{89} p^{23} + 663829485\, q^{90} p^{25}$$
$$+ 1122590252\, q^{90} p^{26} + 133173360\, q^{89} p^{22} + 144482\, p^{13} q^{23} + 892724685\, q^{74} p^{23} + 2297682915\, q^{75} p^{25} + 3651976043\, q^{75} p^{26}$$
$$+ 525796801\, q^{74} p^{22} + 780\, q^{39} p^{5} + 856494057280\, p^{88} q^{44} + 10798406\, p^{153} q^{137} + 42686\, p^{11} q^{22} + 36280\, q^{128} p^{27} + 65595431\, q^{53} p^{18}$$
$$+ 106889578\, q^{52} p^{19} + 176911497\, q^{52} p^{20} + 118953\, q^{103} p^{17} + 30961948038082\, p^{91} q^{66} + 421944157\, q^{51} p^{22} + 25514896714\, p^{85} q^{32}$$
$$+ 4725522797\, q^{117} p^{41} + 148163478\, p^{112} q^{30} + 14350733918\, p^{119} q^{46} + 83441\, q^{43} p^{9} + 10224747206518\, p^{90} q^{57} + 53353528\, q^{72} p^{18}$$
$$+ 177433537\, q^{73} p^{20} + 392476674\, p^{114} q^{33} + 19777114186\, p^{120} q^{48} + 106803700787\, q^{57} p^{37} + 35907865\, q^{52} p^{17} + 62876425\, q^{52} p^{18}$$
$$+ 7280361802217\, q^{93} p^{56} + 4368098992233\, p^{120} q^{85} + 474108\, q^{44} p^{11} + 418\, p^{14} q^{6} + 168\, p^{13} q^{5} + 73\, p^{13} q^{4} + 120452381694\, p^{135} q^{108}$$
$$+ 707665\, q^{82} p^{14} + 3974597981330\, p^{61} q^{54} + 4957738999152\, p^{62} q^{55} + 1080617218738\, p^{61} q^{46} + 91000096\, q^{119} p^{33}$$
$$+ 2788473755801\, p^{119} q^{75} + 83574422\, p^{152} q^{123} + 9959\, q^{44} p^{7} + 1231342314683\, p^{127} q^{97} + 1224297021683\, p^{127} q^{93}$$
$$+ 53054256415\, p^{85} q^{34} + 2451911803\, p^{82} q^{26} + 33574814188\, q^{53} p^{34} + 412476529\, q^{149} p^{93} + 10892120550\, q^{129} p^{56}$$
$$+ 2532592227813\, p^{89} q^{49} + 332740810\, q^{72} p^{21} + 2475696719\, q^{73} p^{25} + 575057722\, q^{72} p^{22} + 967596427\, q^{72} p^{23} + 3789469\, q^{118} p^{27}$$
$$+ p^{7} q + 186958281\, q^{72} p^{20} + 10269835\, q^{51} p^{15} + 2142195427613\, p^{59} q^{51} + 2488563327806\, p^{59} q^{52} + 84497\, p^{44} q^{9} + 31082\, p^{43} q^{8}$$
$$+ 64620\, p^{55} q^{9} + 274282\, q^{130} p^{31} + 102010\, q^{27} p^{11} + 369477435\, p^{106} q^{29} + 29211196042\, p^{112} q^{43} + 2674672389200\, p^{57} q^{54}$$
$$+ 3391317744041\, p^{58} q^{55} + 44981050239657\, q^{79} p^{68} + 28711139\, q^{71} p^{17} + 2906774950221\, p^{78} q^{48} + 1549078209433\, p^{77} q^{45}$$
$$+ 1021028\, p^{17} q^{24} + 35754991338\, p^{136} q^{120} + 792874262947\, p^{128} q^{105} + 210756015543\, p^{123} q^{62} + 1057272794864\, p^{125} q^{79}$$
$$+ 26070631366\, p^{120} q^{49} + 85054\, q^{45} p^{9} + 30653\, q^{45} p^{8} + 180802620574\, p^{124} q^{126} + 21\, q^{71} p^{6} + 1412242311\, p^{88} q^{26}$$
$$+ 261865107040\, p^{93} q^{41} + 58944231043574\, p^{99} q^{84} + 32433561409\, p^{91} q^{34} + 218113253\, p^{85} q^{22} + 56052241011253\, p^{99} q^{82}$$
$$+ 12371535\, p^{105} q^{23} + 67861651496566\, p^{74} q^{86} + 1057719\, p^{16} q^{26} + 1287279\, p^{17} q^{25} + 86443407641670\, p^{82} q^{80} + 554332\, p^{15} q^{25}$$
$$+ 9585657733\, q^{70} p^{28} + 29657590979\, q^{71} p^{31} + 14186714411\, q^{70} p^{29} + 20672190172\, q^{70} p^{30} + 6370460641\, q^{70} p^{27} + 224\, p^{29} q^{4}$$
$$+ 21653980\, p^{82} q^{18} + 132011298\, p^{84} q^{21} + 7321481\, p^{107} q^{23} + 199829273132\, q^{76} p^{37} + 6\, q^{11} p^{2} + 233578406600\, q^{91} p^{40}$$

$$+ 411739710545\, q^{91}\, p^{42} + 267052850676\, q^{76}\, p^{38} + 147915193928\, q^{76}\, p^{36} + 10956739611\, q^{97}\, p^{33} + 7275175790\, q^{97}\, p^{32}$$
$$+ 5494839208957\, q^{103}\, p^{60} + 31428050478\, p^{60}\, q^{32} + 5245937441\, p^{59}\, q^{27} + 22759806581\, p^{60}\, q^{31} + 380152542055\, p^{61}\, q^{41}$$
$$+ 57836906622\, p^{60}\, q^{34} + 77163717147\, p^{60}\, q^{35} + 4037491235\, p^{145}\, q^{108} + 174918648\, p^{136}\, q^{51} + 20200\, p^{116}\, q^{20} + 217353242\, p^{146}\, q^{135}$$
$$+ 3394260176\, p^{145}\, q^{113} + 24275892\, p^{99}\, q^{22} + 38926651\, p^{100}\, q^{23} + 854230\, p^{16}\, q^{25} + 661441985319\, p^{88}\, q^{129} + 108253693867\, q^{76}\, p^{35}$$
$$+ 196541340432\, q^{77}\, p^{37} + 382279713507\, q^{54}\, p^{44} + 63\, q^{12}\, p^{4} + 78291246762\, q^{76}\, p^{34} + 55919768180\, q^{76}\, p^{33} + 1739945822\, q^{67}\, p^{24}$$
$$+ 20512551154\, q^{68}\, p^{30} + 37973141\, q^{65}\, p^{17} + 1604484\, q^{67}\, p^{13} + 7930810\, q^{68}\, p^{15} + 33913968733\, q^{130}\, p^{63} + 40629618049\, q^{130}\, p^{64}$$
$$+ 48339195506\, q^{130}\, p^{65} + 2453622\, q^{80}\, p^{15} + 256034542756\, q^{54}\, p^{42} + 314039924589\, q^{54}\, p^{43} + 207121061376\, q^{54}\, p^{41}$$
$$+ 43383165484225\, p^{98}\, q^{75} + q^{33}\, p^{2} + 207467\, p^{52}\, q^{10} + 77240757167\, p^{67}\, q^{34} + 540437626724\, p^{68}\, q^{41} + 2907842957189\, p^{95}\, q^{123}$$
$$+ 2046453958900\, p^{82}\, q^{123} + 1738922028698\, p^{83}\, q^{124} + 25308093567\, q^{53}\, p^{33} + 15423370080894\, p^{58}\, q^{80} + 9719241\, q^{64}\, p^{15}$$
$$+ 128745322\, q^{66}\, p^{19} + 28108135874\, q^{130}\, p^{62} + 18887002840\, q^{130}\, p^{60} + 23127157080\, q^{130}\, p^{61} + 13463321616\, q^{131}\, p^{60}$$
$$+ 25086274317666\, p^{65}\, q^{93} + 647318\, p^{107}\, q^{20} + 39920974\, p^{63}\, q^{17} + 399490212\, p^{65}\, q^{21} + 21012322\, p^{62}\, q^{16} + 1745080902\, p^{66}\, q^{24}$$
$$+ 133518583\, p^{64}\, q^{19} + 262958258438\, p^{70}\, q^{38} + 1539804218\, p^{37}\, q^{31} + 3253209298\, p^{37}\, q^{34} + 4098057961\, p^{37}\, q^{35} + 6269316719\, p^{38}\, q^{36}$$
$$+ 1176546228\, p^{37}\, q^{30} + 1994873383\, p^{37}\, q^{32} + 889500717\, p^{37}\, q^{29} + 5600943741\, p^{54}\, q^{28} + 632368874767\, p^{57}\, q^{45}$$
$$+ 314088367125\, p^{56}\, q^{42} + 126067982933\, p^{56}\, q^{38} + 386641989160\, p^{56}\, q^{43} + 98180865651\, p^{56}\, q^{37} + 160422109951\, p^{56}\, q^{39}$$
$$+ 125432655\, q^{67}\, p^{19} + 224279515\, q^{67}\, p^{20} + 389115058\, q^{67}\, p^{21} + 220\, q^{72}\, p^{7} + 3431733106\, q^{126}\, p^{48} + 4\, q^{110}\, p^{13} + 170\, q^{117}\, p^{17}$$
$$+ 2044\, q^{118}\, p^{19} + 11\, q^{115}\, p^{15} + 887\, q^{117}\, p^{18} + 6418611083\, q^{69}\, p^{27} + 9315121\, q^{65}\, p^{15} + 1484\, q^{17}\, p^{7} + 8\, q^{14}\, p^{2} + 21\, q^{11}\, p^{3} + 6\, q^{10}\, p^{2}$$
$$+ 21327952\, p^{75}\, q^{17} + 5715146907\, p^{83}\, q^{28} + 617805963\, p^{80}\, q^{23} + 18591822924\, p^{84}\, q^{31} + 2800656\, q^{79}\, p^{15} + 145599946\, q^{114}\, p^{31}$$
$$+ 156594776\, q^{50}\, p^{20} + 95571229\, q^{50}\, p^{19} + 1621156153\, p^{81}\, q^{25} + 8810515434\, p^{83}\, q^{29} + 973696092\, p^{81}\, q^{24} + 681983\, p^{153}\, q^{150}$$
$$+ 3765429\, q^{114}\, p^{25} + 1621000\, q^{112}\, p^{23} + 10363857\, q^{113}\, p^{26} + 5219617\, q^{113}\, p^{25} + 11023451082\, q^{54}\, p^{30} + 1217\, q^{53}\, p^{6} + 143\, q^{54}\, p^{5}$$
$$+ 935\, q^{55}\, p^{6} + 24\, q^{50}\, p^{4} + 570168972\, q^{81}\, p^{23} + 247700\, q^{82}\, p^{13} + 1583281\, q^{83}\, p^{15} + 20643483798\, q^{69}\, p^{30} + 18872032819\, q^{53}\, p^{32}$$
$$+ 9627835268\, q^{69}\, p^{28} + 14206921054\, q^{69}\, p^{29} + 1068516040\, q^{68}\, p^{23} + 44243177295745\, p^{68}\, q^{78} + 113059\, q^{80}\, p^{12} + 22425720378\, p^{55}\, q^{32}$$
$$+ 3910623874\, p^{54}\, q^{27} + 16449102933\, p^{55}\, q^{31} + 253142936377\, p^{56}\, q^{41} + 40290168828\, p^{55}\, q^{34} + 53147401549\, p^{55}\, q^{35}$$
$$+ 6434767940\, q^{68}\, p^{27} + 2728933987\, q^{68}\, p^{25} + 113\, q^{16}\, p^{4} + 280\, q^{16}\, p^{5} + 220\, p^{72}\, q^{7} + 69197357\, p^{29}\, q^{26} + p^{17}\, q + 829492\, q^{81}\, p^{14}$$
$$+ 98\, q^{15}\, p^{4} + 1859852337\, p^{79}\, q^{25} + 7486631033952\, p^{86}\, q^{54} + 1126579830\, p^{79}\, q^{24} + 10029004987\, p^{81}\, q^{29} + 6548914741\, p^{81}\, q^{28}$$

$$+ 11675644245081\, p^{87} q^{57} + 239\, q^{15} p^{5} + 614\, q^{16} p^{6} + 3254\, p^{37} q^{6} + 30224306089\, p^{55} q^{33} + 30883844445\, p^{82} q^{32}$$
$$+ 13539891375242\, p^{87} q^{58} + 21125519030\, p^{82} q^{31} + 4525\, q^{88} p^{11} + 18774356\, q^{111} p^{26} + 35183474\, q^{111} p^{27} + 9656790\, q^{111} p^{25}$$
$$+ 2490149\, q^{49} p^{13} + 520884\, q^{48} p^{11} + 30163\, q^{46} p^{8} + 2385614613118\, q^{121} p^{78} + 2389765\, p^{153} q^{145} + 1900592\, p^{153} q^{146} + 281\, q^{121} p^{19}$$
$$+ 2489\, q^{122} p^{21} + 51\, q^{116} p^{16} + 72474\, q^{131} p^{30} + 124673393\, q^{118} p^{33} + 558816\, q^{115} p^{23} + 81748670479555\, p^{93} q^{85} + 17542687\, p^{49} q^{16}$$
$$+ 3254\, q^{37} p^{6} + 70136127426\, p^{86} q^{35} + 872\, q^{36} p^{5} + 15168589157681\, p^{94} q^{113} + 7123018782811\, p^{115} q^{106} + 11918766852714\, p^{109} q^{108}$$
$$+ 16547912770886\, p^{61} q^{69} + 12446556248\, p^{84} q^{30} + 34777374107181\, p^{88} q^{66} + 713562794\, p^{78} q^{23} + 1004340663144\, p^{85} q^{44}$$
$$+ 511020212351\, p^{88} q^{42} + 206969745200\, p^{84} q^{38} + 17877934066609\, p^{87} q^{60} + 6299029825747\, p^{86} q^{53} + 1374\, p^{52} q^{6}$$
$$+ 12310364437380\, p^{58} q^{70} + 1842567430319\, p^{46} q^{72} + 1740448590\, q^{115} p^{37} + 3425989362275\, q^{81} p^{49} + 221099345949\, p^{39} q^{60}$$
$$+ 442663963279\, p^{42} q^{60} + 354198071728\, p^{41} q^{60} + 183972504116\, p^{38} q^{61} + 281055397519\, p^{40} q^{60} + 1032161454923\, p^{116} q^{122}$$
$$+ 29921192046\, q^{98} p^{36} + 5823298\, p^{24} q^{22} + 227264264227\, p^{133} q^{89} + 5728364\, q^{86} p^{17} + 1900592\, p^{18} q^{25} + 78609997199664\, p^{85} q^{94}$$
$$+ 58742733015125\, p^{77} q^{95} + 1640599338095\, p^{89} q^{47} + 102770\, p^{16} q^{17} + 499621\, q^{113} p^{22} + 74816477\, q^{118} p^{32} + 31459431\, q^{119} p^{31}$$
$$+ 47806390857301\, p^{93} q^{72} + 34150545461783\, p^{93} q^{68} + 1157000\, q^{48} p^{12} + 38436\, q^{132} p^{30} + q^{9} p + 13901\, q^{119} p^{21}$$
$$+ 13693293695904\, p^{61} q^{66} + 16227589040584\, p^{62} q^{67} + 218113253\, q^{85} p^{22} + 1045202087\, q^{86} p^{25} + 57326532303964\, p^{100} q^{87}$$
$$+ 34886398\, p^{84} q^{19} + 286675317588\, p^{95} q^{42} + 46483429960509\, p^{100} q^{79} + q^{12} p + 816\, q^{38} p^{5} + 8643403639\, p^{123} q^{48}$$
$$+ 34545265\, q^{117} p^{30} + 76239039993926\, p^{95} q^{87} + 77491\, p^{89} q^{159} + 6069792362437\, p^{52} q^{80} + 8561078497670\, q^{93} p^{57}$$
$$+ 4175960340\, p^{65} q^{26} + 1087316486\, p^{64} q^{23} + 13846985399\, p^{66} q^{29} + 698\, p^{41} q^{5} + 186\, q^{80} p^{8} + 2521359996\, q^{124} p^{45} + 92\, p^{88} q^{9}$$
$$+ 198732\, p^{154} q^{153} + 492\, q^{59} p^{6} + 379186\, p^{153} q^{152} + 168\, p^{20} q^{4} + 43\, p^{18} q^{3} + 10521\, p^{25} q^{8} + 181479\, p^{27} q^{12} + 47488\, p^{26} q^{10}$$
$$+ 3994830592175\, q^{103} p^{58} + 2950962\, p^{29} q^{17} + 17326863\, p^{30} q^{21} + 9767088\, p^{29} q^{20} + 6680130\, p^{29} q^{19} + 24649182\, p^{30} q^{22}$$
$$+ 615135\, p^{28} q^{14} + 351700\, q^{156} p^{80} + 42354\, q^{156} p^{72} + 10710\, q^{156} p^{68} + 253846758003\, q^{120} p^{59} + 364748752295\, q^{120} p^{61}$$
$$+ 510038746091\, q^{120} p^{63} + 4151\, q^{19} p^{8} + 59772442503\, q^{133} p^{73} + 202368242865\, p^{56} q^{40} + q^{48} p^{3} + 89424028362\, p^{129} q^{125}$$
$$+ 1080617218738\, p^{110} q^{125} + 1775\, q^{100} p^{13} + 79\, p^{67} q^{6} + 60066\, q^{35} p^{9} + 4867\, q^{55} p^{7} + 1076\, q^{54} p^{6} + 23506437\, p^{27} q^{24}$$
$$+ 2676095972982\, p^{83} q^{122} + 1028629822691\, p^{126} q^{82} + 7711430280\, p^{119} q^{44} + 1153512766555\, p^{56} q^{49} + 11358189\, p^{108} q^{24}$$
$$+ 142938437864\, q^{119} p^{55} + 72065030032\, q^{119} p^{52} + 176718811079\, q^{119} p^{56} + 91301952774\, q^{119} p^{53} + 114705294444\, q^{119} p^{54}$$
$$+ 139627531935\, q^{120} p^{56} + 216812109893\, q^{119} p^{57} + 1351259371983\, p^{56} q^{50} + 52\, p^{4} q^{11} + 271\, p^{6} q^{12} + 112\, p^{5} q^{11} + 40576765\, p^{28} q^{25}$$

$$+ 970\, p^{9}\, q^{11} + 480374111\, p^{121}\, q^{38} + 449\, p^{8}\, q^{10} + 74816477\, p^{118}\, q^{32} + 53334332767432\, p^{101}\, q^{87} + 258325668804\, p^{96}\, q^{42}$$
$$+ 42892670254688\, p^{101}\, q^{79} + 682567283\, q^{103}\, p^{29} + 837453153\, p^{55}\, q^{23} + 141712\, q^{36}\, p^{10} + 64016\, q^{36}\, p^{9} + 152035\, q^{37}\, p^{10}$$
$$+ 22234810645623\, p^{107}\, q^{102} + 218545659\, p^{68}\, q^{20} + 3923958\, p^{20}\, q^{25} + 976440966362\, p^{94}\, q^{128} + 966363419015\, p^{93}\, q^{128}$$
$$+ 46272484517\, p^{135}\, q^{120} + 262958258438\, p^{133}\, q^{101} + 66359800164\, p^{134}\, q^{119} + 23670584904719\, p^{92}\, q^{64} + 6995181121479\, p^{91}\, q^{55}$$
$$+ 3364235595648\, p^{91}\, q^{51} + 1222562029721\, p^{90}\, q^{46} + 19245965\, q^{65}\, p^{16} + 260976049410\, p^{131}\, q^{112} + 78659994678\, p^{126}\, q^{61}$$
$$+ 341212049760\, p^{128}\, q^{75} + q^{47}\, p^{3} + 227109563\, p^{27}\, q^{33} + 533613047\, p^{31}\, q^{32} + 415001382\, p^{30}\, q^{32} + 493280686\, p^{29}\, q^{34}$$
$$+ 519838460\, p^{30}\, q^{33} + 302602252\, p^{28}\, q^{33} + 398727107\, p^{29}\, q^{33} + 237730\, q^{110}\, p^{20} + 3485525\, q^{112}\, p^{24} + 21363\, p^{25}\, q^{9} + 87259\, p^{26}\, q^{11}$$
$$+ 6122662590210\, p^{78}\, q^{52} + 5136096621253\, p^{78}\, q^{51} + 477987774702\, p^{129}\, q^{82} + 3180455299\, p^{121}\, q^{43} + 3329033908\, p^{122}\, q^{44}$$
$$+ 472321960908\, p^{56}\, q^{44} + 160422109951\, p^{39}\, q^{56} + 151300449721\, p^{74}\, q^{36} + 392476674\, q^{114}\, p^{33} + 1152127928\, q^{115}\, p^{36}$$
$$+ 241795566\, q^{114}\, p^{32} + 12186\, p^{12}\, q^{15} + 713576\, q^{112}\, p^{22} + 87441\, q^{110}\, p^{19} + 175066059962\, q^{134}\, p^{90} + 137791720976\, q^{135}\, p^{92}$$
$$+ 1330155615238\, p^{84}\, q^{45} + 4742485776\, p^{79}\, q^{27} + 122750243518\, p^{82}\, q^{36} + 126134855540\, p^{128}\, q^{124} + 824064728751\, q^{56}\, p^{47}$$
$$+ 10368025961225\, p^{86}\, q^{56} + 2490899759608\, p^{85}\, q^{48} + 25028139\, p^{73}\, q^{17} + 619868932700\, q^{55}\, p^{46} + 81260978\, p^{31}\, q^{25}$$
$$+ 146926023\, p^{31}\, q^{27} + 243460120\, p^{32}\, q^{28} + 42108481524\, q^{71}\, p^{32} + 173399121148\, p^{134}\, q^{106} + 2681\, q^{44}\, p^{6} + 29\, q^{33}\, p^{3} + 25\, q^{34}\, p^{3}$$
$$+ 30979\, q^{44}\, p^{8} + 35799502307389\, p^{87}\, q^{66} + 760692886\, p^{77}\, q^{23} + 1048540783264\, p^{84}\, q^{44} + 9660\, q^{45}\, p^{7} + 150768\, p^{59}\, q^{10}$$
$$+ 80286829\, p^{21}\, q^{39} + 109035\, q^{135}\, p^{34} + 136672983\, p^{145}\, q^{139} + 1154722114\, p^{126}\, q^{145} + 896725974\, p^{128}\, q^{145} + 983156972\, p^{120}\, q^{147}$$
$$+ 837453153\, p^{116}\, q^{148} + 5456629732\, q^{131}\, p^{56} + 57084575734\, p^{138}\, q^{96} + 62688595758\, p^{136}\, q^{114} + 44084131212\, p^{136}\, q^{118}$$
$$+ 77163717147\, p^{136}\, q^{111} + 55429778210\, p^{132}\, q^{70} + 1722991\, q^{138}\, p^{42} + 4397606\, q^{138}\, p^{44} + 5823091\, q^{139}\, p^{46} + 6808133\, q^{138}\, p^{45}$$
$$+ 2783135\, q^{138}\, p^{43} + 217425320110\, p^{83}\, q^{38} + 18437136154913\, p^{86}\, q^{60} + 6520784942844\, p^{85}\, q^{53} + 1976247648\, p^{78}\, q^{25}$$
$$+ 12084144553681\, p^{86}\, q^{57} + 7740019384426\, p^{85}\, q^{54} + 60798928186227\, p^{99}\, q^{86} + 80890547585\, p^{114}\, q^{48} + 2025487142765\, p^{95}\, q^{50}$$
$$+ 123648\, p^{72}\, q^{11} + 40607117539629\, p^{98}\, q^{74} + 22096910089078\, p^{98}\, q^{67} + 37815413668562\, p^{98}\, q^{73} + 61433163572259\, p^{99}\, q^{89}$$
$$+ 46115231034311\, p^{98}\, q^{76} + 48773996882727\, p^{98}\, q^{77} + 56699635807112\, p^{100}\, q^{91} + 54263242294358\, p^{99}\, q^{81} + 267030266\, p^{76}\, q^{21}$$
$$+ 441825470\, p^{77}\, q^{22} + 1202067987\, p^{78}\, q^{24} + 131297299109\, q^{135}\, p^{106} + 143961901652\, q^{134}\, p^{86} + 152328022133\, q^{134}\, p^{87}$$
$$+ 61303632513853\, p^{99}\, q^{87} + 39396945\, p^{83}\, q^{19} + 186017478596\, q^{134}\, p^{104} + 316386575484\, p^{94}\, q^{42} + 50114422377014\, p^{99}\, q^{79}$$
$$+ 911\, p^{32}\, q^{5} + 199132842875\, p^{134}\, q^{101} + 51644746725\, p^{135}\, q^{119} + 99557\, p^{64}\, q^{10} + 25205\, p^{163}\, q^{120} + 22336\, p^{134}\, q^{31} + 30698597\, p^{152}\, q^{86}$$

$$+ 23314241\, p^{152}\, q^{84} + 6745949\, q^{120}\, p^{29} + 10616679783\, p^{80}\, q^{29} + 46644973\, p^{74}\, q^{18} + 6955297708\, p^{80}\, q^{28} + 77729306295177\, p^{93}\, q^{82}$$
$$+ 113409\, p^{86}\, q^{13} + 19842500\, q^{52}\, p^{16} + 59835328990\, p^{92}\, q^{36} + 7325387296\, p^{90}\, q^{30} + 22287066048\, p^{91}\, q^{33} + 195411311456\, p^{93}\, q^{40}$$
$$+ 144245064747\, p^{93}\, q^{39} + 83800842048\, p^{92}\, q^{37} + 154967\, p^{131}\, q^{31} + 3447895\, q^{107}\, p^{22} + 1279571\, q^{78}\, p^{14} + 73\, q^{13}\, p^{4} + 137\, q^{12}\, p^{5}$$
$$+ 4814231434770\, p^{120}\, q^{88} + 3429779060308\, p^{121}\, q^{103} + 9605\, p^{79}\, q^{10} + 474908\, q^{78}\, p^{13} + 14350733918\, p^{125}\, q^{52}$$
$$+ 439653183234\, p^{130}\, q^{85} + 389126703504\, p^{130}\, q^{83} + 23614475440\, p^{125}\, q^{54} + 217425320110\, q^{83}\, p^{38} + 122750243518\, q^{82}\, p^{36}$$
$$+ 167974598666\, q^{82}\, p^{37} + 3387\, q^{127}\, p^{24} + 14804533568\, p^{137}\, q^{125} + 12\, q^{120}\, p^{17} + 327293\, p^{21}\, q^{16} + 24\, q^{12}\, p^{3} + 896766\, p^{22}\, q^{18}$$
$$+ 4484848\, p^{153}\, q^{142} + 7\, p^{12}\, q^{2} + 595558\, q^{110}\, p^{21} + 29466\, q^{47}\, p^{8} + 199829273132\, p^{134}\, q^{95} + 32838695\, p^{50}\, q^{17} + 166901557\, p^{51}\, q^{20}$$
$$+ 486\, p^{7}\, q^{12} + 1469\, p^{10}\, q^{11} + 688\, p^{9}\, q^{10} + 1179862\, q^{49}\, p^{12} + 18\, p^{10}\, q^{3} + 5\, p^{9}\, q^{2} + 47283295\, p^{116}\, q^{30} + 2091017174740\, p^{56}\, q^{53}$$
$$+ 30056922\, p^{24}\, q^{28} + 1899102\, p^{29}\, q^{16} + 4470009340943\, p^{74}\, q^{116} + 162924762\, q^{150}\, p^{89} + 179421360\, q^{150}\, p^{90} + 196458424\, q^{150}\, p^{91}$$
$$+ 213900295\, q^{150}\, p^{92} + 2184485430089\, p^{61}\, q^{50} + 124673393\, p^{118}\, q^{33} + 7248495508\, p^{58}\, q^{28} + 890400715557\, p^{61}\, q^{45}$$
$$+ 442663963279\, p^{60}\, q^{42} + 172384760820\, p^{60}\, q^{38} + 548770194046\, p^{60}\, q^{43} + 133162194351\, p^{60}\, q^{37} + 221099345949\, p^{60}\, q^{39}$$
$$+ 1725975\, q^{66}\, p^{13} + 280262125884\, p^{132}\, q^{107} + 434884254913\, p^{131}\, q^{102} + 2463301347\, q^{123}\, p^{44} + 4409298\, p^{23}\, q^{22} + 826\, p^{12}\, q^{8}$$
$$+ 271\, p^{12}\, q^{6} + 52\, p^{11}\, q^{4} + 112\, p^{11}\, q^{5} + 2389094002859\, p^{56}\, q^{54} + 3042098990988\, p^{57}\, q^{55} + 381629142\, q^{123}\, p^{39} + q^{90}\, p^{8} + 423\, q^{110}\, p^{15}$$
$$+ 19029481413\, p^{31}\, q^{57} + 73333108780149\, p^{93}\, q^{94} + 486\, p^{12}\, q^{7} + 1330\, p^{12}\, q^{9} + 2829\, p^{13}\, q^{10} + 6528962\, p^{153}\, q^{140}$$
$$+ 92709558372\, p^{127}\, q^{127} + 109950218356\, p^{126}\, q^{127} + 29493674330411\, q^{105}\, p^{79} + 1270770\, p^{22}\, q^{19} + 621831\, p^{22}\, q^{17} + 3232968\, p^{23}\, q^{21}$$
$$+ 1772083\, p^{22}\, q^{20} + 2091017174740\, p^{53}\, q^{56} + 1620303095129\, p^{52}\, q^{55} + 2687917\, p^{31}\, q^{16} + 5877\, q^{27}\, p^{7} + 1235030886418\, q^{77}\, p^{44}$$
$$+ 1538067701399\, q^{78}\, p^{45} + 348771481729\, q^{77}\, p^{39} + 594526637392\, q^{77}\, p^{41} + 976440966362\, q^{77}\, p^{43} + 1549078209433\, q^{77}\, p^{45}$$
$$+ 291\, p^{100}\, q^{12} + 958849\, p^{19}\, q^{21} + 48348345778\, q^{97}\, p^{37} + 1304173321848\, p^{103}\, q^{52} + 117829910581\, q^{134}\, p^{83} + 824064728751\, p^{56}\, q^{47}$$
$$+ 3\, q^{29}\, p^{2} + 75231411276081\, p^{79}\, q^{77} + 79409889190215\, p^{80}\, q^{78} + 62932810632119\, p^{79}\, q^{73} + 72481061565455\, p^{79}\, q^{76}$$
$$+ 66294207773813\, p^{79}\, q^{74} + 69489704234404\, p^{79}\, q^{75} + 115562057593\, p^{134}\, q^{113} + 81876\, q^{42}\, p^{9} + 41414903685746\, p^{79}\, q^{67}$$
$$+ 55867731417571\, p^{79}\, q^{71} + 59444387114685\, p^{79}\, q^{72} + 44981050239657\, p^{79}\, q^{68} + 70048753\, q^{66}\, p^{18} + 9621982588\, q^{68}\, p^{28}$$
$$+ 68884057\, q^{145}\, p^{65} + 48600428264065\, p^{79}\, q^{69} + 52240870406594\, p^{79}\, q^{70} + 53752425165254\, p^{92}\, q^{73} + 978254603350\, p^{56}\, q^{48}$$
$$+ 2939\, q^{42}\, p^{6} + 196541340432\, q^{134}\, p^{94} + 3232968\, p^{21}\, q^{23} + 256\, q^{79}\, p^{8} + 64345305616375\, p^{92}\, q^{76} + 59772442503\, q^{98}\, p^{38}$$
$$+ 34077113264\, q^{97}\, p^{36} + 7\, p^{21}\, q^{2} + 71349012\, p^{28}\, q^{27} + 120073070\, p^{29}\, q^{28} + 432754060743\, q^{120}\, p^{62} + 803493313855\, q^{120}\, p^{66}$$

$$+ 597231030831\, q^{120}\, p^{64} + 389126703504\, p^{88}\, q^{41} + 218852244970\, p^{88}\, q^{39} + 126620393468\, p^{87}\, q^{37} + 34503677057\, p^{86}\, q^{33}$$
$$+ 10545084\, p^{24}\, q^{24} + 22397\, p^{97}\, q^{14} + 733\, q^{132}\, p^{26} + 249\, q^{127}\, p^{22} + 11017115948143\, p^{66}\, q^{59} + 1196398\, q^{50}\, p^{12} + 217313\, q^{49}\, p^{10}$$
$$+ 2549164\, q^{50}\, p^{13} + 41219270934\, p^{135}\, q^{121} + 79518295043649\, p^{87}\, q^{94} + 1165\, q^{101}\, p^{13} + 4194503134\, q^{133}\, p^{58} + 5272754890\, q^{133}\, p^{59}$$
$$+ 14687053933\, q^{133}\, p^{64} + 12149019173\, q^{133}\, p^{63} + 8129499983\, q^{133}\, p^{61} + 9975788007\, q^{133}\, p^{62} + 9359656042741\, p^{75}\, q^{112}$$
$$+ 16565011550975\, p^{82}\, q^{111} + 2829\, p^{10}\, q^{13} + 146838419\, q^{76}\, p^{20} + 78006767\, q^{76}\, p^{19} + 136358245\, q^{77}\, p^{20} + 8600180\, q^{147}\, p^{62}$$
$$+ 308178\, q^{144}\, p^{47} + 1393176\, q^{149}\, p^{61} + 39038835\, q^{154}\, p^{107} + 73628644\, q^{153}\, p^{114} + 855731749075\, q^{110}\, p^{55} + 825191966172\, q^{109}\, p^{54}$$
$$+ 13766809162453\, q^{90}\, p^{59} + 18088763525710\, q^{90}\, p^{61} + 23214088691541\, q^{90}\, p^{63} + 20551236426286\, q^{90}\, p^{62}$$
$$+ 26072900663603\, q^{90}\, p^{64} + 29119770862214\, q^{90}\, p^{65} + 60008861478648\, p^{99}\, q^{85} + 42171204948\, p^{92}\, q^{35} + 26077302591\, p^{32}\, q^{57}$$
$$+ 50850745655\, p^{34}\, q^{58} + 35319567373\, p^{33}\, q^{57} + 2003394574\, p^{116}\, q^{38} + 40827\, p^{95}\, q^{14} + 4976\, p^{9}\, q^{17} + 241317408033\, q^{121}\, p^{60}$$
$$+ 14030104\, q^{112}\, p^{26} + 767867818138\, q^{122}\, p^{69} + 185942\, p^{89}\, q^{14} + 63785683\, p^{143}\, q^{60} + 1293524\, p^{94}\, q^{17} + 29211196042\, q^{128}\, p^{59}$$
$$+ 2369353573\, q^{128}\, p^{49} + 3180455299\, q^{128}\, p^{50} + 135361331802\, q^{134}\, p^{85} + 2543146\, p^{95}\, q^{18} + 8129499983\, p^{110}\, q^{38} + 24707\, p^{13}\, q^{16}$$
$$+ 104418039540\, p^{130}\, q^{70} + 3787508\, p^{126}\, q^{32} + 11549697450\, p^{141}\, q^{86} + 944062880\, p^{144}\, q^{130} + 14035867293\, p^{142}\, q^{104}$$
$$+ 106803700787\, p^{134}\, q^{114} + 133162194351\, p^{134}\, q^{111} + 73804331566\, p^{134}\, q^{118} + 150234754\, p^{34}\, q^{25} + 505359678\, p^{135}\, q^{53}$$
$$+ 132805838\, p^{132}\, q^{45} + 12446556248\, p^{141}\, q^{87} + 1028473\, p^{123}\, q^{28} + 7761454\, p^{127}\, q^{34} + 1641704429\, p^{137}\, q^{61} + 1281894715909\, p^{122}\, q^{114}$$
$$+ 1850884158131\, p^{122}\, q^{110} + 812293410999\, p^{122}\, q^{118} + 2154091689346\, p^{122}\, q^{108} + 2001968135784\, p^{122}\, q^{109} + 4197369964\, q^{81}\, p^{27}$$
$$+ 15435471476492\, p^{108}\, q^{106} + 215509342\, p^{147}\, q^{77} + 18295175809394\, p^{97}\, q^{111} + 2541000448\, p^{125}\, q^{46} + 85243827101577\, p^{81}\, q^{80}$$
$$+ 1153512766555\, p^{122}\, q^{115} + 224279515\, p^{151}\, q^{104} + 5\, p^{43}\, q^{3} + 22800785302721\, p^{106}\, q^{103} + 44896187035611\, p^{68}\, q^{85}$$
$$+ 7206101084348\, p^{87}\, q^{54} + 11225758911354\, p^{88}\, q^{57} + 29129891737\, p^{83}\, q^{32} + 13034132520426\, p^{88}\, q^{58} + 33620283278123\, p^{89}\, q^{66}$$
$$+ 957219795060\, p^{86}\, q^{44} + 196023373374\, p^{85}\, q^{38} + 17251221816085\, p^{88}\, q^{60} + 6054990931737\, p^{87}\, q^{53} + 86788\, p^{14}\, q^{19} + 169798\, p^{15}\, q^{20}$$
$$+ 5927\, q^{74}\, p^{9} + 1326903\, p^{20}\, q^{21} + 101350609\, p^{51}\, q^{19} + 451326794\, p^{52}\, q^{22} + 792494802\, q^{54}\, p^{23} + 895410054867\, p^{125}\, q^{77} + 64\, p^{6}\, q^{7}$$
$$+ 15855032\, q^{28}\, p^{22} + 1218201963358\, p^{127}\, q^{98} + 1423752113609\, p^{126}\, q^{89} + 817475272651\, p^{125}\, q^{76} + 1330155615238\, p^{126}\, q^{87}$$
$$+ 48600428264065\, p^{69}\, q^{79} + 28416099003649\, p^{72}\, q^{65} + 32341034607875\, p^{73}\, q^{66} + 17073060845405\, p^{72}\, q^{60}$$
$$+ 11756124271147\, p^{72}\, q^{57} + 40337772420494\, p^{67}\, q^{86} + 12310449618\, p^{140}\, q^{82} + 27896842335\, q^{58}\, p^{32} + 1298588\, p^{134}\, q^{37}$$
$$+ 1004391\, p^{60}\, q^{12} + 60798928186227\, p^{72}\, q^{85} + 76239039993926\, p^{76}\, q^{84} + 79518295043649\, p^{77}\, q^{84} + 54782961383120\, p^{71}\, q^{78}$$

$$+ 201707964562\, p^{37}\, q^{71} + 2379052058177\, p^{77}\, q^{47} + 462510626660\, p^{76}\, q^{40} + 353202981560\, p^{76}\, q^{39} + 5263806128935\, p^{86}\, q^{52}$$
$$+ 1393176\, q^{110}\, p^{22} + 15479\, q^{102}\, p^{15} + 126669\, q^{109}\, p^{19} + 1462178232635\, p^{126}\, q^{90} + 975553429898\, p^{125}\, q^{78} + 962364447936\, p^{126}\, q^{81}$$
$$+ 1276200019008\, p^{126}\, q^{86} + 285579\, p^{24}\, q^{14} + 554332\, p^{25}\, q^{15} + 1287279\, p^{25}\, q^{17} + 7059436\, p^{26}\, q^{21} + 3923958\, p^{25}\, q^{20} + 2754492\, p^{25}\, q^{19}$$
$$+ 260198\, q^{26}\, p^{13} + 3730291338968\, p^{97}\, q^{54} + 82888501561\, q^{98}\, p^{39} + 19515\, q^{141}\, p^{38} + 1271056\, q^{145}\, p^{52} + 19797\, p^{93}\, q^{13}$$
$$+ 824064728751\, p^{115}\, q^{124} + 739722201528\, p^{116}\, q^{124} + 1163502490490\, p^{109}\, q^{125} + 1246250366161\, p^{108}\, q^{125} + 1745648087\, p^{123}\, q^{43}$$
$$+ 129350\, p^{15}\, q^{19} + 6021837450\, p^{55}\, q^{28} + 694425524326\, p^{58}\, q^{45} + 345003136527\, p^{57}\, q^{42} + 137422471042\, p^{57}\, q^{38}$$
$$+ 425455808831\, p^{57}\, q^{43} + 106803700787\, p^{57}\, q^{37} + 175219841975\, p^{57}\, q^{39} + 837453153\, q^{55}\, p^{23} + 318826288\, q^{54}\, p^{21}$$
$$+ 195552791\, q^{54}\, p^{20} + 6\, q^{55}\, p^{4} + 21979612\, p^{28}\, q^{23} + 1572759513684\, p^{56}\, q^{51} + 91660081\, p^{27}\, q^{29} + 5396489\, q^{52}\, p^{14}$$
$$+ 9148305992\, q^{56}\, p^{29} + 527089\, q^{50}\, p^{11} + 42714154\, p^{31}\, q^{23} + 4237738\, p^{17}\, q^{31} + 54117305\, p^{26}\, q^{28} + 3\, p^{57}\, q^{4} + 90647053483\, p^{136}\, q^{108}$$
$$+ 1819075449382\, p^{56}\, q^{52} + 32090098\, p^{26}\, q^{26} + 294883\, q^{81}\, p^{13} + 146838419\, p^{76}\, q^{20} + 18194514\, p^{26}\, q^{24} + 31487916294\, q^{124}\, p^{54}$$
$$+ 19253126371\, q^{124}\, p^{52} + 6155099497824\, p^{102}\, q^{60} + 81260978\, p^{25}\, q^{31} + 525526\, q^{49}\, p^{11} + 21272091934\, p^{112}\, q^{42}$$
$$+ 61784116355\, p^{114}\, q^{47} + 18154\, p^{13}\, q^{15} + 4259125122576\, p^{121}\, q^{92} + 2081700062852\, p^{119}\, q^{72} + 139627531935\, p^{115}\, q^{51}$$
$$+ 1065109861329\, p^{118}\, q^{65} + 683112\, p^{24}\, q^{16} + 34712\, q^{24}\, p^{10} + 1792\, p^{9}\, q^{13} + 123\, p^{40}\, q^{4} + 252216\, p^{75}\, q^{12} + 100579557\, p^{32}\, q^{25}$$
$$+ 183469386\, p^{32}\, q^{27} + 302602252\, p^{33}\, q^{28} + 6291025028\, p^{71}\, q^{27} + 3813\, p^{10}\, q^{14} + 56013132986524\, p^{80}\, q^{98} + 137514622\, p^{116}\, q^{32}$$
$$+ 878037540\, p^{119}\, q^{38} + 76497280163\, p^{77}\, q^{34} + 586362655003\, p^{78}\, q^{41} + 3786534763\, p^{74}\, q^{26} + 55919768180\, p^{76}\, q^{33}$$
$$+ 1536305924\, p^{73}\, q^{24} + 73333108780149\, p^{94}\, q^{93} + 1561061389\, p^{121}\, q^{41} + 24731738218\, p^{124}\, q^{53} + 505359678\, p^{118}\, q^{36} + p^{33}\, q^{2}$$
$$+ 54832401318585\, p^{74}\, q^{93} + 42899009493974\, p^{90}\, q^{69} + 46636242964871\, p^{90}\, q^{70} + 14425219495572\, p^{89}\, q^{59} + 16535\, p^{20}\, q^{10}$$
$$+ 2121\, p^{19}\, q^{7} + 4151\, p^{19}\, q^{8} + 49561946246090\, p^{75}\, q^{96} + 31894641389415\, p^{70}\, q^{97} + 29119970311846\, p^{69}\, q^{97}$$
$$+ 12140926504640\, p^{62}\, q^{98} + 87580847444132\, p^{85}\, q^{80} + 35862\, p^{72}\, q^{10} + 23632204948\, p^{128}\, q^{58} + 590\, p^{58}\, q^{6} + 320903039258\, p^{131}\, q^{109}$$
$$+ 323496739\, p^{118}\, q^{35} + 46726193459\, p^{125}\, q^{57} + 15158434885\, p^{123}\, q^{50} + 293352159479\, p^{88}\, q^{40} + 386641989160\, p^{128}\, q^{115}$$
$$+ 2336844\, p^{20}\, q^{23} + 5117758710\, p^{36}\, q^{37} + 3328277641\, p^{35}\, q^{36} + 22800785302721\, p^{65}\, q^{68} + 5417754116456\, p^{52}\, q^{71}$$
$$+ 19165902902840\, p^{97}\, q^{65} + 13201497140628\, p^{97}\, q^{62} + 571160858\, q^{123}\, p^{40} + 1220488200\, q^{123}\, p^{42} + 575057722\, p^{72}\, q^{22}$$
$$+ 2475696719\, p^{73}\, q^{25} + 91838679\, p^{21}\, q^{40} + 1537138073\, q^{117}\, p^{38} + 74014\, q^{25}\, p^{11} + 87259\, q^{26}\, p^{11} + 128727\, q^{25}\, p^{12} + 291546\, p^{100}\, q^{17}$$
$$+ 4556238\, p^{106}\, q^{22} + 633277017510\, p^{128}\, q^{109} + 19972471972238\, p^{60}\, q^{79} + 1308058684676\, p^{95}\, q^{48} + 699974566814\, p^{94}\, q^{45}$$

$$+ 149370455799\, p^{131}\, q^{118} + 170281\, p^{57}\, q^{10} + 273567590221\, p^{128}\, q^{73} + 221463384959\, p^{131}\, q^{114} + 281055397519\, p^{131}\, q^{111}$$
$$+ 1714692747915\, q^{108}\, p^{57} + 1802084189\, p^{124}\, q^{44} + 149840796063\, q^{133}\, p^{82} + 161502180919\, q^{133}\, p^{83} + 7378\, q^{118}\, p^{20}$$
$$+ 1357035099\, p^{147}\, q^{115} + 7672223243095\, p^{117}\, q^{99} + 8103392079268\, p^{117}\, q^{97} + 25205\, p^{51}\, q^{8} + 40605789\, p^{62}\, q^{17} + 401661962\, p^{64}\, q^{21}$$
$$+ 21403979\, p^{61}\, q^{16} + 1741370066\, p^{65}\, q^{24} + 134908748\, p^{63}\, q^{19} + 257816260392\, p^{69}\, q^{38} + 54117305\, p^{28}\, q^{26} + 127\, q^{122}\, p^{19}$$
$$+ 1293\, q^{123}\, p^{21} + 21963\, q^{124}\, p^{24} + 9983\, q^{127}\, p^{25} + 160686696089\, p^{38}\, q^{59} + 21634\, p^{17}\, q^{12} + 49355\, p^{17}\, q^{14} + 13743\, p^{17}\, q^{11}$$
$$+ 21455546175566\, p^{97}\, q^{66} + 5801660\, p^{80}\, q^{16} + 69214781\, p^{84}\, q^{20} + 105273089892\, p^{93}\, q^{38} + 542291624668\, p^{94}\, q^{44}$$
$$+ 27000319061442\, p^{98}\, q^{69} + 270937174141\, p^{133}\, q^{97} + 40341655187\, p^{75}\, q^{32} + 28120739421\, p^{75}\, q^{31} + 4367\, q^{56}\, p^{7}$$
$$+ 14642910066718\, p^{96}\, q^{113} + 14939575274847\, p^{95}\, q^{113} + 14282591160683\, p^{97}\, q^{113} + 97175\, p^{18}\, q^{15} + 33108\, p^{17}\, q^{13}$$
$$+ 75555689\, q^{153}\, p^{112} + 72108385\, q^{153}\, p^{115} + 74783701\, q^{153}\, p^{113} + 81739070840674\, p^{89}\, q^{93} + 80760346762418\, p^{90}\, q^{93} + 153540\, q^{26}\, p^{12}$$
$$+ 70564217902007\, p^{87}\, q^{75} + 819361796848\, p^{84}\, q^{43} + 3741048270680\, p^{85}\, q^{50} + 3045302\, p^{20}\, q^{24} + 257816260392\, p^{133}\, q^{102}$$
$$+ 48649170\, p^{152}\, q^{129} + 2579980\, q^{108}\, p^{22} + 15776\, p^{9}\, q^{23} + 166161172237\, p^{134}\, q^{107} + 1224613386755\, q^{100}\, p^{50} + 979935522555\, q^{100}\, p^{49}$$
$$+ 421543094843\, q^{101}\, p^{46} + 777737928665\, q^{100}\, p^{48} + 612054521984\, q^{100}\, p^{47} + 556\, q^{89}\, p^{10} + 1753\, q^{91}\, p^{11} + 181548722381\, q^{134}\, p^{91}$$
$$+ 54073977018\, p^{93}\, q^{36} + 6576755648\, p^{91}\, q^{30} + 20087762447\, p^{92}\, q^{33} + 177287166620\, p^{94}\, q^{40} + 130576745144\, p^{94}\, q^{39}$$
$$+ 75921577106\, p^{93}\, q^{37} + 21006\, p^{82}\, q^{11} + 1691472675798\, p^{46}\, q^{69} + 860755502395\, p^{43}\, q^{68} + 6483333992714\, p^{54}\, q^{68}$$
$$+ 5293353285461\, p^{53}\, q^{67} + 2307255018493\, p^{119}\, q^{73} + 615949641\, p^{70}\, q^{22} + 2613523596\, p^{71}\, q^{25} + 215791\, p^{46}\, q^{10} + 2490149\, p^{49}\, q^{13}$$
$$+ 62876425\, p^{52}\, q^{18} + 128625245\, p^{152}\, q^{114} + 599129\, p^{157}\, q^{88} + 10111\, p^{144}\, q^{41} + 303534\, q^{96}\, p^{16} + 386946325596\, q^{83}\, p^{40}$$
$$+ 1539804218\, p^{140}\, q^{134} + 6745949\, p^{120}\, q^{29} + 835321419\, p^{139}\, q^{62} + 7724088247\, p^{143}\, q^{93} + 2237707080\, p^{141}\, q^{72} + 6370600411\, p^{144}\, q^{105}$$
$$+ 71951320198\, p^{137}\, q^{92} + 27360022145\, p^{137}\, q^{120} + 91235908215747\, p^{89}\, q^{87} + 4214353117310\, p^{121}\, q^{96} + 128625245\, q^{57}\, p^{19}$$
$$+ 40822875\, q^{57}\, p^{17} + 11211560\, q^{56}\, p^{15} + 73628644\, q^{57}\, p^{18} + 218319188\, q^{57}\, p^{20} + 372296738\, q^{58}\, p^{21} + 2634307\, q^{55}\, p^{13}$$
$$+ 360988620\, q^{57}\, p^{21} + 21658674\, q^{56}\, p^{16} + 603679248\, q^{58}\, p^{22} + 957307707\, q^{58}\, p^{23} + 54953726283172\, p^{87}\, q^{71}$$
$$+ 43171718414421\, p^{87}\, q^{68} + 58944231043574\, p^{87}\, q^{72} + 1487204186\, q^{58}\, p^{24} + 5245937441\, q^{59}\, p^{27} + 2266790449\, q^{58}\, p^{25}$$
$$+ 3394260176\, q^{58}\, p^{26} + 3858296641278\, p^{121}\, q^{100} + 39418595806632\, p^{87}\, q^{67} + 66790964170654\, p^{87}\, q^{74} + 468060\, q^{34}\, p^{12}$$
$$+ 520386\, q^{35}\, p^{12} + 120646\, q^{34}\, p^{10} + 2945000\, q^{35}\, p^{15} + 3584754372012\, p^{121}\, q^{102} + 1713877\, q^{35}\, p^{14} + 3337434\, q^{36}\, p^{15}$$
$$+ 103336211\, q^{38}\, p^{22} + 10434363\, q^{37}\, p^{17} + 16708979\, q^{37}\, p^{18} + 40035978\, q^{37}\, p^{20} + 1073926\, q^{36}\, p^{13} + 26141079\, q^{37}\, p^{19} + 17849\, q^{76}\, p^{10}$$

$$+ 1702184250892\, p^{122} q^{111} + 2305803396501\, p^{122} q^{107} + 34556161467734\, p^{79} q^{65} + 38298144935379\, p^{80} q^{66} + 7249684734009\, p^{78} q^{53}$$
$$+ 1235030886418\, p^{77} q^{44} + 1027290899\, p^{70} q^{23} + 14590738\, q^{114} p^{27} + 5434061\, p^{18} q^{30} + 101692747\, q^{72} p^{19} + 317461281\, q^{73} p^{21}$$
$$+ 796750\, q^{64} p^{12} + 15084112775\, p^{91} q^{32} + 6846550779851\, p^{96} q^{57} + 29894531048\, p^{125} q^{55} + 7781398\, p^{153} q^{139} + 14030104\, p^{112} q^{26}$$
$$+ 249248132193\, p^{132} q^{85} + 1048\, q^{74} p^{8} + 153\, p^{97} q^{11} + 1085438438424\, p^{48} q^{57} + 3869698880739\, p^{121} q^{87} + 3741048270680\, p^{121} q^{86}$$
$$+ 3391902005287\, p^{122} q^{98} + 2925148144928\, p^{120} q^{78} + 2933009991379\, p^{121} q^{81} + 2491163732790\, p^{120} q^{76} + 4080105817542\, p^{121} q^{89}$$
$$+ 2706523527517\, p^{120} q^{77} + 57721415826\, p^{125} q^{58} + 301098938454\, p^{131} q^{110} + 4618900813\, p^{122} q^{45} + 340255483720\, p^{131} q^{108}$$
$$+ 4159061207644\, p^{121} q^{90} + 10580132160\, q^{119} p^{45} + 19253126371\, q^{119} p^{47} + 14350733918\, q^{119} p^{46} + 6418611083\, p^{69} q^{27}$$
$$+ 42038783707\, p^{70} q^{32} + 53752425165254\, p^{79} q^{98} + 167974598666\, p^{134} q^{89} + 402854329677\, p^{40} q^{82} + 9925816\, q^{50} p^{15} + 134\, q^{39} p^{4}$$
$$+ 9305\, q^{46} p^{7} + 11611641394961\, p^{79} q^{56} + 8527770519445\, p^{78} q^{54} + 19972471972238\, p^{79} q^{60} + 13418445228207\, p^{79} q^{57}$$
$$+ 267052850676\, p^{76} q^{38} + p\, q^{11} + 2256\, p^{8} q^{16} + 2280842437561\, p^{96} q^{51} + 817475272651\, p^{95} q^{46} + 17024149017358\, p^{97} q^{64}$$
$$+ 4879507113817\, p^{96} q^{55} + 1218\, p^{7} q^{16} + 350798511\, p^{86} q^{23} + 11151973017\, p^{90} q^{31} + 40770\, q^{25} p^{10} + 11451566\, p^{81} q^{17}$$
$$+ 3335488803\, p^{89} q^{28} + 113\, p^{16} q^{4} + 30\, p^{14} q^{3} + 1102027939525\, p^{112} q^{124} + 2\, p^{46} q^{3} + 838700926160\, p^{46} q^{58} + 10783\, q^{95} p^{13}$$
$$+ 792\, p^{14} q^{7} + 2364\, p^{14} q^{9} + 1408\, p^{14} q^{8} + 15714108\, q^{47} p^{16} + 24247546753\, p^{56} q^{32} + 4191488785\, p^{55} q^{27} + 17739645672\, p^{56} q^{31}$$
$$+ 277550656954\, p^{57} q^{41} + 43775231398\, p^{56} q^{34} + 57877207755\, p^{56} q^{35} + 296536981\, q^{149} p^{89} + 3237\, p^{38} q^{6} + 3332\, p^{22} q^{7} + 6913\, p^{22} q^{8}$$
$$+ 106965\, p^{24} q^{12} + 29265\, p^{23} q^{10} + 2053330\, q^{142} p^{48} + 5039\, p^{15} q^{10} + 6203\, p^{9} q^{18} + 4325\, p^{11} q^{13} + 4510\, p^{12} q^{12}$$
$$+ 15360342569148\, p^{90} q^{113} + 16640210714935\, p^{96} q^{112} + 15140055680074\, p^{105} q^{109} + 370734\, q^{32} p^{12} + 89945\, q^{31} p^{10}$$
$$+ 353649138\, p^{149} q^{91} + 3296410015747\, p^{59} q^{54} + 4145115942375\, p^{60} q^{55} + 27\, p^{61} q^{5} + 211847007\, p^{69} q^{20} + 6110927596360\, p^{79} q^{52}$$
$$+ 5119409604825\, p^{79} q^{51} + 59312802\, p^{31} q^{24} + 1815\, p^{24} q^{6} + 625\, p^{23} q^{5} + 432035\, p^{29} q^{13} + 5434061\, p^{30} q^{18}$$
$$+ 20909411428538\, p^{107} q^{103} + 1672167\, q^{141} p^{46} + 18489199\, q^{66} p^{16} + 1025017753\, q^{117} p^{37} + 755276933181\, p^{128} q^{106} + 590941\, p^{101} q^{18}$$
$$+ 1943252624866\, p^{58} q^{51} + 2254197597685\, p^{58} q^{52} + 5858707627697\, p^{53} q^{69} + 92033640\, p^{87} q^{21} + 151898653280\, p^{135} q^{98}$$
$$+ 105273089892\, p^{133} q^{78} + 2006032223117\, p^{60} q^{50} + 895410054867\, q^{94} p^{46} + 55653912518\, q^{129} p^{64} + 3800\, p^{23} q^{7}$$
$$+ 3384150158591\, p^{96} q^{53} + 4325\, p^{13} q^{11} + 3090\, p^{11} q^{12} + 3550876\, p^{154} q^{141} + 148565555750\, q^{108} p^{46} + 20884685005\, q^{107} p^{39}$$
$$+ 20551236426286\, p^{81} q^{109} + 891977467104\, p^{57} q^{112} + 432754060743\, q^{109} p^{51} + 16112544904408\, p^{112} q^{85} + 10840739027431\, p^{111} q^{75}$$
$$+ 375873261323\, p^{107} q^{49} + 119232246270\, p^{106} q^{44} + 15396895\, p^{94} q^{20} + 2\, p^{58} q^{4} + 1478047838\, q^{74} p^{24} + 698319212\, p^{52} q^{23}$$

$$+ 982458264426\, p^{128}\, q^{96} + 16723908419\, q^{79}\, p^{30} + 244609169562\, q^{80}\, p^{38} + 3105768\, q^{142}\, p^{49} + 12904785\, q^{110}\, p^{25} + 5461387868\, p^{96}\, q^{31}$$
$$+ 1582683567\, p^{95}\, q^{28} + 27192140\, p^{153}\, q^{130} + 149244022906\, p^{70}\, q^{36} + 5594421512905\, p^{72}\, q^{52} + 4730622977785\, p^{72}\, q^{51} + 555\, p^{44}\, q^{5}$$
$$+ 394116\, p^{60}\, q^{11} + 3786534763\, q^{74}\, p^{26} + 115921670755\, q^{92}\, p^{38} + 15084112775\, q^{91}\, p^{32} + 22287066048\, q^{91}\, p^{33} + 9307\, p^{20}\, q^{9}$$
$$+ 57767\, p^{21}\, q^{12} + 2245110\, p^{133}\, q^{37} + 46\, q^{107}\, p^{13} + 629\, q^{106}\, p^{14} + 917523268336\, p^{59}\, q^{46} + 4077810654048\, p^{96}\, q^{54} + 289563\, p^{74}\, q^{12}$$
$$+ 83441\, p^{43}\, q^{9} + 31009\, p^{42}\, q^{8} + 58742733015125\, p^{94}\, q^{76} + 61876046935586\, p^{94}\, q^{77} + 48773996882727\, p^{94}\, q^{73} + 14056473\, p^{19}\, q^{33}$$
$$+ 36985682\, p^{22}\, q^{32} + 1185657499595\, q^{80}\, p^{44} + 1346967093\, q^{76}\, p^{24} + 806622779\, q^{76}\, p^{23} + 3504215759\, q^{76}\, p^{26} + 441302843132\, q^{79}\, p^{40}$$
$$+ 12211952789\, q^{77}\, p^{29} + 2196502254\, q^{76}\, p^{25} + 8077230967\, q^{77}\, p^{28} + 137791720976\, q^{79}\, p^{36} + 100178825536\, q^{79}\, p^{35}$$
$$+ 51020046987\, q^{79}\, p^{33} + 71951320198\, q^{79}\, p^{34} + 35693052880\, q^{79}\, p^{32} + 135\, q^{65}\, p^{6} + 1108564582\, p^{144}\, q^{77} + 9885230280662\, p^{71}\, q^{56}$$
$$+ 56344571556\, p^{67}\, q^{33} + 668858274\, p^{64}\, q^{22} + 2722700131\, p^{65}\, q^{25} + 666922\, q^{32}\, p^{13} + 430211932241\, q^{80}\, p^{40} + 562057090100\, q^{80}\, p^{41}$$
$$+ 932770718532\, q^{80}\, p^{43} + 727380063794\, q^{80}\, p^{42} + 34556161467734\, q^{106}\, p^{92} + 98180865651\, p^{134}\, q^{115} + 18669914290639\, p^{63}\, q^{94}$$
$$+ 2\, q^{46}\, p^{3} + 3728196854624\, p^{50}\, q^{70} + 2364\, p^{162}\, q^{157} + 269547440252\, p^{38}\, q^{72} + 40405604976\, p^{59}\, q^{33} + 3454479951966\, p^{61}\, q^{53}$$
$$+ 20447593\, p^{53}\, q^{16} + 9997202955776\, p^{97}\, q^{60} + 32290749953776\, p^{98}\, q^{71} + 25710394701873\, p^{106}\, q^{101} + 53752425165254\, p^{73}\, q^{92}$$
$$+ 89150680433679\, p^{81}\, q^{83} + 71624595725914\, p^{75}\, q^{86} + 25086274317666\, p^{106}\, q^{78} + 87619982735887\, p^{80}\, q^{84} + 357715636\, p^{39}\, q^{25}$$
$$+ 51804\, p^{33}\, q^{9} + 243987\, p^{34}\, q^{11} + 146916652027\, p^{69}\, q^{36} + 5417754116456\, p^{71}\, q^{52} + 77612716\, q^{151}\, p^{88} + 4587354170483\, p^{71}\, q^{51}$$
$$+ 8008\, p^{31}\, q^{7} + 21069\, p^{32}\, q^{8} + 520386\, p^{35}\, q^{12} + 120646\, p^{34}\, q^{10} + 10434363\, p^{37}\, q^{17} + 69719307\, p^{38}\, q^{21} + 1927116\, p^{36}\, q^{14} + 213\, p^{25}\, q^{4}$$
$$+ 46183886\, p^{38}\, q^{20} + 29991409\, p^{38}\, q^{19} + 119570064\, p^{39}\, q^{22} + 175025635\, p^{39}\, q^{23} + 690809731\, p^{39}\, q^{27} + 1108561897\, p^{40}\, q^{28}$$
$$+ 1073926\, p^{36}\, q^{13} + 3337434\, p^{36}\, q^{15} + 1072853100516\, p^{44}\, q^{68} + 1326616124092\, p^{45}\, q^{68} + 269852\, p^{19}\, q^{17} + 7984\, p^{49}\, q^{7}$$
$$+ 965299\, p^{91}\, q^{157} + 3794079\, p^{104}\, q^{157} + 707665\, p^{89}\, q^{157} + 474908\, p^{93}\, q^{158} + 829492\, p^{90}\, q^{157} + 1115222\, p^{92}\, q^{157}$$
$$+ 82337522342286\, p^{78}\, q^{85} + 85125413915410\, p^{79}\, q^{85} + 89625766464369\, p^{81}\, q^{84} + 990\, p^{164}\, q^{156} + 18\, q^{151}\, p^{45} + 53\, q^{151}\, p^{46}$$
$$+ 5333\, p^{26}\, q^{7} + 179250\, q^{105}\, p^{18} + 119539709774\, p^{130}\, q^{71} + 166901557\, p^{151}\, q^{120} + 4409298\, p^{22}\, q^{23} + 326065794483\, p^{132}\, q^{91}$$
$$+ 680567\, q^{26}\, p^{15} + 3176858661\, q^{78}\, p^{26} + 760692886\, q^{77}\, p^{23} + 56\, q^{103}\, p^{12} + 7\, q^{102}\, p^{11} + 1297167\, p^{27}\, q^{16} + 7886406\, p^{24}\, q^{23}$$
$$+ 10020907\, p^{75}\, q^{16} + 144141\, p^{17}\, q^{17} + 1025\, q^{105}\, p^{14} + 277\, q^{104}\, p^{13} + 2215057991\, q^{96}\, p^{29} + 63945385\, q^{35}\, p^{22} + 971892763\, q^{114}\, p^{35}$$
$$+ 6850160317\, p^{57}\, q^{28} + 823960490395\, p^{60}\, q^{45} + 409550045945\, p^{59}\, q^{42} + 160686696089\, p^{59}\, q^{38} + 506835957162\, p^{59}\, q^{43}$$
$$+ 124376718251\, p^{59}\, q^{37} + 205692958901\, p^{59}\, q^{39} + 285197\, p^{159}\, q^{141} + 4710998\, p^{157}\, q^{108} + 5443426\, p^{157}\, q^{113} + 1136715\, p^{150}\, q^{63}$$

$$+ 155814\, p^{146}\, q^{49} + 19515\, p^{141}\, q^{38} + 568\, p^{126}\, q^{22} + 1073926\, p^{158}\, q^{135} + 48949853\, p^{102}\, q^{24} + 10626801\, q^{115}\, p^{27} + 19967085\, q^{115}\, p^{28}$$
$$+ 4711\, p^{89}\, q^{161} + 3622\, p^{88}\, q^{161} + 37\, p^{81}\, q^{162} + 11912588232176\, p^{64}\, q^{101} + 13476019125160\, p^{65}\, q^{101} + 34853357705048\, p^{65}\, q^{80}$$
$$+ 26600813\, q^{116}\, p^{29} + 47283295\, q^{116}\, p^{30} + 2515856\, q^{113}\, p^{24} + 17238702\, q^{152}\, p^{82} + 3222923214103\, p^{49}\, q^{71} + 604\, p^{43}\, q^{5}$$
$$+ 110649951861\, p^{70}\, q^{35} + 6572577058744\, p^{72}\, q^{53} + 1175011809238\, p^{71}\, q^{44} + 2713467203679\, p^{55}\, q^{56} + 2121838508321\, p^{54}\, q^{55}$$
$$+ 5799204371075\, p^{96}\, q^{56} + 7386693933485\, p^{97}\, q^{58} + 416666\, p^{59}\, q^{11} + 426910\, q^{26}\, p^{14} + 827859\, q^{27}\, p^{15} + 9171013371743\, p^{60}\, q^{98}$$
$$+ 8368552165023\, p^{60}\, q^{99} + 13844251044570\, p^{63}\, q^{98} + 15694469069019\, p^{64}\, q^{98} + 17689853554142\, p^{65}\, q^{98} + 23885351229852\, p^{67}\, q^{97}$$
$$+ 26444689577160\, p^{68}\, q^{97} + 46487685190731\, p^{74}\, q^{96} + 10584004208827\, p^{61}\, q^{98} + 8657\, q^{91}\, p^{12} + 15605494654748\, p^{59}\, q^{87}$$
$$+ 17877934066609\, p^{60}\, q^{87} + 134870781\, q^{152}\, p^{111} + 5298496788535\, p^{55}\, q^{95} + 4796503518611\, p^{54}\, q^{94} + 17596443431940\, p^{92}\, q^{112}$$
$$+ 17629855825141\, p^{91}\, q^{112} + 5002516\, p^{145}\, q^{151} + 3923958\, p^{146}\, q^{151} + 3045302\, p^{147}\, q^{151} + 14579359\, p^{140}\, q^{151} + 7059436\, p^{145}\, q^{150}$$
$$+ 19860172\, q^{29}\, p^{22} + 10373\, p^{42}\, q^{7} + 87623617\, p^{30}\, q^{26} + 24526\, p^{26}\, q^{9} + 102010\, p^{27}\, q^{11} + 187238\, p^{77}\, q^{12} + 4877680348467\, p^{104}\, q^{60}$$
$$+ 9756811674198\, p^{55}\, q^{82} + 3433\, p^{58}\, q^{7} + 13337\, p^{27}\, q^{8} + 247266\, p^{29}\, q^{12} + 62785\, p^{28}\, q^{10} + 4237738\, p^{31}\, q^{17} + 25719454\, p^{32}\, q^{21}$$
$$+ 14579359\, p^{31}\, q^{20} + 9850705\, p^{31}\, q^{19} + 36985682\, p^{32}\, q^{22} + 856731\, p^{30}\, q^{14} + 6965\, q^{29}\, p^{7} + 80406\, q^{30}\, p^{10} + 1582683567\, q^{95}\, p^{28}$$
$$+ 659525816\, q^{94}\, p^{26} + 16378\, q^{29}\, p^{8} + 2495\, q^{28}\, p^{6} + 6243483755\, q^{95}\, p^{31} + 9499736057\, q^{95}\, p^{32} + 14212400557\, q^{95}\, p^{33}$$
$$+ 30359945178\, q^{95}\, p^{35} + 20928233476\, q^{95}\, p^{34} + 6420\, q^{28}\, p^{7} + 35373\, q^{29}\, p^{9} + 66072476\, p^{78}\, q^{19} + 1819075449382\, p^{52}\, q^{56}$$
$$+ 1402995848955\, p^{51}\, q^{55} + 154\, p^{19}\, q^{4} + 40\, p^{17}\, q^{3} + 4030172615\, q^{95}\, p^{30} + 251152174\, q^{93}\, p^{24} + 38580246227\, q^{96}\, p^{36}$$
$$+ 2551835701\, q^{95}\, p^{29} + 9233\, p^{24}\, q^{8} + 153540\, p^{26}\, q^{12} + 40770\, p^{25}\, q^{10} + 5252034014\, p^{89}\, q^{29} + 550201782\, p^{87}\, q^{24} + 7886406\, p^{23}\, q^{24}$$
$$+ 9813450\, p^{22}\, q^{26} + 10357633\, p^{23}\, q^{25} + 5502078\, p^{21}\, q^{25} + 7601374\, p^{22}\, q^{25} + 2336\, p^{159}\, q^{76} + 3350\, p^{160}\, q^{82} + 740775\, p^{65}\, q^{12}$$
$$+ 2220533450390\, p^{82}\, q^{47} + 417338865325\, p^{81}\, q^{40} + 315703459740\, p^{81}\, q^{39} + 95956942\, p^{73}\, q^{19} + 48809775536429\, p^{85}\, q^{69}$$
$$+ 52788459719330\, p^{85}\, q^{70} + 8687272100954\, q^{106}\, p^{66} + 26381471\, q^{95}\, p^{21} + 21995\, p^{156}\, q^{70} + 82059\, p^{162}\, q^{122} + 83441\, p^{162}\, q^{128}$$
$$+ 25378\, p^{163}\, q^{136} + 53664203491557\, p^{83}\, q^{100} + 1266339241\, p^{36}\, q^{31} + 2650068794\, p^{36}\, q^{34} + 3328277641\, p^{36}\, q^{35} + 5117758710\, p^{37}\, q^{36}$$
$$+ 186017478596\, p^{134}\, q^{104} + 196023373374\, p^{133}\, q^{86} + 970871304\, p^{36}\, q^{30} + 1635230832\, p^{36}\, q^{32} + 736572866\, p^{36}\, q^{29}$$
$$+ 35427761483918\, p^{69}\, q^{94} + 41199256651980\, p^{102}\, q^{80} + 49686874754286\, p^{102}\, q^{88} + 425455808831\, p^{43}\, q^{57} + 285197\, q^{30}\, p^{12}$$
$$+ 450462030382\, p^{93}\, q^{131} + 441302843132\, p^{92}\, q^{131} + 30226787962889\, p^{67}\, q^{70} + 9423361255041\, p^{55}\, q^{74} + 10890347372878\, p^{56}\, q^{74}$$
$$+ 12509099330740\, p^{57}\, q^{74} + 14282591160683\, p^{58}\, q^{74} + 21279514499975\, p^{62}\, q^{72} + 60\, p^{68}\, q^{6} + 4197369964\, p^{81}\, q^{27}$$

$$+ 3107827307\, p^{133}\, q^{138} + 13846985399\, p^{105}\, q^{142} + 9180439963\, p^{98}\, q^{143} + 1222562029721\, p^{81}\, q^{125} + 106110\, q^{119}\, p^{23}$$
$$+ 328325852\, p^{30}\, q^{31} + 519838460\, p^{33}\, q^{30} + 21906564\, q^{58}\, p^{16} + 11224907\, q^{57}\, p^{15} + 5510817\, q^{57}\, p^{14} + 75555689\, q^{59}\, p^{18}$$
$$+ 2607490\, q^{56}\, p^{13} + 6440231\, q^{147}\, p^{61} + 809201\, q^{148}\, p^{57} + 11358189\, q^{147}\, p^{63} + 4766886\, q^{147}\, p^{60} + 193590790656\, q^{108}\, p^{47} + 3622\, q^{83}\, p^{10}$$
$$+ 41067\, q^{85}\, p^{12} + 13189\, q^{84}\, p^{11} + 1969541\, q^{92}\, p^{17} + 2757\, q^{84}\, p^{10} + 57288\, q^{89}\, p^{13} + 538604\, q^{89}\, p^{15} + 230985\, q^{88}\, p^{14} + 657758\, q^{88}\, p^{15}$$
$$+ 25594\, q^{87}\, p^{12} + 32603\, q^{86}\, p^{12} + 91218\, q^{87}\, p^{13} + 185942\, q^{89}\, p^{14} + 10282\, q^{85}\, p^{11} + 351700\, q^{91}\, p^{15} + 72651\, q^{88}\, p^{13} + 148303\, q^{90}\, p^{14}$$
$$+ 7920\, q^{86}\, p^{11} + 134870781\, q^{60}\, p^{19} + 395814183\, q^{61}\, p^{21} + 41390850\, q^{59}\, p^{17} + 232448199\, q^{60}\, p^{20} + 852638607121\, p^{43}\, q^{83}$$
$$+ 528269881635\, p^{41}\, q^{82} + 1044134954\, q^{61}\, p^{23} + 650353724\, q^{61}\, p^{22} + 2595449030\, q^{62}\, p^{25} + 3939907593\, q^{62}\, p^{26} + 1678304235\, q^{62}\, p^{24}$$
$$+ 16451820409967\, p^{62}\, q^{94} + 6043151476\, q^{63}\, p^{27} + 8897962960\, q^{63}\, p^{28} + 6925441\, q^{70}\, p^{15} + 1361764\, q^{69}\, p^{13} + 10798406\, q^{153}\, p^{137}$$
$$+ 5893949\, q^{154}\, p^{138} + 18967208287\, p^{128}\, q^{57} + 6150619886\, p^{126}\, q^{50} + 475778541281\, q^{107}\, p^{50} + 918715241002\, q^{107}\, p^{53}$$
$$+ 1060066258\, p^{119}\, q^{147} + 455812304\, p^{136}\, q^{143} + 944062880\, p^{130}\, q^{144} + 1092505852\, p^{129}\, q^{144} + 1298290349\, p^{125}\, q^{145}$$
$$+ 552709743\, p^{135}\, q^{143} + 1020761120\, p^{127}\, q^{145} + 293385\, q^{36}\, p^{11} + 36453534824432\, p^{76}\, q^{101} + 38677336869825\, p^{77}\, q^{101} + 118\, p^{55}\, q^{5}$$
$$+ 124074779\, q^{106}\, p^{27} + 1606459\, p^{154}\, q^{145} + 1287279\, p^{154}\, q^{146} + 65073357\, p^{30}\, q^{25} + 116597630\, p^{30}\, q^{27} + 194152810\, p^{31}\, q^{28}$$
$$+ 213\, q^{25}\, p^{4} + 1038458860483\, p^{95}\, q^{47} + 941323908\, p^{87}\, q^{25} + 412476529\, q^{78}\, p^{22} + 10020907\, q^{75}\, p^{16} + 4923880\, q^{74}\, p^{15}$$
$$+ 71996327\, q^{77}\, p^{19} + 11912588232176\, p^{107}\, q^{70} + 16596315\, q^{34}\, p^{19} + 25289894907020\, p^{62}\, q^{79} + 7672223243095\, p^{54}\, q^{72}$$
$$+ 14654\, p^{77}\, q^{10} + 4071917026113\, p^{50}\, q^{73} + 6548914741\, q^{81}\, p^{28} + 14430\, p^{121}\, q^{22} + 6925441\, p^{101}\, q^{156} + 7646\, p^{152}\, q^{162}$$
$$+ 3289441\, p^{102}\, q^{157} + 5674195698763\, p^{104}\, q^{61} + 7537867041659\, p^{104}\, q^{63} + 18225219894758\, p^{105}\, q^{72} + 2828881971321\, p^{103}\, q^{56}$$
$$+ 9776824138247\, p^{104}\, q^{65} + 6559928760237\, p^{104}\, q^{62} + 30302712540059\, p^{106}\, q^{82} + 32336871758457\, p^{106}\, q^{84}$$
$$+ 3373004700510\, p^{103}\, q^{57} + 31379678200266\, p^{106}\, q^{83} + 1833876275141\, p^{124}\, q^{84} + 241317408033\, p^{121}\, q^{60} + 509528784019\, p^{122}\, q^{66}$$
$$+ 266629125499\, p^{127}\, q^{120} + 320624210\, p^{111}\, q^{31} + 1748984640646\, p^{125}\, q^{101} + 364146536448\, p^{126}\, q^{119} + 199709134\, p^{30}\, q^{29}$$
$$+ 4852828\, p^{140}\, q^{47} + 6\, p^{169}\, q^{147} + 1068516040\, p^{148}\, q^{103} + 486551158\, p^{145}\, q^{75} + 181404258\, p^{35}\, q^{25} + 151898653280\, p^{73}\, q^{36}$$
$$+ 34541264\, p^{141}\, q^{148} + 34808220831697\, p^{69}\, q^{70} + 1076\, p^{165}\, q^{117} + 1360\, p^{164}\, q^{107} + 90\, p^{163}\, q^{89} + 24531755251600\, p^{63}\, q^{73}$$
$$+ 5553527079\, q^{119}\, p^{43} + 226012646\, q^{116}\, p^{33} + 14581931\, q^{135}\, p^{43} + 7528430083\, p^{126}\, q^{139} + 6886285298201\, p^{118}\, q^{88}$$
$$+ 4777005620682\, p^{119}\, q^{103} + 6110927596360\, p^{119}\, q^{92} + 1583814551834\, p^{116}\, q^{65} + 3071656865021\, p^{117}\, q^{72} + 71951320198\, p^{79}\, q^{34}$$
$$+ 562057090100\, p^{80}\, q^{41} + 3504215759\, p^{76}\, q^{26} + 52866886009\, p^{78}\, q^{33} + 25114505644916\, p^{100}\, q^{70} + 341212049760\, p^{96}\, q^{43}$$

$$+ 14548677\, q^{36}\, p^{18} + 34466084\, q^{36}\, p^{20} + 60129744\, q^{37}\, p^{21} + 2849898364451\, p^{48}\, q^{80} + 2793\, q^{30}\, p^{6} + 864\, q^{29}\, p^{5} + 8008\, q^{31}\, p^{7}$$
$$+ 57619451698744\, p^{99}\, q^{83} + 3175539\, p^{78}\, q^{15} + 209531336906\, p^{113}\, q^{51} + 31947605091\, p^{110}\, q^{42} + 93079101603\, p^{112}\, q^{47}$$
$$+ 9171013371743\, p^{98}\, q^{60} + 29851581002270\, p^{99}\, q^{71} + 16649031596140\, p^{63}\, q^{66} + 19563392023641\, p^{64}\, q^{67} + 27000319061442\, p^{69}\, q^{98}$$
$$+ 2609408\, q^{144}\, p^{52} + 28218334511401\, p^{108}\, q^{92} + 68921891717407\, p^{74}\, q^{82} + 83173217313004\, p^{79}\, q^{81} + 72457767306218\, p^{75}\, q^{82}$$
$$+ 131297299109\, p^{135}\, q^{106} + 14505165\, q^{116}\, p^{28} + 60164399\, q^{117}\, p^{31} + 856494057280\, q^{88}\, p^{44} + 292982848\, p^{99}\, q^{26}$$
$$+ 12809427040347\, p^{114}\, q^{96} + 8652757\, p^{93}\, q^{19} + 34970748911\, p^{106}\, q^{40} + 24989989897\, p^{106}\, q^{39} + 5478662779\, p^{104}\, q^{34}$$
$$+ 5512497351452\, q^{89}\, p^{53} + 4587751777698\, q^{89}\, p^{52} + 6578023994738\, q^{89}\, p^{54} + 8728807299398\, q^{90}\, p^{56} + 7796713073118\, q^{89}\, p^{55}$$
$$+ 12871004176999\, p^{58}\, q^{71} + 34077113264\, p^{97}\, q^{36} + 4030172615\, p^{95}\, q^{30} + 12516527077\, p^{96}\, q^{33} + 58934099708\, p^{133}\, q^{122}$$
$$+ 56741\, p^{57}\, q^{9} + 61587182685545\, p^{73}\, q^{78} + 52275587955724\, p^{99}\, q^{80} + 61516025769639\, p^{99}\, q^{88} + 78948993078962\, p^{80}\, q^{91}$$
$$+ 2950962\, p^{154}\, q^{142} + 41895204\, p^{145}\, q^{144} + 38054263\, p^{142}\, q^{147} + 40576765\, p^{143}\, q^{146} + 19863561254327\, p^{78}\, q^{108}$$
$$+ 199829273132\, q^{134}\, p^{95} + 742\, q^{155}\, p^{59} + 326356\, q^{31}\, p^{12} + 1155969\, q^{32}\, p^{14} + 1955428737\, p^{145}\, q^{121} + 5419\, p^{111}\, q^{17}$$
$$+ 49615843430496\, p^{90}\, q^{102} + 44981050239657\, p^{92}\, q^{103} + 47753910257001\, p^{93}\, q^{102} + 49223905890755\, p^{91}\, q^{102}$$
$$+ 48600428264065\, p^{92}\, q^{102} + 49686874754286\, p^{88}\, q^{102} + 49770872458554\, p^{89}\, q^{102} + 1426904703977\, p^{115}\, q^{63}$$
$$+ 2496597122340\, p^{115}\, q^{67} + 58822638082723\, p^{97}\, q^{96} + 10941056202337\, p^{106}\, q^{68} + 61413743312153\, p^{96}\, q^{96}$$
$$+ 39253878261126\, p^{81}\, q^{103} + 53627214198375\, p^{88}\, q^{101} + 65073357\, p^{25}\, q^{30} + 82533102689305\, p^{93}\, q^{87} + 5017009\, p^{17}\, q^{32}$$
$$+ 14642910066718\, p^{75}\, q^{58} + 16640210714935\, p^{75}\, q^{59} + 1478047838\, p^{74}\, q^{24} + 551318572\, p^{73}\, q^{22} + 2391156280\, p^{74}\, q^{25} + 5\, p^{25}\, q^{2}$$
$$+ 2011\, p^{137}\, q^{31} + 2854933\, p^{155}\, q^{86} + 2045980\, p^{155}\, q^{84} + 3358020817024\, q^{109}\, p^{62} + 443120632\, p^{78}\, q^{146} + 605204255\, p^{136}\, q^{142}$$
$$+ 236\, p^{51}\, q^{5} + 12579045\, q^{35}\, p^{18} + 220\, q^{26}\, p^{4} + 75583443\, q^{36}\, p^{22} + 1126376671464\, q^{107}\, p^{54} + 1179037206211\, q^{108}\, p^{55}$$
$$+ 23088977412663\, p^{104}\, q^{105} + 858260\, q^{34}\, p^{13} + 2081700062852\, p^{99}\, q^{52} + 1222415102200\, p^{98}\, q^{49} + 14\, q^{105}\, p^{12} + 30\, q^{104}\, p^{12}$$
$$+ 160\, q^{105}\, p^{13} + 370\, q^{107}\, p^{14} + 215956922\, p^{38}\, q^{24} + 16708979\, p^{37}\, q^{18} + 425224228\, p^{38}\, q^{26} + 3512242403\, q^{96}\, p^{30} + 2495\, p^{28}\, q^{6}$$
$$+ 800\, p^{27}\, q^{5} + 1191886288182\, p^{123}\, q^{75} + 11917740285\, p^{116}\, q^{43} + 758452490499\, p^{126}\, q^{112} + 145042984\, p^{110}\, q^{29}$$
$$+ 1924361605377\, p^{124}\, q^{85} + 1738922028698\, p^{124}\, q^{83} + 72065030032\, p^{119}\, q^{52} + 673790073397\, p^{122}\, q^{68} + 253142936377\, p^{115}\, q^{130}$$
$$+ 3745179234\, p^{39}\, q^{33} + 5601650\, p^{36}\, q^{16} + 5494839208957\, p^{103}\, q^{60} + 218146\, p^{76}\, q^{12} + 152060239\, p^{149}\, q^{83} + 195945415\, p^{151}\, q^{100}$$
$$+ 34984234517776\, p^{81}\, q^{65} + 45269754944\, p^{33}\, q^{61} + 289988295\, q^{102}\, p^{27} + 1689120909\, p^{39}\, q^{30} + 1268377992\, p^{39}\, q^{29}$$

$$+ 409104221201\, p^{113}\, q^{54} + 10606485368500\, p^{107}\, q^{111} + 1621000\, q^{148}\, p^{59} + 26018\, q^{138}\, p^{35} + 5129\, q^{137}\, p^{32} + 74519\, p^{162}\, q^{132}$$
$$+ 187238\, p^{159}\, q^{94} + 170281\, p^{161}\, q^{114} + 1492436821263\, p^{45}\, q^{72} + 269236278\, p^{149}\, q^{88} + 2901171812\, p^{39}\, q^{32} + 7\, p^{136}\, q^{26}$$
$$+ 19059694\, p^{18}\, q^{38} + 1635230832\, p^{32}\, q^{36} + 584780217\, p^{27}\, q^{38} + 258481248\, p^{25}\, q^{37} + 358742669\, p^{26}\, q^{37} + 2559423859\, p^{33}\, q^{37}$$
$$+ 69185070269222\, p^{88}\, q^{75} + 75699008054152\, p^{93}\, q^{81} + 2225186412\, p^{39}\, q^{31} + 4788906773\, p^{39}\, q^{34} + 6067697254\, p^{39}\, q^{35}$$
$$+ 9193033573\, p^{40}\, q^{36} + 2431353\, p^{28}\, q^{17} + 14038691\, p^{29}\, q^{21} + 7888964\, p^{28}\, q^{20} + 5429436\, p^{28}\, q^{19} + 19860172\, p^{29}\, q^{22} + 514682\, p^{27}\, q^{14}$$
$$+ 166161172237\, p^{107}\, q^{134} + 48503031\, q^{143}\, p^{59} + 35183474\, q^{144}\, p^{60} + 8039521288190\, p^{59}\, q^{62} + 8148113804418\, p^{60}\, q^{61}$$
$$+ 7517171192842\, p^{57}\, q^{64} + 7826510185611\, p^{58}\, q^{63} + 8039521288190\, p^{62}\, q^{59} + 20909411428538\, p^{103}\, q^{107} + 9489567\, q^{150}\, p^{71}$$
$$+ 3994310265364\, q^{88}\, p^{51} + 3281597602175\, q^{88}\, p^{50} + 27096736457435\, p^{65}\, q^{71} + 5038050121564\, p^{51}\, q^{75} + 4214353117310\, p^{50}\, q^{75}$$
$$+ 10976033\, q^{74}\, p^{16} + 203315189416\, p^{134}\, q^{99} + 39875146\, q^{76}\, p^{18} + 19669260016480\, p^{83}\, q^{110} + 4406644408847\, p^{106}\, q^{61}$$
$$+ 5886181840494\, p^{106}\, q^{63} + 14392874531954\, p^{107}\, q^{72} + 2190475366904\, p^{105}\, q^{56} + 76521868\, q^{42}\, p^{20} + 200648432\, q^{43}\, p^{22}$$
$$+ 264042028\, q^{42}\, p^{23} + 117848061\, q^{42}\, p^{21} + 177996594\, q^{42}\, p^{22} + 72922131121\, q^{99}\, p^{39} + 100170829629\, q^{99}\, p^{40} + 136033793724\, q^{99}\, p^{41}$$
$$+ 1153917196\, q^{85}\, p^{25} + 22495562692246\, p^{89}\, q^{110} + 3413647\, q^{136}\, p^{41} + 243041793\, q^{84}\, p^{22} + 433412314\, q^{84}\, p^{23} + 750834074\, q^{84}\, p^{24}$$
$$+ 3084463123\, q^{85}\, p^{27} + 1458029\, q^{77}\, p^{14} + 34682274185\, p^{62}\, q^{32} + 5688369157\, p^{61}\, q^{27} + 24989892508\, p^{62}\, q^{31} + 431152014883\, p^{63}\, q^{41}$$
$$+ 21979612\, p^{23}\, q^{28} + 91770671564003\, p^{87}\, q^{83} + 81302188929532\, p^{80}\, q^{90} + 2455566284344\, p^{65}\, q^{49} + 39661774974\, q^{133}\, p^{70}$$
$$+ 45751324652\, q^{133}\, p^{71} + 24766621789941\, p^{64}\, q^{71} + 83034034\, q^{110}\, p^{28} + 1197886718811\, q^{120}\, p^{69} + 125280545\, p^{152}\, q^{115}$$
$$+ 1518258598889\, q^{120}\, p^{71} + 1881410734685\, q^{120}\, p^{73} + 2280842437561\, q^{120}\, p^{75} + 100984004430\, p^{127}\, q^{64} + 49755270341\, q^{115}\, p^{47}$$
$$+ 28011316283\, q^{115}\, p^{45} + 8714563814\, q^{113}\, p^{40} + 46160950\, q^{110}\, p^{27} + 858822\, q^{103}\, p^{19} + 3572106\, q^{104}\, p^{21} + 2235868014\, q^{114}\, p^{37}$$
$$+ 178571\, q^{98}\, p^{16} + 6925414692\, q^{114}\, p^{40} + 271533352476\, q^{118}\, p^{57} + 329965709943\, q^{118}\, p^{58} + 26286\, q^{92}\, p^{13} + 383678\, q^{99}\, p^{17}$$
$$+ 1897830\, q^{100}\, p^{19} + 77102\, q^{97}\, p^{15} + 1000403\, q^{99}\, p^{18} + 644863\, q^{104}\, p^{19} + 2728805\, q^{105}\, p^{21} + 19199822\, q^{106}\, p^{24} + 98256337\, q^{107}\, p^{27}$$
$$+ 17056078\, q^{109}\, p^{25} + 409262713\, q^{110}\, p^{31} + 41559005746\, q^{117}\, p^{48} + 54314497141\, q^{117}\, p^{49} + 180843962401\, q^{117}\, p^{54}$$
$$+ 144622136031\, q^{117}\, p^{53} + 32720406524385\, p^{69}\, q^{69} + 31345592068736\, p^{88}\, q^{107} + 6741288333003\, p^{106}\, q^{64} + 1818845897136\, p^{105}\, q^{55}$$
$$+ 81302188929532\, p^{91}\, q^{81} + 19813072970859\, p^{105}\, q^{106} + 6167\, p^{116}\, q^{19} + 3777377871893\, p^{65}\, q^{111} + 10584004208827\, p^{73}\, q^{110}$$
$$+ 28051590811368\, p^{97}\, q^{107} + p^{14}\, q + 46183886\, p^{20}\, q^{38} + 8633079\, p^{136}\, q^{43} + 9711613531\, q^{103}\, p^{35} + 3341386014\, q^{102}\, p^{32}$$
$$+ 67060536246\, q^{104}\, p^{41} + 48775307901\, q^{104}\, p^{40} + 411739710545\, p^{129}\, q^{80} + 453574978165\, p^{131}\, q^{100} + 2510261408\, p^{110}\, q^{35}$$

$$+ 527089\, p^{160} q^{121} + 1376394827000\, p^{126} q^{102} + 886394611697\, p^{127} q^{107} + 674996726111\, p^{127} q^{111} + 768914855710\, p^{124} q^{73}$$
$$+ 413731801\, p^{145} q^{74} + 155320116\, p^{144} q^{66} + 91838679\, p^{150} q^{131} + 241052898685\, p^{113} q^{131} + 98037603239\, q^{135} p^{85}$$
$$+ 84946719322\, q^{135} p^{83} + 91496483300\, q^{135} p^{84} + 104503597490\, q^{135} p^{86} + 116931194567\, q^{135} p^{88} + 110825153810\, q^{135} p^{87}$$
$$+ 122750243518\, q^{135} p^{89} + 133247072836\, q^{135} p^{91} + 128211651805\, q^{135} p^{90} + 13360027466651\, p^{114} q^{93} + 1784017130172\, p^{110} q^{59}$$
$$+ 1500218935683\, p^{110} q^{58} + 15360342569148\, p^{113} q^{90} + 76257617007\, p^{96} q^{38} + 401523583405\, p^{97} q^{44} + 20858848866921\, p^{101} q^{69}$$
$$+ 16665250058463\, p^{100} q^{66} + 4470009340943\, p^{116} q^{74} + 7154044321326\, p^{118} q^{95} + 7219142880885\, p^{118} q^{94}$$
$$+ 4284274447225\, p^{119} q^{105} + 5293353285461\, p^{118} q^{104} + 47753910257001\, p^{78} q^{69} + 51278495128408\, p^{78} q^{70}$$
$$+ 58231530277900\, p^{78} q^{72} + 44243177295745\, p^{78} q^{68} + 40777957059414\, p^{78} q^{67} + 55689160147\, q^{118} p^{50} + 54782961383120\, p^{78} q^{71}$$
$$+ 42901961413\, q^{118} p^{49} + 32757\, p^{63} q^{9} + 64812288267316\, p^{78} q^{74} + 67869275019295\, p^{78} q^{75} + 61587182685545\, p^{78} q^{73}$$
$$+ 1424358852\, p^{147} q^{114} + 145599946\, p^{140} q^{57} + 70721330322825\, p^{78} q^{76} + 73333108780149\, p^{78} q^{77} + 77705980911422\, p^{79} q^{78}$$
$$+ 3543171\, p^{103} q^{157} + 22949242332365\, p^{70} q^{101} + 25114505644916\, p^{71} q^{101} + 92789271965941\, p^{87} q^{84} + 89165280942987\, p^{89} q^{83}$$
$$+ 27955724624598\, p^{66} q^{93} + 349173700\, p^{122} q^{38} + 54201709\, p^{119} q^{32} + 23127157080\, p^{110} q^{41} + 967171997418\, p^{117} q^{63}$$
$$+ 324748670\, p^{149} q^{90} + 263959556434\, p^{132} q^{86} + 244186851959\, p^{133} q^{104} + 1540221\, q^{107} p^{21} + 203945713\, q^{151} p^{116}$$
$$+ 1664596351723\, p^{50} q^{58} + 598410414192\, p^{41} q^{73} + 6356697348316\, p^{53} q^{71} + 89625766464369\, p^{90} q^{87} + 107417\, p^{73} q^{11}$$
$$+ 252109500\, p^{39} q^{24} + 19059694\, p^{38} q^{18} + 500429069\, p^{39} q^{26} + 2645\, p^{29} q^{6} + 834\, p^{28} q^{5} + 4480043535\, p^{40} q^{33} + 6350679\, p^{37} q^{16}$$
$$+ 2001924646\, p^{40} q^{30} + 1498301820\, p^{40} q^{29} + 3460078970\, p^{40} q^{32} + 12390740761460\, p^{104} q^{67} + 689221910421\, p^{101} q^{48}$$
$$+ 2202222153830\, p^{102} q^{54} + 72922131121\, p^{99} q^{39} + 42568575475\, p^{98} q^{37} + 100170829629\, p^{99} q^{40} + 78642312687589\, p^{90} q^{79}$$
$$+ 956868\, q^{86} p^{15} + 4136812\, q^{88} p^{17} + 346843\, q^{86} p^{14} + 794873349\, p^{30} q^{35} + 2801399967054\, q^{81} p^{48} + 2316173946861\, q^{80} p^{47}$$
$$+ 87619982735887\, p^{91} q^{87} + 76291810104415\, p^{91} q^{79} + 87580847444132\, p^{91} q^{86} + 1231342314683\, p^{44} q^{74} + 14842334\, q^{147} p^{64}$$
$$+ 8810515434\, p^{142} q^{88} + 4468544874\, p^{144} q^{115} + 61042094\, p^{132} q^{43} + 9424709609\, p^{142} q^{89} + 11828738\, q^{38} p^{17} + 269547440252\, p^{133} q^{99}$$
$$+ 11920471177\, p^{55} q^{30} + 2690024805\, p^{54} q^{26} + 8529515519\, p^{55} q^{29} + 2387812\, q^{38} p^{14} + 93187714396497\, p^{87} q^{87}$$
$$+ 89671621992830\, p^{90} q^{86} + 91770671564003\, p^{84} q^{88} + 91065654331103\, p^{89} q^{85} + 6420\, p^{28} q^{7} + 16378\, p^{29} q^{8} + 370734\, p^{32} q^{12}$$
$$+ 89945\, p^{31} q^{10} + 6872145\, p^{34} q^{17} + 43784927\, p^{35} q^{21} + 1327612\, p^{33} q^{14} + 75555689\, p^{153} q^{112} + 105582672\, p^{151} q^{91}$$
$$+ 511020212351\, q^{88} p^{42} + 3271850397860\, p^{49} q^{83} + 25944105121388\, p^{64} q^{72} + 17716901136291\, p^{60} q^{73} + 36513415904006\, p^{74} q^{67}$$

$$+ 22148640776790\, p^{108} q^{80} + 28125612744011\, p^{108} q^{88} + 13070119565\, p^{75} q^{29} + 8698722602\, p^{75} q^{28} + 8878257\, p^{66} q^{15}$$
$$+ 3691447838322\, p^{55} q^{99} + 22515918048844\, p^{63} q^{71} + 783478500343\, p^{85} q^{43} + 5161330679\, q^{129} p^{53} + 8568508801\, q^{129} p^{55}$$
$$+ 3949413034\, q^{129} p^{52} + 6680900704\, q^{129} p^{54} + 3598932731042\, p^{86} q^{50} + 8103392079268\, p^{54} q^{74} + 493280686\, p^{34} q^{29}$$
$$+ 66790964170654\, p^{74} q^{87} + 78609997199664\, p^{77} q^{86} + 82337522342286\, p^{93} q^{86} + 92428645497427\, p^{83} q^{84} + 258112868104\, q^{133} p^{93}$$
$$+ 1278618843039\, p^{59} q^{112} + 22\, q^{131} p^{23} + 51079561915136\, p^{99} q^{97} + 41414903685746\, p^{104} q^{92} + 48694107559931\, p^{101} q^{95}$$
$$+ 842856824\, p^{146} q^{83} + 999566442\, p^{148} q^{100} + 1549078209433\, p^{94} q^{126} + 9813526709\, q^{114} p^{41} + 25950726942977\, p^{84} q^{108}$$
$$+ 199709134\, p^{142} q^{141} + 83034034\, q^{143} p^{61} + 24028119\, p^{134} q^{43} + 3917664149\, p^{144} q^{89} + 17099107345945\, p^{103} q^{69}$$
$$+ 13712102549925\, p^{102} q^{66} + 58742733015125\, p^{76} q^{94} + 583792511\, p^{146} q^{80} + 650353724\, p^{149} q^{110} + 8609934981346\, p^{107} q^{67}$$
$$+ 463041852723\, p^{104} q^{48} + 24595704\, p^{105} q^{24} + 2046453958900\, p^{123} q^{82} + 16377546060\, p^{116} q^{44} + 52055120\, p^{91} q^{21}$$
$$+ 4101546526\, p^{98} q^{31} + 1174725059\, p^{97} q^{28} + 55072967542014\, p^{99} q^{95} + 12066\, q^{138} p^{34} + 26518\, q^{137} p^{34} + 10457769\, q^{151} p^{75}$$
$$+ 37594805\, q^{150} p^{78} + 2425692373403\, p^{112} q^{63} + 1279\, q^{155} p^{60} + 4837\, q^{156} p^{66} + 411\, q^{155} p^{58} + 185942\, q^{157} p^{82} + 170537\, p^{158} q^{87}$$
$$+ 11\, p^{133} q^{24} + 44688\, p^{158} q^{81} + 4166506404903\, p^{112} q^{67} + 210756015543\, p^{109} q^{48} + 21851731\, p^{96} q^{21} + 1786779738\, p^{103} q^{31}$$
$$+ 495192962\, p^{102} q^{28} + 79428779425566\, p^{83} q^{93} + 30357427877571\, p^{68} q^{95} + 981831256247\, p^{95} q^{128} + 538604\, p^{89} q^{15}$$
$$+ 956885\, p^{91} q^{16} + 138881135046\, p^{122} q^{129} + 10342698\, p^{138} q^{46} + 13208\, q^{109} p^{17} + 3143\, q^{106} p^{15} + 4837\, q^{105} p^{15} + 108339029\, q^{137} p^{51}$$
$$+ 5903562\, q^{135} p^{41} + 1570183765\, p^{145} q^{84} + 2196502254\, p^{146} q^{95} + 393921\, p^{128} q^{30} + 191310932\, p^{140} q^{58} + 28011316283\, q^{126} p^{56}$$
$$+ 40664199457664\, p^{69} q^{73} + 89287623699546\, p^{81} q^{86} + 91065654331103\, p^{82} q^{86} + 32341034607875\, p^{66} q^{73}$$
$$+ 25418156761441\, p^{63} q^{74} + 510038746091\, p^{120} q^{63} + 41409525746597\, p^{72} q^{70} + 12306029782\, p^{113} q^{41} + 6572577058744\, p^{118} q^{99}$$
$$+ 6924201862863\, p^{118} q^{97} + 927\, p^{66} q^{7} + 1725975\, p^{105} q^{158} + 1482600\, p^{103} q^{158} + 391063533\, q^{85} p^{23} + 680831991\, q^{85} p^{24}$$
$$+ 29443238033\, q^{88} p^{33} + 172781\, p^{94} q^{15} + 17521844878\, p^{117} q^{45} + 54157141\, p^{107} q^{26} + 303534\, p^{96} q^{16} + 2303593073940\, p^{98} q^{124}$$
$$+ 112676677495\, p^{120} q^{55} + 3773088098\, p^{110} q^{36} + 373634\, q^{72} p^{12} + 141315\, q^{71} p^{11} + 1540002190262\, q^{90} p^{47} + 69260025921\, p^{80} q^{34}$$
$$+ 546246906475\, p^{81} q^{41} + 3345171398\, p^{77} q^{26} + 51020046987\, p^{79} q^{33} + 3070\, p^{77} q^{9} + 210756015543\, q^{109} p^{48} + 160364090823\, p^{134} q^{88}$$
$$+ 1811142426992\, q^{118} p^{69} + 2412\, q^{78} p^{9} + 21006\, q^{82} p^{11} + 41660899028696\, p^{71} q^{71} + 2138\, q^{155} p^{61} + 230985\, q^{157} p^{83} + 338\, q^{154} p^{55}$$
$$+ 34\, q^{154} p^{52} + 640\, q^{154} p^{56} + 79\, q^{154} p^{53} + 170\, q^{154} p^{54} + 1151\, q^{154} p^{57} + 3455\, q^{155} p^{62} + 18534\, q^{155} p^{66} + 8364\, q^{155} p^{64} + 5446\, q^{155} p^{63}$$
$$+ 4468758033638\, q^{109} p^{64} + 13709904685\, p^{98} q^{142} + 9938543\, p^{130} q^{37} + 4030172615\, p^{141} q^{76} + 31564369385512\, p^{64} q^{82}$$

$$+ 70756696024848\, p^{93} q^{79} + 49615843430496\, p^{69} q^{81} + 59713828068366\, p^{91} q^{74} + 34238965926231\, p^{91} q^{67}$$
$$+ 48538103110162\, p^{91} q^{71} + 6578023994738\, p^{89} q^{54} + 11901283519434\, p^{90} q^{58} + 15827864276638\, p^{90} q^{60} + 5512497351452\, p^{89} q^{53}$$
$$+ 34167869683\, q^{102} p^{38} + 34947002834344\, p^{65} q^{82} + 50090963621952\, p^{101} q^{94} + 6139180834639\, p^{104} q^{117} + 4687083120794\, p^{106} q^{118}$$
$$+ 7740019384426\, p^{86} q^{117} + 7962983879290\, p^{87} q^{117} + 79402064848947\, p^{83} q^{77} + 82533102689305\, p^{84} q^{78} + 65386231106853\, p^{83} q^{73}$$
$$+ 76201696681494\, p^{83} q^{76} + 16242194820279\, q^{106} p^{72} + 20657735352911\, q^{106} p^{75} + 23632927057388\, q^{106} p^{77}$$
$$+ 17689853554142\, q^{106} p^{73} + 22151627524065\, q^{106} p^{76} + 19165902902840\, q^{106} p^{74} + 13476019125160\, q^{106} p^{70}$$
$$+ 14834264974144\, q^{106} p^{71} + 43524351\, p^{152} q^{130} + 20683156441398\, p^{68} q^{100} + 119232246270\, q^{106} p^{44} + 53664203491557\, p^{71} q^{88}$$
$$+ 39253878261126\, p^{90} q^{68} + 29822666093228\, p^{107} q^{85} + 35531362\, p^{89} q^{20} + 23551794592\, q^{94} p^{34} + 34067925267\, q^{94} p^{35}$$
$$+ 1030566147895\, p^{127} q^{104} + 5434061\, p^{153} q^{141} + 24731738218\, q^{124} p^{53} + 476106004337\, p^{124} q^{69} + 1239814384123\, p^{127} q^{95}$$
$$+ 541397737791\, p^{124} q^{70} + 478443235\, p^{115} q^{34} + 54263242294358\, p^{90} q^{72} + 4329361838426\, p^{62} q^{54} + 5378909623415\, p^{63} q^{55}$$
$$+ 1163502490490\, p^{62} q^{46} + 4\, p^{27} q^{2} + 152328022133\, p^{134} q^{87} + 175066059962\, p^{134} q^{90} + 75910809372690\, p^{76} q^{85}$$
$$+ 133894578026\, q^{107} p^{45} + 24989989897\, q^{106} p^{39} + 2856468757959\, q^{108} p^{60} + 644905502657\, p^{79} q^{127} + 1276200019008\, p^{86} q^{126}$$
$$+ 1330155615238\, p^{87} q^{126} + 1235030886418\, p^{127} q^{94} + 2268468509\, p^{117} q^{39} + 670370513339\, p^{125} q^{74} + 3297547512\, p^{117} q^{40}$$
$$+ 64854310205005\, p^{94} q^{78} + 2075223345\, p^{144} q^{82} + 4244294643708\, q^{101} p^{57} + 5012360523404\, q^{101} p^{58} + 4652100065\, q^{100} p^{32}$$
$$+ 6\, p^{165} q^{97} + 33552655866685\, p^{72} q^{67} + 8233239880884\, q^{102} p^{62} + 7140679034428\, q^{102} p^{61} + 40425\, p^{61} q^{9} + 1252983644018\, p^{114} q^{61}$$
$$+ 6576064380088\, p^{116} q^{79} + 7904131798994\, p^{117} q^{98} + 398092728606\, p^{112} q^{53} + 7280361802217\, p^{115} q^{78} + 241317408033\, p^{111} q^{50}$$
$$+ 9377381471455\, p^{116} q^{87} + 9126479275508\, p^{116} q^{86} + 959946662\, p^{95} q^{27} + 322798881144\, p^{103} q^{46} + 923397994585\, p^{104} q^{51}$$
$$+ 20160547260\, q^{131} p^{62} + 12509099330740\, p^{97} q^{114} + 90676649643676\, p^{88} q^{83} + 3298961692363\, p^{52} q^{94} + 656318\, q^{143} p^{47}$$
$$+ 107190313\, q^{152} p^{100} + 112378937\, q^{152} p^{101} + 1879944\, q^{146} p^{55} + 9496061972\, q^{71} p^{28} + 14096109074\, q^{71} p^{29}$$
$$+ 10606485368500\, p^{111} q^{107} + 14236714879116\, p^{79} q^{111} + 14277026855\, q^{109} p^{39} + 9975788007\, q^{109} p^{38} + 5720793924\, q^{108} p^{36}$$
$$+ 16736\, q^{83} p^{11} + 313227492929\, q^{87} p^{40} + 176526240389\, p^{123} q^{61} + 143\, p^{54} q^{5} + 574\, p^{152} q^{51} + 1174725059\, p^{143} q^{74}$$
$$+ 456951292\, p^{142} q^{66} + 202064895\, p^{148} q^{131} + 2636857514\, p^{145} q^{90} + 2550159153\, p^{146} q^{99} + 82227651407\, p^{36} q^{57}$$
$$+ 148995859618\, p^{38} q^{58} + 13709904685\, p^{73} q^{29} + 9180439963\, p^{73} q^{28} + 2\, q^{32} p^{2} + 88782967907\, p^{36} q^{58} + 2921509791\, q^{94} p^{29}$$
$$+ 62688595758\, p^{35} q^{57} + 1916483\, p^{137} q^{41} + 1757706895651\, p^{113} q^{62} + 10005108403117\, p^{115} q^{84} + 891977467104\, p^{112} q^{57}$$

$$+ 9607583891856\, p^{115} q^{83} + 8241598429374\, p^{116} q^{101} + 9180420482064\, p^{115} q^{82} + 9647544500307\, p^{103} q^{64} + 2658542223391\, p^{102} q^{55}$$
$$+ 302665561091\, p^{41} q^{58} + 64345305616375\, p^{95} q^{79} + 12336698000064\, q^{105} p^{68} + 13712102549925\, q^{105} p^{69}$$
$$+ 18225219894758\, q^{105} p^{72} + 16665250058463\, q^{105} p^{71} + 23098945865051\, q^{105} p^{75} + 26365710043220\, q^{105} p^{77}$$
$$+ 25086274317666\, q^{106} p^{78} + 19826251174424\, q^{105} p^{73} + 24741105344182\, q^{105} p^{76} + 134607\, q^{155} p^{72} + 73675\, q^{155} p^{70}$$
$$+ 1089076420989\, p^{107} q^{126} + 65362972\, p^{68} q^{18} + 1180996\, q^{105} p^{20} + 517755310\, q^{109} p^{31} + 107038381\, q^{109} p^{28} + 185704663\, q^{109} p^{29}$$
$$+ 59953069\, q^{109} p^{27} + 18\, p^{167} q^{120} + 291546\, q^{100} p^{17} + 10660323601\, q^{86} p^{30} + 1908136622\, q^{85} p^{26} + 18617325086629\, p^{67} q^{100}$$
$$+ 107038381\, p^{143} q^{62} + 1202067987\, p^{147} q^{93} + 27903443432034\, p^{93} q^{108} + 84946719322\, q^{88} p^{36} + 117829910581\, q^{88} p^{37}$$
$$+ 161502180919\, q^{88} p^{38} + 218852244970\, q^{88} p^{39} + 98\, p^{167} q^{156} + 42105513171711\, p^{67} q^{81} + 17442758918997\, p^{59} q^{82}$$
$$+ 195221\, p^{161} q^{117} + 296901\, p^{160} q^{107} + 77491\, p^{159} q^{89} + 5890\, p^{163} q^{150} + 56991\, q^{146} p^{47} + 634510266263\, p^{87} q^{129}$$
$$+ 1218360228870\, p^{85} q^{126} + 1916558646703\, p^{93} q^{125} + 446280003071\, p^{75} q^{127} + 273567590221\, p^{73} q^{128} + 697721248354\, p^{80} q^{127}$$
$$+ 592954333687\, p^{78} q^{127} + 542291624668\, p^{77} q^{127} + 493292442225\, p^{76} q^{127} + 6434767940\, p^{68} q^{27} + 41761971539\, p^{69} q^{32}$$
$$+ 571278009463\, p^{130} q^{101} + 133472819939\, p^{131} q^{119} + 94939045229\, p^{132} q^{120} + 1450741279\, p^{144} q^{79} + 192083868\, p^{141} q^{60}$$
$$+ 264042028\, p^{148} q^{129} + 1819532149\, q^{94} p^{28} + 3\, q^{103} p^{11} + 735\, q^{109} p^{15} + 88\, q^{106} p^{13} + 211\, q^{108} p^{14} + q^{104} p^{11} + 386641989160\, p^{43} q^{56}$$
$$+ 363278315574\, p^{82} q^{130} + 15354973953039\, q^{104} p^{69} + 140898998314\, p^{101} q^{42} + 416206529038\, p^{103} q^{47} + 137422471042\, q^{57} p^{38}$$
$$+ 65420729955335\, p^{88} q^{74} + 38334032319106\, p^{88} q^{67} + 12821224502\, p^{56} q^{30} + 2873841112\, p^{55} q^{26} + 9148305992\, p^{56} q^{29}$$
$$+ 190352899828\, p^{39} q^{58} + 204\, p^{33} q^{4} + 217576\, p^{47} q^{10} + 2549164\, p^{50} q^{13} + 65595431\, p^{53} q^{18} + 19565904222095\, p^{94} q^{111}$$
$$+ 1281894715909\, p^{49} q^{57} + 12149019173\, p^{108} q^{38} + 468263279286\, p^{122} q^{122} + 174\, q^{64} p^{6} + 14605\, q^{69} p^{9} + 53664203491557\, p^{88} q^{71}$$
$$+ 42028209107418\, p^{88} q^{68} + 57619451698744\, p^{88} q^{72} + 9719241\, p^{64} q^{15} + 18617325086629\, q^{104} p^{71} + 22096910089078\, q^{104} p^{73}$$
$$+ 25685639314331\, q^{104} p^{75} + 7410706955578\, p^{71} q^{54} + 1799572591164\, p^{71} q^{46} + 8899574323153\, p^{72} q^{55} + 57721415826\, q^{125} p^{58}$$
$$+ 179804052470\, p^{116} q^{53} + 109372191343\, p^{115} q^{50} + 75799278392826\, p^{76} q^{82} + 1281894715909\, p^{114} q^{122} + 337344816264\, p^{117} q^{57}$$
$$+ 1478543553775\, p^{119} q^{69} + 1666564987913\, p^{119} q^{70} + 1641704429\, p^{110} q^{34} + 3530732729928\, p^{122} q^{95} + 3543706488254\, p^{122} q^{94}$$
$$+ 2077136386946\, p^{120} q^{74} + 10875375299\, p^{112} q^{40} + 7625598071\, p^{112} q^{39} + 61632040083761\, p^{76} q^{93} + 1126376671464\, q^{117} p^{64}$$
$$+ 1303616613567\, q^{117} p^{65} + 13070119565\, p^{142} q^{96} + 214\, p^{32} q^{4} + 386373\, q^{120} p^{25} + 20672190172\, p^{101} q^{141} + 20643483798\, p^{102} q^{141}$$
$$+ 11180917574\, p^{92} q^{142} + 2455566284344\, p^{106} q^{122} + 2173656688424\, p^{123} q^{105} + 2742816186737\, p^{122} q^{104} + 670669163263\, p^{118} q^{62}$$

$$+ 3139099\, q^{153}\, p^{77} + 5616892\, q^{153}\, p^{80} + 3841917\, q^{153}\, p^{78} + 4663929\, q^{153}\, p^{79} + 2042476\, q^{153}\, p^{75} + 2543146\, q^{153}\, p^{76} + 2\, q^{142}\, p^{31}$$
$$+ 1293\, q^{143}\, p^{37} + 2\, q^{139}\, p^{28} + 16\, q^{139}\, p^{29} + 20159364\, q^{126}\, p^{35} + 455299486\, q^{127}\, p^{43} + 311740873\, q^{127}\, p^{42} + 33374878\, q^{126}\, p^{36}$$
$$+ 202469253\, q^{126}\, p^{40} + 1331849\, q^{124}\, p^{29} + 973696092\, p^{147}\, q^{90} + 967596427\, p^{148}\, q^{99} + 2\, p^{31}\, q^{2} + 763972399147\, q^{93}\, p^{45}$$
$$+ 10045929216\, q^{91}\, p^{31} + 83800842048\, q^{92}\, p^{37} + 159533\, q^{78}\, p^{12} + 965299\, q^{80}\, p^{14} + 56645\, q^{77}\, p^{11} + 19790765\, q^{113}\, p^{27}$$
$$+ 6054990931737\, p^{53}\, q^{87} + 1928693326820\, p^{95}\, q^{125} + q^{13}\, p + 2075223345\, q^{89}\, p^{27} + 3699767402\, q^{88}\, p^{28} + 5804232479\, q^{88}\, p^{29}$$
$$+ 2310946479\, q^{88}\, p^{27} + 147915193928\, p^{135}\, q^{95} + 34545265\, p^{117}\, q^{30} + 91000096\, p^{119}\, q^{33} + 149244022906\, p^{135}\, q^{101}$$
$$+ 39814839910\, p^{136}\, q^{119} + 33022\, p^{125}\, q^{25} + 38362528\, q^{137}\, p^{48} + 753\, q^{67}\, p^{7} + 55551\, q^{69}\, p^{10} + 4241748\, p^{147}\, q^{150} + 11984731\, p^{141}\, q^{151}$$
$$+ 1772083\, p^{149}\, q^{151} + 980388\, p^{151}\, q^{151} + 713983\, p^{152}\, q^{151} + 1326903\, p^{150}\, q^{151} + 2336844\, p^{148}\, q^{151} + 27682871\, p^{148}\, q^{142}$$
$$+ 11271415\, p^{143}\, q^{150} + 67711128469\, q^{133}\, p^{74} + 687962680672\, q^{99}\, p^{47} + 359819433\, p^{70}\, q^{21} + 109157300839\, p^{35}\, q^{69} + 350475\, p^{106}\, q^{19}$$
$$+ 416471325698\, q^{99}\, p^{45} + 540437626724\, p^{130}\, q^{103} + 543543758854\, p^{129}\, q^{84} + 7206101084348\, p^{54}\, q^{87} + 3841917\, p^{93}\, q^{18}$$
$$+ 2246438\, p^{111}\, q^{23} + 6153\, q^{65}\, p^{8} + 321660\, p^{108}\, q^{160} + 1662117\, p^{140}\, q^{156} + 1177185\, p^{116}\, q^{159} + 540539\, p^{148}\, q^{155} + 128047423081\, q^{97}\, p^{40}$$
$$+ 661441985319\, p^{129}\, q^{88} + 23614475440\, q^{117}\, p^{46} + 1108564582\, q^{94}\, p^{27} + 23314241\, q^{87}\, p^{19} + 134821\, q^{79}\, p^{12} + 80596475\, q^{88}\, p^{21}$$
$$+ 19271834036\, p^{137}\, q^{123} + 3699767402\, p^{83}\, q^{143} + 150280466948\, p^{109}\, q^{134} + 100170829629\, q^{131}\, p^{72} + 2310946479\, p^{88}\, q^{27}$$
$$+ 47806390857301\, p^{99}\, q^{78} + 2\, q^{134}\, p^{24} + 4\, q^{135}\, p^{25} + 5259\, q^{66}\, p^{8} + 927\, q^{66}\, p^{7} + 19717\, q^{67}\, p^{9} + 4446\, q^{67}\, p^{8} + 292982848\, p^{145}\, q^{72}$$
$$+ 1088922721\, p^{148}\, q^{105} + 14850579579\, q^{124}\, p^{51} + 1969541\, p^{92}\, q^{17} + 98180865651\, p^{37}\, q^{56} + 148057\, p^{143}\, q^{44} + 1257185\, p^{147}\, q^{56}$$
$$+ 15\, p^{101}\, q^{11} + 19518255\, p^{154}\, q^{95} + 666922\, p^{158}\, q^{139} + 796750\, p^{107}\, q^{159} + 4802010\, p^{123}\, q^{157} + 47\, q^{59}\, p^{5} + 1128\, q^{65}\, p^{7}$$
$$+ 184713295358\, q^{133}\, p^{85} + 17037\, q^{68}\, p^{9} + 218\, q^{63}\, p^{6} + 1360\, q^{64}\, p^{7} + 123648\, q^{72}\, p^{11} + 107417\, q^{73}\, p^{11} + 42568575475\, q^{98}\, p^{37}$$
$$+ 52452216167\, q^{99}\, p^{38} + 3096\, q^{69}\, p^{8} + 432035\, p^{142}\, q^{158} + 86350195889\, q^{136}\, p^{109} + 90647053483\, q^{136}\, p^{108} + 120452381694\, q^{135}\, p^{108}$$
$$+ 3734\, q^{68}\, p^{8} + 3454307169044\, p^{97}\, q^{122} + 4459013\, q^{82}\, p^{16} + 14579359\, p^{151}\, q^{140} + 61\, q^{58}\, p^{5} + 113585813153\, q^{98}\, p^{40}$$
$$+ 1557088916524\, p^{122}\, q^{112} + 533775298773\, p^{123}\, q^{120} + 714283914928\, p^{122}\, q^{119} + 256\, q^{91}\, p^{10} + 5582814365505\, p^{53}\, q^{68}$$
$$+ 4535336859526\, p^{52}\, q^{67} + 5053036026076\, p^{52}\, q^{87} + 3794359419711\, q^{102}\, p^{57} + 4487377793055\, q^{102}\, p^{58} + 8737\, q^{72}\, p^{9}$$
$$+ 629040\, q^{76}\, p^{13} + 79244\, q^{75}\, p^{11} + 8855521\, q^{83}\, p^{17} + 34886398\, q^{84}\, p^{19} + 2135148\, q^{81}\, p^{15} + 19145662\, q^{83}\, p^{18} + 21517\, q^{75}\, p^{10}$$
$$+ 59201637\, q^{146}\, p^{67} + 20160547260\, p^{109}\, q^{40} + 14277026855\, p^{109}\, q^{39} + 3103919104\, p^{107}\, q^{34} + 1393176\, p^{110}\, q^{22} + 20116138\, q^{88}\, p^{19}$$
$$+ 70129272\, q^{89}\, p^{21} + 4885708\, q^{87}\, p^{17} + 382287413\, q^{90}\, p^{24} + 1644393084\, q^{91}\, p^{27} + 2425907\, q^{86}\, p^{16} + 851723\, p^{159}\, q^{108}$$

$$+ 1088851\, p^{159}\, q^{113} + 180488\, p^{152}\, q^{63} + 24075\, p^{148}\, q^{49} + 2989\, p^{143}\, q^{38} + 100\, p^{128}\, q^{22} + 293385\, p^{160}\, q^{135} + 80406\, p^{161}\, q^{141} + q^{128}\, p^{20}$$
$$+ 320\, q^{130}\, p^{24} + 10\, q^{130}\, p^{22} + 49323563\, q^{152}\, p^{90} + 443120632\, q^{93}\, p^{25} + 7094369378\, q^{94}\, p^{31} + p^{34}\, q^{2} + 7230\, q^{73}\, p^{9} + 41807\, q^{71}\, p^{10}$$
$$+ 12412\, q^{70}\, p^{9} + 141828096121\, p^{110}\, q^{134} + 48391\, q^{70}\, p^{10} + 224\, p^{167}\, q^{142} + 407\, p^{166}\, q^{124} + 106\, p^{161}\, q^{78} + 411\, p^{165}\, q^{111}$$
$$+ 941323908\, p^{146}\, q^{84} + 1346967093\, p^{147}\, q^{95} + 113156044\, p^{141}\, q^{58} + 689221910421\, q^{101}\, p^{48} + 869955616752\, q^{101}\, p^{49}$$
$$+ 2474399058548\, q^{101}\, p^{54} + 1197886718811\, q^{102}\, p^{51} + 2038176046219\, q^{101}\, p^{53} + 339404448\, p^{136}\, q^{144} + 70333544102\, p^{107}\, q^{137}$$
$$+ 1382900035\, p^{146}\, q^{88} + 4903382\, p^{157}\, q^{109} + 5479228\, p^{157}\, q^{118} + 4663929\, p^{153}\, q^{79} + 1540221\, p^{150}\, q^{64} + 3139099\, p^{153}\, q^{77}$$
$$+ 2631979\, p^{132}\, q^{157} + 93664069260\, p^{132}\, q^{74} + 36\, q^{60}\, p^{5} + 1623\, q^{63}\, p^{7} + 335\, q^{61}\, p^{6} + 369110505620\, q^{100}\, p^{45} + 477466441295\, q^{100}\, p^{46}$$
$$+ 252216\, q^{75}\, p^{12} + 2072\, q^{71}\, p^{8} + 218146\, q^{76}\, p^{12} + 292\, q^{125}\, p^{21} + 30494\, q^{73}\, p^{10} + 250293457\, p^{126}\, q^{149} + 336640019\, p^{130}\, q^{147}$$
$$+ 71624595725914\, p^{96}\, q^{85} + 55714873913\, p^{89}\, q^{35} + 16059592\, p^{78}\, q^{17} + 4475800616\, p^{86}\, q^{28} + 477592707\, p^{83}\, q^{23}$$
$$+ 14754477547\, p^{87}\, q^{31} + 53996766\, q^{126}\, p^{37} + 21065118412440\, p^{94}\, q^{64} + 6150730181132\, p^{93}\, q^{55} + 2925148144928\, p^{93}\, q^{51}$$
$$+ 1057272794864\, p^{92}\, q^{46} + 170537\, q^{84}\, p^{13} + 168808302\, p^{138}\, q^{54} + 9938543\, p^{134}\, q^{41} + 807674535\, p^{140}\, q^{64} + 2722700131\, p^{146}\, q^{106}$$
$$+ 1637174141\, p^{142}\, q^{73} + 63761\, p^{122}\, q^{24} + 2078838635\, p^{143}\, q^{78} + 214373100887\, p^{100}\, q^{43} + 2586303823\, q^{133}\, p^{56} + 26374283\, q^{124}\, p^{34}$$
$$+ 503314467848\, q^{116}\, p^{58} + 604862561118\, q^{116}\, p^{59} + 1370771530418\, q^{116}\, p^{64} + 699485469788\, q^{117}\, p^{61} + 1179037206211\, q^{116}\, p^{63}$$
$$+ 855731749075\, q^{116}\, p^{61} + 1007714748228\, q^{116}\, p^{62} + 7382696022516\, p^{111}\, q^{111} + 786387\, p^{128}\, q^{31} + 15605520\, p^{134}\, q^{42} + 95519\, p^{123}\, q^{25}$$
$$+ 10292681\, p^{133}\, q^{40} + 613727575\, p^{141}\, q^{65} + 31245051170596\, p^{102}\, q^{75} + 20103553179\, p^{88}\, q^{32} + 8561078497670\, p^{93}\, q^{57}$$
$$+ 697721248354\, p^{91}\, q^{44} + 33354888387397\, p^{95}\, q^{69} + 95849787\, p^{81}\, q^{20} + 138291163163\, p^{90}\, q^{38} + 26365710043220\, p^{94}\, q^{66}$$
$$+ 11522887385165\, p^{97}\, q^{61} + 15035233457857\, p^{97}\, q^{63} + 762497307004\, p^{114}\, q^{125} + 670896897\, p^{140}\, q^{138} + 3794359419711\, p^{69}\, q^{114}$$
$$+ 1910473370749\, p^{65}\, q^{115} + 2981284755123\, p^{67}\, q^{114} + 3373004700510\, p^{68}\, q^{114} + 16211745061460\, p^{97}\, q^{112}$$
$$+ 14052803888787\, p^{106}\, q^{109} + 54077\, q^{94}\, p^{14} + 46527562478\, q^{136}\, p^{80} + 447366938\, q^{129}\, p^{45} + 311740873\, q^{129}\, p^{44} + 1152595129\, q^{130}\, p^{49}$$
$$+ 214085836\, q^{128}\, p^{42} + 2568834660887\, q^{121}\, p^{79} + 2846496609\, q^{113}\, p^{37} + 1070562179\, p^{121}\, q^{40} + 2\, q^{68}\, p^{5} + q^{70}\, p^{5}$$
$$+ 13445690632472\, p^{61}\, q^{95} + 8203964\, p^{77}\, q^{16} + 1674781240118\, p^{92}\, q^{48} + 895742817365\, p^{91}\, q^{45} + 23632927057388\, p^{94}\, q^{65}$$
$$+ 16451820409967\, p^{94}\, q^{62} + 7280361802217\, p^{93}\, q^{56} + 77111205\, q^{108}\, p^{27} + 22305654\, q^{108}\, p^{25} + 37\, p^{168}\, q^{155} + 1305\, p^{150}\, q^{165}$$
$$+ 672\, p^{147}\, q^{166} + 222\, p^{144}\, q^{167} + 42\, q^{144}\, p^{35} + 14321\, q^{145}\, p^{43} + 7408\, q^{145}\, p^{42} + 142\, q^{144}\, p^{36} + 4981\, q^{144}\, p^{40} + 9344580089629\, p^{94}\, q^{58}$$
$$+ 12550706010001\, p^{94}\, q^{60} + 39630669873417\, p^{95}\, q^{71} + 5161605060779\, p^{93}\, q^{54} + 420057\, p^{71}\, q^{12} + 4301876675479\, p^{93}\, q^{53}$$

$$+ 381957831\, p^{59}\, q^{21} + 1596237666\, p^{60}\, q^{24} + 88640428473\, q^{82}\, p^{35} + 3324296477\, p^{93}\, q^{29} + 21658674\, p^{56}\, q^{16} + 131362834\, p^{58}\, q^{19}$$
$$+ 217313\, p^{49}\, q^{10} + 4788906773\, p^{137}\, q^{132} + 7055281435407\, p^{53}\, q^{75} + 5981832899556\, p^{52}\, q^{75} + 8267349226377\, p^{54}\, q^{75}$$
$$+ 11336788208226\, p^{56}\, q^{76} + 12809427040347\, p^{57}\, q^{75} + 9626083454292\, p^{55}\, q^{75} + 11138329153047\, p^{56}\, q^{75} + 17757624\, q^{77}\, p^{17}$$
$$+ 9094655\, q^{76}\, p^{16} + 60289107\, q^{79}\, p^{19} + 115634061\, q^{79}\, p^{20} + 665765007\, q^{79}\, p^{23} + 213900295\, q^{79}\, p^{21} + 382983791\, q^{79}\, p^{22}$$
$$+ 353649138\, q^{80}\, p^{22} + 1050189866\, q^{80}\, p^{24} + 66072476\, q^{78}\, p^{19} + 125923599\, q^{78}\, p^{20} + 33314837\, q^{78}\, p^{18} + 7154\, q^{64}\, p^{8}$$
$$+ 135361331802\, q^{86}\, p^{37} + 579689022\, p^{119}\, q^{37} + 727380063794\, p^{129}\, q^{91} + 282673363768\, p^{127}\, q^{71} + 479100152442\, p^{65}\, q^{41}$$
$$+ 70333544102\, p^{64}\, q^{34} + 94676310604\, p^{64}\, q^{35} + 4993667701587\, p^{66}\, q^{53} + 936770683672\, p^{65}\, q^{44} + 8899574323153\, p^{55}\, q^{72}$$
$$+ 1481787066\, q^{140}\, p^{67} + 1136738054\, p^{147}\, q^{118} + 1596237666\, p^{147}\, q^{111} + 597006988\, p^{143}\, q^{70} + 104668017306\, p^{136}\, q^{104}$$
$$+ 104503597490\, p^{135}\, q^{86} + 5320753045\, p^{138}\, q^{130} + 8944274880998\, p^{109}\, q^{111} + 3342097918216\, p^{61}\, q^{108} + 26513\, q^{145}\, p^{44}$$
$$+ 11225758911354\, p^{83}\, q^{114} + 15016082940881\, p^{88}\, q^{113} + 846479828399\, p^{103}\, q^{50} + 4082713626013\, q^{119}\, p^{80} + 53250665052\, q^{112}\, p^{45}$$
$$+ 39656606382\, q^{112}\, p^{44} + 128611476601\, q^{113}\, p^{49} + 26168234535\, q^{111}\, p^{42} + 48391\, p^{70}\, q^{10} + 812\, p^{56}\, q^{6} + 1423752113609\, q^{82}\, p^{45}$$
$$+ 3103919104\, q^{107}\, p^{34} + 341093935573\, q^{116}\, p^{56} + 19641531\, p^{100}\, q^{22} + 31498266\, p^{101}\, q^{23} + 165680486169\, p^{119}\, q^{130}$$
$$+ 87257041623516\, p^{88}\, q^{81} + 882887627672\, q^{82}\, p^{43} + 73652038423232\, q^{92}\, p^{79} + 2088914271\, p^{146}\, q^{94} + 1678304235\, p^{147}\, q^{109}$$
$$+ 1229215\, p^{132}\, q^{35} + 336347193\, p^{148}\, q^{127} + 2297682915\, p^{146}\, q^{96} + 44688\, q^{90}\, p^{13} + 629040\, p^{76}\, q^{13} + 1458029\, p^{77}\, q^{14}$$
$$+ 445224466848\, p^{131}\, q^{101} + 106648218166\, p^{132}\, q^{119} + 75375958108\, p^{133}\, q^{120} + 1576486\, p^{28}\, q^{16} + 29605725548551\, p^{98}\, q^{70}$$
$$+ 416226782935\, p^{94}\, q^{43} + 27682871\, q^{29}\, p^{23} + 371253641\, q^{69}\, p^{21} + 2664897185\, q^{70}\, p^{25} + 4159495179\, q^{70}\, p^{26} + 10566860\, q^{52}\, p^{15}$$
$$+ 116969846\, q^{54}\, p^{19} + 612054521984\, p^{124}\, q^{71} + 1342173761\, p^{116}\, q^{37} + 1494315797712\, p^{126}\, q^{91} + 11577\, p^{90}\, q^{12}$$
$$+ 3071656865021\, p^{54}\, q^{99} + 45997852131\, p^{87}\, q^{34} + 2085891599\, p^{84}\, q^{26} + 2884024294376\, q^{109}\, p^{61} + 104418039540\, q^{101}\, p^{41}$$
$$+ 61056169151221\, p^{99}\, q^{90} + 8620363968096\, p^{97}\, q^{59} + 78036743564365\, p^{77}\, q^{81} + 2152455\, p^{19}\, q^{24} + 12465751\, q^{120}\, p^{30}$$
$$+ 28218334511401\, p^{63}\, q^{79} + 917523268336\, p^{46}\, q^{59} + 12110413298\, p^{93}\, q^{32} + 5746704848437\, p^{98}\, q^{57} + 854604815766\, p^{97}\, q^{47}$$
$$+ 750252313\, p^{89}\, q^{25} + 17739645672\, q^{56}\, p^{31} + 43775231398\, q^{56}\, p^{34} + 24247546753\, q^{56}\, p^{32} + 36953317\, q^{34}\, p^{21} + 24996624\, q^{34}\, p^{20}$$
$$+ 43784927\, q^{35}\, p^{21} + 5544149\, q^{108}\, p^{23} + 1701461391\, p^{53}\, q^{25} + 674996726111\, p^{60}\, q^{44} + 13418445228207\, p^{57}\, q^{79}$$
$$+ 32423857909015\, p^{72}\, q^{99} + 48773996882727\, p^{77}\, q^{98} + 14654\, q^{77}\, p^{10} + 6872431321\, q^{109}\, p^{37} + 13366\, q^{19}\, p^{10} + 7646\, q^{19}\, p^{9}$$
$$+ 16535\, q^{20}\, p^{10} + 17578387057963\, p^{59}\, q^{81} + 4924501965903\, p^{51}\, q^{82} + 2873841112\, q^{55}\, p^{26} + 4191488785\, q^{55}\, p^{27}$$

$$+ 32760606733\, q^{56} p^{33} + 57877207755\, q^{56} p^{35} + 5537109014\, p^{121} q^{142} + 3\, p^{96} q^{165} + 9\, p^{98} q^{165} + 31\, p^{101} q^{165} + 21\, p^{100} q^{165} + 15\, p^{99} q^{165}$$
$$+ 6\, p^{97} q^{165} + 43\, p^{102} q^{165} + 18887002840\, p^{111} q^{41} + 35034940777984\, p^{98} q^{72} + 24492355856771\, p^{98} q^{68} + 3487886\, p^{19} q^{26}$$
$$+ 9850705\, p^{19} q^{31} + 146926023\, p^{27} q^{31} + 199709134\, p^{29} q^{30} + 673790073397\, p^{103} q^{49} + 217270861519\, p^{102} q^{44} + 858822\, p^{103} q^{19}$$
$$+ 228530277418\, p^{124} q^{64} + 37241337\, q^{53} p^{17} + 12821224502\, q^{56} p^{30} + 1939048625\, q^{55} p^{25} + 1286078905\, q^{55} p^{24}$$
$$+ 34096714200625\, q^{106} p^{93} + 67869275019295\, p^{75} q^{78} + 3885637586184\, q^{109} p^{63} + 17304641710449\, p^{62} q^{68}$$
$$+ 26688953760963\, p^{68} q^{67} + 46160950\, q^{144} p^{61} + 860\, p^{18} q^{6} + 326\, p^{17} q^{5} + 621831\, q^{22} p^{17} + 2813599323205\, q^{87} p^{49}$$
$$+ 3445150922762\, q^{87} p^{50} + 2162\, p^{26} q^{6} + 719\, p^{25} q^{5} + 10596165958193\, p^{73} q^{56} + 58230747086\, p^{69} q^{33} + 664230005\, p^{66} q^{22}$$
$$+ 2740670140\, p^{67} q^{25} + 4232822667\, p^{67} q^{26} + 1088922721\, p^{66} q^{23} + 621903\, q^{93} p^{16} + 91518\, q^{92} p^{14} + 117087\, q^{91} p^{14}$$
$$+ 850814861\, p^{96} q^{148} + 895742817365\, p^{126} q^{80} + 938125332759\, p^{128} q^{100} + 300437130\, q^{36} p^{26} + 155122063\, q^{36} p^{24}$$
$$+ 762497307004\, p^{46} q^{57} + 2165705327856\, q^{88} p^{48} + 872\, p^{36} q^{5} + 1369273510643\, q^{99} p^{50} + 872614557488\, q^{99} p^{48}$$
$$+ 1097554489886\, q^{99} p^{49} + 567457228668\, p^{118} q^{61} + 3145086442165\, p^{120} q^{79} + 67908124992871\, p^{78} q^{93} + 37255909895\, q^{99} p^{37}$$
$$+ 34970748911\, q^{131} p^{65} + 9435786928435\, q^{108} p^{69} + 8609934981346\, q^{107} p^{67} + 2268629\, p^{30} q^{16} + 23885351229852\, q^{104} p^{74}$$
$$+ 30982335889630\, q^{104} p^{78} + 29252548864551\, q^{104} p^{77} + 27955724624598\, q^{105} p^{78} + 27480723814718\, q^{104} p^{76}$$
$$+ 78609997199664\, p^{94} q^{85} + 65299359131\, p^{87} q^{35} + 8430\, p^{161} q^{154} + 1405525891867\, p^{118} q^{67} + 2568834660887\, q^{92} p^{50}$$
$$+ 4612010215031\, q^{92} p^{53} + 19509\, q^{31} p^{8} + 241052898685\, p^{58} q^{40} + 32575655820\, p^{139} q^{90} + 3114353611\, p^{142} q^{126}$$
$$+ 4664151958\, p^{135} q^{62} + 37079825742\, p^{139} q^{93} + 12292747960\, p^{137} q^{72} + 28347884823\, p^{140} q^{105} + 1513833\, q^{34} p^{14}$$
$$+ 228530277418\, q^{107} p^{47} + 597231030831\, q^{107} p^{51} + 48503031\, q^{112} p^{28} + 19381972673218\, p^{101} q^{109} + 18\, p^{51} q^{4} + 568343494\, q^{95} p^{26}$$
$$+ 959946662\, q^{95} p^{27} + 327770829\, q^{95} p^{25} + 121377597\, p^{55} q^{19} + 559662248\, p^{56} q^{22} + 22515918048844\, p^{71} q^{63}$$
$$+ 20359014088382\, p^{71} q^{62} + 18307835771251\, p^{71} q^{61} + 369477435\, q^{106} p^{29} + 92652736118034\, p^{88} q^{86} + 1662117\, p^{31} q^{15}$$
$$+ 168466348\, p^{33} q^{26} + 35373\, p^{29} q^{9} + 155104\, p^{30} q^{11} + 221463384959\, p^{57} q^{40} + 65604600\, q^{120} p^{33} + 1623\, p^{63} q^{7} + 760412095\, p^{93} q^{26}$$
$$+ 690809731\, p^{27} q^{39} + 3107827307\, p^{33} q^{38} + 55653912518\, q^{107} p^{42} + 40629618049\, q^{107} p^{41} + 29311488136\, q^{107} p^{40} + 175\, q^{101} p^{12}$$
$$+ 17330528971\, q^{108} p^{39} + 1943252624866\, p^{51} q^{58} + 23632927057388\, p^{65} q^{94} + 519838460\, p^{141} q^{138} + 2667590272801\, p^{123} q^{88}$$
$$+ 1982390699610\, p^{124} q^{103} + 57288\, p^{89} q^{13} + 363278315574\, p^{89} q^{41} + 203488011213\, p^{89} q^{39} + 117829910581\, p^{88} q^{37}$$
$$+ 31958218188\, p^{87} q^{33} + 3186972190208\, p^{115} q^{69} + 2619738530546\, p^{114} q^{66} + 1272162694269\, p^{113} q^{60} + 3570071848480\, p^{115} q^{70}$$

$$+ 3373004700510\, p^{114}\, q^{68} + 10269835\, p^{51}\, q^{15} + 88782967907\, p^{58}\, q^{36} + 5285391\, p^{51}\, q^{14} + 299370153\, q^{115}\, p^{33} + 478443235\, q^{115}\, p^{34}$$
$$+ 749431709\, q^{115}\, p^{35} + 27606\, q^{49}\, p^{8} + 525628\, q^{51}\, p^{11} + 1206150\, q^{51}\, p^{12} + 215276\, q^{50}\, p^{10} + 679562217\, p^{32}\, q^{32} + 645517194\, p^{30}\, q^{34}$$
$$+ 670896897\, p^{31}\, q^{33} + 24731738218\, p^{118}\, q^{47} + 81691006\, p^{116}\, q^{31} + 8459\, p^{48}\, q^{7} + 13390860660776\, p^{72}\, q^{58} + 15163884985349\, p^{72}\, q^{59}$$
$$+ 258481248\, p^{37}\, q^{25} + 43437\, p^{31}\, q^{9} + 197370\, p^{32}\, q^{11} + 13390860660776\, p^{113}\, q^{99} + 14282591160683\, p^{113}\, q^{97}$$
$$+ 6578023994738\, p^{82}\, q^{117} + 217353242\, q^{36}\, p^{25} + 409981560\, q^{36}\, p^{27} + 665050778\, q^{37}\, p^{28} + 7954582\, q^{35}\, p^{17} + 418020\, q^{33}\, p^{12}$$
$$+ 99917\, q^{32}\, p^{10} + 109118710\, q^{36}\, p^{23} + 78642312687589\, p^{79}\, q^{90} + 4459013\, p^{82}\, q^{16} + 409550045945\, p^{42}\, q^{59} + 2853021975224\, p^{97}\, q^{123}$$
$$+ 674996726111\, p^{44}\, q^{60} + 15\, p^{86}\, q^{8} + 2549164\, p^{158}\, q^{121} + 102\, q^{145}\, p^{37} + 1653\, q^{147}\, p^{43} + 1472555\, q^{152}\, p^{70} + 1897830\, q^{152}\, p^{71}$$
$$+ 7493\, q^{30}\, p^{7} + 1302727981\, q^{125}\, p^{44} + 201052759\, q^{121}\, p^{36} + 914637359\, q^{125}\, p^{43} + 2645\, q^{29}\, p^{6} + 46\, q^{20}\, p^{3} + 5526035462734\, q^{92}\, p^{54}$$
$$+ 6150730181132\, q^{93}\, p^{55} + 489738\, p^{45}\, q^{11} + 1093363\, p^{46}\, q^{12} + 2431353\, q^{28}\, p^{17} + 22538556352576\, p^{79}\, q^{61} + 28218334511401\, p^{79}\, q^{63}$$
$$+ 25289894907020\, p^{79}\, q^{62} + 15412153056385\, p^{79}\, q^{58} + 3669502\, q^{28}\, p^{18} + 7888964\, q^{28}\, p^{20} + 14038691\, q^{29}\, p^{21} + 1852747317\, q^{90}\, p^{27}$$
$$+ 349606289740\, p^{39}\, q^{71} + 453574978165\, p^{40}\, q^{71} + 583031585359\, p^{41}\, q^{71} + 3123483700\, p^{41}\, q^{31} + 6842740992\, p^{41}\, q^{34}$$
$$+ 8718432990\, p^{41}\, q^{35} + 13089832887\, p^{42}\, q^{36} + 7785671836\, p^{38}\, q^{37} + 27339186007618\, p^{101}\, q^{72} + 18856548708071\, p^{101}\, q^{68}$$
$$+ 335109217509\, q^{79}\, p^{39} + 251891075394\, q^{79}\, p^{38} + 141785813259\, q^{78}\, p^{36} + 4596109373\, q^{94}\, p^{30} + 434247522\, q^{89}\, p^{24} + 71311\, q^{29}\, p^{10}$$
$$+ 2328\, q^{27}\, p^{6} + 1005752408247\, p^{58}\, q^{47} + 1197719803096\, p^{58}\, q^{48} + 21011037589\, q^{105}\, p^{38} + 10094459039\, q^{105}\, p^{36}$$
$$+ 14667260045\, q^{105}\, p^{37} + 91235908215747\, p^{84}\, q^{82} + 7230198536\, q^{118}\, p^{43} + 10488\, p^{39}\, q^{7} + 32760606733\, p^{56}\, q^{33} + 18379773\, p^{50}\, q^{16}$$
$$+ 202176816703\, p^{75}\, q^{37} + 17596443431940\, p^{79}\, q^{59} + 28624\, q^{48}\, p^{8} + 2788473755801\, p^{96}\, q^{52} + 1634197875234\, p^{95}\, q^{49}$$
$$+ 146356017597\, p^{123}\, q^{128} + 30056922\, p^{28}\, q^{24} + 75934475\, p^{60}\, q^{18} + 11177207\, p^{58}\, q^{15} + 1336215211597\, q^{92}\, p^{47}$$
$$+ 3145086442165\, q^{92}\, p^{51} + 144686\, p^{21}\, q^{14} + 281868\, p^{22}\, q^{15} + 92755\, p^{21}\, q^{13} + 34831\, p^{21}\, q^{11} + 2491163732790\, q^{95}\, p^{51}$$
$$+ 2203969789062\, q^{94}\, p^{50} + 540539\, p^{23}\, q^{16} + 70048753\, p^{66}\, q^{18} + 310776\, q^{27}\, p^{13} + 182722836619\, q^{99}\, p^{42} + 5429436\, q^{28}\, p^{19}$$
$$+ 5102973\, q^{81}\, p^{16} + 229616916883\, p^{116}\, q^{130} + 3629457211112\, p^{60}\, q^{54} + 4545412505470\, p^{61}\, q^{55} + 998381647953\, p^{60}\, q^{46}$$
$$+ 1600166322237\, q^{103}\, p^{53} + 1948793474467\, q^{103}\, p^{54} + 2496597122340\, q^{104}\, p^{56} + 3373004700510\, q^{103}\, p^{57} + 2356256444994\, q^{103}\, p^{55}$$
$$+ 2828881971321\, q^{103}\, p^{56} + 1304173321848\, q^{103}\, p^{52} + 38054263\, p^{29}\, q^{24} + 887\, q^{153}\, p^{54} + 574\, q^{152}\, p^{51} + 19924\, q^{154}\, p^{63}$$
$$+ 150234754\, p^{25}\, q^{34} + 243460120\, p^{28}\, q^{32} + 4367\, p^{56}\, q^{7} + 420562649\, p^{31}\, q^{31} + 108160426\, p^{24}\, q^{34} + 1802084189\, q^{127}\, p^{47}$$
$$+ 76230813617532\, p^{83}\, q^{94} + 1503947008842\, p^{50}\, q^{57} + 8\, p^{84}\, q^{163} + 392476674\, q^{138}\, p^{57} + 1930187136\, q^{139}\, p^{66}$$

$$+ 34096714200625\, p^{106} q^{93} + 4338794799389\, p^{90} q^{52} + 762497307004\, p^{125} q^{114} + 492639656494\, p^{125} q^{118} + 1246250366161\, p^{125} q^{108}$$
$$+ 1080617218738\, p^{125} q^{110} + 130576745144\, q^{94} p^{39} + 4080105817542\, p^{50} q^{82} + 2740355364494\, p^{48} q^{82} + 26898813746\, p^{96} q^{35}$$
$$+ 160422109951\, p^{132} q^{115} + 5149887\, q^{40} p^{15} + 1157000\, p^{48} q^{12} + 78006767\, q^{152} p^{95} + 513315\, p^{47} q^{11} + 93664069260\, q^{97} p^{39}$$
$$+ 35034940777984\, p^{72} q^{98} + 89264050\, p^{33} q^{24} + 581517\, p^{31} q^{13} + 7781398\, p^{32} q^{18} + 20422872179\, q^{72} p^{30} + 4093883918\, q^{71} p^{26}$$
$$+ 3825139097\, q^{61} p^{26} + 1640959988\, q^{61} p^{24} + 231736736\, p^{23} q^{41} + 336640019\, p^{24} q^{41} + 385172171\, p^{24} q^{42} + 481529500\, p^{25} q^{41}$$
$$+ 678856632\, p^{26} q^{41} + 2001924646\, p^{30} q^{40} + 944062880\, p^{27} q^{41} + 1498301820\, p^{29} q^{40} + 1664133670\, p^{122} q^{42}$$
$$+ 83320630493929\, p^{80} q^{89} + 87257041623516\, p^{81} q^{88} + 205932402\, p^{26} q^{34} + 415001382\, p^{32} q^{30} + 372921186\, p^{28} q^{34}$$
$$+ 278769065\, p^{27} q^{34} + 455812304\, p^{28} q^{35} + 73364705218601\, p^{93} q^{80} + 52728053298\, p^{134} q^{121} + 20447593\, q^{53} p^{16} + 29\, p^{33} q^{3}$$
$$+ 456272\, p^{43} q^{11} + 1009359\, p^{44} q^{12} + 2164\, p^{11} q^{11} + 1496103\, p^{18} q^{24} + 47725756\, p^{30} q^{24} + 1638\, p^{23} q^{6} + 575\, p^{22} q^{5} + 367933\, p^{28} q^{13}$$
$$+ 4484848\, p^{29} q^{18} + 8\, p^{15} q^{2} + 2551\, p^{70} q^{8} + 79731711582\, p^{75} q^{34} + 599868186095\, p^{76} q^{41} + 4009018584\, p^{72} q^{26}$$
$$+ 57985739392\, p^{74} q^{33} + 1634402522\, p^{71} q^{24} + 1472\, p^{22} q^{6} + 525\, p^{21} q^{5} + 15098677478\, q^{128} p^{56} + 9324876045\, q^{128} p^{54}$$
$$+ 7230198536\, q^{128} p^{53} + 5553527079\, q^{128} p^{52} + 48339195506\, p^{130} q^{65} + 67060536246\, p^{130} q^{67} + 15098677478\, p^{128} q^{56}$$
$$+ 533613047\, p^{32} q^{31} + 129514327064\, p^{125} q^{127} + 220230054461\, p^{120} q^{128} + 10757614065\, q^{94} p^{32} + 168466348\, p^{26} q^{33}$$
$$+ 319532878\, p^{29} q^{32} + 583792511\, q^{91} p^{25} + 16042648353\, q^{94} p^{33} + 2360626719\, q^{92} p^{28} + 22295396537357\, p^{62} q^{88}$$
$$+ 19669260016480\, p^{61} q^{88} + q^{34} p^{2} + 356929\, p^{15} q^{23} + 178\, p^{21} q^{4} + 45\, p^{19} q^{3} + 11902\, p^{26} q^{8} + 212728\, p^{28} q^{12} + 54814\, p^{27} q^{10}$$
$$+ 3550876\, p^{30} q^{17} + 21199416\, p^{31} q^{21} + 11984731\, p^{30} q^{20} + 8146431\, p^{30} q^{19} + 30322782\, p^{31} q^{22} + 728895\, p^{29} q^{14}$$
$$+ 5886181840494\, p^{65} q^{108} + 151300449721\, q^{74} p^{36} + 203550995187\, q^{74} p^{37} + 270937174141\, q^{74} p^{38} + 356958758757\, q^{74} p^{39}$$
$$+ 6846550779851\, p^{114} q^{75} + 226813375266\, p^{110} q^{49} + 70981625034\, p^{109} q^{44} + 10368025961225\, p^{115} q^{85} + 75799278392826\, p^{95} q^{89}$$
$$+ 1407958254110\, p^{125} q^{106} + 1281512\, p^{98} q^{18} + 4194503134\, p^{113} q^{38} + 91518\, p^{92} q^{14} + 10102837\, q^{82} p^{17} + 78036743564365\, p^{94} q^{90}$$
$$+ 622360523493\, p^{44} q^{59} + 1293\, q^{134} p^{28} + 10676\, q^{135} p^{31} + 9880202989483\, p^{55} q^{81} + 8498032059378\, p^{54} q^{80} + 12536353\, p^{27} q^{22}$$
$$+ 52155885294020\, p^{94} q^{74} + 29252548864551\, p^{94} q^{67} + 186053690\, q^{91} p^{23} + 991959384\, q^{91} p^{26} + 3759895039\, q^{92} p^{29}$$
$$+ 334458028\, q^{91} p^{24} + 69112366953613\, p^{90} q^{76} + 58083748098692\, p^{90} q^{73} + 15453645318\, p^{112} q^{141} + 1570183765\, p^{84} q^{145}$$
$$+ 4473323579\, p^{91} q^{144} + 668608\, q^{132} p^{34} + 343803226390\, p^{70} q^{39} + 2201502916894\, p^{71} q^{47} + 445224466848\, p^{70} q^{40}$$
$$+ 3858296641278\, p^{71} q^{50} + 916091407494\, p^{70} q^{43} + 726535974517\, p^{70} q^{42} + 622360523493\, p^{59} q^{44} + 810342587\, p^{27} q^{40}$$

$$+ 38327602170\, p^{77} q^{32} + 26576272800\, p^{77} q^{31} + 15223951355403\, p^{82} q^{58} + 192358628533\, p^{78} q^{37} + 17442758918997\, p^{82} q^{59}$$
$$+ 45751324652\, p^{100} q^{38} + 3885637586184\, p^{62} q^{108} + 21963\, p^{124} q^{24} + 135590390\, p^{152} q^{110} + 29851581002270\, p^{100} q^{72}$$
$$+ 20683156441398\, p^{100} q^{68} + 78217668307\, q^{130} p^{68} + 253142936377\, p^{41} q^{56} + 4711\, p^{82} q^{10} + 264023879106\, p^{119} q^{58}$$
$$+ 98256337\, p^{107} q^{27} + 619868932700\, p^{125} q^{116} + 29459654\, q^{35} p^{20} + 51495725\, q^{36} p^{21} + 5791739173891\, q^{88} p^{53}$$
$$+ 6901982041926\, q^{88} p^{54} + 9180420482064\, q^{89} p^{56} + 11225758911354\, q^{88} p^{57} + 8169971160065\, q^{88} p^{55} + 9607583891856\, q^{88} p^{56}$$
$$+ 4826768463278\, q^{88} p^{52} + 834\, q^{28} p^{5} + 47\, q^{24} p^{3} + 14156403954\, p^{68} q^{29} + 3637139895\, p^{83} q^{27} + 26980494155\, p^{138} q^{82}$$
$$+ 1167764212\, p^{133} q^{53} + 140\, p^{87} q^{9} + 3773088098\, p^{135} q^{61} + 631305017\, q^{43} p^{25} + 437882934\, q^{43} p^{24} + 896725974\, q^{43} p^{26}$$
$$+ 1736245822\, q^{43} p^{28} + 1256040908\, q^{43} p^{27} + 1990099296\, q^{44} p^{28} + 22344703849\, q^{81} p^{31} + 32575655820\, q^{81} p^{32} + 2820653402\, q^{80} p^{26}$$
$$+ 4473323579\, q^{80} p^{27} + 46806176755\, q^{81} p^{33} + 1741055644\, q^{80} p^{25} + 19446881976\, p^{43} q^{37} + 6439737398\, q^{56} p^{28} + 68063022\, q^{54} p^{18}$$
$$+ 8092735669\, p^{34} q^{42} + 336640019\, p^{41} q^{24} + 24310978\, p^{40} q^{18} + 678856632\, p^{41} q^{26} + 6275162204\, p^{42} q^{33} + 8001190\, p^{39} q^{16}$$
$$+ 2753911649\, p^{42} q^{30} + 2047851313\, p^{42} q^{29} + 4818395183\, p^{42} q^{32} + 6150965557923\, p^{72} q^{113} + 5012360523404\, p^{70} q^{113}$$
$$+ 5567776692372\, p^{71} q^{113} + 4244294643708\, p^{70} q^{114} + 6758600188960\, p^{73} q^{113} + 7386693933485\, p^{74} q^{113} + 8030624309350\, p^{75} q^{113}$$
$$+ 303403390\, p^{130} q^{45} + 577\, p^{94} q^{11} + 27333750549\, p^{139} q^{87} + 2379420\, p^{121} q^{28} + 17847933\, p^{125} q^{34} + 4993806229\, p^{142} q^{122}$$
$$+ 100178825536\, q^{136} p^{92} + 409628543\, q^{131} p^{47} + 571160858\, q^{131} p^{48} + 606611516\, q^{130} p^{47} + 2527480940\, q^{131} p^{53}$$
$$+ 1440738006\, q^{131} p^{51} + 1918131794\, q^{131} p^{52} + 3297547512\, q^{131} p^{54} + 4261407111\, q^{131} p^{55} + 1214136642154\, p^{105} q^{126}$$
$$+ 998381647953\, p^{111} q^{125} + 3053864474\, p^{145} q^{115} + 38703168\, p^{133} q^{43} + 6134039128\, p^{143} q^{89} + 24531755251600\, p^{73} q^{63}$$
$$+ 22132229705385\, p^{73} q^{62} + 19857424551563\, p^{73} q^{61} + 6965\, p^{29} q^{7} + 17950\, p^{30} q^{8} + 418020\, p^{33} q^{12} + 99917\, p^{32} q^{10} + 7954582\, p^{35} q^{17}$$
$$+ 51495725\, p^{36} q^{21} + 1513833\, p^{34} q^{14} + 1416680677117\, p^{58} q^{49} + 1664596351723\, p^{58} q^{50} + 50025093\, q^{73} p^{18}$$
$$+ 249333831279\, p^{119} q^{128} + 267030266\, q^{76} p^{21} + 5247967583\, q^{77} p^{27} + 2088914271\, q^{77} p^{25} + 3345171398\, q^{77} p^{26}$$
$$+ 1275814771\, q^{77} p^{24} + 30978707110098\, p^{64} q^{84} + 18921527772425\, p^{60} q^{85} + 4250477600212\, p^{51} q^{69} + 19449607\, q^{35} p^{19}$$
$$+ 220235\, q^{33} p^{11} + 382363629\, q^{94} p^{25} + 24996624\, p^{34} q^{20} + 16596315\, p^{34} q^{19} + 63945385\, p^{35} q^{22} + 91880629\, p^{35} q^{23}$$
$$+ 130659857512\, p^{126} q^{126} + 154213343541\, p^{125} q^{126} + 339404448\, p^{35} q^{27} + 552709743\, p^{36} q^{28} + 21012322\, p^{155} q^{109}$$
$$+ 20447593\, p^{155} q^{118} + 21983387\, p^{151} q^{79} + 7321481\, p^{148} q^{64} + 15396895\, p^{151} q^{77} + 9925816\, p^{156} q^{121} + 37594805\, p^{150} q^{78}$$
$$+ 382363629\, p^{146} q^{77} + 112028529593\, q^{136} p^{99} + 111895428592\, q^{136} p^{98} + 109157300839\, q^{136} p^{102} + 104668017306\, q^{136} p^{104}$$

$$+ 75241201170\, q^{137} p^{105} + 111611477813\, q^{136} p^{100} + 107154143199\, q^{136} p^{103} + 109994547440\, q^{136} p^{96} + 110649951861\, q^{136} p^{101}$$
$$+ 111214183132\, q^{136} p^{97} + 106015932844\, q^{136} p^{94} + 103312068279\, q^{136} p^{93} + 10383852795\, p^{121} q^{140} + 75738\, q^{113} p^{20}$$
$$+ 912902409821\, p^{47} q^{57} + 16863702851940\, p^{107} q^{106} + 47598\, q^{32} p^{9} + 38702130894\, p^{106} q^{139} + 3628910283\, p^{144} q^{118}$$
$$+ 5476744778\, p^{144} q^{111} + 2542792438\, p^{140} q^{70} + 2273383735069\, p^{47} q^{81} + 181479\, q^{27} p^{12} + 9477600069160\, p^{70} q^{56}$$
$$+ 55012922841\, p^{66} q^{33} + 666043414\, p^{63} q^{22} + 2693240359\, p^{64} q^{25} + 4796503518611\, q^{117} p^{77} + 823960490395\, p^{45} q^{60}$$
$$+ 15360342569148\, p^{58} q^{81} + 96\, p^{56} q^{5} + 1939036\, q^{32} p^{15} + 84910158100\, p^{115} q^{49} + 14711\, q^{94} p^{13} + 5448938\, q^{115} p^{26} + 310776\, p^{27} q^{13}$$
$$+ 3669502\, p^{28} q^{18} + 660253148007\, p^{117} q^{124} + 10187146356\, p^{107} q^{37} + 2995831767\, p^{105} q^{33} + 588995481923\, p^{111} q^{54}$$
$$+ 850814861\, q^{75} p^{23} + 90051600\, q^{74} p^{19} + 284403538\, q^{75} p^{21} + 1221640915312\, p^{109} q^{56} + 3849219028136\, p^{110} q^{64}$$
$$+ 1007714748228\, p^{109} q^{55} + 13073353833980\, p^{112} q^{80} + 17224850510424\, p^{112} q^{88} + 11094304754060\, p^{113} q^{103}$$
$$+ 15412153056385\, p^{113} q^{92} + 3341386014\, p^{102} q^{32} + 198159599\, p^{98} q^{25} + 4406644408847\, p^{110} q^{65} + 8368552165023\, p^{111} q^{72}$$
$$+ 2215057991\, q^{142} p^{75} + 75231411276081\, p^{77} q^{79} + 31487916294\, p^{117} q^{47} + 87239092123309\, p^{80} q^{83} + 76521868\, p^{151} q^{129}$$
$$+ 117549826403\, q^{95} p^{39} + 159960142510\, q^{95} p^{40} + 215278345293\, q^{95} p^{41} + 10892120550\, p^{115} q^{42} + 5935171\, p^{102} q^{21}$$
$$+ 136691320\, p^{108} q^{28} + 9489397265\, p^{39} q^{37} + 1102027939525\, p^{59} q^{47} + 1314418242156\, p^{59} q^{48} + 35319567373\, p^{57} q^{33}$$
$$+ 19149738\, p^{51} q^{16} + 3745179234\, p^{33} q^{39} + 470155\, q^{108} p^{20} + 206581132279\, q^{106} p^{46} + 5478662779\, q^{104} p^{34} + 52055120\, q^{91} p^{21}$$
$$+ 2679871\, q^{115} p^{25} + 348188250\, p^{56} q^{21} + 1424358852\, p^{57} q^{24} + 93502701475178\, p^{87} q^{86} + 5001738350\, p^{93} q^{144}$$
$$+ 9585657733\, p^{101} q^{143} + 7672223243095\, p^{72} q^{54} + 1842567430319\, p^{72} q^{46} + 9180115876231\, p^{73} q^{55} + 137424437\, p^{22} q^{40}$$
$$+ 18370761737277\, p^{107} q^{75} + 2220533450390\, p^{47} q^{82} + 81739070840674\, p^{93} q^{89} + 1830553282795\, p^{46} q^{81} + 29652706399580\, p^{98} q^{106}$$
$$+ 38482755730754\, p^{82} q^{66} + 1207762853076\, p^{79} q^{44} + 967596427\, p^{72} q^{23} + 11517151386779\, p^{81} q^{56} + 3439752304130\, p^{56} q^{57}$$
$$+ 2977567894109\, p^{54} q^{58} + 4706053952337\, p^{60} q^{56} + 4906976\, q^{35} p^{16} + 2580550\, q^{34} p^{15} + 692182108141\, p^{118} q^{123}$$
$$+ 51329652739390\, p^{78} q^{98} + 66790964170654\, p^{84} q^{97} + 65420729955335\, p^{83} q^{97} + 2\, p^{32} q^{2} + 33837689\, p^{68} q^{17}$$
$$+ 1057272794864\, q^{92} p^{46} + 1674781240118\, q^{92} p^{48} + 3822281542998\, q^{92} p^{52} + 2082300784193\, q^{92} p^{49} + 134\, p^{39} q^{4} + 106\, p^{93} q^{10}$$
$$+ 2849898364451\, p^{80} q^{48} + 1519728720619\, p^{79} q^{45} + 29129891737\, p^{88} q^{139} + 47306343514\, p^{114} q^{137} + 16943269470\, p^{137} q^{124}$$
$$+ 2225186412\, p^{140} q^{132} + 49529848995\, p^{137} q^{85} + 2645688670\, p^{140} q^{131} + 2713485\, p^{117} q^{26} + 34077113264\, p^{135} q^{74} + 499621\, p^{113} q^{22}$$
$$+ 14667260045\, p^{134} q^{66} + 195625410215\, p^{69} q^{37} + 2673320460094\, p^{71} q^{48} + 1421002314262\, p^{70} q^{45} + 9568156152\, p^{67} q^{28}$$

$$+ 74880\, p^{52}\, q^{9} + 9117948\, p^{156}\, q^{123} + 11838235\, p^{150}\, q^{72} + 6157437\, p^{156}\, q^{129} + 285579\, p^{157}\, q^{147} + 5153\, p^{128}\, q^{25} + 728895\, p^{157}\, q^{142}$$
$$+ 8665352\, p^{156}\, q^{124} + 43249616\, p^{153}\, q^{96} + 12\, p^{92}\, q^{9} + 43682\, p^{158}\, q^{153} + 86788\, p^{157}\, q^{152} + 103676\, p^{138}\, q^{37} + 7185070\, p^{156}\, q^{127}$$
$$+ 21686411\, p^{155}\, q^{111} + 1028473\, p^{143}\, q^{48} + 4596109373\, p^{141}\, q^{77} + 108\, q^{115}\, p^{16} + 33022\, q^{125}\, p^{25} + 86443407641670\, p^{91}\, q^{89}$$
$$+ 2257479871777\, p^{124}\, q^{99} + 37024695\, p^{106}\, q^{25} + 663799526\, p^{110}\, q^{32} + 268317435\, p^{150}\, q^{120} + 180113075\, p^{150}\, q^{125}$$
$$+ 24396616903\, q^{108}\, p^{40} + 23525370433129\, p^{64}\, q^{70} + 3500796058703\, p^{49}\, q^{75} + 6299029825747\, q^{118}\, p^{85} + 5791739173891\, q^{118}\, p^{83}$$
$$+ 6054990931737\, q^{118}\, p^{84} + 6520784942844\, q^{118}\, p^{86} + 6886285298201\, q^{118}\, p^{88} + 6717398478819\, q^{118}\, p^{87} + 7025186639996\, q^{118}\, p^{89}$$
$$+ 7205914429072\, q^{118}\, p^{91} + 7132219036882\, q^{118}\, p^{90} + 17052668477\, q^{61}\, p^{30} + 5878018317\, q^{62}\, p^{27} + 11999494145\, q^{61}\, p^{29}$$
$$+ 5688369157\, q^{61}\, p^{27} + 8324401719\, q^{61}\, p^{28} + 14832257157029\, p^{60}\, q^{69} + 92428645497427\, p^{87}\, q^{88} + 92652736118034\, p^{86}\, q^{88}$$
$$+ 83876707\, q^{96}\, p^{23} + 479\, p^{69}\, q^{7} + 108007908571\, p^{125}\, q^{128} + 15844056\, p^{104}\, q^{23} + 2369376838914\, p^{124}\, q^{93} + 2339218495953\, p^{124}\, q^{97}$$
$$+ 8\, p^{19}\, q^{2} + 5220931325149\, p^{52}\, q^{70} + 955992379818\, p^{43}\, q^{72} + 1330\, p^{9}\, q^{12} + 627\, p^{7}\, q^{13} + 826\, p^{8}\, q^{12} + 1867854247705\, q^{80}\, p^{46}$$
$$+ 1994873383\, p^{32}\, q^{37} + 1266339241\, p^{31}\, q^{36} + 9\, p^{17}\, q^{2} + 198\, p^{23}\, q^{4} + 47\, p^{21}\, q^{3} + 34466084\, p^{36}\, q^{20} + 22628174\, p^{36}\, q^{19}$$
$$+ 88690685\, p^{37}\, q^{22} + 128641967\, p^{37}\, q^{23} + 491463790\, p^{37}\, q^{27} + 794253428\, p^{38}\, q^{28} + 858260\, p^{34}\, q^{13} + 2580550\, p^{34}\, q^{15}$$
$$+ 5005846903\, p^{136}\, q^{133} + 630419\, q^{37}\, p^{12} + 2152176\, q^{37}\, p^{14} + 4200245\, q^{38}\, p^{15} + 25378\, q^{35}\, p^{8} + 9691\, q^{35}\, p^{7} + 1308208\, q^{38}\, p^{13}$$
$$+ 318528\, q^{37}\, p^{11} + 72379963098\, p^{136}\, q^{112} + 1126011849034\, q^{82}\, p^{44} + 29696233452\, q^{105}\, p^{39} + 1786779738\, q^{103}\, p^{31}$$
$$+ 28352842379989\, p^{89}\, q^{108} + 231140\, q^{129}\, p^{30} + 107937\, q^{129}\, p^{29} + 963386\, q^{35}\, p^{13} + 110160\, q^{33}\, p^{10} + 243987\, q^{34}\, p^{11} + 268475\, q^{35}\, p^{11}$$
$$+ 3394173165413\, p^{98}\, q^{54} + 1163502490490\, p^{125}\, q^{109} + 642928\, p^{97}\, q^{17} + 9873454\, p^{103}\, q^{22} + 689414126429\, p^{125}\, q^{115} + 197370\, q^{32}\, p^{11}$$
$$+ 5715146907\, p^{143}\, q^{88} + 1644393084\, p^{144}\, q^{80} + 38362528\, p^{137}\, q^{48} + 1640959988\, p^{147}\, q^{110} + 2310946479\, p^{144}\, q^{83}$$
$$+ 2613523596\, p^{146}\, q^{100} + 559662248\, p^{149}\, q^{115} + 62183027\, q^{149}\, p^{77} + 83656677992712\, p^{80}\, q^{80} + 116969846\, p^{54}\, q^{19}$$
$$+ 534627983\, p^{55}\, q^{22} + 58944231043574\, p^{72}\, q^{87} + 1235016194567\, q^{93}\, p^{47} + 1414959826\, p^{30}\, q^{38} + 48594788770\, p^{94}\, q^{36}$$
$$+ 5870723493\, p^{92}\, q^{30} + 18003268418\, p^{93}\, q^{33} + 159960142510\, p^{95}\, q^{40} + 117549826403\, p^{95}\, q^{39} + 68402371490\, p^{94}\, q^{37}$$
$$+ 2334405197\, q^{104}\, p^{32} + 3608221500\, q^{104}\, p^{33} + 15614707986164\, p^{61}\, q^{68} + 40405604976\, p^{33}\, q^{59} + 2363046584\, p^{25}\, q^{59}$$
$$+ 54373261814\, p^{34}\, q^{59} + 72379963098\, p^{35}\, q^{59} + 51329652739390\, p^{93}\, q^{73} + 61632040083761\, p^{93}\, q^{76} + 37876602054\, q^{58}\, p^{33}$$
$$+ 207\, q^{86}\, p^{9} + 151752360758\, q^{135}\, p^{99} + 30322782\, p^{22}\, q^{31} + 745936898\, p^{53}\, q^{23} + 167492565\, q^{74}\, p^{20} + 25642536871\, q^{78}\, p^{31}$$
$$+ 7724088247\, q^{78}\, p^{28} + 18157223788\, q^{77}\, p^{30} + 11714895206\, q^{78}\, p^{29} + 5001738350\, q^{78}\, p^{27} + 17470063984\, q^{78}\, p^{30} + 498817103\, q^{75}\, p^{22}$$

$$+ 470715938\, q^{76} p^{22} + 74374432451\, q^{78} p^{34} + 75934475\, q^{153} p^{111} + 740775\, p^{106} q^{159} + 48028737998014\, p^{102} q^{85} + 9233\, q^{24} p^{8}$$
$$+ 62195\, q^{24} p^{11} + 2054483371605\, p^{106} q^{123} + 64854310205005\, p^{93} q^{77} + 45797481995112\, p^{68} q^{83} + 9590174538\, p^{38} q^{38} + 3\, q^{45} p^{3}$$
$$+ 67711128469\, q^{97} p^{38} + 7299850527\, p^{35} q^{40} + 13781569853\, p^{41} q^{37} + 2872931858247\, p^{59} q^{53} + 3002811530414\, p^{49} q^{69}$$
$$+ 11719862067\, p^{39} q^{38} + 51997093954632\, p^{101} q^{85} + 3118599525614\, p^{49} q^{70} + 5689175957\, q^{75} p^{27} + 5878411615\, q^{74} p^{27}$$
$$+ 8958877079\, q^{74} p^{28} + 13419789575\, q^{74} p^{29} + 2001968135784\, p^{62} q^{49} + 2234104410672\, p^{91} q^{49} + 6856290183172\, p^{70} q^{111}$$
$$+ 21458238435174\, p^{82} q^{109} + 23718721245876\, p^{85} q^{109} + 211569812\, p^{56} q^{20} + 2266790449\, p^{58} q^{25} + 3888\, p^{57} q^{7} + 68301\, p^{162} q^{117}$$
$$+ 99557\, p^{161} q^{107} + 21006\, p^{160} q^{89} + 2897\, p^{164} q^{150} + 71939907\, p^{65} q^{18} + 1865\, p^{122} q^{165} + 9959\, p^{127} q^{164} + 71311\, p^{142} q^{161}$$
$$+ 43171718414421\, p^{68} q^{87} + 47032536995598\, p^{69} q^{87} + p^{15} q + 2387812\, p^{133} q^{157} + 100\, p^{149} q^{43} + 23864\, p^{163} q^{119} + 14605\, p^{162} q^{102}$$
$$+ 12412\, p^{162} q^{101} + 7482\, p^{50} q^{7} + 67505735396191\, p^{89} q^{75} + 30226787962889\, p^{70} q^{67} + 44492290446\, q^{82} p^{33} + 30883844445\, q^{82} p^{32}$$
$$+ 2906774950221\, p^{93} q^{123} + 1924011144734\, p^{81} q^{123} + 1640599338095\, p^{82} q^{124} + 11984731\, p^{151} q^{141} + 8146431\, p^{152} q^{141}$$
$$+ 19860172\, p^{149} q^{142} + 760412095\, q^{93} p^{26} + 160812677\, q^{92} p^{23} + 3518295614610\, p^{92} q^{122} + 119570064\, p^{22} q^{39}$$
$$+ 4721208223948\, p^{57} q^{100} + 1092505852\, p^{27} q^{42} + 2370220911\, p^{29} q^{43} + 2753911649\, p^{30} q^{42} + 1505035186\, p^{28} q^{42}$$
$$+ 2047851313\, p^{29} q^{42} + 6965\, p^{51} q^{7} + 457408\, p^{57} q^{11} + 5223833\, p^{60} q^{14} + 2445346\, p^{59} q^{13} + 4073094859403\, p^{73} q^{116}$$
$$+ 541397737791\, p^{70} q^{124} + 477466441295\, p^{71} q^{125} + 20528962346501\, p^{97} q^{110} + 17442758918997\, p^{89} q^{112} + 9138865065227\, p^{113} q^{106}$$
$$+ 164066421063\, q^{102} p^{43} + 2030660044692\, p^{52} q^{57} + 3439752304130\, p^{57} q^{56} + 29687018377\, p^{59} q^{32} + 4998903090\, p^{58} q^{27}$$
$$+ 21553538691\, p^{59} q^{31} + 354198071728\, p^{60} q^{41} + 54373261814\, p^{59} q^{34} + 72379963098\, p^{59} q^{35} + 85\, p^{43} q^{4} + 2356054860\, p^{30} q^{41}$$
$$+ 3123483700\, p^{31} q^{41} + 3662217430\, p^{31} q^{42} + 4097345107\, p^{32} q^{41} + 5320753045\, p^{33} q^{41} + 73405814\, q^{93} p^{22} + 10395108\, q^{92} p^{19}$$
$$+ 233668856545\, p^{121} q^{127} + 120688306606\, p^{129} q^{123} + 1367955982\, q^{96} p^{28} + 1140408\, q^{85} p^{15} + 5745192842\, p^{34} q^{40}$$
$$+ 25944105121388\, p^{99} q^{107} + 22852967206389\, p^{69} q^{100} + 25114505644916\, p^{70} q^{100} + 37204063451562\, p^{75} q^{100}$$
$$+ 27339186007618\, p^{72} q^{101} + 34749263645893\, p^{74} q^{100} + 29851581002270\, p^{72} q^{100} + 32290749953776\, p^{73} q^{100}$$
$$+ 93369273816545\, p^{84} q^{86} + 250680002\, q^{123} p^{38} + 889500717\, q^{37} p^{29} + 117773161\, q^{85} p^{21} + 69214781\, q^{84} p^{20} + 503168\, p^{13} q^{30}$$
$$+ 87\, q^{75} p^{7} + 1413620\, p^{15} q^{30} + 248211\, p^{66} q^{11} + 69197357\, p^{26} q^{29} + 175632\, q^{31} p^{11} + 27096736457435\, p^{106} q^{100} + 117191804\, p^{69} q^{19}$$
$$+ 49615843430496\, p^{81} q^{69} + 53441338719987\, p^{81} q^{70} + 33913968733\, p^{130} q^{63} + 73914789540\, p^{132} q^{122} + 7711430280\, q^{127} p^{52}$$
$$+ 707665\, p^{82} q^{14} + 67268\, p^{76} q^{11} + 8498032059378\, p^{80} q^{54} + 13341539605615\, p^{81} q^{57} + 258112868104\, p^{78} q^{38}$$

$$+ 7205914429072\, p^{80} q^{53} + 625\, q^{76} p^{8} + 19997986499487\, p^{81} q^{60} + 356229713789\, p^{39} q^{73} + 20909411428538\, p^{64} q^{68}$$
$$+ 416433900\, p^{40} q^{25} + 55967\, p^{34} q^{9} + 268475\, p^{35} q^{11} + 8488\, p^{32} q^{7} + 22567\, p^{33} q^{8} + 574719\, p^{36} q^{12} + 131177\, p^{35} q^{10}$$
$$+ 11828738\, p^{38} q^{17} + 80286829\, p^{39} q^{21} + 2152176\, p^{37} q^{14} + 52914705\, p^{39} q^{20} + 34178316\, p^{39} q^{19} + 137424437\, p^{40} q^{22}$$
$$+ 202064895\, p^{40} q^{23} + 810342587\, p^{40} q^{27} + 1296039080\, p^{41} q^{28} + 1189232\, p^{37} q^{13} + 3756623\, p^{37} q^{15} + 9489567\, q^{100} p^{21}$$
$$+ 205692958901\, p^{132} q^{112} + 58889475500\, p^{127} q^{61} + 258325668804\, p^{129} q^{75} + 17950\, q^{30} p^{8} + 8935204253\, q^{88} p^{30}$$
$$+ 291580144176\, q^{83} p^{39} + q^{59} p^{4} + 1151\, q^{114} p^{17} + 357715636\, p^{25} q^{39} + 548770194046\, p^{43} q^{60} + 236421079861\, p^{39} q^{61}$$
$$+ 2366249710846\, p^{62} q^{50} + 7630058150\, p^{59} q^{28} + 957170957905\, p^{62} q^{45} + 475946051084\, p^{61} q^{42} + 183972504116\, p^{61} q^{38}$$
$$+ 591051095290\, p^{61} q^{43} + 141828096121\, p^{61} q^{37} + 236421079861\, p^{61} q^{39} + 2802125004799\, p^{64} q^{112} + 7595399056788\, p^{71} q^{111}$$
$$+ 6155099497824\, p^{69} q^{111} + 5494839208957\, p^{68} q^{111} + 4877680348467\, p^{67} q^{111} + 11017115948143\, p^{105} q^{112} + 462\, q^{103} p^{13}$$
$$+ 4405756266946\, p^{56} q^{99} + 15035233457857\, p^{74} q^{108} + 441825470\, q^{77} p^{22} + 736572866\, q^{36} p^{29} + 3841917\, q^{93} p^{18} + 24026\, q^{34} p^{8}$$
$$+ 55967\, q^{34} p^{9} + 1927116\, q^{36} p^{14} + 14505165\, q^{143} p^{55} + 5886137795158\, q^{117} p^{80} + 5526035462734\, q^{117} p^{79} + 4077810654048\, q^{117} p^{75}$$
$$+ 4434176631779\, q^{117} p^{76} + 54201709\, p^{139} q^{52} + 714530835\, p^{143} q^{71} + 137514622\, p^{139} q^{55} + 5161605060779\, q^{117} p^{78}$$
$$+ 2257479871777\, p^{47} q^{72} + 3973374700482\, p^{50} q^{72} + 3314427403516\, p^{49} q^{72} + 1877391791688\, p^{46} q^{73} + 2745302142797\, p^{48} q^{72}$$
$$+ 76201696681494\, p^{95} q^{88} + 72802480559202\, p^{95} q^{83} + 19778929868\, q^{74} p^{30} + 3629457211112\, p^{54} q^{60} + 204032789172\, p^{119} q^{129}$$
$$+ 158833600616\, p^{121} q^{129} + 207121061376\, p^{117} q^{130} + 10339045978\, p^{136} q^{129} + 2248\, q^{61} p^{7} + 32757\, q^{63} p^{9} + 897854929\, q^{82} p^{24}$$
$$+ 2451911803\, q^{82} p^{26} + 4700284049536\, p^{68} q^{112} + 6875136\, q^{98} p^{20} + 3060790\, q^{98} p^{19} + 2732365585337\, p^{52} q^{60}$$
$$+ 1557724810371\, p^{48} q^{61} + 4322667427564\, p^{57} q^{58} + 1048741\, p^{59} q^{12} + 5311848088272\, p^{60} q^{57} + 37661655894119\, p^{74} q^{99}$$
$$+ 4838491258453\, p^{58} q^{58} + 10368025961225\, p^{56} q^{86} + 694891733559\, q^{120} p^{65} + 11094304754060\, p^{58} q^{68} + 645517194\, p^{34} q^{30}$$
$$+ 301280837\, p^{150} q^{97} + 203945713\, p^{151} q^{116} + 29991409\, p^{152} q^{133} + 38693631\, p^{152} q^{131} + 234157992225\, q^{87} p^{39}$$
$$+ 46806176755\, p^{138} q^{90} + 4227431667\, p^{141} q^{126} + 6872431321\, p^{134} q^{62} + 52866886009\, p^{138} q^{93} + 18049628987\, p^{136} q^{72}$$
$$+ 39741371222\, p^{139} q^{105} + 447366938\, p^{129} q^{45} + 853\, p^{93} q^{11} + 39589342357\, p^{138} q^{87} + 3522815\, p^{120} q^{28} + 26374283\, p^{124} q^{34}$$
$$+ 6860136568\, p^{141} q^{122} + 39044637836\, p^{137} q^{82} + 1731253394\, p^{132} q^{53} + 207\, p^{86} q^{9} + 5580553695\, p^{134} q^{61} + 1857968020\, p^{31} q^{38}$$
$$+ 500429069\, p^{26} q^{39} + 2280421691609\, p^{84} q^{123} + 59444387114685\, p^{72} q^{79} + 46483429960509\, p^{71} q^{92} + 759320\, q^{33} p^{13}$$
$$+ 4710998\, p^{63} q^{14} + 2179866\, p^{62} q^{13} + 21027463371192\, p^{79} q^{108} + 7482489097553\, p^{103} q^{116} + 7076235288958\, p^{104} q^{116}$$

$$+ 6658302896144\, p^{105} q^{116} + 6233219128382\, p^{106} q^{116} + 5805365843531\, p^{116} q^{107} + 508361101900\, p^{130} q^{88} + 69719307\, p^{21} q^{38}$$
$$+ 2561333567508\, p^{110} q^{120} + 1218360228870\, p^{86} q^{45} + 110825153810\, p^{84} q^{36} + 9607583891856\, p^{88} q^{56} + 2280421691609\, p^{87} q^{48}$$
$$+ 89625766464369\, p^{84} q^{81} + 305157388\, p^{38} q^{25} + 47598\, p^{32} q^{9} + 220235\, p^{33} q^{11} + 4923880\, p^{74} q^{15} + 54590373509\, q^{96} p^{37}$$
$$+ 18488150399\, q^{96} p^{34} + 26898813746\, q^{96} p^{35} + 76257617007\, q^{96} p^{38} + 215956922\, p^{24} q^{38} + 88690685\, p^{22} q^{37}$$
$$+ 14425219495572\, q^{89} p^{59} + 18908953192408\, q^{89} p^{61} + 24211019164287\, q^{89} p^{63} + 21458238435174\, q^{89} p^{62}$$
$$+ 27162104429618\, q^{89} p^{64} + 33620283278123\, q^{89} p^{66} + 30302712540059\, q^{89} p^{65} + 32343120830510\, q^{90} p^{66}$$
$$+ 16565011550975\, q^{89} p^{60} + 12485677696754\, q^{89} p^{58} + 128641967\, p^{23} q^{37} + 30602105949285\, p^{69} q^{68} + 13409\, q^{59} p^{8}$$
$$+ 5296525547\, q^{84} p^{28} + 17304801545\, q^{85} p^{31} + 8192895714\, q^{84} p^{29} + 12446556248\, q^{84} p^{30} + 19815911914915\, p^{93} q^{111}$$
$$+ 973696092\, q^{81} p^{24} + q^{114} p^{14} + 3637139895\, q^{83} p^{27} + 5715146907\, q^{83} p^{28} + 8810515434\, q^{83} p^{29} + 398092728606\, q^{112} p^{53}$$
$$+ 604862561118\, q^{112} p^{55} + 319188798188\, q^{112} p^{52} + 492592357719\, q^{112} p^{54} + 10798406\, q^{34} p^{18} + 1108561897\, p^{28} q^{40}$$
$$+ 6269316719\, p^{36} q^{38} + 2225186412\, p^{31} q^{39} + 2901171812\, p^{32} q^{39} + 35829396087\, q^{111} p^{43} + 48505286925\, q^{111} p^{44}$$
$$+ 64958342733\, q^{111} p^{45} + 70758151521\, q^{112} p^{46} + 1197719803096\, p^{48} q^{58} + 5272357358209\, q^{102} p^{59} + 6155099497824\, q^{102} p^{60}$$
$$+ 84977494406806\, p^{88} q^{80} + 2337622778153\, p^{53} q^{57} + 176189223201\, p^{123} q^{127} + 108160426\, p^{34} q^{24} + 666922\, p^{32} q^{13}$$
$$+ 9201425\, p^{33} q^{18} + 28416099003649\, p^{99} q^{106} + 317461281\, q^{150} p^{98} + 91937101445\, p^{122} q^{131} + 104724749858\, p^{121} q^{131}$$
$$+ 126067982933\, p^{115} q^{133} + 3858296641278\, p^{50} q^{71} + 1753105621533\, p^{51} q^{57} + 35354058\, q^{67} p^{17} + 55653912518\, p^{129} q^{64}$$
$$+ 3063906766396\, p^{56} q^{56} + 2257479871777\, p^{99} q^{124} + 28016441745\, p^{101} q^{37} + 1499525899313\, p^{105} q^{54} + 604053070496\, p^{129} q^{106}$$
$$+ 446731\, p^{102} q^{18} + 27896842335\, p^{58} q^{32} + 4738729207\, p^{57} q^{27} + 20305375946\, p^{58} q^{31} + 328288596796\, p^{59} q^{41} + 50850745655\, p^{58} q^{34}$$
$$+ 67538401493\, p^{58} q^{35} + 3127\, p^{40} q^{6} + 336437967798\, p^{69} q^{39} + 2136410049957\, p^{70} q^{47} + 434884254913\, p^{69} q^{40}$$
$$+ 3728196854624\, p^{70} q^{50} + 890187055429\, p^{69} q^{43} + 707175638561\, p^{69} q^{42} + 1700\, p^{121} q^{165} + 2742816186737\, p^{104} q^{122}$$
$$+ 1753105621533\, p^{114} q^{120} + 3429779060308\, p^{103} q^{121} + 75494658\, q^{153} p^{109} + 75913553\, q^{153} p^{110} + 37527312517\, q^{125} p^{56}$$
$$+ 18489199\, p^{66} q^{16} + 48505286925\, p^{127} q^{60} + 104892610882\, p^{128} q^{66} + 2280842437561\, p^{51} q^{96} + 1308058684676\, p^{48} q^{95}$$
$$+ 10109518148323\, p^{59} q^{95} + 1634197875234\, p^{49} q^{95} + 2025487142765\, p^{50} q^{95} + 3662217430\, p^{42} q^{31} + 8092735669\, p^{42} q^{34}$$
$$+ 10339045978\, p^{42} q^{35} + 15455920077\, p^{43} q^{36} + 621903\, p^{93} q^{16} + 4722947172\, q^{125} p^{48} + 351700\, p^{91} q^{15} + 2559423859\, p^{37} q^{33}$$
$$+ 4268436\, p^{34} q^{16} + 108505780\, p^{104} q^{26} + 224336764714\, p^{117} q^{55} + 34976207622\, p^{114} q^{45} + 251152174\, p^{93} q^{24}$$

$$+ 10322733588822\, p^{57} q^{69} + 2664552866\, q^{91} p^{28} + 38010674193\, q^{93} p^{35} + 416226782935\, q^{94} p^{43} + 316386575484\, q^{94} p^{42}$$
$$+ 54073977018\, q^{93} p^{36} + 542291624668\, q^{94} p^{44} + 195411311456\, q^{93} p^{40} + 4227458859\, q^{91} p^{29} + 395636\, p^{134} q^{35} + 2267676319\, q^{83} p^{26}$$
$$+ 2091349341\, p^{33} q^{36} + 794253428\, p^{28} q^{38} + 491463790\, p^{27} q^{37} + 3253209298\, p^{34} q^{37} + 4446\, p^{67} q^{8} + 1939036\, p^{32} q^{15}$$
$$+ 205932402\, p^{34} q^{26} + 103993687032\, p^{61} q^{125} + 3983217921790\, p^{50} q^{83} + 79518295043649\, p^{84} q^{77} + 82337522342286\, p^{85} q^{78}$$
$$+ 65225473187118\, p^{84} q^{73} + 76239039993926\, p^{84} q^{76} + 574719\, q^{36} p^{12} + 22567\, q^{33} p^{8} + 58610650721\, q^{73} p^{33}$$
$$+ 56002849628175\, p^{100} q^{85} + 11673993337\, q^{110} p^{39} + 212686\, p^{45} q^{10} + 2418631\, p^{48} q^{13} + 59941842\, p^{51} q^{18} + 183314788\, q^{139} p^{56}$$
$$+ 241795566\, q^{139} p^{57} + 522912889\, q^{139} p^{60} + 408222161\, q^{139} p^{59} + 1042333412\, q^{139} p^{63} + 1584074609\, q^{139} p^{65} + 1219776921\, q^{140} p^{66}$$
$$+ 663799526\, q^{139} p^{61} + 1290063262\, q^{139} p^{64} + 835321419\, q^{139} p^{62} + 315710418\, q^{139} p^{58} + 109950218356\, p^{45} q^{44}$$
$$+ 154213343541\, p^{46} q^{45} + 9499736057\, p^{95} q^{32} + 583792511\, p^{91} q^{25} + 51307123406\, p^{45} q^{40} + 30224724\, p^{153} q^{129} + 180488\, q^{108} p^{19}$$
$$+ 336762\, q^{109} p^{20} + 1459855314511\, p^{45} q^{71} + 422693973186\, p^{131} q^{103} + 414675804325\, p^{130} q^{84} + 160812677\, p^{92} q^{23} + 2854933\, p^{85} q^{16}$$
$$+ 11719862067\, p^{38} q^{39} + 134799363482\, q^{114} p^{50} + 5502813\, q^{151} p^{72} + 553136889\, p^{42} q^{25} + 14904669\, p^{40} q^{17} + 2631979\, p^{39} q^{14}$$
$$+ 68102774\, p^{41} q^{20} + 43524351\, p^{41} q^{19} + 177996594\, p^{42} q^{22} + 264042028\, p^{42} q^{23} + 1092505852\, p^{42} q^{27} + 1736245822\, p^{43} q^{28}$$
$$+ 4665875\, p^{39} q^{15} + 18856548708071\, p^{68} q^{101} + 20858848866921\, p^{69} q^{101} + 13716705276\, p^{57} q^{30} + 3053864474\, p^{56} q^{26}$$
$$+ 9759924765\, p^{57} q^{29} + 104367949\, p^{41} q^{21} + 22132229705385\, p^{109} q^{98} + 1405525891867\, p^{104} q^{53} + 22344703849\, p^{90} q^{140}$$
$$+ 73628644\, p^{153} q^{114} + 171\, q^{53} p^{5} + 3433\, q^{58} p^{7} + 1206150\, p^{51} q^{12} + 527089\, p^{50} q^{11} + 39412351\, p^{55} q^{17} + 301098938454\, p^{61} q^{40}$$
$$+ 1570183765\, q^{87} p^{26} + 312821344\, q^{87} p^{23} + 550201782\, q^{87} p^{24} + 1404055423436\, p^{62} q^{47} + 1682372340121\, p^{62} q^{48}$$
$$+ 221800967046\, q^{115} p^{53} + 842856824\, q^{88} p^{25} + 177482\, p^{24} q^{13} + 1305\, p^{21} q^{6} + 474\, p^{20} q^{5} + 15776\, p^{23} q^{9} + 62195\, p^{24} q^{11}$$
$$+ 1900592\, p^{25} q^{18} + 39253878261126\, q^{90} p^{68} + 42899009493974\, q^{90} p^{69} + 54263242294358\, q^{90} p^{72} + 50435414378570\, q^{90} p^{71}$$
$$+ 65548540154206\, q^{90} p^{75} + 72509323080804\, q^{90} p^{77} + 73364705218601\, q^{91} p^{78} + 58083748098692\, q^{90} p^{73}$$
$$+ 69112366953613\, q^{90} p^{76} + 5410318\, p^{73} q^{15} + 29696233452\, q^{132} p^{66} + 284884773310\, q^{102} p^{45} + 369986921642\, q^{102} p^{46}$$
$$+ 554298220\, p^{122} q^{148} + 602007701\, p^{121} q^{148} + 1327612\, q^{33} p^{14} + 2268468509\, q^{117} p^{39} + 24731738218\, q^{118} p^{47} + 32736069214\, q^{118} p^{48}$$
$$+ 3297547512\, q^{117} p^{40} + 319744059523\, q^{108} p^{49} + 249918490982\, q^{108} p^{48} + 405536310468\, q^{108} p^{50} + 38716091557\, q^{129} p^{62}$$
$$+ 2521359996\, q^{126} p^{47} + 16537621352\, q^{131} p^{61} + 381064651\, q^{68} p^{21} + 67845626\, q^{67} p^{18} + 1033208711\, p^{35} q^{31} + 1362530712\, p^{33} q^{34}$$
$$+ 1072391669\, p^{32} q^{34} + 1715540789\, p^{34} q^{34} + 2141215284\, p^{35} q^{34} + 1362530712\, p^{34} q^{33} + 141828096121\, p^{134} q^{110}$$

$$+ 8998179528\, q^{92} p^{31} + 6576755648\, q^{91} p^{30} + 5870723493\, q^{92} p^{30} + 29316985017\, q^{92} p^{34} + 146830006228\, p^{123} q^{60}$$
$$+ 312310539081\, p^{124} q^{66} + 94676310604\, q^{136} p^{107} + 82227651407\, q^{135} p^{114} + 95354570109\, q^{135} p^{112} + 88782967907\, q^{135} p^{113}$$
$$+ 75749839137\, q^{135} p^{115} + 1252983644018\, p^{61} q^{114} + 10457769\, p^{96} q^{20} + 13158\, q^{143} p^{40} + 1943252624866\, p^{120} q^{113}$$
$$+ 78948993078962\, p^{91} q^{80} + 109157300839\, p^{69} q^{35} + 6356697348316\, p^{71} q^{53} + 273322241387\, p^{89} q^{40} + 1145549558925\, p^{70} q^{44}$$
$$+ 33099815481\, p^{32} q^{61} + 14850579579\, p^{120} q^{47} + 4975061\, p^{137} q^{43} + 7962650\, q^{153} p^{82} + 841244236\, q^{130} p^{48} + 431892748\, q^{130} p^{46}$$
$$+ 26113672408\, q^{135} p^{72} + 144763921\, q^{129} p^{42} + 10875375299\, q^{131} p^{59} + 6925414692\, q^{131} p^{57} + 8714563814\, q^{131} p^{58}$$
$$+ 41970163409\, p^{72} q^{32} + 7710901\, p^{84} q^{17} + 29484424646\, p^{72} q^{31} + 3500796058703\, p^{75} q^{49} + 29742603394073\, p^{76} q^{64}$$
$$+ 61042094\, p^{128} q^{39} + 126326530\, p^{121} q^{35} + 186958281\, p^{151} q^{99} + 228968104\, p^{151} q^{105} + 1416680677117\, p^{49} q^{58}$$
$$+ 1583814551834\, q^{116} p^{65} + 183909571425\, p^{131} q^{116} + 281\, q^{152} p^{50} + 10890347372878\, p^{74} q^{56} + 58759225647\, p^{70} q^{33}$$
$$+ 656858102\, p^{67} q^{22} + 2728933987\, p^{68} q^{25} + 4229473817\, p^{68} q^{26} + 1081426121\, p^{67} q^{23} + 24904353164232\, p^{107} q^{80}$$
$$+ 31345592068736\, p^{107} q^{88} + 11553232438905\, q^{108} p^{71} + 22386020562203\, p^{107} q^{78} + 3454479951966\, p^{53} q^{61}$$
$$+ 2154091689346\, p^{49} q^{63} + 2778425883529\, p^{51} q^{62} + 5056207948568\, p^{64} q^{54} + 6233219128382\, p^{65} q^{55} + 1328025740760\, p^{64} q^{46}$$
$$+ 291580144176\, p^{132} q^{88} + 7410706955578\, p^{54} q^{71} + 4587354170483\, p^{51} q^{71} + 1157339998487\, p^{126} q^{84} + 1057116\, q^{141} p^{45}$$
$$+ 49509\, q^{134} p^{32} + 913\, p^{33} q^{5} + 1850884158131\, p^{61} q^{49} + 2728933987\, p^{146} q^{103} + 1367955982\, p^{143} q^{75} + 92432398069687\, p^{83} q^{86}$$
$$+ 31947605091\, q^{129} p^{61} + 9813526709\, q^{130} p^{57} + 46581984399\, q^{129} p^{63} + 26168234535\, q^{129} p^{60} + 1219776921\, q^{105} p^{31}$$
$$+ 269943083\, q^{105} p^{28} + 754984542\, q^{105} p^{30} + 456951292\, q^{105} p^{29} + 2348704914945\, p^{60} q^{51} + 2732365585337\, p^{60} q^{52} + 85054\, p^{45} q^{9}$$
$$+ 30979\, p^{44} q^{8} + 188768740526\, p^{127} q^{68} + 70758151521\, p^{125} q^{59} + 241052898685\, p^{131} q^{113} + 2703554652\, q^{69} p^{25} + 218545659\, q^{68} p^{20}$$
$$+ 121562819\, q^{68} p^{19} + 1695123171\, p^{33} q^{35} + 2680948706\, p^{35} q^{35} + 4144306930\, p^{36} q^{36} + 1033208711\, p^{31} q^{35} + 110649951861\, q^{70} p^{35}$$
$$+ 146074292727\, q^{55} p^{39} + 65548540154206\, p^{81} q^{96} + 7369813724444\, q^{103} p^{62} + 6383340433845\, q^{103} p^{61} + 8\, p^{14} q^{2}$$
$$+ 4489651801051\, p^{63} q^{108} + 86250469067540\, p^{84} q^{91} + 7493\, p^{30} q^{7} + 19509\, p^{31} q^{8} + 468060\, p^{34} q^{12} + 110160\, p^{33} q^{10} + 9142026\, p^{36} q^{17}$$
$$+ 60129744\, p^{37} q^{21} + 1713877\, p^{35} q^{14} + 4758123102\, p^{124} q^{47} + 208\, p^{24} q^{4} + 47\, p^{22} q^{3} + 40035978\, p^{37} q^{20} + 26141079\, p^{37} q^{19}$$
$$+ 103336211\, p^{38} q^{22} + 150575879\, p^{38} q^{23} + 584780217\, p^{38} q^{27} + 941670650\, p^{39} q^{28} + 963386\, p^{35} q^{13} + 2945000\, p^{35} q^{15} + 11\, p^{53} q^{4}$$
$$+ 2162\, q^{26} p^{6} + 719\, q^{25} p^{5} + 2619738530546\, q^{105} p^{57} + 7781398\, p^{18} q^{32} + 36281473\, p^{115} q^{29} + 19253126371\, p^{124} q^{52}$$
$$+ 575205869372\, p^{129} q^{85} + 511020212351\, p^{129} q^{83} + 16275360234\, p^{30} q^{60} + 3550498413\, p^{26} q^{59} + 31487916294\, p^{124} q^{54}$$

$$+ 85125413915410\, p^{86} q^{92} + 18908953192408\, p^{89} q^{61} + 24211019164287\, p^{89} q^{63} + 2617463779\, p^{98} q^{30} + 8241873795\, p^{99} q^{33}$$
$$+ 550201782\, p^{147} q^{84} + 806622779\, p^{148} q^{95} + 351533161\, p^{101} q^{27} + 124728099616\, p^{109} q^{46} + 364748752295\, p^{110} q^{51}$$
$$+ 55653912518\, p^{107} q^{42} + 162898391788\, p^{109} q^{47} + 108339029\, q^{120} p^{34} + 149187912\, q^{119} p^{34} + 76257617007\, q^{133} p^{75}$$
$$+ 144245064747\, q^{132} p^{78} + 7595399056788\, p^{60} q^{100} + 46487685190731\, p^{75} q^{97} + 60520580\, p^{101} q^{24} + 117773161\, q^{150} p^{86}$$
$$+ 1470464206507\, p^{57} q^{109} + 22265603458776\, p^{83} q^{61} + 28125612744011\, p^{83} q^{63} + 25095741172592\, p^{83} q^{62} + 48537\, p^{59} q^{9}$$
$$+ 34742193297189\, p^{83} q^{65} + 794873349\, p^{35} q^{30} + 1207762853076\, q^{79} p^{44} + 951739331889\, q^{79} p^{43} + 575489703869\, q^{79} p^{41}$$
$$+ 52866886009\, q^{78} p^{33} + 157254198\, q^{75} p^{20} + 37079825742\, q^{78} p^{32} + 743444886424\, q^{79} p^{42} + 836111294\, p^{34} q^{31} + 836111294\, p^{31} q^{34}$$
$$+ 1085759279\, p^{33} q^{33} + 1329730269\, p^{35} q^{32} + 857473690\, p^{32} q^{33} + 857473690\, p^{33} q^{32} + 1072391669\, p^{34} q^{32} + 2141215284\, p^{34} q^{35}$$
$$+ 1329730269\, p^{32} q^{35} + 34556161467734\, p^{65} q^{79} + 65420729955335\, p^{74} q^{88} + 61551677801930\, p^{73} q^{88} + 305347559715\, q^{120} p^{60}$$
$$+ 48906506\, q^{114} p^{29} + 642483519310\, q^{121} p^{66} + 209531336906\, q^{120} p^{58} + 203945713\, p^{55} q^{20} + 2163158999\, p^{57} q^{25} + 72474\, q^{141} p^{40}$$
$$+ 105229182711\, p^{132} q^{75} + 3636579\, q^{135} p^{40} + 2139042917\, q^{140} p^{69} + 54977279\, q^{137} p^{49} + 27043638201431\, p^{98} q^{107}$$
$$+ 12479526448069\, p^{75} q^{110} + 23052146878670\, p^{84} q^{109} + 5156092672012\, p^{64} q^{108} + 27845650080877\, p^{80} q^{106} + 385172171\, p^{42} q^{24}$$
$$+ 27192140\, p^{41} q^{18} + 782764588\, p^{42} q^{26} + 7350432802\, p^{43} q^{33} + 8894123\, p^{40} q^{16} + 3197500474\, p^{43} q^{30} + 2370220911\, p^{43} q^{29}$$
$$+ 5628051497\, p^{43} q^{32} + 9193033573\, p^{36} q^{40} + 16428456856\, p^{42} q^{37} + 14213057477\, p^{40} q^{38} + 4818395183\, p^{32} q^{42} + 6842740992\, p^{34} q^{41}$$
$$+ 80596475\, p^{88} q^{21} + 4265064712\, p^{43} q^{31} + 9505522855\, p^{43} q^{34} + 12176377278\, p^{43} q^{35} + 18126104438\, p^{44} q^{36} + 3197500474\, p^{30} q^{43}$$
$$+ 38362528\, q^{123} p^{34} + 100439151752\, q^{134} p^{81} + 28474799547162\, p^{69} q^{67} + 687097\, q^{38} p^{12} + 2887301873663\, p^{96} q^{123}$$
$$+ 1331849\, q^{142} p^{47} + 12579045\, q^{153} p^{136} + 6872145\, q^{154} p^{137} + 63214103192\, q^{82} p^{34} + 34541264\, p^{30} q^{23} + 2273383735069\, p^{124} q^{90}$$
$$+ 2009291724229\, p^{124} q^{86} + 1550472490297\, p^{123} q^{78} + 1540002190262\, p^{124} q^{81} + 1877391791688\, p^{125} q^{98} + 708180894109\, p^{90} q^{129}$$
$$+ 389126703504\, p^{83} q^{130} + 2087614986206\, p^{124} q^{87} + 2220533450390\, p^{124} q^{89} + 80672924915790\, p^{89} q^{79} + 11387414273352\, p^{56} q^{82}$$
$$+ 8306263085871\, p^{54} q^{82} + 1145549558925\, p^{127} q^{101} + 249333831279\, p^{128} q^{119} + 180556195365\, p^{129} q^{120} + 191310932\, p^{113} q^{31}$$
$$+ 87595135494032\, p^{89} q^{82} + 22618598097778\, p^{61} q^{81} + 151300449721\, q^{135} p^{97} + 151898653280\, q^{135} p^{98} + 150863386266\, q^{135} p^{100}$$
$$+ 146916652027\, q^{135} p^{102} + 149244022906\, q^{135} p^{101} + 143913368587\, q^{135} p^{103} + 136051122073\, q^{135} p^{105} + 140275158550\, q^{135} p^{104}$$
$$+ 3598932731042\, p^{121} q^{85} + 9201425\, p^{18} q^{33} + 25719454\, p^{21} q^{32} + 40831890934071\, p^{70} q^{93} + 1308058684676\, p^{123} q^{76}$$
$$+ 1427891046717\, p^{123} q^{77} + 15421309497828\, p^{103} q^{68} + 11813854\, p^{19} q^{32} + 59312802\, p^{24} q^{31} + 7154\, p^{64} q^{8} + 17589089\, p^{20} q^{32}$$

$$+ 67908124992871\, p^{93}\, q^{78} + 132011298\, p^{150}\, q^{87} + 41807\, p^{100}\, q^{161} + 1871\, p^{92}\, q^{162} + 389115058\, p^{67}\, q^{21} + 1726047469\, p^{68}\, q^{24}$$
$$+ 128745322\, p^{66}\, q^{19} + 269547440252\, p^{72}\, q^{38} + 26495850302837\, p^{79}\, q^{106} + 129\, q^{81}\, p^{8} + 3759631664049\, p^{55}\, q^{59}$$
$$+ 1799572591164\, p^{46}\, q^{71} + 2201502916894\, p^{47}\, q^{71} + 2673320460094\, p^{48}\, q^{71} + 3158824944475\, p^{53}\, q^{60} + 4805049273522\, p^{59}\, q^{57}$$
$$+ 2872931858247\, p^{53}\, q^{59} + 465619288098\, p^{43}\, q^{58} + 1174725059\, q^{97}\, p^{28} + 39153\, q^{79}\, p^{11} + 270903811907\, p^{133}\, q^{98}$$
$$+ 195411311456\, p^{131}\, q^{78} + 32519986794661\, p^{70}\, q^{68} + 69152049063633\, p^{83}\, q^{74} + 41991504230182\, p^{83}\, q^{67} + 57582971036006\, p^{83}\, q^{71}$$
$$+ 61516025769639\, p^{83}\, q^{72} + 45797481995112\, p^{83}\, q^{68} + 72771256567751\, p^{83}\, q^{75} + 11138329153047\, p^{75}\, q^{56} + 59000231715\, p^{71}\, q^{33}$$
$$+ 646244970\, p^{68}\, q^{22} + 2703554652\, p^{69}\, q^{25} + 4204908862\, p^{69}\, q^{26} + 1068516040\, p^{68}\, q^{23} + 43781059\, q^{118}\, p^{31} + 26646\, q^{36}\, p^{8}$$
$$+ 21065118412440\, p^{64}\, q^{94} + 2006032223117\, p^{111}\, q^{121} + 1304173321848\, p^{119}\, q^{68} + 3281597602175\, p^{121}\, q^{83} + 67641867592480\, p^{92}\, q^{77}$$
$$+ 1271289919\, q^{124}\, p^{43} + 1802084189\, q^{124}\, p^{44} + 10085280\, p^{63}\, q^{15} + 158423505248\, p^{134}\, q^{108} + 39419816649\, p^{76}\, q^{32}$$
$$+ 27406054890\, p^{76}\, q^{31} + 1201040825445\, p^{60}\, q^{47} + 1434728282656\, p^{60}\, q^{48} + 408223\, q^{79}\, p^{13} + 605204255\, p^{35}\, q^{29}$$
$$+ 104902278601\, q^{114}\, p^{49} + 1584074609\, q^{106}\, p^{32} + 112912898625\, p^{108}\, q^{45} + 9041830776774\, p^{115}\, q^{102} + 17628325237\, p^{106}\, q^{38}$$
$$+ 9885230280662\, p^{115}\, q^{100} + 13207296390867\, p^{114}\, q^{89} + 8685172347442\, p^{113}\, q^{76} + 9344580089629\, p^{113}\, q^{77}$$
$$+ 11592241983878\, p^{115}\, q^{91} + 10224747206518\, p^{114}\, q^{81} + 5567776692372\, p^{113}\, q^{71} + 40629618049\, p^{107}\, q^{41} + 10094459039\, p^{105}\, q^{36}$$
$$+ 6415939\, p^{71}\, q^{15} + 52914705\, q^{39}\, p^{20} + 290765729\, p^{92}\, q^{24} + 188768740526\, q^{103}\, p^{44} + 1405525891867\, q^{104}\, p^{53}$$
$$+ 1143627678189\, q^{104}\, p^{52} + 1714526554978\, q^{104}\, p^{54} + 2076286016397\, q^{104}\, p^{55} + 938125332759\, p^{43}\, q^{71} + 196023373374\, q^{133}\, p^{86}$$
$$+ 343536\, q^{38}\, p^{11} + 34178316\, q^{39}\, p^{19} + 93908132729622\, p^{86}\, q^{86} + 93863451134334\, p^{85}\, q^{86} + 90676649643676\, p^{83}\, q^{88}$$
$$+ 87122236704723\, p^{85}\, q^{91} + 278125793508\, p^{132}\, q^{87} + 315703459740\, p^{132}\, q^{90} + 177287166620\, p^{131}\, q^{77} + 159960142510\, p^{131}\, q^{76}$$
$$+ 3356200555899\, p^{49}\, q^{82} + 15453645318\, p^{59}\, q^{30} + 3394260176\, p^{58}\, q^{26} + 10934768356\, p^{59}\, q^{29} + 2778425883529\, p^{62}\, q^{51}$$
$$+ 3241410451328\, p^{62}\, q^{52} + 920388761\, p^{57}\, q^{23} + 2626674\, p^{52}\, q^{13} + 70243917\, p^{55}\, q^{18} + 10812938\, p^{53}\, q^{15} + 101877011416\, p^{60}\, q^{36}$$
$$+ 5479228\, p^{53}\, q^{14} + 25326494112087\, p^{89}\, q^{109} + 26208184877823\, p^{96}\, q^{108} + 1416680677117\, p^{113}\, q^{122} + 2173656688424\, p^{105}\, q^{123}$$
$$+ 9171013371743\, p^{73}\, q^{111} + 18088763525710\, p^{81}\, q^{110} + 17218704460087\, p^{80}\, q^{110} + 2601781617052\, p^{105}\, q^{122} + 3447895\, q^{149}\, p^{64}$$
$$+ 11\, q^{133}\, p^{24} + 15360342569148\, p^{81}\, q^{58} + 196541340432\, p^{77}\, q^{37} + 17578387057963\, p^{81}\, q^{59} + 380152542055\, p^{41}\, q^{61}$$
$$+ 4854335036601\, p^{98}\, q^{56} + 6150965557923\, p^{99}\, q^{58} + 92428645497427\, p^{88}\, q^{87} + 3866995865831\, p^{57}\, q^{57} + 304158654179\, p^{132}\, q^{89}$$
$$+ 10259671325275\, p^{72}\, q^{56} + 57422117953\, p^{68}\, q^{33} + 668249330\, p^{65}\, q^{22} + 2738582459\, p^{66}\, q^{25} + 41281903003\, p^{103}\, q^{139}$$

$$+ 93369273816545\, p^{87} q^{85} + 87595135494032\, p^{82} q^{89} + 39038835\, p^{64} q^{17} + 395286377\, p^{66} q^{21} + 20516734\, p^{63} q^{16}$$
$$+ 1739945822\, p^{67} q^{24} + 131454292\, p^{65} q^{19} + 266886658381\, p^{71} q^{38} + 14669640\, q^{90} p^{19} + 3476826\, q^{89} p^{17} + 796601\, q^{87} p^{15}$$
$$+ 44393172\, q^{92} p^{21} + 2899768\, q^{90} p^{17} + 6712888\, q^{90} p^{18} + 7962650\, q^{89} p^{18} + 548525\, p^{77} q^{13} + 21854605\, p^{155} q^{112} + 27186371\, p^{153} q^{91}$$
$$+ 5017009\, p^{154} q^{139} + 71648\, q^{67} p^{10} + 25796\, q^{65} p^{9} + 520594\, q^{69} p^{12} + 202194\, q^{68} p^{11} + 19518255\, q^{76} p^{17} + 84046447\, q^{75} p^{19}$$
$$+ 22639\, q^{66} p^{9} + 63335\, q^{68} p^{10} + 46644973\, q^{74} p^{18} + 910684\, q^{73} p^{13} + 5410318\, q^{73} p^{15} + 23170314\, q^{74} p^{17} + 2540076\, q^{72} p^{14}$$
$$+ 5909127\, q^{72} p^{15} + 420057\, q^{71} p^{12} + 249362431\, q^{77} p^{21} + 469197\, q^{70} p^{12} + 21327952\, q^{75} p^{17} + 43249616\, q^{75} p^{18} + 1127763\, q^{71} p^{13}$$
$$+ 2302101\, q^{73} p^{14} + 218113253\, q^{149} p^{86} + 194581285\, q^{149} p^{85} + 172541192\, q^{149} p^{84} + 115890995\, q^{149} p^{81} + 133173360\, q^{149} p^{82}$$
$$+ 180678\, q^{69} p^{11} + 4454101\, q^{75} p^{15} + 1016658\, q^{72} p^{13} + 2073583\, q^{74} p^{14} + 160341\, q^{70} p^{11} + 1634197875234\, p^{122} q^{76}$$
$$+ 1781010242541\, p^{122} q^{77} + 2801399967054\, p^{123} q^{90} + 2740355364494\, p^{123} q^{89} + 24305989\, p^{25} q^{26} + 2490899759608\, p^{123} q^{86}$$
$$+ 1930804391738\, p^{122} q^{78} + 1924011144734\, p^{123} q^{81} + 2303593073940\, p^{124} q^{98} + 13219926498650\, p^{59} q^{69} + 54\, p^{46} q^{4}$$
$$+ 1427891046717\, q^{94} p^{48} + 7122946063177\, p^{54} q^{70} + 20512551154\, p^{68} q^{30} + 234948630\, p^{64} q^{20} + 63245140676\, q^{135} p^{117}$$
$$+ 69405576840\, q^{135} p^{116} + 57312436451\, q^{135} p^{118} + 51644746725\, q^{135} p^{119} + 2687917\, p^{16} q^{31} + 856731\, p^{14} q^{30} + 1539804218\, p^{31} q^{37}$$
$$+ 970871304\, p^{30} q^{36} + 246659414\, p^{141} q^{61} + 70204344306944\, p^{94} q^{80} + 81757405432\, p^{72} q^{34} + 598410414192\, p^{73} q^{41}$$
$$+ 2584074278810\, p^{123} q^{87} + 142938437864\, p^{116} q^{52} + 102021151\, p^{117} q^{32} + 653119815\, p^{120} q^{38} + 14\, q^{63} p^{5} + 1154722114\, q^{45} p^{26}$$
$$+ 555430136\, q^{45} p^{24} + 244277767\, p^{148} q^{82} + 4214903998\, p^{66} q^{26} + 1090897877\, p^{65} q^{23} + 2674672389200\, p^{54} q^{57}$$
$$+ 141828096121\, p^{37} q^{61} + 64434002970\, p^{34} q^{62} + 108281522715\, p^{36} q^{61} + 61203418312\, p^{34} q^{61} + 81838072374\, p^{35} q^{61}$$
$$+ 2532592227813\, p^{82} q^{122} + 12503686714576\, p^{59} q^{68} + 12761223\, q^{44} p^{16} + 20104995\, q^{43} p^{17} + 6671485\, q^{43} p^{15} + 11766547\, q^{43} p^{16}$$
$$+ 34808220831697\, p^{70} q^{69} + 71105494490594\, p^{82} q^{95} + 74180698983067\, p^{84} q^{95} + 78905945446773\, p^{89} q^{94}$$
$$+ 55490619431699\, p^{77} q^{96} + 22096910089078\, p^{67} q^{98} + 40607117539629\, p^{73} q^{97} + 37661655894119\, p^{72} q^{97}$$
$$+ 34384722353579\, p^{71} q^{68} + 6395\, p^{92} q^{12} + 1714526554978\, p^{117} q^{67} + 8421943672685\, p^{81} q^{54} + 13207296390867\, p^{82} q^{57}$$
$$+ 251891075394\, p^{79} q^{38} + 7132219036882\, p^{81} q^{53} + 19866612457687\, p^{82} q^{60} + 17073060845405\, p^{60} q^{72} + 15163884985349\, p^{59} q^{72}$$
$$+ 10596165958193\, p^{56} q^{73} + 3685188043416\, q^{95} p^{53} + 12292747960\, p^{99} q^{34} + 284884773310\, p^{102} q^{45} + 104418039540\, p^{101} q^{41}$$
$$+ 93369273816545\, p^{86} q^{84} + 87257041623516\, p^{90} q^{83} + 1147363\, p^{131} q^{34} + 570168972\, p^{90} q^{148} + 1230\, p^{108} q^{15} + 2138\, p^{110} q^{16}$$
$$+ 193581064057\, p^{96} q^{41} + 23551794592\, p^{94} q^{34} + 44450715424218\, p^{102} q^{82} + 47032536995598\, p^{102} q^{84} + 28399540046800\, p^{91} q^{108}$$

$$+ 61632040083761\, p^{95} q^{78} + 498817103\, q^{149} p^{96} + 11517151386779\, p^{56} q^{81} + 9956914427679\, p^{55} q^{80} + 633199365\, p^{129} q^{46}$$
$$+ 27896842335\, p^{139} q^{113} + 2091092057\, p^{130} q^{51} + 36155796846\, p^{139} q^{108} + 104433195\, q^{150} p^{85} + 65190701\, p^{142} q^{58} + 2141247\, p^{45} q^{13}$$
$$+ 50239834\, p^{48} q^{18} + 60622474\, p^{150} q^{81} + 87997\, p^{148} q^{159} + 106965\, p^{147} q^{159} + 425224228\, p^{145} q^{133} + 8958877079\, p^{143} q^{97}$$
$$+ 144344152\, p^{135} q^{49} + 16324986\, p^{130} q^{38} + 1179862\, p^{49} q^{12} + 520884\, p^{48} q^{11} + 17304641710449\, p^{103} q^{109} + 267052850676\, p^{133} q^{95}$$
$$+ 19199822\, p^{106} q^{24} + 1640599338095\, p^{124} q^{82} + 12857091930\, p^{117} q^{44} + 2399590\, q^{91} p^{17} + 4426618625383\, p^{51} q^{70}$$
$$+ 342367910688\, p^{124} q^{122} + 67505735396191\, p^{82} q^{96} + 15614707986164\, p^{103} q^{110} + 1557088916524\, p^{59} q^{49} + 38297970260685\, p^{83} q^{66}$$
$$+ 1185657499595\, p^{80} q^{44} + 931823441\, p^{73} q^{23} + 11387414273352\, p^{82} q^{56} + 32210926\, p^{69} q^{17} + 2801399967054\, p^{81} q^{48}$$
$$+ 1494315797712\, p^{80} q^{45} + 8148113804418\, p^{61} q^{60} + 7123018782811\, p^{56} q^{65} + 7826510185611\, p^{63} q^{58} + 7123018782811\, p^{65} q^{56}$$
$$+ 59934427976\, q^{83} p^{34} + 188104367472\, p^{101} q^{43} + 355944984914\, q^{75} p^{39} + 465690915577\, q^{74} p^{40} + 601824427897\, q^{74} p^{41}$$
$$+ 7517171192842\, p^{64} q^{57} + 21458238435174\, p^{89} q^{62} + 30302712540059\, p^{89} q^{65} + 203550995187\, q^{134} p^{97} + 203315189416\, q^{134} p^{99}$$
$$+ 147915193928\, q^{135} p^{95} + 129514327064\, p^{127} q^{125} + 62932810632119\, p^{98} q^{92} + 675021551897\, p^{43} q^{63} + 541703241742\, p^{42} q^{63}$$
$$+ 834468018491\, p^{44} q^{63} + 1328025740760\, p^{46} q^{64} + 1506236883143\, p^{47} q^{63} + 1023623898840\, p^{45} q^{63} + 1246250366161\, p^{46} q^{63}$$
$$+ 5567776692372\, p^{58} q^{100} + 6523712878860\, p^{59} q^{100} + 13129344665157\, p^{64} q^{100} + 7943535648840\, p^{61} q^{101}$$
$$+ 11553232438905\, p^{63} q^{100} + 8788276452382\, p^{61} q^{100} + 10106606804442\, p^{62} q^{100} + 60742\, p^{56} q^{9} + 4262685092007\, p^{56} q^{59}$$
$$+ 4082713626013\, p^{91} q^{52} + 17596443431940\, p^{59} q^{79} + 3839881392720\, p^{56} q^{58} + 112912898625\, q^{108} p^{45} + 10187146356\, q^{107} p^{37}$$
$$+ 318947\, p^{142} q^{44} + 2679871\, p^{146} q^{56} + 29\, p^{100} q^{11} + 39875146\, p^{153} q^{95} + 1155969\, p^{157} q^{139} + 58230747086\, p^{102} q^{138}$$
$$+ 1089051618462\, q^{101} p^{50} + 537687658250\, q^{99} p^{46} + 3391317744041\, p^{55} q^{58} + 5167373743686\, p^{61} q^{56} + 58231530277900\, p^{72} q^{78}$$
$$+ 77705980911422\, p^{92} q^{93} + 7132219036882\, p^{53} q^{81} + 2154091689346\, p^{63} q^{49} + 218319188\, p^{57} q^{20} + 2363046584\, p^{59} q^{25}$$
$$+ 5553527079\, p^{128} q^{52} + 63771183185\, p^{132} q^{71} + 181548722381\, p^{134} q^{91} + 56162457661\, p^{124} q^{132} + 463879129804\, p^{40} q^{73}$$
$$+ 81302188929532\, p^{81} q^{91} + 6872145\, q^{34} p^{17} + 1867854247705\, p^{91} q^{125} + 182722836619\, p^{99} q^{42} + 541397737791\, p^{101} q^{47}$$
$$+ 62775385931\, p^{130} q^{126} + 26113672408\, p^{99} q^{36} + 18359957671993\, p^{109} q^{102} + 101732673686\, q^{136} p^{105} + 15370220189543\, p^{93} q^{61}$$
$$+ 19863561254327\, p^{93} q^{63} + 2453622\, p^{80} q^{15} + 115023687867\, p^{116} q^{133} + 17052668477\, p^{61} q^{30} + 3694756087\, p^{60} q^{26}$$
$$+ 11999494145\, p^{61} q^{29} + 3218445893174\, p^{64} q^{51} + 3765192085038\, p^{64} q^{52} + 990532117\, p^{59} q^{23} + 114497247830\, p^{62} q^{36}$$
$$+ 1780529177\, p^{145} q^{122} + 2064\, p^{161} q^{159} + 160\, p^{158} q^{66} + 761\, p^{166} q^{145} + 913\, p^{166} q^{138} + 4725530261\, q^{90} p^{29} + 44006218495\, q^{120} p^{51}$$

$$+ 3636713188\, q^{118} p^{41} + 2982559350439\, q^{116} p^{70} + 3327327048320\, q^{116} p^{71} + 425455808831\, p^{128} q^{114} + 280631813788\, p^{128} q^{118}$$
$$+ 528460521\, p^{122} q^{39} + 89165280942987\, p^{82} q^{88} + 743645972032\, q^{107} p^{52} + 375873261323\, q^{107} p^{49} + 91065654331103\, p^{85} q^{89}$$
$$+ 89165280942987\, p^{83} q^{89} + 89625766464369\, p^{87} q^{90} + 87257041623516\, p^{83} q^{90} + 89150680433679\, p^{90} q^{88}$$
$$+ 91763207816150\, p^{88} q^{88} + 90665556811520\, p^{89} q^{88} + 594526637392\, p^{130} q^{94} + 977817379\, p^{120} q^{39} + 306385284415\, p^{128} q^{74}$$
$$+ 13073353833980\, p^{80} q^{112} + 12352922710942\, p^{79} q^{112} + 13053424992511\, p^{95} q^{114} + 13390860660776\, p^{99} q^{113}$$
$$+ 12871004176999\, p^{100} q^{113} + 11763695219450\, p^{107} q^{110} + 14012117882037\, p^{103} q^{111} + 13360027466651\, p^{93} q^{114}$$
$$+ 11387414273352\, p^{89} q^{115} + 13418445228207\, p^{92} q^{114} + 2619738530546\, p^{66} q^{114} + 48949853\, q^{147} p^{69} + 13207296390867\, p^{57} q^{82}$$
$$+ 69050358628510\, p^{84} q^{74} + 41633036265969\, p^{84} q^{67} + 57326532303964\, p^{84} q^{71} + 61303632513853\, p^{84} q^{72}$$
$$+ 45453893220110\, p^{84} q^{68} + 72735754272257\, p^{84} q^{75} + 57037298058\, p^{131} q^{68} + 21272091934\, p^{129} q^{59} + 4256312853939\, p^{95} q^{121}$$
$$+ 47725756\, p^{24} q^{30} + 33469754937\, p^{45} q^{38} + 62775385931\, p^{45} q^{41} + 91877571705\, p^{45} q^{43} + 76225890187\, p^{45} q^{42}$$
$$+ 273567590221\, q^{98} p^{43} + 9983\, q^{36} p^{7} + 71294\, q^{38} p^{9} + 1054836448162\, q^{103} p^{51} + 846479828399\, q^{103} p^{50} + 1422096\, q^{89} p^{16}$$
$$+ 5616892\, q^{91} p^{18} + 3137824\, q^{41} p^{14} + 26476\, p^{50} q^{8} + 41083623\, p^{61} q^{17} + 401770767\, p^{63} q^{21} + 21686411\, p^{60} q^{16} + 1728866892\, p^{64} q^{24}$$
$$+ 135602514\, p^{62} q^{19} + 251530881551\, p^{68} q^{38} + 1676280\, q^{41} p^{13} + 3114353611\, q^{45} p^{29} + 368177\, q^{39} p^{11} + 2802796626\, q^{103} p^{32}$$
$$+ 133455208\, q^{59} p^{19} + 389833663\, q^{60} p^{21} + 3189\, q^{34} p^{6} + 336347193\, q^{44} p^{23} + 85446061\, q^{43} p^{20} + 363278315574\, p^{130} q^{82}$$
$$+ 2369353573\, p^{122} q^{43} + 2463301347\, p^{123} q^{44} + 224784665\, q^{44} p^{22} + 132236435\, q^{43} p^{21} + 584780217\, p^{133} q^{144} + 3917664149\, q^{82} p^{27}$$
$$+ 1501384372\, q^{82} p^{25} + 12013\, q^{60} p^{8} + 275\, q^{50} p^{5} + 202\, q^{52} p^{5} + 657758\, p^{88} q^{15} + 1171467\, p^{90} q^{16} + 758452490499\, p^{45} q^{59}$$
$$+ 80760346762418\, p^{78} q^{81} + 2414797530\, p^{32} q^{38} + 30961948038082\, q^{91} p^{66} + 15827864276638\, q^{90} p^{60} + 11901283519434\, q^{90} p^{58}$$
$$+ 617805963\, q^{80} p^{23} + 196458424\, q^{80} p^{21} + 2636857514\, q^{81} p^{26} + 1621156153\, q^{81} p^{25} + 34238965926231\, q^{91} p^{67} + 231591015\, q^{78} p^{21}$$
$$+ 147088774\, q^{150} p^{88} + 59941842\, q^{153} p^{120} + 34466084\, p^{151} q^{135} + 372296738\, p^{150} q^{113} + 401770767\, p^{150} q^{108}$$
$$+ 37658661838303\, q^{91} p^{68} + 41199256651980\, q^{91} p^{69} + 6680130\, p^{19} q^{29} + 191233740407\, p^{68} q^{37} + 2590484933085\, p^{70} q^{48}$$
$$+ 1376394827000\, p^{69} q^{45} + 9467113755\, p^{66} q^{28} + 77\, q^{57} p^{5} + 77684\, p^{51} q^{9} + 40576765\, p^{25} q^{28} + 389115058\, p^{150} q^{104} + 27\, q^{61} p^{5}$$
$$+ 37241337\, p^{53} q^{17} + 282673363768\, q^{100} p^{44} + 1196398\, p^{159} q^{121} + 14035867293\, p^{67} q^{29} + 5674195698763\, p^{110} q^{67}$$
$$+ 294395495499\, p^{107} q^{48} + 31609189\, p^{94} q^{21} + 2542792438\, p^{101} q^{31} + 714530835\, p^{100} q^{28} + 298942111\, q^{43} p^{23}$$
$$+ 90327406292278\, p^{87} q^{82} + 1126579830\, p^{147} q^{92} + 60129744\, p^{150} q^{134} + 451326794\, p^{149} q^{119} + 1027290899\, p^{148} q^{101}$$

$$+ 327770829\, p^{146} q^{76} + 668858274\, p^{149} q^{107} + 1050384808\, p^{148} q^{102} + 49223905890755\, p^{69} q^{80} + 175767427249\, q^{107} p^{46}$$
$$+ 294395495499\, q^{107} p^{48} + 70721330322825\, p^{76} q^{78} + 218319188\, p^{151} q^{114} + 4923880\, p^{97} q^{156} + 98387447027\, q^{136} p^{106}$$
$$+ 218319188\, q^{151} p^{114} + 166901557\, q^{151} p^{120} + 13907385342550\, p^{59} q^{70} + 228833141\, q^{151} p^{112} + 996466648\, p^{106} q^{31} + 12267\, p^{125} q^{24}$$
$$+ 75913553\, p^{153} q^{110} + 9305\, p^{125} q^{164} + 9660\, p^{126} q^{164} + 80406\, p^{141} q^{161} + 89945\, p^{140} q^{161} + 10085280\, q^{156} p^{108} + 20447593\, p^{118} q^{155}$$
$$+ 3794079\, p^{67} q^{14} + 1725975\, p^{66} q^{13} + 151752360758\, p^{72} q^{36} + 15396895\, q^{151} p^{77} + 2885186101601\, p^{79} q^{48} + 1538067701399\, p^{78} q^{45}$$
$$+ 71349012\, p^{27} q^{28} + 3159823\, p^{16} q^{32} + 5421777609144\, p^{65} q^{54} + 6658302896144\, p^{66} q^{55} + 1407958254110\, p^{65} q^{46}$$
$$+ 3437200298115\, p^{65} q^{51} + 4026637135035\, p^{65} q^{52} + 120452381694\, p^{63} q^{36} + 15157641361129\, p^{105} q^{70} + 2914938441180\, p^{65} q^{50}$$
$$+ 573483325055\, p^{64} q^{42} + 715839976287\, p^{64} q^{43} + 280262125884\, p^{64} q^{39} + 358939220758\, p^{64} q^{40} + 1706901302345\, p^{65} q^{47}$$
$$+ 2054483371605\, p^{65} q^{48} + 84977494406806\, p^{91} q^{83} + 87239092123309\, p^{91} q^{88} + 195945415\, p^{71} q^{20} + 5999830247665\, p^{81} q^{52}$$
$$+ 5012875068590\, p^{81} q^{51} + 346304\, p^{62} q^{11} + 235999296\, q^{146} p^{74} + 51632953\, p^{29} q^{25} + 260976049410\, p^{59} q^{40} + 4204908862\, q^{69} p^{26}$$
$$+ 152060239\, q^{149} p^{83} + 1703586517\, q^{69} p^{24} + 9\, p^{16} q^{2} + 190\, p^{22} q^{4} + 46\, p^{20} q^{3} + 29459654\, p^{35} q^{20} + 19449607\, p^{35} q^{19}$$
$$+ 75583443\, p^{36} q^{22} + 109118710\, p^{36} q^{23} + 409981560\, p^{36} q^{27} + 665050778\, p^{37} q^{28} + 1152595129\, p^{122} q^{41} + 18491991459\, p^{125} q^{53}$$
$$+ 375978031\, p^{119} q^{36} + 181404258\, q^{35} p^{25} + 339404448\, q^{35} p^{27} + 552709743\, q^{36} p^{28} + 38010674193\, p^{93} q^{35} + 91880629\, q^{35} p^{23}$$
$$+ 5\, q^{56} p^{4} + 6669179\, p^{85} q^{17} + 24887784510913\, p^{67} q^{67} + 279085255\, q^{146} p^{75} + 332740810\, p^{150} q^{99} + 395286377\, p^{150} q^{105}$$
$$+ 10892120550\, q^{115} p^{42} + 234087\, q^{97} p^{16} + 6088923624\, q^{113} p^{39} + 89264050\, p^{147} q^{138} + 35461549786\, p^{127} q^{132} + 663799526\, q^{110} p^{32}$$
$$+ 28877797\, q^{107} p^{25} + 1054197217\, q^{110} p^{33} + 136691320\, q^{108} p^{28} + 11575073296485\, p^{115} q^{93} + 1515314911674\, p^{111} q^{59}$$
$$+ 1272162694269\, p^{111} q^{58} + 13341539605615\, p^{114} q^{90} + 4535\, q^{123} p^{22} + 405536310468\, p^{121} q^{63} + 60477366168\, q^{88} p^{35}$$
$$+ 67861651496566\, p^{85} q^{97} + 32519986794661\, p^{68} q^{70} + 243041793\, q^{149} p^{87} + 637\, q^{122} p^{20} + 24075\, q^{122} p^{23} + 8245\, q^{122} p^{22}$$
$$+ 13859\, q^{123} p^{23} + 56991\, q^{124} p^{25} + 92033640\, q^{150} p^{84} + 273067039\, p^{137} q^{54} + 16324986\, p^{133} q^{41} + 1290063262\, p^{139} q^{64}$$
$$+ 4175960340\, p^{145} q^{106} + 2617463779\, p^{141} q^{73} + 150280466948\, p^{134} q^{109} + 673790073397\, q^{103} p^{49} + 1656188429702\, q^{107} p^{56}$$
$$+ 24075\, p^{122} q^{23} + 1986994426910\, q^{107} p^{57} + 7358479\, q^{143} p^{53} + 132011298\, q^{150} p^{87} + 824774919\, q^{102} p^{29} + 495192962\, q^{102} p^{28}$$
$$+ 57124054866\, q^{105} p^{41} + 41438405412\, q^{105} p^{40} + 102\, q^{134} p^{26} + 4145115942375\, p^{55} q^{60} + 5840187995184\, p^{61} q^{57}$$
$$+ 5385537254203\, p^{59} q^{58} + 1176546228\, q^{37} p^{30} + 759320\, p^{33} q^{13} + 2245198\, p^{33} q^{15} + 14667260045\, q^{134} p^{66} + 17416172058\, q^{134} p^{67}$$
$$+ 55714873913\, q^{136} p^{82} + 3550876\, q^{30} p^{17} + 104117\, p^{121} q^{24} + 3324296477\, p^{142} q^{78} + 173165377654\, p^{133} q^{84} + 2733248776776\, p^{64} q^{50}$$

$$+ 8324401719\, p^{61} q^{28} + 1089076420989\, p^{64} q^{45} + 541703241742\, p^{63} q^{42} + 206321840699\, p^{63} q^{38} + 675021551897\, p^{63} q^{43}$$
$$+ 158423505248\, p^{63} q^{37} + 266168475630\, p^{63} q^{39} + 340255483720\, p^{63} q^{40} + 1607539081634\, p^{64} q^{47} + 1932001251847\, p^{64} q^{48}$$
$$+ 60905696068849\, p^{79} q^{96} + 58278865944368\, p^{78} q^{96} + 75221539929549\, p^{85} q^{95} + 72802480559202\, p^{83} q^{95} + 16377546060\, p^{127} q^{55}$$
$$+ 21882834596\, q^{87} p^{32} + 6243483755\, p^{95} q^{31} + 1819532149\, p^{94} q^{28} + 139704\, q^{85} p^{13} + 363278315574\, q^{89} p^{41} + 273322241387\, q^{89} p^{40}$$
$$+ 819457\, q^{96} p^{17} + 6088923624\, q^{132} p^{58} + 269943083\, q^{143} p^{66} + 51052743642\, q^{136} p^{81} + 62934077\, q^{129} p^{40} + 41761971539\, p^{102} q^{139}$$
$$+ 21125519030\, p^{89} q^{140} + 58759225647\, p^{101} q^{138} + 258461\, q^{119} p^{24} + 88252889191648\, p^{82} q^{81} + 28416099003649\, p^{106} q^{99}$$
$$+ 30791324280281\, p^{106} q^{97} + 743994\, q^{39} p^{12} + 29605725548551\, p^{70} q^{98} + 37815413668562\, p^{73} q^{98} + 52155885294020\, p^{77} q^{97}$$
$$+ 32290749953776\, p^{71} q^{98} + 162097\, q^{38} p^{10} + 1005752408247\, p^{113} q^{124} + 570773053272\, p^{58} q^{44} + 1429920\, q^{39} p^{13} + 4665875\, q^{39} p^{15}$$
$$+ 25710394701873\, p^{70} q^{65} + 29489484674952\, p^{71} q^{66} + 15621888068057\, p^{70} q^{60} + 10833518806344\, p^{70} q^{57}$$
$$+ 40716587797964\, p^{68} q^{89} + 689414126429\, q^{56} p^{46} + 807674535\, p^{107} q^{31} + 515798951731\, q^{55} p^{45} + 177287166620\, p^{77} q^{131}$$
$$+ 2280842437561\, p^{120} q^{75} + 1376394827000\, p^{102} q^{126} + 233668856545\, p^{127} q^{121} + 92432398069687\, p^{86} q^{83}$$
$$+ 18370761737277\, p^{75} q^{107} + 91660081\, p^{29} q^{27} + 153416646\, p^{30} q^{28} + 9540159\, p^{49} q^{15} + 1231342314683\, p^{97} q^{127}$$
$$+ 951739331889\, p^{92} q^{128} + 75749839137\, p^{56} q^{36} + 4985950\, p^{49} q^{14} + 226\, q^{28} p^{4} + 975553429898\, q^{93} p^{46} + 158474038390\, q^{92} p^{39}$$
$$+ 221463384959\, p^{114} q^{131} + 202368242865\, p^{115} q^{131} + 205692958901\, p^{112} q^{132} + 2549743133059\, p^{63} q^{50} + 7990206424\, p^{60} q^{28}$$
$$+ 1023623898840\, p^{63} q^{45} + 509072931519\, p^{62} q^{42} + 195326995427\, p^{62} q^{38} + 633277017510\, p^{62} q^{43} + 150280466948\, p^{62} q^{37}$$
$$+ 251498997326\, p^{62} q^{39} + 40218717\, p^{56} q^{17} + 320903039258\, p^{62} q^{40} + 1506236883143\, p^{63} q^{47} + 1807536824918\, p^{63} q^{48}$$
$$+ 2706523527517\, p^{51} q^{94} + 80774649389871\, p^{78} q^{87} + 134457806\, p^{145} q^{68} + 48503031\, p^{143} q^{59} + 27733310465\, p^{117} q^{138}$$
$$+ 14170943908\, q^{98} p^{34} + 3431733106\, q^{123} p^{45} + 217270861519\, q^{102} p^{44} + 7943535648840\, p^{101} q^{61} + 10469483340674\, p^{101} q^{63}$$
$$+ 137514622\, q^{116} p^{32} + 825897247\, p^{75} q^{144} + 349394012\, p^{73} q^{145} + 1644393084\, p^{80} q^{144} + 1272111069\, p^{78} q^{144} + 1108564582\, p^{77} q^{144}$$
$$+ 959946662\, p^{76} q^{144} + 1450741279\, p^{79} q^{144} + 24273090598542\, p^{65} q^{69} + 36155796846\, q^{63} p^{32} + 16377546060\, q^{127} p^{55}$$
$$+ 3036059\, q^{70} p^{14} + 79\, q^{67} p^{6} + 1584074609\, p^{106} q^{32} + 91428350\, p^{102} q^{25} + 150863386266\, p^{71} q^{36} + 5748634938376\, p^{73} q^{52}$$
$$+ 4854550762768\, p^{73} q^{51} + 1440738006\, p^{120} q^{40} + 57124054866\, q^{130} p^{66} + 45826345134822\, p^{68} q^{81} + 165268435\, p^{145} q^{69}$$
$$+ 1304547622392\, p^{82} q^{125} + 6386615728182\, p^{109} q^{114} + 7517171192842\, p^{107} q^{114} + 8583165855541\, p^{103} q^{115}$$
$$+ 8091759759357\, p^{106} q^{114} + 80219138342\, p^{123} q^{131} + 36155796846\, p^{63} q^{32} + 5878018317\, p^{62} q^{27} + 25986029963\, p^{63} q^{31}$$

$$+ 2601781617052\, p^{66} q^{49} + 196\, p^{34} q^{4} + 847\, p^{37} q^{5} + 25710394701873\, p^{65} q^{70} + 13863411977546\, p^{58} q^{73} + 823357854\, p^{147} q^{88}$$
$$+ 6947121154097\, p^{114} q^{108} + 56052241011253\, p^{82} q^{99} + 44296582822476\, p^{78} q^{100} + 42899009493974\, p^{81} q^{102}$$
$$+ 175219841975\, p^{114} q^{132} + 104220846200\, p^{124} q^{129} + 120688306606\, p^{123} q^{129} + 89424028362\, p^{125} q^{129} + 91877571705\, p^{126} q^{128}$$
$$+ 133472819939\, p^{119} q^{131} + 22132229705385\, p^{62} q^{73} + 19857424551563\, p^{61} q^{73} + 675021551897\, p^{128} q^{108} + 591051095290\, p^{128} q^{110}$$
$$+ 204279450\, p^{70} q^{20} + 6069792362437\, p^{80} q^{52} + 5078144291434\, p^{80} q^{51} + 505\, p^{45} q^{5} + 370577\, p^{61} q^{11} + p^{164} q^{87}$$
$$+ 128611476601\, p^{122} q^{58} + 46160950\, p^{110} q^{27} + 11459377990809\, p^{65} q^{60} + 9765798145147\, p^{63} q^{60} + 11763695219450\, p^{64} q^{61}$$
$$+ 9765798145147\, p^{60} q^{63} + 10889681265157\, p^{62} q^{62} + 17037\, p^{68} q^{9} + 95571229\, q^{152} p^{121} + 232448199\, q^{151} p^{111} + 176911497\, q^{151} p^{119}$$
$$+ 215278345293\, p^{95} q^{41} + 26351611372\, p^{93} q^{34} + 172541192\, p^{87} q^{22} + 48272809481167\, p^{101} q^{82} + 50971017295364\, p^{101} q^{84}$$
$$+ 85638202764347\, p^{81} q^{89} + 10606485368500\, p^{64} q^{60} + 9510196289187\, p^{64} q^{59} + 8091759759357\, p^{65} q^{57} + 31817561800072\, p^{106} q^{96}$$
$$+ 20336118063701\, q^{104} p^{72} + 16953271465369\, q^{104} p^{70} + 86250469067540\, p^{80} q^{87} + 88479065808126\, p^{81} q^{87}$$
$$+ 2158335588648\, p^{124} q^{88} + 1627783734482\, p^{125} q^{103} + 44688\, p^{90} q^{13} + 465232405048\, p^{131} q^{96} + 291\, q^{100} p^{12}$$
$$+ 8091759759357\, p^{57} q^{65} + 11459377990809\, p^{60} q^{65} + 10262480950130\, p^{59} q^{65} + 15435471476492\, p^{63} q^{65} + 18326886983665\, p^{65} q^{65}$$
$$+ 21443970346626\, p^{66} q^{66} + 12724877430490\, p^{61} q^{65} + 16863702851940\, p^{64} q^{65} + 14052803888787\, p^{62} q^{65} + 9138865065227\, p^{58} q^{65}$$
$$+ 592954333687\, q^{93} p^{44} + 455974050992\, q^{93} p^{43} + 49561946246090\, p^{96} q^{75} + 27186371\, p^{80} q^{18} + 162924762\, p^{82} q^{21}$$
$$+ 269236278\, p^{83} q^{22} + 63335\, p^{68} q^{10} + 63769367509757\, p^{97} q^{82} + 66790964170654\, p^{97} q^{84} + 6069792362437\, p^{119} q^{91}$$
$$+ 2764577248340\, p^{117} q^{71} + 249248132193\, p^{85} q^{132} + 2087614986206\, p^{87} q^{124} + 895410054867\, p^{77} q^{125} + 52155885294020\, p^{74} q^{94}$$
$$+ 1683575965299\, p^{50} q^{97} + 19029481413\, p^{140} q^{114} + 39044637836\, p^{89} q^{34} + 1735826824\, p^{86} q^{26} + 311712960332\, p^{91} q^{41}$$
$$+ 173167384586\, p^{91} q^{39} + 100439151752\, p^{90} q^{37} + 26980494155\, p^{89} q^{33} + 1656188429702\, q^{115} p^{64} + 1426904703977\, q^{115} p^{63}$$
$$+ 1039199443312\, q^{115} p^{61} + 1221640915312\, q^{115} p^{62} + 233578406600\, p^{91} q^{40} + 83173217313004\, p^{90} q^{92} + 351675649364\, p^{86} q^{131}$$
$$+ 332740206080\, p^{85} q^{131} + 313227492929\, p^{84} q^{131} + 253335928697\, p^{81} q^{131} + 273322241387\, p^{82} q^{131} + 369816454459\, p^{87} q^{131}$$
$$+ 234157992225\, p^{84} q^{132} + 1566991\, q^{104} p^{20} + 645517194\, p^{137} q^{141} + 15844056\, q^{104} p^{23} + 7706694\, q^{104} p^{22} + 12371535\, q^{105} p^{23}$$
$$+ 37024695\, q^{106} p^{25} + 68884057\, q^{106} p^{26} + 5956185\, q^{105} p^{22} + 72066545105\, p^{90} q^{36} + 22336558115904\, p^{110} q^{93}$$
$$+ 4304988944008\, p^{66} q^{111} + 192358628533\, q^{134} p^{93} + 23214088691541\, p^{81} q^{108} + 3217336818856\, p^{106} q^{59} + 294883\, p^{81} q^{13}$$
$$+ 8935204253\, p^{88} q^{30} + 379146615238\, p^{92} q^{42} + 328325852\, p^{141} q^{140} + 194152810\, p^{143} q^{140} + 253790463\, p^{142} q^{140}$$

$$+ 519838460\, p^{138}\, q^{141} + 2751909524386\, q^{121}\, p^{80} + 6043257158\, p^{144}\, q^{98} + 218113253\, p^{149}\, q^{86} + 341212049760\, p^{75}\, q^{128}$$
$$+ 812293410999\, p^{118}\, q^{122} + 57361934723807\, p^{97}\, q^{79} + 2369353573\, p^{128}\, q^{49} + 112217903\, q^{142}\, p^{60} + 22632999840914\, p^{91}\, q^{110}$$
$$+ 296301811\, p^{107}\, q^{29} + 23632204948\, p^{113}\, q^{43} + 293352159479\, p^{83}\, q^{131} + 3460078970\, p^{32}\, q^{40} + 7620438574\, p^{36}\, q^{39}$$
$$+ 6067697254\, p^{35}\, q^{39} + 25986029963\, q^{63}\, p^{31} + 34682274185\, q^{62}\, p^{32} + 47548845240\, q^{62}\, p^{33} + 16820528\, p^{84}\, q^{18}$$
$$+ 998381647953\, p^{46}\, q^{60} + 2142195427613\, p^{51}\, q^{59} + 27\, q^{111}\, p^{14} + 60\, q^{68}\, p^{6} + 14590738\, q^{144}\, p^{57} + 10833518806344\, p^{57}\, q^{70}$$
$$+ 39418595806632\, p^{67}\, q^{87} + 1741055644\, p^{80}\, q^{25} + 1050189866\, p^{80}\, q^{24} + 9424709609\, p^{82}\, q^{29} + 6134039128\, p^{82}\, q^{28} + 2\, q^{99}\, p^{10}$$
$$+ 19869907089\, p^{83}\, q^{31} + 665765007\, p^{79}\, q^{23} + 122615882274\, p^{69}\, q^{129} + 23170314\, p^{74}\, q^{17} + 781561387801\, p^{44}\, q^{62}$$
$$+ 151550610607\, p^{127}\, q^{124} + 85245346179760\, p^{79}\, q^{84} + 91369886721141\, p^{85}\, q^{82} + 92428645497427\, p^{84}\, q^{83} + 30978647060\, p^{46}\, q^{37}$$
$$+ 224101474\, p^{58}\, q^{20} + 17775892702\, p^{62}\, q^{30} + 3825139097\, p^{61}\, q^{26} + 12473824867\, p^{62}\, q^{29} + 1019607348\, p^{60}\, q^{23}$$
$$+ 10740146110241\, q^{89}\, p^{57} + 5784030777202\, p^{66}\, q^{54} + 7076235288958\, p^{67}\, q^{55} + 1485157188038\, p^{66}\, q^{46} + 3652131677483\, p^{66}\, q^{51}$$
$$+ 4284274447225\, p^{66}\, q^{52} + 126075596060\, p^{64}\, q^{36} + 3092901205465\, p^{66}\, q^{50} + 604053070496\, p^{65}\, q^{42} + 755276933181\, p^{65}\, q^{43}$$
$$+ 293612984933\, p^{65}\, q^{39} + 376736056882\, p^{65}\, q^{40} + 1803231710239\, p^{66}\, q^{47} + 2173656688424\, p^{66}\, q^{48} + 8628330645\, p^{62}\, q^{28}$$
$$+ 1152820827249\, p^{65}\, q^{45} + 216829547028\, p^{64}\, q^{38} + 166161172237\, p^{64}\, q^{37} + 40822875\, p^{57}\, q^{17} + 26688953760963\, p^{67}\, q^{68}$$
$$+ 463041852723\, q^{104}\, p^{48} + 83644394917356\, p^{90}\, q^{81} + 201707964562\, p^{71}\, q^{37} + 2805472907079\, p^{73}\, q^{48} + 1492436821263\, p^{72}\, q^{45}$$
$$+ 9627835268\, p^{69}\, q^{28} + 7618482669341\, q^{66}\, p^{56} + 19263966\, p^{117}\, q^{29} + 3071656865021\, q^{117}\, p^{72} + 22949242332365\, p^{101}\, q^{70}$$
$$+ 306385284415\, p^{97}\, q^{43} + 14206921054\, p^{69}\, q^{29} + 25418156761441\, p^{74}\, q^{63} + 22906459779644\, p^{74}\, q^{62} + 20528962346501\, p^{74}\, q^{61}$$
$$+ 9232555426843\, q^{67}\, p^{57} + 84576\, p^{47}\, q^{9} + 30163\, p^{46}\, q^{8} + 76239039993926\, p^{87}\, q^{95} + 348188250\, p^{150}\, q^{115} + 235999296\, q^{97}\, p^{25}$$
$$+ 1139864365921\, p^{125}\, q^{80} + 1175011809238\, p^{127}\, q^{100} + 4304988944008\, q^{105}\, p^{60} + 3111903836730\, q^{105}\, p^{58} + 99738373\, q^{95}\, p^{23}$$
$$+ 486551158\, q^{96}\, p^{26} + 279085255\, q^{96}\, p^{25} + 9776824138247\, q^{106}\, p^{67} + 37594805\, q^{93}\, p^{21} + 10941056202337\, q^{106}\, p^{68}$$
$$+ 12175951358024\, q^{106}\, p^{69} + p^{13}\, q + 19\, p^{146}\, q^{37} + 4645\, p^{159}\, q^{78} + 55102\, p^{136}\, q^{34} + 24578\, p^{135}\, q^{32} + 154967\, p^{140}\, q^{40} + 9565826\, p^{148}\, q^{65}$$
$$+ 231140\, p^{141}\, q^{42} + 176331\, p^{139}\, q^{39} + 19515\, p^{133}\, q^{30} + 514682\, p^{157}\, q^{144} + 9873454\, p^{149}\, q^{68} + 88\, p^{106}\, q^{13} + 19145662\, p^{153}\, q^{88}$$
$$+ 274282\, p^{140}\, q^{41} + 12013\, p^{163}\, q^{111} + 302\, p^{151}\, q^{48} + 997\, p^{165}\, q^{152} + 9959\, p^{164}\, q^{127} + 619\, q^{142}\, p^{35} + 1577\, q^{142}\, p^{36} + 13781569853\, p^{37}\, q^{41}$$
$$+ 112119189\, p^{53}\, q^{19} + 508004750\, p^{54}\, q^{22} + 1135494657404\, q^{94}\, p^{47} + 6275162204\, p^{33}\, q^{42} + 17458710163\, p^{39}\, q^{40}$$
$$+ 11009012033\, p^{36}\, q^{41} + 77491\, p^{82}\, q^{12} + 1130681\, p^{102}\, q^{19} + 294395495499\, p^{123}\, q^{64} + 9180115876231\, p^{55}\, q^{73}$$

$$+ 5878352755905\, p^{52} q^{74} + 6037\, q^{81} p^{10} + 1433\, q^{80} p^{9} + 77491\, q^{82} p^{12} + 220\, p^{26} q^{4} + 69559922955\, p^{124} q^{131} + 129478932629\, p^{121} q^{130}$$
$$+ 166209726082\, p^{117} q^{131} + 118577326122\, p^{120} q^{131} + 146899786304\, p^{120} q^{130} + 84495617079\, p^{119} q^{133} + 52728053298\, p^{121} q^{134}$$
$$+ 98776404149\, p^{123} q^{130} + 172384760820\, p^{111} q^{133} + 30982335889630\, p^{104} q^{78} + 1537114401537\, p^{45} q^{74} + 1903572800296\, p^{46} q^{74}$$
$$+ 2339218495953\, p^{47} q^{74} + 2853021975224\, p^{48} q^{74} + 263190073417\, p^{94} q^{133} + 17449083843137\, p^{61} q^{70} + 5594421512905\, p^{52} q^{72}$$
$$+ 705893660\, q^{97} p^{27} + 864\, p^{29} q^{5} + 1244377309102\, p^{120} q^{117} + 1732582771351\, p^{46} q^{83} + 63293\, p^{83} q^{12} + 1072398087949\, p^{121} q^{117}$$
$$+ 5628480422217\, p^{52} q^{84} + 4534190353822\, p^{51} q^{85} + 7962983879290\, p^{54} q^{84} + 9377381471455\, p^{55} q^{84} + 10971862479030\, p^{56} q^{84}$$
$$+ 70805723150904\, p^{75} q^{80} + 73489714165\, p^{130} q^{125} + 2009291724229\, p^{47} q^{85} + 3741048270680\, p^{50} q^{85} + 3064137051015\, p^{49} q^{85}$$
$$+ 1537544490668\, p^{46} q^{86} + 2490899759608\, p^{48} q^{85} + 349394012\, p^{98} q^{26} + 14642910066718\, p^{113} q^{96} + 10395108\, p^{92} q^{19}$$
$$+ 41438405412\, p^{105} q^{40} + 29696233452\, p^{105} q^{39} + 346843\, p^{86} q^{14} + 6526886113\, p^{103} q^{34} + 20858848866921\, p^{70} q^{102}$$
$$+ 1851600711679\, q^{96} p^{50} + 1191886288182\, q^{96} p^{48} + 10626801\, q^{144} p^{56} + 474908\, p^{78} q^{13} + 583792511\, p^{80} q^{146}$$
$$+ 944623693865\, q^{96} p^{47} + 48538103110162\, p^{80} q^{100} + 29119970311846\, p^{74} q^{102} + 27000319061442\, p^{73} q^{102}$$
$$+ 46483429960509\, p^{79} q^{100} + 849137464\, q^{99} p^{28} + 3002048203\, q^{100} p^{31} + 30909218967\, p^{42} q^{40} + 745430392432\, p^{86} q^{43}$$
$$+ 3445150922762\, p^{87} q^{50} + 1572759513684\, p^{115} q^{120} + 28591889300\, p^{44} q^{38} + 136358245\, q^{151} p^{94} + 30020098158\, p^{43} q^{39}$$
$$+ 53266141859\, p^{44} q^{41} + 54272094631\, p^{42} q^{43} + 44889280319\, p^{41} q^{43} + 65139535179\, p^{43} q^{43} + 77630042079\, p^{44} q^{43}$$
$$+ 64540688933\, p^{44} q^{42} + 521761159483\, p^{130} q^{104} + 217270861519\, p^{127} q^{69} + 599868186095\, p^{130} q^{95} + 61516025769639\, p^{88} q^{99}$$
$$+ 26513\, p^{127} q^{26} + 43\, p^{77} q^{7} + 868832\, p^{116} q^{24} + 26351611372\, p^{137} q^{78} + 41625837198\, p^{139} q^{98} + 1070562179\, p^{131} q^{50}$$
$$+ 1414959826\, p^{141} q^{133} + 41080438832\, p^{139} q^{97} + 786588834\, p^{131} q^{49} + 85522863\, p^{126} q^{38} + 37565455649\, p^{130} q^{129}$$
$$+ 3994830592175\, p^{68} q^{113} + 19641531\, q^{149} p^{71} + 9\, p^{18} q^{2} + 1009\, q^{127} p^{23} + 1653\, q^{128} p^{24} + 60066\, p^{35} q^{9} + 8937\, p^{33} q^{7} + 24026\, p^{34} q^{8}$$
$$+ 6\, q^{93} p^{9} + 3694756087\, q^{60} p^{26} + 1596237666\, q^{60} p^{24} + 1019607348\, q^{60} p^{23} + 637702696\, q^{60} p^{22} + 187338508186\, q^{134} p^{92}$$
$$+ 167974598666\, q^{134} p^{89} + 160364090823\, q^{134} p^{88} + 11484291210\, q^{60} p^{29} + 7990206424\, q^{60} p^{28} + 2528489926\, q^{61} p^{25}$$
$$+ 5476744778\, q^{60} p^{27} + 129514327064\, p^{46} q^{44} + 180802620574\, p^{47} q^{45} + 59934769062\, p^{46} q^{40} + 16570960\, p^{41} q^{17} + 2882868\, p^{40} q^{14}$$
$$+ 76521868\, p^{42} q^{20} + 48649170\, p^{42} q^{19} + 200648432\, p^{43} q^{22} + 298942111\, p^{43} q^{23} + 1990099296\, p^{44} q^{28} + 5149887\, p^{40} q^{15}$$
$$+ 81302188929532\, p^{90} q^{80} + 4227458859\, p^{91} q^{29} + 434247522\, p^{89} q^{24} + 111214183132\, q^{74} p^{35} + 1307971123\, q^{132} p^{52}$$
$$+ 41607145225\, p^{45} q^{39} + 1731253394\, q^{132} p^{53} + 250680002\, p^{123} q^{38} + 38767336\, p^{120} q^{32} + 12904785\, q^{146} p^{61} + 2297299871\, p^{144} q^{123}$$

$$+ 25747\, p^{113}\, q^{19} + 165608\, p^{118}\, q^{23} + 249708728\, p^{145}\, q^{136} + 690809731\, p^{144}\, q^{132} + 10660323601\, p^{141}\, q^{85} + 89671621992830\, p^{85}\, q^{81}$$
$$+ 88479065808126\, p^{87}\, q^{81} + 75375182208\, q^{107}\, p^{43} + 100984004430\, q^{107}\, p^{44} + 967171997418\, q^{108}\, p^{54} + 315710418\, p^{113}\, q^{32}$$
$$+ 636263571138\, q^{108}\, p^{52} + 6671485\, p^{128}\, q^{156} + 1306112627\, p^{137}\, q^{60} + 1092505852\, p^{144}\, q^{129} + 66849256292574\, p^{91}\, q^{76}$$
$$+ 56013132986524\, p^{91}\, q^{73} + 17056078\, p^{109}\, q^{25} + 46527562478\, q^{91}\, p^{35} + 65846023325\, q^{91}\, p^{36} + 303403390\, q^{126}\, p^{41}$$
$$+ 1407958254110\, q^{65}\, p^{46} + 2455566284344\, q^{65}\, p^{49} + 2054483371605\, q^{65}\, p^{48} + 4026637135035\, q^{65}\, p^{52} + 5421777609144\, q^{65}\, p^{54}$$
$$+ 6658302896144\, q^{66}\, p^{55} + 2914938441180\, q^{65}\, p^{50} + 4687083120794\, q^{65}\, p^{53} + 3437200298115\, q^{65}\, p^{51} + 1706901302345\, q^{65}\, p^{47}$$
$$+ 909925\, q^{42}\, p^{12} + 188984\, q^{41}\, p^{10} + 1798175\, q^{42}\, p^{13} + 250293457\, q^{45}\, p^{22} + 180708\, q^{40}\, p^{10} + 1199339176949\, p^{127}\, q^{99} + 74519\, q^{39}\, p^{9}$$
$$+ 3391902005287\, p^{98}\, q^{122} + 1314418242156\, p^{123}\, q^{112} + 453361971156\, p^{124}\, q^{120} + 609661909261\, p^{123}\, q^{119} + 59666250\, q^{44}\, p^{19}$$
$$+ 856097\, q^{41}\, p^{12} + 3394522\, q^{42}\, p^{14} + 40013840\, q^{45}\, p^{18} + 277033362\, q^{46}\, p^{22} + 147468447\, q^{44}\, p^{21} + 94828431\, q^{44}\, p^{20}$$
$$+ 163462282\, q^{45}\, p^{21} + 1298290349\, q^{46}\, p^{26} + 619864689\, q^{46}\, p^{24} + 3901144\, q^{44}\, p^{14} + 7783\, q^{96}\, p^{13} + 904032605\, q^{46}\, p^{25}$$
$$+ 1837654754\, q^{46}\, p^{27} + 23810542\, q^{45}\, p^{17} + 961184\, q^{43}\, p^{12} + 418072411\, q^{46}\, p^{23} + 146926023\, p^{144}\, q^{140} + 9896073702255\, p^{109}\, q^{110}$$
$$+ 8944274880998\, p^{111}\, q^{109} + 1731253394\, q^{118}\, p^{39} + 84910158100\, q^{122}\, p^{56} + 104902278601\, q^{122}\, p^{57} + 189077054420\, q^{122}\, p^{60}$$
$$+ 156507729268\, q^{122}\, p^{59} + 319744059523\, q^{122}\, p^{63} + 439013417411\, q^{122}\, p^{65} + 400668831207\, q^{123}\, p^{66} + 226813375266\, q^{122}\, p^{61}$$
$$+ 375873261323\, q^{122}\, p^{64} + 270209110025\, q^{122}\, p^{62} + 128611476601\, q^{122}\, p^{58} + 4152607024783\, p^{97}\, q^{121} + 65139535179\, p^{128}\, q^{128}$$
$$+ 29298270502\, p^{103}\, q^{140} + 29563900225\, p^{102}\, q^{140} + 1175011809238\, p^{100}\, q^{127} + 1199339176949\, p^{99}\, q^{127} + 1218201963358\, p^{98}\, q^{127}$$
$$+ 579689022\, q^{119}\, p^{37} + 878037540\, q^{119}\, p^{38} + 1307971123\, q^{119}\, p^{39} + 16368\, p^{57}\, q^{8} + 160931636640\, q^{100}\, p^{42} + 13342227471\, p^{141}\, q^{88}$$
$$+ 28336900325\, p^{122}\, q^{136} + 19271834036\, p^{123}\, q^{137} + 2\, p^{68}\, q^{5} + 90051600\, p^{152}\, q^{97} + 70243917\, p^{153}\, q^{116} + 11828738\, p^{154}\, q^{133}$$
$$+ 14904669\, p^{154}\, q^{131} + 115023687867\, p^{133}\, q^{116} + 348771481729\, p^{132}\, q^{94} + 173094172672\, p^{130}\, q^{74} + 435372405287\, p^{119}\, q^{125}$$
$$+ 48949853\, p^{147}\, q^{69} + 4589\, p^{121}\, q^{21} + 95849787\, p^{151}\, q^{90} + 47\, p^{166}\, q^{112} + 1613\, p^{116}\, q^{18} + 656318\, p^{143}\, q^{47} + 26840414\, p^{152}\, q^{85}$$
$$+ 5648670\, p^{156}\, q^{130} + 10111\, p^{130}\, q^{27} + 33314837\, p^{153}\, q^{93} + 21658674\, p^{155}\, q^{115} + 30\, p^{104}\, q^{12} + 13158\, p^{131}\, q^{28} + 21851731\, p^{150}\, q^{75}$$
$$+ 338\, p^{116}\, q^{17} + 55102\, p^{137}\, q^{35} + 112777\, p^{157}\, q^{151} + 920388761\, p^{148}\, q^{114} + 85530734\, p^{141}\, q^{57} + 649373163\, p^{108}\, q^{31}$$
$$+ 686104730141\, p^{89}\, q^{129} + 1501384372\, p^{146}\, q^{89} + 165608\, q^{118}\, p^{23} + 394459\, q^{118}\, p^{24} + 13314976\, q^{127}\, p^{35} + 24\, p^{167}\, q^{121} + 2\, p^{164}\, q^{88}$$
$$+ 753\, p^{67}\, q^{7} + 1280726\, p^{127}\, q^{31} + 25373569\, p^{133}\, q^{42} + 155814\, p^{122}\, q^{25} + 16696288\, p^{132}\, q^{40} + 996466648\, p^{140}\, q^{65} + 3936928\, q^{123}\, p^{30}$$
$$+ 7625598071\, q^{132}\, p^{59} + 4821130817\, q^{132}\, p^{57} + 51079561915136\, p^{97}\, q^{99} + 4766886\, q^{111}\, p^{24} + 50172019131032\, p^{96}\, q^{100}$$

$$+ 33469754937\, p^{38}\, q^{45} + 838700926160\, p^{58}\, q^{46} + 160422109951\, p^{115}\, q^{132} + 148995859618\, p^{113}\, q^{133} + 132276002794\, p^{117}\, q^{132}$$
$$+ 146074292727\, p^{116}\, q^{132} + q^{78}\, p^{6} + 4166506404903\, p^{104}\, q^{59} + 48496431321\, p^{39}\, q^{46} + 3485525\, p^{147}\, q^{59} + 53178\, p^{135}\, q^{33}$$
$$+ 9588439514944\, p^{88}\, q^{116} + 11204819677781\, p^{56}\, q^{83} + 921548445\, p^{104}\, q^{30} + 335\, p^{61}\, q^{6} + q^{60}\, p^{4} + 73405814\, q^{149}\, p^{78} + 1279\, p^{155}\, q^{60}$$
$$+ 5720793924\, p^{108}\, q^{36} + 456951292\, p^{105}\, q^{29} + 35829396087\, p^{111}\, q^{43} + 6439737398\, p^{143}\, q^{115} + 94412026\, p^{131}\, q^{43}$$
$$+ 14227511918\, p^{141}\, q^{89} + 3073877303\, p^{144}\, q^{120} + 1165\, p^{101}\, q^{13} + 15455920077\, p^{135}\, q^{128} + 250293457\, p^{149}\, q^{126}$$
$$+ 8148113804418\, p^{111}\, q^{110} + 1683575965299\, q^{121}\, p^{74} + 408223\, p^{79}\, q^{13} + 145042984\, p^{142}\, q^{61} + 165917\, p^{120}\, q^{24} + 5209924425\, p^{141}\, q^{78}$$
$$+ 9180439963\, p^{143}\, q^{98} + 349432771859\, p^{128}\, q^{116} + 58083748098692\, p^{81}\, q^{98} + 3636713188\, q^{130}\, p^{53} + 2771666014\, q^{130}\, p^{52}$$
$$+ 4725522797\, q^{130}\, p^{54} + 81703360627879\, p^{91}\, q^{92} + 2077136386946\, p^{51}\, q^{97} + 3384150158591\, p^{118}\, q^{75} + 5263806128935\, p^{119}\, q^{85}$$
$$+ 2722493057177\, p^{106}\, q^{58} + 157721129635\, p^{106}\, q^{45} + 11715786336899\, p^{113}\, q^{102} + 24872337661\, p^{104}\, q^{38} + 12871004176999\, p^{113}\, q^{100}$$
$$+ 17442758918997\, p^{112}\, q^{89} + 11694499301809\, p^{111}\, q^{76} + 12550706010001\, p^{111}\, q^{77} + 15423370080894\, p^{113}\, q^{91}$$
$$+ 13766809162453\, p^{112}\, q^{81} + 7595399056788\, p^{111}\, q^{71} + 57124054866\, p^{105}\, q^{41} + 14227787037\, p^{103}\, q^{36} + 25436510522927\, p^{109}\, q^{90}$$
$$+ 15035233457857\, p^{108}\, q^{74} + 13844251044570\, p^{108}\, q^{73} + 9376720\, p^{88}\, q^{18} + 21622373041326\, p^{110}\, q^{95} + 22029770665610\, p^{110}\, q^{94}$$
$$+ 12316837231569\, p^{111}\, q^{105} + 14659802384331\, p^{110}\, q^{104} + 43356\, p^{109}\, q^{18} + 20087762447\, p^{138}\, q^{79} + 7269\, p^{104}\, q^{15} + 12583\, p^{106}\, q^{16}$$
$$+ 1837654754\, p^{144}\, q^{125} + 177637315\, p^{133}\, q^{47} + 7140679034428\, p^{102}\, q^{61} + 9435786928435\, p^{102}\, q^{63} + 3939907593\, p^{109}\, q^{145}$$
$$+ 4191488785\, p^{116}\, q^{144} + 2336\, q^{95}\, p^{12} + 22397\, q^{97}\, p^{14} + 577\, q^{94}\, p^{11} + 6562739882323\, p^{110}\, q^{113} + 7185949839027\, p^{109}\, q^{113}$$
$$+ 5961333663104\, p^{111}\, q^{113} + 36453534824432\, p^{70}\, q^{95} + 33354888387397\, p^{69}\, q^{95} + 5319899151039\, p^{56}\, q^{97} + 3429943\, q^{101}\, p^{20}$$
$$+ 389368\, p^{155}\, q^{76} + 4\, p^{116}\, q^{15} + 8\, p^{118}\, q^{16} + 538604\, p^{156}\, q^{82} + 66426\, p^{148}\, q^{51} + 956885\, p^{155}\, q^{80} + 55490619431699\, p^{75}\, q^{94}$$
$$+ 22566515061408\, p^{103}\, q^{72} + 381064651\, p^{150}\, q^{103} + 3570071848480\, p^{101}\, q^{56} + 5429436\, p^{143}\, q^{152} + 2152455\, p^{147}\, q^{152}$$
$$+ 20972726969830\, p^{85}\, q^{110} + 12175951358024\, p^{102}\, q^{65} + 8233239880884\, p^{102}\, q^{62} + 37098365963680\, p^{104}\, q^{82}$$
$$+ 39418595806632\, p^{104}\, q^{84} + 18669914290639\, p^{77}\, q^{108} + 109118710\, p^{148}\, q^{135} + 1487204186\, p^{147}\, q^{113} + 1707743829\, p^{147}\, q^{108}$$
$$+ 65604600\, p^{138}\, q^{51} + 4237738\, p^{154}\, q^{140} + 4244294643708\, p^{101}\, q^{57} + 38334032319106\, p^{104}\, q^{83} + 44243177295745\, p^{103}\, q^{93}$$
$$+ 3072800\, q^{110}\, p^{23} + 48694107559931\, p^{95}\, q^{101} + 1030566147895\, p^{104}\, q^{127} + 463779827034\, p^{86}\, q^{130} + 955992379818\, p^{99}\, q^{128}$$
$$+ 414675804325\, p^{84}\, q^{130} + 727380063794\, p^{91}\, q^{129} + 770868493901\, p^{95}\, q^{129} + 756156819874\, p^{93}\, q^{129} + 765340630551\, p^{94}\, q^{129}$$
$$+ 772662577360\, p^{96}\, q^{129} + 528269881635\, p^{89}\, q^{130} + 486774892775\, p^{87}\, q^{130} + 41414903685746\, p^{92}\, q^{104} + 34984234517776\, p^{90}\, q^{106}$$

$$+ 13036772\, p^{123}\, q^{32} + 37055872515\, p^{138}\, q^{86} + 2356054860\, p^{141}\, q^{130} + 40605240882\, p^{139}\, q^{104} + 996869070484\, p^{105}\, q^{52}$$
$$+ 18856548708071\, p^{103}\, q^{70} + 46644973\, q^{153}\, p^{97} + 50025093\, q^{153}\, p^{98} + 56590539\, q^{153}\, p^{100} + 62634311\, q^{153}\, p^{102} + 59697611\, q^{153}\, p^{101}$$
$$+ 65362972\, q^{153}\, p^{103} + 70048753\, q^{153}\, p^{105} + 67845626\, q^{153}\, p^{104} + 16243822427059\, p^{63}\, q^{96} + 12479526448069\, p^{61}\, q^{96}$$
$$+ 10840739027431\, p^{60}\, q^{96} + 43928478\, q^{124}\, p^{35} + 71476847\, q^{124}\, p^{36} + 27480723814718\, p^{67}\, q^{95} + 394459\, q^{147}\, p^{53} + 868832\, q^{147}\, p^{55}$$
$$+ 258461\, q^{147}\, p^{52} + 590594\, q^{147}\, p^{54} + 125923599\, q^{151}\, p^{93} + 7920\, p^{160}\, q^{85} + 10482\, p^{164}\, q^{130} + p^{138}\, q^{27} + 11932\, p^{161}\, q^{93} + 134\, p^{151}\, q^{47}$$
$$+ 90665556811520\, p^{82}\, q^{83} + 4745\, q^{114}\, p^{18} + q^{95}\, p^{9} + 22\, q^{96}\, p^{10} + 3\, q^{94}\, p^{9} + 411\, q^{113}\, p^{16} + 137791720976\, p^{79}\, q^{36}$$
$$+ 18437136154913\, p^{85}\, q^{111} + 348188250\, p^{115}\, q^{150} + 334072170\, p^{116}\, q^{150} + 43441184566120\, p^{70}\, q^{73} + 23525370433129\, p^{107}\, q^{101}$$
$$+ 38963833616289\, p^{76}\, q^{67} + 43\, q^{77}\, p^{7} + 38802837606613\, p^{69}\, q^{72} + 37870840395910\, p^{68}\, q^{73} + 28051590811368\, p^{64}\, q^{74}$$
$$+ 40664199457664\, p^{73}\, q^{69} + 22423\, p^{53}\, q^{8} + 2205\, p^{47}\, q^{6} + 73675\, q^{101}\, p^{16} + 33552655866685\, p^{67}\, q^{72} + 36175318476261\, p^{68}\, q^{72}$$
$$+ 39277137750348\, p^{70}\, q^{71} + 13859\, p^{123}\, q^{23} + 3118599525614\, p^{122}\, q^{101} + 3445150922762\, p^{121}\, q^{84} + 996869070484\, p^{119}\, q^{66}$$
$$+ 476922649356\, p^{118}\, q^{60} + 1329730269\, p^{139}\, q^{136} + 104607928\, q^{45}\, p^{20} + 65482964\, q^{45}\, p^{19} + 6157437\, q^{42}\, p^{15} + 7185070\, q^{44}\, p^{15}$$
$$+ 436424\, q^{42}\, p^{11} + 3991331153\, q^{47}\, p^{29} + 414946\, q^{41}\, p^{11} + 1917374\, q^{43}\, p^{13} + 36660827\, q^{44}\, p^{18} + 83671133848396\, p^{84}\, q^{92}$$
$$+ 3649856\, q^{43}\, p^{14} + 21944471\, q^{44}\, p^{17} + 13677911765\, q^{118}\, p^{45} + 18491991459\, q^{118}\, p^{46} + 806981797\, q^{45}\, p^{25} + 1628807510\, q^{45}\, p^{27}$$
$$+ 2565799347\, q^{46}\, p^{28} + 376121418\, q^{45}\, p^{23} + 111895428592\, p^{73}\, q^{35} + 7055281435407\, p^{75}\, q^{53} + 1231342314683\, p^{74}\, q^{44}$$
$$+ 1016658\, p^{72}\, q^{13} + 2302101\, p^{73}\, q^{14} + 32718161751151\, p^{76}\, q^{65} + 36673312023241\, p^{77}\, q^{66} + 19225860627203\, p^{76}\, q^{60}$$
$$+ 13053424992511\, p^{76}\, q^{57} + 8267349226377\, p^{75}\, q^{54} + 1920751952776\, p^{75}\, q^{46} + 9785556165554\, p^{76}\, q^{55} + 12379\, p^{117}\, q^{20}$$
$$+ 31925839315871\, p^{67}\, q^{71} + 195326995427\, p^{109}\, q^{133} + 25436510522927\, p^{62}\, q^{81} + 9850705\, p^{152}\, q^{140} + 17326863\, p^{150}\, q^{141}$$
$$+ 4495789965\, p^{134}\, q^{60} + 2753911649\, p^{141}\, q^{129} + 6133093477\, p^{141}\, q^{123} + 87441\, p^{110}\, q^{19} + 558816\, p^{115}\, q^{23} + 39419816649\, p^{139}\, q^{95}$$
$$+ 8626287\, p^{121}\, q^{30} + 22665492\, p^{123}\, q^{33} + 42038783707\, p^{139}\, q^{101} + 12692481633\, p^{140}\, q^{119} + 115389281853\, q^{118}\, p^{53}$$
$$+ 144622136031\, q^{118}\, p^{54} + 31487916294\, q^{117}\, p^{47} + 90205427784\, q^{117}\, p^{51} + 114705294444\, q^{117}\, p^{52} + 20598287019\, p^{71}\, q^{30}$$
$$+ 87580847444132\, p^{80}\, q^{85} + 938125332759\, p^{100}\, q^{128} + 439653183234\, p^{85}\, q^{130} + 508361101900\, p^{88}\, q^{130} + 978312098030\, p^{97}\, q^{128}$$
$$+ 84598256605950\, p^{79}\, q^{86} + 37870840395910\, p^{73}\, q^{68} + 249918490982\, p^{123}\, q^{63} + 1832316881190\, p^{59}\, q^{50} + 10002623058925\, p^{78}\, q^{113}$$
$$+ 15605494654748\, p^{84}\, q^{112} + 493280686\, p^{137}\, q^{142} + p^{170}\, q^{153} + 5\, p^{167}\, q^{115} + 3\, p^{165}\, q^{96} + 83574422\, q^{152}\, p^{123} + 251152174\, q^{147}\, p^{78}$$
$$+ 232692990\, p^{122}\, q^{150} + 250567468\, p^{121}\, q^{150} + 318826288\, p^{117}\, q^{150} + 302650187\, p^{118}\, q^{150} + 63785683\, q^{143}\, p^{60} + 401523583405\, q^{97}\, p^{44}$$

$$+ 253790463\, p^{140}\, q^{142} + 69152049063633\, p^{88}\, q^{97} + 22515918048844\, p^{100}\, q^{108} + 25035257520223\, p^{93}\, q^{109} + 218983\, q^{101}\, p^{17}$$
$$+ 1472555\, q^{101}\, p^{19} + 1143627678189\, q^{119}\, p^{67} + 636263571138\, q^{119}\, p^{63} + 743645972032\, q^{119}\, p^{64} + 863671768998\, q^{119}\, p^{65}$$
$$+ 1304173321848\, q^{119}\, p^{68} + 996869070484\, q^{119}\, p^{66} + 53\, q^{99}\, p^{11} + 6\, q^{98}\, p^{10} + 590941\, q^{101}\, p^{18} + 5935171\, q^{102}\, p^{21}$$
$$+ 44243177295745\, p^{93}\, q^{103} + 46695799472069\, p^{94}\, q^{102} + 1537138073\, p^{133}\, q^{54} + 810342587\, p^{144}\, q^{131} + 555136\, p^{121}\, q^{26}$$
$$+ 7275175790\, p^{139}\, q^{74} + 101216\, p^{117}\, q^{22} + 2995831767\, p^{138}\, q^{66} + 46695799472069\, p^{102}\, q^{94} + 96291376\, p^{129}\, q^{41} + 6963757291\, p^{135}\, q^{64}$$
$$+ 19531536746\, p^{141}\, q^{106} + 14170943908\, p^{137}\, q^{73} + 22287066048\, p^{138}\, q^{80} + 29657590979\, p^{140}\, q^{100} + 571160858\, p^{131}\, q^{48}$$
$$+ 17052668477\, p^{141}\, q^{110} + 29443238033\, p^{138}\, q^{83} + 5840187995184\, p^{110}\, q^{114} + 28405990841717\, p^{103}\, q^{75} + 4885708\, p^{87}\, q^{17}$$
$$+ 1830948412\, p^{126}\, q^{46} + 4\, p^{44}\, q^{3} + 2081700062852\, q^{119}\, p^{72} + 1666564987913\, q^{119}\, p^{70} + 319188798188\, q^{119}\, p^{59}$$
$$+ 91301952774\, q^{118}\, p^{52} + 1248585653\, q^{113}\, p^{35} + 4882179816\, q^{85}\, p^{28} + 7578004844\, q^{85}\, p^{29} + 200189839508\, q^{112}\, p^{50}$$
$$+ 35034940777984\, p^{73}\, q^{99} + 147088774\, q^{83}\, p^{21} + 1266759336\, q^{84}\, p^{25} + 2085891599\, q^{84}\, p^{26} + 4879507113817\, p^{116}\, q^{75}$$
$$+ 156507729268\, p^{112}\, q^{49} + 7486631033952\, p^{117}\, q^{85} + 5777664364611\, p^{52}\, q^{83} + 74783701\, p^{58}\, q^{18} + 11211560\, p^{56}\, q^{15}$$
$$+ 51662787346\, p^{64}\, q^{33} + 650353724\, p^{61}\, q^{22} + 2595449030\, p^{62}\, q^{25} + 8583165855541\, p^{68}\, q^{56} + 14012117882037\, p^{68}\, q^{60}$$
$$+ 9787021682048\, p^{68}\, q^{57} + 22800785302721\, p^{68}\, q^{65} + 26358826584781\, p^{69}\, q^{66} + 134\, q^{124}\, p^{20} + 3536473290\, p^{29}\, q^{46}$$
$$+ 1357035099\, q^{56}\, p^{24} + 21362391\, q^{55}\, p^{16} + 38414833\, q^{54}\, p^{17} + 11004052\, q^{54}\, p^{15} + 20956918\, q^{54}\, p^{16} + 3053864474\, q^{56}\, p^{26}$$
$$+ 7356532106\, p^{31}\, q^{47} + 4815022290\, p^{30}\, q^{46} + 52151480655237\, p^{71}\, q^{89} + 59937953610192\, p^{73}\, q^{89} + 67505735396191\, p^{75}\, q^{89}$$
$$+ 63769367509757\, p^{74}\, q^{89} + 71105494490594\, p^{76}\, q^{89} + 77729306295177\, p^{78}\, q^{89} + 74527002827823\, p^{77}\, q^{89}$$
$$+ 75699008054152\, p^{78}\, q^{90} + 30791324280281\, p^{74}\, q^{65} + 34776699406662\, p^{75}\, q^{66} + 18295175809394\, p^{74}\, q^{60}$$
$$+ 12509099330740\, p^{74}\, q^{57} + 133173360\, p^{89}\, q^{22} + 13712102549925\, p^{105}\, q^{69} + 11037836066316\, p^{104}\, q^{66} + 144686\, p^{157}\, q^{150}$$
$$+ 21653980\, p^{153}\, q^{89} + 20956918\, p^{155}\, q^{117} + 39038835\, p^{154}\, q^{107} + 12739359\, p^{151}\, q^{76} + 25980597\, p^{151}\, q^{80} + 122\, p^{112}\, q^{15} + 218\, p^{114}\, q^{16}$$
$$+ 17238702\, p^{152}\, q^{82} + 1767661\, p^{144}\, q^{51} + 675021551897\, p^{108}\, q^{128} + 2184485430089\, p^{50}\, q^{61} + 7348571072\, p^{143}\, q^{92}$$
$$+ 258481248\, p^{146}\, q^{134} + 525894\, p^{126}\, q^{29} + 3296410015747\, p^{54}\, q^{59} + 431152014883\, p^{41}\, q^{63} + 3030\, p^{32}\, q^{6} + 806981797\, p^{45}\, q^{25}$$
$$+ 1628807510\, p^{45}\, q^{27} + 147468447\, p^{44}\, q^{21} + 555430136\, p^{45}\, q^{24} + 1154722114\, p^{45}\, q^{26} + 11356910917\, p^{46}\, q^{33} + 4815022290\, p^{46}\, q^{30}$$
$$+ 3536473290\, p^{46}\, q^{29} + 8624160336\, p^{46}\, q^{32} + 6479893149\, p^{46}\, q^{31} + 14804533568\, p^{46}\, q^{34} + 19111698328\, p^{46}\, q^{35}$$
$$+ 28111598860\, p^{47}\, q^{36} + 343536\, p^{38}\, q^{11} + 743994\, p^{39}\, q^{12} + 162097\, p^{38}\, q^{10} + 1553001\, p^{40}\, q^{13} + 30978707110098\, p^{87}\, q^{107}$$

$$+ 634510266263\, p^{42}\, q^{84} + 2995831767\, q^{105}\, p^{33} + 6843740686\, q^{105}\, p^{35} + 12267059715\, q^{106}\, p^{37} + 4566513866\, q^{105}\, p^{34}$$
$$+ 25514896714\, q^{85}\, p^{32} + 590\, q^{58}\, p^{6} + 14879\, q^{58}\, p^{8} + 3007\, q^{59}\, p^{7} + 10667\, q^{61}\, p^{8} + 2921509791\, p^{142}\, q^{77} + 2053330\, q^{123}\, p^{29} + 47\, p^{24}\, q^{3}$$
$$+ 33388496\, p^{43}\, q^{18} + 10784583\, p^{42}\, q^{16} + 44975678753\, p^{47}\, q^{38} + 85472758966\, p^{47}\, q^{41} + 126134855540\, p^{47}\, q^{43} + 104220846200\, p^{47}\, q^{42}$$
$$+ 56162457661\, p^{47}\, q^{39} + 87619982735887\, p^{87}\, q^{91} + 7640491491253\, p^{105}\, q^{64} + 2076286016397\, p^{104}\, q^{55} + 73926201226431\, p^{91}\, q^{95}$$
$$+ 42354\, p^{99}\, q^{15} + 1919\, p^{62}\, q^{7} + 81621633409\, p^{134}\, q^{117} + 2186917\, p^{135}\, q^{39} + 315025\, p^{131}\, q^{32} + 871203584\, p^{92}\, q^{26}$$
$$+ 5319899151039\, p^{115}\, q^{74} + 8393791331341\, p^{117}\, q^{95} + 8480996403539\, p^{117}\, q^{94} + 4993667701587\, p^{118}\, q^{105} + 6139180834639\, p^{117}\, q^{104}$$
$$+ 45826345134822\, p^{103}\, q^{90} + 5880990477976\, p^{101}\, q^{59} + 2074729\, p^{136}\, q^{40} + 124074779\, p^{144}\, q^{65} + 3122937\, p^{137}\, q^{42}$$
$$+ 1369273510643\, p^{99}\, q^{50} + 29119970311846\, p^{102}\, q^{74} + 15354973953039\, p^{102}\, q^{67} + 27000319061442\, p^{102}\, q^{73}$$
$$+ 45922212132469\, p^{103}\, q^{89} + 33354888387397\, p^{102}\, q^{76} + 35427761483918\, p^{102}\, q^{77} + 41859447522097\, p^{104}\, q^{91}$$
$$+ 39253878261126\, p^{103}\, q^{81} + 64768249934804\, p^{90}\, q^{98} + 872614557488\, p^{99}\, q^{48} + 13863411977546\, p^{98}\, q^{113} + 606611516\, p^{124}\, q^{41}$$
$$+ 684644\, p^{66}\, q^{12} + 2158335588648\, p^{83}\, q^{47} + 402854329677\, p^{82}\, q^{40} + 304158654179\, p^{82}\, q^{39} + 90051600\, p^{74}\, q^{19}$$
$$+ 48028737998014\, p^{86}\, q^{69} + 51997093954632\, p^{86}\, q^{70} + 629\, p^{106}\, q^{14} + 12306029782\, p^{130}\, q^{58} + 10453010597389\, p^{104}\, q^{113}$$
$$+ 7333027895495\, p^{110}\, q^{112} + 8129499983\, q^{110}\, p^{38} + 66335335513\, p^{81}\, q^{34} + 528269881635\, p^{82}\, q^{41} + 3176858661\, p^{78}\, q^{26}$$
$$+ 48991148548\, p^{80}\, q^{33} + 72735754272257\, p^{96}\, q^{87} + 2805483951\, p^{144}\, q^{121} + 8560\, p^{110}\, q^{17} + 3308297103\, q^{114}\, p^{38}$$
$$+ 1901235709\, q^{113}\, p^{36} + 6573472244\, p^{133}\, q^{60} + 3662217430\, p^{140}\, q^{129} + 8301239224\, p^{140}\, q^{123} + 126669\, p^{109}\, q^{19} + 809201\, p^{114}\, q^{23}$$
$$+ 55919768180\, p^{138}\, q^{95} + 12465751\, p^{120}\, q^{30} + 32766430\, p^{122}\, q^{33} + 58759225647\, p^{138}\, q^{101} + 17169354034\, p^{139}\, q^{119}$$
$$+ 4821130817\, q^{114}\, p^{39} + 148057\, p^{127}\, q^{28} + 4721208223948\, p^{71}\, q^{114} + 8685172347442\, p^{76}\, q^{113} + 6846550779851\, p^{57}\, q^{96}$$
$$+ 22151627524065\, p^{65}\, q^{95} + 572707418546\, p^{115}\, q^{126} + 728228321386\, p^{110}\, q^{127} + 792874262947\, p^{105}\, q^{128} + 2075223345\, p^{82}\, q^{144}$$
$$+ 6548914741\, p^{90}\, q^{143} + 239264771\, p^{136}\, q^{52} + 3002048203\, p^{140}\, q^{71} + 10616679783\, p^{142}\, q^{91} + 6378748920\, p^{142}\, q^{84}$$
$$+ 572265039\, p^{136}\, q^{55} + 8403529535\, p^{143}\, q^{95} + 1672167\, p^{125}\, q^{30} + 805315850\, p^{137}\, q^{58} + 831474863321\, p^{119}\, q^{121}$$
$$+ 18126104438\, p^{135}\, q^{127} + 19446881976\, p^{134}\, q^{128} + 36851334793\, p^{131}\, q^{128} + 2\, p^{166}\, q^{103} + 16\, p^{168}\, q^{134} + 345203074031\, p^{123}\, q^{123}$$
$$+ 200189839508\, p^{121}\, q^{59} + 2055977\, p^{103}\, q^{20} + 570773053272\, p^{127}\, q^{113} + 90205427784\, p^{120}\, q^{54} + 35727567594417\, q^{104}\, p^{81}$$
$$+ 40337772420494\, q^{104}\, p^{85} + 39418595806632\, q^{104}\, p^{84} + 41991504230182\, q^{104}\, p^{88} + 42105513171711\, q^{104}\, p^{90}$$
$$+ 38298144935379\, q^{105}\, p^{91} + 41079267331968\, q^{104}\, p^{86} + 42149729384371\, q^{104}\, p^{89} + 37098365963680\, q^{104}\, p^{82}$$

$$+ 21279514499975\, p^{99}\, q^{109} + 22132229705385\, p^{98}\, q^{109} + 10407612\, p^{156}\, q^{109} + 10812938\, p^{156}\, q^{118} + 10395108\, p^{152}\, q^{79}$$
$$+ 3447895\, p^{149}\, q^{64} + 7146457\, p^{152}\, q^{77} + 5147992\, p^{157}\, q^{121} + 87623617\, p^{145}\, q^{141} + 3543706488254\, p^{94}\, q^{122} + 4009018584\, p^{145}\, q^{99}$$
$$+ 849137464\, q^{143}\, p^{72} + 714530835\, q^{143}\, p^{71} + 53\, q^{125}\, p^{20} + 104607928\, p^{151}\, q^{126} + 3335488803\, p^{143}\, q^{82} + 19669260016480\, p^{88}\, q^{61}$$
$$+ 25127105406724\, p^{88}\, q^{63} + 767\, q^{140}\, p^{33} + 8106940380565\, q^{67}\, p^{56} + 217425320110\, q^{133}\, p^{88} + 1757706895651\, p^{58}\, q^{109}$$
$$+ 5478097004\, p^{76}\, q^{27} + 2598676682348\, p^{58}\, q^{53} + 35713648360\, p^{47}\, q^{37} + 32433561409\, q^{91}\, p^{34} + 222\, p^{27}\, q^{4} + 886\, p^{30}\, q^{5}$$
$$+ 3976917477520\, p^{56}\, q^{100} + 64016\, p^{36}\, q^{9} + 9337\, p^{34}\, q^{7} + 25378\, p^{35}\, q^{8} + 151550610607\, p^{47}\, q^{44} + 210598336230\, p^{48}\, q^{45}$$
$$+ 69559922955\, p^{47}\, q^{40} + 18308581\, p^{42}\, q^{17} + 3137824\, p^{41}\, q^{14} + 85446061\, p^{43}\, q^{20} + 54041563\, p^{43}\, q^{19} + 224784665\, p^{44}\, q^{22}$$
$$+ 336347193\, p^{44}\, q^{23} + 2266698709\, p^{45}\, q^{28} + 5648670\, p^{41}\, q^{15} + 8904\, p^{47}\, q^{7} + 12871004176999\, p^{71}\, q^{58} + 14557999680888\, p^{71}\, q^{59}$$
$$+ 41607145225\, p^{39}\, q^{45} + 59934769062\, p^{40}\, q^{46} + 726535974517\, p^{42}\, q^{70} + 6\, q^{74}\, p^{6} + 9818139896\, p^{32}\, q^{47} + 6479893149\, p^{31}\, q^{46}$$
$$+ 66848471414\, p^{133}\, q^{121} + 474108\, p^{44}\, q^{11} + 1053574\, p^{45}\, q^{12} + 304158654179\, p^{39}\, q^{82} + 18800385199896\, p^{60}\, q^{75} + 274\, q^{62}\, p^{6}$$
$$+ 210598336230\, p^{123}\, q^{126} + 256034542756\, p^{117}\, q^{129} + 140567\, p^{60}\, q^{10} + 343409201568\, q^{109}\, p^{50} + 40895576823521\, p^{75}\, q^{68}$$
$$+ 7386693933485\, p^{113}\, q^{74} + 11336788208226\, p^{115}\, q^{95} + 11483035146982\, p^{115}\, q^{94} + 6658302896144\, p^{116}\, q^{105}$$
$$+ 8106940380565\, p^{115}\, q^{104} + 456778489938\, p^{110}\, q^{52} + 63253409626\, p^{108}\, q^{43} + 824774919\, p^{102}\, q^{29} + 6758600188960\, p^{113}\, q^{73}$$
$$+ 73675\, p^{101}\, q^{16} + 3091244288095\, p^{118}\, q^{74} + 5095137680371\, p^{120}\, q^{95} + 5127969902751\, p^{120}\, q^{94} + 3092901205465\, p^{121}\, q^{105}$$
$$+ 3860900923208\, p^{120}\, q^{104} + 31894641389415\, p^{74}\, q^{101} + 30453\, q^{96}\, p^{14} + 84262509122126\, p^{92}\, q^{89} + 22495562692246\, p^{61}\, q^{82}$$
$$+ 219\, q^{137}\, p^{29} + 154967\, q^{140}\, p^{40} + 38\, p^{141}\, q^{168} + 9\, p^{117}\, q^{167} + 19777114186\, q^{120}\, p^{48} + 43968435320531\, p^{71}\, q^{72}$$
$$+ 41409525746597\, p^{70}\, q^{72} + 35088072397726\, p^{67}\, q^{73} + 37068562341030\, p^{70}\, q^{70} + 12\, q^{80}\, p^{7} + 155320116\, q^{144}\, p^{66}$$
$$+ 422971676\, q^{144}\, p^{71} + 289988295\, q^{144}\, p^{69} + 237390890\, q^{144}\, p^{68} + 192803317\, q^{144}\, p^{67} + 351533161\, q^{144}\, p^{70} + 787476496532\, q^{108}\, p^{53}$$
$$+ 510038746091\, q^{108}\, p^{51} + 1080617218738\, p^{46}\, q^{61} + 633277017510\, p^{43}\, q^{62} + 6\, p^{24}\, q^{2} + 340255483720\, p^{40}\, q^{63} + 95288\, p^{133}\, q^{32}$$
$$+ 613000\, p^{138}\, q^{40} + 37024695\, p^{146}\, q^{65} + 918301\, p^{139}\, q^{42} + 668608\, p^{137}\, q^{39} + 25\, p^{34}\, q^{3} + 51307123406\, p^{40}\, q^{45} + 73489714165\, p^{41}\, q^{46}$$
$$+ 49688820414\, p^{108}\, q^{138} + 3070\, p^{162}\, q^{94} + 3888\, p^{164}\, q^{114} + 44\, p^{47}\, q^{4} + 9785556165554\, p^{95}\, q^{116} + 9626083454292\, p^{96}\, q^{116}$$
$$+ 105582672\, q^{80}\, p^{20} + 248563675844\, p^{127}\, q^{70} + 202993495\, p^{118}\, q^{34} + 27151178\, p^{114}\, q^{28} + 14746198\, q^{46}\, p^{16} + 1360\, p^{64}\, q^{7}$$
$$+ 659525816\, p^{94}\, q^{26} + 7249684734009\, p^{118}\, q^{93} + 891977467104\, p^{114}\, q^{59} + 72474\, p^{131}\, q^{30} + 36881117792\, p^{117}\, q^{137}$$
$$+ 395814183\, p^{150}\, q^{110} + 2312\, q^{132}\, p^{27} + 71442990\, q^{46}\, p^{19} + 25683924\, q^{46}\, p^{17} + 29049137152710\, p^{84}\, q^{107} + 2914938441180\, p^{121}\, q^{106}$$

$$+ 417338865325\, p^{90} q^{131} + 7872469963888\, p^{102} q^{116} + 856731\, p^{157} q^{141} + 20516734\, p^{155} q^{108} + 21906564\, p^{155} q^{113} + 5544149\, p^{148} q^{63}$$
$$+ 768755\, p^{144} q^{49} + 95288\, p^{139} q^{38} + 2394\, p^{124} q^{22} + 3337434\, p^{156} q^{135} + 246659414\, q^{110} p^{30} + 24595704\, q^{105} p^{24}$$
$$+ 4683549503559\, q^{120} p^{87} + 3994310265364\, q^{120} p^{83} + 251152174\, p^{147} q^{78} + 3364235595648\, q^{120} p^{80} + 3145086442165\, q^{120} p^{79}$$
$$+ 890400715557\, p^{110} q^{126} + 823960490395\, p^{111} q^{126} + 554194496236\, p^{117} q^{125} + 11478226999\, p^{131} q^{134} + 9489397265\, p^{132} q^{134}$$
$$+ 6337915717\, p^{134} q^{134} + 5117758710\, p^{135} q^{134} + 7785671836\, p^{133} q^{134} + 7692742\, q^{45} p^{15} + 4144981\, q^{45} p^{14} + 46838175\, q^{47} p^{18}$$
$$+ 125062964\, q^{47} p^{20} + 77493544\, q^{47} p^{19} + 23592263117526\, p^{109} q^{96} + 10460\, p^{71} q^{9} + 20116138\, p^{88} q^{19} + 15258\, q^{89} p^{12}$$
$$+ 1293524\, q^{94} p^{17} + 221195\, q^{93} p^{15} + 34479\, q^{91} p^{13} + 494514\, q^{94} p^{16} + 165268435\, q^{102} p^{26} + 407678381\, q^{103} p^{28} + 43417753\, q^{46} p^{18}$$
$$+ 114714131\, q^{46} p^{20} + 197299542\, q^{47} p^{21} + 43423762248\, q^{95} p^{36} + 2032182\, q^{44} p^{13} + 114497247830\, p^{36} q^{62} + 150280466948\, p^{37} q^{62}$$
$$+ 195326995427\, p^{38} q^{62} + 251498997326\, p^{39} q^{62} + 18210482179498\, p^{105} q^{107} + 2669141\, q^{102} p^{20} + 1130681\, q^{102} p^{19} + 446731\, q^{102} p^{18}$$
$$+ 918313605986\, p^{117} q^{122} + 180113075\, q^{46} p^{21} + 13757902\, q^{45} p^{16} + 428887341\, p^{120} q^{37} + 562057090100\, p^{130} q^{91}$$
$$+ 214373100887\, p^{128} q^{71} + 758429427\, q^{48} p^{24} + 304826567\, q^{47} p^{22} + 461959038\, q^{47} p^{23} + 9477600069160\, p^{56} q^{70}$$
$$+ 5450666577\, q^{47} p^{30} + 90327406292278\, p^{82} q^{87} + 227264264227\, p^{38} q^{82} + 251498997326\, p^{132} q^{109} + 239264771\, p^{119} q^{35}$$
$$+ 34976207622\, p^{126} q^{57} + 11345658240\, p^{124} q^{50} + 464494638394\, p^{123} q^{121} + 5622\, q^{101} p^{14} + 13476019125160\, p^{106} q^{70}$$
$$+ 126326530\, q^{121} p^{35} + 93988\, q^{81} p^{12} + 113156044\, p^{113} q^{30} + 11033302687\, p^{120} q^{46} + 299370153\, p^{115} q^{33} + 15158434885\, p^{121} q^{48}$$
$$+ 13936407733\, q^{72} p^{29} + 9360347871\, q^{72} p^{28} + 6181436699\, q^{72} p^{27} + 1832316881190\, p^{50} q^{59} + 1518307413146\, p^{45} q^{73}$$
$$+ 770697035481\, p^{42} q^{74} + 1218201963358\, p^{44} q^{73} + 764998351246\, p^{42} q^{73} + 969449507564\, p^{43} q^{73} + 261865107040\, q^{93} p^{41}$$
$$+ 20087762447\, q^{92} p^{33} + 13554427136\, q^{92} p^{32} + 347280946401\, q^{93} p^{42} + 319532878\, p^{142} q^{139} + 37931258836114\, p^{105} q^{92}$$
$$+ 2676095972982\, q^{88} p^{49} + 14597448020\, p^{58} q^{30} + 3228028504\, p^{57} q^{26} + 10357686978\, p^{58} q^{29} + 2561333567508\, p^{61} q^{51}$$
$$+ 2983949897996\, p^{61} q^{52} + 85069\, p^{46} q^{9} + 30653\, p^{45} q^{8} + 38414833\, q^{154} p^{117} + 35907865\, q^{154} p^{119} + 40218717\, q^{154} p^{115}$$
$$+ 37241337\, q^{154} p^{118} + 41346438\, q^{154} p^{111} + 39412351\, q^{154} p^{116} + 41390850\, q^{154} p^{112} + 2751909524386\, p^{91} q^{50} + 10667\, p^{61} q^{8}$$
$$+ 7904131798994\, p^{73} q^{54} + 1877391791688\, p^{73} q^{46} + 9423361255041\, p^{74} q^{55} + 133894578026\, p^{107} q^{45} + 10322733588822\, p^{114} q^{102}$$
$$+ 21011037589\, p^{105} q^{38} + 11313282776458\, p^{114} q^{100} + 15223951355403\, p^{113} q^{89} + 10109518148323\, p^{112} q^{76}$$
$$+ 10863234017290\, p^{112} q^{77} + 13412250958082\, p^{114} q^{91} + 11901283519434\, p^{113} q^{81} + 6523712878860\, p^{112} q^{71} + 48339195506\, p^{106} q^{41}$$
$$+ 12025315148\, p^{104} q^{36} + 1867833945510\, p^{119} q^{71} + 4219009386907\, p^{121} q^{91} + 570773053272\, p^{44} q^{58} + 694425524326\, p^{45} q^{58}$$

$$+ 38926651\, q^{148}\, p^{71} + 18307835771251\, p^{100}\, q^{110} + 19113920595562\, p^{99}\, q^{110} + 19857424551563\, p^{98}\, q^{110} + 853\, q^{93}\, p^{11}$$
$$+ 175066059962\, q^{81}\, p^{37} + 66335335513\, q^{81}\, p^{34} + 92795432864\, q^{81}\, p^{35} + 236364278519\, q^{81}\, p^{38} + 1229215\, q^{136}\, p^{39}$$
$$+ 72928546991\, p^{106}\, q^{137} + 760412095\, p^{145}\, q^{78} + 759320\, p^{138}\, q^{158} + 1408\, p^{163}\, q^{157} + 21840730\, p^{155}\, q^{114} + 7753\, p^{113}\, q^{18}$$
$$+ 2267676319\, p^{145}\, q^{88} + 69719307\, p^{150}\, q^{133} + 892724685\, p^{148}\, q^{97} + 8788572\, p^{139}\, q^{47} + 534627983\, p^{149}\, q^{116} + 509484051\, q^{138}\, p^{58}$$
$$+ 2334405197\, q^{139}\, p^{67} + 2802796626\, q^{139}\, p^{68} + 3002048203\, q^{140}\, p^{71} + 4229473817\, p^{145}\, q^{103} + 2215057991\, p^{142}\, q^{75}$$
$$+ 61632040083761\, p^{78}\, q^{95} + 77597978277465\, p^{84}\, q^{94} + 40279032921520\, p^{72}\, q^{96} + 19165902902840\, p^{65}\, q^{97} + 8624160336\, p^{32}\, q^{46}$$
$$+ 16943269470\, p^{34}\, q^{47} + 11356910917\, p^{33}\, q^{46} + 107154143199\, p^{68}\, q^{35} + 1111346528483\, p^{69}\, q^{44} + 6117732985606\, p^{70}\, q^{53}$$
$$+ 64345305616375\, p^{79}\, q^{95} + 687666554\, p^{24}\, q^{47} + 2297299871\, p^{27}\, q^{48} + 1006714520\, p^{25}\, q^{47} + 1450951642\, p^{26}\, q^{47}$$
$$+ 12963954213\, p^{33}\, q^{47} + 5272357358209\, p^{102}\, q^{59} + 1224613386755\, p^{100}\, q^{50} + 13831659432637\, p^{103}\, q^{67} + 19073130855949\, p^{108}\, q^{103}$$
$$+ 412476529\, p^{149}\, q^{93} + 777737928665\, p^{100}\, q^{48} + 2474399058548\, p^{101}\, q^{54} + 82888501561\, p^{98}\, q^{39} + 48348345778\, p^{97}\, q^{37}$$
$$+ 113585813153\, p^{98}\, q^{40} + 3759895039\, p^{142}\, q^{79} + 5840187995184\, p^{114}\, q^{110} + 6562739882323\, p^{113}\, q^{110} + 7333027895495\, p^{112}\, q^{110}$$
$$+ 43669293\, q^{96}\, p^{22} + 3955994156\, q^{101}\, p^{32} + 2139042917\, q^{102}\, p^{31} + 6043387301\, q^{101}\, p^{33} + 58027014\, q^{98}\, p^{23} + 47551\, q^{129}\, p^{28}$$
$$+ 14321\, q^{128}\, p^{26} + 25308093567\, p^{118}\, q^{138} + 15016082940881\, p^{58}\, q^{83} + 15163884985349\, p^{99}\, q^{112} + 8479356499626\, p^{113}\, q^{107}$$
$$+ 353202981560\, q^{76}\, p^{39} + 154213343541\, p^{126}\, q^{125} + 1528\, q^{86}\, p^{10} + 3197500474\, p^{128}\, q^{141} + 418\, p^{165}\, q^{157} + 28710527379\, q^{74}\, p^{31}$$
$$+ 2379052058177\, q^{77}\, p^{47} + 1757706895651\, p^{62}\, q^{113} + 1272162694269\, p^{60}\, q^{113} + 1500218935683\, p^{61}\, q^{113} + 1060717472447\, p^{60}\, q^{114}$$
$$+ 2046334069534\, p^{63}\, q^{113} + 2367552177705\, p^{64}\, q^{113} + 2722493057177\, p^{65}\, q^{113} + 142228095952\, p^{103}\, q^{43} + 48496431321\, p^{132}\, q^{125}$$
$$+ 234948630\, q^{151}\, p^{107} + 211847007\, q^{151}\, p^{102} + 218545659\, q^{151}\, p^{103} + 232541513\, q^{151}\, p^{106} + 6808133\, q^{126}\, p^{33} + 11876399\, q^{126}\, p^{34}$$
$$+ 139328878\, q^{127}\, p^{40} + 210145414\, q^{127}\, p^{41} + 20200\, q^{116}\, p^{20} + 1021028\, p^{154}\, q^{147} + 1910521515\, p^{97}\, q^{29} + 90756609\, p^{127}\, q^{39}$$
$$+ 25424259089496\, p^{91}\, q^{109} + 54692336\, p^{80}\, q^{19} + 613727575\, q^{106}\, p^{30} + 67483147106103\, p^{97}\, q^{91} + 737196877948\, q^{115}\, p^{59}$$
$$+ 508759897929\, q^{115}\, p^{57} + 614580724905\, q^{115}\, p^{58} + 277689066377\, q^{116}\, p^{55} + 65548540154206\, p^{96}\, q^{81} + 1962330\, q^{64}\, p^{13}$$
$$+ 2063\, q^{85}\, p^{10} + 589\, q^{83}\, p^{9} + 8421943672685\, p^{90}\, q^{117} + 7245252944647\, p^{92}\, q^{118} + 68670378869921\, p^{95}\, q^{94} + 2003394574\, q^{116}\, p^{38}$$
$$+ 62903596021970\, p^{84}\, q^{98} + 55711750712560\, p^{95}\, q^{76} + 58742733015125\, p^{95}\, q^{77} + 46115231034311\, p^{95}\, q^{73} + 1916483\, p^{130}\, q^{34}$$
$$+ 409262713\, p^{140}\, q^{61} + 77\, p^{57}\, q^{5} + 13129344665157\, p^{71}\, q^{107} + 3143\, p^{156}\, q^{65} + 41\, p^{147}\, q^{39} + 3\, p^{141}\, q^{30} + 35\, p^{149}\, q^{42}$$
$$+ 10262480950130\, p^{106}\, q^{112} + 3431733106\, p^{126}\, q^{48} + 4338794799389\, q^{119}\, p^{81} + 72457767306218\, p^{96}\, q^{89} + 49363791512859\, p^{95}\, q^{74}$$

$$+ 27480723814718\, p^{95} q^{67} + 85970603\, q^{112} p^{29} + p^{16} q + 98387447027\, p^{136} q^{106} + 37079825742\, p^{78} q^{32} + 25642536871\, p^{78} q^{31}$$
$$+ 15016082940881\, p^{83} q^{58} + 187338508186\, p^{79} q^{37} + 17224850510424\, p^{83} q^{59} + 10875375299\, q^{112} p^{40} + 456\, p^{46} q^{5}$$
$$+ 4687429374\, p^{107} q^{35} + 77705980911422\, p^{78} q^{79} + 35713648360\, p^{124} q^{134} + 48496431321\, p^{125} q^{132} + 41607145225\, p^{126} q^{132}$$
$$+ 36502015512\, p^{122} q^{135} + 1238579539935\, p^{127} q^{96} + 5878411615\, p^{74} q^{27} + 22305654\, q^{146} p^{63} + 9656790\, q^{146} p^{60} + 17056078\, q^{146} p^{62}$$
$$+ 9798922650950\, p^{105} q^{113} + 41219270934\, p^{121} q^{135} + 10322733588822\, p^{102} q^{114} + 8039521288190\, p^{109} q^{112}$$
$$+ 8767117904435\, p^{108} q^{112} + 5961333663104\, p^{113} q^{111} + 9787021682048\, p^{103} q^{114} + 9477600069160\, p^{101} q^{115}$$
$$+ 9180115876231\, p^{98} q^{116} + 9885230280662\, p^{100} q^{115} + 86250469067540\, p^{91} q^{84} + 48949853\, q^{102} p^{24} + 14\, p^{159} q^{66} + 220\, p^{167} q^{145}$$
$$+ 204\, p^{167} q^{138} + 697721248354\, q^{91} p^{44} + 829411491768\, q^{92} p^{45} + 173167384586\, q^{91} p^{39} + 13321175\, p^{132} q^{154} + 7151886\, p^{133} q^{155}$$
$$+ 5999830247665\, p^{52} q^{81} + 89666665628758\, p^{82} q^{82} + 203536325966\, p^{122} q^{127} + 72066545105\, q^{135} p^{81} + 13401029887842\, p^{60} q^{93}$$
$$+ 1089051618462\, q^{121} p^{70} + 59\, p^{89} q^{9} + 140304\, p^{155} q^{153} + 269852\, p^{154} q^{152} + 202194\, p^{68} q^{11} + 1207236632255\, p^{116} q^{121}$$
$$+ 962944074628\, p^{102} q^{50} + 1262831455\, p^{89} q^{26} + 75910809372690\, p^{95} q^{86} + 3116\, p^{33} q^{6} + 904032605\, p^{46} q^{25} + 1837654754\, p^{46} q^{27}$$
$$+ 163462282\, p^{45} q^{21} + 619864689\, p^{46} q^{24} + 1298290349\, p^{46} q^{26} + 12963954213\, p^{47} q^{33} + 5450666577\, p^{47} q^{30} + 3991331153\, p^{47} q^{29}$$
$$+ 9818139896\, p^{47} q^{32} + 7356532106\, p^{47} q^{31} + 16943269470\, p^{47} q^{34} + 21927596077\, p^{47} q^{35} + 32131275677\, p^{48} q^{36} + 368177\, p^{39} q^{11}$$
$$+ 800609\, p^{40} q^{12} + 171668\, p^{39} q^{10} + 1676280\, p^{41} q^{13} + 36660827\, p^{44} q^{18} + 11766547\, p^{43} q^{16} + 51643070943\, p^{48} q^{38}$$
$$+ 98776404149\, p^{48} q^{41} + 146356017597\, p^{48} q^{43} + 120688306606\, p^{48} q^{42} + 64630141086\, p^{48} q^{39} + 40915411916\, p^{48} q^{37} + 226\, p^{28} q^{4}$$
$$+ 903\, p^{31} q^{5} + 67786\, p^{37} q^{9} + 9691\, p^{35} q^{7} + 26646\, p^{36} q^{8} + 176189223201\, p^{48} q^{44} + 243743404609\, p^{49} q^{45} + 80219138342\, p^{48} q^{40}$$
$$+ 20104995\, p^{43} q^{17} + 3394522\, p^{42} q^{14} + 94828431\, p^{44} q^{20} + 59666250\, p^{44} q^{19} + 250293457\, p^{45} q^{22} + 376121418\, p^{45} q^{23}$$
$$+ 2565799347\, p^{46} q^{28} + 6157437\, p^{42} q^{15} + 3791182172967\, p^{120} q^{82} + 62775385931\, p^{41} q^{45} + 89424028362\, p^{42} q^{46}$$
$$+ 21927596077\, p^{35} q^{47} + 14804533568\, p^{34} q^{46} + 3228518425\, p^{28} q^{48} + 2060781542\, p^{27} q^{47} + 956885\, q^{91} p^{16} + 437186\, q^{90} p^{15}$$
$$+ 12267\, p^{147} q^{46} + 40272\, p^{149} q^{52} + 1604484\, p^{158} q^{104} + 64614\, p^{149} q^{53} + 136597\, p^{150} q^{57} + 187646\, p^{55} q^{10} + 81112884082\, p^{70} q^{34}$$
$$+ 583031585359\, p^{71} q^{41} + 1114477259\, q^{48} p^{25} + 14903679\, p^{70} q^{16} + p^{167} q^{112} + 10\, p^{144} q^{34} + 22\, p^{148} q^{40} + 92755\, p^{158} q^{150}$$
$$+ 10102837\, p^{154} q^{89} + 11004052\, p^{156} q^{117} + 19925274\, p^{155} q^{107} + 3869698880739\, p^{50} q^{84} + 128709\, q^{106} p^{18} + 805\, q^{82} p^{9}$$
$$+ 45834568486378\, p^{69} q^{88} + 42804\, q^{106} p^{17} + 7269\, q^{104} p^{15} + 828371\, q^{109} p^{21} + 29479\, q^{107} p^{17} + 91027\, q^{107} p^{18} + 253330\, q^{107} p^{19}$$
$$+ 1004340663144\, p^{44} q^{85} + 67483147106103\, p^{74} q^{80} + 9373582\, q^{135} p^{42} + 6856290183172\, p^{101} q^{60} + 22852967206389\, p^{102} q^{71}$$

$$+ 1715540789\, p^{137}\, q^{137} + 134908748\, q^{152}\, p^{108} + 54157141\, q^{145}\, p^{64} + 56797399673400\, p^{86}\, q^{100} + 11577\, q^{90}\, p^{12} + 170\, p^{154}\, q^{54}$$
$$+ 17849\, p^{161}\, q^{95} + 3030\, p^{165}\, q^{139} + 47\, p^{150}\, q^{44} + 640\, p^{154}\, q^{56} + p^{47}\, q^{3} + 399811575\, p^{109}\, q^{150} + 1470464206507\, p^{62}\, q^{114}$$
$$+ 83574422\, q^{48}\, p^{19} + 1612001951\, q^{48}\, p^{26} + 1272111069\, p^{93}\, q^{27} + 1197886718811\, p^{102}\, q^{51} + 421543094843\, p^{101}\, q^{46}$$
$$+ 16275360234\, p^{60}\, q^{30} + 3550498413\, p^{59}\, q^{26} + 11484291210\, p^{60}\, q^{29} + 2998135301807\, p^{63}\, q^{51} + 3502607443076\, p^{63}\, q^{52}$$
$$+ 957307707\, p^{58}\, q^{23} + 72108385\, p^{56}\, q^{18} + 11004052\, p^{54}\, q^{15} + 108281522715\, p^{61}\, q^{36} + 4322667427564\, p^{58}\, q^{57}$$
$$+ 2184485430089\, p^{110}\, q^{121} + 206885\, q^{137}\, p^{37} + 378123\, q^{137}\, p^{38} + 668608\, q^{137}\, p^{39} + 232692990\, q^{49}\, p^{21} + 1600166322237\, p^{118}\, q^{68}$$
$$+ 3994310265364\, p^{120}\, q^{83} + 3728196854624\, p^{121}\, q^{101} + 4187391279273\, p^{120}\, q^{84} + 37931258836114\, q^{105}\, p^{92}$$
$$+ 1227243243628\, p^{118}\, q^{66} + 588995481923\, p^{117}\, q^{60} + 27545120\, q^{47}\, p^{17} + 979935522555\, p^{100}\, q^{49} + 319584955872\, p^{99}\, q^{44}$$
$$+ 1666564987913\, p^{101}\, q^{52} + 78036743564365\, p^{90}\, q^{94} + 21125519030\, q^{82}\, p^{31} + 1235\, q^{160}\, p^{79} + 7967\, p^{160}\, q^{156}$$
$$+ 1500218935683\, q^{110}\, p^{58} + 491463790\, p^{134}\, q^{144} + 418072411\, p^{125}\, q^{148} + 698319212\, p^{119}\, q^{148} + 480124385\, p^{118}\, q^{149}$$
$$+ 451326794\, p^{119}\, q^{149} + 421944157\, p^{120}\, q^{149} + 392303864\, p^{121}\, q^{149} + 123433122\, p^{146}\, q^{138} + 336347193\, p^{127}\, q^{148} + 376121418\, p^{126}\, q^{148}$$
$$+ 507482597\, p^{123}\, q^{148} + 461959038\, p^{124}\, q^{148} + 9765798145147\, p^{111}\, q^{108} + 53168739393191\, p^{99}\, q^{96} + 63057183182494\, p^{94}\, q^{97}$$
$$+ 64812288267316\, p^{93}\, q^{97} + 8665470671318\, p^{57}\, q^{66} + 24766621789941\, p^{107}\, q^{100} + 111611477813\, p^{71}\, q^{35} + 6762579814937\, p^{73}\, q^{53}$$
$$+ 1199339176949\, p^{72}\, q^{44} + 1833876275141\, p^{87}\, q^{47} + 10453010597389\, p^{58}\, q^{67} + 103\, q^{159}\, p^{69} + 14\, q^{159}\, p^{66} + 1382900035\, q^{83}\, p^{25}$$
$$+ 86507181\, q^{82}\, p^{20} + 44215845\, q^{82}\, p^{19} + 44896187035611\, p^{103}\, q^{86} + 615135\, p^{143}\, q^{157} + 514682\, p^{144}\, q^{157} + 220115\, p^{150}\, q^{156}$$
$$+ 45\, q^{121}\, p^{18} + 45453893220110\, p^{103}\, q^{87} + 35950700908688\, p^{103}\, q^{79} + 2288429722154\, p^{65}\, q^{114} + 313842918\, q^{109}\, p^{30}$$
$$+ 4556238\, q^{106}\, p^{22} + 13727358270\, q^{114}\, p^{42} + 179804052470\, q^{118}\, p^{55} + 221800967046\, q^{118}\, p^{56} + 773050\, q^{100}\, p^{18}$$
$$+ 1054836448162\, q^{120}\, p^{68} + 2055977\, q^{103}\, p^{20} + 4627613\, q^{103}\, p^{21} + 9873454\, q^{103}\, p^{22} + 56052241011253\, p^{72}\, q^{89}$$
$$+ 48272809481167\, p^{70}\, q^{89} + 5689175957\, p^{75}\, q^{27} + 61858767765961\, q^{90}\, p^{74} + 46636242964871\, q^{90}\, p^{70} + 1116376087\, q^{103}\, p^{30}$$
$$+ 92432398069687\, p^{85}\, q^{88} + 135562562\, q^{48}\, p^{20} + 284372716382\, p^{129}\, q^{116} + 3536084840613\, p^{104}\, q^{58} + 11592241983878\, p^{91}\, q^{115}$$
$$+ 41067\, p^{85}\, q^{12} + 39\, p^{84}\, q^{8} + 226647073\, p^{122}\, q^{37} + 21199416\, p^{150}\, q^{140} + 4975061\, q^{137}\, p^{43} + 103676\, q^{134}\, p^{33} + 13996557407722\, p^{85}\, q^{113}$$
$$+ 1700\, p^{50}\, q^{6} + 650174585\, p^{148}\, q^{120} + 418072411\, p^{148}\, q^{125} + 35427761483918\, p^{77}\, q^{102} + 35950700908688\, p^{79}\, q^{103}$$
$$+ 41199256651980\, p^{80}\, q^{102} + 37441253140788\, p^{78}\, q^{102} + 39372630853546\, p^{79}\, q^{102} + 31245051170596\, p^{75}\, q^{102}$$
$$+ 33354888387397\, p^{76}\, q^{102} + 426910\, p^{145}\, q^{157} + 10818205290376\, p^{110}\, q^{108} + 205692958901\, p^{39}\, q^{59} + 260976049410\, p^{40}\, q^{59}$$

$$+ 328288596796\, p^{41}\, q^{59} + 11715786336899\, p^{58}\, q^{69} + 76230813617532\, p^{77}\, q^{88} + 80672924915790\, p^{79}\, q^{89} + 84977494406806\, p^{80}\, q^{88}$$
$$+ 79428779425566\, p^{78}\, q^{88} + 82356739213330\, p^{79}\, q^{88} + 69185070269222\, p^{75}\, q^{88} + 72802480559202\, p^{76}\, q^{88} + 65311239234\, p^{123}\, q^{56}$$
$$+ 279918757678\, p^{125}\, q^{67} + 256034542756\, p^{129}\, q^{117} + 206581132279\, p^{125}\, q^{65} + 1256040908\, p^{128}\, q^{144} + 401702372720\, p^{122}\, q^{123}$$
$$+ 138079690\, p^{148}\, q^{78} + 17865542812199\, p^{67}\, q^{63} + 16227589040584\, p^{67}\, q^{62} + 14659802384331\, p^{67}\, q^{61} + 19563392023641\, p^{67}\, q^{64}$$
$$+ 408815738549\, q^{67}\, p^{40} + 521761159483\, q^{67}\, p^{41} + 828179734042\, q^{67}\, p^{43} + 660128921947\, q^{67}\, p^{42} + 1030566147895\, q^{67}\, p^{44}$$
$$+ 1707743829\, q^{63}\, p^{24} + 1078231273\, q^{63}\, p^{23} + 4187391279273\, p^{87}\, q^{51} + 575205869372\, p^{86}\, q^{42} + 8518864100597\, p^{87}\, q^{55}$$
$$+ 1537544490668\, p^{86}\, q^{46} + 28158417429725\, p^{88}\, q^{64} + 14227511918\, p^{82}\, q^{30} + 79659873176\, p^{84}\, q^{35} + 4037491235\, q^{63}\, p^{26}$$
$$+ 668858274\, q^{64}\, p^{22} + 393430900284\, q^{66}\, p^{40} + 13275664336\, q^{64}\, p^{29} + 21403979\, q^{61}\, p^{16} + 10903556\, q^{60}\, p^{15} + 134908748\, q^{63}\, p^{19}$$
$$+ 233578406600\, p^{80}\, q^{131} + 214219467010\, p^{79}\, q^{131} + 2650624827\, q^{63}\, p^{25} + 133247072836\, q^{80}\, p^{36} + 66273373156\, q^{102}\, p^{40}$$
$$+ 20598287019\, q^{71}\, p^{30} + 2998135301807\, p^{108}\, q^{120} + 9129668726\, q^{64}\, p^{28} + 2722700131\, q^{65}\, p^{25} + 456\, q^{46}\, p^{5} + 2205\, q^{47}\, p^{6} + 29\, p^{49}\, q^{4}$$
$$+ 22618598097778\, p^{81}\, q^{61} + 28444578483628\, p^{81}\, q^{63} + 25436510522927\, p^{81}\, q^{62} + 6117732985606\, p^{53}\, q^{70} + 28347884823\, q^{66}\, p^{31}$$
$$+ 77597978277465\, p^{94}\, q^{84} + 136051122073\, q^{66}\, p^{36} + 101732673686\, q^{66}\, p^{35} + 55012922841\, q^{66}\, p^{33} + 75241201170\, q^{66}\, p^{34}$$
$$+ 39741371222\, q^{66}\, p^{32} + 306057519887\, q^{66}\, p^{39} + 235881742432\, q^{66}\, p^{38} + 186017478596\, q^{67}\, p^{37} + 131297299109\, q^{65}\, p^{36}$$
$$+ 1243085\, p^{70}\, q^{13} + 3839881392720\, p^{58}\, q^{56} + 2785360\, p^{71}\, q^{14} + 26358826584781\, p^{66}\, q^{69} + 30\, q^{159}\, p^{67} + 56\, q^{159}\, p^{68}$$
$$+ 93908132729622\, p^{85}\, q^{85} + 90327406292278\, p^{89}\, q^{84} + 88479065808126\, p^{90}\, q^{84} + 16371828854299\, p^{60}\, q^{71} + 214641314300\, p^{67}\, q^{126}$$
$$+ 8180861198\, q^{104}\, p^{35} + 87122236704723\, p^{91}\, q^{85} + 8767117904435\, p^{112}\, q^{108} + 9885230280662\, p^{56}\, q^{71} + 53250665052\, p^{112}\, q^{45}$$
$$+ 1002136673\, p^{73}\, q^{143} + 61303632513853\, p^{87}\, q^{99} + 2568834660887\, p^{92}\, q^{50} + 9415\, p^{62}\, q^{8} + 70564217902007\, p^{84}\, q^{96} + 103676\, q^{138}\, p^{37}$$
$$+ 470916\, q^{140}\, p^{42} + 4852828\, q^{140}\, p^{47} + 7281386\, q^{140}\, p^{48} + 350527\, q^{138}\, p^{39} + 194118\, q^{138}\, p^{38} + 164880623624\, q^{113}\, p^{50}$$
$$+ 224101474\, q^{151}\, p^{113} + 553136889\, p^{129}\, q^{146} + 481529500\, p^{130}\, q^{146} + 559662248\, p^{115}\, q^{149} + 687666554\, p^{124}\, q^{147} + 304826567\, p^{124}\, q^{149}$$
$$+ 277033362\, p^{125}\, q^{149} + 619864689\, p^{125}\, q^{147} + 385172171\, p^{129}\, q^{147} + 437882934\, p^{128}\, q^{147} + 555430136\, p^{126}\, q^{147} + 494689897\, p^{127}\, q^{147}$$
$$+ 831658364\, p^{122}\, q^{147} + 806981797\, p^{126}\, q^{146} + 715975140\, p^{127}\, q^{146} + 409981560\, p^{135}\, q^{144} + 678856632\, p^{130}\, q^{145} + 500429069\, p^{132}\, q^{145}$$
$$+ 584842032\, p^{131}\, q^{145} + 180678\, p^{69}\, q^{11} + 72351767312031\, p^{96}\, q^{86} + 68402371490\, q^{134}\, p^{77} + 1506741\, q^{139}\, p^{43} + 918301\, q^{139}\, p^{42}$$
$$+ 2414762\, q^{139}\, p^{44} + 2914363225754\, q^{77}\, p^{48} + 4277910727448\, q^{77}\, p^{50} + 6104829588889\, q^{77}\, p^{52} + 5127969902751\, q^{77}\, p^{51}$$
$$+ 7219142880885\, q^{77}\, p^{53} + 8480996403539\, q^{77}\, p^{54} + 9966694362176\, q^{78}\, p^{55} + 3543706488254\, q^{77}\, p^{49} + 1271289919\, p^{124}\, q^{43}$$

$$+ 1114477259\, p^{123}\, q^{146} + 1226646476\, p^{122}\, q^{146} + 1006714520\, p^{124}\, q^{146} + 6130947643249\, p^{115}\, q^{108} + 8148113804418\, p^{110}\, q^{111}$$
$$+ 37658661838303\, p^{103}\, q^{80} + 45797481995112\, p^{103}\, q^{88} + 61348046\, q^{151}\, p^{86} + 25944105121388\, p^{107}\, q^{99} + 28051590811368\, p^{107}\, q^{97}$$
$$+ 5245937441\, p^{144}\, q^{112} + 896725974\, p^{145}\, q^{128} + 459821852033\, p^{99}\, q^{131} + 463879129804\, p^{98}\, q^{131} + 465690915577\, p^{97}\, q^{131}$$
$$+ 457564072186\, p^{94}\, q^{131} + 462510626660\, p^{95}\, q^{131} + 453574978165\, p^{100}\, q^{131} + 356958758757\, p^{97}\, q^{132} + 52573900488442\, p^{95}\, q^{75}$$
$$+ 30184738\, p^{79}\, q^{18} + 179421360\, p^{81}\, q^{21} + 296536981\, p^{82}\, q^{22} + 71648\, p^{67}\, q^{10} + 67505735396191\, p^{96}\, q^{82} + 119111289888\, p^{132}\, q^{118}$$
$$+ 206255175729\, p^{129}\, q^{73} + 175219841975\, p^{132}\, q^{114} + 221099345949\, p^{132}\, q^{111} + 416471325698\, p^{126}\, q^{72} + 951739331889\, p^{128}\, q^{92}$$
$$+ 26070631366\, p^{122}\, q^{51} + 9756811674198\, p^{89}\, q^{116} + 9880202989483\, p^{90}\, q^{116} + 537687658250\, p^{125}\, q^{72} + 1207762853076\, p^{127}\, q^{92}$$
$$+ 34031591462\, p^{121}\, q^{51} + 9956914427679\, p^{91}\, q^{116} + 9985880961899\, p^{92}\, q^{116} + 10\, q^{40}\, p^{3} + 64345305616375\, p^{76}\, q^{92}$$
$$+ 5298496788535\, p^{76}\, q^{116} + 5723507752147\, p^{77}\, q^{116} + 22234810645623\, p^{102}\, q^{107} + 11586\, q^{139}\, p^{35} + 63\, q^{45}\, p^{4}$$
$$+ 744972154865\, p^{114}\, q^{58} + 8421943672685\, p^{117}\, q^{90} + 35799273283587\, p^{95}\, q^{105} + 360\, q^{48}\, p^{5} + 188104367472\, p^{128}\, q^{70}$$
$$+ 22265603458776\, p^{88}\, q^{110} + 21931889497357\, p^{87}\, q^{110} + 21498980653259\, p^{86}\, q^{110} + 6150730181132\, p^{78}\, q^{116}$$
$$+ 6576064380088\, p^{79}\, q^{116} + 19563392023641\, p^{104}\, q^{107} + 84910158100\, p^{122}\, q^{56} + 361648113379\, p^{124}\, q^{67} + 314039924589\, p^{128}\, q^{117}$$
$$+ 268014186082\, p^{124}\, q^{65} + 96291376\, q^{129}\, p^{41} + 114714131\, p^{151}\, q^{125} + 1557724810371\, p^{110}\, q^{123} + 4409298\, p^{149}\, q^{148}$$
$$+ 3232968\, p^{148}\, q^{150} + 2434323\, p^{149}\, q^{150} + 1809662\, p^{150}\, q^{150} + 1326903\, p^{151}\, q^{150} + 2434323\, p^{150}\, q^{149} + 3045302\, p^{151}\, q^{147}$$
$$+ 6312662\, p^{144}\, q^{151} + 9767088\, p^{142}\, q^{151} + 7888964\, p^{143}\, q^{151} + 14711\, p^{94}\, q^{13} + 395195960767\, p^{124}\, q^{121} + 3784210768\, q^{115}\, p^{39}$$
$$+ 5456629732\, q^{115}\, p^{40} + 7760106667\, q^{115}\, p^{41} + 3159823\, p^{155}\, q^{139} + 20281201764\, p^{67}\, q^{30} + 236151652\, p^{63}\, q^{20} + 4800\, q^{136}\, p^{31}$$
$$+ 188292\, q^{142}\, p^{43} + 318947\, q^{142}\, p^{44} + 575489703869\, p^{92}\, q^{130} + 386946325596\, p^{88}\, q^{131} + 116969846\, q^{152}\, p^{117} + 470155\, p^{108}\, q^{20}$$
$$+ 5319899151039\, p^{97}\, q^{56} + 6758600188960\, p^{98}\, q^{58} + 9670292719868\, p^{61}\, q^{99} + 19826251174424\, p^{66}\, q^{98} + 3037\, p^{41}\, q^{6}$$
$$+ 978312098030\, p^{128}\, q^{97} + 966363419015\, p^{128}\, q^{93} + 1209167\, p^{52}\, q^{12} + 525628\, p^{51}\, q^{11} + 2643993\, p^{53}\, q^{13} + 5532743\, p^{54}\, q^{14}$$
$$+ 201\, p^{166}\, q^{157} + 20884685005\, q^{132}\, p^{64} + 17330528971\, q^{132}\, p^{63} + 11673993337\, q^{132}\, p^{61} + 14277026855\, q^{132}\, p^{62} + 76225890187\, p^{42}\, q^{45}$$
$$+ 108007908571\, p^{43}\, q^{46} + 2813599323205\, p^{87}\, q^{49} + 74527002827823\, p^{89}\, q^{77} + 75699008054152\, p^{90}\, q^{78} + 28111598860\, p^{36}\, q^{47}$$
$$+ 19111698328\, p^{35}\, q^{46} + 792494802\, p^{54}\, q^{23} + 2248\, p^{61}\, q^{7} + 23614475440\, q^{125}\, p^{54} + 11037836066316\, p^{105}\, q^{67}$$
$$+ 607240365733\, p^{102}\, q^{48} + 2886756947\, p^{28}\, q^{47} + 8301239224\, p^{31}\, q^{48} + p^{18}\, q + 35713648360\, p^{37}\, q^{47} + 4477717055\, p^{29}\, q^{48}$$
$$+ 507482597\, p^{23}\, q^{48} + 6133093477\, p^{30}\, q^{48} + 1226646476\, p^{25}\, q^{49} + 333466861\, p^{22}\, q^{48} + 214878523\, p^{21}\, q^{48} + 125280545\, q^{152}\, p^{115}$$

$$+ 121377597\, q^{152}\, p^{116} + 112119189\, q^{152}\, p^{118} + 101350609\, q^{152}\, p^{120} + 106889578\, q^{152}\, p^{119} + 991959384\, p^{91}\, q^{26} + 74683253\, p^{63}\, q^{18}$$
$$+ 10681860\, p^{61}\, q^{15} + 1402995848955\, p^{120}\, q^{116} + 176718811079\, q^{115}\, p^{52} + 196458424\, p^{150}\, q^{91} + 1638\, p^{165}\, q^{148}$$
$$+ 51643070943\, p^{123}\, q^{133} + 5\, p^{153}\, q^{48} + 154\, p^{167}\, q^{152} + 555\, p^{166}\, q^{127} + 70564217902007\, p^{96}\, q^{84} + 10383852795\, p^{140}\, q^{121}$$
$$+ 42804\, p^{106}\, q^{17} + 750252313\, p^{146}\, q^{82} + 509484051\, q^{113}\, p^{33} + 383157067377\, q^{119}\, p^{60} + 6233219128382\, p^{116}\, q^{106}$$
$$+ 12503686714576\, p^{103}\, q^{112} + 14832257157029\, p^{102}\, q^{111} + 15621888068057\, p^{101}\, q^{111} + 13693293695904\, p^{105}\, q^{110} + 419539\, q^{157}\, p^{86}$$
$$+ 2540076\, q^{157}\, p^{99} + 284265\, q^{157}\, p^{84} + 346843\, q^{157}\, p^{85} + 503392\, q^{157}\, p^{87} + 17628325237\, q^{133}\, p^{65} + 2273383735069\, p^{90}\, q^{124}$$
$$+ 37987\, q^{147}\, p^{48} + 21963\, q^{147}\, p^{47} + 1625452\, q^{153}\, p^{74} + 1281512\, q^{153}\, p^{73} + 262\, q^{140}\, p^{32} + 17\, q^{141}\, p^{31} + 19518255\, q^{154}\, p^{95}$$
$$+ 689414126429\, p^{115}\, q^{125} + 70316238429\, q^{117}\, p^{50} + 37527312517\, q^{115}\, p^{46} + 84956389229126\, p^{83}\, q^{79} + 75799278392826\, p^{89}\, q^{95}$$
$$+ 69185070269222\, p^{83}\, q^{96} + 75037305560650\, p^{90}\, q^{95} + 9896073702255\, p^{62}\, q^{61} + 10818205290376\, p^{63}\, q^{61} + 8767117904435\, p^{59}\, q^{63}$$
$$+ 8944274880998\, p^{60}\, q^{62} + 9896073702255\, p^{61}\, q^{62} + 66849256292574\, p^{95}\, q^{80} + 4276083\, p^{65}\, q^{14} + 1962330\, p^{64}\, q^{13}$$
$$+ 238082899273\, p^{94}\, q^{41} + 29316985017\, p^{92}\, q^{34} + 194581285\, p^{86}\, q^{22} + 52151480655237\, p^{100}\, q^{82} + 54953726283172\, p^{100}\, q^{84}$$
$$+ 329965709943\, q^{113}\, p^{53} + 264023879106\, q^{113}\, p^{52} + 409104221201\, q^{113}\, p^{54} + 503314467848\, q^{113}\, p^{55} + 614580724905\, q^{113}\, p^{56}$$
$$+ 2933009991379\, p^{90}\, q^{50} + 12013\, p^{60}\, q^{8} + 2667590272801\, p^{48}\, q^{83} + 1703586517\, p^{69}\, q^{24} + 270903811907\, p^{73}\, q^{38}$$
$$+ 11336788208226\, p^{76}\, q^{56} + 58950434949\, p^{72}\, q^{33} + 4159495179\, p^{70}\, q^{26} + 81477114095\, p^{73}\, q^{34} + 601824427897\, p^{74}\, q^{41}$$
$$+ 36843267445710\, p^{71}\, q^{69} + 633052622339\, p^{129}\, q^{105} + 162898391788\, p^{124}\, q^{62} + 829411491768\, p^{126}\, q^{79} + 3189\, p^{34}\, q^{6}$$
$$+ 1006714520\, p^{47}\, q^{25} + 2060781542\, p^{47}\, q^{27} + 180113075\, p^{46}\, q^{21} + 687666554\, p^{47}\, q^{24} + 1450951642\, p^{47}\, q^{26} + 14707935576\, p^{48}\, q^{33}$$
$$+ 6133093477\, p^{48}\, q^{30} + 4477717055\, p^{48}\, q^{29} + 11109456055\, p^{48}\, q^{32} + 8301239224\, p^{48}\, q^{31} + 19271834036\, p^{48}\, q^{34}$$
$$+ 25002982826\, p^{48}\, q^{35} + 36502015512\, p^{49}\, q^{36} + 392064\, p^{40}\, q^{11} + 856097\, p^{41}\, q^{12} + 180708\, p^{40}\, q^{10} + 1798175\, p^{42}\, q^{13}$$
$$+ 40013840\, p^{45}\, q^{18} + 12761223\, p^{44}\, q^{16} + 58934099708\, p^{49}\, q^{38} + 113438248824\, p^{49}\, q^{41} + 168748668174\, p^{49}\, q^{43}$$
$$+ 138881135046\, p^{49}\, q^{42} + 73914789540\, p^{49}\, q^{39} + 46587907012\, p^{49}\, q^{37} + 75555689\, p^{59}\, q^{18} + 11224907\, p^{57}\, q^{15} + 71294\, p^{38}\, q^{9}$$
$$+ 9983\, p^{36}\, q^{7} + 27767\, p^{37}\, q^{8} + 203536325966\, p^{49}\, q^{44} + 280346184899\, p^{50}\, q^{45} + 91937101445\, p^{49}\, q^{40} + 21944471\, p^{44}\, q^{17}$$
$$+ 3649856\, p^{43}\, q^{14} + 104607928\, p^{45}\, q^{20} + 65482964\, p^{45}\, q^{19} + 277033362\, p^{46}\, q^{22} + 418072411\, p^{46}\, q^{23} + 2886756947\, p^{47}\, q^{28}$$
$$+ 6671485\, p^{43}\, q^{15} + 91877571705\, p^{43}\, q^{45} + 129514327064\, p^{44}\, q^{46} + 11109456055\, p^{32}\, q^{48} + 44975678753\, p^{38}\, q^{47} + 1780529177\, p^{26}\, q^{49}$$
$$+ 4251\, q^{119}\, p^{20} + 63769367509757\, p^{89}\, q^{74} + 37098365963680\, p^{89}\, q^{67} + 52151480655237\, p^{89}\, q^{71} + 40716587797964\, p^{89}\, q^{68}$$

$$+ 56052241011253\, p^{89} q^{72} + 831658364\, q^{49} p^{24} + 554298220\, q^{49} p^{23} + 17459248705688\, p^{63} q^{95} + 15366777265553\, p^{62} q^{95}$$
$$+ 50239834\, q^{153} p^{123} + 14667260045\, p^{105} q^{37} + 4314815400\, p^{103} q^{33} + 825191966172\, p^{109} q^{54} + 1342473136\, p^{102} q^{30}$$
$$+ 825897247\, p^{96} q^{27} + 279918757678\, p^{104} q^{46} + 803493313855\, p^{105} q^{51} + 12975938835497\, p^{107} q^{109} + 122615882274\, p^{102} q^{42}$$
$$+ 361648113379\, p^{104} q^{47} + 37658661838303\, p^{80} q^{103} + 48773996882727\, p^{73} q^{94} + 26518\, p^{137} q^{34} + 11586\, p^{136} q^{32} + 72474\, p^{141} q^{40}$$
$$+ 4556238\, p^{149} q^{65} + 107937\, p^{142} q^{42} + 84592\, p^{140} q^{39} + 9433\, p^{134} q^{30} + 310776\, p^{158} q^{144} + 4627613\, p^{150} q^{68} + 46\, p^{107} q^{13}$$
$$+ 8855521\, p^{154} q^{88} + 131629\, p^{141} q^{41} + 9966694362176\, p^{116} q^{93} + 1278618843039\, p^{112} q^{59} + 578198838838\, p^{45} q^{96}$$
$$+ 446280003071\, p^{44} q^{96} + 3228028504\, p^{114} q^{145} + 1741370066\, p^{106} q^{147} + 1050384808\, p^{102} q^{148} + 3589582417\, p^{122} q^{143}$$
$$+ 1280726\, p^{140} q^{44} + 10626801\, p^{144} q^{56} + 1353969473240\, p^{49} q^{97} + 19722110498451\, p^{64} q^{95} + 305347559715\, q^{111} p^{51}$$
$$+ 176526240389\, q^{110} p^{48} + 1784017130172\, q^{110} p^{59} + 226813375266\, q^{110} p^{49} + 288860162665\, q^{110} p^{50} + 52713581446\, q^{109} p^{43}$$
$$+ 38716091557\, q^{109} p^{42} + 70981625034\, q^{109} p^{44} + 3991331153\, p^{124} q^{142} + 4477717055\, p^{123} q^{142} + 5181309004\, p^{118} q^{143}$$
$$+ 6439737398\, p^{115} q^{143} + 355944984914\, p^{132} q^{96} + 430211932241\, p^{91} q^{131} + 362713982\, q^{49} p^{22} + 84244375520\, q^{83} p^{35}$$
$$+ 26374283\, p^{137} q^{47} + 78905945446773\, p^{94} q^{89} + 957170957905\, p^{45} q^{62} + 1163502490490\, p^{46} q^{62} + 1404055423436\, p^{47} q^{62}$$
$$+ 1682372340121\, p^{48} q^{62} + 35693052880\, p^{79} q^{32} + 24617154352\, p^{79} q^{31} + 14739588821877\, p^{84} q^{58} + 181548722381\, p^{80} q^{37}$$
$$+ 16927655740543\, p^{84} q^{59} + 12739359\, q^{95} p^{20} + 61433163572259\, p^{89} q^{99} + 41607145225\, p^{132} q^{126} + 337344816264\, q^{117} p^{57}$$
$$+ 409104221201\, q^{117} p^{58} + 670669163263\, q^{118} p^{62} + 567457228668\, q^{118} p^{61} + 113438248824\, p^{122} q^{130} + 149370455799\, p^{118} q^{131}$$
$$+ 145042984\, q^{110} p^{29} + 1845790\, p^{158} q^{106} + 499290\, p^{154} q^{73} + 9138865065227\, p^{65} q^{58} + 92\, p^{98} q^{11} + 286675317588\, q^{95} p^{42}$$
$$+ 1850884158131\, p^{49} q^{61} + 64434002970\, p^{62} q^{34} + 86350195889\, p^{62} q^{35} + 546246906475\, p^{90} q^{130} + 562057090100\, p^{91} q^{130}$$
$$+ 1421002314262\, p^{45} q^{70} + 77111205\, q^{144} p^{63} + 59953069\, q^{144} p^{62} + 3789469\, q^{144} p^{53} + 47548845240\, p^{62} q^{33} + 4376848074055\, p^{64} q^{53}$$
$$+ 834468018491\, p^{63} q^{44} + 622070504\, p^{59} q^{22} + 43\, p^{168} q^{153} + 15\, p^{160} q^{70} + 812\, p^{165} q^{115} + 811\, p^{163} q^{96} + 243041793\, p^{149} q^{87}$$
$$+ 15396895\, q^{94} p^{20} + 117760253\, q^{94} p^{23} + 31609189\, q^{94} p^{21} + 62183027\, q^{94} p^{22} + 332740206080\, p^{86} q^{40} + 249248132193\, p^{86} q^{39}$$
$$+ 143961901652\, p^{85} q^{37} + 439653183234\, p^{86} q^{41} + 39589342357\, p^{84} q^{33} + 3791182172967\, p^{89} q^{51} + 1384963647167\, p^{88} q^{46}$$
$$+ 26072900663603\, p^{90} q^{64} + 7796713073118\, p^{89} q^{55} + 52965104756244\, p^{70} q^{80} + 311712960332\, q^{91} p^{41} + 538531844422\, q^{91} p^{43}$$
$$+ 895742817365\, q^{91} p^{45} + 15140055680074\, p^{62} q^{66} + 17865542812199\, p^{63} q^{67} + 537687658250\, p^{72} q^{125} + 967596427\, p^{99} q^{148}$$
$$+ 931823441\, p^{98} q^{148} + 892724685\, p^{97} q^{148} + 760692886\, p^{94} q^{148} + 806622779\, p^{95} q^{148} + 3485525\, p^{112} q^{24} + 4957738999152\, p^{116} q^{109}$$

$$+ 85970603\, q^{142}\, p^{59} + 613000\, p^{131}\, q^{33} + 6572577058744\, p^{53}\, q^{72} + 151752360758\, p^{36}\, q^{72} + 13419789575\, p^{74}\, q^{29} + 8958877079\, p^{74}\, q^{28}$$
$$+ 9315121\, p^{65}\, q^{15} + 101877011416\, p^{36}\, q^{60} + 4487377793055\, p^{102}\, q^{58} + 2234104410672\, q^{122}\, p^{80} + 890400715557\, p^{45}\, q^{61}$$
$$+ 509072931519\, p^{42}\, q^{62} + 728228321386\, p^{44}\, q^{61} + 475946051084\, p^{42}\, q^{61} + 591051095290\, p^{43}\, q^{61} + 32279138923405\, p^{68}\, q^{94}$$
$$+ 2091349341\, p^{138}\, q^{135} + 266168475630\, p^{39}\, q^{63} + 320903039258\, p^{40}\, q^{62} + 405894003467\, p^{41}\, q^{62} + 47311\, p^{126}\, q^{26}$$
$$+ 1830553282795\, p^{90}\, q^{125} + 6965\, p^{164}\, q^{120} + 17904\, p^{115}\, q^{163} + 479\, p^{102}\, q^{164} + 74880\, p^{119}\, q^{162} + 77684\, p^{120}\, q^{162} + 80081\, p^{121}\, q^{162}$$
$$+ 927\, p^{105}\, q^{164} + 71743\, p^{118}\, q^{162} + 753\, p^{104}\, q^{164} + 605\, p^{103}\, q^{164} + 414946\, p^{130}\, q^{160} + 14879\, p^{113}\, q^{163} + 12013\, p^{111}\, q^{163} + 16368\, p^{114}\, q^{163}$$
$$+ 13409\, p^{112}\, q^{163} + 19423\, p^{116}\, q^{163} + 10667\, p^{110}\, q^{163} + 392064\, p^{131}\, q^{160} + 217576\, p^{124}\, q^{161} + 218120\, p^{123}\, q^{161} + 1034413\, p^{154}\, q^{76}$$
$$+ 11\, p^{115}\, q^{15} + 21\, p^{117}\, q^{16} + 1422096\, p^{155}\, q^{82} + 165917\, p^{147}\, q^{51} + 2399590\, p^{154}\, q^{80} + 680831991\, p^{147}\, q^{86} + 1081426121\, p^{148}\, q^{104}$$
$$+ 1996\, q^{154}\, p^{58} + 47488\, p^{161}\, q^{145} + 110160\, p^{161}\, q^{138} + 36281473\, q^{115}\, p^{29} + 63954318\, q^{115}\, p^{30} + 27151178\, q^{114}\, p^{28}$$
$$+ 2076286016397\, p^{116}\, q^{67} + 957219795060\, p^{85}\, q^{127} + 1089271009571\, p^{88}\, q^{127} + 1048540783264\, p^{87}\, q^{127} + 1004340663144\, p^{86}\, q^{127}$$
$$+ 5805365843531\, p^{107}\, q^{116} + 5378909623415\, p^{108}\, q^{116} + 5855342\, p^{152}\, q^{76} + 60\, p^{113}\, q^{15} + 108\, p^{115}\, q^{16} + 7962650\, p^{153}\, q^{82}$$
$$+ 847961\, p^{145}\, q^{51} + 12394419\, p^{152}\, q^{80} + 9041830776774\, p^{102}\, q^{115} + 8899574323153\, p^{99}\, q^{116} + 1786779738\, p^{140}\, q^{68}$$
$$+ 655120493\, p^{138}\, q^{59} + 2873841112\, p^{145}\, q^{116} + 34970748911\, p^{131}\, q^{65} + 48775307901\, p^{131}\, q^{67} + 10892120550\, p^{129}\, q^{56}$$
$$+ 9510196289187\, p^{107}\, q^{112} + 1481787066\, p^{104}\, q^{31} + 2722493057177\, p^{113}\, q^{65} + 5222928760084\, p^{114}\, q^{72} + 609661909261\, p^{119}\, q^{123}$$
$$+ 109950218356\, p^{44}\, q^{45} + 154213343541\, p^{45}\, q^{46} + 10482\, p^{41}\, q^{7} + 12352922710942\, p^{92}\, q^{59} + 40831890934071\, p^{93}\, q^{70}$$
$$+ 622840408945\, p^{89}\, q^{43} + 221800967046\, p^{115}\, q^{53} + 134799363482\, p^{114}\, q^{50} + 56162457661\, p^{39}\, q^{47} + 5\, q^{43}\, p^{3} + 69559922955\, p^{40}\, q^{47}$$
$$+ 14707935576\, p^{33}\, q^{48} + 28891048254\, p^{67}\, q^{31} + 3118599525614\, p^{70}\, q^{49} + 24766621789941\, p^{71}\, q^{64} + 1153579\, p^{56}\, q^{12} + 2529\, p^{45}\, q^{6}$$
$$+ 19271834036\, p^{34}\, q^{48} + 25002982826\, p^{35}\, q^{48} + 6860136568\, p^{30}\, q^{49} + 2650624827\, p^{63}\, q^{25} + 9041830776774\, p^{69}\, q^{56}$$
$$+ 4993806229\, p^{29}\, q^{49} + 3589582417\, p^{28}\, q^{49} + 53445323201\, p^{65}\, q^{33} + 659846672\, p^{62}\, q^{22} + 1342411986\, p^{25}\, q^{50} + 2546031244\, p^{27}\, q^{49}$$
$$+ 112973409168\, p^{124}\, q^{60} + 241232637957\, p^{125}\, q^{66} + 11345658240\, p^{121}\, q^{47} + 3041735196\, p^{97}\, q^{30} + 9532617517\, p^{98}\, q^{33}$$
$$+ 95077205465\, q^{94}\, p^{38} + 195552791\, p^{151}\, q^{117} + 296536981\, p^{149}\, q^{89} + 45379115191352\, p^{72}\, q^{94} + 41633036265969\, q^{104}\, p^{87}$$
$$+ 38334032319106\, q^{104}\, p^{83} + 116931194567\, p^{135}\, q^{88} + 31312194509456\, p^{92}\, q^{107} + 24211019164287\, p^{82}\, q^{108} + 37259\, p^{150}\, q^{54}$$
$$+ 1650420\, p^{157}\, q^{95} + 99917\, p^{161}\, q^{139} + 9983\, p^{146}\, q^{44} + 90479\, p^{150}\, q^{56} + p^{104}\, q^{11} + 11106772707453\, p^{72}\, q^{109} + 1867833945510\, q^{119}\, p^{71}$$
$$+ 2307255018493\, q^{119}\, p^{73} + 2788473755801\, q^{119}\, p^{75} + 2543325673432\, q^{119}\, p^{74} + 3041000996131\, q^{119}\, p^{76} + 3560181122863\, q^{119}\, p^{78}$$

$$+ 3298961692363\, q^{119} p^{77} + 726535974517\, p^{101} q^{129} + 34976207622\, q^{114} p^{45} + 17157297512\, q^{113} p^{42} + 25901391374\, q^{114} p^{44}$$
$$+ 12306029782\, q^{113} p^{41} + 3342097918216\, p^{63} q^{110} + 2884024294376\, p^{62} q^{110} + 567457228668\, p^{53} q^{110} + 5015000590415\, p^{66} q^{110}$$
$$+ 364748752295\, p^{51} q^{110} + 14279929770208\, p^{75} q^{109} + 227264264227\, q^{133} p^{89} + 236364278519\, q^{133} p^{90} + 244609169562\, q^{133} p^{91}$$
$$+ 251891075394\, q^{133} p^{92} + 85390535499\, q^{133} p^{76} + 884260869\, q^{116} p^{36} + 439653183234\, q^{86} p^{41} + 42492304595\, p^{88} q^{34}$$
$$+ 1908136622\, p^{85} q^{26} + 2046334069534\, p^{113} q^{63} + 176526240389\, p^{110} q^{48} + 3536084840613\, p^{113} q^{67} + 27162104429618\, p^{82} q^{107}$$
$$+ 33161779586894\, p^{106} q^{85} + 41130154\, p^{88} q^{20} + 70756696024848\, p^{79} q^{93} + 337391762736\, p^{90} q^{41} + 188213782230\, p^{90} q^{39}$$
$$+ 109076094927\, p^{89} q^{37} + 29443238033\, p^{88} q^{33} + 195625410215\, q^{134} p^{102} + 191233740407\, q^{134} p^{103} + 59444387114685\, p^{99} q^{92}$$
$$+ 75231411276081\, p^{92} q^{94} + 76806335743680\, p^{91} q^{94} + 9532617517\, q^{98} p^{33} + 26113672408\, q^{99} p^{36} + 6307890619\, q^{98} p^{32}$$
$$+ 699485469788\, p^{117} q^{61} + 3822281542998\, p^{119} q^{79} + 1298831\, p^{146} q^{54} + 37973141\, p^{154} q^{106} + 272345\, p^{160} q^{106} + 57515\, p^{156} q^{73}$$
$$+ 14641575\, p^{150} q^{73} + 243743404609\, p^{126} q^{122} + 3327\, p^{77} q^{159} + 93988\, p^{90} q^{159} + 34238965926231\, q^{104} p^{80} + 32650895374076\, q^{104} p^{79}$$
$$+ 69050358628510\, p^{97} q^{87} + 8030624309350\, p^{58} q^{96} + 24741105344182\, p^{66} q^{95} + 34184765272978\, p^{75} q^{101} + 4495789965\, p^{111} q^{37}$$
$$+ 1320079878\, p^{109} q^{33} + 95354570109\, p^{135} q^{112} + 58231530277900\, p^{99} q^{93} + 61587182685545\, p^{98} q^{93} + 83560\, p^{162} q^{123}$$
$$+ 42354\, p^{156} q^{72} + 81876\, p^{162} q^{129} + 9233\, p^{163} q^{147} + 19\, p^{134} q^{25} + 16378\, p^{163} q^{142} + 84576\, p^{162} q^{124} + 131629\, p^{130} q^{30}$$
$$+ 49323563\, p^{81} q^{19} + 63997974031095\, p^{98} q^{91} + 61858767765961\, p^{97} q^{81} + 52573900488442\, p^{96} q^{76} + 55490619431699\, p^{96} q^{77}$$
$$+ 43383165484225\, p^{96} q^{73} + 68921891717407\, p^{97} q^{89} + 46487685190731\, p^{96} q^{74} + 25685639314331\, p^{96} q^{67} + 49223349\, p^{125} q^{36}$$
$$+ 41970163409\, p^{139} q^{99} + 15170271733\, p^{140} q^{117} + 8398552989\, p^{134} q^{63} + 12267059715\, p^{106} q^{37} + 3608221500\, p^{104} q^{33}$$
$$+ 699485469788\, p^{110} q^{54} + 1116376087\, p^{103} q^{30} + 146838419\, p^{151} q^{95} + 19113920595562\, p^{110} q^{99} + 20528962346501\, p^{110} q^{97}$$
$$+ 25737\, p^{74} q^{10} + 411\, p^{60} q^{6} + 2385614613118\, p^{93} q^{50} + 8231\, p^{63} q^{8} + 160341\, p^{70} q^{11} + 68618239302915\, p^{97} q^{86} + 21854605\, q^{59} p^{16}$$
$$+ 73060\, p^{151} q^{158} + 177433537\, p^{73} q^{20} + 5777664364611\, p^{83} q^{52} + 4814231434770\, p^{83} q^{51} + 296901\, p^{64} q^{11} + 4194503134\, p^{133} q^{58}$$
$$+ 5247967583\, p^{144} q^{94} + 3939907593\, p^{145} q^{109} + 3413647\, p^{130} q^{35} + 715975140\, p^{146} q^{127} + 1307971123\, p^{132} q^{52}$$
$$+ 15608808377\, p^{136} q^{71} + 48991148548\, p^{138} q^{91} + 5622\, p^{101} q^{14} + 31958218188\, p^{138} q^{84} + 2943640880\, p^{132} q^{55} + 1298831\, p^{117} q^{25}$$
$$+ 139328878\, p^{127} q^{40} + 8414432863\, p^{135} q^{65} + 253145\, p^{148} q^{54} + 9315121\, p^{156} q^{106} + 3060790\, p^{152} q^{73} + 686104730141\, p^{82} q^{42}$$
$$+ 96657952344\, p^{80} q^{35} + 3271850397860\, p^{83} q^{49} + 30978707110098\, p^{84} q^{64} + 17470063984\, p^{78} q^{30} + 9588439514944\, p^{83} q^{55}$$
$$+ 1785260116086\, p^{82} q^{46} + 499290\, q^{98} p^{17} + 312821344\, q^{148} p^{84} + 391063533\, q^{148} p^{86} + 7321481\, q^{107} p^{23} + 54157141\, q^{107} p^{26}$$

$$+ 235606749\, q^{108}\, p^{29} + 14842334\, q^{107}\, p^{24} + 78006767\, p^{76}\, q^{19} + 109\, p^{41}\, q^{4} + 465690915577\, p^{131}\, q^{97} + 306057519887\, p^{132}\, q^{105}$$
$$+ 70981625034\, p^{127}\, q^{62} + 450462030382\, p^{131}\, q^{93} + 182722836619\, p^{129}\, q^{72} + 11033302687\, p^{125}\, q^{51} + 441302843132\, p^{131}\, q^{92}$$
$$+ 1114477259\, p^{48}\, q^{25} + 2297299871\, p^{48}\, q^{27} + 197299542\, p^{47}\, q^{21} + 758429427\, p^{48}\, q^{24} + 1612001951\, p^{48}\, q^{26} + 16586378545\, p^{49}\, q^{33}$$
$$+ 6860136568\, p^{49}\, q^{30} + 4993806229\, p^{49}\, q^{29} + 12495523484\, p^{49}\, q^{32} + 9311590946\, p^{49}\, q^{31} + 21788197915\, p^{49}\, q^{34}$$
$$+ 28336900325\, p^{49}\, q^{35} + 41219270934\, p^{50}\, q^{36} + 414946\, p^{41}\, q^{11} + 909925\, p^{42}\, q^{12} + 188984\, p^{41}\, q^{10} + 1917374\, p^{43}\, q^{13}$$
$$+ 43417753\, p^{46}\, q^{18} + 13757902\, p^{45}\, q^{16} + 66848471414\, p^{50}\, q^{38} + 129478932629\, p^{50}\, q^{41} + 193365388098\, p^{50}\, q^{43}$$
$$+ 158833600616\, p^{50}\, q^{42} + 84020535589\, p^{50}\, q^{39} + 52728053298\, p^{50}\, q^{37} + 74519\, p^{39}\, q^{9} + 28768\, p^{38}\, q^{8} + 233668856545\, p^{50}\, q^{44}$$
$$+ 320473986249\, p^{51}\, q^{45} + 104724749858\, p^{50}\, q^{40} + 23810542\, p^{45}\, q^{17} + 3901144\, p^{44}\, q^{14} + 114714131\, p^{46}\, q^{20} + 71442990\, p^{46}\, q^{19}$$
$$+ 304826567\, p^{47}\, q^{22} + 461959038\, p^{47}\, q^{23} + 3228518425\, p^{48}\, q^{28} + 7185070\, p^{44}\, q^{15} + 10002623058925\, p^{58}\, q^{93} + 182365853733\, p^{46}\, q^{46}$$
$$+ 85472758966\, p^{41}\, q^{47} + 24273090598542\, p^{69}\, q^{65} + 27950251560361\, p^{70}\, q^{66} + 32131275677\, p^{36}\, q^{48} + 9311590946\, p^{31}\, q^{49}$$
$$+ 14832257157029\, p^{69}\, q^{60} + 10322733588822\, p^{69}\, q^{57} + 1955428737\, p^{26}\, q^{50} + 71105494490594\, p^{89}\, q^{76} + 4722947172\, p^{125}\, q^{48}$$
$$+ 59937953610192\, p^{89}\, q^{73} + 906784106\, q^{50}\, p^{24} + 148565555750\, p^{63}\, q^{125} + 27\, q^{114}\, p^{15} + 60\, q^{113}\, p^{15} + 3669502\, p^{143}\, q^{153}$$
$$+ 1985569\, p^{144}\, q^{154} + 64620\, p^{116}\, q^{162} + 1623\, p^{108}\, q^{164} + 1128\, p^{106}\, q^{164} + 1360\, p^{107}\, q^{164} + 135\, p^{106}\, q^{165} + 1919\, p^{109}\, q^{164} + 2248\, p^{110}\, q^{164}$$
$$+ 2611\, p^{111}\, q^{164} + 212686\, p^{126}\, q^{161} + 169798\, p^{151}\, q^{156} + 215791\, p^{125}\, q^{161} + 68301\, p^{117}\, q^{162} + 9415\, p^{109}\, q^{163} + 160931636640\, p^{100}\, q^{42}$$
$$+ 476106004337\, p^{102}\, q^{47} + 26881692\, p^{154}\, q^{99} + 20116138\, p^{152}\, q^{83} + 28711139\, p^{154}\, q^{100} + 17959215\, p^{150}\, q^{74} + 5956185\, p^{149}\, q^{66}$$
$$+ 1257\, p^{121}\, q^{20} + 4766886\, p^{147}\, q^{60} + 114\, p^{109}\, q^{14} + 574\, p^{120}\, q^{19} + 11\, p^{97}\, q^{10} + 2089\, p^{126}\, q^{23} + 2515856\, p^{147}\, q^{58} + p^{77}\, q^{6}$$
$$+ 998952\, p^{157}\, q^{140} + 7692742\, p^{156}\, q^{126} + 25028139\, p^{154}\, q^{98} + 1879944\, p^{146}\, q^{55} + 230112\, p^{157}\, q^{148} + 183505\, p^{157}\, q^{149} + 7539631\, p^{150}\, q^{70}$$
$$+ 36553421\, p^{153}\, q^{94} + 9540159\, p^{156}\, q^{122} + 6671485\, p^{156}\, q^{128} + 1713877\, p^{157}\, q^{136} + 4665875\, p^{156}\, q^{132} + 6625585029614\, p^{115}\, q^{107}$$
$$+ 8393791331341\, p^{95}\, q^{117} + 284265\, p^{87}\, q^{14} + 1328025740760\, p^{107}\, q^{125} + 2414762\, p^{139}\, q^{44} + 19967085\, p^{143}\, q^{56}$$
$$+ 76201696681494\, p^{88}\, q^{95} + 3836306593\, p^{108}\, q^{35} + 25740512120\, p^{130}\, q^{131} + 21279227370\, p^{131}\, q^{131} + 30020098158\, p^{128}\, q^{132}$$
$$+ 41414903685746\, q^{79}\, p^{67} + 568343494\, p^{145}\, q^{76} + 1087316486\, p^{148}\, q^{107} + 1703586517\, p^{147}\, q^{102} + 1859852337\, p^{146}\, q^{92}$$
$$+ 88690685\, p^{149}\, q^{134} + 698319212\, p^{148}\, q^{119} + 1672892864\, p^{147}\, q^{101} + 63954318\, p^{141}\, q^{56} + 7761454\, p^{137}\, q^{44} + 5799204371075\, p^{115}\, q^{75}$$
$$+ 189077054420\, p^{111}\, q^{49} + 58889475500\, p^{110}\, q^{44} + 8839059558925\, p^{116}\, q^{85} + 2243537035\, p^{121}\, q^{42} + 750834074\, p^{147}\, q^{87}$$
$$+ 104367949\, p^{150}\, q^{130} + 538531844422\, p^{80}\, q^{128} + 286675317588\, p^{76}\, q^{129} + 49615843430496\, p^{102}\, q^{90} + 6523712878860\, p^{100}\, q^{59}$$

$$+ 23525370433129\, p^{101} q^{107} + 3778839528\, q^{106} p^{34} + 336437967798\, q^{69} p^{39} + 657758\, q^{156} p^{83} + 43558722285174\, p^{74} q^{97}$$
$$+ 39920974\, q^{63} p^{17} + 60742\, q^{56} p^{9} + 6238101279847\, p^{81} q^{117} + 21012322\, q^{62} p^{16} + 28218334511401\, p^{92} q^{108} + 131454292\, q^{65} p^{19}$$
$$+ 150768\, q^{59} p^{10} + 5880990477976\, p^{70} q^{112} + 3111903836730\, p^{66} q^{113} + 7197298638715\, p^{72} q^{112} + 5272357358209\, p^{69} q^{112}$$
$$+ 6523712878860\, p^{71} q^{112} + 781262917852\, p^{117} q^{123} + 14035867293\, q^{67} p^{29} + 71623952603\, q^{120} p^{53} + 56388964071\, q^{120} p^{52}$$
$$+ 90205427784\, q^{120} p^{54} + 112676677495\, q^{120} p^{55} + 20281201764\, q^{67} p^{30} + 479\, q^{69} p^{7} + 1522499638916\, p^{98} q^{50}$$
$$+ 31894641389415\, p^{101} q^{74} + 16953271465369\, p^{101} q^{67} + 29605725548551\, p^{101} q^{73} + 49770872458554\, p^{102} q^{89}$$
$$+ 36453534824432\, p^{101} q^{76} + 38677336869825\, p^{101} q^{77} + 45511185374877\, p^{103} q^{91} + 42899009493974\, p^{102} q^{81} + 19423\, q^{55} p^{8}$$
$$+ 1531\, q^{51} p^{6} + 96\, q^{56} p^{5} + 29493674330411\, p^{92} q^{66} + 23692052093\, p^{86} q^{32} + 9685671882863\, p^{91} q^{57} + 804036926085\, p^{89} q^{44}$$
$$+ 87619982735887\, p^{84} q^{80} + 416666\, q^{59} p^{11} + 171689867552\, q^{120} p^{57} + 202\, p^{52} q^{5} + 4501045\, p^{64} q^{14} + 2074234\, p^{63} q^{13}$$
$$+ 170281\, q^{57} p^{10} + 19145662\, p^{83} q^{18} + 117773161\, p^{85} q^{21} + 9\, q^{54} p^{4} + 1741370066\, q^{65} p^{24} + 20516734\, q^{63} p^{16} + 4903382\, q^{62} p^{14}$$
$$+ 5908\, q^{53} p^{7} + 143913368587\, q^{68} p^{36} + 28891048254\, q^{67} p^{31} + 77240757167\, q^{67} p^{34} + 40605240882\, q^{67} p^{32} + 19924\, q^{108} p^{17}$$
$$+ 1496103\, p^{153} q^{147} + 56344571556\, q^{67} p^{33} + 104668017306\, q^{67} p^{35} + 5075047\, q^{61} p^{14} + 37441253140788\, p^{93} q^{69} + 115634061\, p^{79} q^{20}$$
$$+ 161502180919\, p^{88} q^{38} + 232541513\, q^{65} p^{20} + 1090897877\, q^{65} p^{23} + 399490212\, q^{65} p^{21} + 668249330\, q^{65} p^{22} + 664230005\, q^{66} p^{22}$$
$$+ 83320630493929\, p^{82} q^{91} + 1048741\, q^{59} p^{12} + 64958342733\, p^{126} q^{60} + 139855895743\, p^{127} q^{66} + 6424840137\, p^{123} q^{47}$$
$$+ 9568156152\, q^{67} p^{28} + 1745080902\, q^{66} p^{24} + 4214903998\, q^{66} p^{26} + 9467113755\, q^{66} p^{28} + 6370600411\, q^{66} p^{27} + 2738582459\, q^{66} p^{25}$$
$$+ 36491563\, q^{113} p^{28} + 13846985399\, q^{66} p^{29} + 133518583\, q^{64} p^{19} + 234948630\, q^{64} p^{20} + 39038835\, q^{64} p^{17} + 73492736\, q^{64} p^{18}$$
$$+ 470715938\, p^{149} q^{95} + 10085280\, q^{63} p^{15} + 56741\, q^{57} p^{9} + 2277899\, q^{61} p^{13} + 394116\, q^{60} p^{11} + 1004391\, q^{60} p^{12} + 69405576840\, p^{135} q^{116}$$
$$+ 196541340432\, p^{134} q^{94} + 253846758003\, q^{112} p^{51} + 1982390699610\, q^{68} p^{47} + 17904\, q^{56} p^{8} + 19925274\, q^{64} p^{16} + 956239\, q^{61} p^{12}$$
$$+ 508759897929\, q^{114} p^{56} + 31428050478\, p^{32} q^{60} + 312821344\, p^{148} q^{84} + 77163717147\, p^{35} q^{60} + 57836906622\, p^{34} q^{60}$$
$$+ 23909951109\, p^{31} q^{61} + 42879296765\, p^{33} q^{60} + 999566442\, p^{100} q^{148} + 267030266\, p^{150} q^{95} + 252216\, p^{159} q^{96} + 179325\, p^{161} q^{115}$$
$$+ 1782\, p^{164} q^{153} + 525796801\, p^{97} q^{149} + 4200245\, p^{133} q^{156} + 2082300784193\, q^{122} p^{79} + 58944231043574\, p^{84} q^{99}$$
$$+ 65233125970312\, p^{89} q^{98} + 14590738\, p^{144} q^{57} + 9756811674198\, p^{116} q^{89} + 6783766173538\, p^{115} q^{77} + 8498032059378\, p^{117} q^{91}$$
$$+ 7403589443384\, p^{116} q^{81} + 3976917477520\, p^{115} q^{71} + 6288540046996\, p^{115} q^{76} + 13401029887842\, p^{78} q^{111}$$
$$+ 12550706010001\, p^{77} q^{111} + 11694499301809\, p^{76} q^{111} + 1089271009571\, p^{127} q^{88} + 860755502395\, p^{128} q^{103} + 4004218\, q^{76} p^{15}$$

$$+ 1071638043014\, p^{112}\, q^{58} + 11517151386779\, p^{115}\, q^{90} + 8258052969136\, q^{91}\, p^{56} + 9685671882863\, q^{91}\, p^{57} + 15048717913141\, q^{91}\, p^{60}$$
$$+ 13073353833980\, q^{91}\, p^{59} + 22148640776790\, q^{91}\, p^{63} + 27845650080877\, q^{91}\, p^{65} + 29493674330411\, q^{92}\, p^{66}$$
$$+ 17218704460087\, q^{91}\, p^{61} + 24904353164232\, q^{91}\, p^{64} + 19585535503403\, q^{91}\, p^{62} + 11287932303120\, q^{91}\, p^{58} + 973561338531\, p^{98}\, q^{48}$$
$$+ 77630042079\, p^{128}\, q^{127} + 707175638561\, p^{42}\, q^{69} + 602063255678\, p^{73}\, q^{125} + 48028737998014\, p^{69}\, q^{86} + 51997093954632\, p^{70}\, q^{86}$$
$$+ 72351767312031\, p^{75}\, q^{85} + 786588834\, p^{122}\, q^{40} + 327610457131\, p^{39}\, q^{68} + 17716901136291\, p^{98}\, q^{111} + 3429779060308\, p^{50}\, q^{68}$$
$$+ 2676095972982\, p^{88}\, q^{49} + 23718721245876\, p^{109}\, q^{85} + 25980597\, p^{91}\, q^{20} + 106\, p^{165}\, q^{105} + 42\, p^{168}\, q^{143} + 878214136994\, p^{111}\, q^{56}$$
$$+ 2802125004799\, p^{112}\, q^{64} + 721881614614\, p^{111}\, q^{55} + 9685671882863\, p^{114}\, q^{80} + 13011375828933\, p^{114}\, q^{88} + 8583165855541\, p^{115}\, q^{103}$$
$$+ 11611641394961\, p^{115}\, q^{92} + 4061136449765\, p^{51}\, q^{68} + 3265174535365\, p^{50}\, q^{67} + 59666250\, p^{152}\, q^{127} + 232448199\, p^{151}\, q^{111}$$
$$+ 236133845\, p^{151}\, q^{109} + 95571229\, p^{152}\, q^{121} + 186501648\, p^{151}\, q^{118} + 17157297512\, p^{129}\, q^{58} + 17877934066609\, p^{84}\, q^{111}$$
$$+ 95077205465\, q^{133}\, p^{77} + 7\, q^{65}\, p^{5} + 1986994426910\, p^{64}\, q^{114} + 2742816186737\, p^{49}\, q^{67} + 106049598955\, q^{103}\, p^{42} + 2829\, p^{161}\, q^{158}$$
$$+ 312310539081\, q^{105}\, p^{47} + 3539540398607\, p^{93}\, q^{122} + 56534991983\, p^{84}\, q^{34} + 2636857514\, p^{81}\, q^{26} + 24905416865498\, p^{69}\, q^{99}$$
$$+ 14834264974144\, p^{65}\, q^{100} + 20336118063701\, p^{67}\, q^{99} + 22566515061408\, p^{68}\, q^{99} + 796750\, p^{64}\, q^{12} + 2273383735069\, p^{81}\, q^{47}$$
$$+ 430211932241\, p^{80}\, q^{40} + 326065794483\, p^{80}\, q^{39} + 101692747\, p^{72}\, q^{19} + 49365026881989\, p^{84}\, q^{69} + 53334332767432\, p^{84}\, q^{70}$$
$$+ 422693973186\, p^{40}\, q^{68} + 85243827101577\, p^{80}\, q^{81} + 540437626724\, p^{41}\, q^{68} + 214216411323\, p^{47}\, q^{46} + 104220846200\, p^{42}\, q^{47}$$
$$+ 40915411916\, p^{37}\, q^{48} + 126134855540\, p^{43}\, q^{47} + 879790\, q^{106}\, p^{20} + 51643070943\, p^{38}\, q^{48} + 12495523484\, p^{32}\, q^{49} + 231591015\, q^{150}\, p^{93}$$
$$+ 249362431\, q^{150}\, p^{94} + 64630141086\, p^{39}\, q^{48} + 28336900325\, p^{35}\, q^{49} + 21788197915\, p^{34}\, q^{49} + 10383852795\, p^{31}\, q^{50}$$
$$+ 16586378545\, p^{33}\, q^{49} + 7628717780\, p^{30}\, q^{50} + 3073877303\, p^{27}\, q^{51} + 5537109014\, p^{29}\, q^{50} + 2805483951\, p^{27}\, q^{50} + 3968008792\, p^{28}\, q^{50}$$
$$+ 433412314\, q^{148}\, p^{87} + 175767427249\, p^{64}\, q^{125} + 22495562692246\, p^{82}\, q^{61} + 28352842379989\, p^{82}\, q^{63} + 25326494112087\, p^{82}\, q^{62}$$
$$+ 907745784624\, p^{127}\, q^{84} + 3176048\, p^{140}\, q^{46} + 705671075356\, p^{87}\, q^{43} + 3281597602175\, p^{88}\, q^{50} + 47311\, q^{145}\, p^{45}$$
$$+ 3628910283\, p^{118}\, q^{144} + 14879\, p^{58}\, q^{8} + 632368874767\, p^{126}\, q^{114} + 411330234507\, p^{126}\, q^{118} + 1023623898840\, p^{126}\, q^{108}$$
$$+ 890400715557\, p^{126}\, q^{110} + 44835345032170\, p^{101}\, q^{80} + 53627214198375\, p^{101}\, q^{88} + 26533932\, q^{144}\, p^{59} + 3\, q^{30}\, p^{2} + 52648\, p^{58}\, q^{9}$$
$$+ 34947002834344\, p^{82}\, q^{65} + 655261107\, q^{127}\, p^{44} + 930027147\, q^{127}\, p^{45} + 108007908571\, p^{128}\, q^{125} + 15157641361129\, p^{66}\, q^{101}$$
$$+ 16953271465369\, p^{67}\, q^{101} + 26476\, q^{50}\, p^{8} + 334458028\, p^{91}\, q^{24} + 84262509122126\, p^{82}\, q^{79} + 253335928697\, p^{90}\, q^{40}$$
$$+ 119232246270\, p^{65}\, q^{127} + 9708694\, p^{142}\, q^{52} + 71939907\, q^{153}\, p^{106} + 30698597\, q^{152}\, p^{86} + 34886398\, q^{152}\, p^{87} + 17099107345945\, q^{103}\, p^{69}$$

$$+ 1672167\, p^{141}\, q^{46} + 1577\, q^{135}\, p^{29} + p^{90}\, q^{8} + 84262509122126\, p^{89}\, q^{92} + 1714692747915\, p^{63}\, q^{114} + 16243822427059\, p^{108}\, q^{75}$$
$$+ 590594\, p^{117}\, q^{24} + 18003268418\, p^{138}\, q^{78} + 29167236794\, p^{140}\, q^{98} + 40716587797964\, p^{82}\, q^{103} + 7055281435407\, p^{96}\, q^{118} + 1672\, q^{72}\, p^{8}$$
$$+ 280267\, q^{92}\, p^{15} + 3669502\, p^{153}\, q^{143} + 9138865065227\, p^{106}\, q^{113} + 11\, q^{53}\, p^{4} + 7904131798994\, p^{98}\, q^{117} + 1313370484\, q^{126}\, p^{45}$$
$$+ 344344\, q^{114}\, p^{22} + 6386615728182\, p^{114}\, q^{109} + 5378909623415\, p^{116}\, q^{108} + 9004091314594\, p^{110}\, q^{110} + 35754991338\, q^{136}\, p^{120}$$
$$+ 24487150775\, q^{137}\, p^{121} + 61051993461525\, p^{95}\, q^{97} + 105273089892\, q^{133}\, p^{78} + 115921670755\, q^{133}\, p^{79} + 1607539081634\, p^{47}\, q^{64}$$
$$+ 4805049273522\, p^{57}\, q^{59} + 2305803396501\, p^{64}\, q^{49} + 2450667772\, p^{60}\, q^{25} + 203315189416\, p^{37}\, q^{72} + 29298270502\, p^{68}\, q^{31}$$
$$+ 3222923214103\, p^{71}\, q^{49} + 25944105121388\, p^{72}\, q^{64} + 1123912\, p^{57}\, q^{12} + 1226646476\, p^{49}\, q^{25} + 2546031244\, p^{49}\, q^{27}$$
$$+ 214878523\, p^{48}\, q^{21} + 831658364\, p^{49}\, q^{24} + 1780529177\, p^{49}\, q^{26} + 18594381107\, p^{50}\, q^{33} + 7628717780\, p^{50}\, q^{30} + 5537109014\, p^{50}\, q^{29}$$
$$+ 13971998266\, p^{50}\, q^{32} + 10383852795\, p^{50}\, q^{31} + 24487150775\, p^{50}\, q^{34} + 31924147487\, p^{50}\, q^{35} + 46272484517\, p^{51}\, q^{36} + 436424\, p^{42}\, q^{11}$$
$$+ 961184\, p^{43}\, q^{12} + 2032182\, p^{44}\, q^{13} + 46838175\, p^{47}\, q^{18} + 14746198\, p^{46}\, q^{16} + 75375958108\, p^{51}\, q^{38} + 146899786304\, p^{51}\, q^{41}$$
$$+ 220230054461\, p^{51}\, q^{43} + 180556195365\, p^{51}\, q^{42} + 94939045229\, p^{51}\, q^{39} + 59325070092\, p^{51}\, q^{37} + 266629125499\, p^{51}\, q^{44}$$
$$+ 364146536448\, p^{52}\, q^{45} + 118577326122\, p^{51}\, q^{40} + 25683924\, p^{46}\, q^{17} + 4144981\, p^{45}\, q^{14} + 125062964\, p^{47}\, q^{20} + 77493544\, p^{47}\, q^{19}$$
$$+ 333466861\, p^{48}\, q^{22} + 507482597\, p^{48}\, q^{23} + 3589582417\, p^{49}\, q^{28} + 7692742\, p^{45}\, q^{15} + 249985731680\, p^{48}\, q^{46} + 151550610607\, p^{44}\, q^{47}$$
$$+ 80219138342\, p^{40}\, q^{48} + 36502015512\, p^{36}\, q^{49} + 13971998266\, p^{32}\, q^{50} + 4361396483\, p^{28}\, q^{51} + 21498980653259\, p^{61}\, q^{85}$$
$$+ 34372642869624\, p^{65}\, q^{84} + 37931027300240\, p^{66}\, q^{84} + 18967208287\, q^{128}\, p^{57} + 12857091930\, q^{127}\, p^{54} + 20044200920\, p^{121}\, q^{49}$$
$$+ 54\, q^{46}\, p^{4} + 628799\, q^{67}\, p^{12} + 4\, q^{113}\, p^{14} + 44\, q^{47}\, p^{4} + 9798922650950\, p^{58}\, q^{66} + 11766758319803\, p^{59}\, q^{67} + 19073130855949\, p^{68}\, q^{63}$$
$$+ 17304641710449\, p^{68}\, q^{62} + 15614707986164\, p^{68}\, q^{61} + 20909411428538\, p^{68}\, q^{64} + 49363791512859\, p^{76}\, q^{97} + 2939\, p^{42}\, q^{6}$$
$$+ 1205209\, p^{53}\, q^{12} + 521103\, p^{52}\, q^{11} + 2646484\, p^{54}\, q^{13} + 5555865\, p^{55}\, q^{14} + 193590790656\, p^{124}\, q^{63} + 79253050045577\, p^{85}\, q^{77}$$
$$+ 81748670479555\, p^{86}\, q^{78} + 64753086328950\, p^{85}\, q^{73} + 75910809372690\, p^{85}\, q^{76} + 1302727981\, p^{125}\, q^{44} + 415851927065\, p^{114}\, q^{55}$$
$$+ 17251221816085\, p^{83}\, q^{111} + 22618598097778\, p^{90}\, q^{110} + 21931889497357\, p^{84}\, q^{61} + 27766029277066\, p^{84}\, q^{63}$$
$$+ 24747436628872\, p^{84}\, q^{62} + 34372642869624\, p^{84}\, q^{65} + 18534\, q^{105}\, p^{16} + 13907385342550\, p^{101}\, q^{112} + 10818205290376\, p^{108}\, q^{110}$$
$$+ 9896073702255\, p^{110}\, q^{109} + 14557999680888\, p^{100}\, q^{112} + 13170643644700\, p^{104}\, q^{111} + 15717489692716\, p^{98}\, q^{112}$$
$$+ 12316837231569\, p^{105}\, q^{111} + 12724877430490\, p^{106}\, q^{110} + 67869275019295\, p^{93}\, q^{96} + 2813599323205\, p^{84}\, q^{122}$$
$$+ 69050358628510\, p^{87}\, q^{97} + 2877030882720\, p^{49}\, q^{68} + 2288172773613\, p^{48}\, q^{67} + 11094304754060\, p^{68}\, q^{58} + 38\, p^{30}\, q^{3}$$

$$+ 22386020562203\, p^{78}\, q^{107} + 51495725\, p^{150}\, q^{135} + 603679248\, p^{149}\, q^{113} + 666043414\, p^{149}\, q^{108} + 201543087\, p^{101}\, q^{26}$$
$$+ 25436510522927\, p^{90}\, q^{109} + 3672061862016\, p^{66}\, q^{112} + 6559928760237\, p^{67}\, q^{109} + 41080438832\, q^{74}\, p^{32} + 20148451552\, q^{73}\, p^{30}$$
$$+ 4009018584\, q^{72}\, p^{26} + 73880812\, p^{103}\, q^{25} + 235999296\, p^{146}\, q^{74} + 86830155\, p^{145}\, q^{66} + 79731711582\, q^{75}\, p^{34} + 11575073296485\, q^{78}\, p^{56}$$
$$+ 1290063262\, p^{107}\, q^{32} + 981831256247\, q^{76}\, p^{43} + 770868493901\, q^{76}\, p^{42} + 1239814384123\, q^{76}\, p^{44} + 1927288370126\, q^{77}\, p^{46}$$
$$+ 1552605787686\, q^{76}\, p^{45} + 125432655\, p^{152}\, q^{104} + 78450825557\, p^{89}\, q^{36} + 180556195365\, p^{120}\, q^{129} + 13360027466651\, q^{78}\, p^{57}$$
$$+ 19815911914915\, q^{78}\, p^{60} + 17478600513117\, q^{78}\, p^{59} + 27903443432034\, q^{78}\, p^{63} + 34096714200625\, q^{78}\, p^{65}$$
$$+ 37931258836114\, q^{79}\, p^{66} + 22336558115904\, q^{78}\, p^{61} + 30929108378700\, q^{78}\, p^{64} + 25035257520223\, q^{78}\, p^{62}$$
$$+ 15326836867389\, q^{78}\, p^{58} + 27192140\, q^{153}\, p^{130} + 30224724\, q^{153}\, p^{129} + 19059694\, q^{153}\, p^{133} + 14548677\, q^{153}\, p^{135} + 7954582\, q^{154}\, p^{136}$$
$$+ 24310978\, q^{153}\, p^{131} + 40013840\, q^{153}\, p^{126} + 58278865944368\, p^{75}\, q^{93} + 24492355856771\, p^{68}\, q^{98} + 13709904685\, q^{73}\, p^{29}$$
$$+ 9180439963\, q^{73}\, p^{28} + 6043257158\, q^{73}\, p^{27} + 55867731417571\, p^{100}\, q^{92} + 7625598071\, q^{112}\, p^{39} + 4495789965\, q^{111}\, p^{37}$$
$$+ 17664958\, q^{67}\, p^{16} + 599868186095\, q^{76}\, p^{41} + 817475272651\, p^{46}\, q^{95} + 63769367509757\, p^{82}\, q^{97} + 462510626660\, q^{76}\, p^{40}$$
$$+ 149966330522\, q^{75}\, p^{36} + 202176816703\, q^{75}\, p^{37} + 269647372666\, q^{75}\, p^{38} + 42105513171711\, p^{104}\, q^{90} + 26444689577160\, p^{103}\, q^{74}$$
$$+ 24492355856771\, p^{103}\, q^{73} + 42149729384371\, p^{104}\, q^{89} + 30357427877571\, p^{103}\, q^{76} + 32279138923405\, p^{103}\, q^{77}$$
$$+ 38298144935379\, p^{105}\, q^{91} + 35727567594417\, p^{104}\, q^{81} + 11\, p^{167}\, q^{118} + 8\, p^{169}\, q^{151} + 19\, p^{168}\, q^{135} + 3\, p^{169}\, q^{141} + 213\, p^{146}\, q^{167}$$
$$+ 860\, p^{153}\, q^{165} + 575\, p^{149}\, q^{166} + 220\, p^{145}\, q^{167} + 47\, p^{148}\, q^{168} + 44\, p^{144}\, q^{168} + 46\, p^{146}\, q^{168} + 45\, p^{152}\, q^{168} + 9\, p^{154}\, q^{169} + 792\, p^{157}\, q^{164}$$
$$+ 614\, p^{160}\, q^{163} + 1085\, p^{158}\, q^{163} + 826\, p^{159}\, q^{163} + 1408\, p^{157}\, q^{163} + 1218\, p^{155}\, q^{164} + 1484\, p^{154}\, q^{164} + 990\, p^{156}\, q^{164} + 688\, p^{161}\, q^{162}$$
$$+ 970\, p^{160}\, q^{162} + 997\, p^{152}\, q^{165} + 625\, p^{148}\, q^{166} + 1149\, p^{151}\, q^{165} + 508\, p^{156}\, q^{165} + 5\, q^{123}\, p^{18} + 20683156441398\, p^{103}\, q^{71}$$
$$+ 50172019131032\, p^{100}\, q^{96} + 1948793474467\, p^{103}\, q^{54} + 37255909895\, p^{99}\, q^{37} + 87817324893\, p^{100}\, q^{40} + 63771183185\, p^{100}\, q^{39}$$
$$+ 41079267331968\, p^{104}\, q^{86} + 41633036265969\, p^{104}\, q^{87} + 32650895374076\, p^{104}\, q^{79} + 1499525899313\, q^{117}\, p^{66}$$
$$+ 1714526554978\, q^{117}\, p^{67} + 4587751777698\, q^{119}\, p^{82} + 34238965926231\, p^{104}\, q^{80} + 41991504230182\, p^{104}\, q^{88} + 37501612663\, p^{64}\, q^{32}$$
$$+ 6043151476\, p^{63}\, q^{27} + 26885460064\, p^{64}\, q^{31} + 2742816186737\, p^{67}\, q^{49} + 183\, p^{35}\, q^{4} + 816\, p^{38}\, q^{5} + 5078144291434\, p^{51}\, q^{80}$$
$$+ 228833141\, p^{59}\, q^{20} + 18435751491\, p^{63}\, q^{30} + 3939907593\, p^{62}\, q^{26} + 12901114434\, p^{63}\, q^{29} + 1044134954\, p^{61}\, q^{23}$$
$$+ 6139180834639\, p^{67}\, q^{54} + 7482489097553\, p^{68}\, q^{55} + 1558726898688\, p^{67}\, q^{46} + 3860900923208\, p^{67}\, q^{51} + 4535336859526\, p^{67}\, q^{52}$$
$$+ 131297299109\, p^{65}\, q^{36} + 3265174535365\, p^{67}\, q^{50} + 633052622339\, p^{66}\, q^{42} + 792874262947\, p^{66}\, q^{43} + 306057519887\, p^{66}\, q^{39}$$

$$+ 393430900284\, p^{66}\, q^{40} + 1895426700617\, p^{67}\, q^{47} + 2288172773613\, p^{67}\, q^{48} + 8897962960\, p^{63}\, q^{28} + 1214136642154\, p^{66}\, q^{45}$$
$$+ 226723741456\, p^{65}\, q^{38} + 173399121148\, p^{65}\, q^{37} + 41215262\, p^{58}\, q^{17} + 83560\, p^{48}\, q^{9} + 29466\, p^{47}\, q^{8} + 26208184877823\, p^{108}\, q^{96}$$
$$+ 46160950\, p^{144}\, q^{61} + 498817103\, p^{149}\, q^{96} + 12412\, p^{70}\, q^{9} + 67869275019295\, p^{96}\, q^{93} + 72735754272257\, p^{87}\, q^{96}$$
$$+ 5858707627697\, p^{118}\, q^{102} + 6356697348316\, p^{118}\, q^{100} + 218120\, p^{161}\, q^{123} + 134607\, p^{155}\, q^{72} + 196469\, p^{161}\, q^{129} + 18437\, p^{162}\, q^{147}$$
$$+ 68\, p^{133}\, q^{25} + 35373\, p^{162}\, q^{142} + 217576\, p^{161}\, q^{124} + 716433\, p^{158}\, q^{96} + 3430\, p^{163}\, q^{153} + 475005\, p^{160}\, q^{115} + 125432655\, q^{152}\, p^{104}$$
$$+ 3759895039\, p^{92}\, q^{29} + 23314241\, p^{87}\, q^{19} + 13844251044570\, p^{73}\, q^{108} + 180046414278\, q^{66}\, p^{37} + 98387447027\, q^{65}\, p^{35}$$
$$+ 8152579849610\, p^{54}\, q^{83} + 505246912\, q^{99}\, p^{27} + 21851731\, q^{96}\, p^{21} + 70026339\, q^{97}\, p^{23} + 45\, p^{145}\, q^{168} + 47\, p^{147}\, q^{168} + 43\, p^{153}\, q^{168}$$
$$+ 30961948038082\, q^{105}\, p^{80} + 4766886\, p^{111}\, q^{24} + 35354058\, p^{67}\, q^{17} + 955992379818\, p^{128}\, q^{99} + 407\, q^{47}\, p^{5} + 5130637\, p^{143}\, q^{52}$$
$$+ 505\, q^{45}\, p^{5} + 49529848995\, p^{86}\, q^{34} + 2267676319\, p^{83}\, q^{26} + 109\, q^{41}\, p^{4} + 21686411\, q^{60}\, p^{16} + 490422\, p^{55}\, q^{11} + 5443426\, p^{58}\, q^{14}$$
$$+ 2566646\, p^{57}\, q^{13} + 75494658\, q^{62}\, p^{18} + 1145549558925\, p^{101}\, q^{127} + 115023687867\, q^{55}\, p^{38} + 166901557\, q^{51}\, p^{20}$$
$$+ 1370771530418\, p^{116}\, q^{64} + 4919313446565\, p^{118}\, q^{80} + 269647372666\, p^{133}\, q^{96} + 418124992846\, p^{115}\, q^{56} + 33913968733\, q^{108}\, p^{41}$$
$$+ 46581984399\, q^{108}\, p^{42} + 17304641710449\, p^{109}\, q^{103} + 389833663\, p^{60}\, q^{21} + 1640959988\, p^{61}\, q^{24} + 21840730\, p^{57}\, q^{16}$$
$$+ 133455208\, p^{59}\, q^{19} + 215276\, p^{50}\, q^{10} + 501228702787\, p^{66}\, q^{41} + 72928546991\, p^{65}\, q^{34} + 98387447027\, p^{65}\, q^{35} + 5293353285461\, p^{67}\, q^{53}$$
$$+ 985019061693\, p^{66}\, q^{44} + 1276200019008\, p^{45}\, q^{85} + p^{165}\, q^{94} + 3\, p^{167}\, q^{114} + 24905416865498\, p^{102}\, q^{72} + 17099107345945\, p^{102}\, q^{68}$$
$$+ 445224466848\, p^{101}\, q^{131} + 356229713789\, p^{98}\, q^{132} + 94175017750\, p^{133}\, q^{118} + 153894529915\, p^{130}\, q^{73} + 137422471042\, p^{133}\, q^{114}$$
$$+ 172384760820\, p^{133}\, q^{111} + 140898998314\, p^{129}\, q^{70} + 49724061638768\, p^{101}\, q^{83} + 722998191\, p^{132}\, q^{50} + 1066086678\, p^{142}\, q^{133}$$
$$+ 28710527379\, p^{140}\, q^{97} + 528460521\, p^{132}\, q^{49} + 58007340\, p^{127}\, q^{38} + 4683549503559\, p^{51}\, q^{84} + 38482755730754\, p^{66}\, q^{82}$$
$$+ 1607929029943\, p^{46}\, q^{85} + 73926201226431\, p^{76}\, q^{80} + 289862508792\, p^{49}\, q^{46} + 20101587\, q^{148}\, p^{68} + 180802620574\, p^{45}\, q^{47}$$
$$+ 214216411323\, p^{46}\, q^{47} + 98776404149\, p^{41}\, q^{48} + 120688306606\, p^{42}\, q^{48} + 46587907012\, p^{37}\, q^{49} + 146356017597\, p^{43}\, q^{48}$$
$$+ 58934099708\, p^{38}\, q^{49} + 18594381107\, p^{33}\, q^{50} + 73914789540\, p^{39}\, q^{49} + 91937101445\, p^{40}\, q^{49} + 52728053298\, p^{37}\, q^{50}$$
$$+ 27360022145\, p^{34}\, q^{51} + 41219270934\, p^{36}\, q^{50} + 24487150775\, p^{34}\, q^{50} + 31924147487\, p^{35}\, q^{50} + 6104488947\, p^{29}\, q^{51}$$
$$+ 8434792808\, p^{30}\, q^{51} + 11512964736\, p^{31}\, q^{51} + 12692481633\, p^{31}\, q^{52} + 15532650722\, p^{32}\, q^{51} + 20724513728\, p^{33}\, q^{51} + 90\, q^{82}\, p^{8}$$
$$+ 48505286925\, p^{111}\, q^{44} + 2636857514\, p^{90}\, q^{145} + 12665686218\, p^{76}\, q^{29} + 8403529535\, p^{76}\, q^{28} + 8414888\, p^{67}\, q^{15}$$
$$+ 3822281542998\, p^{92}\, q^{52} + 11763695219450\, p^{110}\, q^{107} + 353767563189\, p^{72}\, q^{39} + 2303593073940\, p^{73}\, q^{47} + 459821852033\, p^{72}\, q^{40}$$

$$+ 4071917026113\, p^{73} q^{50} + 112159\, q^{144} p^{45} + 34433809\, q^{154} p^{120} + 18379773\, q^{155} p^{121} + 18466307\, q^{151} p^{78} + 21983387\, q^{151} p^{79}$$
$$+ 91065654331103\, p^{86} q^{82} + 4301876675479\, q^{93} p^{53} + 2925148144928\, q^{93} p^{51} + 828179734042\, p^{128} q^{104} + 369986921642\, p^{125} q^{69}$$
$$+ 981831256247\, p^{128} q^{95} + 421543094843\, p^{125} q^{70} + 363344861\, p^{116} q^{34} + 2336844\, p^{151} q^{148} + 3297819\, p^{149} q^{149} + 3232968\, p^{150} q^{148}$$
$$+ 172541192\, p^{149} q^{84} + 5823298\, p^{147} q^{149} + 29687018377\, p^{112} q^{139} + 6680130\, p^{152} q^{142} + 10357633\, p^{148} q^{146} + 6043151476\, p^{144} q^{108}$$
$$+ 4998903090\, p^{144} q^{113} + 276574472\, p^{135} q^{51} + 32097\, p^{115} q^{20} + 300437130\, p^{145} q^{135} + 38802837606613\, p^{72} q^{69}$$
$$+ 19722110498451\, p^{76} q^{107} + 32336871758457\, p^{84} q^{106} + 77630042079\, p^{127} q^{128} + 119111289888\, p^{118} q^{132} + 106648218166\, p^{119} q^{132}$$
$$+ 94939045229\, p^{120} q^{132} + 84020535589\, p^{121} q^{132} + 80219138342\, p^{131} q^{123} + 14842334\, p^{107} q^{24} + 1304547622392\, p^{125} q^{82}$$
$$+ 10003506696\, p^{118} q^{44} + 273322241387\, p^{131} q^{82} + 13677911765\, p^{126} q^{53} + 4071917026113\, p^{98} q^{121} + 8624160336\, p^{139} q^{125}$$
$$+ 1271289919\, p^{128} q^{47} + 32760606733\, p^{138} q^{115} + 5\, p^{56} q^{4} + 35319567373\, p^{138} q^{114} + 25308093567\, p^{138} q^{118} + 42879296765\, p^{138} q^{111}$$
$$+ 28016441745\, p^{134} q^{70} + 78900231036\, p^{137} q^{103} + 54590373509\, p^{134} q^{75} + 1791421\, q^{147} p^{57} + 1767661\, q^{144} p^{51} + 3327\, p^{94} q^{12}$$
$$+ 29247290502\, p^{133} q^{68} + 10875375299\, p^{131} q^{59} + 2771666014\, p^{130} q^{52} + 32408058430\, p^{134} q^{71} + 96657952344\, p^{136} q^{91}$$
$$+ 11599\, p^{99} q^{14} + 65299359131\, p^{136} q^{84} + 6083039942\, p^{130} q^{55} + 2679871\, p^{115} q^{25} + 289974450\, p^{125} q^{40} + 16708979\, q^{153} p^{134}$$
$$+ 21596094\, q^{153} p^{132} + 33388496\, q^{153} p^{128} + 43417753\, q^{153} p^{125} + 46838175\, q^{153} p^{124} + 36660827\, q^{153} p^{127} + 17628325237\, p^{133} q^{65}$$
$$+ 12530229\, q^{149} p^{69} + 7706694\, q^{149} p^{67} + 9873454\, q^{149} p^{68} + 856097\, p^{130} q^{159} + 513315\, p^{124} q^{160} + 75738\, q^{151} p^{58}$$
$$+ 44975678753\, p^{133} q^{124} + 19245965\, q^{155} p^{106} + 146830006228\, q^{111} p^{48} + 112973409168\, q^{111} p^{47} + 253335928697\, p^{131} q^{81}$$
$$+ 351675649364\, p^{131} q^{86} + 317438991748\, p^{132} q^{104} + 122615882274\, p^{129} q^{69} + 43\, p^{164} q^{94} + 77\, p^{166} q^{114} + 22306142\, p^{120} q^{31}$$
$$+ 447366938\, p^{126} q^{42} + 465232405048\, p^{96} q^{131} + 2532592227813\, q^{89} p^{49} + 103993687032\, p^{110} q^{46} + 305347559715\, p^{111} q^{51}$$
$$+ 46581984399\, p^{108} q^{42} + 136135581622\, p^{110} q^{47} + 56002849628175\, p^{71} q^{86} + 6275162204\, p^{129} q^{138} + 7350432802\, p^{128} q^{138}$$
$$+ 34742193297189\, p^{88} q^{106} + 4700284049536\, p^{103} q^{59} + 1089051618462\, p^{101} q^{50} + 1342411986\, p^{50} q^{25} + 2805483951\, p^{50} q^{27}$$
$$+ 232692990\, p^{49} q^{21} + 906784106\, p^{50} q^{24} + 1955428737\, p^{50} q^{26} + 20724513728\, p^{51} q^{33} + 8434792808\, p^{51} q^{30} + 6104488947\, p^{51} q^{29}$$
$$+ 15532650722\, p^{51} q^{32} + 11512964736\, p^{51} q^{31} + 27360022145\, p^{51} q^{34} + 35754991338\, p^{51} q^{35} + 51644746725\, p^{52} q^{36}$$
$$+ 84495617079\, p^{52} q^{38} + 165680486169\, p^{52} q^{41} + 249333831279\, p^{52} q^{43} + 204032789172\, p^{52} q^{42} + 106648218166\, p^{52} q^{39}$$
$$+ 66359800164\, p^{52} q^{37} + 302419956710\, p^{52} q^{44} + 411330234507\, p^{53} q^{45} + 133472819939\, p^{52} q^{40} + 27545120\, p^{47} q^{17}$$
$$+ 135562562\, p^{48} q^{20} + 83574422\, p^{48} q^{19} + 362713982\, p^{49} q^{22} + 554298220\, p^{49} q^{23} + 3968008792\, p^{50} q^{28} + 333995298109\, p^{50} q^{46}$$

$$+ 252100205451\, p^{47}\, q^{47} + 176189223201\, p^{44}\, q^{48} + 113438248824\, p^{41}\, q^{49} + 66848471414\, p^{38}\, q^{50} + 35754991338\, p^{35}\, q^{51}$$
$$+ 17169354034\, p^{32}\, q^{52} + 955992379818\, p^{72}\, q^{43} + 20259326893512\, p^{63}\, q^{69} + 1089271009571\, p^{44}\, q^{83} + 4151801\, q^{109}\, p^{23}$$
$$+ 6440231\, q^{110}\, p^{24} + 1924361605377\, p^{86}\, q^{47} + 755645017023\, p^{72}\, q^{42} + 33837689\, q^{68}\, p^{17} + 85245346179760\, p^{87}\, q^{92} + 419539\, q^{85}\, p^{14}$$
$$+ 1830948412\, q^{125}\, p^{45} + 113815551\, q^{124}\, p^{37} + 494909606\, p^{107}\, q^{30} + 174\, p^{64}\, q^{6} + 211847007\, q^{69}\, p^{20} + 117191804\, q^{69}\, p^{19}$$
$$+ 8878257\, q^{66}\, p^{15} + 65362972\, q^{68}\, p^{18} + 1852747317\, p^{90}\, q^{27} + 40831890934071\, p^{101}\, q^{78} + 98\, q^{42}\, p^{4} + 195411311456\, p^{78}\, q^{131}$$
$$+ 85\, q^{43}\, p^{4} + 75\, q^{44}\, p^{4} + 9146950529190\, p^{62}\, q^{101} + 140567\, q^{60}\, p^{10} + 65311239234\, p^{115}\, q^{48} + 18003268418\, q^{93}\, p^{33}$$
$$+ 26351611372\, q^{93}\, p^{34} + 12110413298\, q^{93}\, p^{32} + 177287166620\, q^{94}\, p^{40} + 238082899273\, q^{94}\, p^{41} + 109994547440\, q^{75}\, p^{35}$$
$$+ 264023879106\, p^{113}\, q^{52} + 4073094859403\, p^{116}\, q^{73} + 749431709\, p^{115}\, q^{35} + 40279032921520\, p^{99}\, q^{75} + 104902278601\, p^{122}\, q^{57}$$
$$+ 3636713188\, p^{118}\, q^{41} + 1152127928\, p^{115}\, q^{36} + 55689160147\, p^{121}\, q^{53} + 2384723475387\, p^{90}\, q^{49} + 12\, q^{39}\, p^{3} + 14\, q^{38}\, p^{3}$$
$$+ 34031591462\, p^{120}\, q^{50} + 1374\, q^{52}\, p^{6} + 39656606382\, p^{112}\, q^{44} + 9813526709\, p^{130}\, q^{57} + 5056207948568\, p^{117}\, q^{107} + 5382\, q^{54}\, p^{7}$$
$$+ 1996\, q^{113}\, p^{17} + 43781059\, p^{118}\, q^{31} + 9786417318\, p^{87}\, q^{30} + 411739710545\, p^{91}\, q^{42} + 1531\, p^{165}\, q^{120} + 1176765\, q^{144}\, p^{50} + 84592\, q^{140}\, p^{39}$$
$$+ 767\, q^{138}\, p^{31} + 15844056\, q^{148}\, p^{67} + 52648\, q^{58}\, p^{9} + 884579579\, p^{124}\, q^{42} + 26102\, q^{81}\, p^{11} + 7665\, q^{80}\, p^{10} + 60008861478648\, p^{85}\, q^{99}$$
$$+ 16368\, q^{57}\, p^{8} + 517755310\, p^{140}\, q^{62} + 5001738350\, p^{144}\, q^{93} + 1393649340\, p^{142}\, q^{72} + 4214903998\, p^{145}\, q^{105} + 847961\, q^{145}\, p^{51}$$
$$+ 1825\, q^{136}\, p^{30} + 30\, q^{135}\, p^{26} + 53178\, q^{138}\, p^{36} + 25272808\, q^{148}\, p^{69} + 48503031\, p^{112}\, q^{28} + 3949413034\, p^{119}\, q^{42} + 2061844\, p^{106}\, q^{21}$$
$$+ 86093643650\, p^{60}\, q^{125} + 20445536721\, p^{133}\, q^{129} + 56162457661\, p^{132}\, q^{124} + 3976917477520\, p^{100}\, q^{56} + 5012360523404\, p^{101}\, q^{58}$$
$$+ 2334405197\, p^{104}\, q^{32} + 136678275\, p^{100}\, q^{25} + 3217336818856\, p^{112}\, q^{65} + 6150965557923\, p^{113}\, q^{72} + 515798951731\, p^{116}\, q^{126}$$
$$+ 20359014088382\, p^{62}\, q^{71} + 85243827101577\, p^{91}\, q^{90} + 81703360627879\, p^{92}\, q^{91} + 2396685947194\, p^{48}\, q^{68} + 1895426700617\, p^{47}\, q^{67}$$
$$+ 28416099003649\, p^{65}\, q^{72} + 37810870657491\, p^{75}\, q^{67} + 1472\, p^{165}\, q^{149} + 2\, p^{143}\, q^{32} + 13053424992511\, p^{57}\, q^{76}$$
$$+ 6652549148356\, p^{112}\, q^{111} + 77612716\, q^{83}\, p^{20} + 21653980\, q^{82}\, p^{18} + 55714873913\, q^{89}\, p^{35} + 9377381471455\, p^{87}\, q^{116}$$
$$+ 1924011144734\, q^{90}\, p^{48} + 2933009991379\, q^{90}\, p^{50} + 4338794799389\, q^{90}\, p^{52} + 3580371086920\, q^{90}\, p^{51} + 5220576430130\, q^{90}\, p^{53}$$
$$+ 7403589443384\, q^{90}\, p^{55} + 6238101279847\, q^{90}\, p^{54} + 6995181121479\, q^{91}\, p^{55} + 2384723475387\, q^{90}\, p^{49} + 810410\, q^{74}\, p^{13}$$
$$+ 147915193928\, p^{76}\, q^{36} + 86443407641670\, p^{80}\, q^{82} + 65225473187118\, p^{73}\, q^{84} + 79402064848947\, p^{77}\, q^{83} + 11675644245081\, p^{57}\, q^{87}$$
$$+ 13539891375242\, p^{58}\, q^{87} + 215956922\, p^{147}\, q^{133} + 3786534763\, p^{145}\, q^{97} + 54977279\, p^{137}\, q^{49} + 6349200\, p^{132}\, q^{38}$$
$$+ 6625585029614\, p^{107}\, q^{115} + 7123018782811\, p^{106}\, q^{115} + 6130947643249\, p^{108}\, q^{115} + 5643533964901\, p^{109}\, q^{115}$$

$$+ 5799204371075\, p^{56} q^{96} + 4077810654048\, p^{54} q^{96} + 3384150158591\, p^{53} q^{96} + 29\, q^{100} p^{11} + 7692742\, p^{126} q^{156} + 75\, p^{140} q^{31}$$
$$+ 139704\, p^{158} q^{86} + 91218\, p^{158} q^{84} + 382484081887\, p^{51} q^{46} + 294735593583\, p^{48} q^{47} + 342367910688\, p^{49} q^{47} + 1791421\, q^{114} p^{24}$$
$$+ 210598336230\, p^{45} q^{48} + 249985731680\, p^{46} q^{48} + 294735593583\, p^{47} q^{48} + 168748668174\, p^{43} q^{49} + 138881135046\, p^{42} q^{49}$$
$$+ 84020535589\, p^{39} q^{50} + 203536325966\, p^{44} q^{49} + 104724749858\, p^{40} q^{50} + 46272484517\, p^{36} q^{51} + 243743404609\, p^{45} q^{49}$$
$$+ 129478932629\, p^{41} q^{50} + 158833600616\, p^{42} q^{50} + 193365388098\, p^{43} q^{50} + 59325070092\, p^{37} q^{51} + 75375958108\, p^{38} q^{51}$$
$$+ 94939045229\, p^{39} q^{51} + 106648218166\, p^{39} q^{52} + 118577326122\, p^{40} q^{51} + 146899786304\, p^{41} q^{51} + 30394566445\, p^{34} q^{52}$$
$$+ 22966673491\, p^{33} q^{52} + 39814839910\, p^{35} q^{52} + 73804331566\, p^{37} q^{53} + 84495617079\, p^{38} q^{52} + 51644746725\, p^{36} q^{52}$$
$$+ 66359800164\, p^{37} q^{52} + 29563900225\, p^{69} q^{31} + 3314427403516\, p^{72} q^{49} + 27043638201431\, p^{73} q^{64} + 1088851\, p^{58} q^{12}$$
$$+ 236133845\, q^{151} p^{109} + 162439\, p^{102} q^{17} + 42003558458993\, p^{71} q^{94} + 2901171812\, p^{139} q^{132} + 70136127426\, p^{136} q^{85}$$
$$+ 3460078970\, p^{139} q^{131} + 3872979\, p^{116} q^{26} + 48348345778\, p^{134} q^{74} + 713576\, p^{112} q^{22} + 21011037589\, p^{133} q^{66} + 9472502395\, p^{132} q^{60}$$
$$+ 4818395183\, p^{139} q^{129} + 11109456055\, p^{139} q^{123} + 180488\, p^{108} q^{19} + 1153752\, p^{113} q^{23} + 78291246762\, p^{137} q^{95} + 17750173\, p^{119} q^{30}$$
$$+ 46684332\, p^{121} q^{33} + 81112884082\, p^{137} q^{101} + 22966673491\, p^{138} q^{119} + 13971998266\, p^{139} q^{121} + 3228028504\, p^{145} q^{114}$$
$$+ 392476674\, p^{138} q^{57} + 61122\, p^{105} q^{17} + 617805963\, p^{148} q^{91} + 4278851301718\, p^{93} q^{121} + 32131275677\, p^{123} q^{135}$$
$$+ 1462926975356\, p^{125} q^{84} + 189077054420\, p^{122} q^{60} + 400668831207\, p^{123} q^{66} + 220230054461\, p^{128} q^{120} + 248862894\, p^{112} q^{31}$$
$$+ 1421002314262\, p^{126} q^{101} + 302419956710\, p^{127} q^{119} + 478443235\, p^{137} q^{56} + 58007340\, p^{133} q^{44} + 12495523484\, p^{122} q^{139}$$
$$+ 4397606\, p^{127} q^{33} + 3349131572\, p^{144} q^{119} + 9585657733\, p^{143} q^{101} + 2549743133059\, p^{108} q^{121} + 1111346528483\, p^{102} q^{127}$$
$$+ 1023623898840\, p^{108} q^{126} + 982458264426\, p^{96} q^{128} + 1072853100516\, p^{103} q^{127} + 467222744152\, p^{98} q^{45} + 13476019125160\, p^{101} q^{65}$$
$$+ 9146950529190\, p^{101} q^{62} + 633277017510\, p^{109} q^{128} + 836111294\, p^{140} q^{137} + 382363629\, p^{77} q^{146} + 143522878719\, q^{96} p^{40}$$
$$+ 1112\, q^{119} p^{19} + 34\, q^{119} p^{17} + 102067\, q^{96} p^{15} + 133552\, q^{95} p^{15} + 173094172672\, p^{97} q^{41} + 20928233476\, p^{95} q^{34}$$
$$+ 40716587797964\, p^{103} q^{82} + 43171718414421\, p^{103} q^{84} + 989343733\, q^{101} p^{29} + 597006988\, q^{101} p^{28} + 2757\, p^{84} q^{10}$$
$$+ 164880623624\, p^{121} q^{58} + 59953069\, p^{109} q^{27} + 426118448618\, p^{127} q^{116} + 103993687032\, q^{110} p^{46} + 2856468757959\, p^{111} q^{63}$$
$$+ 61051993461525\, p^{97} q^{95} + 912902409821\, p^{114} q^{124} + 1616\, q^{96} p^{12} + 63804903810494\, p^{95} q^{96} + 43356\, q^{109} p^{18}$$
$$+ 10453010597389\, p^{67} q^{58} + 2907842957189\, q^{76} p^{48} + 4256312853939\, q^{76} p^{50} + 6057670876347\, q^{76} p^{52} + 5095137680371\, q^{76} p^{51}$$
$$+ 7154044321326\, q^{76} p^{53} + 9785556165554\, q^{76} p^{55} + 8393791331341\, q^{76} p^{54} + 9899613131102\, q^{77} p^{55} + 3530732729928\, q^{76} p^{49}$$

$$+ 76291810104415\, q^{91} p^{79} + 76291810104415\, p^{92} q^{80} + 1753105621533\, p^{120} q^{114} + 1572759513684\, p^{120} q^{115}$$
$$+ 2561333567508\, p^{120} q^{110} + 2778425883529\, p^{120} q^{109} + 1097257498726\, p^{120} q^{118} + 2998135301807\, p^{120} q^{108} + 5123899326\, q^{102} p^{33}$$
$$+ 40\, p^{29} q^{3} + 3917664149\, p^{82} q^{27} + 17478600513117\, p^{112} q^{93} + 2425692373403\, p^{108} q^{59} + 206402\, p^{83} q^{13} + 2046334069534\, p^{108} q^{58}$$
$$+ 19997986499487\, p^{111} q^{90} + 68618239302915\, p^{74} q^{85} + 13314976\, q^{136} p^{44} + 46684332\, q^{138} p^{50} + 91000096\, q^{138} p^{52}$$
$$+ 65604600\, q^{138} p^{51} + 124673393\, q^{138} p^{53} + 226012646\, q^{138} p^{55} + 168808302\, q^{138} p^{54} + 32766430\, q^{138} p^{49} + 2542792438\, q^{140} p^{70}$$
$$+ 35799502307389\, p^{66} q^{87} + 48809775536429\, p^{102} q^{86} + 37259\, q^{117} p^{21} + 83671133848396\, p^{79} q^{87} + 44450715424218\, p^{69} q^{89}$$
$$+ 78905945446773\, p^{82} q^{77} + 82332703098771\, p^{83} q^{78} + 65233125970312\, p^{82} q^{73} + 75799278392826\, p^{82} q^{76} + 350798511\, q^{148} p^{85}$$
$$+ 76781663\, p^{148} q^{137} + 146916652027\, p^{135} q^{102} + 94676310604\, p^{136} q^{107} + 3073877303\, p^{51} q^{27} + 22966673491\, p^{52} q^{33} + 46\, p^{25} q^{3}$$
$$+ 17169354034\, p^{52} q^{32} + 12692481633\, p^{52} q^{31} + 30394566445\, p^{52} q^{34} + 39814839910\, p^{52} q^{35} + 94175017750\, p^{53} q^{38}$$
$$+ 185777229317\, p^{53} q^{41} + 280631813788\, p^{53} q^{43} + 229217875873\, p^{53} q^{42} + 119111289888\, p^{53} q^{39} + 73804331566\, p^{53} q^{37}$$
$$+ 340999956045\, p^{53} q^{44} + 461932761344\, p^{54} q^{45} + 149370455799\, p^{53} q^{40} + 4361396483\, p^{51} q^{28} + 20742545994\, q^{98} p^{35}$$
$$+ 435372405287\, p^{52} q^{46} + 395195960767\, p^{50} q^{47} + 345203074031\, p^{48} q^{48} + 289862508792\, p^{46} q^{49} + 233668856545\, p^{44} q^{50}$$
$$+ 133472819939\, p^{40} q^{52} + 180556195365\, p^{42} q^{51} + 94175017750\, p^{38} q^{53} + 2038176046219\, p^{101} q^{53} + 49365026881989\, p^{102} q^{87}$$
$$+ 231482050517\, p^{97} q^{42} + 39372630853546\, p^{102} q^{79} + 1907709\, q^{149} p^{62} + 11694499301809\, p^{60} q^{95} + 5544149\, p^{108} q^{23}$$
$$+ 243460120\, p^{143} q^{139} + 4721208223948\, p^{100} q^{57} + 687962680672\, p^{99} q^{47} + 14605\, p^{69} q^{9} + 533613047\, p^{139} q^{140}$$
$$+ 28955154268098\, p^{107} q^{96} + 290765729\, q^{147} p^{79} + 213865047\, q^{148} p^{81} + 2384723475387\, p^{81} q^{122} + 42028209107418\, p^{103} q^{83}$$
$$+ 2579980\, q^{149} p^{63} + 63804903810494\, p^{96} q^{95} + 1872389\, q^{118} p^{26} + 1985569\, p^{154} q^{144} + 17304801545\, q^{140} p^{86} + 754984542\, p^{105} q^{30}$$
$$+ 274\, p^{62} q^{6} + 60905696068849\, p^{96} q^{79} + 52301229\, q^{95} p^{22} + 8652757\, q^{93} p^{19} + 18466307\, q^{93} p^{20} + 28016441745\, q^{101} p^{37}$$
$$+ 46726193459\, p^{114} q^{46} + 183680901\, q^{95} p^{24} + 249248132193\, q^{86} p^{39} + 916091407494\, p^{128} q^{101} + 204032789172\, p^{129} q^{119}$$
$$+ 146899786304\, p^{130} q^{120} + 145599946\, p^{114} q^{31} + 78659994678\, p^{110} q^{45} + 6812556320368\, p^{117} q^{102} + 7410706955578\, p^{117} q^{100}$$
$$+ 47753910257001\, p^{102} q^{93} + 3060790\, q^{152} p^{73} + 3833122\, q^{152} p^{74} + 1694\, p^{131} q^{26} + 62932810632119\, p^{92} q^{98}$$
$$+ 53663054004603\, p^{89} q^{101} + 53441338719987\, p^{90} q^{101} + 332740206080\, q^{86} p^{40} + 88050267765\, q^{116} p^{50} + 68187569313\, q^{116} p^{49}$$
$$+ 52313445887\, q^{116} p^{48} + 39746473258\, q^{116} p^{47} + 453361971156\, p^{120} q^{124} + 516941403284\, p^{119} q^{124} + 1857968020\, p^{133} q^{140}$$
$$+ 83876707\, q^{148} p^{75} + 70026339\, q^{148} p^{74} + 47715694\, q^{148} p^{72} + 48028737998014\, p^{85} q^{102} + 51278495128408\, p^{93} q^{101}$$

$$+ 50090963621952\, p^{94} q^{101} + 106803700787\, p^{114} q^{134} + 124376718251\, p^{112} q^{134} + 115562057593\, p^{113} q^{134} + 57563164938959\, p^{89} q^{100}$$
$$+ 52788459719330\, p^{86} q^{101} + 60390210806882\, p^{91} q^{99} + 44132004593373\, p^{85} q^{103} + 42028209107418\, p^{83} q^{103} + 91218\, p^{87} q^{13}$$
$$+ 58027014\, q^{148} p^{73} + 43524351\, q^{152} p^{130} + 54041563\, q^{152} p^{128} + 48649170\, q^{152} p^{129} + 99738373\, q^{148} p^{76} + 43171718414421\, p^{84} q^{103}$$
$$+ 44896187035611\, p^{86} q^{103} + 45797481995112\, p^{88} q^{103} + 45453893220110\, p^{87} q^{103} + 45922212132469\, p^{89} q^{103}$$
$$+ 45511185374877\, p^{91} q^{103} + 45826345134822\, p^{90} q^{103} + 41859447522097\, p^{91} q^{104} + 59444387114685\, p^{92} q^{99} + 6955297708\, p^{143} q^{91}$$
$$+ 4080693399\, p^{143} q^{84} + 363344861\, p^{137} q^{55} + 5478097004\, p^{144} q^{95} + 1057116\, p^{126} q^{30} + 509484051\, p^{138} q^{58} + 736572866\, p^{135} q^{142}$$
$$+ 6\, p^{23} q^{2} + 12503686714576\, p^{68} q^{59} + 9959\, p^{44} q^{7} + 64630141086\, p^{132} q^{123} + 617805963\, p^{91} q^{148} + 2366776\, q^{60} p^{13}$$
$$+ 420562649\, p^{140} q^{140} + 416433900\, p^{131} q^{146} + 508004750\, p^{117} q^{149} + 14038691\, p^{150} q^{142} + 650174585\, p^{120} q^{148}$$
$$+ 20305375946\, p^{113} q^{140} + 160751\, q^{58} p^{10} + 64812288267316\, p^{74} q^{78} + 37255909895\, q^{134} p^{72} + 89623068\, q^{152} p^{122}$$
$$+ 140275158550\, q^{67} p^{36} + 2142195427613\, p^{120} q^{112} + 961793897820\, p^{120} q^{119} + 725586709333\, p^{121} q^{120} + 74683253\, q^{63} p^{18}$$
$$+ 203488011213\, q^{89} p^{39} + 293352159479\, q^{88} p^{40} + 389126703504\, q^{88} p^{41} + 3598932731042\, q^{121} p^{85} + 3983217921790\, q^{121} p^{88}$$
$$+ 4159061207644\, q^{121} p^{90} + 3741048270680\, q^{121} p^{86} + 3445150922762\, q^{121} p^{84} + 2933009991379\, q^{121} p^{81} + 103\, p^{159} q^{69}$$
$$+ 741\, p^{166} q^{131} + 728\, p^{154} q^{165} + 178\, p^{150} q^{167} + 627\, p^{158} q^{164} + 486\, p^{159} q^{164} + 614\, p^{155} q^{165} + 823357854\, q^{83} p^{24} + 149187912\, p^{137} q^{52}$$
$$+ 1900322658\, p^{141} q^{71} + 10749982562395\, p^{69} q^{107} + 6067697254\, p^{136} q^{132} + 79872800221447\, p^{79} q^{79} + 4877680348467\, p^{111} q^{67}$$
$$+ 249918490982\, p^{108} q^{48} + 26381471\, p^{95} q^{21} + 2139042917\, p^{102} q^{31} + 597006988\, p^{101} q^{28} + 376736056882\, p^{131} q^{106}$$
$$+ 7618482669341\, p^{66} q^{56} + 8231\, p^{163} q^{108} + 1230\, p^{156} q^{63} + 127\, p^{152} q^{49} + 11\, p^{147} q^{38} + 21065118412440\, p^{77} q^{107} + 7888964\, p^{151} q^{143}$$
$$+ 12316837231569\, p^{66} q^{60} + 11611641394961\, p^{56} q^{79} + 8665470671318\, p^{66} q^{57} + 1833876275141\, q^{87} p^{47} + 2280421691609\, q^{87} p^{48}$$
$$+ 19813072970859\, p^{66} q^{65} + 23088977412663\, p^{67} q^{66} + 313842918\, p^{141} q^{62} + 3176858661\, p^{145} q^{93} + 849137464\, p^{143} q^{72}$$
$$+ 2738582459\, p^{146} q^{105} + 14227511918\, p^{89} q^{141} + 6886285298201\, p^{53} q^{83} + 9094655\, p^{76} q^{16} + 2063057342960\, p^{102} q^{124}$$
$$+ 132276002794\, p^{132} q^{117} + 89212677726\, p^{128} q^{65} + 122530769564\, p^{128} q^{67} + 28011316283\, p^{126} q^{56} + 21995\, q^{101} p^{15}$$
$$+ 16309065776699\, p^{92} q^{61} + 21027463371192\, p^{92} q^{63} + 55\, q^{137} p^{28} + 128611476601\, p^{113} q^{49} + 33618991455619\, p^{66} q^{74}$$
$$+ 36513415904006\, p^{67} q^{74} + 39450805235483\, p^{68} q^{74} + 42405017773569\, p^{69} q^{74} + 41438405412\, q^{131} p^{66} + 20950\, p^{54} q^{8} + 2041\, p^{48} q^{6}$$
$$+ 36843267445710\, p^{69} q^{71} + 67711128469\, p^{97} q^{38} + 708180894109\, p^{42} q^{81} + 957170957905\, p^{109} q^{126} + 23592263117526\, p^{62} q^{75}$$
$$+ 21119868037346\, p^{61} q^{75} + 767867818138\, q^{102} p^{49} + 962944074628\, q^{102} p^{50} + 1799696007922\, p^{91} q^{48} + 962364447936\, p^{90} q^{45}$$

$$+ 25086274317666\, p^{93} q^{65} + 17524211657906\, p^{93} q^{62} + 7773486730353\, p^{92} q^{56} + 30791324280281\, p^{65} q^{74} + 28955154268098\, p^{64} q^{75}$$
$$+ 26208184877823\, p^{63} q^{75} + 31817561800072\, p^{65} q^{75} + 38963833616289\, p^{67} q^{76} + 40895576823521\, p^{68} q^{75}$$
$$+ 34776699406662\, p^{66} q^{75} + 37810870657491\, p^{67} q^{75} + 30958892959476\, p^{66} q^{72} + 237390890\, q^{103} p^{27} + 89287623699546\, p^{90} q^{85}$$
$$+ 91369886721141\, p^{89} q^{86} + 93502701475178\, p^{86} q^{87} + 28444578483628\, p^{63} q^{81} + 160364090823\, p^{37} q^{83} + 2109\, q^{138} p^{32}$$
$$+ 8400811916\, q^{125} p^{50} + 622360523493\, p^{112} q^{127} + 674996726111\, p^{111} q^{127} + 707175638561\, p^{102} q^{129} + 1157339998487\, q^{87} p^{45}$$
$$+ 1462926975356\, q^{87} p^{46} + 17\, q^{122} p^{18} + 206969745200\, q^{84} p^{38} + 587716159499\, p^{104} q^{49} + 188768740526\, p^{103} q^{44}$$
$$+ 26077302591\, p^{114} q^{139} + 7295637062\, p^{142} q^{118} + 11484291210\, p^{142} q^{111} + 6043387301\, p^{138} q^{70} + 20512551154\, p^{141} q^{103}$$
$$+ 12516527077\, p^{138} q^{75} + 16692064158\, p^{139} q^{81} + 2886756947\, p^{143} q^{124} + 7722414755\, p^{137} q^{69} + 90479\, p^{115} q^{21} + 169\, p^{92} q^{10}$$
$$+ 1176765\, p^{121} q^{27} + 722\, p^{98} q^{12} + 6526886113\, p^{137} q^{68} + 2409599328\, p^{135} q^{59} + 8529515519\, p^{142} q^{116} + 18157223788\, p^{141} q^{94}$$
$$+ 1990099296\, p^{143} q^{127} + 12473824867\, p^{142} q^{109} + 13314976\, p^{127} q^{35} + 24617154352\, p^{140} q^{92} + 665050778\, p^{143} q^{134} + 2053330\, p^{123} q^{29}$$
$$+ 10259671325275\, p^{115} q^{99} + 10890347372878\, p^{115} q^{97} + 4811\, p^{75} q^{9} + 128625245\, q^{152} p^{114} + 133455208\, q^{152} p^{112}$$
$$+ 131362834\, q^{152} p^{113} + 2\, p^{167} q^{113} + 6971550328\, q^{86} p^{29} + 4475800616\, q^{86} p^{28} + 2817179850\, q^{86} p^{27} + 587716159499\, q^{104} p^{49}$$
$$+ 7432428\, p^{102} q^{156} + 35693052880\, p^{92} q^{139} + 34185311246\, p^{91} q^{139} + 40605240882\, p^{104} q^{139} + 57422117953\, p^{103} q^{138}$$
$$+ 56344571556\, p^{104} q^{138} + 30883844445\, p^{89} q^{139} + 25642536871\, p^{93} q^{140} + 32575655820\, p^{90} q^{139} + 599267758\, p^{98} q^{27}$$
$$+ 206581132279\, p^{106} q^{46} + 597231030831\, p^{107} q^{51} + 91147086861\, p^{104} q^{42} + 268014186082\, p^{106} q^{47} + 15163884985349\, p^{112} q^{99}$$
$$+ 16211745061460\, p^{112} q^{97} + 17849\, p^{76} q^{10} + 84955796047\, q^{108} p^{44} + 63253409626\, q^{108} p^{43} + 86\, p^{167} q^{157} + 215276\, p^{161} q^{121}$$
$$+ 7408\, p^{129} q^{26} + 492639656494\, p^{53} q^{46} + 4152607024783\, p^{121} q^{97} + 3973374700482\, p^{121} q^{99} + 12025315148\, q^{104} p^{36}$$
$$+ 3983217921790\, p^{121} q^{88} + 2877030882720\, p^{122} q^{103} + 7665\, p^{80} q^{10} + 453361971156\, p^{51} q^{47} + 516941403284\, p^{52} q^{47}$$
$$+ 3176048\, q^{140} p^{46} + 176331\, q^{139} p^{39} + 215509342\, q^{147} p^{77} + 1272303852700\, p^{104} q^{126} + 8657\, p^{91} q^{12} + 401702372720\, p^{49} q^{48}$$
$$+ 162439\, q^{102} p^{17} + 5531\, q^{97} p^{13} + 464494638394\, p^{50} q^{48} + 533775298773\, p^{51} q^{48} + 342367910688\, p^{47} q^{49} + 401702372720\, p^{48} q^{49}$$
$$+ 468263279286\, p^{49} q^{49} + 333995298109\, p^{46} q^{50} + 220230054461\, p^{43} q^{51} + 280346184899\, p^{45} q^{50} + 15594991\, q^{121} p^{31}$$
$$+ 542387703775\, p^{50} q^{49} + 395195960767\, p^{47} q^{50} + 266629125499\, p^{44} q^{51} + 165680486169\, p^{41} q^{52} + 464494638394\, p^{48} q^{50}$$
$$+ 542387703775\, p^{49} q^{50} + 320473986249\, p^{45} q^{51} + 382484081887\, p^{46} q^{51} + 453361971156\, p^{47} q^{51} + 533775298773\, p^{48} q^{51}$$
$$+ 249333831279\, p^{43} q^{52} + 204032789172\, p^{42} q^{52} + 302419956710\, p^{44} q^{52} + 492639656494\, p^{46} q^{53} + 516941403284\, p^{47} q^{52}$$

$$+ 364146536448\, p^{45}\, q^{52} + 435372405287\, p^{46}\, q^{52} + 149370455799\, p^{40}\, q^{53} + 229217875873\, p^{42}\, q^{53} + 185777229317\, p^{41}\, q^{53}$$
$$+ 280631813788\, p^{43}\, q^{53} + 411330234507\, p^{45}\, q^{53} + 340999956045\, p^{44}\, q^{53} + 461932761344\, p^{45}\, q^{54} + 119111289888\, p^{39}\, q^{53}$$
$$+ 3991977890705\, p^{53}\, q^{94} + 92652736118034\, p^{83}\, q^{85} + 195552791\, p^{54}\, q^{20} + 2053461263\, p^{56}\, q^{25} + 75671435839770\, p^{93}\, q^{93}$$
$$+ 70758151521\, p^{112}\, q^{46} + 8\, p^{41}\, q^{3} + 401702372720\, p^{123}\, q^{122} + 8459\, q^{48}\, p^{7} + 2375\, q^{46}\, p^{6} + 31547570330107\, p^{64}\, q^{80}$$
$$+ 11522887385165\, p^{110}\, q^{74} + 6712888\, p^{90}\, q^{18} + 16997208017521\, p^{112}\, q^{95} + 17277941438930\, p^{112}\, q^{94} + 9798922650950\, p^{113}\, q^{105}$$
$$+ 11766758319803\, p^{112}\, q^{104} + 743645972032\, p^{107}\, q^{52} + 3476826\, p^{89}\, q^{17} + 104892610882\, p^{105}\, q^{43} + 1393649340\, p^{99}\, q^{29}$$
$$+ 10584004208827\, p^{110}\, q^{73} + 17628325237\, q^{106}\, p^{38} + 16242194820279\, p^{65}\, q^{99} + 123\, q^{40}\, p^{4} + 201828\, q^{53}\, p^{10} + 77684\, q^{51}\, p^{9}$$
$$+ 15370220189543\, p^{61}\, q^{93} + 117760253\, q^{148}\, p^{77} + 1177185\, q^{55}\, p^{12} + 231\, q^{119}\, p^{18} + 8121\, q^{120}\, p^{21} + 503350\, q^{54}\, p^{11}$$
$$+ 9670292719868\, p^{99}\, q^{61} + 12680676586631\, p^{99}\, q^{63} + 1558726898688\, p^{46}\, q^{67} + 29652706399580\, p^{65}\, q^{73} + 22906459779644\, p^{62}\, q^{74}$$
$$+ 27043638201431\, p^{64}\, q^{73} + 43441184566120\, p^{73}\, q^{70} + 604862561118\, p^{116}\, q^{59} + 1416680677117\, p^{122}\, q^{113} + 6875136\, p^{98}\, q^{20}$$
$$+ 43968435320531\, p^{72}\, q^{71} + 85638202764347\, p^{89}\, q^{81} + 1811142426992\, p^{102}\, q^{53} + 1171467\, q^{90}\, p^{16} + 3327\, q^{94}\, p^{12}$$
$$+ 112228426\, q^{101}\, p^{25} + 19641531\, q^{100}\, p^{22} + 38926651\, q^{100}\, p^{23} + 74220177\, q^{100}\, p^{24} + 4080105817542\, p^{82}\, q^{50} + 909716706708\, p^{81}\, q^{43}$$
$$+ 44393172\, q^{150}\, p^{79} + 52055120\, q^{150}\, p^{80} + 17449083843137\, p^{101}\, q^{110} + 18437136154913\, p^{111}\, q^{85} + 12479526448069\, p^{110}\, q^{75}$$
$$+ 439013417411\, p^{106}\, q^{49} + 139855895743\, p^{105}\, q^{44} + 6289208415048\, p^{114}\, q^{74} + 9785556165554\, p^{116}\, q^{95} + 9899613131102\, p^{116}\, q^{94}$$
$$+ 5784030777202\, p^{117}\, q^{105} + 7076235288958\, p^{116}\, q^{104} + 18466307\, p^{93}\, q^{20} + 34384722353579\, p^{68}\, q^{71} + 39277137750348\, p^{71}\, q^{70}$$
$$+ 1127763\, p^{71}\, q^{13} + 2540076\, p^{72}\, q^{14} + 10002623058925\, p^{93}\, q^{58} + 13401029887842\, p^{93}\, q^{60} + 42003558458993\, p^{94}\, q^{71}$$
$$+ 5526035462734\, p^{92}\, q^{54} + 469197\, p^{70}\, q^{12} + 4612010215031\, p^{92}\, q^{53} + 1694810810806\, p^{99}\, q^{51} + 602063255678\, p^{98}\, q^{46}$$
$$+ 13129344665157\, p^{100}\, q^{64} + 3691447838322\, p^{99}\, q^{55} + 8013258023\, p^{93}\, q^{31} + 2360626719\, p^{92}\, q^{28} + 231591015\, p^{150}\, q^{93}$$
$$+ 39450805235483\, p^{74}\, q^{68} + 4219009386907\, p^{80}\, q^{50} + 951739331889\, p^{79}\, q^{43} + 851723\, q^{63}\, p^{12} + 27043638201431\, p^{107}\, q^{98}$$
$$+ 4276083\, q^{65}\, p^{14} + 346304\, q^{62}\, p^{11} + 359819433\, q^{70}\, p^{21} + 596698328\, q^{71}\, p^{22} + 999566442\, q^{71}\, p^{23} + 1634402522\, q^{71}\, p^{24}$$
$$+ 152060239\, p^{88}\, q^{22} + 11138329153047\, p^{96}\, q^{115} + 11575073296485\, p^{93}\, q^{115} + 11611641394961\, p^{92}\, q^{115} + 11313282776458\, p^{100}\, q^{114}$$
$$+ 11756124271147\, p^{99}\, q^{114} + 12156452494070\, p^{98}\, q^{114} + 11715786336899\, p^{102}\, q^{113} + 11483035146982\, p^{94}\, q^{115}$$
$$+ 11336788208226\, p^{95}\, q^{115} + 10890347372878\, p^{97}\, q^{115} + 10596165958193\, p^{98}\, q^{115} + 44450715424218\, p^{82}\, q^{102}$$
$$+ 20858848866921\, p^{102}\, q^{70} + 273567590221\, p^{98}\, q^{43} + 25796\, p^{65}\, q^{9} + 57985739392\, q^{74}\, p^{33} + 299\, q^{85}\, p^{9} + 3350\, q^{89}\, p^{11} + 2442\, q^{90}\, p^{11}$$

$$+ 201828\, p^{118}\, q^{161} + 48537\, p^{112}\, q^{162} + 963386\, p^{136}\, q^{158} + 63339082925187\, p^{96}\, q^{80} + 2190475366904\, p^{66}\, q^{115} + 947085744338\, p^{118}\, q^{121}$$
$$+ 16\, q^{37}\, p^{3} + 216812109893\, p^{114}\, q^{52} + 175\, p^{101}\, q^{12} + 8560\, q^{110}\, p^{17} + 3455\, q^{109}\, p^{16} + 39481\, q^{112}\, p^{19} + 59326\, q^{111}\, p^{19} + 19168\, q^{111}\, p^{18}$$
$$+ 8626287\, q^{121}\, p^{30} + 3784210768\, q^{132}\, p^{56} + 12692481633\, p^{119}\, q^{140} + 6872431321\, q^{134}\, p^{62} + 2268468509\, q^{132}\, p^{54} + 2550159153\, q^{72}\, p^{25}$$
$$+ 622070504\, p^{149}\, q^{112} + 917523268336\, p^{112}\, q^{125} + 51385601055716\, p^{98}\, q^{98} + 36851334793\, p^{128}\, q^{131} + 43630681340\, p^{127}\, q^{131}$$
$$+ 30909218967\, p^{131}\, q^{129} + 37565455649\, p^{129}\, q^{130} + 53266141859\, p^{127}\, q^{130} + 31211100395\, p^{130}\, q^{130} + 44889280319\, p^{128}\, q^{130}$$
$$+ 30020098158\, p^{132}\, q^{128} + 160686696089\, p^{133}\, q^{112} + 43618235379\, p^{128}\, q^{61} + 193581064057\, p^{130}\, q^{75} + 6181503965\, p^{144}\, q^{107}$$
$$+ 9627835268\, p^{143}\, q^{102} + 2334405197\, p^{139}\, q^{67} + p^{70}\, q^{5} + 21362391\, p^{155}\, q^{116} + 4200245\, p^{156}\, q^{133} + 5149887\, p^{156}\, q^{131}$$
$$+ 12530229\, p^{149}\, q^{69} + 1293\, p^{123}\, q^{21} + 24337650\, p^{153}\, q^{90} + 467\, p^{118}\, q^{18} + 23170314\, p^{154}\, q^{97} + 1065109861329\, q^{118}\, p^{65}$$
$$+ 1600166322237\, q^{118}\, p^{68} + 1227243243628\, q^{118}\, p^{66} + 1405525891867\, q^{118}\, p^{67} + 787476496532\, q^{118}\, p^{63} + 918715241002\, q^{118}\, p^{64}$$
$$+ 59\, q^{83}\, p^{8} + 424\, q^{84}\, p^{9} + 13766809162453\, p^{81}\, q^{112} + 22265603458776\, p^{61}\, q^{83} + 647318\, q^{107}\, p^{20} + 15354973953039\, p^{104}\, q^{69}$$
$$+ 12336698000064\, p^{103}\, q^{66} + 57267368720007\, p^{71}\, q^{81} + 109569\, p^{63}\, q^{10} + 13219926498650\, p^{102}\, q^{112} + 2546031244\, p^{144}\, q^{122}$$
$$+ 463\, q^{99}\, p^{12} + 1393649340\, q^{142}\, p^{72} + 9126479275508\, p^{86}\, q^{116} + 12897862\, q^{80}\, p^{17} + 8241873795\, q^{99}\, p^{33} + 12292747960\, q^{99}\, p^{34}$$
$$+ 18049628987\, q^{99}\, p^{35} + 554194496236\, p^{54}\, q^{46} + 585933642219\, p^{53}\, q^{47} + 609661909261\, p^{52}\, q^{48} + 624337479967\, p^{51}\, q^{49}$$
$$+ 629304046378\, p^{50}\, q^{50} + 624337479967\, p^{49}\, q^{51} + 585933642219\, p^{47}\, q^{53} + 609661909261\, p^{48}\, q^{52} + 545533\, q^{139}\, p^{41}$$
$$+ 71442990\, q^{152}\, p^{125} + 65482964\, q^{152}\, p^{126} + 315025\, q^{139}\, p^{40} + 554194496236\, p^{46}\, q^{54} + 5012875068590\, p^{51}\, q^{81}$$
$$+ 4219009386907\, p^{50}\, q^{80} + 1280908\, p^{133}\, q^{36} + 969449507564\, p^{98}\, q^{128} + 743444886424\, p^{92}\, q^{129} + 12583\, q^{106}\, p^{16} + 63378\, q^{108}\, p^{18}$$
$$+ 124376718251\, p^{37}\, q^{59} + 44296582822476\, p^{71}\, q^{93} + 334072170\, p^{55}\, q^{21} + 1357035099\, p^{56}\, q^{24} + 155476709\, p^{147}\, q^{75}$$
$$+ 11180917574\, p^{79}\, q^{29} + 7348571072\, p^{79}\, q^{28} + 6925441\, p^{70}\, q^{15} + 50025093\, p^{73}\, q^{18} + 284403538\, p^{75}\, q^{21} + 1275814771\, p^{77}\, q^{24}$$
$$+ 470715938\, p^{76}\, q^{22} + 2088914271\, p^{77}\, q^{25} + 7962983879290\, p^{84}\, q^{54} + 12446000804662\, p^{85}\, q^{57} + 227264264227\, p^{82}\, q^{38}$$
$$+ 6717398478819\, p^{84}\, q^{53} + 18921527772425\, p^{85}\, q^{60} + 36673255229313\, p^{86}\, q^{66} + 1089271009571\, p^{83}\, q^{44} + 806622779\, p^{76}\, q^{23}$$
$$+ 10691688195508\, p^{85}\, q^{56} + 26881692\, p^{72}\, q^{17} + 2584074278810\, p^{84}\, q^{48} + 1379551197083\, p^{83}\, q^{45} + 72771256567751\, p^{96}\, q^{88}$$
$$+ 69185070269222\, p^{96}\, q^{83} + 578198838838\, p^{96}\, q^{45} + 16242194820279\, p^{99}\, q^{65} + 11106772707453\, p^{99}\, q^{62} + 4454101\, p^{75}\, q^{15}$$
$$+ 2788473755801\, p^{52}\, q^{96} + 7154044321326\, p^{95}\, q^{118} + 8964534\, p^{150}\, q^{144} + 4742485776\, p^{92}\, q^{144} + 9496061972\, p^{100}\, q^{143}$$
$$+ 9360347871\, p^{99}\, q^{143} + 8103392079268\, p^{97}\, q^{117} + 253846758003\, p^{120}\, q^{59} + 2669141\, p^{102}\, q^{20} + 694425524326\, p^{126}\, q^{113} + 625\, p^{76}\, q^{8}$$

$$+ 114705294444\, p^{119}\, q^{54} + 128211651805\, p^{81}\, q^{36} + 5001738350\, p^{78}\, q^{27} + 16696288\, p^{131}\, q^{39} + 880262855\, p^{148}\, q^{115}$$
$$+ 7672223243095\, p^{99}\, q^{117} + 4687083120794\, p^{118}\, q^{106} + 3485525\, q^{147}\, p^{59} + 53147401549\, p^{136}\, q^{116} + 145175712833\, p^{135}\, q^{94}$$
$$+ 53805949628372\, p^{98}\, q^{97} + 58129839410758\, p^{98}\, q^{95} + 55072967542014\, p^{95}\, q^{99} + 56699635807112\, p^{91}\, q^{100}$$
$$+ 44981050239657\, p^{103}\, q^{92} + 17750173\, q^{141}\, p^{52} + 5876648\, q^{141}\, p^{49} + 3936928\, q^{141}\, p^{48} + 51916216721308\, p^{100}\, q^{95}$$
$$+ 45834568486378\, p^{83}\, q^{102} + 54782961383120\, p^{93}\, q^{100} + 49365026881989\, p^{87}\, q^{102} + 48809775536429\, p^{86}\, q^{102}$$
$$+ 55867731417571\, p^{92}\, q^{100} + 876720911740\, p^{123}\, q^{116} + 409104221201\, p^{117}\, q^{58} + 1491515626810\, q^{96}\, p^{49} + 121260765855\, p^{112}\, q^{48}$$
$$+ 59772442503\, p^{98}\, q^{38} + 95956942\, q^{73}\, p^{19} + 301280837\, q^{74}\, p^{21} + 26881692\, q^{72}\, p^{17} + 1414660120\, q^{75}\, p^{24} + 5478097004\, q^{76}\, p^{27}$$
$$+ 361125\, p^{154}\, q^{151} + 10269835\, p^{120}\, q^{156} + 437846\, p^{113}\, q^{160} + 121562819\, p^{152}\, q^{103} + 11106772707453\, p^{62}\, q^{99} + 434247522\, p^{147}\, q^{82}$$
$$+ 1566991\, p^{104}\, q^{20} + 70316238429\, p^{121}\, q^{54} + 465619288098\, p^{128}\, q^{113} + 63945385\, p^{149}\, q^{136} + 175025635\, p^{148}\, q^{132}$$
$$+ 1735826824\, p^{145}\, q^{85} + 507482597\, p^{148}\, q^{123} + 28120739421\, p^{140}\, q^{96} + 7\, q^{136}\, p^{26} + 2\, q^{76}\, p^{6} + 1807536824918\, p^{108}\, q^{123}$$
$$+ 8013258023\, p^{78}\, q^{140} + 7325387296\, p^{81}\, q^{141} + 8998179528\, p^{79}\, q^{140} + 7094369378\, p^{77}\, q^{140} + 10045929216\, p^{80}\, q^{140}$$
$$+ 13925548\, q^{71}\, p^{16} + 21658674\, p^{115}\, q^{155} + 1057719\, p^{155}\, q^{145} + 854230\, p^{155}\, q^{146} + 156507729268\, p^{122}\, q^{59} + 1478543553775\, q^{119}\, p^{69}$$
$$+ 575057722\, p^{149}\, q^{99} + 664230005\, p^{149}\, q^{105} + 40605789\, q^{62}\, p^{17} + 496850195154\, q^{92}\, p^{43} + 644905502657\, q^{92}\, p^{44} + 71743\, q^{53}\, p^{9}$$
$$+ 470\, q^{77}\, p^{8} + 1063767720\, q^{62}\, p^{23} + 135590390\, q^{61}\, p^{19} + 333695\, q^{103}\, p^{18} + 2041\, q^{48}\, p^{6} + 7984\, q^{49}\, p^{7} + 262958258438\, p^{38}\, q^{70}$$
$$+ 146916652027\, p^{36}\, q^{69} + 195625410215\, p^{37}\, q^{69} + 555\, q^{44}\, p^{5} + 5161605060779\, q^{93}\, p^{54} + 1930804391738\, q^{93}\, p^{49}$$
$$+ 1550472490297\, q^{93}\, p^{48} + 2385614613118\, q^{93}\, p^{50} + 7482\, q^{50}\, p^{7} + 3560181122863\, q^{93}\, p^{52} + 4175960340\, q^{65}\, p^{26} + 399811575\, q^{62}\, p^{21}$$
$$+ 9041830776774\, p^{56}\, q^{69} + 25205\, q^{51}\, p^{8} + 6965\, q^{51}\, p^{7} + 74880\, q^{52}\, p^{9} + 23864\, q^{52}\, p^{8} + 6437\, q^{52}\, p^{7} + 60905696068849\, p^{75}\, q^{92}$$
$$+ 195221\, q^{54}\, p^{10} + 75934475\, q^{60}\, p^{18} + 2445346\, q^{59}\, p^{13} + 11069645\, q^{59}\, p^{15} + 41346438\, q^{60}\, p^{17} + 5443426\, q^{58}\, p^{14} + 11177207\, q^{58}\, p^{15}$$
$$+ 1088851\, q^{58}\, p^{12} + 1123912\, q^{57}\, p^{12} + 401770767\, q^{63}\, p^{21} + 6181503965\, q^{64}\, p^{27} + 2693240359\, q^{64}\, p^{25} + 4116545922\, q^{64}\, p^{26}$$
$$+ 1087316486\, q^{64}\, p^{23} + 1728866892\, q^{64}\, p^{24} + 1700\, q^{50}\, p^{6} + 1153579\, q^{56}\, p^{12} + 187646\, q^{55}\, p^{10} + 53418\, q^{102}\, p^{16} + 20950\, q^{54}\, p^{8}$$
$$+ 41083623\, q^{61}\, p^{17} + 416206529038\, p^{124}\, q^{68} + 234892935\, q^{61}\, p^{20} + 75913553\, q^{61}\, p^{18} + 2566646\, q^{57}\, p^{13} + 5347135\, q^{59}\, p^{14}$$
$$+ 22423\, q^{53}\, p^{8} + 27676300732\, q^{65}\, p^{31} + 9320264092\, q^{65}\, p^{28} + 19023593914\, q^{64}\, p^{30} + 13592409467\, q^{65}\, p^{29} + 6291167315\, q^{65}\, p^{27}$$
$$+ 19531536746\, q^{65}\, p^{30} + 659846672\, q^{62}\, p^{22} + 457408\, q^{57}\, p^{11} + 490422\, q^{55}\, p^{11} + 437846\, q^{58}\, p^{11} + 10681860\, q^{61}\, p^{15} + 179325\, q^{56}\, p^{10}$$
$$+ 2512259\, q^{58}\, p^{13} + 5223833\, q^{60}\, p^{14} + 85970603\, p^{112}\, q^{29} + 1093857032929\, p^{126}\, q^{83} + 43727624005\, p^{121}\, q^{52} + 1218360228870\, p^{126}\, q^{85}$$

$$+ 666043414\, q^{63}\, p^{22} + 64620\, q^{55}\, p^{9} + 475005\, q^{56}\, p^{11} + 72928546991\, q^{65}\, p^{34} + 38767336\, q^{120}\, p^{32} + 985019061693\, q^{66}\, p^{44}$$
$$+ 633052622339\, q^{66}\, p^{42} + 792874262947\, q^{66}\, p^{43} + 501228702787\, q^{66}\, p^{41} + 53445323201\, q^{65}\, p^{33} + 6963757291\, p^{107}\, q^{36}$$
$$+ 236133845\, q^{62}\, p^{20} + 135602514\, q^{62}\, p^{19} + 19952678217\, q^{66}\, p^{30} + 38702130894\, q^{65}\, p^{32} + 1865\, q^{49}\, p^{6} + 29\, q^{49}\, p^{4}$$
$$+ 99413148368\, q^{113}\, p^{48} + 143913368587\, p^{135}\, q^{103} + 57721415826\, q^{113}\, p^{46} + 37\, q^{48}\, p^{4} + 316\, q^{49}\, p^{5} + 7230198536\, p^{118}\, q^{43}$$
$$+ 506835957162\, p^{128}\, q^{112} + 742304324457\, p^{125}\, q^{75} + 173165377654\, q^{87}\, p^{38} + 213865047\, p^{148}\, q^{81} + 68301\, q^{54}\, p^{9} + 25747\, q^{113}\, p^{19}$$
$$+ 16406\, q^{114}\, p^{19} + 49843\, q^{114}\, p^{20} + 136597\, q^{114}\, p^{21} + 2537892929396\, q^{118}\, p^{72} + 237390890\, p^{144}\, q^{68} + 85970603\, p^{142}\, q^{59}$$
$$+ 21272091934\, q^{112}\, p^{42} + 8527770519445\, p^{93}\, q^{117} + 8533473186909\, p^{92}\, q^{117} + 8152579849610\, p^{88}\, q^{117} + 8306263085871\, p^{89}\, q^{117}$$
$$+ 363344861\, q^{116}\, p^{34} + 891977467104\, q^{114}\, p^{59} + 617853594926\, q^{114}\, p^{57} + 744972154865\, q^{114}\, p^{58} + 8552749574\, p^{127}\, q^{138}$$
$$+ 3335488803\, p^{82}\, q^{143} + 2377208570519\, q^{76}\, p^{47} + 8368552165023\, p^{99}\, q^{60} + 27453067603384\, p^{100}\, q^{71} + 155320116\, p^{105}\, q^{27}$$
$$+ 7414314449010\, p^{57}\, q^{95} + 3265174535365\, p^{104}\, q^{121} + 24531755251600\, p^{108}\, q^{98} + 90327406292278\, p^{84}\, q^{89}$$
$$+ 91369886721141\, p^{86}\, q^{89} + 1600166322237\, p^{103}\, q^{53} + 244186851959\, q^{67}\, p^{38} + 236151652\, q^{63}\, p^{20} + 121\, q^{74}\, p^{7} + 249362431\, p^{77}\, q^{21}$$
$$+ 412476529\, p^{78}\, q^{22} + 43249616\, p^{75}\, q^{18} + 57619451698744\, p^{83}\, q^{99} + 65225473187118\, p^{87}\, q^{98} + 65386231106853\, p^{88}\, q^{98}$$
$$+ 67483147106103\, p^{91}\, q^{97} + 15860538\, p^{69}\, q^{16} + 109658454\, q^{115}\, p^{31} + 1976247648\, q^{78}\, p^{25} + 24617154352\, q^{79}\, p^{31}$$
$$+ 181548722381\, q^{80}\, p^{37} + 1426904703977\, q^{108}\, p^{56} + 1218360228870\, q^{86}\, p^{45} + 543543758854\, q^{87}\, p^{42} + 957219795060\, q^{86}\, p^{44}$$
$$+ 575205869372\, q^{86}\, p^{42} + 745430392432\, q^{86}\, p^{43} + 128727\, p^{146}\, q^{159} + 560644812\, p^{104}\, q^{29} + 43618235379\, p^{110}\, q^{43}$$
$$+ 2914363225754\, p^{94}\, q^{123} + 758429427\, p^{147}\, q^{123} + 40564\, p^{121}\, q^{23} + 91880629\, p^{148}\, q^{136} + 252109500\, p^{147}\, q^{132} + 2817179850\, p^{144}\, q^{85}$$
$$+ 7142898\, q^{146}\, p^{59} + 155814\, q^{146}\, p^{49} + 248124\, q^{146}\, p^{50} + 1342173761\, q^{116}\, p^{37} + 7\, p^{22}\, q^{2} + 11766758319803\, p^{67}\, q^{59}$$
$$+ 110825153810\, p^{135}\, q^{87} + 128211651805\, p^{135}\, q^{90} + 9887087171\, p^{138}\, q^{126} + 5537109014\, p^{142}\, q^{121} + 19924\, p^{108}\, q^{17}$$
$$+ 63339082925187\, p^{91}\, q^{75} + 16640210714935\, p^{59}\, q^{75} + 20528962346501\, p^{61}\, q^{74} + 10200\, p^{43}\, q^{7} + 2280710421928\, p^{118}\, q^{71}$$
$$+ 5078144291434\, p^{120}\, q^{91} + 29684220368\, p^{70}\, q^{31} + 3391902005287\, p^{73}\, q^{49} + 28051590811368\, p^{74}\, q^{64} + 13342227471\, q^{83}\, p^{30}$$
$$+ 14227511918\, q^{82}\, p^{30} + 9424709609\, q^{82}\, p^{29} + 828371\, p^{109}\, q^{21} + 5\, p^{66}\, q^{5} + 2561333567508\, p^{51}\, q^{61} + 2983949897996\, p^{52}\, q^{61}$$
$$+ 1807536824918\, p^{48}\, q^{63} + 2001968135784\, p^{49}\, q^{62} + 2366249710846\, p^{50}\, q^{62} + 304158654179\, p^{89}\, q^{132} + 315703459740\, p^{90}\, q^{132}$$
$$+ 326065794483\, p^{91}\, q^{132} + 335109217509\, p^{92}\, q^{132} + 21279514499975\, p^{109}\, q^{99} + 22906459779644\, p^{109}\, q^{97} + 30494\, p^{73}\, q^{10} + 492\, p^{59}\, q^{6}$$
$$+ 3437200298115\, p^{120}\, q^{106} + 4690938569191\, p^{63}\, q^{54} + 5805365843531\, p^{64}\, q^{55} + 1246250366161\, p^{63}\, q^{46} + 660253148007\, p^{54}\, q^{47}$$

$$+ 692182108141\, p^{53}\, q^{48} + 781262917852\, p^{54}\, q^{48} + 213556\, q^{135}\, p^{35} + 812293410999\, p^{53}\, q^{49} + 714283914928\, p^{52}\, q^{49}$$
$$+ 918313605986\, p^{54}\, q^{49} + 725586709333\, p^{51}\, q^{50} + 831474863321\, p^{52}\, q^{50} + 947085744338\, p^{53}\, q^{50} + 714283914928\, p^{49}\, q^{52}$$
$$+ 725586709333\, p^{50}\, q^{51} + 837964567969\, p^{51}\, q^{51} + 1072398087949\, p^{54}\, q^{50} + 831474863321\, p^{50}\, q^{52} + 961793897820\, p^{52}\, q^{51}$$
$$+ 692182108141\, p^{48}\, q^{53} + 1097257498726\, p^{53}\, q^{51} + 1244377309102\, p^{54}\, q^{51} + 961793897820\, p^{51}\, q^{52} + 1263356291065\, p^{53}\, q^{52}$$
$$+ 1105666082020\, p^{52}\, q^{52} + 1434944634923\, p^{54}\, q^{52} + 947085744338\, p^{50}\, q^{53} + 1263356291065\, p^{52}\, q^{53} + 1097257498726\, p^{51}\, q^{53}$$
$$+ 1445748541174\, p^{53}\, q^{53} + 1644589362633\, p^{54}\, q^{53} + 812293410999\, p^{49}\, q^{53} + 918313605986\, p^{49}\, q^{54} + 781262917852\, p^{48}\, q^{54}$$
$$+ 1434944634923\, p^{52}\, q^{54} + 1873561621100\, p^{54}\, q^{54} + 2406491886052\, p^{55}\, q^{55} + 1072398087949\, p^{50}\, q^{54} + 1644589362633\, p^{53}\, q^{54}$$
$$+ 1244377309102\, p^{51}\, q^{54} + 660253148007\, p^{47}\, q^{54} + 6288540046996\, p^{56}\, q^{95} + 5723507752147\, p^{55}\, q^{94} + 60289107\, p^{79}\, q^{19}$$
$$+ 23560303267072\, p^{99}\, q^{108} + 739694210034\, p^{104}\, q^{50} + 63293\, q^{83}\, p^{12} + 4166506404903\, p^{67}\, q^{112} + 6783766173538\, p^{56}\, q^{94}$$
$$+ 16649031596140\, p^{66}\, q^{63} + 15140055680074\, p^{66}\, q^{62} + 34984234517776\, p^{106}\, q^{90} + 21455546175566\, p^{105}\, q^{74}$$
$$+ 19826251174424\, p^{105}\, q^{73} + 34947002834344\, p^{106}\, q^{89} + 24741105344182\, p^{105}\, q^{76} + 26365710043220\, p^{105}\, q^{77}$$
$$+ 31547570330107\, p^{107}\, q^{91} + 29119770862214\, p^{106}\, q^{81} + 16665250058463\, p^{105}\, q^{71} + 33843433561347\, p^{106}\, q^{86}$$
$$+ 34372642869624\, p^{106}\, q^{87} + 26495850302837\, p^{106}\, q^{79} + 432554385\, p^{136}\, q^{54} + 26214527\, p^{132}\, q^{41} + 2019801406\, p^{138}\, q^{64}$$
$$+ 6291167315\, p^{144}\, q^{106} + 4101546526\, p^{140}\, q^{73} + 1038458860483\, p^{47}\, q^{95} + 5285391\, q^{51}\, p^{14} + 2594963\, q^{51}\, p^{13}$$
$$+ 10749982562395\, p^{102}\, q^{64} + 2982559350439\, p^{101}\, q^{55} + 15608808377\, p^{100}\, q^{35} + 1348715\, p^{84}\, q^{15} + 10106606804442\, p^{71}\, q^{109}$$
$$+ 2473203209256\, p^{61}\, q^{110} + 2461241253060\, p^{60}\, q^{109} + 8188104\, p^{125}\, q^{156} + 31547570330107\, p^{91}\, q^{107} + 1486855057\, q^{114}\, p^{36}$$
$$+ 682567283\, p^{68}\, q^{142} + 86053619\, p^{92}\, q^{22} + 9435786928435\, p^{108}\, q^{69} + 7640491491253\, p^{107}\, q^{66} + 237730\, p^{110}\, q^{20}$$
$$+ 1266339241\, p^{140}\, q^{135} + 67861651496566\, p^{97}\, q^{85} + 51052743642\, p^{90}\, q^{35} + 14436555\, p^{79}\, q^{17} + 4080693399\, p^{87}\, q^{28}$$
$$+ 433412314\, p^{84}\, q^{23} + 13514128370\, p^{88}\, q^{31} + 19722110498451\, p^{95}\, q^{64} + 5723507752147\, p^{94}\, q^{55} + 2706523527517\, p^{94}\, q^{51}$$
$$+ 975553429898\, p^{93}\, q^{46} + 18368945793\, p^{89}\, q^{32} + 7987598302640\, p^{94}\, q^{57} + 644905502657\, p^{92}\, q^{44} + 31245051170596\, p^{96}\, q^{69}$$
$$+ 86507181\, p^{82}\, q^{20} + 126954402514\, p^{91}\, q^{38} + 24741105344182\, p^{95}\, q^{66} + 7355321\, p^{78}\, q^{16} + 1550472490297\, p^{93}\, q^{48}$$
$$+ 829411491768\, p^{92}\, q^{45} + 22151627524065\, p^{95}\, q^{65} + 15366777265553\, p^{95}\, q^{62} + 6783766173538\, p^{94}\, q^{56} + 8685172347442\, p^{95}\, q^{58}$$
$$+ 11694499301809\, p^{95}\, q^{60} + 37204063451562\, p^{96}\, q^{71} + 4796503518611\, p^{94}\, q^{54} + 373634\, p^{72}\, q^{12} + 3991977890705\, p^{94}\, q^{53}$$
$$+ 171\, p^{53}\, q^{5} + 1379551197083\, p^{88}\, q^{126} + 976440966362\, p^{128}\, q^{94} + 1731253394\, p^{118}\, q^{39} + 521206587711\, p^{126}\, q^{74}$$

$$+ 2527480940\, p^{118} q^{40} + 34976207622\, p^{57} q^{126} + 289\, p^{164} q^{100} + 153\, p^{160} q^{74} + 92\, p^{162} q^{83} + 322798881144\, q^{125} p^{68} + 7753\, q^{113} p^{18}$$
$$+ 22256776\, q^{127} p^{36} + 555136\, q^{121} p^{26} + 43324740646\, q^{113} p^{45} + 5580553695\, q^{110} p^{37} + 29211196042\, q^{112} p^{43}$$
$$+ 13693293695904\, p^{66} q^{61} + 2054483371605\, p^{123} q^{106} + 55551\, p^{102} q^{161} + 70734\, q^{93} p^{14} + 2474399058548\, q^{117} p^{70}$$
$$+ 2764577248340\, q^{117} p^{71} + 53459928493587\, p^{100} q^{94} + 4811\, q^{75} p^{9} + 61587182685545\, p^{93} q^{98} + 5580553695\, p^{110} q^{37}$$
$$+ 1639426536\, p^{108} q^{33} + 23632204948\, q^{113} p^{43} + 15305989783\, q^{112} p^{41} + 11017115948143\, p^{59} q^{66} + 13170643644700\, p^{60} q^{67}$$
$$+ 10863234017290\, p^{77} q^{112} + 794873349\, p^{141} q^{136} + 3174067291059\, p^{49} q^{84} + 14\, p^{38} q^{3} + 18088763525710\, p^{90} q^{61}$$
$$+ 23214088691541\, p^{90} q^{63} + 68670378869921\, p^{94} q^{95} + 72457767306218\, p^{89} q^{96} + 102770\, p^{154} q^{155} + 13743\, p^{160} q^{154} + 20\, p^{62} q^{5}$$
$$+ 5056207948568\, p^{107} q^{117} + 5421777609144\, p^{106} q^{117} + 6812556320368\, p^{102} q^{117} + 6483333992714\, p^{103} q^{117}$$
$$+ 464494638394\, p^{121} q^{123} + 46487685190731\, p^{97} q^{75} + 24337650\, p^{81} q^{18} + 147088774\, p^{83} q^{21} + 243041793\, p^{84} q^{22} + 55551\, p^{69} q^{10}$$
$$+ 59937953610192\, p^{98} q^{82} + 62903596021970\, p^{98} q^{84} + 935\, p^{55} q^{6} + 35683337174\, p^{90} q^{34} + 1570183765\, p^{87} q^{26}$$
$$+ 286468935506\, p^{92} q^{41} + 158474038390\, p^{92} q^{39} + 91992305837\, p^{91} q^{37} + 24589435572\, p^{90} q^{33} + 214219467010\, p^{92} q^{40}$$
$$+ 65846023325\, p^{91} q^{36} + 8113039825\, p^{89} q^{30} + 347280946401\, p^{93} q^{42} + 53752425165254\, p^{98} q^{79} + 20160547260\, p^{131} q^{62}$$
$$+ 141785813259\, p^{135} q^{93} + 52452216167\, p^{133} q^{72} + 101732673686\, p^{136} q^{105} + 1313370484\, p^{126} q^{45} + 2442\, p^{90} q^{11}$$
$$+ 16021685540\, q^{140} p^{85} + 25710394701873\, p^{101} q^{106} + 79872800221447\, p^{92} q^{92} + 39630669873417\, p^{71} q^{95} + 6289208415048\, p^{57} q^{97}$$
$$+ 18370761737277\, p^{64} q^{96} + 2490899759608\, p^{86} q^{123} + 65225473187118\, p^{98} q^{87} + 44215845\, p^{82} q^{19} + 60390210806882\, p^{99} q^{91}$$
$$+ 58083748098692\, p^{98} q^{81} + 49363791512859\, p^{97} q^{76} + 52155885294020\, p^{97} q^{77} + 40607117539629\, p^{97} q^{73}$$
$$+ 65233125970312\, p^{98} q^{89} + 43558722285174\, p^{97} q^{74} + 23885351229852\, p^{97} q^{67} + 2203969789062\, p^{94} q^{50} + 141315\, p^{71} q^{11}$$
$$+ 64753086328950\, p^{98} q^{86} + 19524003240\, q^{101} p^{36} + 1712526\, q^{88} p^{16} + 1152820827249\, p^{126} q^{106} + 1000403\, p^{99} q^{18}$$
$$+ 77597978277465\, p^{77} q^{87} + 67861651496566\, p^{86} q^{74} + 40337772420494\, p^{86} q^{67} + 56002849628175\, p^{86} q^{71}$$
$$+ 60008861478648\, p^{86} q^{72} + 44132004593373\, p^{86} q^{68} + 71624595725914\, p^{86} q^{75} + 3289441\, p^{69} q^{14} + 1482600\, p^{68} q^{13}$$
$$+ 538604\, q^{156} p^{82} + 94572422762\, q^{109} p^{45} + 1907709\, p^{109} q^{22} + 53250665052\, p^{59} q^{126} + 571160858\, p^{123} q^{40} + 248041056679\, p^{68} q^{126}$$
$$+ 68618239302915\, p^{86} q^{97} + 395636\, q^{134} p^{35} + 124728099616\, p^{62} q^{125} + 24904353164232\, q^{107} p^{80} + 36188439\, q^{97} p^{22}$$
$$+ 54263242294358\, p^{81} q^{99} + 42003558458993\, p^{77} q^{100} + 52275587955724\, p^{80} q^{99} + 22852967206389\, p^{71} q^{102}$$
$$+ 40831890934071\, p^{78} q^{101} + 42892670254688\, p^{79} q^{101} + 52240870406594\, p^{101} q^{92} + 27096736457435\, p^{100} q^{106}$$

$$+ 10833518806344\, p^{101} q^{114} + 11094304754060\, p^{103} q^{113} + 10259671325275\, p^{99} q^{115} + 341093935573\, q^{115} p^{55}$$
$$+ 23670584904719\, p^{79} q^{107} + 3872979\, q^{145} p^{55} + 12371535\, q^{148} p^{66} + 149840796063\, p^{133} q^{82} + 7230198536\, p^{128} q^{53}$$
$$+ 3869698880739\, p^{84} q^{50} + 852638607121\, p^{83} q^{43} + 4151801\, p^{109} q^{23} + 726535974517\, p^{129} q^{101} + 165680486169\, p^{130} q^{119}$$
$$+ 118577326122\, p^{131} q^{120} + 109658454\, p^{115} q^{31} + 84592\, p^{132} q^{31} + 5320753045\, p^{130} q^{138} + 40366686\, q^{132} p^{42} + 26214527\, q^{130} p^{39}$$
$$+ 2414762\, q^{127} p^{32} + 2006028782\, p^{111} q^{35} + 3745179234\, p^{138} q^{132} + 9813526709\, p^{114} q^{41} + 3027782643\, p^{111} q^{36} + 2412\, p^{78} q^{9}$$
$$+ 71294\, p^{133} q^{162} + 87259\, p^{145} q^{160} + 31009\, p^{129} q^{163} + 30256\, p^{131} q^{163} + 74014\, p^{146} q^{160} + 99917\, p^{139} q^{161} + 110160\, p^{138} q^{161}$$
$$+ 144622136031\, p^{117} q^{53} + 88050267765\, p^{116} q^{50} + 271533352476\, p^{118} q^{57} + 1197886718811\, p^{120} q^{69} + 1352455101940\, p^{120} q^{70}$$
$$+ 1306112627\, p^{111} q^{34} + 2907842957189\, p^{123} q^{95} + 2914363225754\, p^{123} q^{94} + 1683575965299\, p^{121} q^{74} + 8714563814\, p^{113} q^{40}$$
$$+ 6088923624\, p^{113} q^{39} + 1803231710239\, p^{124} q^{105} + 2288172773613\, p^{123} q^{104} + 540883718985\, p^{119} q^{62} + 98037603239\, p^{135} q^{85}$$
$$+ 4480043535\, p^{138} q^{131} + 5448938\, p^{115} q^{26} + 765340630551\, p^{129} q^{94} + 1307971123\, p^{119} q^{39} + 401523583405\, p^{127} q^{74}$$
$$+ 1918131794\, p^{119} q^{40} + 21\, p^{71} q^{6} + 1197719803096\, p^{113} q^{123} + 1607539081634\, p^{107} q^{124} + 7482\, p^{164} q^{121} + 3622\, p^{161} q^{88} + 69\, p^{148} q^{41}$$
$$+ 25740512120\, p^{131} q^{130} + 456778489938\, p^{119} q^{61} + 2568834660887\, p^{121} q^{79} + 67489968350\, p^{108} q^{137} + 67711128469\, p^{133} q^{74}$$
$$+ 1004023\, p^{111} q^{22} + 1694\, q^{145} p^{40} + 8\, q^{118} p^{16} + 29696233452\, p^{132} q^{66} + 13463321616\, p^{131} q^{60} + 6275162204\, p^{138} q^{129} + 7408\, q^{129} p^{26}$$
$$+ 2533\, q^{129} p^{25} + 19571\, q^{129} p^{27} + 2336\, p^{76} q^{159} + 68187569313\, p^{116} q^{49} + 24595704\, q^{147} p^{66} + 375\, p^{70} q^{7} + 660128921947\, p^{129} q^{104}$$
$$+ 284884773310\, p^{126} q^{69} + 770868493901\, p^{129} q^{95} + 325235929399\, p^{126} q^{70} + 273067039\, p^{117} q^{34} + 36491563\, p^{113} q^{28}$$
$$+ 2992148488\, p^{120} q^{42} + 1540221\, p^{107} q^{21} + 5580553695\, q^{134} p^{61} + 9938543\, q^{130} p^{37} + 14707935576\, p^{138} q^{123} + 1438199149093\, q^{91} p^{47}$$
$$+ 77111205\, p^{144} q^{63} + 8585396580535\, p^{100} q^{116} + 1314418242156\, p^{112} q^{123} + 1877391791688\, p^{98} q^{125} + 1706901302345\, p^{106} q^{124}$$
$$+ 804036926085\, p^{82} q^{127} + 1462178232635\, p^{90} q^{126} + 1423752113609\, p^{89} q^{126} + 1982390699610\, p^{103} q^{124} + 1895426700617\, p^{104} q^{124}$$
$$+ 1903572800296\, p^{97} q^{125} + 1920751952776\, p^{96} q^{125} + 21116941414\, p^{135} q^{126} + 33469754937\, p^{126} q^{133} + 44975678753\, p^{124} q^{133}$$
$$+ 53266141859\, p^{130} q^{127} + 22862984944\, p^{134} q^{127} + 54272094631\, p^{129} q^{128} + 44889280319\, p^{130} q^{128} + 11549697450\, q^{85} p^{30}$$
$$+ 10469483340674\, q^{108} p^{70} + 1799696007922\, q^{91} p^{48} + 2751909524386\, q^{91} p^{50} + 4082713626013\, q^{91} p^{52} + 3364235595648\, q^{91} p^{51}$$
$$+ 4919313446565\, q^{91} p^{53} + 5886137795158\, q^{91} p^{54} + 2234104410672\, q^{91} p^{49} + 42405017773569\, p^{74} q^{69} + 70805723150904\, p^{96} q^{91}$$
$$+ 16997208017521\, p^{59} q^{76} + 21622373041326\, p^{61} q^{76} + 26891541512060\, p^{63} q^{76} + 24180662000405\, p^{62} q^{76}$$
$$+ 29742603394073\, p^{64} q^{76} + 35799273283587\, p^{66} q^{76} + 32718161751151\, p^{65} q^{76} + 36673312023241\, p^{66} q^{77}$$

$$+ 19225860627203\, p^{60} q^{76} + 20360143554756\, p^{84} q^{110} + 1066086678\, p^{133} q^{142} + 1342411986\, p^{121} q^{146} + 7025186639996\, p^{53} q^{82}$$
$$+ 319584955872\, q^{99} p^{44} + 214373100887\, q^{100} p^{43} + 14939575274847\, p^{58} q^{76} + 4722947172\, p^{123} q^{46} + 528269881635\, p^{130} q^{89}$$
$$+ 486774892775\, p^{130} q^{87} + 286675317588\, p^{129} q^{76} + 546246906475\, p^{130} q^{90} + 316386575484\, p^{129} q^{77} + 463879129804\, p^{131} q^{98}$$
$$+ 347280946401\, p^{129} q^{78} + 13341539605615\, p^{57} q^{81} + 1157339998487\, p^{87} q^{45} + 104503597490\, p^{85} q^{36} + 9180420482064\, p^{89} q^{56}$$
$$+ 2165705327856\, p^{88} q^{48} + 130675048\, q^{97} p^{24} + 2038176046219\, q^{118} p^{70} + 121260765855\, q^{112} p^{48} + 93079101603\, q^{112} p^{47}$$
$$+ 3091244288095\, q^{118} p^{74} + 2808562522962\, q^{118} p^{73} + 19866612457687\, p^{60} q^{82} + 1048540783264\, p^{44} q^{84} + 783478500343\, p^{43} q^{85}$$
$$+ 275\, p^{50} q^{5} + 66294207773813\, p^{97} q^{92} + 63997974031095\, p^{73} q^{80} + 1178313330\, q^{142} p^{71} + 122\, q^{112} p^{15} + 415851927065\, q^{116} p^{57}$$
$$+ 604\, q^{43} p^{5} + 68921891717407\, p^{82} q^{74} + 42149729384371\, p^{82} q^{67} + 57563164938959\, p^{82} q^{71} + 61433163572259\, p^{82} q^{72}$$
$$+ 45922212132469\, p^{82} q^{68} + 1930187136\, q^{105} p^{32} + 996466648\, q^{106} p^{31} + 8106706761\, p^{126} q^{51} + 72457767306218\, p^{82} q^{75}$$
$$+ 30717\, p^{130} q^{163} + 67786\, p^{134} q^{162} + 64016\, p^{135} q^{162} + 60066\, p^{136} q^{162} + 112228426\, q^{146} p^{70} + 2981284755123\, q^{104} p^{57}$$
$$+ 192803317\, p^{104} q^{27} + 2885186101601\, p^{123} q^{92} + 1369273510643\, p^{121} q^{72} + 90205427784\, p^{117} q^{51} + 694891733559\, p^{120} q^{65}$$
$$+ 2945000\, p^{136} q^{156} + 3858296641278\, p^{100} q^{121} + 923397994585\, p^{120} q^{67} + 660253148007\, p^{124} q^{117} + 2751909524386\, p^{121} q^{80}$$
$$+ 221800967046\, p^{118} q^{56} + 49223349\, p^{135} q^{46} + 253330\, p^{107} q^{19} + 112159\, p^{126} q^{27} + 1621000\, p^{112} q^{23} + 108253693867\, p^{136} q^{95}$$
$$+ 24926101\, p^{118} q^{30} + 65604600\, p^{120} q^{33} + 110649951861\, p^{136} q^{101} + 30394566445\, p^{137} q^{119} + 2887301873663\, p^{123} q^{96} + 13189\, p^{84} q^{11}$$
$$+ 1522499638916\, p^{121} q^{73} + 40564\, q^{121} p^{23} + 95519\, q^{123} p^{25} + 223484\, q^{123} p^{26} + 4\, p^{154} q^{50} + 30\, p^{159} q^{67} + 36660827\, p^{153} q^{127}$$
$$+ 134870781\, p^{152} q^{111} + 135602514\, p^{152} q^{109} + 56831336\, p^{153} q^{121} + 112119189\, p^{152} q^{118} + 18594381107\, p^{138} q^{121}$$
$$+ 743645972032\, p^{119} q^{64} + 3060790\, p^{98} q^{19} + 34503677057\, q^{138} p^{85} + 42077356455\, q^{138} p^{88} + 46806176755\, q^{138} p^{90}$$
$$+ 37055872515\, q^{138} p^{86} + 31958218188\, q^{138} p^{84} + 24589435572\, q^{138} p^{81} + 644863\, p^{104} q^{19} + 175767427249\, p^{125} q^{64} + 100253\, q^{155} p^{71}$$
$$+ 2\, q^{149} p^{40} + 26827\, q^{155} p^{67} + 697721248354\, p^{127} q^{80} + 742765559469\, p^{129} q^{100} + 2673320460094\, p^{123} q^{100} + 2497878138729\, p^{123} q^{102}$$
$$+ 1201040825445\, p^{124} q^{111} + 1607539081634\, p^{124} q^{107} + 253142936377\, p^{130} q^{115} + 2740355364494\, p^{89} q^{123} + 63253409626\, p^{128} q^{63}$$
$$+ 2142195427613\, p^{112} q^{120} + 1308058684676\, p^{76} q^{123} + 1135494657404\, p^{77} q^{124} + 289\, p^{100} q^{164} + 6153\, p^{106} q^{163} + 2\, p^{169} q^{140}$$
$$+ 540437626724\, p^{103} q^{130} + 3332\, p^{149} q^{164} + 2121\, p^{152} q^{164} + 2256\, p^{155} q^{163} + 76122971824\, q^{124} p^{58} + 794873349\, p^{136} q^{141}$$
$$+ 85891\, p^{104} q^{17} + 63293\, p^{88} q^{159} + 170537\, p^{87} q^{158} + 1057116\, q^{126} p^{30} + 62934077\, q^{131} p^{42} + 884260869\, q^{135} p^{55}$$
$$+ 1152127928\, q^{135} p^{56} + 117773161\, p^{150} q^{86} + 9\, q^{73} p^{6} + 480374111\, q^{133} p^{50} + 349173700\, q^{133} p^{49} + 250680002\, q^{133} p^{48}$$

$$+ 177637315\, q^{133}\, p^{47} + 84592\, q^{132}\, p^{31} + 46684332\, p^{138}\, q^{50} + 1072391669\, p^{137}\, q^{139} + 2645688670\, p^{131}\, q^{140} + 2703554652\, p^{102}\, q^{146}$$
$$+ 375978031\, q^{119}\, p^{36} + 2565799347\, p^{143}\, q^{125} + 272115743\, p^{132}\, q^{47} + 9148305992\, p^{142}\, q^{115} + 143386717\, p^{130}\, q^{43}$$
$$+ 21125519030\, p^{140}\, q^{89} + 4361396483\, p^{143}\, q^{120} + 1775\, p^{100}\, q^{13} + 1152595129\, q^{122}\, p^{41} + 2369353573\, q^{122}\, p^{43} + 4618900813\, q^{122}\, p^{45}$$
$$+ 1136738054\, p^{118}\, q^{147} + 5\, p^{26}\, q^{2} + 18210482179498\, p^{66}\, q^{64} + 29129\, q^{110}\, p^{18} + 91992305837\, q^{134}\, p^{80} + 83800842048\, q^{134}\, p^{79}$$
$$+ 54590373509\, q^{134}\, p^{75} + 61282051996\, q^{134}\, p^{76} + 75921577106\, q^{134}\, p^{78} + 33374878\, p^{126}\, q^{36} + 29484424646\, p^{140}\, q^{99}$$
$$+ 11023451082\, p^{141}\, q^{117} + 5720793924\, p^{135}\, q^{63} + 1180996\, p^{105}\, q^{20} + 54314497141\, p^{122}\, q^{54} + 1402995848955\, p^{116}\, q^{120}$$
$$+ 16243822427059\, p^{75}\, q^{108} + 383157067377\, p^{111}\, q^{52} + 682567283\, p^{103}\, q^{29} + 5746704848437\, p^{114}\, q^{73} + 52713581446\, p^{109}\, q^{43}$$
$$+ 6383340433845\, p^{103}\, q^{61} + 8457275926971\, p^{103}\, q^{63} + 20336118063701\, p^{104}\, q^{72} + 3186972190208\, p^{102}\, q^{56}$$
$$+ 10941056202337\, p^{103}\, q^{65} + 7369813724444\, p^{103}\, q^{62} + 33620283278123\, p^{105}\, q^{82} + 35799502307389\, p^{105}\, q^{84}$$
$$+ 3794359419711\, p^{102}\, q^{57} + 34777374107181\, p^{105}\, q^{83} + 15\, q^{150}\, p^{43} + 91027\, p^{107}\, q^{18} + 42171204948\, p^{136}\, q^{79} + 15479\, p^{102}\, q^{15}$$
$$+ 26827\, p^{104}\, q^{16} + 210145414\, p^{127}\, q^{41} + 14687053933\, p^{133}\, q^{64} + 38702130894\, p^{139}\, q^{106} + 29921192046\, p^{135}\, q^{73}$$
$$+ 46527562478\, p^{136}\, q^{80} + 59000231715\, p^{138}\, q^{100} + 1220488200\, p^{129}\, q^{48} + 7\, p^{65}\, q^{5} + 33099815481\, p^{139}\, q^{110} + 671954953\, q^{117}\, p^{36}$$
$$+ 6057670876347\, q^{119}\, p^{95} + 5594421512905\, q^{119}\, p^{99} + 5748634938376\, q^{119}\, p^{98} + 5006460179723\, q^{119}\, p^{102} + 4535336859526\, q^{119}\, p^{104}$$
$$+ 3652131677483\, q^{120}\, p^{105} + 5417754116456\, q^{119}\, p^{100} + 4777005620682\, q^{119}\, p^{103} + 5981832899556\, q^{119}\, p^{96}$$
$$+ 5220931325149\, q^{119}\, p^{101} + 5878352755905\, q^{119}\, p^{97} + 6104829588889\, q^{119}\, p^{94} + 6122662590210\, q^{119}\, p^{93} + 382287413\, p^{147}\, q^{81}$$
$$+ q^{117}\, p^{15} + 33594382374\, q^{122}\, p^{52} + 42901961413\, q^{122}\, p^{53} + 54314497141\, q^{122}\, p^{54} + 2165705327856\, q^{123}\, p^{83}$$
$$+ 3759631664049\, p^{112}\, q^{116} + 13770086\, q^{142}\, p^{53} + 60477366168\, p^{136}\, q^{83} + 3297547512\, p^{131}\, q^{54} + 127\, q^{152}\, p^{49} + 6083039942\, q^{130}\, p^{55}$$
$$+ 7760106667\, q^{130}\, p^{56} + 2164\, p^{160}\, q^{160} + 1469\, p^{161}\, q^{160} + 409622\, q^{143}\, p^{46} + 16367\, q^{142}\, p^{39} + 32538983\, p^{145}\, q^{62}$$
$$+ 28125612744011\, p^{88}\, q^{108} + 65190701\, p^{113}\, q^{29} + 856494057280\, p^{127}\, q^{83} + 33594382374\, p^{122}\, q^{52} + 957219795060\, p^{127}\, q^{85}$$
$$+ 728889\, p^{134}\, q^{36} + 411\, p^{155}\, q^{58} + 9660\, p^{164}\, q^{126} + 7230\, p^{162}\, q^{98} + 338\, p^{154}\, q^{55} + 14597448020\, p^{113}\, q^{141} + 8568508801\, q^{116}\, p^{42}$$
$$+ 100579557\, p^{146}\, q^{139} + 379146615238\, q^{92}\, p^{42} + 286468935506\, q^{92}\, p^{41} + 322798881144\, p^{125}\, q^{68} + 122530769564\, q^{104}\, p^{43}$$
$$+ 91147086861\, q^{104}\, p^{42} + 162994941673\, q^{104}\, p^{44} + 241232637957\, q^{105}\, p^{46} + 361648113379\, q^{104}\, p^{47} + 214641314300\, q^{104}\, p^{45}$$
$$+ 279918757678\, q^{104}\, p^{46} + 148303\, p^{90}\, q^{14} + 2042476\, p^{96}\, q^{18} + 6573472244\, p^{111}\, q^{38} + 1085438438424\, p^{123}\, q^{114}$$
$$+ 1557724810371\, p^{123}\, q^{110} + 692182108141\, p^{123}\, q^{118} + 1807536824918\, p^{123}\, q^{108} + 1682372340121\, p^{123}\, q^{109}$$

$$+ 1351259371983\, p^{115}\, q^{121} + 978254603350\, p^{123}\, q^{115} + 1034413\, p^{95}\, q^{17} + 2302101\, q^{157}\, p^{98} + 36281473\, q^{142}\, p^{56} + 1481787066\, q^{104}\, p^{31}$$
$$+ 376905101351\, p^{129}\, q^{113} + 121260765855\, p^{123}\, q^{59} + 1682372340121\, p^{109}\, q^{123} + 27339186007618\, p^{70}\, q^{99} + 16665250058463\, p^{66}\, q^{100}$$
$$+ 214219467010\, q^{92}\, p^{40} + 3308297103\, p^{114}\, q^{38} + 70734\, p^{93}\, q^{14} + 10757614065\, p^{94}\, q^{32} + 5222928760084\, p^{99}\, q^{57}$$
$$+ 768914855710\, p^{98}\, q^{47} + 663829485\, p^{90}\, q^{25} + 3329033908\, p^{127}\, q^{49} + 27845650080877\, p^{106}\, q^{80} + 34742193297189\, p^{106}\, q^{88}$$
$$+ 10457769\, q^{96}\, p^{20} + 1348715\, p^{156}\, q^{87} + 437186\, p^{156}\, q^{81} + 122\, p^{131}\, q^{24} + 2808562522962\, p^{98}\, q^{53} + 28108135874\, p^{130}\, q^{62}$$
$$+ 192358628533\, p^{134}\, q^{93} + 72922131121\, p^{132}\, q^{72} + 136051122073\, p^{135}\, q^{105} + 1830948412\, p^{125}\, q^{45} + 3350\, p^{89}\, q^{11} + 290\, q^{145}\, p^{38}$$
$$+ 2091092057\, q^{120}\, p^{41} + 1440738006\, q^{120}\, p^{40} + 605204255\, p^{142}\, q^{136} + 60\, p^{156}\, q^{58} + 2529\, p^{165}\, q^{126} + 1328\, p^{163}\, q^{98} + 51\, p^{155}\, q^{55}$$
$$+ 77684\, p^{162}\, q^{120} + 152328022133\, q^{84}\, p^{37} + 1370771530418\, q^{107}\, p^{55} + 6559928760237\, p^{109}\, q^{67} + 344540888069\, p^{106}\, q^{48}$$
$$+ 37594805\, p^{93}\, q^{21} + 3002048203\, p^{100}\, q^{31} + 849137464\, p^{99}\, q^{28} + 4745\, p^{114}\, q^{18} + 13342227471\, p^{88}\, q^{141} + 4268436\, p^{137}\, q^{155}$$
$$+ 1518258598889\, p^{120}\, q^{71} + 3480269476268\, p^{122}\, q^{91} + 253330\, q^{152}\, p^{64} + 350475\, q^{152}\, p^{65} + 1126011849034\, p^{89}\, q^{127}$$
$$+ 86093643650\, p^{125}\, q^{60} + 184581045130\, p^{126}\, q^{66} + 8582136209\, p^{122}\, q^{47} + 32603\, p^{86}\, q^{12} + 2135393775\, p^{145}\, q^{120} + 256\, q^{161}\, p^{80}$$
$$+ 169\, q^{161}\, p^{79} + 1298290349\, p^{145}\, q^{125} + 113815551\, p^{134}\, q^{47} + 10342698\, q^{138}\, p^{46} + 3592433932\, p^{112}\, q^{37} + 1054197217\, p^{110}\, q^{33}$$
$$+ 7761454\, q^{127}\, p^{34} + 5600943741\, p^{117}\, q^{143} + 5245937441\, p^{112}\, q^{144} + 5476744778\, p^{111}\, q^{144} + 5688369157\, p^{110}\, q^{144} + q^{111}\, p^{13}$$
$$+ 21362391\, p^{116}\, q^{155} + 10566860\, p^{119}\, q^{156} + 61042094\, q^{132}\, p^{43} + 14581931\, q^{128}\, p^{36} + 1537138073\, q^{133}\, p^{54} + 653119815\, q^{133}\, p^{51}$$
$$+ 878037540\, q^{133}\, p^{52} + 1167764212\, q^{133}\, p^{53} + 121\, p^{74}\, q^{7} + q^{77}\, p^{6} + 21963\, p^{147}\, q^{47} + 956868\, p^{156}\, q^{85} + 414946\, p^{160}\, q^{130} + 397\, p^{134}\, q^{27}$$
$$+ 1279571\, p^{157}\, q^{93} + 33022\, q^{146}\, p^{46} + 397\, q^{144}\, p^{37} + 219\, q^{142}\, p^{34} + 395802952\, p^{108}\, q^{30} + 135\, p^{65}\, q^{6} + 52313445887\, p^{116}\, q^{48}$$
$$+ 4227431667\, p^{126}\, q^{141} + 2515856\, p^{113}\, q^{24} + 479100152442\, p^{130}\, q^{106} + 37527312517\, p^{115}\, q^{46} + 19952678217\, p^{105}\, q^{141}$$
$$+ 13070119565\, p^{96}\, q^{142} + 20512551154\, p^{103}\, q^{141} + 11714895206\, p^{93}\, q^{142} + 106889578\, p^{152}\, q^{119} + 211847007\, p^{151}\, q^{102}$$
$$+ 204279450\, p^{151}\, q^{101} + 213900295\, p^{150}\, q^{92} + 16708979\, p^{153}\, q^{134} + 159533\, p^{78}\, q^{12} + 4304988944008\, p^{105}\, q^{60} + 15757079\, p^{101}\, q^{22}$$
$$+ 25272808\, p^{102}\, q^{23} + 19925274\, q^{155}\, p^{107} + 4\, p^{157}\, q^{58} + 505\, p^{166}\, q^{126} + 164\, p^{164}\, q^{98} + 4\, p^{156}\, q^{55} + 2982559350439\, q^{101}\, p^{55}$$
$$+ 3570071848480\, q^{101}\, p^{56} + 69112366953613\, p^{95}\, q^{81} + 26513\, q^{127}\, p^{26} + 34984234517776\, p^{65}\, q^{81} + 2179866\, q^{62}\, p^{13}$$
$$+ 1088922721\, q^{66}\, p^{23} + 19245965\, p^{65}\, q^{16} + 395286377\, q^{66}\, p^{21} + 90665556811520\, p^{88}\, q^{89} + 89666665628758\, p^{89}\, q^{89}$$
$$+ 88252889191648\, p^{90}\, q^{89} + 70721330322825\, p^{95}\, q^{93} + 18936958153836\, p^{69}\, q^{102} + 3994830592175\, p^{103}\, q^{58}$$
$$+ 91235908215747\, p^{87}\, q^{89} + 10407612\, q^{62}\, p^{15} + p^{94}\, q^{165} + 104503597490\, q^{85}\, p^{36} + 36514\, q^{62}\, p^{9} + 8514973\, q^{151}\, p^{74}$$

$$+ 70136127426\, q^{86} p^{35} + 49529848995\, q^{86} p^{34} + 248211\, q^{66} p^{11} + 7142898\, p^{112} q^{25} + 3888\, q^{57} p^{7} + 191233740407\, q^{68} p^{37}$$
$$+ 29298270502\, q^{68} p^{31} + 78900231036\, q^{68} p^{34} + 41281903003\, q^{68} p^{32} + 4232822667\, q^{67} p^{26} + 6418694601\, q^{67} p^{27}$$
$$+ 57422117953\, q^{68} p^{33} + 107154143199\, q^{68} p^{35} + 2740670140\, q^{67} p^{25} + 4596109373\, q^{141} p^{77} + 494514\, p^{94} q^{16} + 280267\, p^{92} q^{15}$$
$$+ 86830155\, p^{105} q^{26} + 179804052470\, p^{118} q^{55} + 28011316283\, p^{115} q^{45} + 43630681340\, p^{131} q^{127} + 51307123406\, p^{126} q^{131}$$
$$+ 35461549786\, p^{132} q^{127} + 28591889300\, p^{133} q^{127} + 25238217103\, p^{132} q^{129} + 26700263787\, p^{134} q^{126} + 15262403182\, p^{122} q^{49}$$
$$+ 148565555750\, p^{125} q^{63} + 75921577106\, p^{134} q^{78} + 111895428592\, p^{136} q^{98} + 728895\, p^{142} q^{157} + 356929\, p^{148} q^{156} + 313673458\, p^{134} q^{50}$$
$$+ 755645017023\, p^{129} q^{99} + 21067837520\, p^{130} q^{132} + 9193033573\, p^{135} q^{131} + 2943475413821\, p^{122} q^{85} + 1054836448162\, p^{120} q^{68}$$
$$+ 2676095972982\, p^{122} q^{83} + 3180455299\, p^{128} q^{50} + 31459431\, p^{140} q^{52} + 422971676\, p^{144} q^{71} + 81691006\, p^{140} q^{55}$$
$$+ 114705294444\, p^{117} q^{52} + 2235868014\, q^{134} p^{57} + 2846496609\, q^{134} p^{58} + 4664151958\, q^{135} p^{62} + 3773088098\, q^{135} p^{61} + 318947\, q^{127} p^{29}$$
$$+ 10488\, p^{164} q^{132} + 29657590979\, p^{100} q^{140} + 31428050478\, p^{111} q^{139} + 1851600711679\, p^{121} q^{75} + 92033640\, p^{150} q^{84}$$
$$+ 3107827307\, p^{138} q^{133} + 235606749\, p^{108} q^{29} + 18967208287\, p^{114} q^{43} + 446731\, p^{153} q^{69} + 47\, p^{127} q^{21} + 2445346\, p^{112} q^{158}$$
$$+ 392064\, p^{160} q^{131} + 8414432863\, q^{135} p^{65} + 14227787037\, q^{135} p^{68} + 10094459039\, q^{135} p^{66} + 12025315148\, q^{135} p^{67}$$
$$+ 5720793924\, q^{135} p^{63} + 6963757291\, q^{135} p^{64} + 1102027939525\, p^{124} q^{112} + 382484081887\, p^{125} q^{120} + 516941403284\, p^{124} q^{119}$$
$$+ 517755310\, p^{109} q^{31} + p^{145} q^{34} + 2\, p^{149} q^{40} + 21\, p^{155} q^{54} + 3863\, p^{162} q^{95} + 911\, p^{166} q^{139} + 5\, p^{151} q^{44} + 108\, p^{155} q^{56} + 165181\, p^{111} q^{20}$$
$$+ 970871304\, p^{141} q^{135} + 2590484933085\, p^{123} q^{101} + 2813599323205\, p^{122} q^{84} + 803493313855\, p^{120} q^{66} + 383157067377\, p^{119} q^{60}$$
$$+ 29585\, p^{163} q^{132} + 56645\, p^{160} q^{94} + 56741\, p^{162} q^{114} + 327293\, p^{155} q^{150} + 111214183132\, p^{136} q^{97} + 707175638561\, p^{129} q^{102}$$
$$+ 455647970702\, p^{130} q^{107} + 272115743\, p^{124} q^{39} + 26533932\, p^{112} q^{27} + 28125612744011\, p^{63} q^{83} + 337391762736\, p^{130} q^{81}$$
$$+ 463779827034\, p^{130} q^{86} + 7740019384426\, p^{54} q^{85} + 19324673910107\, p^{60} q^{84} + 9126479275508\, p^{55} q^{85} + 6843740686\, p^{105} q^{35}$$
$$+ 36188439\, p^{97} q^{22} + 4487377793055\, p^{113} q^{69} + 3672061862016\, p^{112} q^{66} + 1792872015965\, p^{111} q^{60} + 5012360523404\, p^{113} q^{70}$$
$$+ 4700284049536\, p^{112} q^{68} + 1784017130172\, p^{112} q^{61} + 12446000804662\, p^{114} q^{86} + 9129081648815\, p^{114} q^{79} + 58027014\, p^{98} q^{23}$$
$$+ 10596165958193\, p^{115} q^{98} + 567457228668\, p^{110} q^{53} + 10002623058925\, p^{113} q^{78} + 343409201568\, p^{109} q^{50} + 12756459990292\, p^{114} q^{87}$$
$$+ 90304557\, p^{99} q^{24} + 73\, q^{139} p^{30} + 90479\, q^{150} p^{56} + 37259\, q^{150} p^{54} + 99413148368\, p^{113} q^{48} + 62775385931\, p^{126} q^{130}$$
$$+ 64540688933\, p^{127} q^{129} + 2389259470656\, p^{48} q^{86} + 2943475413821\, p^{49} q^{86} + 1336215211597\, p^{92} q^{47} + 1266759336\, p^{84} q^{25}$$
$$+ 6971550328\, p^{86} q^{29} + 750834074\, p^{84} q^{24} + 3084463123\, p^{85} q^{27} + 7249684734009\, p^{93} q^{118} + 655120493\, q^{138} p^{59}$$

$$+ 1054197217\, q^{138}\, p^{61} + 7486631033952\, p^{54}\, q^{86} + 4187391279273\, p^{51}\, q^{87} + 6299029825747\, p^{53}\, q^{86} + 4368098992233\, p^{51}\, q^{86}$$
$$+ 5263806128935\, p^{52}\, q^{86} + 72771256567751\, p^{88}\, q^{96} + 32408058430\, q^{100}\, p^{37} + 2367552177705\, p^{113}\, q^{64} + 604862561118\, p^{112}\, q^{55}$$
$$+ 8258052969136\, p^{115}\, q^{80} + 11204819677781\, p^{115}\, q^{88} + 7482489097553\, p^{116}\, q^{103} + 9985880961899\, p^{116}\, q^{92} + 737196877948\, p^{112}\, q^{56}$$
$$+ 45834568486378\, p^{102}\, q^{83} + 2566646\, p^{114}\, q^{158} + 3962210614\, p^{137}\, q^{133} + 25272808\, q^{102}\, p^{23} + 73880812\, q^{103}\, p^{25} + 12530229\, q^{102}\, p^{22}$$
$$+ 64812288267316\, p^{97}\, q^{93} + 14739588821877\, p^{58}\, q^{84} + 49770872458554\, p^{69}\, q^{82} + 68363038900654\, p^{74}\, q^{81} + 144245064747\, q^{93}\, p^{39}$$
$$+ 105273089892\, q^{93}\, p^{38} + 59835328990\, q^{92}\, p^{36} + 24747436628872\, p^{62}\, q^{84} + 659525816\, p^{145}\, q^{77} + 38297970260685\, p^{66}\, q^{83}$$
$$+ 224774\, q^{67}\, p^{11} + 1482600\, q^{68}\, p^{13} + 70129272\, p^{89}\, q^{21} + 51278495128408\, p^{101}\, q^{93} + 408815738549\, p^{131}\, q^{104} + 164066421063\, p^{128}\, q^{69}$$
$$+ 462510626660\, p^{131}\, q^{95} + 58934099708\, p^{122}\, q^{133} + 66848471414\, p^{121}\, q^{133} + 104369866247\, p^{117}\, q^{133} + 94175017750\, p^{118}\, q^{133}$$
$$+ 56767926363609\, p^{99}\, q^{94} + 9075778687\, q^{101}\, p^{34} + 24286347762156\, p^{86}\, q^{109} + 9647544500307\, q^{107}\, p^{68} + 35950700908688\, p^{68}\, q^{92}$$
$$+ 19797\, q^{158}\, p^{78} + 11577\, q^{159}\, p^{81} + 26286\, q^{158}\, p^{79} + 14711\, q^{158}\, p^{77} + 34479\, q^{158}\, p^{80} + 37068562341030\, p^{101}\, q^{101} + 63761\, q^{147}\, p^{49}$$
$$+ 422150\, q^{150}\, p^{60} + 1139864365921\, p^{80}\, q^{125} + 856494057280\, p^{83}\, q^{127} + 1494315797712\, p^{91}\, q^{126} + 416226782935\, p^{77}\, q^{128}$$
$$+ 215509342\, p^{94}\, q^{24} + 3734\, p^{68}\, q^{8} + 2558755496\, p^{144}\, q^{84} + 3504215759\, p^{145}\, q^{95} + 653295\, p^{127}\, q^{30} + 315710418\, p^{139}\, q^{58}$$
$$+ 91000096\, p^{138}\, q^{52} + 1178313330\, p^{142}\, q^{71} + 226012646\, p^{138}\, q^{55} + 104724749858\, p^{131}\, q^{121} + 3765192085038\, p^{119}\, q^{107}$$
$$+ 2872931858247\, p^{118}\, q^{112} + 3629457211112\, p^{117}\, q^{111} + 4145115942375\, p^{116}\, q^{111} + 42\, q^{136}\, p^{27} + 8737\, p^{162}\, q^{99} + 10460\, p^{162}\, q^{100}$$
$$+ 5531\, p^{158}\, q^{74} + 4525\, p^{160}\, q^{83} + 2389094002859\, p^{117}\, q^{115} + 3042098990988\, p^{114}\, q^{116} + 19111698328\, p^{136}\, q^{125} + 2527480940\, q^{118}\, p^{40}$$
$$+ 591051095290\, p^{110}\, q^{128} + 3974597981330\, p^{110}\, q^{117} + 607240365733\, q^{123}\, p^{69} + 25901391374\, q^{127}\, p^{57} + 17521844878\, q^{126}\, p^{54}$$
$$+ 157721129635\, q^{126}\, p^{65} + 133894578026\, q^{126}\, p^{64} + 26070631366\, q^{120}\, p^{49} + 106049598955\, p^{129}\, q^{68} + 39656606382\, p^{127}\, q^{59}$$
$$+ 148995859618\, p^{133}\, q^{113} + 3158824944475\, p^{111}\, q^{118} + 2977567894109\, p^{113}\, q^{117} + 592117220208\, p^{99}\, q^{130} + 601824427897\, p^{97}\, q^{130}$$
$$+ 660128921947\, p^{104}\, q^{129} + 604053070496\, p^{106}\, q^{129} + 557016247024\, p^{102}\, q^{130} + 583031585359\, p^{100}\, q^{130} + 30978647060\, p^{134}\, q^{125}$$
$$+ 3759631664049\, p^{116}\, q^{112} + 4262685092007\, p^{115}\, q^{112} + 2732365585337\, p^{119}\, q^{111} + 10580132160\, p^{126}\, q^{52} + 332740206080\, p^{131}\, q^{85}$$
$$+ 293352159479\, p^{131}\, q^{83} + 17521844878\, p^{126}\, q^{54} + 53418\, q^{155}\, p^{69} + 53\, q^{152}\, p^{48} + 216829547028\, p^{133}\, q^{107} + 336437967798\, p^{132}\, q^{102}$$
$$+ 1384963647167\, p^{83}\, q^{125} + 1767661\, q^{120}\, p^{27} + 1732582771351\, p^{125}\, q^{88} + 1326616124092\, p^{126}\, q^{103} + 34479\, p^{91}\, q^{13}$$
$$+ 53583702\, p^{153}\, q^{122} + 33388496\, p^{153}\, q^{128} + 7954582\, p^{154}\, q^{136} + 21596094\, p^{153}\, q^{132} + 3222923214103\, p^{100}\, q^{122} + 6037\, p^{90}\, q^{161}$$
$$+ 92611\, p^{97}\, q^{160} + 107417\, p^{98}\, q^{160} + 628799\, p^{104}\, q^{159} + 914637359\, p^{128}\, q^{46} + 37876602054\, p^{138}\, q^{113} + 2992148488\, p^{129}\, q^{51}$$

$$+ 49688820414\, p^{138}\, q^{108} + 36953317\, p^{150}\, q^{137} + 4473323579\, p^{144}\, q^{91} + 19111698328\, p^{125}\, q^{136} + 12854709217\, p^{126}\, q^{137}$$
$$+ 4545412505470\, p^{116}\, q^{110} + 4706053952337\, p^{111}\, q^{115} + 3439752304130\, p^{115}\, q^{114} + 3866995865831\, p^{114}\, q^{114}$$
$$+ 4322667427564\, p^{113}\, q^{114} + 2977567894109\, p^{117}\, q^{113} + 4262685092007\, p^{112}\, q^{115} + 3839881392720\, p^{113}\, q^{115}$$
$$+ 45347904192933\, p^{70}\, q^{74} + 42186758122480\, p^{68}\, q^{76} + 44003784407606\, p^{69}\, q^{75} + 9621982588\, p^{143}\, q^{103} + 5461387868\, p^{140}\, q^{75}$$
$$+ 7325387296\, p^{141}\, q^{81} + 1450951642\, p^{145}\, q^{124} + 3341386014\, p^{139}\, q^{69} + 37259\, p^{117}\, q^{21} + 492167\, p^{123}\, q^{27} + 45347904192933\, p^{74}\, q^{70}$$
$$+ 46173403938762\, p^{73}\, q^{71} + 3539540398607\, p^{122}\, q^{93} + 60520580\, p^{147}\, q^{70} + 249362431\, p^{150}\, q^{94} + 93369273816545\, p^{85}\, q^{87}$$
$$+ 86507181\, p^{151}\, q^{89} + 68063022\, p^{153}\, q^{117} + 44003784407606\, p^{75}\, q^{69} + 39957256156520\, p^{67}\, q^{77} + 4256312853939\, p^{76}\, q^{50}$$
$$+ 982458264426\, p^{75}\, q^{43} + 772662577360\, p^{75}\, q^{42} + 5108636696674\, p^{65}\, q^{109} + 413731801\, p^{97}\, q^{26} + 16640210714935\, p^{112}\, q^{96}$$
$$+ 12394419\, p^{91}\, q^{19} + 48775307901\, p^{104}\, q^{40} + 35051245679\, p^{104}\, q^{39} + 419539\, p^{85}\, q^{14} + 39153\, p^{79}\, q^{11} + 7722414755\, p^{102}\, q^{34}$$
$$+ 7537867041659\, p^{67}\, q^{108} + 386946325596\, p^{131}\, q^{88} + 101350609\, p^{152}\, q^{120} + 35829396087\, p^{128}\, q^{60} + 77838092910\, p^{129}\, q^{66}$$
$$+ 78642312687589\, p^{81}\, q^{92} + 134821\, p^{79}\, q^{12} + 3777377871893\, p^{106}\, q^{60} + 15594991\, q^{140}\, p^{50} + 22306142\, q^{140}\, p^{51} + 10741083\, q^{140}\, p^{49}$$
$$+ 19199822\, q^{147}\, p^{65} + 11459377990809\, p^{111}\, q^{106} + 29489484674952\, p^{100}\, q^{105} + 168466348\, p^{145}\, q^{138} + 1434828496\, p^{127}\, q^{144}$$
$$+ 2003394574\, q^{133}\, p^{55} + 15453645318\, p^{141}\, q^{112} + 2370220911\, p^{142}\, q^{128} + 29129891737\, p^{139}\, q^{88} + 551318572\, p^{149}\, q^{98}$$
$$+ 133518583\, p^{152}\, q^{107} + 52301229\, p^{149}\, q^{76} + 100196416\, p^{149}\, q^{80} + 423\, p^{110}\, q^{15} + 742\, p^{112}\, q^{16} + 70129272\, p^{150}\, q^{82} + 2442\, q^{160}\, p^{81}$$
$$+ 14654\, p^{161}\, q^{94} + 16368\, p^{163}\, q^{114} + 22287066048\, q^{138}\, p^{80} + 8241873795\, q^{138}\, p^{72} + 22256776\, q^{135}\, p^{44} + 2360626719\, p^{143}\, q^{79}$$
$$+ 4314815400\, q^{138}\, p^{68} + 880262855\, p^{115}\, q^{148} + 622070504\, p^{112}\, q^{149} + 1296039080\, p^{130}\, q^{143} + 1147363\, q^{131}\, p^{34} + 6349200\, q^{132}\, p^{38}$$
$$+ 40341655187\, q^{139}\, p^{96} + 136691320\, q^{143}\, p^{63} + 107038381\, q^{143}\, p^{62} + 5\, p^{169}\, q^{163} + 29129\, p^{110}\, q^{18} + 13554427136\, p^{139}\, q^{79}$$
$$+ 4837\, p^{105}\, q^{15} + 8364\, p^{107}\, q^{16} + 320624210\, p^{140}\, q^{60} + 385172171\, p^{147}\, q^{129} + q^{153}\, p^{47} + 1910521515\, p^{142}\, q^{74} + 754984542\, p^{141}\, q^{66}$$
$$+ 292302808\, p^{147}\, q^{131} + 136915\, p^{124}\, q^{26} + 4197369964\, p^{144}\, q^{90} + 1342411986\, p^{146}\, q^{121} + 44446\, q^{140}\, p^{38} + 5628051497\, p^{128}\, q^{139}$$
$$+ 6530371376\, p^{127}\, q^{139} + 34541264\, p^{148}\, q^{141} + 456951292\, p^{66}\, q^{142} + 83173217313004\, p^{81}\, q^{79} + 17224850510424\, p^{59}\, q^{83}$$
$$+ 6717398478819\, p^{53}\, q^{84} + 19\, p^{79}\, q^{7} + 11932\, p^{78}\, q^{10} + 107937\, p^{129}\, q^{29} + 5777664364611\, p^{119}\, q^{88} + 4061136449765\, p^{120}\, q^{103}$$
$$+ 5119409604825\, p^{120}\, q^{92} + 1303616613567\, p^{117}\, q^{65} + 2537892929396\, p^{118}\, q^{72} + 171689867552\, p^{114}\, q^{51} + 26168234535\, p^{111}\, q^{42}$$
$$+ 76122971824\, p^{113}\, q^{47} + 1785260116086\, p^{89}\, q^{125} + 629304046378\, p^{121}\, q^{121} + 31817561800072\, p^{96}\, q^{106} + 71799586106083\, p^{90}\, q^{96}$$
$$+ 66355011692968\, p^{95}\, q^{95} + 63975579652923\, p^{85}\, q^{98} + 68921891717407\, p^{89}\, q^{97} + 61551677801930\, p^{83}\, q^{98} + 4\, p^{28}\, q^{2}$$

$$+ 70805723150904\, p^{91} q^{96} + 126620393468\, q^{87} p^{37} + 42492304595\, q^{88} p^{34} + 91496483300\, q^{87} p^{36} + 45997852131\, q^{87} p^{34}$$
$$+ 65299359131\, q^{87} p^{35} + 16021685540\, q^{86} p^{31} + 3454307169044\, p^{122} q^{97} + 3314427403516\, p^{122} q^{99} + 401661962\, q^{64} p^{21}$$
$$+ 251530881551\, q^{68} p^{38} + 10676\, q^{140} p^{36} + 22336\, q^{140} p^{37} + 1538067701399\, p^{93} q^{126} + 17750173\, p^{141} q^{52} + 12963954213\, p^{138} q^{124}$$
$$+ 47881232714\, p^{132} q^{69} + 10401944\, p^{117} q^{28} + 77689934\, p^{121} q^{34} + 16586378545\, p^{138} q^{122} + 714283914928\, p^{119} q^{122}$$
$$+ 804036926085\, p^{127} q^{82} + 5887586880\, p^{120} q^{44} + 8600180\, p^{109} q^{24} + 1842567430319\, p^{99} q^{125} + 5553527079\, p^{119} q^{43}$$
$$+ 409550045945\, p^{129} q^{112} + 578198838838\, p^{126} q^{75} + 17282310\, p^{148} q^{144} + 136135581622\, p^{124} q^{61} + 143386717\, q^{130} p^{43}$$
$$+ 34067925267\, p^{136} q^{77} + 30359945178\, p^{136} q^{76} + 78986200\, p^{125} q^{37} + 40576765\, p^{146} q^{143} + 113156044\, q^{141} p^{58}$$
$$+ 109076094927\, p^{134} q^{82} + 5161330679\, p^{129} q^{53} + 231140\, q^{141} p^{42} + 35531362\, q^{151} p^{82} + 41130154\, q^{151} p^{83} + 589\, p^{83} q^{9}$$
$$+ 16537621352\, p^{131} q^{61} + 772662577360\, p^{129} q^{96} + 13914622273\, p^{140} q^{118} + 22759806581\, p^{140} q^{111} + 13412604787\, p^{136} q^{70}$$
$$+ 41281903003\, p^{139} q^{103} + 26898813746\, p^{136} q^{75} + 1616\, p^{96} q^{12} + 14227787037\, p^{135} q^{68} + 5272754890\, p^{133} q^{59}$$
$$+ 16449102933\, p^{140} q^{116} + 38327602170\, p^{139} q^{94} + 3688356884\, p^{141} q^{127} + 24989892508\, p^{140} q^{109} + 30000232\, p^{125} q^{35} + 90\, p^{82} q^{8}$$
$$+ 35683337174\, p^{137} q^{81} + 5450666577\, p^{141} q^{124} + 16721445853\, p^{135} q^{69} + 202407\, p^{113} q^{21} + 384\, p^{90} q^{10} + 2609408\, p^{119} q^{27}$$
$$+ 281868\, p^{149} q^{156} + 185704663\, q^{142} p^{62} + 13\, q^{143} p^{33} + 75\, q^{140} p^{31} + 17\, q^{140} p^{30} + 2\, q^{140} p^{29} + 114497247830\, q^{135} p^{109}$$
$$+ 108281522715\, q^{135} p^{110} + 58278865944368\, p^{96} q^{78} + 7640793\, q^{144} p^{55} + 14412434037478\, p^{94} q^{61} + 18669914290639\, p^{94} q^{63}$$
$$+ 37987\, q^{123} p^{24} + 8527770519445\, p^{117} q^{93} + 1071638043014\, p^{113} q^{59} + 56388964071\, q^{119} p^{51} + 43727624005\, q^{119} p^{50}$$
$$+ 46695799472069\, p^{77} q^{69} + 50090963621952\, p^{77} q^{70} + 53805949628372\, p^{74} q^{73} + 51385601055716\, p^{73} q^{73}$$
$$+ 30958892959476\, p^{99} q^{105} + 5784030777202\, p^{105} q^{117} + 324748670\, q^{149} p^{90} + 8479356499626\, p^{107} q^{113} + 29758196\, p^{98} q^{22}$$
$$+ 141785813259\, q^{135} p^{93} + 47715694\, p^{99} q^{23} + 74220177\, p^{100} q^{24} + 26827\, q^{104} p^{16} + 61051993461525\, p^{76} q^{74}$$
$$+ 53168739393191\, p^{72} q^{75} + 8338787832\, p^{96} q^{32} + 510227054\, p^{92} q^{25} + 4687429374\, q^{107} p^{35} + 6963757291\, q^{107} p^{36}$$
$$+ 24487150775\, p^{137} q^{121} + 184581045130\, p^{105} q^{45} + 16721445853\, p^{102} q^{36} + 13219926498650\, p^{112} q^{102} + 29247290502\, p^{103} q^{38}$$
$$+ 14557999680888\, p^{112} q^{100} + 19866612457687\, p^{111} q^{89} + 13445690632472\, p^{110} q^{76} + 14412434037478\, p^{110} q^{77}$$
$$+ 17629855825141\, p^{112} q^{91} + 15827864276638\, p^{111} q^{81} + 8788276452382\, p^{110} q^{71} + 67060536246\, p^{104} q^{41} + 10469483340674\, p^{108} q^{70}$$
$$+ 1351259371983\, p^{121} q^{115} + 2184485430089\, p^{121} q^{110} + 2366249710846\, p^{121} q^{109} + 947085744338\, p^{121} q^{118}$$
$$+ 2549743133059\, p^{121} q^{108} + 1503947008842\, p^{121} q^{114} + 9647544500307\, p^{107} q^{68} + 8180861198\, p^{104} q^{35} + 43669293\, p^{96} q^{22}$$

$$+ 5272357358209\, p^{112}\, q^{69} + 4304988944008\, p^{111}\, q^{66} + 2107396658733\, p^{110}\, q^{60} + 5880990477976\, p^{112}\, q^{70} + 5494839208957\, p^{111}\, q^{68}$$
$$+ 2107396658733\, p^{111}\, q^{61} + 14398222169018\, p^{113}\, q^{86} + 10652699552669\, p^{113}\, q^{79} + 70026339\, p^{97}\, q^{23} + 12156452494070\, p^{114}\, q^{98}$$
$$+ 670669163263\, p^{109}\, q^{53} + 11613578652659\, p^{112}\, q^{78} + 405536310468\, p^{108}\, q^{50} + 14739588821877\, p^{113}\, q^{87} + 109036201\, p^{98}\, q^{24}$$
$$+ 30982335889630\, q^{93}\, p^{67} + 8203964\, q^{77}\, p^{16} + 1650420\, q^{76}\, p^{14} + 1855843\, q^{75}\, p^{14} + 886394611697\, p^{107}\, q^{127} + 395195960767\, p^{121}\, q^{124}$$
$$+ 40827\, q^{95}\, p^{14} + 229217875873\, p^{118}\, q^{129} + 38054263\, p^{147}\, q^{142} + 1176546228\, p^{141}\, q^{134} + 4615357\, p^{121}\, q^{29} + 51020046987\, p^{138}\, q^{92}$$
$$+ 17458710163\, p^{132}\, q^{131} + 48249713472567\, p^{74}\, q^{71} + 56767926363609\, p^{77}\, q^{72} + 45440242559245\, p^{69}\, q^{76} + 5\, p^{115}\, q^{167} + 44\, p^{124}\, q^{167}$$
$$+ 54\, p^{125}\, q^{167} + 135967\, p^{142}\, q^{160} + 71691\, p^{149}\, q^{159} + 57767\, p^{150}\, q^{159} + 143\, p^{117}\, q^{166} + 3936\, p^{162}\, q^{155} + 202\, p^{119}\, q^{166} + 10518\, p^{131}\, q^{164}$$
$$+ 10219\, p^{134}\, q^{164} + 10385\, p^{133}\, q^{164} + 1832316881190\, p^{112}\, q^{121} + 1799572591164\, p^{100}\, q^{125} + 2943475413821\, p^{85}\, q^{122}$$
$$+ 30184738\, q^{153}\, p^{92} + 233292\, q^{149}\, p^{56} + 63975579652923\, p^{98}\, q^{85} + 46527562478\, p^{91}\, q^{35} + 12897862\, p^{80}\, q^{17} + 3699767402\, p^{88}\, q^{28}$$
$$+ 391063533\, p^{85}\, q^{23} + 12310449618\, p^{89}\, q^{31} + 18370761737277\, p^{96}\, q^{64} + 5298496788535\, p^{95}\, q^{55} + 2491163732790\, p^{95}\, q^{51}$$
$$+ 895410054867\, p^{94}\, q^{46} + 16692064158\, p^{90}\, q^{32} + 7414314449010\, p^{95}\, q^{57} + 592954333687\, p^{93}\, q^{44} + 29119970311846\, p^{97}\, q^{69}$$
$$+ 77612716\, p^{83}\, q^{20} + 115921670755\, p^{92}\, q^{38} + 23098945865051\, p^{96}\, q^{66} + 6553178\, p^{79}\, q^{16} + 1427891046717\, p^{94}\, q^{48}$$
$$+ 763972399147\, p^{93}\, q^{45} + 20657735352911\, p^{96}\, q^{65} + 14279929770208\, p^{96}\, q^{62} + 6288540046996\, p^{95}\, q^{56} + 8030624309350\, p^{96}\, q^{58}$$
$$+ 10840739027431\, p^{96}\, q^{60} + 34749263645893\, p^{97}\, q^{71} + 4434176631779\, p^{95}\, q^{54} + 330030\, p^{73}\, q^{12} + 3685188043416\, p^{95}\, q^{53}$$
$$+ 17542687\, q^{155}\, p^{122} + 6745949\, p^{142}\, q^{51} + 6680900704\, p^{117}\, q^{42} + 3572106\, p^{104}\, q^{21} + 83034034\, p^{110}\, q^{28} + 43775231398\, p^{115}\, q^{137}$$
$$+ 1522499638916\, p^{50}\, q^{98} + 64854310205005\, p^{78}\, q^{94} + 81748670479555\, p^{85}\, q^{93} + 3849219028136\, p^{107}\, q^{61} + 5156092672012\, p^{107}\, q^{63}$$
$$+ 12680676586631\, p^{108}\, q^{72} + 1910473370749\, p^{106}\, q^{56} + 19\, q^{124}\, p^{19} + 789\, q^{139}\, p^{32} + 5913218041048\, p^{107}\, q^{64} + 1583814551834\, p^{106}\, q^{55}$$
$$+ 38693631\, q^{152}\, p^{131} + 34178316\, q^{152}\, p^{132} + 26141079\, q^{152}\, p^{134} + 22628174\, q^{152}\, p^{135} + 29991409\, q^{152}\, p^{133} + 59201637\, p^{104}\, q^{25}$$
$$+ 1042333412\, p^{108}\, q^{32} + 9232555426843\, p^{104}\, q^{114} + 6947121154097\, p^{108}\, q^{114} + 8106940380565\, p^{104}\, q^{115} + 19585535503403\, p^{109}\, q^{80}$$
$$+ 25095741172592\, p^{109}\, q^{88} + 209531336906\, q^{113}\, p^{51} + 19717\, p^{67}\, q^{9} + 56013132986524\, p^{98}\, q^{80} + 65386231106853\, p^{98}\, q^{88}$$
$$+ 61551677801930\, p^{98}\, q^{83} + 3577341\, p^{77}\, q^{15} + 1135494657404\, p^{94}\, q^{47} + 1045202087\, p^{86}\, q^{25} + 5804232479\, p^{88}\, q^{29}$$
$$+ 613825764\, p^{86}\, q^{24} + 2558755496\, p^{87}\, q^{27} + 51329652739390\, p^{98}\, q^{78} + 12479526448069\, p^{96}\, q^{61} + 16243822427059\, p^{96}\, q^{63}$$
$$+ 37661655894119\, p^{97}\, q^{72} + 26444689577160\, p^{97}\, q^{68} + 64768249934804\, p^{98}\, q^{90} + 9359656042741\, p^{96}\, q^{59} + 31894641389415\, p^{97}\, q^{70}$$
$$+ 455974050992\, p^{93}\, q^{43} + 716433\, p^{75}\, q^{13} + 1650420\, p^{76}\, q^{14} + 3041000996131\, p^{95}\, q^{52} + 1781010242541\, p^{94}\, q^{49} + 1900322658\, q^{100}\, p^{30}$$

$$+ 554621865666\, q^{106} p^{50} + 863671768998\, q^{106} p^{52} + 694891733559\, q^{106} p^{51} + 1065109861329\, q^{106} p^{53} + 1303616613567\, q^{106} p^{54}$$
$$+ 439013417411\, q^{106} p^{49} + 3530732729928\, p^{76} q^{49} + 30403538906651\, p^{77} q^{64} + 2921509791\, p^{94} q^{29} + 13996557407722\, p^{113} q^{85}$$
$$+ 9359656042741\, p^{112} q^{75} + 319744059523\, p^{108} q^{49} + 100984004430\, p^{107} q^{44} + 12739359\, p^{95} q^{20} + 14038691\, p^{142} q^{150}$$
$$+ 1663600\, p^{152} q^{148} + 1772083\, p^{151} q^{149} + 1270770\, p^{152} q^{149} + 325235929399\, q^{101} p^{45} + 122615882274\, q^{102} p^{42}$$
$$+ 248563675844\, q^{101} p^{44} + 140898998314\, q^{101} p^{42} + 188104367472\, q^{101} p^{43} + 2617463779\, q^{98} p^{30} + 3041735196\, q^{97} p^{30}$$
$$+ 2339218495953\, p^{97} q^{124} + 359238168583\, p^{73} q^{127} + 962364447936\, p^{81} q^{126} + 52573900488442\, p^{76} q^{96} + 1080165018628\, p^{97} q^{48}$$
$$+ 15326836867389\, p^{113} q^{93} + 2086848047316\, p^{109} q^{59} + 1757706895651\, p^{109} q^{58} + 17578387057963\, p^{112} q^{90} + 9708694\, q^{119} p^{29}$$
$$+ 5130637\, q^{119} p^{28} + 786588834\, q^{122} p^{40} + 1072398087949\, p^{117} q^{121} + 122530769564\, p^{67} q^{128} + 7517171192842\, p^{114} q^{107}$$
$$+ 8480996403539\, p^{94} q^{117} + 1219776921\, p^{105} q^{31} + 131629\, q^{141} p^{41} + 393921\, q^{141} p^{43} + 10339045978\, p^{129} q^{136} + 6842740992\, p^{130} q^{137}$$
$$+ 32175553308\, p^{127} q^{58} + 183972504116\, p^{133} q^{110} + 206321840699\, p^{133} q^{108} + 682567283\, p^{142} q^{68} + 248862894\, p^{140} q^{59}$$
$$+ 18572643664603\, p^{79} q^{109} + 7943535648840\, p^{70} q^{110} + 7140679034428\, p^{69} q^{110} + 3757718761574\, p^{118} q^{109}$$
$$+ 3454479951966\, p^{118} q^{110} + 8998179528\, p^{140} q^{79} + 3143\, p^{106} q^{15} + 5446\, p^{108} q^{16} + 4322667427564\, p^{114} q^{113}$$
$$+ 3839881392720\, p^{115} q^{113} + 3158824944475\, p^{118} q^{111} + 198\, p^{167} q^{148} + 13275664336\, p^{142} q^{107} + 20643483798\, p^{141} q^{102}$$
$$+ 5478662779\, p^{137} q^{67} + 1152127928\, p^{135} q^{56} + 139328878\, p^{131} q^{44} + 2053461263\, p^{146} q^{115} + 54373261814\, p^{137} q^{112}$$
$$+ 2091017174740\, p^{118} q^{115} + 1635230832\, p^{135} q^{139} + 3337\, q^{112} p^{17} + 234\, q^{111} p^{15} + 10\, q^{109} p^{13} + 742\, q^{112} p^{16} + 2\, q^{107} p^{12}$$
$$+ 21049884\, p^{138} q^{151} + 3314427403516\, p^{99} q^{122} + 9094655\, q^{155} p^{95} + 12938008\, q^{155} p^{99} + 11951304\, q^{155} p^{98} + 15860538\, q^{155} p^{102}$$
$$+ 17664958\, q^{155} p^{104} + 13925548\, q^{155} p^{100} + 16785073\, q^{155} p^{103} + 10020907\, q^{155} p^{96} + 14903679\, q^{155} p^{101} + 10976033\, q^{155} p^{97}$$
$$+ 8203964\, q^{155} p^{94} + 4838491258453\, p^{113} q^{113} + 2254197597685\, p^{119} q^{113} + 34031591462\, q^{120} p^{50} + 2268629\, p^{155} q^{141}$$
$$+ 4545412505470\, p^{110} q^{116} + 4145115942375\, p^{111} q^{116} + 2121838508321\, p^{117} q^{116} + 1244377309102\, p^{117} q^{120} + 10342698\, q^{125} p^{33}$$
$$+ 5823091\, q^{125} p^{32} + 4805049273522\, p^{114} q^{112} + 2674672389200\, p^{117} q^{114} + 2337622778153\, p^{118} q^{114} + 2713467203679\, p^{116} q^{115}$$
$$+ 3391317744041\, p^{113} q^{116} + 3063906766396\, p^{115} q^{115} + 19168\, p^{111} q^{18} + 17524211657906\, p^{78} q^{109} + 6383340433845\, p^{68} q^{110}$$
$$+ 3787508\, p^{139} q^{45} + 13770086\, p^{142} q^{53} + 4026637135035\, p^{119} q^{106} + 3651\, q^{145} p^{41} + 10488\, p^{132} q^{164} + 9983\, p^{135} q^{164} + 22567\, p^{138} q^{163}$$
$$+ 4690938569191\, p^{108} q^{117} + 43307565059168\, p^{77} q^{68} + 2109\, q^{139} p^{33} + 60622474\, q^{150} p^{81} + 70129272\, q^{150} p^{82} + 47296984\, q^{151} p^{84}$$
$$+ 709\, q^{137} p^{30} + 965299\, p^{80} q^{14} + 32718161751151\, p^{95} q^{106} + 82356739213330\, p^{92} q^{83} + 84956389229126\, p^{92} q^{88} + 92611\, p^{74} q^{11}$$

$$+ 51079561915136\, p^{74} q^{72} + 56063362288694\, p^{75} q^{73} + 164880623624\, q^{121} p^{58} + 587716159499\, q^{122} p^{67} + 673790073397\, q^{122} p^{68}$$
$$+ 81691006\, q^{116} p^{31} + 2038245\, p^{126} q^{31} + 40366686\, p^{132} q^{42} + 248124\, p^{121} q^{25} + 26500613\, p^{131} q^{40} + 1584074609\, p^{139} q^{65}$$
$$+ 102021151\, q^{117} p^{32} + 168808302\, q^{117} p^{33} + 777737928665\, q^{123} p^{71} + 442663963279\, p^{129} q^{111} + 467222744152\, p^{126} q^{73}$$
$$+ 10741083\, q^{122} p^{31} + 1579224\, q^{122} p^{28} + 5876648\, q^{122} p^{30} + 3105768\, q^{122} p^{29} + 9142026\, p^{154} q^{135} + 74683253\, p^{153} q^{108}$$
$$+ 74783701\, p^{153} q^{113} + 22305654\, p^{146} q^{63} + 109372191343\, q^{115} p^{50} + 65311239234\, q^{115} p^{48} + 84910158100\, q^{115} p^{49}$$
$$+ 2077136386946\, q^{120} p^{74} + 2925148144928\, q^{120} p^{78} + 2706523527517\, q^{120} p^{77} + 2491163732790\, q^{120} p^{76} + 2609408\, q^{119} p^{27}$$
$$+ 3337434\, p^{135} q^{156} + 286468935506\, p^{130} q^{79} + p^{111} q^{13} + 15776\, p^{162} q^{148} + 13364\, p^{162} q^{149} + 262\, p^{140} q^{32} + 61203418312\, p^{110} q^{137}$$
$$+ 13412250958082\, p^{91} q^{114} + 4409298\, p^{148} q^{149} + 2431353\, p^{154} q^{143} + 133552\, p^{95} q^{15} + 13677911765\, p^{118} q^{45} + 42183254\, p^{108} q^{26}$$
$$+ 234087\, p^{97} q^{16} + 88050267765\, p^{121} q^{55} + 10840739027431\, p^{75} q^{111} + 26381471\, q^{150} p^{76} + 4\, q^{116} p^{15} + 53\, q^{123} p^{19}$$
$$+ 1286078905\, p^{147} q^{116} + 32766430\, p^{138} q^{49} + 3824661\, p^{133} q^{38} + 150575879\, p^{148} q^{133} + 2391156280\, p^{146} q^{97} + 490422\, p^{160} q^{116}$$
$$+ 162097\, p^{161} q^{133} + 59937953610192\, p^{82} q^{98} + 23506437\, p^{147} q^{144} + 1539804218\, p^{134} q^{140} + 3111903836730\, p^{105} q^{58}$$
$$+ 89212677726\, p^{65} q^{128} + 314567931\, q^{128} p^{43} + 455299486\, q^{128} p^{44} + 649678394\, q^{128} p^{45} + 633199365\, q^{129} p^{46}$$
$$+ 2805472907079\, p^{98} q^{123} + 2154091689346\, p^{108} q^{122} + 172983873\, p^{143} q^{64} + 668249330\, p^{149} q^{106} + 349394012\, p^{145} q^{73}$$
$$+ 34545265\, p^{141} q^{54} + 512\, q^{135} p^{28} + 19\, q^{134} p^{25} + 36553421\, q^{153} p^{94} + 510227054\, p^{146} q^{79} + 117848061\, p^{150} q^{129}$$
$$+ 49755270341\, p^{124} q^{56} + 214641314300\, p^{126} q^{67} + 207121061376\, p^{130} q^{117} + 157721129635\, p^{126} q^{65} + 1280908\, q^{133} p^{36}$$
$$+ 176331\, q^{132} p^{32} + 7350432802\, p^{138} q^{128} + 319584955872\, p^{127} q^{72} + 743444886424\, p^{129} q^{92} + 19777114186\, p^{123} q^{51}$$
$$+ 333995298109\, p^{125} q^{121} + 770697035481\, p^{129} q^{97} + 756156819874\, p^{129} q^{93} + 668608\, p^{132} q^{34} + 8897962960\, p^{143} q^{108}$$
$$+ 7248495508\, p^{143} q^{113} + 428887341\, p^{134} q^{51} + 49843\, p^{114} q^{20} + 409981560\, p^{144} q^{135} + 501228702787\, p^{130} q^{105}$$
$$+ 124728099616\, p^{125} q^{62} + 644905502657\, p^{127} q^{79} + 36\, p^{60} q^{5} + 69260025921\, q^{137} p^{91} + 16042648353\, p^{138} q^{77} + 36328438\, p^{127} q^{37}$$
$$+ 14212400557\, p^{138} q^{76} + 14243707871\, p^{127} q^{136} + 9505522855\, p^{128} q^{137} + 44492290446\, q^{138} p^{89} + 26980494155\, q^{138} p^{82} + 1048\, p^{74} q^{8}$$
$$+ 180843962401\, p^{117} q^{54} + 2038245\, q^{126} p^{31} + 249576\, q^{126} p^{28} + 525894\, q^{126} p^{29} + 1815\, p^{147} q^{165} + 1638\, p^{148} q^{165}$$
$$+ 398092728606\, p^{118} q^{59} + 1005752408247\, p^{124} q^{113} + 4364958\, p^{100} q^{20} + 70564217902007\, p^{75} q^{87} + 598410414192\, p^{98} q^{130}$$
$$+ 571278009463\, p^{101} q^{130} + 2086848047316\, p^{112} q^{62} + 11675644245081\, p^{114} q^{84} + 1060717472447\, p^{111} q^{57}$$
$$+ 11225758911354\, p^{114} q^{83} + 9477600069160\, p^{115} q^{101} + 10740146110241\, p^{114} q^{82} + 834468018491\, p^{108} q^{127}$$

$$+ 619868932700\, p^{116} q^{125} + 890187055429\, p^{102} q^{128} + 594526637392\, p^{94} q^{130} + 764998351246\, p^{98} q^{129} + 755645017023\, p^{99} q^{129}$$
$$+ 3437200298115\, q^{120} p^{106} + 15614707986164\, p^{110} q^{103} + 345003136527\, p^{129} q^{114} + 229217875873\, p^{129} q^{118}$$
$$+ 79409889190215\, p^{78} q^{80} + 2243537035\, q^{129} p^{50} + 34150545461783\, p^{103} q^{78} + 50971017295364\, p^{84} q^{101} + 8306263085871\, p^{117} q^{89}$$
$$+ 5723507752147\, p^{116} q^{77} + 7205914429072\, p^{118} q^{91} + 6238101279847\, p^{117} q^{81} + 3327327048320\, p^{116} q^{71} + 5298496788535\, p^{116} q^{76}$$
$$+ 59979113557029\, p^{98} q^{94} + 2764577248340\, p^{100} q^{54} + 128047423081\, p^{97} q^{40} + 93664069260\, p^{97} q^{39} + 54590373509\, p^{96} q^{37}$$
$$+ 21931889497357\, p^{61} q^{84} + 27766029277066\, p^{63} q^{84} + 10691688195508\, p^{56} q^{85} + 16555218716425\, p^{59} q^{85}$$
$$+ 14398222169018\, p^{58} q^{85} + 8839059558925\, p^{55} q^{86} + 12446000804662\, p^{57} q^{85} + 34742193297189\, p^{65} q^{83} + 42860663300446\, p^{95} q^{72}$$
$$+ 30357427877571\, p^{95} q^{68} + 375\, p^{164} q^{101} + 28158417429725\, p^{83} q^{107} + 350527\, q^{132} p^{33} + 53663054004603\, p^{70} q^{82} + p^{151} q^{43}$$
$$+ 1374\, p^{165} q^{119} + 479\, p^{164} q^{102} + 6596\, q^{147} p^{45} + 3387\, q^{147} p^{44} + 24075\, q^{148} p^{49} + 2533\, q^{146} p^{42} + 41991504230182\, p^{67} q^{83}$$
$$+ 16927655740543\, p^{59} q^{84} + 6520784942844\, p^{53} q^{85} + 71799586106083\, p^{96} q^{90} + 81703360627879\, p^{79} q^{80} + 3598932731042\, p^{50} q^{86}$$
$$+ 2421767\, q^{152} p^{72} + 3105768\, p^{142} q^{49} + 378123\, p^{137} q^{38} + 792494802\, p^{148} q^{117} + 235606749\, p^{142} q^{63} + 1179037206211\, p^{116} q^{63}$$
$$+ 1867833945510\, p^{100} q^{52} + 1097554489886\, p^{99} q^{49} + 198159599\, q^{98} p^{25} + 359238168583\, p^{98} q^{44} + 18936958153836\, p^{102} q^{69}$$
$$+ 15157641361129\, p^{101} q^{66} + 28444578483628\, p^{108} q^{90} + 17024149017358\, p^{107} q^{74} + 15694469069019\, p^{107} q^{73} + 10963457\, p^{87} q^{18}$$
$$+ 24180662000405\, p^{109} q^{95} + 24663829582873\, p^{109} q^{94} + 13693293695904\, p^{110} q^{105} + 16227589040584\, p^{109} q^{104} + 2364\, q^{120} p^{20}$$
$$+ 574\, q^{120} p^{19} + 108\, q^{120} p^{18} + 293612984933\, p^{132} q^{106} + 416471325698\, p^{99} q^{45} + 153894529915\, p^{98} q^{41} + 18488150399\, p^{96} q^{34}$$
$$+ 398727107\, p^{142} q^{138} + 8245\, p^{122} q^{22} + 12084144553681\, p^{114} q^{85} + 8030624309350\, p^{113} q^{75} + 270209110025\, p^{109} q^{49}$$
$$+ 84955796047\, p^{108} q^{44} + 3759895039\, p^{79} q^{142} + 1673216556040\, p^{46} q^{84} + 2087614986206\, p^{47} q^{84} + 2584074278810\, p^{48} q^{84}$$
$$+ 29758196\, q^{98} p^{22} + 8155\, q^{100} p^{14} + 5095137680371\, q^{120} p^{95} + 4730622977785\, q^{120} p^{99} + 4854550762768\, q^{120} p^{98}$$
$$+ 4250477600212\, q^{120} p^{102} + 3860900923208\, q^{120} p^{104} + 3092901205465\, q^{121} p^{105} + 4587354170483\, q^{120} p^{100}$$
$$+ 4061136449765\, q^{120} p^{103} + 5038050121564\, q^{120} p^{96} + 4426618625383\, q^{120} p^{101} + 4957488915009\, q^{120} p^{97} + 5127969902751\, q^{120} p^{94}$$
$$+ 5136096621253\, q^{120} p^{93} + 967171997418\, q^{117} p^{63} + 7595399056788\, p^{100} q^{60} + 25114505644916\, p^{101} q^{71} + 11037836066316\, q^{105} p^{67}$$
$$+ 9359656042741\, p^{59} q^{96} + 183909571425\, p^{116} q^{131} + 3091244288095\, p^{53} q^{97} + 1222415102200\, p^{49} q^{98} + 4470009340943\, p^{55} q^{97}$$
$$+ 61876046935586\, p^{77} q^{94} + 3328277641\, p^{135} q^{136} + 2141215284\, p^{136} q^{137} + 18872032819\, p^{118} q^{139} + 14279929770208\, p^{62} q^{96}$$
$$+ 2543325673432\, p^{52} q^{97} + 3730291338968\, p^{54} q^{97} + 71960\, p^{156} q^{154} + 1818845897136\, p^{116} q^{66} + 878214136994\, p^{115} q^{60}$$

$$+ 2356256444994\, p^{116}\, q^{68} + 6054990931737\, p^{118}\, q^{84} + 5791739173891\, p^{118}\, q^{83} + 5220931325149\, p^{119}\, q^{101} + 5512497351452\, p^{118}\, q^{82}$$
$$+ 2305803396501\, p^{107}\, q^{122} + 12140926504640\, p^{73}\, q^{109} + p\, q^{18} + 17589089\, p^{151}\, q^{139} + 6\, p^{74}\, q^{6} + 456778489938\, p^{52}\, q^{110}$$
$$+ 22344703849\, p^{140}\, q^{90} + 2266698709\, p^{143}\, q^{126} + 3115600844\, p^{136}\, q^{62} + 25642536871\, p^{140}\, q^{93} + 8241873795\, p^{138}\, q^{72}$$
$$+ 19952678217\, p^{141}\, q^{105} + 389833663\, p^{111}\, q^{150} + 372296738\, p^{113}\, q^{150} + 665050778\, p^{134}\, q^{143} + 285745054\, p^{119}\, q^{150}$$
$$+ 156594776\, p^{121}\, q^{151} + 11483035146982\, q^{77}\, p^{56} + 54077\, q^{157}\, p^{77} + 40827\, q^{157}\, p^{76} + 57515\, q^{156}\, p^{73} + 133552\, q^{156}\, p^{76} + 15479\, q^{156}\, p^{69}$$
$$+ 30745\, q^{156}\, p^{71} + 102067\, q^{156}\, p^{75} + 172781\, q^{156}\, p^{77} + 70734\, q^{157}\, p^{78} + 19869907089\, q^{83}\, p^{31} + 29252548864551\, p^{67}\, q^{94}$$
$$+ 13237796172807\, q^{77}\, p^{57} + 19565904222095\, q^{77}\, p^{60} + 17277941438930\, q^{77}\, p^{59} + 27459169508576\, q^{77}\, p^{63}$$
$$+ 33481276124433\, q^{77}\, p^{65} + 37387181105765\, q^{78}\, p^{66} + 22029770665610\, q^{77}\, p^{61} + 30403538906651\, q^{77}\, p^{64}$$
$$+ 24663829582873\, q^{77}\, p^{62} + 15168589157681\, q^{77}\, p^{58} + 2138\, q^{110}\, p^{16} + 90665556811520\, p^{83}\, q^{82} + 63975579652923\, p^{73}\, q^{86}$$
$$+ 60008861478648\, p^{72}\, q^{86} + 33314837\, q^{153}\, p^{93} + 34749263645893\, p^{71}\, q^{97} + 4826768463278\, p^{88}\, q^{52} + 2379420\, q^{143}\, p^{50}$$
$$+ 30468752147467\, p^{86}\, q^{107} + 14581931\, p^{128}\, q^{36} + 5600943741\, p^{143}\, q^{117} + 2530174288\, p^{137}\, q^{63} + 13936407733\, p^{142}\, q^{99}$$
$$+ 31498266\, q^{101}\, p^{23} + 60520580\, q^{101}\, p^{24} + 19886\, q^{88}\, p^{12} + 6026\, q^{87}\, p^{11} + 1641704429\, q^{110}\, p^{34} + 2510261408\, q^{110}\, p^{35}$$
$$+ 45269754944\, p^{110}\, q^{138} + 109569\, p^{161}\, q^{108} + 19924\, p^{154}\, q^{63} + 2489\, p^{150}\, q^{49} + 290\, p^{145}\, q^{38} + 1832316881190\, p^{121}\, q^{112}$$
$$+ 831474863321\, p^{121}\, q^{119} + 624337479967\, p^{122}\, q^{120} + 17459248705688\, p^{76}\, q^{108} + 17024149017358\, p^{74}\, q^{107} + 7280361802217\, p^{78}\, q^{115}$$
$$+ 40279032921520\, p^{75}\, q^{99} + 3\, p^{30}\, q^{2} + 50435414378570\, p^{81}\, q^{100} + 52151480655237\, p^{82}\, q^{100} + 54953726283172\, p^{84}\, q^{100}$$
$$+ 56002849628175\, p^{85}\, q^{100} + 24066976426\, q^{102}\, p^{37} + 6526886113\, q^{103}\, p^{34} + 16721445853\, q^{102}\, p^{36} + 7722414755\, q^{102}\, p^{34}$$
$$+ 11450928515\, q^{102}\, p^{35} + 2542792438\, q^{101}\, p^{31} + 24275892\, q^{149}\, p^{72} + 54037848\, q^{151}\, p^{85} + 1039199443312\, p^{115}\, q^{61}$$
$$+ 5526035462734\, p^{117}\, q^{79} + 6762579814937\, p^{118}\, q^{98} + 329965709943\, p^{113}\, q^{53} + 6150730181132\, p^{116}\, q^{78} + 200189839508\, p^{112}\, q^{50}$$
$$+ 7962983879290\, p^{117}\, q^{87} + 7740019384426\, p^{117}\, q^{86} + 60798928186227\, p^{86}\, q^{99} + 46173403938762\, p^{71}\, q^{73} + 39957256156520\, p^{77}\, q^{67}$$
$$+ 77102\, q^{156}\, p^{74} + 19\, q^{152}\, p^{47} + 3337\, q^{154}\, p^{59} + 231\, q^{153}\, p^{52} + q^{152}\, p^{45} + 467\, q^{153}\, p^{53} + 7154044321326\, p^{76}\, q^{53} + 1238579539935\, p^{75}\, q^{44}$$
$$+ 33481276124433\, p^{77}\, q^{65} + 37387181105765\, p^{78}\, q^{66} + 19565904222095\, p^{77}\, q^{60} + 13237796172807\, p^{77}\, q^{57} + 8393791331341\, p^{76}\, q^{54}$$
$$+ 1153752\, q^{148}\, p^{58} + 31609189\, q^{150}\, p^{77} + 8364\, q^{107}\, p^{16} + 882740\, q^{118}\, p^{25} + 101216\, q^{117}\, p^{22} + 253145\, q^{117}\, p^{23} + 590594\, q^{117}\, p^{24}$$
$$+ 59697611\, p^{70}\, q^{18} + 332740810\, p^{72}\, q^{21} + 28108135874\, p^{109}\, q^{41} + 42186758122480\, p^{76}\, q^{68} + 46451796043411\, p^{72}\, q^{72}$$
$$+ 330030\, q^{73}\, p^{12} + 16059592\, q^{78}\, p^{17} + 3577341\, q^{77}\, p^{15} + 716433\, q^{75}\, p^{13} + 7355321\, q^{78}\, p^{16} + 144344152\, p^{122}\, q^{36}$$

$$+ 112028529593\, p^{136} q^{99} + 36881117792\, p^{137} q^{117} + 20598287019\, p^{100} q^{141} + 64753086328950\, p^{86} q^{98} + 68363038900654\, p^{90} q^{97}$$
$$+ 20103553179\, q^{88} p^{32} + 9786417318\, q^{87} p^{30} + 1735826824\, q^{86} p^{26} + 7773486730353\, q^{92} p^{56} + 580659156310\, q^{90} p^{43}$$
$$+ 444786782231\, q^{90} p^{42} + 750933736631\, q^{90} p^{44} + 962364447936\, q^{90} p^{45} + 9129081648815\, q^{92} p^{57} + 14236714879116\, q^{92} p^{60}$$
$$+ 12352922710942\, q^{92} p^{59} + 21027463371192\, q^{92} p^{63} + 26495850302837\, q^{92} p^{65} + 16309065776699\, q^{92} p^{61}$$
$$+ 23670584904719\, q^{92} p^{64} + 18572643664603\, q^{92} p^{62} + 10652699552669\, q^{92} p^{58} + 6378748920\, q^{87} p^{29} + 4080693399\, q^{87} p^{28}$$
$$+ 337391762736\, q^{90} p^{41} + 253335928697\, q^{90} p^{40} + 78450825557\, q^{89} p^{36} + 109076094927\, q^{89} p^{37} + 149840796063\, q^{89} p^{38}$$
$$+ 68063022\, q^{153} p^{117} + 70243917\, q^{153} p^{116} + 65595431\, q^{153} p^{118} + 62876425\, q^{153} p^{119} + 270937174141\, p^{74} q^{38}$$
$$+ 11483035146982\, p^{77} q^{56} + 7711430280\, q^{119} p^{44} + 22650714586\, q^{135} p^{71} + 847961\, q^{120} p^{26} + 165917\, q^{120} p^{24} + 248124\, q^{121} p^{25}$$
$$+ 3176048\, q^{125} p^{31} + 1028473\, q^{123} p^{28} + 356157\, q^{122} p^{26} + 5385537254203\, p^{113} q^{112} + 774917691\, q^{118} p^{37} + 505359678\, q^{118} p^{36}$$
$$+ 202993495\, q^{118} p^{34} + 323496739\, q^{118} p^{35} + 26242796758\, q^{121} p^{50} + 43727624005\, q^{121} p^{52} + 34031591462\, q^{121} p^{51}$$
$$+ 55689160147\, q^{121} p^{53} + 88050267765\, q^{121} p^{55} + 70316238429\, q^{121} p^{54} + 68187569313\, q^{122} p^{55} + 20044200920\, q^{121} p^{49}$$
$$+ 15158434885\, q^{121} p^{48} + 4026637135035\, p^{106} q^{119} + 768755\, q^{144} p^{49} + 397\, q^{134} p^{27} + 5\, q^{132} p^{23} + 29742603394073\, p^{95} q^{107}$$
$$+ 191233740407\, p^{134} q^{103} + 35183474\, p^{144} q^{60} + 1538067701399\, p^{126} q^{93} + 1537114401537\, p^{126} q^{97} + 11512964736\, p^{120} q^{140}$$
$$+ 810342587\, p^{131} q^{144} + 1434944634923\, p^{119} q^{117} + 27279022454482\, p^{86} q^{108} + 9850705\, p^{140} q^{152} + 689221910421\, q^{123} p^{70}$$
$$+ 14282591160683\, p^{74} q^{58} + 16211745061460\, p^{74} q^{59} + 1297167\, p^{155} q^{144} + 3\, q^{141} p^{30} + 294676\, q^{150} p^{59} + 136597\, q^{150} p^{57}$$
$$+ 16555218716425\, p^{86} q^{112} + 6197273\, p^{131} q^{37} + 931823441\, p^{148} q^{98} + 6570\, p^{161} q^{155} + 171\, p^{118} q^{166} + 2205\, p^{124} q^{165} + 25378\, p^{136} q^{163}$$
$$+ 236\, p^{120} q^{166} + 10482\, p^{130} q^{164} + 24026\, p^{137} q^{163} + 3188\, p^{132} q^{165} + 604\, p^{128} q^{166} + 555\, p^{127} q^{166} + 505\, p^{126} q^{166} + 360\, p^{123} q^{166}$$
$$+ 407\, p^{124} q^{166} + 316\, p^{122} q^{166} + 275\, p^{121} q^{166} + 652\, p^{129} q^{166} + 63\, p^{126} q^{167} + 346923785\, q^{150} p^{100} + 371253641\, q^{150} p^{102}$$
$$+ 359819433\, q^{150} p^{101} + 177433537\, q^{151} p^{98} + 18921527772425\, p^{86} q^{111} + 21411267828946\, p^{101} q^{108} + 157254198\, q^{151} p^{96}$$
$$+ 907745784624\, p^{84} q^{127} + 319188798188\, p^{112} q^{52} + 4854335036601\, p^{115} q^{73} + 164066421063\, p^{102} q^{43} + 11033302687\, q^{125} p^{51}$$
$$+ 80774649389871\, p^{84} q^{93} + 3484207216\, q^{124} p^{46} + 509484051\, p^{113} q^{33} + 25560604576\, p^{119} q^{48} + 192083868\, p^{111} q^{30}$$
$$+ 18491991459\, p^{118} q^{46} + 71136564668676\, p^{94} q^{94} + 2611\, q^{60} p^{7} + 18800385199896\, p^{96} q^{111} + 24766621789941\, p^{100} q^{107}$$
$$+ 33843433561347\, p^{86} q^{106} + 26840414\, q^{152} p^{85} + 17157297512\, p^{113} q^{42} + 12176377278\, p^{128} q^{136} + 8092735669\, p^{129} q^{137}$$
$$+ 190352899828\, p^{113} q^{132} + 55\, p^{137} q^{28} + 102067\, p^{156} q^{75} + p^{122} q^{17} + 182\, p^{143} q^{35} + 4977\, p^{163} q^{151} + 12345\, p^{153} q^{59} + 247\, p^{141} q^{33}$$

$$+ 21995\, q^{156} p^{70} + 14505165\, p^{143} q^{55} + 12175951358024\, q^{102} p^{65} + 17099107345945\, q^{102} p^{68} + 13712102549925\, q^{102} p^{66}$$
$$+ 15354973953039\, q^{102} p^{67} + 9435786928435\, q^{102} p^{63} + 10749982562395\, q^{102} p^{64} + 224279515\, q^{151} p^{104} + 131454292\, q^{152} p^{106}$$
$$+ 24\, p^{50} q^{4} + 47106266508288\, p^{70} q^{75} + 48249713472567\, p^{71} q^{74} + 51079561915136\, p^{72} q^{74} + 129478932629\, p^{130} q^{121} + 456\, p^{166} q^{125}$$
$$+ 10\, p^{130} q^{22} + 64016\, p^{162} q^{135} + 17950\, p^{163} q^{141} + 160751\, p^{161} q^{113} + 119844\, p^{161} q^{109} + 201828\, p^{161} q^{118} + 11\, p^{118} q^{167}$$
$$+ 394459\, p^{118} q^{24} + 12110413298\, p^{139} q^{78} + 20148451552\, p^{141} q^{98} + 36491563\, p^{143} q^{58} + 63665528\, p^{138} q^{148} + 76781663\, p^{137} q^{148}$$
$$+ 12\, p^{164} q^{91} + 15\, q^{160} p^{70} + 6\, q^{159} p^{65} + 11356910917\, p^{125} q^{138} + 116597630\, p^{144} q^{141} + 180113075\, p^{125} q^{150} + 25980597\, q^{151} p^{80}$$
$$+ 109118710\, p^{135} q^{148} + 88690685\, p^{134} q^{149} + 75583443\, p^{135} q^{149} + 63945385\, p^{136} q^{149} + 53695848\, p^{137} q^{149} + 52365704\, p^{139} q^{148}$$
$$+ 42714154\, p^{140} q^{148} + 54969766\, p^{144} q^{144} + 853\, q^{160} p^{78} + 137424437\, p^{131} q^{149} + 59312802\, p^{140} q^{147} + 47725756\, p^{141} q^{147}$$
$$+ 89264050\, p^{138} q^{147} + 51632953\, p^{142} q^{146} + 100579557\, p^{139} q^{146} + 123433122\, p^{138} q^{146} + 81260978\, p^{140} q^{146} + 505246912\, p^{72} q^{144}$$
$$+ 2664552866\, p^{80} q^{143} + 2360626719\, p^{79} q^{143} + 85243827101577\, p^{90} q^{91} + 858822\, q^{152} p^{68} + 1130681\, q^{152} p^{69}$$
$$+ 26671204430510\, p^{85} q^{108} + 7537867041659\, p^{108} q^{67} + 400668831207\, p^{105} q^{48} + 44393172\, p^{92} q^{21} + 3520536921\, p^{99} q^{31}$$
$$+ 1002136673\, p^{98} q^{28} + 14213057477\, p^{133} q^{131} + 6269316719\, p^{135} q^{133} + 28591889300\, p^{127} q^{133} + 54201709\, q^{139} p^{52}$$
$$+ 74816477\, q^{139} p^{53} + 102021151\, q^{139} p^{54} + 55\, p^{143} q^{34} + 122\, p^{147} q^{40} + 12583\, p^{155} q^{65} + 188\, p^{148} q^{42} + 195\, p^{146} q^{39} + 17\, p^{140} q^{30}$$
$$+ 146109361\, p^{151} q^{122} + 43249616\, q^{153} p^{96} + 95956942\, q^{152} p^{98} + 69214781\, q^{151} p^{87} + 66\, p^{94} q^{10} + 40777957059414\, p^{104} q^{93}$$
$$+ 201543087\, q^{101} p^{26} + 11756124271147\, p^{114} q^{99} + 12509099330740\, p^{114} q^{97} + 53459928493587\, p^{77} q^{71} + 101877011416\, q^{135} p^{111}$$
$$+ 51916216721308\, p^{76} q^{71} + 217007542\, p^{106} q^{28} + 9489567\, p^{100} q^{21} + 49724061638768\, p^{70} q^{88} + 55072967542014\, p^{76} q^{72}$$
$$+ 48831490322270\, p^{72} q^{73} + 50172019131032\, p^{75} q^{71} + 58822638082723\, p^{75} q^{74} + 32097\, q^{115} p^{20} + 10204\, q^{115} p^{19}$$
$$+ 1093857032929\, q^{88} p^{45} + 1384963647167\, q^{88} p^{46} + 1738922028698\, q^{88} p^{47} + 21\, p^{162} q^{80} + 25\, p^{168} q^{137} + 44\, p^{168} q^{144} + 3\, p^{160} q^{68}$$
$$+ 11450928515\, p^{102} q^{35} + 62183027\, p^{94} q^{22} + 7140679034428\, p^{110} q^{69} + 5805795711807\, p^{109} q^{66} + 155476709\, p^{96} q^{24} + 93988\, p^{81} q^{12}$$
$$+ 2856468757959\, p^{108} q^{60} + 7943535648840\, p^{110} q^{70} + 7369813724444\, p^{109} q^{68} + 2884024294376\, p^{109} q^{61} + 956868\, p^{86} q^{15}$$
$$+ 165917\, q^{147} p^{51} + 4711\, q^{82} p^{10} + 51247\, q^{84} p^{12} + 48694107559931\, p^{76} q^{70} + 22538556352576\, p^{110} q^{92} + 5434648101\, p^{99} q^{32}$$
$$+ 327770829\, p^{95} q^{25} + 6741288333003\, p^{107} q^{65} + 4468758033638\, p^{107} q^{62} + 21458238435174\, p^{109} q^{82} + 23052146878670\, p^{109} q^{84}$$
$$+ 2288429722154\, p^{106} q^{57} + 22295396537357\, p^{109} q^{83} + 17449083843137\, p^{110} q^{101} + 54782961383120\, p^{100} q^{93}$$
$$+ 18921527772425\, p^{111} q^{86} + 14236714879116\, p^{111} q^{79} + 99738373\, p^{95} q^{23} + 1712526\, p^{88} q^{16} + 15717489692716\, p^{112} q^{98}$$

$$+ 918715241002\, p^{107} q^{53} + 15370220189543\, p^{110} q^{78} + 554621865666\, p^{106} q^{50} + 19324673910107\, p^{111} q^{87} + 105229182711\, q^{96} p^{39}$$
$$+ 400668831207\, q^{105} p^{48} + 642483519310\, q^{105} p^{50} + 996869070484\, q^{105} p^{52} + 803493313855\, q^{105} p^{51} + 1227243243628\, q^{105} p^{53}$$
$$+ 1818845897136\, q^{105} p^{55} + 1499525899313\, q^{105} p^{54} + 1583814551834\, q^{106} p^{55} + 509528784019\, q^{105} p^{49} + 61282051996\, q^{95} p^{37}$$
$$+ 2280710421928\, p^{100} q^{53} + 24396616903\, p^{131} q^{63} + 1994873383\, p^{134} q^{139} + 1275814771\, p^{94} q^{147} + 7185949839027\, p^{113} q^{109}$$
$$+ 8039521288190\, p^{112} q^{109} + 5129\, p^{139} q^{34} + 13158\, p^{143} q^{40} + 879790\, p^{151} q^{65} + 19571\, p^{144} q^{42} + 16367\, p^{142} q^{39} + 1825\, p^{136} q^{30}$$
$$+ 102010\, p^{160} q^{144} + 858822\, p^{152} q^{68} + 10\, p^{109} q^{13} + 2109\, p^{138} q^{32} + 51792\, p^{160} q^{148} + 42686\, p^{160} q^{149} + 22336\, q^{134} p^{31} + 24578\, q^{135} p^{32}$$
$$+ 53178\, q^{135} p^{33} + 143\, p^{166} q^{117} + 174\, p^{165} q^{107} + 4\, p^{164} q^{89} + 250128\, p^{151} q^{155} + 1513833\, p^{137} q^{157} + 135\, p^{165} q^{106} + 6\, p^{161} q^{73}$$
$$+ 37\, p^{167} q^{123} + 2\, p^{161} q^{72} + 98\, p^{167} q^{129} + 15\, p^{165} q^{99} + p^{157} q^{57} + 54373261814\, p^{112} q^{137} + 42108481524\, p^{100} q^{139}$$
$$+ 35319567373\, p^{114} q^{138} + 3237\, p^{133} q^{165} + 698\, p^{130} q^{166} + 75\, p^{127} q^{167} + 356958758757\, p^{74} q^{39} + 2363869806416\, p^{75} q^{47}$$
$$+ 465690915577\, p^{74} q^{40} + 4214353117310\, p^{75} q^{50} + 978312098030\, p^{74} q^{43} + 770697035481\, p^{74} q^{42} + 17521844878\, q^{117} p^{45}$$
$$+ 5161330679\, q^{118} p^{42} + 41859447522097\, p^{67} q^{80} + 38298144935379\, p^{66} q^{80} + 11\, q^{161} p^{74} + 48249713472567\, p^{97} q^{100}$$
$$+ 28474799547162\, p^{104} q^{102} + 32720406524385\, p^{102} q^{102} + 30602105949285\, p^{103} q^{102} + 42186758122480\, p^{95} q^{103}$$
$$+ 34808220831697\, p^{102} q^{101} + 48594788770\, q^{135} p^{77} + 65846023325\, q^{135} p^{80} + 54073977018\, q^{135} p^{78} + 59835328990\, q^{135} p^{79}$$
$$+ 38580246227\, q^{135} p^{75} + 43423762248\, q^{135} p^{76} + 23062\, q^{118} p^{21} + 4852828\, q^{124} p^{31} + 78986200\, q^{125} p^{37} + 768755\, q^{122} p^{27}$$
$$+ 2379420\, q^{121} p^{28} + 4615357\, q^{121} p^{29} + 1176765\, q^{121} p^{27} + 2318942625\, p^{145} q^{119} + 6370460641\, p^{144} q^{101} + 51307123406\, p^{131} q^{126}$$
$$+ 9565826\, p^{106} q^{23} + 6122662590210\, p^{119} q^{93} + 1003\, q^{133} p^{27} + 2989\, q^{133} p^{28} + 5167373743686\, p^{115} q^{110} + 24066976426\, p^{102} q^{37}$$
$$+ 1303616613567\, p^{106} q^{54} + 299370153\, p^{138} q^{56} + 36328438\, p^{134} q^{44} + 2783135\, p^{128} q^{33} + 1336215211597\, p^{124} q^{79}$$
$$+ 33594382374\, p^{119} q^{49} + 985019061693\, p^{127} q^{105} + 270209110025\, p^{122} q^{62} + 2237707080\, p^{99} q^{30} + 7080565584\, p^{100} q^{33}$$
$$+ 79731711582\, p^{137} q^{96} + 1994873383\, p^{139} q^{134} + 100178825536\, p^{136} q^{92} + 9708694\, p^{119} q^{29} + 3174067291059\, p^{87} q^{122}$$
$$+ 1097257498726\, p^{118} q^{120} + 75375182208\, p^{128} q^{64} + 121\, p^{164} q^{97} + 10626801\, p^{115} q^{27} + 311712960332\, p^{130} q^{80}$$
$$+ 349606289740\, p^{132} q^{100} + 58822638082723\, p^{74} q^{75} + 56063362288694\, p^{73} q^{75} + 63057183182494\, p^{77} q^{74} + 63804903810494\, p^{76} q^{75}$$
$$+ 61413743312153\, p^{75} q^{75} + 65966020574068\, p^{77} q^{75} + 2550159153\, p^{99} q^{146} + 278769065\, p^{144} q^{137} + 2215057991\, p^{96} q^{29}$$
$$+ 74180698983067\, p^{95} q^{84} + 905181\, p^{62} q^{12} + 2348319655346\, p^{79} q^{47} + 450462030382\, p^{78} q^{40} + 342712317389\, p^{78} q^{39}$$
$$+ 59979113557029\, p^{77} q^{73} + 56397319363446\, p^{74} q^{74} + 58129839410758\, p^{76} q^{73} + 32575655820\, p^{81} q^{32} + 13996557407722\, p^{86} q^{58}$$

$$+ 22344703849\, p^{81} q^{31} + 6437\, p^{52} q^{7} + 14392874531954\, p^{64} q^{99} + 1450741279\, p^{92} q^{27} + 1352455101940\, p^{101} q^{51}$$
$$+ 477466441295\, p^{100} q^{46} + 112378937\, p^{70} q^{19} + 49770872458554\, p^{82} q^{69} + 53663054004603\, p^{82} q^{70} + 52452216167\, p^{99} q^{38}$$
$$+ 50172019131032\, p^{71} q^{75} + 53805949628372\, p^{73} q^{74} + 51916216721308\, p^{71} q^{76} + 58129839410758\, p^{73} q^{76}$$
$$+ 63804903810494\, p^{75} q^{76} + 61051993461525\, p^{74} q^{76} + 66355011692968\, p^{76} q^{76} + 68670378869921\, p^{77} q^{76}$$
$$+ 55072967542014\, p^{72} q^{76} + 48694107559931\, p^{70} q^{76} + 1811142426992\, q^{102} p^{53} + 19518255\, p^{76} q^{17} + 5296525547\, p^{84} q^{28}$$
$$+ 570168972\, p^{81} q^{23} + 17304801545\, p^{85} q^{31} + 43307565059168\, p^{68} q^{77} + 46695799472069\, p^{69} q^{77} + 56767926363609\, p^{72} q^{77}$$
$$+ 53459928493587\, p^{71} q^{77} + 65966020574068\, p^{75} q^{77} + 71136564668676\, p^{77} q^{77} + 75671435839770\, p^{78} q^{78}$$
$$+ 59979113557029\, p^{73} q^{77} + 68670378869921\, p^{76} q^{77} + 63057183182494\, p^{74} q^{77} + 50090963621952\, p^{70} q^{77} + 31570240\, p^{146} q^{144}$$
$$+ 5429436\, p^{152} q^{143} + 5382\, p^{54} q^{7} + 13450812\, p^{145} q^{148} + 1639426536\, q^{108} p^{33} + 1042333412\, q^{108} p^{32} + 8665470671318\, p^{105} q^{114}$$
$$+ 158833600616\, p^{129} q^{121} + 23592263117526\, p^{96} q^{109} + 15\, p^{52} q^{4} + 65966020574068\, p^{96} q^{94} + 49755270341\, p^{115} q^{47}$$
$$+ 3518295614610\, p^{122} q^{92} + 1694810810806\, p^{120} q^{72} + 112676677495\, p^{116} q^{51} + 863671768998\, p^{119} q^{65} + 24905416865498\, p^{72} q^{102}$$
$$+ 492\, p^{165} q^{112} + 248862894\, q^{112} p^{31} + 408222161\, q^{112} p^{32} + 655120493\, q^{112} p^{33} + 132805838\, q^{126} p^{39} + 85522863\, q^{126} p^{38}$$
$$+ 49223349\, q^{125} p^{36} + 637908007960\, p^{95} q^{45} + 17689853554142\, p^{98} q^{65} + 12140926504640\, p^{98} q^{62} + 10460\, q^{71} p^{9} + 25737\, q^{74} p^{10}$$
$$+ 2551\, q^{70} p^{8} + 1191886288182\, p^{96} q^{48} + 378123\, p^{133} q^{34} + 3991977890705\, q^{118} p^{77} + 3822281542998\, q^{119} p^{79}$$
$$+ 4919313446565\, q^{118} p^{80} + 4301876675479\, q^{118} p^{78} + 4612010215031\, q^{118} p^{79} + 3384150158591\, q^{118} p^{75} + 3685188043416\, q^{118} p^{76}$$
$$+ 44835345032170\, p^{80} q^{101} + 46636242964871\, p^{81} q^{101} + 16371828854299\, p^{100} q^{111} + 11204819677781\, p^{88} q^{115}$$
$$+ 8839059558925\, p^{85} q^{116} + 6573472244\, q^{133} p^{60} + 70136127426\, q^{136} p^{85} + 60477366168\, q^{136} p^{83} + 65299359131\, q^{136} p^{84}$$
$$+ 74939774639\, q^{136} p^{86} + 84244375520\, q^{136} p^{88} + 79659873176\, q^{136} p^{87} + 88640428473\, q^{136} p^{89} + 96657952344\, q^{136} p^{91}$$
$$+ 92795432864\, q^{136} p^{90} + 1561061389\, q^{130} p^{50} + 7539631\, q^{101} p^{21} + 12186\, p^{159} q^{156} + 6057670876347\, p^{76} q^{52}$$
$$+ 5095137680371\, p^{76} q^{51} + 2907842957189\, p^{76} q^{48} + 1548599829310\, p^{75} q^{45} + 27459169508576\, p^{77} q^{63} + 24663829582873\, p^{77} q^{62}$$
$$+ 22029770665610\, p^{77} q^{61} + 53441338719987\, p^{70} q^{81} + 19641140505245\, p^{60} q^{83} + 1644393084\, p^{91} q^{27} + 37441253140788\, p^{102} q^{78}$$
$$+ 12857091930\, q^{117} p^{44} + 9324876045\, q^{117} p^{43} + 85530734\, q^{114} p^{30} + 113156044\, q^{113} p^{30} + 6680900704\, q^{117} p^{42}$$
$$+ 39630669873417\, p^{76} q^{100} + 29605725548551\, p^{73} q^{101} + 807674535\, q^{107} p^{31} + 8398552989\, q^{108} p^{37} + 155320116\, q^{105} p^{27}$$
$$+ 333056456\, q^{104} p^{28} + 560644812\, q^{104} p^{29} + 192803317\, q^{104} p^{27} + 14681712\, p^{85} q^{18} + 3217336818856\, p^{65} q^{112}$$

$$+ 8368552165023\, p^{72} q^{111} + 25035257520223\, p^{109} q^{93} + 26072900663603\, p^{81} q^{107} + 3622\, p^{83} q^{10} + 209531336906\, p^{120} q^{58}$$
$$+ 29742603394073\, p^{107} q^{95} + 30403538906651\, p^{107} q^{94} + 16649031596140\, p^{108} q^{105} + 19563392023641\, p^{107} q^{104}$$
$$+ 15168589157681\, p^{77} q^{58} + 17277941438930\, p^{77} q^{59} + 30909218967\, p^{129} q^{131} + 1664133670\, q^{129} p^{49} + 9472502395\, q^{132} p^{60}$$
$$+ 71951320198\, q^{137} p^{92} + 1830553282795\, p^{125} q^{90} + 1607929029943\, p^{125} q^{86} + 1235016194567\, p^{124} q^{78} + 1222562029721\, p^{125} q^{81}$$
$$+ 1518307413146\, p^{126} q^{98} + 1673216556040\, p^{125} q^{87} + 1785260116086\, p^{125} q^{89} + 1038458860483\, p^{124} q^{76} + 1135494657404\, p^{124} q^{77}$$
$$+ 156507729268\, q^{112} p^{49} + 3973374700482\, p^{99} q^{121} + 320473986249\, p^{120} q^{126} + 201052759\, q^{135} p^{50} + 144344152\, q^{135} p^{49}$$
$$+ 2135148\, p^{156} q^{90} + 45\, p^{121} q^{18} + 2073583\, p^{157} q^{97} + 3345171398\, p^{145} q^{94} + 2595449030\, p^{146} q^{109} + 2074729\, p^{131} q^{35}$$
$$+ 494689897\, p^{147} q^{127} + 3651976043\, p^{145} q^{96} + 2664552866\, p^{143} q^{80} + 63353747\, p^{136} q^{48} + 2528489926\, p^{146} q^{110}$$
$$+ 3699767402\, p^{143} q^{83} + 4093883918\, p^{145} q^{100} + 78986200\, q^{134} p^{46} + 113438248824\, p^{130} q^{122} + 31924147487\, q^{136} p^{121}$$
$$+ 21788197915\, q^{137} p^{122} + 214216411323\, p^{124} q^{125} + 619\, q^{136} p^{29} + 182\, q^{136} p^{28} + 81665\, q^{145} p^{46} + 38145\, q^{155} p^{68} + 5419\, q^{154} p^{60}$$
$$+ 117087\, q^{157} p^{80} + 878214136994\, q^{111} p^{56} + 588995481923\, q^{111} p^{54} + 476922649356\, q^{111} p^{53} + 4224150346\, q^{120} p^{43}$$
$$+ 2992148488\, q^{120} p^{42} + 5887586880\, q^{120} p^{44} + 8400811916\, q^{121} p^{46} + 14850579579\, q^{120} p^{47} + 8106706761\, q^{120} p^{45}$$
$$+ 11033302687\, q^{120} p^{46} + 1169\, q^{130} p^{25} + 273067039\, q^{117} p^{34} + 531858318000\, q^{123} p^{68} + 15\, p^{72} q^{6} + 7025186639996\, p^{118} q^{89}$$
$$+ 4796503518611\, p^{117} q^{77} + 5220576430130\, p^{118} q^{81} + 4434176631779\, p^{117} q^{76} + 5748634938376\, p^{119} q^{98} + 5161605060779\, p^{117} q^{78}$$
$$+ 6717398478819\, p^{118} q^{87} + 6520784942844\, p^{118} q^{86} + 1143627678189\, p^{119} q^{67} + 383157067377\, q^{111} p^{52} + 7132219036882\, p^{118} q^{90}$$
$$+ 74220177\, p^{147} q^{71} + 59201637\, p^{146} q^{67} + 4957738999152\, p^{109} q^{116} + 781262917852\, p^{123} q^{117} + 23127157080\, p^{130} q^{61}$$
$$+ 878214136994\, q^{115} p^{60} + 2586303823\, p^{115} q^{38} + 54077\, p^{94} q^{14} + 3670\, q^{134} p^{29} + 9433\, q^{134} p^{30} + 122\, q^{131} p^{24} + 6395\, p^{159} q^{79}$$
$$+ 5\, p^{168} q^{128} + 5\, p^{169} q^{146} + 2915\, p^{165} q^{140} + 1995\, p^{156} q^{64} + 3327\, p^{159} q^{77} + 2202222153830\, q^{102} p^{54} + 239\, p^{166} q^{156}$$
$$+ 5119409604825\, q^{120} p^{92} + 48272809481167\, p^{82} q^{101} + 49724061638768\, p^{83} q^{101} + 40605789\, q^{154} p^{109} + 39920974\, q^{154} p^{108}$$
$$+ 74683253\, q^{153} p^{108} + 927\, p^{164} q^{105} + 4\, p^{158} q^{61} + 226\, p^{167} q^{143} + p^{152} q^{45} + 14659802384331\, p^{104} q^{110} + 3364235595648\, p^{120} q^{80}$$
$$+ 276137620446\, p^{117} q^{56} + 5015000590415\, p^{105} q^{61} + 6680297295266\, p^{105} q^{63} + 16242194820279\, p^{106} q^{72} + 2496597122340\, p^{104} q^{56}$$
$$+ 47806390857301\, p^{78} q^{99} + 1262831455\, p^{145} q^{82} + 100253\, q^{100} p^{16} + 4976\, p^{154} q^{162} + 39259395\, p^{147} q^{68} + 541397737791\, q^{101} p^{47}$$
$$+ 17478600513117\, p^{93} q^{112} + 1352455101940\, q^{101} p^{51} + 1666564987913\, q^{101} p^{52} + 381957831\, p^{150} q^{112} + 15\, q^{101} p^{11} + 548525\, q^{77} p^{13}$$
$$+ 349394012\, q^{98} p^{26} + 258325668804\, q^{96} p^{42} + 36673255229313\, p^{105} q^{85} + 3885637586184\, p^{109} q^{63} + 1426904703977\, p^{108} q^{56}$$

$$+ 4468758033638\, p^{109}\, q^{64} + 1179037206211\, p^{108}\, q^{55} + 15048717913141\, p^{111}\, q^{80} + 19641140505245\, p^{111}\, q^{88}$$
$$+ 12503686714576\, p^{112}\, q^{103} + 17596443431940\, p^{112}\, q^{92} + 3955994156\, p^{101}\, q^{32} + 235999296\, p^{97}\, q^{25} + 5108636696674\, p^{109}\, q^{65}$$
$$+ 9670292719868\, p^{110}\, q^{72} + 47296984\, p^{87}\, q^{20} + 1518258598889\, p^{100}\, q^{51} + 537687658250\, p^{99}\, q^{46} + 11912588232176\, p^{101}\, q^{64}$$
$$+ 3327327048320\, p^{100}\, q^{55} + 6312662\, p^{151}\, q^{144} + 27682871\, p^{142}\, q^{148} + 17282310\, p^{144}\, q^{148} + 21979612\, p^{143}\, q^{148}$$
$$+ 10109518148323\, p^{76}\, q^{112} + 202993495\, q^{137}\, p^{53} + 149187912\, q^{137}\, p^{52} + 22148640776790\, p^{80}\, q^{108} + 66294207773813\, p^{92}\, q^{97}$$
$$+ 19797\, q^{93}\, p^{13} + 1235\, q^{92}\, p^{11} + 15048717913141\, p^{80}\, q^{111} + 25289894907020\, p^{92}\, q^{109} + 24180662000405\, p^{95}\, q^{109}$$
$$+ 28108135874\, q^{109}\, p^{41} + 2064\, p^{159}\, q^{161} + 40915411916\, p^{134}\, q^{123} + 77111205\, p^{108}\, q^{27} + 515798951731\, p^{126}\, q^{116}$$
$$+ 22248898624\, p^{126}\, q^{55} + 40337772420494\, p^{104}\, q^{85} + 1536305924\, p^{147}\, q^{98} + 76225890187\, p^{129}\, q^{126} + 91877571705\, p^{128}\, q^{126}$$
$$+ 670370513339\, q^{97}\, p^{46} + 6712888\, q^{153}\, p^{81} + 277\, p^{104}\, q^{13} + 146109361\, p^{122}\, q^{151} + 61056169151221\, p^{90}\, q^{99} + 1128\, p^{65}\, q^{7}$$
$$+ 568343494\, p^{95}\, q^{26} + 21119868037346\, p^{110}\, q^{96} + 8737\, p^{72}\, q^{9} + 17238702\, p^{89}\, q^{19} + 59666250\, q^{152}\, p^{127} + 47029259\, q^{146}\, p^{66}$$
$$+ 3218445893174\, p^{120}\, q^{107} + 2348704914945\, p^{120}\, q^{111} + 1080165018628\, q^{97}\, p^{48} + 9510196289187\, p^{112}\, q^{107}$$
$$+ 48831490322270\, p^{73}\, q^{72} + p^{123}\, q^{168} + 3\, p^{114}\, q^{167} + 6\, p^{116}\, q^{167} + 37\, p^{123}\, q^{167} + 29\, p^{122}\, q^{167} + 53168739393191\, p^{75}\, q^{72}$$
$$+ 1910521515\, q^{97}\, p^{29} + 16227589040584\, p^{104}\, q^{109} + 3672061862016\, p^{105}\, q^{59} + 348273\, p^{80}\, q^{13} + 5805795711807\, p^{66}\, q^{109}$$
$$+ 4364958\, q^{100}\, p^{20} + 263959556434\, q^{85}\, p^{39} + 605647597148\, q^{85}\, p^{42} + 463779827034\, q^{85}\, p^{41} + 351675649364\, q^{85}\, p^{40}$$
$$+ 1852747317\, p^{81}\, q^{144} + 6134039128\, p^{89}\, q^{143} + 5715146907\, p^{88}\, q^{143} + 74939774639\, q^{85}\, p^{35} + 77612716\, p^{151}\, q^{88}$$
$$+ 47106266508288\, p^{75}\, q^{70} + 45440242559245\, p^{76}\, q^{69} + 54037848\, p^{86}\, q^{20} + 85390535499\, p^{95}\, q^{38} + 446280003071\, p^{96}\, q^{44}$$
$$+ 22852967206389\, p^{100}\, q^{69} + 151550610607\, p^{124}\, q^{127} + 109950218356\, p^{127}\, q^{126} + 8267349226377\, p^{117}\, q^{96} + 18225219894758\, p^{99}\, q^{66}$$
$$+ 37658661838303\, p^{91}\, q^{68} + 52275587955724\, p^{91}\, q^{72} + 2992148488\, q^{129}\, p^{51} + 2141215284\, p^{137}\, q^{136} + 7410706955578\, p^{100}\, q^{117}$$
$$+ 7122946063177\, p^{101}\, q^{117} + 31459431\, p^{119}\, q^{31} + 633199365\, p^{125}\, q^{42} + 76291810104415\, q^{92}\, p^{80} + 3328277641\, p^{136}\, q^{135}$$
$$+ 42354\, q^{99}\, p^{15} + 4690938569191\, p^{117}\, q^{108} + 1041278\, p^{138}\, q^{41} + 622840408945\, p^{82}\, q^{128} + 580659156310\, p^{81}\, q^{128} + p^{124}\, q^{168}$$
$$+ 5006460179723\, p^{119}\, q^{102} + 5417754116456\, p^{119}\, q^{100} + 781561387801\, p^{127}\, q^{109} + 383678\, p^{99}\, q^{17} + 5956185\, p^{105}\, q^{22}$$
$$+ 472321960908\, p^{127}\, q^{115} + 375978031\, p^{135}\, q^{52} + 4652100065\, p^{139}\, q^{71} + 15928228098\, p^{141}\, q^{91} + 1632\, p^{104}\, q^{14} + 9786417318\, p^{141}\, q^{84}$$
$$+ 884260869\, p^{135}\, q^{55} + 12665686218\, p^{142}\, q^{95} + 2590678\, p^{124}\, q^{30} + 1248585653\, p^{136}\, q^{58} + 3955994156\, q^{139}\, p^{70} + 4652100065\, q^{139}\, p^{71}$$
$$+ 41895204\, p^{144}\, q^{145} + 721881614614\, q^{111}\, p^{55} + 2521359996\, p^{126}\, q^{47} + 57877207755\, p^{136}\, q^{115} + 5981832899556\, p^{119}\, q^{96}$$

$$+ 1362530712\, p^{138}\, q^{137} + 10580132160\, q^{126}\, p^{52} + 29\, p^{160}\, q^{71} + 605\, p^{164}\, q^{103} + 256\, p^{163}\, q^{92} + 847\, p^{166}\, q^{134} + 109035\, q^{137}\, p^{36}$$
$$+ 274282\, q^{140}\, p^{41} + 786387\, q^{140}\, p^{43} + 2038245\, q^{140}\, p^{45} + 3394173165413\, p^{117}\, q^{73} + 4376848074055\, p^{118}\, q^{107}$$
$$+ 5167373743686\, p^{110}\, q^{115} + 57767\, p^{159}\, q^{150} + 5532743\, p^{157}\, q^{117} + 9719241\, p^{156}\, q^{107} + 4459013\, p^{155}\, q^{89} + 2745302142797\, p^{99}\, q^{123}$$
$$+ 2158335588648\, p^{88}\, q^{124} + 2551835701\, p^{142}\, q^{76} + 14030104\, p^{145}\, q^{59} + 2242898\, p^{125}\, q^{158} + 10\, p^{168}\, q^{131} + 362713982\, p^{122}\, q^{149}$$
$$+ 333466861\, p^{123}\, q^{149} + 758429427\, p^{123}\, q^{147} + 631305017\, p^{128}\, q^{146} + 214878523\, p^{123}\, q^{150} + 745936898\, p^{118}\, q^{148} + 425224228\, p^{133}\, q^{145}$$
$$+ 582780958\, p^{114}\, q^{149} + 534627983\, p^{116}\, q^{149} + 636263571138\, p^{119}\, q^{63} + 350818\, p^{146}\, q^{157} + 10\, p^{158}\, q^{62} + 40272\, q^{119}\, p^{22}$$
$$+ 2650624827\, p^{146}\, q^{108} + 108339029\, p^{137}\, q^{51} + 155122063\, p^{147}\, q^{135} + 2266790449\, p^{146}\, q^{113} + 85522863\, q^{133}\, p^{45} + 124156413\, q^{133}\, p^{46}$$
$$+ 4725530261\, p^{81}\, q^{142} + 31214862\, p^{104}\, q^{24} + 194118\, p^{133}\, q^{33} + 4116545922\, p^{145}\, q^{107} + 6418611083\, p^{144}\, q^{102} + 20956918\, p^{117}\, q^{155}$$
$$+ 20682431788\, p^{115}\, q^{44} + 2532592227813\, p^{122}\, q^{82} + 20541013551\, q^{134}\, p^{68} + 24066976426\, q^{134}\, p^{69} + 22566515061408\, q^{103}\, p^{72}$$
$$+ 18856548708071\, q^{103}\, p^{70} + 401643\, q^{135}\, p^{36} + 782764588\, p^{129}\, q^{145} + 906784106\, p^{121}\, q^{147} + 792494802\, p^{117}\, q^{148}$$
$$+ 372921186\, p^{137}\, q^{143} + 9\, p^{54}\, q^{4} + 478455\, p^{152}\, q^{66} + 6418694601\, p^{104}\, q^{144} + 7630058150\, p^{112}\, q^{143} + 7990206424\, p^{111}\, q^{143}$$
$$+ 177996594\, p^{129}\, q^{149} + 14904669\, p^{131}\, q^{154} + 8001190\, p^{132}\, q^{155} + 11004052\, p^{117}\, q^{156} + 8\, p^{168}\, q^{130} + 81260978\, p^{146}\, q^{140}$$
$$+ 3765429\, q^{146}\, p^{57} + 2713485\, q^{145}\, p^{54} + 47725756\, p^{147}\, q^{141} + 194152810\, p^{140}\, q^{143} + 217353242\, p^{135}\, q^{146} + 249708728\, p^{136}\, q^{145}$$
$$+ 205932402\, p^{137}\, q^{145} + 300437130\, p^{135}\, q^{145} + 305157388\, p^{133}\, q^{146} + 292302808\, p^{131}\, q^{147} + 252109500\, p^{132}\, q^{147} + 215956922\, p^{133}\, q^{147}$$
$$+ 258481248\, p^{134}\, q^{146} + 168466348\, p^{138}\, q^{145} + 278769065\, p^{137}\, q^{144} + 227109563\, p^{138}\, q^{144} + 120073070\, p^{143}\, q^{142} + 51632953\, p^{146}\, q^{142}$$
$$+ 243460120\, p^{139}\, q^{143} + 91660081\, p^{144}\, q^{142} + 69197357\, p^{145}\, q^{142} + 181404258\, p^{136}\, q^{146} + 93043449\, p^{143}\, q^{143} + 71349012\, p^{144}\, q^{143}$$
$$+ 54117305\, p^{145}\, q^{143} + 264042028\, p^{129}\, q^{148} + 231736736\, p^{130}\, q^{148} + 224784665\, p^{127}\, q^{149} + 91660081\, p^{142}\, q^{144} + 116597630\, p^{141}\, q^{144}$$
$$+ 146926023\, p^{140}\, q^{144} + 6157437\, p^{129}\, q^{156} + 5479228\, p^{118}\, q^{157} + 1962330\, p^{107}\, q^{158} + 5149887\, p^{131}\, q^{156} + 79244\, p^{160}\, q^{96}$$
$$+ 60742\, p^{162}\, q^{115} + 860\, p^{165}\, q^{153} + 32097\, q^{151}\, p^{56} + 2399590\, q^{154}\, p^{80} + 2277899\, p^{110}\, q^{158} + 2074234\, p^{108}\, q^{158} + 326\, p^{166}\, q^{154}$$
$$+ 2394\, q^{149}\, p^{47} + 4535\, q^{149}\, p^{48} + 5622\, p^{157}\, q^{70} + 27606\, p^{163}\, q^{122} + 31082\, p^{163}\, q^{128} + 9691\, p^{164}\, q^{136} + 1859852337\, p^{92}\, q^{146}$$
$$+ 71349012\, p^{143}\, q^{144} + 202064895\, p^{131}\, q^{148} + 200648432\, p^{128}\, q^{149} + 147468447\, p^{127}\, q^{150} + 117848061\, p^{129}\, q^{150} + 51495725\, p^{135}\, q^{150}$$
$$+ 24996624\, p^{137}\, q^{151} + 34185311246\, p^{80}\, q^{32} + 23513280273\, p^{80}\, q^{31} + 14398222169018\, p^{85}\, q^{58} + 175066059962\, p^{81}\, q^{37}$$
$$+ 16555218716425\, p^{85}\, q^{59} + 167492565\, p^{74}\, q^{20} + 5628480422217\, p^{84}\, q^{52} + 4683549503559\, p^{84}\, q^{51} + 661441985319\, p^{83}\, q^{42}$$
$$+ 92795432864\, p^{81}\, q^{35} + 3174067291059\, p^{84}\, q^{49} + 30468752147467\, p^{85}\, q^{64} + 16723908419\, p^{79}\, q^{30} + 9377381471455\, p^{84}\, q^{55}$$

$$+ 1732582771351\, p^{83}\, q^{46} + 8626287\, p^{141}\, q^{50} + 32116\, p^{80}\, q^{11} + 3007\, p^{59}\, q^{7} + 3500796058703\, p^{122}\, q^{96} + 26840414\, p^{86}\, q^{19}$$
$$+ 77493544\, q^{152}\, p^{124} + 16736\, p^{83}\, q^{11} + 1881410734685\, p^{120}\, q^{73} + 38677336869825\, p^{70}\, q^{94} + 333056456\, p^{143}\, q^{67}$$
$$+ 78609997199664\, p^{86}\, q^{77} + 80774649389871\, p^{87}\, q^{78} + 63975579652923\, p^{86}\, q^{73} + 75221539929549\, p^{86}\, q^{76}$$
$$+ 21498980653259\, p^{85}\, q^{61} + 27279022454482\, p^{85}\, q^{63} + 24286347762156\, p^{85}\, q^{62} + 33843433561347\, p^{85}\, q^{65} + 59845\, q^{130}\, p^{29}$$
$$+ 12680676586631\, p^{72}\, q^{108} + 11912588232176\, p^{70}\, q^{107} + 187338508186\, p^{134}\, q^{92} + 4998903090\, p^{113}\, q^{144} + 78659994678\, q^{126}\, p^{61}$$
$$+ 1499525899313\, p^{117}\, q^{66} + 721881614614\, p^{116}\, q^{60} + 1948793474467\, p^{117}\, q^{68} + 5053036026076\, p^{119}\, q^{84} + 4826768463278\, p^{119}\, q^{83}$$
$$+ 4426618625383\, p^{120}\, q^{101} + 4587751777698\, p^{119}\, q^{82} + 12583\, q^{155}\, p^{65} + 5\, q^{153}\, p^{48} + 42149729384371\, p^{67}\, q^{82}$$
$$+ 80760346762418\, p^{93}\, q^{90} + 76806335743680\, p^{77}\, q^{80} + 31379678200266\, p^{83}\, q^{106} + 30302712540059\, p^{82}\, q^{106}$$
$$+ 126954402514\, q^{133}\, p^{80} + 25095741172592\, p^{62}\, q^{83} + 61056169151221\, p^{72}\, q^{81} + 91518\, q^{157}\, p^{79} + 108\, q^{153}\, p^{51} + 221195\, q^{156}\, p^{78}$$
$$+ 19585535503403\, p^{80}\, q^{109} + 737196877948\, p^{56}\, q^{112} + 2856468757959\, p^{63}\, q^{111} + 2107396658733\, p^{61}\, q^{111} + 1792872015965\, p^{60}\, q^{111}$$
$$+ 1515314911674\, p^{59}\, q^{111} + 27766029277066\, p^{87}\, q^{108} + 749431709\, p^{136}\, q^{56} + 90756609\, p^{132}\, q^{44} + 189077054420\, p^{49}\, q^{111}$$
$$+ 241317408033\, p^{50}\, q^{111} + 2461241253060\, p^{62}\, q^{111} + 7486631033952\, p^{85}\, q^{117} + 21309103875826\, p^{104}\, q^{106} + 35713648360\, p^{134}\, q^{124}$$
$$+ 16451820409967\, p^{77}\, q^{109} + 2469174602\, q^{106}\, p^{33} + 3294769528613\, p^{64}\, q^{111} + 9670292719868\, p^{72}\, q^{110} + 8788276452382\, p^{71}\, q^{110}$$
$$+ 800609\, p^{131}\, q^{159} + 302\, q^{123}\, p^{20} + 148057\, q^{127}\, p^{28} + 47\, p^{149}\, q^{168} + 198\, p^{148}\, q^{167} + 525\, p^{150}\, q^{166} + 353649138\, q^{149}\, p^{91}$$
$$+ 1153512766555\, p^{115}\, q^{122} + 32175553308\, q^{113}\, p^{44} + 11838235\, q^{99}\, p^{21} + 249985731680\, p^{125}\, q^{123} + 705893660\, p^{144}\, q^{74}$$
$$+ 269943083\, p^{143}\, q^{66} + 137424437\, p^{149}\, q^{131} + 1621156153\, p^{146}\, q^{90} + 1588663089\, p^{147}\, q^{99} + 13971998266\, p^{121}\, q^{139} + 6808133\, p^{126}\, q^{33}$$
$$+ 4766916264\, p^{143}\, q^{119} + 14186714411\, p^{142}\, q^{101} + 936770683672\, p^{127}\, q^{106} + 773050\, p^{100}\, q^{18} + 4259125122576\, p^{92}\, q^{121}$$
$$+ 13034132520426\, p^{83}\, q^{113} + 11901283519434\, p^{81}\, q^{113} + 12485677696754\, p^{82}\, q^{113} + 13539891375242\, p^{84}\, q^{113} + 320624210\, q^{111}\, p^{31}$$
$$+ 522912889\, q^{111}\, p^{32} + 834716480\, q^{111}\, p^{33} + 2006028782\, q^{111}\, p^{35} + 1306112627\, q^{111}\, p^{34} + 192083868\, q^{111}\, p^{30} + 2409599328\, q^{112}\, p^{36}$$
$$+ 112217903\, q^{111}\, p^{29} + 3776806\, q^{132}\, p^{37} + 357715636\, p^{132}\, q^{146} + 1030185999\, q^{137}\, p^{59} + 1641704429\, q^{137}\, p^{61} + 2530174288\, q^{137}\, p^{63}$$
$$+ 20103553179\, q^{139}\, p^{83} + 572265039\, q^{136}\, p^{55} + 239264771\, q^{136}\, p^{52} + 749431709\, q^{136}\, p^{56} + 323496739\, q^{136}\, p^{53} + 432554385\, q^{136}\, p^{54}$$
$$+ 478443235\, q^{137}\, p^{56} + 971892763\, q^{136}\, p^{57} + 2186917\, q^{132}\, p^{36} + 1174725059\, p^{74}\, q^{143} + 983156972\, p^{147}\, q^{120} + 619864689\, p^{147}\, q^{125}$$
$$+ 43928478\, p^{136}\, q^{47} + 10138534407\, p^{118}\, q^{141} + 1200\, q^{125}\, p^{22} + 2046350827\, q^{137}\, p^{62} + 4566513866\, q^{137}\, p^{66} + 3103919104\, q^{137}\, p^{64}$$
$$+ 6110927596360\, q^{119}\, p^{92} + 28955154268098\, p^{96}\, q^{107} + 9129668726\, p^{143}\, q^{107} + 14206921054\, p^{142}\, q^{102} + 3608221500\, p^{138}\, q^{67}$$

$$+ 5410318\, p^{98}\, q^{156} + 11177207\, p^{113}\, q^{156} + 545533\, q^{130}\, p^{32} + 455647970702\, p^{107}\, q^{130} + 422693973186\, p^{103}\, q^{131} + 5876648\, p^{141}\, q^{49}$$
$$+ 708258\, p^{136}\, q^{38} + 1664133670\, p^{129}\, q^{49} + 177637315\, p^{124}\, q^{38} + 27355305\, p^{121}\, q^{32} + 4276083\, p^{106}\, q^{157} + 8414888\, p^{104}\, q^{156}$$
$$+ 8878257\, p^{105}\, q^{156} + 24732712923536\, p^{103}\, q^{105} + 4598484\, p^{124}\, q^{157} + 85638202764347\, p^{90}\, q^{82} + 1753\, p^{160}\, q^{80} + 21\, p^{165}\, q^{100}$$
$$+ 11\, p^{161}\, q^{74} + 5\, p^{163}\, q^{83} + 2559423859\, p^{134}\, q^{138} + 4\, p^{146}\, q^{36} + 906\, p^{166}\, q^{137} + 800\, p^{166}\, q^{144} + 462\, p^{158}\, q^{68} + 2757\, p^{161}\, q^{87} + 384\, p^{161}\, q^{81}$$
$$+ 2063\, p^{161}\, q^{86} + 1108\, p^{161}\, q^{84} + 5877\, p^{164}\, q^{144} + 10710\, p^{156}\, q^{68} + 6\, p^{159}\, q^{65} + 10934768356\, p^{112}\, q^{142} + 9320264092\, p^{106}\, q^{143}$$
$$+ 125062964\, p^{151}\, q^{124} + 1306112627\, q^{137}\, p^{60} + 2995831767\, q^{138}\, p^{66} + 805315850\, q^{137}\, p^{58} + 2\, p^{89}\, q^{8} + 18368945793\, q^{139}\, p^{82}$$
$$+ 87\, p^{75}\, q^{7} + 1791421\, p^{114}\, q^{24} + 18368945793\, p^{139}\, q^{82} + 774917691\, p^{134}\, q^{53} + 2510261408\, p^{136}\, q^{61} + 202469253\, p^{131}\, q^{45} + 381\, p^{95}\, q^{11}$$
$$+ 18591822924\, p^{140}\, q^{87} + 1579224\, p^{122}\, q^{28} + 11876399\, p^{126}\, q^{34} + 54073977018\, p^{135}\, q^{78} + 81477114095\, p^{137}\, q^{98} + 2243537035\, p^{129}\, q^{50}$$
$$+ 2414797530\, p^{139}\, q^{133} + 80798675233\, p^{137}\, q^{97} + 191450148\, p^{125}\, q^{39} + 5823091\, p^{125}\, q^{32} + 17304801545\, p^{140}\, q^{86}$$
$$+ 1296039080\, p^{143}\, q^{130} + 20281201764\, p^{141}\, q^{104} + 4397606\, q^{127}\, p^{33} + 409622\, q^{125}\, p^{28} + 2590678\, p^{141}\, q^{47} + 3218445893174\, p^{107}\, q^{120}$$
$$+ 42879296765\, p^{111}\, q^{138} + 5222928760084\, p^{72}\, q^{114} + 1896654938080\, p^{92}\, q^{125} + 24273090598542\, p^{102}\, q^{106} + 46726193459\, q^{114}\, p^{46}$$
$$+ 61784116355\, q^{114}\, p^{47} + 80890547585\, q^{114}\, p^{48} + 76122971824\, q^{113}\, p^{47} + 271533352476\, q^{114}\, p^{53} + 171689867552\, q^{114}\, p^{51}$$
$$+ 216812109893\, q^{114}\, p^{52} + 139627531935\, q^{115}\, p^{51} + 337344816264\, q^{114}\, p^{54} + 415851927065\, q^{114}\, p^{55} + 5456443739258\, p^{52}\, q^{85}$$
$$+ 12756459990292\, p^{57}\, q^{84} + 1924361605377\, p^{47}\, q^{86} + 306385284415\, q^{97}\, p^{43} + 193581064057\, q^{96}\, p^{41} + 66273373156\, p^{102}\, q^{40}$$
$$+ 47881232714\, p^{102}\, q^{39} + 56063362288694\, p^{98}\, q^{96} + 599129\, p^{83}\, q^{14} + 56645\, p^{77}\, q^{11} + 13925548\, p^{71}\, q^{16} + 8620363968096\, p^{74}\, q^{112}$$
$$+ 15827864276638\, p^{81}\, q^{111} + 11613578652659\, p^{78}\, q^{112} + p^{59}\, q^{4} + 7275175790\, p^{97}\, q^{32} + 443120632\, p^{93}\, q^{25} + 3358020817024\, p^{109}\, q^{62}$$
$$+ 17877934066609\, p^{111}\, q^{84} + 1714692747915\, p^{108}\, q^{57} + 17251221816085\, p^{111}\, q^{83} + 13907385342550\, p^{112}\, q^{101}$$
$$+ 16565011550975\, p^{111}\, q^{82} + 30791324280281\, p^{97}\, q^{106} + 8568508801\, p^{116}\, q^{42} + 4627613\, p^{103}\, q^{21} + 107038381\, p^{109}\, q^{28}$$
$$+ 8687272100954\, p^{105}\, q^{65} + 5805795711807\, p^{105}\, q^{62} + 27162104429618\, p^{107}\, q^{82} + 29049137152710\, p^{107}\, q^{84}$$
$$+ 2981284755123\, p^{104}\, q^{57} + 28158417429725\, p^{107}\, q^{83} + 1326616124092\, p^{103}\, q^{126} + 2\, q^{58}\, p^{4} + 119844\, p^{62}\, q^{10} + 73880812\, q^{146}\, p^{68}$$
$$+ 3\, q^{75}\, p^{6} + 2356054860\, p^{130}\, q^{141} + 6576755648\, p^{141}\, q^{80} + 161693373\, p^{134}\, q^{48} + 5688369157\, p^{144}\, q^{110} + 8935204253\, p^{141}\, q^{83}$$
$$+ 9496061972\, p^{143}\, q^{100} + 2179866\, p^{158}\, q^{109} + 2643993\, p^{158}\, q^{118} + 1969541\, p^{154}\, q^{79} + 647318\, p^{151}\, q^{64} + 1293524\, p^{154}\, q^{77}$$
$$+ 52301229\, q^{149}\, p^{76} + 138079690\, q^{148}\, p^{78} + 160812677\, q^{148}\, p^{79} + 186053690\, q^{148}\, p^{80} + 1122590252\, p^{145}\, q^{81} + 664657209690\, p^{83}\, q^{128}$$
$$+ 5448938\, q^{145}\, p^{56} + 62\, p^{76}\, q^{7} + 1257185\, p^{115}\, q^{24} + 38010674193\, p^{136}\, q^{78} + 58610650721\, p^{138}\, q^{98} + 1561061389\, p^{130}\, q^{50}$$

$$+ 1857968020\, p^{140}\, q^{133} + 57985739392\, p^{138}\, q^{97} + 16721445853\, q^{135}\, p^{69} + 3356200555899\, p^{89}\, q^{122} + 13781569853\, p^{134}\, q^{130}$$
$$+ 38436\, q^{141}\, p^{39} + 15\, q^{128}\, p^{21} + 8698722602\, p^{143}\, q^{96} + 53583702\, q^{153}\, p^{122} + 56831336\, q^{153}\, p^{121} + 188412\, q^{125}\, p^{27} + 4976\, p^{162}\, q^{154}$$
$$+ 59\, p^{82}\, q^{162} + 1180996\, q^{151}\, p^{66} + 1566991\, q^{151}\, p^{67} + 2989\, q^{143}\, p^{38} + 16\, q^{142}\, p^{32} + 65\, q^{142}\, p^{33} + 104433195\, p^{150}\, q^{85} + 90756609\, q^{132}\, p^{44}$$
$$+ 16324986\, q^{130}\, p^{38} + 94412026\, q^{131}\, p^{43} + 35683337174\, q^{137}\, p^{81} + 49529848995\, q^{137}\, p^{85} + 45997852131\, q^{137}\, p^{84}$$
$$+ 59934427976\, q^{137}\, p^{88} + 66335335513\, q^{137}\, p^{90} + 48991148548\, q^{138}\, p^{91} + 53054256415\, q^{137}\, p^{86} + 63214103192\, q^{137}\, p^{89}$$
$$+ 39044637836\, q^{137}\, p^{82} + 523296166\, p^{89}\, q^{148} + 4232822667\, p^{104}\, q^{145} + 40290168828\, p^{137}\, q^{116} + 106015932844\, p^{136}\, q^{94}$$
$$+ 25796\, p^{162}\, q^{106} + 3861\, p^{158}\, q^{73} + 8459\, p^{164}\, q^{123} + 2646\, p^{158}\, q^{72} + 10373\, p^{164}\, q^{129} + 2849898364451\, p^{91}\, q^{123} + 24926101\, q^{141}\, p^{53}$$
$$+ 26600813\, q^{142}\, p^{55} + 55102\, q^{137}\, p^{35} + 1280726\, q^{140}\, p^{44} + 2590678\, q^{141}\, p^{47} + 1152595129\, p^{130}\, q^{49} + 124156413\, p^{125}\, q^{38}$$
$$+ 19028602\, p^{122}\, q^{32} + 1481787066\, p^{140}\, q^{67} + 653295\, q^{141}\, p^{44} + 133552\, p^{156}\, q^{76} + p^{117}\, q^{15} + 2\, p^{119}\, q^{16} + 185942\, p^{157}\, q^{82}$$
$$+ 24465\, p^{149}\, q^{51} + 351700\, p^{156}\, q^{80} + 4297\, p^{141}\, q^{36} + 120646\, p^{161}\, q^{137} + 14321\, p^{145}\, q^{43} + 1209167\, p^{159}\, q^{119} + 1361764\, p^{158}\, q^{102}$$
$$+ 1243085\, p^{158}\, q^{101} + 449\, p^{163}\, q^{161} + 56344571556\, p^{138}\, q^{104} + 53054256415\, p^{137}\, q^{86} + 3123483700\, p^{140}\, q^{130} + 5878018317\, p^{109}\, q^{144}$$
$$+ 3425989362275\, p^{90}\, q^{122} + 16570960\, p^{154}\, q^{130} + 15437446\, p^{138}\, q^{47} + 12292747960\, q^{137}\, p^{72} + 9075778687\, q^{137}\, p^{70}$$
$$+ 74220177\, q^{147}\, p^{71} + 109036201\, q^{147}\, p^{73} + 130675048\, q^{147}\, p^{74} + 155476709\, q^{147}\, p^{75} + 48906506\, q^{142}\, p^{57} + 8626287\, q^{141}\, p^{50}$$
$$+ 31498266\, q^{148}\, p^{70} + 941670650\, p^{132}\, q^{143} + 257323716\, p^{141}\, q^{141} + 7781398\, p^{139}\, q^{153} + 4237738\, p^{140}\, q^{154} + 398727107\, p^{138}\, q^{142}$$
$$+ 794253428\, p^{133}\, q^{143} + 218545659\, p^{151}\, q^{103} + 319532878\, p^{139}\, q^{142} + 653295\, q^{127}\, p^{30} + 63761\, q^{122}\, p^{24} + 56534991983\, q^{137}\, p^{87}$$
$$+ 42492304595\, q^{137}\, p^{83} + 32433561409\, q^{137}\, p^{80} + 29316985017\, q^{137}\, p^{79} + 904032605\, p^{125}\, q^{146} + 39259395\, q^{147}\, p^{68}$$
$$+ 90304557\, q^{147}\, p^{72} + 60520580\, q^{147}\, p^{70} + 19826251174424\, p^{98}\, q^{66} + 5102973\, p^{81}\, q^{16} + 61348046\, p^{85}\, q^{20} + 95077205465\, p^{94}\, q^{38}$$
$$+ 493292442225\, p^{95}\, q^{44} + 24905416865498\, p^{99}\, q^{69} + 4700284049536\, q^{103}\, p^{59} + 11951304\, p^{73}\, q^{16} + 13\, p^{138}\, q^{28} + 30453\, p^{157}\, q^{75}$$
$$+ 42\, p^{144}\, q^{35} + 2490\, p^{164}\, q^{151} + 3337\, p^{154}\, q^{59} + 65\, p^{142}\, q^{33} + 2\, p^{131}\, q^{22} + 26646\, p^{163}\, q^{135} + 7493\, p^{164}\, q^{141} + 52648\, p^{162}\, q^{113}$$
$$+ 36514\, p^{162}\, q^{109} + 71743\, p^{162}\, q^{118} + 6002251199904\, p^{112}\, q^{112} + 63057183182494\, p^{97}\, q^{94} + 21411267828946\, p^{108}\, q^{101}$$
$$+ 78450825557\, q^{135}\, p^{82} + 382287413\, p^{90}\, q^{24} + 838700926160\, p^{113}\, q^{125} + 72651\, p^{88}\, q^{13} + 580659156310\, p^{128}\, q^{81}$$
$$+ 783478500343\, p^{128}\, q^{86} + 909716706708\, p^{128}\, q^{90} + 592954333687\, p^{127}\, q^{78} + 542291624668\, p^{127}\, q^{77} + 764998351246\, p^{129}\, q^{98}$$
$$+ 882887627672\, p^{128}\, q^{89} + 493292442225\, p^{127}\, q^{76} + 819361796848\, p^{128}\, q^{87} + 8552749574\, p^{138}\, q^{127} + 64434002970\, p^{137}\, q^{109}$$
$$+ 3271850397860\, p^{122}\, q^{88} + 2396685947194\, p^{123}\, q^{103} + 6037\, p^{81}\, q^{10} + 90068623\, p^{122}\, q^{35} + 85530734\, p^{114}\, q^{30} + 8400811916\, p^{121}\, q^{46}$$

$$+ 226012646\, p^{116} q^{33} + 11504987774\, p^{122} q^{48} + 739722201528\, p^{124} q^{116} + 329965709943\, p^{118} q^{58} + 124074779\, p^{106} q^{27}$$
$$+ 1552605787686\, p^{95} q^{126} + 7269\, q^{156} p^{67} + q^{151} p^{43} + 5\, q^{151} p^{44} + 656318\, q^{124} p^{28} + 1706901302345\, p^{124} q^{106} + 328325852\, p^{140} q^{141}$$
$$+ 671954953\, q^{135} p^{54} + 428887341\, q^{134} p^{51} + 579689022\, q^{134} p^{52} + 8180861198\, q^{136} p^{67} + 3836306593\, q^{136} p^{63} + 4687429374\, q^{136} p^{64}$$
$$+ 5684587583\, q^{136} p^{65} + 9711613531\, q^{136} p^{68} + 6843740686\, q^{136} p^{66} + 117087\, p^{91} q^{14} + 1625452\, p^{97} q^{18} + 5272754890\, p^{112} q^{38}$$
$$+ 912902409821\, p^{124} q^{114} + 1302007221491\, p^{124} q^{110} + 585933642219\, p^{124} q^{118} + 1506236883143\, p^{124} q^{108} + 1404055423436\, p^{124} q^{109}$$
$$+ 824064728751\, p^{124} q^{115} + 819457\, p^{96} q^{17} + 12530229\, p^{102} q^{22} + 20101587\, p^{103} q^{23} + 256\, p^{79} q^{8} + 100439151752\, p^{134} q^{81}$$
$$+ 3118599525614\, p^{101} q^{122} + 2906774950221\, p^{123} q^{93} + 2853021975224\, p^{123} q^{97} + 2745302142797\, p^{123} q^{99} + 585933642219\, p^{118} q^{124}$$
$$+ 860755502395\, p^{103} q^{128} + 263959556434\, p^{86} q^{132} + 1664596351723\, p^{113} q^{121} + 58007340\, q^{127} p^{38} + 47029259\, p^{105} q^{25}$$
$$+ 835321419\, p^{109} q^{32} + 663829485\, p^{146} q^{81} + 554298220\, p^{148} q^{122} + 13727358270\, p^{114} q^{42} + 172983873\, p^{107} q^{28} + 7539631\, p^{101} q^{21}$$
$$+ 3271850397860\, p^{88} q^{122} + 455974050992\, p^{78} q^{128} + 39746473258\, p^{116} q^{47} + 45922212132469\, p^{68} q^{82} + 304826567\, p^{149} q^{124}$$
$$+ 56871\, p^{152} q^{158} + 3114353611\, p^{126} q^{142} + 495192962\, p^{143} q^{69} + 855731749075\, p^{116} q^{61} + 4612010215031\, p^{118} q^{79}$$
$$+ 271533352476\, p^{114} q^{53} + 164880623624\, p^{113} q^{50} + 65482964\, p^{152} q^{126} + 10596507086\, p^{100} q^{34} + 248041056679\, p^{103} q^{45}$$
$$+ 90654586726\, p^{102} q^{41} + 317461281\, p^{150} q^{98} + 22650714586\, p^{100} q^{36} + 16547912770886\, p^{110} q^{102} + 73364705218601\, p^{80} q^{93}$$
$$+ 118235\, p^{143} q^{160} + 120646\, p^{137} q^{161} + 102010\, p^{144} q^{160} + 15\, p^{119} q^{167} + 24\, p^{121} q^{167} + 18\, p^{120} q^{167} + 132805838\, p^{126} q^{39}$$
$$+ 226813375266\, p^{122} q^{61} + 1549078209433\, p^{126} q^{94} + 4261407111\, p^{116} q^{40} + 2943640880\, p^{116} q^{39} + 854604815766\, p^{124} q^{74}$$
$$+ 607240365733\, p^{123} q^{69} + 623720929\, p^{114} q^{34} + 1552605787686\, p^{126} q^{95} + 689221910421\, p^{123} q^{70} + 1272303852700\, p^{126} q^{104}$$
$$+ 5893949\, p^{154} q^{138} + 11287932303120\, p^{80} q^{113} + 197299542\, p^{124} q^{150} + 358742669\, p^{134} q^{145} + 622840408945\, p^{128} q^{82}$$
$$+ 4450328256\, p^{121} q^{44} + 6440231\, p^{110} q^{24} + 4224150346\, p^{120} q^{43} + 328288596796\, p^{130} q^{112} + 446280003071\, p^{127} q^{75}$$
$$+ 103993687032\, p^{125} q^{61} + 7761454\, q^{137} p^{44} + 26374283\, q^{137} p^{47} + 11876399\, q^{137} p^{45} + 17847933\, q^{137} p^{46} + 1786779738\, q^{140} p^{68}$$
$$+ 1748984640646\, p^{101} q^{125} + 3808\, p^{157} q^{69} + 10518\, p^{164} q^{131} + 8788572\, p^{124} q^{32} + 25514896714\, p^{139} q^{86} + 1757620259\, p^{142} q^{130}$$
$$+ 28891048254\, p^{140} q^{104} + 36280\, p^{128} q^{27} + 361648113379\, p^{67} q^{124} + 1336215211597\, p^{79} q^{124} + 416206529038\, p^{68} q^{124}$$
$$+ 476106004337\, p^{69} q^{124} + 125923599\, p^{151} q^{93} + 1235016194567\, p^{78} q^{124} + 1438199149093\, p^{80} q^{124} + 421543094843\, p^{70} q^{125}$$
$$+ 889500717\, p^{134} q^{142} + 415001382\, p^{139} q^{141} + 48391\, p^{101} q^{161} + 346304\, p^{109} q^{160} + 268014186082\, p^{65} q^{124} + 312310539081\, p^{66} q^{124}$$
$$+ 3728196854624\, p^{101} q^{121} + 3480269476268\, p^{91} q^{122} + 25238217103\, p^{129} q^{132} + 2885186101601\, p^{92} q^{123} + 1550472490297\, p^{78} q^{123}$$

$$+ 1799696007922\, p^{80} q^{123} + 1540002190262\, p^{81} q^{124} + 1674781240118\, p^{79} q^{123} + 1427891046717\, p^{77} q^{123} + 1361764\, p^{102} q^{158}$$
$$+ 206402\, p^{88} q^{158} + 2\, p^{139} q^{169} + 1450951642\, p^{124} q^{145} + p^{156} q^{54} + 625\, p^{163} q^{95} + 214\, p^{167} q^{139} + 11\, p^{156} q^{56} + 85446061\, p^{151} q^{128}$$
$$+ 8021\, p^{163} q^{148} + 6913\, p^{163} q^{149} + 73\, p^{141} q^{32} + 198159599\, q^{146} p^{73} + 13208\, q^{154} p^{62} + 8560\, q^{154} p^{61} + 11\, q^{97} p^{10} + 92\, q^{98} p^{11}$$
$$+ 19449607\, p^{152} q^{136} + 52914705\, p^{151} q^{132} + 147468447\, p^{150} q^{127} + 480124385\, p^{149} q^{118} + 637702696\, p^{149} q^{111} + 201543087\, p^{145} q^{70}$$
$$+ 760692886\, p^{148} q^{94} + 659846672\, p^{149} q^{109} + 250567468\, p^{150} q^{121} + 4815022290\, p^{125} q^{141} + 160812677\, p^{148} q^{79} + 54157141\, p^{145} q^{64}$$
$$+ 4224150346\, q^{128} p^{51} + 2463301347\, q^{127} p^{48} + 3329033908\, q^{127} p^{49} + 4450328256\, q^{127} p^{50} + 649678394\, q^{126} p^{43}$$
$$+ 584780217\, p^{144} q^{133} + 13419789575\, p^{142} q^{97} + 226647073\, p^{134} q^{49} + 25373569\, p^{129} q^{38} + 117760253\, p^{148} q^{77} + 64855\, q^{127} p^{27}$$
$$+ 79\, q^{118} p^{17} + 10863234017290\, p^{94} q^{59} + 36453534824432\, p^{95} q^{70} + 538531844422\, p^{91} q^{43} + 1470464206507\, p^{114} q^{62}$$
$$+ 8518864100597\, p^{116} q^{84} + 744972154865\, p^{113} q^{57} + 8169971160065\, p^{116} q^{83} + 7122946063177\, p^{117} q^{101} + 7796713073118\, p^{116} q^{82}$$
$$+ 12465751\, q^{141} p^{51} + 3617\, q^{117} p^{19} + 95288\, q^{133} p^{32} + 3071656865021\, p^{99} q^{54} + 1478543553775\, q^{102} p^{52} + 23691986910\, q^{97} p^{35}$$
$$+ 43423762248\, p^{95} q^{36} + 5209924425\, p^{93} q^{30} + 16042648353\, p^{94} q^{33} + 143522878719\, p^{96} q^{40} + 105229182711\, p^{96} q^{39}$$
$$+ 61282051996\, p^{95} q^{37} + 298942111\, p^{128} q^{148} + 11356910917\, p^{138} q^{125} + 2072\, p^{163} q^{100} + 1089\, p^{159} q^{74} + 795\, p^{161} q^{83}$$
$$+ 27355305\, p^{139} q^{50} + 857473690\, p^{138} q^{139} + 71476847\, p^{124} q^{36} + 58950434949\, p^{138} q^{99} + 20628744687\, p^{139} q^{117}$$
$$+ 12149019173\, p^{133} q^{63} + 130675048\, p^{147} q^{74} + 280267\, q^{156} p^{79} + 47029259\, p^{146} q^{66} + 6692139689\, p^{119} q^{142} + 1802084189\, p^{127} q^{47}$$
$$+ 43775231398\, p^{137} q^{115} + 235606749\, q^{142} p^{63} + 6\, p^{55} q^{4} + 47306343514\, p^{137} q^{114} + 33574814188\, p^{137} q^{118} + 57836906622\, p^{137} q^{111}$$
$$+ 39661774974\, p^{133} q^{70} + 3662217430\, p^{129} q^{140} + 5450666577\, p^{124} q^{141} + 11813854\, p^{139} q^{152} + 14056473\, p^{138} q^{152}$$
$$+ 107154143199\, p^{136} q^{103} + 274\, p^{165} q^{109} + 1217\, p^{165} q^{118} + 168\, p^{167} q^{151} + 12\, p^{157} q^{59} + 872\, p^{166} q^{135} + 224\, p^{167} q^{141} + 590\, p^{165} q^{113}$$
$$+ 245\, p^{160} q^{75} + 2091092057\, q^{130} p^{51} + 4501045\, p^{107} q^{157} + 9315121\, p^{106} q^{156} + 19531536746\, p^{106} q^{141} + 201052759\, p^{135} q^{50}$$
$$+ 2877030882720\, p^{103} q^{122} + 3584754372012\, p^{102} q^{121} + 5\, p^{169} q^{145} + p^{169} q^{138} + 40405604976\, p^{138} q^{112} + 3589582417\, p^{143} q^{122}$$
$$+ 386373\, q^{146} p^{51} + 223484\, q^{145} p^{48} + 356157\, q^{145} p^{49} + 555136\, q^{145} p^{50} + 36280\, q^{144} p^{43} + 1116376087\, p^{141} q^{68} + 408222161\, p^{139} q^{59}$$
$$+ 1939048625\, p^{146} q^{116} + 57836906622\, p^{111} q^{137} + 5628051497\, p^{139} q^{128} + 1115222\, p^{157} q^{92} + 318528\, p^{160} q^{134} + 40770\, p^{161} q^{146}$$
$$+ 1482600\, p^{158} q^{103} + 502853\, p^{160} q^{125} + 291546\, p^{154} q^{71} + 126669\, p^{152} q^{62} + 72108385\, p^{153} q^{115} + p^{166} q^{101} + 15\, p^{167} q^{119} + p^{166} q^{102}$$
$$+ 103\, p^{102} q^{12} + 1943252624866\, p^{113} q^{120} + 645517194\, p^{141} q^{137} + 146838419\, q^{151} p^{95} + 76257617007\, p^{133} q^{75} + 148303\, q^{157} p^{81}$$
$$+ 187646\, p^{161} q^{116} + 71294\, p^{162} q^{133} + 313673458\, q^{134} p^{50} + 191450148\, q^{132} p^{46} + 341212049760\, p^{43} q^{96} + 87239092123309\, p^{88} q^{91}$$

$$+ 48600428264065\, p^{102} q^{92} + 379146615238\, p^{129} q^{79} + 306385284415\, p^{74} q^{128} + 750933736631\, p^{81} q^{127} + 75699008054152\, p^{81} q^{93}$$
$$+ 9711613531\, p^{103} q^{35} + 52301229\, p^{95} q^{22} + 6155099497824\, p^{111} q^{69} + 13201497140628\, p^{74} q^{109} + 46272484517\, p^{120} q^{135}$$
$$+ 21927596077\, p^{136} q^{124} + 777737928665\, p^{123} q^{71} + 15258\, p^{89} q^{12} + 1740448590\, p^{115} q^{37} + 1867854247705\, p^{125} q^{91}$$
$$+ 291580144176\, p^{88} q^{132} + 9489397265\, p^{134} q^{132} + 7620438574\, p^{135} q^{132} + 109036201\, p^{147} q^{73} + 10401944\, p^{143} q^{54}$$
$$+ 232541513\, p^{151} q^{106} + 81838072374\, q^{136} p^{110} + 62688595758\, q^{136} p^{114} + 67538401493\, q^{136} p^{113} + 4879507113817\, p^{55} q^{96}$$
$$+ 77493544\, p^{152} q^{124} + 2375\, p^{125} q^{165} + 2681\, p^{127} q^{165} + 3037\, p^{130} q^{165} + 2939\, p^{129} q^{165} + 2812\, p^{128} q^{165} + 2529\, p^{126} q^{165}$$
$$+ 3127\, p^{131} q^{165} + 4645\, p^{93} q^{12} + 1330\, p^{159} q^{162} + 857473690\, p^{139} q^{138} + 1230\, q^{108} p^{15} + p^{169} q^{137} + 4\, p^{169} q^{144} + 47551\, p^{129} q^{28}$$
$$+ 93079101603\, q^{124} p^{59} + 625\, p^{166} q^{148} + 83876707\, p^{148} q^{75} + 47\, p^{168} q^{150} + 24\, p^{85} q^{8} + 1413620\, p^{141} q^{156} + 1910521515\, q^{142} p^{74}$$
$$+ 37024695\, q^{146} p^{65} + 12\, p^{154} q^{51} + 22639\, p^{66} q^{9} + 59713828068366\, p^{97} q^{80} + 5015000590415\, p^{110} q^{66} + 2461241253060\, p^{109} q^{60}$$
$$+ 6856290183172\, p^{111} q^{70} + 6383340433845\, p^{110} q^{68} + 2473203209256\, p^{110} q^{61} + 796601\, p^{87} q^{15} + 16555218716425\, p^{112} q^{86}$$
$$+ 12352922710942\, p^{112} q^{79} + 83876707\, p^{96} q^{23} + 1422096\, p^{89} q^{16} + 13863411977546\, p^{113} q^{98} + 787476496532\, p^{108} q^{53}$$
$$+ 13401029887842\, p^{111} q^{78} + 475778541281\, p^{107} q^{50} + 16927655740543\, p^{112} q^{87} + 130675048\, p^{97} q^{24} + 8609934981346\, p^{104} q^{64}$$
$$+ 2356256444994\, p^{103} q^{55} + 69152049063633\, p^{97} q^{88} + 65420729955335\, p^{97} q^{83} + 4004218\, p^{76} q^{15} + 1342473136\, q^{102} p^{30}$$
$$+ 104892610882\, q^{105} p^{43} + 77838092910\, q^{105} p^{42} + 139855895743\, q^{105} p^{44} + 184581045130\, q^{105} p^{45} + 3294769528613\, q^{107} p^{60}$$
$$+ 2802125004799\, q^{107} p^{59} + 5156092672012\, q^{107} p^{63} + 6741288333003\, q^{107} p^{65} + 3849219028136\, q^{107} p^{61} + 5913218041048\, q^{107} p^{64}$$
$$+ 4468758033638\, q^{107} p^{62} + 2367552177705\, q^{107} p^{58} + 17416172058\, q^{104} p^{37} + 24872337661\, q^{104} p^{38} + 106\, q^{66} p^{6}$$
$$+ 18491991459\, q^{125} p^{53} + 278125793508\, p^{87} q^{132} + 1235016194567\, p^{93} q^{47} + 1153917196\, p^{85} q^{25} + 6378748920\, p^{87} q^{29}$$
$$+ 680831991\, p^{85} q^{24} + 2817179850\, p^{86} q^{27} + 18049628987\, p^{99} q^{35} + 3\, p^{29} q^{2} + 54832401318585\, p^{97} q^{78} + 13445690632472\, p^{95} q^{61}$$
$$+ 17459248705688\, p^{95} q^{63} + 40279032921520\, p^{96} q^{72} + 28405990841717\, p^{96} q^{68} + 43618235379\, q^{128} p^{61} + 68363038900654\, p^{97} q^{90}$$
$$+ 20683156441398\, q^{103} p^{71} + 24492355856771\, q^{103} p^{73} + 28405990841717\, q^{103} p^{75} + 26444689577160\, q^{103} p^{74}$$
$$+ 30357427877571\, q^{103} p^{76} + 34150545461783\, q^{103} p^{78} + 32279138923405\, q^{103} p^{77} + 10109518148323\, p^{95} q^{59}$$
$$+ 34184765272978\, p^{96} q^{70} + 496850195154\, p^{92} q^{43} + 86443407641670\, p^{89} q^{91} + 77729306295177\, p^{82} q^{93} + 810410\, p^{74} q^{13}$$
$$+ 1855843\, p^{75} q^{14} + 60164399\, p^{117} q^{31} + 35862\, q^{72} p^{10} + 92611\, q^{74} p^{11} + 3298961692363\, p^{94} q^{52} + 1930804391738\, p^{93} q^{49}$$
$$+ 8498032059378\, p^{91} q^{117} + 14052803888787\, p^{109} q^{106} + 50114422377014\, p^{79} q^{99} + 81665\, p^{125} q^{26} + 193365388098\, p^{128} q^{121}$$

$$+ 138291163163\, q^{133} p^{81} + 34970748911\, q^{106} p^{40} + 66038586085\, q^{106} p^{42} + 521206587711\, q^{97} p^{45} + 2461241253060\, p^{111} q^{62}$$
$$+ 13539891375242\, p^{113} q^{84} + 1252983644018\, p^{110} q^{57} + 13034132520426\, p^{113} q^{83} + 10833518806344\, p^{114} q^{101}$$
$$+ 12485677696754\, p^{113} q^{82} + 389368\, q^{95} p^{16} + 2042476\, q^{96} p^{18} + 3070\, q^{77} p^{9} + 11932\, q^{78} p^{10} + 3863\, q^{76} p^{9} + 3773088098\, q^{110} p^{36}$$
$$+ 108505780\, q^{104} p^{26} + 8457275926971\, p^{68} q^{108} + 362713982\, p^{149} q^{122} + 65966020574068\, p^{94} q^{96} + 40915411916\, p^{123} q^{134}$$
$$+ 4730622977785\, p^{120} q^{99} + 4957488915009\, p^{120} q^{97} + 2733248776776\, q^{121} p^{107} + 842856824\, p^{83} q^{146} + 663829485\, p^{81} q^{146}$$
$$+ 750252313\, p^{82} q^{146} + 382287413\, p^{81} q^{147} + 941323908\, p^{84} q^{146} + 1045202087\, p^{85} q^{146} + 1153917196\, p^{86} q^{146} + 129\, p^{163} q^{90}$$
$$+ 12536353\, p^{149} q^{144} + 41099622304\, p^{132} q^{68} + 15305989783\, p^{130} q^{59} + 347280946401\, p^{78} q^{129} + 43784927\, p^{150} q^{136}$$
$$+ 119570064\, p^{149} q^{132} + 1045202087\, p^{146} q^{85} + 333466861\, p^{149} q^{123} + 93988\, p^{159} q^{90} + p^{124} q^{18} + q^{108} p^{12} + 17589089\, p^{139} q^{151}$$
$$+ 1201040825445\, p^{111} q^{124} + 5075047\, p^{157} q^{110} + 18049628987\, q^{136} p^{72} + 13412604787\, q^{136} p^{70} + 3413647\, q^{130} p^{35}$$
$$+ 3174067291059\, p^{122} q^{87} + 3064137051015\, p^{122} q^{86} + 2805472907079\, p^{123} q^{98} + 2385614613118\, p^{121} q^{78} + 2384723475387\, p^{122} q^{81}$$
$$+ 2025487142765\, p^{121} q^{76} + 3356200555899\, p^{122} q^{89} + 2203969789062\, p^{121} q^{77} + 3425989362275\, p^{122} q^{90} + 76122971824\, p^{124} q^{58}$$
$$+ 431152014883\, p^{130} q^{108} + 380152542055\, p^{130} q^{110} + 5903562\, p^{135} q^{41} + 494909606\, p^{141} q^{64} + 1741370066\, p^{147} q^{106}$$
$$+ 1002136673\, p^{143} q^{73} + 102021151\, p^{139} q^{54} + 6150619886\, p^{121} q^{45} + 39746473258\, p^{124} q^{55} + 18774356\, p^{111} q^{26}$$
$$+ 18594381107\, p^{121} q^{138} + 3651\, q^{130} p^{26} + 3949413034\, p^{129} q^{52} + 45751324652\, p^{133} q^{71} + 133247072836\, p^{135} q^{91} + 27151178\, q^{143} p^{57}$$
$$+ 1151\, p^{114} q^{17} + 119539709774\, p^{71} q^{130} + 1583281\, p^{83} q^{15} + 79409889190215\, p^{91} q^{93} + 112884\, q^{151} p^{59} + 647318\, q^{151} p^{64}$$
$$+ 470155\, q^{151} p^{63} + 237730\, q^{151} p^{61} + 336762\, q^{151} p^{62} + 15326836867389\, p^{93} q^{113} + 11675644245081\, p^{84} q^{114}$$
$$+ 8091759759357\, p^{114} q^{106} + 68402371490\, q^{94} p^{37} + 910684\, p^{73} q^{13} + 2073583\, p^{74} q^{14} + 505246912\, p^{99} q^{27} + 175767427249\, p^{107} q^{46}$$
$$+ 510038746091\, p^{108} q^{51} + 77838092910\, p^{105} q^{42} + 228530277418\, p^{107} q^{47} + 447366938\, q^{126} p^{42} + 930027147\, q^{126} p^{44}$$
$$+ 88782967907\, p^{135} q^{113} + 20116138\, q^{152} p^{83} + 7710901\, p^{154} q^{87} + 2899768\, p^{154} q^{81} + 756\, p^{129} q^{24} + 19253126371\, p^{119} q^{47}$$
$$+ 39661774974\, p^{101} q^{38} + 10469483340674\, p^{63} q^{101} + 31979\, q^{131} p^{29} + 158423505248\, p^{108} q^{134} + 72481061565455\, p^{92} q^{95}$$
$$+ 509528784019\, q^{122} p^{66} + 100984004430\, p^{64} q^{127} + 416471325698\, p^{72} q^{126} + 369110505620\, p^{71} q^{126} + 22386020562203\, p^{64} q^{93}$$
$$+ 531858318000\, q^{103} p^{48} + 63253409626\, q^{128} p^{63} + 52713581446\, q^{128} p^{62} + 35829396087\, q^{128} p^{60} + 13060684625148\, p^{108} q^{108}$$
$$+ 918715241002\, p^{118} q^{64} + 3833122\, p^{97} q^{19} + 1726047469\, p^{147} q^{103} + 825897247\, p^{144} q^{75} + 1192720\, p^{142} q^{156} + 213556\, p^{135} q^{35}$$
$$+ 5548637\, p^{115} q^{157} + 26476\, p^{163} q^{121} + 16736\, p^{160} q^{88} + 320\, p^{147} q^{41} + 1293\, p^{134} q^{28} + 2042476\, p^{153} q^{75} + 34\, p^{119} q^{17} + 4800\, p^{140} q^{35}$$

$$+ 28100\, p^{160}\, q^{151} + 294676\, p^{150}\, q^{59} + 5242\, p^{138}\, q^{33} + p^{161}\, q^{71} + 10934768356\, p^{142}\, q^{112} + 1736245822\, p^{143}\, q^{128} + 4800\, p^{136}\, q^{31}$$
$$+ 6669179\, p^{154}\, q^{86} + 4885708\, p^{154}\, q^{84} + 211938\, p^{161}\, q^{120} + 3787508\, q^{126}\, p^{32} + 55967\, p^{137}\, q^{162} + 29585\, p^{132}\, q^{163} + 62195\, p^{147}\, q^{160}$$
$$+ 1557088916524\, p^{112}\, q^{122} + 2288172773613\, p^{104}\, q^{123} + 216829547028\, p^{107}\, q^{133} + 226723741456\, p^{106}\, q^{133} + 257816260392\, p^{102}\, q^{133}$$
$$+ 251530881551\, p^{103}\, q^{133} + 251498997326\, p^{109}\, q^{132} + 236421079861\, p^{110}\, q^{132} + 336762\, p^{109}\, q^{20} + 1635230832\, p^{139}\, q^{135}$$
$$+ 8685172347442\, p^{58}\, q^{95} + 31\, p^{70}\, q^{6} + 4802010\, p^{157}\, q^{123} + 5502813\, p^{151}\, q^{72} + 3394522\, p^{157}\, q^{129} + 177482\, p^{158}\, q^{147} + 2533\, p^{129}\, q^{25}$$
$$+ 432035\, p^{158}\, q^{142} + 4598484\, p^{157}\, q^{124} + 21327952\, p^{154}\, q^{96} + 6\, p^{93}\, q^{9} + 28205\, p^{159}\, q^{153} + 56871\, p^{158}\, q^{152} + 49509\, p^{139}\, q^{37}$$
$$+ 3901144\, p^{157}\, q^{127} + 10903556\, p^{156}\, q^{111} + 492167\, p^{144}\, q^{48} + 244277767\, q^{148}\, p^{82} + 28352842379989\, p^{63}\, q^{82} + 8514973\, p^{97}\, q^{20}$$
$$+ 1664596351723\, p^{121}\, q^{113} + 296536981\, q^{82}\, p^{22} + 29484424646\, p^{99}\, q^{140} + 2690024805\, p^{145}\, q^{117} + 1042333412\, p^{139}\, q^{63}$$
$$+ 5903562\, p^{130}\, q^{36} + 7299850527\, p^{131}\, q^{136} + 4788906773\, p^{132}\, q^{137} + 13011375828933\, p^{57}\, q^{83} + 688\, p^{162}\, q^{161} + 991959384\, p^{145}\, q^{80}$$
$$+ 22665492\, p^{138}\, q^{48} + 1044134954\, p^{148}\, q^{110} + 1412242311\, p^{145}\, q^{83} + 1634402522\, p^{147}\, q^{100} + 737196877948\, p^{115}\, q^{59}$$
$$+ 9146950529190\, p^{70}\, q^{109} + 8301239224\, p^{123}\, q^{140} + 9311590946\, p^{122}\, q^{140} + 354198071728\, p^{130}\, q^{111} + 359238168583\, p^{127}\, q^{73}$$
$$+ 277550656954\, p^{130}\, q^{114} + 185777229317\, p^{130}\, q^{118} + 3176048\, p^{125}\, q^{31} + 62934077\, p^{131}\, q^{42} + 3041735196\, p^{141}\, q^{74}$$
$$+ 1219776921\, p^{140}\, q^{66} + 40272\, p^{119}\, q^{22} + 148163478\, q^{141}\, p^{59} + 2011\, p^{140}\, q^{34} + 4981\, p^{144}\, q^{40} + 350475\, p^{152}\, q^{65} + 7408\, p^{145}\, q^{42}$$
$$+ 6457\, p^{143}\, q^{39} + 709\, p^{137}\, q^{30} + 54814\, p^{161}\, q^{144} + 333695\, p^{153}\, q^{68} + 1127763\, p^{100}\, q^{158} + 185704663\, p^{142}\, q^{62} + 1976247648\, p^{146}\, q^{93}$$
$$+ 505246912\, p^{144}\, q^{72} + 1745080902\, p^{147}\, q^{105} + 52866886009\, q^{138}\, p^{93} + 9373582\, p^{135}\, q^{42} + 6197273\, p^{134}\, q^{40} + 369477435\, p^{142}\, q^{65}$$
$$+ 470916\, p^{129}\, q^{31} + 201543087\, q^{145}\, p^{70} + 292982848\, q^{145}\, p^{72} + 243905945\, q^{145}\, p^{71} + 3180455299\, q^{121}\, p^{43} + 2243537035\, q^{121}\, p^{42}$$
$$+ 4450328256\, q^{121}\, p^{44} + 146830006228\, q^{123}\, p^{60} + 121260765855\, q^{123}\, p^{59} + 99413148368\, q^{123}\, p^{58} + 428887341\, q^{120}\, p^{37}$$
$$+ 653119815\, q^{120}\, p^{38} + 1664133670\, q^{122}\, p^{42} + 60\, p^{165}\, q^{103} + 159\, p^{167}\, q^{134} + 19\, p^{164}\, q^{92} + 8582136209\, q^{122}\, p^{47} + 11504987774\, q^{122}\, p^{48}$$
$$+ 977817379\, q^{120}\, p^{39} + 12\, q^{92}\, p^{9} + 16251\, p^{98}\, q^{14} + 26600813\, p^{142}\, q^{55} + 2579980\, p^{108}\, q^{22} + 405894003467\, p^{130}\, q^{109}$$
$$+ 91496483300\, p^{135}\, q^{84} + 8568508801\, p^{129}\, q^{55} + 136678275\, p^{146}\, q^{71} + 416433900\, p^{146}\, q^{131} + 223484\, p^{123}\, q^{26} + 108505780\, p^{145}\, q^{67}$$
$$+ 3765429\, p^{114}\, q^{25} + 24617154352\, p^{92}\, q^{140} + 24989892508\, p^{109}\, q^{140} + 386373\, p^{120}\, q^{25} + 41223448\, p^{130}\, q^{40} + 2469174602\, p^{138}\, q^{65}$$
$$+ 30000232\, q^{125}\, p^{35} + 64614\, q^{118}\, p^{22} + 589577\, q^{119}\, p^{25} + 38703168\, q^{128}\, p^{38} + 29247290502\, q^{133}\, p^{68} + 34167869683\, q^{133}\, p^{69}$$
$$+ 21067837520\, p^{132}\, q^{130} + 684942818753\, p^{103}\, q^{129} + 602312406092\, p^{96}\, q^{130} + 409628543\, p^{124}\, q^{40} + 92611\, p^{160}\, q^{97} + 224\, p^{142}\, q^{167}$$
$$+ 3800\, p^{148}\, q^{164} + 20044200920\, p^{122}\, q^{50} + 432554385\, p^{117}\, q^{35} + 61784116355\, p^{124}\, q^{57} + 2091092057\, p^{120}\, q^{41} + 671954953\, p^{117}\, q^{36}$$

$$+ 32736069214\, p^{123} q^{53} + 1272111069\, p^{144} q^{78} + 890187055429\, p^{128} q^{102} + 573483325055\, p^{129} q^{107} + 24989989897\, p^{132} q^{65}$$
$$+ 1167764212\, p^{118} q^{38} + 421944157\, p^{149} q^{120} + 277033362\, p^{149} q^{125} + 7628717780\, p^{141} q^{121} + 29479\, p^{107} q^{17} + 183314788\, p^{115} q^{32}$$
$$+ 9656790\, p^{111} q^{25} + 43307565059168\, p^{103} q^{94} + 739694210034\, q^{121} p^{67} + 1252983644018\, q^{110} p^{57} + 7\, p^{168} q^{129} + 250128\, p^{155} q^{151}$$
$$+ 24442091831\, p^{135} q^{125} + 17458710163\, p^{131} q^{132} + 20445536721\, p^{129} q^{133} + 11719862067\, p^{133} q^{132} + 1039199443312\, q^{110} p^{56}$$
$$+ 2943640880\, q^{116} p^{39} + 6083039942\, q^{116} p^{41} + 4261407111\, q^{116} p^{40} + 136135581622\, q^{110} p^{47} + 134799363482\, q^{121} p^{57}$$
$$+ 6548914741\, p^{143} q^{90} + 9\, p^{167} q^{117} + 7\, p^{166} q^{106} + p^{168} q^{123} + 10\, p^{166} q^{107} + 1985\, p^{165} q^{146} + 45440242559245\, p^{95} q^{102}$$
$$+ 18307835771251\, p^{110} q^{100} + 246211\, q^{104} p^{18} + 1924361605377\, p^{85} q^{124} + 1833876275141\, p^{84} q^{124} + 2009291724229\, p^{86} q^{124}$$
$$+ 817475272651\, p^{76} q^{125} + 25326494112087\, p^{109} q^{89} + 17459248705688\, p^{108} q^{76} + 18669914290639\, p^{108} q^{77}$$
$$+ 22632999840914\, p^{110} q^{91} + 20551236426286\, p^{109} q^{81} + 11553232438905\, p^{108} q^{71} + 24286347762156\, p^{109} q^{86}$$
$$+ 24747436628872\, p^{109} q^{87} + 18572643664603\, p^{109} q^{79} + 38802837606613\, p^{102} q^{99} + 2107396658733\, p^{60} q^{110}$$
$$+ 2086848047316\, p^{59} q^{109} + 6572577058744\, p^{99} q^{118} + 6924201862863\, p^{97} q^{118} + 6762579814937\, p^{98} q^{118} + 6356697348316\, p^{100} q^{118}$$
$$+ 5858707627697\, p^{102} q^{118} + 6117732985606\, p^{101} q^{118} + 5582814365505\, p^{103} q^{118} + 4993667701587\, p^{105} q^{118}$$
$$+ 5293353285461\, p^{104} q^{118} + 4284274447225\, p^{105} q^{119} + 42405017773569\, p^{102} q^{97} + 742765559469\, p^{100} q^{129} + 599868186095\, p^{95} q^{130}$$
$$+ 203536325966\, p^{127} q^{122} + 98180865651\, p^{115} q^{134} + 89765555384\, p^{116} q^{134} + 73804331566\, p^{118} q^{134} + 59325070092\, p^{120} q^{134}$$
$$+ 66359800164\, p^{119} q^{134} + 81621633409\, p^{117} q^{134} + 35088072397726\, p^{104} q^{98} + 167492565\, q^{151} p^{97} + 186958281\, q^{151} p^{99}$$
$$+ 228968104\, q^{151} p^{105} + 38963833616289\, p^{95} q^{104} + 33552655866685\, p^{99} q^{104} + 35088072397726\, p^{98} q^{104} + 28474799547162\, p^{102} q^{104}$$
$$+ 24887784510913\, p^{104} q^{104} + 21443970346626\, p^{105} q^{105} + 31925839315871\, p^{100} q^{104} + 26688953760963\, p^{103} q^{104}$$
$$+ 37810870657491\, p^{96} q^{104} + 65\, q^{138} p^{29} + 520641300591\, p^{127} q^{114} + 340999956045\, p^{127} q^{118} + 834468018491\, p^{127} q^{108}$$
$$+ 728228321386\, p^{127} q^{110} + 327610457131\, p^{132} q^{103} + 313227492929\, p^{131} q^{84} + 41660899028696\, p^{100} q^{100} + 39957256156520\, p^{104} q^{94}$$
$$+ 6872431321\, p^{109} q^{37} + 2019801406\, p^{107} q^{33} + 112912898625\, q^{126} p^{63} + 94572422762\, q^{126} p^{62} + 13677911765\, q^{126} p^{53}$$
$$+ 41409525746597\, p^{101} q^{99} + 1986994426910\, p^{114} q^{64} + 503314467848\, p^{113} q^{55} + 6995181121479\, p^{116} q^{80} + 9588439514944\, p^{116} q^{88}$$
$$+ 6483333992714\, p^{117} q^{103} + 8533473186909\, p^{117} q^{92} + 614580724905\, p^{113} q^{56} + 42186758122480\, p^{103} q^{95}$$
$$+ 38963833616289\, p^{104} q^{95} + 294676\, q^{112} p^{21} + 117549826403\, q^{132} p^{76} + 43307565059168\, p^{94} q^{103} + 57515\, q^{98} p^{15} + 169\, q^{92} p^{10}$$
$$+ 478455\, q^{105} p^{19} + 36175318476261\, p^{103} q^{99} + 34372642869624\, p^{87} q^{106} + 23513280273\, p^{91} q^{140} + 30226787962889\, p^{101} q^{104}$$

$$+ 36513415904006\, p^{97} q^{104} + 39957256156520\, p^{94} q^{104} + 40777957059414\, p^{93} q^{104} + 138079690\, p^{93} q^{23} + 2425907\, p^{86} q^{16}$$
$$+ 19857424551563\, p^{110} q^{98} + 1227243243628\, p^{105} q^{53} + 237390890\, p^{103} q^{27} + 19863561254327\, p^{108} q^{78} + 985019061693\, p^{105} q^{127}$$
$$+ 770697035481\, p^{97} q^{129} + 26891541512060\, p^{95} q^{108} + 27459169508576\, p^{94} q^{108} + 31345592068736\, p^{64} q^{83} + 342712317389\, p^{93} q^{132}$$
$$+ 348771481729\, p^{94} q^{132} + 781561387801\, p^{109} q^{127} + 828179734042\, p^{104} q^{128} + 758452490499\, p^{112} q^{126} + 936770683672\, p^{106} q^{127}$$
$$+ 632368874767\, p^{114} q^{126} + 694425524326\, p^{113} q^{126} + 294735593583\, p^{124} q^{123} + 243905945\, p^{100} q^{26} + 11138329153047\, p^{115} q^{96}$$
$$+ 9201425\, p^{153} q^{138} + 29311488136\, p^{107} q^{40} + 20884685005\, p^{107} q^{39} + 4566513866\, p^{105} q^{34} + 9997202955776\, p^{74} q^{111}$$
$$+ 18908953192408\, p^{82} q^{110} + 401661962\, q^{150} p^{107} + 540883718985\, q^{119} p^{62} + 456778489938\, q^{119} p^{61} + 21011037589\, q^{133} p^{66}$$
$$+ 24872337661\, q^{133} p^{67} + 124156413\, q^{125} p^{38} + 8788572\, q^{124} p^{32} + 15437446\, q^{124} p^{33} + 6181436699\, p^{144} q^{99} + 90479\, q^{115} p^{21}$$
$$+ 64768249934804\, p^{73} q^{81} + 3560181122863\, p^{93} q^{52} + 2288429722154\, p^{114} q^{65} + 4405756266946\, p^{115} q^{72} + 2190475366904\, q^{105} p^{56}$$
$$+ 84956389229126\, p^{88} q^{92} + 1194564\, p^{159} q^{117} + 1962330\, p^{158} q^{107} + 707665\, p^{157} q^{89} + 20206\, p^{161} q^{150} + q^{124} p^{18} + 47\, q^{127} p^{21}$$
$$+ 6\, q^{125} p^{19} + 71799586106083\, p^{75} q^{81} + 3836306593\, q^{108} p^{35} + 1815\, p^{165} q^{147} + 57563164938959\, p^{71} q^{82} + 226723741456\, p^{133} q^{106}$$
$$+ 2082300784193\, p^{92} q^{49} + 21116941414\, p^{126} q^{135} + 11009012033\, p^{130} q^{135} + 13089832887\, p^{129} q^{135} + 6269316719\, p^{133} q^{135}$$
$$+ 4144306930\, p^{135} q^{135} + 2680948706\, p^{136} q^{136} + 9193033573\, p^{131} q^{135} + 5117758710\, p^{134} q^{135} + 18126104438\, p^{127} q^{135}$$
$$+ 7620438574\, p^{132} q^{135} + 15455920077\, p^{128} q^{135} + 24442091831\, p^{125} q^{135} + 28111598860\, p^{124} q^{135} + 4742485776\, p^{144} q^{92}$$
$$+ 183691094\, p^{147} q^{134} + 318947\, p^{127} q^{29} + 7665\, p^{161} q^{91} + 10667\, p^{163} q^{110} + 27333750549\, p^{87} q^{139} + 25514896714\, p^{86} q^{139}$$
$$+ 129\, p^{90} q^{163} + 1798175\, p^{129} q^{158} + 15\, p^{163} q^{85} + 22\, p^{168} q^{136} + 85\, p^{167} q^{128} + 46\, p^{168} q^{146} + 14\, p^{166} q^{108} + p^{159} q^{63}$$
$$+ 1582683567\, p^{143} q^{76} + 2693240359\, p^{146} q^{107} + 4204908862\, p^{145} q^{102} + 49509\, q^{139} p^{37} + 41970163409\, p^{99} q^{139} + 4475800616\, p^{85} q^{143}$$
$$+ 58610650721\, p^{98} q^{138} + 665765007\, p^{148} q^{92} + 40035978\, p^{151} q^{134} + 285745054\, p^{150} q^{119} + 615949641\, p^{149} q^{101} + 632542411\, p^{149} q^{102}$$
$$+ 50850745655\, p^{113} q^{137} + 37876602054\, p^{113} q^{138} + 42038783707\, p^{101} q^{139} + 58950434949\, p^{99} q^{138} + 21882834596\, p^{84} q^{139}$$
$$+ 168\, p^{158} q^{166} + 86\, p^{157} q^{167} + 271\, p^{159} q^{165} + 34\, p^{156} q^{168} + 19869907089\, p^{88} q^{140} + 23692052093\, p^{85} q^{139} + 59000231715\, p^{100} q^{138}$$
$$+ 95288\, q^{139} p^{38} + 19423\, p^{163} q^{116} + 10385\, p^{164} q^{133} + 800\, p^{144} q^{166} + 186\, p^{163} q^{91} + 31632011767502\, p^{90} q^{107} + 1460848837\, p^{146} q^{120}$$
$$+ 904032605\, p^{146} q^{125} + 71476847\, p^{135} q^{47} + 79\, p^{154} q^{53} + 218\, p^{155} q^{57} + 11211560\, p^{115} q^{156} + 321660\, p^{160} q^{108} + 63378\, p^{153} q^{63}$$
$$+ 8245\, p^{149} q^{49} + 1003\, p^{144} q^{38} + 35\, p^{129} q^{22} + 141712\, p^{161} q^{135} + 39339\, p^{162} q^{141} + 437846\, p^{160} q^{113} + 346304\, p^{160} q^{109}$$
$$+ 513659\, p^{160} q^{118} + 60\, q^{156} p^{58} + 1632\, q^{157} p^{67} + 2519\, q^{157} p^{68} + 1775\, q^{158} p^{71} + 65362972\, p^{153} q^{103} + 680567\, p^{156} q^{145}$$

$$+ 554332\, p^{156} q^{146} + 2245198\, p^{156} q^{138} + 213556\, p^{136} q^{36} + 8600180\, p^{147} q^{62} + 2580550\, p^{156} q^{137} + 786387\, p^{140} q^{43} + 2645\, p^{165} q^{142}$$
$$+ 8904\, p^{164} q^{124} + 23810542\, p^{126} q^{154} + 12761223\, p^{127} q^{155} + 4\, p^{110} q^{13} + 29265\, p^{161} q^{148} + 24451\, p^{161} q^{149} + 789\, p^{139} q^{32}$$
$$+ 35907865\, p^{154} q^{119} + 62634311\, p^{153} q^{102} + 59697611\, p^{153} q^{101} + 60289107\, p^{152} q^{92} + 6350679\, p^{155} q^{134} + 14746198\, p^{155} q^{125}$$
$$+ 11069645\, p^{112} q^{156} + 19641531\, p^{149} q^{71} + 15844056\, p^{148} q^{67} + 34433809\, p^{154} q^{120} + 7\, p^{81} q^{7} + 31979\, p^{131} q^{29} + 70048753\, p^{153} q^{105}$$
$$+ 6440231\, p^{147} q^{61} + 2379420\, p^{143} q^{50} + 997937\, p^{156} q^{143} + 1057116\, p^{141} q^{45} + 3789469\, p^{144} q^{53} + 7563198\, p^{145} q^{57} + 35373\, p^{142} q^{162}$$
$$+ 846342\, p^{142} q^{46} + 67845626\, p^{153} q^{104} + 2609408\, p^{144} q^{52} + 87580847444132\, p^{86} q^{91} + 18508336\, p^{146} q^{146} + 13930688\, p^{147} q^{146}$$
$$+ 24649182\, p^{141} q^{149} + 19860172\, p^{142} q^{149} + 13930688\, p^{146} q^{147} + 18194514\, p^{145} q^{147} + 30056922\, p^{143} q^{147} + 23506437\, p^{144} q^{147}$$
$$+ 31570240\, p^{144} q^{146} + 4372681\, p^{152} q^{144} + 18194514\, p^{147} q^{145} + 9813450\, p^{149} q^{145} + 13450812\, p^{148} q^{145} + 10\, q^{137} p^{27} + 5153\, q^{146} p^{43}$$
$$+ 9983\, q^{146} p^{44} + 18495\, q^{146} p^{45} + 12267\, q^{147} p^{46} + 905181\, p^{159} q^{109} + 1205209\, p^{159} q^{118} + 54\, p^{167} q^{125} + 174\, p^{107} q^{165} + 3007\, p^{112} q^{164}$$
$$+ 208417\, p^{127} q^{161} + 129350\, p^{152} q^{156} + 8935204253\, p^{83} q^{141} + 71996327\, q^{152} p^{94} + 63335\, p^{103} q^{161} + 29372348\, p^{154} q^{123}$$
$$+ 871203584\, p^{79} q^{145} + 47488\, p^{145} q^{161} + 33574814188\, p^{118} q^{137} + 20724513728\, p^{120} q^{138} + 29372348\, p^{123} q^{154} + 15714108\, p^{124} q^{155}$$
$$+ 29167236794\, p^{98} q^{140} + 28710527379\, p^{97} q^{140} + 30394566445\, p^{119} q^{137} + 22966673491\, p^{119} q^{138} + 37501612663\, p^{107} q^{139}$$
$$+ 53445323201\, p^{106} q^{138} + 8718432990\, p^{130} q^{136} + 5745192842\, p^{131} q^{137} + 12310449618\, p^{82} q^{140} + 12\, p^{162} q^{79} + 35\, p^{168} q^{140} + 2\, p^{159} q^{64}$$
$$+ 3\, p^{162} q^{77} + 334458028\, p^{147} q^{80} + 1602821335\, p^{70} q^{141} + 4821130817\, p^{132} q^{57} + 35183474\, p^{111} q^{27} + 12465751\, p^{141} q^{51}$$
$$+ 99413148368\, p^{123} q^{58} + 541703241742\, p^{129} q^{108} + 475946051084\, p^{129} q^{110} + 59934769062\, p^{131} q^{125} + 1544751226\, p^{147} q^{112}$$
$$+ 298942111\, p^{148} q^{128} + 33594382374\, q^{119} p^{49} + 5927\, p^{162} q^{97} + 86507181\, q^{151} p^{89} + 95849787\, q^{151} p^{90} + 105582672\, q^{151} p^{91}$$
$$+ 115634061\, q^{151} p^{92} + 12739359\, q^{151} p^{76} + 117191804\, q^{152} p^{102} + 121562819\, q^{152} p^{103} + 10111\, q^{144} p^{41} + 4556238\, q^{149} p^{65}$$
$$+ 542387703775\, p^{122} q^{121} + 155814\, q^{122} p^{25} + 2921509791\, p^{77} q^{142} + 3787508\, q^{139} p^{45} + 3592433932\, q^{134} p^{59} + 4495789965\, q^{134} p^{60}$$
$$+ 66426\, q^{120} p^{23} + 26576272800\, p^{94} q^{140} + 37079825742\, p^{93} q^{139} + 401661962\, p^{150} q^{107} + 183680901\, p^{147} q^{76} + 55012922841\, p^{105} q^{138}$$
$$+ 81691006\, q^{140} p^{55} + 27355305\, q^{139} p^{50} + 38767336\, q^{139} p^{51} + 19028602\, q^{139} p^{49} + 16596315\, p^{137} q^{152} + 343803226390\, p^{132} q^{101}$$
$$+ 84495617079\, p^{133} q^{119} + 59325070092\, p^{134} q^{120} + 320624210\, q^{140} p^{60} + 248862894\, q^{140} p^{59} + 191310932\, q^{140} p^{58} + 795\, p^{83} q^{161}$$
$$+ 7055281435407\, p^{118} q^{96} + 503168\, p^{141} q^{158} + 687097\, p^{133} q^{159} + 743994\, p^{132} q^{159} + 58889475500\, q^{110} p^{44} + 78659994678\, q^{110} p^{45}$$
$$+ 15757079\, q^{101} p^{22} + 91428350\, q^{102} p^{25} + 19790765\, p^{144} q^{58} + 837453153\, p^{148} q^{116} + 19028602\, p^{139} q^{49} + 2245110\, p^{134} q^{38}$$
$$+ 103336211\, p^{149} q^{133} + 1478047838\, p^{147} q^{97} + 10740146110241\, p^{82} q^{114} + 14398222169018\, p^{86} q^{113} + 14739588821877\, p^{87} q^{113}$$

$$+ 6573472244\, q^{111} p^{38} + 180046414278\, q^{134} p^{105} + 85891\, q^{104} p^{17} + 38145\, q^{103} p^{16} + 2356256444994\, q^{116} p^{68}$$
$$+ 2658542223391\, q^{116} p^{69} + 63353747\, q^{136} p^{48} + 2363046584\, p^{146} q^{112} + 437882934\, p^{147} q^{128} + 1248585653\, q^{136} p^{58}$$
$$+ 53695848\, p^{149} q^{137} + 104117\, q^{147} p^{50} + 109994547440\, p^{136} q^{96} + 2559423859\, p^{138} q^{134} + 1033208711\, p^{140} q^{136} + 122\, q^{156} p^{59}$$
$$+ 423\, q^{156} p^{61} + 113\, p^{167} q^{155} + 3\, p^{67} q^{5} + 6\, p^{167} q^{116} + 14\, p^{168} q^{133} + 11023451082\, p^{117} q^{141} + 167492565\, p^{151} q^{97} + 121377597\, p^{152} q^{116}$$
$$+ 19059694\, p^{153} q^{133} + 24310978\, p^{153} q^{131} + 280\, p^{166} q^{155} + 1985\, p^{146} q^{165} + 512\, p^{135} q^{28} + 819457\, p^{154} q^{75} + 12\, p^{120} q^{17} + 1825\, p^{141} q^{35}$$
$$+ 16535\, p^{161} q^{151} + 112884\, p^{151} q^{59} + 2109\, p^{139} q^{33} + 6395\, p^{79} q^{159} + 8657\, p^{80} q^{159} + 134821\, p^{92} q^{159} + 113059\, p^{91} q^{159}$$
$$+ 159533\, p^{93} q^{159} + 4525\, p^{83} q^{160} + 4645\, p^{78} q^{159} + 1025\, p^{157} q^{66} + 2162\, p^{165} q^{145} + 3116\, p^{165} q^{138} + 415001382\, p^{141} q^{139}$$
$$+ 668858274\, p^{107} q^{149} + 666043414\, p^{108} q^{149} + 13337\, p^{163} q^{144} + 38145\, p^{155} q^{68} + 1057719\, p^{145} q^{155} + 3901144\, p^{127} q^{157} + 13\, q^{138} p^{28}$$
$$+ 1707743829\, p^{108} q^{147} + 2266790449\, p^{113} q^{146} + 525628\, p^{160} q^{120} + 1865\, p^{165} q^{122} + 893\, p^{166} q^{136} + 2812\, p^{165} q^{128}$$
$$+ 2266698709\, p^{126} q^{143} + 2565799347\, p^{125} q^{143} + 3936928\, p^{141} q^{48} + 1689120909\, p^{132} q^{141} + 401770767\, p^{108} q^{150}$$
$$+ 1068516040\, p^{103} q^{148} + 2504417695\, p^{118} q^{145} + 575057722\, p^{99} q^{149} + 2297299871\, p^{123} q^{144} + 615949641\, p^{101} q^{149}$$
$$+ 2617463779\, p^{73} q^{141} + 10660323601\, p^{85} q^{141} + 3041735196\, p^{74} q^{141} + 3512242403\, p^{75} q^{141} + 9786417318\, p^{84} q^{141}$$
$$+ 11549697450\, p^{86} q^{141} + 2551835701\, p^{76} q^{142} + 1900322658\, p^{71} q^{141} + 2237707080\, p^{72} q^{141} + 13901\, p^{119} q^{21}$$
$$+ 19815911914915\, p^{111} q^{93} + 2802125004799\, p^{107} q^{59} + 247700\, p^{82} q^{13} + 5385537254203\, p^{112} q^{113} + 46\, p^{151} q^{168} + 42\, p^{143} q^{168}$$
$$+ 32760606733\, p^{115} q^{138} + 5311848088272\, p^{111} q^{114} + 9708694\, q^{142} p^{52} + 19263966\, q^{142} p^{54} + 4077810654048\, p^{117} q^{75}$$
$$+ 6299029825747\, p^{118} q^{85} + 24649182\, p^{149} q^{141} + 2367552177705\, p^{107} q^{58} + 22618598097778\, p^{110} q^{90} + 13201497140628\, p^{109} q^{74}$$
$$+ 12140926504640\, p^{109} q^{73} + 7962650\, p^{89} q^{18} + 19225860627203\, p^{111} q^{95} + 19565904222095\, p^{111} q^{94} + 11017115948143\, p^{112} q^{105}$$
$$+ 13170643644700\, p^{111} q^{104} + 863671768998\, p^{106} q^{52} + 2528489926\, p^{110} q^{146} + 150234754\, p^{146} q^{137} + 1153917196\, p^{146} q^{86}$$
$$+ 1739945822\, p^{147} q^{104} + 43781059\, p^{140} q^{53} + 11876399\, p^{137} q^{45} + 1266759336\, p^{146} q^{87} + 156905685\, p^{149} q^{130} + 4136812\, p^{88} q^{17}$$
$$+ 284403538\, p^{150} q^{96} + 2225186412\, p^{132} q^{140} + 1472555\, p^{101} q^{19} + 375873261323\, p^{122} q^{64} + 1438199149093\, p^{124} q^{80}$$
$$+ 1459855314511\, p^{126} q^{100} + 4030172615\, p^{76} q^{141} + 149966330522\, p^{135} q^{96} + 15479\, p^{156} q^{69} + 30256\, p^{163} q^{131}$$
$$+ 122530769564\, p^{104} q^{43} + 1637174141\, p^{98} q^{29} + 4\, q^{121} p^{17} + 5311848088272\, p^{114} q^{111} + 319744059523\, p^{122} q^{63}$$
$$+ 59934769062\, p^{125} q^{131} + 46587907012\, p^{122} q^{134} + 90756609\, q^{127} p^{39} + 1070562179\, q^{131} p^{50} + 492592357719\, p^{112} q^{54}$$
$$+ 3253209298\, p^{137} q^{134} + 11459377990809\, p^{106} q^{111} + 247\, q^{138} p^{30} + 467222744152\, q^{98} p^{45} + 16552467948\, p^{126} q^{136}$$

$$+ 11090297404\, p^{127} q^{137} + 921548445\, p^{141} q^{67} + 19778929868\, p^{97} q^{141} + 7909947152\, p^{117} q^{142} + 8324401719\, p^{110} q^{143}$$
$$+ 31144464\, p^{122} q^{154} + 16650418\, p^{123} q^{155} + 1621156153\, p^{90} q^{146} + 19319474958\, p^{96} q^{141} + 434247522\, p^{82} q^{147}$$
$$+ 25986029963\, p^{108} q^{140} + 30\, p^{135} q^{26} + 33108\, p^{158} q^{154} + p^{162} q^{76} + 2\, p^{163} q^{82} + 8192895714\, p^{87} q^{142} + 21979612\, p^{148} q^{143}$$
$$+ 169\, p^{161} q^{79} + 218\, p^{167} q^{140} + 46\, p^{158} q^{64} + 66\, p^{161} q^{77} + 5919\, p^{157} q^{160} + 3906090514\, p^{145} q^{98} + 18157223788\, p^{94} q^{141}$$
$$+ 6378748920\, p^{84} q^{142} + 4805\, p^{164} q^{146} + 30163\, p^{163} q^{125} + 8155\, p^{157} q^{71} + 3455\, p^{155} q^{62} + 63335\, p^{161} q^{103} + 39153\, p^{160} q^{92}$$
$$+ 27767\, p^{163} q^{134} + 589577\, p^{119} q^{25} + 62934077\, p^{129} q^{40} + 3778839528\, p^{137} q^{65} + 25002982826\, p^{123} q^{136} + 16943269470\, p^{124} q^{137}$$
$$+ 63954318\, q^{141} p^{56} + 369477435\, q^{142} p^{65} + 1235030886418\, p^{94} q^{127} + 852638607121\, p^{88} q^{128} + 1506236883143\, p^{108} q^{124}$$
$$+ 5252034014\, p^{142} q^{82} + 75583443\, p^{149} q^{135} + 957307707\, p^{148} q^{113} + 1078231273\, p^{148} q^{108} + 38767336\, p^{139} q^{51}$$
$$+ 1239814384123\, p^{95} q^{127} + 47715694\, p^{148} q^{72} + 15608808377\, q^{136} p^{71} + 20742545994\, q^{136} p^{73} + 26898813746\, q^{136} p^{75}$$
$$+ 23691986910\, q^{136} p^{74} + 30359945178\, q^{136} p^{76} + 38010674193\, q^{136} p^{78} + 34067925267\, q^{136} p^{77} + 202469253\, q^{131} p^{45}$$
$$+ 96291376\, q^{130} p^{42} + 139328878\, q^{131} p^{44} + 63576950\, q^{130} p^{41} + 379186\, p^{152} q^{153} + 198732\, p^{153} q^{154} + 4837\, p^{156} q^{66} + 5333\, p^{164} q^{145}$$
$$+ 8937\, p^{164} q^{138} + 18308581\, p^{154} q^{129} + 153894529915\, p^{73} q^{130} + 215278345293\, p^{76} q^{130} + 20159364\, q^{136} p^{45} + 43928478\, q^{136} p^{47}$$
$$+ 30000232\, q^{136} p^{46} + 1627783734482\, p^{103} q^{125} + 28111598860\, p^{135} q^{124} + 13781569853\, p^{130} q^{134} + 19446881976\, p^{128} q^{134}$$
$$+ 16428456856\, p^{129} q^{134} + 882887627672\, p^{89} q^{128} + 745430392432\, p^{85} q^{128} + 1207762853076\, p^{92} q^{127} + 978254603350\, p^{115} q^{123}$$
$$+ 137791720976\, p^{135} q^{92} + 193581064057\, p^{75} q^{130} + 173094172672\, p^{74} q^{130} + 542387703775\, p^{121} q^{122} + 819361796848\, p^{87} q^{128}$$
$$+ 24847317\, p^{145} q^{61} + 4738729207\, p^{144} q^{114} + 623720929\, p^{137} q^{57} + 462\, q^{158} p^{68} + 136033793724\, p^{72} q^{130} + 379146615238\, p^{79} q^{129}$$
$$+ 511020212351\, p^{83} q^{129} + 444786782231\, p^{81} q^{129} + 477987774702\, p^{82} q^{129} + 337391762736\, p^{81} q^{130} + 543543758854\, p^{84} q^{129}$$
$$+ 575205869372\, p^{85} q^{129} + 605647597148\, p^{86} q^{129} + 15855032\, p^{143} q^{149} + 7378\, p^{118} q^{20} + 135562562\, p^{151} q^{123}$$
$$+ 238082899273\, p^{77} q^{130} + 624337479967\, p^{120} q^{122} + 22628174\, p^{152} q^{135} + 236151652\, p^{151} q^{108} + 224101474\, p^{151} q^{113}$$
$$+ 683112\, p^{155} q^{147} + 35\, p^{140} q^{168} + 8430\, p^{154} q^{161} + 1085438438424\, p^{114} q^{123} + 3122937\, q^{137} p^{42} + 8788572\, q^{139} p^{47}$$
$$+ 16596315\, p^{152} q^{137} + 25719454\, p^{150} q^{139} + 806981797\, p^{146} q^{126} + 52429\, p^{156} q^{155} + 29443238033\, q^{138} p^{83} + 39589342357\, q^{138} p^{87}$$
$$+ 18495\, p^{126} q^{25} + 60289107\, q^{152} p^{92} + 44215845\, q^{152} p^{89} + 39396945\, q^{152} p^{88} + 424\, p^{152} q^{166} + 474\, p^{151} q^{166} + 418\, p^{157} q^{165}$$
$$+ 373\, p^{153} q^{166} + 239\, p^{156} q^{166} + 201\, p^{157} q^{166} + 280\, p^{155} q^{166} + 326\, p^{154} q^{166} + 168\, p^{151} q^{167} + 208\, p^{147} q^{167} + 190\, p^{149} q^{167} + 98\, p^{156} q^{167}$$
$$+ 113\, p^{155} q^{167} + 154\, p^{152} q^{167} + 126\, p^{154} q^{167} + 141\, p^{153} q^{167} + 40\, p^{142} q^{168} + 337\, p^{158} q^{165} + 37\, p^{155} q^{168} + 40\, p^{154} q^{168} + 47\, p^{150} q^{168}$$

$$+ 231482050517\, q^{97} p^{42} + 467\, q^{118} p^{18} + 1257\, q^{121} p^{20} + 4589\, q^{121} p^{21} + 14430\, q^{121} p^{22} + 2245110\, q^{134} p^{38} + 13770086\, p^{118} q^{29}$$
$$+ 3974597981330\, p^{117} q^{110} + 4329361838426\, p^{117} q^{109} + 202407\, q^{150} p^{58} + 3391317744041\, p^{116} q^{113} + 2469174602\, q^{138} p^{65}$$
$$+ 2394\, q^{124} p^{22} + 1639426536\, q^{138} p^{63} + 1320079878\, q^{138} p^{62} + 2019801406\, q^{138} p^{64} + 2488563327806\, p^{119} q^{112} + 2820653402\, p^{145} q^{91}$$
$$+ 81838072374\, p^{136} q^{110} + 3757718761574\, p^{109} q^{118} + 247\, q^{141} p^{33} + 162898391788\, q^{124} p^{62} + 6332162801\, q^{122} p^{46}$$
$$+ 977817379\, q^{132} p^{51} + 722998191\, q^{121} p^{39} + 1899102\, p^{155} q^{142} + 990532117\, p^{148} q^{112} + 854604815766\, q^{124} p^{74} + 27545120\, p^{154} q^{124}$$
$$+ 478455\, q^{152} p^{66} + 644863\, q^{152} p^{67} + 3476826\, q^{154} p^{82} + 10741083\, p^{122} q^{31} + 214085836\, p^{128} q^{42} + 316386575484\, p^{77} q^{129}$$
$$+ 852638607121\, p^{128} q^{88} + 684942818753\, p^{129} q^{103} + 3341386014\, q^{139} p^{69} + 834716480\, q^{138} p^{60} + 10413347\, p^{132} q^{39}$$
$$+ 705671075356\, p^{128} q^{84} + 193590790656\, q^{124} p^{63} + 407678381\, p^{143} q^{68} + 148163478\, p^{141} q^{59} + 157254198\, p^{151} q^{96} + 219\, p^{142} q^{34}$$
$$+ 503\, p^{146} q^{40} + 42804\, p^{154} q^{65} + 756\, p^{147} q^{42} + 733\, p^{145} q^{39} + 73\, p^{139} q^{30} + 228530277418\, q^{124} p^{64} + 36399\, p^{157} q^{155} + 1577\, p^{142} q^{36}$$
$$+ 55967\, p^{162} q^{137} + 5153\, p^{146} q^{43} + 521103\, p^{160} q^{119} + 520594\, p^{159} q^{102} + 469197\, p^{159} q^{101} + 25560604576\, q^{123} p^{52}$$
$$+ 11504987774\, q^{123} p^{49} + 8643403639\, q^{123} p^{48} + 30322782\, p^{149} q^{140} + 65311239234\, q^{123} p^{56} + 80890547585\, q^{123} p^{57}$$
$$+ 1561061389\, q^{121} p^{41} + 1070562179\, q^{121} p^{40} + 6850160317\, p^{143} q^{114} + 971892763\, p^{136} q^{57} + 7601374\, p^{146} q^{149} + 2754492\, p^{152} q^{146}$$
$$+ 3487886\, p^{152} q^{145} + 5502078\, p^{150} q^{146} + 7886406\, p^{148} q^{147} + 5823298\, p^{149} q^{147} + 4241748\, p^{150} q^{147} + 3923958\, p^{151} q^{146}$$
$$+ 10357633\, p^{146} q^{148} + 7886406\, p^{147} q^{148} + 12536353\, p^{144} q^{149} + 5934150\, p^{148} q^{148} + 9813450\, p^{145} q^{149} + 8964534\, p^{144} q^{150}$$
$$+ 5502078\, p^{146} q^{150} + 958849\, p^{152} q^{150} + 30978647060\, p^{125} q^{134} + 26700263787\, p^{126} q^{134} + 66426\, q^{148} p^{51} + 3324296477\, p^{78} q^{142}$$
$$+ 7984\, p^{164} q^{122} + 3230\, p^{165} q^{136} + 10200\, p^{164} q^{128} + 78986200\, p^{134} q^{46} + 722998191\, q^{132} p^{50} + 381629142\, q^{132} p^{48}$$
$$+ 528460521\, q^{132} p^{49} + 16235435413\, q^{137} p^{74} + 26351611372\, q^{137} p^{78} + 23551794592\, q^{137} p^{77} + 20928233476\, q^{137} p^{76}$$
$$+ 73492736\, q^{153} p^{107} + 29758196\, q^{149} p^{73} + 369110505620\, p^{126} q^{71} + 774917691\, p^{118} q^{37} + 932770718532\, p^{128} q^{91}$$
$$+ 289974450\, p^{131} q^{46} + 9590174538\, p^{133} q^{133} + 7785671836\, p^{134} q^{133} + 3296410015747\, p^{117} q^{112} + 3454479951966\, p^{110} q^{118}$$
$$+ 3296410015747\, p^{112} q^{117} + 548770194046\, p^{128} q^{111} + 602063255678\, p^{125} q^{73} + 2674672389200\, p^{114} q^{117} + 1873561621100\, p^{117} q^{117}$$
$$+ 1644589362633\, p^{118} q^{117} + 8665352\, p^{124} q^{156} + 3042098990988\, p^{116} q^{114} + 2598676682348\, p^{118} q^{113} + 3439752304130\, p^{114} q^{115}$$
$$+ 2713467203679\, p^{115} q^{116} + 112884\, q^{112} p^{20} + 2983949897996\, p^{110} q^{119} + 2030660044692\, p^{114} q^{119} + 2254197597685\, p^{113} q^{119}$$
$$+ 1434944634923\, p^{117} q^{119} + 1105666082020\, p^{119} q^{119} + 837964567969\, p^{120} q^{120} + 1819075449382\, p^{115} q^{119}$$
$$+ 1263356291065\, p^{118} q^{119} + 2732365585337\, p^{111} q^{119} + 1620303095129\, p^{116} q^{119} + 2488563327806\, p^{112} q^{119}$$

$$+ 3241410451328\, p^{109}\, q^{119} + 3502607443076\, p^{108}\, q^{119} + 63665528\, p^{148}\, q^{138} + 77102\, p^{97}\, q^{15} + 4066080524616\, p^{108}\, q^{118}$$
$$+ 2030660044692\, p^{119}\, q^{114} + 1819075449382\, p^{119}\, q^{115} + 188\, q^{129}\, p^{23} + 4\, q^{129}\, p^{21} + 35\, q^{129}\, p^{22} + 4329361838426\, p^{109}\, q^{117}$$
$$+ 1821269239\, p^{146}\, q^{117} + 649373163\, p^{140}\, q^{63} + 3636579\, p^{131}\, q^{36} + 7356532106\, p^{124}\, q^{140} + 4706053952337\, p^{115}\, q^{111}$$
$$+ 2983949897996\, p^{119}\, q^{110} + 3222923214103\, p^{122}\, q^{100} + 3002811530414\, p^{122}\, q^{102} + 3241410451328\, p^{119}\, q^{109}$$
$$+ 2389094002859\, p^{115}\, q^{117} + 2121838508321\, p^{116}\, q^{117} + 3765192085038\, p^{107}\, q^{119} + 2337622778153\, p^{114}\, q^{118}$$
$$+ 2872931858247\, p^{112}\, q^{118} + 2598676682348\, p^{113}\, q^{118} + 2091017174740\, p^{115}\, q^{118} + 1644589362633\, p^{117}\, q^{118}$$
$$+ 1859794949826\, p^{116}\, q^{118} + 1445748541174\, p^{118}\, q^{118} + 1263356291065\, p^{119}\, q^{118} + 3502607443076\, p^{119}\, q^{108} + 8106706761\, p^{120}\, q^{45}$$
$$+ 134607\, p^{99}\, q^{16} + 52313445887\, p^{123}\, q^{55} + 24847317\, p^{110}\, q^{26} + 432554385\, q^{117}\, p^{35} + 2406491886052\, p^{116}\, q^{116}$$
$$+ 715839976287\, p^{107}\, q^{128} + 755276933181\, p^{106}\, q^{128} + 4066080524616\, p^{118}\, q^{108} + 1111346528483\, p^{127}\, q^{102} + 715839976287\, p^{128}\, q^{107}$$
$$+ 1041278\, q^{138}\, p^{41} + 613000\, q^{138}\, p^{40} + 19842500\, p^{119}\, q^{155} + 16863702851940\, p^{106}\, q^{107} + 27151178\, p^{143}\, q^{57} + 11009012033\, p^{135}\, q^{130}$$
$$+ 79659873176\, p^{136}\, q^{87} + 92795432864\, p^{136}\, q^{90} + 7528430083\, p^{139}\, q^{126} + 14277026855\, p^{132}\, q^{62} + 103312068279\, p^{136}\, q^{93}$$
$$+ 37255909895\, p^{134}\, q^{72} + 75241201170\, p^{137}\, q^{105} + 930027147\, p^{127}\, q^{45} + 1753\, p^{91}\, q^{11} + 98776404149\, p^{130}\, q^{123}$$
$$+ 8233239880884\, p^{69}\, q^{109} + 22248898624\, q^{116}\, p^{45} + 29894531048\, q^{116}\, p^{46} + 245\, p^{96}\, q^{11} + 3730291338968\, p^{117}\, q^{74}$$
$$+ 6057670876347\, p^{119}\, q^{95} + 6104829588889\, p^{119}\, q^{94} + 3652131677483\, p^{120}\, q^{105} + 4535336859526\, p^{119}\, q^{104} + 2754492\, p^{146}\, q^{152}$$
$$+ 958849\, p^{150}\, q^{152} + 524293\, p^{152}\, q^{152} + 276729\, p^{153}\, q^{153} + 1663600\, p^{148}\, q^{152} + 713983\, p^{151}\, q^{152} + 4372681\, p^{144}\, q^{152} + 1270770\, p^{149}\, q^{152}$$
$$+ 3487886\, p^{145}\, q^{152} + 6680130\, p^{142}\, q^{152} + 8146431\, p^{141}\, q^{152} + 2316173946861\, p^{91}\, q^{124} + 705893660\, p^{97}\, q^{27} + 241232637957\, p^{105}\, q^{46}$$
$$+ 694891733559\, p^{106}\, q^{51} + 106049598955\, p^{103}\, q^{42} + 312310539081\, p^{105}\, q^{47} + 1548599829310\, p^{126}\, q^{96} + 109372191343\, p^{121}\, q^{56}$$
$$+ 344540888069\, p^{123}\, q^{65} + 463041852723\, p^{123}\, q^{67} + 382279713507\, p^{127}\, q^{117} + 687962680672\, p^{124}\, q^{72} + 44006218495\, p^{120}\, q^{51}$$
$$+ 1519728720619\, p^{126}\, q^{92} + 6026\, p^{87}\, q^{11} + 5674195698763\, p^{67}\, q^{110} + 15366777265553\, p^{76}\, q^{109} + 17073060845405\, p^{111}\, q^{99}$$
$$+ 18295175809394\, p^{111}\, q^{97} + 21517\, p^{75}\, q^{10} + 1057272794864\, p^{79}\, q^{125} + 21517\, p^{161}\, q^{96} + 373\, p^{166}\, q^{153} + 1165\, p^{158}\, q^{70} + 17904\, p^{163}\, q^{115}$$
$$+ 43324740646\, p^{126}\, q^{58} + 236421079861\, p^{132}\, q^{110} + 3431733106\, p^{123}\, q^{45} + 266168475630\, p^{132}\, q^{108} + 20972726969830\, p^{110}\, q^{85}$$
$$+ 21983387\, p^{92}\, q^{20} + 4\, q^{150}\, p^{42} + 14279929770208\, p^{109}\, q^{75} + 356958758757\, p^{132}\, q^{97} + 235881742432\, p^{133}\, q^{105} + 52713581446\, p^{128}\, q^{62}$$
$$+ 342712317389\, p^{132}\, q^{93} + 136033793724\, p^{130}\, q^{72} + 335109217509\, p^{132}\, q^{92} + 14359703792\, p^{132}\, q^{132} + 2046350827\, p^{137}\, q^{62}$$
$$+ 17470063984\, p^{141}\, q^{93} + 5434648101\, p^{139}\, q^{72} + 13846985399\, p^{142}\, q^{105} + 509528784019\, p^{105}\, q^{49} + 162994941673\, p^{104}\, q^{44}$$

$$+ 572265039\, q^{116}\, p^{35} + 359238168583\, q^{98}\, p^{44} + 602063255678\, q^{98}\, p^{46} + 768914855710\, q^{98}\, p^{47} + 973561338531\, q^{98}\, p^{48}$$
$$+ 144141\, p^{154}\, q^{154} + 32838695\, p^{121}\, q^{154} + 2006028782\, p^{136}\, q^{60} + 1505035186\, p^{143}\, q^{129} + 3228518425\, p^{143}\, q^{123} + 39481\, p^{112}\, q^{19}$$
$$+ 253145\, p^{117}\, q^{23} + 339404448\, p^{144}\, q^{136} + 335\, p^{165}\, q^{110} + 935\, p^{165}\, q^{116} + 816\, p^{166}\, q^{133} + 5005846903\, p^{133}\, q^{136} + 3253209298\, p^{134}\, q^{137}$$
$$+ 941670650\, p^{143}\, q^{132} + 16021685540\, p^{140}\, q^{85} + 1108561897\, p^{143}\, q^{131} + 847961\, p^{120}\, q^{26} + 10956739611\, p^{138}\, q^{74} + 155211\, p^{116}\, q^{22}$$
$$+ 4566513866\, p^{137}\, q^{66} + 854604815766\, q^{97}\, p^{47} + 15092790706\, p^{141}\, q^{90} + 1628807510\, p^{144}\, q^{126} + 422971676\, p^{100}\, q^{27}$$
$$+ 148565555750\, p^{108}\, q^{46} + 432754060743\, p^{109}\, q^{51} + 66038586085\, p^{106}\, q^{42} + 193590790656\, p^{108}\, q^{47} + 27950251560361\, p^{101}\, q^{105}$$
$$+ 115890995\, p^{149}\, q^{81} + 1060717472447\, p^{57}\, q^{111} + 699485469788\, p^{54}\, q^{110} + 4406644408847\, p^{65}\, q^{110} + 20682431788\, q^{115}\, p^{44}$$
$$+ 11917740285\, q^{116}\, p^{43} + 612054521984\, p^{71}\, q^{124} + 687962680672\, p^{72}\, q^{124} + 959946662\, p^{144}\, q^{76} + 1728866892\, p^{147}\, q^{107}$$
$$+ 2703554652\, p^{146}\, q^{102} + 3001329639\, p^{145}\, q^{92} + 128641967\, p^{148}\, q^{134} + 4194503134\, q^{113}\, p^{38} + 14707935576\, p^{123}\, q^{138}$$
$$+ 32538983\, q^{109}\, p^{26} + 173094172672\, q^{97}\, p^{41} + 63997974031095\, p^{91}\, q^{98} + 56397319363446\, p^{97}\, q^{97} + 58822638082723\, p^{96}\, q^{97}$$
$$+ 24305989\, p^{145}\, q^{146} + 21199416\, p^{140}\, q^{150} + 7059436\, p^{150}\, q^{145} + 24305989\, p^{146}\, q^{145} + 9305\, p^{164}\, q^{125} + 1775\, p^{158}\, q^{71} + 735\, p^{156}\, q^{62}$$
$$+ 17037\, p^{162}\, q^{103} + 9605\, p^{161}\, q^{92} + 10219\, p^{164}\, q^{134} + 430211932241\, p^{131}\, q^{91} + 160931636640\, p^{129}\, q^{71} + 57582971036006\, p^{88}\, q^{100}$$
$$+ 51997093954632\, p^{85}\, q^{101} + 57326532303964\, p^{87}\, q^{100} + 1850884158131\, p^{110}\, q^{122} + 41438405412\, p^{131}\, q^{66} + 25553\, q^{143}\, p^{41}$$
$$+ 47551\, q^{143}\, p^{42} + 18887002840\, p^{130}\, q^{60} + 2590484933085\, p^{101}\, q^{123} + 1302727981\, p^{127}\, q^{46} + 512057\, p^{151}\, q^{153} + 269852\, p^{152}\, q^{154}$$
$$+ 4985950\, p^{122}\, q^{157} + 178\, p^{167}\, q^{150} + 9094655\, p^{155}\, q^{95} + 370734\, p^{159}\, q^{139} + 26214527\, q^{132}\, p^{41} + 50850745655\, p^{137}\, q^{113}$$
$$+ 871203584\, p^{145}\, q^{79} + 112217903\, p^{142}\, q^{60} + 177996594\, p^{149}\, q^{129} + 262\, q^{139}\, p^{31} + 296301811\, p^{142}\, q^{64} + 1090897877\, p^{148}\, q^{106}$$
$$+ 599267758\, p^{144}\, q^{73} + 60164399\, p^{140}\, q^{54} + 1004023\, q^{149}\, p^{60} + 768914855710\, q^{124}\, p^{73} + 4224150346\, p^{128}\, q^{51} + 7601374\, p^{149}\, q^{146}$$
$$+ 7\, p^{169}\, q^{149} + 64855\, p^{144}\, q^{44} + 558816\, p^{148}\, q^{56} + 7\, p^{102}\, q^{11} + 41559005746\, p^{123}\, q^{54} + 48906506\, p^{114}\, q^{29} + 664657209690\, p^{128}\, q^{83}$$
$$+ 25560604576\, p^{123}\, q^{52} + 745430392432\, p^{128}\, q^{85} + 248041056679\, p^{126}\, q^{68} + 302665561091\, p^{130}\, q^{113} + 93079101603\, p^{124}\, q^{59}$$
$$+ 49755270341\, q^{124}\, p^{56} + 104117\, q^{121}\, p^{24} + 15605520\, q^{129}\, p^{37} + 3122937\, q^{129}\, p^{34} + 5487361\, q^{129}\, p^{35} + 25373569\, q^{129}\, p^{38}$$
$$+ 2409599328\, q^{135}\, p^{59} + 3027782643\, q^{135}\, p^{60} + 3910623874\, p^{117}\, q^{144} + 2738582459\, p^{105}\, q^{146} + 1342173761\, q^{134}\, p^{55}$$
$$+ 1740448590\, q^{134}\, p^{56} + 85530734\, q^{141}\, p^{57} + 47283295\, q^{141}\, p^{55} + 229616916883\, p^{130}\, q^{116} + 944623693865\, q^{124}\, p^{75}$$
$$+ 6021837450\, p^{116}\, q^{143} + 2613523596\, p^{100}\, q^{146} + 20281201764\, p^{104}\, q^{141} + 52313445887\, q^{123}\, p^{55} + 206581132279\, q^{125}\, p^{65}$$
$$+ 126067982933\, p^{133}\, q^{115} + 20044200920\, q^{122}\, p^{50} + 26070631366\, q^{122}\, p^{51} + 15262403182\, q^{122}\, p^{49} + 66038586085\, q^{129}\, p^{65}$$

$$+ 8092735669\, p^{137}\, q^{129} + 11920471177\, p^{116}\, q^{141} + 13275664336\, p^{107}\, q^{142} + 13716705276\, p^{114}\, q^{141} + 2135148\, p^{81}\, q^{15}$$
$$+ 72509323080804\, p^{81}\, q^{94} + 918313605986\, p^{122}\, q^{117} + 42860663300446\, p^{72}\, q^{95} + 70204344306944\, p^{80}\, q^{94} + 82533102689305\, p^{87}\, q^{93}$$
$$+ 23098945865051\, p^{66}\, q^{96} + 49363791512859\, p^{74}\, q^{95} + 22029770665610\, p^{94}\, q^{110} + 14235963321096\, p^{108}\, q^{107}$$
$$+ 19997986499487\, p^{90}\, q^{111} + 17865542812199\, p^{104}\, q^{108} + 74078\, p^{155}\, q^{155} + 18967208287\, q^{114}\, p^{43} + 16377546060\, q^{116}\, p^{44}$$
$$+ 135361331802\, p^{134}\, q^{85} + 5745192842\, p^{137}\, q^{131} + 7563198\, p^{114}\, q^{26} + 9685671882863\, p^{80}\, q^{114} + 6288540046996\, p^{76}\, q^{115}$$
$$+ 8561078497670\, p^{78}\, q^{114} + 9129081648815\, p^{79}\, q^{114} + 10111\, q^{130}\, p^{27} + 67641867592480\, p^{79}\, q^{94} + 25127105406724\, p^{83}\, q^{108}$$
$$+ 22248898624\, q^{126}\, p^{55} + 1803231710239\, p^{105}\, q^{124} + 377892179005\, p^{76}\, q^{128} + 30929108378700\, p^{93}\, q^{107} + 2\, p^{155}\, q^{52} + 753\, p^{164}\, q^{104}$$
$$+ 3849219028136\, p^{64}\, q^{110} + 25685639314331\, p^{67}\, q^{96} + 11522887385165\, p^{61}\, q^{97} + 5746704848437\, p^{57}\, q^{98} + 15035233457857\, p^{63}\, q^{97}$$
$$+ 9997202955776\, p^{60}\, q^{97} + 13201497140628\, p^{62}\, q^{97} + 521761159483\, p^{104}\, q^{130} + 1612001951\, p^{145}\, q^{123} + 16406\, p^{114}\, q^{19}$$
$$+ 106110\, p^{119}\, q^{23} + 181404258\, p^{146}\, q^{136} + 500429069\, p^{145}\, q^{132} + 6971550328\, p^{142}\, q^{85} + 2808562522962\, p^{53}\, q^{98}$$
$$+ 1881410734685\, p^{51}\, q^{98} + 51247\, p^{84}\, q^{12} + 2307255018493\, p^{52}\, q^{98} + 1694810810806\, p^{51}\, q^{99} + 3394173165413\, p^{54}\, q^{98}$$
$$+ 4073094859403\, p^{55}\, q^{98} + 4854335036601\, p^{56}\, q^{98} + 521206587711\, p^{97}\, q^{45} + 14834264974144\, p^{100}\, q^{65} + 10106606804442\, p^{100}\, q^{62}$$
$$+ 268014186082\, q^{106}\, p^{47} + 344540888069\, q^{106}\, p^{48} + q^{158}\, p^{60} + 7753\, p^{153}\, q^{58} + 85054\, p^{162}\, q^{126} + 107417\, p^{160}\, q^{98} + 6167\, p^{152}\, q^{55}$$
$$+ 5\, p^{127}\, q^{20} + 123648\, p^{160}\, q^{99} + 72651\, p^{158}\, q^{83} + 141315\, p^{160}\, q^{100} + 77102\, p^{156}\, q^{74} + 10596507086\, q^{137}\, p^{71} + 14170943908\, q^{137}\, p^{73}$$
$$+ 18488150399\, q^{137}\, p^{75} + 272115743\, q^{132}\, p^{47} + 132805838\, q^{132}\, p^{45} + 41223448\, q^{130}\, p^{40} + 26500613\, q^{131}\, p^{40} + 1486855057\, q^{135}\, p^{57}$$
$$+ 1901235709\, q^{135}\, p^{58} + 308178\, q^{124}\, p^{27} + 5478662779\, q^{137}\, p^{67} + 10757614065\, p^{139}\, q^{77} + 24028119\, p^{128}\, q^{37} + 9499736057\, p^{139}\, q^{76}$$
$$+ 3800\, p^{164}\, q^{148} + 3332\, p^{164}\, q^{149} + 16\, p^{142}\, q^{32} + 39419816649\, q^{139}\, p^{95} + 37\, p^{90}\, q^{9} + 97175\, p^{156}\, q^{153} + 188632\, p^{155}\, q^{152}$$
$$+ 5487361\, q^{136}\, p^{42} + 909716706708\, p^{90}\, q^{128} + 1580911207\, p^{146}\, q^{119} + 4159495179\, p^{145}\, q^{101} + 183314788\, p^{139}\, q^{56} + 22256776\, p^{135}\, q^{44}$$
$$+ 1722991\, p^{129}\, q^{33} + 175\, q^{159}\, p^{70} + 395636\, p^{136}\, q^{37} + 19886\, q^{159}\, p^{83} + 3002811530414\, p^{102}\, q^{122} + 24261356934\, p^{128}\, q^{133}$$
$$+ 17108683655\, p^{130}\, q^{133} + 21944471\, p^{154}\, q^{127} + 75934475\, p^{153}\, q^{111} + 75494658\, p^{153}\, q^{109} + 32838695\, p^{154}\, q^{121} + 65595431\, p^{153}\, q^{118}$$
$$+ 690809731\, p^{132}\, q^{144} + 1108561897\, p^{131}\, q^{143} + 38\, q^{161}\, p^{76} + 67489968350\, p^{137}\, q^{108} + 6479893149\, p^{140}\, q^{125} + 884579579\, p^{129}\, q^{47}$$
$$+ 24247546753\, p^{139}\, q^{115} + 3841917\, p^{153}\, q^{78} + 3\, p^{45}\, q^{3} + 455299486\, p^{127}\, q^{43} + 63214103192\, p^{137}\, q^{89} + 11512964736\, p^{140}\, q^{120}$$
$$+ 5531\, p^{97}\, q^{13} + 37501612663\, p^{139}\, q^{107} + 58230747086\, p^{138}\, q^{102} + 17416172058\, p^{134}\, q^{67} + 3784210768\, p^{132}\, q^{56} + 455299486\, p^{128}\, q^{44}$$
$$+ 10363857\, q^{145}\, p^{58} + 165181\, q^{111}\, p^{20} + 2246438\, q^{111}\, p^{23} + 422150\, q^{111}\, p^{21} + 1004023\, q^{111}\, p^{22} + 1083\, p^{162}\, q^{90} + 36502015512\, p^{135}\, q^{122}$$

$$+ 36491563\, q^{143}\, p^{58} + 7826510185611\, p^{113}\, q^{108} + 35051245679\, q^{104}\, p^{39} + 57037298058\, q^{103}\, p^{40} + 78217668307\, q^{103}\, p^{41}$$
$$+ 109036201\, q^{98}\, p^{24} + 249576\, q^{143}\, p^{45} + 11478226999\, p^{134}\, q^{131} + 3580371086920\, q^{120}\, p^{81} + 4368098992233\, q^{120}\, p^{85}$$
$$+ 4187391279273\, q^{120}\, p^{84} + 4814231434770\, q^{120}\, p^{88} + 5012875068590\, q^{120}\, p^{90} + 4219009386907\, q^{121}\, p^{91} + 4534190353822\, q^{120}\, p^{86}$$
$$+ 4924501965903\, q^{120}\, p^{89} + 3791182172967\, q^{120}\, p^{82} + 1689120909\, p^{141}\, q^{132} + 34503677057\, p^{138}\, q^{85} + 2001924646\, p^{141}\, q^{131}$$
$$+ 1872389\, p^{118}\, q^{26} + 23691986910\, p^{136}\, q^{74} + 344344\, p^{114}\, q^{22} + 10094459039\, p^{135}\, q^{66} + 1603115\, q^{93}\, p^{17} + 774934\, q^{92}\, p^{16}$$
$$+ 5855342\, q^{95}\, p^{19} + 7146457\, q^{94}\, p^{19} + 3139099\, q^{94}\, p^{18} + 5136096621253\, p^{120}\, q^{93} + 39741371222\, p^{105}\, q^{139} + 4175960340\, p^{106}\, q^{145}$$
$$+ 4993806229\, p^{122}\, q^{142} + 2664897185\, p^{101}\, q^{146} + 4116545922\, p^{107}\, q^{145} + 4214903998\, p^{105}\, q^{145} + 3\, p^{168}\, q^{126} + 128745322\, q^{152}\, p^{105}$$
$$+ q^{122}\, p^{17} + 381957831\, p^{112}\, q^{150} + 360988620\, p^{114}\, q^{150} + 268317435\, p^{120}\, q^{150} + 805\, p^{82}\, q^{9} + 1194564\, p^{117}\, q^{159}$$
$$+ 31925839315871\, p^{104}\, q^{100} + 40664199457664\, p^{98}\, q^{102} + 109\, p^{167}\, q^{130} + 54507458604\, p^{94}\, q^{138} + 921548445\, q^{104}\, p^{30}$$
$$+ 418124992846\, q^{115}\, p^{56} + 1871\, q^{79}\, p^{9} + 1434728282656\, p^{123}\, q^{111} + 1932001251847\, p^{123}\, q^{107} + 1147363\, q^{137}\, p^{40} + 1916483\, q^{137}\, p^{41}$$
$$+ 168748668174\, p^{128}\, q^{122} + 9824180\, p^{130}\, q^{155} + 1496103\, p^{147}\, q^{153} + 801335\, p^{148}\, q^{154} + 5555865\, p^{157}\, q^{116} + 1308208\, p^{158}\, q^{133}$$
$$+ 2377208570519\, p^{95}\, q^{124} + 1537544490668\, p^{85}\, q^{125} + 570168972\, p^{148}\, q^{90} + 260976049410\, p^{112}\, q^{131} + 281055397519\, p^{111}\, q^{131}$$
$$+ 340255483720\, p^{108}\, q^{131} + 320903039258\, p^{109}\, q^{131} + 66273373156\, p^{131}\, q^{69} + 14505165\, p^{116}\, q^{28} + 108339029\, p^{120}\, q^{34}$$
$$+ 479100152442\, p^{106}\, q^{130} + 434884254913\, p^{102}\, q^{131} + 34831\, p^{160}\, q^{150} + 2646484\, p^{158}\, q^{117} + 4501045\, p^{157}\, q^{107} + 1845115\, p^{156}\, q^{89}$$
$$+ 393430900284\, p^{105}\, q^{131} + 21788197915\, p^{137}\, q^{122} + 501228702787\, p^{105}\, q^{130} + 187238\, p^{94}\, q^{159} + 1243085\, p^{101}\, q^{158}$$
$$+ 314088367125\, p^{115}\, q^{129} + 244186851959\, p^{104}\, q^{133} + 173399121148\, p^{106}\, q^{134} + 333995298109\, p^{121}\, q^{125} + 31\, p^{165}\, q^{101} + 202\, p^{166}\, q^{119}$$
$$+ 43\, p^{165}\, q^{102} + 47294\, p^{93}\, q^{160} + 578198838838\, p^{75}\, q^{126} + 21927596077\, p^{124}\, q^{136} + 14804533568\, p^{125}\, q^{137} + 302665561091\, p^{113}\, q^{130}$$
$$+ 354198071728\, p^{111}\, q^{130} + 277550656954\, p^{114}\, q^{130} + 6\, p^{152}\, q^{46} + 34\, p^{154}\, q^{52} + 4446\, p^{163}\, q^{104} + 328288596796\, p^{112}\, q^{130}$$
$$+ 349432771859\, p^{116}\, q^{128} + 431152014883\, p^{108}\, q^{130} + 409550045945\, p^{112}\, q^{129} + 376905101351\, p^{113}\, q^{129} + 1297167\, p^{144}\, q^{155}$$
$$+ 4144981\, p^{126}\, q^{157} + 269647372666\, p^{96}\, q^{133} + 3550498413\, p^{145}\, q^{112} + 631305017\, p^{146}\, q^{128} + 19029481413\, p^{114}\, q^{140}$$
$$+ 138881135046\, p^{129}\, q^{122} + 3308297103\, p^{133}\, q^{57} + 90051600\, q^{152}\, p^{97} + 101692747\, q^{152}\, p^{99} + 39875146\, q^{153}\, p^{95} + 477592707\, p^{148}\, q^{88}$$
$$+ 461932761344\, p^{117}\, q^{126} + 314039924589\, p^{117}\, q^{128} + 349606289740\, p^{100}\, q^{132} + 270903811907\, p^{98}\, q^{133} + 336437967798\, p^{102}\, q^{132}$$
$$+ 12066\, q^{137}\, p^{33} + 1257185\, q^{147}\, p^{56} + 6243483755\, p^{76}\, q^{140} + 343803226390\, p^{101}\, q^{132} + 201052759\, p^{121}\, q^{36} + 136678275\, q^{100}\, p^{25}$$
$$+ 90304557\, q^{99}\, p^{24} + 422971676\, q^{100}\, p^{27} + 44446\, p^{133}\, q^{31} + 61348046\, p^{151}\, q^{86} + 47296984\, p^{151}\, q^{84} + 3651976043\, p^{96}\, q^{145}$$

$$+ 6434767940\, p^{103}\, q^{144} + 423091\, p^{149}\, q^{155} + 217007542\, p^{65}\, q^{143} + 1582683567\, p^{76}\, q^{143} + 21\, q^{155}\, p^{54} + 51\, q^{155}\, p^{55} + 218\, q^{155}\, p^{57}$$
$$+ 827859\, p^{144}\, q^{156} + 29\, p^{167}\, q^{122} + 19509\, p^{163}\, q^{140} + 29479\, p^{154}\, q^{64} + 54077\, p^{157}\, q^{77} + 91518\, p^{157}\, q^{79} + 480374111\, p^{133}\, q^{50}$$
$$+ 794253428\, p^{143}\, q^{133} + 19778929868\, p^{141}\, q^{97} + 349173700\, p^{133}\, q^{49} + 38703168\, p^{128}\, q^{38} + 68102774\, p^{151}\, q^{130} + 2811\, p^{115}\, q^{18}$$
$$+ 8008\, p^{164}\, q^{140} + 8364\, p^{155}\, q^{64} + 14711\, p^{158}\, q^{77} + 26286\, p^{158}\, q^{79} + 84946719322\, p^{135}\, q^{83} + 4725522797\, p^{130}\, q^{54} + 128709\, p^{106}\, q^{18}$$
$$+ 59835328990\, p^{135}\, q^{79} + 21995\, p^{101}\, q^{15} + 38145\, p^{103}\, q^{16} + 303403390\, p^{126}\, q^{41} + 20884685005\, p^{132}\, q^{64} + 53445323201\, p^{138}\, q^{106}$$
$$+ 42568575475\, p^{134}\, q^{73} + 65846023325\, p^{135}\, q^{80} + 81635455682\, p^{137}\, q^{100} + 1745648087\, p^{128}\, q^{48} + 10\, p^{64}\, q^{5} + 45269754944\, p^{138}\, q^{110}$$
$$+ 41625837198\, p^{98}\, q^{139} + 48594788770\, p^{135}\, q^{77} + 43423762248\, p^{135}\, q^{76} + 113815551\, p^{124}\, q^{37} + 7386693933485\, p^{58}\, q^{97}$$
$$+ 86053619\, p^{149}\, q^{79} + 28877797\, p^{146}\, q^{64} + 62183027\, p^{149}\, q^{77} + 64434002970\, p^{109}\, q^{137} + 8620363968096\, p^{59}\, q^{97}$$
$$+ 31245051170596\, p^{69}\, q^{96} + 28405990841717\, p^{68}\, q^{96} + 52573900488442\, p^{75}\, q^{95} + 629\, p^{157}\, q^{65} + 5\, p^{148}\, q^{39} + 4\, p^{150}\, q^{42}$$
$$+ 20657735352911\, p^{65}\, q^{96} + 46115231034311\, p^{73}\, q^{95} + 825191966172\, q^{117}\, p^{62} + 31214862\, q^{104}\, p^{24} + 276137620446\, q^{115}\, p^{54}$$
$$+ 104892610882\, p^{66}\, q^{128} + 705893660\, p^{74}\, q^{144} + 11719862067\, p^{132}\, q^{133} + 22862984944\, p^{127}\, q^{134} + 151752360758\, p^{135}\, q^{99}$$
$$+ 12730314\, q^{153}\, p^{85} + 9376720\, q^{153}\, p^{83} + 10963457\, q^{153}\, p^{84} + 14681712\, q^{153}\, p^{86} + 19145662\, q^{153}\, p^{88} + 16820528\, q^{153}\, p^{87}$$
$$+ 21653980\, q^{153}\, p^{89} + 27186371\, q^{153}\, p^{91} + 24337650\, q^{153}\, p^{90} + 289862508792\, p^{125}\, q^{122} + 21049884\, p^{151}\, q^{138} + 30322782\, p^{140}\, q^{149}$$
$$+ 25719454\, p^{139}\, q^{150} + 2728933987\, p^{103}\, q^{146} + 1346967093\, p^{95}\, q^{147} + 100196416\, q^{149}\, p^{80} + 86053619\, q^{149}\, p^{79} + 5689175957\, p^{144}\, q^{96}$$
$$+ 258461\, p^{119}\, q^{24} + 8013258023\, p^{140}\, q^{78} + 13709904685\, p^{142}\, q^{98} + 599267758\, p^{73}\, q^{144} + 3027782643\, p^{135}\, q^{60} + 2047851313\, p^{142}\, q^{129}$$
$$+ 4477717055\, p^{142}\, q^{123} + 59326\, p^{111}\, q^{19} + 379476\, p^{116}\, q^{23} + 455812304\, p^{143}\, q^{136} + 4227458859\, p^{142}\, q^{80} + 102279535\, p^{135}\, q^{48}$$
$$+ 3825139097\, p^{145}\, q^{110} + 5804232479\, p^{142}\, q^{83} + 6291025028\, p^{144}\, q^{100} + 10616679783\, p^{91}\, q^{142} + 3686120\, p^{155}\, q^{138}$$
$$+ 353767563189\, p^{132}\, q^{99} + 6332162801\, p^{125}\, q^{49} + 1819532149\, p^{143}\, q^{77} + 41083623\, q^{154}\, p^{110} + 40822875\, q^{154}\, p^{114} + 41215262\, q^{154}\, p^{113}$$
$$+ 132236435\, p^{150}\, q^{128} + 4981\, q^{131}\, p^{27} + 2475696719\, p^{146}\, q^{98} + 1553001\, p^{158}\, q^{131} + 2669141\, p^{151}\, q^{69} + 292\, p^{125}\, q^{21} + 5102973\, p^{155}\, q^{90}$$
$$+ 108\, p^{120}\, q^{18} + 4923880\, p^{156}\, q^{97} + 1205209\, p^{118}\, q^{159} + 2152176\, p^{134}\, q^{157} + 117829910581\, p^{134}\, q^{83} + 6680900704\, p^{129}\, q^{54}$$
$$+ 179250\, p^{105}\, q^{18} + 83800842048\, p^{134}\, q^{79} + 21\, q^{117}\, p^{16} + 996466648\, q^{140}\, p^{65} + 299370153\, q^{138}\, p^{56} + 10292681\, q^{131}\, p^{38}$$
$$+ 5903562\, q^{130}\, p^{36} + 16696288\, q^{131}\, p^{39} + 54692336\, q^{152}\, p^{91} + 3651\, p^{130}\, q^{26} + 1280726\, q^{127}\, p^{31} + 226647073\, q^{134}\, p^{49}$$
$$+ 1025017753\, q^{134}\, p^{54} + 774917691\, q^{134}\, p^{53} + 767\, p^{138}\, q^{31} + 1140408\, p^{156}\, q^{86} + 796601\, p^{156}\, q^{84} + 392303864\, p^{149}\, q^{121} + 30745\, p^{100}\, q^{15}$$
$$+ 463\, q^{159}\, p^{72} + 43781059\, q^{140}\, p^{53} + 60164399\, q^{140}\, p^{54} + 192083868\, q^{141}\, p^{60} + 246659414\, q^{141}\, p^{61} + 48538200685\, p^{136}\, q^{117}$$

$$+ 9765798145147\, p^{108} q^{111} + 63\, p^{167} q^{126} + 9\, p^{165} q^{98} + 1280908\, q^{135} p^{38} + 745936898\, p^{148} q^{118} + 1019607348\, p^{148} q^{111}$$
$$+ 351533161\, p^{144} q^{70} + 1275814771\, p^{147} q^{94} + 1063767720\, p^{148} q^{109} + 224784665\, p^{149} q^{127} + 560644812\, p^{142} q^{67} + 234948630\, p^{151} q^{107}$$
$$+ 99738373\, p^{148} q^{76} + 722\, q^{159} p^{73} + 32603\, q^{159} p^{85} + 1089\, q^{159} p^{74} + 1616\, q^{159} p^{75} + 25594\, q^{159} p^{84} + 41067\, q^{159} p^{86} + 381\, q^{160} p^{76}$$
$$+ 291\, q^{159} p^{71} + 186053690\, p^{148} q^{80} + 64620\, p^{162} q^{116} + 28768\, p^{163} q^{133} + p^{158} q^{60} + 1872389\, q^{145} p^{53} + 735\, p^{109} q^{15} + 1279\, p^{111} q^{16}$$
$$+ 133173360\, p^{149} q^{82} + 2163158999\, p^{146} q^{114} + 241795566\, p^{139} q^{57} + 32116\, p^{160} q^{91} + 40425\, p^{162} q^{110} + 2\, q^{163} p^{82} + q^{163} p^{81}$$
$$+ 30\, p^{145} q^{36} + 3189\, p^{165} q^{137} + 2328\, p^{165} q^{144} + 2519\, p^{157} q^{68} + 512\, p^{143} q^{36} + 24026\, p^{163} q^{137} + 1653\, p^{147} q^{43} + 207467\, p^{161} q^{119}$$
$$+ 180678\, p^{160} q^{102} + 160341\, p^{160} q^{101} + 7\, p^{169} q^{150} + 13189\, p^{160} q^{87} + 2442\, p^{160} q^{81} + 82337522342286\, p^{86} q^{93} + 5242\, q^{138} p^{33}$$
$$+ 26077302591\, p^{139} q^{114} + 18872032819\, p^{139} q^{118} + 31428050478\, p^{139} q^{111} + 19524003240\, p^{135} q^{70} + 57422117953\, p^{138} q^{103}$$
$$+ 38580246227\, p^{135} q^{75} + 2336\, p^{95} q^{12} + 20541013551\, p^{134} q^{68} + 7625598071\, p^{132} q^{59} + 57515\, p^{98} q^{15} + 350527\, p^{132} q^{33}$$
$$+ 401643\, p^{135} q^{36} + 1050189866\, p^{147} q^{91} + 47548845240\, p^{109} q^{138} + 53418\, p^{102} q^{16} + 5544149\, q^{148} p^{63} + 6067697254\, p^{132} q^{136}$$
$$+ 3962210614\, p^{133} q^{137} + 2\, p^{142} q^{31} + 10282\, p^{160} q^{86} + 6026\, p^{160} q^{84} + 51020046987\, q^{138} p^{92} + 786387\, q^{128} p^{31} + 1506741\, q^{128} p^{32}$$
$$+ 2783135\, q^{128} p^{33} + 8633079\, q^{128} p^{35} + 4975061\, q^{128} p^{34} + 9373582\, q^{129} p^{36} + 289974450\, q^{131} p^{46} + 2801399967054\, p^{90} q^{123}$$
$$+ 1672167\, q^{125} p^{30} + 522912889\, p^{139} q^{60} + 553136889\, p^{146} q^{129} + 22425720378\, p^{139} q^{116} + 54507458604\, p^{138} q^{94}$$
$$+ 4934571447\, p^{140} q^{127} + 34682274185\, p^{139} q^{109} + 43928478\, p^{124} q^{35} + 129\, p^{81} q^{8} + 51052743642\, p^{136} q^{81} + 7356532106\, p^{140} q^{124}$$
$$+ 24066976426\, p^{134} q^{69} + 1238579539935\, p^{96} q^{127} + 294676\, p^{112} q^{21} + 556\, p^{89} q^{10} + 3789469\, p^{118} q^{27} + 43417753\, p^{153} q^{125}$$
$$+ 932770718532\, p^{91} q^{128} + 12821224502\, p^{115} q^{141} + 858260\, p^{137} q^{158} + 395814183\, p^{110} q^{150} + 7722414755\, q^{137} p^{69} + 6197273\, q^{131} p^{37}$$
$$+ 161693373\, q^{134} p^{48} + 8633079\, q^{136} p^{43} + 551318572\, p^{98} q^{149} + q^{161} p^{71} + 6037\, p^{161} q^{90} + 17056078\, p^{146} q^{62} + 77240757167\, p^{137} q^{104}$$
$$+ 74939774639\, p^{136} q^{86} + 4097345107\, p^{139} q^{130} + 4268436\, p^{155} q^{137} + 1506741\, p^{139} q^{43} + 1492436821263\, p^{99} q^{126}$$
$$+ 431892748\, p^{125} q^{41} + 1224297021683\, p^{93} q^{127} + 1421002314262\, p^{101} q^{126} + 1459855314511\, p^{100} q^{126} + 280346184899\, p^{126} q^{121}$$
$$+ 311712960332\, p^{80} q^{130} + 159960142510\, p^{76} q^{131} + 261865107040\, p^{78} q^{130} + 286468935506\, p^{79} q^{130} + 77705980911422\, p^{93} q^{92}$$
$$+ 335\, p^{110} q^{165} + 492\, p^{112} q^{165} + 812\, p^{115} q^{165} + 693\, p^{114} q^{165} + 590\, p^{113} q^{165} + 411\, p^{111} q^{165} + 935\, p^{116} q^{165} + 63\, p^{167} q^{159} + 24\, p^{168} q^{159}$$
$$+ 25683924\, p^{125} q^{154} + 13757902\, p^{126} q^{155} + 5\, p^{167} q^{168} + 12\, p^{166} q^{167} + 7\, p^{168} q^{166} + 22\, p^{164} q^{167} + 12\, p^{167} q^{166} + 29\, p^{163} q^{167}$$
$$+ 7\, p^{166} q^{168} + 16\, p^{162} q^{168} + 11\, p^{164} q^{168} + p^{170} q^{168} + p^{170} q^{165} + 20\, p^{166} q^{166} + 4\, p^{169} q^{165} + 13\, p^{163} q^{168} + 9\, p^{165} q^{168}$$
$$+ 10784583\, p^{129} q^{155} + 45\, p^{165} q^{165} + 28\, p^{166} q^{165} + 7\, p^{169} q^{158} + 8\, p^{169} q^{156} + 25737\, p^{161} q^{97} + 91218\, p^{84} q^{158} + 51247\, p^{87} q^{159}$$

$$+ 113409\, p^{85}\, q^{158} + 72651\, p^{83}\, q^{158} + 139704\, p^{86}\, q^{158} + 2989\, p^{133}\, q^{28} + 4757797\, p^{152}\, q^{75} + p^{160}\, q^{67} + 740775\, p^{159}\, q^{106} + 178571\, p^{155}\, q^{73}$$
$$+ 5\, p^{88}\, q^{8} + 18308581\, p^{129}\, q^{154} + 422150\, p^{150}\, q^{60} + 12\, p^{112}\, q^{14} + 53\, p^{123}\, q^{19} + p^{100}\, q^{10} + 188\, p^{129}\, q^{23} + 202407\, p^{150}\, q^{58}$$
$$+ 175632\, p^{160}\, q^{140} + 1053574\, p^{159}\, q^{126} + 2302101\, p^{157}\, q^{98} + 155211\, p^{149}\, q^{55} + 134\, p^{124}\, q^{20} + 2540076\, p^{157}\, q^{99} + 1712526\, p^{155}\, q^{83}$$
$$+ 2785360\, p^{157}\, q^{100} + 1625452\, p^{153}\, q^{74} + 456\, p^{125}\, q^{166} + 49355\, p^{154}\, q^{157} + 65928\, p^{153}\, q^{157} + 92755\, p^{150}\, q^{158} + 1268377992\, p^{142}\, q^{132}$$
$$+ 23692052093\, p^{139}\, q^{85} + 1498301820\, p^{142}\, q^{131} + 1271056\, p^{119}\, q^{26} + 16235435413\, p^{137}\, q^{74} + 233292\, p^{115}\, q^{22} + 6843740686\, p^{136}\, q^{66}$$
$$+ 337344816264\, p^{114}\, q^{54} + 40013840\, p^{153}\, q^{126} + 177433537\, p^{151}\, q^{98} + 1612001951\, p^{123}\, q^{145} + 1048\, p^{163}\, q^{97} + 1576486\, p^{143}\, q^{155}$$
$$+ 62876425\, p^{153}\, q^{119} + 117191804\, p^{152}\, q^{102} + 112378937\, p^{152}\, q^{101} + 115634061\, p^{151}\, q^{92} + 10434363\, p^{154}\, q^{134} + 548525\, p^{94}\, q^{158}$$
$$+ 1279571\, p^{93}\, q^{157} + 38327602170\, p^{94}\, q^{139} + 28120739421\, p^{96}\, q^{140} + 34682274185\, p^{109}\, q^{139} + 36155796846\, p^{108}\, q^{139}$$
$$+ 27406054890\, p^{95}\, q^{140} + 51662787346\, p^{107}\, q^{138} + 207\, p^{162}\, q^{85} + 79\, p^{118}\, q^{17} + 11586\, p^{139}\, q^{35} + 46046\, p^{159}\, q^{151} + 713576\, p^{149}\, q^{59}$$
$$+ 12066\, p^{137}\, q^{33} + 20950\, p^{163}\, q^{117} + 29172\, p^{162}\, q^{107} + 4711\, p^{161}\, q^{89} + 1604484\, p^{104}\, q^{158} + 7146457\, q^{152}\, p^{77} + 8\, p^{169}\, q^{152}$$
$$+ 327293\, p^{150}\, q^{155} + 1714692747915\, p^{114}\, q^{63} + 146830006228\, p^{111}\, q^{48} + 2981284755123\, p^{114}\, q^{67} + 1713877\, p^{136}\, q^{157} + 733\, p^{132}\, q^{26}$$
$$+ 51247\, p^{159}\, q^{87} + 2\, p^{134}\, q^{24} + 11577\, p^{159}\, q^{81} + 18776449206\, p^{95}\, q^{141} + 10029004987\, p^{90}\, q^{142} + 20148451552\, p^{98}\, q^{141} + 3\, q^{160}\, p^{68}$$
$$+ 1917374\, p^{128}\, q^{158} + 590941\, p^{153}\, q^{70} + 3577341\, p^{156}\, q^{94} + 1179862\, p^{159}\, q^{122} + 961184\, p^{159}\, q^{128} + 268475\, p^{160}\, q^{136} + 743994\, p^{159}\, q^{132}$$
$$+ 1206150\, p^{120}\, q^{159} + 394116\, p^{111}\, q^{160} + 1209167\, p^{119}\, q^{159} + 2566646\, p^{158}\, q^{114} + 15370220189543\, p^{78}\, q^{110} + 14412434037478\, p^{77}\, q^{110}$$
$$+ 13445690632472\, p^{76}\, q^{110} + 8241598429374\, p^{101}\, q^{116} + 108\, p^{153}\, q^{51} + 8\, p^{87}\, q^{8} + 10282\, p^{86}\, q^{160} + 1048741\, p^{112}\, q^{159} + 180678\, p^{102}\, q^{160}$$
$$+ 142\, p^{144}\, q^{36} + 9337\, p^{164}\, q^{137} + 262\, p^{139}\, q^{31} + 419539\, p^{157}\, q^{86} + 284265\, p^{157}\, q^{84} + 71960\, p^{154}\, q^{156} + 22\, p^{167}\, q^{164} + p^{170}\, q^{164}$$
$$+ 20104995\, p^{128}\, q^{154} + 29\, p^{164}\, q^{93} + 17\, p^{141}\, q^{31} + 41067\, p^{159}\, q^{86} + 25594\, p^{159}\, q^{84} + 1235\, p^{160}\, q^{79} + 903\, p^{166}\, q^{140} + 370\, p^{157}\, q^{64}$$
$$+ 577\, p^{160}\, q^{77} + 49355\, p^{157}\, q^{154} + 3592433932\, q^{112}\, p^{37} + 1030185999\, q^{112}\, p^{34} + 1589566510\, q^{112}\, p^{35} + 5272754890\, q^{112}\, p^{38}$$
$$+ 1908136622\, p^{86}\, q^{145} + 5478097004\, p^{95}\, q^{144} + 5247967583\, p^{94}\, q^{144} + 11484291210\, p^{111}\, q^{142} + 11999494145\, p^{110}\, q^{142}$$
$$+ 2267676319\, p^{88}\, q^{145} + 9467113755\, p^{105}\, q^{143} + 9627835268\, p^{102}\, q^{143} + 398092728606\, q^{118}\, p^{59} + 476922649356\, q^{118}\, p^{60}$$
$$+ 1434728282656\, p^{111}\, q^{123} + 106049598955\, p^{68}\, q^{129} + 182722836619\, p^{72}\, q^{129} + 140898998314\, p^{70}\, q^{129} + 160931636640\, p^{71}\, q^{129}$$
$$+ 104418039540\, p^{70}\, q^{130} + 206255175729\, p^{73}\, q^{129} + 231482050517\, p^{74}\, q^{129} + 258325668804\, p^{75}\, q^{129} + 1852747317\, p^{144}\, q^{81}$$
$$+ 461959038\, p^{148}\, q^{124} + 824774919\, p^{142}\, q^{69} + 30056922\, p^{147}\, q^{143} + 29311488136\, p^{131}\, q^{64} + 218\, q^{114}\, p^{16} + 352\, p^{78}\, q^{8}$$
$$+ 32131275677\, p^{135}\, q^{123} + 486\, p^{164}\, q^{159} + 72928546991\, p^{137}\, q^{106} + 7094369378\, p^{140}\, q^{77} + 59772442503\, p^{133}\, q^{73}$$

$$+ 91992305837\, p^{134} q^{80} + 111611477813\, p^{136} q^{100} + 24847317\, q^{145} p^{61} + 18774356\, q^{145} p^{60} + 14030104\, q^{145} p^{59} + 32538983\, q^{145} p^{62}$$
$$+ 42183254\, q^{145} p^{63} + 2463301347\, p^{127} q^{48} + 1579224\, q^{143} p^{49} + 32090098\, p^{145} q^{145} + 18435751491\, p^{141} q^{108} + 61784116355\, q^{124} p^{57}$$
$$+ 2335867\, p^{124} q^{158} + 59934427976\, p^{137} q^{88} + 698\, p^{166} q^{130} + 352\, p^{163} q^{93} + 1025017753\, p^{134} q^{54} + 63576950\, p^{130} q^{41}$$
$$+ 4687429374\, p^{136} q^{64} + 13592409467\, p^{142} q^{106} + 9532617517\, p^{138} q^{73} + 15084112775\, p^{139} q^{80} + 20598287019\, p^{141} q^{100}$$
$$+ 381629142\, p^{132} q^{48} + 11999494145\, p^{142} q^{110} + 20103553179\, p^{139} q^{83} + 135602514\, q^{152} p^{109} + 39\, q^{84} p^{8} + q^{84} p^{7}$$
$$+ 15158434885\, q^{123} p^{50} + 32736069214\, q^{123} p^{53} + 3536473290\, p^{125} q^{142} + 4766916264\, p^{119} q^{143} + 8113039825\, p^{141} q^{82}$$
$$+ 176331\, p^{132} q^{32} + 1147363\, p^{137} q^{40} + 68884057\, p^{145} q^{65} + 1722991\, p^{138} q^{42} + 1229215\, p^{136} q^{39} + 41559005746\, q^{123} p^{54}$$
$$+ 39746473258\, q^{124} p^{55} + 14\, p^{63} q^{5} + 239264771\, q^{119} p^{35} + 7321481\, q^{148} p^{64} + 4151801\, q^{148} p^{62} + 2246438\, q^{148} p^{60} + 3072800\, q^{148} p^{61}$$
$$+ 9565826\, q^{148} p^{65} + 3329033908\, q^{122} p^{44} + 112973409168\, q^{124} p^{60} + 108505780\, q^{145} p^{67} + 332740810\, q^{150} p^{99} + 236151652\, q^{151} p^{108}$$
$$+ 34545265\, q^{141} p^{54} + 86830155\, q^{145} p^{66} + 28877797\, q^{146} p^{64} + 165268435\, q^{145} p^{69} + 134457806\, q^{145} p^{68} + 61203418312\, p^{137} q^{110}$$
$$+ 136135581622\, q^{124} p^{61} + 29687018377\, p^{139} q^{112} + 4265064712\, p^{140} q^{128} + 1996\, p^{113} q^{17} + 6424840137\, q^{123} p^{47}$$
$$+ 19777114186\, q^{123} p^{51} + 12394419\, q^{152} p^{80} + 10395108\, q^{152} p^{79} + 4757797\, q^{152} p^{75} + 5855342\, q^{152} p^{76} + 45440242559245\, p^{102} q^{95}$$
$$+ 48831490322270\, p^{98} q^{99} + 37870840395910\, p^{103} q^{98} + 100253\, p^{100} q^{16} + 25418156761441\, p^{97} q^{108} + 40895576823521\, p^{96} q^{103}$$
$$+ 138291163163\, p^{133} q^{81} + 441825470\, q^{149} p^{94} + 470715938\, q^{149} p^{95} + 301280837\, q^{150} p^{97} + 540883718985\, q^{109} p^{52} + 2421767\, q^{99} p^{19}$$
$$+ 9605\, q^{79} p^{10} + 32116\, q^{80} p^{11} + 45347904192933\, p^{101} q^{97} + 5512497351452\, q^{118} p^{82} + 47106266508288\, p^{101} q^{96}$$
$$+ 43727624005\, p^{119} q^{50} + 134799363482\, p^{121} q^{57} + 71623952603\, p^{120} q^{53} + 4725522797\, p^{117} q^{41} + 1486855057\, p^{114} q^{36}$$
$$+ 971892763\, p^{114} q^{35} + 14597448020\, p^{141} q^{113} + 977817379\, p^{132} q^{51} + 46451796043411\, p^{99} q^{99} + 834716480\, p^{138} q^{60}$$
$$+ 782764588\, p^{145} q^{129} + 267052850676\, p^{95} q^{133} + 32519986794661\, p^{103} q^{101} + 30226787962889\, p^{104} q^{101} + 38802837606613\, p^{99} q^{102}$$
$$+ 34384722353579\, p^{103} q^{100} + 39277137750348\, p^{100} q^{101} + 36175318476261\, p^{99} q^{103} + 39450805235483\, p^{97} q^{103}$$
$$+ 37870840395910\, p^{98} q^{103} + 34384722353579\, p^{100} q^{103} + 30602105949285\, p^{102} q^{103} + 32519986794661\, p^{101} q^{103}$$
$$+ 28651758451442\, p^{103} q^{103} + 26688953760963\, p^{104} q^{103} + 224336764714\, q^{117} p^{55} + 276137620446\, q^{117} p^{56} + 112884\, p^{112} q^{20}$$
$$+ 736572866\, p^{142} q^{135} + 44003784407606\, p^{96} q^{102} + 42405017773569\, p^{97} q^{102} + 34808220831697\, p^{101} q^{102}$$
$$+ 36843267445710\, p^{100} q^{102} + 270209110025\, q^{109} p^{49} + 43441184566120\, p^{101} q^{98} + 40664199457664\, p^{102} q^{98}$$
$$+ 4214353117310\, p^{96} q^{121} + 40895576823521\, p^{103} q^{96} + 48249713472567\, p^{100} q^{97} + 44003784407606\, p^{102} q^{96}$$

$$+ 37810870657491\, p^{104} q^{96} + 48831490322270\, p^{99} q^{98} + 39450805235483\, p^{103} q^{97} + 5927\, p^{74} q^{9} + 43441184566120\, p^{98} q^{101}$$
$$+ 66335335513\, p^{137} q^{90} + 5672544576\, p^{140} q^{126} + 9975788007\, p^{133} q^{62} + 74374432451\, p^{137} q^{93} + 26113672408\, p^{135} q^{72}$$
$$+ 55012922841\, p^{138} q^{105} + 649678394\, p^{128} q^{45} + 1235\, p^{92} q^{11} + 56534991983\, p^{137} q^{87} + 46173403938762\, p^{98} q^{100}$$
$$+ 43968435320531\, p^{99} q^{100} + 43968435320531\, p^{100} q^{99} + 46173403938762\, p^{100} q^{98} + 36513415904006\, p^{104} q^{97}$$
$$+ 7630058150\, p^{143} q^{112} + 1256040908\, p^{144} q^{128} + 5130637\, p^{119} q^{28} + 38362528\, p^{123} q^{34} + 9311590946\, p^{140} q^{122} + 55714873913\, p^{136} q^{82}$$
$$+ 2527480940\, p^{131} q^{53} + 299\, p^{85} q^{9} + 8129499983\, p^{133} q^{61} + 568\, q^{126} p^{22} + 25683924\, p^{154} q^{125} + 47106266508288\, p^{96} q^{101}$$
$$+ 45347904192933\, p^{97} q^{101} + 33552655866685\, p^{104} q^{99} + 4815022290\, p^{141} q^{125} + 606611516\, p^{130} q^{47} + 17739645672\, p^{140} q^{115}$$
$$+ 314567931\, p^{128} q^{43} + 44492290446\, p^{138} q^{89} + 8434792808\, p^{141} q^{120} + 3861\, p^{98} q^{13} + 26885460064\, p^{140} q^{107} + 41761971539\, p^{139} q^{102}$$
$$+ 12025315148\, p^{135} q^{67} + 2586303823\, p^{133} q^{56} + 311740873\, p^{129} q^{44} + 36843267445710\, p^{102} q^{100} + 41409525746597\, p^{99} q^{101}$$
$$+ 39277137750348\, p^{101} q^{100} + 200648432\, p^{149} q^{128} + 18154\, p^{158} q^{156} + 379476\, q^{148} p^{55} + 2414762\, p^{127} q^{32} + 7578004844\, p^{142} q^{86}$$
$$+ 678856632\, p^{145} q^{130} + 9568156152\, p^{143} q^{104} + 323496739\, p^{136} q^{53} + 85522863\, p^{133} q^{45} + 8192895714\, p^{142} q^{87} + 656318\, p^{124} q^{28}$$
$$+ 4975061\, p^{128} q^{34} + 1054197217\, p^{138} q^{61} + 575\, p^{166} q^{149} + 644863\, p^{152} q^{67} + 1577\, p^{135} q^{29} + 4039511\, p^{157} q^{105} + 237730\, p^{151} q^{61}$$
$$+ 104117\, p^{147} q^{50} + 118235\, p^{160} q^{143} + 47311\, p^{145} q^{45} + 2594963\, p^{158} q^{120} + 102279535\, p^{123} q^{36} + 81757405432\, p^{137} q^{99}$$
$$+ 27733310465\, p^{138} q^{117} + 1792\, p^{158} q^{162} + 4151\, p^{152} q^{163} + 17330528971\, p^{132} q^{63} + 19319474958\, p^{141} q^{96} + 148057\, q^{143} p^{44}$$
$$+ 24578\, q^{139} p^{36} + 85305\, q^{143} p^{43} + 1722991\, q^{129} p^{33} + 195945415\, q^{151} p^{100} + 204279450\, q^{151} p^{101} + 42171204948\, q^{136} p^{79}$$
$$+ 214216411323\, p^{125} q^{124} + 60225854\, p^{151} q^{131} + 380152542055\, p^{110} q^{130} + 46183886\, p^{151} q^{133} + 525796801\, p^{149} q^{97}$$
$$+ 334072170\, p^{150} q^{116} + 345003136527\, p^{114} q^{129} + 405894003467\, p^{109} q^{130} + 302419956710\, p^{119} q^{127} + 442663963279\, p^{111} q^{129}$$
$$+ 280262125884\, p^{107} q^{132} + 266168475630\, p^{108} q^{132} + 280631813788\, p^{118} q^{128} + 266629125499\, p^{120} q^{127} + 146356017597\, p^{128} q^{123}$$
$$+ 234892935\, q^{151} p^{110} + 18591822924\, q^{140} p^{87} + 5419\, q^{111} p^{17} + 1271056\, q^{119} p^{26} + 3522815\, q^{120} p^{28} + 26214527\, p^{130} q^{39}$$
$$+ 270937174141\, p^{97} q^{133} + 5434648101\, q^{139} p^{72} + 10757614065\, q^{139} p^{77} + 6307890619\, q^{139} p^{73} + 9499736057\, q^{139} p^{76}$$
$$+ 7275175790\, q^{139} p^{74} + 8338787832\, q^{139} p^{75} + 9532617517\, q^{138} p^{73} + 14212400557\, q^{138} p^{76} + 5123899326\, q^{138} p^{69}$$
$$+ 7080565584\, q^{138} p^{71} + 12516527077\, q^{138} p^{75} + 16042648353\, q^{138} p^{77} + 12110413298\, q^{139} p^{78} + 269547440252\, p^{99} q^{133}$$
$$+ 235881742432\, p^{105} q^{133} + 294735593583\, p^{123} q^{124} + 382484081887\, p^{120} q^{125} + 252100205451\, p^{124} q^{124} + 386641989160\, p^{115} q^{128}$$
$$+ 1540221\, q^{150} p^{64} + 1136715\, q^{150} p^{63} + 595558\, q^{150} p^{61} + 828371\, q^{150} p^{62} + 8\, p^{155} q^{53} + 27\, p^{156} q^{57} + 2846496609\, p^{134} q^{58}$$

$$+ 878037540\, p^{133} q^{52} + 10596507086\, p^{137} q^{71} + 34185311246\, p^{139} q^{91} + 3808\, p^{102} q^{14} + 21882834596\, p^{139} q^{84} + 2003394574\, p^{133} q^{55}$$
$$+ 10956739611\, q^{138} p^{74} + 33374878\, q^{135} p^{45} + 49223349\, q^{135} p^{46} + 505359678\, q^{135} p^{53} + 113815551\, q^{134} p^{47} + 14436555\, q^{154} p^{92}$$
$$+ 7695\, q^{148} p^{47} + 64614\, q^{149} p^{53} + 24465\, q^{149} p^{51} + 40272\, q^{149} p^{52} + 101216\, q^{149} p^{54} + 155211\, q^{149} p^{55} + 1589566510\, q^{136} p^{59}$$
$$+ 375978031\, q^{135} p^{52} + 19869907089\, p^{140} q^{88} + 5622\, q^{157} p^{70} + 8155\, q^{157} p^{71} + 168\, p^{166} q^{158} + 89820\, p^{106} q^{161} + 3070\, p^{94} q^{162}$$
$$+ 3863\, p^{95} q^{162} + 71648\, p^{104} q^{161} + 457408\, p^{114} q^{160} + 109569\, p^{108} q^{161} + 99557\, p^{107} q^{161} + 80519\, p^{105} q^{161} + 1196398\, p^{121} q^{159}$$
$$+ 1179862\, p^{122} q^{159} + 416666\, p^{112} q^{160} + 4811\, p^{96} q^{162} + 470\, p^{94} q^{163} + 12412\, p^{101} q^{162} + 8737\, p^{99} q^{162} + 7230\, p^{98} q^{162} + 5927\, p^{97} q^{162}$$
$$+ 10460\, p^{100} q^{162} + 475005\, p^{115} q^{160} + 997937\, p^{143} q^{156} + 79\, p^{165} q^{104} + 88\, p^{158} q^{65} + 2\, p^{88} q^{164} + 16570960\, p^{130} q^{154} + 8894123\, p^{131} q^{155}$$
$$+ 29\, q^{160} p^{71} + 119844\, p^{109} q^{161} + 1157000\, p^{123} q^{159} + 625\, p^{95} q^{163} + 14605\, p^{102} q^{162} + 490422\, p^{116} q^{160} + p^{153} q^{47} + 370577\, p^{110} q^{160}$$
$$+ 2141247\, p^{126} q^{158} + 27406054890\, p^{140} q^{95} + 5876648\, p^{122} q^{30} + 15437446\, p^{124} q^{33} + 29684220368\, p^{140} q^{101} + 9273377257\, p^{141} q^{119}$$
$$+ 24\, q^{85} p^{8} + 6745949\, q^{142} p^{51} + 2\, q^{83} p^{7} + 126134855540\, p^{124} q^{128} + 102770\, p^{155} q^{154} + 134\, p^{167} q^{132} + 69214781\, p^{151} q^{87}$$
$$+ 30488342\, p^{151} q^{81} + 6596\, p^{126} q^{24} + 41083623\, p^{154} q^{110} + 879790\, q^{151} p^{65} + 17\, p^{167} q^{165} + 53\, p^{163} q^{166} + 40\, p^{164} q^{166}$$
$$+ 9925816\, p^{121} q^{156} + 9\, p^{155} q^{169} + 449\, p^{161} q^{163} + 478\, p^{162} q^{162} + 16428456856\, p^{134} q^{129} + 24\, p^{159} q^{168} + 53\, p^{151} q^{46} + 231\, p^{153} q^{52}$$
$$+ 19717\, p^{162} q^{104} + 1485157188038\, p^{105} q^{125} + 19790765\, q^{144} p^{58} + 9568156152\, p^{104} q^{143} + 5689175957\, p^{96} q^{144} + 6181436699\, p^{99} q^{144}$$
$$+ 6043257158\, p^{98} q^{144} + 5878411615\, p^{97} q^{144} + 53996766\, q^{134} p^{45} + 470916\, q^{129} p^{31} + 918301\, q^{129} p^{32} + 36328438\, q^{134} p^{44}$$
$$+ 24028119\, q^{134} p^{43} + 15605520\, q^{134} p^{42} + 22421\, p^{160} q^{152} + 1009359\, p^{159} q^{127} + 2366776\, p^{158} q^{111} + 95519\, p^{146} q^{48} + 9433\, p^{141} q^{37}$$
$$+ 1157000\, p^{159} q^{123} + 1000403\, p^{153} q^{72} + 909925\, p^{159} q^{129} + 62195\, p^{160} q^{147} + 503\, p^{131} q^{25} + 135967\, p^{160} q^{142} + 1127947\, p^{159} q^{124}$$
$$+ 4454101\, p^{156} q^{96} + p^{95} q^{9} + 10688\, p^{161} q^{153} + 2607490\, p^{158} q^{115} + 2\, p^{107} q^{12} + 155104\, p^{141} q^{160} + 1583281\, p^{156} q^{88} + 25553\, p^{143} q^{41}$$
$$+ 393921\, q^{128} p^{30} + 11450928515\, q^{136} p^{69} + 2634307\, p^{116} q^{158} + 3090\, p^{159} q^{160} + 2490\, p^{151} q^{164} + 2897\, p^{150} q^{164} + 182\, p^{136} q^{28}$$
$$+ 303534\, p^{155} q^{75} + 4\, p^{121} q^{17} + 619\, p^{142} q^{35} + 9307\, p^{162} q^{151} + 39481\, p^{152} q^{59} + 767\, p^{140} q^{33} + 97175\, p^{153} q^{156} + 196469\, p^{129} q^{161}$$
$$+ 212728\, p^{143} q^{159} + 243987\, p^{137} q^{160} + 418020\, p^{138} q^{159} + 188984\, p^{130} q^{161} + 180708\, p^{131} q^{161} + 85069\, p^{125} q^{162} + 84576\, p^{124} q^{162}$$
$$+ 83560\, p^{123} q^{162} + 268475\, p^{136} q^{160} + 3433\, p^{113} q^{164} + 23864\, p^{119} q^{163} + 22423\, p^{118} q^{163} + 343536\, p^{133} q^{160} + 326356\, p^{140} q^{159}$$
$$+ 215930\, p^{146} q^{158} + 285197\, p^{141} q^{159} + 260198\, p^{145} q^{158} + 370734\, p^{139} q^{159} + 177482\, p^{147} q^{158} + 202948\, p^{128} q^{161} + 293385\, p^{135} q^{160}$$
$$+ 318528\, p^{134} q^{160} + 247266\, p^{142} q^{159} + 2899768\, q^{154} p^{81} + 122\, q^{147} p^{40} + 289563\, p^{97} q^{159} + 292\, p^{150} q^{46} + 1112\, p^{152} q^{52}$$
$$+ 71648\, p^{161} q^{104} + 2044\, p^{152} q^{53} + 4745\, p^{153} q^{57} + 38716091557\, p^{129} q^{62} + 258112868104\, p^{133} q^{93} + 100170829629\, p^{131} q^{72}$$

$$+ 180046414278\, p^{134} q^{105} + 2521359996\, p^{124} q^{45} + 4525\, p^{88} q^{11} + 26018\, q^{136} p^{33} + 4\, q^{82} p^{7} + 486551158\, p^{96} q^{26}$$
$$+ 18800385199896\, p^{111} q^{96} + 7230\, p^{73} q^{9} + 14669640\, p^{90} q^{19} + 5870723493\, p^{141} q^{79} + 1995\, p^{107} q^{15} + 3455\, p^{109} q^{16} + 12345\, p^{112} q^{18}$$
$$+ 139704\, p^{85} q^{13} + 22800785302721\, p^{103} q^{106} + 57037298058\, p^{103} q^{40} + 41099622304\, p^{103} q^{39} + 503392\, p^{84} q^{14} + 47294\, p^{78} q^{11}$$
$$+ 17578387057963\, p^{90} q^{112} + 15412153056385\, p^{92} q^{113} + 5\, q^{66} p^{5} + 9075778687\, p^{101} q^{34} + 214641314300\, p^{104} q^{45}$$
$$+ 78217668307\, p^{103} q^{41} + 19524003240\, p^{101} q^{36} + 14832257157029\, p^{111} q^{102} + 230985\, p^{88} q^{14} + 7826510185611\, p^{108} q^{113}$$
$$+ 34167869683\, p^{102} q^{38} + 16371828854299\, p^{111} q^{100} + 22495562692246\, p^{110} q^{89} + 15366777265553\, p^{109} q^{76}$$
$$+ 16451820409967\, p^{109} q^{77} + 20033440350619\, p^{111} q^{91} + 18088763525710\, p^{110} q^{81} + 10106606804442\, p^{109} q^{71}$$
$$+ 21498980653259\, p^{110} q^{86} + 21931889497357\, p^{110} q^{87} + 16309065776699\, p^{110} q^{79} + 2\, p^{113} q^{167} + 2646484\, p^{117} q^{158}$$
$$+ 117760253\, p^{94} q^{23} + 2045980\, p^{87} q^{16} + 17716901136291\, p^{111} q^{98} + 1065109861329\, p^{106} q^{53} + 17524211657906\, p^{109} q^{78}$$
$$+ 26358826584781\, p^{102} q^{105} + 1272162694269\, p^{58} q^{111} + 30403538906651\, p^{94} q^{107} + 3949413034\, q^{119} p^{42} + 11345658240\, q^{121} p^{47}$$
$$+ 5382\, p^{164} q^{117} + 7154\, p^{163} q^{107} + 805\, p^{162} q^{89} + 1927116\, p^{135} q^{157} + 165181\, p^{151} q^{60} + 4\, p^{113} q^{14} + 19\, p^{124} q^{19} + 69\, p^{130} q^{23}$$
$$+ 3484207216\, p^{124} q^{46} + 402854329677\, p^{131} q^{89} + 369816454459\, p^{131} q^{87} + 215278345293\, p^{130} q^{76} + 417338865325\, p^{131} q^{90}$$
$$+ 238082899273\, p^{130} q^{77} + 356229713789\, p^{132} q^{98} + 261865107040\, p^{130} q^{78} + 6291025028\, p^{100} q^{144} + 360988620\, p^{150} q^{114}$$
$$+ 493280686\, p^{142} q^{137} + 3824661\, q^{133} p^{38} + 656858102\, p^{149} q^{104} + 6043387301\, q^{138} p^{70} + 3064137051015\, p^{86} q^{122}$$
$$+ 944623693865\, p^{124} q^{75} + 9324876045\, p^{117} q^{43} + 622360523493\, p^{127} q^{112} + 112217903\, p^{111} q^{29} + 1537544490668\, p^{125} q^{85}$$
$$+ 1384963647167\, p^{125} q^{83} + 56388964071\, p^{120} q^{52} + 531858318000\, p^{123} q^{68} + 6088923624\, p^{132} q^{58} + 86093643650\, q^{111} p^{46}$$
$$+ 267030266\, q^{150} p^{95} + 284403538\, q^{150} p^{96} + 10903556\, p^{111} q^{156} + 492167\, q^{123} p^{27} + 19168\, p^{153} q^{60} + p^{126} q^{19} + 5\, p^{132} q^{23}$$
$$+ 77689934\, q^{137} p^{50} + 66\, q^{94} p^{10} + 269236278\, q^{149} p^{88} + 41080438832\, p^{97} q^{139} + 55919768180\, p^{95} q^{138} + 68402371490\, p^{134} q^{77}$$
$$+ 61282051996\, p^{134} q^{76} + 208\, p^{167} q^{147} + 38926651\, p^{148} q^{71} + 31214862\, p^{147} q^{67} + 6846550779851\, p^{75} q^{114} + 6289208415048\, p^{74} q^{114}$$
$$+ 4325\, p^{158} q^{160} + 3090\, p^{160} q^{159} + 197299542\, p^{150} q^{124} + 289988295\, p^{144} q^{69} + 59941842\, p^{153} q^{120} + 75738\, p^{151} q^{58} + 489738\, p^{160} q^{126}$$
$$+ 910684\, p^{158} q^{98} + 58702\, p^{150} q^{55} + 53\, p^{125} q^{20} + 1016658\, p^{158} q^{99} + 657758\, p^{156} q^{83} + 1127763\, p^{158} q^{100} + 642928\, p^{154} q^{74}$$
$$+ 89945\, p^{161} q^{140} + 831658364\, p^{147} q^{122} + 8\, q^{87} p^{8} + 15\, q^{86} p^{8} + 251891075394\, p^{133} q^{92} + 10545084\, p^{147} q^{147} + 4151\, p^{163} q^{152}$$
$$+ 84497\, p^{162} q^{127} + 140567\, p^{161} q^{111} + 4535\, p^{149} q^{48} + 397\, p^{144} q^{37} + 70734\, p^{157} q^{78} + 10676\, p^{140} q^{36} + 243987\, p^{160} q^{137} + 36280\, p^{144} q^{43}$$
$$+ 2626674\, p^{158} q^{119} + 3289441\, p^{157} q^{102} + 3036059\, p^{157} q^{101} + 2800656\, p^{156} q^{92} + 630419\, p^{159} q^{134} + 74014\, p^{160} q^{146}$$

$$+ 3543171\, p^{157} q^{103} + 1093363\, p^{159} q^{125} + 773050\, p^{153} q^{71} + 336762\, p^{151} q^{62} + 774934\, p^{155} q^{79} + 253330\, p^{152} q^{64} + 494514\, p^{155} q^{77}$$
$$+ 2\, p^{165} q^{95} + 2\, p^{169} q^{139} + 47\, p^{168} q^{147} + 1085\, p^{163} q^{158} + 1792\, p^{162} q^{158} + 627\, p^{164} q^{158} + 4510\, p^{159} q^{159} + 348273\, q^{158} p^{91} + 236\, p^{166} q^{120}$$
$$+ 334458028\, q^{147} p^{80} + 161693373\, p^{123} q^{37} + 1918131794\, p^{131} q^{52} + 22650714586\, p^{135} q^{71} + 69260025921\, p^{137} q^{91} + 8155\, p^{100} q^{14}$$
$$+ 45997852131\, p^{137} q^{84} + 4261407111\, p^{131} q^{55} + 1879944\, p^{116} q^{25} + 202469253\, p^{126} q^{40} + 12267059715\, p^{134} q^{65} + 12\, p^{80} q^{7}$$
$$+ 59845\, p^{130} q^{29} + 6526886113\, q^{137} p^{68} + 10413347\, q^{132} p^{39} + 16696288\, q^{132} p^{40} + 1041278\, q^{130} p^{33} + 2006028782\, q^{136} p^{60}$$
$$+ 15084112775\, q^{139} p^{80} + 2667590272801\, p^{88} q^{123} + 2001968135784\, p^{109} q^{122} + 10676\, p^{135} q^{31} + 14681712\, p^{153} q^{86}$$
$$+ 10963457\, p^{153} q^{84} + 489738\, p^{126} q^{160} + 116381\, p^{149} q^{158} + 36399\, p^{155} q^{157} + 26382\, p^{156} q^{157} + 54272094631\, p^{128} q^{129}$$
$$+ 45316418508\, p^{129} q^{129} + 33469754937\, p^{133} q^{126} + 24261356934\, p^{133} q^{128} + 36254\, p^{159} q^{152} + 2032182\, p^{158} q^{127} + 5223833\, p^{157} q^{111}$$
$$+ 223484\, p^{145} q^{48} + 22336\, p^{140} q^{37} + 2943640880\, q^{132} p^{55} + 1305\, p^{165} q^{150} + 642483519310\, p^{105} q^{50} + 13412604787\, p^{101} q^{35}$$
$$+ 1140408\, p^{85} q^{15} + 73405814\, p^{93} q^{22} + 8233239880884\, p^{109} q^{69} + 6680297295266\, p^{108} q^{66} + 2418631\, p^{158} q^{123} + 2421767\, p^{152} q^{72}$$
$$+ 1798175\, p^{158} q^{129} + 106965\, p^{159} q^{147} + 1169\, p^{130} q^{25} + 247266\, p^{159} q^{142} + 2335867\, p^{158} q^{124} + 10020907\, p^{155} q^{96} + 3\, p^{94} q^{9}$$
$$+ 17660\, p^{160} q^{153} + 1632\, q^{104} p^{14} + 353202981560\, p^{132} q^{95} + 573483325055\, p^{107} q^{129} + 183680901\, p^{95} q^{24} + 3096\, p^{69} q^{8}$$
$$+ 113059\, p^{80} q^{12} + 3294769528613\, p^{107} q^{60} + 9146950529190\, p^{109} q^{70} + 8457275926971\, p^{108} q^{68} + 381064651\, q^{150} p^{103}$$
$$+ 395286377\, q^{150} p^{105} + 399490212\, q^{150} p^{106} + 389115058\, q^{150} p^{104} + 7206101084348\, p^{84} q^{117} + 3342097918216\, p^{108} q^{61}$$
$$+ 4489651801051\, p^{108} q^{63} + 11106772707453\, p^{109} q^{72} + 1656188429702\, p^{107} q^{56} + 5156092672012\, p^{108} q^{64} + 1370771530418\, p^{107} q^{55}$$
$$+ 17218704460087\, p^{110} q^{80} + 22265603458776\, p^{110} q^{88} + 88\, q^{158} p^{65} + 14012117882037\, p^{111} q^{103} + 6150619886\, q^{121} p^{45}$$
$$+ 249918490982\, q^{123} p^{63} + 344540888069\, q^{123} p^{65} + 176526240389\, q^{123} p^{61} + 294395495499\, q^{123} p^{64} + 210756015543\, q^{123} p^{62}$$
$$+ 2673320460094\, p^{100} q^{123} + 2220533450390\, p^{89} q^{124} + 975553429898\, p^{78} q^{125} + 109372191343\, q^{121} p^{56} + 1918131794\, q^{119} p^{40}$$
$$+ 2771666014\, q^{119} p^{41} + 19972471972238\, p^{111} q^{92} + 4652100065\, p^{100} q^{32} + 279085255\, p^{96} q^{25} + 5886181840494\, p^{108} q^{65}$$
$$+ 3885637586184\, p^{108} q^{62} + 18908953192408\, p^{110} q^{82} + 20360143554756\, p^{110} q^{84} + 1986994426910\, p^{107} q^{57}$$
$$+ 19669260016480\, p^{110} q^{83} + 15621888068057\, p^{111} q^{101} + 5594421512905\, p^{119} q^{99} + 5878352755905\, p^{119} q^{97}$$
$$+ 4376848074055\, p^{107} q^{118} + 2\, q^{131} p^{22} + 11586\, q^{136} p^{32} + 2011\, q^{137} p^{31} + 4297\, q^{135} p^{30} + 2375\, p^{165} q^{125} + 3036059\, p^{101} q^{157}$$
$$+ 5909127\, p^{99} q^{156} + 6415939\, p^{100} q^{156} + p^{170} q^{166} + 3\, p^{169} q^{166} + 3\, p^{169} q^{167} + 17\, p^{165} q^{167} + 9\, p^{167} q^{167} + p^{170} q^{167} + 21\, p^{160} q^{168}$$
$$+ 4\, p^{168} q^{168} + 709\, p^{141} q^{34} + 1694\, p^{145} q^{40} + 128709\, p^{153} q^{65} + 2533\, p^{146} q^{42} + 2312\, p^{144} q^{39} + 247\, p^{138} q^{30} + 27939\, p^{162} q^{144}$$

$$+ 118953\, p^{154}\, q^{68} + 9719241\, p^{107}\, q^{156} + 4710998\, p^{108}\, q^{157} + 11\, q^{156}\, p^{56} + 5075047\, p^{110}\, q^{157} + 1650420\, p^{95}\, q^{157} + 1016658\, p^{99}\, q^{158}$$
$$+ 1855843\, p^{96}\, q^{157} + 2829\, p^{158}\, q^{161} + 3813\, p^{157}\, q^{161} + 684644\, p^{105}\, q^{159} + 136915\, p^{145}\, q^{47} + 5728364\, p^{154}\, q^{85} + 1676280\, p^{158}\, q^{130}$$
$$+ 2312\, p^{132}\, q^{27} + 7355321\, p^{155}\, q^{93} + 9117948\, p^{123}\, q^{156} + 8\, p^{156}\, q^{169} + 13\, p^{168}\, q^{163} + 44\, p^{161}\, q^{167} + 9415\, p^{163}\, q^{109} + 22423\, p^{163}\, q^{118}$$
$$+ 46838175\, p^{153}\, q^{124} + 2\, p^{139}\, q^{28} + 7\, p^{145}\, q^{35} + 1149\, p^{165}\, q^{151} + 742\, p^{155}\, q^{59} + 13\, p^{143}\, q^{33} + 9983\, p^{164}\, q^{135} + 2793\, p^{165}\, q^{141}$$
$$+ 14879\, p^{163}\, q^{113} + 7783\, p^{158}\, q^{75} + 195552791\, q^{151}\, p^{117} + 6925414692\, p^{131}\, q^{57} + 32175553308\, q^{127}\, p^{58} + 342367910688\, p^{122}\, q^{124}$$
$$+ 2504417695\, p^{145}\, q^{118} + 5746704848437\, p^{73}\, q^{114} + 7414314449010\, p^{76}\, q^{114} + 165186414\, q^{146}\, p^{72} + 136678275\, q^{146}\, p^{71}$$
$$+ 29311488136\, q^{131}\, p^{64} + 24465\, q^{120}\, p^{22} + 106\, q^{93}\, p^{10} + 1257185\, q^{115}\, p^{24} + 66072476\, q^{152}\, p^{93} + 37\, q^{90}\, p^{9} + 19073130855949\, p^{103}\, q^{108}$$
$$+ 9344580089629\, p^{77}\, q^{113} + 15040658184914\, p^{83}\, q^{112} + 14425219495572\, p^{82}\, q^{112} + 161502180919\, p^{133}\, q^{83} + 9324876045\, p^{128}\, q^{54}$$
$$+ 2914938441180\, q^{121}\, p^{106} + 246211\, p^{104}\, q^{18} + 115921670755\, p^{133}\, q^{79} + 19866612457687\, p^{89}\, q^{111} + 19641140505245\, p^{88}\, q^{111}$$
$$+ 19324673910107\, p^{87}\, q^{111} + 3007\, p^{164}\, q^{112} + 5259\, p^{163}\, q^{105} + 59\, p^{157}\, q^{61} + 834\, p^{166}\, q^{143} + 18\, p^{151}\, q^{45} + 12901114434\, p^{142}\, q^{108}$$
$$+ 106\, q^{161}\, p^{78} + 66\, q^{161}\, p^{77} + 10521\, p^{163}\, q^{146} + 85069\, p^{162}\, q^{125} + 30745\, p^{156}\, q^{71} + 13208\, p^{154}\, q^{62} + 202194\, p^{160}\, q^{103} + 22\, q^{161}\, p^{75}$$
$$+ 37973141\, q^{154}\, p^{106} + 134821\, p^{159}\, q^{92} + 67786\, p^{162}\, q^{134} + 646244970\, p^{149}\, q^{103} + 10357686978\, p^{142}\, q^{113} + 653119815\, p^{133}\, q^{51}$$
$$+ 75738\, p^{113}\, q^{20} + 552709743\, p^{143}\, q^{135} + 9424709609\, p^{89}\, q^{142} + 453\, p^{148}\, q^{43} + 74880\, p^{162}\, q^{119} + 55551\, p^{161}\, q^{102} + 48391\, p^{161}\, q^{101}$$
$$+ 291\, p^{159}\, q^{71} + 3734\, p^{163}\, q^{103} + 1871\, p^{162}\, q^{92} + 3254\, p^{165}\, q^{134} + 114\, p^{157}\, q^{62} + 26885460064\, p^{107}\, q^{140} + 27676300732\, p^{106}\, q^{140}$$
$$+ 28347884823\, p^{105}\, q^{140} + 24247546753\, p^{115}\, q^{139} + 582780958\, p^{149}\, q^{114} + 6971550328\, p^{85}\, q^{142} + 1695123171\, p^{136}\, q^{138}$$
$$+ 4098057961\, p^{134}\, q^{136} + 2650068794\, p^{135}\, q^{137} + 7578004844\, p^{86}\, q^{142} + 172983873\, p^{64}\, q^{143} + 7665\, p^{91}\, q^{161} + 20628744687\, p^{117}\, q^{139}$$
$$+ 22425720378\, p^{116}\, q^{139} + 20422872179\, p^{99}\, q^{141} + 1367955982\, p^{75}\, q^{143} + 2078838635\, p^{78}\, q^{143} + 1819532149\, p^{77}\, q^{143}$$
$$+ 8810515434\, p^{88}\, q^{142} + 1503947008842\, p^{114}\, q^{121} + 316\, p^{166}\, q^{122} + 5487361\, p^{136}\, q^{42} + 3636579\, p^{135}\, q^{40} + 217007542\, p^{143}\, q^{65}$$
$$+ 376121418\, p^{148}\, q^{126} + 3776806\, p^{134}\, q^{39} + 545533\, p^{130}\, q^{32} + 20359014088382\, p^{100}\, q^{109} + 22538556352576\, p^{92}\, q^{110} + 134607\, q^{99}\, p^{16}$$
$$+ 20259326893512\, p^{102}\, q^{108} + 15098677478\, q^{115}\, p^{43} + 708258\, q^{136}\, p^{38} + 7987598302640\, p^{77}\, q^{114} + 3186972190208\, p^{69}\, q^{115}$$
$$+ 3570071848480\, p^{70}\, q^{115} + 5799204371075\, p^{75}\, q^{115} + 3691447838322\, p^{72}\, q^{116} + 5319899151039\, p^{74}\, q^{115} + 4405756266946\, p^{72}\, q^{115}$$
$$+ 4854335036601\, p^{73}\, q^{115} + 1919\, p^{164}\, q^{109} + 5908\, p^{164}\, q^{118} + 474\, p^{166}\, q^{151} + 122\, p^{156}\, q^{59} + p^{144}\, q^{33} + 3260\, p^{165}\, q^{135} + 886\, p^{166}\, q^{141}$$
$$+ 3433\, p^{164}\, q^{113} + 1616\, p^{159}\, q^{75} + 10652699552669\, p^{79}\, q^{113} + 805315850\, q^{113}\, p^{34} + 21119868037346\, p^{96}\, q^{110} + 10401944\, q^{143}\, p^{54}$$
$$+ 195326995427\, p^{133}\, q^{109} + 25901391374\, p^{127}\, q^{57} + 8400811916\, p^{125}\, q^{50} + 3694756087\, p^{145}\, q^{111} + 1602821335\, p^{141}\, q^{70}$$

$$+ 6026\, p^{84}\, q^{160} + 43682\, p^{153}\, q^{158} + 18787\, p^{157}\, q^{157} + 108\, q^{155}\, p^{56} + 467\, p^{153}\, q^{53} + 1151\, p^{154}\, q^{57} + 53\, q^{160}\, p^{72} + 80596475\, q^{150}\, p^{83}$$
$$+ 249985731680\, p^{123}\, q^{125} + 289862508792\, p^{122}\, q^{125} + 180802620574\, p^{126}\, q^{124} + 2396685947194\, p^{103}\, q^{123} + 45\, p^{168}\, q^{145} + 29\, p^{168}\, q^{138}$$
$$+ 124156413\, p^{133}\, q^{46} + 4818395183\, p^{129}\, q^{139} + 27896842335\, p^{113}\, q^{139} + 555430136\, p^{147}\, q^{126} + 6349200\, p^{133}\, q^{39} + 453\, q^{128}\, p^{23}$$
$$+ 918301\, p^{129}\, q^{32} + 3084463123\, p^{144}\, q^{86} + 336640019\, p^{147}\, q^{130} + 4232822667\, p^{145}\, q^{104} + 124673393\, p^{138}\, q^{53} + 33374878\, p^{135}\, q^{45}$$
$$+ 3358552694\, p^{144}\, q^{87} + 249576\, p^{126}\, q^{28} + 183\, p^{167}\, q^{136} + 604\, p^{166}\, q^{128} + 633\, p^{150}\, q^{47} + 32603\, p^{159}\, q^{85} + 30717\, p^{163}\, q^{130} + 10\, p^{137}\, q^{27}$$
$$+ 47294\, p^{160}\, q^{93} + 22256776\, p^{127}\, q^{36} + 20422872179\, p^{141}\, q^{99} + 7909947152\, p^{142}\, q^{117} + 3836306593\, p^{136}\, q^{63} + 12\, p^{132}\, q^{168}$$
$$+ 123\, p^{131}\, q^{167} + 218\, p^{140}\, q^{167} + 224\, p^{141}\, q^{167} + 816\, p^{133}\, q^{166} + 872\, p^{135}\, q^{166} + 4289\, p^{147}\, q^{164} + 847\, p^{134}\, q^{166} + 2915\, p^{140}\, q^{165}$$
$$+ 893\, p^{136}\, q^{166} + 4805\, p^{146}\, q^{164} + 834\, p^{143}\, q^{166} + 864\, p^{142}\, q^{166} + 911\, p^{139}\, q^{166} + 903\, p^{140}\, q^{166} + 913\, p^{138}\, q^{166} + 906\, p^{137}\, q^{166}$$
$$+ 159\, p^{134}\, q^{167} + 32\, p^{139}\, q^{168} + 109\, p^{130}\, q^{167} + 134\, p^{132}\, q^{167} + 214\, p^{139}\, q^{167} + 204\, p^{138}\, q^{167} + 10688\, p^{153}\, q^{161} + 173\, p^{135}\, q^{167}$$
$$+ 196\, p^{137}\, q^{167} + 183\, p^{136}\, q^{167} + 2\, p^{125}\, q^{168} + 2793\, p^{141}\, q^{165} + 2495\, p^{143}\, q^{165} + 2162\, p^{145}\, q^{165} + 2328\, p^{144}\, q^{165} + 2645\, p^{142}\, q^{165}$$
$$+ 8021\, p^{148}\, q^{163} + 29\, p^{138}\, q^{168} + 25\, p^{137}\, q^{168} + 14\, p^{133}\, q^{168} + 16\, p^{134}\, q^{168} + 13093\, p^{157}\, q^{158} + 3\, p^{126}\, q^{168} + 614\, p^{165}\, q^{155} + 886\, p^{141}\, q^{166}$$
$$+ 273067039\, q^{137}\, p^{54} + 363344861\, q^{137}\, p^{55} + 623720929\, q^{137}\, p^{57} + 13554427136\, q^{139}\, p^{79} + 508004750\, p^{149}\, q^{117} + 6570\, p^{155}\, q^{161}$$
$$+ 5548637\, p^{157}\, q^{115} + 6\, p^{106}\, q^{12} + 709\, q^{141}\, p^{34} + 14669640\, q^{152}\, p^{81} + 970\, p^{162}\, q^{160} + 614\, p^{163}\, q^{160} + 5039\, p^{156}\, q^{161} + 213\, p^{167}\, q^{146}$$
$$+ 218\, p^{165}\, q^{108} + 22\, p^{158}\, q^{63} + p^{154}\, q^{49} + 713562794\, p^{148}\, q^{93} + 276574472\, q^{135}\, p^{51} + 9938543\, q^{134}\, p^{41} + 1433\, p^{162}\, q^{91} + 2248\, p^{164}\, q^{110}$$
$$+ 4867\, p^{164}\, q^{116} + 3237\, p^{165}\, q^{133} + 18003268418\, q^{138}\, p^{78} + 128745322\, p^{152}\, q^{105} + 126326530\, p^{136}\, q^{50} + 1901235709\, p^{135}\, q^{58}$$
$$+ 579689022\, p^{134}\, q^{52} + 7080565584\, p^{138}\, q^{71} + 23513280273\, p^{140}\, q^{91} + 2519\, p^{103}\, q^{14} + 14754477547\, p^{140}\, q^{84} + 1342173761\, p^{134}\, q^{55}$$
$$+ 897854929\, p^{147}\, q^{89} + 18776449206\, p^{141}\, q^{95} + 3936928\, p^{123}\, q^{30} + 10342698\, p^{125}\, q^{33} + 20672190172\, p^{141}\, q^{101} + 6692139689\, p^{142}\, q^{119}$$
$$+ 887\, p^{153}\, q^{54} + 67268\, p^{160}\, q^{95} + 8488\, p^{164}\, q^{139} + 249\, p^{149}\, q^{44} + 2811\, p^{153}\, q^{56} + 906784106\, p^{147}\, q^{121} + 30000232\, p^{136}\, q^{46}$$
$$+ 3869958\, p^{155}\, q^{88} + 59845\, p^{142}\, q^{41} + 25747\, p^{152}\, q^{58} + 212686\, p^{161}\, q^{126} + 330030\, p^{159}\, q^{98} + 20200\, p^{151}\, q^{55} + 18\, p^{126}\, q^{20}$$
$$+ 373634\, p^{159}\, q^{99} + 230985\, p^{157}\, q^{83} + 420057\, p^{159}\, q^{100} + 234087\, p^{155}\, q^{74} + 43437\, p^{162}\, q^{140} + 280267\, p^{156}\, q^{79} + 91027\, p^{153}\, q^{64}$$
$$+ 172781\, p^{156}\, q^{77} + 5\, p^{168}\, q^{167} + 8652757\, p^{152}\, q^{78} + 27545120\, p^{124}\, q^{154} + 10138534407\, p^{141}\, q^{118} + 16275360234\, p^{141}\, q^{111}$$
$$+ 9075778687\, p^{137}\, q^{70} + 29298270502\, p^{140}\, q^{103} + 18488150399\, p^{137}\, q^{75} + 5887586880\, q^{127}\, p^{51} + 136915\, q^{145}\, p^{47} + 7563198\, q^{145}\, p^{57}$$
$$+ 5419880\, q^{144}\, p^{54} + 124074779\, q^{144}\, p^{65} + 98256337\, q^{144}\, p^{64} + 92\, q^{88}\, p^{9} + 135590390\, q^{152}\, p^{110} + 21\, q^{91}\, p^{9} + 39339\, p^{141}\, q^{162}$$
$$+ 10373\, p^{129}\, q^{164} + 26646\, p^{135}\, q^{163} + 2041\, p^{123}\, q^{165} + 12904785\, p^{146}\, q^{61} + 3670\, q^{142}\, p^{37} + 17326863\, p^{141}\, q^{150} + 5002516\, p^{151}\, q^{145}$$

$$+ 9767088\, p^{151} q^{142} + 10783\, q^{158} p^{76} + 4\, p^{168} q^{127} + 1404055423436\, p^{109} q^{124} + 1158283769218\, p^{90} q^{127} + 1537114401537\, p^{97} q^{126}$$
$$+ 1518307413146\, p^{98} q^{126} + 63378\, p^{108} q^{18} + 29316985017\, p^{137} q^{79} + 10710\, p^{103} q^{15} + 18534\, p^{105} q^{16} + 143386717\, p^{128} q^{41}$$
$$+ 10187146356\, p^{134} q^{64} + 27676300732\, p^{140} q^{106} + 20742545994\, p^{136} q^{73} + 32433561409\, p^{137} q^{80} + 42108481524\, p^{139} q^{100}$$
$$+ 841244236\, p^{130} q^{48} + 23909951109\, p^{140} q^{110} + 42492304595\, p^{137} q^{83} + 2268468509\, p^{132} q^{54} + 1548599829310\, p^{96} q^{126}$$
$$+ 1558726898688\, p^{104} q^{125} + 705671075356\, p^{84} q^{128} + 1185657499595\, p^{91} q^{127} + 22665492\, q^{123} p^{33} + 210145414\, q^{130} p^{44}$$
$$+ 58702\, q^{116} p^{21} + 1407958254110\, p^{106} q^{125} + 62\, p^{164} q^{95} + 32\, p^{168} q^{139} + 2245110\, q^{133} p^{37} + 824774919\, p^{69} q^{142} + 4852828\, p^{124} q^{31}$$
$$+ 96291376\, p^{130} q^{42} + 1701461391\, p^{146} q^{118} + 2450667772\, p^{146} q^{111} + 989343733\, p^{142} q^{70} + 4097345107\, p^{130} q^{139}$$
$$+ 3778839528\, q^{137} p^{65} + 14754477547\, q^{140} p^{84} + 71476847\, q^{135} p^{47} + 102279535\, q^{135} p^{48} + 6197273\, q^{134} p^{40}$$
$$+ 1302007221491\, p^{110} q^{124} + 9759924765\, p^{142} q^{114} + 1414660120\, p^{96} q^{147} + 1672892864\, p^{101} q^{147} + 1634402522\, p^{100} q^{147}$$
$$+ 1588663089\, p^{99} q^{147} + 1478047838\, p^{97} q^{147} + 1703586517\, p^{102} q^{147} + 3694756087\, p^{111} q^{145} + 3394260176\, p^{113} q^{145}$$
$$+ 1745080902\, p^{105} q^{147} + 1027290899\, p^{101} q^{148} + 1726047469\, p^{103} q^{147} + 1739945822\, p^{104} q^{147} + 3550498413\, p^{112} q^{145}$$
$$+ 3968008792\, p^{121} q^{143} + 2740670140\, p^{104} q^{146} + 4037491235\, p^{108} q^{145} + 4468544874\, p^{115} q^{144} + 4738729207\, p^{114} q^{144}$$
$$+ 3825139097\, p^{110} q^{145} + 4361396483\, p^{120} q^{143} + 1536305924\, p^{98} q^{147} + 2451911803\, p^{89} q^{145} + 9621982588\, p^{103} q^{143}$$
$$+ 2085891599\, p^{87} q^{145} + 2820653402\, p^{91} q^{145} + 1266759336\, p^{87} q^{146} + 3176858661\, p^{93} q^{145} + 3001329639\, p^{92} q^{145}$$
$$+ 364146536448\, p^{119} q^{126} + 1486855057\, p^{135} q^{57} + 649678394\, p^{126} q^{43} + 88640428473\, p^{136} q^{89} + 15532650722\, p^{139} q^{120} + 7783\, p^{96} q^{13}$$
$$+ 51662787346\, p^{138} q^{107} + 80196899506\, p^{137} q^{102} + 24872337661\, p^{133} q^{67} + 5456629732\, p^{131} q^{56} + 655261107\, p^{127} q^{44}$$
$$+ 4615357\, p^{142} q^{50} + 57985739392\, p^{97} q^{138} + 3\, q^{57} p^{4} + 422150\, p^{111} q^{21} + 795\, p^{88} q^{10} + 5419880\, p^{117} q^{27} + 5648670\, p^{130} q^{156}$$
$$+ 245\, p^{75} q^{160} + 26102\, p^{90} q^{160} + 5285391\, p^{120} q^{157} + 2032182\, p^{127} q^{158} + 5396489\, p^{119} q^{157} + 5147992\, p^{121} q^{157} + 681983\, p^{150} q^{153}$$
$$+ 361125\, p^{151} q^{154} + 7185070\, p^{127} q^{156} + 2418631\, p^{123} q^{158} + 247700\, q^{158} p^{89} + 16650418\, p^{155} q^{123} + 2053330\, p^{142} q^{48}$$
$$+ 24275892\, p^{149} q^{72} + 2394\, p^{149} q^{47} + 113409\, p^{158} q^{85} + 79850\, p^{162} q^{130} + 42\, p^{136} q^{27} + 159533\, p^{159} q^{93} + 10784583\, p^{155} q^{129}$$
$$+ 447071\, p^{156} q^{147} + 9983\, p^{127} q^{25} + 1192720\, p^{156} q^{142} + 15714108\, p^{155} q^{124} + 84046447\, p^{152} q^{96} + 21\, p^{91} q^{9} + 65928\, p^{157} q^{153}$$
$$+ 129350\, p^{156} q^{152} + 206885\, p^{137} q^{37} + 12761223\, p^{155} q^{127} + 41346438\, p^{154} q^{111} + 40605789\, p^{154} q^{109} + 18379773\, p^{155} q^{121}$$
$$+ 37241337\, p^{154} q^{118} + 44393172\, p^{150} q^{79} + 14842334\, p^{147} q^{64} + 31609189\, p^{150} q^{77} + 914637359\, p^{125} q^{43} + 3756623\, p^{134} q^{156}$$
$$+ 12473824867\, p^{109} q^{142} + 3637139895\, p^{144} q^{88} + 59\, p^{83} q^{8} + 24589435572\, p^{138} q^{81} + 3991331153\, p^{142} q^{124} + 11450928515\, p^{136} q^{69}$$

$$+ 136597\, p^{114}\, q^{21} + 256\, p^{91}\, q^{10} + 1767661\, p^{120}\, q^{27} + 1089\, p^{97}\, q^{12} + 9711613531\, p^{136}\, q^{68} + 3592433932\, p^{134}\, q^{59}$$
$$+ 11920471177\, p^{141}\, q^{116} + 26576272800\, p^{140}\, q^{94} + 2725578642\, p^{142}\, q^{127} + 17775892702\, p^{141}\, q^{109} + 20159364\, p^{126}\, q^{35}$$
$$+ 14548677\, p^{153}\, q^{135} + 134908748\, p^{152}\, q^{108} + 131362834\, p^{152}\, q^{113} + 42183254\, p^{145}\, q^{63} + 8652757\, q^{152}\, p^{78} + 41\, q^{132}\, p^{24}$$
$$+ 1060066258\, p^{147}\, q^{119} + 2664897185\, p^{146}\, q^{101} + 109658454\, p^{140}\, q^{56} + 13314976\, p^{136}\, q^{44} + 1041278\, p^{130}\, q^{33} + 202176816703\, p^{134}\, q^{96}$$
$$+ 175632\, p^{140}\, q^{160} + 1531\, p^{120}\, q^{165} + 118\, p^{116}\, q^{166} + p^{48}\, q^{3} + 290765729\, p^{147}\, q^{79} + 98256337\, p^{144}\, q^{64} + 198159599\, p^{146}\, q^{73}$$
$$+ 19263966\, p^{142}\, q^{54} + 399490212\, p^{150}\, q^{106} + 633\, q^{124}\, p^{21} + 24926101\, q^{118}\, p^{30} + 2713485\, q^{117}\, p^{26} + 276574472\, q^{120}\, p^{36} + 7695\, q^{124}\, p^{23}$$
$$+ 3861\, q^{98}\, p^{13} + 122750243518\, p^{135}\, q^{89} + 37562\, p^{156}\, q^{156} + 131177\, p^{136}\, q^{161} + 183972504116\, p^{110}\, q^{133} + 916091407494\, p^{101}\, q^{128}$$
$$+ 462\, p^{103}\, q^{13} + 90654586726\, q^{130}\, p^{69} + 82888501561\, p^{132}\, q^{73} + 126954402514\, p^{133}\, q^{80} + 150863386266\, p^{135}\, q^{100}$$
$$+ 11180917574\, p^{142}\, q^{92} + 358742669\, p^{145}\, q^{134} + 846342\, p^{125}\, q^{29} + 22\, q^{158}\, p^{63} + 4\, q^{158}\, p^{61} + 46\, q^{158}\, p^{64} + 10\, q^{158}\, p^{62} + p^{112}\, q^{167}$$
$$+ 1576486\, p^{155}\, q^{143} + 53418\, p^{155}\, q^{69} + 4\, p^{129}\, q^{21} + 77374\, p^{162}\, q^{131} + 2038245\, p^{140}\, q^{45} + 7358479\, p^{143}\, q^{53} + 7\, q^{160}\, p^{69} + 7\, p^{149}\, q^{169}$$
$$+ 9\, p^{153}\, q^{169} + 8\, p^{152}\, q^{169} + 7\, p^{150}\, q^{169} + 6\, p^{148}\, q^{169} + p^{153}\, q^{170} + 8\, p^{151}\, q^{169} + 1996\, p^{154}\, q^{58} + 30653\, p^{163}\, q^{126} + 30494\, p^{161}\, q^{98}$$
$$+ 1613\, p^{153}\, q^{55} + p^{128}\, q^{20} + 35862\, p^{161}\, q^{99} + 19886\, p^{159}\, q^{83} + 41807\, p^{161}\, q^{100} + 22397\, p^{157}\, q^{74} + 39\, p^{163}\, q^{87} + 24\, p^{163}\, q^{86} + 8\, p^{163}\, q^{84}$$
$$+ p^{163}\, q^{81} + 1939036\, p^{156}\, q^{139} + 653295\, p^{141}\, q^{44} + 5448938\, p^{145}\, q^{56} + 53\, p^{99}\, q^{11} + 78006767\, p^{152}\, q^{95} + 384\, p^{81}\, q^{161} + 16736\, p^{88}\, q^{160}$$
$$+ 21006\, p^{89}\, q^{160} + 2634307\, p^{158}\, q^{116} + 687097\, p^{159}\, q^{133} + 218146\, p^{95}\, q^{159} + 153\, p^{74}\, q^{160} + 2179866\, p^{109}\, q^{158} + 15437446\, q^{138}\, p^{47}$$
$$+ 649373163\, q^{140}\, p^{63} + 409262713\, q^{140}\, p^{61} + 807674535\, q^{140}\, p^{64} + 517755310\, q^{140}\, p^{62} + 1414660120\, p^{147}\, q^{96} + 35693052880\, p^{139}\, q^{92}$$
$$+ 889500717\, p^{142}\, q^{134} + 3105768\, p^{122}\, q^{29} + 3776806\, q^{134}\, p^{39} + 40405604976\, p^{112}\, q^{138} + 28891048254\, p^{104}\, q^{140} + 318826288\, p^{150}\, q^{117}$$
$$+ 523296166\, p^{148}\, q^{89} + 30224306089\, p^{138}\, q^{116} + 76497280163\, p^{137}\, q^{94} + 558816\, q^{148}\, p^{56} + 6530371376\, p^{139}\, q^{127}$$
$$+ 47548845240\, p^{138}\, q^{109} + 63353747\, p^{123}\, q^{35} + 186\, p^{80}\, q^{8} + 72066545105\, p^{135}\, q^{81} + 20\, p^{166}\, q^{109} + 171\, p^{166}\, q^{118} + 46\, p^{168}\, q^{151}$$
$$+ 173\, p^{167}\, q^{135} + 38\, p^{168}\, q^{141} + 61\, p^{166}\, q^{113} + 22\, p^{161}\, q^{75} + 41390850\, p^{154}\, q^{112} + 54692336\, p^{152}\, q^{91} + 285579\, p^{147}\, q^{157} + 57288\, p^{82}\, q^{158}$$
$$+ 629040\, p^{95}\, q^{158} + 1458029\, p^{94}\, q^{157} + 9540159\, p^{122}\, q^{156} + 44688\, p^{81}\, q^{158} + 2643993\, p^{118}\, q^{158} + 59326\, p^{152}\, q^{60} + p^{114}\, q^{14} + 6\, p^{125}\, q^{19}$$
$$+ 22\, p^{131}\, q^{23} + 792\, p^{164}\, q^{157} + 9818139896\, p^{139}\, q^{124} + 34167869683\, p^{133}\, q^{69} + 7358479\, p^{118}\, q^{28} + 54977279\, p^{122}\, q^{34}$$
$$+ 12495523484\, p^{139}\, q^{122} + 78450825557\, p^{135}\, q^{82} + 3636713188\, p^{130}\, q^{53} + 424\, p^{84}\, q^{9} + 11673993337\, p^{132}\, q^{61} + 6457\, q^{143}\, p^{39}$$
$$+ 7646\, p^{162}\, q^{152} + 208417\, p^{161}\, q^{127} + 394116\, p^{160}\, q^{111} + 13859\, p^{148}\, q^{48} + 1293\, p^{143}\, q^{37} + 221195\, p^{156}\, q^{78} + 5\, p^{145}\, q^{169} + 5\, p^{146}\, q^{169}$$
$$+ 6\, p^{147}\, q^{169} + 13366\, p^{161}\, q^{152} + 474108\, p^{160}\, q^{127} + 1004391\, p^{159}\, q^{111} + 37987\, p^{147}\, q^{48} + 3670\, p^{142}\, q^{37} + 94828431\, p^{151}\, q^{127}$$

$$+ 302650187\, p^{150} q^{118} + 389833663\, p^{150} q^{111} + 399811575\, p^{150} q^{109} + 156594776\, p^{151} q^{121} + 2445346\, p^{158} q^{112} + 2453622\, p^{156} q^{91}$$
$$+ 2\, p^{140} q^{169} + 3\, p^{141} q^{169} + 621903\, p^{155} q^{78} + 77689934\, p^{137} q^{50} + 1382900035\, p^{88} q^{146} + 3345171398\, p^{94} q^{145} + 6872145\, p^{154} q^{137}$$
$$+ 3636579\, q^{131} p^{36} + 2277899\, p^{158} q^{110} + 25373569\, q^{133} p^{42} + 2497878138729\, p^{102} q^{123} + 637908007960\, p^{76} q^{126}$$
$$+ 1732582771351\, p^{88} q^{125} + 725586709333\, p^{120} q^{121} + 21553538691\, p^{112} q^{140} + 22759806581\, p^{111} q^{140} + 358939220758\, p^{107} q^{131}$$
$$+ 376736056882\, p^{106} q^{131} + 2783135\, p^{138} q^{43} + 2152455\, p^{152} q^{147} + 266886658381\, p^{100} q^{133} + 262958258438\, p^{101} q^{133}$$
$$+ 408223\, p^{158} q^{92} + 152035\, p^{161} q^{134} + 21363\, p^{162} q^{146} + 573997\, p^{159} q^{103} + 215791\, p^{161} q^{125} + 100253\, p^{155} q^{71} + 43356\, p^{153} q^{62}$$
$$+ 2074729\, q^{131} p^{35} + 280346184899\, p^{121} q^{126} + 508\, p^{165} q^{156} + 2363869806416\, p^{96} q^{124} + 1702184250892\, p^{111} q^{122}$$
$$+ 319584955872\, p^{72} q^{127} + 895742817365\, p^{80} q^{126} + 829411491768\, p^{79} q^{126} + 16723908419\, p^{92} q^{141} + 15928228098\, p^{91} q^{141}$$
$$+ 17470063984\, p^{93} q^{141} + 5804232479\, p^{83} q^{142} + 16586378545\, p^{122} q^{138} + 2369376838914\, p^{93} q^{124} + 2379052058177\, p^{94} q^{124}$$
$$+ 1462926975356\, p^{84} q^{125} + 2412\, p^{93} q^{162} + 1673216556040\, p^{87} q^{125} + 40366686\, p^{129} q^{39} + 84244375520\, p^{136} q^{88} + 333056456\, q^{143} p^{67}$$
$$+ 1607929029943\, p^{86} q^{125} + 139855895743\, p^{66} q^{127} + 75375182208\, p^{64} q^{128} + 282673363768\, p^{71} q^{127} + 217270861519\, p^{69} q^{127}$$
$$+ 188768740526\, p^{68} q^{127} + 162994941673\, p^{67} q^{127} + 248563675844\, p^{70} q^{127} + 763972399147\, p^{78} q^{126} + 699974566814\, p^{77} q^{126}$$
$$+ 961793897820\, p^{119} q^{120} + 109035\, p^{135} q^{34} + 1845790\, p^{106} q^{158} + 12938008\, p^{155} q^{99} + 9376720\, p^{153} q^{83} + 13925548\, p^{155} q^{100}$$
$$+ 8514973\, p^{151} q^{74} + 2728805\, p^{150} q^{66} + 637\, p^{122} q^{20} + 2246438\, p^{148} q^{60} + 59\, p^{110} q^{14} + 281\, p^{121} q^{19} + 6\, p^{98} q^{10} + 1009\, p^{127} q^{23}$$
$$+ 1153752\, p^{148} q^{58} + p^{78} q^{6} + 581517\, p^{158} q^{140} + 4144981\, p^{157} q^{126} + 11951304\, p^{155} q^{98} + 868832\, p^{147} q^{55} + 144482\, p^{158} q^{148}$$
$$+ 116381\, p^{158} q^{149} + 2757\, p^{87} q^{161} + 2063\, p^{86} q^{161} + 1108\, p^{84} q^{161} + 373\, p^{164} q^{160} + 49509\, p^{134} q^{32} + 315025\, p^{139} q^{40}$$
$$+ 19199822\, p^{147} q^{65} + 470916\, p^{140} q^{42} + 350527\, p^{138} q^{39} + 38436\, p^{132} q^{30} + 827859\, p^{156} q^{144} + 20101587\, p^{148} q^{68} + 160\, p^{105} q^{13}$$
$$+ 39396945\, p^{152} q^{88} + 545533\, p^{139} q^{41} + 7142898\, p^{146} q^{59} + 103676\, p^{134} q^{33} + 850814861\, p^{148} q^{96} + 5130637\, q^{143} p^{52} + 801335\, p^{154} q^{148}$$
$$+ 621831\, p^{154} q^{149} + 780\, p^{166} q^{132} + 3\, p^{75} q^{6} + 20724513728\, p^{138} q^{120} + 163462282\, p^{150} q^{126} + 83034034\, p^{143} q^{61} + 15594991\, p^{121} q^{31}$$
$$+ 311740873\, p^{127} q^{42} + 18466307\, p^{151} q^{78} + 13409\, p^{163} q^{112} + 2\, p^{140} q^{29} + 22639\, p^{162} q^{105} + 423\, p^{156} q^{61} + 2495\, p^{165} q^{143} + 123\, p^{150} q^{45}$$
$$+ 10783\, p^{95} q^{13} + 70333544102\, p^{137} q^{107} + 109157300839\, p^{136} q^{102} + 1331849\, p^{142} q^{47} + p^{60} q^{4} + 54037848\, p^{151} q^{85} + 9824180\, p^{155} q^{130}$$
$$+ 27\, p^{166} q^{110} + 118\, p^{166} q^{116} + 148\, p^{167} q^{133} + 47\, p^{168} q^{149} + 19571\, p^{129} q^{27} + 66072476\, p^{152} q^{93} + 40218717\, p^{154} q^{115} + 56\, p^{103} q^{12}$$
$$+ 25553\, p^{130} q^{28} + 43669293\, p^{149} q^{75} + 640\, p^{115} q^{17} + 110877\, p^{136} q^{35} + 169798\, p^{156} q^{151} + q^{159} p^{63} + 2\, q^{159} p^{64} + q^{160} p^{67} + 3350\, q^{160} p^{82}$$
$$+ 13189\, p^{87} q^{160} + 7920\, p^{85} q^{160} + 89820\, p^{161} q^{106} + 16251\, p^{157} q^{73} + 28624\, p^{163} q^{123} + 11599\, p^{157} q^{72} + 31009\, p^{163} q^{129}$$

$$+ 420057\, p^{100}\, q^{159} + 373634\, p^{99}\, q^{159} + 469197\, p^{101}\, q^{159} + 32116\, p^{91}\, q^{160} + 353767563189\, p^{99}\, q^{132} + 12379\, p^{151}\, q^{54} + 629040\, p^{158}\, q^{95}$$
$$+ 47598\, p^{162}\, q^{139} + 3387\, p^{147}\, q^{44} + 32097\, p^{151}\, q^{56} + 13859\, q^{148}\, p^{48} + 4109\, q^{148}\, p^{46} + 1000403\, q^{153}\, p^{72} + 756\, q^{147}\, p^{42} + 713576\, q^{149}\, p^{59}$$
$$+ 344344\, q^{149}\, p^{57} + 499621\, q^{149}\, p^{58} + 206321840699\, p^{108}\, q^{133} + 113059\, p^{159}\, q^{91} + 130186\, p^{161}\, q^{110} + 150768\, p^{161}\, q^{112} + 26827\, p^{155}\, q^{67}$$
$$+ 65\, p^{138}\, q^{29} + 248211\, p^{160}\, q^{105} + 520641300591\, p^{114}\, q^{127} + 2\, p^{95}\, q^{165} + 340999956045\, p^{118}\, q^{127} + 465619288098\, p^{113}\, q^{128}$$
$$+ 509072931519\, p^{109}\, q^{129} + 541703241742\, p^{108}\, q^{129} + 475946051084\, p^{110}\, q^{129} + 425455808831\, p^{114}\, q^{128} + 548770194046\, p^{111}\, q^{128}$$
$$+ 7695\, p^{148}\, q^{47} + 346843\, p^{157}\, q^{85} + 188984\, p^{161}\, q^{130} + 142\, p^{135}\, q^{27} + 474908\, p^{158}\, q^{93} + 864\, p^{166}\, q^{142} + 2205\, p^{165}\, q^{124}$$
$$+ 408815738549\, p^{104}\, q^{131} + p^{170}\, q^{158} + 8\, p^{157}\, q^{169} + 810410\, p^{97}\, q^{158} + 2\, p^{147}\, q^{37} + 853\, p^{160}\, q^{78} + 2611\, p^{164}\, q^{111} + 53\, p^{152}\, q^{48}$$
$$+ 424\, p^{166}\, q^{152} + 2681\, p^{165}\, q^{127} + 13901\, q^{150}\, p^{52} + 23062\, q^{150}\, p^{53} + 7\, q^{145}\, p^{35} + 92\, p^{73}\, q^{160} + q^{144}\, p^{33} + 10\, q^{144}\, p^{34} + 320\, q^{147}\, p^{41}$$
$$+ 252216\, p^{96}\, q^{159} + 195\, q^{146}\, p^{39} + 2268629\, p^{141}\, q^{155} + 4289\, p^{164}\, q^{147} + 6965\, p^{164}\, q^{142} + 29466\, p^{163}\, q^{124} + 4\, p^{135}\, q^{25} + 590941\, q^{153}\, p^{70}$$
$$+ 49843\, q^{151}\, p^{57} + 7355321\, q^{155}\, p^{93} + 180488\, q^{152}\, p^{63} + 3608221500\, q^{138}\, p^{67} + 6349200\, q^{133}\, p^{39} + 16324986\, q^{133}\, p^{41}$$
$$+ 10292681\, q^{133}\, p^{40} + 90068623\, q^{136}\, p^{49} + 191450148\, p^{132}\, q^{46} + 38703168\, q^{133}\, p^{43} + 58007340\, q^{133}\, p^{44} + 597006988\, q^{143}\, p^{70}$$
$$+ 495192962\, q^{143}\, p^{69} + 8560\, p^{154}\, q^{61} + 14846\, p^{163}\, q^{143} + 2089\, p^{148}\, q^{45} + 4589\, p^{150}\, q^{50} + 2687917\, p^{155}\, q^{140} + 26881692\, q^{154}\, p^{99}$$
$$+ 25028139\, q^{154}\, p^{98} + 32210926\, q^{154}\, p^{102} + 35354058\, q^{154}\, p^{104} + 18489199\, q^{155}\, p^{105} + 28711139\, q^{154}\, p^{100} + 33837689\, q^{154}\, p^{103}$$
$$+ 21327952\, q^{154}\, p^{96} + 30494608\, q^{154}\, p^{101} + 23170314\, q^{154}\, p^{97} + 17757624\, q^{154}\, p^{94} + 16059592\, q^{154}\, p^{93} + 9605\, p^{92}\, q^{161} + q^{138}\, p^{27}$$
$$+ 6153\, p^{163}\, q^{106} + 722\, p^{159}\, q^{73} + 2041\, p^{165}\, q^{123} + 463\, p^{159}\, q^{72} + 2939\, p^{165}\, q^{129} + 21012322\, p^{109}\, q^{155} + q^{157}\, p^{57} + 27\, q^{157}\, p^{60} + 12\, q^{157}\, p^{59}$$
$$+ 160\, q^{158}\, p^{66} + 4\, q^{157}\, p^{58} + 220115\, p^{156}\, q^{150} + 44215845\, p^{152}\, q^{89} + 38414833\, p^{154}\, q^{117} + 73492736\, p^{153}\, q^{107} + 26381471\, p^{150}\, q^{76}$$
$$+ 52055120\, p^{150}\, q^{80} + 234\, p^{111}\, q^{15} + 411\, p^{113}\, q^{16} + 35531362\, p^{151}\, q^{82} + 3522815\, p^{143}\, q^{51} + 1413620\, p^{156}\, q^{141} + 5601650\, p^{155}\, q^{135}$$
$$+ 39920974\, p^{154}\, q^{108} + 41215262\, p^{154}\, q^{113} + 11358189\, p^{147}\, q^{63} + 1579224\, p^{143}\, q^{49} + 194118\, p^{138}\, q^{38} + 4535\, p^{123}\, q^{22} + 2\, q^{161}\, p^{72}$$
$$+ 719\, p^{166}\, q^{146} + 1623\, p^{164}\, q^{108} + 211\, p^{157}\, q^{63} + 17\, p^{153}\, q^{49} + p^{148}\, q^{38} + 162439\, p^{154}\, q^{69} + 15\, p^{128}\, q^{21} + 180708\, p^{161}\, q^{131}$$
$$+ 573997\, p^{103}\, q^{159} + 41223448\, q^{131}\, p^{41} + 3\, p^{166}\, q^{104} + 23810542\, p^{154}\, q^{126} + 95956942\, p^{152}\, q^{98} + 207467\, p^{119}\, q^{161} + 474108\, p^{127}\, q^{160}$$
$$+ 215276\, p^{121}\, q^{161} + 211938\, p^{120}\, q^{161} + 630419\, p^{134}\, q^{159} + 574719\, p^{135}\, q^{159} + 502853\, p^{125}\, q^{160} + 7154\, p^{107}\, q^{163} + 56741\, p^{114}\, q^{162}$$
$$+ 5347135\, p^{112}\, q^{157} + 21906564\, p^{113}\, q^{155} + 144482\, p^{148}\, q^{158} + 153540\, p^{159}\, q^{145} + 418020\, p^{159}\, q^{138} + 1320079878\, p^{138}\, q^{62}$$
$$+ 11714895206\, p^{142}\, q^{93} + 3520536921\, p^{140}\, q^{72} + 9467113755\, p^{143}\, q^{105} + 271\, p^{165}\, q^{159} + 3429943\, p^{151}\, q^{70} + 17757624\, p^{154}\, q^{94}$$
$$+ 4985950\, p^{157}\, q^{122} + 3649856\, p^{157}\, q^{128} + 963386\, p^{158}\, q^{136} + 2631979\, p^{157}\, q^{132} + 3188\, p^{165}\, q^{132} + 486551158\, p^{75}\, q^{145}$$

$$+ 7640793\, p^{144}\, q^{55} + 2558755496\, p^{84}\, q^{144} + 2310946479\, p^{83}\, q^{144} + 14186714411\, p^{101}\, q^{142} + 246211\, p^{153}\, q^{67} + 619\, p^{136}\, q^{29}$$
$$+ 1725975\, p^{158}\, q^{105} + 87441\, p^{152}\, q^{61} + 40564\, p^{148}\, q^{50} + 62785\, p^{161}\, q^{143} + 18495\, p^{146}\, q^{45} + 14096109074\, p^{100}\, q^{142}$$
$$+ 18435751491\, p^{108}\, q^{141} + 11224907\, p^{156}\, q^{114} + 1087316486\, p^{107}\, q^{148} + 1090897877\, p^{106}\, q^{148} + 13936407733\, p^{99}\, q^{142}$$
$$+ 15170271733\, p^{117}\, q^{140} + 16449102933\, p^{116}\, q^{140} + 17739645672\, p^{115}\, q^{140} + 8624160336\, p^{125}\, q^{139} + 17775892702\, p^{109}\, q^{141}$$
$$+ 599129\, p^{88}\, q^{157} + 11109456055\, p^{123}\, q^{139} + 3745179234\, p^{132}\, q^{138} + 3429943\, q^{151}\, p^{70} + 4364958\, q^{151}\, p^{71} + 659525816\, p^{77}\, q^{145}$$
$$+ 14035867293\, p^{104}\, q^{142} + 8077230967\, p^{94}\, q^{143} + 8958877079\, p^{97}\, q^{143} + 8698722602\, p^{96}\, q^{143} + 6955297708\, p^{91}\, q^{143}$$
$$+ 155104\, p^{160}\, q^{141} + 2074234\, p^{158}\, q^{108} + 2512259\, p^{158}\, q^{113} + 470155\, p^{151}\, q^{63} + 63761\, p^{147}\, q^{49} + 7984\, p^{142}\, q^{38} + 249\, p^{127}\, q^{22}$$
$$+ 574719\, p^{159}\, q^{135} + 12\, p^{168}\, q^{132} + 81665\, p^{145}\, q^{46} + 258461\, p^{147}\, q^{52} + 8414888\, p^{156}\, q^{104} + 394459\, p^{147}\, q^{53} + 809201\, p^{148}\, q^{57}$$
$$+ 5223833\, p^{111}\, q^{157} + 348273\, p^{158}\, q^{91} + 370577\, p^{160}\, q^{110} + 416666\, p^{160}\, q^{112} + 1330\, p^{162}\, q^{159} + 85891\, p^{154}\, q^{67} + 219\, p^{137}\, q^{29}$$
$$+ 684644\, p^{159}\, q^{105} + 29129\, p^{153}\, q^{61} + 14430\, p^{149}\, q^{50} + 31553\, p^{162}\, q^{143} + 6596\, p^{147}\, q^{45} + 3143\, q^{156}\, p^{65} + 1230\, q^{156}\, p^{63} + 735\, q^{156}\, p^{62}$$
$$+ 1995\, q^{156}\, p^{64} + 3808\, q^{157}\, p^{69} + 234\, q^{156}\, p^{60} + 744\, q^{158}\, p^{69} + 52648\, p^{113}\, q^{162} + 456272\, p^{128}\, q^{160} + 375\, p^{101}\, q^{164} + 217313\, p^{122}\, q^{161}$$
$$+ 520386\, p^{136}\, q^{159} + 8231\, p^{108}\, q^{163} + 60742\, p^{115}\, q^{162} + 436424\, p^{129}\, q^{160} + 666922\, p^{139}\, q^{158} + 18534\, p^{155}\, q^{66} + 11902\, p^{163}\, q^{145}$$
$$+ 22567\, p^{163}\, q^{138} + 540539\, p^{155}\, q^{148} + 423091\, p^{155}\, q^{149} + 3686120\, p^{138}\, q^{155} + 426910\, p^{157}\, q^{145} + 1327612\, p^{157}\, q^{138} + 109035\, p^{137}\, q^{36}$$
$$+ 4151801\, p^{148}\, q^{62} + 1513833\, p^{157}\, q^{137} + 393921\, p^{141}\, q^{43} + 19842500\, p^{155}\, q^{119} + 32210926\, p^{154}\, q^{102} + 30494608\, p^{154}\, q^{101}$$
$$+ 30184738\, p^{153}\, q^{92} + 3756623\, p^{156}\, q^{134} + 350818\, p^{157}\, q^{146} + 381\, p^{160}\, q^{76} + 556\, p^{161}\, q^{82} + 7\, p^{164}\, q^{90} + 11137709\, p^{116}\, q^{156}$$
$$+ 33837689\, p^{154}\, q^{103} + 24578\, p^{139}\, q^{36} + 468060\, p^{159}\, q^{137} + 85305\, p^{143}\, q^{43} + 5396489\, p^{157}\, q^{119} + 7432428\, p^{156}\, q^{102} + 6925441\, p^{156}\, q^{101}$$
$$+ 6553178\, p^{155}\, q^{92} + 1189232\, p^{158}\, q^{134} + 128727\, p^{159}\, q^{146} + 7930810\, p^{156}\, q^{103} + 2242898\, p^{158}\, q^{125} + 1897830\, p^{152}\, q^{71} + 828371\, p^{150}\, q^{62}$$
$$+ 106\, p^{105}\, q^{165} + p^{101}\, q^{166} + 60\, p^{103}\, q^{165} + 79\, p^{104}\, q^{165} + 8188104\, p^{156}\, q^{125} + 9489567\, p^{150}\, q^{71} + 7706694\, p^{149}\, q^{67} + 19149738\, p^{155}\, q^{120}$$
$$+ 4\, p^{82}\, q^{7} + 16367\, p^{132}\, q^{29} + 36738765\, p^{154}\, q^{105} + 3072800\, p^{148}\, q^{61} + 1176765\, p^{144}\, q^{50} + 615135\, p^{157}\, q^{143} + 525894\, p^{142}\, q^{45}$$
$$+ 1872389\, p^{145}\, q^{53} + 3765429\, p^{146}\, q^{57} + 1362530712\, p^{137}\, q^{138} + 188412\, p^{144}\, q^{46} + 589577\, p^{146}\, q^{52} + 17664958\, p^{155}\, q^{104}$$
$$+ 882740\, p^{146}\, q^{53} + 4109\, p^{148}\, q^{46} + 13901\, p^{150}\, q^{52} + 628799\, p^{159}\, q^{104} + 23062\, p^{150}\, q^{53} + 49843\, p^{151}\, q^{57} + 1791421\, p^{147}\, q^{57}$$
$$+ 2414797530\, p^{133}\, q^{139} + 44742019\, p^{149}\, q^{138} + 155122063\, p^{135}\, q^{147} + 87623617\, p^{141}\, q^{145} + 54117305\, p^{143}\, q^{145} + 21\, q^{162}\, p^{80} + 6\, q^{162}\, p^{78}$$
$$+ 3\, q^{162}\, p^{77} + q^{162}\, p^{76} + 12\, q^{162}\, p^{79} + 2196502254\, p^{95}\, q^{146} + 1976247648\, p^{93}\, q^{146} + 2088914271\, p^{94}\, q^{146} + 1202067987\, p^{93}\, q^{147}$$
$$+ 2297682915\, p^{96}\, q^{146} + 2391156280\, p^{97}\, q^{146} + 2475696719\, p^{98}\, q^{146} + 260198\, p^{158}\, q^{145} + 759320\, p^{158}\, q^{138} + 53178\, p^{138}\, q^{36}$$

$$+ 1907709\, p^{149}\, q^{62} + 858260\, p^{158}\, q^{137} + 188292\, p^{142}\, q^{43} + 10566860\, p^{156}\, q^{119} + 15860538\, p^{155}\, q^{102} + 14903679\, p^{155}\, q^{101}$$
$$+ 14436555\, p^{154}\, q^{92} + 2152176\, p^{157}\, q^{134} + 215930\, p^{158}\, q^{146} + 16785073\, p^{155}\, q^{103} + 4378581\, p^{157}\, q^{125} + 4364958\, p^{151}\, q^{71}$$
$$+ 3572106\, p^{150}\, q^{67} + 10269835\, p^{156}\, q^{120} + 2\, p^{83}\, q^{7} + 7984\, p^{133}\, q^{29} + 18489199\, p^{155}\, q^{105} + 1393176\, p^{149}\, q^{61} + 555136\, p^{145}\, q^{50}$$
$$+ 367933\, p^{158}\, q^{143} + 249576\, p^{143}\, q^{45} + 47\, p^{168}\, q^{148} + 372921186\, p^{143}\, q^{137} + 490268335\, p^{83}\, q^{147} + 1206150\, p^{159}\, q^{120}$$
$$+ 613825764\, p^{85}\, q^{147} + 823357854\, p^{88}\, q^{147} + 750834074\, p^{87}\, q^{147} + 680831991\, p^{86}\, q^{147} + 550201782\, p^{84}\, q^{147} + 897854929\, p^{89}\, q^{147}$$
$$+ 153416646\, p^{143}\, q^{141} + 1676280\, p^{130}\, q^{158} + 5672544576\, p^{126}\, q^{140} + q^{154}\, p^{49} + 12\, q^{154}\, p^{51} + 4\, q^{154}\, p^{50} + 3861\, q^{158}\, p^{73} + 5531\, q^{158}\, p^{74}$$
$$+ 2646\, q^{158}\, p^{72} + 7783\, q^{158}\, p^{75} + 3906090514\, p^{98}\, q^{145} + 6181503965\, p^{107}\, q^{144} + 6291167315\, p^{106}\, q^{144} + 4093883918\, p^{100}\, q^{145}$$
$$+ 6043151476\, p^{108}\, q^{144} + 1126579830\, p^{92}\, q^{147} + 477592707\, p^{88}\, q^{148} + 973696092\, p^{90}\, q^{147} + 1050189866\, p^{91}\, q^{147} + 5347135\, p^{157}\, q^{112}$$
$$+ 5801660\, p^{155}\, q^{91} + 82059\, p^{122}\, q^{162} + 20950\, p^{117}\, q^{163} + 368177\, p^{132}\, q^{160} + 4159495179\, p^{101}\, q^{145} + 4009018584\, p^{99}\, q^{145}$$
$$+ 4229473817\, p^{103}\, q^{145} + 10357686978\, p^{113}\, q^{142} + 8434792808\, p^{120}\, q^{141} + 4265064712\, p^{128}\, q^{140} + 4934571447\, p^{127}\, q^{140}$$
$$+ 7628717780\, p^{121}\, q^{141} + 8529515519\, p^{116}\, q^{142} + 8628330645\, p^{109}\, q^{143} + 8897962960\, p^{108}\, q^{143} + 1741055644\, p^{91}\, q^{146}$$
$$+ 6133093477\, p^{123}\, q^{141} + 9759924765\, p^{114}\, q^{142} + 3504215759\, p^{95}\, q^{145} + 6418611083\, p^{102}\, q^{144} + 6370460641\, p^{101}\, q^{144}$$
$$+ 3460078970\, p^{131}\, q^{139} + 7295637062\, p^{118}\, q^{142} + 3786534763\, p^{97}\, q^{145} + 7539631\, q^{150}\, p^{70} + 17959215\, q^{150}\, p^{74} + 11838235\, q^{150}\, p^{72}$$
$$+ 2901171812\, p^{132}\, q^{139} + 1085759279\, p^{138}\, q^{138} + 9148305992\, p^{115}\, q^{142} + 6860136568\, p^{122}\, q^{141} + 9129668726\, p^{107}\, q^{143}$$
$$+ 9273377257\, p^{119}\, q^{141} + 40822875\, p^{154}\, q^{114} + 1112\, q^{152}\, p^{52} + 85891\, q^{154}\, p^{67} + 29479\, q^{154}\, p^{64} + 42804\, q^{154}\, p^{65} + 118953\, q^{154}\, p^{68}$$
$$+ 61122\, q^{154}\, p^{66} + 292\, q^{150}\, p^{46} + 383678\, q^{154}\, p^{72} + 218983\, q^{154}\, p^{70} + 3175539\, q^{156}\, p^{93} + 68\, q^{146}\, p^{38} + 39481\, q^{152}\, p^{59} + 59326\, q^{152}\, p^{60}$$
$$+ 291546\, q^{154}\, p^{71} + 499290\, q^{154}\, p^{73} + 819457\, q^{154}\, p^{75} + 642928\, q^{154}\, p^{74} + 1034413\, q^{154}\, p^{76} + 1603115\, q^{154}\, p^{78} + 1293524\, q^{154}\, p^{77}$$
$$+ 568\, q^{149}\, p^{45} + 188\, q^{148}\, p^{42} + 249\, q^{149}\, p^{44} + 69\, q^{148}\, p^{41} + 1348715\, q^{156}\, p^{87} + 8121\, q^{150}\, p^{51} + 4589\, q^{150}\, p^{50} + 1293\, q^{150}\, p^{48}$$
$$+ 2489\, q^{150}\, p^{49} + 234087\, q^{155}\, p^{74} + 621903\, q^{155}\, p^{78} + 494514\, q^{155}\, p^{77} + 389368\, q^{155}\, p^{76} + 2\, q^{147}\, p^{37} + 11\, q^{147}\, p^{38} + 12345\, q^{153}\, p^{59}$$
$$+ 19168\, q^{153}\, p^{60} + 6167\, q^{152}\, p^{55} + 10204\, q^{152}\, p^{56} + 178571\, q^{155}\, p^{73} + 303534\, q^{155}\, p^{75} + 633\, q^{150}\, p^{47} + 123\, q^{150}\, p^{45} + 22\, q^{148}\, p^{40}$$
$$+ 4745\, q^{153}\, p^{57} + 7753\, q^{153}\, p^{58} + 3577341\, q^{156}\, p^{94} + 3617\, q^{152}\, p^{54} + 2044\, q^{152}\, p^{53} + 10407612\, q^{156}\, p^{109} + 2800656\, q^{156}\, p^{92}$$
$$+ 1200\, q^{149}\, p^{46} + 1969541\, q^{154}\, p^{79} + 162439\, q^{154}\, p^{69} + 2073583\, q^{157}\, p^{97} + 4004218\, q^{156}\, p^{95} + 1128\, p^{164}\, q^{106} + 92\, p^{160}\, q^{73}$$
$$+ 360\, p^{166}\, q^{123} + 53\, p^{160}\, q^{72} + 652\, p^{166}\, q^{129} + 1009\, q^{148}\, p^{44} + 10\, q^{149}\, p^{41} + 4454101\, q^{156}\, p^{96} + 220\, p^{164}\, q^{99} + 41\, q^{147}\, p^{39} + 19\, q^{146}\, p^{37}$$
$$+ 5\, q^{148}\, p^{39} + 87441\, q^{152}\, p^{61} + 956868\, q^{156}\, p^{85} + 1583281\, q^{156}\, p^{88} + 2135148\, q^{156}\, p^{90} + 1140408\, q^{156}\, p^{86} + 796601\, q^{156}\, p^{84} + 35\, q^{149}\, p^{42}$$

$$+ 1257\, q^{151} p^{50} + 637\, q^{151} p^{49} + 302\, q^{151} p^{48} + q^{145} p^{34} + 4\, q^{146} p^{36} + 12379\, q^{151} p^{54} + 2364\, q^{151} p^{51} + 4251\, q^{151} p^{52} + 7378\, q^{151} p^{53}$$
$$+ 16406\, q^{152} p^{57} + 25747\, q^{152} p^{58} + 43356\, q^{153} p^{62} + 29129\, q^{153} p^{61} + 128709\, q^{153} p^{65} + 333695\, q^{153} p^{68} + 179250\, q^{153} p^{66}$$
$$+ 246211\, q^{153} p^{67} + 63378\, q^{153} p^{63} + 91027\, q^{153} p^{64} + 20200\, q^{151} p^{55} + 453\, q^{148} p^{43} + 2\, q^{143} p^{32} + 5801660\, q^{155} p^{91} + 1845115\, q^{156} p^{89}$$
$$+ 10681860\, q^{156} p^{110} + 773050\, q^{153} p^{71} + p^{165} q^{93} + 9\, p^{169} q^{153} + 96\, p^{166} q^{115} + 87\, p^{164} q^{96} + 6553178\, q^{155} p^{92} + 48537\, p^{162} q^{112}$$
$$+ 16\, p^{139} q^{29} + 80519\, p^{161} q^{105} + 2138\, p^{155} q^{61} + 6420\, p^{164} q^{143} + 568\, p^{149} q^{45} + 1257\, p^{151} q^{50} + 7269\, p^{156} q^{67} + 446731\, q^{153} p^{69}$$
$$+ 47\, q^{150} p^{44} + q^{148} p^{38} + 100\, q^{149} p^{43} + 1171467\, q^{155} p^{81} + 2425907\, q^{155} p^{85} + 2045980\, q^{155} p^{84} + 3869958\, q^{155} p^{88} + 5102973\, q^{155} p^{90}$$
$$+ 2453622\, q^{156} p^{91} + 2854933\, q^{155} p^{86} + 4459013\, q^{155} p^{89} + 1422096\, q^{155} p^{82} + 3335758\, q^{155} p^{87} + 1712526\, q^{155} p^{83} + 956885\, q^{155} p^{80}$$
$$+ 774934\, q^{155} p^{79} + 104220846200\, p^{129} q^{124} + 38923365570\, p^{133} q^{125} + 6332162801\, q^{125} p^{49} + 23314241\, q^{152} p^{84} + 5219617\, q^{146} p^{58}$$
$$+ 43669293\, q^{149} p^{75} + 36188439\, q^{149} p^{74} + 174918648\, q^{136} p^{51} + 126326530\, q^{136} p^{50} + 33022\, p^{146} q^{46} + 106110\, p^{148} q^{52}$$
$$+ 3794079\, p^{157} q^{104} + 165608\, p^{148} q^{53} + 344344\, p^{149} q^{57} + 3159823\, p^{139} q^{155} + 31498266\, p^{148} q^{70} + 136358245\, p^{151} q^{94}$$
$$+ 136915\, q^{124} p^{26} + 846342\, q^{125} p^{29} + 31144464\, p^{154} q^{122} + 20104995\, p^{154} q^{128} + 4906976\, p^{155} q^{136} + 13321175\, p^{154} q^{132}$$
$$+ 15855032\, p^{149} q^{143} + 11271415\, p^{150} q^{143} + 4227458859\, p^{80} q^{142} + 9201425\, p^{138} q^{153} + 5017009\, p^{139} q^{154} + 882740\, p^{118} q^{25}$$
$$+ 94412026\, p^{128} q^{40} + 5684587583\, p^{136} q^{65} + 2063\, p^{85} q^{10} + 1212359438\, p^{147} q^{117} + 395802952\, p^{141} q^{63} + 2186917\, p^{132} q^{36}$$
$$+ 195\, q^{132} p^{25} + 69\, q^{130} p^{23} + 1694\, q^{131} p^{26} + 503\, q^{131} p^{25} + 510227054\, p^{79} q^{146} + 4101546526\, q^{140} p^{73} + 4747817843\, q^{140} p^{74}$$
$$+ 3520536921\, q^{140} p^{72} + 277\, q^{158} p^{67} + 5461387868\, q^{140} p^{75} + 3115600844\, q^{136} p^{62} + 2510261408\, q^{136} p^{61} + 141315\, p^{100} q^{160}$$
$$+ 79244\, p^{96} q^{160} + 56645\, p^{94} q^{160} + 851723\, p^{108} q^{159} + 101692747\, p^{152} q^{99} + 1164902\, p^{153} q^{148} + 896766\, p^{153} q^{149}$$
$$+ 40341655187\, p^{139} q^{96} + 829492\, p^{157} q^{90} + 17\, p^{122} q^{18} + 810410\, p^{158} q^{97} + 756\, q^{129} p^{24} + 503168\, p^{158} q^{141} + 10085280\, p^{156} q^{108}$$
$$+ 11177207\, p^{156} q^{113} + 2579980\, p^{149} q^{63} + 356157\, p^{145} q^{49} + 44446\, p^{140} q^{38} + 1200\, p^{125} q^{22} + 1927116\, p^{157} q^{135} + 4811\, p^{162} q^{96}$$
$$+ 141\, p^{167} q^{153} + 175\, p^{159} q^{70} + 4367\, p^{164} q^{115} + 10363857\, p^{145} q^{58} + 34479\, p^{158} q^{80} + 8245\, q^{149} p^{49} + 73\, q^{141} p^{32}$$
$$+ 17224850510424\, p^{88} q^{112} + 10262480950130\, p^{112} q^{106} + 1519728720619\, p^{92} q^{126} + 21622373041326\, p^{95} q^{110}$$
$$+ 40629618049\, p^{130} q^{64} + 3027782643\, q^{111} p^{36} + 35051245679\, p^{132} q^{67} + 7760106667\, p^{130} q^{56} + 22906459779644\, p^{97} q^{109}$$
$$+ 302602252\, p^{138} q^{143} + 4276083\, p^{157} q^{106} + 1281512\, p^{153} q^{73} + 905181\, p^{109} q^{159} + 294883\, p^{158} q^{90} + 5\, p^{123} q^{18} + 289563\, p^{159} q^{97}$$
$$+ 84955796047\, q^{127} p^{63} + 58889475500\, q^{127} p^{61} + 48505286925\, q^{127} p^{60} + 39656606382\, q^{127} p^{59} + 70981625034\, q^{127} p^{62}$$
$$+ 313842918\, q^{141} p^{62} + 395802952\, q^{141} p^{63} + 494909606\, q^{141} p^{64} + 31459431\, q^{140} p^{52} + 145599946\, q^{140} p^{57} + 109658454\, q^{140} p^{56}$$

$$+ 3976917477520\, p^{71} q^{115} + 16927655740543\, p^{87} q^{112} + 20033440350619\, p^{91} q^{111} + 15535176069933\, p^{107} q^{107}$$
$$+ 16112544904408\, p^{85} q^{112} + 19972471972238\, p^{92} q^{111} + 224336764714\, q^{116} p^{54} + 112676677495\, q^{116} p^{51} + 142938437864\, q^{116} p^{52}$$
$$+ 560644812\, p^{67} q^{142} + 930027147\, p^{126} q^{44} + 179804052470\, q^{116} p^{53} + 2828881971321\, p^{68} q^{115} + 492167\, q^{144} p^{48}$$
$$+ 22336558115904\, p^{93} q^{110} + 2496597122340\, p^{67} q^{115} + 104369866247\, p^{133} q^{117} + 66038586085\, p^{129} q^{65} + 91147086861\, p^{129} q^{67}$$
$$+ 20682431788\, p^{127} q^{56} + 1528\, p^{86} q^{10} + 570773053272\, p^{113} q^{127} + 16275360234\, p^{111} q^{141} + 14206921054\, p^{102} q^{142}$$
$$+ 80596475\, p^{150} q^{83} + 107190313\, p^{152} q^{100} + 7724088247\, p^{93} q^{143} + 1528\, p^{85} q^{161} + 590594\, p^{147} q^{54} + 19245965\, p^{155} q^{106}$$
$$+ 6875136\, p^{151} q^{73} + 101216\, p^{149} q^{54} + 826\, p^{163} q^{159} + 408223\, q^{158} p^{92} + 102\, p^{134} q^{26} + 4004218\, p^{156} q^{95} + 197370\, p^{160} q^{139}$$
$$+ 26513\, p^{145} q^{44} + 233292\, p^{149} q^{56} + 3\, p^{103} q^{11} + 2817179850\, p^{85} q^{144} + 1412242311\, p^{83} q^{145} + 4197369964\, p^{90} q^{144}$$
$$+ 3637139895\, p^{88} q^{144} + 3358552694\, p^{87} q^{144} + 3084463123\, p^{86} q^{144} + 3917664149\, p^{89} q^{144} + 2543146\, p^{153} q^{76} + 27\, p^{114} q^{15}$$
$$+ 51\, p^{116} q^{16} + 3476826\, p^{154} q^{82} + 386373\, p^{146} q^{51} + 5616892\, p^{153} q^{80} + 12446556248\, p^{87} q^{141} + 13514128370\, p^{83} q^{140} + 87259\, p^{160} q^{145}$$
$$+ 220235\, p^{160} q^{138} + 603679248\, p^{113} q^{149} + 4805049273522\, p^{112} q^{114} + 325235929399\, p^{70} q^{126} + 284884773310\, p^{69} q^{126}$$
$$+ 43324740646\, p^{58} q^{126} + p^{154} q^{170} + 2348704914945\, p^{111} q^{120} + 744\, p^{158} q^{69} + 3127\, p^{165} q^{131} + 16692064158\, q^{139} p^{81}$$
$$+ 30488342\, q^{151} p^{81} + 8718432990\, p^{136} q^{130} + 32757\, p^{162} q^{108} + 5446\, p^{155} q^{63} + 637\, p^{151} q^{49} + 68\, p^{146} q^{38} + 1859794949826\, p^{118} q^{116}$$
$$+ 1620303095129\, p^{119} q^{116} + 9\, p^{169} q^{154} + 9\, p^{168} q^{165} + 28\, p^{165} q^{166} + 35\, p^{162} q^{167} + 5443426\, p^{113} q^{157} + 7\, p^{160} q^{69} + 123\, p^{167} q^{131}$$
$$+ 2\, p^{76} q^{6} + 1662117\, p^{156} q^{140} + 13757902\, p^{155} q^{126} + 50025093\, p^{153} q^{98} + 3872979\, p^{145} q^{55} + 356929\, p^{156} q^{148} + 281868\, p^{156} q^{149}$$
$$+ 15757079\, p^{149} q^{70} + 71996327\, p^{152} q^{94} + 17542687\, p^{155} q^{122} + 11766547\, p^{155} q^{128} + 2945000\, p^{156} q^{136} + 8001190\, p^{155} q^{132}$$
$$+ 53353528\, p^{153} q^{99} + 5219617\, p^{146} q^{58} + 41130154\, p^{151} q^{83} + 56590539\, p^{153} q^{100} + 21686411\, p^{111} q^{155} + 36188439\, p^{149} q^{74}$$
$$+ 12371535\, p^{148} q^{66} + 2364\, p^{120} q^{20} + 9656790\, p^{146} q^{60} + 211\, p^{108} q^{14} + 54814\, p^{144} q^{161} + 43437\, p^{140} q^{162} + 47598\, p^{139} q^{162}$$
$$+ 51804\, p^{138} q^{162} + 10200\, p^{128} q^{164} + 27767\, p^{134} q^{163} + 28768\, p^{133} q^{163} + 62785\, p^{143} q^{161} + 1112\, p^{119} q^{19} + 22\, p^{96} q^{10}$$
$$+ 5434061\, p^{141} q^{153} + 2950962\, p^{142} q^{154} + 4109\, p^{125} q^{23} + 21403979\, p^{110} q^{155} + 11224907\, p^{114} q^{156} + 4484848\, p^{142} q^{153}$$
$$+ 2431353\, p^{143} q^{154} + 2312\, q^{144} p^{39} + 1003\, q^{144} p^{38} + 512\, q^{143} p^{36} + 165181\, q^{151} p^{60} + 5728364\, q^{154} p^{85} + 4136812\, q^{154} p^{83}$$
$$+ 4885708\, q^{154} p^{84} + 6669179\, q^{154} p^{86} + 8855521\, q^{154} p^{88} + 7710901\, q^{154} p^{87} + 10102837\, q^{154} p^{89} + 12897862\, q^{154} p^{91}$$
$$+ 11451566\, q^{154} p^{90} + 40564\, q^{148} p^{50} + 211\, p^{165} q^{160} + 52\, p^{160} q^{167} + 40\, p^{166} q^{164} + 4903382\, p^{109} q^{157} + 45\, p^{153} q^{50} + 277\, p^{158} q^{67}$$
$$+ 182\, q^{143} p^{35} + 2055977\, q^{151} p^{68} + 2669141\, q^{151} p^{69} + 27\, q^{156} p^{57} + 1025\, q^{157} p^{66} + 12066\, p^{138} q^{34} + 31979\, p^{142} q^{40} + 2061844\, p^{150} q^{65}$$

$$+ 47551\, p^{143}\, q^{42} + 38436\, p^{141}\, q^{39} + 4297\, p^{135}\, q^{30} + 181479\, p^{159}\, q^{144} + 2055977\, p^{151}\, q^{68} + 22\, p^{108}\, q^{13} + 5129\, p^{137}\, q^{32} + 2074729\, q^{136}\, p^{40}$$
$$+ 10003506696\, q^{127}\, p^{53} + 218983\, p^{154}\, q^{70} + 525526\, p^{160}\, q^{122} + 456272\, p^{160}\, q^{128} + 131177\, p^{161}\, q^{136} + 368177\, p^{160}\, q^{132}$$
$$+ 1123912\, p^{159}\, q^{114} + 1458029\, p^{157}\, q^{94} + 5252034014\, p^{82}\, q^{142} + 87997\, p^{159}\, q^{148} + 3617\, p^{152}\, q^{54} + 218146\, p^{159}\, q^{95} + 21069\, p^{163}\, q^{139}$$
$$+ 1009\, p^{148}\, q^{44} + 10204\, p^{152}\, q^{56} + 71691\, p^{159}\, q^{149} + 186501648\, q^{151}\, p^{118} + 2989891140\, p^{143}\, q^{81} + 687666554\, p^{147}\, q^{124}$$
$$+ 1342473136\, p^{141}\, q^{69} + 188412\, p^{125}\, q^{27} + 9\, p^{169}\, q^{155} + 17169354034\, p^{119}\, q^{139} + 472321960908\, p^{115}\, q^{127} + 301098938454\, p^{110}\, q^{131}$$
$$+ 8904\, p^{124}\, q^{164} + 74519\, p^{132}\, q^{162} + 1484\, p^{164}\, q^{154} + 86788\, p^{152}\, q^{157} + 31082\, p^{128}\, q^{163} + 142\, q^{135}\, p^{27} + 426118448618\, p^{116}\, q^{127}$$
$$+ 243743404609\, p^{122}\, q^{126} + 382279713507\, p^{117}\, q^{127} + 6203\, p^{153}\, q^{162} + 284372716382\, p^{116}\, q^{129} + 107937\, q^{142}\, p^{42} + 59845\, q^{142}\, p^{41}$$
$$+ 31979\, q^{142}\, p^{40} + 411330234507\, p^{118}\, q^{126} + 84020535589\, p^{132}\, q^{121} + 13592409467\, p^{106}\, q^{142} + 12901114434\, p^{108}\, q^{142}$$
$$+ 2091349341\, p^{135}\, q^{138} + 1735826824\, p^{85}\, q^{145} + 506835957162\, p^{112}\, q^{128} + 57084575734\, p^{96}\, q^{138} + 327610457131\, p^{103}\, q^{132}$$
$$+ 317438991748\, p^{104}\, q^{132} + 306057519887\, p^{105}\, q^{132} + 293612984933\, p^{106}\, q^{132} + 176189223201\, p^{127}\, q^{123} + 210598336230\, p^{126}\, q^{123}$$
$$+ 19571\, q^{144}\, p^{42} + 64855\, q^{144}\, p^{44} + 8714563814\, p^{131}\, q^{58} + 595558\, p^{110}\, q^{21} + 7281386\, p^{123}\, q^{31} + 136691320\, p^{143}\, q^{63}$$
$$+ 144763921\, p^{129}\, q^{42} + 11599\, q^{157}\, p^{72} + 16251\, q^{157}\, p^{73} + 22397\, q^{157}\, p^{74} + 30453\, q^{157}\, p^{75} + 1782\, p^{153}\, q^{164} + 1791\, p^{156}\, q^{163}$$
$$+ 16820528\, p^{153}\, q^{87} + 6712888\, p^{153}\, q^{81} + 1653\, p^{128}\, q^{24} + 10681860\, p^{156}\, q^{110} + 29758196\, p^{149}\, q^{73} + 2713485\, p^{145}\, q^{54}$$
$$+ 71939907\, p^{153}\, q^{106} + 4906976\, p^{136}\, q^{155} + 9142026\, p^{135}\, q^{154} + 20087762447\, q^{138}\, p^{79} + 1229215\, q^{132}\, p^{35} + 55\, q^{143}\, p^{34}$$
$$+ 70026339\, p^{148}\, q^{74} + 24595704\, p^{147}\, q^{66} + 190\, p^{167}\, q^{149} + 1180996\, p^{151}\, q^{66} + 1004023\, p^{149}\, q^{60} + 27\, p^{111}\, q^{14} + 127\, p^{122}\, q^{19} + 2\, p^{99}\, q^{10}$$
$$+ 453\, p^{128}\, q^{23} + 499621\, p^{149}\, q^{58} + 326356\, p^{159}\, q^{140} + 2141247\, p^{158}\, q^{126} + 5410318\, p^{156}\, q^{98} + 379476\, p^{148}\, q^{55} + 302\, p^{123}\, q^{20}$$
$$+ 5909127\, p^{156}\, q^{99} + 4136812\, p^{154}\, q^{83} + 6415939\, p^{156}\, q^{100} + 3833122\, p^{152}\, q^{74} + 15\, p^{150}\, q^{43} + 6437\, p^{164}\, q^{119} + 3096\, p^{163}\, q^{102}$$
$$+ 2551\, p^{163}\, q^{101} + 2802796626\, p^{139}\, q^{68} + 1030185999\, p^{137}\, q^{59} + 4191488785\, p^{144}\, q^{116} + 8077230967\, p^{143}\, q^{94} + 1020761120\, p^{145}\, q^{127}$$
$$+ 5878018317\, p^{144}\, q^{109} + 5487361\, p^{129}\, q^{35} + 12211952789\, p^{94}\, q^{142} + 12665686218\, p^{95}\, q^{142} + 4080693399\, p^{84}\, q^{143}$$
$$+ 5296525547\, p^{87}\, q^{143} + 4882179816\, p^{86}\, q^{143} + 13419789575\, p^{97}\, q^{142} + 896766\, p^{149}\, q^{153} + 476898\, p^{150}\, q^{154} + 290\, p^{133}\, q^{26}$$
$$+ 12963954213\, p^{124}\, q^{138} + 3123483700\, p^{130}\, q^{140} + 1329730269\, p^{136}\, q^{139} + 613000\, q^{131}\, p^{33} + 2650624827\, p^{108}\, q^{146}$$
$$+ 2722700131\, p^{106}\, q^{146} + 2693240359\, p^{107}\, q^{146} + 2595449030\, p^{109}\, q^{146} + 3968008792\, p^{143}\, q^{121} + 13208\, p^{109}\, q^{17} + 413731801\, p^{74}\, q^{145}$$
$$+ 10537\, p^{160}\, q^{155} + 137514622\, q^{139}\, p^{55} + 22665492\, q^{138}\, p^{48} + 1108\, p^{87}\, q^{10} + 8\, q^{155}\, p^{53} + 2\, q^{155}\, p^{52} + p^{170}\, q^{154} + 21854605\, p^{112}\, q^{155}$$
$$+ 910684\, p^{98}\, q^{158} + 11828738\, p^{133}\, q^{154} + 6350679\, p^{134}\, q^{155} + 1900592\, p^{146}\, q^{153} + 1021028\, p^{147}\, q^{154} + 716433\, p^{96}\, q^{158}$$

$$+ 19149738\, p^{120}\, q^{155} + 61122\, p^{154}\, q^{66} + 21944471\, p^{127}\, q^{154} + 11766547\, p^{128}\, q^{155} + 24526\, p^{162}\, q^{145} + 51804\, p^{162}\, q^{138}$$
$$+ 11137709\, p^{156}\, q^{116} + 2387812\, p^{157}\, q^{133} + 2882868\, p^{157}\, q^{131} + 5935171\, p^{150}\, q^{69} + 633\, p^{124}\, q^{21} + 11451566\, p^{154}\, q^{90} + 231\, p^{119}\, q^{18}$$
$$+ 10976033\, p^{155}\, q^{97} + 876720911740\, p^{116}\, q^{123} + 7640793\, p^{116}\, q^{27} + 4378581\, p^{125}\, q^{157} + 1691472675798\, p^{102}\, q^{125} + 15605520\, p^{129}\, q^{37}$$
$$+ 6243483755\, p^{140}\, q^{76} + 40366686\, q^{129}\, p^{39} + 24028119\, q^{128}\, p^{37} + 85305\, p^{128}\, q^{28} + 15532650722\, p^{120}\, q^{139} + 205932402\, p^{145}\, q^{137}$$
$$+ 783478500343\, p^{86}\, q^{128} + 411739710545\, p^{80}\, q^{129} + 46046\, p^{151}\, q^{159} + 2256\, p^{163}\, q^{155} + 1916483\, q^{130}\, p^{34} + 15092790706\, p^{90}\, q^{141}$$
$$+ 1908136622\, p^{145}\, q^{86} + 2740670140\, p^{146}\, q^{104} + 74816477\, p^{139}\, q^{53} + 20159364\, p^{136}\, q^{45} + 2085891599\, p^{145}\, q^{87} + 231736736\, p^{148}\, q^{130}$$
$$+ 29684220368\, p^{101}\, q^{140} + 525894\, q^{142}\, p^{45} + 6875136\, q^{151}\, p^{73} + 2584074278810\, p^{87}\, q^{123} + 973561338531\, p^{73}\, q^{123}$$
$$+ 1191886288182\, p^{75}\, q^{123} + 275\, p^{166}\, q^{121} + 59\, p^{163}\, q^{88} + 581517\, p^{140}\, q^{158} + 218852244970\, q^{132}\, p^{83} + 1038458860483\, p^{76}\, q^{124}$$
$$+ 1080165018628\, p^{74}\, q^{123} + 45\, p^{168}\, q^{152} + 872614557488\, p^{72}\, q^{123} + 13089832887\, p^{135}\, q^{129} + 17108683655\, p^{133}\, q^{130}$$
$$+ 9887087171\, p^{126}\, q^{138} + 2989891140\, p^{81}\, q^{143} + 6370600411\, p^{105}\, q^{144} + 7248495508\, p^{113}\, q^{143} + 117087\, p^{157}\, q^{80} + 85446061\, p^{128}\, q^{151}$$
$$+ 76521868\, p^{129}\, q^{151} + 68102774\, p^{130}\, q^{151} + 135562562\, p^{123}\, q^{151} + 120073070\, p^{142}\, q^{143} + 153416646\, p^{141}\, q^{143} + 183469386\, p^{139}\, q^{144}$$
$$+ 42714154\, p^{148}\, q^{140} + 2389765\, p^{145}\, q^{153} + 1287279\, p^{146}\, q^{154} + 132236435\, p^{128}\, q^{150} + 104367949\, p^{130}\, q^{150} + 43784927\, p^{136}\, q^{150}$$
$$+ 163462282\, p^{126}\, q^{150} + 136672983\, p^{139}\, q^{145} + 199709134\, p^{141}\, q^{142} + 24996624\, p^{151}\, q^{137} + 36985682\, p^{149}\, q^{139} + 125062964\, p^{124}\, q^{151}$$
$$+ 52914705\, p^{132}\, q^{151} + 40035978\, p^{134}\, q^{151} + 29459654\, p^{136}\, q^{151} + 34466084\, p^{135}\, q^{151} + 46183886\, p^{133}\, q^{151} + 60225854\, p^{131}\, q^{151}$$
$$+ 73071239\, p^{147}\, q^{139} + 52365704\, p^{148}\, q^{139} + 19449607\, p^{136}\, q^{152} + 6457\, p^{132}\, q^{28} + 10457769\, p^{151}\, q^{75} + 170\, p^{117}\, q^{17} + 26018\, p^{138}\, q^{35}$$
$$+ 73060\, p^{158}\, q^{151} + 1621000\, p^{148}\, q^{59} + 26018\, p^{136}\, q^{33} + 760412095\, p^{78}\, q^{145} + 4251\, p^{119}\, q^{20} + 5510817\, p^{157}\, q^{114} + 1200\, p^{149}\, q^{46}$$
$$+ 4251\, p^{151}\, q^{52} + 224774\, p^{160}\, q^{104} + 7378\, p^{151}\, q^{53} + 16406\, p^{152}\, q^{57} + 470\, p^{163}\, q^{94} + 693\, p^{165}\, q^{114} + 836111294\, p^{137}\, q^{140}$$
$$+ 1033208711\, p^{136}\, q^{140} + 2001924646\, p^{131}\, q^{141} + 36738765\, q^{154}\, p^{105} + 179250\, p^{153}\, q^{66} + 1498301820\, p^{131}\, q^{142} + 2886756947\, p^{124}\, q^{143}$$
$$+ 18774356\, p^{145}\, q^{60} + 670896897\, p^{138}\, q^{140} + 1580911207\, p^{119}\, q^{146} + 2163158999\, p^{114}\, q^{146} + 2135393775\, p^{120}\, q^{145}$$
$$+ 2053461263\, p^{115}\, q^{146} + 1955428737\, p^{121}\, q^{145} + 2318942625\, p^{119}\, q^{145} + 596698328\, p^{100}\, q^{149} + 4\, p^{144}\, q^{169} + 3\, p^{142}\, q^{169} + 4\, p^{143}\, q^{169}$$
$$+ 1821269239\, p^{117}\, q^{146} + 1678304235\, p^{109}\, q^{147} + 108160426\, p^{147}\, q^{137} + 659846672\, p^{109}\, q^{149} + 650353724\, p^{110}\, q^{149}$$
$$+ 1640959988\, p^{110}\, q^{147} + 1357035099\, p^{115}\, q^{147} + 1424358852\, p^{114}\, q^{147} + 1487204186\, p^{113}\, q^{147} + 1596237666\, p^{111}\, q^{147}$$
$$+ 1286078905\, p^{116}\, q^{147} + 1212359438\, p^{117}\, q^{147} + 1701461391\, p^{118}\, q^{146} + 1780529177\, p^{122}\, q^{145} + 1544751226\, p^{112}\, q^{147} + 281\, p^{152}\, q^{50}$$
$$+ 1632\, p^{157}\, q^{67} + 679562217\, p^{139}\, q^{139} + 1728866892\, p^{107}\, q^{147} + 2450667772\, p^{111}\, q^{146} + 2363046584\, p^{112}\, q^{146} + 2805483951\, p^{121}\, q^{144}$$

$$+ 3073877303\, p^{120}\, q^{144} + 2546031244\, p^{122}\, q^{144} + 3053864474\, p^{115}\, q^{145} + 2690024805\, p^{117}\, q^{145} + 2725578642\, p^{127}\, q^{142}$$
$$+ 1176546228\, p^{134}\, q^{141} + 970871304\, p^{135}\, q^{141} + 1757620259\, p^{130}\, q^{142} + 3228518425\, p^{123}\, q^{143} + 2370220911\, p^{128}\, q^{142}$$
$$+ 1268377992\, p^{132}\, q^{142} + 2047851313\, p^{129}\, q^{142} + 1414959826\, p^{133}\, q^{141} + 308178\, p^{144}\, q^{47} + 12730314\, p^{153}\, q^{85} + 3137824\, p^{157}\, q^{130}$$
$$+ 4981\, p^{131}\, q^{27} + 16059592\, p^{154}\, q^{93} + 11211560\, p^{156}\, q^{115} + 14\, p^{105}\, q^{12} + 1460848837\, p^{120}\, q^{146} + 1990099296\, p^{127}\, q^{143}$$
$$+ 2873841112\, p^{116}\, q^{145} + 1472555\, p^{152}\, q^{70} + 8203964\, p^{155}\, q^{94} + 2490149\, p^{158}\, q^{122} + 1917374\, p^{158}\, q^{128} + 520386\, p^{159}\, q^{136}$$
$$+ 1429920\, p^{158}\, q^{132} + 3349131572\, p^{119}\, q^{144} + 9818139896\, p^{124}\, q^{139} + 165608\, q^{148}\, p^{53} + 106110\, q^{148}\, p^{52} + 253145\, q^{148}\, p^{54}$$
$$+ 206402\, p^{158}\, q^{88} + 3651\, p^{145}\, q^{41} + 1736245822\, p^{128}\, q^{143} + 7348571072\, p^{92}\, q^{143} + 1044134954\, p^{110}\, q^{148} + 20516734\, p^{108}\, q^{155}$$
$$+ 525\, p^{166}\, q^{150} + 1266339241\, p^{135}\, q^{140} + 14156403954\, p^{103}\, q^{142} + 1081426121\, p^{104}\, q^{148} + 17052668477\, p^{110}\, q^{141} + 370\, p^{107}\, q^{14}$$
$$+ 40827\, p^{157}\, q^{76} + 57288\, p^{158}\, q^{82} + 8121\, p^{150}\, q^{51} + 1072391669\, p^{139}\, q^{137} + 568343494\, p^{76}\, q^{145} + 646244970\, p^{103}\, q^{149}$$
$$+ 656858102\, p^{104}\, q^{149} + 664230005\, p^{105}\, q^{149} + 668249330\, p^{106}\, q^{149} + 4480043535\, p^{131}\, q^{138} + 991959384\, p^{80}\, q^{145} + 327770829\, p^{76}\, q^{146}$$
$$+ 1262831455\, p^{82}\, q^{145} + 1122590252\, p^{81}\, q^{145} + 8403529535\, p^{95}\, q^{143} + q^{133}\, p^{23} + 19023593914\, p^{107}\, q^{141} + 13914622273\, p^{118}\, q^{140}$$
$$+ 5601650\, p^{135}\, q^{155} + 10434363\, p^{134}\, q^{154} + 27\, p^{157}\, q^{60} + 248211\, p^{105}\, q^{160} + 69197357\, p^{142}\, q^{145} + 130026246\, p^{136}\, q^{147}$$
$$+ 175025635\, p^{132}\, q^{148} + 6\, q^{161}\, p^{73} + 91838679\, p^{131}\, q^{150} + 80286829\, p^{132}\, q^{150} + 30950726\, p^{138}\, q^{150} + 36953317\, p^{137}\, q^{150}$$
$$+ 69719307\, p^{133}\, q^{150} + 60129744\, p^{134}\, q^{150} + 3\, p^{169}\, q^{142} + p^{168}\, q^{124} + p^{167}\, q^{111} + 5532743\, p^{117}\, q^{157} + 2044\, p^{118}\, q^{19} + 181479\, p^{144}\, q^{159}$$
$$+ 64855\, p^{127}\, q^{27} + 75\, p^{167}\, q^{127} + 1505035186\, p^{129}\, q^{143} + 957307707\, p^{113}\, q^{148} + 990532117\, p^{112}\, q^{148} + 1019607348\, p^{111}\, q^{148}$$
$$+ 1078231273\, p^{108}\, q^{148} + 1063767720\, p^{109}\, q^{148} + 38\, p^{95}\, q^{10} + 1566991\, p^{151}\, q^{67} + p^{84}\, q^{7} + 3670\, p^{134}\, q^{29} + 8878257\, p^{156}\, q^{105}$$
$$+ 595558\, p^{150}\, q^{61} + 248124\, p^{146}\, q^{50} + 212728\, p^{159}\, q^{143} + 112159\, p^{144}\, q^{45} + 5285391\, p^{157}\, q^{120} + 6528962\, p^{140}\, q^{153} + 3550876\, p^{141}\, q^{154}$$
$$+ 920388761\, p^{114}\, q^{148} + 637702696\, p^{111}\, q^{149} + 302602252\, p^{143}\, q^{138} + 800609\, p^{159}\, q^{131} + 1130681\, p^{152}\, q^{69} + 123\, p^{126}\, q^{21}$$
$$+ 330030\, p^{98}\, q^{159} + 3776806\, p^{132}\, q^{37} + 103336211\, p^{133}\, q^{149} + 91880629\, p^{136}\, q^{148} + 2366776\, p^{111}\, q^{158} + 14321\, p^{128}\, q^{26} + p^{69}\, q^{5}$$
$$+ 46644973\, p^{153}\, q^{97} + 39412351\, p^{154}\, q^{116} + 7151886\, p^{155}\, q^{133} + 8894123\, p^{155}\, q^{131} + 25272808\, p^{148}\, q^{69} + 2489\, p^{122}\, q^{21}$$
$$+ 49323563\, p^{152}\, q^{90} + 887\, p^{117}\, q^{18} + 150234754\, p^{137}\, q^{146} + 4\, q^{156}\, p^{55} + q^{156}\, p^{54} + 1165\, q^{158}\, p^{70} + 183691094\, p^{134}\, q^{147}$$
$$+ 59312802\, p^{147}\, q^{140} + 4204908862\, p^{102}\, q^{145} + 1501384372\, p^{89}\, q^{146} + 6479893149\, p^{125}\, q^{140} + 5510817\, p^{114}\, q^{157} + 123648\, p^{99}\, q^{160}$$
$$+ 59\, p^{88}\, q^{163} + 24\, p^{86}\, q^{163} + 2607490\, p^{115}\, q^{158} + 94828431\, p^{127}\, q^{151} + 114714131\, p^{125}\, q^{151} + 104607928\, p^{126}\, q^{151} + 211\, q^{157}\, p^{63}$$
$$+ 629\, q^{157}\, p^{65} + 59\, q^{157}\, p^{61} + 370\, q^{157}\, p^{64} + 114\, q^{157}\, p^{62} + 294883\, q^{158}\, p^{90} + 44742019\, p^{138}\, q^{149} + 36985682\, p^{139}\, q^{149}$$

$$+ 73071239\, p^{139}\, q^{147} + 128641967\, p^{134}\, q^{148} + 156905685\, p^{130}\, q^{149} + 119570064\, p^{132}\, q^{149} + 108160426\, p^{137}\, q^{147} + 150575879\, p^{133}\, q^{148}$$
$$+ 30950726\, p^{150}\, q^{138} + 56991\, p^{146}\, q^{47} + 2425907\, p^{155}\, q^{85} + 856097\, p^{159}\, q^{130} + 1003\, p^{133}\, q^{27} + 3175539\, p^{156}\, q^{93} + 65073357\, p^{146}\, q^{141}$$
$$+ 65073357\, p^{141}\, q^{146} + 155638853\, p^{142}\, q^{142} + 1672\, p^{163}\, q^{99} + 109925455\, p^{140}\, q^{145} + 2679871\, q^{146}\, p^{56} + 1298831\, q^{146}\, p^{54}$$
$$+ 882740\, q^{146}\, p^{53} + 589577\, q^{146}\, p^{52} + 109925455\, p^{145}\, q^{140} + 73675\, p^{155}\, q^{70} + 217313\, p^{161}\, q^{122} + 202948\, p^{161}\, q^{128} + 60066\, p^{162}\, q^{136}$$
$$+ 171668\, p^{161}\, q^{132} + 457408\, p^{160}\, q^{114} + 548525\, p^{158}\, q^{94} + 409622\, p^{143}\, q^{46} + 1271056\, p^{145}\, q^{52} + 4665875\, p^{132}\, q^{156} + 80081\, p^{162}\, q^{121}$$
$$+ 35354058\, p^{154}\, q^{104} + 51792\, p^{148}\, q^{160} + 63293\, p^{159}\, q^{88} + 1169\, p^{146}\, q^{41} + 468060\, p^{137}\, q^{159} + 40\, p^{168}\, q^{142} + 44\, p^{167}\, q^{124} + 6\, p^{162}\, q^{78}$$
$$+ 36\, p^{166}\, q^{111} + 14746198\, p^{125}\, q^{155} + 1088922721\, p^{105}\, q^{148} + 503\, q^{146}\, p^{40} + 1169\, q^{146}\, p^{41} + 58702\, q^{150}\, p^{55} + 10783\, p^{158}\, q^{76}$$
$$+ 15258\, p^{159}\, q^{82} + 2364\, p^{151}\, q^{51} + 503392\, p^{157}\, q^{87} + 148303\, p^{157}\, q^{81} + 41\, p^{132}\, q^{24} + 672\, p^{166}\, q^{147} + q^{137}\, p^{26} + 227109563\, p^{144}\, q^{138}$$
$$+ 11069645\, p^{156}\, q^{112} + 12897862\, p^{154}\, q^{91} + 1939048625\, p^{116}\, q^{146} + 90\, p^{89}\, q^{163} + 39\, p^{87}\, q^{163} + 186\, p^{91}\, q^{163} + p^{87}\, q^{164} + 352\, p^{93}\, q^{163}$$
$$+ 256\, p^{92}\, q^{163} + 15\, p^{85}\, q^{163} + 3335758\, p^{155}\, q^{87} + 1171467\, p^{155}\, q^{81} + 320\, p^{130}\, q^{24} + 1628807510\, p^{126}\, q^{144} + 1837654754\, p^{125}\, q^{144}$$
$$+ 2060781542\, p^{124}\, q^{144} + 632542411\, p^{102}\, q^{149} + 126669\, q^{152}\, p^{62} + 30\, q^{145}\, p^{36} + 1753\, q^{160}\, p^{80} + 533613047\, p^{140}\, q^{139} + 1700\, p^{165}\, q^{121}$$
$$+ 589\, p^{162}\, q^{88} + 10\, p^{149}\, q^{41} + p^{102}\, q^{166} + 21840730\, p^{114}\, q^{155} + 7695\, p^{124}\, q^{23} + 503350\, p^{160}\, q^{117} + 796750\, p^{159}\, q^{107} + 247700\, p^{158}\, q^{89}$$
$$+ 11217\, p^{162}\, q^{150} + 2089\, q^{148}\, p^{45} + 2687917\, p^{140}\, q^{155} + 683112\, p^{147}\, q^{155} + 2490149\, p^{122}\, q^{158} + 296901\, p^{107}\, q^{160} + 1123912\, p^{114}\, q^{159}$$
$$+ 367933\, p^{143}\, q^{158} + 16371\, p^{159}\, q^{155} + 24707\, p^{158}\, q^{155} + 230112\, p^{148}\, q^{157} + 144686\, p^{150}\, q^{157} + 3\, p^{104}\, q^{166} + 1939036\, p^{139}\, q^{156}$$
$$+ 3649856\, p^{128}\, q^{157} + 2594963\, p^{120}\, q^{158} + 112777\, p^{151}\, q^{157} + 70\, p^{162}\, q^{166} + p^{170}\, q^{156} + 64\, p^{164}\, q^{165} + 2\, p^{169}\, q^{168} + 18\, p^{161}\, q^{168}$$
$$+ 27\, p^{158}\, q^{168} + 11932\, p^{93}\, q^{161} + 202194\, p^{103}\, q^{160} + 4867\, p^{116}\, q^{164} + 6437\, p^{119}\, q^{164} + 5908\, p^{118}\, q^{164} + 5382\, p^{117}\, q^{164} + 30979\, p^{127}\, q^{163}$$
$$+ 30163\, p^{125}\, q^{163} + 30653\, p^{126}\, q^{163} + 29466\, p^{124}\, q^{163} + 79850\, p^{130}\, q^{162} + 7984\, p^{122}\, q^{164} + 6965\, p^{120}\, q^{164} + 7482\, p^{121}\, q^{164}$$
$$+ 8459\, p^{123}\, q^{164} + 77374\, p^{131}\, q^{162} + 28624\, p^{123}\, q^{163} + 1153579\, p^{115}\, q^{159} + 2795\, p^{163}\, q^{154} + p^{170}\, q^{162} + 3137824\, p^{130}\, q^{157}$$
$$+ 3394522\, p^{129}\, q^{157} + 2882868\, p^{131}\, q^{157} + 2580550\, p^{137}\, q^{156} + 373\, p^{160}\, q^{164} + 2626674\, p^{119}\, q^{158} + 25737\, p^{97}\, q^{161} + 21517\, p^{96}\, q^{161}$$
$$+ 14654\, p^{94}\, q^{161} + 956239\, p^{110}\, q^{159} + 1004391\, p^{111}\, q^{159} + 160341\, p^{101}\, q^{160} + 1088851\, p^{113}\, q^{159} + 207\, p^{85}\, q^{162} + 5\, p^{83}\, q^{163}$$
$$+ 1083\, p^{90}\, q^{162} + 589\, p^{88}\, q^{162} + 424\, p^{87}\, q^{162} + 299\, p^{86}\, q^{162} + 805\, p^{89}\, q^{162} + 137\, p^{166}\, q^{159} + 272345\, p^{106}\, q^{160} + 224774\, p^{104}\, q^{160}$$
$$+ 17849\, p^{95}\, q^{161} + 854230\, p^{146}\, q^{155} + 140\, p^{84}\, q^{162} + 92\, p^{83}\, q^{162} + 2549164\, p^{121}\, q^{158} + 52429\, p^{155}\, q^{156} + 27\, p^{168}\, q^{158} + p^{170}\, q^{163}$$
$$+ 4\, p^{169}\, q^{164} + 11\, p^{168}\, q^{164} + 8657\, p^{159}\, q^{80} + p^{164}\, q^{170} + p^{168}\, q^{170} + p^{170}\, q^{170} + p^{171}\, q^{171} + p^{166}\, q^{170} + p^{169}\, q^{170} + p^{162}\, q^{170} + p^{167}\, q^{170}$$
$$+ p^{163}\, q^{170} + p^{160}\, q^{170} + p^{159}\, q^{170} + 73\, p^{167}\, q^{158} + 73\, p^{158}\, q^{167} + 63\, p^{159}\, q^{167} + 64\, p^{165}\, q^{164} + 100\, p^{164}\, q^{164} + 89\, p^{161}\, q^{166} + 112\, p^{160}\, q^{166}$$

$$+ 30\, p^{157} q^{168} + 164\, p^{161} q^{165} + 91\, p^{163} q^{165} + 123\, p^{162} q^{165} + 211\, p^{160} q^{165} + 53\, p^{166} q^{163} + 137\, p^{159} q^{166} + 2\, p^{103} q^{166} + 183505\, p^{149} q^{157}$$
$$+ p^{170} q^{155} + 278\, p^{164} q^{161} + 164\, p^{165} q^{161} + p^{170} q^{160} + 52\, p^{167} q^{160} + 6\, p^{169} q^{160} + 21\, p^{168} q^{160} + 144\, p^{163} q^{164} + p^{170} q^{161} + p^{170} q^{159}$$
$$+ 204\, p^{162} q^{164} + 29\, p^{167} q^{163} + 70\, p^{166} q^{162} + 317\, p^{162} q^{163} + 204\, p^{164} q^{162} + 123\, p^{165} q^{162} + 44\, p^{167} q^{161} + 6\, p^{169} q^{161} + 18\, p^{168} q^{161}$$
$$+ 317\, p^{163} q^{162} + 89\, p^{166} q^{161} + 278\, p^{161} q^{164} + 35\, p^{167} q^{162} + 220\, p^{163} q^{163} + 91\, p^{165} q^{163} + 144\, p^{164} q^{163} + 16\, p^{168} q^{162} + 5\, p^{169} q^{162}$$
$$+ 274\, p^{109} q^{165} + 162097\, p^{133} q^{161} + 141712\, p^{135} q^{161} + 152035\, p^{134} q^{161} + 197370\, p^{139} q^{160} + 26476\, p^{121} q^{163} + 83441\, p^{128} q^{162}$$
$$+ 5\, p^{105} q^{166} + 84497\, p^{127} q^{162} + 4367\, p^{115} q^{164} + 27606\, p^{122} q^{163} + 81876\, p^{129} q^{162} + 1374\, p^{119} q^{165} + 96\, p^{115} q^{166} + 1076\, p^{117} q^{165}$$
$$+ 1217\, p^{118} q^{165} + 310776\, p^{144} q^{158} + 61\, p^{113} q^{166} + 47\, p^{112} q^{166} + 36\, p^{111} q^{166} + 14\, p^{108} q^{166} + 20\, p^{109} q^{166} + 10\, p^{107} q^{166} + 7\, p^{106} q^{166}$$
$$+ 77\, p^{114} q^{166} + p^{111} q^{167} + 27\, p^{110} q^{166} + 3096\, p^{102} q^{163} + 179325\, p^{115} q^{161} + 1155969\, p^{139} q^{157} + 1218\, p^{164} q^{155} + 9268\, p^{158} q^{158}$$
$$+ 909925\, p^{129} q^{159} + 1327612\, p^{138} q^{157} + 4\, p^{89} q^{164} + 520884\, p^{123} q^{160} + 1127947\, p^{124} q^{159} + 25796\, p^{106} q^{162} + 29172\, p^{107} q^{162}$$
$$+ 187646\, p^{116} q^{161} + 195221\, p^{117} q^{161} + 32757\, p^{108} q^{162} + 44444\, p^{111} q^{162} + 40425\, p^{110} q^{162} + 36514\, p^{109} q^{162} + 525526\, p^{122} q^{160}$$
$$+ 19\, p^{92} q^{164} + 1073926\, p^{135} q^{158} + 554332\, p^{146} q^{156} + 22639\, p^{105} q^{162} + 140304\, p^{153} q^{155} + 12\, p^{91} q^{164} + 7\, p^{90} q^{164} + 21634\, p^{159} q^{154}$$
$$+ 503350\, p^{117} q^{160} + 2072\, p^{100} q^{163} + 1328\, p^{98} q^{163} + 2551\, p^{101} q^{163} + 1672\, p^{99} q^{163} + 3734\, p^{103} q^{163} + 220\, p^{99} q^{164} + 5259\, p^{105} q^{163}$$
$$+ 4446\, p^{104} q^{163} + 1048\, p^{97} q^{163} + 188632\, p^{152} q^{155} + 1189232\, p^{134} q^{158} + 521103\, p^{119} q^{160} + 1053574\, p^{126} q^{159} + 998952\, p^{140} q^{157}$$
$$+ 1429920\, p^{132} q^{158} + 1009359\, p^{127} q^{159} + 856731\, p^{141} q^{157} + 1553001\, p^{131} q^{158} + 1093363\, p^{125} q^{159} + 513659\, p^{118} q^{160}$$
$$+ 1308208\, p^{133} q^{158} + 140567\, p^{111} q^{161} + 130186\, p^{110} q^{161} + 17037\, p^{103} q^{162} + 5\, p^{128} q^{168} + 8\, p^{130} q^{168} + 22\, p^{136} q^{168} + 17660\, p^{153} q^{160}$$
$$+ 21634\, p^{154} q^{159} + 40770\, p^{146} q^{161} + 34712\, p^{147} q^{161} + 22421\, p^{152} q^{160} + 42686\, p^{149} q^{160} + 12186\, p^{156} q^{159} + 8925\, p^{157} q^{159}$$
$$+ 16371\, p^{155} q^{159} + 28100\, p^{151} q^{160} + 34831\, p^{150} q^{160} + 98\, p^{129} q^{167} + 5333\, p^{145} q^{164} + 3030\, p^{139} q^{165} + 126\, p^{167} q^{154} + 3230\, p^{136} q^{165}$$
$$+ 780\, p^{132} q^{166} + 13366\, p^{152} q^{161} + 85\, p^{128} q^{167} + 10\, p^{131} q^{168} + 36254\, p^{152} q^{159} + 24707\, p^{155} q^{158} + 4\, p^{127} q^{168} + 7\, p^{129} q^{168} + 19\, p^{135} q^{168}$$
$$+ p^{137} q^{169} + 5877\, p^{144} q^{164} + 6913\, p^{149} q^{163} + 8008\, p^{140} q^{164} + 15776\, p^{148} q^{162} + 13337\, p^{144} q^{163} + 18154\, p^{156} q^{158} + 28205\, p^{153} q^{159}$$
$$+ 6406\, p^{159} q^{158} + 14846\, p^{143} q^{163} + 17950\, p^{141} q^{163} + 16378\, p^{142} q^{163} + 19509\, p^{140} q^{163} + 21363\, p^{146} q^{162} + 8937\, p^{138} q^{164}$$
$$+ 9337\, p^{137} q^{164} + 8488\, p^{139} q^{164} + 18437\, p^{147} q^{162} + 24451\, p^{149} q^{161} + 16535\, p^{151} q^{161} + 20206\, p^{150} q^{161} + 10537\, p^{155} q^{160}$$
$$+ 27939\, p^{144} q^{162} + 31553\, p^{143} q^{162} + 24526\, p^{145} q^{162} + 3260\, p^{135} q^{165} + 741\, p^{131} q^{166} + 3254\, p^{134} q^{165} + 3077\, p^{162} q^{156} + 1791\, p^{163} q^{156}$$
$$+ 29265\, p^{148} q^{161} + 5039\, p^{161} q^{156} + 13743\, p^{154} q^{160} + 811\, p^{96} q^{163} + 3116\, p^{138} q^{165} + 6420\, p^{143} q^{164} + 3189\, p^{137} q^{165} + 170281\, p^{114} q^{161}$$
$$+ 148\, p^{133} q^{167} + 8925\, p^{159} q^{157} + 5919\, p^{160} q^{157} + 3813\, p^{161} q^{157} + 447071\, p^{147} q^{156} + 62\, p^{95} q^{164} + 29\, p^{93} q^{164} + 43\, p^{94} q^{164} + p^{93} q^{165}$$

$$+ 87\, p^{96} q^{164} + 121\, p^{97} q^{164} + 164\, p^{98} q^{164} + 7493\, p^{141} q^{164} + 6965\, p^{142} q^{164} + 160751\, p^{113} q^{161} + 527089\, p^{121} q^{160} + 525628\, p^{120} q^{160}$$
$$+ 961184\, p^{128} q^{159} + 171668\, p^{132} q^{161} + 85054\, p^{126} q^{162} + 3888\, p^{114} q^{164} + 25205\, p^{120} q^{163} + 218\, p^{108} q^{165} + p^{155} q^{170} + p^{170} q^{157}$$
$$+ 7\, p^{169} q^{159} + 5\, p^{162} q^{169} + 6\, p^{160} q^{169} + 6\, p^{161} q^{169} + p^{161} q^{170} + p^{165} q^{170} + p^{157} q^{170} + p^{156} q^{170} + 112\, p^{166} q^{160} + 30\, p^{168} q^{157} + 8\, p^{169} q^{157}$$
$$+ 13364\, p^{149} q^{162} + 11902\, p^{145} q^{163} + 9233\, p^{147} q^{163} + 10521\, p^{146} q^{163} + 11217\, p^{150} q^{162} + 9307\, p^{151} q^{162} + 13093\, p^{158} q^{157}$$
$$+ 2245198\, p^{138} q^{156} + 150768\, p^{112} q^{161} + 19717\, p^{104} q^{162} + 680567\, p^{145} q^{156} + 35862\, p^{99} q^{161} + 30494\, p^{98} q^{161} + 1433\, p^{91} q^{162}$$
$$+ 220235\, p^{138} q^{160} + 3\, p^{167} q^{169} + p^{170} q^{169} + 2\, p^{168} q^{169} + 3\, p^{166} q^{169} + 2\, p^{169} q^{169} + 5\, p^{163} q^{169} + 4\, p^{164} q^{169} + 4\, p^{165} q^{169} + 7\, p^{158} q^{169}$$
$$+ 7\, p^{159} q^{169} + p^{158} q^{170}$$

The bi-variate generating function (in p,q)

for (inv,maj) for permutations

of length, 20, *is:*

$$1 + 9\, p^{96} q^{182} + 52350\, p^{156} q^{40} + 11569\, p^{152} q^{34} + 32\, p^{124} q^{15} + 143273\, p^{158} q^{44} + 21748453\, p^{47} q^{16} + 221382653467190\, p^{105} q^{68}$$
$$+ 63069268\, q^{42} p^{19} + 1207808150013102\, p^{106} q^{102} + 699951289617\, p^{40} q^{61} + 738468099939342\, p^{81} q^{106} + 235749401068918\, p^{104} q^{68}$$
$$+ 15452\, p^{65} q^{8} + 2532556549\, p^{38} q^{31} + 5595314085\, p^{38} q^{34} + 7158229639\, p^{38} q^{35} + 11192680780\, p^{39} q^{36} + 1907517250\, p^{38} q^{30}$$
$$+ 3329374545\, p^{38} q^{32} + 1421955063\, p^{38} q^{29} + 220957095396298\, p^{125} q^{93} + 244550174045528\, p^{125} q^{97} + 420131824694385\, p^{70} q^{96}$$
$$+ 2582243\, p^{18} q^{26} + 20964167799657\, p^{52} q^{99} + 51\, q^{21} p^{3} + 16121012\, p^{154} q^{48} + 229244\, q^{28} p^{12} + 665331\, q^{28} p^{14} + 1304843\, q^{29} p^{15}$$
$$+ 375766057565\, q^{55} p^{40} + 476271370666\, q^{55} p^{41} + 747693514484\, q^{55} p^{43} + 56360872\, p^{129} q^{30} + 385147285338415\, p^{71} q^{79}$$
$$+ 71464547396132\, p^{58} q^{98} + 192369331371342\, p^{64} q^{97} + p^{10} q + 1464587364662218\, p^{88} q^{93} + 192446870\, p^{36} q^{24} + 14806739\, p^{35} q^{18}$$
$$+ 379272594\, p^{36} q^{26} + 220981935950710\, p^{64} q^{87} + 251344347655155\, p^{65} q^{87} + 17285648264374\, p^{52} q^{69} + 55306611533481\, p^{60} q^{68}$$
$$+ 4551552981\, p^{139} q^{46} + 449351693470681\, p^{71} q^{83} + 12659\, q^{26} p^{8} + 5694\, q^{26} p^{7} + 34041\, q^{28} p^{9} + 598991650041\, q^{55} p^{42}$$
$$+ 1291955721118\, q^{56} p^{45} + 926536320977\, q^{55} p^{44} + 2114\, q^{25} p^{6} + 826\, q^{26} p^{5} + 1146959304339347\, p^{82} q^{94} + 428652604920\, p^{88} q^{36}$$
$$+ 24645925915\, p^{90} q^{29} + 2314071044\, p^{88} q^{24} + 13980446741408\, p^{68} q^{128} + 1483\, q^{57} p^{6} + 22987663602791\, p^{104} q^{54}$$
$$+ 291216754798\, p^{100} q^{37} + 742669670710\, p^{101} q^{40} + 533776648587\, p^{101} q^{39} + 5424438797\, q^{44} p^{30} + 34847355450309\, p^{53} q^{80}$$
$$+ 380590631186\, p^{38} q^{60} + 127886029343367\, p^{80} q^{61} + 167452284835359\, p^{80} q^{63} + 146722143201914\, p^{80} q^{62}$$
$$+ 1179735795232\, p^{43} q^{59} + 1373600526302976\, p^{86} q^{94} + 75694371\, p^{33} q^{23} + 184489894\, p^{28} q^{30} + 8635980541129\, p^{126} q^{63}$$

$$+ 122565089824079\, p^{130} q^{99} + 612351795091\, p^{123} q^{49} + 161890511843\, p^{146} q^{68} + 44180226387\, p^{144} q^{59} + 1534232044\, q^{51} p^{24}$$
$$+ 1006151513\, q^{51} p^{23} + 443938399\, q^{52} p^{21} + 59250085390\, p^{32} q^{59} + 193188208926014\, p^{75} q^{116} + 185854035800448\, p^{63} q^{93}$$
$$+ 3964767194\, q^{44} p^{29} + 1077257851115538\, p^{84} q^{84} + 1025565531057381\, p^{82} q^{85} + 977107861860613\, p^{81} q^{85}$$
$$+ 844970498954610\, p^{78} q^{86} + 220025259\, q^{161} p^{68} + 545456055684823\, p^{72} q^{88} + 1112453447548\, p^{73} q^{39} + 8491269642874\, p^{74} q^{47}$$
$$+ 1469068102883\, p^{73} q^{40} + 15862509418609\, p^{74} q^{50} + 100570936088577\, p^{93} q^{59} + 437828061834907\, p^{94} q^{70}$$
$$+ 3450768152438\, p^{90} q^{43} + 42619304586468\, p^{61} q^{112} + 18028678410019\, p^{57} q^{113} + 59725649194355\, p^{63} q^{112}$$
$$+ 35682301456273\, p^{60} q^{112} + 50600768642920\, p^{62} q^{112} + 36427403\, q^{116} p^{24} + 214966996\, q^{117} p^{27} + 58054538\, q^{117} p^{25}$$
$$+ 3208692515323\, p^{73} q^{43} + 2494166071443\, p^{73} q^{42} + 2712206557489\, q^{109} p^{47} + 656198519101188\, p^{97} q^{116} + 65053436\, p^{157} q^{56}$$
$$+ 31732425\, p^{157} q^{54} + 324998323\, p^{24} q^{39} + 223783522\, p^{23} q^{39} + 5781786156\, p^{35} q^{37} + 3644733451\, p^{34} q^{36} + 9806538\, p^{16} q^{39}$$
$$+ 16394248\, p^{17} q^{39} + 54313503258143\, p^{55} q^{87} + 64957511134550\, p^{56} q^{87} + 491986258\, p^{67} q^{20} + 13169\, q^{47} p^{7} + 121251\, q^{49} p^{9}$$
$$+ 3992040\, q^{52} p^{13} + 3695\, q^{45} p^{6} + 1007739\, p^{21} q^{19} + 496933\, p^{21} q^{17} + 7421\, q^{88} p^{10} + 1580\, q^{87} p^{9} + 9320\, q^{87} p^{10} + 3975429434\, q^{68} p^{24}$$
$$+ 9892565715\, q^{68} p^{26} + 78079963\, q^{66} p^{17} + 524214372493\, p^{146} q^{75} + 3037802362\, p^{54} q^{25} + 1705962097369\, q^{127} p^{56}$$
$$+ 110875058392359\, p^{60} q^{80} + 232556069420\, q^{125} p^{47} + 40970517\, q^{128} p^{29} + 454561\, p^{26} q^{14} + 2152465\, p^{27} q^{17} + 12584679\, p^{28} q^{21}$$
$$+ 6947155\, p^{27} q^{20} + 4785775\, p^{27} q^{19} + 63468102070746\, q^{134} p^{100} + 64227493950117\, q^{134} p^{101} + 1104861907161\, q^{128} p^{55}$$
$$+ 1071557273\, p^{26} q^{42} + 719276344966114\, p^{92} q^{75} + 78079963\, p^{66} q^{17} + 102968156621711\, p^{131} q^{107} + 498224873\, p^{113} q^{27} + 96\, q^{81} p^{7}$$
$$+ 2600225\, p^{22} q^{21} + 4977446391\, q^{115} p^{32} + 125363543555168\, p^{130} q^{102} + 1401458\, p^{21} q^{20} + 48998893399\, p^{85} q^{30}$$
$$+ 24424576743811\, p^{136} q^{121} + 2692152283075\, p^{89} q^{42} + 2238\, p^{53} q^{6} + 116951426\, p^{76} q^{18} + 725462134\, p^{78} q^{21} + 1245414576\, p^{79} q^{22}$$
$$+ 120475\, p^{13} q^{22} + 11114486\, p^{46} q^{15} + 1127\, q^{135} p^{21} + 5935985\, p^{46} q^{14} + 1019485839\, p^{91} q^{23} + 20141806\, q^{172} p^{153} + 63069268\, q^{171} p^{148}$$
$$+ 42501137\, q^{171} p^{151} + 98530608\, q^{171} p^{144} + 55622734\, q^{171} p^{149} + 88863634\, q^{171} p^{145} + 119216132\, q^{171} p^{142} + 130113172\, q^{171} p^{141}$$
$$+ 3393848795\, q^{51} p^{26} + 706200024\, q^{52} p^{22} + 332864603635\, q^{54} p^{40} + 1587056478241401\, p^{94} q^{92} + 13541857\, p^{20} q^{30}$$
$$+ 79708948\, q^{171} p^{146} + 48767047\, q^{171} p^{150} + 36812514\, q^{171} p^{152} + 758563630896335\, p^{76} q^{95} + 3959\, p^{9} q^{16} + 14154701\, p^{84} q^{16}$$
$$+ 255366232103\, p^{38} q^{56} + 1565493071995537\, p^{94} q^{91} + 8508\, p^{10} q^{17} + 36864\, p^{14} q^{16} + 1115490917727667\, p^{84} q^{85} + 13802\, p^{66} q^{8}$$
$$+ 221984008590\, p^{94} q^{35} + 589505301893982\, p^{87} q^{73} + 751181609643673\, p^{87} q^{76} + 106327987775\, p^{53} q^{36} + 28\, p^{36} q^{3} + 611\, p^{48} q^{5}$$
$$+ 10319096\, q^{154} p^{47} + 16121012\, q^{154} p^{48} + 468735\, q^{153} p^{40} + 1375428792\, q^{166} p^{96} + 887838232\, q^{55} p^{22} + 125810\, q^{152} p^{37}$$

$$+ 281905820\, q^{161}\, p^{69} + 2\, p^{49}\, q^{3} + 73\, p^{48}\, q^{4} + 538153346983682\, p^{94}\, q^{72} + 349391293626458\, p^{94}\, q^{68} + 149138073\, p^{33}\, q^{25}$$
$$+ 279337225\, p^{33}\, q^{27} + 468412292\, p^{34}\, q^{28} + 3568637\, p^{32}\, q^{16} + 95606178432194\, p^{59}\, q^{80} + 807112462842736\, p^{87}\, q^{77}$$
$$+ 878537457782206\, p^{88}\, q^{78} + 8443017\, q^{67}\, p^{14} + 15661980678\, p^{52}\, q^{30} + 11177304966\, p^{52}\, q^{29} + 21922436684\, p^{123}\, q^{39}$$
$$+ 171877426095\, p^{135}\, q^{54} + 7219534642\, p^{131}\, q^{41} + 1005726127184\, p^{137}\, q^{64} + 10447205318607\, p^{143}\, q^{106} + 2779990652024\, p^{139}\, q^{73}$$
$$+ 21008\, q^{102}\, p^{13} + 1442684\, p^{67}\, q^{12} + 3393848795\, p^{51}\, q^{26} + 9672104943058\, p^{90}\, q^{47} + 757327031285\, p^{42}\, q^{57}$$
$$+ 1282492810724204\, p^{105}\, q^{93} + 890766\, p^{27}\, q^{15} + 32975032510624\, p^{131}\, q^{79} + 776500805919\, p^{38}\, q^{71} + 5509058614\, p^{82}\, q^{25}$$
$$+ 33183367024\, p^{84}\, q^{29} + 3284783494\, p^{82}\, q^{24} + 1550220314\, q^{113}\, p^{29} + 456781628304\, q^{86}\, p^{36} + 31893508\, q^{73}\, p^{16}$$
$$+ 3612540208\, p^{82}\, q^{161} + 83771965554\, p^{159}\, q^{116} + 25611685065\, p^{160}\, q^{133} + 9103453\, p^{159}\, q^{54} + 142365117\, p^{165}\, q^{77}$$
$$+ 6464933132416\, p^{45}\, q^{83} + 470268\, q^{29}\, p^{13} + 16068\, q^{28}\, p^{8} + 101210833438792\, p^{82}\, q^{126} + 3109279134999\, q^{125}\, p^{57} + 88248\, q^{162}\, p^{49}$$
$$+ 955581026710469\, p^{107}\, q^{108} + 54147993214927\, p^{85}\, q^{55} + 8246023249604\, p^{84}\, q^{46} + 219007413664995\, p^{86}\, q^{64} + 56052404143\, p^{80}\, q^{30}$$
$$+ 36487933955859\, q^{108}\, p^{58} + 351854776140\, p^{82}\, q^{35} + 16402092190979\, p^{85}\, q^{49} + 751181609643673\, p^{76}\, q^{87} + 1065500931552\, q^{90}\, p^{39}$$
$$+ 65298662737\, q^{88}\, p^{31} + 59893051317386\, p^{73}\, q^{58} + 69312919984620\, p^{73}\, q^{59} + 167452284835359\, p^{63}\, q^{80} + 11177304966\, q^{52}\, p^{29}$$
$$+ 193283988609463\, p^{63}\, q^{87} + 43784811\, p^{24}\, q^{29} + 148704\, q^{128}\, p^{22} + 381972058\, p^{40}\, q^{24} + 26707036\, p^{39}\, q^{18} + 778034169\, p^{40}\, q^{26}$$
$$+ 3132\, p^{30}\, q^{6} + 7743452133\, p^{41}\, q^{33} + 8652027\, p^{38}\, q^{16} + 3311701343\, p^{41}\, q^{30} + 2443920605\, p^{41}\, q^{29} + 5892109819\, p^{41}\, q^{32} + 3580\, q^{75}\, p^{8}$$
$$+ 64073530\, p^{168}\, q^{156} + 5595314085\, p^{34}\, q^{38} + 7037\, p^{71}\, q^{8} + 32\, q^{124}\, p^{15} + 17842615\, q^{156}\, p^{51} + 442116\, q^{154}\, p^{41} + 225583819384\, p^{71}\, q^{34}$$
$$+ 1848661227042\, p^{72}\, q^{41} + 1114281859\, q^{167}\, p^{100} + 451432374\, q^{168}\, p^{97} + 147\, q^{128}\, p^{17} + 15\, q^{125}\, p^{15} + 322866\, q^{52}\, p^{10}$$
$$+ 375016838\, p^{50}\, q^{21} + 1534232044\, p^{51}\, q^{24} + 2300061164\, p^{51}\, q^{25} + 1109964\, q^{31}\, p^{14} + 218865696935957\, p^{122}\, q^{116}$$
$$+ 279232813061\, p^{96}\, q^{36} + 29121562393\, p^{94}\, q^{30} + 95940491054\, p^{95}\, q^{33} + 15285836509383\, p^{116}\, q^{58} + 159541667895200\, p^{71}\, q^{67}$$
$$+ 25082624996827\, p^{85}\, q^{51} + 2951789861070\, p^{84}\, q^{42} + 9493989\, p^{61}\, q^{14} + 4341697\, p^{60}\, q^{13} + 69548595033983\, p^{57}\, q^{94}$$
$$+ 17384261187798\, p^{51}\, q^{72} + 8125043537567\, p^{47}\, q^{73} + 334744293275503\, p^{70}\, q^{78} + 506588158132333\, p^{72}\, q^{84}$$
$$+ 600439330814850\, p^{74}\, q^{84} + 429323122154947\, p^{70}\, q^{85} + 387623393734450\, p^{69}\, q^{85} + 281340903673548\, p^{66}\, q^{86}$$
$$+ 676643331572900\, p^{76}\, q^{83} + 875445862753711\, p^{81}\, q^{82} + 772451383914153\, p^{78}\, q^{83} + 22653472279207\, p^{136}\, q^{122} + 86\, q^{89}\, p^{8}$$
$$+ 898143650370376\, p^{110}\, q^{106} + 486610872515\, p^{36}\, q^{83} + 406079446014502\, p^{89}\, q^{69} + 451402961042686\, p^{89}\, q^{70}$$
$$+ 1653039432088\, p^{85}\, q^{40} + 1225323471337\, p^{85}\, q^{39} + 665188707261\, p^{84}\, q^{37} + 107190438528083\, p^{88}\, q^{59} + 2208313876332\, p^{85}\, q^{41}$$

$$+ 169646317469\, p^{83}\, q^{33} + 411236722131\, q^{70}\, p^{36} + 3942307690209\, p^{51}\, q^{56} + 2910983073111\, p^{50}\, q^{55} + 8714152\, q^{66}\, p^{14}$$
$$+ 24680179799656\, p^{88}\, q^{51} + 8050675678670\, p^{87}\, q^{46} + 222201966795077\, p^{89}\, q^{64} + 54057995137522\, p^{88}\, q^{55}$$
$$+ 884768090774379\, p^{85}\, q^{107} + 17818475\, p^{28}\, q^{22} + 1269067719537096\, p^{93}\, q^{84} + 1591162\, q^{65}\, p^{12} + 779173\, p^{58}\, q^{11} + p\, q$$
$$+ 112291006174\, p^{98}\, q^{34} + 3398661\, q^{48}\, p^{13} + 25153055\, q^{49}\, p^{16} + 12813243\, q^{48}\, p^{15} + 3311934471465\, p^{101}\, q^{45}$$
$$+ 1108549240190\, p^{100}\, q^{41} + 77040847402\, p^{31}\, q^{70} + 304180227162867\, p^{69}\, q^{78} + 144671516249438\, p^{86}\, q^{61} + 191745971830684\, p^{86}\, q^{63}$$
$$+ 125363543555168\, p^{60}\, q^{88} + 3320\, q^{112}\, p^{14} + 879\, q^{27}\, p^{5} + 233367037015\, p^{146}\, q^{70} + 1466580034264\, p^{149}\, q^{94}$$
$$+ 669410379833902\, p^{81}\, q^{77} + 743414623215789\, p^{82}\, q^{78} + 499181492867831\, p^{81}\, q^{73} + 626222692459908\, p^{81}\, q^{76} + 8508\, p^{17}\, q^{10}$$
$$+ 1224\, p^{16}\, q^{7} + 3959\, p^{16}\, q^{9} + p^{35}\, q^{2} + 152632533\, q^{51}\, p^{19} + 674589187679\, p^{152}\, q^{122} + 127\, q^{17}\, p^{4} + 871\, q^{18}\, p^{6} + 329\, q^{17}\, p^{5}$$
$$+ 697910117795060\, p^{77}\, q^{82} + 142993489780610\, p^{91}\, q^{61} + 191451187116094\, p^{91}\, q^{63} + 30215822609529\, q^{132}\, p^{80}$$
$$+ 27302721626960\, q^{132}\, p^{79} + 451426168969\, p^{152}\, q^{128} + 156558840166\, p^{153}\, q^{136} + 314813853030\, p^{152}\, q^{132} + 28214082\, p^{22}\, q^{30}$$
$$+ 1971\, q^{68}\, p^{7} + 914674872\, p^{50}\, q^{23} + 2817\, q^{17}\, p^{8} + 127324\, q^{28}\, p^{11} + 397062\, q^{28}\, p^{13} + 43419807808130\, p^{135}\, q^{114}$$
$$+ 35239446863199\, p^{135}\, q^{118} + 48541312517982\, p^{135}\, q^{111} + 259\, p^{31}\, q^{4} + 27219805457316\, q^{121}\, p^{65} + 10717136032685\, p^{131}\, q^{70}$$
$$+ 603943800\, q^{112}\, p^{27} + 17162230732932\, q^{125}\, p^{66} + 749598\, q^{133}\, p^{26} + 468079024671\, p^{134}\, q^{57} + 3333420449147\, p^{43}\, q^{74}$$
$$+ 130113172\, p^{49}\, q^{19} + 591406919\, p^{50}\, q^{22} + 1946866519612\, p^{42}\, q^{68} + 9\, p^{20}\, q^{2} + 12433623308027\, p^{51}\, q^{67} + 16072544791934\, p^{52}\, q^{68}$$
$$+ 2637943240470\, p^{43}\, q^{69} + 1983698916\, q^{166}\, p^{100} + 1823496859\, q^{166}\, p^{99} + 1518488847\, q^{166}\, p^{97} + 1211969265\, q^{167}\, p^{101}$$
$$+ 9214315965277\, q^{121}\, p^{59} + 19437821044370\, q^{121}\, p^{63} + 16280030344944\, q^{121}\, p^{62} + 23069542452178\, q^{121}\, p^{64}$$
$$+ 13551983268959\, q^{121}\, p^{61} + 41503155\, p^{48}\, q^{17} + 213371920\, p^{49}\, q^{20} + 2300061164\, q^{51}\, p^{25} + 276413\, p^{26}\, q^{13} + 3239900\, p^{27}\, q^{18}$$
$$+ 14967991\, p^{26}\, q^{23} + 285526\, p^{18}\, q^{18} + 278521\, p^{17}\, q^{19} + 328980\, p^{96}\, q^{14} + 13968897\, p^{22}\, q^{27} + 301051438542387\, p^{104}\, q^{70}$$
$$+ 540790403432521\, p^{81}\, q^{74} + 583238918756733\, p^{81}\, q^{75} + 280195149579130\, p^{81}\, q^{67} + 419547399606722\, p^{81}\, q^{71}$$
$$+ 458686488923490\, p^{81}\, q^{72} + 312174377225999\, p^{81}\, q^{68} + 713503\, p^{21}\, q^{18} + 91131868892217\, p^{58}\, q^{88} + 10447205318607\, p^{84}\, q^{47}$$
$$+ 123712315363\, q^{76}\, p^{32} + 119599033\, q^{56}\, p^{18} + 1009531050\, q^{57}\, p^{22} + 1254737990171284\, p^{105}\, q^{102} + 8982085\, q^{55}\, p^{14}$$
$$+ 66506802\, q^{56}\, p^{17} + 1905969\, q^{54}\, p^{12} + 1606218809\, q^{57}\, p^{23} + 78730713650\, p^{92}\, q^{32} + 62446036369591\, p^{97}\, q^{57} + 38455450227\, q^{96}\, p^{31}$$
$$+ 58931307489\, q^{96}\, p^{32} + 88869629331\, q^{96}\, p^{33} + 11098\, q^{25}\, p^{8} + 94994155794329\, p^{70}\, q^{63} + 74072143418771\, p^{70}\, q^{61}$$
$$+ 84097220138574\, p^{70}\, q^{62} + 365238912063286\, p^{121}\, q^{93} + 332864603635\, p^{54}\, q^{40} + 7876812212\, p^{52}\, q^{28} + 19907\, p^{130}\, q^{21}$$

$$+ 814736044817\, p^{54}\, q^{44} + 1140066462532\, p^{55}\, q^{45} + 9155372585249\, p^{114}\, q^{143} + 13888\, p^{11}\, q^{17} + 48259\, q^{31}\, p^{9} + 261035481383\, p^{54}\, q^{39}$$
$$+ 156558840166\, p^{54}\, q^{37} + 644817\, q^{31}\, p^{13} + 170061\, q^{30}\, p^{11} + 146722143201914\, p^{62}\, q^{80} + p^{9}\, q + 7691377496788\, p^{96}\, q^{47}$$
$$+ 3976103844\, p^{88}\, q^{25} + 658637352716\, p^{54}\, q^{43} + 528605143460\, p^{54}\, q^{42} + 127886029343367\, p^{61}\, q^{80} + 203023853461\, p^{54}\, q^{38}$$
$$+ 421088725348\, p^{54}\, q^{41} + 15491778\, p^{25}\, q^{24} + 60668632564\, p^{53}\, q^{34} + 80701392598\, p^{53}\, q^{35} + 93058\, q^{59}\, p^{9} + 33261339578\, p^{53}\, q^{32}$$
$$+ 24233612959\, p^{53}\, q^{31} + 166999129909417\, p^{86}\, q^{62} + 248856666976207\, p^{86}\, q^{65} + 69\, p^{73}\, q^{6} + 16632911\, p^{20}\, q^{31}$$
$$+ 20126639337835\, q^{125}\, p^{67} + 5477351209\, p^{52}\, q^{27} + 45156107638\, p^{53}\, q^{33} + 257736\, q^{61}\, p^{10} + 4209827544635\, p^{45}\, q^{69}$$
$$+ 46941885325\, q^{123}\, p^{41} + 95392530086\, q^{123}\, p^{43} + 4549704\, q^{126}\, p^{25} + 38579966447\, q^{75}\, p^{29} + 84627685093\, q^{75}\, p^{31}$$
$$+ 57564747739\, q^{75}\, p^{30} + 25452142706\, q^{75}\, p^{28} + 19960810\, q^{126}\, p^{27} + 318547\, p^{54}\, q^{10} + 209652181822\, p^{69}\, q^{34} + 1687245801299\, p^{70}\, q^{41}$$
$$+ 1579602706520450\, p^{96}\, q^{92} + 480225292668\, q^{93}\, p^{37} + 1133079894937909\, p^{83}\, q^{87} + 1181133457023575\, p^{84}\, q^{87}$$
$$+ 196712952669376\, p^{126}\, q^{109} + 4991540\, p^{98}\, q^{17} + 100059328\, p^{104}\, q^{22} + 150447982155032\, p^{126}\, q^{115} + 29212998\, q^{92}\, p^{18}$$
$$+ 777032000\, p^{29}\, q^{35} + 859249585\, p^{33}\, q^{31} + 71\, q^{62}\, p^{5} + 936457980633531\, p^{88}\, q^{79} + 159392202\, p^{35}\, q^{24} + 12568747\, p^{34}\, q^{18}$$
$$+ 311437645\, p^{35}\, q^{26} + 2274625082\, p^{35}\, q^{33} + 342969739416\, q^{126}\, p^{49} + 14560149738\, q^{59}\, p^{28} + 71290095\, q^{58}\, p^{17} + 409413992\, q^{59}\, p^{20}$$
$$+ 163389059\, q^{90}\, p^{20} + 21088300873\, q^{59}\, p^{29} + 1806610459\, q^{59}\, p^{23} + 30133347917\, q^{59}\, p^{30} + 4647872698\, q^{60}\, p^{25} + 1126436911\, q^{59}\, p^{22}$$
$$+ 687204669\, q^{59}\, p^{21} + 1668115916\, q^{166}\, p^{98} + 822893410\, q^{165}\, p^{87} + 268183244\, q^{116}\, p^{27} + 7306160\, q^{113}\, p^{21} + 28044254\, q^{114}\, p^{23}$$
$$+ 43\, q^{64}\, p^{5} + 7876812212\, q^{52}\, p^{28} + 2782627278\, q^{53}\, p^{25} + 456781628304\, p^{86}\, q^{36} + 12535847578600\, p^{89}\, q^{48} + 63468102070746\, p^{90}\, q^{56}$$
$$+ 204\, p^{38}\, q^{4} + 6165953681963\, p^{88}\, q^{45} + 3886\, p^{35}\, q^{6} + 204271\, p^{18}\, q^{17} + 99261\, p^{15}\, q^{18} + p^{11}\, q + 4\, p^{3}\, q^{3} + 3334841463\, p^{105}\, q^{28}$$
$$+ 108024823\, p^{99}\, q^{21} + 250922534221609\, p^{91}\, q^{65} + 165907209726511\, p^{91}\, q^{62} + 113114646\, p^{170}\, q^{147} + 87603763456798\, p^{69}\, q^{63}$$
$$+ 68456400847066\, p^{69}\, q^{61} + 77637398668330\, p^{69}\, q^{62} + 36031644703385\, p^{90}\, q^{53} + 88526958924699\, p^{91}\, q^{58}$$
$$+ 122565089824079\, p^{91}\, q^{60} + 497802288470982\, p^{92}\, q^{71} + 43792970814072\, p^{90}\, q^{54} + 16323652374558\, p^{131}\, q^{73} + 7445431\, q^{133}\, p^{29}$$
$$+ 14658608\, q^{133}\, p^{30} + 5312485\, q^{132}\, p^{28} + 1363325\, p^{68}\, q^{12} + 174812218\, q^{112}\, p^{25} + 536555619769576\, p^{73}\, q^{83}$$
$$+ 419589425163834\, p^{70}\, q^{84} + 245372136447110\, p^{65}\, q^{85} + 90999923938448\, p^{58}\, q^{86} + 106805213008393\, p^{59}\, q^{86}$$
$$+ 219007413664995\, p^{64}\, q^{86} + 145537557897791\, p^{61}\, q^{87} + 216150737468455\, p^{64}\, q^{85} + 1464587364662218\, p^{93}\, q^{88} + 2269\, p^{16}\, q^{8}$$
$$+ 24\, p^{12}\, q^{3} + 6\, p^{11}\, q^{2} + 509\, p^{15}\, q^{6} + 201\, p^{14}\, q^{5} + 30215822609529\, p^{132}\, q^{80} + 63468102070746\, p^{134}\, q^{100} + 1211545206294359\, p^{93}\, q^{83}$$
$$+ 5\, q^{71}\, p^{5} + 122032282119\, q^{97}\, p^{34} + 2513111\, q^{30}\, p^{16} + 1821751\, p^{61}\, q^{12} + 9704721040131\, p^{78}\, q^{47} + 1635094938322\, p^{77}\, q^{40}$$

$$+ 1229456084806\, p^{77}\, q^{39} + 53214\, p^{15}\, q^{16} + 26652\, p^{14}\, q^{15} + 147718\, q^{29}\, p^{11} + 42860053691991\, q^{120}\, p^{67} + 1295918618772\, p^{40}\, q^{70}$$
$$+ 682265701323\, p^{82}\, q^{37} + 106805213008393\, p^{86}\, q^{59} + 9745247\, q^{126}\, p^{26} + 2019272\, q^{126}\, p^{24} + 2250901647110\, p^{83}\, q^{41}$$
$$+ 175536341347\, p^{81}\, q^{33} + 9900963104\, p^{79}\, q^{26} + 400050569858074\, p^{87}\, q^{69} + 248237765912\, p^{82}\, q^{34} + 443893814158062\, p^{87}\, q^{70}$$
$$+ 49\, q^{97}\, p^{9} + p^{3}\, q + 2\, p^{2}\, q^{2} + 1690781220466\, p^{83}\, q^{40} + 236910060\, p^{75}\, q^{19} + 1257827574119\, p^{83}\, q^{39} + q^{51}\, p^{3}$$
$$+ 287101866897733\, p^{101}\, q^{124} + p\, q^{2} + 528724\, p^{67}\, q^{11} + 2897419\, q^{151}\, p^{41} + 660610079876270\, p^{92}\, q^{74} + 319310513120147\, p^{92}\, q^{67}$$
$$+ 1098\, q^{34}\, p^{5} + 3886\, q^{35}\, p^{6} + 1151697984535586\, p^{82}\, q^{92} + 402592466841687\, p^{69}\, q^{92} + 358193506\, p^{161}\, q^{70} + 1304843\, p^{29}\, q^{15}$$
$$+ 15633019\, q^{83}\, p^{16} + 220552065778730\, p^{119}\, q^{80} + 10137115666921\, p^{116}\, q^{56} + 7278834\, q^{82}\, p^{15} + 22493\, q^{25}\, p^{9} + 123\, p^{44}\, q^{4}$$
$$+ 713503\, p^{18}\, q^{21} + p^{2}\, q + 1005077615947080\, p^{86}\, q^{81} + 9613036\, p^{79}\, q^{15} + 1085139237245009\, p^{100}\, q^{83} + 552184\, q^{27}\, p^{14}$$
$$+ 1082445\, q^{28}\, p^{15} + 553165904\, p^{91}\, q^{22} + 218916838431253\, p^{107}\, q^{69} + 158166688300333\, p^{106}\, q^{66} + 481430803529533\, p^{105}\, q^{75}$$
$$+ 39770478278720\, p^{117}\, q^{64} + 227761\, p^{13}\, q^{25} + 37414238\, p^{96}\, q^{19} + 1105074354132241\, p^{108}\, q^{93} + 165259816705\, p^{98}\, q^{35} + 6365\, p^{81}\, q^{9}$$
$$+ 13028606617\, q^{44}\, p^{33} + 22252892083\, q^{44}\, p^{35} + 33970353428\, q^{45}\, p^{36} + 7340062682\, q^{44}\, p^{31} + 30761447494\, q^{125}\, p^{41}$$
$$+ 44402215420\, q^{125}\, p^{42} + 17105803309\, q^{44}\, p^{34} + 9828325490\, q^{44}\, p^{32} + 15535824170\, q^{90}\, p^{28} + 52\, q^{132}\, p^{18} + 22680\, q^{140}\, p^{26}$$
$$+ 3705721372\, q^{89}\, p^{25} + 6239855634\, q^{89}\, p^{26} + 115423209115302\, p^{130}\, q^{96} + 58519786985\, p^{39}\, q^{44} + 46517339597\, p^{38}\, q^{44}$$
$$+ 61281\, q^{92}\, p^{12} + 49313\, q^{93}\, p^{12} + 4551\, q^{90}\, p^{10} + 207611472771\, p^{95}\, q^{35} + 680141172393\, p^{150}\, q^{88} + 493789421368210\, p^{74}\, q^{79}$$
$$+ 992039648519207\, p^{106}\, q^{108} + 307535162409037\, p^{80}\, q^{116} + 332887990528204\, p^{81}\, q^{116} + 111799573714853\, p^{66}\, q^{68}$$
$$+ 567119836445532\, p^{73}\, q^{85} + 354250401878537\, p^{68}\, q^{86} + 12831428085\, p^{140}\, q^{50} + 37051426536\, q^{80}\, p^{29} + 56052404143\, q^{80}\, p^{30}$$
$$+ 3789429890\, q^{78}\, p^{24} + 496890371809\, q^{81}\, p^{36} + 83489984776\, q^{80}\, p^{31} + 253503218935\, q^{80}\, p^{34} + 122550955327\, q^{80}\, p^{32}$$
$$+ 177416213203\, q^{80}\, p^{33} + 357747409580\, q^{80}\, p^{35} + 2241602764\, q^{78}\, p^{23} + 24089732200\, q^{80}\, p^{28} + 3680957818\, q^{79}\, p^{24}$$
$$+ 9900963104\, q^{79}\, p^{26} + 11049413\, q^{40}\, p^{16} + 3207767\, q^{39}\, p^{14} + 119113695158\, q^{73}\, p^{32} + 53091272954685\, q^{135}\, p^{107}$$
$$+ 16323652374558\, q^{131}\, p^{73} + 43466\, p^{133}\, q^{23} + 550619099\, p^{164}\, q^{152} + 12532156826\, p^{163}\, q^{127} + 24568224499\, p^{162}\, q^{111}$$
$$+ 129263306\, p^{150}\, q^{48} + 7208870\, p^{145}\, q^{37} + 8402833921\, p^{158}\, q^{78} + 1083292165\, p^{154}\, q^{60} + 76373157\, p^{20}\, q^{40} + 62603\, p^{159}\, q^{44}$$
$$+ 36684549048\, p^{44}\, q^{37} + 1752621\, p^{50}\, q^{12} + 759138\, p^{49}\, q^{11} + 60873490\, p^{54}\, q^{17} + 638760573971\, p^{60}\, q^{40} + 109680483969291\, p^{83}\, q^{126}$$
$$+ 296474\, q^{46}\, p^{10} + 7366350\, p^{18}\, q^{31} + 14971430778992\, p^{97}\, q^{50} + 557363994649281\, p^{100}\, q^{74} + 255972864188000\, p^{100}\, q^{67}$$
$$+ 505985362884033\, p^{100}\, q^{73} + 1353780779750764\, p^{101}\, q^{89} + 666948590751889\, p^{100}\, q^{76} + 724582946966508\, p^{100}\, q^{77}$$

$$+ 1382203878121218\, p^{102} q^{91} + 932940472779193\, p^{101} q^{81} + 142970008\, p^{28} q^{29} + 49730996\, p^{23} q^{31} + 103477234\, p^{26} q^{30}$$
$$+ 880071642131\, q^{86} p^{38} + 56398650766\, p^{130} q^{46} + 17861590532200\, p^{140} q^{113} + 203120668177\, p^{131} q^{51} + 20000004775556\, p^{140} q^{108}$$
$$+ 1806123357\, p^{157} q^{156} + 33\, q^{117} p^{13} + 4292355\, p^{61} q^{13} + 9422764\, p^{62} q^{14} + 162095843\, q^{109} p^{24} + 66914589\, p^{110} q^{23}$$
$$+ 66936767270865\, p^{58} q^{75} + 73515985120327\, p^{59} q^{74} + 84711651092948\, p^{60} q^{74} + 69312919984620\, p^{59} q^{73} + 33339476\, q^{72} p^{16}$$
$$+ 16120400\, q^{71} p^{15} + 7087451\, q^{71} p^{14} + 3104330\, q^{70} p^{13} + 66310758\, q^{73} p^{17} + 1244096194965\, q^{84} p^{39} + 1675334910520\, q^{84} p^{40}$$
$$+ 2234206810993\, q^{84} p^{41} + 15\, p^{125} q^{15} + 130273610349775\, p^{69} q^{113} + 55039452743\, q^{81} p^{30} + 35252843008\, q^{97} p^{31}$$
$$+ 3384553637120\, p^{61} q^{47} + 4119915658868\, p^{61} q^{48} + 121146100395\, p^{74} q^{32} + 83771965554\, p^{74} q^{31} + 9494\, p^{129} q^{20} + 19342181\, q^{95} p^{18}$$
$$+ 216165973\, q^{99} p^{22} + 416655922\, q^{99} p^{23} + 45905287886\, p^{31} q^{60} + 869094748\, p^{43} q^{25} + 1762316453\, p^{43} q^{27} + 154763181\, p^{42} q^{21}$$
$$+ 597514374\, p^{43} q^{24} + 1246004483\, p^{43} q^{26} + 13028606617\, p^{44} q^{33} + 5424438797\, p^{44} q^{30} + 3964767194\, p^{44} q^{29} + 9828325490\, p^{44} q^{32}$$
$$+ 142824893\, p^{170} q^{145} + 273094837\, p^{170} q^{138} + 7340062682\, p^{44} q^{31} + 17105803309\, p^{44} q^{34} + 22252892083\, p^{44} q^{35}$$
$$+ 33970353428\, p^{45} q^{36} + 14972607578\, q^{101} p^{30} + 2186123116\, q^{100} p^{26} + 151206635511\, q^{103} p^{36} + 219254951961\, q^{103} p^{37}$$
$$+ 313828039035\, q^{103} p^{38} + 443687910072\, q^{103} p^{39} + 7791419432346\, p^{142} q^{90} + 2936279603888\, p^{145} q^{126} + 660610079876270\, p^{74} q^{92}$$
$$+ 124830611\, p^{57} q^{18} + 17981661\, p^{55} q^{15} + 33084672012033\, p^{55} q^{71} + 551978053663305\, q^{91} p^{72} + 720501091197464\, q^{91} p^{75}$$
$$+ 841207296288927\, q^{91} p^{77} + 903640961560894\, q^{92} p^{78} + 606030805852183\, q^{91} p^{73} + 780266977565179\, q^{91} p^{76}$$
$$+ 662305702929667\, q^{91} p^{74} + 451497967025941\, q^{91} p^{70} + 9308152738900\, p^{115} q^{55} + 1690755979\, p^{102} q^{26} + 500399609721727\, q^{91} p^{71}$$
$$+ 110074054226\, p^{63} q^{33} + 1181597594\, p^{60} q^{22} + 219254951961\, p^{103} q^{37} + 16709241117\, p^{100} q^{30} + 56478138451\, p^{101} q^{33}$$
$$+ 17902189660499\, p^{107} q^{54} + 20726492\, p^{168} q^{78} + 71113087\, p^{173} q^{119} + 46763676\, p^{172} q^{102} + 48224427\, p^{169} q^{86} + 7846387\, p^{175} q^{148}$$
$$+ 174004178004\, q^{111} p^{39} + 247668159800\, q^{111} p^{40} + 348299017398\, q^{111} p^{41} + 4908075072\, p^{61} q^{25} + 71347248123310\, p^{122} q^{128}$$
$$+ 77637398668330\, p^{121} q^{128} + 38287614806925\, p^{113} q^{61} + 313250306211609\, p^{115} q^{79} + 660610079876270\, p^{116} q^{98}$$
$$+ 9619659467419\, p^{111} q^{53} + 316729332569375\, p^{114} q^{78} + 5282620971560\, p^{110} q^{50} + 536453885531123\, p^{115} q^{87}$$
$$+ 509293322539385\, p^{115} q^{86} + 2052641800857\, q^{75} p^{41} + 145288227\, p^{69} q^{18} + 858700490\, p^{71} q^{21} + 1563138322187\, q^{75} p^{40}$$
$$+ 4956\, p^{153} q^{34} + 358193506\, q^{161} p^{70} + 72970704188\, p^{106} q^{35} + 117549452310628\, p^{114} q^{69} + 85783298786436\, p^{113} q^{66}$$
$$+ 35682301456273\, p^{112} q^{60} + 133853225410164\, p^{114} q^{70} + 113937538562829\, p^{113} q^{68} + 99661012711\, q^{150} p^{73}$$
$$+ 138087190569\, q^{150} p^{75} + 22600\, p^{157} q^{40} + 48258677271\, q^{150} p^{69} + 28726149196961\, p^{67} q^{56} + 50703913460050\, p^{67} q^{60}$$

$$+ 33381509448775\, p^{67} q^{57} + 91784331172676\, p^{67} q^{65} + 111799573714853\, p^{68} q^{66} + 25551880986\, p^{37} q^{42} + 26576168254\, p^{38} q^{41}$$
$$+ 33191139158\, p^{39} q^{41} + 9\, q^{100} p^{9} + 1179732078129\, p^{57} q^{44} + 21973616560\, p^{39} q^{39} + 27102744783\, p^{40} q^{39} + 74871792182\, p^{58} q^{33}$$
$$+ 919536784451336\, p^{87} q^{79} + 8954031165075\, p^{60} q^{53} + 30120442\, p^{52} q^{16} + 6246495454\, p^{31} q^{43} + 33513529655\, p^{40} q^{40}$$
$$+ 18925650653390\, p^{79} q^{50} + 3720482616196\, p^{78} q^{43} + 1048\, q^{106} p^{12} + 29461831033027\, q^{134} p^{84} + 555973215104\, p^{70} q^{37}$$
$$+ 9573364648592\, p^{72} q^{48} + 4712655285008\, p^{71} q^{45} + 22915092410\, p^{68} q^{28} + 116373\, p^{53} q^{9} + 342337465822623\, p^{95} q^{122}$$
$$+ 3918313407837\, p^{44} q^{72} + 634364477847\, q^{106} p^{41} + 1187348572439\, q^{106} p^{43} + 2134576404569\, q^{106} p^{45} + 2194350023634\, q^{128} p^{58}$$
$$+ 21051499896344\, q^{131} p^{75} + 18584959612842\, q^{131} p^{74} + 36875708\, q^{57} p^{16} + 45483082480900\, p^{69} q^{58} + 9175578\, q^{56} p^{14}$$
$$+ 129679221\, q^{58} p^{18} + 391941206\, q^{58} p^{20} + 228643980\, q^{58} p^{19} + 99023088\, p^{158} q^{59} + 2839755676\, q^{59} p^{24} + 77212\, p^{62} q^{9}$$
$$+ 524335333362\, p^{40} q^{58} + 975090335418528\, p^{87} q^{80} + 190009077\, q^{38} p^{23} + 200285621065\, p^{36} q^{59} + 26943789721\, q^{54} p^{31}$$
$$+ 616552691251306\, p^{85} q^{74} + 311453051429828\, p^{85} q^{67} + 473264508457205\, p^{85} q^{71} + 519269959610714\, p^{85} q^{72}$$
$$+ 348301405541054\, p^{85} q^{68} + 667266421569819\, p^{85} q^{75} + 718749478277154\, p^{90} q^{75} + 8141264\, p^{68} q^{14} + 3616059\, p^{67} q^{13}$$
$$+ 3553917039144\, q^{89} p^{43} + 2692152283075\, q^{89} p^{42} + 4649771932430\, q^{89} p^{44} + 7568551776008\, q^{90} p^{46} + 9900501597447\, q^{89} p^{47}$$
$$+ 6031327617161\, q^{89} p^{45} + 7758559843946\, q^{89} p^{46} + 1260008354432\, q^{142} p^{73} + 2944873170533\, p^{146} q^{123} + 681341\, p^{115} q^{19}$$
$$+ 5899731\, p^{120} q^{23} + 658637352716\, p^{147} q^{136} + 1321082135586\, p^{146} q^{132} + 4060759106210\, p^{143} q^{85} + 65569163636\, q^{142} p^{58}$$
$$+ 1603069291866724\, p^{93} q^{95} + 24568224499\, q^{79} p^{28} + 6102813996\, q^{79} p^{25} + 37676025459\, q^{79} p^{29} + 2973539840036\, q^{82} p^{42}$$
$$+ 1269562930767\, q^{81} p^{39} + 19717830465645\, q^{81} p^{50} + 1700461556919\, q^{81} p^{40} + 2255996783519\, q^{81} p^{41} + 904446528554773\, p^{100} q^{80}$$
$$+ 1349212903012985\, p^{100} q^{88} + 54868808786\, q^{124} p^{42} + 38133934681\, q^{124} p^{41} + 26154836045\, q^{124} p^{40} + 14171564530\, q^{125} p^{39}$$
$$+ 15743110246\, q^{79} p^{27} + 74795511263143\, p^{64} q^{66} + 91784331172676\, p^{65} q^{67} + 311629421745235\, p^{72} q^{107} + 10296\, q^{33} p^{7}$$
$$+ 1285770975\, q^{111} p^{28} + 481083333\, q^{110} p^{26} + 115423209115302\, q^{94} p^{60} + 152092\, q^{35} p^{10} + 6611097\, q^{36} p^{16} + 12471\, p^{37} q^{7}$$
$$+ 808112\, p^{53} q^{11} + 9175578\, p^{56} q^{14} + 4274133\, p^{55} q^{13} + 98356379088725\, p^{69} q^{64} + 1905969\, p^{54} q^{12} + 3922\, p^{43} q^{6}$$
$$+ 1084748234778335\, p^{94} q^{81} + 26215960696844\, p^{70} q^{54} + 5584336479327\, p^{70} q^{46} + 33084672012033\, p^{71} q^{55}$$
$$+ 30783537823031\, p^{61} q^{61} + 36837933683044\, p^{65} q^{59} + 76523131873093\, p^{89} q^{57} + 113359224264\, p^{84} q^{32} + 286662082836579\, p^{90} q^{66}$$
$$+ 4854166365537\, p^{87} q^{44} + 880071642131\, p^{86} q^{38} + 6317970496\, q^{100} p^{28} + 1403174736\, q^{99} p^{25} + 2465977556\, q^{99} p^{26}$$
$$+ 10380682141\, q^{100} p^{29} + 412118143\, p^{77} q^{20} + 405426768210007\, p^{91} q^{69} + 451497967025941\, p^{91} q^{70} + 138597427940323\, q^{117} p^{73}$$

$$+ 155179662790985\, q^{117} p^{74} + 105804476753655\, p^{90} q^{59} + 53091272954685\, p^{55} q^{83} + 1107615384443553\, p^{89} q^{106}$$
$$+ 84898690269667\, q^{120} p^{72} + 65613846926388\, q^{120} p^{70} + 563194669599\, p^{152} q^{125} + 236527839\, q^{124} p^{30} + 1543143210\, q^{125} p^{34}$$
$$+ 29105022249092\, p^{58} q^{64} + 18853970466244\, p^{70} q^{128} + 8401488763908\, p^{66} q^{129} + 230727785\, p^{37} q^{24} + 17326549\, p^{36} q^{18}$$
$$+ 458576357\, p^{37} q^{26} + 1366701813654740\, p^{86} q^{95} + 596292738790358\, p^{74} q^{98} + 852834634350073\, p^{78} q^{97}$$
$$+ 456606315858467\, p^{73} q^{79} + 30127325518593\, q^{100} p^{54} + 24482536881415\, q^{100} p^{53} + 15833516192624\, q^{100} p^{51}$$
$$+ 19758639087887\, q^{100} p^{52} + 194532\, p^{112} q^{17} + 51354809119\, q^{46} p^{37} + 158088201712\, p^{109} q^{38} + 7831173\, q^{116} p^{22} + 17299114\, q^{116} p^{23}$$
$$+ 578122\, q^{112} p^{18} + 22323028\, p^{94} q^{18} + 384090684\, q^{135} p^{37} + 11075353\, p^{93} q^{17} + 24375436988491\, p^{75} q^{52} + 20164557583900\, p^{75} q^{51}$$
$$+ 619925086689\, p^{73} q^{37} + 10973020566579\, p^{75} q^{48} + 5402201348693\, p^{74} q^{45} + 24603624721\, p^{71} q^{28} + 36869654338\, p^{71} q^{29}$$
$$+ 140615703055441\, p^{76} q^{63} + 123709669199712\, p^{76} q^{62} + 108273739278524\, p^{76} q^{61} + 10091752735272\, p^{88} q^{47} + 2641\, p^{51} q^{6}$$
$$+ 234469617299288\, p^{66} q^{99} + 2828760043791\, p^{87} q^{42} + 52384509936\, p^{83} q^{30} + 332410482664\, p^{85} q^{35} + 1320481708281410\, p^{92} q^{85}$$
$$+ 384090684\, p^{135} q^{37} + 39293727\, p^{162} q^{64} + 213135174\, p^{165} q^{79} + 5089921859158\, p^{82} q^{141} + 5885074833558\, p^{81} q^{140}$$
$$+ 24831216379168\, p^{51} q^{83} + 369375321437091\, p^{121} q^{107} + 318922587159372\, p^{121} q^{111} + 448561123079400\, p^{120} q^{102}$$
$$+ 452385755183961\, p^{120} q^{100} + 437828061834907\, p^{120} q^{96} + 123178448539648\, p^{118} q^{73} + 8764126948739\, q^{132} p^{70}$$
$$+ 9530907911234\, q^{133} p^{72} + 15285836509383\, q^{132} p^{74} + 11698126996172\, q^{132} p^{72} + 13407182977235\, q^{132} p^{73}$$
$$+ 17338346469161\, q^{132} p^{75} + 33381509448775\, p^{133} q^{123} + 7523811067385\, q^{132} p^{69} + 118858\, p^{81} q^{11} + 24883321266785\, p^{72} q^{128}$$
$$+ 21717357280567\, p^{71} q^{128} + 22497097691112\, p^{56} q^{109} + 6457935139645\, p^{45} q^{84} + 135\, p^{59} q^{5} + 23270509271344\, p^{74} q^{52}$$
$$+ 19274744353036\, p^{74} q^{51} + 600418854677\, p^{72} q^{37} + 10530382458004\, p^{74} q^{48} + 5184175459737\, p^{73} q^{45} + 24132585293\, p^{70} q^{28}$$
$$+ 36061201628\, p^{70} q^{29} + 133171255346323\, p^{75} q^{63} + 117280613072076\, p^{75} q^{62} + 102753877184451\, p^{75} q^{61} + 2363442639\, q^{143} p^{48}$$
$$+ 37964575\, p^{68} q^{16} + 997311329529670\, p^{80} q^{96} + 569795604892621\, p^{76} q^{79} + 63454851603840\, p^{132} q^{116} + 38600808284\, q^{76} p^{29}$$
$$+ 57753553406\, q^{76} p^{30} + 515197614\, p^{54} q^{21} + 2169712972\, p^{55} q^{24} + 20960212\, q^{41} p^{17} + 154763181\, p^{169} q^{148} + 34559760\, q^{41} p^{18}$$
$$+ 38969505\, q^{42} p^{18} + 55622734\, q^{41} p^{19} + 87569669\, q^{41} p^{20} + 10428342860198\, p^{47} q^{83} + 75703542936835\, q^{90} p^{57}$$
$$+ 5282620971560\, p^{140} q^{80} + 50846433702\, p^{133} q^{48} + 10114603661370\, p^{143} q^{110} + 7199213681847\, p^{140} q^{83} + 12263963851749\, p^{142} q^{100}$$
$$+ 1207808150013102\, p^{88} q^{84} + 56284139540306\, p^{58} q^{72} + 120554914563137\, p^{123} q^{79} + 1422292900196\, p^{118} q^{49}$$
$$+ 216150737468455\, p^{126} q^{105} + 16280030344944\, p^{121} q^{62} + 14916973989341\, p^{104} q^{52} + 947495974387949\, p^{95} q^{111}$$

$$+ 993857498096149\, p^{102}\, q^{110} + 1050222143620445\, p^{102}\, q^{109} + 92063863004537\, p^{131}\, q^{94} + 32968741085\, p^{121}\, q^{39}$$
$$+ 26954396016078\, p^{129}\, q^{74} + 33338176574550\, p^{59}\, q^{64} + 43061349999877\, p^{61}\, q^{64} + 54500819265995\, p^{63}\, q^{64}$$
$$+ 48565993355403\, p^{62}\, q^{64} + 60859892577648\, p^{64}\, q^{64} + 67631049342978\, p^{65}\, q^{64} + 37987081493290\, p^{60}\, q^{64}$$
$$+ 139087378326864\, p^{118}\, q^{125} + 1151697984535586\, p^{92}\, q^{82} + 30592527908638\, p^{62}\, q^{60} + 85125817223\, q^{76}\, p^{31} + 122685118243\, q^{75}\, p^{32}$$
$$+ 175518569247\, q^{75}\, p^{33} + 33339476\, p^{72}\, q^{16} + 1279176505\, p^{164}\, q^{86} + 62895248478\, p^{65}\, q^{31} + 229\, p^{36}\, q^{4} + 9170156302191\, p^{68}\, q^{49}$$
$$+ 381972058\, p^{24}\, q^{40} + 135109626\, p^{21}\, q^{41} + 5965111489025\, q^{96}\, p^{46} + 2793128963495\, q^{95}\, p^{43} + 38302665325688\, q^{95}\, p^{54}$$
$$+ 3690379252123\, q^{95}\, p^{44} + 4832407342524\, q^{95}\, p^{45} + 261880000\, p^{23}\, q^{40} + 1282492810724204\, p^{93}\, q^{105} + 237908\, q^{115}\, p^{18}$$
$$+ 74983\, q^{115}\, p^{17} + 24727868444577\, q^{134}\, p^{82} + 3052841704028\, p^{47}\, q^{60} + 3710537658328\, p^{48}\, q^{60} + 32463\, p^{56}\, q^{8}$$
$$+ 2945492384265\, p^{80}\, q^{42} + 357608700656\, p^{78}\, q^{35} + 15972940604205\, p^{81}\, q^{49} + 202670666514499\, p^{82}\, q^{64} + 57753553406\, p^{76}\, q^{30}$$
$$+ 51193031278179\, p^{81}\, q^{55} + 8028974175392\, p^{80}\, q^{46} + 193688\, q^{108}\, p^{16} + 75998\, q^{107}\, p^{15} + 1077257851115538\, p^{106}\, q^{106}$$
$$+ 111379477764\, p^{42}\, q^{44} + 165122351324\, p^{44}\, q^{44} + 240436545992\, p^{45}\, q^{45} + 73056916009\, p^{40}\, q^{44} + 136075522762\, p^{43}\, q^{44}$$
$$+ 90530713944\, p^{41}\, q^{44} + 1482407980\, p^{168}\, q^{119} + 1311867513\, p^{167}\, q^{102} + 60734743470\, p^{40}\, q^{43} + 276165\, p^{44}\, q^{10} + 3223455\, p^{47}\, q^{13}$$
$$+ 83593405\, p^{50}\, q^{18} + 1785854489971\, p^{57}\, q^{46} + 44\, p^{31}\, q^{3} + 13139167653\, p^{64}\, q^{27} + 88973642302\, p^{65}\, q^{32} + 131134726\, p^{31}\, q^{26}$$
$$+ 29887\, p^{27}\, q^{9} + 127324\, p^{28}\, q^{11} + 1483\, p^{57}\, q^{6} + 120183\, p^{71}\, q^{10} + 204608935\, p^{22}\, q^{41} + 778034169\, p^{26}\, q^{40} + 2308155358\, p^{30}\, q^{39}$$
$$+ 2485204094\, q^{107}\, p^{28} + 49416075544\, q^{109}\, p^{35} + 755093981582\, q^{110}\, p^{43} + 550296621632\, q^{110}\, p^{42} + 73861418251\, q^{109}\, p^{36}$$
$$+ 321125745218\, q^{109}\, p^{40} + 4202257475\, q^{107}\, p^{29} + 85560708857828\, p^{61}\, q^{72} + 51469140132629\, p^{57}\, q^{73} + 27918487199218\, p^{53}\, q^{74}$$
$$+ 119659777498\, q^{54}\, p^{36} + 133973489656\, q^{55}\, p^{36} + 90615659916\, q^{54}\, p^{35} + 50463516128\, q^{54}\, p^{33} + 67963294975\, q^{54}\, p^{34}$$
$$+ 37077661523\, q^{54}\, p^{32} + 1020375780561500\, p^{109}\, q^{92} + 88585522499\, p^{60}\, q^{33} + 11141250735915\, p^{62}\, q^{53} + 33136823\, p^{54}\, q^{16}$$
$$+ 18\, p^{135}\, q^{186} + 28\, p^{137}\, q^{186} + 23\, p^{136}\, q^{186} + 72605595004184\, p^{110}\, q^{63} + 1232915\, p^{18}\, q^{23} + 61597582\, p^{32}\, q^{23} + 14741345134\, p^{67}\, q^{27}$$
$$+ 102576804107\, p^{68}\, q^{32} + 95392530086\, q^{147}\, p^{67} + 1211969265\, p^{167}\, q^{101} + 1031320023108\, p^{71}\, q^{39} + 7741081471115\, p^{72}\, q^{47}$$
$$+ 1357112373740\, p^{71}\, q^{40} + 14343773478008\, p^{72}\, q^{50} + 2934822251210\, p^{71}\, q^{43} + 2288619972283\, p^{71}\, q^{42} + 237494047151\, p^{147}\, q^{72}$$
$$+ 142992549\, p^{97}\, q^{21} + 4375917806\, p^{103}\, q^{28} + 625552768445574\, p^{105}\, q^{78} + 2868971160402\, p^{78}\, q^{42} + 351442099512\, p^{76}\, q^{35}$$
$$+ 15371349387344\, p^{79}\, q^{49} + 190128241268385\, p^{80}\, q^{64} + 57130265225\, p^{74}\, q^{30} + 48541312517982\, p^{79}\, q^{55} + 7725460994521\, p^{78}\, q^{46}$$
$$+ 203126\, q^{65}\, p^{10} + 66270\, q^{64}\, p^{9} + 1519086\, q^{66}\, p^{12} + 49583925415\, p^{98}\, q^{32} + 2426326740\, p^{94}\, q^{25} + 137173051878136\, p^{106}\, q^{65}$$

$$+ 86591976707208\, p^{106} q^{62} + 698174864739628\, p^{108} q^{82} + 788663331721377\, p^{108} q^{84} + 38774052265721\, p^{105} q^{57}$$
$$+ 743656372451961\, p^{108} q^{83} + 1066879118090281\, p^{109} q^{101} + 31566498846604\, q^{136} p^{117} + 28013549481207\, q^{136} p^{119}$$
$$+ 22093505426281\, q^{137} p^{120} + 34955488691590\, q^{136} p^{115} + 29802322324278\, q^{136} p^{118} + 40714652289353\, q^{136} p^{111}$$
$$+ 33289761584226\, q^{136} p^{116} + 39442168086775\, q^{136} p^{112} + 14486255940808\, p^{66} q^{126} + 437127380007081\, q^{105} p^{74}$$
$$+ 283258325490502\, q^{105} p^{70} + 841206764496864\, p^{77} q^{92} + 2443920605\, p^{29} q^{41} + 6426309909\, p^{33} q^{40} + 14124436326\, p^{37} q^{39}$$
$$+ 2933\, q^{108} p^{13} + 2526\, p^{27} q^{6} + 826\, p^{26} q^{5} + 381297250751\, p^{124} q^{48} + 77637398668330\, p^{62} q^{69} + 30924394089662\, p^{55} q^{70}$$
$$+ 1143332554310124\, p^{107} q^{92} + 89787252345\, p^{144} q^{62} + 17981661\, q^{55} p^{15} + 808112\, q^{53} p^{11} + 4198518\, q^{54} p^{13} + 321479\, p^{53} q^{10}$$
$$+ 200793708475\, p^{68} q^{34} + 1601380450301\, p^{69} q^{41} + 22653472279207\, p^{68} q^{54} + 4929958130602\, p^{68} q^{46} + 28776366611931\, p^{69} q^{55}$$
$$+ 151382649846\, q^{63} p^{34} + 110074054226\, q^{63} p^{33} + 205950804190\, q^{63} p^{35} + 397205568312\, q^{64} p^{37} + 488209355367\, q^{63} p^{38}$$
$$+ 277303782804\, q^{63} p^{36} + 369696000801\, q^{63} p^{37} + 103060740\, q^{159} p^{61} + 138984286\, q^{159} p^{62} + 247689\, q^{153} p^{39} + 38759063\, p^{67} q^{16}$$
$$+ 18107997509\, q^{122} p^{38} + 10062221180398\, p^{48} q^{73} + 41426399066434\, p^{56} q^{72} + 48422419549752\, p^{57} q^{72}$$
$$+ 1215518961372769\, p^{101} q^{86} + 124215211825\, p^{113} q^{158} + 60806520485132\, p^{59} q^{71} + 607711710\, p^{90} q^{22} + 234950651583022\, p^{106} q^{69}$$
$$+ 169515996428308\, p^{105} q^{66} + 46941885325\, p^{123} q^{41} + 3541788802798\, p^{44} q^{70} + 31868594\, p^{155} q^{51} + 21889\, p^{12} q^{17}$$
$$+ 261035481383\, q^{54} p^{39} + 48565993355403\, p^{64} q^{62} + 38693078312868\, p^{61} q^{63} + 43589371005902\, p^{63} q^{62} + 47691947696343\, p^{65} q^{61}$$
$$+ 54500819265995\, p^{64} q^{63} + 48860761061992\, p^{63} q^{63} + 60497591500048\, p^{65} q^{63} + 53849490941939\, p^{65} q^{62}$$
$$+ 43589371005902\, p^{62} q^{63} + 29105022249092\, p^{64} q^{58} + 30026325548746\, p^{63} q^{59} + 7100826521\, q^{113} p^{32} + 18742224450838\, p^{97} q^{51}$$
$$+ 5965111489025\, p^{96} q^{46} + 185409683853362\, p^{98} q^{64} + 42922924821086\, p^{97} q^{55} + 1413238211\, p^{87} q^{23} + 55392052532\, p^{91} q^{31}$$
$$+ 38221452\, p^{82} q^{17} + 15535824170\, p^{90} q^{28} + 110195056233618\, p^{63} q^{72} + 707991970543109\, p^{94} q^{75} + 105405575\, p^{78} q^{18}$$
$$+ 663736333\, p^{80} q^{21} + 1139920638\, p^{81} q^{22} + 188825\, p^{66} q^{10} + 1137523188513151\, p^{95} q^{82} + 768689714878650\, p^{96} q^{114}$$
$$+ 830837049558376\, p^{101} q^{113} + 14\, q^{41} p^{3} + 2623203045\, p^{161} q^{80} + 1199182900\, p^{167} q^{137} + 592954979\, p^{167} q^{144} + 683734527\, p^{159} q^{68}$$
$$+ 218562176667\, p^{103} q^{156} + 232480140695\, p^{118} q^{156} + 4245\, p^{177} q^{83} + 3779\, p^{184} q^{156} + 1210556930275437\, p^{83} q^{92}$$
$$+ 81131042668157\, p^{59} q^{99} + 36825543006139\, p^{55} q^{100} + 56896206020711\, p^{57} q^{99} + 68147691645329\, p^{58} q^{99}$$
$$+ 4982330253709\, p^{129} q^{141} + 8553041075272\, p^{120} q^{142} + 6071697752416\, p^{127} q^{141} + 3331470931\, q^{101} p^{27} + 1565493071995537\, p^{96} q^{99}$$
$$+ 796531717273\, p^{146} q^{78} + 22472766\, p^{108} q^{21} + 646015036830156\, p^{111} q^{112} + 1555692074099696\, p^{94} q^{99}$$

$$+ 1429259632844795\, p^{90}\, q^{100} + 1541233225800159\, p^{93}\, q^{99} + 1068702087688043\, p^{84}\, q^{102} + 1424452291764831\, p^{91}\, q^{101}$$
$$+ 1452070906667157\, p^{92}\, q^{101} + 15633019\, p^{174}\, q^{107} + 14593592\, p^{175}\, q^{117} + 38133934681\, q^{149}\, p^{66} + 27688470669818\, q^{123}\, p^{67}$$
$$+ 1587056478241401\, p^{96}\, q^{98} + 1586597871138173\, p^{95}\, q^{98} + 19\, p^{39}\, q^{3} + 159169329\, p^{170}\, q^{144} + 293565169\, p^{170}\, q^{137}$$
$$+ 1525802943059972\, p^{94}\, q^{100} + 1534974811023798\, p^{95}\, q^{100} + 6422862975618\, q^{132}\, p^{68} + 5451701574363\, q^{132}\, p^{67} + 138918998\, p^{27}\, q^{30}$$
$$+ 531612361345532\, p^{75}\, q^{79} + 181045219\, q^{160}\, p^{65} + 236527839\, q^{160}\, p^{66} + 74639940\, q^{161}\, p^{64} + 654875550\, p^{58}\, q^{21} + 2839755676\, p^{59}\, q^{24}$$
$$+ 69111831130\, p^{61}\, q^{32} + 10581751205\, p^{60}\, q^{27} + 49339642097\, p^{61}\, q^{31} + 980099248626\, p^{62}\, q^{41} + 130986751602\, p^{61}\, q^{34}$$
$$+ 177423704333\, p^{61}\, q^{35} + 13551983268959\, p^{121}\, q^{61} + 228059948338124\, p^{125}\, q^{94} + 138087190569\, p^{115}\, q^{40} + 96013475251\, p^{115}\, q^{39}$$
$$+ 71305867474430\, p^{123}\, q^{74} + 43217464541637\, p^{122}\, q^{69} + 17702971530\, p^{113}\, q^{34} + 234406174172144\, p^{125}\, q^{95}$$
$$+ 49662696399477\, p^{122}\, q^{70} + 248856666976207\, p^{125}\, q^{104} + 92180293234\, p^{43}\, q^{42} + 13980446741408\, p^{128}\, q^{68}$$
$$+ 3971989753429\, p^{126}\, q^{59} + 73527148255367\, p^{132}\, q^{113} + 73056916009\, p^{44}\, q^{40} + 124649535149140\, p^{60}\, q^{86} + 23\, p^{85}\, q^{7}$$
$$+ 504826\, q^{116}\, p^{19} + 50158354489\, p^{40}\, q^{42} + 50632001495\, p^{41}\, q^{41} + 61871776141\, p^{42}\, q^{41} + 60734743470\, p^{43}\, q^{40} + 927\, q^{42}\, p^{5}$$
$$+ 442726676\, p^{75}\, q^{20} + 30701105582030\, p^{85}\, q^{52} + 339793\, q^{21}\, p^{16} + 945926530\, p^{164}\, q^{84} + 575062777\, p^{164}\, q^{81} + 6342379198241\, p^{54}\, q^{56}$$
$$+ 4744636613528\, p^{53}\, q^{55} + 6026\, p^{72}\, q^{8} + 1435587829659\, p^{129}\, q^{57} + 370827251981\, p^{127}\, q^{50} + 268534074598024\, q^{118}\, p^{81}$$
$$+ 532156169225\, q^{153}\, p^{99} + 548945583\, p^{25}\, q^{40} + 14249917279\, p^{66}\, q^{27} + 98260086273\, p^{67}\, q^{32} + 7460688262052\, p^{115}\, q^{54} + 3826\, p^{14}\, q^{10}$$
$$+ 3096\, p^{12}\, q^{11} + 2067\, p^{10}\, q^{12} + 1086\, p^{8}\, q^{13} + 16280030344944\, p^{69}\, q^{128} + 21300046257469\, p^{59}\, q^{60} + 277135979509340\, p^{66}\, q^{85}$$
$$+ 311453051429828\, p^{67}\, q^{85} + 379180429813863\, p^{69}\, q^{84} + 189431624439124\, p^{63}\, q^{85} + 194531278\, p^{170}\, q^{142} + 846797804\, p^{169}\, q^{124}$$
$$+ 1245414576\, p^{168}\, q^{111} + 167526477536\, q^{128}\, p^{48} + 123287124646\, q^{128}\, p^{47} + 24154361623837\, p^{60}\, q^{60} + 18329566781602\, p^{57}\, q^{61}$$
$$+ 5479236052940\, p^{48}\, q^{64} + 8030931116606\, p^{50}\, q^{64} + 11477245558393\, p^{52}\, q^{64} + 9630314955426\, p^{51}\, q^{64} + 13596228628369\, p^{53}\, q^{64}$$
$$+ 18748081378849\, p^{55}\, q^{64} + 16011802367323\, p^{54}\, q^{64} + 20616230290851\, p^{55}\, q^{65} + 6655011906505\, p^{49}\, q^{64} + 23551409670125\, p^{62}\, q^{58}$$
$$+ 16518835346316\, p^{58}\, q^{59} + 18806219762550\, p^{59}\, q^{59} + 142365117\, p^{113}\, q^{25} + 9152058\, p^{19}\, q^{30} + 337\, p^{13}\, q^{6} + 63\, p^{12}\, q^{4} + 137\, p^{12}\, q^{5}$$
$$+ 628\, p^{13}\, q^{7} + 1795\, p^{13}\, q^{9} + 98062193889557\, q^{94}\, p^{59} + 1503850808\, p^{56}\, q^{23} + 131419014244\, q^{157}\, p^{100} + 40382517632\, q^{130}\, p^{45}$$
$$+ 3794494048\, q^{127}\, p^{37} + 25547814960\, q^{129}\, p^{43} + 5742937895036\, q^{134}\, p^{70} + 6673445731131\, q^{134}\, p^{71} + 203023853461\, q^{54}\, p^{38}$$
$$+ 175665042667\, q^{55}\, p^{37} + 8295230312\, p^{63}\, q^{26} + 2081424669\, p^{62}\, q^{23} + 28789132932\, p^{64}\, q^{29} + 1040\, p^{39}\, q^{5} + 41699453836\, p^{64}\, q^{30}$$
$$+ 425686942\, p^{60}\, q^{20} + 369375321437091\, p^{69}\, q^{83} + 926473\, q^{83}\, p^{13} + 87923\, p^{60}\, q^{9} + 21099301578\, q^{109}\, p^{33} + 32555443017\, q^{109}\, p^{34}$$

$$+ 13438104656\, q^{109} p^{32} + 282755030248\, q^{110} p^{40} + 396710024980\, q^{110} p^{41} + 199\, p^{105} q^{11} + 1394\, q^{70} p^{7} + 5103\, q^{73} p^{8}$$
$$+ 10152827270858\, q^{132} p^{71} + 51766973\, q^{99} p^{20} + 12128774\, q^{98} p^{18} + 2256\, q^{140} p^{24} + 1518664\, q^{148} p^{37} + 196405\, q^{148} p^{34}$$
$$+ 404810\, q^{148} p^{35} + 106327987775\, q^{53} p^{36} + 32241471499\, p^{42} q^{38} + 191745971830684\, p^{63} q^{86} + 166999129909417\, p^{62} q^{86}$$
$$+ 341029174032864\, p^{68} q^{84} + 144671516249438\, p^{61} q^{86} + 271950242\, p^{36} q^{25} + 202306770469\, q^{100} p^{36} + 126144660835\, q^{101} p^{35}$$
$$+ 1008790222148358\, p^{89} q^{80} + 43252\, p^{30} q^{9} + 194466\, p^{31} q^{11} + 19029\, q^{63} p^{8} + 597705\, q^{65} p^{11} + 217400\, q^{64} p^{10} + 20932\, q^{62} p^{8}$$
$$+ 74088\, p^{178} q^{168} + 135547\, p^{178} q^{165} + 8950166\, p^{176} q^{125} + 14154701\, p^{174} q^{106} + 8443017\, p^{176} q^{123} + 39615302638\, q^{150} p^{68}$$
$$+ 32300950481\, q^{150} p^{67} + 165707134972\, q^{84} p^{33} + 238967818472\, q^{84} p^{34} + 340218292058\, q^{84} p^{35} + 94335510697671\, p^{116} q^{69}$$
$$+ 69048557295618\, p^{115} q^{66} + 28585844931085\, p^{114} q^{60} + 107653617888917\, p^{116} q^{70} + 92122361306560\, p^{115} q^{68} + 1556101\, q^{157} p^{47}$$
$$+ 16306528693373\, p^{57} q^{60} + 18685950427640\, p^{58} q^{60} + 347136770759757\, p^{83} q^{117} + 21828254118384\, p^{64} q^{56} + 408191128\, p^{114} q^{27}$$
$$+ 156558840166\, q^{54} p^{37} + 80701392598\, q^{53} p^{35} + 396742\, q^{167} p^{62} + 174059\, q^{167} p^{60} + 265237\, q^{167} p^{61} + 1206710\, q^{167} p^{65}$$
$$+ 845380\, q^{167} p^{64} + 1071851655928139\, p^{85} q^{83} + 992039648519207\, p^{82} q^{84} + 771137857665777\, p^{77} q^{85} + 736405763054380\, p^{76} q^{86}$$
$$+ 589505301893982\, p^{73} q^{87} + 2740189720119\, p^{47} q^{59} + 176\, q^{79} p^{7} + 1800922045395\, p^{61} q^{44} + 5103\, p^{73} q^{8} + 6538930640650\, p^{116} q^{54}$$
$$+ 208652283\, p^{56} q^{19} + 1009531050\, p^{57} q^{22} + 696571665645\, p^{113} q^{44} + 1086\, p^{13} q^{8} + 119113695158\, p^{73} q^{32} + 82569076545\, p^{73} q^{31}$$
$$+ 14967991\, p^{23} q^{26} + 86\, p^{14} q^{4} + 4480648472622\, p^{49} q^{60} + 1238057212\, p^{165} q^{90} + 95678671141\, p^{61} q^{33} + 12337191302822\, p^{63} q^{53}$$
$$+ 34503828\, p^{55} q^{16} + 952706015328915\, p^{80} q^{86} + 1977668992667\, p^{62} q^{44} + 218936009\, p^{57} q^{19} + 1068882928\, p^{58} q^{22}$$
$$+ 1137496995579010\, p^{108} q^{100} + 5068186026506\, q^{94} p^{45} + 107630445320190\, p^{100} q^{61} + 146818067704938\, p^{100} q^{63}$$
$$+ 1091010570585811\, p^{92} q^{81} + 1416271823618741\, p^{92} q^{87} + 966431949120833\, p^{92} q^{79} + 1370414589926876\, p^{92} q^{86}$$
$$+ 45158357707\, q^{99} p^{32} + 652642615910\, q^{85} p^{37} + 46763676\, q^{88} p^{18} + 8274756907\, q^{92} p^{27} + 2916110149\, q^{92} p^{25}$$
$$+ 1323689845129854\, p^{97} q^{105} + 36288421899139\, p^{115} q^{62} + 371124287769440\, p^{117} q^{84} + 16033124442797\, p^{114} q^{57}$$
$$+ 347136770759757\, p^{117} q^{83} + 549892960145449\, p^{118} q^{101} + 323269382028400\, p^{117} q^{82} + 6026\, q^{178} p^{89} + 4528939984\, p^{136} q^{164}$$
$$+ 4933834414\, p^{139} q^{163} + 16709241117\, p^{160} q^{90} + 48767047\, q^{40} p^{19} + 12376582\, q^{41} p^{16} + 1714733919\, p^{29} q^{39} + 1259967265\, p^{28} q^{39}$$
$$+ 454621955\, p^{86} q^{21} + 666948590751889\, p^{90} q^{114} + 626222692459908\, p^{76} q^{81} + 3308752541\, p^{62} q^{24} + 245902243\, p^{60} q^{19}$$
$$+ 37851370\, p^{58} q^{16} + q^{14} p + 745472618660035\, p^{94} q^{114} + 611105607268344\, p^{90} q^{115} + 3520425897121\, p^{138} q^{136}$$
$$+ 4744636613528\, p^{137} q^{135} + 110195056233618\, p^{72} q^{63} + 97348749948531\, p^{72} q^{62} + 85560708857828\, p^{72} q^{61} + 146981080\, q^{91} p^{20}$$

$$+ 71411141\, q^{91} p^{19} + 131528895\, q^{92} p^{20} + 56073987132500\, q^{105} p^{59} + 79144775707230\, q^{105} p^{61} + 109137585024336\, q^{105} p^{63}$$
$$+ 93204264757822\, q^{105} p^{62} + 127082672693397\, q^{105} p^{64} + 147169375385633\, q^{105} p^{65} + 5803757615\, q^{96} p^{27} + 845133787859\, p^{42} q^{58}$$
$$+ 118248966656864\, p^{130} q^{97} + 105950692850126\, p^{131} q^{105} + 7180602305010\, p^{126} q^{62} + 104674192942681\, p^{130} q^{93}$$
$$+ 24883321266785\, p^{128} q^{72} + 877535324519\, p^{124} q^{51} + 100465870994728\, p^{130} q^{92} + 391586521\, p^{25} q^{38} + 230727785\, p^{24} q^{37}$$
$$+ 346135085818888\, p^{109} q^{121} + 4335717760\, p^{38} q^{33} + 5723896\, p^{35} q^{16} + 375538027236655\, p^{94} q^{121} + 3863863\, p^{51} q^{13}$$
$$+ 108224474\, p^{54} q^{18} + 45119189193\, p^{94} q^{31} + 12472112322\, p^{93} q^{28} + 16019469\, p^{52} q^{15} + 200285621065\, p^{59} q^{36} + 8183642\, p^{52} q^{14}$$
$$+ 79398460034477\, p^{58} q^{79} + 311525\, p^{48} q^{10} + 9237408339\, p^{27} q^{58} + 13531197232\, p^{28} q^{58} + 42510983952\, p^{31} q^{59}$$
$$+ 19541702729\, p^{29} q^{58} + 27846862913\, p^{30} q^{58} + 135\, p^{131} q^{185} + 53214\, p^{175} q^{174} + 1847\, p^{135} q^{184} + 15407457206181\, p^{70} q^{51}$$
$$+ 375699285275\, p^{68} q^{36} + 18507175490161\, p^{70} q^{52} + 2487440660632\, p^{125} q^{56} + 69312919984620\, p^{131} q^{117} + 10275869623650\, p^{127} q^{65}$$
$$+ 14294526333362\, p^{127} q^{67} + 96698\, p^{40} q^{9} + 36754\, p^{39} q^{8} + 4882434\, p^{103} q^{18} + q^{15} p + 27302721626960\, p^{132} q^{79} + 746284038\, p^{61} q^{21}$$
$$+ 12544514240289\, p^{59} q^{56} + 508033389713\, q^{124} p^{49} + 381297250751\, q^{124} p^{48} + 304185300761\, p^{149} q^{78} + 13442\, p^{183} q^{144}$$
$$+ 6010\, p^{177} q^{84} + 2001\, p^{177} q^{81} + 12808\, p^{183} q^{142} + 10231\, p^{183} q^{137} + 2900860209877\, p^{146} q^{91} + 254508075904\, p^{78} q^{34}$$
$$+ 2223337568107\, p^{79} q^{41} + 10521289245\, p^{75} q^{26} + 178547097474\, p^{77} q^{33} + 123457675359452\, p^{61} q^{79} + 291301\, p^{58} q^{10}$$
$$+ 28776366611931\, p^{55} q^{69} + 14658608\, q^{160} p^{57} + 57527012157286\, p^{111} q^{134} + 1247248753791\, p^{151} q^{112} + 1410129\, q^{37} p^{13}$$
$$+ 4472506\, q^{37} p^{15} + 134022127188\, q^{142} p^{61} + 8652027\, q^{38} p^{16} + 10899\, q^{34} p^{7} + 3636\, q^{33} p^{6} + 26865752855\, p^{95} q^{160} + 121251\, p^{49} q^{9}$$
$$+ 42175\, p^{48} q^{8} + 89831347\, q^{51} p^{18} + 600798290502\, p^{66} q^{38} + 73289738\, p^{59} q^{17} + 452312348281\, p^{66} q^{37} + 7507641995517\, p^{68} q^{48}$$
$$+ 3694585749404\, p^{67} q^{45} + 19596030910\, p^{64} q^{28} + 3922\, q^{43} p^{6} + 971\, q^{41} p^{5} + 51\, q^{22} p^{3} + 52\, q^{23} p^{3} + 36286415309923\, p^{57} q^{68}$$
$$+ 8031167332584\, p^{48} q^{69} + 1687245801299\, p^{41} q^{70} + 1393199186676\, p^{55} q^{46} + 411119999982561\, p^{71} q^{100} + 29946192207229\, p^{89} q^{52}$$
$$+ 32555443017\, q^{156} p^{81} + 8964\, p^{55} q^{7} + 799247725727675\, p^{78} q^{84} + 16011802367323\, p^{136} q^{126} + 30575219402315\, p^{87} q^{52}$$
$$+ 3733430477515\, p^{44} q^{71} + 251713\, p^{42} q^{10} + 841197232543\, p^{67} q^{39} + 6105013528444\, p^{68} q^{47} + 1099065904753\, p^{67} q^{40}$$
$$+ 11127143592296\, p^{68} q^{50} + 2329564913358\, p^{67} q^{43} + 1828447513101\, p^{67} q^{42} + 13415194205161\, p^{68} q^{51} + 337232549206\, p^{66} q^{36}$$
$$+ 16072544791934\, p^{68} q^{52} + 575775300568245\, p^{77} q^{78} + 476437834\, p^{72} q^{20} + 29939718253662\, p^{82} q^{52} + 24552188938446\, p^{82} q^{51}$$
$$+ 661617\, p^{63} q^{11} + 1151697984535586\, p^{98} q^{108} + 2196283933\, p^{154} q^{158} + 219753809552894\, p^{126} q^{99} + 370845412\, p^{108} q^{25}$$
$$+ 8402833921\, p^{112} q^{32} + 11572746\, q^{153} p^{46} + 15491778\, p^{24} q^{25} + 6997125526\, p^{94} q^{27} + 4019663483202\, p^{102} q^{46}$$

$$+ 362828046933\, p^{108}\, q^{40} + 256764580935\, p^{108}\, q^{39} + 48510653647\, p^{106}\, q^{34} + 649123534953097\, p^{116}\, q^{96} + 12856948072980\, p^{103}\, q^{51}$$
$$+ 19700226\, p^{21}\, q^{30} + 7788014035\, q^{122}\, p^{36} + 11971610613\, q^{122}\, p^{37} + 7745\, p^{80}\, q^{9} + 1854877046406\, p^{118}\, q^{50} + 7119021011414\, p^{120}\, q^{57}$$
$$+ 3371211780492\, p^{119}\, q^{53} + 167542288209\, p^{116}\, q^{41} + 41195558032\, p^{113}\, q^{36} + 27224365545\, p^{113}\, q^{35} + 492390977285\, p^{77}\, q^{36}$$
$$+ 2447374732710\, p^{47}\, q^{58} + 549601820698783\, p^{92}\, q^{72} + 359427785293731\, p^{92}\, q^{68} + 1482407980\, p^{71}\, q^{22} + 6642608635\, p^{72}\, q^{25}$$
$$+ 802714\, p^{56}\, q^{11} + 9501109\, p^{59}\, q^{14} + 4378047\, p^{58}\, q^{13} + 304185300761\, p^{112}\, q^{41} + 337\, q^{13}\, p^{6} + 597705\, p^{65}\, q^{11} + 150\, p^{42}\, q^{4}$$
$$+ 218916838431253\, q^{121}\, p^{83} + 282897153535287\, q^{121}\, p^{87} + 36446868620418\, p^{131}\, q^{80} + 75703542936835\, p^{133}\, q^{100}$$
$$+ 248896321482\, p^{66}\, q^{35} + 2944873170533\, p^{67}\, q^{44} + 19138618179326\, p^{68}\, q^{53} + 1343095\, p^{19}\, q^{22} + 240129\, p^{14}\, q^{23}$$
$$+ 476127509822880\, p^{72}\, q^{82} + 342969739416\, p^{126}\, q^{49} + 3309\, p^{31}\, q^{6} + 43538052202\, q^{45}\, p^{37} + 1000840195\, p^{44}\, q^{25} + 2044322677\, p^{44}\, q^{27}$$
$$+ 176243707\, p^{43}\, q^{21} + 685410696\, p^{44}\, q^{24} + 1440251457\, p^{44}\, q^{26} + 15303920543\, p^{45}\, q^{33} + 6316717682\, p^{45}\, q^{30} + 4602611715\, p^{45}\, q^{29}$$
$$+ 11512554657\, p^{45}\, q^{32} + 8573100491\, p^{45}\, q^{31} + 20147461467\, p^{45}\, q^{34} + 26278450158\, p^{45}\, q^{35} + 39972343902\, p^{46}\, q^{36} + 322460\, p^{51}\, q^{10}$$
$$+ 181763286509\, p^{66}\, q^{34} + 1423553454755\, p^{67}\, q^{41} + 599966336932\, p^{41}\, q^{57} + 422022274096\, p^{40}\, q^{56} + 65430063969\, q^{46}\, p^{38}$$
$$+ 55988287791527\, p^{128}\, q^{79} + 377947\, p^{37}\, q^{11} + 825136\, p^{38}\, q^{12} + 180883\, p^{37}\, q^{10} + 105701\, p^{42}\, q^{9} + 39431\, p^{41}\, q^{8} + 1740594\, p^{39}\, q^{13}$$
$$+ 22080050\, q^{79}\, p^{16} + 96600650204364\, q^{118}\, p^{71} + 93206685\, q^{80}\, p^{18} + 16323652374558\, q^{117}\, p^{59} + 19746998461894\, q^{117}\, p^{60}$$
$$+ 683038952\, q^{108}\, p^{26} + 194947757\, q^{108}\, p^{24} + 6959268407\, q^{128}\, p^{39} + 10445029033\, q^{128}\, p^{40} + 15446397692\, q^{128}\, p^{41}$$
$$+ 841197232543\, q^{67}\, p^{39} + 5\, p^{101}\, q^{9} + 7\, p^{106}\, q^{10} + 73128890\, p^{173}\, q^{120} + 71411141\, p^{171}\, q^{99} + 1693439\, p^{163}\, q^{57} + 13409801\, p^{167}\, q^{73}$$
$$+ 10298921\, p^{167}\, q^{72} + 369753\, p^{117}\, q^{19} + 19717830465645\, p^{81}\, q^{50} + 3831950410652\, p^{80}\, q^{43} + 158099975020\, p^{152}\, q^{138}$$
$$+ 17321608927652\, p^{138}\, q^{88} + 18424842994453\, p^{140}\, q^{112} + 5513319855502\, p^{141}\, q^{128} + 31566498846604\, p^{54}\, q^{73}$$
$$+ 19274744353036\, p^{51}\, q^{74} + 26505330621037\, p^{53}\, q^{73} + 22119936664238\, p^{52}\, q^{73} + 18344886610788\, p^{51}\, q^{73} + 3694585749404\, q^{67}\, p^{45}$$
$$+ 841207296288927\, p^{91}\, q^{77} + 903640961560894\, p^{92}\, q^{78} + 456606315858467\, p^{111}\, q^{117} + 11214\, p^{181}\, q^{112} + 296\, p^{173}\, q^{63} + 2736\, p^{184}\, q^{162}$$
$$+ 1706\, p^{173}\, q^{66} + 8679\, p^{179}\, q^{96} + 14008\, q^{133}\, p^{22} + 38\, q^{91}\, p^{8} + 253208561335\, p^{144}\, q^{67} + 1111\, q^{160}\, p^{40} + 380499049213\, p^{145}\, q^{71}$$
$$+ 40911190999\, p^{141}\, q^{55} + 271950242\, p^{165}\, q^{154} + 120214410\, p^{165}\, q^{158} + 1860539806034\, p^{93}\, q^{148} + 1741959717457\, p^{92}\, q^{148}$$
$$+ 19358312665916\, p^{110}\, q^{140} + 68682274348\, p^{157}\, q^{91} + 83489984776\, p^{159}\, q^{110} + 675731300\, p^{158}\, q^{159} + 85029955544\, p^{159}\, q^{112}$$
$$+ 55988287791527\, p^{79}\, q^{128} + 1474759426\, q^{103}\, p^{26} + 233673760\, q^{103}\, p^{23} + 445725497\, q^{103}\, p^{24} + 710065835\, q^{104}\, p^{25}$$
$$+ 9748348568\, q^{108}\, p^{31} + 398124653291804\, p^{69}\, q^{93} + 7633395397810\, p^{137}\, q^{77} + 6748912190934\, p^{137}\, q^{76} + 4849592716\, p^{126}\, q^{37}$$

$$+ 5590267633\, p^{161}\, q^{85} + 4647872698\, p^{165}\, q^{130} + 8709093514\, p^{162}\, q^{93} + 31296696\, p^{152}\, q^{47} + 319310513120147\, p^{67}\, q^{92}$$
$$+ 2632383340\, q^{160}\, p^{77} + 28264549803\, q^{143}\, p^{56} + 16323652374558\, p^{117}\, q^{59} + 235613892128075\, p^{123}\, q^{113} + 51766973\, p^{99}\, q^{20}$$
$$+ 7158229639\, p^{35}\, q^{38} + 1166258290685\, p^{150}\, q^{122} + 8050675678670\, p^{144}\, q^{103} + 2202276001318\, p^{141}\, q^{75} + 3540904478515\, p^{142}\, q^{81}$$
$$+ 2744505552185\, p^{146}\, q^{124} + 1145532580900\, p^{140}\, q^{69} + 1902021\, p^{118}\, q^{21} + 36177802\, p^{124}\, q^{27} + 84097220138574\, p^{62}\, q^{70} + 12\, q^{42}\, p^{3}$$
$$+ 82651\, q^{61}\, p^{9} + 244871\, q^{62}\, p^{10} + 87923\, q^{60}\, p^{9} + 448\, q^{51}\, p^{5} + 25\, q^{121}\, p^{14} + 23231079629\, p^{105}\, q^{32} + 1086471973\, p^{101}\, q^{25}$$
$$+ 486865941568618\, p^{79}\, q^{110} + 319182542839\, q^{94}\, p^{36} + 6668977590\, q^{88}\, p^{26} + 196712952669376\, p^{64}\, q^{81} + 2887070430\, q^{106}\, p^{28}$$
$$+ 609142759\, q^{105}\, p^{25} + 1103209493\, q^{105}\, p^{26} + 1079737923542252\, p^{103}\, q^{85} + 18313997219533\, p^{55}\, q^{109} + 47009536481\, p^{117}\, q^{38}$$
$$+ 1050555753354660\, p^{89}\, q^{107} + 324612954\, q^{134}\, p^{36} + 6333\, p^{27}\, q^{7} + 16068\, p^{28}\, q^{8} + 312838\, p^{30}\, q^{12} + 77507\, p^{29}\, q^{10} + 5689764\, p^{32}\, q^{17}$$
$$+ 36275705\, p^{33}\, q^{21} + 20269540\, p^{32}\, q^{20} + 13534404\, p^{32}\, q^{19} + 52803681\, p^{33}\, q^{22} + 1109964\, p^{31}\, q^{14} + 2965713645821\, p^{81}\, q^{42}$$
$$+ 358438728187\, p^{79}\, q^{35} + 16180352824094\, p^{82}\, q^{49} + 207934783256009\, p^{83}\, q^{64} + 57694373180\, p^{77}\, q^{30} + 52242673941178\, p^{82}\, q^{55}$$
$$+ 8133688462077\, p^{81}\, q^{46} + 1060829111140742\, p^{94}\, q^{109} + 15893818337\, p^{70}\, q^{27} + 113671507178\, p^{71}\, q^{32} + q^{50}\, p^{3}$$
$$+ 161164957763\, p^{105}\, q^{157} + 11141250735915\, p^{137}\, q^{128} + 73046031722607\, q^{117}\, p^{68} + 83889843071095\, q^{117}\, p^{69}$$
$$+ 1179512304137\, q^{151}\, p^{115} + 1354228955293559\, p^{86}\, q^{96} + 1042568741747947\, p^{81}\, q^{97} + 979334193657660\, p^{80}\, q^{97}$$
$$+ 598601207786\, q^{95}\, p^{38} + 25442828357931\, q^{95}\, p^{52} + 4756178932952\, q^{125}\, p^{59} + 18584959612842\, p^{131}\, q^{74} + 4870560774339\, q^{126}\, p^{60}$$
$$+ 129814835\, p^{85}\, q^{19} + 750240397\, p^{25}\, q^{42} + 3707124371\, p^{31}\, q^{40} + 1783385121\, p^{28}\, q^{41} + 4480648472622\, p^{60}\, q^{49} + 17330599577\, p^{40}\, q^{37}$$
$$+ 6856519539\, p^{34}\, q^{39} + 643739824\, p^{41}\, q^{25} + 343664\, p^{36}\, q^{11} + 747217\, p^{37}\, q^{12} + 166407\, p^{36}\, q^{10} + 16394248\, p^{39}\, q^{17} + 117247380\, p^{40}\, q^{21}$$
$$+ 2872024\, p^{38}\, q^{14} + 76373157\, p^{40}\, q^{20} + 48767047\, p^{40}\, q^{19} + 204608935\, p^{41}\, q^{22} + 304560804\, p^{41}\, q^{23} + 1286078482\, p^{41}\, q^{27}$$
$$+ 2101426855\, p^{42}\, q^{28} + 1571256\, p^{38}\, q^{13} + 5064243\, p^{38}\, q^{15} + 2314071044\, q^{88}\, p^{24} + 479418161\, p^{53}\, q^{21} + 2004418139\, p^{54}\, q^{24}$$
$$+ 865452969\, p^{69}\, q^{21} + 11428249516\, p^{37}\, q^{38} + 1146943880371622\, p^{91}\, q^{82} + 7937859\, p^{105}\, q^{19} + 110\, p^{168}\, q^{50} + 2574\, p^{174}\, q^{70}$$
$$+ 13830\, p^{183}\, q^{147} + 4045\, p^{184}\, q^{153} + 18412\, p^{181}\, q^{115} + 35851\, p^{182}\, q^{136} + 2084879\, p^{16}\, q^{29} + 15633019\, p^{83}\, q^{16} + 3309\, q^{31}\, p^{6}$$
$$+ 131134726\, p^{26}\, q^{31} + 250922534221609\, p^{125}\, q^{99} + 440277173\, p^{107}\, q^{25} + 9883996281\, p^{111}\, q^{32} + 899174323920218\, p^{86}\, q^{79}$$
$$+ 5090\, q^{25}\, p^{7} + 10\, q^{18}\, p^{2} + 661\, q^{23}\, p^{5} + 1918\, q^{24}\, p^{6} + 92306577\, p^{23}\, q^{34} + 845380\, q^{126}\, p^{23} + 1114281859\, p^{90}\, q^{23} + 119605839\, q^{162}\, p^{68}$$
$$+ 7459349\, p^{70}\, q^{14} + 3282853\, p^{69}\, q^{13} + 719825913668459\, p^{80}\, q^{79} + 20201509614075\, p^{83}\, q^{50} + 3880870072773\, p^{82}\, q^{43}$$
$$+ 118201\, p^{137}\, q^{26} + 361418\, p^{31}\, q^{12} + 88231\, p^{30}\, q^{10} + 6753896\, p^{33}\, q^{17} + 43787982\, p^{34}\, q^{21} + 24513037\, p^{33}\, q^{20} + 16272472\, p^{33}\, q^{19}$$

$$+ 64073530\, p^{34} q^{22} + 1297264\, p^{32} q^{14} + 30365383\, p^{74} q^{16} + 149138073\, p^{25} q^{33} + 223191431\, p^{27} q^{32} + 406934363\, p^{31} q^{30}$$
$$+ 311376197\, p^{29} q^{31} + 500048910\, p^{33} q^{29} + 239886699219\, p^{98} q^{36} + 1202476201643296\, p^{106} q^{92} + 1105024228042835\, p^{108} q^{102}$$
$$+ 169646317469\, q^{83} p^{33} + 478492163274\, q^{84} p^{36} + 116338032164\, q^{83} p^{32} + 27860831848667\, p^{125} q^{133} + 261035481383\, p^{151} q^{136}$$
$$+ 524335333362\, p^{150} q^{132} + 79183415235\, p^{71} q^{31} + 12968296309259\, p^{74} q^{49} + 150447982155032\, p^{75} q^{64} + 20501291944862\, p^{62} q^{57}$$
$$+ 2288619972283\, p^{42} q^{71} + 214781780199855\, p^{80} q^{65} + 21030523218257\, p^{58} q^{61} + 2788534009768\, p^{43} q^{70} + 22818079704140\, p^{63} q^{57}$$
$$+ 24513037\, p^{20} q^{33} + 86623470\, p^{24} q^{32} + 106964144\, p^{24} q^{33} + 120214410\, p^{25} q^{32} + 164768510\, p^{26} q^{32} + 14124436326\, p^{153} q^{151}$$
$$+ 315613293\, p^{30} q^{30} + 92306577\, p^{34} q^{23} + 38047892101284\, p^{136} q^{113} + 1193007183538878\, p^{86} q^{85} + 26576168254\, p^{41} q^{38}$$
$$+ 102184286085\, p^{87} q^{32} + 73170150426444\, p^{92} q^{57} + 4522069021471\, p^{90} q^{44} + 392076198730134\, p^{94} q^{69} + 357582974\, p^{80} q^{20}$$
$$+ 804673415231\, p^{89} q^{38} + 278336730757680\, p^{93} q^{66} + 21756060124\, p^{38} q^{40} + 13009467406\, p^{35} q^{41} + 17330599577\, p^{37} q^{40}$$
$$+ 11023763386\, p^{33} q^{43} + 8339535810\, p^{32} q^{43} + 14433888571\, p^{34} q^{43} + 24085135830\, p^{36} q^{43} + 18727156074\, p^{35} q^{43}$$
$$+ 28693601058\, p^{36} q^{44} + 33191139158\, p^{41} q^{39} + 51402149\, p^{51} q^{17} + 273094837\, p^{52} q^{20} + 171748\, q^{99} p^{14} + 15659824592\, p^{35} q^{42}$$
$$+ 30715546730\, p^{37} q^{43} + 32241471499\, p^{38} q^{42} + 20087389314\, p^{36} q^{42} + 47208722096408\, p^{99} q^{56} + 64706231474732\, p^{100} q^{58}$$
$$+ 6411227848947\, p^{51} q^{60} + 5376343021633\, p^{50} q^{60} + 3384553637120\, p^{47} q^{61} + 837735686886198\, p^{77} q^{93} + 17750081738822\, p^{62} q^{56}$$
$$+ 89787252345\, q^{128} p^{46} + 6899925\, q^{160} p^{55} + 80336738408910\, p^{95} q^{132} + 82829473029644\, p^{96} q^{132} + 39347745429\, q^{118} p^{38}$$
$$+ 17338346469161\, p^{115} q^{58} + 241078075310601\, p^{121} q^{116} + 184920657811083\, p^{73} q^{67} + 188825\, q^{66} p^{10} + 76444820413\, q^{84} p^{31}$$
$$+ 3644666614333\, q^{88} p^{43} + 29590561125479\, p^{118} q^{63} + 7811701\, q^{69} p^{14} + 1363325\, q^{68} p^{12} + 61597582\, p^{23} q^{32}$$
$$+ 147191994414032\, p^{120} q^{123} + 611105607268344\, p^{100} q^{75} + 235892759\, p^{28} q^{31} + 396281299\, p^{32} q^{29} + 844970498954610\, p^{104} q^{112}$$
$$+ 1284290120\, p^{161} q^{76} + 2126873023\, p^{162} q^{82} + 1524569912553803\, p^{92} q^{90} + 1560718808321181\, p^{93} q^{91} + 1579602706520450\, p^{92} q^{96}$$
$$+ 142196586\, q^{106} p^{23} + 33383391\, q^{106} p^{21} + 11805755611\, p^{120} q^{36} + 18685950427640\, p^{60} q^{58} + 619925086689\, q^{73} p^{37}$$
$$+ 243740202639\, q^{74} p^{34} + 455829120054\, q^{73} p^{36} + 238555799025\, q^{73} p^{34} + 331608320488\, q^{73} p^{35} + 21030523218257\, p^{61} q^{58}$$
$$+ 12535847578600\, q^{89} p^{48} + 161164957763\, q^{85} p^{33} + 232962604916\, q^{85} p^{34} + 322471201121\, p^{72} q^{35} + 27918487199218\, p^{74} q^{53}$$
$$+ 4094563156484\, p^{73} q^{44} + 327\, q^{117} p^{14} + 3\, q^{116} p^{12} + 8205267564970\, p^{46} q^{82} + 3864445386830\, p^{43} q^{81} + 42838898091024\, p^{54} q^{81}$$
$$+ 4992861011947\, p^{44} q^{81} + 6397989117107\, p^{45} q^{81} + 135180009731056\, p^{67} q^{69} + 79787657423806\, p^{61} q^{71}$$
$$+ 1320481708281410\, p^{85} q^{92} + 749071236963247\, p^{77} q^{99} + 23270509271344\, p^{116} q^{138} + 1025660457608298\, p^{90} q^{108}$$

$$+ 307535162409037\, p^{74} q^{110} + 695726027016191\, p^{83} q^{109} + 50630751209553\, p^{115} q^{64} + 276614101869245\, p^{117} q^{80}$$
$$+ 464202028329138\, p^{117} q^{88} + 538817214783678\, p^{118} q^{103} + 490868423803171\, p^{118} q^{92} + 13050132365749\, p^{114} q^{56}$$
$$+ 59292285442456\, p^{115} q^{65} + 138062266966194\, p^{116} q^{72} + 440017802498443\, p^{72} q^{80} + 13086538480234\, p^{136} q^{128}$$
$$+ 1313747301166234\, p^{95} q^{85} + 302164694714\, p^{88} q^{35} + 273335947638199\, p^{66} q^{94} + 5090\, p^{25} q^{7} + 166299496\, q^{136} p^{36}$$
$$+ 98216048\, q^{136} p^{35} + 56586756\, q^{136} p^{34} + 311437645\, q^{35} p^{26} + 159392202\, q^{35} p^{24} + 81033418459\, q^{72} p^{31} + 9748348568\, q^{159} p^{82}$$
$$+ 4375917806\, p^{162} q^{87} + 3830585023\, p^{162} q^{86} + 2887070430\, p^{162} q^{84} + 1809420269\, p^{162} q^{81} + 8\, q^{79} p^{6} + 54483122\, p^{77} q^{17}$$
$$+ 20449228033\, p^{85} q^{28} + 1911420780\, p^{82} q^{23} + 71272990330\, p^{86} q^{31} + 41143316567\, p^{40} q^{41} + 41143316567\, p^{41} q^{40}$$
$$+ 749071236963247\, p^{91} q^{113} + 424625167263996\, p^{83} q^{115} + 340285950350522\, p^{80} q^{115} + 313250306211609\, p^{79} q^{115}$$
$$+ 38853467454\, p^{43} q^{38} + 3566592872655\, p^{100} q^{45} + 1196958764572\, p^{99} q^{41} + 122032282119\, p^{97} q^{34} + 36684549048\, p^{37} q^{44}$$
$$+ 40366210922\, p^{42} q^{39} + 38853467454\, p^{38} q^{43} + 40366210922\, p^{39} q^{42} + 11313\, q^{126} p^{19} + 24974\, q^{127} p^{20} + 61871776141\, p^{41} q^{42}$$
$$+ 75091245528\, p^{43} q^{41} + 48762452990\, p^{39} q^{43} + 59728767274633\, p^{134} q^{97} + 14471569\, p^{50} q^{15} + 165426204089\, p^{57} q^{36}$$
$$+ 7503426\, p^{50} q^{14} + 47853201\, q^{142} p^{38} + 774003124\, q^{144} p^{46} + 58519786985\, p^{44} q^{39} + 75781204205\, p^{42} q^{42} + 2180651829364\, p^{99} q^{43}$$
$$+ 948199054\, q^{165} p^{88} + 15889762355113\, p^{56} q^{61} + 11141250735915\, p^{53} q^{62} + 7316746496235\, p^{50} q^{63} + 587026452117936\, p^{87} q^{114}$$
$$+ 557803154129250\, p^{86} q^{114} + 527760922718968\, p^{85} q^{114} + 615146462287909\, p^{88} q^{114} + 697953623798790\, p^{89} q^{113}$$
$$+ 883719791343197\, p^{95} q^{112} + 869943651571697\, p^{94} q^{112} + 964817507268269\, p^{99} q^{111} + 641879789400785\, p^{89} q^{114}$$
$$+ 367989392779698\, p^{81} q^{115} + 396171788782082\, p^{82} q^{115} + 536453885531123\, p^{87} q^{115} + 411049376380448\, p^{84} q^{116}$$
$$+ 509293322539385\, p^{86} q^{115} + 453124587304767\, p^{84} q^{115} + 481430803529533\, p^{85} q^{115} + 21300046257469\, p^{60} q^{59}$$
$$+ 250269408590557\, p^{81} q^{66} + 4784569619549\, p^{78} q^{44} + 2495309749\, p^{71} q^{23} + 59269469390707\, p^{80} q^{56} + 40714652289353\, p^{79} q^{54}$$
$$+ 110875058392359\, p^{80} q^{60} + 69909032403811\, p^{80} q^{57} + 915558316641\, p^{77} q^{38} + 603943800\, p^{163} q^{78} + 33941406170749\, p^{79} q^{53}$$
$$+ 111290494\, q^{77} p^{18} + 1066626313106\, p^{148} q^{86} + 15087531\, p^{106} q^{20} + 15283766767731\, p^{55} q^{62} + 17750081738822\, p^{56} q^{62}$$
$$+ 20501291944862\, p^{57} q^{62} + 23551409670125\, p^{58} q^{62} + 24002244985727\, p^{59} q^{61} + 13699425639301\, p^{55} q^{61} + 9429860080258\, p^{52} q^{62}$$
$$+ 11745215295948\, p^{54} q^{61} + 837737054282753\, p^{90} q^{77} + 902883204682677\, p^{91} q^{78} + 213754085065790\, p^{93} q^{64}$$
$$+ 50882644790966\, p^{92} q^{55} + 22780520407735\, p^{92} q^{51} + 7352065997599\, p^{91} q^{46} + 38145980821\, p^{78} q^{29} + 24947769004\, p^{78} q^{28}$$
$$+ 17465825\, p^{69} q^{15} + 32\, p^{35} q^{3} + 54343633295148\, p^{135} q^{104} + 34467333631417\, p^{134} q^{86} + 187103771\, p^{161} q^{161} + 375750578\, p^{157} q^{162}$$

$$+ 468412292\, p^{156}\, q^{162} + 579360084\, p^{155}\, q^{162} + 915176623\, p^{151}\, q^{163} + 242492589\, p^{160}\, q^{161} + 670\, p^{47}\, q^{5} + 1267009326726421\, p^{92}\, q^{84}$$
$$+ 8954031165075\, p^{137}\, q^{130} + 136108761\, p^{72}\, q^{18} + 820679397\, p^{74}\, q^{21} + 3963067689\, p^{76}\, q^{24} + 1408176910\, p^{75}\, q^{22}$$
$$+ 6497194307\, p^{76}\, q^{25} + 44324140988158\, p^{83}\, q^{54} + 75872662416047\, p^{84}\, q^{57} + 938484719475\, p^{81}\, q^{38} + 36775060587423\, p^{83}\, q^{53}$$
$$+ 121896361838503\, p^{84}\, q^{60} + 277135979509340\, p^{85}\, q^{66} + 5021880330742\, p^{82}\, q^{44} + 2410224330\, p^{75}\, q^{23} + 64038815814527\, p^{84}\, q^{56}$$
$$+ 71113087\, p^{71}\, q^{17} + 13094264306182\, p^{83}\, q^{48} + 6444872237184\, p^{82}\, q^{45} + 28\, q^{36}\, p^{3} + 4662\, p^{125}\, q^{18} + 2841872072\, p^{36}\, q^{33}$$
$$+ 952706015328915\, p^{86}\, q^{80} + 83297928831898\, p^{65}\, q^{66} + 101833502418149\, p^{66}\, q^{67} + 165148840176037\, p^{62}\, q^{85}$$
$$+ 305234937698005\, p^{67}\, q^{84} + 77087878111525\, p^{57}\, q^{86} + 518623603824995\, p^{73}\, q^{82} + 492153437252966\, p^{72}\, q^{83} + 33464\, q^{37}\, p^{8}$$
$$+ 479429150733\, p^{153}\, q^{123} + 92315806\, p^{168}\, q^{154} + 147814430\, p^{64}\, q^{18} + 19901910\, p^{62}\, q^{15} + 1153668661520\, p^{64}\, q^{41}$$
$$+ 6947470579\, q^{107}\, p^{30} + 37384432344\, q^{108}\, p^{34} + 5997485473\, q^{108}\, p^{30} + 169116962320160\, p^{75}\, q^{65} + 200340870204933\, p^{76}\, q^{66}$$
$$+ 89554811514850\, p^{75}\, q^{60} + 57393496532064\, p^{75}\, q^{57} + 1428206363\, p^{129}\, q^{36} + 6514066989830\, p^{144}\, q^{117} + 637631728399\, p^{138}\, q^{63}$$
$$+ 9409211311140\, p^{143}\, q^{99} + 43066684\, p^{95}\, q^{19} + 33289761584226\, p^{74}\, q^{54} + 6797978788103\, p^{74}\, q^{46} + 41480139281805\, p^{75}\, q^{55}$$
$$+ 132892050631547\, p^{66}\, q^{70} + 1823442900863\, p^{145}\, q^{131} + 31985746\, p^{122}\, q^{26} + 2486903199276\, p^{140}\, q^{74} + 4556638\, p^{118}\, q^{22}$$
$$+ 877535324519\, p^{139}\, q^{66} + 148866879026894\, p^{68}\, q^{69} + 776\, p^{73}\, q^{7} + 143896757688847\, p^{66}\, q^{71} + 23703922922643\, p^{110}\, q^{139}$$
$$+ 151382649846\, p^{63}\, q^{34} + 205950804190\, p^{63}\, q^{35} + 14913029853187\, p^{65}\, q^{53} + 2351414190561\, p^{64}\, q^{44} + 61657485648609\, p^{110}\, q^{62}$$
$$+ 590357436444374\, p^{112}\, q^{84} + 27452185765415\, p^{109}\, q^{57} + 554727295303284\, p^{112}\, q^{83} + 830837049558376\, p^{113}\, q^{101}$$
$$+ 518971492894923\, p^{112}\, q^{82} + 443893814158062\, p^{70}\, q^{87} + 490207200404529\, p^{71}\, q^{87} + 11\, p^{110}\, q^{11} + 37610240\, p^{170}\, q^{89}$$
$$+ 40083224\, p^{174}\, q^{128} + 9440218\, p^{175}\, q^{146} + 37414238\, p^{171}\, q^{94} + 1052596\, p^{162}\, q^{54} + 16459506\, p^{168}\, q^{77} + 1139920638\, q^{81}\, p^{22}$$
$$+ 24668178487\, p^{96}\, q^{30} + 81939173149\, p^{97}\, q^{33} + 13338689085\, p^{112}\, q^{33} + 1081076844370\, p^{118}\, q^{48} + 4392893363\, p^{110}\, q^{30}$$
$$+ 711033708314\, p^{117}\, q^{46} + 113359224264\, q^{84}\, p^{32} + 275211285\, q^{136}\, p^{37} + 2250901647110\, q^{83}\, p^{41} + 2540097\, q^{169}\, p^{73}$$
$$+ 1166284066481661\, p^{107}\, q^{93} + 179139786215\, p^{97}\, q^{35} + 27219805457316\, q^{125}\, p^{69} + 4940464599885\, p^{129}\, q^{63} + 99355973\, q^{79}\, p^{18}$$
$$+ 106241746999\, q^{86}\, p^{32} + 68370544721\, q^{87}\, p^{31} + 156072498250\, q^{86}\, p^{33} + 552781379683239\, p^{117}\, q^{106} + 1024427156\, q^{83}\, p^{22}$$
$$+ 1816096958\, q^{83}\, p^{23} + 1694168106\, p^{136}\, q^{41} + 38455547977\, p^{77}\, q^{29} + 25223657127\, p^{77}\, q^{28} + 18049508\, p^{68}\, q^{15}$$
$$+ 4600079302402\, q^{135}\, p^{70} + 134022127188\, q^{129}\, p^{48} + 98363005611\, q^{129}\, p^{47} + 8170652392046\, q^{135}\, p^{74} + 7134820932839\, q^{135}\, p^{73}$$
$$+ 594418543290\, q^{133}\, p^{57} + 5020\, q^{96}\, p^{11} + 1160360960\, q^{122}\, p^{32} + 535998209\, q^{123}\, p^{31} + 38302665325688\, q^{136}\, p^{95}$$

$$+ 21972533621414\, p^{113} q^{58} + 557363994649281\, p^{116} q^{90} + 8002928871\, p^{106} q^{30} + 632\, p^{63} q^{6} + 12337191302822\, p^{53} q^{63}$$
$$+ 10428186175765\, p^{52} q^{63} + 14510265581040\, p^{54} q^{63} + 21828254118384\, p^{56} q^{64} + 22818079704140\, p^{57} q^{63}$$
$$+ 16968336869856\, p^{55} q^{63} + 19731410430430\, p^{56} q^{63} + 8207805\, q^{95} p^{17} + 1431101\, q^{94} p^{15} + 37414238\, q^{96} p^{19} + 32312432\, q^{97} p^{19}$$
$$+ 69535995\, q^{97} p^{20} + 142992549\, q^{97} p^{21} + 34192\, p^{55} q^{8} + 3033\, p^{49} q^{6} + 14154001294046\, p^{56} q^{60} + 24002244985727\, p^{61} q^{59}$$
$$+ 13086538480234\, p^{54} q^{62} + 124643108\, p^{98} q^{21} + 3830585023\, p^{104} q^{28} + 8761856558078\, p^{51} q^{63} + 32163194063\, q^{98} p^{31}$$
$$+ 194225679075249\, p^{85} q^{123} + 79493336404388\, p^{127} q^{81} + 116822939363640\, p^{127} q^{86} + 2913116348354\, p^{79} q^{42}$$
$$+ 355267191589\, p^{77} q^{35} + 15702214352190\, p^{80} q^{49} + 196712952669376\, p^{81} q^{64} + 57564747739\, p^{75} q^{30} + 49954516731955\, p^{80} q^{55}$$
$$+ 7892363173702\, p^{79} q^{46} + 3448185394602\, q^{75} p^{43} + 2671765426449\, q^{75} p^{42} + 4413850573487\, q^{75} p^{44} + 7308841803604\, q^{76} p^{46}$$
$$+ 8835943886871\, q^{75} p^{47} + 5605289579715\, q^{75} p^{45} + 7063861941980\, q^{75} p^{46} + 146818067704938\, p^{127} q^{90} + 70092281038252\, p^{126} q^{78}$$
$$+ 135869089433467\, p^{66} q^{108} + 63195037015377\, p^{126} q^{77} + 163638894317998\, p^{128} q^{98} + 139567667037601\, p^{127} q^{89}$$
$$+ 56703113473349\, p^{126} q^{76} + 124500698960886\, p^{127} q^{87} + 836856081230024\, p^{109} q^{109} + 164704371455371\, p^{68} q^{109}$$
$$+ 2066514518473\, q^{134} p^{64} + 2487440660632\, q^{134} p^{65} + 8573100491\, p^{145} q^{159} + 525561658628\, q^{64} p^{38} + 84096692878\, q^{149} p^{70}$$
$$+ 21253161\, q^{140} p^{35} + 42710946\, q^{141} p^{37} + 11770246\, q^{140} p^{34} + 5811331240\, p^{90} q^{26} + 895387102432\, q^{64} p^{40} + 1474276175301\, q^{64} p^{42}$$
$$+ 1153668661520\, q^{64} p^{41} + 1869064333477\, q^{64} p^{43} + 2936279603888\, q^{64} p^{45} + 2351414190561\, q^{64} p^{44} + 3184496772081\, q^{65} p^{45}$$
$$+ 689030288387\, q^{64} p^{39} + 24338531\, p^{21} q^{31} + 408366464763622\, p^{70} q^{83} + 5758\, p^{60} q^{7} + 1560414\, p^{30} q^{15} + 187103771\, p^{29} q^{29}$$
$$+ 164768510\, p^{32} q^{26} + 34041\, p^{28} q^{9} + 147718\, p^{29} q^{11} + 1160\, q^{71} p^{7} + 488411419736\, p^{127} q^{51} + 52\, p^{23} q^{3} + 38969505\, p^{42} q^{18}$$
$$+ 12376582\, p^{41} q^{16} + 1079318549719397\, p^{109} q^{100} + 1179732078129\, p^{146} q^{133} + 6849708630056\, p^{144} q^{97} + 31004655342\, p^{136} q^{49}$$
$$+ 2052524297\, p^{131} q^{38} + 1320481708281410\, p^{98} q^{105} + 65430063969\, p^{46} q^{38} + 129073615586\, p^{46} q^{41} + 195664287884\, p^{46} q^{43}$$
$$+ 159482362849\, p^{46} q^{42} + 661265035320698\, p^{90} q^{74} + 323683995566347\, p^{90} q^{67} + 500932998524291\, p^{90} q^{71}$$
$$+ 149108941322324\, p^{73} q^{65} + 177838058313651\, p^{74} q^{66} + 79781850309802\, p^{73} q^{60} + 51469140132629\, p^{73} q^{57} + 82694186384\, p^{46} q^{39}$$
$$+ 992152279054577\, p^{108} q^{89} + 466335766196269\, p^{107} q^{76} + 509780095779449\, p^{107} q^{77} + 994505650284426\, p^{109} q^{91}$$
$$+ 652609186012932\, p^{108} q^{81} + 278398700466244\, p^{107} q^{71} + 875619352806762\, p^{108} q^{86} + 916732672224273\, p^{108} q^{87}$$
$$+ 562677979030878\, p^{108} q^{79} + 35195\, q^{38} p^{8} + 487803928428\, q^{102} p^{39} + 60293573460587\, q^{104} p^{59} + 84905119409034\, q^{104} p^{61}$$
$$+ 116822939363640\, q^{104} p^{63} + 99876604994668\, q^{104} p^{62} + 135886045960145\, q^{104} p^{64} + 180881203855150\, q^{104} p^{66} + 484913\, q^{40} p^{11}$$

$$+ 11887774306157\, q^{109} p^{53} + 10\, q^{69} p^{5} + 3516936\, p^{155} q^{46} + 634168488\, p^{153} q^{163} + 522415705\, p^{154} q^{163} + 643739824\, p^{149} q^{165}$$
$$+ 781731123\, p^{145} q^{166} + 685410696\, p^{146} q^{166} + 518269168544894\, p^{94} q^{118} + 29461831033027\, q^{106} p^{56} + 35812317286316\, q^{106} p^{57}$$
$$+ 61935148724466\, q^{106} p^{60} + 51916670141321\, q^{106} p^{59} + 101506757973532\, q^{106} p^{63} + 137173051878136\, q^{106} p^{65}$$
$$+ 146923297033625\, q^{107} p^{66} + 73447280683863\, q^{106} p^{61} + 118325029743523\, q^{106} p^{64} + 86591976707208\, q^{106} p^{62}$$
$$+ 43253975193868\, q^{106} p^{58} + 519976215\, p^{160} q^{158} + 48071392902\, p^{154} q^{78} + 1082\, q^{95} p^{10} + 1199098595288115\, p^{105} q^{90}$$
$$+ 462846423474135\, p^{104} q^{74} + 418662777455943\, p^{104} q^{73} + 1162785586418615\, p^{105} q^{89} + 557803154129250\, p^{104} q^{76}$$
$$+ 608131948178871\, p^{104} q^{77} + 1174877632821306\, p^{106} q^{91} + 780453346563932\, p^{105} q^{81} + 337670840298937\, p^{104} q^{71}$$
$$+ 1033894943030731\, p^{105} q^{86} + 1079737923542252\, p^{105} q^{87} + 676437474371830\, p^{105} q^{79} + 728198297309455\, p^{105} q^{80}$$
$$+ 1122853988380251\, p^{105} q^{88} + 988405\, q^{40} p^{12} + 23493594\, q^{42} p^{17} + 6316717682\, q^{45} p^{30} + 1179732078129\, p^{44} q^{57} + 210024\, q^{39} p^{10}$$
$$+ 1000840195\, q^{44} p^{25} + 685410696\, q^{44} p^{24} + 1440251457\, q^{44} p^{26} + 2044322677\, q^{44} p^{27} + 3314530217\, q^{45} p^{28}$$
$$+ 1254737990171284\, p^{88} q^{85} + 1535234\, q^{87} p^{14} + 610242\, q^{86} p^{13} + 15303920543\, q^{45} p^{33} + 26278450158\, q^{45} p^{35} + 39972343902\, q^{46} p^{36}$$
$$+ 8573100491\, q^{45} p^{31} + 20147461467\, q^{45} p^{34} + 11512554657\, q^{45} p^{32} + 43690638\, q^{43} p^{18} + 11935693272191\, p^{50} q^{69} + 13784471\, q^{42} p^{16}$$
$$+ 6003215783850\, p^{52} q^{58} + 7053976907671\, p^{53} q^{58} + 3325462920724\, p^{48} q^{59} + 4009676735779\, p^{49} q^{59} + 19731410430430\, p^{63} q^{56}$$
$$+ 13444080536\, q^{84} p^{27} + 47983748\, q^{79} p^{17} + 15\, q^{118} p^{13} + 775\, q^{119} p^{15} + 10436693\, q^{78} p^{15} + 186109046\, q^{80} p^{19} + 174854902\, q^{81} p^{19}$$
$$+ 337898185\, q^{81} p^{20} + 630510296\, q^{81} p^{21} + 1911420780\, q^{82} p^{23} + 143214376223571\, p^{105} q^{129} + 313828039035\, p^{152} q^{87}$$
$$+ 158088201712\, p^{152} q^{81} + 1418567\, p^{127} q^{24} + 357747409580\, p^{155} q^{110} + 283442076207\, q^{124} p^{47} + 51\, p^{27} q^{3}$$
$$+ 56770020193140\, p^{122} q^{71} + 134186\, p^{88} q^{12} + 52471331182\, p^{114} q^{37} + 234469617299288\, p^{124} q^{91} + 26606642648425\, p^{59} q^{113}$$
$$+ 147\, q^{173} p^{62} + 71\, q^{173} p^{61} + 1085139237245009\, p^{107} q^{90} + 411049376380448\, p^{106} q^{74} + 371124287769440\, p^{106} q^{73} + 4966861\, p^{18} q^{29}$$
$$+ 4966397\, q^{151} p^{42} + 2897419\, q^{149} p^{39} + 143273\, q^{146} p^{32} + 39820392\, p^{23} q^{30} + 742669670710\, p^{150} q^{89} + 834521565160\, p^{152} q^{117}$$
$$+ 27918487199218\, p^{116} q^{137} + 57287311\, p^{86} q^{18} + 1137523188513151\, p^{108} q^{95} + 1123506545979096\, p^{108} q^{94}$$
$$+ 977107861860613\, p^{109} q^{105} + 1055790967966811\, p^{108} q^{104} + 42023753118461\, p^{125} q^{130} + 46268824313547\, p^{124} q^{130}$$
$$+ 43061349999877\, p^{126} q^{129} + 41984842630927\, p^{122} q^{132} + 635786600347\, q^{152} p^{96} + 8865415924224\, q^{134} p^{73}$$
$$+ 10137115666921\, q^{134} p^{74} + 81985087861602\, p^{80} q^{58} + 36023536256133\, p^{125} q^{71} + 31615278583\, p^{117} q^{37}$$
$$+ 153785274480717\, p^{127} q^{91} + 665004661079\, p^{76} q^{37} + 95606178432194\, p^{80} q^{59} + 667266421569819\, p^{105} q^{115} + 26154836045\, q^{150} p^{66}$$

$$+ 51\, q^{27}\, p^{3} + 27299804030\, q^{63}\, p^{29} + 39435603273\, q^{63}\, p^{30} + 59595700737\, q^{64}\, p^{31} + 44868896211182\, p^{88}\, q^{54}$$
$$+ 90631281265532\, p^{89}\, q^{58} + 124941575420728\, p^{89}\, q^{60} + 37005752113172\, p^{88}\, q^{53} + 2817190143230\, q^{103}\, p^{45}$$
$$+ 3705060816281\, q^{103}\, p^{46} + 4830236984221\, q^{103}\, p^{47} + 84099166970\, q^{64}\, p^{32} + 161627278306\, q^{64}\, p^{34} + 117257340997\, q^{64}\, p^{33}$$
$$+ 220367239189\, q^{64}\, p^{35} + 424822479839\, q^{65}\, p^{37} + 297337226067\, q^{64}\, p^{36} + 3089147479\, q^{97}\, p^{26} + 500993499\, q^{92}\, p^{22}$$
$$+ 563194669599\, q^{65}\, p^{38} + 297895022539339\, p^{107}\, q^{123} + 328257623422\, p^{146}\, q^{72} + 963049311535\, q^{65}\, p^{40} + 1591187655753\, q^{65}\, p^{42}$$
$$+ 1243033033224\, q^{65}\, p^{41} + 2020629032894\, q^{65}\, p^{43} + 2546192764501\, q^{65}\, p^{44} + 3437877789164\, q^{66}\, p^{45} + 739754792397\, q^{65}\, p^{39}$$
$$+ 4275059529222\, q^{66}\, p^{46} + 24552563109175\, p^{58}\, q^{112} + 7883981549543\, q^{66}\, p^{49} + 6472708607464\, q^{66}\, p^{48} + 13707875364882\, q^{66}\, p^{52}$$
$$+ 19222697909076\, q^{66}\, p^{54} + 24581895202691\, q^{67}\, p^{55} + 9540392567220\, q^{66}\, p^{50} + 16281049485119\, q^{66}\, p^{53} + 11471465513805\, q^{66}\, p^{51}$$
$$+ 5278516188292\, q^{66}\, p^{47} + 402834780553170\, p^{71}\, q^{80} + 72970704188\, q^{106}\, p^{35} + 108138801848\, q^{106}\, p^{36} + 258923802511731\, p^{112}\, q^{74}$$
$$+ 29212998\, p^{92}\, q^{18} + 758563630896335\, p^{114}\, q^{95} + 745472618660035\, p^{114}\, q^{94} + 667266421569819\, p^{115}\, q^{105}$$
$$+ 736405763054380\, p^{114}\, q^{104} + 9475220630355\, p^{109}\, q^{52} + 14587536\, p^{91}\, q^{17} + 1068205085276\, p^{107}\, q^{43} + 9268457761\, p^{101}\, q^{29}$$
$$+ 232436125794899\, p^{112}\, q^{73} + 3864927707334\, p^{43}\, q^{84} + 72994595640182\, q^{101}\, p^{59} + 86580921243983\, q^{101}\, p^{60} + 257736\, p^{61}\, q^{10}$$
$$+ 70305384005092\, p^{76}\, q^{58} + 81631371539114\, p^{76}\, q^{59} + 181407946338176\, p^{106}\, q^{67} + 6244089464483\, p^{103}\, q^{48}$$
$$+ 29461831033027\, p^{134}\, q^{84} + 1104861907161\, p^{128}\, q^{55} + 9148903742\, q^{139}\, p^{48} + 24343384436199\, q^{89}\, p^{51} + 19652637005479\, q^{89}\, p^{50}$$
$$+ 2130283873244\, q^{87}\, p^{41} + 7094173\, q^{41}\, p^{15} + 875445862753711\, p^{108}\, q^{109} + 1313415252488\, p^{147}\, q^{85} + 1099065904753\, p^{150}\, q^{123}$$
$$+ 320834369\, p^{90}\, q^{21} + 443938399\, p^{138}\, q^{169} + 1088399877\, p^{150}\, q^{163} + 4970015659\, q^{92}\, p^{26} + 1668115916\, q^{92}\, p^{24}$$
$$+ 250269408590557\, p^{66}\, q^{81} + 86317371353854\, p^{58}\, q^{82} + 71103593\, q^{43}\, p^{19} + 35252843008\, p^{97}\, q^{31} + 9596546946\, p^{96}\, q^{28}$$
$$+ 311376197\, p^{31}\, q^{29} + 22451894713336\, q^{116}\, p^{60} + 1579602706520450\, p^{94}\, q^{98} + 1265275011671933\, p^{87}\, q^{101}$$
$$+ 583238918756733\, p^{115}\, q^{109} + 493256837\, q^{170}\, p^{122} + 592416744645964\, p^{96}\, q^{117} + 1580973004251901\, p^{97}\, q^{98} + 3924167\, p^{79}\, q^{14}$$
$$+ 899043821686\, q^{85}\, p^{38} + 547\, q^{112}\, p^{13} + 6\, q^{111}\, p^{11} + 666125966\, p^{143}\, q^{167} + 25942201046522\, p^{99}\, q^{53} + 41438627\, q^{81}\, p^{17}$$
$$+ 150487966724\, q^{87}\, p^{33} + 53070\, q^{116}\, p^{17} + 596173100\, q^{82}\, p^{21} + 87014333\, q^{81}\, p^{18} + 16977494612\, p^{95}\, q^{29}$$
$$+ 1244035284841196\, p^{94}\, q^{106} + 39084943\, q^{156}\, p^{53} + 26611198\, q^{156}\, p^{52} + 3707124371\, p^{40}\, q^{31} + 8342841642\, p^{40}\, q^{34}$$
$$+ 10735205435\, p^{40}\, q^{35} + 16643055752\, p^{41}\, q^{36} + 3312\, q^{162}\, p^{44} + 200\, q^{158}\, p^{36} + 1466\, q^{162}\, p^{43} + 318017430310713\, q^{119}\, p^{85}$$
$$+ 278398700466244\, q^{119}\, p^{83} + 298204109943964\, q^{119}\, p^{84} + 337670840298937\, q^{119}\, p^{86} + 375791702498690\, q^{119}\, p^{88}$$

$$+ 356989044767575\, q^{119} p^{87} + 393896107997311\, q^{119} p^{89} + 427284515390819\, q^{119} p^{91} + 411119999982561\, q^{119} p^{90}$$
$$+ 382735199539648\, q^{120} p^{91} + 384090684\, q^{153} p^{55} + 529877776\, q^{153} p^{56} + 52488494\, q^{151} p^{47} + 690085180476478\, p^{76} q^{99}$$
$$+ 2059236821026\, q^{109} p^{46} + 53091272954685\, p^{135} q^{107} + 9148903742\, p^{139} q^{48} + 202731762935\, q^{107} p^{38} + 6771282600632\, p^{52} q^{59}$$
$$+ 45355734156871\, p^{57} q^{71} + 935928925621007\, p^{85} q^{106} + 94994155794329\, p^{63} q^{70} + 135951096569555\, p^{68} q^{68}$$
$$+ 944463692257\, q^{125} p^{52} + 64905448945356\, p^{60} q^{70} + 64725954952752\, p^{134} q^{102} + 10973020566579\, p^{48} q^{75}$$
$$+ 12968296309259\, p^{49} q^{74} + 15862509418609\, p^{50} q^{74} + 12374976184726\, p^{49} q^{73} + 811116\, p^{84} q^{13} + 39770478278720\, p^{73} q^{126}$$
$$+ 31188901431663\, p^{134} q^{122} + 313327519458557\, q^{121} p^{89} + 203071510543638\, q^{121} p^{82} + 167509497107248\, p^{90} q^{62}$$
$$+ 252593551512450\, p^{90} q^{65} + 139741986\, p^{71} q^{18} + 836902742\, p^{73} q^{21} + 1741959717457\, p^{98} q^{42} + 6055385118074\, p^{100} q^{47}$$
$$+ 748132019\, q^{146} p^{48} + 190146092410069\, p^{72} q^{68} + 33383391\, q^{169} p^{84} + 282830329112835\, p^{111} q^{74} + 33132319\, p^{91} q^{18}$$
$$+ 820588055031726\, p^{113} q^{95} + 807114100030750\, p^{113} q^{94} + 718920281246312\, p^{114} q^{105} + 790565259346792\, p^{113} q^{104}$$
$$+ 10473011865061\, p^{108} q^{52} + 16595047\, p^{90} q^{17} + 1187348572439\, p^{106} q^{43} + 10380682141\, p^{100} q^{29} + 254146355130912\, p^{111} q^{73}$$
$$+ 4026111351\, p^{75} q^{24} + 1435932353\, p^{74} q^{22} + 6576278899\, p^{75} q^{25} + 113738759035\, q^{131} p^{49} + 914849560\, q^{123} p^{32} + 346805850\, p^{34} q^{27}$$
$$+ 4206183\, p^{33} q^{16} + 161107603249\, q^{71} p^{33} + 6606797835\, q^{71} p^{25} + 225583819384\, q^{71} p^{34} + 312236107896\, q^{71} p^{35} + 579360084\, p^{35} q^{28}$$
$$+ 612351795091\, q^{141} p^{67} + 3663245321544\, q^{141} p^{79} + 733488272304\, q^{141} p^{68} + 873235245349\, q^{141} p^{69} + 3250523635514\, q^{141} p^{78}$$
$$+ 4107806357732\, q^{141} p^{80} + 782343187002\, q^{142} p^{70} + 418794337028\, q^{141} p^{65} + 508033389713\, q^{141} p^{66} + 4079\, q^{119} p^{16}$$
$$+ 4391348\, q^{169} p^{75} + 745969\, q^{169} p^{69} + 69\, p^{180} q^{88} + 771\, p^{182} q^{108} + 589\, p^{182} q^{107} + 776\, p^{183} q^{117} + 500\, p^{185} q^{140} + 193\, p^{69} q^{6}$$
$$+ 2063763031902\, p^{148} q^{121} + 8515308588\, p^{137} q^{46} + 256209464089\, q^{142} p^{64} + 976325766\, q^{135} p^{39} + 243815192934905\, p^{92} q^{124}$$
$$+ 401006449\, p^{156} q^{60} + 1068205085276\, p^{147} q^{83} + 1955219070038\, p^{149} q^{100} + 21712270\, q^{145} p^{39} + 437671055\, q^{149} p^{50}$$
$$+ 1031344\, p^{120} q^{21} + 1401188793\, p^{168} q^{125} + 13888\, p^{173} q^{179} + 20410790\, q^{80} p^{16} + 827509069\, p^{156} q^{160} + 807186505691\, p^{150} q^{90}$$
$$+ 282755030248\, p^{110} q^{40} + 199144595628\, p^{110} q^{39} + 37384432344\, p^{108} q^{34} + 35285281538305\, p^{66} q^{58} + q^{117} p^{12} + q^{36} p^{2}$$
$$+ 83889843071095\, p^{117} q^{69} + 95839753830118\, p^{117} q^{70} + q^{157} p^{32} + 32162796372320\, p^{116} q^{62} + 14187184610139\, p^{115} q^{57}$$
$$+ 43666426761564\, p^{82} q^{54} + 74803423920601\, p^{83} q^{57} + 938636555057\, p^{80} q^{38} + 36272452773215\, p^{82} q^{53} + 119791913042459\, p^{83} q^{60}$$
$$+ 271859933141362\, p^{84} q^{66} + 4992861011947\, p^{81} q^{44} + 2447388708\, p^{74} q^{23} + 63206831617183\, p^{83} q^{56} + 73128890\, p^{70} q^{17}$$
$$+ 12998079200948\, p^{82} q^{48} + 6397989117107\, p^{81} q^{45} + 113954731\, p^{134} q^{34} + 47992880056\, p^{160} q^{123} + 17414290632\, p^{154} q^{72}$$

$$+ 34791854177\, p^{160} q^{129} + 3395033994\, p^{161} q^{147} + 481609\, p^{132} q^{25} + 6956319239\, p^{161} q^{142} + 46000382597\, p^{160} q^{124}$$
$$+ 103099318864\, p^{157} q^{96} + 866618690\, p^{162} q^{153} + 84627685093\, p^{159} q^{115} + 454\, p^{108} q^{12} + 412944771704\, q^{143} p^{68} + 7278834\, p^{82} q^{15}$$
$$+ 9177811193\, p^{37} q^{37} + 445725497\, p^{103} q^{24} + 54650151\, p^{52} q^{17} + 3562081\, q^{40} p^{14} + 252805833280142\, p^{65} q^{88}$$
$$+ 323874189134751\, p^{67} q^{89} + 361917187509991\, p^{68} q^{88} + 286353406770869\, p^{66} q^{88} + 322724851711919\, p^{67} q^{88}$$
$$+ 194027499629895\, p^{63} q^{88} + 222050996309487\, p^{64} q^{88} + 1916756\, q^{40} p^{13} + 966984454087\, p^{148} q^{85} + 8645012607286\, p^{102} q^{49}$$
$$+ 2504151542338\, p^{101} q^{44} + 1257512010807044\, p^{106} q^{95} + 1244035284841196\, p^{106} q^{94} + 1071851655928139\, p^{107} q^{105}$$
$$+ 1150244723868064\, p^{106} q^{104} + 30471697\, q^{40} p^{18} + 47079371430\, p^{86} q^{30} + 2047\, p^{54} q^{6} + 197549681020\, p^{104} q^{37}$$
$$+ 50841171495\, p^{102} q^{33} + 16319490706478\, p^{108} q^{54} + 14972607578\, p^{101} q^{30} + 2609674010367\, p^{90} q^{42} + 98356379088725\, p^{64} q^{69}$$
$$+ 12337191302822\, p^{137} q^{127} + 42838898091024\, p^{136} q^{109} + 300568080730314\, p^{68} q^{80} + 884768090774379\, q^{105} p^{83}$$
$$+ 1079737923542252\, q^{105} p^{87} + 1719724\, p^{63} q^{12} + 10114603661370\, p^{80} q^{47} + 1681601791385\, p^{79} q^{40} + 1259954906690\, p^{79} q^{39}$$
$$+ 10231\, p^{53} q^{7} + 264451139\, p^{71} q^{19} + 369375321437091\, p^{83} q^{69} + 408366464763622\, p^{83} q^{70} + 44985863095272\, p^{74} q^{126}$$
$$+ 14433671836100\, p^{131} q^{133} + 498926065510\, p^{80} q^{36} + 16263625648\, p^{77} q^{27} + 9909458636866\, p^{67} q^{129} + 155777076685926\, p^{62} q^{82}$$
$$+ 61496302381502\, q^{116} p^{66} + 71305867474430\, q^{116} p^{67} + 99127797209659\, p^{67} q^{113} + 232436125794899\, p^{73} q^{112} + 10120646\, q^{115} p^{22}$$
$$+ 31322678683906\, q^{137} p^{95} + 35332093531495\, q^{137} p^{99} + 34501253356210\, q^{137} p^{98} + 37005752113172\, q^{137} p^{102}$$
$$+ 37377585431943\, q^{137} p^{104} + 36031644703385\, q^{137} p^{100} + 37268756057721\, q^{137} p^{103} + 32485231239295\, q^{137} p^{96}$$
$$+ 36591736846226\, q^{137} p^{101} + 33548699793085\, q^{137} p^{97} + 30073688768942\, q^{137} p^{94} + 28751509010146\, q^{137} p^{93}$$
$$+ 1705962097369\, q^{134} p^{63} + 21027402007\, q^{150} p^{65} + 179486860643\, q^{108} p^{38} + 17862035526\, q^{107} p^{32} + 27852896661\, q^{107} p^{33}$$
$$+ 53082909786\, p^{70} q^{30} + 488517033\, p^{66} q^{20} + 1300714900593189\, p^{94} q^{105} + 245070354\, p^{128} q^{32} + 4439071828397\, p^{143} q^{86}$$
$$+ 1632135369343\, p^{146} q^{130} + 8149344762402\, p^{144} q^{104} + 76632269577\, p^{137} q^{53} + 14271490552\, p^{134} q^{45} + 4830236984221\, p^{143} q^{87}$$
$$+ 52673631\, p^{125} q^{28} + 1204581933751433\, p^{83} q^{91} + 5930701\, q^{97} p^{17} + 124643108\, q^{98} p^{21} + 14259243\, q^{97} p^{18} + 36279860348\, q^{81} p^{29}$$
$$+ 599397032867557\, p^{73} q^{93} + 3\, p^{4} q^{2} + 7\, p^{5} q^{3} + 1769078\, p^{23} q^{19} + 844552\, p^{23} q^{17} + 4590263\, p^{24} q^{21} + 2497811\, p^{23} q^{20}$$
$$+ 2910983073111\, p^{55} q^{50} + 1267422541325\, q^{80} p^{39} + 6324840288742\, q^{80} p^{45} + 15718\, p^{76} q^{9} + 142835115\, q^{116} p^{26}$$
$$+ 700934477\, q^{117} p^{29} + 22503406601084\, q^{78} p^{51} + 9704721040131\, q^{78} p^{47} + 5088887\, p^{150} q^{41} + 95521\, q^{21} p^{13} + 4505\, q^{24} p^{7}$$
$$+ 20393821\, p^{24} q^{26} + 48111181\, p^{26} q^{27} + 26567449\, p^{24} q^{27} + 230\, q^{78} p^{7} + 10272738504\, p^{89} q^{27} + 783651763809632\, p^{100} q^{78}$$

$$+ 43902534766047\, q^{108}\, p^{59} + 911937165990072\, p^{109}\, q^{107} + 1025565531057381\, p^{105}\, q^{108} + 404884661562843\, p^{81}\, q^{114}$$
$$+ 261832469870473\, p^{77}\, q^{115} + 24424576743811\, p^{54}\, q^{69} + 6935454679289\, p^{47}\, q^{70} + 6492772821\, q^{143}\, p^{51} + 1633484239\, q^{142}\, p^{46}$$
$$+ 348301405541054\, p^{122}\, q^{105} + 394607169758482\, p^{121}\, q^{104} + 28362547512900\, p^{117}\, q^{62} + 12490078770501\, p^{116}\, q^{57}$$
$$+ 74229131793161\, p^{118}\, q^{69} + 84898690269667\, p^{118}\, q^{70} + 32555443017\, p^{109}\, q^{34} + 384518080069034\, p^{121}\, q^{95}$$
$$+ 375538027236655\, p^{121}\, q^{94} + 393811947\, q^{117}\, p^{28} + 73514565\, q^{116}\, p^{25} + 75606340\, p^{130}\, q^{31} + 44786131275593\, q^{135}\, p^{94}$$
$$+ 122222290859125\, p^{119}\, q^{74} + 247668159800\, p^{111}\, q^{40} + 174004178004\, p^{111}\, q^{39} + 39442168086775\, q^{78}\, p^{54} + 48541312517982\, q^{79}\, p^{55}$$
$$+ 18424842994453\, q^{78}\, p^{50} + 32919839440163\, q^{78}\, p^{53} + 687204669\, p^{169}\, q^{131} + 21972533621414\, p^{58}\, q^{113} + q^{4}\, p + p\, q^{3} + 3\, q^{4}\, p^{2}$$
$$+ 863042211\, p^{68}\, q^{21} + 98\, p^{15}\, q^{4} + 2444202701503\, p^{55}\, q^{49} + 5081\, q^{20}\, p^{8} + 75237698876861\, p^{125}\, q^{125} + 13442\, p^{46}\, q^{7}$$
$$+ 56574746737195\, p^{70}\, q^{59} + 49050025188071\, p^{70}\, q^{58} + 7725460994521\, q^{78}\, p^{46} + 14984183558536\, q^{78}\, p^{49} + 12101941948710\, q^{78}\, p^{48}$$
$$+ 27305019957657\, q^{78}\, p^{52} + 236532\, q^{150}\, p^{36} + 2789031\, q^{152}\, p^{42} + 477820347327\, p^{75}\, q^{36} + 48315852346102\, p^{131}\, q^{122} + 5\, p^{4}\, q^{3}$$
$$+ 27\, p^{13}\, q^{3} + 617\, p^{16}\, q^{6} + 240\, p^{15}\, q^{5} + 75397\, p^{16}\, q^{16} + 33558\, p^{13}\, q^{17} + 138266470439235\, p^{122}\, q^{79} + 1160\, p^{71}\, q^{7}$$
$$+ 1654484297644\, p^{117}\, q^{49} + 1206710\, q^{125}\, p^{23} + 13331802\, q^{125}\, p^{26} + 2835517\, q^{125}\, p^{24} + 245372136447110\, p^{125}\, q^{105}$$
$$+ 18853970466244\, p^{120}\, q^{62} + 15716574714083\, p^{120}\, q^{61} + 281340903673548\, p^{124}\, q^{104} + 260325991569044\, p^{124}\, q^{94}$$
$$+ 161139787725\, p^{114}\, q^{40} + 112343322899\, p^{114}\, q^{39} + 82234424424751\, p^{122}\, q^{74} + 2039593265466\, p^{55}\, q^{48} + 129161788930728\, p^{71}\, q^{65}$$
$$+ 155111571126912\, p^{72}\, q^{66} + 69837536609074\, p^{71}\, q^{60} + 45355734156871\, p^{71}\, q^{57} + 2\, p^{3}\, q^{2} + 1114281859\, q^{90}\, p^{23} + 88985243\, q^{89}\, p^{19}$$
$$+ 320834369\, q^{90}\, p^{21} + 49867530563387\, p^{121}\, q^{69} + 20793745955\, p^{112}\, q^{34} + 267309230120121\, p^{124}\, q^{95} + 57235344533333\, p^{121}\, q^{70}$$
$$+ 64073530\, p^{22}\, q^{34} + 75694371\, p^{23}\, q^{33} + 36275705\, p^{21}\, q^{33} + 52803681\, p^{22}\, q^{33} + 250529014\, p^{162}\, q^{71} + 1691190430828\, p^{55}\, q^{47}$$
$$+ 2861\, p^{123}\, q^{17} + 2544812\, p^{120}\, q^{22} + 2520527157347\, p^{114}\, q^{49} + 1232915\, p^{23}\, q^{18} + 7\, p^{13}\, q^{2} + 180834\, q^{78}\, p^{11} + 6627240608\, q^{74}\, p^{25}$$
$$+ 9369\, p^{79}\, q^{9} + 2153652004739\, p^{117}\, q^{50} + 8259584220972\, p^{119}\, q^{57} + 3915090197339\, p^{118}\, q^{53} + 3345261672591\, p^{44}\, q^{69}$$
$$+ 196124071509\, p^{115}\, q^{41} + 48071392902\, p^{112}\, q^{36} + 31869572243\, p^{112}\, q^{35} + 50882644790966\, q^{92}\, p^{55} + 10565786359\, q^{73}\, p^{26}$$
$$+ 4100747592\, q^{73}\, p^{24} + 2474167388\, q^{73}\, p^{23} + 1457723260\, q^{73}\, p^{22} + 10823\, p^{18}\, q^{10} + 1496\, p^{17}\, q^{7} + 5020\, p^{17}\, q^{9} + 2817\, p^{17}\, q^{8}$$
$$+ 50331\, q^{26}\, p^{10} + 15702214352190\, p^{49}\, q^{80} + 25942201046522\, p^{53}\, q^{99} + 1456545977144\, p^{45}\, q^{57} + 1048187800690\, p^{44}\, q^{56}$$
$$+ 13655\, p^{45}\, q^{7} + 52401293198503\, p^{69}\, q^{59} + 259\, q^{32}\, p^{4} + 11\, q^{7}\, p^{3} + 1581856088\, p^{165}\, q^{92} + 1880407\, q^{53}\, p^{12} + 4104275\, q^{53}\, p^{13}$$
$$+ 948990643\, q^{56}\, p^{22} + 1179512304137\, p^{151}\, q^{115} + 25\, p^{37}\, q^{3} + 1400533\, q^{27}\, p^{16} + 549601820698783\, p^{72}\, q^{92} + 190406\, p^{22}\, q^{14}$$

$$+ 373532\, p^{23}\, q^{15} + 120475\, p^{22}\, q^{13} + 44055\, p^{22}\, q^{11} + 239924035004548\, p^{125}\, q^{96} + 5742937895036\, p^{120}\, q^{56} + 23470710045236\, p^{122}\, q^{65}$$
$$+ 32204026586129\, p^{122}\, q^{67} + 132916233804614\, p^{126}\, q^{117} + 55850429348635\, p^{123}\, q^{72} + 2058199501436\, p^{119}\, q^{51}$$
$$+ 213176418892077\, p^{125}\, q^{92} + 51324\, p^{86}\, q^{11} + 1450700534063\, p^{150}\, q^{100} + 783334295303\, p^{148}\, q^{83} + 17\, p^{6}\, q^{4} + 28\, p^{6}\, q^{5} + 64\, p^{7}\, q^{6}$$
$$+ 145537557897791\, p^{87}\, q^{61} + 193283988609463\, p^{87}\, q^{63} + 59292285442456\, p^{75}\, q^{125} + 827453797247\, p^{116}\, q^{46}$$
$$+ 4688377597489\, p^{115}\, q^{52} + 471579735973\, p^{40}\, q^{57} + 7347979968570\, p^{56}\, q^{55} + 15631308256\, p^{111}\, q^{33} + 368\, p^{66}\, q^{6}$$
$$+ 1260008354432\, p^{117}\, q^{48} + 5147862176\, p^{109}\, q^{30} + 2787770550269\, p^{49}\, q^{56} + 2039593265466\, p^{48}\, q^{55} + 5519827174085\, p^{55}\, q^{54}$$
$$+ 1014\, p^{19}\, q^{6} + 378\, p^{18}\, q^{5} + 4744636613528\, p^{55}\, q^{53} + 51\, p^{26}\, q^{3} + 1104\, p^{35}\, q^{5} + 118083697039825\, p^{98}\, q^{61} + 160398611192502\, p^{98}\, q^{63}$$
$$+ 38774052265721\, p^{133}\, q^{85} + 3325251950955\, p^{50}\, q^{56} + 2444202701503\, p^{49}\, q^{55} + 3300149439\, p^{55}\, q^{25} + 39092\, q^{126}\, p^{20}$$
$$+ 312646\, q^{133}\, p^{25} + 46000382597\, p^{66}\, q^{30} + 453877549\, p^{62}\, q^{20} + 9321265020988\, p^{136}\, q^{131} + 1220613424851\, p^{111}\, q^{45}$$
$$+ 65348792772184\, p^{121}\, q^{71} + 160044\, p^{87}\, q^{12} + 61394771648\, p^{113}\, q^{37} + 267044624236908\, p^{123}\, q^{91} + 62089851203\, q^{89}\, p^{31}$$
$$+ 16562508259\, q^{89}\, p^{28} + 40668757240\, q^{89}\, p^{30} + 26189683636\, q^{89}\, p^{29} + 59377\, q^{21}\, p^{12} + 149328\, q^{21}\, p^{14} + 293260\, q^{22}\, p^{15}$$
$$+ 270644249\, p^{113}\, q^{26} + 258423\, p^{20}\, q^{16} + 12263963851749\, p^{90}\, q^{48} + 6031327617161\, p^{89}\, q^{45} + 248230765764184\, p^{92}\, q^{65}$$
$$+ 163638894317998\, p^{92}\, q^{62} + 62456802291438\, p^{91}\, q^{56} + 5991720\, p^{171}\, q^{162} + 898\, p^{115}\, q^{14} + 3721968334868\, q^{87}\, p^{43}$$
$$+ 25052034858957\, p^{86}\, q^{51} + 2922481181688\, p^{85}\, q^{42} + 1133320\, p^{26}\, q^{16} + 91860824\, q^{162}\, p^{67} + 10884977\, q^{130}\, p^{28} + 11507\, p^{21}\, q^{9}$$
$$+ 74088\, p^{22}\, q^{12} + 10823\, p^{10}\, q^{18} + 67182\, p^{18}\, q^{14} + 17899\, p^{18}\, q^{11} + 132649\, p^{19}\, q^{15} + 44413\, p^{18}\, q^{13} + 922318975025\, q^{119}\, p^{48}$$
$$+ 28630\, p^{18}\, q^{12} + 252\, q^{33}\, p^{4} + 927104582042\, p^{152}\, q^{112} + 21706\, q^{175}\, p^{79} + 544975264927766\, p^{72}\, q^{93} + 448750330325084\, p^{70}\, q^{92}$$
$$+ 54343633295148\, p^{86}\, q^{55} + 8214723487730\, p^{85}\, q^{46} + 220981935950710\, p^{87}\, q^{64} + 55039452743\, p^{81}\, q^{30} + 346725686750\, p^{83}\, q^{35}$$
$$+ 16339597515624\, p^{86}\, q^{49} + 37\, q^{16}\, p^{3} + 1484983671\, q^{70}\, p^{22} + 2489396364\, q^{70}\, p^{23} + 4078609494\, q^{70}\, p^{24} + 16155546310\, q^{71}\, p^{27}$$
$$+ 127\, p^{17}\, q^{4} + 34\, p^{15}\, q^{3} + 443444917437\, p^{87}\, q^{36} + 20726\, p^{21}\, q^{10} + 2544\, p^{20}\, q^{7} + 5081\, p^{20}\, q^{8} + 1074944249630697\, p^{81}\, q^{95}$$
$$+ 6340763\, p^{22}\, q^{24} + 820588728413849\, p^{88}\, q^{77} + 890256926689189\, p^{89}\, q^{78} + 148313440\, p^{67}\, q^{18} + 66081055020\, p^{66}\, q^{31} + 215\, p^{37}\, q^{4}$$
$$+ 9823204163688\, p^{69}\, q^{49} + 836856081230024\, p^{81}\, q^{81} + 4134149\, q^{63}\, p^{13} + 143744\, p^{16}\, q^{18} + 9306872\, q^{63}\, p^{14} + 13178\, p^{13}\, q^{14}$$
$$+ 9316\, p^{13}\, q^{13} + 153785274480717\, p^{63}\, q^{99} + 88556876576\, q^{90}\, p^{32} + 7741081471115\, p^{143}\, q^{118} + 9928434857919\, p^{143}\, q^{111}$$
$$+ 1756122727589\, p^{139}\, q^{70} + 274471117\, p^{67}\, q^{19} + 600700878\, p^{162}\, q^{75} + 4055234701816\, p^{55}\, q^{52} + 19422133\, p^{171}\, q^{156} + 35761\, q^{21}\, p^{11}$$
$$+ 8622386\, p^{124}\, q^{25} + 441642\, p^{22}\, q^{16} + 355267191589\, q^{77}\, p^{35} + 492390977285\, q^{77}\, p^{36} + 927104582042\, q^{78}\, p^{38} + 3141750598\, q^{112}\, p^{30}$$

$$+ 153337304962962\, p^{126} q^{88} + 220969\, p^{92} q^{13} + 193283988609463\, p^{127} q^{103} + 1411\, q^{14} p^{8} + 793\, q^{14} p^{7} + 237\, q^{35} p^{4} + 7123\, q^{110} p^{14}$$
$$+ 10150\, q^{109} p^{14} + 138984286\, p^{159} q^{62} + p^{8} q + 1286573234155\, q^{98} p^{41} + 2002614346\, p^{167} q^{109} + 286353406770869\, p^{124} q^{102}$$
$$+ 235586710045913\, p^{125} q^{107} + 206513518896068\, p^{125} q^{111} + 114117\, q^{150} p^{35} + 80439\, q^{111} p^{16} + 106766290575289\, p^{70} q^{64}$$
$$+ 1922014\, p^{55} q^{12} + 3826\, p^{44} q^{6} + 124215211825\, q^{77} p^{32} + 253388516969\, q^{77} p^{34} + 178547097474\, q^{77} p^{33} + 73046031722607\, p^{122} q^{73}$$
$$+ 23663084\, p^{99} q^{19} + 286662082836579\, p^{124} q^{100} + 26644833286345\, p^{120} q^{64} + 5963814758\, p^{114} q^{32} + 258065556\, p^{110} q^{25}$$
$$+ 20059271\, p^{100} q^{19} + 23069542452178\, p^{121} q^{64} + 132019178000150\, p^{123} q^{80} + 252593551512450\, p^{125} q^{100} + 3445983402494\, p^{55} q^{51}$$
$$+ 1261991854588\, p^{113} q^{46} + 12\, p^{42} q^{3} + 4923526\, q^{34} p^{16} + 6753896\, q^{33} p^{17} + 2552999\, q^{33} p^{15} + 4206183\, q^{33} p^{16} + 293565169\, p^{53} q^{20}$$
$$+ 17842615\, q^{139} p^{34} + 160731321153189\, p^{62} q^{93} + 285\, p^{109} q^{12} + 567523\, p^{16} q^{23} + 763077086123559\, p^{88} q^{76} + 190406\, p^{14} q^{22}$$
$$+ 597293420230709\, p^{88} q^{73} + 686017\, p^{46} q^{11} + 1560151\, p^{47} q^{12} + 388\, q^{76} p^{7} + 1972\, q^{78} p^{8} + 20\, p^{5} q^{5} + 21051499896344\, p^{131} q^{75}$$
$$+ 1292943721\, p^{168} q^{112} + 47111\, p^{20} q^{12} + 151254314694253\, p^{122} q^{80} + 273335947638199\, p^{124} q^{96} + 61646\, p^{85} q^{11}$$
$$+ 6673445731131\, p^{119} q^{56} + 7767\, p^{19} q^{9} + 2370\, q^{14} p^{9} + 5063\, q^{15} p^{10} + 649264951545513\, p^{75} q^{84} + 473264508457205\, p^{71} q^{85}$$
$$+ 721781\, p^{16} q^{24} + 857047\, q^{149} p^{37} + 1373600526302976\, p^{94} q^{86} + 5386307\, p^{123} q^{24} + 9\, q^{6} p^{3} + 45\, p^{6} q^{6} + 6430\, p^{13} q^{12}$$
$$+ 27219805457316\, p^{121} q^{65} + 37251801038494\, p^{121} q^{67} + 149108941322324\, p^{125} q^{117} + 5943\, p^{14} q^{11} + 12\, p^{5} q^{4} + 12\, p^{4} q^{5} + 3\, q^{5} p^{2}$$
$$+ 64559891944834\, p^{122} q^{72} + 2398656294936\, p^{118} q^{51} + 243815192934905\, p^{124} q^{92} + 9\, p^{6} q^{3} + 341029174032864\, p^{122} q^{106}$$
$$+ 1321436053520106\, p^{96} q^{105} + 662305702929667\, p^{116} q^{99} + 656198519101188\, p^{116} q^{97} + 3\, p^{5} q^{2} + 866574199474884\, p^{83} q^{80}$$
$$+ 1146943880371622\, p^{108} q^{99} + 1151703073194671\, p^{108} q^{97} + 1267422541325\, p^{151} q^{110} + 716\, q^{24} p^{5} + q^{16} p + 14303\, q^{27} p^{8}$$
$$+ 35077085\, p^{83} q^{17} + 10717136032685\, q^{131} p^{70} + 212\, q^{23} p^{4} + 10934770\, p^{20} q^{29} + 119371\, q^{126} p^{21} + 2814656959\, p^{166} q^{105}$$
$$+ 280205747\, p^{169} q^{143} + 3361384934702\, p^{129} q^{61} + 1480964910\, p^{168} q^{121} + 948199054\, p^{165} q^{88} + 9\, p^{4} q^{4} + 7\, p^{3} q^{5}$$
$$+ 1924960878\, q^{122} p^{33} + 4980132381\, q^{122} p^{35} + 9658167741\, q^{123} p^{37} + 3126758226\, q^{122} p^{34} + 5\, q^{4} p^{3} + q^{5} p + 19\, q^{67} p^{5} + 248\, q^{34} p^{4}$$
$$+ 5943\, p^{11} q^{14} + 6430\, p^{12} q^{13} + 115848\, p^{20} q^{14} + 28706\, p^{20} q^{11} + 227809\, p^{21} q^{15} + 74875\, p^{20} q^{13} + 810363\, p^{54} q^{11} + 9327475\, p^{57} q^{14}$$
$$+ 4329492\, p^{56} q^{13} + 5128113291\, p^{135} q^{43} + 1104\, q^{35} p^{5} + 252805833280142\, p^{125} q^{102} + 207934783256009\, p^{126} q^{107}$$
$$+ 182988689724362\, p^{126} q^{111} + 63265688911062\, p^{123} q^{73} + 225\, q^{24} p^{4} + 1073433991541\, p^{39} q^{72} + 2394358590815\, p^{42} q^{72}$$
$$+ 1848661227042\, p^{41} q^{72} + 834521565160\, p^{38} q^{73} + 1415034952160\, p^{40} q^{72} + 1534974811023798\, p^{95} q^{90} + 6637083472\, p^{140} q^{48}$$
$$+ 80419560310181\, p^{63} q^{68} + p^{4} q + 2\, p^{2} q^{3} + 833165989\, p^{169} q^{125} + 74809674407617\, p^{118} q^{130} + 13830\, q^{43} p^{7} + 204\, q^{38} p^{4}$$

$$+ 91460\, q^{23} p^{12} + 58551\, q^{27} p^{10} + 29887\, q^{27} p^{9} + 67642\, q^{28} p^{10} + 5\, q^{28} p^{2} + 37369991956198\, p^{135} q^{117} + 1531\, q^{22} p^{6} + 91\, p^{6} q^{8}$$
$$+ 63781179\, q^{55} p^{17} + 3567799879\, q^{56} p^{25} + 7913015019\, q^{56} p^{27} + 12515581458\, q^{57} p^{28} + 1503850808\, q^{56} p^{23} + 18022827862\, q^{57} p^{29}$$
$$+ 39182252119\, q^{58} p^{31} + 25611685065\, q^{57} p^{30} + 14545149969434\, p^{77} q^{49} + 175370757680560\, p^{78} q^{64} + 11789532756\, q^{124} p^{38}$$
$$+ 138779364969\, q^{126} p^{46} + 4369339863\, q^{113} p^{31} + 74088\, p^{12} q^{22} + 670671678132\, q^{124} p^{50} + 55548064517\, p^{72} q^{30}$$
$$+ 45255997643648\, p^{77} q^{55} + 7308841803604\, p^{76} q^{46} + 13\, q^{8} p^{3} + 16\, q^{9} p^{3} + 144\, p^{8} q^{7} + 1717630643\, p^{167} q^{106} + 856800898\, p^{169} q^{123}$$
$$+ 1816096958\, p^{167} q^{107} + 1457723260\, p^{168} q^{117} + 8014\, p^{15} q^{11} + 120838\, q^{48} p^{9} + 148658398\, q^{65} p^{18} + 2980\, q^{21} p^{7} + 11507\, q^{21} p^{9}$$
$$+ 25225\, q^{22} p^{10} + 99023088\, q^{131} p^{32} + 100\, p^{7} q^{7} + 4\, q^{7} p^{2} + 2747588704506\, p^{76} q^{42} + 29\, p^{8} q^{4} + 53\, p^{8} q^{5} + 123\, p^{9} q^{6}$$
$$+ 339541966532\, p^{74} q^{35} + 1716012\, q^{28} p^{16} + 202\, q^{22} p^{4} + 358719098114877\, p^{82} q^{116} + 384840801727804\, p^{83} q^{116}$$
$$+ 997066056384522\, p^{83} q^{83} + 289912552360\, p^{37} q^{60} + 17794853855810\, p^{98} q^{51} + 5647313305769\, p^{97} q^{46} + 177947220875601\, p^{99} q^{64}$$
$$+ 40961807669605\, p^{98} q^{55} + 1311867513\, p^{88} q^{23} + 51967388299\, p^{92} q^{31} + 14506099331\, p^{91} q^{28} + 17861590532200\, p^{77} q^{50}$$
$$+ 3551711735667\, p^{76} q^{43} + 1465592789054143\, p^{94} q^{88} + 1207535212799277\, p^{94} q^{83} + 58043546235180\, q^{134} p^{96} + 31613549\, p^{29} q^{23}$$
$$+ 868928\, q^{74} p^{12} + 269043935\, p^{133} q^{35} + 136965848851\, p^{35} q^{58} + 92697678929\, p^{34} q^{57} + 7436547\, p^{171} q^{161} + 11173227\, p^{171} q^{159}$$
$$+ 164075152\, p^{52} q^{19} + 765931704\, p^{53} q^{22} + 157198756813500\, q^{104} p^{65} + 71760858013697\, q^{104} p^{60} + 50353164329470\, q^{104} p^{58}$$
$$+ 11567597208\, q^{99} p^{29} + 18554189508\, q^{99} p^{30} + 1111457032\, q^{96} p^{24} + 4719767451\, q^{98} p^{27} + 7864823850\, q^{98} p^{28}$$
$$+ 12825918284\, q^{98} p^{29} + 169515996428308\, q^{105} p^{66} + 474724269773865\, p^{99} q^{72} + 302595654320438\, p^{99} q^{68} + 22472766\, q^{108} p^{21}$$
$$+ 9152058\, p^{171} q^{160} + 23019546\, p^{171} q^{155} + 6045\, q^{21} p^{8} + 40260551\, p^{105} q^{21} + 1285770975\, p^{111} q^{28} + 169913525017\, p^{118} q^{42}$$
$$+ 1178\, q^{20} p^{6} + 40512437998085\, p^{131} q^{124} + 299893\, p^{14} q^{24} + 746284038\, p^{169} q^{129} + 3896274473\, q^{121} p^{34} + 46268824313547\, p^{130} q^{124}$$
$$+ 1882490\, p^{20} q^{22} + 13\, p^{8} q^{3} + 4\, p^{7} q^{2} + 172\, q^{100} p^{10} + 4392\, q^{102} p^{12} + 33941406170749\, q^{79} p^{53} + 23144599606556\, q^{79} p^{51}$$
$$+ 9928434857919\, q^{79} p^{47} + 5584336479327\, p^{46} q^{70} + 53\, p^{5} q^{8} + 517858219172853\, p^{80} q^{74} + 558016626494483\, p^{80} q^{75}$$
$$+ 270032033717409\, p^{80} q^{67} + 402834780553170\, p^{80} q^{71} + 440017802498443\, p^{80} q^{72} + 300568080730314\, p^{80} q^{68}$$
$$+ 533776648587\, q^{101} p^{39} + 742669670710\, q^{101} p^{40} + 286662082836579\, p^{100} q^{124} + 5231862527773\, q^{102} p^{47} + 6752647441553\, q^{102} p^{48}$$
$$+ 107190438528083\, p^{59} q^{88} + 10422414194000\, p^{85} q^{47} + 41\, q^{32} p^{3} + 2322656758722\, p^{48} q^{56} + 1691190430828\, p^{47} q^{55}$$
$$+ 86948191026630\, p^{92} q^{58} + 120638855481912\, p^{92} q^{60} + 493172065248517\, p^{93} q^{71} + 42994668957057\, p^{91} q^{54} + 1281479\, p^{69} q^{12}$$
$$+ 35332093531495\, p^{91} q^{53} + 256933887\, q^{85} p^{20} + 116612314810\, q^{72} p^{32} + 322471201121\, q^{72} p^{35} + 232480140695\, q^{72} p^{34}$$

$$+ 82569076545\, q^{73}\, p^{31} + 165662147022\, q^{72}\, p^{33} + 9409211311140\, p^{91}\, q^{47} + 5277056397\, p^{83}\, q^{25} + 31930685338\, p^{85}\, q^{29}$$
$$+ 3134145621\, p^{83}\, q^{24} + 908680\, p^{25}\, q^{16} + 746472\, p^{171}\, q^{170} + 392865\, p^{172}\, q^{171} + 4854166365537\, q^{87}\, p^{44} + 443938399\, p^{52}\, q^{21}$$
$$+ 1842675116\, p^{53}\, q^{24} + 10152827270858\, q^{119}\, p^{58} + 29\, p^{4}\, q^{8} + 10846536\, p^{26}\, q^{22} + 12933951350418\, p^{142}\, q^{103}$$
$$+ 3674105743435\, p^{139}\, q^{75} + 5885074833558\, p^{140}\, q^{81} + 4275059529222\, p^{144}\, q^{124} + 1921326035678\, p^{138}\, q^{69} + 3356401\, p^{116}\, q^{21}$$
$$+ 62960254\, p^{122}\, q^{27} + 28\, p^{5}\, q^{6} + 6257996447\, q^{123}\, p^{36} + 3984747175\, q^{123}\, p^{35} + 113622\, p^{54}\, q^{9} + 675242386063\, p^{42}\, q^{56}$$
$$+ 3838714352\, q^{57}\, p^{25} + 8570026715\, q^{57}\, p^{27} + 354181251\, q^{56}\, p^{20} + 208652283\, q^{56}\, p^{19} + 16730180\, q^{53}\, p^{15} + 801642\, q^{52}\, p^{11}$$
$$+ 114041714\, q^{55}\, p^{18} + 8750534\, q^{54}\, p^{14} + 82702\, q^{102}\, p^{14} + 40990982\, q^{130}\, p^{30} + 1089\, q^{33}\, p^{5} + 83593405\, q^{50}\, p^{18}$$
$$+ 100570936088577\, p^{59}\, q^{93} + 37964575\, q^{68}\, p^{16} + 18564698\, q^{67}\, p^{15} + 1429259632844795\, p^{100}\, q^{90} + 84983904349796\, p^{98}\, q^{59}$$
$$+ 4785775\, p^{171}\, q^{163} + 209652181822\, p^{34}\, q^{69} + 639350997508070\, p^{80}\, q^{77} + 712447360223458\, p^{81}\, q^{78} + 478437093815574\, p^{80}\, q^{73}$$
$$+ 598619954180920\, p^{80}\, q^{76} + 20915607102366\, p^{136}\, q^{123} + 4302943\, p^{78}\, q^{14} + 382735199539648\, p^{99}\, q^{70} + 2793128963495\, p^{95}\, q^{43}$$
$$+ 1794629350380\, q^{129}\, p^{58} + 187\, q^{21}\, p^{4} + 2156\, q^{19}\, p^{7} + 3470\, q^{18}\, p^{8} + 322460\, q^{51}\, p^{10} + 120960\, q^{50}\, p^{9} + 197911219\, q^{55}\, p^{19}$$
$$+ 1846166\, q^{52}\, p^{12} + 8482925\, q^{53}\, p^{14} + 550972028\, q^{55}\, p^{21} + 334302397\, q^{55}\, p^{20} + 586405019\, q^{56}\, p^{21} + 5781426636\, q^{57}\, p^{26}$$
$$+ 2505848690\, q^{57}\, p^{24} + 2544\, q^{20}\, p^{7} + 13696160744\, p^{154}\, q^{150} + 1313747301166234\, p^{105}\, q^{95} + 1300714900593189\, p^{105}\, q^{94}$$
$$+ 612900300122927\, p^{93}\, q^{116} + 627347480041055\, p^{94}\, q^{116} + 1115490917727667\, p^{106}\, q^{105} + 1193007183538878\, p^{105}\, q^{104}$$
$$+ 13713862263\, p^{65}\, q^{27} + 93709895564\, p^{66}\, q^{32} + p^{5}\, q + 40\, q^{7}\, p^{5} + 11\, p^{7}\, q^{3} + 4\, p^{6}\, q^{2} + 367663063693\, p^{39}\, q^{57} + 204271\, p^{17}\, q^{18}$$
$$+ 181407946338176\, p^{123}\, q^{84} + 13019825268604\, p^{120}\, q^{60} + 31932873745775\, p^{121}\, q^{66} + 194015\, p^{16}\, q^{19} + 17\, q^{6}\, p^{4}$$
$$+ 1403174736\, p^{165}\, q^{91} + 49954516731955\, p^{135}\, q^{110} + 22\, p^{7}\, q^{4} + 40\, p^{7}\, q^{5} + 91\, p^{8}\, q^{6} + 1802\, q^{18}\, p^{7} + 28118058560135\, q^{79}\, p^{52}$$
$$+ 40714652289353\, q^{79}\, p^{54} + 18925650653390\, q^{79}\, p^{50} + 106766290575289\, p^{126}\, q^{120} + 7198007950\, p^{110}\, q^{31}$$
$$+ 287101866897733\, p^{124}\, q^{101} + 129161788930728\, p^{125}\, q^{119} + 7892363173702\, q^{79}\, p^{46} + 15371349387344\, q^{79}\, p^{49}$$
$$+ 12397987088426\, q^{79}\, p^{48} + 717786315\, p^{169}\, q^{130} + 7\, q^{23}\, p^{2} + 92122361306560\, p^{122}\, q^{75} + 381925729637\, p^{115}\, q^{43}$$
$$+ 197721248978804\, p^{125}\, q^{112} + 3087553615\, p^{109}\, q^{29} + 3720482616196\, q^{78}\, p^{43} + 4784569619549\, q^{78}\, p^{44} + 1247248753791\, q^{78}\, p^{39}$$
$$+ 3145694033226\, p^{146}\, q^{122} + 2649066142\, q^{86}\, p^{24} + 194225679075249\, p^{123}\, q^{85} + 168686945136049\, p^{123}\, q^{83} + 3076605253741\, p^{118}\, q^{52}$$
$$+ 43217464541637\, p^{121}\, q^{68} + 9496\, q^{20}\, p^{9} + 20726\, q^{21}\, p^{10} + 31188901431663\, p^{56}\, q^{68} + 1696377\, p^{93}\, q^{15} + 5354011426537\, p^{119}\, q^{55}$$
$$+ 613988984332\, p^{116}\, q^{45} + 945926530\, p^{106}\, q^{26} + 220334874\, q^{114}\, p^{26} + 39472954\, q^{109}\, p^{22} + 6\, q^{26}\, p^{2} + 257\, q^{29}\, p^{4} + 13178\, p^{14}\, q^{13}$$

$$+ 3260926\, p^{95}\, q^{16} + 8973\, p^{14}\, q^{12} + 258423\, p^{16}\, q^{20} + 555973215104\, q^{70}\, p^{37} + 1320481708281410\, p^{105}\, q^{98} + 13479\, p^{40}\, q^{7}$$
$$+ 1050555753354660\, p^{107}\, q^{89} + 497180686388739\, p^{106}\, q^{76} + 543008154692386\, p^{106}\, q^{77} + 1055869597148258\, p^{108}\, q^{91}$$
$$+ 695726027016191\, p^{107}\, q^{81} + 298204109943964\, p^{106}\, q^{71} + 929486548890110\, p^{107}\, q^{86} + 972313347249823\, p^{107}\, q^{87}$$
$$+ 600909019702822\, p^{107}\, q^{79} + 3543681\, p^{22}\, q^{22} + 3311934471465\, p^{145}\, q^{89} + 11887712394539\, q^{104}\, p^{51} + 9403162140112\, q^{104}\, p^{50}$$
$$+ 937832698088\, q^{102}\, p^{41} + 734\, q^{17}\, p^{6} + 27096718\, q^{36}\, p^{19} + 1043\, q^{31}\, p^{5} + 3487\, q^{32}\, p^{6} + 1586597871138173\, p^{95}\, q^{92}$$
$$+ 13444080536\, p^{84}\, q^{27} + 1008\, q^{30}\, p^{5} + 24731274\, q^{141}\, p^{36} + 13940940\, q^{141}\, p^{35} + 49597222405970\, p^{135}\, q^{97} + 10834641\, q^{36}\, p^{17}$$
$$+ 1480964910\, q^{69}\, p^{22} + 2472548978\, q^{69}\, p^{23} + 8\, q^{15}\, p^{2} + 144\, q^{18}\, p^{4} + 1014\, q^{19}\, p^{6} + 378\, q^{18}\, p^{5} + 8\, q^{44}\, p^{3} + q^{6}\, p + 22\, q^{7}\, p^{4}$$
$$+ 986566155752\, p^{39}\, q^{70} + 710083088538\, p^{38}\, q^{69} + 51402149\, q^{51}\, p^{17} + 4\, q^{6}\, p^{2} + 1098\, p^{34}\, q^{5} + 1661696082221\, q^{78}\, p^{40}$$
$$+ 2868971160402\, q^{78}\, p^{42} + 2193265374358\, q^{78}\, p^{41} + 1812889380432\, q^{130}\, p^{59} + 8973\, p^{12}\, q^{14} + 18943\, p^{14}\, q^{14} + 38032\, p^{15}\, q^{15}$$
$$+ 27453272\, p^{26}\, q^{25} + 35959288\, p^{25}\, q^{27} + 63670652\, p^{27}\, q^{27} + 109739000\, p^{28}\, q^{28} + 7610711185\, q^{120}\, p^{35} + 2260463865\, q^{119}\, p^{32}$$
$$+ 9\, q^{20}\, p^{2} + 112979\, q^{44}\, p^{9} + 23449415\, q^{48}\, p^{16} + 261\, q^{30}\, p^{4} + 409052638\, p^{51}\, q^{21} + 1685621553\, p^{52}\, q^{24} + 3090\, q^{15}\, p^{9} + 6616\, q^{16}\, p^{10}$$
$$+ 1797\, q^{15}\, p^{8} + 7\, q^{12}\, p^{2} + 11763145651694\, p^{77}\, q^{48} + 5791223081850\, p^{76}\, q^{45} + 63802315\, q^{153}\, p^{50} + 42710946\, q^{153}\, p^{49}$$
$$+ 20109504\, q^{152}\, p^{46} + 65298662737\, p^{102}\, q^{159} + 20501377922\, p^{92}\, q^{160} + 38388322422\, q^{90}\, p^{30} + 201\, q^{14}\, p^{5} + 86\, q^{14}\, p^{4} + 259\, q^{31}\, p^{4}$$
$$+ 48\, q^{29}\, p^{3} + 61657485648609\, p^{128}\, q^{80} + 124005025646720\, p^{130}\, q^{100} + 19269\, q^{24}\, p^{9} + 8338\, q^{23}\, p^{8} + 3963\, q^{23}\, p^{7}$$
$$+ 26403495023272\, p^{77}\, q^{52} + 21787604911639\, p^{77}\, q^{51} + 478\, p^{9}\, q^{9} + 1025\, p^{10}\, q^{10} + 985798267669677\, q^{105}\, p^{85}$$
$$+ 1122853988380251\, q^{105}\, p^{88} + 1199098595288115\, q^{105}\, p^{90} + 1174877632821306\, q^{106}\, p^{91} + 1033894943030731\, q^{105}\, p^{86}$$
$$+ 935928925621007\, q^{105}\, p^{84} + 36\, q^{52}\, p^{4} + 264\, q^{55}\, p^{5} + 780453346563932\, q^{105}\, p^{81} + 102753877184451\, p^{129}\, q^{115}$$
$$+ 11911199222\, q^{147}\, p^{58} + 11520962713\, p^{56}\, q^{28} + 1823442900863\, p^{59}\, q^{45} + 845133787859\, p^{58}\, q^{42} + 314813853030\, p^{58}\, q^{38}$$
$$+ 1060568807095\, p^{58}\, q^{43} + 240772075174\, p^{58}\, q^{37} + 408013773064\, p^{58}\, q^{39} + 46\, q^{30}\, p^{3} + 39293727\, q^{162}\, p^{64} + 600700878\, q^{162}\, p^{75}$$
$$+ 105736\, p^{139}\, q^{27} + 193\, q^{69}\, p^{6} + 54846714\, q^{131}\, p^{31} + 6637083472\, q^{142}\, p^{50} + 8069\, q^{134}\, p^{22} + 27\, q^{13}\, p^{3} + 3253009\, p^{17}\, q^{29} + 317\, p^{8}\, q^{9}$$
$$+ 661617\, q^{63}\, p^{11} + 1226036381176831\, p^{105}\, q^{103} + 1115490917727667\, p^{85}\, q^{84} + 49\, p^{28}\, q^{3} + 1421827860658495\, p^{94}\, q^{87}$$
$$+ 10322586034279\, p^{126}\, q^{64} + 605919290492\, p^{114}\, q^{44} + 35264253\, q^{113}\, p^{23} + 36260\, p^{105}\, q^{14} + 17454749436\, p^{53}\, q^{30}$$
$$+ 3755332692\, p^{52}\, q^{26} + 12421254438\, p^{53}\, q^{29} + 70\, q^{9}\, p^{5} + 164\, q^{10}\, p^{6} + 317\, p^{9}\, q^{8} + 1728067\, p^{17}\, q^{26} + 26844680\, q^{50}\, p^{16}$$
$$+ 48106450\, q^{50}\, p^{17} + 194980690222\, p^{146}\, q^{69} + 111884\, p^{12}\, q^{24} + 30368\, p^{10}\, q^{23} + 427284515390819\, p^{71}\, q^{99} + 652638082612602\, p^{75}\, q^{98}$$

$$+ 711036641515559\, p^{76}\, q^{98} + 915916840557553\, p^{79}\, q^{97} + 1300714900593189\, p^{85}\, q^{96} + 347136770759757\, p^{73}\, q^{107}$$
$$+ 1105024228042835\, p^{88}\, q^{82} + 496663167836\, p^{78}\, q^{36} + 45539890067\, q^{103}\, p^{33} + 26707036\, q^{39}\, p^{18} + 1278783834076702\, p^{105}\, q^{101}$$
$$+ 48111181\, p^{27}\, q^{26} + 168170055240805\, p^{87}\, q^{62} + 251344347655155\, p^{87}\, q^{65} + q^{10}\, p + 2424\, p^{77}\, q^{8} + 119659777498\, p^{54}\, q^{36}$$
$$+ 6521475100329\, p^{47}\, q^{69} + 26657142918991\, p^{55}\, q^{68} + 20915607102366\, p^{54}\, q^{67} + 101408\, q^{41}\, p^{9} + 4785775\, q^{27}\, p^{19} + 2152465\, q^{27}\, p^{17}$$
$$+ 393896107997311\, p^{119}\, q^{89} + 188841413044733\, p^{118}\, q^{77} + 239432645487520\, p^{119}\, q^{81} + 170934311916972\, p^{118}\, q^{76}$$
$$+ 448750330325084\, p^{120}\, q^{98} + 207647084456682\, p^{118}\, q^{78} + 356989044767575\, p^{119}\, q^{87} + 337670840298937\, p^{119}\, q^{86}$$
$$+ 411119999982561\, p^{119}\, q^{90} + 897924689919884\, p^{88}\, q^{109} + 860578238180325\, p^{87}\, q^{109} + 351293828537728\, p^{70}\, q^{79} + 602\, q^{22}\, p^{5}$$
$$+ 1716\, q^{23}\, p^{6} + 11964939\, p^{47}\, q^{15} + 6342708\, p^{47}\, q^{14} + 219753809552894\, p^{91}\, q^{64} + 52885817164967\, p^{90}\, q^{55} + 47111\, q^{20}\, p^{12}$$
$$+ 115848\, q^{20}\, p^{14} + 227809\, q^{21}\, p^{15} + 23910956380917\, p^{90}\, q^{51} + 7758559843946\, p^{89}\, q^{46} + 1219213\, q^{105}\, p^{17} + 63511\, q^{103}\, p^{14}$$
$$+ 914674872\, q^{50}\, p^{23} + 2934423\, q^{150}\, p^{40} + 57673188886972\, p^{61}\, q^{67} + 46268824313547\, p^{60}\, q^{66} + 220548\, q^{103}\, p^{15}$$
$$+ 413940882975\, q^{100}\, p^{38} + 2130283873244\, p^{87}\, q^{41} + 161164957763\, p^{85}\, q^{33} + 926359680196\, q^{152}\, p^{107} + 35\, q^{9}\, p^{4}$$
$$+ 24424576743811\, p^{69}\, q^{54} + 5258609146735\, p^{69}\, q^{46} + 30924394089662\, p^{70}\, q^{55} + 21027402007\, q^{125}\, p^{40} + 268757\, q^{29}\, p^{12}$$
$$+ 795098\, q^{29}\, p^{14} + 10747979\, q^{132}\, p^{29} + 220\, p^{8}\, q^{8} + 204\, p^{7}\, q^{9} + 17899\, p^{11}\, q^{18} + 1173607770043\, p^{87}\, q^{39} + 637613695415\, p^{86}\, q^{37}$$
$$+ 19354236525\, p^{54}\, q^{30} + 4134335684\, p^{53}\, q^{26} + 13734031842\, p^{54}\, q^{29} + 17641139902\, q^{62}\, p^{28} + 1267009326726421\, p^{106}\, q^{98}$$
$$+ 25770475102\, q^{62}\, p^{29} + 37125861546\, q^{62}\, p^{30} + 52786184833\, q^{62}\, p^{31} + 38\, p^{91}\, q^{8} + 1589048944028\, p^{87}\, q^{40} + 175509373\, q^{53}\, p^{19}$$
$$+ 49\, q^{28}\, p^{3} + 70\, p^{9}\, q^{5} + 164\, p^{10}\, q^{6} + 9155372585249\, p^{76}\, q^{47} + 1563138322187\, p^{75}\, q^{40} + 14510265581040\, p^{136}\, q^{127} + 22811\, p^{11}\, q^{19}$$
$$+ 28630\, p^{12}\, q^{18} + 49662696399477\, q^{122}\, p^{70} + 56770020193140\, q^{122}\, p^{71} + 1179512304137\, p^{75}\, q^{39} + 304663\, q^{47}\, p^{10} + 119824\, q^{47}\, p^{9}$$
$$+ 311525\, q^{48}\, p^{10} + 1769078\, p^{19}\, q^{23} + 470782\, p^{15}\, q^{24} + 51193031278179\, p^{135}\, q^{109} + 118125\, q^{46}\, p^{9} + 204\, p^{9}\, q^{7} + 35\, p^{9}\, q^{4}$$
$$+ 12396953468459\, q^{131}\, p^{71} + 2180651829364\, q^{99}\, p^{43} + 130113172\, q^{49}\, p^{19} + 52745002795015\, p^{74}\, q^{125} + 64559891944834\, q^{122}\, p^{72}$$
$$+ 113937538562829\, q^{122}\, p^{77} + 73046031722607\, q^{122}\, p^{73} + 102697586086975\, q^{122}\, p^{76} + 82234424424751\, q^{122}\, p^{74}$$
$$+ 92122361306560\, q^{122}\, p^{75} + 253208561335\, q^{123}\, p^{46} + 161\, p^{58}\, q^{5} + 1297895506746321\, p^{105}\, q^{100} + 5\, q^{27}\, p^{2} + 28706\, q^{20}\, p^{11}$$
$$+ 1170963140888\, p^{148}\, q^{87} + 832789660283885\, p^{108}\, q^{85} + 163389059\, p^{90}\, q^{20} + 104674192942681\, p^{93}\, q^{130} + 72994595640182\, p^{89}\, q^{131}$$
$$+ 587620133977547\, p^{101}\, q^{75} + 1082445\, p^{28}\, q^{15} + 59882077\, p^{25}\, q^{29} + 144\, p^{7}\, q^{8} + 123\, p^{6}\, q^{9} + 55600396438715\, p^{78}\, q^{56}$$
$$+ 881591550618\, p^{75}\, q^{38} + 571539962323719\, p^{73}\, q^{96} + 19390427\, p^{23}\, q^{27} + 3986\, q^{36}\, p^{6} + 1086\, q^{37}\, p^{5} + 273785413\, p^{68}\, q^{19}$$

$$+ 38047892101284\, p^{77} q^{54} + 1011415369247914\, p^{80} q^{95} + 252465447833301\, p^{66} q^{97} + 59269469390707\, q^{80} p^{56}$$
$$+ 332956066514822\, p^{80} q^{69} + 367090796882602\, p^{80} q^{70} + 12471\, q^{37} p^{7} + 849092368399970\, p^{84} q^{79} + 103107570238630\, p^{78} q^{60}$$
$$+ 65434450902155\, p^{78} q^{57} + 2984341515\, p^{138} q^{44} + 39097353727\, p^{142} q^{56} + 74875\, q^{20} p^{13} + 2472548978\, p^{69} q^{23} + 26652\, p^{15} q^{14}$$
$$+ 53214\, p^{16} q^{15} + 158727771\, q^{133} p^{34} + 269043935\, q^{133} p^{35} + 91356085\, q^{133} p^{33} + 23449415\, p^{48} q^{16} + 197721248978804\, p^{78} q^{65}$$
$$+ 231903207838487\, p^{79} q^{66} + 31794090885704\, p^{77} q^{53} + 4553415127262\, p^{76} q^{44} + 1480964910\, p^{69} q^{22} + 6542434707\, p^{70} q^{25}$$
$$+ 12270\, p^{15} q^{12} + 18309\, p^{15} q^{13} + 10920\, p^{99} q^{12} + 1623459388878\, p^{138} q^{68} + 452818380088\, p^{136} q^{59} + 8491269642874\, p^{143} q^{116}$$
$$+ 9837222311150\, p^{142} q^{94} + 3335795441916\, p^{144} q^{127} + 10261049871327\, p^{143} q^{109} + 1160028201\, p^{128} q^{35} + 47907061538633\, p^{133} q^{88}$$
$$+ 38\, p^{153} q^{30} + 53070\, p^{173} q^{74} + 1067\, q^{32} p^{5} + 9214315965277\, q^{131} p^{69} + 3858923752498\, q^{132} p^{65} + 6697452821050\, q^{131} p^{67}$$
$$+ 7878122663091\, q^{131} p^{68} + 1271\, q^{118} p^{15} + 113954731\, q^{134} p^{34} + 482600\, q^{152} p^{39} + 1601615\, q^{152} p^{41} + 893542\, q^{152} p^{40}$$
$$+ 13940940\, q^{155} p^{49} + 4729659\, q^{152} p^{43} + 7829985\, q^{152} p^{44} + 197458713\, q^{162} p^{70} + 247625404165156\, q^{78} p^{67}$$
$$+ 55600396438715\, p^{134} q^{112} + 135086194388615\, p^{61} q^{94} + 1435932353\, q^{168} p^{116} + 590\, q^{138} p^{22} + 23294729290689\, p^{97} q^{52}$$
$$+ 12483533522136\, p^{96} q^{49} + 637631728399\, p^{127} q^{52} + 176429865\, p^{170} q^{143} + 43895155595\, p^{65} q^{30} + 440564950\, p^{61} q^{20}$$
$$+ 1617028394\, p^{167} q^{105} + 4505\, p^{24} q^{7} + 1435587829659\, q^{129} p^{57} + 597668592282\, q^{126} p^{51} + 25551880986\, p^{148} q^{153}$$
$$+ 16643055752\, p^{149} q^{154} + 957719299791210\, p^{94} q^{79} + 141360490\, p^{61} q^{18} + 19606640\, p^{59} q^{15} + 46492595081420\, p^{134} q^{116}$$
$$+ 65003579669418\, p^{133} q^{94} + 1470410648\, q^{168} p^{122} + 856800898\, q^{169} p^{123} + 1374814587\, q^{168} p^{114} + 587620133977547\, p^{115} q^{89}$$
$$+ 289183672478318\, p^{114} q^{77} + 577712073123508\, p^{116} q^{91} + 367989392779698\, p^{115} q^{81} + 151642357005143\, p^{114} q^{71}$$
$$+ 262809134853549\, p^{114} q^{76} + 774335224266\, q^{90} p^{38} + 395375961327\, q^{90} p^{36} + 2980\, p^{21} q^{7} + 844552\, p^{17} q^{23} + 6045\, p^{21} q^{8} + 8\, p^{79} q^{6}$$
$$+ p^{12} q + 12396953468459\, p^{131} q^{71} + 56896206020711\, p^{133} q^{91} + 307814\, p^{56} q^{10} + 3986\, p^{36} q^{6} + 68545\, q^{143} p^{29} + 74630751639\, q^{69} p^{31}$$
$$+ 218138986\, p^{77} q^{19} + 50463516128\, p^{54} q^{33} + 11595929522\, q^{87} p^{27} + 556533618306\, q^{90} p^{37} + 454806180662\, q^{126} p^{50} + 12870\, q^{38} p^{7}$$
$$+ 91460\, p^{23} q^{12} + 9599283837320\, p^{130} q^{68} + 2718650909931\, p^{128} q^{59} + 144\, p^{18} q^{4} + 37\, p^{16} q^{3} + 25225\, p^{22} q^{10} + 14225\, q^{139} p^{25}$$
$$+ 3163015323669\, p^{57} q^{49} + 26976448346\, q^{122} p^{39} + 1086165438\, q^{120} p^{31} + 3778549853318\, p^{57} q^{50} + 4134335684\, q^{53} p^{26} + 927\, p^{42} q^{5}$$
$$+ 8669704437\, p^{64} q^{26} + 2162185220\, p^{63} q^{23} + 30223495899\, p^{65} q^{29} + 1006\, p^{40} q^{5} + 8173182524422\, q^{130} p^{67}$$
$$+ 77635173118608\, p^{131} q^{115} + 37077661523\, p^{54} q^{32} + 6049923385\, p^{53} q^{27} + 26943789721\, p^{54} q^{31} + 453124587304767\, p^{106} q^{75}$$
$$+ 7352065997599\, q^{91} p^{46} + 201531275787\, q^{89} p^{34} + 8409616989278\, p^{55} q^{57} + 191598158927\, p^{35} q^{62} + 2935249342\, p^{102} q^{27}$$

$$+ 2854742\, p^{101} q^{17} + 58449907\, p^{107} q^{22} + 131915429997820\, p^{129} q^{109} + 203071510543638\, p^{121} q^{82} + 58045\, p^{13} q^{19} + 6459291\, p^{23} q^{23}$$
$$+ 476271370666\, p^{55} q^{41} + 67963294975\, p^{54} q^{34} + 90615659916\, p^{54} q^{35} + 598991650041\, p^{55} q^{42} + 228277021722\, p^{55} q^{38}$$
$$+ 747693514484\, p^{55} q^{43} + 375016838\, q^{50} p^{21} + 22146603042434\, p^{98} q^{52} + 11871086147263\, p^{97} q^{49} + 863749556\, p^{116} q^{29}$$
$$+ 175665042667\, p^{55} q^{37} + 294099940803\, p^{55} q^{39} + 154341228\, q^{162} p^{69} + 5088887\, q^{150} p^{41} + 178070385\, q^{164} p^{75} + 15110076862\, q^{55} p^{29}$$
$$+ 51354809119\, p^{153} q^{144} + 14154701\, q^{84} p^{16} + 546\, q^{21} p^{5} + 3296564426874\, q^{131} p^{63} + 18424842994453\, p^{78} q^{50}$$
$$+ 3642827282874\, p^{77} q^{43} + 3211339\, p^{81} q^{14} + 259936\, p^{75} q^{11} + 840799266\, q^{93} p^{23} + 1375428792\, q^{94} p^{24} + 144142226\, p^{62} q^{18}$$
$$+ 19797830\, p^{60} q^{15} + 656198519101188\, p^{93} q^{74} + 315179362737694\, p^{93} q^{67} + 86623470\, p^{32} q^{24} + 2114\, p^{25} q^{6} + 716\, p^{24} q^{5}$$
$$+ 552640\, p^{30} q^{13} + 7366350\, p^{31} q^{18} + 21353282826\, q^{55} p^{30} + 83889843071095\, q^{121} p^{73} + 380499049213\, p^{119} q^{45} + 1914281\, p^{98} q^{16}$$
$$+ 3338751368738\, p^{122} q^{55} + 575062777\, p^{109} q^{26} + 117549452310628\, q^{121} p^{76} + 8727379797\, p^{53} q^{28} + 1291955721118\, p^{56} q^{45}$$
$$+ 926536320977\, p^{55} q^{44} + 4590263\, p^{21} q^{24} + 8338\, p^{23} q^{8} + 135547\, p^{25} q^{12} + 36262\, p^{24} q^{10} + 108\, p^{45} q^{4} + 44413\, p^{13} q^{18}$$
$$+ 3924167\, q^{79} p^{14} + 2813578637421\, p^{77} q^{42} + 346179469224\, p^{75} q^{35} + 14984183558536\, p^{78} q^{49} + 182988689724362\, p^{79} q^{64}$$
$$+ 56455294043\, p^{73} q^{30} + 46969343752295\, p^{78} q^{55} + 7530207127586\, p^{77} q^{46} + 26019\, q^{26} p^{9} + 2227484131789\, q^{129} p^{59} + 104912\, p^{17} q^{16}$$
$$+ 355110391573037\, q^{93} p^{68} + 1453439844\, q^{67} p^{22} + 783334295303\, q^{148} p^{83} + 231715\, q^{76} p^{11} + 42\, q^{51} p^{4} + 419\, q^{14} p^{6} + 997480\, p^{96} q^{15}$$
$$+ 29203146090\, q^{99} p^{31} + 1584352561213\, q^{103} p^{43} + 2279867\, q^{84} p^{14} + 62433021519\, q^{100} p^{33} + 93744853855\, q^{100} p^{34} + 168\, q^{13} p^{5}$$
$$+ 442436694964\, q^{147} p^{76} + 8\, q^{21} p^{2} + 6\, q^{25} p^{2} + 67333757564\, p^{123} q^{42} + 6226294191612\, q^{79} p^{45} + 49867530563387\, q^{121} p^{69}$$
$$+ 65348792772184\, q^{121} p^{71} + 105560788453338\, q^{121} p^{75} + 130273610349775\, q^{121} p^{77} + 125808763380176\, q^{122} p^{78}$$
$$+ 74229131793161\, q^{121} p^{72} + 13786\, q^{22} p^{9} + 7141\, q^{22} p^{8} + 150438\, p^{23} q^{13} + 1178\, p^{20} q^{6} + 433\, p^{19} q^{5} + 375766057565\, p^{55} q^{40}$$
$$+ 13786\, p^{22} q^{9} + 53775\, p^{23} q^{11} + 8\, q^{22} p^{2} + 1311849571535231\, p^{105} q^{99} + 1323689845129854\, p^{105} q^{97} + 85260447084\, q^{77} p^{31}$$
$$+ 93294933977\, q^{89} p^{32} + 138094825601\, q^{89} p^{33} + 58776783261\, q^{90} p^{31} + 682177323386\, q^{78} p^{37} + 328257623422\, q^{118} p^{44}$$
$$+ 1593746\, p^{24} q^{18} + 1031320023108\, p^{151} q^{119} + 1548109575052\, p^{150} q^{102} + 1501818062842\, p^{150} q^{101} + 240129\, p^{23} q^{14} + 470782\, p^{24} q^{15}$$
$$+ 44797246\, p^{49} q^{17} + 232839677\, p^{50} q^{20} + 1286573234155\, p^{149} q^{92} + 255366232103\, p^{152} q^{134} + 16475265319\, p^{73} q^{27}$$
$$+ 51554191115\, p^{69} q^{30} + 482885651\, p^{65} q^{20} + 8417\, q^{138} p^{24} + 138405789194\, p^{152} q^{139} + 18591645\, q^{40} p^{17} + 170724533083\, q^{125} p^{46}$$
$$+ 17690069438\, q^{124} p^{39} + 1549243407859\, p^{109} q^{45} + 651055845325539\, p^{116} q^{102} + 202731762935\, p^{107} q^{38}$$
$$+ 661265035320698\, p^{116} q^{100} + 370857\, p^{25} q^{14} + 726695\, p^{26} q^{15} + 1728067\, p^{26} q^{17} + 9924895\, p^{27} q^{21} + 5461869\, p^{26} q^{20}$$

$$+ 3787468\, p^{26} q^{19} + 141279370\, p^{50} q^{19} + 647889605\, p^{51} q^{22} + 156000914227\, p^{33} q^{70} + 427439351835\, p^{36} q^{71} + 110325767991\, p^{32} q^{70}$$
$$+ 403889753515864\, p^{88} q^{69} + 448561123079400\, p^{88} q^{70} + 1675334910520\, p^{84} q^{40} + 1244096194965\, p^{84} q^{39} + 244079751039\, p^{83} q^{34}$$
$$+ 675102915289\, p^{83} q^{37} + 107220092843903\, p^{87} q^{59} + 2234206810993\, p^{84} q^{41} + 172935824751\, p^{82} q^{33} + 9645603899\, p^{80} q^{26}$$
$$+ 168170055240805\, p^{62} q^{87} + 248856666976207\, p^{65} q^{86} + 36487933955859\, p^{132} q^{82} + 825389882599\, p^{127} q^{53} + 1515249004\, q^{86} p^{23}$$
$$+ 4246422486\, q^{87} p^{25} + 842820770\, q^{86} p^{22} + 1006151513\, p^{51} q^{23} + 582304180485302\, p^{74} q^{83} + 462118027982626\, p^{71} q^{84}$$
$$+ 915558316641\, q^{77} p^{38} + 1635094938322\, q^{77} p^{40} + 2813578637421\, q^{77} p^{42} + q^{83} p^{6} + 40970517\, p^{128} q^{29} + 8337101\, p^{25} q^{22}$$
$$+ 2969022\, p^{19} q^{25} + 43217464541637\, q^{121} p^{68} + 1162785586418615\, q^{105} p^{89} + 832789660283885\, q^{105} p^{82} + 37532798593\, p^{72} q^{29}$$
$$+ 9\, q^{19} p^{2} + 24974985508\, p^{72} q^{28} + 1321436053520106\, p^{105} q^{96} + 12813243\, p^{48} q^{15} + 6742676\, p^{48} q^{14} + 230\, p^{78} q^{7} + 1082944\, p^{24} q^{17}$$
$$+ 5997071\, p^{25} q^{21} + 3276813\, p^{24} q^{20} + 2303903\, p^{24} q^{19} + 133973489656\, p^{55} q^{36} + 232556069420\, p^{125} q^{47} + 509\, q^{15} p^{6} + 993\, q^{15} p^{7}$$
$$+ 41480139281805\, p^{135} q^{115} + 27839751\, q^{133} p^{31} + 637320781245\, p^{74} q^{37} + 3239900\, q^{27} p^{18} + 6947155\, q^{27} p^{20} + 12584679\, q^{28} p^{21}$$
$$+ 69899368\, q^{162} p^{66} + 89097404552766\, p^{78} q^{59} + 118678644445339\, p^{78} q^{61} + 76568909818749\, p^{78} q^{58} + 154763403619271\, p^{78} q^{63}$$
$$+ 135878968726103\, p^{78} q^{62} + 14982284620\, q^{114} p^{34} + 51\, q^{26} p^{3} + 509293322539385\, p^{104} q^{75} + 9681\, q^{143} p^{27} + 404810\, q^{155} p^{42}$$
$$+ 1421955063\, p^{29} q^{38} + 200717933496\, p^{148} q^{73} + 11467595727\, p^{144} q^{54} + 914534929313\, p^{152} q^{106} + 41343\, q^{43} p^{8} + 52\, q^{25} p^{3} + 7\, q^{24} p^{2}$$
$$+ 2536241689\, p^{52} q^{25} + 38693078312868\, p^{129} q^{127} + 1375428792\, p^{166} q^{96} + 31685826\, p^{171} q^{153} + 1408176910\, p^{168} q^{115} + 36754\, q^{39} p^{8}$$
$$+ 38149092387429\, p^{74} q^{127} + 65884053473\, q^{115} p^{38} + 13218\, q^{39} p^{7} + 96698\, q^{40} p^{9} + 4104\, q^{39} p^{6} + 38200\, q^{40} p^{8} + 9\, q^{16} p^{2}$$
$$+ 180687206\, q^{89} p^{20} + 48533459854\, q^{93} p^{31} + 12472112322\, q^{93} p^{28} + 19984011889\, q^{93} p^{29} + 7627338690\, q^{93} p^{27} + 18\, q^{10} p^{3}$$
$$+ 746472\, p^{19} q^{20} + 545574\, p^{19} q^{19} + 392865\, p^{19} q^{18} + 13479\, q^{40} p^{7} + 211\, q^{11} p^{6} + 84983904349796\, p^{59} q^{98} + 2600225\, p^{21} q^{22}$$
$$+ 4350827551\, p^{138} q^{45} + 23279058657\, p^{141} q^{53} + 215\, q^{37} p^{4} + 6651\, q^{95} p^{11} + 44\, q^{10} p^{4} + 89\, q^{10} p^{5} + 1006\, q^{40} p^{5}$$
$$+ 2745588744364\, p^{129} q^{60} + 6918862910619\, p^{130} q^{66} + 6453400\, q^{106} p^{19} + 1460189425\, q^{121} p^{32} + 2410072819\, q^{121} p^{33}$$
$$+ 36812514\, p^{19} q^{38} + 1079318549719397\, p^{81} q^{90} + 1297895506746321\, p^{85} q^{90} + 1247340882113714\, p^{84} q^{90}$$
$$+ 1425781961019645\, p^{88} q^{90} + 1486627561146908\, p^{90} q^{90} + 1532102621337972\, p^{91} q^{91} + 1344820328961010\, p^{86} q^{90}$$
$$+ 1458915170247098\, p^{89} q^{90} + 1211969265\, p^{89} q^{23} + 1137496995579010\, p^{82} q^{90} + 114249536293531\, p^{60} q^{81}$$
$$+ 29939718253662\, p^{52} q^{82} + 5\, q^{95} p^{8} + 33281860304488\, q^{132} p^{81} + 36487933955859\, q^{132} p^{82} + 35812317286316\, q^{133} p^{84}$$
$$+ 243740202639\, p^{74} q^{34} + 2052641800857\, p^{75} q^{41} + 791591420\, q^{119} p^{30} + 10427076043\, p^{71} q^{26} + 169611925449\, p^{73} q^{33}$$

$$+ 6342379198241\, p^{136}\, q^{134} + 349391293626458\, p^{96}\, q^{122} + 4061\, q^{41}\, p^{6} + 4078609494\, p^{70}\, q^{24} + 7213987530717\, p^{127}\, q^{63}$$
$$+ 367915429927357\, p^{120}\, q^{90} + 1975393043282\, q^{125}\, p^{55} + 3755\, q^{97}\, p^{11} + 53775\, q^{23}\, p^{11} + 318576884168776\, p^{120}\, q^{87}$$
$$+ 301051438542387\, p^{120}\, q^{86} + 402592466841687\, p^{121}\, q^{98} + 184590566712274\, p^{119}\, q^{78} + 12870\, p^{38}\, q^{7} + 41\, p^{32}\, q^{3}$$
$$+ 212430585102016\, p^{120}\, q^{81} + 151642357005143\, p^{119}\, q^{76} + 370857\, p^{14}\, q^{25} + 374402\, p^{17}\, q^{20} + 352173734552751\, p^{120}\, q^{89}$$
$$+ 167701705856377\, p^{119}\, q^{77} + 1145532580900\, p^{121}\, q^{50} + 3\, q^{31}\, p^{2} + 88764\, p^{19}\, q^{14} + 22811\, p^{19}\, q^{11} + 174877\, p^{20}\, q^{15} + 58045\, p^{19}\, q^{13}$$
$$+ 36931\, p^{19}\, q^{12} + 717321\, q^{61}\, p^{11} + 270644249\, q^{164}\, p^{77} + 713342\, q^{47}\, p^{11} + 229\, q^{36}\, p^{4} + 32026105\, q^{84}\, p^{17} + 550619099\, p^{26}\, q^{38}$$
$$+ 11210570858079\, p^{130}\, q^{69} + 515197614\, p^{169}\, q^{136} + 1911420780\, p^{167}\, q^{108} + 103094899\, p^{160}\, q^{63} + 1895587\, p^{103}\, q^{17}$$
$$+ 795352741669\, p^{144}\, q^{139} + 8714152\, p^{66}\, q^{14} + 3904678\, p^{65}\, q^{13} + 581356872488\, q^{100}\, p^{39} + 1108549240190\, q^{100}\, p^{41}$$
$$+ 807186505691\, q^{100}\, p^{40} + 138684471526\, q^{100}\, p^{35} + 1103209493\, p^{164}\, q^{85} + 323683995566347\, q^{90}\, p^{67} + 16376097035\, p^{116}\, q^{35}$$
$$+ 4407379678382\, p^{123}\, q^{57} + 100829450421\, p^{119}\, q^{41} + 25030301388\, p^{116}\, q^{36} + 2080708636996\, p^{122}\, q^{53} + 211105\, p^{141}\, q^{29} + 449\, p^{10}\, q^{8}$$
$$+ 278\, p^{10}\, q^{7} + 9148966\, q^{64}\, p^{14} + 34048447153\, q^{68}\, p^{29} + 1346\, q^{21}\, p^{6} + 488\, q^{20}\, p^{5} + 3449\, q^{22}\, p^{7} + 41\, q^{17}\, p^{3} + 600700878\, p^{115}\, q^{28}$$
$$+ 5920401765\, p^{119}\, q^{34} + 488517033\, q^{66}\, p^{20} + 2406984950\, q^{67}\, p^{23} + 688\, p^{10}\, q^{9} + 1470\, p^{11}\, q^{10} + 13583\, p^{19}\, q^{10} + 1802\, p^{18}\, q^{7}$$
$$+ 6275\, p^{18}\, q^{9} + 3470\, p^{18}\, q^{8} + 561\, q^{140}\, p^{23} + 6332\, q^{142}\, p^{26} + 1899\, q^{142}\, p^{25} + 533022\, p^{18}\, q^{20} + 1030025\, p^{20}\, q^{20} + 1921750\, p^{21}\, q^{21}$$
$$+ 251713\, q^{42}\, p^{10} + 168647779217739\, p^{88}\, q^{62} + 252805833280142\, p^{88}\, q^{65} + 172910427262\, p^{116}\, q^{157} + 218\, q^{155}\, p^{33} + 734\, p^{17}\, q^{6}$$
$$+ 281\, p^{16}\, q^{5} + 15375056\, p^{72}\, q^{15} + 37011535\, q^{69}\, p^{16} + 441642\, q^{22}\, p^{16} + 69909032403811\, q^{80}\, p^{57} + 33281860304488\, p^{132}\, q^{81}$$
$$+ 1628542740438\, p^{111}\, q^{46} + 5367791523146\, p^{112}\, q^{51} + 622166458225\, p^{109}\, q^{42} + 2152730220986\, p^{111}\, q^{47} + 26283999\, p^{86}\, q^{17}$$
$$+ 1457863284871\, q^{130}\, p^{58} + 251201131438\, p^{76}\, q^{34} + 2154472184165\, p^{77}\, q^{41} + 10565786359\, p^{73}\, q^{26} + 175518569247\, p^{75}\, q^{33}$$
$$+ 4111392311\, p^{72}\, q^{24} + 20738797\, p^{25}\, q^{25} + 16350140479\, p^{72}\, q^{27} + 7656654\, q^{131}\, p^{28} + 194980690222\, q^{146}\, p^{69} + 71295555\, q^{48}\, p^{18}$$
$$+ 3223455\, q^{47}\, p^{13} + 11964939\, q^{47}\, p^{15} + 41503155\, q^{48}\, p^{17} + 286860\, q^{45}\, p^{10} + 5935985\, q^{46}\, p^{14} + 11114486\, q^{46}\, p^{15} + 1485475\, q^{46}\, p^{12}$$
$$+ 1406754\, q^{45}\, p^{12} + 29090136\, q^{85}\, p^{17} + 129814835\, q^{85}\, p^{19} + 1331201\, q^{80}\, p^{13} + 5886433\, q^{84}\, p^{15} + 21972533621414\, q^{132}\, p^{77}$$
$$+ 9280898964\, p^{140}\, q^{49} + 618277935\, p^{135}\, q^{38} + 217945945222\, q^{70}\, p^{34} + 150400272022\, q^{69}\, p^{33} + 82829473029644\, q^{94}\, p^{58}$$
$$+ 219732692361205\, q^{103}\, p^{67} + 124500698960886\, q^{103}\, p^{63} + 144662958883778\, q^{103}\, p^{64} + 106613527706\, q^{69}\, p^{32} + 1774549\, q^{62}\, p^{12}$$
$$+ 4929958130602\, p^{46}\, q^{68} + 167177828124704\, q^{103}\, p^{65} + 207037009352633\, q^{104}\, p^{67} + 249957672880173\, q^{103}\, p^{68}$$
$$+ 192166591810769\, q^{103}\, p^{66} + 16\, p^{40}\, q^{3} + 66270\, p^{64}\, q^{9} + 28751509010146\, p^{97}\, q^{53} + 142816130\, q^{70}\, p^{18} + 858700490\, q^{71}\, p^{21}$$

$$+ 489157248\, q^{70} p^{20} + 686546506659\, q^{79} p^{37} + 6365\, q^{81} p^{9} + 73128890\, q^{70} p^{17} + 17465825\, q^{69} p^{15} + 268742271\, q^{70} p^{19}$$
$$+ 66204575\, q^{170} p^{151} + 57035747\, q^{170} p^{152} + 76373157\, q^{170} p^{150} + 99815781\, q^{170} p^{148} + 409052638\, q^{51} p^{21} + 39818213504973\, p^{132} q^{83}$$
$$+ 1059690001746\, p^{127} q^{54} + 10619\, q^{16} p^{11} + 3904678\, q^{65} p^{13} + 212445470112931\, p^{106} q^{126} + 192257691475\, q^{90} p^{34}$$
$$+ 131419014244\, q^{90} p^{33} + 644244\, q^{77} p^{12} + 62913525\, q^{85} p^{18} + 454621955\, q^{86} p^{21} + 48141529239666\, q^{135} p^{96}$$
$$+ 61205503335922\, q^{134} p^{98} + 38578687364042\, p^{123} q^{132} + 65434450902155\, p^{112} q^{133} + 60214832326627\, p^{114} q^{133}$$
$$+ 42294943468378\, p^{120} q^{133} + 4854208\, q^{156} p^{48} + 14\, q^{86} p^{7} + 213371920\, q^{170} p^{141} + 87569669\, q^{170} p^{149} + 11239873203528\, p^{141} q^{92}$$
$$+ 1581446322017\, p^{144} q^{134} + 130565147\, p^{124} q^{29} + 49416075544\, p^{109} q^{35} + 506737116531\, p^{108} q^{41} + 108138801848\, p^{106} q^{36}$$
$$+ 1816096958\, q^{167} p^{107} + 1717630643\, q^{167} p^{106} + 44844375565231\, q^{133} p^{87} + 496933\, p^{17} q^{21} + 20371365148958\, p^{110} q^{56}$$
$$+ 77373907075997\, p^{111} q^{64} + 16561055216261\, p^{110} q^{55} + 410797618814739\, p^{113} q^{80} + 669469017019955\, p^{113} q^{88}$$
$$+ 751181609643673\, p^{114} q^{103} + 711036641515559\, p^{114} q^{92} + 29584859575\, p^{103} q^{32} + 1403174736\, p^{99} q^{25} + 90191571639005\, p^{111} q^{65}$$
$$+ 207647084456682\, p^{112} q^{72} + 277480905477\, q^{90} p^{35} + 532156169225\, q^{91} p^{37} + 529877776\, q^{134} p^{37} + 891027389635\, p^{68} q^{39}$$
$$+ 6521475100329\, p^{69} q^{47} + 1166258290685\, p^{68} q^{40} + 11935693272191\, p^{69} q^{50} + 2484486507673\, p^{68} q^{43} + 1946866519612\, p^{68} q^{42}$$
$$+ 5477351209\, q^{52} p^{27} + 2536241689\, q^{52} p^{25} + 3755332692\, q^{52} p^{26} + 1101180619\, q^{52} p^{23} + 1842675116\, q^{53} p^{24} + 1685621553\, q^{52} p^{24}$$
$$+ 261\, p^{30} q^{4} + 50846433702\, p^{142} q^{57} + 61205503335922\, p^{134} q^{98} + 24552563109175\, p^{132} q^{78} + 185942\, p^{13} q^{24} + 12747112\, q^{85} p^{16}$$
$$+ 373\, q^{11} p^{7} + p\, q^{17} + 43252\, q^{30} p^{9} + 49284566\, p^{94} q^{19} + 564669494\, q^{118} p^{29} + 315326374\, q^{118} p^{28} + 112028039965\, q^{127} p^{46}$$
$$+ 250393943744\, q^{92} p^{35} + 8241159452810\, p^{58} q^{54} + 10843467817563\, p^{59} q^{55} + 16322001912577\, p^{141} q^{107} + 19950317384417\, p^{140} q^{102}$$
$$+ 2230594022432\, p^{136} q^{67} + 367758921003\, p^{134} q^{56} + 28577423201\, p^{130} q^{44} + 73861418251\, p^{109} q^{36} + 237048469\, q^{86} p^{20}$$
$$+ 119023063\, q^{86} p^{19} + 57287311\, q^{86} p^{18} + 16523\, q^{16} p^{12} + 1006903\, q^{117} p^{20} + 172796\, q^{116} p^{18} + 534909625\, p^{129} q^{34}$$
$$+ 319527567851\, p^{139} q^{61} + 2\, q^{82} p^{6} + 264333\, p^{43} q^{10} + 7753142\, p^{21} q^{26} + 5461869\, p^{20} q^{26} + 9924895\, p^{21} q^{27} + 3041205\, p^{46} q^{13}$$
$$+ 77396467\, p^{49} q^{18} + 1581446322017\, p^{56} q^{46} + 1852145\, q^{31} p^{15} + 357608700656\, q^{78} p^{35} + 67182\, p^{14} q^{18} + 143744\, p^{18} q^{16} + 4095\, q^{38} p^{6}$$
$$+ 5969070243192\, p^{142} q^{125} + 61201619412\, p^{131} q^{47} + 13531676041708\, p^{141} q^{115} + 25547814960\, p^{129} q^{43} + 14837504293085\, p^{139} q^{89}$$
$$+ 8553041075272\, p^{142} q^{120} + 47172\, p^{99} q^{13} + 15721917717381\, p^{96} q^{50} + 577712073123508\, p^{99} q^{74} + 267044624236908\, p^{99} q^{67}$$
$$+ 524925727821172\, p^{99} q^{73} + 1391563608487811\, p^{100} q^{89} + 690085180476478\, p^{99} q^{76} + 749071236963247\, p^{99} q^{77}$$
$$+ 1424452291764831\, p^{101} q^{91} + 965251814881526\, p^{100} q^{81} + 28505743\, q^{51} p^{16} + 7503426\, q^{50} p^{14} + 74854749\, q^{69} p^{17}$$

$$+ 467746209940031\, p^{71} q^{96} + 13627907534851\, q^{94} p^{49} + 13680\, q^{41} p^{7} + 44\, q^{31} p^{3} + 4102\, q^{40} p^{6} + 1325329\, q^{44} p^{12} + 264333\, q^{43} p^{10}$$
$$+ 6213092859988\, p^{57} q^{53} + 557\, p^{49} q^{5} + 73262\, p^{17} q^{15} + 24972\, p^{16} q^{13} + 16523\, p^{16} q^{12} + 149242932789\, q^{56} p^{36} + 29806917389\, q^{55} p^{31}$$
$$+ 75748466746\, q^{55} p^{34} + 41123767540\, q^{55} p^{32} + 35959288\, p^{27} q^{25} + 101408\, p^{41} q^{9} + 38200\, p^{40} q^{8} + 36864\, p^{16} q^{14}$$
$$+ 17548973098\, p^{140} q^{51} + 408191128\, q^{163} p^{76} + 727215018\, q^{163} p^{79} + 1391563608487811\, p^{101} q^{90} + 81131042668157\, p^{99} q^{59}$$
$$+ 194015\, p^{19} q^{16} + 23\, q^{85} p^{7} + 40511\, q^{42} p^{8} + 36931\, p^{12} q^{19} + 38707\, p^{52} q^{8} + 215160\, q^{98} p^{14} + 3559\, p^{46} q^{6} + 8141264\, q^{68} p^{14}$$
$$+ 1007739\, p^{171} q^{169} + 776\, q^{73} p^{7} + 18834\, q^{97} p^{12} + 56109664051\, q^{55} p^{33} + 101229140347\, q^{55} p^{35} + 746472\, p^{20} q^{19} + 145288227\, q^{69} p^{18}$$
$$+ 227761\, p^{25} q^{13} + 19269\, p^{24} q^{9} + 77870\, p^{25} q^{11} + 2582243\, p^{26} q^{18} + 479429150733\, p^{67} q^{37} + 8031167332584\, p^{69} q^{48}$$
$$+ 3952617300795\, p^{68} q^{45} + 20514182966\, p^{65} q^{28} + 1601380450301\, q^{69} p^{41} + 484\, q^{129} p^{18} + 152137965\, q^{83} p^{19} + 7130746\, q^{49} p^{14}$$
$$+ 44797246\, q^{49} p^{17} + 5623\, q^{130} p^{20} + 19907\, q^{130} p^{21} + 43538052202\, p^{45} q^{37} + 81058\, q^{37} p^{9} + 12396953468459\, p^{119} q^{59}$$
$$+ 37610240\, p^{101} q^{20} + 188496014305076\, p^{125} q^{113} + 1010\, q^{60} p^{6} + 3580\, p^{75} q^{8} + 4944082807042\, p^{118} q^{54} + 433\, q^{19} p^{5} + 47\, q^{19} p^{3}$$
$$+ 120960\, p^{50} q^{9} + 41607\, p^{49} q^{8} + 638043817572\, p^{67} q^{38} + 74992155\, p^{60} q^{17} + 772361227\, p^{62} q^{21} + 213371920\, q^{49} p^{20}$$
$$+ 21170762\, q^{128} p^{28} + 79398460034477\, p^{111} q^{132} + 1252461609097233\, p^{100} q^{86} + 31419829949\, q^{93} p^{30} + 607711710\, q^{90} p^{22}$$
$$+ 553165904\, q^{91} p^{22} + 1741959717457\, q^{98} p^{42} + 47172\, q^{99} p^{13} + 442711\, q^{100} p^{15} + 1971\, p^{68} q^{7} + 939\, p^{122} q^{16} + 933492\, p^{161} q^{52}$$
$$+ 12962925\, p^{168} q^{76} + 22472766\, p^{169} q^{82} + 1618603\, p^{162} q^{55} + 155\, p^{125} q^{16} + 3118\, p^{143} q^{26} + 704548316257\, p^{149} q^{85}$$
$$+ 332071879\, q^{163} p^{75} + 113682747\, q^{164} p^{73} + 869948135\, q^{163} p^{80} + 603943800\, q^{163} p^{78} + 498224873\, q^{163} p^{77}$$
$$+ 32535663883786\, q^{102} p^{55} + 4603\, q^{62} p^{7} + 39607517933862\, q^{102} p^{56} + 77396467\, q^{49} p^{18} + 38668538\, p^{59} q^{16}$$
$$+ 1563810807592872\, p^{95} q^{91} + 374402\, p^{20} q^{17} + 533022\, p^{20} q^{18} + 392865\, p^{18} q^{19} + 379234878092\, q^{101} p^{38} + 10170137\, q^{87} p^{16}$$
$$+ 2968878766619\, q^{83} p^{42} + 22860081735\, q^{82} p^{28} + 1666\, q^{56} p^{6} + 231305\, q^{63} p^{10} + 41748845145\, p^{142} q^{155} + 630428\, q^{64} p^{11}$$
$$+ 7610711185\, p^{120} q^{35} + 3450037239\, p^{63} q^{24} + 253248244\, p^{61} q^{19} + 2854467\, q^{45} p^{13} + 14059191617108\, p^{141} q^{114}$$
$$+ 819933534944568\, p^{79} q^{83} + 13786\, q^{42} p^{7} + 49201\, q^{145} p^{30} + 875604080698037\, p^{85} q^{79} + 2398656294936\, q^{118} p^{51} + 154\, q^{70} p^{6}$$
$$+ 93\, q^{72} p^{6} + 104464768100110\, p^{131} q^{99} + 508033389713\, p^{124} q^{49} + 10619\, p^{16} q^{11} + 293565169\, q^{53} p^{20} + 1199182900\, q^{53} p^{23}$$
$$+ 479418161\, q^{53} p^{21} + 765931704\, q^{53} p^{22} + 826644493\, q^{54} p^{22} + 68741873\, q^{84} p^{18} + 14734416527\, p^{121} q^{37} + 2570201\, q^{83} p^{14}$$
$$+ 550972028\, p^{169} q^{135} + 213371920\, p^{170} q^{141} + 11436576\, p^{25} q^{23} + 715090015293076\, p^{93} q^{75} + 111290494\, p^{77} q^{18} + 695506043\, p^{79} q^{21}$$
$$+ 1194217945\, p^{80} q^{22} + 44\, q^{18} p^{3} + 9\, q^{17} p^{2} + 175\, q^{20} p^{4} + 1473285320\, p^{168} q^{118} + 66204575\, p^{170} q^{151} + 14436\, q^{98} p^{12} + 8014\, q^{15} p^{11}$$

$$+ 2088673419\, p^{167}\, q^{110} + 235749401068918\, q^{104}\, p^{68} + 16272472\, p^{171}\, q^{157} + 158\, q^{19}\, p^{4} + 3\, p^{61}\, q^{4} + q^{8}\, p + 5\, q^{9}\, p^{2} + 7586527\, q^{37}\, p^{16}$$
$$+ 49842647013\, p^{57}\, q^{32} + 7913015019\, p^{56}\, q^{27} + 35942232720\, p^{57}\, q^{31} + 668322329168\, p^{58}\, q^{41} + 92697678929\, p^{57}\, q^{34}$$
$$+ 124445728655\, p^{57}\, q^{35} + 4104\, p^{39}\, q^{6} + 248\, q^{27}\, p^{4} + 58851\, q^{33}\, p^{9} + 23778\, q^{32}\, p^{8} + 9650\, q^{32}\, p^{7} + 203126\, p^{65}\, q^{10}$$
$$+ 1146959304339347\, p^{94}\, q^{82} + 1518664\, p^{148}\, q^{37} + 305378049086\, p^{122}\, q^{46} + 5508264170\, p^{117}\, q^{33} + 1812634702\, p^{115}\, q^{30}$$
$$+ 525575407\, q^{84}\, p^{21} + 102097258925475\, p^{129}\, q^{89} + 90683162916211\, p^{129}\, q^{87} + 40739922655419\, p^{128}\, q^{76} + 1560151\, q^{47}\, p^{12}$$
$$+ 217624196\, q^{87}\, p^{20} + 107630445320190\, p^{129}\, q^{90} + 45513515205568\, p^{128}\, q^{77} + 120638855481912\, p^{130}\, q^{98} + 50600768642920\, p^{128}\, q^{78}$$
$$+ 8553041075272\, p^{48}\, q^{70} + 123855787469\, p^{108}\, q^{37} + 31743398325\, p^{106}\, q^{33} + 191816\, q^{166}\, p^{58} + 7\, q^{13}\, p^{2} + 57127839838779\, p^{129}\, q^{81}$$
$$+ 84905119409034\, p^{129}\, q^{86} + 4486368592949\, p^{57}\, q^{51} + 5295054588361\, p^{57}\, q^{52} + 6423968551811\, p^{85}\, q^{45} + 486610872515\, p^{83}\, q^{36}$$
$$+ 64957511134550\, p^{87}\, q^{56} + 13055457946364\, p^{86}\, q^{48} + 15388221171\, p^{80}\, q^{27} + 26052\, p^{134}\, q^{23} + 741929835808\, q^{91}\, p^{38}$$
$$+ 43253975193868\, p^{132}\, q^{84} + 13534404\, p^{171}\, q^{158} + 30\, q^{14}\, p^{3} + 34\, q^{15}\, p^{3} + 1232087340373\, q^{69}\, p^{40} + 419777078\, q^{87}\, p^{21}$$
$$+ 782305740\, q^{87}\, p^{22} + 1470410648\, q^{68}\, p^{22} + 21972533621414\, p^{132}\, q^{77} + 19567134576402\, p^{132}\, q^{76} + 4111392311\, q^{72}\, p^{24}$$
$$+ 22206182233\, q^{121}\, p^{38} + 373\, p^{11}\, q^{7} + 971\, p^{11}\, q^{9} + 2067\, p^{12}\, q^{10} + 614\, q^{11}\, p^{8} + 77219494647884\, p^{133}\, q^{103} + 40105830\, p^{64}\, q^{16}$$
$$+ 498224873\, p^{163}\, q^{77} + 137288208\, p^{160}\, q^{64} + 2283139\, q^{128}\, p^{25} + 483842281\, q^{71}\, p^{20} + 264451139\, q^{71}\, p^{19} + 139741986\, q^{71}\, p^{18}$$
$$+ 18028678410019\, p^{133}\, q^{77} + 16033124442797\, p^{133}\, q^{76} + 50122\, p^{14}\, q^{17} + 73262\, p^{15}\, q^{17} + 1465592789054143\, p^{88}\, q^{94}$$
$$+ 6342708\, q^{47}\, p^{14} + 39431\, q^{41}\, p^{8} + 614\, p^{11}\, q^{8} + 35914217\, q^{70}\, p^{16} + 211\, p^{11}\, q^{6} + 44\, p^{10}\, q^{4} + 44844375565231\, p^{133}\, q^{87}$$
$$+ 53960244289256\, p^{133}\, q^{90} + 89\, p^{10}\, q^{5} + 198799816\, q^{88}\, p^{20} + 51894015\, q^{87}\, p^{18} + 727215018\, p^{163}\, q^{79} + 6616\, p^{16}\, q^{10}$$
$$+ 14734416527\, q^{121}\, p^{37} + 278\, q^{10}\, p^{7} + 1474759426\, p^{103}\, q^{26} + 262747094738\, p^{67}\, q^{35} + 3145694033226\, p^{68}\, q^{44}$$
$$+ 20609270828709\, p^{69}\, q^{53} + 8170652392046\, p^{116}\, q^{55} + 78458742\, p^{65}\, q^{17} + 993\, p^{15}\, q^{7} + 3090\, p^{15}\, q^{9} + 1797\, p^{15}\, q^{8}$$
$$+ 743414623215789\, p^{78}\, q^{82} + 911937165990072\, p^{83}\, q^{81} + 788444688041884\, p^{79}\, q^{82} + 629108452814737\, p^{75}\, q^{83}$$
$$+ 942196999698\, p^{113}\, q^{45} + 10554171026\, q^{55}\, p^{28} + 621159465\, p^{57}\, q^{21} + 2673849362\, p^{58}\, q^{24} + 9292987796679\, p^{101}\, q^{49}$$
$$+ 2701301372703\, p^{100}\, q^{44} + 17321608927652\, p^{102}\, q^{52} + 126\, q^{88}\, p^{8} + 904\, q^{89}\, p^{9} + 943469\, p^{18}\, q^{22} + 2174863661376\, p^{57}\, q^{47}$$
$$+ 2631234550194\, p^{57}\, q^{48} + 5230860\, p^{92}\, q^{16} + 24233612959\, q^{53}\, p^{31} + p^{6}\, q + 16\, p^{9}\, q^{3} + 5\, p^{8}\, q^{2} + 21008\, p^{102}\, q^{13} + 5\, q^{8}\, p^{2} + q^{7}\, p$$
$$+ 32\, q^{35}\, p^{3} + 2004418139\, q^{54}\, p^{24} + 4528939984\, q^{54}\, p^{26} + 9621265340\, q^{54}\, p^{28} + 6648933258\, q^{54}\, p^{27} + 3037802362\, q^{54}\, p^{25}$$
$$+ 19390427\, p^{27}\, q^{23} + 2714220\, p^{90}\, q^{15} + 14409056736226\, p^{69}\, q^{51} + 356737458650\, p^{67}\, q^{36} + 17285648264374\, p^{69}\, q^{52}$$

$$+ 19652637005479\, p^{89} q^{50} + 26763\, p^{59} q^{8} + 381972401273117\, p^{109} q^{120} + 8727379797\, q^{53} p^{28} + 15661980678\, q^{52} p^{30}$$
$$+ 12421254438\, q^{53} p^{29} + 6049923385\, q^{53} p^{27} + 17454749436\, q^{53} p^{30} + 13734031842\, q^{54} p^{29} + 228059948338124\, p^{94} q^{125}$$
$$+ 118325029743523\, p^{84} q^{126} + 240772075174\, p^{37} q^{58} + 104464768100110\, p^{91} q^{59} + 591406919\, q^{50} p^{22} + 448750330325084\, p^{92} q^{70}$$
$$+ 25392505003\, q^{76} p^{28} + 3644666614333\, p^{88} q^{43} + 1311867513\, q^{88} p^{23} + 722659517\, q^{88} p^{22} + 1286573234155\, q^{149} p^{92}$$
$$+ 656370\, q^{45} p^{11} + 591177\, q^{43} p^{11} + 686017\, q^{46} p^{11} + 51354809119\, p^{144} q^{153} + 33970353428\, p^{145} q^{154} + 13596228628369\, p^{137} q^{126}$$
$$+ 182988689724362\, p^{64} q^{79} + 13652028\, q^{49} p^{15} + 276165\, q^{44} p^{10} + 3041205\, q^{46} p^{13} + 402592466841687\, p^{92} q^{69} + 6742676\, q^{48} p^{14}$$
$$+ 394895284\, p^{78} q^{20} + 857841922272\, p^{87} q^{38} + 21\, p^{11} q^{3} + 6\, p^{10} q^{2} + 1211969265\, q^{89} p^{23} + 3437542688\, q^{90} p^{25} + 5811331240\, q^{90} p^{26}$$
$$+ 664324380\, q^{89} p^{22} + 150438\, p^{13} q^{23} + 2447388708\, q^{74} p^{23} + 6576278899\, q^{75} p^{25} + 10521289245\, q^{75} p^{26} + 1435932353\, q^{74} p^{22}$$
$$+ 1040\, q^{39} p^{5} + 4760901478929\, p^{88} q^{44} + 138813136700\, p^{153} q^{137} + 44055\, p^{11} q^{22} + 10532847\, q^{128} p^{27} + 102207433\, q^{53} p^{18}$$
$$+ 164075152\, q^{52} p^{19} + 273094837\, q^{52} p^{20} + 1895587\, q^{103} p^{17} + 285039411114123\, p^{91} q^{66} + 647889605\, q^{51} p^{22} + 109980774942\, p^{85} q^{32}$$
$$+ 142298849656\, q^{117} p^{41} + 3141750598\, p^{112} q^{30} + 516159504347\, p^{119} q^{46} + 109606\, q^{43} p^{9} + 991420539\, q^{166} p^{93} + 232915084\, q^{166} p^{83}$$
$$+ 326179791\, q^{166} p^{85} + 516445549\, q^{166} p^{88} + 75703542936835\, p^{90} q^{57} + 136108761\, q^{72} p^{18} + 467032076\, q^{73} p^{20} + 9540971227\, p^{114} q^{33}$$
$$+ 782343187002\, p^{120} q^{48} + 217830285683\, q^{57} p^{37} + 54650151\, q^{52} p^{17} + 96056802\, q^{52} p^{18} + 59728767274633\, q^{93} p^{56}$$
$$+ 283258325490502\, p^{120} q^{85} + 624549\, q^{44} p^{11} + 550972028\, q^{169} p^{135} + 293565169\, q^{170} p^{137} + 419\, p^{14} q^{6} + 168\, p^{13} q^{5} + 73\, p^{13} q^{4}$$
$$+ 52242673941178\, p^{135} q^{108} + 2881218\, q^{82} p^{14} + 11745215295948\, p^{61} q^{54} + 15283766767731\, p^{62} q^{55} + 2761820472899\, p^{61} q^{46}$$
$$+ 3695121011\, q^{119} p^{33} + 1581856088\, q^{165} p^{92} + 795718238\, q^{169} p^{127} + 746284038\, q^{169} p^{129} + 136468899554540\, p^{119} q^{75}$$
$$+ 638043817572\, p^{152} q^{123} + 13774\, q^{44} p^{7} + 185854035800448\, p^{127} q^{97} + 166588922358698\, p^{127} q^{93} + 232962604916\, p^{85} q^{34}$$
$$+ 9034327876\, p^{82} q^{26} + 60668632564\, q^{53} p^{34} + 1374814587\, p^{168} q^{114} + 1376696260697\, q^{149} p^{93} + 1139954152249\, q^{129} p^{56}$$
$$+ 15753447340507\, p^{89} q^{49} + 849627569\, q^{72} p^{21} + 1111457032\, p^{166} q^{94} + 6649455120\, q^{73} p^{25} + 1473285320\, q^{72} p^{22}$$
$$+ 2490205321\, q^{72} p^{23} + 170976598\, q^{118} p^{27} + p^{7} q + 476437834\, q^{72} p^{20} + 15264061\, q^{51} p^{15} + 5720782777262\, p^{59} q^{51}$$
$$+ 6771282600632\, p^{59} q^{52} + 112979\, p^{44} q^{9} + 41343\, p^{43} q^{8} + 110387\, p^{55} q^{9} + 75606340\, q^{130} p^{31} + 108958\, q^{27} p^{11} + 4860409030\, p^{106} q^{29}$$
$$+ 584135292419\, p^{112} q^{43} + 7248695987422\, p^{57} q^{54} + 9574078519362\, p^{58} q^{55} + 288168807886393\, q^{79} p^{68} + 71113087\, q^{71} p^{17}$$
$$+ 12101941948710\, p^{78} q^{48} + 5957928753896\, p^{77} q^{45} + 1082944\, p^{17} q^{24} + 26215960696844\, p^{136} q^{120} + 165148840176037\, p^{128} q^{105}$$
$$+ 11938632112576\, p^{123} q^{62} + 90191571639005\, p^{125} q^{79} + 1033412444807\, p^{120} q^{49} + 1403174736\, q^{165} p^{91} + 115867\, q^{45} p^{9}$$

$$+ 42376\, q^{45}\, p^{8} + 74795511263143\, p^{124}\, q^{126} + 119\, q^{71}\, p^{6} + 6668977590\, p^{88}\, q^{26} + 1726765961945\, p^{93}\, q^{41} + 1174877632821306\, p^{99}\, q^{84}$$
$$+ 182606366631\, p^{91}\, q^{34} + 903702013\, p^{85}\, q^{22} + 1055869597148258\, p^{99}\, q^{82} + 168857083\, p^{105}\, q^{23} + 3\, q^{107}\, p^{10} + 7\, q^{106}\, p^{10}$$
$$+ 630462042714252\, p^{74}\, q^{86} + 1133320\, p^{16}\, q^{26} + 1374727\, p^{17}\, q^{25} + 832593883585399\, p^{82}\, q^{80} + 587693\, p^{15}\, q^{25} + 24132585293\, q^{70}\, p^{28}$$
$$+ 79183415235\, q^{71}\, p^{31} + 36061201628\, q^{70}\, p^{29} + 53082909786\, q^{70}\, p^{30} + 15893818337\, q^{70}\, p^{27} + 257\, p^{29}\, q^{4} + 80838909\, p^{82}\, q^{18}$$
$$+ 525575407\, p^{84}\, q^{21} + 118974794\, p^{107}\, q^{23} + 665004661079\, q^{76}\, p^{37} + 6\, q^{11}\, p^{2} + 1395325274644\, q^{91}\, p^{40} + 2518957995984\, q^{91}\, p^{42}$$
$$+ 900327223547\, q^{76}\, p^{38} + 486084967878\, q^{76}\, p^{36} + 81939173149\, q^{97}\, p^{33} + 54183752387\, q^{97}\, p^{32} + 76730747440891\, q^{103}\, p^{60}$$
$$+ 64141286659\, p^{60}\, q^{32} + 9909892795\, p^{59}\, q^{27} + 45905287886\, p^{60}\, q^{31} + 897052606442\, p^{61}\, q^{41} + 120998080476\, p^{60}\, q^{34}$$
$$+ 163532291059\, p^{60}\, q^{35} + 6444872237184\, p^{145}\, q^{108} + 57006012584\, p^{136}\, q^{51} + 1350790\, p^{116}\, q^{20} + 926536320977\, p^{146}\, q^{135}$$
$$+ 5957928753896\, p^{145}\, q^{113} + 216165973\, p^{99}\, q^{22} + 363687312\, p^{100}\, q^{23} + 908680\, p^{16}\, q^{25} + 96430733976300\, p^{88}\, q^{129}$$
$$+ 351442099512\, q^{76}\, p^{35} + 674968031037\, q^{77}\, p^{37} + 814736044817\, q^{54}\, p^{44} + 63\, q^{12}\, p^{4} + 251201131438\, q^{76}\, p^{34} + 177404988316\, q^{76}\, p^{33}$$
$$+ 3898886248\, q^{67}\, p^{24} + 49851070022\, q^{68}\, p^{30} + 78458742\, q^{65}\, p^{17} + 3616059\, q^{67}\, p^{13} + 18049508\, q^{68}\, p^{15} + 4049142435647\, q^{130}\, p^{63}$$
$$+ 4870560774339\, q^{130}\, p^{64} + 5822589135885\, q^{130}\, p^{65} + 8808058\, q^{80}\, p^{15} + 528605143460\, q^{54}\, p^{42} + 658637352716\, q^{54}\, p^{43}$$
$$+ 421088725348\, q^{54}\, p^{41} + 652638082612602\, p^{98}\, q^{75} + 2\, q^{33}\, p^{2} + 322866\, p^{52}\, q^{10} + 191465119309\, p^{67}\, q^{34} + 1513204564904\, p^{68}\, q^{41}$$
$$+ 303271054945616\, p^{95}\, q^{123} + 156158439755796\, p^{82}\, q^{123} + 146923297033625\, p^{83}\, q^{124} + 45156107638\, q^{53}\, p^{33}$$
$$+ 81985087861602\, p^{58}\, q^{80} + 19632098\, q^{64}\, p^{15} + 273911438\, q^{66}\, p^{19} + 3345065103469\, q^{130}\, p^{62} + 2238635922848\, q^{130}\, p^{60}$$
$$+ 2745588744364\, q^{130}\, p^{61} + 1812889380432\, q^{131}\, p^{60} + 244550174045528\, p^{65}\, q^{93} + 12305216\, p^{107}\, q^{20} + 78131033\, p^{63}\, q^{17}$$
$$+ 833165989\, p^{65}\, q^{21} + 40083224\, p^{62}\, q^{16} + 3806898460\, p^{66}\, q^{24} + 269107500\, p^{64}\, q^{19} + 744171168224\, p^{70}\, q^{38} + 2071312190\, p^{37}\, q^{31}$$
$$+ 4532930352\, p^{37}\, q^{34} + 5781786156\, p^{37}\, q^{35} + 9081292267\, p^{38}\, q^{36} + 1565377067\, p^{37}\, q^{30} + 2714119653\, p^{37}\, q^{32} + 1170991284\, p^{37}\, q^{29}$$
$$+ 9621265340\, p^{54}\, q^{28} + 1456545977144\, p^{57}\, q^{45} + 675242386063\, p^{56}\, q^{42} + 255366232103\, p^{56}\, q^{38} + 844386115347\, p^{56}\, q^{43}$$
$$+ 196104711559\, p^{56}\, q^{37} + 329660681303\, p^{56}\, q^{39} + 274471117\, q^{67}\, p^{19} + 491986258\, q^{67}\, p^{20} + 856800898\, q^{67}\, p^{21} + 950\, q^{72}\, p^{7}$$
$$+ 879709583\, q^{166}\, p^{92} + 272391992\, q^{167}\, p^{88} + 681540984\, q^{166}\, p^{90} + 776417958\, q^{166}\, p^{91} + 256209464089\, q^{126}\, p^{48} + 1327\, q^{110}\, p^{13}$$
$$+ 37036\, q^{117}\, p^{17} + 267349\, q^{118}\, p^{19} + 4865\, q^{115}\, p^{15} + 123801\, q^{117}\, p^{18} + 15568166371\, q^{69}\, p^{27} + 19361269\, q^{65}\, p^{15} + 1496\, q^{17}\, p^{7} + 8\, q^{14}\, p^{2}$$
$$+ 21\, q^{11}\, p^{3} + 6\, q^{10}\, p^{2} + 60680984\, p^{75}\, q^{17} + 22123506132\, p^{83}\, q^{28} + 2088673419\, p^{80}\, q^{23} + 76444820413\, p^{84}\, q^{31} + 9613036\, q^{79}\, p^{15}$$
$$+ 3654211993\, q^{114}\, p^{31} + 232839677\, q^{50}\, p^{20} + 141279370\, q^{50}\, p^{19} + 5725636445\, p^{81}\, q^{25} + 34334394363\, p^{83}\, q^{29} + 3427169519\, p^{81}\, q^{24}$$

$$+ 17330599577\, p^{153} q^{150} + 115092048\, q^{114} p^{25} + 43990771\, q^{112} p^{23} + 270644249\, q^{113} p^{26} + 142365117\, q^{113} p^{25} + 75191\, p^{136} q^{25}$$
$$+ 19354236525\, q^{54} p^{30} + 2238\, q^{53} p^{6} + 303\, q^{54} p^{5} + 1847\, q^{55} p^{6} + 52\, q^{50} p^{4} + 2002614346\, q^{81} p^{23} + 1051604\, q^{82} p^{13} + 6563920\, q^{83} p^{15}$$
$$+ 51554191115\, q^{69} p^{30} + 33261339578\, q^{53} p^{32} + 23567487281\, q^{69} p^{28} + 35117119469\, q^{69} p^{29} + 2444960166\, q^{68} p^{23}$$
$$+ 275106038671854\, p^{68} q^{78} + 453466\, q^{80} p^{12} + 41123767540\, p^{55} q^{32} + 6648933258\, p^{54} q^{27} + 29806917389\, p^{55} q^{31}$$
$$+ 535912518260\, p^{56} q^{41} + 75748466746\, p^{55} q^{34} + 101229140347\, p^{55} q^{35} + 445725497\, q^{166} p^{87} + 382441904\, q^{166} p^{86}$$
$$+ 276497519\, q^{166} p^{84} + 594951340\, q^{166} p^{89} + 15182469981\, q^{68} p^{27} + 6331592915\, q^{68} p^{25} + 114\, q^{16} p^{4} + 281\, q^{16} p^{5} + 950\, p^{72} q^{7}$$
$$+ 80926088\, p^{29} q^{26} + p^{17} q + 3211339\, q^{81} p^{14} + 98\, q^{15} p^{4} + 6102813996\, p^{79} q^{25} + 45211517093154\, p^{86} q^{54} + 3680957818\, p^{79} q^{24}$$
$$+ 36279860348\, p^{81} q^{29} + 23518056478\, p^{81} q^{28} + 77219494647884\, p^{87} q^{57} + 240\, q^{15} p^{5} + 617\, q^{16} p^{6} + 4045\, p^{37} q^{6}$$
$$+ 56109664051\, p^{55} q^{33} + 118882310543\, p^{82} q^{32} + 91255257269068\, p^{87} q^{58} + 80581629151\, p^{82} q^{31} + 34755\, q^{88} p^{11}$$
$$+ 399838487\, q^{111} p^{26} + 727215018\, q^{111} p^{27} + 213135174\, q^{111} p^{25} + 3565307\, q^{49} p^{13} + 737741\, q^{48} p^{11} + 42562\, q^{46} p^{8}$$
$$+ 143693060828772\, q^{121} p^{78} + 43538052202\, p^{153} q^{145} + 36684549048\, p^{153} q^{146} + 93061\, q^{121} p^{19} + 532481\, q^{122} p^{21} + 14239\, q^{116} p^{16}$$
$$+ 29463811\, q^{131} p^{30} + 4526944206\, q^{118} p^{33} + 22120512\, q^{115} p^{23} + 1323689845129854\, p^{93} q^{85} + 25153055\, p^{49} q^{16} + 4045\, q^{37} p^{6}$$
$$+ 323394100643\, p^{86} q^{35} + 1096\, q^{36} p^{5} + 807114100030750\, p^{94} q^{113} + 649264951545513\, p^{115} q^{106} + 875445862753711\, p^{109} q^{108}$$
$$+ 68456400847066\, p^{61} q^{69} + 50773979648\, p^{84} q^{30} + 286353406770869\, p^{88} q^{66} + 2241602764\, p^{78} q^{23} + 4982924133601\, p^{85} q^{44}$$
$$+ 2765462110028\, p^{88} q^{42} + 914534929313\, p^{84} q^{38} + 125265829035793\, p^{87} q^{60} + 37377585431943\, p^{86} q^{53} + 2445\, p^{52} q^{6}$$
$$+ 49050025188071\, p^{58} q^{70} + 6215117434798\, p^{46} q^{72} + 44584460970\, q^{115} p^{37} + 15972940604205\, q^{81} p^{49} + 495184652115\, p^{39} q^{60}$$
$$+ 1037019601429\, p^{42} q^{60} + 817153428409\, p^{41} q^{60} + 415474843370\, p^{38} q^{61} + 638760573971\, p^{40} q^{60} + 218865696935957\, p^{116} q^{122}$$
$$+ 239886699219\, q^{98} p^{36} + 6340763\, p^{24} q^{22} + 50954619982650\, p^{133} q^{89} + 26283999\, q^{86} p^{17} + 2038604\, p^{18} q^{25}$$
$$+ 1321436053520106\, p^{85} q^{94} + 820588055031726\, p^{77} q^{95} + 9900501597447\, p^{89} q^{47} + 104912\, p^{16} q^{17} + 16459506\, q^{113} p^{22}$$
$$+ 2782056474\, q^{118} p^{32} + 1353331116\, q^{119} p^{31} + 45509\, q^{135} p^{24} + 75191\, q^{136} p^{25} + 544975264927766\, p^{93} q^{72}$$
$$+ 355110391573037\, p^{93} q^{68} + 1630294\, q^{48} p^{12} + 20918687\, q^{132} p^{30} + q^{9} p + 1408851\, q^{119} p^{21} + 52569295555417\, p^{61} q^{66}$$
$$+ 65264876179796\, p^{62} q^{67} + 903702013\, q^{85} p^{22} + 4514232222\, q^{86} p^{25} + 1302677122569968\, p^{100} q^{87} + 140879524\, p^{84} q^{19}$$
$$+ 2094461619530\, p^{95} q^{42} + 843753690313168\, p^{100} q^{79} + q^{12} p + 1064\, q^{38} p^{5} + 460624385643\, p^{123} q^{48} + 1215021266\, q^{117} p^{30}$$
$$+ 1415815050935950\, p^{95} q^{87} + 23723623547\, p^{89} q^{159} + 28833458977486\, p^{52} q^{80} + 71486059969898\, q^{93} p^{57} + 9020472346\, p^{65} q^{26}$$

$$+ 2235938668\, p^{64}\, q^{23} + 31587863978\, p^{66}\, q^{29} + 971\, p^{41}\, q^{5} + 1261\, q^{80}\, p^{8} + 151931760426\, q^{124}\, p^{45} + 1198\, p^{88}\, q^{9} + 7313728986\, p^{154}\, q^{153}$$
$$+ 1154\, q^{59}\, p^{6} + 11428249516\, p^{153}\, q^{152} + 175\, p^{20}\, q^{4} + 44\, p^{18}\, q^{3} + 11098\, p^{25}\, q^{8} + 193966\, p^{27}\, q^{12} + 50331\, p^{26}\, q^{10}$$
$$+ 53965792027336\, q^{103}\, p^{58} + 3253009\, p^{29}\, q^{17} + 19700226\, p^{30}\, q^{21} + 10934770\, p^{29}\, q^{20} + 7436547\, p^{29}\, q^{19} + 28214082\, p^{30}\, q^{22}$$
$$+ 665331\, p^{28}\, q^{14} + 28195004157\, q^{156}\, p^{80} + 7222274974\, q^{156}\, p^{72} + 3126758226\, q^{156}\, p^{68} + 10717136032685\, q^{120}\, p^{59}$$
$$+ 15716574714083\, q^{120}\, p^{61} + 22480282993266\, q^{120}\, p^{63} + 4215\, q^{19}\, p^{8} + 10939316883019\, q^{133}\, p^{73} + 422022274096\, p^{56}\, q^{40}$$
$$+ 31868594\, q^{155}\, p^{51} + 3\, q^{48}\, p^{3} + 47691947696343\, p^{129}\, q^{125} + 214781780199855\, p^{110}\, q^{125} + 36410\, q^{100}\, p^{13} + 298\, p^{67}\, q^{6} + 69932\, q^{35}\, p^{9}$$
$$+ 8964\, q^{55}\, p^{7} + 2047\, q^{54}\, p^{6} + 121794\, q^{151}\, p^{36} + 488154849\, q^{162}\, p^{74} + 26567449\, p^{27}\, q^{24} + 192663156833970\, p^{83}\, q^{122}$$
$$+ 101210833438792\, p^{126}\, q^{82} + 277605160282\, p^{119}\, q^{44} + 2787770550269\, p^{56}\, q^{49} + 194947757\, p^{108}\, q^{24} + 5354011426537\, q^{119}\, p^{55}$$
$$+ 2644637537569\, q^{119}\, p^{52} + 6673445731131\, q^{119}\, p^{56} + 3371211780492\, q^{119}\, p^{53} + 4264384661452\, q^{119}\, p^{54} + 5742937895036\, q^{120}\, p^{56}$$
$$+ 8259584220972\, q^{119}\, p^{57} + 3325251950955\, p^{56}\, q^{50} + 52\, p^{4}\, q^{11} + 271\, p^{6}\, q^{12} + 112\, p^{5}\, q^{11} + 46627024\, p^{28}\, q^{25} + 5\, q^{80}\, p^{6} + 971\, p^{9}\, q^{11}$$
$$+ 22206182233\, p^{121}\, q^{38} + 449\, p^{8}\, q^{10} + 2782056474\, p^{118}\, q^{32} + 2\, q^{49}\, p^{3} + 1265275011671933\, p^{101}\, q^{87} + 1978392231818\, p^{96}\, q^{42}$$
$$+ 814137641740373\, p^{101}\, q^{79} + 7274994276\, q^{103}\, p^{29} + 1401309436\, p^{55}\, q^{23} + 166407\, q^{36}\, p^{10} + 75502\, q^{36}\, p^{9} + 180883\, q^{37}\, p^{10}$$
$$+ 1157730036444255\, p^{107}\, q^{102} + 493256837\, p^{68}\, q^{20} + 4252164\, p^{20}\, q^{25} + 148544882534533\, p^{94}\, q^{128} + 143481831410273\, p^{93}\, q^{128}$$
$$+ 30924394089662\, p^{135}\, q^{120} + q^{74}\, p^{5} + 76523131873093\, p^{133}\, q^{101} + 38847612798396\, p^{134}\, q^{119} + 217183977079835\, p^{92}\, q^{64}$$
$$+ 51983100031430\, p^{91}\, q^{55} + 23387979079751\, p^{91}\, q^{51} + 7568551776008\, p^{90}\, q^{46} + 39836885\, q^{65}\, p^{16} + 89097404552766\, p^{131}\, q^{112}$$
$$+ 5932975015292\, p^{126}\, q^{61} + 36288421899139\, p^{128}\, q^{75} + 4\, q^{47}\, p^{3} + 778606742\, q^{169}\, p^{114} + 863995917\, q^{169}\, p^{120} + 279337225\, p^{27}\, q^{33}$$
$$+ 675731300\, p^{31}\, q^{32} + 519976215\, p^{30}\, q^{32} + 625815588\, p^{29}\, q^{34} + 658693848\, p^{30}\, q^{33} + 375750578\, p^{28}\, q^{33} + 500048910\, p^{29}\, q^{33}$$
$$+ 6374170\, q^{110}\, p^{20} + 89408394\, q^{112}\, p^{24} + 22493\, p^{25}\, q^{9} + 92470\, p^{26}\, q^{11} + 27305019957657\, p^{78}\, q^{52} + 22503406601084\, p^{78}\, q^{51}$$
$$+ 62403315190412\, p^{129}\, q^{82} + 140013012588\, p^{121}\, q^{43} + 161890511843\, p^{122}\, q^{44} + 1048187800690\, p^{56}\, q^{44} + 329660681303\, p^{39}\, q^{56}$$
$$+ 467695448448\, p^{74}\, q^{36} + 9540971227\, q^{114}\, p^{33} + 29729987829\, q^{115}\, p^{36} + 5963814758\, q^{114}\, p^{32} + 12270\, p^{12}\, q^{15} + 20726492\, q^{112}\, p^{22}$$
$$+ 2602598\, q^{110}\, p^{19} + 44719495392860\, q^{134}\, p^{90} + 40961807669605\, q^{135}\, p^{92} + 725462134\, q^{169}\, p^{112} + 6457935139645\, p^{84}\, q^{45}$$
$$+ 15743110246\, p^{79}\, q^{27} + 492768551183\, p^{82}\, q^{36} + 59423136935084\, p^{128}\, q^{124} + 247689\, q^{151}\, p^{37} + 1922832142694\, q^{56}\, p^{47}$$
$$+ 64919360126712\, p^{86}\, q^{56} + 13123116793616\, p^{85}\, q^{48} + 66310758\, p^{73}\, q^{17} + 1393199186676\, q^{55}\, p^{46} + 96116037\, p^{31}\, q^{25}$$
$$+ 176850666\, p^{31}\, q^{27} + 298980494\, p^{32}\, q^{28} + 113671507178\, q^{71}\, p^{32} + 64038815814527\, p^{134}\, q^{106} + 3826\, q^{44}\, p^{6} + 39\, q^{33}\, p^{3} + 35\, q^{34}\, p^{3}$$

$$+ 41997\, q^{44}\, p^{8} + 1435932353\, p^{168}\, q^{116} + 621159465\, p^{169}\, q^{133} + 284425490734663\, p^{87}\, q^{66} + 2306694498\, p^{77}\, q^{23}$$
$$+ 5016877469974\, p^{84}\, q^{44} + 13655\, q^{45}\, p^{7} + 281102\, p^{59}\, q^{10} + 101127393\, p^{21}\, q^{39} + 80818381\, q^{135}\, p^{34} + 655345225978\, p^{145}\, q^{139}$$
$$+ 2936279603888\, p^{126}\, q^{145} + 2461753654872\, p^{128}\, q^{145} + 2788534009768\, p^{120}\, q^{147} + 2586974576405\, p^{116}\, q^{148}$$
$$+ 741140731288\, q^{131}\, p^{56} + 26420540582494\, p^{138}\, q^{96} + 36547014881736\, p^{136}\, q^{114} + 29802322324278\, p^{136}\, q^{118}$$
$$+ 40714652289353\, p^{136}\, q^{111} + 8764126948739\, p^{132}\, q^{70} + 1344816795\, q^{138}\, p^{42} + 2984341515\, q^{138}\, p^{44} + 4551552981\, q^{139}\, p^{46}$$
$$+ 4350827551\, q^{138}\, p^{45} + 2018356506\, q^{138}\, p^{43} + 926359680196\, p^{83}\, q^{38} + 124649535149140\, p^{86}\, q^{60} + 37330915179029\, p^{85}\, q^{53}$$
$$+ 6258995982\, p^{78}\, q^{25} + 77087878111525\, p^{86}\, q^{57} + 45101280561738\, p^{85}\, q^{54} + 1285149931605957\, p^{99}\, q^{86} + 1930323802312\, p^{114}\, q^{48}$$
$$+ 16439231104870\, p^{95}\, q^{50} + 353880\, p^{72}\, q^{11} + 596292738790358\, p^{98}\, q^{74} + 277418129584755\, p^{98}\, q^{67} + 542289873704375\, p^{98}\, q^{73}$$
$$+ 1424452291764831\, p^{99}\, q^{89} + 711036641515559\, p^{98}\, q^{76} + 771149641300457\, p^{98}\, q^{77} + 1461875426356366\, p^{100}\, q^{91}$$
$$+ 994505650284426\, p^{99}\, q^{81} + 778606742\, p^{76}\, q^{21} + 1336244453\, p^{77}\, q^{22} + 3789429890\, p^{78}\, q^{24} + 53728885836646\, q^{135}\, p^{106}$$
$$+ 34467333631417\, q^{134}\, p^{86} + 37030237698608\, q^{134}\, p^{87} + 1335600361680849\, p^{99}\, q^{87} + 152137965\, p^{83}\, q^{19} + 64919360126712\, q^{134}\, p^{104}$$
$$+ 2207659105418\, p^{94}\, q^{42} + 870783850435737\, p^{99}\, q^{79} + 1067\, p^{32}\, q^{5} + 64227493950117\, p^{134}\, q^{101} + 33084672012033\, p^{135}\, q^{119}$$
$$+ 217400\, p^{64}\, q^{10} + 15893818337\, p^{163}\, q^{120} + 19453910\, p^{134}\, q^{31} + 283437290729\, p^{152}\, q^{86} + 227824936994\, p^{152}\, q^{84} + 358193506\, q^{120}\, p^{29}$$
$$+ 37051426536\, p^{80}\, q^{29} + 127345586\, p^{74}\, q^{18} + 24089732200\, p^{80}\, q^{28} + 1151703073194671\, p^{93}\, q^{82} + 610242\, p^{86}\, q^{13} + 30120442\, q^{52}\, p^{16}$$
$$+ 358386150716\, p^{92}\, q^{36} + 38388322422\, p^{90}\, q^{30} + 124514443633\, p^{91}\, q^{33} + 1274229659450\, p^{93}\, q^{40} + 930591717113\, p^{93}\, q^{39}$$
$$+ 506633564097\, p^{92}\, q^{37} + 408191128\, p^{163}\, q^{76} + 683038952\, p^{164}\, q^{82} + 54846714\, p^{131}\, q^{31} + 58449907\, q^{107}\, p^{22} + 4302943\, q^{78}\, p^{14}$$
$$+ 73\, q^{13}\, p^{4} + 137\, q^{12}\, p^{5} + 335672576199476\, p^{120}\, q^{88} + 400050569858074\, p^{121}\, q^{103} + 42323\, p^{79}\, q^{10} + 2\, q^{73}\, p^{5} + 1646789\, q^{78}\, p^{13}$$
$$+ 944463692257\, p^{125}\, q^{52} + 66816285104846\, p^{130}\, q^{85} + 57152416488027\, p^{130}\, q^{83} + 1556911177511\, p^{125}\, q^{54} + 926359680196\, q^{83}\, p^{38}$$
$$+ 492768551183\, q^{82}\, p^{36} + 682265701323\, q^{82}\, p^{37} + 1418567\, q^{127}\, p^{24} + 14913029853187\, p^{137}\, q^{125} + 11313\, q^{120}\, p^{17} + 339793\, p^{21}\, q^{16}$$
$$+ 24\, q^{12}\, p^{3} + 943469\, p^{22}\, q^{18} + 70182416558\, p^{153}\, q^{142} + 7\, p^{12}\, q^{2} + 14685890\, q^{110}\, p^{21} + 42466\, q^{47}\, p^{8} + 56168862734290\, p^{134}\, q^{95}$$
$$+ 48106450\, p^{50}\, q^{17} + 252796085\, p^{51}\, q^{20} + 486\, p^{7}\, q^{12} + 1470\, p^{10}\, q^{11} + 688\, p^{9}\, q^{10} + 1694571\, q^{49}\, p^{12} + 18\, p^{10}\, q^{3} + 5\, p^{9}\, q^{2}$$
$$+ 1489184687\, p^{116}\, q^{30} + 5443905105059\, p^{56}\, q^{53} + 34268827\, p^{24}\, q^{28} + 2084879\, p^{29}\, q^{16} + 173564304596495\, p^{74}\, q^{116}$$
$$+ 742669670710\, q^{150}\, p^{89} + 807186505691\, q^{150}\, p^{90} + 873280808301\, q^{150}\, p^{91} + 940491526332\, q^{150}\, p^{92} + 5986945451195\, p^{61}\, q^{50}$$
$$+ 4526944206\, p^{118}\, q^{33} + 13531197232\, p^{58}\, q^{28} + 2238149212872\, p^{61}\, q^{45} + 1037019601429\, p^{60}\, q^{42} + 380590631186\, p^{60}\, q^{38}$$

$$+ 1305877271342\, p^{60} q^{43} + 289912552360\, p^{60} q^{37} + 495184652115\, p^{60} q^{39} + 3766738\, q^{66} p^{13} + 88013747989772\, p^{132} q^{107}$$
$$+ 107190438528083\, p^{131} q^{102} + 133555518633\, q^{123} p^{44} + 4768347\, p^{23} q^{22} + 827\, p^{12} q^{8} + 271\, p^{12} q^{6} + 52\, p^{11} q^{4} + 112\, p^{11} q^{5}$$
$$+ 6342379198241\, p^{56} q^{54} + 8409616989278\, p^{57} q^{55} + 21922436684\, q^{123} p^{39} + 59\, q^{90} p^{8} + 30272\, q^{110} p^{15} + 35942232720\, p^{31} q^{57}$$
$$+ 1602274208102399\, p^{93} q^{94} + 19449\, q^{149} p^{32} + 486\, p^{12} q^{7} + 1331\, p^{12} q^{9} + 2835\, p^{13} q^{10} + 93728710982\, p^{153} q^{140}$$
$$+ 1413238211\, p^{167} q^{103} + 586405019\, p^{169} q^{134} + 48860761061992\, p^{127} q^{127} + 54500819265995\, p^{126} q^{127} + 213135174\, q^{165} p^{79}$$
$$+ 676437474371830\, q^{105} p^{79} + 1343095\, p^{22} q^{19} + 651476\, p^{22} q^{17} + 3475176\, p^{23} q^{21} + 1882490\, p^{22} q^{20} + 5443905105059\, p^{53} q^{56}$$
$$+ 4055234701816\, p^{52} q^{55} + 3005764\, p^{31} q^{16} + 6333\, q^{27} p^{7} + 4677460862789\, q^{77} p^{44} + 6103512086580\, q^{78} p^{45}$$
$$+ 1229456084806\, q^{77} p^{39} + 2154472184165\, q^{77} p^{41} + 3642827282874\, q^{77} p^{43} + 5957928753896\, q^{77} p^{45} + 8174\, p^{100} q^{12} + q^{91} p^{7}$$
$$+ 99355973\, q^{172} p^{111} + 246\, p^{182} q^{104} + 5\, p^{175} q^{64} + 103\, p^{178} q^{79} + 233\, p^{186} q^{165} + 1006\, p^{185} q^{150} + 1007739\, p^{19} q^{21} + 21253161\, q^{155} p^{50}$$
$$+ 3118\, q^{143} p^{26} + 37151\, q^{144} p^{29} + 370807331657\, q^{97} p^{37} + 16110538206324\, p^{103} q^{52} + 27053524032804\, q^{134} p^{83}$$
$$+ 1922832142694\, p^{56} q^{47} + 4\, q^{29} p^{2} + 608036944186510\, p^{79} q^{77} + 679871398302640\, p^{80} q^{78} + 456606315858467\, p^{79} q^{73}$$
$$+ 569795604892621\, p^{79} q^{76} + 493789421368210\, p^{79} q^{74} + 531612361345532\, p^{79} q^{75} + 53510797603690\, p^{134} q^{113} + 105701\, q^{42} p^{9}$$
$$+ 259137286213931\, p^{79} q^{67} + 385147285338415\, p^{79} q^{71} + 420316938063816\, p^{79} q^{72} + 288168807886393\, p^{79} q^{68} + 148826574\, q^{66} p^{18}$$
$$+ 22915092410\, q^{68} p^{28} + 124017965823\, q^{145} p^{65} + 318922587159372\, p^{79} q^{69} + 351293828537728\, p^{79} q^{70} + 603953109340463\, p^{92} q^{73}$$
$$+ 2322656758722\, p^{56} q^{48} + 4012\, q^{42} p^{6} + 54125473301742\, q^{134} p^{94} + 3475176\, p^{21} q^{23} + 1580\, q^{79} p^{8} + 779606220785253\, p^{92} q^{76}$$
$$+ 486352422804\, q^{98} p^{38} + 259406548586\, q^{97} p^{36} + 8\, p^{21} q^{2} + 83389566\, p^{28} q^{27} + 142970008\, p^{29} q^{28} + 18853970466244\, q^{120} p^{62}$$
$$+ 36786488947172\, q^{120} p^{66} + 26644833286345\, q^{120} p^{64} + 2079071694200\, p^{88} q^{41} + 1141272887447\, p^{88} q^{39} + 620278560328\, p^{87} q^{37}$$
$$+ 156072498250\, p^{86} q^{33} + 11639694\, p^{24} q^{24} + 267113\, p^{97} q^{14} + 1132087\, q^{132} p^{26} + 223679\, q^{127} p^{22} + 40512437998085\, p^{66} q^{59}$$
$$+ 1752621\, q^{50} p^{12} + 316756\, q^{49} p^{10} + 3720829\, q^{50} p^{13} + 28776366611931\, p^{135} q^{121} + 1421827860658495\, p^{87} q^{94} + 27836\, q^{101} p^{13}$$
$$+ 749123564645\, q^{133} p^{58} + 937135383142\, q^{133} p^{59} + 2587751017988\, q^{133} p^{64} + 2140182525423\, q^{133} p^{63} + 1435587829659\, q^{133} p^{61}$$
$$+ 1758640841352\, q^{133} p^{62} + 287050474246040\, p^{75} q^{112} + 562677979030878\, p^{82} q^{111} + 2835\, p^{10} q^{13} + 428126440\, q^{76} p^{20}$$
$$+ 227856220\, q^{76} p^{19} + 412118143\, q^{77} p^{20} + 32415284461\, q^{147} p^{62} + 1132121660\, q^{144} p^{47} + 12087507272\, q^{149} p^{61}$$
$$+ 486610872515\, q^{154} p^{107} + 665004661079\, q^{153} p^{114} + 16561055216261\, q^{110} p^{55} + 14807061409465\, q^{109} p^{54}$$
$$+ 105804476753655\, q^{90} p^{59} + 144522537077605\, q^{90} p^{61} + 193105517420668\, q^{90} p^{63} + 167509497107248\, q^{90} p^{62}$$

$$+ 221433152999495\, q^{90} p^{64} + 252593551512450\, q^{90} p^{65} + 1231389930489569\, p^{99} q^{85} + 250393943744\, p^{92} q^{35} + 1515249004\, p^{167} q^{104}$$
$$+ 49842647013\, p^{32} q^{57} + 101794250297\, p^{34} q^{58} + 68340677542\, p^{33} q^{57} + 55819580260\, p^{116} q^{38} + 401807\, p^{95} q^{14} + 5020\, p^{9} q^{17}$$
$$+ 11210570858079\, q^{121} p^{60} + 330095772\, q^{112} p^{26} + 43217464541637\, q^{122} p^{69} + 1143592\, p^{89} q^{14} + 77889931123\, p^{143} q^{60}$$
$$+ 9563601\, p^{94} q^{17} + 2718650909931\, q^{128} p^{59} + 225371671643\, q^{128} p^{49} + 300288656067\, q^{128} p^{50} + 31938511434272\, q^{134} p^{85}$$
$$+ 19342181\, p^{95} q^{18} + 138511629108\, p^{110} q^{38} + 24972\, p^{13} q^{16} + 13019825268604\, p^{130} q^{70} + 426429193\, p^{126} q^{32}$$
$$+ 7380837022296\, p^{141} q^{86} + 2494985033322\, p^{144} q^{130} + 13055457946364\, p^{142} q^{104} + 51280664094422\, p^{134} q^{114}$$
$$+ 57527012157286\, p^{134} q^{111} + 41426399066434\, p^{134} q^{118} + 183572817\, p^{34} q^{25} + 131404006141\, p^{135} q^{53} + 24420551505\, p^{132} q^{45}$$
$$+ 8006113522591\, p^{141} q^{87} + 91860824\, p^{123} q^{28} + 924927990\, p^{127} q^{34} + 544822857665\, p^{137} q^{61} + 247520156123601\, p^{122} q^{114}$$
$$+ 300568080730314\, p^{122} q^{110} + 190146092410069\, p^{122} q^{118} + 322863274886176\, p^{122} q^{108} + 312174377225999\, p^{122} q^{109}$$
$$+ 14975742237\, q^{81} p^{27} + 992039648519207\, p^{108} q^{106} + 509739971307\, p^{147} q^{77} + 964056400478392\, p^{97} q^{111} + 170724533083\, p^{125} q^{46}$$
$$+ 309725\, q^{146} p^{33} + 14037\, q^{144} p^{28} + 796561593573154\, p^{81} q^{80} + 233261870529160\, p^{122} q^{115} + 1201734079751\, p^{151} q^{104} + 10\, p^{43} q^{3}$$
$$+ 1601615\, p^{149} q^{38} + 29\, q^{98} p^{9} + 1181133457023575\, p^{106} q^{103} + 26052\, q^{134} p^{23} + 348301405541054\, p^{68} q^{85} + 45133735294830\, p^{87} q^{54}$$
$$+ 77030477680906\, p^{88} q^{57} + 116338032164\, p^{83} q^{32} + 91131868892217\, p^{88} q^{58} + 287101866897733\, p^{89} q^{66} + 4928469057117\, p^{86} q^{44}$$
$$+ 899043821686\, p^{85} q^{38} + 125363543555168\, p^{88} q^{60} + 37268756057721\, p^{87} q^{53} + 88764\, p^{14} q^{19} + 174877\, p^{15} q^{20} + 21374\, q^{74} p^{9}$$
$$+ 1401458\, p^{20} q^{21} + 451927\, p^{144} q^{32} + 152632533\, p^{51} q^{19} + 706200024\, p^{52} q^{22} + 1299474155\, q^{54} p^{23} + 73832360231420\, p^{125} q^{77}$$
$$+ 64\, p^{6} q^{7} + 17818475\, q^{28} p^{22} + 189024461137140\, p^{127} q^{98} + 161830072265156\, p^{126} q^{89} + 66324965546146\, p^{125} q^{76}$$
$$+ 144662958883778\, p^{126} q^{87} + 318922587159372\, p^{69} q^{79} + 139087378326864\, p^{72} q^{65} + 166454875982744\, p^{73} q^{66}$$
$$+ 74809674407617\, p^{72} q^{60} + 48422419549752\, p^{72} q^{57} + 316477475556882\, p^{67} q^{86} + 75\, q^{107} p^{11} + 6524618883452\, p^{140} q^{82}$$
$$+ 54473442638\, q^{58} p^{32} + 529877776\, p^{134} q^{37} + 1861171\, p^{60} q^{12} + 519269959610714\, p^{72} q^{85} + 698924630170138\, p^{76} q^{84}$$
$$+ 749051179385251\, p^{77} q^{84} + 366665956974018\, p^{71} q^{78} + 579022713415\, p^{37} q^{71} + 9446050810747\, p^{77} q^{47} + 1602113567492\, p^{76} q^{40}$$
$$+ 1206788087827\, p^{76} q^{39} + 30702011535375\, p^{86} q^{52} + 32088771\, q^{110} p^{22} + 280689\, q^{102} p^{15} + 3307470\, q^{109} p^{19}$$
$$+ 170060487248118\, p^{126} q^{90} + 81796463747704\, p^{125} q^{78} + 92971689184289\, p^{126} q^{81} + 135886045960145\, p^{126} q^{86} + 299893\, p^{24} q^{14}$$
$$+ 587693\, p^{25} q^{15} + 1374727\, p^{25} q^{17} + 7753142\, p^{26} q^{21} + 4252164\, p^{25} q^{20} + 2969022\, p^{25} q^{19} + 276413\, q^{26} p^{13} + 35246190329182\, p^{97} q^{54}$$
$$+ 680141753617\, q^{98} p^{39} + 71963710\, q^{141} p^{38} + 4350827551\, q^{145} p^{52} + 181860\, p^{93} q^{13} + 189166515603732\, p^{115} q^{124}$$

$$+ 177838058313651\, p^{116}\, q^{124} + 222438036787310\, p^{109}\, q^{125} + 229398829190152\, p^{108}\, q^{125} + 95392530086\, p^{123}\, q^{43} + 132649\, p^{15}\, q^{19}$$
$$+ 10554171026\, p^{55}\, q^{28} + 1633784359753\, p^{58}\, q^{45} + 757327031285\, p^{57}\, q^{42} + 284238975738\, p^{57}\, q^{38} + 948713153208\, p^{57}\, q^{43}$$
$$+ 217830285683\, p^{57}\, q^{37} + 367663063693\, p^{57}\, q^{39} + 1401309436\, q^{55}\, p^{23} + 515197614\, q^{54}\, p^{21} + 314032737\, q^{54}\, p^{20} + 18\, q^{55}\, p^{4}$$
$$+ 24874291\, p^{28}\, q^{23} + 3942307690209\, p^{56}\, q^{51} + 108141465\, p^{27}\, q^{29} + 8183642\, q^{52}\, p^{14} + 16542420245\, q^{56}\, p^{29} + 776990\, q^{50}\, p^{11}$$
$$+ 49730996\, p^{31}\, q^{23} + 4758695\, p^{17}\, q^{31} + 62703223\, p^{26}\, q^{28} + 11\, p^{57}\, q^{4} + 43666426761564\, p^{136}\, q^{108} + 4646158708359\, p^{56}\, q^{52}$$
$$+ 36539635\, p^{26}\, q^{26} + 1186739\, q^{81}\, p^{13} + 428126440\, p^{76}\, q^{20} + 20393821\, p^{26}\, q^{24} + 1869287686581\, q^{124}\, p^{54} + 1138396693850\, q^{124}\, p^{52}$$
$$+ 81685118615755\, p^{102}\, q^{60} + 96116037\, p^{25}\, q^{31} + 759138\, q^{49}\, p^{11} + 423865595608\, p^{112}\, q^{42} + 1465355011672\, p^{114}\, q^{47} + 18309\, p^{13}\, q^{15}$$
$$+ 353736840280034\, p^{121}\, q^{92} + 96600650204364\, p^{119}\, q^{72} + 3674105743435\, p^{115}\, q^{51} + 41115818617034\, p^{118}\, q^{65} + 721781\, p^{24}\, q^{16}$$
$$+ 36262\, q^{24}\, p^{10} + 1795\, p^{9}\, q^{13} + 178\, p^{40}\, q^{4} + 790854\, p^{75}\, q^{12} + 120214410\, p^{32}\, q^{25} + 223191431\, p^{32}\, q^{27} + 375750578\, p^{33}\, q^{28}$$
$$+ 16155546310\, p^{71}\, q^{27} + 3826\, p^{10}\, q^{14} + 957692901846437\, p^{80}\, q^{98} + 4127533136\, p^{116}\, q^{32} + 32728379192\, p^{119}\, q^{38}$$
$$+ 253388516969\, p^{77}\, q^{34} + 2193265374358\, p^{78}\, q^{41} + 10566512792\, p^{74}\, q^{26} + 177404988316\, p^{76}\, q^{33} + 4100747592\, p^{73}\, q^{24}$$
$$+ 1602274208102399\, p^{94}\, q^{93} + 69697685020\, p^{121}\, q^{41} + 1464618484313\, p^{124}\, q^{53} + 17414290632\, p^{118}\, q^{36} + 2\, p^{33}\, q^{2}$$
$$+ 656198519101188\, p^{74}\, q^{93} + 406593772731788\, p^{90}\, q^{69} + 452385755183961\, p^{90}\, q^{70} + 106716665047480\, p^{89}\, q^{59} + 16880\, p^{20}\, q^{10}$$
$$+ 2156\, p^{19}\, q^{7} + 4215\, p^{19}\, q^{8} + 220025259\, p^{161}\, q^{68} + 685429438826481\, p^{75}\, q^{96} + 408987628116638\, p^{70}\, q^{97} + 365238912063286\, p^{69}\, q^{97}$$
$$+ 138007095456860\, p^{62}\, q^{98} + 926960475795070\, p^{85}\, q^{80} + 107910\, p^{72}\, q^{10} + 2194350023634\, p^{128}\, q^{58} + 1318\, p^{58}\, q^{6}$$
$$+ 98411750846094\, p^{131}\, q^{109} + 11311969490\, p^{118}\, q^{35} + 3109279134999\, p^{125}\, q^{57} + 806642919642\, p^{123}\, q^{50} + 1548109575052\, p^{88}\, q^{40}$$
$$+ 23625\, q^{132}\, p^{22} + 117280613072076\, p^{128}\, q^{115} + 2497811\, p^{20}\, q^{23} + 7313728986\, p^{36}\, q^{37} + 4634669020\, p^{35}\, q^{36}$$
$$+ 100661463049164\, p^{65}\, q^{68} + 19727162219004\, p^{52}\, q^{71} + 220957095396298\, p^{97}\, q^{65} + 143481831410273\, p^{97}\, q^{62}$$
$$+ 32300950481\, q^{123}\, p^{40} + 67333757564\, q^{123}\, p^{42} + 1473285320\, p^{72}\, q^{22} + 6649455120\, p^{73}\, q^{25} + 117247380\, p^{21}\, q^{40}$$
$$+ 47009536481\, q^{117}\, p^{38} + 3\, p^{187}\, q^{142} + 77870\, q^{25}\, p^{11} + 92470\, q^{26}\, p^{11} + 135547\, q^{25}\, p^{12} + 3463758\, p^{100}\, q^{17} + 70387999\, p^{106}\, q^{22}$$
$$+ 151500060406958\, p^{128}\, q^{109} + 107147443814672\, p^{60}\, q^{79} + 10314945378043\, p^{95}\, q^{48} + 5068186026506\, p^{94}\, q^{45}$$
$$+ 65064180194230\, p^{131}\, q^{118} + 300173\, p^{57}\, q^{10} + 28362547512900\, p^{128}\, q^{73} + 81631371539114\, p^{131}\, q^{114} + 92489941927393\, p^{131}\, q^{111}$$
$$+ 30134981236332\, q^{108}\, p^{57} + 109456642087\, p^{124}\, q^{44} + 30134981236332\, q^{133}\, p^{82} + 32926759485980\, q^{133}\, p^{83} + 742206\, q^{118}\, p^{20}$$
$$+ 3448185394602\, p^{147}\, q^{115} + 606030805852183\, p^{117}\, q^{99} + 599397032867557\, p^{117}\, q^{97} + 39859\, p^{51}\, q^{8} + 77428313\, p^{62}\, q^{17}$$

$$+ 816066418\, p^{64} q^{21} + 39791682\, p^{61} q^{16} + 3700557322\, p^{65} q^{24} + 264923394\, p^{63} q^{19} + 710083088538\, p^{69} q^{38} + 62703223\, p^{28} q^{26}$$
$$+ 63423\, q^{122} p^{19} + 375016\, q^{123} p^{21} + 3931829\, q^{124} p^{24} + 3244614\, q^{127} p^{25} + 346978743295\, p^{38} q^{59} + 21889\, p^{17} q^{12} + 50122\, p^{17} q^{14}$$
$$+ 13888\, p^{17} q^{11} + 252465447833301\, p^{97} q^{66} + 20410790\, p^{80} q^{16} + 277135068\, p^{84} q^{20} + 672303107566\, p^{93} q^{38} + 3876661552937\, p^{94} q^{44}$$
$$+ 353736840280034\, p^{98} q^{69} + 71486059969898\, p^{133} q^{97} + 122685118243\, p^{75} q^{32} + 84627685093\, p^{75} q^{31} + 8305\, q^{56} p^{7}$$
$$+ 830835493584260\, p^{96} q^{113} + 820588055031726\, p^{95} q^{113} + 837735686886198\, p^{97} q^{113} + 99261\, p^{18} q^{15} + 33558\, p^{17} q^{13}$$
$$+ 682177323386\, q^{153} p^{112} + 652406065971\, q^{153} p^{115} + 674968031037\, q^{153} p^{113} + 1502187544591564\, p^{89} q^{93}$$
$$+ 1534354722546451\, p^{90} q^{93} + 162861\, q^{26} p^{12} + 696016685314021\, p^{87} q^{75} + 3864927707334\, p^{84} q^{43} + 20353950462785\, p^{85} q^{50}$$
$$+ 3276813\, p^{20} q^{24} + 77030477680906\, p^{133} q^{102} + 415474843370\, p^{152} q^{129} + 48204343\, q^{108} p^{22} + 16381\, p^{9} q^{23}$$
$$+ 63206831617183\, p^{134} q^{107} + 12595825890116\, q^{100} p^{50} + 9945066819447\, q^{100} p^{49} + 4341165868385\, q^{101} p^{46}$$
$$+ 7791419432346\, q^{100} p^{48} + 6055385118074\, q^{100} p^{47} + 5834\, q^{89} p^{10} + 18162\, q^{91} p^{11} + 47208722096408\, q^{134} p^{91}$$
$$+ 338967478824\, p^{93} q^{36} + 36072734210\, p^{91} q^{30} + 117448937593\, p^{92} q^{33} + 1209768063037\, p^{94} q^{40} + 881815015683\, p^{94} q^{39}$$
$$+ 480225292668\, p^{93} q^{37} + 101923\, p^{82} q^{11} + 5258609146735\, p^{46} q^{69} + 2484486507673\, p^{43} q^{68} + 22653472279207\, p^{54} q^{68}$$
$$+ 17692546348527\, p^{53} q^{67} + 108928751255011\, p^{119} q^{73} + 1484983671\, p^{70} q^{22} + 6606797835\, p^{71} q^{25} + 296474\, p^{46} q^{10}$$
$$+ 3565307\, p^{49} q^{13} + 96056802\, p^{52} q^{18} + 900327223547\, p^{152} q^{114} + 50841171495\, p^{157} q^{88} + 91326749\, p^{144} q^{41} + 2749487\, q^{96} p^{16}$$
$$+ 1690781220466\, q^{83} p^{40} + 3325251950955\, p^{140} q^{134} + 358193506\, p^{120} q^{29} + 396426120514\, p^{139} q^{62} + 7292747063907\, p^{143} q^{93}$$
$$+ 1422292900196\, p^{141} q^{72} + 8214723487730\, p^{144} q^{105} + 27369756892547\, p^{137} q^{92} + 22093505426281\, p^{137} q^{120}$$
$$+ 1364988545056595\, p^{89} q^{87} + 392076198730134\, p^{121} q^{96} + 218936009\, q^{57} p^{19} + 69020651\, q^{57} p^{17} + 18506953\, q^{56} p^{15}$$
$$+ 124830611\, q^{57} p^{18} + 373460628\, q^{57} p^{20} + 654875550\, q^{58} p^{21} + 4274133\, q^{55} p^{13} + 621159465\, q^{57} p^{21} + 35755853\, q^{56} p^{16}$$
$$+ 1068882928\, q^{58} p^{22} + 1707461075\, q^{58} p^{23} + 490207200404529\, p^{87} q^{71} + 358806835149310\, p^{87} q^{68} + 538817214783678\, p^{87} q^{72}$$
$$+ 2673849362\, q^{58} p^{24} + 9909892795\, q^{59} p^{27} + 4110639093\, q^{58} p^{25} + 6211822644\, q^{58} p^{26} + 406593772731788\, p^{121} q^{100}$$
$$+ 320249535892575\, p^{87} q^{67} + 642007774575610\, p^{87} q^{74} + 535080\, q^{34} p^{12} + 601794\, q^{35} p^{12} + 138211\, q^{34} p^{10} + 3423413\, q^{35} p^{15}$$
$$+ 403889753515864\, p^{121} q^{102} + 1986924\, q^{35} p^{14} + 3925257\, q^{36} p^{15} + 129399491\, q^{38} p^{22} + 12517126\, q^{37} p^{17} + 20141806\, q^{37} p^{18}$$
$$+ 48824099\, q^{37} p^{20} + 1257695\, q^{36} p^{13} + 31685826\, q^{37} p^{19} + 65799\, q^{76} p^{10} + 288168807886393\, p^{122} q^{111} + 332517532818302\, p^{122} q^{107}$$
$$+ 206513518896068\, p^{79} q^{65} + 241421865094777\, p^{80} q^{66} + 32919839440163\, p^{78} q^{53} + 4677460862789\, p^{77} q^{44} + 2489396364\, p^{70} q^{23}$$

$$+ 408191128\, q^{114}\, p^{27} + 6073064\, p^{18}\, q^{30} + 259045938\, q^{72}\, p^{19} + 836902742\, q^{73}\, p^{21} + 1658483\, q^{64}\, p^{12} + 83686479274\, p^{91}\, q^{32}$$
$$+ 65003579669418\, p^{96}\, q^{57} + 1975393043282\, p^{125}\, q^{55} + 107415904353\, p^{153}\, q^{139} + 330095772\, p^{112}\, q^{26} + 46773685933939\, p^{132}\, q^{85}$$
$$+ 4300\, q^{74}\, p^{8} + 3755\, p^{97}\, q^{11} + 2631234550194\, p^{48}\, q^{57} + 282897153535287\, p^{121}\, q^{87} + 267077286311559\, p^{121}\, q^{86}$$
$$+ 359427785293731\, p^{122}\, q^{98} + 163276524955985\, p^{120}\, q^{78} + 187529165648322\, p^{121}\, q^{81} + 133853225410164\, p^{120}\, q^{76}$$
$$+ 313327519458557\, p^{121}\, q^{89} + 148184098361454\, p^{120}\, q^{77} + 3858923752498\, p^{125}\, q^{58} + 95606178432194\, p^{131}\, q^{110}$$
$$+ 223535179470\, p^{122}\, q^{45} + 100875121422583\, p^{131}\, q^{108} + 327641742583351\, p^{121}\, q^{90} + 380499049213\, q^{119}\, p^{45}$$
$$+ 693271099821\, q^{119}\, p^{47} + 516159504347\, q^{119}\, p^{46} + 15568166371\, p^{69}\, q^{27} + 110325767991\, p^{70}\, q^{32} + 894928961084701\, p^{79}\, q^{98}$$
$$+ 42178037212441\, p^{134}\, q^{89} + 1699191295421\, p^{40}\, q^{82} + 14471569\, q^{50}\, p^{15} + 189\, q^{39}\, p^{4} + 13442\, q^{46}\, p^{7} + 57527012157286\, p^{79}\, q^{56}$$
$$+ 39442168086775\, p^{78}\, q^{54} + 107147443814672\, p^{79}\, q^{60} + 67777844028679\, p^{79}\, q^{57} + 900327223547\, p^{76}\, q^{38} + p\, q^{11} + 2269\, p^{8}\, q^{16}$$
$$+ 19655114383652\, p^{96}\, q^{51} + 6273480342201\, p^{95}\, q^{46} + 869948135\, p^{163}\, q^{80} + 192369331371342\, p^{97}\, q^{64} + 44786131275593\, p^{96}\, q^{55}$$
$$+ 1224\, p^{7}\, q^{16} + 1515249004\, p^{86}\, q^{23} + 58776783261\, p^{90}\, q^{31} + 42884\, q^{25}\, p^{10} + 76634707\, q^{160}\, p^{62} + 103094899\, q^{160}\, p^{63}$$
$$+ 137288208\, q^{160}\, p^{64} + 3999563\, q^{159}\, p^{52} + 27839751\, q^{159}\, p^{57} + 19453910\, q^{159}\, p^{56} + 41438627\, p^{81}\, q^{17} + 16562508259\, p^{89}\, q^{28}$$
$$+ 114\, p^{16}\, q^{4} + 30\, p^{14}\, q^{3} + 221814116844391\, p^{112}\, q^{124} + 5\, p^{46}\, q^{3} + 2006428307152\, p^{46}\, q^{58} + 4802\, q^{144}\, p^{27} + 1601615\, q^{149}\, p^{38}$$
$$+ 120174\, q^{95}\, p^{13} + 793\, p^{14}\, q^{7} + 2370\, p^{14}\, q^{9} + 1411\, p^{14}\, q^{8} + 21748453\, q^{47}\, p^{16} + 45385069304\, p^{56}\, q^{32} + 7271222972\, p^{55}\, q^{27}$$
$$+ 32811256937\, p^{56}\, q^{31} + 599966336932\, p^{57}\, q^{41} + 84003104017\, p^{56}\, q^{34} + 112517651681\, p^{56}\, q^{35} + 1021982966660\, q^{149}\, p^{89}$$
$$+ 4095\, p^{38}\, q^{6} + 3449\, p^{22}\, q^{7} + 7141\, p^{22}\, q^{8} + 111884\, p^{24}\, q^{12} + 30368\, p^{23}\, q^{10} + 3375312546\, q^{142}\, p^{48} + 5063\, p^{15}\, q^{10} + 6275\, p^{9}\, q^{18}$$
$$+ 4338\, p^{11}\, q^{13} + 4523\, p^{12}\, q^{12} + 724582946966508\, p^{90}\, q^{113} + 894001906687151\, p^{96}\, q^{112} + 977107861860613\, p^{105}\, q^{109} + 414747\, q^{32}\, p^{12}$$
$$+ 99677\, q^{31}\, p^{10} + 1196958764572\, p^{149}\, q^{91} + 9321265020988\, p^{59}\, q^{54} + 12218712948232\, p^{60}\, q^{55} + 90\, p^{61}\, q^{5} + 492307085\, p^{69}\, q^{20}$$
$$+ 28118058560135\, p^{79}\, q^{52} + 23144599606556\, p^{79}\, q^{51} + 69588435\, p^{31}\, q^{24} + 1918\, p^{24}\, q^{6} + 661\, p^{23}\, q^{5} + 470268\, p^{29}\, q^{13}$$
$$+ 6073064\, p^{30}\, q^{18} + 1133079894937909\, p^{107}\, q^{103} + 2326563498\, q^{141}\, p^{46} + 39386613\, q^{66}\, p^{16} + 31615278583\, q^{117}\, p^{37}$$
$$+ 162640995058842\, p^{128}\, q^{106} + 7174090\, p^{101}\, q^{18} + 5079074831325\, p^{58}\, q^{51} + 6003215783850\, p^{58}\, q^{52} + 20609270828709\, p^{53}\, q^{69}$$
$$+ 419777078\, p^{87}\, q^{21} + 50882644790966\, p^{135}\, q^{98} + 20172713866517\, p^{133}\, q^{78} + 5376343021633\, p^{60}\, q^{50} + 6569359507377\, q^{94}\, p^{46}$$
$$+ 3\, p^{158}\, q^{188} + 3\, p^{159}\, q^{188} + 5932975015292\, q^{129}\, p^{64} + 3963\, p^{23}\, q^{7} + 30073688768942\, p^{96}\, q^{53} + 4338\, p^{13}\, q^{11} + 3096\, p^{11}\, q^{12}$$
$$+ 62862256365\, p^{154}\, q^{141} + 2298405185078\, q^{108}\, p^{46} + 289311149865\, q^{107}\, p^{39} + 609483766101348\, p^{81}\, q^{109} + 20172713866517\, p^{57}\, q^{112}$$

$$+ 7496185796393\, q^{109} p^{51} + 625552768445574\, p^{112} q^{85} + 313250306211609\, p^{111} q^{75} + 5625013274913\, p^{107} q^{49}$$
$$+ 1599719047639\, p^{106} q^{44} + 103642498\, p^{94} q^{20} + 9\, p^{58} q^{4} + 4072204868\, q^{74} p^{24} + 1101180619\, p^{52} q^{23} + 157218467368310\, p^{128} q^{96}$$
$$+ 170254558\, q^{161} p^{67} + 56838470580\, q^{79} p^{30} + 938636555057\, q^{80} p^{38} + 4761064858\, q^{142} p^{49} + 258065556\, q^{110} p^{25}$$
$$+ 38455450227\, p^{96} q^{31} + 10523015509\, p^{95} q^{28} + 289912552360\, p^{153} q^{130} + 411236722131\, p^{70} q^{36} + 20935072825554\, p^{72} q^{52}$$
$$+ 17384261187798\, p^{72} q^{51} + 831\, p^{44} q^{5} + 741101\, p^{60} q^{11} + 10566512792\, q^{74} p^{26} + 707801973539\, q^{92} p^{38} + 83686479274\, q^{91} p^{32}$$
$$+ 124514443633\, q^{91} p^{33} + 9496\, p^{20} q^{9} + 59377\, p^{21} q^{12} + 722990958\, p^{133} q^{37} + 4245\, q^{107} p^{13} + 26929\, q^{106} p^{14} + 2242954504633\, p^{59} q^{46}$$
$$+ 36821010691965\, p^{96} q^{54} + 868928\, p^{74} q^{12} + 4802\, p^{144} q^{27} + 57287311\, p^{172} q^{104} + 60120\, p^{154} q^{38} + 4549704\, p^{165} q^{64}$$
$$+ 25889398\, p^{168} q^{79} + 2260682\, p^{176} q^{154} + 53\, p^{120} q^{14} + 109606\, p^{43} q^{9} + 40511\, p^{42} q^{8} + 768689714878650\, p^{94} q^{76}$$
$$+ 830835493584260\, p^{94} q^{77} + 592416744645964\, p^{94} q^{73} + 16272472\, p^{19} q^{33} + 43189306\, p^{22} q^{32} + 4943203742779\, q^{80} p^{44}$$
$$+ 3963067689\, q^{76} p^{24} + 2363126790\, q^{76} p^{23} + 10430726865\, q^{76} p^{26} + 1681601791385\, q^{79} p^{40} + 38455547977\, q^{77} p^{29}$$
$$+ 6497194307\, q^{76} p^{25} + 25223657127\, q^{77} p^{28} + 498850144819\, q^{79} p^{36} + 358438728187\, q^{79} p^{35} + 178552519952\, q^{79} p^{33}$$
$$+ 254546317938\, q^{79} p^{34} + 123630791873\, q^{79} p^{32} + 442\, q^{65} p^{6} + 21508701\, q^{161} p^{60} + 1261991854588\, p^{144} q^{77}$$
$$+ 38847612798396\, p^{71} q^{56} + 137969602251\, p^{67} q^{33} + 1366551719\, p^{64} q^{22} + 5831502327\, p^{65} q^{25} + 746902\, q^{32} p^{13}$$
$$+ 1694575326324\, q^{80} p^{40} + 2244331318716\, q^{80} p^{41} + 3831950410652\, q^{80} p^{43} + 2945492384265\, q^{80} p^{42} + 1202476201643296\, q^{106} p^{92}$$
$$+ 48933322824304\, p^{134} q^{115} + 181977037315729\, p^{63} q^{94} + 5\, q^{46} p^{3} + 12745938805927\, p^{50} q^{70} + 298\, q^{124} p^{16} + 375750578\, p^{162} q^{157}$$
$$+ 806727847947\, p^{38} q^{72} + 81634069694\, p^{59} q^{33} + 10012541830666\, p^{61} q^{53} + 31669394\, p^{53} q^{16} + 104674192942681\, p^{97} q^{60}$$
$$+ 442217146332358\, p^{98} q^{71} + 1229962971746698\, p^{106} q^{101} + 603953109340463\, p^{73} q^{92} + 911937165990072\, p^{81} q^{83}$$
$$+ 682909991821638\, p^{75} q^{86} + 590357436444374\, p^{106} q^{78} + 898143650370376\, p^{80} q^{84} + 465151577\, p^{39} q^{25} + 58851\, p^{33} q^{9}$$
$$+ 278997\, p^{34} q^{11} + 393928482639\, p^{69} q^{36} + 19727162219004\, p^{71} q^{52} + 487803928428\, q^{151} p^{88} + 16402102523720\, p^{71} q^{51} + 8998\, p^{31} q^{7}$$
$$+ 23778\, p^{32} q^{8} + 601794\, p^{35} q^{12} + 138211\, p^{34} q^{10} + 12517126\, p^{37} q^{17} + 86677457\, p^{38} q^{21} + 2260682\, p^{36} q^{14} + 233\, p^{25} q^{4}$$
$$+ 57035747\, p^{38} q^{20} + 36812514\, p^{38} q^{19} + 151700767\, p^{39} q^{22} + 223783522\, p^{39} q^{23} + 915176623\, p^{39} q^{27} + 1503899117\, p^{40} q^{28}$$
$$+ 1257695\, p^{36} q^{13} + 3925257\, p^{36} q^{15} + 3145694033226\, p^{44} q^{68} + 3952617300795\, p^{45} q^{68} + 278521\, p^{19} q^{17} + 12401\, p^{49} q^{7}$$
$$+ 68682274348\, p^{91} q^{157} + 156072498250\, p^{104} q^{157} + 56478138451\, p^{89} q^{157} + 54183752387\, p^{93} q^{158} + 62433021519\, p^{90} q^{157}$$
$$+ 75196183883\, p^{92} q^{157} + 823510902069720\, p^{78} q^{85} + 875604080698037\, p^{79} q^{85} + 945946642959385\, p^{81} q^{84} + 253848943\, p^{164} q^{156}$$

$$+ 21712270\, q^{151} p^{45} + 34066751\, q^{151} p^{46} + 5694\, p^{26} q^{7} + 3225205\, q^{105} p^{18} + 15038883803787\, p^{130} q^{71} + 986566155752\, p^{151} q^{120}$$
$$+ 9\, q^{94} p^{8} + 4768347\, p^{22} q^{23} + 68147691645329\, p^{132} q^{91} + 726695\, q^{26} p^{15} + 10118632398\, q^{78} p^{26} + 2306694498\, q^{77} p^{23} + 3144\, q^{103} p^{12}$$
$$+ 689\, q^{102} p^{11} + 1400533\, p^{27} q^{16} + 8643940\, p^{24} q^{23} + 28770612\, p^{75} q^{16} + 147628\, p^{17} q^{17} + 36260\, q^{105} p^{14} + 11549\, q^{104} p^{13}$$
$$+ 15537383514\, q^{96} p^{29} + 77181173\, q^{35} p^{22} + 23120350849\, q^{114} p^{35} + 12515581458\, p^{57} q^{28} + 2025103655656\, p^{60} q^{45}$$
$$+ 938462285165\, p^{59} q^{42} + 346978743295\, p^{59} q^{38} + 1179735795232\, p^{59} q^{43} + 264837967186\, p^{59} q^{37} + 450579438936\, p^{59} q^{39}$$
$$+ 15057382872\, p^{159} q^{141} + 172935824751\, p^{157} q^{108} + 178547097474\, p^{157} q^{113} + 13291299342\, p^{150} q^{63} + 1077247769\, p^{146} q^{49}$$
$$+ 71963710\, p^{141} q^{38} + 330778\, p^{126} q^{22} + 41123767540\, p^{158} q^{135} + 516445549\, p^{102} q^{24} + 332071879\, q^{115} p^{27} + 600700878\, q^{115} p^{28}$$
$$+ 9268457761\, p^{89} q^{161} + 8232924445\, p^{88} q^{161} + 1809420269\, p^{81} q^{162} + 161830072265156\, p^{64} q^{101} + 186631733284822\, p^{65} q^{101}$$
$$+ 214781780199855\, p^{65} q^{80} + 863749556\, q^{116} p^{29} + 1489184687\, q^{116} p^{30} + 72270064\, q^{113} p^{24} + 179486860643\, q^{152} p^{82}$$
$$+ 11122750016292\, p^{49} q^{71} + 883\, p^{43} q^{5} + 301018805299\, p^{70} q^{35} + 25054449440218\, p^{72} q^{53} + 3733430477515\, p^{71} q^{44}$$
$$+ 7347979968570\, p^{55} q^{56} + 5519827174085\, p^{54} q^{55} + 54125473301742\, p^{96} q^{56} + 74623382036504\, p^{97} q^{58} + 761907\, p^{59} q^{11}$$
$$+ 454561\, q^{26} p^{14} + 890766\, q^{27} p^{15} + 100465870994728\, p^{60} q^{98} + 96017117284910\, p^{60} q^{99} + 160398611192502\, p^{63} q^{98}$$
$$+ 185409683853362\, p^{64} q^{98} + 213176418892077\, p^{65} q^{98} + 286982269744842\, p^{67} q^{97} + 324565532694545\, p^{68} q^{97}$$
$$+ 627347480041055\, p^{74} q^{96} + 118083697039825\, p^{61} q^{98} + 75436\, q^{91} p^{12} + 107220092843903\, p^{59} q^{87} + 125265829035793\, p^{60} q^{87}$$
$$+ 934828024759\, q^{152} p^{111} + 46531925087524\, p^{55} q^{95} + 39675328713698\, p^{54} q^{94} + 832590731610597\, p^{92} q^{112}$$
$$+ 809443080925716\, p^{91} q^{112} + 69781973494\, p^{145} q^{151} + 58519786985\, p^{146} q^{151} + 48762452990\, p^{147} q^{151} + 153650903274\, p^{140} q^{151}$$
$$+ 87315162580\, p^{145} q^{150} + 22520233\, q^{29} p^{22} + 13786\, p^{42} q^{7} + 103477234\, p^{30} q^{26} + 26019\, p^{26} q^{9} + 108958\, p^{27} q^{11} + 644244\, p^{77} q^{12}$$
$$+ 71760858013697\, p^{104} q^{60} + 52242673941178\, p^{55} q^{82} + 7008\, p^{58} q^{7} + 14303\, p^{27} q^{8} + 268757\, p^{29} q^{12} + 67642\, p^{28} q^{10} + 4758695\, p^{31} q^{17}$$
$$+ 29828155\, p^{32} q^{21} + 16632911\, p^{31} q^{20} + 11173227\, p^{31} q^{19} + 43189306\, p^{32} q^{22} + 943019\, p^{30} q^{14} + 7654\, q^{29} p^{7} + 88231\, q^{30} p^{10}$$
$$+ 10523015509\, q^{95} p^{28} + 4170058514\, q^{94} p^{26} + 17893\, q^{29} p^{8} + 2736\, q^{28} p^{6} + 41751638102\, q^{95} p^{31} + 63795891574\, q^{95} p^{32}$$
$$+ 95940491054\, q^{95} p^{33} + 207611472771\, q^{95} p^{35} + 142134961527\, q^{95} p^{34} + 6982\, q^{28} p^{7} + 38521\, q^{29} p^{9} + 207864680\, p^{78} q^{19}$$
$$+ 4646158708359\, p^{52} q^{56} + 3445983402494\, p^{51} q^{55} + 158\, p^{19} q^{4} + 41\, p^{17} q^{3} + 26865752855\, q^{95} p^{30} + 1518488847\, q^{93} p^{24}$$
$$+ 279232813061\, q^{96} p^{36} + 16977494612\, q^{95} p^{29} + 9670\, p^{24} q^{8} + 162861\, p^{26} q^{12} + 42884\, p^{25} q^{10} + 26189683636\, p^{89} q^{29}$$
$$+ 2481692241\, p^{87} q^{24} + 7\, q^{119} p^{13} + 8643940\, p^{23} q^{24} + 10846536\, p^{22} q^{26} + 11436576\, p^{23} q^{25} + 5997071\, p^{21} q^{25} + 8337101\, p^{22} q^{25}$$

$$+ 3654211993\, p^{159}\, q^{76} + 5997485473\, p^{160}\, q^{82} + 1591162\, p^{65}\, q^{12} + 10366044452582\, p^{82}\, q^{47} + 1700461556919\, p^{81}\, q^{40}$$
$$+ 1269562930767\, p^{81}\, q^{39} + 252600211\, p^{73}\, q^{19} + 387623393734450\, p^{85}\, q^{69} + 429323122154947\, p^{85}\, q^{70} + 158166688300333\, q^{106}\, p^{66}$$
$$+ 185040537\, q^{95}\, p^{21} + 4819907863\, p^{156}\, q^{70} + 22915092410\, p^{162}\, q^{122} + 17641139902\, p^{162}\, q^{128} + 6648933258\, p^{163}\, q^{136} + 5\, p^{187}\, q^{144}$$
$$+ 5\, p^{184}\, q^{110} + 1085139237245009\, p^{83}\, q^{100} + 1681718192\, p^{36}\, q^{31} + 3644733451\, p^{36}\, q^{34} + 4634669020\, p^{36}\, q^{35} + 7313728986\, p^{37}\, q^{36}$$
$$+ 64919360126712\, p^{134}\, q^{104} + 41792072946381\, p^{133}\, q^{86} + 1275334629\, p^{36}\, q^{30} + 2196283933\, p^{36}\, q^{32} + 957422519\, p^{36}\, q^{29}$$
$$+ 392076198730134\, p^{69}\, q^{94} + 839947679190263\, p^{102}\, q^{80} + 1269574827684598\, p^{102}\, q^{88} + 948713153208\, p^{43}\, q^{57} + 312838\, q^{30}\, p^{12}$$
$$+ 88640944333648\, p^{93}\, q^{131} + 84983904349796\, p^{92}\, q^{131} + 147191994414032\, p^{67}\, q^{70} + 39456854087687\, p^{55}\, q^{74}$$
$$+ 46492595081420\, p^{56}\, q^{74} + 54468809209335\, p^{57}\, q^{74} + 63454851603840\, p^{58}\, q^{74} + 97348749948531\, p^{62}\, q^{72} + 119023063\, q^{171}\, p^{104}$$
$$+ 243\, p^{68}\, q^{6} + 14975742237\, p^{81}\, q^{27} + 5295054588361\, p^{133}\, q^{138} + 13123116793616\, p^{105}\, q^{142} + 9114819110331\, p^{98}\, q^{143}$$
$$+ 108132043808849\, p^{81}\, q^{125} + 7834470\, q^{119}\, p^{23} + 406934363\, p^{30}\, q^{31} + 658693848\, p^{33}\, q^{30} + 37851370\, q^{58}\, p^{16} + 18956989\, q^{57}\, p^{15}$$
$$+ 9327475\, q^{57}\, p^{14} + 134083943\, q^{59}\, p^{18} + 4329492\, q^{56}\, p^{13} + 25547814960\, q^{147}\, p^{61} + 6191188517\, q^{148}\, p^{57} + 40813303286\, q^{147}\, p^{63}$$
$$+ 19975733308\, q^{147}\, p^{60} + 3021865395746\, q^{108}\, p^{47} + 21224\, q^{83}\, p^{10} + 222887\, q^{85}\, p^{12} + 73414\, q^{84}\, p^{11} + 12748075\, q^{92}\, p^{17} + 17521\, q^{84}\, p^{10}$$
$$+ 379126\, q^{89}\, p^{13} + 3134617\, q^{89}\, p^{15} + 1329350\, q^{88}\, p^{14} + 3597623\, q^{88}\, p^{15} + 160044\, q^{87}\, p^{12} + 189582\, q^{86}\, p^{12} + 524272\, q^{87}\, p^{13}$$
$$+ 1143592\, q^{89}\, p^{14} + 61646\, q^{85}\, p^{11} + 2335772\, q^{91}\, p^{15} + 447296\, q^{88}\, p^{13} + 977560\, q^{90}\, p^{14} + 51324\, q^{86}\, p^{11} + 245902243\, q^{60}\, p^{19}$$
$$+ 746284038\, q^{61}\, p^{21} + 73289738\, q^{59}\, p^{17} + 425686942\, q^{60}\, p^{20} + 3881030517590\, p^{43}\, q^{83} + 2258194907102\, p^{41}\, q^{82} + 1994595131\, q^{61}\, p^{23}$$
$$+ 1233755480\, q^{61}\, p^{22} + 5159148479\, q^{62}\, p^{25} + 7901157400\, q^{62}\, p^{26} + 3308752541\, q^{62}\, p^{24} + 157218467368310\, p^{62}\, q^{94}$$
$$+ 12532156826\, q^{63}\, p^{27} + 18635020718\, q^{63}\, p^{28} + 16819694\, q^{70}\, p^{15} + 3282853\, q^{69}\, p^{13} + 138813136700\, q^{153}\, p^{137}$$
$$+ 93989937383\, q^{154}\, p^{138} + 1758640841352\, p^{128}\, q^{57} + 454806180662\, p^{126}\, q^{50} + 363687312\, q^{167}\, p^{90} + 7199213681847\, q^{107}\, p^{50}$$
$$+ 14413066591613\, q^{107}\, p^{53} + 2934822251210\, p^{119}\, q^{147} + 1479609203906\, p^{136}\, q^{143} + 2494985033322\, p^{130}\, q^{144}$$
$$+ 2761820472899\, p^{129}\, q^{144} + 3184496772081\, p^{125}\, q^{145} + 1691190430828\, p^{135}\, q^{143} + 2694880161583\, p^{127}\, q^{145} + 343664\, q^{36}\, p^{11}$$
$$+ 641879789400785\, p^{76}\, q^{101} + 697953623798790\, p^{77}\, q^{101} + 264\, p^{55}\, q^{5} + 1674235266\, q^{106}\, p^{27} + 33970353428\, p^{154}\, q^{145}$$
$$+ 28693601058\, p^{154}\, q^{146} + 76200091\, p^{30}\, q^{25} + 138918998\, p^{30}\, q^{27} + 235892759\, p^{31}\, q^{28} + 233\, q^{25}\, p^{4} + 8076739223045\, p^{95}\, q^{47}$$
$$+ 4246422486\, p^{87}\, q^{25} + 1292943721\, q^{78}\, p^{22} + 28770612\, q^{75}\, p^{16} + 13783575\, q^{74}\, p^{15} + 218138986\, q^{77}\, p^{19} + 247490049693670\, p^{107}\, q^{70}$$
$$+ 19422133\, q^{34}\, p^{19} + 141496231370988\, p^{62}\, q^{79} + 29802322324278\, p^{54}\, q^{72} + 57176\, p^{77}\, q^{10} + 15116775645893\, p^{50}\, q^{73}$$

$$+ 23518056478\, q^{81} p^{28} + 1870276\, p^{121} q^{22} + 201531275787\, p^{101} q^{156} + 1048556050\, p^{152} q^{162} + 144473568015\, p^{102} q^{157}$$
$$+ 84905119409034\, p^{104} q^{61} + 116822939363640\, p^{104} q^{63} + 355297808132233\, p^{105} q^{72} + 37030237698608\, p^{103} q^{56}$$
$$+ 157198756813500\, p^{104} q^{65} + 99876604994668\, p^{104} q^{62} + 788663331721377\, p^{106} q^{82} + 887838557927851\, p^{106} q^{84}$$
$$+ 44844375565231\, p^{103} q^{57} + 838599277696156\, p^{106} q^{83} + 158166688300333\, p^{124} q^{84} + 11210570858079\, p^{121} q^{60}$$
$$+ 27570572559352\, p^{122} q^{66} + 94994155794329\, p^{127} q^{120} + 6131469294\, p^{111} q^{31} + 253223859166850\, p^{125} q^{101}$$
$$+ 115370560573116\, p^{126} q^{119} + 242492589\, p^{30} q^{29} + 5\, p^{185} q^{119} + 4690229092\, p^{140} q^{47} + 176243707\, p^{169} q^{147}$$
$$+ 2828760043791\, p^{148} q^{103} + 712063152012\, p^{145} q^{75} + 224255138\, p^{35} q^{25} + 455829120054\, p^{73} q^{36} + 260925695851\, p^{141} q^{148}$$
$$+ 178029282234034\, p^{69} q^{70} + 665331\, p^{176} q^{162} + 8622386\, p^{165} q^{66} + 49284566\, p^{171} q^{96} + 780856\, p^{160} q^{50} + 3907\, p^{141} q^{25}$$
$$+ 6377306\, p^{175} q^{150} + 14471569\, p^{175} q^{140} + 6649455120\, p^{165} q^{117} + 8685511536\, p^{164} q^{107} + 3331470931\, p^{163} q^{89}$$
$$+ 117893227553604\, p^{63} q^{73} + 200357711103\, q^{119} p^{43} + 6657848363\, q^{116} p^{33} + 5128113291\, q^{135} p^{43} + 9630314955426\, p^{126} q^{139}$$
$$+ 418666689630542\, p^{118} q^{88} + 490207200404529\, p^{119} q^{103} + 442217146332358\, p^{119} q^{92} + 52745002795015\, p^{116} q^{65}$$
$$+ 123178448539648\, p^{117} q^{72} + 254546317938\, p^{79} q^{34} + 2244331318716\, p^{80} q^{41} + 10430726865\, p^{76} q^{26} + 178931060799\, p^{78} q^{33}$$
$$+ 367915429927357\, p^{100} q^{70} + 2642942295704\, p^{96} q^{43} + 315659752\, q^{167} p^{89} + 17326549\, q^{36} p^{18} + 41523399\, q^{36} p^{20}$$
$$+ 73817246\, q^{37} p^{21} + 12647875018629\, p^{48} q^{80} + 3132\, q^{30} p^{6} + 971\, q^{29} p^{5} + 8998\, q^{31} p^{7} + 1116181016989218\, p^{99} q^{83}$$
$$+ 10436693\, p^{78} q^{15} + 4754830226344\, p^{113} q^{51} + 550296621632\, p^{110} q^{42} + 1903475493651\, p^{112} q^{47} + 100465870994728\, p^{98} q^{60}$$
$$+ 427284515390819\, p^{99} q^{71} + 66833267505359\, p^{63} q^{66} + 82327586925935\, p^{64} q^{67} + 3994\, q^{158} p^{39} + 353736840280034\, p^{69} q^{98}$$
$$+ 6258868937\, q^{144} p^{52} + p^{183} q^{100} + 10150\, q^{176} p^{81} + 1082441673479599\, p^{108} q^{92} + 562348786601407\, p^{74} q^{82}$$
$$+ 754960186612173\, p^{79} q^{81} + 607019997091135\, p^{75} q^{82} + 53728885836646\, p^{135} q^{106} + 488154849\, q^{116} p^{28} + 2055544587\, q^{117} p^{31}$$
$$+ 4760901478929\, q^{88} p^{44} + 2465977556\, p^{99} q^{26} + 768689714878650\, p^{114} q^{96} + 56080984\, p^{93} q^{19} + 456213920441\, p^{106} q^{40}$$
$$+ 324342799054\, p^{106} q^{39} + 61648033541\, p^{104} q^{34} + 36591736846226\, q^{89} p^{53} + 29946192207229\, q^{89} p^{52} + 44420187868975\, q^{89} p^{54}$$
$$+ 63468102070746\, q^{90} p^{56} + 53580195245371\, q^{89} p^{55} + 52659764529257\, p^{58} q^{71} + 259406548586\, p^{97} q^{36} + 26865752855\, p^{95} q^{30}$$
$$+ 88869629331\, p^{96} q^{33} + 36286415309923\, p^{133} q^{122} + 102470\, p^{57} q^{9} + 433909543661662\, p^{73} q^{78} + 932635885714362\, p^{99} q^{80}$$
$$+ 1382203878121218\, p^{99} q^{88} + 1026500055613332\, p^{80} q^{91} + 54368786614\, p^{154} q^{142} + 288553320333\, p^{145} q^{144}$$
$$+ 274408929686\, p^{142} q^{147} + 283763191108\, p^{143} q^{146} + 518971492894923\, p^{78} q^{108} + 56168862734290\, q^{134} p^{95} + 497538783\, q^{155} p^{59}$$

$$+ 361418\, q^{31}\, p^{12} + 1297264\, q^{32}\, p^{14} + 4209827544635\, p^{145}\, q^{121} + 260897\, p^{111}\, q^{17} + 5\, p^{188}\, q^{163} + 1349212903012985\, p^{90}\, q^{102}$$
$$+ 1363670472424709\, p^{92}\, q^{103} + 1432656240024295\, p^{93}\, q^{102} + 1382203878121218\, p^{91}\, q^{102} + 1410125848464269\, p^{92}\, q^{102}$$
$$+ 1269574827684598\, p^{88}\, q^{102} + 1311528983078013\, p^{89}\, q^{102} + 1336244453\, q^{168}\, p^{113} + 42988747060251\, p^{115}\, q^{63}$$
$$+ 79970394702437\, p^{115}\, q^{67} + 1602274208102399\, p^{97}\, q^{96} + 206981418218641\, p^{106}\, q^{68} + 1610966679603177\, p^{96}\, q^{96}$$
$$+ 860578238180325\, p^{81}\, q^{103} + 1311528983078013\, p^{88}\, q^{101} + 76200091\, p^{25}\, q^{30} + 1421980779785956\, p^{93}\, q^{87} + 5689764\, p^{17}\, q^{32}$$
$$+ 66936767270865\, p^{75}\, q^{58} + 77635173118608\, p^{75}\, q^{59} + 4072204868\, p^{74}\, q^{24} + 1457723260\, p^{73}\, q^{22} + 6627240608\, p^{74}\, q^{25} + 6\, p^{25}\, q^{2}$$
$$+ 6085262\, p^{137}\, q^{31} + 92200894608\, p^{155}\, q^{86} + 72970704188\, p^{155}\, q^{84} + 67584428237092\, q^{109}\, p^{62} + 796531717273\, p^{78}\, q^{146}$$
$$+ 1781543081154\, p^{136}\, q^{142} + 448\, p^{51}\, q^{5} + 14806739\, q^{35}\, p^{18} + 243\, q^{26}\, p^{4} + 92315806\, q^{36}\, p^{22} + 17902189660499\, q^{107}\, p^{54}$$
$$+ 20156923070442\, q^{108}\, p^{55} + 1193007183538878\, p^{104}\, q^{105} + 806251942\, q^{164}\, p^{83} + 981964\, q^{34}\, p^{13} + q^{156}\, p^{31} + 103\, q^{178}\, p^{79} + 8\, q^{154}\, p^{30}$$
$$+ 190406\, p^{176}\, q^{168} + 370857\, p^{176}\, q^{165} + 39836885\, p^{174}\, q^{125} + 68741873\, p^{172}\, q^{106} + 38759063\, p^{174}\, q^{123} + 74730798\, p^{172}\, q^{107}$$
$$+ 66310758\, p^{173}\, q^{117} + 20964167799657\, p^{99}\, q^{52} + 11239873203528\, p^{98}\, q^{49} + 1538\, q^{105}\, p^{12} + 2223\, q^{104}\, p^{12} + 8405\, q^{105}\, p^{13}$$
$$+ 19721\, q^{107}\, p^{14} + 274746174\, p^{38}\, q^{24} + 20141806\, p^{37}\, q^{18} + 550619099\, p^{38}\, q^{26} + 24668178487\, q^{96}\, p^{30} + 2736\, p^{28}\, q^{6} + 879\, p^{27}\, q^{5}$$
$$+ 79970394702437\, p^{123}\, q^{75} + 327859042594\, p^{116}\, q^{43} + 175370757680560\, p^{126}\, q^{112} + 2623203045\, p^{110}\, q^{29}$$
$$+ 169515996428308\, p^{124}\, q^{85} + 146923297033625\, p^{124}\, q^{83} + 2644637537569\, p^{119}\, q^{52} + 37408176919596\, p^{122}\, q^{68}$$
$$+ 89554811514850\, p^{115}\, q^{130} + 5297041281\, p^{39}\, q^{33} + 6611097\, p^{36}\, q^{16} + 76730747440891\, p^{103}\, q^{60} + 715912\, p^{76}\, q^{12}$$
$$+ 568380623091\, p^{149}\, q^{83} + 54\, q^{155}\, p^{32} + 1065500931552\, p^{151}\, q^{100} + 222438036787310\, p^{81}\, q^{65} + 95678671141\, p^{33}\, q^{61}$$
$$+ 2935249342\, q^{102}\, p^{27} + 2308155358\, p^{39}\, q^{30} + 1714733919\, p^{39}\, q^{29} + 9563808064201\, p^{113}\, q^{54} + 819933534944568\, p^{107}\, q^{111}$$
$$+ 10648982764\, q^{148}\, p^{59} + 47046964\, q^{138}\, p^{35} + 11688571\, q^{137}\, p^{32} + 13531197232\, p^{162}\, q^{132} + 38455450227\, p^{159}\, q^{94}$$
$$+ 38600808284\, p^{161}\, q^{114} + 4953531687839\, p^{45}\, q^{72} + 937832698088\, p^{149}\, q^{88} + 4054960399\, p^{39}\, q^{32} + 193951\, p^{136}\, q^{26}$$
$$+ 23266047\, p^{18}\, q^{38} + 2196283933\, p^{32}\, q^{36} + 764427627\, p^{27}\, q^{38} + 327458640\, p^{25}\, q^{37} + 458576357\, p^{26}\, q^{37} + 3523322970\, p^{33}\, q^{37}$$
$$+ 706434676405626\, p^{88}\, q^{75} + 1090125014230651\, p^{93}\, q^{81} + 3074636197\, p^{39}\, q^{31} + 6856519539\, p^{39}\, q^{34} + 8797440059\, p^{39}\, q^{35}$$
$$+ 13696160744\, p^{40}\, q^{36} + 2657238\, p^{28}\, q^{17} + 15814190\, p^{29}\, q^{21} + 8754922\, p^{28}\, q^{20} + 5991720\, p^{28}\, q^{19} + 22520233\, p^{29}\, q^{22} + 552184\, p^{27}\, q^{14}$$
$$+ 63206831617183\, p^{107}\, q^{134} + 61201619412\, q^{143}\, p^{59} + 56398650766\, q^{144}\, p^{60} + 26912166030064\, p^{59}\, q^{62} + 27251847654233\, p^{60}\, q^{61}$$
$$+ 25274024386280\, p^{57}\, q^{64} + 26244996180359\, p^{58}\, q^{63} + 26912166030064\, p^{62}\, q^{59} + 1133079894937909\, p^{103}\, q^{107}$$

$$+ 70225481229\, q^{150} p^{71} + 24680179799656\, q^{88} p^{51} + 19950317384417\, q^{88} p^{50} + 129161788930728\, p^{65} q^{71} + 20164557583900\, p^{51} q^{75}$$
$$+ 16573450206266\, p^{50} q^{75} + 30365383\, q^{74} p^{16} + 62456802291438\, p^{134} q^{99} + 116951426\, q^{76} p^{18} + 648021089679803\, p^{83} q^{110}$$
$$+ 73447280683863\, p^{106} q^{61} + 101506757973532\, p^{106} q^{63} + 311629421745235\, p^{107} q^{72} + 31938511434272\, p^{105} q^{56} + 99815781\, q^{42} p^{20}$$
$$+ 269389145\, q^{43} p^{22} + 352046432\, q^{42} p^{23} + 154763181\, q^{42} p^{21} + 235469655\, q^{42} p^{22} + 630254941633\, q^{99} p^{39} + 873280808301\, q^{99} p^{40}$$
$$+ 1196958764572\, q^{99} p^{41} + 4777020243\, q^{85} p^{25} + 873437995134295\, p^{89} q^{110} + 1694168106\, q^{136} p^{41} + 964427602\, q^{84} p^{22}$$
$$+ 1717630643\, q^{84} p^{23} + 2976896588\, q^{84} p^{24} + 12854829095\, q^{85} p^{27} + 4692835\, q^{77} p^{14} + 74123183676\, p^{62} q^{32} + 11246975299\, p^{61} q^{27}$$
$$+ 52786184833\, p^{62} q^{31} + 1065819823634\, p^{63} q^{41} + 24874291\, p^{23} q^{28} + 1133079894937909\, p^{87} q^{83} + 1019713944378528\, p^{80} q^{90}$$
$$+ 7260277356006\, p^{65} q^{49} + 7119021011414\, q^{133} p^{70} + 8259584220972\, q^{133} p^{71} + 115370560573116\, p^{64} q^{71} + 1530035809\, q^{110} p^{28}$$
$$+ 57235344533333\, q^{120} p^{69} + 881591550618\, p^{152} q^{115} + 74827685607880\, q^{120} p^{71} + 95839753830118\, q^{120} p^{73}$$
$$+ 120331726649084\, q^{120} p^{75} + 8635980541129\, p^{127} q^{64} + 1275578131239\, q^{115} p^{47} + 712063152012\, q^{115} p^{45} + 186985703505\, q^{113} p^{40}$$
$$+ 869948135\, q^{110} p^{27} + 11744937\, q^{103} p^{19} + 48224427\, q^{104} p^{21} + 52471331182\, q^{114} p^{37} + 1914281\, q^{98} p^{16} + 161139787725\, q^{114} p^{40}$$
$$+ 9530907911234\, q^{118} p^{57} + 11698126996172\, q^{118} p^{58} + 220969\, q^{92} p^{13} + 4172877\, q^{99} p^{17} + 20059271\, q^{100} p^{19} + 823797\, q^{97} p^{15}$$
$$+ 10249531\, q^{99} p^{18} + 9690348\, q^{104} p^{19} + 40260551\, q^{105} p^{21} + 276497519\, q^{106} p^{24} + 1434382868\, q^{107} p^{27} + 310375193\, q^{109} p^{25}$$
$$+ 7198007950\, q^{110} p^{31} + 1260008354432\, q^{117} p^{48} + 1654484297644\, q^{117} p^{49} + 5701056607611\, q^{117} p^{54} + 4521925172868\, q^{117} p^{53}$$
$$+ 163173685055625\, p^{69} q^{69} + 1012811548531361\, p^{88} q^{107} + 118325029743523\, p^{106} q^{64} + 26136793316451\, p^{105} q^{55}$$
$$+ 1087394172490714\, p^{91} q^{81} + 1115490917727667\, p^{105} q^{106} + 504826\, p^{116} q^{19} + 90191571639005\, p^{65} q^{111}$$
$$+ 276614101869245\, p^{73} q^{110} + 1211545206294359\, p^{97} q^{107} + p^{14} q + 57035747\, p^{20} q^{38} + 3797927240\, p^{136} q^{43} + 102860717921\, q^{103} p^{35}$$
$$+ 25623\, q^{146} p^{30} + 1078\, q^{141} p^{24} + 33130762185\, q^{102} p^{32} + 778721676185\, q^{104} p^{41} + 562421039447\, q^{104} p^{40} + 9\, q^{87} p^{7}$$
$$+ 52056655885403\, p^{129} q^{80} + 105804476753655\, p^{131} q^{100} + 42932309874\, p^{110} q^{35} + 51554191115\, p^{160} q^{121}$$
$$+ 222050996309487\, p^{126} q^{102} + 182591414566606\, p^{127} q^{107} + 161324860479351\, p^{127} q^{111} + 54498260761584\, p^{124} q^{73}$$
$$+ 613988984332\, p^{145} q^{74} + 208603564926\, p^{144} q^{66} + 580132654680\, p^{150} q^{131} + 85465156454181\, p^{113} q^{131} + 26136793316451\, q^{135} p^{85}$$
$$+ 22081823576479\, q^{135} p^{83} + 24078940082032\, q^{135} p^{84} + 28242239317962\, q^{135} p^{86} + 32535663883786\, q^{135} p^{88}$$
$$+ 30380573779447\, q^{135} p^{87} + 34690128629176\, q^{135} p^{89} + 38922686497259\, q^{135} p^{91} + 36825543006139\, q^{135} p^{90}$$
$$+ 729569236738045\, p^{114} q^{93} + 36446868620418\, p^{110} q^{59} + 30215822609529\, p^{110} q^{58} + 724582946966508\, p^{113} q^{90}$$

$$+ 561086699232\, p^{96}\, q^{38} + 3300835959247\, p^{97}\, q^{44} + 313327519458557\, p^{101}\, q^{69} + 224528271064421\, p^{100}\, q^{66}$$
$$+ 173564304596495\, p^{116}\, q^{74} + 529216506654606\, p^{118}\, q^{95} + 518269168544894\, p^{118}\, q^{94} + 473264508457205\, p^{119}\, q^{105}$$
$$+ 530054458460846\, p^{118}\, q^{104} + 304180227162867\, p^{78}\, q^{69} + 334744293275503\, p^{78}\, q^{70} + 399784179073650\, p^{78}\, q^{72}$$
$$+ 275106038671854\, p^{78}\, q^{68} + 247625404165156\, p^{78}\, q^{67} + 1854877046406\, q^{118}\, p^{50} + 366665956974018\, p^{78}\, q^{71}$$
$$+ 1422292900196\, q^{118}\, p^{49} + 71764\, p^{63}\, q^{9} + 468825285473533\, p^{78}\, q^{74} + 504288901508998\, p^{78}\, q^{75} + 433909543661662\, p^{78}\, q^{73}$$
$$+ 3551711735667\, p^{147}\, q^{114} + 93662180198\, p^{140}\, q^{57} + 540034430515702\, p^{78}\, q^{76} + 575775300568245\, p^{78}\, q^{77}$$
$$+ 646015036830156\, p^{79}\, q^{78} + 150487966724\, p^{103}\, q^{157} + 352173734552751\, p^{70}\, q^{101} + 393896107997311\, p^{71}\, q^{101}$$
$$+ 1181133457023575\, p^{87}\, q^{84} + 1178012305524554\, p^{89}\, q^{83} + 278336730757680\, p^{66}\, q^{93} + 18107997509\, p^{122}\, q^{38} + 2260463865\, p^{119}\, q^{32}$$
$$+ 396710024980\, p^{110}\, q^{41} + 33684352334418\, p^{117}\, q^{63} + 1108549240190\, p^{149}\, q^{90} + 50353164329470\, p^{132}\, q^{86}$$
$$+ 77087878111525\, p^{133}\, q^{104} + 27489198\, q^{107}\, p^{21} + 1147946410417\, q^{151}\, p^{116} + 4271488011661\, p^{50}\, q^{58} + 1922537347731\, p^{41}\, q^{73}$$
$$+ 23579440478282\, p^{53}\, q^{71} + 1387606964571647\, p^{90}\, q^{87} + 321192\, p^{73}\, q^{11} + 31685826\, q^{171}\, p^{153} + 324998323\, p^{39}\, q^{24}$$
$$+ 23266047\, p^{38}\, q^{18} + 656677066\, p^{39}\, q^{26} + 2931\, p^{29}\, q^{6} + 925\, p^{28}\, q^{5} + 6426309909\, p^{40}\, q^{33} + 7586527\, p^{37}\, q^{16} + 2773954950\, p^{40}\, q^{30}$$
$$+ 2053853727\, p^{40}\, q^{29} + 4904500584\, p^{40}\, q^{32} + 207037009352633\, p^{104}\, q^{67} + 7269716432676\, p^{101}\, q^{48} + 26550575669651\, p^{102}\, q^{54}$$
$$+ 630254941633\, p^{99}\, q^{39} + 343694718918\, p^{98}\, q^{37} + 873280808301\, p^{99}\, q^{40} + 959232038789172\, p^{90}\, q^{79} + 4655344\, q^{86}\, p^{15}$$
$$+ 21116127\, q^{88}\, p^{17} + 1762257\, q^{86}\, p^{14} + 1031283468\, p^{30}\, q^{35} + 12848692915997\, q^{81}\, p^{48} + 10114603661370\, q^{80}\, p^{47}$$
$$+ 1404768594519965\, p^{91}\, q^{87} + 964817507268269\, p^{91}\, q^{79} + 1360367412894133\, p^{91}\, q^{86} + 4260336563746\, p^{44}\, q^{74}$$
$$+ 51004833787\, q^{147}\, p^{64} + 6752647441553\, p^{142}\, q^{88} + 7063861941980\, p^{144}\, q^{115} + 11911199222\, p^{132}\, q^{43} + 7269716432676\, p^{142}\, q^{89}$$
$$+ 14369127\, q^{38}\, p^{17} + 74581469883694\, p^{133}\, q^{99} + 21353282826\, p^{55}\, q^{30} + 4528939984\, p^{54}\, q^{26} + 15110076862\, p^{55}\, q^{29} + 2872024\, q^{38}\, p^{14}$$
$$+ 1304492461329573\, p^{87}\, q^{87} + 1344820328961010\, p^{90}\, q^{86} + 1207808150013102\, p^{84}\, q^{88} + 1278783834076702\, p^{89}\, q^{85} + 6982\, p^{28}\, q^{7}$$
$$+ 17893\, p^{29}\, q^{8} + 414747\, p^{32}\, q^{12} + 99677\, p^{31}\, q^{10} + 7960105\, p^{34}\, q^{17} + 52476915\, p^{35}\, q^{21} + 1505389\, p^{33}\, q^{14} + 682177323386\, p^{153}\, q^{112}$$
$$+ 630254941633\, p^{151}\, q^{91} + 2765462110028\, q^{88}\, p^{42} + 16322001912577\, p^{49}\, q^{83} + 124109153722675\, p^{64}\, q^{72} + 79781850309802\, p^{60}\, q^{73}$$
$$+ 197761603341292\, p^{74}\, q^{67} + 607328854066307\, p^{108}\, q^{80} + 955712741124352\, p^{108}\, q^{88} + 38579966447\, p^{75}\, q^{29} + 25452142706\, p^{75}\, q^{28}$$
$$+ 19003431\, p^{66}\, q^{15} + 38922686497259\, p^{55}\, q^{99} + 102542488877438\, p^{63}\, q^{71} + 3832759552755\, p^{85}\, q^{43} + 544822857665\, q^{129}\, p^{53}$$
$$+ 898357449403\, q^{129}\, p^{55} + 419049248049\, q^{129}\, p^{52} + 702440405238\, q^{129}\, p^{54} + 20303090387994\, p^{86}\, q^{50} + 33289761584226\, p^{54}\, q^{74}$$

$$+ 625815588\, p^{34}\, q^{29} + 642007774575610\, p^{74}\, q^{87} + 790565259346792\, p^{77}\, q^{86} + 1374843093680484\, p^{93}\, q^{86}$$
$$+ 1035961274127547\, p^{83}\, q^{84} + 62446036369591\, q^{133}\, p^{93} + 29691855550010\, p^{59}\, q^{112} + 112072\, q^{131}\, p^{23} + 1560718808321181\, p^{99}\, q^{97}$$
$$+ 1313213440707052\, p^{104}\, q^{92} + 1500424136399031\, p^{101}\, q^{95} + 1441964503124\, p^{146}\, q^{83} + 2609674010367\, p^{148}\, q^{100}$$
$$+ 198751002127614\, p^{94}\, q^{126} + 228281549259\, q^{114}\, p^{41} + 788663331721377\, p^{84}\, q^{108} + 833542313702\, p^{142}\, q^{141} + 98363005611\, q^{143}\, p^{61}$$
$$+ 314032737\, p^{170}\, q^{136} + 1083127000\, p^{168}\, q^{108} + 55594479\, p^{161}\, q^{63} + 609142759\, p^{165}\, q^{85} + 6855649875\, p^{134}\, q^{43}$$
$$+ 4341165868385\, p^{144}\, q^{89} + 282897153535287\, p^{103}\, q^{69} + 203271989311034\, p^{102}\, q^{66} + 768689714878650\, p^{76}\, q^{94}$$
$$+ 1025387361932\, p^{146}\, q^{80} + 2244331318716\, p^{149}\, q^{110} + 168686945136049\, p^{107}\, q^{67} + 5747568103835\, p^{104}\, q^{48} + 326179791\, p^{105}\, q^{24}$$
$$+ 156158439755796\, p^{123}\, q^{82} + 451029499520\, p^{116}\, q^{44} + 290406366\, p^{91}\, q^{21} + 32163194063\, p^{98}\, q^{31} + 8709093514\, p^{97}\, q^{28}$$
$$+ 1563810807592872\, p^{99}\, q^{95} + 26611198\, q^{138}\, p^{34} + 39084943\, q^{137}\, p^{34} + 96013475251\, q^{151}\, p^{75} + 215782654549\, q^{150}\, p^{78}$$
$$+ 59725649194355\, p^{112}\, q^{63} + 666144789\, q^{155}\, p^{60} + 1968258111\, q^{156}\, p^{66} + 367827083\, q^{155}\, p^{58} + 24308348609\, q^{157}\, p^{82}$$
$$+ 29584859575\, p^{158}\, q^{87} + 121524\, p^{133}\, q^{24} + 13438104656\, p^{158}\, q^{81} + 109575173601049\, p^{112}\, q^{67} + 3540904478515\, p^{109}\, q^{48}$$
$$+ 163115103\, p^{96}\, q^{21} + 18889536599\, p^{103}\, q^{31} + 4971998396\, p^{102}\, q^{28} + 1211545206294359\, p^{83}\, q^{93} + 342337465822623\, p^{68}\, q^{95}$$
$$+ 153140868617061\, p^{95}\, q^{128} + 3134617\, p^{89}\, q^{15} + 6046192\, p^{91}\, q^{16} + 62978734986829\, p^{122}\, q^{129} + 6258868937\, p^{138}\, q^{46}$$
$$+ 453758\, q^{109}\, p^{17} + 100754\, q^{106}\, p^{15} + 132212\, q^{105}\, p^{15} + 43082648809\, q^{137}\, p^{51} + 2309541430\, q^{135}\, p^{41} + 2134576404569\, p^{145}\, q^{84}$$
$$+ 3690379252123\, p^{146}\, q^{95} + 76634707\, p^{128}\, q^{30} + 120078376751\, p^{140}\, q^{58} + 2066514518473\, q^{126}\, p^{56} + 32312432\, q^{171}\, p^{93} + 175\, q^{178}\, p^{80}$$
$$+ 10920\, q^{178}\, p^{91} + 18834\, q^{178}\, p^{93} + 75\, q^{179}\, p^{83} + 59\, q^{178}\, p^{78} + 14436\, q^{178}\, p^{92} + 224987568053307\, p^{69}\, q^{73} + 1005077615947080\, p^{81}\, q^{86}$$
$$+ 1055790967966811\, p^{82}\, q^{86} + 166454875982744\, p^{66}\, q^{73} + 125574093575899\, p^{63}\, q^{74} + 22480282993266\, p^{120}\, q^{63}$$
$$+ 228739975205329\, p^{72}\, q^{70} + 264235892225\, p^{113}\, q^{41} + 551978053663305\, p^{118}\, q^{99} + 544975264927766\, p^{118}\, q^{97} + 2696\, p^{66}\, q^{7}$$
$$+ 1466\, p^{147}\, q^{28} + 12275\, p^{153}\, q^{35} + 75\, p^{134}\, q^{19} + 16595047\, p^{173}\, q^{100} + 3356401\, p^{169}\, q^{74} + 2679\, p^{149}\, q^{30} + 109980774942\, p^{105}\, q^{158}$$
$$+ 102184286085\, p^{103}\, q^{158} + 1484983671\, p^{168}\, q^{120} + 1617028394\, q^{85}\, p^{23} + 2814656959\, q^{85}\, p^{24} + 144473568015\, q^{88}\, p^{33}$$
$$+ 1431101\, p^{94}\, q^{15} + 526477093692\, p^{117}\, q^{45} + 806251942\, p^{107}\, q^{26} + 2749487\, p^{96}\, q^{16} + 282253265868326\, p^{98}\, q^{124}$$
$$+ 4600079302402\, p^{120}\, q^{55} + 64361311819\, p^{110}\, q^{36} + 1031554\, q^{72}\, p^{12} + 387793\, q^{71}\, p^{11} + 9672104943058\, q^{90}\, p^{47}$$
$$+ 253503218935\, p^{80}\, q^{34} + 2255996783519\, p^{81}\, q^{41} + 10295938431\, p^{77}\, q^{26} + 178552519952\, p^{79}\, q^{33} + 13340\, p^{77}\, q^{9} + 49313\, p^{97}\, q^{178}$$
$$+ 3540904478515\, q^{109}\, p^{48} + 39607517933862\, p^{134}\, q^{88} + 74229131793161\, q^{118}\, p^{69} + 11214\, q^{78}\, p^{9} + 101923\, q^{82}\, p^{11}$$

$$+ 230004198108938\, p^{71} q^{71} + 883203091\, q^{155} p^{61} + 27852896661\, q^{157} p^{83} + 233732658\, q^{154} p^{55} + 81010915\, q^{154} p^{52}$$
$$+ 324612954\, q^{154} p^{56} + 116841064\, q^{154} p^{53} + 166299496\, q^{154} p^{54} + 445728750\, q^{154} p^{57} + 1160028201\, q^{155} p^{62} + 3164191820\, q^{155} p^{66}$$
$$+ 1948316496\, q^{155} p^{64} + 1509921430\, q^{155} p^{63} + 92971689184289\, q^{109} p^{64} + 11590294241251\, p^{98} q^{142} + 1727127069\, p^{130} q^{37}$$
$$+ 2520527157347\, p^{141} q^{76} + 202670666514499\, p^{64} q^{82} + 964056400478392\, p^{93} q^{79} + 346135085818888\, p^{69} q^{81}$$
$$+ 662305702929667\, p^{91} q^{74} + 322156673245742\, p^{91} q^{67} + 500399609721727\, p^{91} q^{71} + 44420187868975\, p^{89} q^{54}$$
$$+ 89759514066779\, p^{90} q^{58} + 124005025646720\, p^{90} q^{60} + 36591736846226\, p^{89} q^{53} + 345807120619\, q^{102} p^{38}$$
$$+ 229398829190152\, p^{65} q^{82} + 1490281031800146\, p^{101} q^{94} + 579408275897491\, p^{104} q^{117} + 506588158132333\, p^{106} q^{118}$$
$$+ 52673631\, q^{162} p^{65} + 418662777455943\, p^{86} q^{117} + 441791579463290\, p^{87} q^{117} + 724552326514428\, p^{83} q^{77}$$
$$+ 799247725727675\, p^{84} q^{78} + 536555619769576\, p^{83} q^{73} + 676643331572900\, p^{83} q^{76} + 333478845760804\, q^{106} p^{72}$$
$$+ 453124587304767\, q^{106} p^{75} + 543008154692386\, q^{106} p^{77} + 371124287769440\, q^{106} p^{73} + 497180686388739\, q^{106} p^{76}$$
$$+ 411049376380448\, q^{106} p^{74} + 265354588495016\, q^{106} p^{70} + 298204109943964\, q^{106} p^{71} + 380590631186\, p^{152} q^{130}$$
$$+ 290330017028215\, p^{68} q^{100} + 1599719047639\, q^{106} p^{44} + 495806538353955\, p^{71} q^{88} + 363670277246523\, p^{90} q^{68} + 637977\, q^{146} p^{34}$$
$$+ 1401728\, q^{147} p^{36} + 884768090774379\, p^{107} q^{85} + 180687206\, p^{89} q^{20} + 152347311279\, q^{94} p^{34} + 221984008590\, q^{94} p^{35}$$
$$+ 191745971830684\, p^{127} q^{104} + 81334571473\, p^{153} q^{141} + 1464618484313\, q^{124} p^{53} + 31932873745775\, p^{124} q^{69}$$
$$+ 177438339748158\, p^{127} q^{95} + 36786488947172\, p^{124} q^{70} + 12602878297\, p^{115} q^{34} + 552075549541301\, p^{90} q^{72}$$
$$+ 13086538480234\, p^{62} q^{54} + 16968336869856\, p^{63} q^{55} + 3042500475556\, p^{62} q^{46} + 5\, p^{27} q^{2} + 37030237698608\, p^{134} q^{87}$$
$$+ 44719495392860\, p^{134} q^{90} + 718920281246312\, p^{76} q^{85} + 1927635825551\, q^{107} p^{45} + 324342799054\, q^{106} p^{39}$$
$$+ 52499567265029\, q^{108} p^{60} + 66006682930334\, p^{79} q^{127} + 135886045960145\, p^{86} q^{126} + 144662958883778\, p^{87} q^{126}$$
$$+ 172289719536537\, p^{127} q^{94} + 68910648925\, p^{117} q^{39} + 52745002795015\, p^{125} q^{74} + 99661012711\, p^{117} q^{40} + 894001906687151\, p^{94} q^{78}$$
$$+ 2298405185078\, p^{144} q^{82} + 2398\, q^{129} p^{19} + 50954619982650\, q^{101} p^{57} + 61173612845513\, q^{101} p^{58} + 40929542648\, q^{100} p^{32}$$
$$+ 2666493759\, p^{165} q^{97} + 1103209493\, q^{164} p^{85} + 172147927801089\, p^{72} q^{67} + 113185586055156\, q^{102} p^{62} + 96430733976300\, q^{102} p^{61}$$
$$+ 82651\, p^{61} q^{9} + 34229384221883\, p^{114} q^{61} + 282830329112835\, p^{116} q^{79} + 603953109340463\, p^{117} q^{98} + 8590450080359\, p^{112} q^{53}$$
$$+ 287050474246040\, p^{115} q^{78} + 4718670288858\, p^{111} q^{50} + 487970262599937\, p^{116} q^{87} + 462846423474135\, p^{116} q^{86}$$
$$+ 6388130611\, p^{95} q^{27} + 3705060816281\, p^{103} q^{46} + 11887712394539\, p^{104} q^{51} + 2718650909931\, q^{131} p^{62} + 775731729352060\, p^{97} q^{114}$$

$$+ 1157730036444255\, p^{88} q^{83} + 26420540582494\, p^{52} q^{94} + 1646703988\, q^{143} p^{47} + 774335224266\, q^{152} p^{100} + 804673415231\, q^{152} p^{101}$$
$$+ 7478708032\, q^{146} p^{55} + 24603624721\, q^{71} p^{28} + 36869654338\, q^{71} p^{29} + 819933534944568\, p^{111} q^{107} + 449857000709484\, p^{79} q^{111}$$
$$+ 226715565674\, q^{109} p^{39} + 158088201712\, q^{109} p^{38} + 84310676967\, q^{108} p^{36} + 86846\, q^{83} p^{11} + 1589048944028\, q^{87} p^{40}$$
$$+ 9909458636866\, p^{123} q^{61} + 303\, p^{54} q^{5} + 155477996\, p^{152} q^{51} + 1104407222432\, p^{143} q^{74} + 381297250751\, p^{142} q^{66}$$
$$+ 938462285165\, p^{148} q^{131} + 3566592872655\, p^{145} q^{90} + 4379251509237\, p^{146} q^{99} + 165426204089\, p^{36} q^{57} + 314813853030\, p^{38} q^{58}$$
$$+ 38042712107\, p^{73} q^{29} + 25242124195\, p^{73} q^{28} + 3\, q^{32} p^{2} + 182465371531\, p^{36} q^{58} + 18462944710\, q^{94} p^{29} + 124445728655\, p^{35} q^{57}$$
$$+ 1229338790\, p^{137} q^{41} + 45513515205568\, p^{113} q^{62} + 453124587304767\, p^{115} q^{84} + 20172713866517\, p^{112} q^{57}$$
$$+ 424625167263996\, p^{115} q^{83} + 657500250381980\, p^{116} q^{101} + 396171788782082\, p^{115} q^{82} + 144662958883778\, p^{103} q^{64}$$
$$+ 32535663883786\, p^{102} q^{55} + 668322329168\, p^{41} q^{58} + 947495974387949\, p^{95} q^{79} + 221382653467190\, q^{105} p^{68}$$
$$+ 251048479998134\, q^{105} p^{69} + 355297808132233\, q^{105} p^{72} + 318017430310713\, q^{105} p^{71} + 481430803529533\, q^{105} p^{75}$$
$$+ 575891025927087\, q^{105} p^{77} + 590357436444374\, q^{106} p^{78} + 395035351683371\, q^{105} p^{73} + 527760922718968\, q^{105} p^{76}$$
$$+ 11311969490\, q^{155} p^{72} + 7610711185\, q^{155} p^{70} + 207934783256009\, p^{107} q^{126} + 147129981\, p^{68} q^{18} + 18363276\, q^{105} p^{20}$$
$$+ 8400745057\, q^{109} p^{31} + 1809420269\, q^{109} p^{28} + 3087553615\, q^{109} p^{29} + 1034100509\, q^{109} p^{27} + 2489396364\, p^{167} q^{120} + 3463758\, q^{100} p^{17}$$
$$+ 47079371430\, q^{86} p^{30} + 7921048896\, q^{85} p^{26} + 255972864188000\, p^{67} q^{100} + 123287124646\, p^{143} q^{62} + 2489879993361\, p^{147} q^{93}$$
$$+ 1105074354132241\, p^{93} q^{108} + 428652604920\, q^{88} p^{36} + 600837200865\, q^{88} p^{37} + 832613241885\, q^{88} p^{38} + 1141272887447\, q^{88} p^{39}$$
$$+ 21\, p^{187} q^{152} + 92306577\, p^{167} q^{156} + 280195149579130\, p^{67} q^{81} + 100875121422583\, p^{59} q^{82} + 38042712107\, p^{161} q^{117}$$
$$+ 52384509936\, p^{160} q^{107} + 23723623547\, p^{159} q^{89} + 1088399877\, p^{163} q^{150} + 512544447\, q^{146} p^{47} + 90683162916211\, p^{87} q^{129}$$
$$+ 127082672693397\, p^{85} q^{126} + 220957095396298\, p^{93} q^{125} + 42988747060251\, p^{75} q^{127} + 28362547512900\, p^{73} q^{128}$$
$$+ 72605595004184\, p^{80} q^{127} + 59725649194355\, p^{78} q^{127} + 53785376827797\, p^{77} q^{127} + 48202717723479\, p^{76} q^{127} + 15182469981\, p^{68} q^{27}$$
$$+ 106613527706\, p^{69} q^{32} + 124941575420728\, p^{130} q^{101} + 60806520485132\, p^{131} q^{119} + 49050025188071\, p^{132} q^{120}$$
$$+ 1628542740438\, p^{144} q^{79} + 143932014624\, p^{141} q^{60} + 1140415885752\, p^{148} q^{129} + 11483508815\, q^{94} p^{28} + 468\, q^{103} p^{11} + 41695\, q^{109} p^{15}$$
$$+ 6010\, q^{106} p^{13} + 14264\, q^{108} p^{14} + 306\, q^{104} p^{11} + 844386115347\, p^{43} q^{56} + 52499567265029\, p^{82} q^{130} + 267077286311559\, q^{104} p^{69}$$
$$+ 1391591349049\, p^{101} q^{42} + 4830236984221\, p^{103} q^{47} + 284238975738\, q^{57} p^{38} + 651055845325539\, p^{88} q^{74} + 322724851711919\, p^{88} q^{67}$$
$$+ 23442815211\, p^{56} q^{30} + 4936819817\, p^{55} q^{26} + 16542420245\, p^{56} q^{29} + 408013773064\, p^{39} q^{58} + 252\, p^{33} q^{4} + 304663\, p^{47} q^{10}$$

$$+ 3720829\, p^{50}\, q^{13} + 102207433\, p^{53}\, q^{18} + 933507178201188\, p^{94}\, q^{111} + 3163015323669\, p^{49}\, q^{57} + 179486860643\, p^{108}\, q^{38}$$
$$+ 135951096569555\, p^{122}\, q^{122} + 534\, q^{64}\, p^{6} + 40783\, q^{69}\, p^{9} + 495806538353955\, p^{88}\, q^{71} + 361917187509991\, p^{88}\, q^{68}$$
$$+ 545456055684823\, p^{88}\, q^{72} + 19632098\, p^{64}\, q^{15} + 337670840298937\, q^{104}\, p^{71} + 418662777455943\, q^{104}\, p^{73}$$
$$+ 509293322539385\, q^{104}\, p^{75} + 28013549481207\, p^{71}\, q^{54} + 5904184054976\, p^{71}\, q^{46} + 35239446863199\, p^{72}\, q^{55}$$
$$+ 3858923752498\, q^{125}\, p^{58} + 5194850396819\, p^{116}\, q^{53} + 2856324075381\, p^{115}\, q^{50} + 652321944033815\, p^{76}\, q^{82} + 9494\, q^{129}\, p^{20}$$
$$+ 247520156123601\, p^{114}\, q^{122} + 10939316883019\, p^{117}\, q^{57} + 65348792772184\, p^{119}\, q^{69} + 74827685607880\, p^{119}\, q^{70}$$
$$+ 28195004157\, p^{110}\, q^{34} + 342337465822623\, p^{122}\, q^{95} + 334030592160132\, p^{122}\, q^{94} + 107653617888917\, p^{120}\, q^{74}$$
$$+ 215782654549\, p^{112}\, q^{40} + 151221975397\, p^{112}\, q^{39} + 775731729352060\, p^{76}\, q^{93} + 39770478278720\, q^{117}\, p^{64} + 46686977649296\, q^{117}\, p^{65}$$
$$+ 10769511561074\, p^{142}\, q^{96} + 259\, p^{32}\, q^{4} + 27153482\, q^{120}\, p^{25} + 15753447340507\, p^{101}\, q^{141} + 16013321343031\, p^{102}\, q^{141}$$
$$+ 8831708329170\, p^{92}\, q^{142} + 341029174032864\, p^{106}\, q^{122} + 311453051429828\, p^{123}\, q^{105} + 354250401878537\, p^{122}\, q^{104}$$
$$+ 24883321266785\, p^{118}\, q^{62} + 932932\, q^{157}\, p^{46} + 61394771648\, q^{153}\, p^{77} + 95077225225\, q^{153}\, p^{80} + 71426916177\, q^{153}\, p^{78}$$
$$+ 82634623978\, q^{153}\, p^{79} + 44584460970\, q^{153}\, p^{75} + 52471331182\, q^{153}\, p^{76} + 613877\, q^{142}\, p^{31} + 18211897\, q^{143}\, p^{37} + 255944\, q^{139}\, p^{28}$$
$$+ 582271\, q^{139}\, p^{29} + 1948316496\, q^{126}\, p^{35} + 40813303286\, q^{127}\, p^{43} + 28455855552\, q^{127}\, p^{42} + 3102167049\, q^{126}\, p^{36}$$
$$+ 16781246994\, q^{126}\, p^{40} + 130565147\, q^{124}\, p^{29} + 2027088867574\, p^{147}\, q^{90} + 2518957995984\, p^{148}\, q^{99} + 1706\, q^{124}\, p^{17} + 3\, p^{31}\, q^{2}$$
$$+ 5292623355468\, q^{93}\, p^{45} + 55392052532\, q^{91}\, p^{31} + 506633564097\, q^{92}\, p^{37} + 576537\, q^{78}\, p^{12} + 3559801\, q^{80}\, p^{14} + 205381\, q^{77}\, p^{11}$$
$$+ 498224873\, q^{113}\, p^{27} + 37268756057721\, p^{53}\, q^{87} + 234406174172144\, p^{95}\, q^{125} + q^{13}\, p + 10272738504\, q^{89}\, p^{27} + 17576922481\, q^{88}\, p^{28}$$
$$+ 27704859668\, q^{88}\, p^{29} + 10939182834\, q^{88}\, p^{27} + 46531925087524\, p^{135}\, q^{95} + 1215021266\, p^{117}\, q^{30} + 3695121011\, p^{119}\, q^{33}$$
$$+ 53580195245371\, p^{135}\, q^{101} + 28013549481207\, p^{136}\, q^{119} + 6300882\, p^{125}\, q^{25} + 16840837943\, q^{137}\, p^{48} + 2320\, q^{67}\, p^{7} + 146504\, q^{69}\, p^{10}$$
$$+ 60734743470\, p^{147}\, q^{150} + 132751082706\, p^{141}\, q^{151} + 33191139158\, p^{149}\, q^{151} + 21973616560\, p^{151}\, q^{151} + 17684340162\, p^{152}\, q^{151}$$
$$+ 27102744783\, p^{150}\, q^{151} + 40366210922\, p^{148}\, q^{151} + 222761729148\, p^{148}\, q^{142} + 122414629548\, p^{143}\, q^{150} + 12490078770501\, q^{133}\, p^{74}$$
$$+ 6471031110274\, q^{99}\, p^{47} + 863995917\, p^{70}\, q^{21} + 288943827187\, p^{35}\, q^{69} + 6453400\, p^{106}\, q^{19} + 3823622870130\, q^{99}\, p^{45}$$
$$+ 125265829035793\, p^{130}\, q^{103} + 73447280683863\, p^{129}\, q^{84} + 45133735294830\, p^{54}\, q^{87} + 25610410\, p^{93}\, q^{18} + 54458138\, p^{111}\, q^{23}$$
$$+ 15452\, q^{65}\, p^{8} + 81889438\, p^{163}\, q^{69} + 53811952891\, p^{108}\, q^{160} + 41822754456\, p^{140}\, q^{156} + 83771965554\, p^{116}\, q^{159}$$
$$+ 15659824592\, p^{148}\, q^{155} + 1008310651455\, q^{97}\, p^{40} + 96430733976300\, p^{129}\, q^{88} + 41695\, q^{175}\, p^{81} + 711033708314\, q^{117}\, p^{46}$$

$$+ 6997125526\, q^{94} p^{27} + 108581377\, q^{87} p^{19} + 512781\, q^{79} p^{12} + 385709734\, q^{88} p^{21} + 17692546348527\, p^{137} q^{123}$$
$$+ 3350600826924\, p^{83} q^{143} + 60808231866540\, p^{109} q^{134} + 651476\, p^{173} q^{168} + 1374727\, p^{173} q^{165} + 272117748\, p^{171} q^{125}$$
$$+ 525575407\, p^{169} q^{106} + 274471117\, p^{171} q^{123} + 561083049\, p^{169} q^{107} + 467032076\, p^{170} q^{117} + 14263116105075\, q^{131} p^{72}$$
$$+ 10939182834\, p^{88} q^{27} + 809443080925716\, p^{99} q^{78} + 7003\, q^{132} p^{21} + 237\, p^{186} q^{155} + 781\, p^{185} q^{145} + 395\, p^{185} q^{138} + 454\, q^{178} p^{82}$$
$$+ 75319\, q^{134} p^{24} + 123791\, q^{135} p^{25} + 1239578347\, q^{166} p^{95} + 13802\, q^{66} p^{8} + 2696\, q^{66} p^{7} + 50442\, q^{67} p^{9} + 12223\, q^{67} p^{8}$$
$$+ 448876968308\, p^{145} q^{72} + 2922481181688\, p^{148} q^{105} + 877535324519\, q^{124} p^{51} + 268183244\, q^{163} p^{74} + 12748075\, p^{92} q^{17}$$
$$+ 196104711559\, p^{37} q^{56} + 512544447\, p^{143} q^{44} + 6855649875\, p^{147} q^{56} + 1006\, p^{101} q^{11} + 299212874480\, p^{154} q^{95} + 26356327754\, p^{158} q^{139}$$
$$+ 78655811508\, p^{107} q^{159} + 137969602251\, p^{123} q^{157} + 135\, q^{59} p^{5} + 3122\, q^{65} p^{7} + 38774052265721\, q^{133} p^{85} + 45477\, q^{68} p^{9} + 632\, q^{63} p^{6}$$
$$+ 3576\, q^{64} p^{7} + 353880\, q^{72} p^{11} + 321192\, q^{73} p^{11} + 343694718918\, q^{98} p^{37} + 449723654186\, q^{99} p^{38} + 9409\, q^{69} p^{8}$$
$$+ 17863257920\, p^{142} q^{158} + 42838898091024\, q^{136} p^{109} + 43666426761564\, q^{136} p^{108} + 52242673941178\, q^{135} p^{108} + 10774\, q^{68} p^{8}$$
$$+ 355110391573037\, p^{97} q^{122} + 17175494\, q^{82} p^{16} + 26886\, q^{143} p^{28} + 153650903274\, p^{151} q^{140} + 161\, q^{58} p^{5} + 940491526332\, q^{98} p^{40}$$
$$+ 275106038671854\, p^{122} q^{112} + 147191994414032\, p^{123} q^{120} + 176047540192615\, p^{122} q^{119} + 3499\, q^{91} p^{10} + 19138618179326\, p^{53} q^{68}$$
$$+ 14877130889067\, p^{52} q^{67} + 30575219402315\, p^{52} q^{87} + 47907061538633\, q^{102} p^{57} + 57582802136560\, q^{102} p^{58} + 393811947\, q^{162} p^{73}$$
$$+ 28241\, q^{72} p^{9} + 1992306\, q^{76} p^{13} + 259936\, q^{75} p^{11} + 35077085\, q^{83} p^{17} + 140879524\, q^{84} p^{19} + 8028628\, q^{81} p^{15} + 74730798\, q^{83} p^{18}$$
$$+ 75156\, q^{75} p^{10} + 133555518633\, q^{146} p^{67} + 321125745218\, p^{109} q^{40} + 226715565674\, p^{109} q^{39} + 42698753454\, p^{107} q^{34}$$
$$+ 32088771\, p^{110} q^{22} + 98549911\, q^{88} p^{19} + 352662256\, q^{89} p^{21} + 23623048\, q^{87} p^{17} + 1983698916\, q^{90} p^{24} + 8934886686\, q^{91} p^{27}$$
$$+ 11417754\, q^{86} p^{16} + 80581629151\, p^{159} q^{108} + 85260447084\, p^{159} q^{113} + 5856117018\, p^{152} q^{63} + 469571044\, p^{148} q^{49} + 31296696\, p^{143} q^{38}$$
$$+ 148704\, p^{128} q^{22} + 21353282826\, p^{160} q^{135} + 7894803518\, p^{161} q^{141} + 15609\, q^{128} p^{20} + 449703\, q^{130} p^{24} + 61994\, q^{130} p^{22}$$
$$+ 413940882975\, q^{152} p^{90} + 2666493759\, q^{93} p^{25} + 45119189193\, q^{94} p^{31} + 2\, p^{34} q^{2} + 24670\, q^{73} p^{9} + 120183\, q^{71} p^{10} + 36306\, q^{70} p^{9}$$
$$+ 59269469390707\, p^{110} q^{134} + 133126\, q^{70} p^{10} + 744300402\, p^{167} q^{142} + 3806898460\, p^{166} q^{124} + 1859022329\, p^{161} q^{78}$$
$$+ 6102813996\, p^{165} q^{111} + 1599719047639\, p^{146} q^{84} + 2793128963495\, p^{147} q^{95} + 89180407439\, p^{141} q^{58} + 7269716432676\, q^{101} p^{48}$$
$$+ 9292987796679\, q^{101} p^{49} + 28344659695935\, q^{101} p^{54} + 13842663900900\, q^{102} p^{51} + 23004183435242\, q^{101} p^{53}$$
$$+ 1220912831610\, p^{136} q^{144} + 19\, p^{151} q^{28} + 218\, p^{157} q^{35} + 318984\, p^{177} q^{100} + 36775060587423\, p^{107} q^{137} + 2310849344105\, p^{146} q^{88}$$
$$+ 175536341347\, p^{157} q^{109} + 165662147022\, p^{157} q^{118} + 82634623978\, p^{153} q^{79} + 16781246994\, p^{150} q^{64} + 61394771648\, p^{153} q^{77}$$

$$+ 36044\, p^{180} q^{110} + 7123\, p^{176} q^{80} + 433\, p^{185} q^{171} + 939\, p^{174} q^{68} + 74871792182\, p^{132} q^{157} + 15285836509383\, p^{132} q^{74} + 110\, q^{60} p^{5}$$
$$+ 4078\, q^{63} p^{7} + 869\, q^{61} p^{6} + 3566592872655\, q^{100} p^{45} + 4667277733395\, q^{100} p^{46} + 790854\, q^{75} p^{12} + 7037\, q^{71} p^{8} + 715912\, q^{76} p^{12}$$
$$+ 177771\, q^{125} p^{21} + 547\, q^{177} p^{78} + 868\, q^{177} p^{79} + 340\, q^{177} p^{77} + 1327\, q^{177} p^{80} + 96240\, q^{73} p^{10} + 1153668661520\, p^{126} q^{149}$$
$$+ 1305877271342\, p^{130} q^{147} + 1300714900593189\, p^{96} q^{85} + 290190451116\, p^{89} q^{35} + 51254112\, p^{78} q^{17} + 19530153110\, p^{86} q^{28}$$
$$+ 1816096958\, p^{83} q^{23} + 68370544721\, p^{87} q^{31} + 4849592716\, q^{126} p^{37} + 209504390423169\, p^{94} q^{64} + 49597222405970\, p^{93} q^{55}$$
$$+ 22095524966177\, p^{93} q^{51} + 7111559971874\, p^{92} q^{46} + 811116\, q^{84} p^{13} + 76157349549\, p^{138} q^{54} + 3115892861\, p^{134} q^{41}$$
$$+ 454806180662\, p^{140} q^{64} + 5016877469974\, p^{146} q^{106} + 1260008354432\, p^{142} q^{73} + 7295570\, p^{122} q^{24} + 1903475493651\, p^{143} q^{78}$$
$$+ 2027088867574\, p^{100} q^{43} + 468079024671\, q^{133} p^{56} + 1968258111\, q^{124} p^{34} + 15285836509383\, q^{116} p^{58} + 18584959612842\, q^{116} p^{59}$$
$$+ 44985863095272\, q^{116} p^{64} + 23738649773253\, q^{117} p^{61} + 38149092387429\, q^{116} p^{63} + 26954396016078\, q^{116} p^{61}$$
$$+ 32162796372320\, q^{116} p^{62} + 683393574402125\, p^{111} q^{111} + 138984286\, p^{128} q^{31} + 4655755631\, p^{134} q^{42} + 11667608\, p^{123} q^{25}$$
$$+ 2755870031\, p^{133} q^{40} + 418794337028\, p^{141} q^{65} + 562650228141047\, p^{102} q^{75} + 97853225306\, p^{88} q^{32} + 71486059969898\, p^{93} q^{57}$$
$$+ 4379251509237\, p^{91} q^{44} + 384518080069034\, p^{95} q^{69} + 337898185\, p^{81} q^{20} + 774335224266\, p^{90} q^{38} + 273335947638199\, p^{94} q^{66}$$
$$+ 122897711120383\, p^{97} q^{61} + 166588922358698\, p^{97} q^{63} + 178930380415814\, p^{114} q^{125} + 1890455149609\, p^{140} q^{138}$$
$$+ 117549452310628\, p^{69} q^{114} + 59292285442456\, p^{65} q^{115} + 89250353388098\, p^{67} q^{114} + 102697586086975\, p^{68} q^{114}$$
$$+ 900668683833986\, p^{97} q^{112} + 945946642959385\, p^{106} q^{109} + 487103\, q^{94} p^{14} + 13371155005958\, q^{136} p^{80} + 51304833687\, q^{129} p^{45}$$
$$+ 36424498091\, q^{129} p^{44} + 143932014624\, q^{130} p^{49} + 22525175639\, q^{128} p^{42} + 157754871878111\, q^{121} p^{79} + 61394771648\, q^{113} p^{37}$$
$$+ 48258677271\, p^{121} q^{40} + 13\, q^{68} p^{5} + 7\, q^{70} p^{5} + 131445945517082\, p^{61} q^{95} + 25454348\, p^{77} q^{16} + 11590294241251\, p^{92} q^{48}$$
$$+ 5698137318814\, p^{91} q^{45} + 239924035004548\, p^{94} q^{65} + 157218467368310\, p^{94} q^{62} + 59728767274633\, p^{93} q^{56} + 1221607323\, q^{108} p^{27}$$
$$+ 370845412\, q^{108} p^{25} + 77181173\, p^{168} q^{155} + 548945583\, p^{150} q^{165} + 597514374\, p^{147} q^{166} + 592954979\, p^{144} q^{167} + 3516936\, q^{144} p^{35}$$
$$+ 149213793\, q^{145} p^{43} + 94996871\, q^{145} p^{42} + 6478084\, q^{144} p^{36} + 56382742\, q^{144} p^{40} + 82829473029644\, p^{94} q^{58}$$
$$+ 115423209115302\, p^{94} q^{60} + 478055517934928\, p^{95} q^{71} + 40923972518236\, p^{93} q^{54} + 1114750\, p^{71} q^{12} + 33548699793085\, p^{93} q^{53}$$
$$+ 687204669\, p^{59} q^{21} + 3001974822\, p^{60} q^{24} + 351854776140\, q^{82} p^{35} + 19984011889\, p^{93} q^{29} + 35755853\, p^{56} q^{16} + 228643980\, p^{58} q^{19}$$
$$+ 316756\, p^{49} q^{10} + 27489198\, q^{169} p^{83} + 7053976907671\, p^{137} q^{132} + 29280134110395\, p^{53} q^{75} + 24375436988491\, p^{52} q^{75}$$
$$+ 34955488691590\, p^{54} q^{75} + 51280664094422\, p^{56} q^{76} + 57393496532064\, p^{57} q^{75} + 41480139281805\, p^{55} q^{75}$$

$$+ 48933322824304\, p^{56} q^{75} + 54483122\, q^{77} p^{17} + 27128453\, q^{76} p^{16} + 197151432\, q^{79} p^{19} + 376647734\, q^{79} p^{20} + 2168647423\, q^{79} p^{23}$$
$$+ 695506043\, q^{79} p^{21} + 1245414576\, q^{79} p^{22} + 1194217945\, q^{80} p^{22} + 3559737981\, q^{80} p^{24} + 207864680\, q^{78} p^{19} + 394895284\, q^{78} p^{20}$$
$$+ 105405575\, q^{78} p^{18} + 17218\, q^{64} p^{8} + 637613695415\, q^{86} p^{37} + 21867257140\, p^{119} q^{37} + 112977052853232\, p^{129} q^{91}$$
$$+ 25859709750770\, p^{127} q^{71} + 1243033033224\, p^{65} q^{41} + 161627278306\, p^{64} q^{34} + 220367239189\, p^{64} q^{35} + 16281049485119\, p^{66} q^{53}$$
$$+ 2546192764501\, p^{65} q^{44} + 35239446863199\, p^{55} q^{72} + 806642919642\, q^{140} p^{67} + 3075355974657\, p^{147} q^{118} + 3783772424922\, p^{147} q^{111}$$
$$+ 586816830233\, p^{143} q^{70} + 45211517093154\, p^{136} q^{104} + 28242239317962\, p^{135} q^{86} + 7599161703281\, p^{138} q^{130}$$
$$+ 754960186612173\, p^{109} q^{111} + 62403315190412\, p^{61} q^{108} + 230205382\, q^{145} p^{44} + 466335766196269\, p^{83} q^{114}$$
$$+ 669469017019955\, p^{88} q^{113} + 10184554102340\, p^{103} q^{50} + 220552065778730\, q^{119} p^{80} + 1075199826245\, q^{112} p^{45}$$
$$+ 796531717273\, q^{112} p^{44} + 2869722181228\, q^{113} p^{49} + 484227390441\, q^{111} p^{42} + 133126\, p^{70} q^{10} + 1666\, p^{56} q^{6} + 6444872237184\, q^{82} p^{45}$$
$$+ 42698753454\, q^{107} p^{34} + 10137115666921\, q^{116} p^{56} + 187523878\, p^{100} q^{22} + 315659752\, p^{101} q^{23} + 69837536609074\, p^{119} q^{130}$$
$$+ 1050222143620445\, p^{88} q^{81} + 3880870072773\, q^{82} p^{43} + 966431949120833\, q^{92} p^{79} + 3497816659771\, p^{146} q^{94}$$
$$+ 3864445386830\, p^{147} q^{109} + 367827083\, p^{132} q^{35} + 1359677409141\, p^{148} q^{127} + 3876661552937\, p^{146} q^{96} + 318984\, q^{90} p^{13}$$
$$+ 1992306\, p^{76} q^{13} + 4692835\, p^{77} q^{14} + 106716665047480\, p^{131} q^{101} + 52659764529257\, p^{132} q^{119} + 42294943468378\, p^{133} q^{120}$$
$$+ 1716012\, p^{28} q^{16} + 396475752462522\, p^{98} q^{70} + 2939007727752\, p^{94} q^{43} + 31613549\, q^{29} p^{23} + 865452969\, q^{69} p^{21} + 6542434707\, q^{70} p^{25}$$
$$+ 10290779559\, q^{70} p^{26} + 16019469\, q^{52} p^{15} + 186824052\, q^{54} p^{19} + 42153863497085\, p^{124} q^{71} + 37658313774\, p^{116} q^{37}$$
$$+ 177947220875601\, p^{126} q^{91} + 92155\, p^{90} q^{12} + 31882738748741\, p^{54} q^{99} + 218562176667\, p^{87} q^{34} + 8313072928\, p^{84} q^{26}$$
$$+ 57127839838779\, q^{109} p^{61} + 1021982966660\, q^{101} p^{41} + 1336244453\, p^{168} q^{113} + 11\, q^{122} p^{14} + 136\, q^{122} p^{15} + 1461875426356366\, p^{99} q^{90}$$
$$+ 88640944333648\, p^{97} q^{59} + 669410379833902\, p^{77} q^{81} + 2303903\, p^{19} q^{24} + 631817093\, q^{120} p^{30} + 161324860479351\, p^{63} q^{79}$$
$$+ 2242954504633\, p^{46} q^{59} + 73735052124\, p^{93} q^{32} + 59734250491946\, p^{98} q^{57} + 7292747063907\, p^{97} q^{47} + 3705721372\, p^{89} q^{25}$$
$$+ 32811256937\, q^{56} p^{31} + 84003104017\, q^{56} p^{34} + 45385069304\, q^{56} p^{32} + 43787982\, q^{34} p^{21} + 29428284\, q^{34} p^{20} + 52476915\, q^{35} p^{21}$$
$$+ 98885062\, q^{108} p^{23} + 2782627278\, p^{53} q^{25} + 1632135369343\, p^{60} q^{44} + 67777844028679\, p^{57} q^{79} + 474724269773865\, p^{72} q^{99}$$
$$+ 771149641300457\, p^{77} q^{98} + 57176\, q^{77} p^{10} + 108804804978\, q^{109} p^{37} + 13583\, q^{19} p^{10} + 7767\, q^{19} p^{9} + 16880\, q^{20} p^{10}$$
$$+ 98411750846094\, p^{59} q^{81} + 24552188938446\, p^{51} q^{82} + 4936819817\, q^{55} p^{26} + 7271222972\, q^{55} p^{27} + 62076639557\, q^{56} p^{33}$$
$$+ 112517651681\, q^{56} p^{35} + 8031167332584\, p^{121} q^{142} + 2426326740\, p^{96} q^{165} + 2916110149\, p^{98} q^{165} + 3705721372\, p^{101} q^{165}$$

$$+ 3437542688\, p^{100}\, q^{165} + 3173703179\, p^{99}\, q^{165} + 2666493759\, p^{97}\, q^{165} + 3976103844\, p^{102}\, q^{165} + 348299017398\, p^{111}\, q^{41}$$
$$+ 490868423803171\, p^{98}\, q^{72} + 314048605719433\, p^{98}\, q^{68} + 3787468\, p^{19}\, q^{26} + 11173227\, p^{19}\, q^{31} + 176850666\, p^{27}\, q^{31}$$
$$+ 242492589\, p^{29}\, q^{30} + 8006113522591\, p^{103}\, q^{49} + 2310849344105\, p^{102}\, q^{44} + 11744937\, p^{103}\, q^{19} + 14486255940808\, p^{124}\, q^{64}$$
$$+ 3118\, q^{164}\, p^{47} + 57819277\, q^{53}\, p^{17} + 23442815211\, q^{56}\, p^{30} + 3300149439\, q^{55}\, p^{25} + 2169712972\, q^{55}\, p^{24} + 1225618139567217\, q^{106}\, p^{93}$$
$$+ 504288901508998\, p^{75}\, q^{78} + 79493336404388\, q^{109}\, p^{63} + 71347248123310\, p^{62}\, q^{68} + 123577125971881\, p^{68}\, q^{67}$$
$$+ 71432380495\, q^{144}\, p^{61} + 871\, p^{18}\, q^{6} + 329\, p^{17}\, q^{5} + 651476\, q^{22}\, p^{17} + 16209485480130\, q^{87}\, p^{49} + 20168002501591\, q^{87}\, p^{50} + 2325\, p^{26}\, q^{6}$$
$$+ 774\, p^{25}\, q^{5} + 43982402312517\, p^{73}\, q^{56} + 150400272022\, p^{69}\, q^{33} + 1430274092\, p^{66}\, q^{22} + 6187685462\, p^{67}\, q^{25} + 9635458151\, p^{67}\, q^{26}$$
$$+ 2359076847\, p^{66}\, q^{23} + 4497116\, q^{93}\, p^{16} + 699877\, q^{92}\, p^{14} + 829909\, q^{91}\, p^{14} + 2207659105418\, p^{96}\, q^{148} + 85012032613176\, p^{126}\, q^{80}$$
$$+ 167509497107248\, p^{128}\, q^{100} + 379272594\, q^{36}\, p^{26} + 192446870\, q^{36}\, p^{24} + 1785854489971\, p^{46}\, q^{57} + 12760057893282\, q^{88}\, p^{48}$$
$$+ 1096\, p^{36}\, q^{5} + 13400969498320\, q^{99}\, p^{50} + 8313566602521\, q^{99}\, p^{48} + 10595910065944\, q^{99}\, p^{49} + 20799091529213\, p^{118}\, q^{61}$$
$$+ 179068441057686\, p^{120}\, q^{79} + 900668683833986\, p^{78}\, q^{93} + 317104346886\, q^{99}\, p^{37} + 4756178932952\, q^{131}\, p^{65}$$
$$+ 203071510543638\, q^{108}\, p^{69} + 168686945136049\, q^{107}\, p^{67} + 2513111\, p^{30}\, q^{16} + 462846423474135\, q^{104}\, p^{74} + 659992699215888\, q^{104}\, p^{78}$$
$$+ 608131948178871\, q^{104}\, p^{77} + 625552768445574\, q^{105}\, p^{78} + 557803154129250\, q^{104}\, p^{76} + 1321436053520106\, p^{94}\, q^{85}$$
$$+ 313273843228\, p^{87}\, q^{35} + 11733777\, q^{169}\, p^{79} + 14685890\, q^{169}\, p^{80} + 957422519\, p^{161}\, q^{154} + 55850429348635\, p^{118}\, q^{67}$$
$$+ 18319103661910\, q^{92}\, p^{50} + 34501253356210\, q^{92}\, p^{53} + 21764\, q^{31}\, p^{8} + 524335333362\, p^{58}\, q^{40} + 15833516192624\, p^{139}\, q^{90}$$
$$+ 5479236052940\, p^{142}\, q^{126} + 1104861907161\, p^{135}\, q^{62} + 18742224450838\, p^{139}\, q^{93} + 3915090197339\, p^{137}\, q^{72}$$
$$+ 20353950462785\, p^{140}\, q^{105} + 1735306\, q^{34}\, p^{14} + 3350600826924\, q^{107}\, p^{47} + 9142007740341\, q^{107}\, p^{51} + 1073653191\, q^{112}\, p^{28}$$
$$+ 1066879118090281\, p^{101}\, q^{109} + 42\, p^{51}\, q^{4} + 3791963376\, q^{95}\, p^{26} + 6388130611\, q^{95}\, p^{27} + 2196880590\, q^{95}\, p^{25} + 197911219\, p^{55}\, q^{19}$$
$$+ 948990643\, p^{56}\, q^{22} + 102542488877438\, p^{71}\, q^{63} + 90683590699387\, p^{71}\, q^{62} + 87569669\, p^{170}\, q^{149} + 79787657423806\, p^{71}\, q^{61}$$
$$+ 4860409030\, q^{106}\, p^{29} + 1298018532527339\, p^{88}\, q^{86} + 1852145\, p^{31}\, q^{15} + 205327466\, p^{33}\, q^{26} + 38521\, p^{29}\, q^{9} + 170061\, p^{30}\, q^{11}$$
$$+ 471579735973\, p^{57}\, q^{40} + 2995018221\, q^{120}\, p^{33} + 4078\, p^{63}\, q^{7} + 4563498149\, p^{93}\, q^{26} + 915176623\, p^{27}\, q^{39} + 4335717760\, p^{33}\, q^{38}$$
$$+ 783334295303\, q^{107}\, p^{42} + 568380623091\, q^{107}\, p^{41} + 407869537887\, q^{107}\, p^{40} + 6026\, q^{101}\, p^{12} + 256764580935\, q^{108}\, p^{39}$$
$$+ 5079074831325\, p^{51}\, q^{58} + 239924035004548\, p^{65}\, q^{94} + 1594838874177\, p^{141}\, q^{138} + 232198793203047\, p^{123}\, q^{88}$$
$$+ 284425490734663\, p^{124}\, q^{103} + 379126\, p^{89}\, q^{13} + 2020493660104\, p^{89}\, q^{41} + 1105101406990\, p^{89}\, q^{39} + 600837200865\, p^{88}\, q^{37}$$

$$+ 150487966724\, p^{87}\, q^{33} + 105560788453338\, p^{115}\, q^{69} + 77148893786735\, p^{114}\, q^{66} + 32015591872167\, p^{113}\, q^{60}$$
$$+ 120331726649084\, p^{115}\, q^{70} + 102697586086975\, p^{114}\, q^{68} + 15264061\, p^{51}\, q^{15} + 182465371531\, p^{58}\, q^{36} + 7855488\, p^{51}\, q^{14}$$
$$+ 7995350421\, q^{115}\, p^{33} + 12602878297\, q^{115}\, p^{34} + 19517844025\, q^{115}\, p^{35} + 41607\, q^{49}\, p^{8} + 791310\, q^{51}\, p^{11} + 1803223\, q^{51}\, p^{12}$$
$$+ 320490\, q^{50}\, p^{10} + 870080131\, p^{32}\, q^{32} + 827509069\, p^{30}\, q^{34} + 859249585\, p^{31}\, q^{33} + 814280512375\, p^{118}\, q^{47} + 2506817823\, p^{116}\, q^{31}$$
$$+ 12808\, p^{48}\, q^{7} + 56284139540306\, p^{72}\, q^{58} + 65064180194230\, p^{72}\, q^{59} + 327458640\, p^{37}\, q^{25} + 48259\, p^{31}\, q^{9} + 220773\, p^{32}\, q^{11}$$
$$+ 841207296288927\, p^{113}\, q^{99} + 837735686886198\, p^{113}\, q^{97} + 323269382028400\, p^{82}\, q^{117} + 271950242\, q^{36}\, p^{25} + 522415705\, q^{36}\, p^{27}$$
$$+ 866618690\, q^{37}\, p^{28} + 9318047\, q^{35}\, p^{17} + 472593\, q^{33}\, p^{12} + 111906\, q^{32}\, p^{10} + 134289190\, q^{36}\, p^{23} + 959232038789172\, p^{79}\, q^{90}$$
$$+ 17175494\, p^{82}\, q^{16} + 938462285165\, p^{42}\, q^{59} + 315179362737694\, p^{97}\, q^{123} + 1632135369343\, p^{44}\, q^{60} + 10834641\, p^{173}\, q^{154} + 246\, p^{86}\, q^{8}$$
$$+ 106613527706\, p^{158}\, q^{121} + 7208870\, q^{145}\, p^{37} + 61790289\, q^{147}\, p^{43} + 27047887062\, q^{152}\, p^{70} + 32728379192\, q^{152}\, p^{71} + 8320\, q^{30}\, p^{7}$$
$$+ 89101702700\, q^{125}\, p^{44} + 9622384772\, q^{121}\, p^{36} + 63281225035\, q^{125}\, p^{43} + 2931\, q^{29}\, p^{6} + 49\, q^{20}\, p^{3} + 99815781\, p^{170}\, q^{148}$$
$$+ 42034635836153\, q^{92}\, p^{54} + 49597222405970\, q^{93}\, p^{55} + 656370\, p^{45}\, q^{11} + 1485475\, p^{46}\, q^{12} + 2657238\, q^{28}\, p^{17}$$
$$+ 123457675359452\, p^{79}\, q^{61} + 161324860479351\, p^{79}\, q^{63} + 141496231370988\, p^{79}\, q^{62} + 79398460034477\, p^{79}\, q^{58} + 4028959\, q^{28}\, p^{18}$$
$$+ 8754922\, q^{28}\, p^{20} + 15814190\, q^{29}\, p^{21} + 9602688282\, q^{90}\, p^{27} + 1031320023108\, p^{39}\, q^{71} + 1357112373740\, p^{40}\, q^{71}$$
$$+ 1769954430365\, p^{41}\, q^{71} + 4439919691\, p^{41}\, q^{31} + 10081910344\, p^{41}\, q^{34} + 13009467406\, p^{41}\, q^{35} + 20087389314\, p^{42}\, q^{36}$$
$$+ 11428249516\, p^{38}\, q^{37} + 438431363415317\, p^{101}\, q^{72} + 277380379135439\, p^{101}\, q^{68} + 1259954906690\, q^{79}\, p^{39} + 934828024759\, q^{79}\, p^{38}$$
$$+ 496663167836\, q^{78}\, p^{36} + 29121562393\, q^{94}\, p^{30} + 2147624065\, q^{89}\, p^{24} + 77507\, q^{29}\, p^{10} + 2526\, q^{27}\, p^{6} + 2447374732710\, p^{58}\, q^{47}$$
$$+ 2965540180648\, p^{58}\, q^{48} + 254743349662\, q^{105}\, p^{38} + 121530901917\, q^{105}\, p^{36} + 177119707993\, q^{105}\, p^{37} + 992039648519207\, p^{84}\, q^{82}$$
$$+ 237494047151\, q^{118}\, p^{43} + 13218\, p^{39}\, q^{7} + 62076639557\, p^{56}\, q^{33} + 26844680\, p^{50}\, q^{16} + 1408176910\, q^{168}\, p^{115} + 652406065971\, p^{75}\, q^{37}$$
$$+ 92489941927393\, p^{79}\, q^{59} + 42175\, q^{48}\, p^{8} + 24397223555336\, p^{96}\, q^{52} + 13071149029034\, p^{95}\, q^{49} + 65264876179796\, p^{123}\, q^{128}$$
$$+ 34268827\, p^{28}\, q^{24} + 137994948\, p^{60}\, q^{18} + 19324700\, p^{58}\, q^{15} + 9114819110331\, q^{92}\, p^{47} + 22780520407735\, q^{92}\, p^{51} + 214966996\, q^{163}\, p^{73}$$
$$+ 149328\, p^{21}\, q^{14} + 293260\, p^{22}\, q^{15} + 95521\, p^{21}\, q^{13} + 35761\, p^{21}\, q^{11} + 20524291652890\, q^{95}\, p^{51} + 17115949183868\, q^{94}\, p^{50}$$
$$+ 567523\, p^{23}\, q^{16} + 148826574\, p^{66}\, q^{18} + 332691\, q^{27}\, p^{13} + 1623657644474\, q^{99}\, p^{42} + 5991720\, q^{28}\, p^{19} + 18771275\, q^{81}\, p^{16}$$
$$+ 84711651092948\, p^{116}\, q^{130} + 10489498472782\, p^{60}\, q^{54} + 13699425639301\, p^{61}\, q^{55} + 2494985033322\, p^{60}\, q^{46}$$
$$+ 20042535821880\, q^{103}\, p^{53} + 24760180247518\, q^{103}\, p^{54} + 34467333631417\, q^{104}\, p^{56} + 44844375565231\, q^{103}\, p^{57}$$

$$+ 30380573779447\, q^{103}\, p^{55} + 37030237698608\, q^{103}\, p^{56} + 16110538206324\, q^{103}\, p^{52} + 43784811\, p^{29}\, q^{24} + 275211285\, q^{153}\, p^{54}$$
$$+ 155477996\, q^{152}\, p^{51} + 2416059705\, q^{154}\, p^{63} + 183572817\, p^{25}\, q^{34} + 298980494\, p^{28}\, q^{32} + 8305\, p^{56}\, q^{7} + 526781725\, p^{31}\, q^{31}$$
$$+ 131063281\, p^{24}\, q^{34} + 153403903049\, q^{127}\, p^{47} + 1207535212799277\, p^{83}\, q^{94} + 3778549853318\, p^{50}\, q^{57} + 1674235266\, p^{84}\, q^{163}$$
$$+ 165901701587\, q^{138}\, p^{57} + 877535324519\, q^{139}\, p^{66} + 1225618139567217\, p^{106}\, q^{93} + 29451468016017\, p^{90}\, q^{52}$$
$$+ 178930380415814\, p^{125}\, q^{114} + 139087378326864\, p^{125}\, q^{118} + 229398829190152\, p^{125}\, q^{108} + 214781780199855\, p^{125}\, q^{110}$$
$$+ 881815015683\, q^{94}\, p^{39} + 3\, p^{184}\, q^{109} + 4\, p^{187}\, q^{143} + 20000004775556\, p^{50}\, q^{82} + 12998079200948\, p^{48}\, q^{82} + 193291961235\, p^{96}\, q^{35}$$
$$+ 66936767270865\, p^{132}\, q^{115} + 6377306\, q^{40}\, p^{15} + 1630294\, p^{48}\, q^{12} + 598601207786\, q^{152}\, p^{95} + 713342\, p^{47}\, q^{11} + 730652394859\, q^{97}\, p^{39}$$
$$+ 490868423803171\, p^{72}\, q^{98} + 106964144\, p^{33}\, q^{24} + 644817\, p^{31}\, q^{13} + 8867263\, p^{32}\, q^{18} + 55548064517\, q^{72}\, p^{30} + 10427076043\, q^{71}\, p^{26}$$
$$+ 7491625869\, q^{61}\, p^{26} + 3158850942\, q^{61}\, p^{24} + 304560804\, p^{23}\, q^{41} + 446115950\, p^{24}\, q^{41} + 517846900\, p^{24}\, q^{42} + 643739824\, p^{25}\, q^{41}$$
$$+ 915929467\, p^{26}\, q^{41} + 2773954950\, p^{30}\, q^{40} + 1286078482\, p^{27}\, q^{41} + 2053853727\, p^{29}\, q^{40} + 82074442928\, p^{122}\, q^{42}$$
$$+ 1008790222148358\, p^{80}\, q^{89} + 1050222143620445\, p^{81}\, q^{88} + 253848943\, p^{26}\, q^{34} + 519976215\, p^{32}\, q^{30} + 468412292\, p^{28}\, q^{34}$$
$$+ 346805850\, p^{27}\, q^{34} + 579360084\, p^{28}\, q^{35} + 637977\, q^{156}\, p^{44} + 3026288\, q^{156}\, p^{47} + 1099388\, q^{156}\, p^{45} + 1846035\, q^{156}\, p^{46}$$
$$+ 1027388534876757\, p^{93}\, q^{80} + 33708772538005\, p^{134}\, q^{121} + 57087\, q^{151}\, p^{35} + 31669394\, q^{53}\, p^{16} + 39\, p^{33}\, q^{3} + 591177\, p^{43}\, q^{11}$$
$$+ 1325329\, p^{44}\, q^{12} + 2167\, p^{11}\, q^{11} + 1593746\, p^{18}\, q^{24} + 55439699\, p^{30}\, q^{24} + 1716\, p^{23}\, q^{6} + 602\, p^{22}\, q^{5} + 397062\, p^{28}\, q^{13} + 4966861\, p^{29}\, q^{18}$$
$$+ 8\, p^{15}\, q^{2} + 8177\, p^{70}\, q^{8} + 247972073535\, p^{75}\, q^{34} + 2107414695578\, p^{76}\, q^{41} + 10519129526\, p^{72}\, q^{26} + 172910427262\, p^{74}\, q^{33}$$
$$+ 4103978446\, p^{71}\, q^{24} + 1531\, p^{22}\, q^{6} + 546\, p^{21}\, q^{5} + 1399190347849\, q^{128}\, p^{56} + 865699781890\, q^{128}\, p^{54} + 672889295317\, q^{128}\, p^{53}$$
$$+ 518702071163\, q^{128}\, p^{52} + 5822589135885\, p^{130}\, q^{65} + 8173182524422\, p^{130}\, q^{67} + 1399190347849\, p^{128}\, q^{56} + 675731300\, p^{32}\, q^{31}$$
$$+ 60497591500048\, p^{125}\, q^{127} + 84097220138574\, p^{120}\, q^{128} + 68743138595\, q^{94}\, p^{32} + 205327466\, p^{26}\, q^{33} + 396281299\, p^{29}\, q^{32}$$
$$+ 3173703179\, q^{91}\, p^{25} + 103099318864\, q^{94}\, p^{33} + 13482147703\, q^{92}\, p^{28} + 168647779217739\, p^{62}\, q^{88} + 145802261888790\, p^{61}\, q^{88}$$
$$+ 2\, q^{34}\, p^{2} + 373532\, p^{15}\, q^{23} + 187\, p^{21}\, q^{4} + 47\, p^{19}\, q^{3} + 12659\, p^{26}\, q^{8} + 229244\, p^{28}\, q^{12} + 58551\, p^{27}\, q^{10} + 3949767\, p^{30}\, q^{17}$$
$$+ 24338531\, p^{31}\, q^{21} + 13541857\, p^{30}\, q^{20} + 9152058\, p^{30}\, q^{19} + 35049340\, p^{31}\, q^{22} + 795098\, p^{29}\, q^{14} + 117585877399854\, p^{65}\, q^{108}$$
$$+ 467695448448\, q^{74}\, p^{36} + 637320781245\, q^{74}\, p^{37} + 859571394488\, q^{74}\, p^{38} + 1147946410417\, q^{74}\, p^{39} + 237719601372549\, p^{114}\, q^{75}$$
$$+ 4107806357732\, p^{110}\, q^{49} + 1154532201273\, p^{109}\, q^{44} + 481430803529533\, p^{115}\, q^{85} + 1500424136399031\, p^{95}\, q^{89}$$
$$+ 240931612171590\, p^{125}\, q^{106} + 12128774\, p^{98}\, q^{18} + 90191908751\, p^{113}\, q^{38} + 699877\, p^{92}\, q^{14} + 38221452\, q^{82}\, p^{17}$$

$$+ 1537836772838789\, p^{94} q^{90} + 1472009471513\, p^{44} q^{59} + 2445139\, q^{134} p^{28} + 13406798\, q^{135} p^{31} + 51193031278179\, p^{55} q^{81}$$
$$+ 41851187877884\, p^{54} q^{80} + 13968897\, p^{27} q^{22} + 846797804\, q^{169} p^{124} + 649123534953097\, p^{94} q^{74} + 309811964800551\, p^{94} q^{67}$$
$$+ 1019485839\, q^{91} p^{23} + 5386946673\, q^{91} p^{26} + 21529702771\, q^{92} p^{29} + 1823496859\, q^{91} p^{24} + 777705938655295\, p^{90} q^{76}$$
$$+ 605605227216784\, p^{90} q^{73} + 14984183558536\, p^{112} q^{141} + 2134576404569\, p^{84} q^{145} + 4995493097000\, p^{91} q^{144} + 218547343\, q^{132} p^{34}$$
$$+ 986566155752\, p^{70} q^{39} + 7343260771589\, p^{71} q^{47} + 1295918618772\, p^{70} q^{40} + 13551025342133\, p^{71} q^{50} + 2788534009768\, p^{70} q^{43}$$
$$+ 2178050513587\, p^{70} q^{42} + 1472009471513\, p^{59} q^{44} + 1088399877\, p^{27} q^{40} + 124215211825\, p^{77} q^{32} + 85260447084\, p^{77} q^{31}$$
$$+ 86317371353854\, p^{82} q^{58} + 682177323386\, p^{78} q^{37} + 100875121422583\, p^{82} q^{59} + 413940882975\, p^{100} q^{38} + 73739792919449\, p^{62} q^{108}$$
$$+ 3931829\, p^{124} q^{24} + 938636555057\, p^{152} q^{110} + 457182525467981\, p^{100} q^{72} + 290330017028215\, p^{100} q^{68} + 9599283837320\, q^{130} p^{68}$$
$$+ 535912518260\, p^{41} q^{56} + 25535\, p^{82} q^{10} + 10152827270858\, p^{119} q^{58} + 1434382868\, p^{107} q^{27} + 159146982237474\, p^{125} q^{116}$$
$$+ 35077225\, q^{35} p^{20} + 62450260\, q^{36} p^{21} + 37005752113172\, q^{88} p^{53} + 44868896211182\, q^{88} p^{54} + 64227493950117\, q^{89} p^{56}$$
$$+ 77030477680906\, q^{88} p^{57} + 54057995137522\, q^{88} p^{55} + 64725954952752\, q^{88} p^{56} + 30322268245836\, q^{88} p^{52} + 925\, q^{28} p^{5} + 52\, q^{24} p^{3}$$
$$+ 34048447153\, p^{68} q^{29} + 13998044099\, p^{83} q^{27} + 10473011865061\, p^{138} q^{82} + 217781421675\, p^{133} q^{53} + 1580\, p^{87} q^{9}$$
$$+ 898357449403\, p^{135} q^{61} + 869094748\, q^{43} p^{25} + 597514374\, q^{43} p^{24} + 1246004483\, q^{43} p^{26} + 2460884546\, q^{43} p^{28} + 1762316453\, q^{43} p^{27}$$
$$+ 2864452324\, q^{44} p^{28} + 82199529916\, q^{81} p^{31} + 120961625417\, q^{81} p^{32} + 9645603899\, q^{80} p^{26} + 15388221171\, q^{80} p^{27}$$
$$+ 175536341347\, q^{81} p^{33} + 5924315532\, q^{80} p^{25} + 30715546730\, p^{43} q^{37} + 11520962713\, q^{56} p^{28} + 108224474\, q^{54} p^{18}$$
$$+ 12102470144\, p^{34} q^{42} + 446115950\, p^{41} q^{24} + 30471697\, p^{40} q^{18} + 915929467\, p^{41} q^{26} + 9268976852\, p^{42} q^{33} + 9806538\, p^{39} q^{16}$$
$$+ 3928244893\, p^{42} q^{30} + 2889491426\, p^{42} q^{29} + 7032272804\, p^{42} q^{32} + 188841413044733\, p^{72} q^{113} + 148184098361454\, p^{70} q^{113}$$
$$+ 167701705856377\, p^{71} q^{113} + 133853225410164\, p^{70} q^{114} + 211598290080331\, p^{73} q^{113} + 235945479361619\, p^{74} q^{113}$$
$$+ 261832469870473\, p^{75} q^{113} + 40382517632\, p^{130} q^{45} + 8679\, p^{94} q^{11} + 12856948072980\, p^{139} q^{87} + 154341228\, p^{121} q^{28}$$
$$+ 1543143210\, p^{125} q^{34} + 7507641995517\, p^{142} q^{122} + 33594562256186\, q^{136} p^{92} + 61201619412\, q^{131} p^{47} + 83866613043\, q^{131} p^{48}$$
$$+ 77889931123\, q^{130} p^{47} + 349640320648\, q^{131} p^{53} + 203120668177\, q^{131} p^{51} + 267676464528\, q^{131} p^{52} + 452818380088\, q^{131} p^{54}$$
$$+ 581627006180\, q^{131} p^{55} + 216150737468455\, p^{105} q^{126} + 206513518896068\, p^{111} q^{125} + 5605289579715\, p^{145} q^{115}$$
$$+ 9078101534\, p^{133} q^{43} + 5641243970120\, p^{143} q^{89} + 117893227553604\, p^{73} q^{63} + 104040773162765\, p^{73} q^{62} + 91345586624373\, p^{73} q^{61}$$
$$+ 7654\, p^{29} q^{7} + 19815\, p^{30} q^{8} + 472593\, p^{33} q^{12} + 111906\, p^{32} q^{10} + 9318047\, p^{35} q^{17} + 62450260\, p^{36} q^{21} + 1735306\, p^{34} q^{14}$$

$$+ 3570319535915\, p^{58} q^{49} + 4271488011661\, p^{58} q^{50} + 131958359\, q^{73} p^{18} + 90683590699387\, p^{119} q^{128} + 778606742\, q^{76} p^{21}$$
$$+ 16263625648\, q^{77} p^{27} + 6391002196\, q^{77} p^{25} + 10295938431\, q^{77} p^{26} + 3883842430\, q^{77} p^{24} + 212445470112931\, p^{64} q^{84}$$
$$+ 123521938299830\, p^{60} q^{85} + 14409056736226\, p^{51} q^{69} + 23019546\, q^{35} p^{19} + 249032\, q^{33} p^{11} + 2426326740\, q^{94} p^{25} + 29428284\, p^{34} q^{20}$$
$$+ 19422133\, p^{34} q^{19} + 77181173\, p^{35} q^{22} + 111736554\, p^{35} q^{23} + 60859892577648\, p^{126} q^{126} + 67631049342978\, p^{125} q^{126}$$
$$+ 427247986\, p^{35} q^{27} + 711182722\, p^{36} q^{28} + 355543746601\, p^{155} q^{109} + 322471201121\, p^{155} q^{118} + 174004178004\, p^{151} q^{79}$$
$$+ 35676675135\, p^{148} q^{64} + 130705075050\, p^{151} q^{77} + 209652181822\, p^{156} q^{121} + 215782654549\, p^{150} q^{78} + 49583\, q^{162} p^{48}$$
$$+ 696571665645\, p^{146} q^{77} + 42994668957057\, q^{136} p^{99} + 42034635836153\, q^{136} p^{98} + 44868896211182\, q^{136} p^{102}$$
$$+ 45211517093154\, q^{136} p^{104} + 37330915179029\, q^{137} p^{105} + 43792970814072\, q^{136} p^{100} + 45133735294830\, q^{136} p^{103}$$
$$+ 39675328713698\, q^{136} p^{96} + 44420187868975\, q^{136} p^{101} + 40923972518236\, q^{136} p^{97} + 36821010691965\, q^{136} p^{94}$$
$$+ 35246190329182\, q^{136} p^{93} + 11935693272191\, p^{121} q^{140} + 3061583\, q^{113} p^{20} + 2174863661376\, p^{47} q^{57} + 1035961274127547\, p^{107} q^{106}$$
$$+ 9666\, q^{146} p^{29} + 53452\, q^{32} p^{9} + 25008729126918\, p^{106} q^{139} + 6215117434798\, p^{144} q^{118} + 7892363173702\, p^{144} q^{111}$$
$$+ 1352945545843\, p^{140} q^{70} + 10261049871327\, p^{47} q^{81} + 193966\, q^{27} p^{12} + 36268124926059\, p^{70} q^{56} + 131272730412\, p^{66} q^{33}$$
$$+ 1326772205\, p^{63} q^{22} + 5623418760\, p^{64} q^{25} + 211598290080331\, q^{117} p^{77} + 2025103655656\, p^{45} q^{60} + 84300106149081\, p^{58} q^{81}$$
$$+ 225\, p^{56} q^{5} + 2182141\, q^{32} p^{15} + 2202276001318\, p^{115} q^{49} + 148408\, q^{94} p^{13} + 178070385\, q^{115} p^{26} + 332691\, p^{27} q^{13} + 4028959\, p^{28} q^{18}$$
$$+ 142835115\, q^{164} p^{74} + 25156185\, q^{158} p^{55} + 2534996\, q^{157} p^{48} + 166454875982744\, p^{117} q^{124} + 140255242863\, p^{107} q^{37}$$
$$+ 35986885363\, p^{105} q^{33} + 12016584985710\, p^{111} q^{54} + 2410224330\, q^{75} p^{23} + 245189659\, q^{74} p^{19} + 801169789\, q^{75} p^{21}$$
$$+ 22497097691112\, p^{109} q^{56} + 85012032613176\, p^{110} q^{64} + 18313997219533\, p^{109} q^{55} + 448237708853226\, p^{112} q^{80}$$
$$+ 725294595793410\, p^{112} q^{88} + 807112462842736\, p^{113} q^{103} + 771149641300457\, p^{113} q^{92} + 33130762185\, p^{102} q^{32} + 1581856088\, p^{98} q^{25}$$
$$+ 98984012978040\, p^{110} q^{65} + 227267930066422\, p^{111} q^{72} + 1683515770456\, q^{142} p^{75} + 608036944186510\, p^{77} q^{79}$$
$$+ 950969816401\, p^{117} q^{47} + 866574199474884\, p^{80} q^{83} + 541612095902\, p^{151} q^{129} + 831925970895\, q^{95} p^{39} + 1143545362970\, q^{95} p^{40}$$
$$+ 1555435942667\, q^{95} p^{41} + 275249236042\, p^{115} q^{42} + 67843660\, p^{102} q^{21} + 2126873023\, p^{108} q^{28} + 14124436326\, p^{39} q^{37}$$
$$+ 2740189720119\, p^{59} q^{47} + 3325462920724\, p^{59} q^{48} + 68340677542\, p^{57} q^{33} + 28505743\, p^{51} q^{16} + 5297041281\, p^{33} q^{39}$$
$$+ 9960980\, q^{108} p^{20} + 2821917972621\, q^{106} p^{46} + 61648033541\, q^{104} p^{34} + 290406366\, q^{91} p^{21} + 92344224\, q^{115} p^{25} + 586405019\, p^{56} q^{21}$$
$$+ 2505848690\, p^{57} q^{24} + 1267306980970474\, p^{87} q^{86} + 5647313305769\, p^{93} q^{144} + 9900501597447\, p^{101} q^{143} + 29802322324278\, p^{72} q^{54}$$

$$+ 6215117434798\, p^{72} q^{46} + 37369991956198\, p^{73} q^{55} + 176725518\, p^{22} q^{40} + 1271\, p^{118} q^{15} + 424625167263996\, p^{107} q^{75}$$
$$+ 10366044452582\, p^{47} q^{82} + 1502187544591564\, p^{93} q^{89} + 8133688462077\, p^{46} q^{81} + 1267009326726421\, p^{98} q^{106}$$
$$+ 258349925016622\, p^{82} q^{66} + 4873498200104\, p^{79} q^{44} + 2490205321\, p^{72} q^{23} + 60808231866540\, p^{81} q^{56} + 9702942351207\, p^{56} q^{57}$$
$$+ 8241159452810\, p^{54} q^{58} + 14154001294046\, p^{60} q^{56} + 5723896\, q^{35} p^{16} + 2966123\, q^{34} p^{15} + 172147927801089\, p^{118} q^{123} + 18\, q^{99} p^{9}$$
$$+ 832590731610597\, p^{78} q^{98} + 1225618139567217\, p^{84} q^{97} + 1166284066481661\, p^{83} q^{97} + 3\, p^{32} q^{2} + 76265905\, p^{68} q^{17}$$
$$+ 7111559971874\, q^{92} p^{46} + 11590294241251\, q^{92} p^{48} + 28130636741643\, q^{92} p^{52} + 14625567135944\, q^{92} p^{49} + 189\, p^{39} q^{4} + 1999\, p^{93} q^{10}$$
$$+ 12647875018629\, p^{80} q^{48} + 6226294191612\, p^{79} q^{45} + 13842663900900\, p^{88} q^{139} + 30576507114612\, p^{114} q^{137}$$
$$+ 16281049485119\, p^{137} q^{124} + 4271488011661\, p^{140} q^{132} + 17152124678521\, p^{137} q^{85} + 4804210350899\, p^{140} q^{131} + 113682747\, p^{117} q^{26}$$
$$+ 8170652392046\, p^{135} q^{74} + 16459506\, p^{113} q^{22} + 2975615917123\, p^{134} q^{66} + 531519456026\, p^{69} q^{37} + 9068688390098\, p^{71} q^{48}$$
$$+ 4463955138314\, p^{70} q^{45} + 22183004540\, p^{67} q^{28} + 118499\, p^{52} q^{9} + 191465119309\, p^{156} q^{123} + 83914959996\, p^{150} q^{72}$$
$$+ 130986751602\, p^{156} q^{129} + 11023763386\, p^{157} q^{147} + 2283139\, p^{128} q^{25} + 23940062772\, p^{157} q^{142} + 181763286509\, p^{156} q^{124}$$
$$+ 453189578662\, p^{153} q^{96} + 348\, p^{92} q^{9} + 2714119653\, p^{158} q^{153} + 4335717760\, p^{157} q^{152} + 136149293\, p^{138} q^{37} + 151382649846\, p^{156} q^{127}$$
$$+ 358438728187\, p^{155} q^{111} + 2363442639\, p^{143} q^{48} + 2869722181228\, p^{141} q^{77} + 20757\, q^{115} p^{16} + 6300882\, q^{125} p^{25}$$
$$+ 1479305622238069\, p^{91} q^{89} + 285039411114123\, p^{124} q^{99} + 519452120\, p^{106} q^{25} + 11558096882\, p^{110} q^{32} + 1295918618772\, p^{150} q^{120}$$
$$+ 963049311535\, p^{150} q^{125} + 362828046933\, q^{108} p^{40} + 106766290575289\, p^{64} q^{70} + 13531676041708\, p^{49} q^{75}$$
$$+ 355297808132233\, q^{118} p^{85} + 311629421745235\, q^{118} p^{83} + 333478845760804\, q^{118} p^{84} + 376899356024483\, q^{118} p^{86}$$
$$+ 418666689630542\, q^{118} p^{88} + 398088840909927\, q^{118} p^{87} + 438431363415317\, q^{118} p^{89} + 474724269773865\, q^{118} p^{91}$$
$$+ 457182525467981\, q^{118} p^{90} + 34791854177\, q^{61} p^{30} + 11899248709\, q^{62} p^{27} + 24215993534\, q^{61} p^{29} + 11246975299\, q^{61} p^{27}$$
$$+ 16624265183\, q^{61} p^{28} + 60050530087817\, p^{60} q^{69} + 1337176859097601\, p^{87} q^{88} + 1298018532527339\, p^{86} q^{88} + 606150525\, q^{96} p^{23}$$
$$+ 1669\, p^{69} q^{7} + 53849490941939\, p^{125} q^{128} + 199251425\, p^{104} q^{23} + 252465447833301\, p^{124} q^{93} + 278336730757680\, p^{124} q^{97} + 9\, p^{19} q^{2}$$
$$+ 18507175490161\, p^{52} q^{70} + 3075355974657\, p^{43} q^{72} + 1331\, p^{9} q^{12} + 628\, p^{7} q^{13} + 827\, p^{8} q^{12} + 8028974175392\, q^{80} p^{46}$$
$$+ 2714119653\, p^{32} q^{37} + 1681718192\, p^{31} q^{36} + 9\, p^{17} q^{2} + 212\, p^{23} q^{4} + 51\, p^{21} q^{3} + 41523399\, p^{36} q^{20} + 27096718\, p^{36} q^{19}$$
$$+ 109660703\, p^{37} q^{22} + 160278478\, p^{37} q^{23} + 634168488\, p^{37} q^{27} + 1048556050\, p^{38} q^{28} + 981964\, p^{34} q^{13} + 2966123\, p^{34} q^{15}$$
$$+ 7248695987422\, p^{136} q^{133} + 747217\, q^{37} p^{12} + 2555785\, q^{37} p^{14} + 5064243\, q^{38} p^{15} + 29738\, q^{35} p^{8} + 11477\, q^{35} p^{7} + 1571256\, q^{38} p^{13}$$

$$+ 377947\, q^{37}\, p^{11} + 39442168086775\, p^{136}\, q^{112} + 5021880330742\, q^{82}\, p^{44} + 361812547367\, q^{105}\, p^{39} + 18889536599\, q^{103}\, p^{31}$$
$$+ 992152279054577\, p^{89}\, q^{108} + 56360872\, q^{129}\, p^{30} + 29859989\, q^{129}\, p^{29} + 1114929\, q^{35}\, p^{13} + 103\, q^{111}\, p^{12} + 59\, q^{112}\, p^{12} + 124736\, q^{33}\, p^{10}$$
$$+ 278997\, q^{34}\, p^{11} + 310657\, q^{35}\, p^{11} + 33594562256186\, p^{98}\, q^{54} + 222438036787310\, p^{125}\, q^{109} + 5930701\, p^{97}\, q^{17} + 118153841\, p^{103}\, q^{22}$$
$$+ 169116962320160\, p^{125}\, q^{115} + 220773\, q^{32}\, p^{11} + 26611198\, p^{156}\, q^{52} + 5231862527773\, p^{143}\, q^{88} + 1835864816869\, p^{144}\, q^{80}$$
$$+ 16840837943\, p^{137}\, q^{48} + 3831950410652\, p^{147}\, q^{110} + 2552879150860\, p^{144}\, q^{83} + 4522069021471\, p^{146}\, q^{100} + 2052641800857\, p^{149}\, q^{115}$$
$$+ 264235892225\, q^{149}\, p^{77} + 758847295602834\, p^{80}\, q^{80} + 186824052\, p^{54}\, q^{19} + 887838232\, p^{55}\, q^{22} + 538817214783678\, p^{72}\, q^{87}$$
$$+ 8792225058113\, q^{93}\, p^{47} + 1907517250\, p^{30}\, q^{38} + 319182542839\, p^{94}\, q^{36} + 33743202424\, p^{92}\, q^{30} + 110289176241\, p^{93}\, q^{33}$$
$$+ 1143545362970\, p^{95}\, q^{40} + 831925970895\, p^{95}\, q^{39} + 453189578662\, p^{94}\, q^{37} + 26284134458\, q^{104}\, p^{32} + 40586235774\, q^{104}\, p^{33}$$
$$+ 62978734986829\, p^{61}\, q^{68} + 81634069694\, p^{33}\, q^{59} + 4381201708\, p^{25}\, q^{59} + 111246081172\, p^{34}\, q^{59} + 150018593881\, p^{35}\, q^{59} + 5\, p^{71}\, q^{5}$$
$$+ 599397032867557\, p^{93}\, q^{73} + 775731729352060\, p^{93}\, q^{76} + 4662\, q^{125}\, p^{18} + 5\, q^{101}\, p^{9} + 993\, q^{125}\, p^{17} + 74871792182\, q^{58}\, p^{33} + 2042\, q^{86}\, p^{9}$$
$$+ 51983100031430\, q^{135}\, p^{99} + 35049340\, p^{22}\, q^{31} + 1199182900\, p^{53}\, q^{23} + 455750437\, q^{74}\, p^{20} + 85029955544\, q^{78}\, p^{31}$$
$$+ 24947769004\, q^{78}\, p^{28} + 57694373180\, q^{77}\, p^{30} + 38145980821\, q^{78}\, p^{29} + 16036093921\, q^{78}\, p^{27} + 57388085169\, q^{78}\, p^{30}$$
$$+ 1408176910\, q^{75}\, p^{22} + 1374814587\, q^{76}\, p^{22} + 254508075904\, q^{78}\, p^{34} + 686546506659\, q^{153}\, p^{111} + 76444820413\, p^{106}\, q^{159}$$
$$+ 1122853988380251\, p^{102}\, q^{85} + 9670\, q^{24}\, p^{8} + 64983\, q^{24}\, p^{11} + 305234937698005\, p^{106}\, q^{123} + 837735686886198\, p^{93}\, q^{77}$$
$$+ 332517532818302\, p^{68}\, q^{83} + 14269979793\, p^{38}\, q^{38} + 7\, q^{45}\, p^{3} + 523568144863\, q^{97}\, p^{38} + 10735205435\, p^{35}\, q^{40} + 21115530921\, p^{41}\, q^{37}$$
$$+ 7967573180641\, p^{59}\, q^{53} + 9823204163688\, p^{49}\, q^{69} + 17684340162\, p^{39}\, q^{38} + 1162785586418615\, p^{101}\, q^{85} + 10475942158526\, p^{49}\, q^{70}$$
$$+ 16511821519\, q^{75}\, p^{27} + 16529361761\, q^{74}\, p^{27} + 25401836283\, q^{74}\, p^{28} + 38393166993\, q^{74}\, p^{29} + 5513319855502\, p^{62}\, q^{49}$$
$$+ 15055525523724\, p^{91}\, q^{49} + 179068441057686\, p^{70}\, q^{111} + 652609186012932\, p^{82}\, q^{109} + 780453346563932\, p^{85}\, q^{109}$$
$$+ 354181251\, p^{56}\, q^{20} + 4110639093\, p^{58}\, q^{25} + 7661\, p^{57}\, q^{7} + 25242124195\, p^{162}\, q^{117} + 34334394363\, p^{161}\, q^{107} + 14972607578\, p^{160}\, q^{89}$$
$$+ 778034169\, p^{164}\, q^{150} + 148658398\, p^{65}\, q^{18} + 6331592915\, p^{122}\, q^{165} + 8295230312\, p^{127}\, q^{164} + 6956319239\, p^{142}\, q^{161}$$
$$+ 358806835149310\, p^{68}\, q^{87} + 400050569858074\, p^{69}\, q^{87} + p^{15}\, q + 68340677542\, p^{133}\, q^{157} + 23690866\, p^{149}\, q^{43} + 16155546310\, p^{163}\, q^{119}$$
$$+ 17576922481\, p^{162}\, q^{102} + 16562508259\, p^{162}\, q^{101} + 11916\, p^{50}\, q^{7} + 757812628\, q^{167}\, p^{96} + 714042134377142\, p^{89}\, q^{75}$$
$$+ 147191994414032\, p^{70}\, q^{67} + 172935824751\, q^{82}\, p^{33} + 118882310543\, q^{82}\, p^{32} + 286982269744842\, p^{93}\, q^{123}$$
$$+ 143909801409690\, p^{81}\, q^{123} + 135869089433467\, p^{82}\, q^{124} + 132751082706\, p^{151}\, q^{141} + 104339009738\, p^{152}\, q^{141}$$

$$+ 179541521465\, p^{149}\, q^{142} + 4563498149\, q^{93}\, p^{26} + 928156178\, q^{92}\, p^{23} + 314048605719433\, p^{92}\, q^{122} + 151700767\, p^{22}\, q^{39}$$
$$+ 53960244289256\, p^{57}\, q^{100} + 1510113060\, p^{27}\, q^{42} + 3395033994\, p^{29}\, q^{43} + 3928244893\, p^{30}\, q^{42} + 2101426855\, p^{28}\, q^{42}$$
$$+ 2889491426\, p^{29}\, q^{42} + 258065556\, q^{165}\, p^{80} + 11399\, p^{51}\, q^{7} + 792933\, p^{57}\, q^{11} + 9520587\, p^{60}\, q^{14} + 4370616\, p^{59}\, q^{13}$$
$$+ 155179662790985\, p^{73}\, q^{116} + 36786488947172\, p^{70}\, q^{124} + 36023536256133\, p^{71}\, q^{125} + 1027388534876757\, p^{97}\, q^{110}$$
$$+ 755501089970957\, p^{89}\, q^{112} + 749051179385251\, p^{113}\, q^{106} + 1727924279695\, q^{102}\, p^{43} + 5295054588361\, p^{52}\, q^{57}$$
$$+ 9702942351207\, p^{57}\, q^{56} + 59250085390\, p^{59}\, q^{32} + 9237408339\, p^{58}\, q^{27} + 42510983952\, p^{59}\, q^{31} + 817153428409\, p^{60}\, q^{41}$$
$$+ 111246081172\, p^{59}\, q^{34} + 150018593881\, p^{59}\, q^{35} + 135\, p^{43}\, q^{4} + 3311701343\, p^{30}\, q^{41} + 4439919691\, p^{31}\, q^{41} + 5283035189\, p^{31}\, q^{42}$$
$$+ 5892109819\, p^{32}\, q^{41} + 7743452133\, p^{33}\, q^{41} + 451432374\, q^{93}\, p^{22} + 63457111\, q^{92}\, p^{19} + 87603763456798\, p^{121}\, q^{127}$$
$$+ 57673188886972\, p^{129}\, q^{123} + 9596546946\, q^{96}\, p^{28} + 5249893\, q^{85}\, p^{15} + 8342841642\, p^{34}\, q^{40} + 223\, p^{170}\, q^{55} + 3320\, p^{176}\, q^{78}$$
$$+ 1204581933751433\, p^{99}\, q^{107} + 327641742583351\, p^{69}\, q^{100} + 367915429927357\, p^{70}\, q^{100} + 611105607268344\, p^{75}\, q^{100}$$
$$+ 438431363415317\, p^{72}\, q^{101} + 557363994649281\, p^{74}\, q^{100} + 457182525467981\, p^{72}\, q^{100} + 505985362884033\, p^{73}\, q^{100}$$
$$+ 1150244723868064\, p^{84}\, q^{86} + 14663584773\, q^{123}\, p^{38} + 1170991284\, q^{37}\, p^{29} + 489986838\, q^{85}\, p^{21} + 277135068\, q^{84}\, p^{20} + 552640\, p^{13}\, q^{30}$$
$$+ 496\, q^{75}\, p^{7} + 1560414\, p^{15}\, q^{30} + 563587\, p^{66}\, q^{11} + 80926088\, p^{26}\, q^{29} + 194466\, q^{31}\, p^{11} + 1247340882113714\, p^{106}\, q^{100}$$
$$+ 271868933\, p^{69}\, q^{19} + 346135085818888\, p^{81}\, q^{69} + 381972401273117\, p^{81}\, q^{70} + 1634\, q^{158}\, p^{38} + 4049142435647\, p^{130}\, q^{63}$$
$$+ 41984842630927\, p^{132}\, q^{122} + 637631728399\, q^{127}\, p^{52} + 2881218\, p^{82}\, q^{14} + 231715\, p^{76}\, q^{11} + 41851187877884\, p^{80}\, q^{54}$$
$$+ 71804254002056\, p^{81}\, q^{57} + 927104582042\, p^{78}\, q^{38} + 34847355450309\, p^{80}\, q^{53} + 2966\, q^{76}\, p^{8} + 114249536293531\, p^{81}\, q^{60}$$
$$+ 1112453447548\, p^{39}\, q^{73} + 90194507876373\, p^{64}\, q^{68} + 548945583\, p^{40}\, q^{25} + 64338\, p^{34}\, q^{9} + 310657\, p^{35}\, q^{11} + 9650\, p^{32}\, q^{7} + 25772\, p^{33}\, q^{8}$$
$$+ 672719\, p^{36}\, q^{12} + 152092\, p^{35}\, q^{10} + 14369127\, p^{38}\, q^{17} + 101127393\, p^{39}\, q^{21} + 2555785\, p^{37}\, q^{14} + 66204575\, p^{39}\, q^{20} + 42501137\, p^{39}\, q^{19}$$
$$+ 176725518\, p^{40}\, q^{22} + 261880000\, p^{40}\, q^{23} + 1088399877\, p^{40}\, q^{27} + 1783385121\, p^{41}\, q^{28} + 1410129\, p^{37}\, q^{13} + 4472506\, p^{37}\, q^{15}$$
$$+ 93071019\, q^{100}\, p^{21} + 76568909818749\, p^{132}\, q^{112} + 4940464599885\, p^{127}\, q^{61} + 30450874247736\, p^{129}\, q^{75} + 19815\, q^{30}\, p^{8}$$
$$+ 42892244612\, q^{88}\, p^{30} + 1257827574119\, q^{83}\, p^{39} + 6\, q^{59}\, p^{4} + 104355\, q^{114}\, p^{17} + 465151577\, p^{25}\, q^{39} + 1305877271342\, p^{43}\, q^{60}$$
$$+ 541612095902\, p^{39}\, q^{61} + 6634473423587\, p^{62}\, q^{50} + 14560149738\, p^{59}\, q^{28} + 2461753654872\, p^{62}\, q^{45} + 1140415885752\, p^{61}\, q^{42}$$
$$+ 415474843370\, p^{61}\, q^{38} + 1438532739524\, p^{61}\, q^{43} + 315857747714\, p^{61}\, q^{37} + 541612095902\, p^{61}\, q^{39} + 70092281038252\, p^{64}\, q^{112}$$
$$+ 202236738836244\, p^{71}\, q^{111} + 157754871878111\, p^{69}\, q^{111} + 138266470439235\, p^{68}\, q^{111} + 120554914563137\, p^{67}\, q^{111}$$

$$+ 823510902069720\, p^{105} q^{112} + 15694\, q^{103} p^{13} + 47208722096408\, p^{56} q^{99} + 7141\, p^{182} q^{168} + 203126\, p^{180} q^{125} + 260348\, p^{178} q^{106}$$
$$+ 174474\, p^{180} q^{123} + 358719098114877\, p^{74} q^{108} + 1336244453\, q^{77} p^{22} + 957422519\, q^{36} p^{29} + 25610410\, q^{93} p^{18} + 27789\, q^{34} p^{8}$$
$$+ 64338\, q^{34} p^{9} + 2260682\, q^{36} p^{14} + 21470902339\, q^{143} p^{55} + 276614101869245\, q^{117} p^{80} + 254146355130912\, q^{117} p^{79}$$
$$+ 172903111528870\, q^{117} p^{75} + 191728485781270\, q^{117} p^{76} + 32255086157\, p^{139} q^{52} + 693271099821\, p^{143} q^{71} + 74749439386\, p^{139} q^{55}$$
$$+ 232436125794899\, q^{117} p^{78} + 7741081471115\, p^{47} q^{72} + 14343773478008\, p^{50} q^{72} + 11757766506708\, p^{49} q^{72} + 6514066989830\, p^{46} q^{73}$$
$$+ 9573364648592\, p^{48} q^{72} + 1460554338539219\, p^{95} q^{88} + 1198574777653415\, p^{95} q^{83} + 57130265225\, q^{74} p^{30}$$
$$+ 10489498472782\, p^{54} q^{60} + 79787657423806\, p^{119} q^{129} + 68456400847066\, p^{121} q^{129} + 79781850309802\, p^{117} q^{130}$$
$$+ 11745215295948\, p^{136} q^{129} + 5174\, q^{61} p^{7} + 71764\, q^{63} p^{9} + 3284783494\, q^{82} p^{24} + 9034327876\, q^{82} p^{26} + 125808763380176\, p^{68} q^{112}$$
$$+ 32144\, p^{181} q^{119} + 7421\, p^{180} q^{102} + 2933\, p^{177} q^{82} + 109\, p^{169} q^{52} + 1426\, p^{176} q^{76} + 10\, p^{187} q^{147} + p^{185} q^{115} + 23\, p^{186} q^{136} + 604\, q^{158} p^{37}$$
$$+ 60177023\, q^{98} p^{20} + 27736916\, q^{98} p^{19} + 7599161703281\, p^{52} q^{60} + 4119915658868\, p^{48} q^{61} + 12710530439512\, p^{57} q^{58}$$
$$+ 1891759\, p^{59} q^{12} + 16306528693373\, p^{60} q^{57} + 577712073123508\, p^{74} q^{99} + 14528070572945\, p^{58} q^{58} + 64919360126712\, p^{56} q^{86}$$
$$+ 31397228435150\, q^{120} p^{65} + 41984842630927\, p^{58} q^{68} + 827509069\, p^{34} q^{30} + 1274229659450\, p^{150} q^{97} + 1147946410417\, p^{151} q^{116}$$
$$+ 284238975738\, p^{152} q^{133} + 346978743295\, p^{152} q^{131} + 1173607770043\, q^{87} p^{39} + 19758639087887\, p^{138} q^{90} + 6655011906505\, p^{141} q^{126}$$
$$+ 1399190347849\, p^{134} q^{62} + 23294729290689\, p^{138} q^{93} + 4944082807042\, p^{136} q^{72} + 25082624996827\, p^{139} q^{105} + 51304833687\, p^{129} q^{45}$$
$$+ 11229\, p^{93} q^{11} + 16110538206324\, p^{138} q^{87} + 197458713\, p^{120} q^{28} + 1968258111\, p^{124} q^{34} + 9170156302191\, p^{141} q^{122}$$
$$+ 13120536828318\, p^{137} q^{82} + 277007810388\, p^{132} q^{53} + 2042\, p^{86} q^{9} + 1139954152249\, p^{134} q^{61} + 2532556549\, p^{31} q^{38}$$
$$+ 656677066\, p^{26} q^{39} + 181407946338176\, p^{84} q^{123} + 420316938063816\, p^{72} q^{79} + 497802288470982\, p^{71} q^{92} + 859345\, q^{33} p^{13}$$
$$+ 9306872\, p^{63} q^{14} + 4222635\, p^{62} q^{13} + 562677979030878\, p^{79} q^{108} + 642007774575610\, p^{103} q^{116} + 630462042714252\, p^{104} q^{116}$$
$$+ 616552691251306\, p^{105} q^{116} + 600439330814850\, p^{106} q^{116} + 582304180485302\, p^{116} q^{107} + 81685118615755\, p^{130} q^{88}$$
$$+ 86677457\, p^{21} q^{38} + 367090796882602\, p^{110} q^{120} + 6363446131612\, p^{86} q^{45} + 478492163274\, p^{84} q^{36} + 64725954952752\, p^{88} q^{56}$$
$$+ 12933951350418\, p^{87} q^{48} + 945946642959385\, p^{84} q^{81} + 391586521\, p^{38} q^{25} + 53452\, p^{32} q^{9} + 249032\, p^{33} q^{11} + 13783575\, p^{74} q^{15}$$
$$+ 252\, p^{186} q^{157} + 175\, p^{186} q^{170} + 7\, p^{172} q^{56} + 950\, p^{183} q^{118} + 49\, p^{181} q^{93} + 398241705187\, q^{96} p^{37} + 132003978996\, q^{96} p^{34}$$
$$+ 193291961235\, q^{96} p^{35} + 561086699232\, q^{96} p^{38} + 274746174\, p^{24} q^{38} + 109660703\, p^{22} q^{37} + 106716665047480\, q^{89} p^{59}$$
$$+ 145462547352590\, q^{89} p^{61} + 193967742218691\, q^{89} p^{63} + 168426685522397\, q^{89} p^{62} + 222201966795077\, q^{89} p^{64}$$

$$+ 287101866897733\, q^{89} p^{66} + 253223859166850\, q^{89} p^{65} + 286662082836579\, q^{90} p^{66} + 124941575420728\, q^{89} p^{60}$$
$$+ 90631281265532\, q^{89} p^{58} + 160278478\, p^{23} q^{37} + 148866879026894\, p^{69} q^{68} + 26763\, q^{59} p^{8} + 21316870096\, q^{84} p^{28}$$
$$+ 73974497598\, q^{85} p^{31} + 33183367024\, q^{84} p^{29} + 50773979648\, q^{84} p^{30} + 915916840557553\, p^{93} q^{111} + 3427169519\, q^{81} p^{24}$$
$$+ 1426\, q^{114} p^{14} + 7003\, p^{169} q^{58} + 281102\, p^{180} q^{131} + 17999\, p^{171} q^{65} + 13998044099\, q^{83} p^{27} + 22123506132\, q^{83} p^{28}$$
$$+ 34334394363\, q^{83} p^{29} + 8590450080359\, q^{112} p^{53} + 13348529387402\, q^{112} p^{55} + 6816394525202\, q^{112} p^{52} + 10746772311968\, q^{112} p^{54}$$
$$+ 12568747\, q^{34} p^{18} + 1503899117\, p^{28} q^{40} + 9081292267\, p^{36} q^{38} + 3074636197\, p^{31} q^{39} + 4054960399\, p^{32} q^{39} + 665863445702\, q^{111} p^{43}$$
$$+ 906076745271\, q^{111} p^{44} + 1220613424851\, q^{111} p^{45} + 1437306220295\, q^{112} p^{46} + 2965540180648\, p^{48} q^{58} + 68789275561296\, q^{102} p^{59}$$
$$+ 81685118615755\, q^{102} p^{60} + 993857498096149\, p^{88} q^{80} + 6213092859988\, p^{53} q^{57} + 816066418\, p^{169} q^{126} + 73483957657221\, p^{123} q^{127}$$
$$+ 131063281\, p^{34} q^{24} + 746902\, p^{32} q^{13} + 10594688\, p^{33} q^{18} + 1259738374738487\, p^{99} q^{106} + 1336293910203\, q^{150} p^{98}$$
$$+ 48315852346102\, p^{122} q^{131} + 52401293198503\, p^{121} q^{131} + 57393496532064\, p^{115} q^{133} + 13551025342133\, p^{50} q^{71}$$
$$+ 4486368592949\, p^{51} q^{57} + 77346618\, q^{67} p^{17} + 5932975015292\, p^{129} q^{64} + 8466500617062\, p^{56} q^{56} + 285039411114123\, p^{99} q^{124}$$
$$+ 266191626391\, p^{101} q^{37} + 21246127227852\, p^{105} q^{54} + 141183329785085\, p^{129} q^{106} + 5939993\, p^{102} q^{18} + 54473442638\, p^{58} q^{32}$$
$$+ 8570026715\, p^{57} q^{27} + 39182252119\, p^{58} q^{31} + 740801744838\, p^{59} q^{41} + 101794250297\, p^{58} q^{34} + 136965848851\, p^{58} q^{35} + 4102\, p^{40} q^{6}$$
$$+ 939642841745\, p^{69} q^{39} + 6935454679289\, p^{70} q^{47} + 1232087340373\, p^{69} q^{40} + 12745938805927\, p^{70} q^{50} + 2637943240470\, p^{69} q^{43}$$
$$+ 2063763031902\, p^{69} q^{42} + 6450331536\, p^{121} q^{165} + 354250401878537\, p^{104} q^{122} + 300048019339082\, p^{114} q^{120}$$
$$+ 400050569858074\, p^{103} q^{121} + 686590223171\, q^{153} p^{109} + 688023131999\, q^{153} p^{110} + 2487440660632\, q^{125} p^{56} + 39386613\, p^{66} q^{16}$$
$$+ 4049142435647\, p^{127} q^{60} + 10136949142693\, p^{128} q^{66} + 19655114383652\, p^{51} q^{96} + 10314945378043\, p^{48} q^{95}$$
$$+ 95215846871839\, p^{59} q^{95} + 13071149029034\, p^{49} q^{95} + 16439231104870\, p^{50} q^{95} + 5283035189\, p^{42} q^{31} + 12102470144\, p^{42} q^{34}$$
$$+ 15659824592\, p^{42} q^{35} + 24085135830\, p^{43} q^{36} + 4497116\, p^{93} q^{16} + 313595985768\, q^{125} p^{48} + 2335772\, p^{91} q^{15} + 3523322970\, p^{37} q^{33}$$
$$+ 4923526\, p^{34} q^{16} + 1279176505\, p^{104} q^{26} + 7134820932839\, p^{117} q^{55} + 821292904141\, p^{114} q^{45} + 1518488847\, p^{93} q^{24}$$
$$+ 39264352061880\, p^{57} q^{69} + 14506099331\, q^{91} p^{28} + 236287653016\, q^{93} p^{35} + 2939007727752\, q^{94} p^{43} + 2207659105418\, q^{94} p^{42}$$
$$+ 338967478824\, q^{93} p^{36} + 62\, p^{177} q^{74} + 3876661552937\, q^{94} p^{44} + 1274229659450\, q^{93} p^{40} + 23088019413\, q^{91} p^{29} + 194596846\, p^{134} q^{35}$$
$$+ 8685511536\, q^{83} p^{26} + 2841872072\, p^{33} q^{36} + 1048556050\, p^{28} q^{38} + 634168488\, p^{27} q^{37} + 4532930352\, p^{34} q^{37} + 12223\, p^{67} q^{8}$$
$$+ 152632533\, q^{171} p^{139} + 164075152\, q^{171} p^{138} + 2182141\, p^{32} q^{15} + 253848943\, p^{34} q^{26} + 71\, q^{123} p^{15} + 550\, q^{126} p^{17} + 2798\, q^{126} p^{18}$$

$$+ 7081343509309\, p^{61} q^{125} + 20201509614075\, p^{50} q^{83} + 749051179385251\, p^{84} q^{77} + 823510902069720\, p^{85} q^{78}$$
$$+ 552781379683239\, p^{84} q^{73} + 698924630170138\, p^{84} q^{76} + 672719\, q^{36} p^{12} + 25772\, q^{33} p^{8} + 169611925449\, q^{73} p^{33}$$
$$+ 1199098595288115\, p^{100} q^{85} + 55594479\, q^{161} p^{63} + 199144595628\, q^{110} p^{39} + 286860\, p^{45} q^{10} + 3398661\, p^{48} q^{13} + 89831347\, p^{51} q^{18}$$
$$+ 97164291019\, q^{139} p^{56} + 125242002899\, q^{139} p^{57} + 255703466339\, q^{139} p^{60} + 203120668177\, q^{139} p^{59} + 488411419736\, q^{139} p^{63}$$
$$+ 726545511017\, q^{139} p^{65} + 670671678132\, q^{140} p^{66} + 319527567851\, q^{139} p^{61} + 597668592282\, q^{139} p^{64} + 396426120514\, q^{139} p^{62}$$
$$+ 160125607279\, q^{139} p^{58} + 199049823648\, p^{45} q^{44} + 288553320333\, p^{46} q^{45} + 63795891574\, p^{95} q^{32} + 3173703179\, p^{91} q^{25}$$
$$+ 87315162580\, p^{45} q^{40} + 12870\, p^{183} q^{152} + 1619\, p^{127} q^{18} + 315857747714\, p^{153} q^{129} + 4166780\, q^{108} p^{19} + 8000237\, q^{109} p^{20}$$
$$+ 4712655285008\, p^{45} q^{71} + 107220092843903\, p^{131} q^{103} + 61935148724466\, p^{130} q^{84} + 928156178\, p^{92} q^{23} + 12747112\, p^{85} q^{16}$$
$$+ 17684340162\, p^{38} q^{39} + 3263332543924\, q^{114} p^{50} + 57855497531\, q^{151} p^{72} + 750240397\, p^{42} q^{25} + 18591645\, p^{40} q^{17} + 3207767\, p^{39} q^{14}$$
$$+ 87569669\, p^{41} q^{20} + 55622734\, p^{41} q^{19} + 235469655\, p^{42} q^{22} + 352046432\, p^{42} q^{23} + 1510113060\, p^{42} q^{27} + 2460884546\, p^{43} q^{28}$$
$$+ 5700014\, p^{39} q^{15} + 277380379135439\, p^{68} q^{101} + 313327519458557\, p^{69} q^{101} + 25611685065\, p^{57} q^{30} + 5355325221\, p^{56} q^{26}$$
$$+ 18022827862\, p^{57} q^{29} + 135109626\, p^{41} q^{21} + 1091010570585811\, p^{109} q^{98} + 18583029701216\, p^{104} q^{53} + 65053436\, q^{157} p^{56}$$
$$+ 893542\, q^{150} p^{38} + 442116\, q^{149} p^{36} + 1644662\, q^{150} p^{39} + 62603\, q^{146} p^{31} + 12595825890116\, p^{90} q^{140} + 665004661079\, p^{153} q^{114}$$
$$+ 13340\, p^{181} q^{113} + 30435\, p^{180} q^{109} + 13169\, p^{183} q^{143} + 14320\, p^{180} q^{105} + 4865\, p^{175} q^{75} + p^{156} q^{31} + 907\, p^{172} q^{62} + 8\, p^{160} q^{36} + 349\, q^{53} p^{5}$$
$$+ 7008\, q^{58} p^{7} + 1803223\, p^{51} q^{12} + 776990\, p^{50} q^{11} + 63781179\, p^{55} q^{17} + 699951289617\, p^{61} q^{40} + 7094878289\, q^{87} p^{26}$$
$$+ 1413238211\, q^{87} p^{23} + 2481692241\, q^{87} p^{24} + 3734220761008\, p^{62} q^{47} + 4552344639431\, p^{62} q^{48} + 5936502874559\, q^{115} p^{53}$$
$$+ 2574\, p^{120} q^{16} + 3976103844\, q^{88} p^{25} + 185942\, p^{24} q^{13} + 1346\, p^{21} q^{6} + 488\, p^{20} q^{5} + 16381\, p^{23} q^{9} + 64983\, p^{24} q^{11} + 2038604\, p^{25} q^{18}$$
$$+ 363670277246523\, q^{90} p^{68} + 406593772731788\, q^{90} p^{69} + 552075549541301\, q^{90} p^{72} + 500932998524291\, q^{90} p^{71}$$
$$+ 718749478277154\, q^{90} p^{75} + 837737054282753\, q^{90} p^{77} + 902883204682677\, q^{91} p^{78} + 605605227216784\, q^{90} p^{73}$$
$$+ 777705938655295\, q^{90} p^{76} + 14593592\, p^{73} q^{15} + 4600407517715\, q^{132} p^{66} + 3061555660057\, q^{102} p^{45} + 4019663483202\, q^{102} p^{46}$$
$$+ 1946866519612\, p^{122} q^{148} + 2063763031902\, p^{121} q^{148} + 1505389\, q^{33} p^{14} + 6085262\, q^{159} p^{53} + 9103453\, q^{159} p^{54} + 40990982\, q^{160} p^{60}$$
$$+ 56360872\, q^{160} p^{61} + 68910648925\, q^{117} p^{39} + 814280512375\, q^{118} p^{47} + 1081076844370\, q^{118} p^{48} + 99661012711\, q^{117} p^{40}$$
$$+ 5089921859158\, q^{108} p^{49} + 3938452974306\, q^{108} p^{48} + 6524618883452\, q^{108} p^{50} + p^{186} q^{126} + 11\, p^{186} q^{133} + 12\, p^{187} q^{148} + 2\, p^{187} q^{141}$$
$$+ 296\, q^{173} p^{63} + 4088261068009\, q^{129} p^{62} + 189530041191\, q^{126} p^{47} + 2227484131789\, q^{131} p^{61} + 863042211\, q^{68} p^{21} + 148313440\, q^{67} p^{18}$$

$$+ 1355126535\, p^{35}\, q^{31} + 1806123357\, p^{33}\, q^{34} + 1405220358\, p^{32}\, q^{34} + 2301315869\, p^{34}\, q^{34} + 2907844269\, p^{35}\, q^{34} + 1806123357\, p^{34}\, q^{33}$$
$$+ 59269469390707\, p^{134}\, q^{110} + 51967388299\, q^{92}\, p^{31} + 36072734210\, q^{91}\, p^{30} + 33743202424\, q^{92}\, p^{30} + 172674203124\, q^{92}\, p^{34}$$
$$+ 8173182524422\, p^{123}\, q^{60} + 20214394565389\, p^{124}\, q^{66} + 37414238\, q^{171}\, p^{94} + 44324140988158\, q^{136}\, p^{107} + 43419807808130\, q^{135}\, p^{114}$$
$$+ 46969343752295\, q^{135}\, p^{112} + 45255997643648\, q^{135}\, p^{113} + 41480139281805\, q^{135}\, p^{115} + 34229384221883\, p^{61}\, q^{114} + 79884122\, p^{96}\, q^{20}$$
$$+ 86071361\, q^{143}\, p^{40} + 317607373662836\, p^{120}\, q^{113} + 1026500055613332\, p^{91}\, q^{80} + 288943827187\, p^{69}\, q^{35} + 23579440478282\, p^{71}\, q^{53}$$
$$+ 1501818062842\, p^{89}\, q^{40} + 3541788802798\, p^{70}\, q^{44} + 69111831130\, p^{32}\, q^{61} + 586816830233\, p^{120}\, q^{47} + 2783743731\, p^{137}\, q^{43}$$
$$+ 123855787469\, q^{153}\, p^{82} + 106425445009\, q^{130}\, p^{48} + 56398650766\, q^{130}\, p^{46} + 6197323157914\, q^{135}\, p^{72} + 17691593866\, q^{129}\, p^{42}$$
$$+ 1465362316597\, q^{131}\, p^{59} + 937135383142\, q^{131}\, p^{57} + 1176120545058\, q^{131}\, p^{58} + 116612314810\, p^{72}\, q^{32} + 32026105\, p^{84}\, q^{17}$$
$$+ 81033418459\, p^{72}\, q^{31} + 13531676041708\, p^{75}\, q^{49} + 159019145430522\, p^{76}\, q^{64} + 6959268407\, p^{128}\, q^{39} + 6178530838\, p^{121}\, q^{35}$$
$$+ 1022908473037\, p^{151}\, q^{99} + 1225323471337\, p^{151}\, q^{105} + 3570319535915\, p^{49}\, q^{58} + 52745002795015\, q^{116}\, p^{65}$$
$$+ 73515985120327\, p^{131}\, q^{116} + 106554612\, q^{152}\, p^{50} + 46492595081420\, p^{74}\, q^{56} + 156000914227\, p^{70}\, q^{33} + 1453439844\, p^{67}\, q^{22}$$
$$+ 6331592915\, p^{68}\, q^{25} + 9892565715\, p^{68}\, q^{26} + 2406984950\, p^{67}\, q^{23} + 648021089679803\, p^{107}\, q^{80} + 1012811548531361\, p^{107}\, q^{88}$$
$$+ 258759346558424\, q^{108}\, p^{71} + 554727295303284\, p^{107}\, q^{78} + 10012541830666\, p^{53}\, q^{61} + 6071697752416\, p^{49}\, q^{63}$$
$$+ 7933825076891\, p^{51}\, q^{62} + 16011802367323\, p^{64}\, q^{54} + 20616230290851\, p^{65}\, q^{55} + 3640206692601\, p^{64}\, q^{46} + 57582802136560\, p^{132}\, q^{88}$$
$$+ 103439\, q^{149}\, p^{34} + 28013549481207\, p^{54}\, q^{71} + 16402102523720\, p^{51}\, q^{71} + 118325029743523\, p^{126}\, q^{84} + 1594426380\, q^{141}\, p^{45}$$
$$+ 36120980\, q^{134}\, p^{32} + 1089\, p^{33}\, q^{5} + 4982330253709\, p^{61}\, q^{49} + 4854166365537\, p^{146}\, q^{103} + 1275578131239\, p^{143}\, q^{75}$$
$$+ 1104345212516657\, p^{83}\, q^{86} + 3361384934702\, q^{129}\, p^{61} + 1163943792673\, q^{130}\, p^{57} + 4940464599885\, q^{129}\, p^{63}$$
$$+ 2745588744364\, q^{129}\, p^{60} + 14733043109\, q^{105}\, p^{31} + 3334841463\, q^{105}\, p^{28} + 9168099735\, q^{105}\, p^{30} + 5590267633\, q^{105}\, p^{29}$$
$$+ 6411227848947\, p^{60}\, q^{51} + 7599161703281\, p^{60}\, q^{52} + 115867\, p^{45}\, q^{9} + 41997\, p^{44}\, q^{8} + 16715469553198\, p^{127}\, q^{68}$$
$$+ 4756178932952\, p^{125}\, q^{59} + 85465156454181\, p^{131}\, q^{113} + 6450331536\, q^{69}\, p^{25} + 493256837\, q^{68}\, p^{20} + 273785413\, q^{68}\, p^{19}$$
$$+ 2274625082\, p^{33}\, q^{35} + 3686069316\, p^{35}\, q^{35} + 5845231566\, p^{36}\, q^{36} + 1355126535\, p^{31}\, q^{35} + 301018805299\, q^{70}\, p^{35}$$
$$+ 294099940803\, q^{55}\, p^{39} + 1060829111140742\, p^{81}\, q^{96} + 106555862850804\, q^{103}\, p^{62} + 90683162916211\, q^{103}\, p^{61} + 8\, p^{14}\, q^{2}$$
$$+ 86634655664578\, p^{63}\, q^{108} + 1259738374738487\, p^{84}\, q^{91} + 8320\, p^{30}\, q^{7} + 21764\, p^{31}\, q^{8} + 535080\, p^{34}\, q^{12} + 124736\, p^{33}\, q^{10}$$
$$+ 10834641\, p^{36}\, q^{17} + 73817246\, p^{37}\, q^{21} + 1986924\, p^{35}\, q^{14} + 283442076207\, p^{124}\, q^{47} + 225\, p^{24}\, q^{4} + 51\, p^{22}\, q^{3} + 48824099\, p^{37}\, q^{20}$$

$$+ 31685826\, p^{37} q^{19} + 129399491\, p^{38} q^{22} + 190009077\, p^{38} q^{23} + 764427627\, p^{38} q^{27} + 1259967265\, p^{39} q^{28} + 1114929\, p^{35} q^{13}$$
$$+ 3423413\, p^{35} q^{15} + 1040\, p^{185} q^{151} + 28\, p^{53} q^{4} + 2325\, q^{26} p^{6} + 774\, q^{25} p^{5} + 38774052265721\, q^{105} p^{57} + 8867263\, p^{18} q^{32}$$
$$+ 1056872637\, p^{115} q^{29} + 1138396693850\, p^{124} q^{52} + 79144775707230\, p^{129} q^{85} + 67854246760106\, p^{129} q^{83} + 32454466111\, p^{30} q^{60}$$
$$+ 6642894865\, p^{26} q^{59} + 1869287686581\, p^{124} q^{54} + 1370414589926876\, p^{86} q^{92} + 145462547352590\, p^{89} q^{61} + 193967742218691\, p^{89} q^{63}$$
$$+ 20501377922\, p^{98} q^{30} + 68682274348\, p^{99} q^{33} + 1187348572439\, p^{147} q^{84} + 2094461619530\, p^{148} q^{95} + 3331470931\, p^{101} q^{27}$$
$$+ 2059236821026\, p^{109} q^{46} + 6739356346688\, p^{110} q^{51} + 783334295303\, p^{107} q^{42} + 2712206557489\, p^{109} q^{47} + 4819907863\, q^{120} p^{34}$$
$$+ 5920401765\, q^{119} p^{34} + 14187184610139\, q^{133} p^{75} + 24552563109175\, q^{132} p^{78} + 39357\, p^{96} q^{178} + 382\, p^{92} q^{180}$$
$$+ 91373478236549\, p^{60} q^{100} + 670228517259147\, p^{75} q^{97} + 594951340\, p^{101} q^{24} + 562421039447\, q^{150} p^{86} + 27452185765415\, p^{57} q^{109}$$
$$+ 138602209122808\, p^{83} q^{61} + 182591414566606\, p^{83} q^{63} + 159504951431809\, p^{83} q^{62} + 93058\, p^{59} q^{9} + 235586710045913\, p^{83} q^{65}$$
$$+ 1031283468\, p^{35} q^{30} + 4873498200104\, q^{79} p^{44} + 3783772424922\, q^{79} p^{43} + 2223337568107\, q^{79} p^{41} + 178931060799\, q^{78} p^{33}$$
$$+ 442726676\, q^{75} p^{20} + 124187903826\, q^{78} p^{32} + 2913116348354\, q^{79} p^{42} + 1083449213\, p^{34} q^{31} + 1083449213\, p^{31} q^{34}$$
$$+ 1422300083\, p^{33} q^{33} + 1763727502\, p^{35} q^{32} + 1110448176\, p^{32} q^{33} + 1110448176\, p^{33} q^{32} + 1405220358\, p^{34} q^{32} + 2907844269\, p^{34} q^{35}$$
$$+ 1763727502\, p^{32} q^{35} + 206513518896068\, p^{65} q^{79} + 651055845325539\, p^{74} q^{88} + 597293420230709\, p^{73} q^{88} + 13019825268604\, q^{120} p^{60}$$
$$+ 1284290120\, q^{114} p^{29} + 31932873745775\, q^{121} p^{66} + 8764126948739\, q^{120} p^{58} + 334302397\, p^{55} q^{20} + 3838714352\, p^{57} q^{25}$$
$$+ 191167158\, q^{141} p^{40} + 17338346469161\, p^{132} q^{75} + 1514295839\, q^{135} p^{40} + 1145532580900\, q^{140} p^{69} + 23279058657\, q^{137} p^{49}$$
$$+ 1210556930275437\, p^{98} q^{107} + 340285950350522\, p^{75} q^{110} + 738468099939342\, p^{84} q^{109} + 101210833438792\, p^{64} q^{108}$$
$$+ 688430157952309\, p^{80} q^{106} + 517846900\, p^{42} q^{24} + 34559760\, p^{41} q^{18} + 1071557273\, p^{42} q^{26} + 11023763386\, p^{43} q^{33} + 11049413\, p^{40} q^{16}$$
$$+ 4630314558\, p^{43} q^{30} + 3395033994\, p^{43} q^{29} + 8339535810\, p^{43} q^{32} + 13696160744\, p^{36} q^{40} + 25551880986\, p^{42} q^{37}$$
$$+ 21756060124\, p^{40} q^{38} + 2\, q^{120} p^{13} + 7032272804\, p^{32} q^{42} + 10081910344\, p^{34} q^{41} + 385709734\, p^{88} q^{21} + 6246495454\, p^{43} q^{31}$$
$$+ 14433888571\, p^{43} q^{34} + 18727156074\, p^{43} q^{35} + 28693601058\, p^{44} q^{36} + 4630314558\, p^{30} q^{43} + 2490420466\, q^{123} p^{34}$$
$$+ 22497097691112\, q^{134} p^{81} + 135180009731056\, p^{69} q^{67} + 825136\, q^{38} p^{12} + 309811964800551\, p^{96} q^{123} + 2363442639\, q^{142} p^{47}$$
$$+ 156558840166\, q^{153} p^{136} + 106327987775\, q^{154} p^{137} + 248237765912\, q^{82} p^{34} + 39820392\, p^{30} q^{23} + 224528271064421\, p^{124} q^{90}$$
$$+ 180881203855150\, p^{124} q^{86} + 109575173601049\, p^{123} q^{78} + 125079693629780\, p^{124} q^{81} + 248230765764184\, p^{125} q^{98}$$
$$+ 107630445320190\, p^{90} q^{129} + 57152416488027\, p^{83} q^{130} + 192166591810769\, p^{124} q^{87} + 214094147628945\, p^{124} q^{89}$$

$$+ 949741584109504\, p^{89} q^{79} + 62125761604650\, p^{56} q^{82} + 43666426761564\, p^{54} q^{82} + 193967742218691\, p^{127} q^{101}$$
$$+ 90683590699387\, p^{128} q^{119} + 74072143418771\, p^{129} q^{120} + 4369339863\, p^{113} q^{31} + 1123468860571303\, p^{89} q^{82}$$
$$+ 131915429997820\, p^{61} q^{81} + 49597222405970\, q^{135} p^{97} + 50882644790966\, q^{135} p^{98} + 52885817164967\, q^{135} p^{100}$$
$$+ 54057995137522\, q^{135} p^{102} + 53580195245371\, q^{135} p^{101} + 54313503258143\, q^{135} p^{103} + 54147993214927\, q^{135} p^{105}$$
$$+ 54343633295148\, q^{135} p^{104} + 251048479998134\, p^{121} q^{85} + 10594688\, p^{18} q^{33} + 29828155\, p^{21} q^{32} + 444175622729488\, p^{70} q^{93}$$
$$+ 89250353388098\, p^{123} q^{76} + 99127797209659\, p^{123} q^{77} + 249957672880173\, p^{103} q^{68} + 13534404\, p^{19} q^{32} + 69588435\, p^{24} q^{31}$$
$$+ 17218\, p^{64} q^{8} + 20269540\, p^{20} q^{32} + 900668683833986\, p^{93} q^{78} + 619957722119\, p^{150} q^{87} + 24645925915\, p^{100} q^{161}$$
$$+ 7864823850\, p^{92} q^{162} + 856800898\, p^{67} q^{21} + 3975429434\, p^{68} q^{24} + 273911438\, p^{66} q^{19} + 806727847947\, p^{72} q^{38}$$
$$+ 638939974423836\, p^{79} q^{106} + 988\, q^{81} p^{8} + 10843467817563\, p^{55} q^{59} + 5904184054976\, p^{46} q^{71} + 7343260771589\, p^{47} q^{71}$$
$$+ 9068688390098\, p^{48} q^{71} + 225\, p^{186} q^{166} + 368\, p^{184} q^{124} + 1838\, q^{157} p^{37} + 8954031165075\, p^{53} q^{60} + 14433671836100\, p^{59} q^{57}$$
$$+ 7967573180641\, p^{53} q^{59} + 1060568807095\, p^{43} q^{58} + 8709093514\, q^{97} p^{28} + 158284\, q^{79} p^{11} + 73170150426444\, p^{133} q^{98}$$
$$+ 29691855550010\, p^{131} q^{78} + 162258248938245\, p^{70} q^{68} + 582304180485302\, p^{83} q^{74} + 297895022539339\, p^{83} q^{67}$$
$$+ 449351693470681\, p^{83} q^{71} + 492153437252966\, p^{83} q^{72} + 332517532818302\, p^{83} q^{68} + 629108452814737\, p^{83} q^{75}$$
$$+ 48933322824304\, p^{75} q^{56} + 161107603249\, p^{71} q^{33} + 1470410648\, p^{68} q^{22} + 6450331536\, p^{69} q^{25} + 10111875939\, p^{69} q^{26}$$
$$+ 2444960166\, p^{68} q^{23} + 1673845407\, q^{118} p^{31} + 31662\, q^{36} p^{8} + 209504390423169\, p^{64} q^{94} + 318922587159372\, p^{111} q^{121}$$
$$+ 56770020193140\, p^{119} q^{68} + 218916838431253\, p^{121} q^{83} + 841206764496864\, p^{92} q^{77} + 77961682062\, q^{124} p^{43} + 109456642087\, q^{124} p^{44}$$
$$+ 19813604\, p^{63} q^{15} + 62125761604650\, p^{134} q^{108} + 123712315363\, p^{76} q^{32} + 85125817223\, p^{76} q^{31} + 3052841704028\, p^{60} q^{47}$$
$$+ 3710537658328\, p^{60} q^{48} + 1484916\, q^{79} p^{13} + 777032000\, p^{35} q^{29} + 2520527157347\, q^{114} p^{49} + 20424974700\, q^{106} p^{32}$$
$$+ 1732354827069\, p^{108} q^{45} + 706434676405626\, p^{115} q^{102} + 227824936994\, p^{106} q^{38} + 718749478277154\, p^{115} q^{100}$$
$$+ 641879789400785\, p^{114} q^{89} + 289183672478318\, p^{113} q^{76} + 317897420445014\, p^{113} q^{77} + 632857168642901\, p^{115} q^{91}$$
$$+ 404884661562843\, p^{114} q^{81} + 167701705856377\, p^{113} q^{71} + 568380623091\, p^{107} q^{41} + 121530901917\, p^{105} q^{36} + 16120400\, p^{71} q^{15}$$
$$+ 66204575\, q^{39} p^{20} + 1668115916\, p^{92} q^{24} + 2122690991104\, q^{103} p^{44} + 18583029701216\, q^{104} p^{53} + 14916973989341\, q^{104} p^{52}$$
$$+ 22987663602791\, q^{104} p^{54} + 28242239317962\, q^{104} p^{55} + 2934822251210\, p^{43} q^{71} + 41792072946381\, q^{133} p^{86} + 413067\, q^{38} p^{11}$$
$$+ 42501137\, q^{39} p^{19} + 1232171746458284\, p^{86} q^{86} + 1193007183538878\, p^{85} q^{86} + 1157730036444255\, p^{83} q^{88}$$

$$+ 1311849571535231\, p^{85} q^{91} + 53965792027336\, p^{132} q^{87} + 64706231474732\, p^{132} q^{90} + 26606642648425\, p^{131} q^{77}$$
$$+ 23725494441877\, p^{131} q^{76} + 16180352824094\, p^{49} q^{82} + 30133347917\, p^{59} q^{30} + 6211822644\, p^{58} q^{26} + 21088300873\, p^{59} q^{29}$$
$$+ 7933825076891\, p^{62} q^{51} + 9429860080258\, p^{62} q^{52} + 11572746\, p^{153} q^{46} + 1606218809\, p^{57} q^{23} + 3992040\, p^{52} q^{13} + 114041714\, p^{55} q^{18}$$
$$+ 16730180\, p^{53} q^{15} + 218795578666\, p^{60} q^{36} + 8482925\, p^{53} q^{14} + 932940472779193\, p^{89} q^{109} + 1146959304339347\, p^{96} q^{108}$$
$$+ 261512124243081\, p^{113} q^{122} + 311453051429828\, p^{105} q^{123} + 254146355130912\, p^{73} q^{111} + 566695271552841\, p^{81} q^{110}$$
$$+ 526441843727409\, p^{80} q^{110} + 348301405541054\, p^{105} q^{122} + 24635185420\, q^{149} p^{64} + 121524\, q^{133} p^{24} + 84300106149081\, p^{81} q^{58}$$
$$+ 674968031037\, p^{77} q^{37} + 98411750846094\, p^{81} q^{59} + 897052606442\, p^{41} q^{61} + 49622015304567\, p^{98} q^{56} + 68147691645329\, p^{99} q^{58}$$
$$+ 1337176859097601\, p^{88} q^{87} + 11134879354240\, p^{57} q^{57} + 453877549\, q^{170} p^{128} + 440564950\, q^{170} p^{129} + 61173612845513\, p^{132} q^{89}$$
$$+ 41426399066434\, p^{72} q^{56} + 144367947220\, p^{68} q^{33} + 1401188793\, p^{65} q^{22} + 6020318759\, p^{66} q^{25} + 24917344103601\, p^{103} q^{139}$$
$$+ 1226036381176831\, p^{87} q^{85} + 1123468860571303\, p^{82} q^{89} + 78475043\, p^{64} q^{17} + 846797804\, p^{66} q^{21} + 40187666\, p^{63} q^{16}$$
$$+ 3898886248\, p^{67} q^{24} + 272117748\, p^{65} q^{19} + 776500805919\, p^{71} q^{38} + 79927094\, q^{90} p^{19} + 18772411\, q^{89} p^{17} + 4104702\, q^{87} p^{15}$$
$$+ 261515270\, q^{92} p^{21} + 16595047\, q^{90} p^{17} + 37369209\, q^{90} p^{18} + 41915917\, q^{89} p^{18} + 1816422\, p^{77} q^{13} + 357608700656\, p^{155} q^{112}$$
$$+ 317104346886\, p^{153} q^{91} + 82643874701\, p^{154} q^{139} + 174474\, q^{67} p^{10} + 60883\, q^{65} p^{9} + 1281479\, q^{69} p^{12} + 493256\, q^{68} p^{11}$$
$$+ 57635747\, q^{76} p^{17} + 236910060\, q^{75} p^{19} + 55564\, q^{66} p^{9} + 160378\, q^{68} p^{10} + 127345586\, q^{74} p^{18} + 2546214\, q^{73} p^{13} + 14593592\, q^{73} p^{15}$$
$$+ 63582863\, q^{74} p^{17} + 6701220\, q^{72} p^{14} + 15375056\, q^{72} p^{15} + 1114750\, q^{71} p^{12} + 753273012\, q^{77} p^{21} + 1198465\, q^{70} p^{12} + 60680984\, q^{75} p^{17}$$
$$+ 122322421\, q^{75} p^{18} + 2920922\, q^{71} p^{13} + 6304034\, q^{73} p^{14} + 778721676185\, q^{149} p^{86} + 704548316257\, q^{149} p^{85} + 634364477847\, q^{149} p^{84}$$
$$+ 449509000324\, q^{149} p^{81} + 506737116531\, q^{149} p^{82} + 457794\, q^{69} p^{11} + 12954973\, q^{75} p^{15} + 2734053\, q^{72} p^{13} + 5900991\, q^{74} p^{14}$$
$$+ 422454\, q^{70} p^{11} + 102697586086975\, p^{122} q^{76} + 113937538562829\, p^{122} q^{77} + 255972864188000\, p^{123} q^{90} + 244318303364359\, p^{123} q^{89}$$
$$+ 27453272\, p^{25} q^{26} + 207037009352633\, p^{123} q^{86} + 125808763380176\, p^{122} q^{78} + 143909801409690\, p^{123} q^{81}$$
$$+ 282253265868326\, p^{124} q^{98} + 52401293198503\, p^{59} q^{69} + 97\, p^{46} q^{4} + 10769511561074\, q^{94} p^{48} + 26215960696844\, p^{54} q^{70}$$
$$+ 49851070022\, p^{68} q^{30} + 475169184\, p^{64} q^{20} + 37369991956198\, q^{135} p^{117} + 39456854087687\, q^{135} p^{116} + 35239446863199\, q^{135} p^{118}$$
$$+ 33084672012033\, q^{135} p^{119} + 3005764\, p^{16} q^{31} + 943019\, p^{14} q^{30} + 2071312190\, p^{31} q^{37} + 1275334629\, p^{30} q^{36} + 180768076790\, p^{141} q^{61}$$
$$+ 1021480784120170\, p^{94} q^{80} + 232480140695\, p^{72} q^{34} + 1922537347731\, p^{73} q^{41} + 219732692361205\, p^{123} q^{87}$$
$$+ 4095982624355\, p^{116} q^{52} + 3400180428\, p^{117} q^{32} + 27047887062\, p^{120} q^{38} + 57\, q^{63} p^{5} + 1655100640\, q^{45} p^{26} + 781731123\, q^{45} p^{24}$$

$$+ 699862536316\, p^{148}\, q^{82} + 9343633168\, p^{66}\, q^{26} + 2301835421\, p^{65}\, q^{23} + 7248695987422\, p^{54}\, q^{57} + 315857747714\, p^{37}\, q^{61}$$
$$+ 141141042674\, p^{34}\, q^{62} + 237887071582\, p^{36}\, q^{61} + 130986751602\, p^{34}\, q^{61} + 177423704333\, p^{35}\, q^{61} + 178537371313944\, p^{82}\, q^{122}$$
$$+ 48315852346102\, p^{59}\, q^{68} + 16813564\, q^{44}\, p^{16} + 26185105\, q^{43}\, p^{17} + 8630389\, q^{43}\, p^{15} + 15265719\, q^{43}\, p^{16} + 178029282234034\, p^{70}\, q^{69}$$
$$+ 1137523188513151\, p^{82}\, q^{95} + 1257512010807044\, p^{84}\, q^{95} + 1504408783415737\, p^{89}\, q^{94} + 807114100030750\, p^{77}\, q^{96}$$
$$+ 277418129584755\, p^{67}\, q^{98} + 557886377461755\, p^{73}\, q^{97} + 505437765821732\, p^{72}\, q^{97} + 176047540192615\, p^{71}\, q^{68} + 61281\, p^{92}\, q^{12}$$
$$+ 63265688911062\, p^{117}\, q^{67} + 42838898091024\, p^{81}\, q^{54} + 73442001841263\, p^{82}\, q^{57} + 934828024759\, p^{79}\, q^{38} + 35627373911688\, p^{81}\, q^{53}$$
$$+ 117233134816431\, p^{82}\, q^{60} + 74809674407617\, p^{60}\, q^{72} + 65064180194230\, p^{59}\, q^{72} + 43982402312517\, p^{56}\, q^{73}$$
$$+ 31322678683906\, q^{95}\, p^{53} + 102843424422\, p^{99}\, q^{34} + 3061555660057\, p^{102}\, q^{45} + 1021982966660\, p^{101}\, q^{41} + 1150244723868064\, p^{86}\, q^{84}$$
$$+ 1193690892390732\, p^{90}\, q^{83} + 297602405\, p^{131}\, q^{34} + 1506577995856\, p^{90}\, q^{148} + 56611\, p^{108}\, q^{15} + 109117\, p^{110}\, q^{16}$$
$$+ 1466580034264\, p^{96}\, q^{41} + 152347311279\, p^{94}\, q^{34} + 955712741124352\, p^{102}\, q^{82} + 1068702087688043\, p^{102}\, q^{84}$$
$$+ 1055869597148258\, p^{91}\, q^{108} + 883719791343197\, p^{95}\, q^{78} + 1642443982868\, q^{149}\, p^{96} + 60808231866540\, p^{56}\, q^{81}$$
$$+ 49954516731955\, p^{55}\, q^{80} + 1470410648\, p^{168}\, q^{122} + 71432380495\, p^{129}\, q^{46} + 21787604911639\, p^{139}\, q^{113} + 255703466339\, p^{130}\, q^{51}$$
$$+ 24552188938446\, p^{139}\, q^{108} + 507776377222\, q^{150}\, p^{85} + 65569163636\, p^{142}\, q^{58} + 2854467\, p^{45}\, q^{13} + 71295555\, p^{48}\, q^{18}$$
$$+ 321125745218\, p^{150}\, q^{81} + 5283035189\, p^{148}\, q^{159} + 6246495454\, p^{147}\, q^{159} + 1456545977144\, p^{145}\, q^{133} + 8792225058113\, p^{143}\, q^{97}$$
$$+ 40911190999\, p^{135}\, q^{49} + 2703225470\, p^{130}\, q^{38} + 1694571\, p^{49}\, q^{12} + 737741\, p^{48}\, q^{11} + 1029542022432929\, p^{103}\, q^{109}$$
$$+ 67379724073343\, p^{133}\, q^{95} + 276497519\, p^{106}\, q^{24} + 135869089433467\, p^{124}\, q^{82} + 385883780355\, p^{117}\, q^{44} + 14587536\, q^{91}\, p^{17}$$
$$+ 15407457206181\, p^{51}\, q^{70} + 111799573714853\, p^{124}\, q^{122} + 1123506545979096\, p^{82}\, q^{96} + 975090335418528\, p^{103}\, q^{110}$$
$$+ 4009676735779\, p^{59}\, q^{49} + 265573921629431\, p^{83}\, q^{66} + 4943203742779\, p^{80}\, q^{44} + 2474167388\, p^{73}\, q^{23} + 62125761604650\, p^{82}\, q^{56}$$
$$+ 74854749\, p^{69}\, q^{17} + 12848692915997\, p^{81}\, q^{48} + 6324840288742\, p^{80}\, q^{45} + 27251847654233\, p^{61}\, q^{60} + 117\, q^{115}\, p^{13}$$
$$+ 24033082881462\, p^{56}\, q^{65} + 26244996180359\, p^{63}\, q^{58} + 24033082881462\, p^{65}\, q^{56} + 244079751039\, q^{83}\, p^{34} + 1875822649684\, p^{101}\, q^{43}$$
$$+ 1179512304137\, q^{75}\, p^{39} + 1518620792571\, q^{74}\, p^{40} + 1990782804976\, q^{74}\, p^{41} + 25274024386280\, p^{64}\, q^{57} + 168426685522397\, p^{89}\, q^{62}$$
$$+ 253223859166850\, p^{89}\, q^{65} + 59728767274633\, q^{134}\, p^{97} + 62456802291438\, q^{134}\, p^{99} + 46531925087524\, q^{135}\, p^{95}$$
$$+ 60497591500048\, p^{127}\, q^{125} + 1546410819730934\, p^{98}\, q^{92} + 1720905096419\, p^{43}\, q^{63} + 1359677409141\, p^{42}\, q^{63}$$
$$+ 2161509656448\, p^{44}\, q^{63} + 3640206692601\, p^{46}\, q^{64} + 4100402088903\, p^{47}\, q^{63} + 2694880161583\, p^{45}\, q^{63} + 3335795441916\, p^{46}\, q^{63}$$

$$+ 64706231474732\, p^{58}\, q^{100} + 77121492775855\, p^{59}\, q^{100} + 170060487248118\, p^{64}\, q^{100} + 102097258925475\, p^{61}\, q^{101}$$
$$+ 146818067704938\, p^{63}\, q^{100} + 107630445320190\, p^{61}\, q^{100} + 126058470781583\, p^{62}\, q^{100} + 106617\, p^{56}\, q^{9} + 12544514240289\, p^{56}\, q^{59}$$
$$+ 28843924180889\, p^{91}\, q^{52} + 92489941927393\, p^{59}\, q^{79} + 11061328868130\, p^{56}\, q^{58} + 1732354827069\, q^{108}\, p^{45} + 140255242863\, q^{107}\, p^{37}$$
$$+ 54\, p^{155}\, q^{32} + 630\, p^{164}\, q^{45} + 58\, p^{156}\, q^{33} + 457794\, p^{179}\, q^{121} + 748132019\, p^{142}\, q^{44} + 9956450823\, p^{146}\, q^{56} + 1427\, p^{100}\, q^{11}$$
$$+ 425780141675\, p^{153}\, q^{95} + 35600255760\, p^{157}\, q^{139} + 30322268245836\, p^{102}\, q^{138} + 11786948750147\, q^{101}\, p^{50} + 4995493097000\, q^{99}\, p^{46}$$
$$+ 9574078519362\, p^{55}\, q^{58} + 15889762355113\, p^{61}\, q^{56} + 399784179073650\, p^{72}\, q^{78} + 1580973004251901\, p^{92}\, q^{93}$$
$$+ 35627373911688\, p^{53}\, q^{81} + 6071697752416\, p^{63}\, q^{49} + 373460628\, p^{57}\, q^{20} + 4381201708\, p^{59}\, q^{25} + 518702071163\, p^{128}\, q^{52}$$
$$+ 10152827270858\, p^{132}\, q^{71} + 47208722096408\, p^{134}\, q^{91} + 35285281538305\, p^{124}\, q^{132} + 1469068102883\, p^{40}\, q^{73}$$
$$+ 1087394172490714\, p^{81}\, q^{91} + 7960105\, q^{34}\, p^{17} + 204802400605445\, p^{91}\, q^{125} + 1623657644474\, p^{99}\, q^{42} + 5641243970120\, p^{101}\, q^{47}$$
$$+ 37987081493290\, p^{130}\, q^{126} + 220812045565\, p^{99}\, q^{36} + 1050222143620445\, p^{109}\, q^{102} + 45101280561738\, q^{136}\, p^{105}$$
$$+ 138247527622974\, p^{93}\, q^{61} + 185854035800448\, p^{93}\, q^{63} + 8808058\, p^{80}\, q^{15} + 54468809209335\, p^{116}\, q^{133} + 34791854177\, p^{61}\, q^{30}$$
$$+ 7070838425\, p^{60}\, q^{26} + 24215993534\, p^{61}\, q^{29} + 9630314955426\, p^{64}\, q^{51} + 11477245558393\, p^{64}\, q^{52} + 1806610459\, p^{59}\, q^{23}$$
$$+ 257436198974\, p^{62}\, q^{36} + 3952617300795\, p^{145}\, q^{122} + 311376197\, p^{161}\, q^{159} + 18\, p^{186}\, q^{135} + 2010286\, q^{176}\, p^{105} + 715427307\, p^{158}\, q^{66}$$
$$+ 781731123\, p^{166}\, q^{145} + 1685621553\, p^{166}\, q^{138} + 24645925915\, q^{90}\, p^{29} + 1756122727589\, q^{120}\, p^{51} + 120145608775\, q^{118}\, p^{41}$$
$$+ 107653617888917\, q^{116}\, p^{70} + 122222290859125\, q^{116}\, p^{71} + 123709669199712\, p^{128}\, q^{114} + 97348749948531\, p^{128}\, q^{118}$$
$$+ 26976448346\, p^{122}\, q^{39} + 1105024228042835\, p^{82}\, q^{88} + 11521234904060\, q^{107}\, p^{52} + 5625013274913\, q^{107}\, p^{49}$$
$$+ 1278783834076702\, p^{85}\, q^{89} + 1178012305524554\, p^{83}\, q^{89} + 1387606964571647\, p^{87}\, q^{90} + 1193690892390732\, p^{83}\, q^{90}$$
$$+ 1425781961019645\, p^{90}\, q^{88} + 1371776489609522\, p^{88}\, q^{88} + 1401425153885451\, p^{89}\, q^{88} + 108597714033505\, p^{130}\, q^{94}$$
$$+ 40023916760\, p^{120}\, q^{39} + 32162796372320\, p^{128}\, q^{74} + 448237708853226\, p^{80}\, q^{112} + 413785851474882\, p^{79}\, q^{112}$$
$$+ 758563630896335\, p^{95}\, q^{114} + 841207296288927\, p^{99}\, q^{113} + 837737054282753\, p^{100}\, q^{113} + 866574199474884\, p^{107}\, q^{110}$$
$$+ 919536784451336\, p^{103}\, q^{111} + 729569236738045\, p^{93}\, q^{114} + 587620133977547\, p^{89}\, q^{115} + 711036641515559\, p^{92}\, q^{114}$$
$$+ 77148893786735\, p^{66}\, q^{114} + 140013012588\, q^{147}\, p^{69} + 73442001841263\, p^{57}\, q^{82} + 600439330814850\, p^{84}\, q^{74}$$
$$+ 305234937698005\, p^{84}\, q^{67} + 462118027982626\, p^{84}\, q^{71} + 506588158132333\, p^{84}\, q^{72} + 341029174032864\, p^{84}\, q^{68}$$
$$+ 649264951545513\, p^{84}\, q^{75} + 10747979\, q^{161}\, p^{58} + 7878122663091\, p^{131}\, q^{68} + 2227484131789\, p^{129}\, q^{59} + 384518080069034\, p^{95}\, q^{121}$$

$$+ 55439699\, p^{24} q^{30} + 55340297324\, p^{45} q^{38} + 108439764322\, p^{45} q^{41} + 163694853897\, p^{45} q^{43} + 133702435726\, p^{45} q^{42}$$
$$+ 2335336815920\, q^{98} p^{43} + 11993\, q^{36} p^{7} + 86461\, q^{38} p^{9} + 12856948072980\, q^{103} p^{51} + 10184554102340\, q^{103} p^{50} + 7933632\, q^{89} p^{16}$$
$$+ 33132319\, q^{91} p^{18} + 3932458\, q^{41} p^{14} + 40860\, p^{50} q^{8} + 76378414\, p^{61} q^{17} + 795718238\, p^{63} q^{21} + 39318756\, p^{60} q^{16} + 3581144333\, p^{64} q^{24}$$
$$+ 259613291\, p^{62} q^{19} + 4966397\, p^{151} q^{42} + 674589187679\, p^{68} q^{38} + 2098897\, q^{41} p^{13} + 4602611715\, q^{45} p^{29} + 448895\, q^{39} p^{11}$$
$$+ 29584859575\, q^{103} p^{32} + 237669466\, q^{59} p^{19} + 717786315\, q^{60} p^{21} + 3779\, q^{34} p^{6} + 462129012\, q^{44} p^{23} + 113114646\, q^{43} p^{20}$$
$$+ 52499567265029\, p^{130} q^{82} + 115945045646\, p^{122} q^{43} + 133555518633\, p^{123} q^{44} + 306423131\, q^{44} p^{22} + 176243707\, q^{43} p^{21}$$
$$+ 1785854489971\, p^{133} q^{144} + 14510532570\, q^{82} p^{27} + 5509058614\, q^{82} p^{25} + 24821\, q^{60} p^{8} + 500\, q^{50} p^{5} + 395\, q^{52} p^{5} + 3597623\, p^{88} q^{15}$$
$$+ 6946766\, p^{90} q^{16} + 1823442900863\, p^{45} q^{59} + 712447360223458\, p^{78} q^{81} + 3329374545\, p^{32} q^{38} + 285039411114123\, q^{91} p^{66}$$
$$+ 124005025646720\, q^{90} p^{60} + 89759514066779\, q^{90} p^{58} + 2088673419\, q^{80} p^{23} + 663736333\, q^{80} p^{21} + 9355580703\, q^{81} p^{26}$$
$$+ 5725636445\, q^{81} p^{25} + 322156673245742\, q^{91} p^{67} + 725462134\, q^{78} p^{21} + 39\, p^{157} q^{187} + 13583\, p^{171} q^{180} + 259\, p^{159} q^{186}$$
$$+ 680141172393\, q^{150} p^{88} + 555973215104\, q^{153} p^{120} + 294099940803\, p^{151} q^{135} + 1635094938322\, p^{150} q^{113} + 1699191295421\, p^{150} q^{108}$$
$$+ 362292446642138\, q^{91} p^{68} + 405426768210007\, q^{91} p^{69} + 5090\, p^{165} q^{183} + 2897419\, p^{149} q^{39} + 7436547\, p^{19} q^{29} + 505917960647\, p^{68} q^{37}$$
$$+ 8553041075272\, p^{70} q^{48} + 4209827544635\, p^{69} q^{45} + 21379695332\, p^{66} q^{28} + 193\, q^{57} p^{5} + 120074\, p^{51} q^{9} + 46627024\, p^{25} q^{28}$$
$$+ 1624163098104\, p^{150} q^{104} + 90\, q^{61} p^{5} + 57819277\, p^{53} q^{17} + 2701301372703\, q^{100} p^{44} + 74630751639\, p^{159} q^{121} + 32867586016\, p^{67} q^{29}$$
$$+ 132019178000150\, p^{110} q^{67} + 4359567405081\, p^{107} q^{48} + 208767298\, p^{94} q^{21} + 23723623547\, p^{101} q^{31} + 6317970496\, p^{100} q^{28}$$
$$+ 404526171\, q^{43} p^{23} + 1082377943011844\, p^{87} q^{82} + 2335336815920\, p^{147} q^{92} + 422022274096\, p^{150} q^{134} + 1769954430365\, p^{149} q^{119}$$
$$+ 2692152283075\, p^{148} q^{101} + 605919290492\, p^{146} q^{76} + 2250901647110\, p^{149} q^{107} + 2765462110028\, p^{148} q^{102}$$
$$+ 332956066514822\, p^{69} q^{80} + 2552879150860\, q^{107} p^{46} + 4359567405081\, q^{107} p^{48} + 540034430515702\, p^{76} q^{78}$$
$$+ 1206788087827\, p^{151} q^{114} + 162556768418\, p^{97} q^{156} + 44804317396931\, q^{136} p^{106} + 1206788087827\, q^{151} p^{114}$$
$$+ 986566155752\, q^{151} p^{120} + 56574746737195\, p^{59} q^{70} + 1247248753791\, q^{151} p^{112} + 12908457338\, p^{106} q^{31} + 2835517\, p^{125} q^{24}$$
$$+ 688023131999\, p^{153} q^{110} + 9020472346\, p^{125} q^{164} + 8669704437\, p^{126} q^{164} + 7894803518\, p^{141} q^{161} + 8911717044\, p^{140} q^{161}$$
$$+ 248237765912\, q^{156} p^{108} + 322471201121\, p^{118} q^{155} + 8443017\, p^{67} q^{14} + 3766738\, p^{66} q^{13} + 442359224732\, p^{72} q^{36}$$
$$+ 130705075050\, q^{151} p^{77} + 12397987088426\, p^{79} q^{48} + 6103512086580\, p^{78} q^{45} + 83389566\, p^{27} q^{28} + 3568637\, p^{16} q^{32}$$
$$+ 17585111990595\, p^{65} q^{54} + 22564259638015\, p^{66} q^{55} + 3953968474363\, p^{65} q^{46} + 10535141809360\, p^{65} q^{51} + 12572364388740\, p^{65} q^{52}$$

$$+ 277303782804\, p^{63}\, q^{36} + 283258325490502\, p^{105}\, q^{70} + 8773530398500\, p^{65}\, q^{50} + 1474276175301\, p^{64}\, q^{42} + 1869064333477\, p^{64}\, q^{43}$$
$$+ 689030288387\, p^{64}\, q^{39} + 895387102432\, p^{64}\, q^{40} + 4874836092422\, p^{65}\, q^{47} + 5969070243192\, p^{65}\, q^{48} + 1204581933751433\, p^{91}\, q^{83}$$
$$+ 1444563644655825\, p^{91}\, q^{88} + 483842281\, p^{71}\, q^{20} + 29443034310840\, p^{81}\, q^{52} + 24174947335120\, p^{81}\, q^{51} + 690619\, p^{62}\, q^{11}$$
$$+ 451029499520\, q^{146}\, p^{74} + 59882077\, p^{29}\, q^{25} + 580132654680\, p^{59}\, q^{40} + 10111875939\, q^{69}\, p^{26} + 568380623091\, q^{149}\, p^{83}$$
$$+ 4035577258\, q^{69}\, p^{24} + 9\, p^{16}\, q^{2} + 202\, p^{22}\, q^{4} + 49\, p^{20}\, q^{3} + 35077225\, p^{35}\, q^{20} + 23019546\, p^{35}\, q^{19} + 92315806\, p^{36}\, q^{22}$$
$$+ 134289190\, p^{36}\, q^{23} + 522415705\, p^{36}\, q^{27} + 866618690\, p^{37}\, q^{28} + 57390035915\, p^{122}\, q^{41} + 1217527199640\, p^{125}\, q^{53}$$
$$+ 14386058425\, p^{119}\, q^{36} + 224255138\, q^{35}\, p^{25} + 427247986\, q^{35}\, p^{27} + 711182722\, q^{36}\, p^{28} + 236287653016\, p^{93}\, q^{35} + 111736554\, q^{35}\, p^{23}$$
$$+ 15\, q^{56}\, p^{4} + 29090136\, p^{85}\, q^{17} + 112444639305205\, p^{67}\, q^{67} + 524214372493\, q^{146}\, p^{75} + 11507\, p^{169}\, q^{181} + 329\, p^{185}\, q^{173}$$
$$+ 1395325274644\, p^{150}\, q^{99} + 1653039432088\, p^{150}\, q^{105} + 275249236042\, q^{115}\, p^{42} + 2302167\, q^{97}\, p^{16} + 130705075050\, q^{113}\, p^{39}$$
$$+ 502987114352\, p^{147}\, q^{138} + 26244996180359\, p^{127}\, q^{132} + 11558096882\, q^{110}\, p^{32} + 440277173\, q^{107}\, p^{25} + 18212239329\, q^{110}\, p^{33}$$
$$+ 2126873023\, q^{108}\, p^{28} + 670228517259147\, p^{115}\, q^{93} + 32975032510624\, p^{111}\, q^{59} + 27302721626960\, p^{111}\, q^{58}$$
$$+ 666948590751889\, p^{114}\, q^{90} + 974260\, q^{123}\, p^{22} + 19437821044370\, p^{121}\, q^{63} + 302164694714\, q^{88}\, p^{35} + 1282492810724204\, p^{85}\, q^{97}$$
$$+ 162258248938245\, p^{68}\, q^{70} + 856602107439\, q^{149}\, p^{87} + 192849\, q^{122}\, p^{20} + 3240181\, q^{122}\, p^{23} + 1358472\, q^{122}\, p^{22} + 2360596\, q^{123}\, p^{23}$$
$$+ 8622386\, q^{124}\, p^{25} + 456213920441\, q^{150}\, p^{84} + 100791670426\, p^{137}\, q^{54} + 4162160798\, p^{133}\, q^{41} + 597668592282\, p^{139}\, q^{64}$$
$$+ 6457935139645\, p^{145}\, q^{106} + 1654484297644\, p^{141}\, q^{73} + 60808231866540\, p^{134}\, q^{109} + 8006113522591\, q^{103}\, p^{49}$$
$$+ 27053524032804\, q^{107}\, p^{56} + 3240181\, p^{122}\, q^{23} + 32926759485980\, q^{107}\, p^{57} + 12046341256\, q^{143}\, p^{53} + 619957722119\, q^{150}\, p^{87}$$
$$+ 8232924445\, q^{102}\, p^{29} + 4971998396\, q^{102}\, p^{28} + 704548316257\, q^{105}\, p^{41} + 507776377222\, q^{105}\, p^{40} + 487480\, q^{134}\, p^{26}$$
$$+ 12218712948232\, p^{55}\, q^{60} + 18329566781602\, p^{61}\, q^{57} + 16518835346316\, p^{59}\, q^{58} + 1565377067\, q^{37}\, p^{30} + 859345\, p^{33}\, q^{13}$$
$$+ 2552999\, p^{33}\, q^{15} + 2975615917123\, q^{134}\, p^{66} + 3538111919737\, q^{134}\, p^{67} + 16319490706478\, q^{136}\, p^{82} + 3949767\, q^{30}\, p^{17}$$
$$+ 9774137\, p^{121}\, q^{24} + 2498245161434\, p^{142}\, q^{78} + 35812317286316\, p^{133}\, q^{84} + 4139\, q^{128}\, p^{19} + 257\, q^{121}\, p^{15} + 8030931116606\, p^{64}\, q^{50}$$
$$+ 16624265183\, p^{61}\, q^{28} + 2936279603888\, p^{64}\, q^{45} + 1359677409141\, p^{63}\, q^{42} + 488209355367\, p^{63}\, q^{38} + 1720905096419\, p^{63}\, q^{43}$$
$$+ 369696000801\, p^{63}\, q^{37} + 638854568113\, p^{63}\, q^{39} + 828670338012\, p^{63}\, q^{40} + 4481314256420\, p^{64}\, q^{47} + 5479236052940\, p^{64}\, q^{48}$$
$$+ 933507178201188\, p^{79}\, q^{96} + 869943651571697\, p^{78}\, q^{96} + 1313747301166234\, p^{85}\, q^{95} + 1198574777653415\, p^{83}\, q^{95}$$
$$+ 1349727128981\, p^{127}\, q^{55} + 102184286085\, q^{87}\, p^{32} + 41751638102\, p^{95}\, q^{31} + 11483508815\, p^{94}\, q^{28} + 705871\, q^{85}\, p^{13}$$

$$+ 2020493660104\, q^{89} p^{41} + 1501818062842\, q^{89} p^{40} + 6999357\, q^{96} p^{17} + 942094630385\, q^{132} p^{58} + 283442076207\, q^{143} p^{66}$$
$$+ 14807061409465\, q^{136} p^{81} + 8142073060\, q^{129} p^{40} + 24680179799656\, p^{102} q^{139} + 11786948750147\, p^{89} q^{140}$$
$$+ 29946192207229\, p^{101} q^{138} + 17015100\, q^{119} p^{24} + 875445862753711\, p^{82} q^{81} + 1259738374738487\, p^{106} q^{99}$$
$$+ 1269067719537096\, p^{106} q^{97} + 905635\, q^{39} p^{12} + 396475752462522\, p^{70} q^{98} + 542289873704375\, p^{73} q^{98} + 790570968401637\, p^{77} q^{97}$$
$$+ 442217146332358\, p^{71} q^{98} + 195526\, q^{38} p^{10} + 211258314303888\, p^{113} q^{124} + 1321082135586\, p^{58} q^{44} + 1740594\, q^{39} p^{13}$$
$$+ 5700014\, q^{39} p^{15} + 119405673402440\, p^{70} q^{65} + 143896757688847\, p^{71} q^{66} + 64905448945356\, p^{70} q^{60} + 42294943468378\, p^{70} q^{57}$$
$$+ 363544738458427\, p^{68} q^{89} + 1581446322017\, q^{56} p^{46} + 11248687099\, p^{107} q^{31} + 1140066462532\, q^{55} p^{45} + 26606642648425\, p^{77} q^{131}$$
$$+ 120331726649084\, p^{120} q^{75} + 222050996309487\, p^{102} q^{126} + 87603763456798\, p^{127} q^{121} + 1104345212516657\, p^{86} q^{83}$$
$$+ 424625167263996\, p^{75} q^{107} + 108141465\, p^{29} q^{27} + 184489894\, p^{30} q^{28} + 13652028\, p^{49} q^{15} + 185854035800448\, p^{97} q^{127}$$
$$+ 138007095456860\, p^{92} q^{128} + 149242932789\, p^{56} q^{36} + 7130746\, p^{49} q^{14} + 256\, q^{28} p^{4} + 6849708630056\, q^{93} p^{46} + 977781610061\, q^{92} p^{39}$$
$$+ 81631371539114\, p^{114} q^{131} + 77635173118608\, p^{115} q^{131} + 76568909818749\, p^{112} q^{132} + 7316746496235\, p^{63} q^{50}$$
$$+ 15594152972\, p^{60} q^{28} + 2694880161583\, p^{63} q^{45} + 1248163745411\, p^{62} q^{42} + 451426168969\, p^{62} q^{38} + 1577113868992\, p^{62} q^{43}$$
$$+ 342512809888\, p^{62} q^{37} + 589602099451\, p^{62} q^{39} + 66506802\, p^{56} q^{17} + 763381045465\, p^{62} q^{40} + 4100402088903\, p^{63} q^{47}$$
$$+ 5006151388245\, p^{63} q^{48} + 21340681942395\, p^{51} q^{94} + 863383243882594\, p^{78} q^{87} + 223535179470\, p^{145} q^{68} + 61201619412\, p^{143} q^{59}$$
$$+ 799307\, q^{154} p^{42} + 285\, q^{109} p^{12} + 630510296\, q^{169} p^{109} + 22119936664238\, p^{117} q^{138} + 112291006174\, q^{98} p^{34} + 184889056133\, q^{123} p^{45}$$
$$+ 2310849344105\, q^{102} p^{44} + 9\, p^{186} q^{132} + 14\, p^{187} q^{149} + p^{185} q^{116} + 13\, p^{185} q^{122} + 102097258925475\, p^{101} q^{61}$$
$$+ 139567667037601\, p^{101} q^{63} + 4127533136\, q^{116} p^{32} + 281654\, q^{142} p^{30} + 957621394789\, p^{75} q^{144} + 526477093692\, p^{73} q^{145}$$
$$+ 1835864816869\, p^{80} q^{144} + 1437306220295\, p^{78} q^{144} + 1261991854588\, p^{77} q^{144} + 1102260871479\, p^{76} q^{144} + 1628542740438\, p^{79} q^{144}$$
$$+ 109885773939305\, p^{65} q^{69} + 79133646377\, q^{63} p^{32} + 1349727128981\, q^{127} p^{55} + 7459349\, q^{70} p^{14} + 298\, q^{67} p^{6} + 20424974700\, p^{106} q^{32}$$
$$+ 948199054\, p^{102} q^{25} + 427439351835\, p^{71} q^{36} + 22119936664238\, p^{73} q^{52} + 18344886610788\, p^{73} q^{51} + 1401728\, p^{147} q^{36}$$
$$+ 58402190808\, p^{120} q^{40} + 6918862910619\, q^{130} p^{66} + 312174377225999\, p^{68} q^{81} + 268548041469\, p^{145} q^{69} + 117585877399854\, p^{82} q^{125}$$
$$+ 626222692459908\, p^{109} q^{114} + 676643331572900\, p^{107} q^{114} + 696016685314021\, p^{103} q^{115} + 698924630170138\, p^{106} q^{114}$$
$$+ 44345092847733\, p^{123} q^{131} + 1983698916\, p^{166} q^{100} + 488154849\, p^{162} q^{74} + 806251942\, p^{164} q^{83} + 79133646377\, p^{63} q^{32}$$
$$+ 11899248709\, p^{62} q^{27} + 56215287952\, p^{63} q^{31} + 7883981549543\, p^{66} q^{49} + 553165904\, p^{168} q^{99} + 14658608\, p^{160} q^{57}$$

$$+ 113682747\, p^{164}\, q^{73} + 89756884\, p^{164}\, q^{72} + 248\, p^{34}\, q^{4} + 1086\, p^{37}\, q^{5} + 119405673402440\, p^{65}\, q^{70} + 4667\, q^{137}\, p^{23} + 15262\, q^{137}\, p^{24}$$
$$+ 1258862\, q^{146}\, p^{35} + 59893051317386\, p^{58}\, q^{73} + 1727924279695\, p^{147}\, q^{88} + 652321944033815\, p^{114}\, q^{108} + 37610240\, q^{170}\, p^{89}$$
$$+ 44262755\, q^{170}\, p^{90} + 51766973\, q^{170}\, p^{91} + 60177023\, q^{170}\, p^{92} + 2354224\, q^{170}\, p^{76} + 98549911\, q^{171}\, p^{102} + 108581377\, q^{171}\, p^{103}$$
$$+ 481160\, q^{168}\, p^{65} + 32459\, q^{147}\, p^{31} + 76703\, q^{147}\, p^{32} + 170565\, q^{147}\, p^{33} + 724535\, q^{147}\, p^{35} + 1055869597148258\, p^{82}\, q^{99}$$
$$+ 783651763809632\, p^{78}\, q^{100} + 897924689919884\, p^{81}\, q^{102} + 70305384005092\, p^{114}\, q^{132} + 52569295555417\, p^{124}\, q^{129}$$
$$+ 57673188886972\, p^{123}\, q^{129} + 47691947696343\, p^{125}\, q^{129} + 48565993355403\, p^{126}\, q^{128} + 60806520485132\, p^{119}\, q^{131}$$
$$+ 104040773162765\, p^{62}\, q^{73} + 91345586624373\, p^{61}\, q^{73} + 155777076685926\, p^{128}\, q^{108} + 146722143201914\, p^{128}\, q^{110}$$
$$+ 489157248\, p^{70}\, q^{20} + 28833458977486\, p^{80}\, q^{52} + 23703922922643\, p^{80}\, q^{51} + 781\, p^{45}\, q^{5} + 717321\, p^{61}\, q^{11} + 1474759426\, p^{164}\, q^{87}$$
$$+ 6422862975618\, p^{122}\, q^{58} + 869948135\, p^{110}\, q^{27} + 42023753118461\, p^{65}\, q^{60} + 34173182634055\, p^{63}\, q^{60} + 43061349999877\, p^{64}\, q^{61}$$
$$+ 34173182634055\, p^{60}\, q^{63} + 38931209359964\, p^{62}\, q^{62} + 45477\, p^{68}\, q^{9} + 710083088538\, q^{152}\, p^{121} + 1259954906690\, q^{151}\, p^{111}$$
$$+ 1031320023108\, q^{151}\, p^{119} + 1555435942667\, p^{95}\, q^{41} + 162556768418\, p^{93}\, q^{34} + 782305740\, p^{87}\, q^{22} + 992152279054577\, p^{101}\, q^{82}$$
$$+ 1107615384443553\, p^{101}\, q^{84} + 1066879118090281\, p^{81}\, q^{89} + 37987081493290\, p^{64}\, q^{60} + 33338176574550\, p^{64}\, q^{59}$$
$$+ 27860831848667\, p^{65}\, q^{57} + 1265889301685485\, p^{106}\, q^{96} + 376899356024483\, q^{104}\, p^{72} + 301051438542387\, q^{104}\, p^{70}$$
$$+ 975090335418528\, p^{80}\, q^{87} + 1029542022432929\, p^{81}\, q^{87} + 203271989311034\, p^{124}\, q^{88} + 251344347655155\, p^{125}\, q^{103} + 318984\, p^{90}\, q^{13}$$
$$+ 98062193889557\, p^{131}\, q^{96} + 8174\, q^{100}\, p^{12} + 27860831848667\, p^{57}\, q^{65} + 42023753118461\, p^{60}\, q^{65} + 36837933683044\, p^{59}\, q^{65}$$
$$+ 60497591500048\, p^{63}\, q^{65} + 75237698876861\, p^{65}\, q^{65} + 92320265225931\, p^{66}\, q^{66} + 47691947696343\, p^{61}\, q^{65}$$
$$+ 67631049342978\, p^{64}\, q^{65} + 53849490941939\, p^{62}\, q^{65} + 32122431975354\, p^{58}\, q^{65} + 4054791897556\, q^{93}\, p^{44} + 3079132178069\, q^{93}\, p^{43}$$
$$+ 685429438826481\, p^{96}\, q^{75} + 93206685\, p^{80}\, q^{18} + 596173100\, p^{82}\, q^{21} + 1024427156\, p^{83}\, q^{22} + 160378\, p^{68}\, q^{10}$$
$$+ 1105074354132241\, p^{97}\, q^{82} + 1225618139567217\, p^{97}\, q^{84} + 427284515390819\, p^{119}\, q^{91} + 108928751255011\, p^{117}\, q^{71}$$
$$+ 46773685933939\, p^{85}\, q^{132} + 192166591810769\, p^{87}\, q^{124} + 73832360231420\, p^{77}\, q^{125} + 649123534953097\, p^{74}\, q^{94}$$
$$+ 14971430778992\, p^{50}\, q^{97} + 17242196746983\, p^{140}\, q^{114} + 201531275787\, p^{89}\, q^{34} + 7513608582\, p^{86}\, q^{26} + 1883980056262\, p^{91}\, q^{41}$$
$$+ 1022908473037\, p^{91}\, q^{39} + 556533618306\, p^{90}\, q^{37} + 138094825601\, p^{89}\, q^{33} + 50630751209553\, q^{115}\, p^{64} + 42988747060251\, q^{115}\, p^{63}$$
$$+ 30450874247736\, q^{115}\, p^{61} + 36288421899139\, q^{115}\, p^{62} + 1395325274644\, p^{91}\, q^{40} + 1524569912553803\, p^{90}\, q^{92}$$
$$+ 60293573460587\, p^{86}\, q^{131} + 56073987132500\, p^{85}\, q^{131} + 51916670141321\, p^{84}\, q^{131} + 40094723395730\, p^{81}\, q^{131}$$

$$+ 43902534766047\, p^{82}\, q^{131} + 64543467759674\, p^{87}\, q^{131} + 43253975193868\, p^{84}\, q^{132} + 22192922\, q^{104}\, p^{20} + 1848887310212\, p^{137}\, q^{141}$$
$$+ 1531\, p^{184}\, q^{168} + 17521\, p^{180}\, q^{106} + 12223\, p^{182}\, q^{123} + 359\, p^{171}\, q^{58} + 26763\, p^{182}\, q^{131} + 993\, p^{173}\, q^{65} + 15452\, p^{182}\, q^{125}$$
$$+ 199251425\, q^{104}\, p^{23} + 100059328\, q^{104}\, p^{22} + 168857083\, q^{105}\, p^{23} + 519452120\, q^{106}\, p^{25} + 945926530\, q^{106}\, p^{26} + 84196249\, q^{105}\, p^{22}$$
$$+ 395375961327\, p^{90}\, q^{36} + 979334193657660\, p^{110}\, q^{93} + 104555832718086\, p^{66}\, q^{111} + 51935492219740\, q^{134}\, p^{93}$$
$$+ 652609186012932\, p^{81}\, q^{108} + 51916670141321\, p^{106}\, q^{59} + 1186739\, p^{81}\, q^{13} + 42892244612\, p^{88}\, q^{30} + 2421007106646\, p^{92}\, q^{42}$$
$$+ 1166625177360\, p^{141}\, q^{140} + 820622134862\, p^{143}\, q^{140} + 981477975888\, p^{142}\, q^{140} + 1594838874177\, p^{138}\, q^{141}$$
$$+ 172393163932123\, q^{121}\, p^{80} + 7111559971874\, p^{144}\, q^{98} + 778721676185\, p^{149}\, q^{86} + 36288421899139\, p^{75}\, q^{128}$$
$$+ 190146092410069\, p^{118}\, q^{122} + 915916840557553\, p^{97}\, q^{79} + 225371671643\, p^{128}\, q^{49} + 106425445009\, q^{142}\, p^{60}$$
$$+ 932635885714362\, p^{91}\, q^{110} + 4202257475\, p^{107}\, q^{29} + 509739971307\, p^{113}\, q^{43} + 47850809602472\, p^{83}\, q^{131} + 4904500584\, p^{32}\, q^{40}$$
$$+ 11192680780\, p^{36}\, q^{39} + 8797440059\, p^{35}\, q^{39} + 56215287952\, q^{63}\, p^{31} + 74123183676\, q^{62}\, p^{32} + 102860643678\, q^{62}\, p^{33}$$
$$+ 68741873\, p^{84}\, q^{18} + 2494985033322\, p^{46}\, q^{60} + 5720782777262\, p^{51}\, q^{59} + 4902\, q^{111}\, p^{14} + 243\, q^{68}\, p^{6} + 26450642681\, q^{144}\, p^{57}$$
$$+ 42294943468378\, p^{57}\, q^{70} + 320249535892575\, p^{67}\, q^{87} + 5924315532\, p^{80}\, q^{25} + 3559737981\, p^{80}\, q^{24} + 35370568175\, p^{82}\, q^{29}$$
$$+ 22860081735\, p^{82}\, q^{28} + 257\, q^{99}\, p^{10} + 78655811508\, p^{83}\, q^{31} + 2168647423\, p^{79}\, q^{23} + 13551983268959\, p^{69}\, q^{129} + 63582863\, p^{74}\, q^{17}$$
$$+ 1977668992667\, p^{44}\, q^{62} + 66833267505359\, p^{127}\, q^{124} + 849092368399970\, p^{79}\, q^{84} + 1025565531057381\, p^{85}\, q^{82}$$
$$+ 1035961274127547\, p^{84}\, q^{83} + 51354809119\, p^{46}\, q^{37} + 391941206\, p^{58}\, q^{20} + 37125861546\, p^{62}\, q^{30} + 7491625869\, p^{61}\, q^{26}$$
$$+ 25770475102\, p^{62}\, q^{29} + 1902653679\, p^{60}\, q^{23} + 76523131873093\, q^{89}\, p^{57} + 19222697909076\, p^{66}\, q^{54} + 24581895202691\, p^{67}\, q^{55}$$
$$+ 4275059529222\, p^{66}\, q^{46} + 11471465513805\, p^{66}\, q^{51} + 13707875364882\, p^{66}\, q^{52} + 297337226067\, p^{64}\, q^{36} + 9540392567220\, p^{66}\, q^{50}$$
$$+ 1591187655753\, p^{65}\, q^{42} + 2020629032894\, p^{65}\, q^{43} + 739754792397\, p^{65}\, q^{39} + 963049311535\, p^{65}\, q^{40} + 5278516188292\, p^{66}\, q^{47}$$
$$+ 6472708607464\, p^{66}\, q^{48} + 17641139902\, p^{62}\, q^{28} + 3184496772081\, p^{65}\, q^{45} + 525561658628\, p^{64}\, q^{38} + 397205568312\, p^{64}\, q^{37}$$
$$+ 69020651\, p^{57}\, q^{17} + 123577125971881\, p^{67}\, q^{68} + 5747568103835\, q^{104}\, p^{48} + 1079318549719397\, p^{90}\, q^{81} + 579022713415\, p^{71}\, q^{37}$$
$$+ 10062221180398\, p^{73}\, q^{48} + 4953531687839\, p^{72}\, q^{45} + 23567487281\, p^{69}\, q^{28} + 26336284840884\, q^{66}\, p^{56} + 700934477\, p^{117}\, q^{29}$$
$$+ 123178448539648\, q^{117}\, p^{72} + 352173734552751\, p^{101}\, q^{70} + 2489879993361\, p^{97}\, q^{43} + 35117119469\, p^{69}\, q^{29}$$
$$+ 125574093575899\, p^{74}\, q^{63} + 110704177463540\, p^{74}\, q^{62} + 97093632261190\, p^{74}\, q^{61} + 33381509448775\, q^{67}\, p^{57} + 119824\, p^{47}\, q^{9}$$
$$+ 42562\, p^{46}\, q^{8} + 1415815050935950\, p^{87}\, q^{95} + 1563138322187\, p^{150}\, q^{115} + 1773970782\, q^{97}\, p^{25} + 98984012978040\, p^{125}\, q^{80}$$

$$+ 193105517420668\, p^{127} q^{100} + 66816285104846\, q^{105} p^{60} + 46773685933939\, q^{105} p^{58} + 679522520\, q^{95} p^{23} + 3431150041\, q^{96} p^{26}$$
$$+ 1979161393\, q^{96} p^{25} + 181407946338176\, q^{106} p^{67} + 234277304\, q^{93} p^{21} + 206981418218641\, q^{106} p^{68} + 234950651583022\, q^{106} p^{69}$$
$$+ p^{13} q + 4394297\, p^{146} q^{37} + 5191800330\, p^{159} q^{78} + 56586756\, p^{136} q^{34} + 25156185\, p^{135} q^{32} + 278658769\, p^{140} q^{40}$$
$$+ 44402215420\, p^{148} q^{65} + 469571044\, p^{141} q^{42} + 252079255\, p^{139} q^{39} + 14658608\, p^{133} q^{30} + 17869167027\, p^{157} q^{144}$$
$$+ 57390035915\, p^{149} q^{68} + 6010\, p^{106} q^{13} + 242166128084\, p^{153} q^{88} + 437671055\, p^{140} q^{41} + 15743110246\, p^{163} q^{111} + 79506682\, p^{151} q^{48}$$
$$+ 391586521\, p^{165} q^{152} + 8295230312\, p^{164} q^{127} + 8983007\, q^{142} p^{35} + 16121012\, q^{142} p^{36} + 21115530921\, p^{37} q^{41} + 175509373\, p^{53} q^{19}$$
$$+ 826644493\, p^{54} q^{22} + 8444961838813\, q^{94} p^{47} + 2861\, q^{173} p^{67} + 550\, q^{173} p^{64} + 993\, q^{173} p^{65} + 1706\, q^{173} p^{66} + 9268976852\, p^{33} q^{42}$$
$$+ 27102744783\, p^{39} q^{40} + 16643055752\, p^{36} q^{41} + 348025\, p^{82} q^{12} + 1668115916\, p^{166} q^{98} + 14134446\, p^{102} q^{19} + 17012034813953\, p^{123} q^{64}$$
$$+ 37369991956198\, p^{55} q^{73} + 23270509271344\, p^{52} q^{74} + 30435\, q^{81} p^{10} + 7745\, q^{80} p^{9} + 348025\, q^{82} p^{12} + 243\, p^{26} q^{4}$$
$$+ 40512437998085\, p^{124} q^{131} + 60050530087817\, p^{121} q^{130} + 69312919984620\, p^{117} q^{131} + 56574746737195\, p^{120} q^{131}$$
$$+ 64905448945356\, p^{120} q^{130} + 45355734156871\, p^{119} q^{133} + 33708772538005\, p^{121} q^{134} + 50703913460050\, p^{123} q^{130}$$
$$+ 67777844028679\, p^{111} q^{133} + 659992699215888\, p^{104} q^{78} + 5402201348693\, p^{45} q^{74} + 6797978788103\, p^{46} q^{74}$$
$$+ 8491269642874\, p^{47} q^{74} + 10530382458004\, p^{48} q^{74} + 65003579669418\, p^{94} q^{133} + 74072143418771\, p^{61} q^{70} + 20935072825554\, p^{52} q^{72}$$
$$+ 5246884356\, q^{97} p^{27} + 971\, p^{29} q^{5} + 246429242396844\, p^{120} q^{117} + 8242860569279\, p^{46} q^{83} + 301946\, p^{83} q^{12}$$
$$+ 224987568053307\, p^{121} q^{117} + 30572493039811\, p^{52} q^{84} + 25082624996827\, p^{51} q^{85} + 44804317396931\, p^{54} q^{84}$$
$$+ 53728885836646\, p^{55} q^{84} + 64038815814527\, p^{56} q^{84} + 558016626494483\, p^{75} q^{80} + 42023753118461\, p^{130} q^{125}$$
$$+ 10422414194000\, p^{47} q^{85} + 20353950462785\, p^{50} q^{85} + 16402092190979\, p^{49} q^{85} + 8149344762402\, p^{46} q^{86} + 13123116793616\, p^{48} q^{85}$$
$$+ 2767153635\, p^{98} q^{26} + 830835493584260\, p^{113} q^{96} + 63457111\, p^{92} q^{19} + 507776377222\, p^{105} q^{40} + 361812547367\, p^{105} q^{39}$$
$$+ 1762257\, p^{86} q^{14} + 68967966763\, p^{103} q^{34} + 162498\, q^{143} p^{30} + 335672576199476\, p^{70} q^{102} + 15721917717381\, q^{96} p^{50}$$
$$+ 9837222311150\, q^{96} p^{48} + 20203607012\, q^{144} p^{56} + 1646789\, p^{78} q^{13} + 1025387361932\, p^{80} q^{146} + 7691377496788\, q^{96} p^{47}$$
$$+ 904446528554773\, p^{80} q^{100} + 512258240810043\, p^{74} q^{102} + 464202028329138\, p^{73} q^{102} + 843753690313168\, p^{79} q^{100}$$
$$+ 7066973072\, q^{99} p^{28} + 26386339717\, q^{100} p^{31} + 50158354489\, p^{42} q^{40} + 3784914950328\, p^{86} q^{43} + 20168002501591\, p^{87} q^{50}$$
$$+ 282228401294432\, p^{115} q^{120} + 46517339597\, p^{44} q^{38} + 781388942297\, q^{151} p^{94} + 48762452990\, p^{43} q^{39} + 75\, q^{96} p^{9}$$
$$+ 90530713944\, p^{44} q^{41} + 92180293234\, p^{42} q^{43} + 75091245528\, p^{41} q^{43} + 112376072752\, p^{43} q^{43} + 136075522762\, p^{44} q^{43}$$

$$+ 111379477764\, p^{44}\, q^{42} + 124649535149140\, p^{130}\, q^{104} + 19437821044370\, p^{127}\, q^{69} + 112193982094238\, p^{130}\, q^{95}$$
$$+ 1382203878121218\, p^{88}\, q^{99} + 7039800\, p^{127}\, q^{26} + p^{51}\, q^{3} + 303\, p^{77}\, q^{7} + 36427403\, p^{116}\, q^{24} + 8590450080359\, p^{137}\, q^{78}$$
$$+ 22780520407735\, p^{139}\, q^{98} + 152723638179\, p^{131}\, q^{50} + 3163015323669\, p^{141}\, q^{133} + 22095524966177\, p^{139}\, q^{97} + 113738759035\, p^{131}\, q^{49}$$
$$+ 7452220249\, p^{126}\, q^{38} + 27251847654233\, p^{130}\, q^{129} + 113937538562829\, p^{68}\, q^{113} + 100829450421\, q^{149}\, p^{71} + 10\, p^{18}\, q^{2}$$
$$+ 583771\, q^{127}\, p^{23} + 982549\, q^{128}\, p^{24} + 69932\, p^{35}\, q^{9} + 10296\, p^{33}\, q^{7} + 27789\, p^{34}\, q^{8} + 248\, q^{93}\, p^{9} + 7070838425\, q^{60}\, p^{26}$$
$$+ 3001974822\, q^{60}\, p^{24} + 1902653679\, q^{60}\, p^{23} + 1181597594\, q^{60}\, p^{22} + 49622015304567\, q^{134}\, p^{92} + 42178037212441\, q^{134}\, p^{89}$$
$$+ 39607517933862\, q^{134}\, p^{88} + 22650681114\, q^{60}\, p^{29} + 15594152972\, q^{60}\, p^{28} + 4908075072\, q^{61}\, p^{25} + 10581751205\, q^{60}\, p^{27}$$
$$+ 238408747640\, p^{46}\, q^{44} + 344119385330\, p^{47}\, q^{45} + 103703191750\, p^{46}\, q^{40} + 20960212\, p^{41}\, q^{17} + 3562081\, p^{40}\, q^{14} + 99815781\, p^{42}\, q^{20}$$
$$+ 63069268\, p^{42}\, q^{19} + 269389145\, p^{43}\, q^{22} + 404526171\, p^{43}\, q^{23} + 2864452324\, p^{44}\, q^{28} + 6377306\, p^{40}\, q^{15} + 1019713944378528\, p^{90}\, q^{80}$$
$$+ 23088019413\, p^{91}\, q^{29} + 2147624065\, p^{89}\, q^{24} + 339541966532\, q^{74}\, p^{35} + 211553350523\, q^{132}\, p^{52} + 69781973494\, p^{45}\, q^{39}$$
$$+ 277007810388\, q^{132}\, p^{53} + 14663584773\, p^{123}\, q^{38} + 1823523068\, p^{120}\, q^{32} + 36424498091\, q^{146}\, p^{61} + 4601216620805\, p^{144}\, q^{123}$$
$$+ 1200271\, p^{113}\, q^{19} + 10298921\, p^{118}\, q^{23} + 1000770556937\, p^{145}\, q^{136} + 2006428307152\, p^{144}\, q^{132} + 6773262906327\, p^{141}\, q^{85}$$
$$+ 977107861860613\, p^{85}\, q^{81} + 1029542022432929\, p^{87}\, q^{81} + 1068205085276\, q^{107}\, p^{43} + 1441964503124\, q^{107}\, p^{44}$$
$$+ 16319490706478\, q^{108}\, p^{54} + 7100826521\, p^{113}\, q^{32} + 10473011865061\, q^{108}\, p^{52} + 141141042674\, p^{128}\, q^{156} + 438037062076\, p^{137}\, q^{60}$$
$$+ 2761820472899\, p^{144}\, q^{129} + 780266977565179\, p^{91}\, q^{76} + 606030805852183\, p^{91}\, q^{73} + 310375193\, p^{109}\, q^{25} + 264170192929\, q^{91}\, p^{35}$$
$$+ 377251806354\, q^{91}\, p^{36} + 24635185420\, q^{126}\, p^{41} + 3953968474363\, q^{65}\, p^{46} + 7260277356006\, q^{65}\, p^{49} + 5969070243192\, q^{65}\, p^{48}$$
$$+ 12572364388740\, q^{65}\, p^{52} + 17585111990595\, q^{65}\, p^{54} + 22564259638015\, q^{66}\, p^{55} + 8773530398500\, q^{65}\, p^{50} + 14913029853187\, q^{65}\, p^{53}$$
$$+ 10535141809360\, q^{65}\, p^{51} + 4874836092422\, q^{65}\, p^{47} + 1157262\, q^{42}\, p^{12} + 238282\, q^{41}\, p^{10} + 2285216\, q^{42}\, p^{13} + 346579085\, q^{45}\, p^{22}$$
$$+ 224392\, q^{40}\, p^{10} + 191451187116094\, p^{127}\, q^{99} + 91725\, q^{39}\, p^{9} + 359427785293731\, p^{98}\, q^{122} + 247625404165156\, p^{123}\, q^{112}$$
$$+ 132892050631547\, p^{124}\, q^{120} + 159541667895200\, p^{123}\, q^{119} + 79708948\, q^{44}\, p^{19} + 1072421\, q^{41}\, p^{12} + 4317194\, q^{42}\, p^{14}$$
$$+ 54009454\, q^{45}\, p^{18} + 389830673\, q^{46}\, p^{22} + 199556998\, q^{44}\, p^{21} + 127460384\, q^{44}\, p^{20} + 224690787\, q^{45}\, p^{21} + 1891181408\, q^{46}\, p^{26}$$
$$+ 886588171\, q^{46}\, p^{24} + 5117199\, q^{44}\, p^{14} + 96414\, q^{96}\, p^{13} + 1304596034\, q^{46}\, p^{25} + 2703247403\, q^{46}\, p^{27} + 31992120\, q^{45}\, p^{17}$$
$$+ 1241728\, q^{43}\, p^{12} + 592954979\, q^{46}\, p^{23} + 681794133332\, p^{144}\, q^{140} + 796561593573154\, p^{109}\, q^{110} + 754960186612173\, p^{111}\, q^{109}$$
$$+ 57855497531\, q^{118}\, p^{39} + 4182096241236\, q^{122}\, p^{56} + 5200914480391\, q^{122}\, p^{57} + 9599283837320\, q^{122}\, p^{60} + 7878122663091\, q^{122}\, p^{59}$$

$$+ 16715469553198\, q^{122}\, p^{63} + 23470710045236\, q^{122}\, p^{65} + 23673833375729\, q^{123}\, p^{66} + 11621147490673\, q^{122}\, p^{61}$$
$$+ 19865592718542\, q^{122}\, p^{64} + 13980446741408\, q^{122}\, p^{62} + 6422862975618\, q^{122}\, p^{58} + 398124653291804\, p^{97}\, q^{121}$$
$$+ 38931209359964\, p^{128}\, q^{128} + 20168002501591\, p^{103}\, q^{140} + 19950317384417\, p^{102}\, q^{140} + 193105517420668\, p^{100}\, q^{127}$$
$$+ 191451187116094\, p^{99}\, q^{127} + 189024461137140\, p^{98}\, q^{127} + 21867257140\, q^{119}\, p^{37} + 32728379192\, q^{119}\, p^{38} + 48273728422\, q^{119}\, p^{39}$$
$$+ 30606\, p^{57}\, q^{8} + 1506577995856\, q^{100}\, p^{42} + 8645012607286\, p^{141}\, q^{88} + 22653472279207\, p^{122}\, q^{136} + 17692546348527\, p^{123}\, q^{137}$$
$$+ 13\, p^{68}\, q^{5} + 672303107566\, p^{152}\, q^{97} + 637320781245\, p^{153}\, q^{116} + 165426204089\, p^{154}\, q^{133} + 200285621065\, p^{154}\, q^{131}$$
$$+ 54468809209335\, p^{133}\, q^{116} + 77591354676514\, p^{132}\, q^{94} + 22451894713336\, p^{130}\, q^{74} + 129161788930728\, p^{119}\, q^{125}$$
$$+ 140013012588\, p^{147}\, q^{69} + 745969\, p^{121}\, q^{21} + 581356872488\, p^{151}\, q^{90} + 3789429890\, p^{166}\, q^{112} + 172796\, p^{116}\, q^{18} + 1646703988\, p^{143}\, q^{47}$$
$$+ 254743349662\, p^{152}\, q^{85} + 120998080476\, p^{156}\, q^{130} + 5289904\, p^{130}\, q^{27} + 370807331657\, p^{153}\, q^{93} + 346179469224\, p^{155}\, q^{115}$$
$$+ 2223\, p^{104}\, q^{12} + 7656654\, p^{131}\, q^{28} + 138087190569\, p^{150}\, q^{75} + 53070\, p^{116}\, q^{17} + 68447511\, p^{137}\, q^{35} + 5297041281\, p^{157}\, q^{151}$$
$$+ 2747588704506\, p^{148}\, q^{114} + 69363000673\, p^{141}\, q^{57} + 9748348568\, p^{108}\, q^{31} + 102097258925475\, p^{89}\, q^{129} + 2504151542338\, p^{146}\, q^{89}$$
$$+ 10298921\, q^{118}\, p^{23} + 22128137\, q^{118}\, p^{24} + 1509921430\, q^{127}\, p^{35} + 2472548978\, p^{167}\, q^{121} + 1690755979\, p^{164}\, q^{88} + 2320\, p^{67}\, q^{7}$$
$$+ 185521986\, p^{127}\, q^{31} + 6191188517\, p^{133}\, q^{42} + 15618723\, p^{122}\, q^{25} + 3662966147\, p^{132}\, q^{40} + 554091191938\, p^{140}\, q^{65} + 306243273\, q^{123}\, p^{30}$$
$$+ 1176120545058\, q^{132}\, p^{59} + 749123564645\, q^{132}\, p^{57} + 1560718808321181\, p^{97}\, q^{99} + 109796012\, q^{111}\, p^{24} + 1537836772838789\, p^{96}\, q^{100}$$
$$+ 55340297324\, p^{38}\, q^{45} + 2006428307152\, p^{58}\, q^{46} + 66936767270865\, p^{115}\, q^{132} + 62904453257870\, p^{113}\, q^{133}$$
$$+ 59893051317386\, p^{117}\, q^{132} + 63454851603840\, p^{116}\, q^{132} + 13\, q^{78}\, p^{6} + 60293573460587\, p^{104}\, q^{59} + 82694186384\, p^{39}\, q^{46}$$
$$+ 15490997503\, p^{147}\, q^{59} + 296450\, q^{166}\, p^{59} + 45740709\, p^{135}\, q^{33} + 512258240810043\, p^{88}\, q^{116} + 63206831617183\, p^{56}\, q^{83}$$
$$+ 10446275029\, p^{104}\, q^{30} + 869\, p^{61}\, q^{6} + 5\, q^{60}\, p^{4} + 304185300761\, q^{149}\, p^{78} + 666144789\, p^{155}\, q^{60} + 84310676967\, p^{108}\, q^{36}$$
$$+ 218964\, q^{149}\, p^{35} + 5590267633\, p^{105}\, q^{29} + 665863445702\, p^{111}\, q^{43} + 8835943886871\, p^{143}\, q^{115} + 15490997503\, p^{131}\, q^{43}$$
$$+ 9292987796679\, p^{141}\, q^{89} + 5584336479327\, p^{144}\, q^{120} + 27836\, p^{101}\, q^{13} + 15283766767731\, p^{135}\, q^{128} + 105736\, q^{139}\, p^{27}$$
$$+ 1153668661520\, p^{149}\, q^{126} + 719825913668459\, p^{111}\, q^{110} + 94335510697671\, q^{121}\, p^{74} + 1484916\, p^{79}\, q^{13} + 134022127188\, p^{142}\, q^{61}$$
$$+ 12960429\, p^{120}\, q^{24} + 3250523635514\, p^{141}\, q^{78} + 9114819110331\, p^{143}\, q^{98} + 252796085\, q^{170}\, p^{139} + 110704177463540\, p^{128}\, q^{116}$$
$$+ 1020375780561500\, p^{81}\, q^{98} + 438037062076\, q^{130}\, p^{53} + 336144647366\, q^{130}\, p^{52} + 566009984205\, q^{130}\, p^{54}$$
$$+ 1549544596403612\, p^{91}\, q^{92} + 18742224450838\, p^{51}\, q^{97} + 153991669376120\, p^{118}\, q^{75} + 318017430310713\, p^{119}\, q^{85}$$

$$+ 43253975193868\, p^{106} q^{58} + 2134576404569\, p^{106} q^{45} + 820588728413849\, p^{113} q^{102} + 283437290729\, p^{104} q^{38}$$
$$+ 837737054282753\, p^{113} q^{100} + 755501089970957\, p^{112} q^{89} + 345307421433086\, p^{111} q^{76} + 378872546374681\, p^{111} q^{77}$$
$$+ 749071236963247\, p^{113} q^{91} + 483383546374907\, p^{112} q^{81} + 202236738836244\, p^{111} q^{71} + 704548316257\, p^{105} q^{41}$$
$$+ 151206635511\, p^{103} q^{36} + 965251814881526\, p^{109} q^{90} + 358719098114877\, p^{108} q^{74} + 323269382028400\, p^{108} q^{73} + 46763676\, p^{88} q^{18}$$
$$+ 1011415369247914\, p^{110} q^{95} + 997311329529670\, p^{110} q^{94} + 875604080698037\, p^{111} q^{105} + 952706015328915\, p^{110} q^{104}$$
$$+ 1275995\, p^{109} q^{18} + 7644664543763\, p^{138} q^{79} + 171566\, p^{104} q^{15} + 329272\, p^{106} q^{16} + 3953968474363\, p^{144} q^{125} + 36878015004\, p^{133} q^{47}$$
$$+ 96430733976300\, p^{102} q^{61} + 132105110112465\, p^{102} q^{63} + 6397989117107\, p^{109} q^{145} + 6797978788103\, p^{116} q^{144} + 31086\, q^{95} p^{12}$$
$$+ 267113\, q^{97} p^{14} + 8679\, q^{94} p^{11} + 639350997508070\, p^{110} q^{113} + 669410379833902\, p^{109} q^{113} + 608036944186510\, p^{111} q^{113}$$
$$+ 440277173\, q^{165} p^{83} + 310375193\, q^{165} p^{81} + 370845412\, q^{165} p^{82} + 162095843\, q^{166} p^{81} + 519452120\, q^{165} p^{84} + 609142759\, q^{165} p^{85}$$
$$+ 710065835\, q^{165} p^{86} + 429782256541427\, p^{70} q^{95} + 384518080069034\, p^{69} q^{95} + 51935492219740\, p^{56} q^{97} + 37610240\, q^{101} p^{20}$$
$$+ 23120350849\, p^{155} q^{76} + 3182\, p^{116} q^{15} + 6326\, p^{118} q^{16} + 37384432344\, p^{156} q^{82} + 958848074\, p^{148} q^{51} + 42932309874\, p^{155} q^{80}$$
$$+ 707991970543109\, p^{75} q^{94} + 75606340\, p^{159} q^{60} + 398088840909927\, p^{103} q^{72} + 1589048944028\, p^{150} q^{103} + 42178037212441\, p^{101} q^{56}$$
$$+ 76892642666\, p^{143} q^{152} + 38853467454\, p^{147} q^{152} + 728198297309455\, p^{85} q^{110} + 177019012566508\, p^{102} q^{65}$$
$$+ 113185586055156\, p^{102} q^{62} + 875619352806762\, p^{104} q^{82} + 982409848754579\, p^{104} q^{84} + 476492100617422\, p^{77} q^{108}$$
$$+ 598991650041\, p^{148} q^{135} + 3642827282874\, p^{147} q^{113} + 3880870072773\, p^{147} q^{108} + 32255086157\, p^{138} q^{51} + 72276134118\, p^{154} q^{140}$$
$$+ 50954619982650\, p^{101} q^{57} + 929486548890110\, p^{104} q^{83} + 1386563922840203\, p^{103} q^{93} + 66914589\, q^{110} p^{23}$$
$$+ 1500424136399031\, p^{95} q^{101} + 191745971830684\, p^{104} q^{127} + 71760858013697\, p^{86} q^{130} + 165907209726511\, p^{99} q^{128}$$
$$+ 61935148724466\, p^{84} q^{130} + 112977052853232\, p^{91} q^{129} + 131445945517082\, p^{95} q^{129} + 122897711120383\, p^{93} q^{129}$$
$$+ 127368004943932\, p^{94} q^{129} + 135086194388615\, p^{96} q^{129} + 86580921243983\, p^{89} q^{130} + 76730747440891\, p^{87} q^{130}$$
$$+ 1313213440707052\, p^{92} q^{104} + 1143138186785735\, p^{90} q^{106} + 914849560\, p^{123} q^{32} + 14916973989341\, p^{138} q^{86}$$
$$+ 4480648472622\, p^{141} q^{130} + 25052034858957\, p^{139} q^{104} + 13749351740823\, p^{105} q^{52} + 318576884168776\, p^{103} q^{70} + 10\, p^{159} q^{35}$$
$$+ 22742\, p^{179} q^{100} + 480225292668\, q^{153} p^{97} + 506633564097\, q^{153} p^{98} + 556533618306\, q^{153} p^{100} + 600837200865\, q^{153} p^{102}$$
$$+ 579510146676\, q^{153} p^{101} + 620278560328\, q^{153} p^{103} + 652642615910\, q^{153} p^{105} + 637613695415\, q^{153} p^{104} + 172289719536537\, p^{63} q^{96}$$
$$+ 127368004943932\, p^{61} q^{96} + 108597714033505\, p^{60} q^{96} + 3164191820\, q^{124} p^{35} + 4991311551\, q^{124} p^{36} + 303271054945616\, p^{67} q^{95}$$

$$+ 2783743731\, q^{147}\, p^{53} + 5128113291\, q^{147}\, p^{55} + 2018356506\, q^{147}\, p^{52} + 3797927240\, q^{147}\, p^{54} + 730652394859\, q^{151}\, p^{93}$$
$$+ 9168099735\, p^{160}\, q^{85} + 7070838425\, p^{164}\, q^{130} + 177584\, p^{138}\, q^{27} + 14151142813\, p^{161}\, q^{93} + 52488494\, p^{151}\, q^{47}$$
$$+ 955581026710469\, p^{82}\, q^{83} + 323618\, q^{114}\, p^{18} + 116\, q^{95}\, p^{9} + 780\, q^{96}\, p^{10} + 169\, q^{94}\, p^{9} + 42065\, q^{113}\, p^{16} + 498850144819\, p^{79}\, q^{36}$$
$$+ 676437474371830\, p^{85}\, q^{111} + 1563138322187\, p^{115}\, q^{150} + 1518620792571\, p^{116}\, q^{150} + 246429242396844\, p^{70}\, q^{73}$$
$$+ 1178012305524554\, p^{107}\, q^{101} + 361418\, p^{159}\, q^{178} + 223221324457679\, p^{76}\, q^{67} + 303\, q^{77}\, p^{7} + 209038488297073\, p^{69}\, q^{72}$$
$$+ 204454925982633\, p^{68}\, q^{73} + 141720889659530\, p^{64}\, q^{74} + 224987568053307\, p^{73}\, q^{69} + 37336\, p^{53}\, q^{8} + 3392\, p^{47}\, q^{6} + 1052329\, q^{101}\, p^{16}$$
$$+ 172147927801089\, p^{67}\, q^{72} + 190146092410069\, p^{68}\, q^{72} + 211367437570161\, p^{70}\, q^{71} + 2360596\, p^{123}\, q^{23} + 363544738458427\, p^{122}\, q^{101}$$
$$+ 234950651583022\, p^{121}\, q^{84} + 42153863497085\, p^{119}\, q^{66} + 17278302394989\, p^{118}\, q^{60} + 2996003319254\, p^{139}\, q^{136} + 142824893\, q^{45}\, p^{20}$$
$$+ 88863634\, q^{45}\, p^{19} + 7846387\, q^{42}\, p^{15} + 9440218\, q^{44}\, p^{15} + 556439\, q^{42}\, p^{11} + 6095851236\, q^{47}\, p^{29} + 520957\, q^{41}\, p^{11} + 2474569\, q^{43}\, p^{13}$$
$$+ 48711166\, q^{44}\, p^{18} + 1267009326726421\, p^{84}\, q^{92} + 15198\, q^{135}\, p^{23} + 117\, q^{131}\, p^{18} + 4479\, q^{135}\, p^{22} + 4712910\, q^{43}\, p^{14} + 29022207\, q^{44}\, p^{17}$$
$$+ 448876968308\, q^{118}\, p^{45} + 607556636184\, q^{118}\, p^{46} + 1145913847\, q^{45}\, p^{25} + 2357579752\, q^{45}\, p^{27} + 3813198920\, q^{46}\, p^{28}$$
$$+ 524937235\, q^{45}\, p^{23} + 331608320488\, p^{73}\, q^{35} + 29280134110395\, p^{75}\, q^{53} + 4260336563746\, p^{74}\, q^{44} + 2734053\, p^{72}\, q^{13} + 6304034\, p^{73}\, q^{14}$$
$$+ 178930380415814\, p^{76}\, q^{65} + 211258314303888\, p^{77}\, q^{66} + 94265846778538\, p^{76}\, q^{60} + 60214832326627\, p^{76}\, q^{57}$$
$$+ 34955488691590\, p^{75}\, q^{54} + 7063861941980\, p^{75}\, q^{46} + 43419807808130\, p^{76}\, q^{55} + 1006903\, p^{117}\, q^{20} + 159541667895200\, p^{67}\, q^{71}$$
$$+ 71804254002056\, p^{109}\, q^{133} + 151500060406958\, p^{62}\, q^{81} + 120505753636\, p^{152}\, q^{140} + 167560665131\, p^{150}\, q^{141} + 922408201807\, p^{134}\, q^{60}$$
$$+ 4982330253709\, p^{141}\, q^{129} + 8522106365095\, p^{141}\, q^{123} + 2602598\, p^{110}\, q^{19} + 22120512\, p^{115}\, q^{23} + 20524291652890\, p^{139}\, q^{95}$$
$$+ 500371057\, p^{121}\, q^{30} + 1525718123\, p^{123}\, q^{33} + 24343384436199\, p^{139}\, q^{101} + 13551025342133\, p^{140}\, q^{119} + 3915090197339\, q^{118}\, p^{53}$$
$$+ 4944082807042\, q^{118}\, p^{54} + 950969816401\, q^{117}\, p^{47} + 2779990652024\, q^{117}\, p^{51} + 3559492073568\, q^{117}\, p^{52} + 54419428318\, p^{71}\, q^{30}$$
$$+ 926960475795070\, p^{80}\, q^{85} + 167509497107248\, p^{100}\, q^{128} + 66816285104846\, p^{85}\, q^{130} + 81685118615755\, p^{88}\, q^{130}$$
$$+ 160731321153189\, p^{97}\, q^{128} + 899174323920218\, p^{79}\, q^{86} + 204454925982633\, p^{73}\, q^{68} + 425686942\, q^{170}\, p^{130} + 491986258\, q^{170}\, p^{123}$$
$$+ 772361227\, q^{169}\, p^{128} + 717786315\, q^{169}\, p^{130} + 515197614\, q^{169}\, p^{136} + 14294526333362\, p^{123}\, q^{63} + 4804210350899\, p^{59}\, q^{50}$$
$$+ 347845388342236\, p^{78}\, q^{113} + 590357436444374\, p^{84}\, q^{112} + 1547753656047\, p^{137}\, q^{142} + 2555785\, p^{176}\, q^{153} + 60680984\, p^{173}\, q^{115}$$
$$+ 33136823\, p^{174}\, q^{136} + 12960429\, p^{166}\, q^{70} + 8630389\, p^{175}\, q^{147} + 51894015\, p^{172}\, q^{103} + 35755853\, p^{174}\, q^{134} + 48824099\, p^{170}\, q^{153}$$
$$+ 2410224330\, p^{167}\, q^{115} + 2426326740\, p^{165}\, q^{96} + 638043817572\, q^{152}\, p^{123} + 584135292419\, q^{147}\, p^{78} + 1166258290685\, p^{122}\, q^{150}$$

$$+ 1232087340373\, p^{121} q^{150} + 1469068102883\, p^{117} q^{150} + 1415034952160\, p^{118} q^{150} + 77889931123\, q^{143} p^{60} + 3300835959247\, q^{97} p^{44}$$
$$+ 981477975888\, p^{140} q^{142} + 1432656240024295\, p^{88} q^{97} + 1137496995579010\, p^{100} q^{108} + 1042568741747947\, p^{93} q^{109}$$
$$+ 2854742\, q^{101} p^{17} + 16894849\, q^{101} p^{19} + 49053109701669\, q^{119} p^{67} + 25859709750770\, q^{119} p^{63} + 30610146109234\, q^{119} p^{64}$$
$$+ 36023536256133\, q^{119} p^{65} + 56770020193140\, q^{119} p^{68} + 42153863497085\, q^{119} p^{66} + 2007\, q^{99} p^{11} + 382\, q^{98} p^{10} + 7174090\, q^{101} p^{18}$$
$$+ 67843660\, q^{102} p^{21} + 1386563922840203\, p^{93} q^{103} + 1449531972080770\, p^{94} q^{102} + 359617\, q^{147} p^{34} + 799307\, q^{148} p^{36} + 90987\, q^{144} p^{30}$$
$$+ 283401507975\, p^{133} q^{54} + 2242954504633\, p^{144} q^{131} + 41967315\, p^{121} q^{26} + 3204478490030\, p^{139} q^{74} + 6002683\, p^{117} q^{22}$$
$$+ 1138396693850\, p^{138} q^{66} + 1449531972080770\, p^{102} q^{94} + 12087507272\, p^{129} q^{41} + 1638089905152\, p^{135} q^{64}$$
$$+ 16396207144123\, p^{141} q^{106} + 4521925172868\, p^{137} q^{73} + 8531535234454\, p^{138} q^{80} + 19278489634940\, p^{140} q^{100} + 83866613043\, p^{131} q^{48}$$
$$+ 15702214352190\, p^{141} q^{110} + 11521234904060\, p^{138} q^{83} + 598619954180920\, p^{110} q^{114} + 816066418\, q^{169} p^{126} + 488517033\, q^{170} p^{124}$$
$$+ 391941206\, q^{170} p^{132} + 354181251\, q^{170} p^{134} + 314032737\, q^{170} p^{136} + 536453885531123\, p^{103} q^{75} + 23623048\, p^{87} q^{17}$$
$$+ 138779364969\, p^{126} q^{46} + 8\, p^{44} q^{3} + 96600650204364\, q^{119} p^{72} + 74827685607880\, q^{119} p^{70} + 9695024\, p^{157} q^{51}$$
$$+ 12396953468459\, q^{119} p^{59} + 3076605253741\, q^{118} p^{52} + 27224365545\, q^{113} p^{35} + 20449228033\, q^{85} p^{28} + 31930685338\, q^{85} p^{29}$$
$$+ 4194043998668\, q^{112} p^{50} + 524925727821172\, p^{73} q^{99} + 561083049\, q^{83} p^{21} + 5032164701\, q^{84} p^{25} + 8313072928\, q^{84} p^{26}$$
$$+ 193188208926014\, p^{116} q^{75} + 3250523635514\, p^{112} q^{49} + 395035351683371\, p^{117} q^{85} + 30317690813198\, p^{52} q^{83} + 129679221\, p^{58} q^{18}$$
$$+ 18506953\, p^{56} q^{15} + 117257340997\, p^{64} q^{33} + 1233755480\, p^{61} q^{22} + 5159148479\, p^{62} q^{25} + 31188901431663\, p^{68} q^{56}$$
$$+ 55306611533481\, p^{68} q^{60} + 36286415309923\, p^{68} q^{57} + 100661463049164\, p^{68} q^{65} + 122171221037922\, p^{69} q^{66} + 89977\, q^{124} p^{20}$$
$$+ 5312005024\, p^{29} q^{46} + 2337317791\, q^{56} p^{24} + 34503828\, q^{55} p^{16} + 60873490\, q^{54} p^{17} + 17386522\, q^{54} p^{15} + 33136823\, q^{54} p^{16}$$
$$+ 5355325221\, q^{56} p^{26} + 11491244440\, p^{31} q^{47} + 7312729063\, p^{30} q^{46} + 499395939751276\, p^{71} q^{89} + 602681252323907\, p^{73} q^{89}$$
$$+ 714042134377142\, p^{75} q^{89} + 657500250381980\, p^{74} q^{89} + 771953322879743\, p^{76} q^{89} + 890256926689189\, p^{78} q^{89}$$
$$+ 830837049558376\, p^{77} q^{89} + 898404212721103\, p^{78} q^{90} + 159146982237474\, p^{74} q^{65} + 189166515603732\, p^{75} q^{66}$$
$$+ 84711651092948\, p^{74} q^{60} + 54468809209335\, p^{74} q^{57} + 664324380\, p^{89} q^{22} + 251048479998134\, p^{105} q^{69} + 180881203855150\, p^{104} q^{66}$$
$$+ 6426309909\, p^{157} q^{150} + 266191626391\, p^{153} q^{89} + 331608320488\, p^{155} q^{117} + 486610872515\, p^{154} q^{107} + 112343322899\, p^{151} q^{76}$$
$$+ 199144595628\, p^{151} q^{80} + 15303\, p^{112} q^{15} + 29794\, p^{114} q^{16} + 179486860643\, p^{152} q^{82} + 4551552981\, p^{144} q^{51}$$
$$+ 155777076685926\, p^{108} q^{128} + 5986945451195\, p^{50} q^{61} + 6884703474456\, p^{143} q^{92} + 1048187800690\, p^{146} q^{134} + 74639940\, p^{126} q^{29}$$

$$+ 9321265020988\, p^{54} q^{59} + 1065819823634\, p^{41} q^{63} + 3487\, p^{32} q^{6} + 1145913847\, p^{45} q^{25} + 2357579752\, p^{45} q^{27} + 199556998\, p^{44} q^{21}$$
$$+ 781731123\, p^{45} q^{24} + 1655100640\, p^{45} q^{26} + 17869167027\, p^{46} q^{33} + 7312729063\, p^{46} q^{30} + 5312005024\, p^{46} q^{29} + 13405392347\, p^{46} q^{32}$$
$$+ 9954244304\, p^{46} q^{31} + 23587244962\, p^{46} q^{34} + 30844275896\, p^{46} q^{35} + 46754532487\, p^{47} q^{36} + 413067\, p^{38} q^{11} + 905635\, p^{39} q^{12}$$
$$+ 195526\, p^{38} q^{10} + 1916756\, p^{40} q^{13} + 972313347249823\, p^{87} q^{107} + 2951789861070\, p^{42} q^{84} + 35986885363\, q^{105} p^{33}$$
$$+ 82232876495\, q^{105} p^{35} + 158012503157\, q^{106} p^{37} + 54826846380\, q^{105} p^{34} + 109980774942\, q^{85} p^{32} + 1318\, q^{58} p^{6} + 28723\, q^{58} p^{8}$$
$$+ 6381\, q^{59} p^{7} + 22847\, q^{61} p^{8} + 2201694577356\, p^{142} q^{77} + 76373157\, p^{170} q^{150} + 170254558\, q^{123} p^{29} + 52\, p^{24} q^{3} + 43690638\, p^{43} q^{18}$$
$$+ 13784471\, p^{42} q^{16} + 76892642666\, p^{47} q^{38} + 152689467504\, p^{47} q^{41} + 232422469151\, p^{47} q^{43} + 189056688587\, p^{47} q^{42}$$
$$+ 97400740270\, p^{47} q^{39} + 1404768594519965\, p^{87} q^{91} + 127082672693397\, p^{105} q^{64} + 28242239317962\, p^{104} q^{55}$$
$$+ 1563810807592872\, p^{91} q^{95} + 548984\, p^{99} q^{15} + 4603\, p^{62} q^{7} + 43982402312517\, p^{134} q^{117} + 976325766\, p^{135} q^{39} + 99023088\, p^{131} q^{32}$$
$$+ 4970015659\, p^{92} q^{26} + 193188208926014\, p^{115} q^{74} + 583094680506403\, p^{117} q^{95} + 571539962323719\, p^{117} q^{94}$$
$$+ 519269959610714\, p^{118} q^{105} + 579408275897491\, p^{117} q^{104} + 1302677122569968\, p^{103} q^{90} + 72994595640182\, p^{101} q^{59}$$
$$+ 1104984291\, p^{136} q^{40} + 170724533083\, p^{144} q^{65} + 1864307438\, p^{137} q^{42} + 13400969498320\, p^{99} q^{50} + 512258240810043\, p^{102} q^{74}$$
$$+ 232198793203047\, p^{102} q^{67} + 464202028329138\, p^{102} q^{73} + 1265275011671933\, p^{103} q^{89} + 615146462287909\, p^{102} q^{76}$$
$$+ 669469017019955\, p^{102} q^{77} + 1285149931605957\, p^{104} q^{91} + 860578238180325\, p^{103} q^{81} + 1489037238364330\, p^{90} q^{98}$$
$$+ 8313566602521\, p^{99} q^{48} + 841206764496864\, p^{98} q^{113} + 38133934681\, p^{124} q^{41} + 1519086\, p^{66} q^{12} + 10428342860198\, p^{83} q^{47}$$
$$+ 1699191295421\, p^{82} q^{40} + 1266351117599\, p^{82} q^{39} + 245189659\, p^{74} q^{19} + 394607169758482\, p^{86} q^{69} + 437456028151590\, p^{86} q^{70}$$
$$+ 26929\, p^{106} q^{14} + 1457863284871\, p^{130} q^{58} + 790565259346792\, p^{104} q^{113} + 679871398302640\, p^{110} q^{112} + 138511629108\, q^{110} p^{38}$$
$$+ 251391669569\, p^{81} q^{34} + 2258194907102\, p^{82} q^{41} + 10118632398\, p^{78} q^{26} + 177416213203\, p^{80} q^{33} + 1404013844628119\, p^{96} q^{87}$$
$$+ 5258609146735\, p^{144} q^{121} + 345842\, p^{110} q^{17} + 77307810498\, q^{114} p^{38} + 41195558032\, q^{113} p^{36} + 105405575\, q^{172} p^{112}$$
$$+ 1163943792673\, p^{133} q^{60} + 5986945451195\, p^{140} q^{129} + 10326727468569\, p^{140} q^{123} + 3307470\, p^{109} q^{19} + 28044254\, p^{114} q^{23}$$
$$+ 25442828357931\, p^{138} q^{95} + 631817093\, p^{120} q^{30} + 1924960878\, p^{122} q^{33} + 29946192207229\, p^{138} q^{101} + 16402102523720\, p^{139} q^{119}$$
$$+ 112343322899\, q^{114} p^{39} + 29002597\, p^{127} q^{28} + 151642357005143\, p^{71} q^{114} + 289183672478318\, p^{76} q^{113} + 65003579669418\, p^{57} q^{96}$$
$$+ 234406174172144\, p^{65} q^{95} + 150447982155032\, p^{115} q^{126} + 167452284835359\, p^{110} q^{127} + 165148840176037\, p^{105} q^{128}$$
$$+ 2298405185078\, p^{82} q^{144} + 6055385118074\, p^{90} q^{143} + 76157349549\, p^{136} q^{52} + 1588666029225\, p^{140} q^{71} + 8313566602521\, p^{142} q^{91}$$

$$+ 4802785704656\, p^{142} q^{84} + 171877426095\, p^{136} q^{55} + 8076739223045\, p^{143} q^{95} + 181045219\, p^{125} q^{30} + 277007810388\, p^{137} q^{58}$$
$$+ 193349686909137\, p^{119} q^{121} + 16968336869856\, p^{135} q^{127} + 17750081738822\, p^{134} q^{128} + 26912166030064\, p^{131} q^{128}$$
$$+ 2481692241\, p^{166} q^{103} + 948990643\, p^{168} q^{134} + 112444639305205\, p^{123} q^{123} + 9214315965277\, p^{121} q^{59} + 26635775\, p^{103} q^{20}$$
$$+ 147836813763567\, p^{127} q^{113} + 3657828427815\, p^{120} q^{54} + 821289162677300\, q^{104} p^{81} + 1033894943030731\, q^{104} p^{85}$$
$$+ 982409848754579\, q^{104} p^{84} + 1174733559046867\, q^{104} p^{88} + 1252461609097233\, q^{104} p^{90} + 1231389930489569\, q^{105} p^{91}$$
$$+ 1083441455574689\, q^{104} p^{86} + 1215518961372769\, q^{104} p^{89} + 875619352806762\, q^{104} p^{82} + 1087394172490714\, p^{99} q^{109}$$
$$+ 1091010570585811\, p^{98} q^{109} + 251391669569\, p^{156} q^{109} + 232480140695\, p^{156} q^{118} + 120713025185\, p^{152} q^{79} + 24635185420\, p^{149} q^{64}$$
$$+ 90191908751\, p^{152} q^{77} + 150400272022\, p^{157} q^{121} + 6\, p^{186} q^{131} + 15\, p^{186} q^{134} + 480514283625\, p^{145} q^{141} + 334030592160132\, p^{94} q^{122}$$
$$+ 5698137318814\, p^{145} q^{99} + 814280512375\, q^{143} p^{72} + 693271099821\, q^{143} p^{71} + 1418567\, q^{166} p^{63} + 449703\, q^{166} p^{60} + 59861\, q^{125} p^{20}$$
$$+ 689030288387\, p^{151} q^{126} + 3021865395746\, p^{143} q^{82} + 145802261888790\, p^{88} q^{61} + 194027499629895\, p^{88} q^{63} + 18049508\, p^{175} q^{122}$$
$$+ 1408851\, p^{169} q^{71} + 111884\, p^{178} q^{166} + 6317915\, q^{140} p^{33} + 28726149196961\, q^{67} p^{56} + 47907061538633\, q^{133} p^{88}$$
$$+ 33281860304488\, p^{58} q^{109} + 16422853677\, p^{76} q^{27} + 7053976907671\, p^{58} q^{53} + 60211827233\, p^{47} q^{37} + 182606366631\, q^{91} p^{34}$$
$$+ 248\, p^{27} q^{4} + 1008\, p^{30} q^{5} + 44719495392860\, p^{56} q^{100} + 75502\, p^{36} q^{9} + 10899\, p^{34} q^{7} + 29738\, p^{35} q^{8} + 283763191108\, p^{47} q^{44}$$
$$+ 407863907062\, p^{48} q^{45} + 122414629548\, p^{47} q^{40} + 23493594\, p^{42} q^{17} + 3932458\, p^{41} q^{14} + 113114646\, p^{43} q^{20} + 71103593\, p^{43} q^{19}$$
$$+ 306423131\, p^{44} q^{22} + 462129012\, p^{44} q^{23} + 3314530217\, p^{45} q^{28} + 7094173\, p^{41} q^{15} + 13169\, p^{47} q^{7} + 52659764529257\, p^{71} q^{58}$$
$$+ 60806520485132\, p^{71} q^{59} + 69781973494\, p^{39} q^{45} + 103703191750\, p^{40} q^{46} + 2178050513587\, p^{42} q^{70} + 52\, q^{74} p^{6}$$
$$+ 15518796800\, p^{32} q^{47} + 9954244304\, p^{31} q^{46} + 39264352061880\, p^{133} q^{121} + 624549\, p^{44} q^{11} + 1406754\, p^{45} q^{12}$$
$$+ 1266351117599\, p^{39} q^{82} + 89554811514850\, p^{60} q^{75} + 748\, q^{62} p^{6} + 82327586925935\, p^{123} q^{126} + 91345586624373\, p^{117} q^{129}$$
$$+ 269932\, p^{60} q^{10} + 5885074833558\, q^{109} p^{50} + 233261870529160\, p^{75} q^{68} + 235945479361619\, p^{113} q^{74} + 698066248546634\, p^{115} q^{95}$$
$$+ 685429438826481\, p^{115} q^{94} + 616552691251306\, p^{116} q^{105} + 682909991821638\, p^{115} q^{104} + 8531535234454\, p^{110} q^{52}$$
$$+ 956320957964\, p^{108} q^{43} + 8232924445\, p^{102} q^{29} + 211598290080331\, p^{113} q^{73} + 1052329\, p^{101} q^{16} + 138062266966194\, p^{118} q^{74}$$
$$+ 429782256541427\, p^{120} q^{95} + 420131824694385\, p^{120} q^{94} + 387623393734450\, p^{121} q^{105} + 437456028151590\, p^{120} q^{104}$$
$$+ 535468931637897\, p^{74} q^{101} + 328980\, q^{96} p^{14} + 1493786668450659\, p^{92} q^{89} + 135501027068105\, p^{61} q^{82} + 1465941\, q^{137} p^{29}$$
$$+ 278658769\, q^{140} p^{40} + 537091775\, p^{141} q^{168} + 2474167388\, p^{117} q^{167} + 782343187002\, q^{120} p^{48} + 249147810854278\, p^{71} q^{72}$$

$$+ 228739975205329\, p^{70} q^{72} + 184920657811083\, p^{67} q^{73} + 194429120260381\, p^{70} q^{70} + 129\, q^{80} p^{7} + 208603564926\, q^{144} p^{66}$$
$$+ 516159504347\, q^{144} p^{71} + 365988141672\, q^{144} p^{69} + 305378049086\, q^{144} p^{68} + 253208561335\, q^{144} p^{67} + 435942626611\, q^{144} p^{70}$$
$$+ 13120536828318\, q^{108} p^{53} + 8297988767469\, q^{108} p^{51} + 2761820472899\, p^{46} q^{61} + 1577113868992\, p^{43} q^{62} + 7\, p^{24} q^{2}$$
$$+ 828670338012\, p^{40} q^{63} + 8714152\, p^{176} q^{124} + 39522\, p^{158} q^{42} + 25266\, p^{156} q^{39} + 11075353\, p^{173} q^{97} + 90987\, p^{160} q^{46} + 2098897\, p^{177} q^{149}$$
$$+ 728495\, p^{165} q^{59} + 9613036\, p^{175} q^{111} + 51180579\, p^{133} q^{32} + 568716470\, p^{138} q^{40} + 89101702700\, p^{146} q^{65} + 958848074\, p^{139} q^{42}$$
$$+ 508180684\, p^{137} q^{39} + 35\, p^{34} q^{3} + 87315162580\, p^{40} q^{45} + 129073615586\, p^{41} q^{46} + 29939718253662\, p^{108} q^{138} + 9596546946\, p^{162} q^{94}$$
$$+ 10430726865\, p^{164} q^{114} + 83\, p^{47} q^{4} + 639468778344042\, p^{95} q^{116} + 649123534953097\, p^{96} q^{116} + 357582974\, q^{80} p^{20}$$
$$+ 22480282993266\, p^{127} q^{70} + 7222274974\, p^{118} q^{34} + 733987590\, p^{114} q^{28} + 20066860\, q^{46} p^{16} + 3576\, p^{64} q^{7} + 4170058514\, p^{94} q^{26}$$
$$+ 505437765821732\, p^{118} q^{93} + 23725494441877\, p^{114} q^{59} + 258366\, q^{145} p^{32} + 315659752\, p^{167} q^{89} + 29463811\, p^{131} q^{30}$$
$$+ 26505330621037\, p^{117} q^{137} + 1694575326324\, p^{150} q^{110} + 2513645\, q^{132} p^{27} + 98530608\, q^{46} p^{19} + 35075862\, q^{46} p^{17}$$
$$+ 838599277696156\, p^{84} q^{107} + 379180429813863\, p^{121} q^{106} + 259613291\, p^{171} q^{128} + 48711166\, p^{172} q^{146} + 493256837\, p^{170} q^{122}$$
$$+ 77121492775855\, p^{90} q^{131} + 651055845325539\, p^{102} q^{116} + 27475666111\, p^{157} q^{141} + 351854776140\, p^{155} q^{108}$$
$$+ 355267191589\, p^{155} q^{113} + 28455855552\, p^{148} q^{63} + 2326563498\, p^{144} q^{49} + 155477996\, p^{139} q^{38} + 689609\, p^{124} q^{22}$$
$$+ 75748466746\, p^{156} q^{135} + 4392893363\, q^{110} p^{30} + 326179791\, q^{105} p^{24} + 318576884168776\, q^{120} p^{87} + 247490049693670\, q^{120} p^{83}$$
$$+ 584135292419\, p^{147} q^{78} + 195483382679844\, q^{120} p^{80} + 179068441057686\, q^{120} p^{79} + 190128241268385\, p^{110} q^{126}$$
$$+ 182988689724362\, p^{111} q^{126} + 149108941322324\, p^{117} q^{125} + 12544514240289\, p^{131} q^{134} + 11061328868130\, p^{132} q^{134}$$
$$+ 8466500617062\, p^{134} q^{134} + 7347979968570\, p^{135} q^{134} + 9702942351207\, p^{133} q^{134} + 10270783\, q^{45} p^{15} + 5525887\, q^{45} p^{14}$$
$$+ 65335767\, q^{47} p^{18} + 176429865\, q^{47} p^{20} + 108667606\, q^{47} p^{19} + 1084748234778335\, p^{109} q^{96} + 32144\, p^{71} q^{9} + 98549911\, p^{88} q^{19}$$
$$+ 111603\, q^{89} p^{12} + 9563601\, q^{94} p^{17} + 1696377\, q^{93} p^{15} + 266542\, q^{91} p^{13} + 3842123\, q^{94} p^{16} + 1690755979\, q^{102} p^{26} + 4375917806\, q^{103} p^{28}$$
$$+ 59562164\, q^{46} p^{18} + 159169329\, q^{46} p^{20} + 280205747\, q^{47} p^{21} + 362784\, p^{143} q^{31} + 299212874480\, q^{95} p^{36} + 2664781\, q^{44} p^{13}$$
$$+ 257436198974\, p^{36} q^{62} + 342512809888\, p^{37} q^{62} + 451426168969\, p^{38} q^{62} + 589602099451\, p^{39} q^{62} + 1071851655928139\, p^{105} q^{107}$$
$$+ 31755080\, q^{102} p^{20} + 14134446\, q^{102} p^{19} + 5939993\, q^{102} p^{18} + 670106\, q^{166} p^{61} + 204454925982633\, p^{117} q^{122} + 251596873\, q^{46} p^{21}$$
$$+ 18417221\, q^{45} p^{16} + 18010258150\, p^{120} q^{37} + 96017117284910\, p^{130} q^{91} + 21717357280567\, p^{128} q^{71} + 1121756063\, q^{48} p^{24}$$
$$+ 436093492\, q^{47} p^{22} + 666125966\, q^{47} p^{23} + 36268124926059\, p^{56} q^{70} + 8417268818\, q^{47} p^{30} + 1082377943011844\, p^{82} q^{87}$$

$$+ 934375595732\, p^{38}\, q^{82} + 84300106149081\, p^{132}\, q^{109} + 9309998489\, p^{119}\, q^{35} + 2587751017988\, p^{126}\, q^{57} + 670671678132\, p^{124}\, q^{50}$$
$$+ 2392260\, q^{154}\, p^{44} + 135180009731056\, p^{123}\, q^{121} + 106517\, q^{101}\, p^{14} + 265354588495016\, p^{106}\, q^{70} + 6178530838\, q^{121}\, p^{35}$$
$$+ 398450\, q^{81}\, p^{12} + 2632383340\, p^{113}\, q^{30} + 435942626611\, p^{120}\, q^{46} + 7995350421\, p^{115}\, q^{33} + 659708112375\, p^{121}\, q^{48}$$
$$+ 37532798593\, q^{72}\, p^{29} + 24974985508\, q^{72}\, p^{28} + 16350140479\, q^{72}\, p^{27} + 4804210350899\, p^{50}\, q^{59} + 5184175459737\, p^{45}\, q^{73}$$
$$+ 2586974576405\, p^{42}\, q^{74} + 4094563156484\, p^{44}\, q^{73} + 2494166071443\, p^{42}\, q^{73} + 3208692515323\, p^{43}\, q^{73} + 1726765961945\, q^{93}\, p^{41}$$
$$+ 117448937593\, q^{92}\, p^{33} + 78730713650\, q^{92}\, p^{32} + 2316876905231\, q^{93}\, p^{42} + 1148926685458\, p^{142}\, q^{139} + 1259294691720809\, p^{105}\, q^{92}$$
$$+ 16013321343031\, q^{88}\, p^{49} + 27846862913\, p^{58}\, q^{30} + 5781426636\, p^{57}\, q^{26} + 19541702729\, p^{58}\, q^{29} + 7149467029457\, p^{61}\, q^{51}$$
$$+ 8485947738624\, p^{61}\, q^{52} + 118125\, p^{46}\, q^{9} + 42376\, p^{45}\, q^{8} + 455829120054\, q^{154}\, p^{117} + 427439351835\, q^{154}\, p^{119}$$
$$+ 477820347327\, q^{154}\, p^{115} + 442359224732\, q^{154}\, p^{118} + 498850144819\, q^{154}\, p^{111} + 467695448448\, q^{154}\, p^{116} + 496663167836\, q^{154}\, p^{112}$$
$$+ 18832258396860\, p^{91}\, q^{50} + 22847\, p^{61}\, q^{8} + 31566498846604\, p^{73}\, q^{54} + 6514066989830\, p^{73}\, q^{46} + 39456854087687\, p^{74}\, q^{55}$$
$$+ 1927635825551\, p^{107}\, q^{45} + 763077086123559\, p^{114}\, q^{102} + 254743349662\, p^{105}\, q^{38} + 777705938655295\, p^{114}\, q^{100}$$
$$+ 697953623798790\, p^{113}\, q^{89} + 316729332569375\, p^{112}\, q^{76} + 347845388342236\, p^{112}\, q^{77} + 690085180476478\, p^{114}\, q^{91}$$
$$+ 443414147994949\, p^{113}\, q^{81} + 184590566712274\, p^{112}\, q^{71} + 634364477847\, p^{106}\, q^{41} + 135895932114\, p^{104}\, q^{36}$$
$$+ 85237601860210\, p^{119}\, q^{71} + 341159071756802\, p^{121}\, q^{91} + 1321082135586\, p^{44}\, q^{58} + 1633784359753\, p^{45}\, q^{58} + 142978758556\, q^{148}\, p^{71}$$
$$+ 1019713944378528\, p^{100}\, q^{110} + 1026500055613332\, p^{99}\, q^{110} + 1029068355037523\, p^{98}\, q^{110} + 11229\, q^{93}\, p^{11} + 686590223171\, q^{81}\, p^{37}$$
$$+ 251391669569\, q^{81}\, p^{34} + 355543746601\, q^{81}\, p^{35} + 938484719475\, q^{81}\, p^{38} + 1086471973\, p^{165}\, q^{89} + 708418596\, q^{136}\, p^{39}$$
$$+ 37129277945826\, p^{106}\, q^{137} + 1075199826245\, p^{145}\, q^{78} + 29685378959\, p^{138}\, q^{158} + 279337225\, p^{163}\, q^{157} + 29\, p^{98}\, q^{9}$$
$$+ 351442099512\, p^{155}\, q^{114} + 434903\, p^{113}\, q^{18} + 3061555660057\, p^{145}\, q^{88} + 471579735973\, p^{150}\, q^{133} + 2316876905231\, p^{148}\, q^{97}$$
$$+ 6492772821\, p^{139}\, q^{47} + 1990782804976\, p^{149}\, q^{116} + 211553350523\, q^{138}\, p^{58} + 1053254472147\, q^{139}\, p^{67} + 1256412138934\, q^{139}\, p^{68}$$
$$+ 1588666029225\, q^{140}\, p^{71} + 6277097747015\, p^{145}\, q^{103} + 1683515770456\, p^{142}\, q^{75} + 883719791343197\, p^{78}\, q^{95}$$
$$+ 1265889301685485\, p^{84}\, q^{94} + 518269168544894\, p^{72}\, q^{96} + 220957095396298\, p^{65}\, q^{97} + 13405392347\, p^{32}\, q^{46} + 27451855799\, p^{34}\, q^{47}$$
$$+ 17869167027\, p^{33}\, q^{46} + 276141666463\, p^{68}\, q^{35} + 3345261672591\, p^{69}\, q^{44} + 22093505426281\, p^{70}\, q^{53} + 947495974387949\, p^{79}\, q^{95}$$
$$+ 999969134\, p^{24}\, q^{47} + 3494894437\, p^{27}\, q^{48} + 1477025627\, p^{25}\, q^{47} + 2148872772\, p^{26}\, q^{47} + 20742492503\, p^{33}\, q^{47}$$
$$+ 68789275561296\, p^{102}\, q^{59} + 12595825890116\, p^{100}\, q^{50} + 219732692361205\, p^{103}\, q^{67} + 1082377943011844\, p^{108}\, q^{103}$$

$$+ 1376696260697\, p^{149}\, q^{93} + 7791419432346\, p^{100}\, q^{48} + 28344659695935\, p^{101}\, q^{54} + 680141753617\, p^{98}\, q^{39} + 370807331657\, p^{97}\, q^{37}$$
$$+ 940491526332\, p^{98}\, q^{40} + 2820323638577\, p^{142}\, q^{79} + 598619954180920\, p^{114}\, q^{110} + 639350997508070\, p^{113}\, q^{110}$$
$$+ 679871398302640\, p^{112}\, q^{110} + 320096106\, q^{96}\, p^{22} + 36915640487\, q^{101}\, p^{32} + 21222922675\, q^{102}\, p^{31} + 56478138451\, q^{101}\, p^{33}$$
$$+ 474685325\, q^{98}\, p^{23} + 15273722\, q^{129}\, p^{28} + 5023048\, q^{128}\, p^{26} + 20935072825554\, p^{118}\, q^{138} + 88013747989772\, p^{58}\, q^{83}$$
$$+ 902883204682677\, p^{99}\, q^{112} + 724552326514428\, p^{113}\, q^{107} + 11\, q^{110}\, p^{11} + 1206788087827\, q^{76}\, p^{39} + 67631049342978\, p^{126}\, q^{125}$$
$$+ 11618\, q^{86}\, p^{10} + 5513319855502\, p^{128}\, q^{141} + 149138073\, p^{165}\, q^{157} + 83771965554\, q^{74}\, p^{31} + 9446050810747\, q^{77}\, p^{47}$$
$$+ 45513515205568\, p^{62}\, q^{113} + 32015591872167\, p^{60}\, q^{113} + 38287614806925\, p^{61}\, q^{113} + 28585844931085\, p^{60}\, q^{114}$$
$$+ 53785376827797\, p^{63}\, q^{113} + 63195037015377\, p^{64}\, q^{113} + 73832360231420\, p^{65}\, q^{113} + 1584352561213\, p^{103}\, q^{43} + 54552937\, q^{164}\, p^{70}$$
$$+ 89756884\, q^{164}\, p^{72} + 32122431975354\, p^{132}\, q^{125} + 1257827574119\, q^{151}\, p^{107} + 1141272887447\, q^{151}\, p^{102} + 1173607770043\, q^{151}\, p^{103}$$
$$+ 1244096194965\, q^{151}\, p^{106} + 723481492\, q^{126}\, p^{33} + 1199849175\, q^{126}\, p^{34} + 13291299342\, q^{127}\, p^{40} + 19582306076\, q^{127}\, p^{41}$$
$$+ 1350790\, q^{116}\, p^{20} + 24085135830\, p^{154}\, q^{147} + 14151142813\, p^{97}\, q^{29} + 8890827472\, p^{127}\, q^{39} + 994505650284426\, p^{91}\, q^{109}$$
$$+ 186109046\, p^{80}\, q^{19} + 1343095\, p^{171}\, q^{168} + 2969022\, p^{171}\, q^{165} + 8002928871\, q^{106}\, p^{30} + 1541233225800159\, p^{97}\, q^{91}$$
$$+ 21051499896344\, q^{115}\, p^{59} + 14187184610139\, q^{115}\, p^{57} + 17338346469161\, q^{115}\, p^{58} + 8170652392046\, q^{116}\, p^{55}$$
$$+ 1060829111140742\, p^{96}\, q^{81} + 4027480\, q^{64}\, p^{13} + 14320\, q^{85}\, p^{10} + 4169\, q^{83}\, p^{9} + 505985362884033\, p^{90}\, q^{117}$$
$$+ 490868423803171\, p^{92}\, q^{118} + 1613030863576349\, p^{95}\, q^{94} + 55819580260\, q^{116}\, p^{38} + 1202476201643296\, p^{84}\, q^{98}$$
$$+ 758563630896335\, p^{95}\, q^{76} + 820588055031726\, p^{95}\, q^{77} + 583094680506403\, p^{95}\, q^{73} + 401006449\, p^{130}\, q^{34} + 241459524420\, p^{140}\, q^{61}$$
$$+ 193\, p^{57}\, q^{5} + 278398700466244\, p^{71}\, q^{107} + 3240181\, q^{167}\, p^{68} + 1543143210\, p^{156}\, q^{65} + 8303981\, p^{147}\, q^{39} + 474778\, p^{141}\, q^{30}$$
$$+ 14520846\, p^{149}\, q^{42} + 799247725727675\, p^{106}\, q^{112} + 256209464089\, p^{126}\, q^{48} + 239432645487520\, q^{119}\, p^{81} + 1490281031800146\, p^{96}\, q^{89}$$
$$+ 639468778344042\, p^{95}\, q^{74} + 303271054945616\, p^{95}\, q^{67} + 1859022329\, q^{112}\, p^{29} + q^{108}\, p^{10} + p^{16}\, q + 44804317396931\, p^{136}\, q^{106}$$
$$+ 124187903826\, p^{78}\, q^{32} + 85029955544\, p^{78}\, q^{31} + 88013747989772\, p^{83}\, q^{58} + 686546506659\, p^{79}\, q^{37} + 102968156621711\, p^{83}\, q^{59}$$
$$+ 215782654549\, q^{112}\, p^{40} + 29463811\, q^{160}\, p^{59} + 724\, p^{46}\, q^{5} + 2\, p^{108}\, q^{184} + 64418571321\, p^{107}\, q^{35} + 646015036830156\, p^{78}\, q^{79}$$
$$+ 26336284840884\, p^{124}\, q^{134} + 32122431975354\, p^{125}\, q^{132} + 29105022249092\, p^{126}\, q^{132} + 26657142918991\, p^{122}\, q^{135}$$
$$+ 181977037315729\, p^{127}\, q^{96} + 16529361761\, p^{74}\, q^{27} + 57814367843\, q^{146}\, p^{63} + 28577423201\, q^{146}\, p^{60} + 46064099613\, q^{146}\, p^{62}$$
$$+ 771137857665777\, p^{105}\, q^{113} + 28776366611931\, p^{121}\, q^{135} + 763077086123559\, p^{102}\, q^{114} + 712447360223458\, p^{109}\, q^{112}$$

$$+ 743414623215789\, p^{108}\, q^{112} + 608036944186510\, p^{113}\, q^{111} + 751181609643673\, p^{103}\, q^{114} + 714042134377142\, p^{101}\, q^{115}$$
$$+ 660610079876270\, p^{98}\, q^{116} + 718749478277154\, p^{100}\, q^{115} + 1259738374738487\, p^{91}\, q^{84} + 516445549\, q^{102}\, p^{24} + 416668693\, p^{159}\, q^{66}$$
$$+ 524937235\, p^{167}\, q^{145} + 1101180619\, p^{167}\, q^{138} + 2098897\, p^{149}\, q^{177} + 1735306\, p^{176}\, q^{156} + 5023048\, p^{164}\, q^{62} + 87014333\, p^{172}\, q^{109}$$
$$+ 2256\, p^{140}\, q^{24} + 5064243\, p^{175}\, q^{152} + 4379251509237\, q^{91}\, p^{44} + 5503364496684\, q^{92}\, p^{45} + 1022908473037\, q^{91}\, p^{39}$$
$$+ 182465371531\, p^{132}\, q^{154} + 124445728655\, p^{133}\, q^{155} + 29443034310840\, p^{52}\, q^{81} + 916580618674184\, p^{82}\, q^{82}$$
$$+ 80419560310181\, p^{122}\, q^{127} + 18313997219533\, q^{135}\, p^{81} + 118248966656864\, p^{60}\, q^{93} + 57235344533333\, q^{121}\, p^{70} + 904\, p^{89}\, q^{9}$$
$$+ 5781786156\, p^{155}\, q^{153} + 9081292267\, p^{154}\, q^{152} + 54483122\, p^{173}\, q^{113} + 16079\, p^{148}\, q^{31} + 60120\, p^{152}\, q^{36} + 11964939\, p^{175}\, q^{143}$$
$$+ 62913525\, p^{172}\, q^{105} + p^{84}\, q^{6} + 22120512\, p^{167}\, q^{75} + 493256\, p^{68}\, q^{11} + 241078075310601\, p^{116}\, q^{121} + 10981086671891\, p^{102}\, q^{50}$$
$$+ 6239855634\, p^{89}\, q^{26} + 1366701813654740\, p^{95}\, q^{86} + 334302397\, q^{170}\, p^{135} + 373460628\, q^{170}\, p^{133} + 409413992\, q^{170}\, p^{131}$$
$$+ 186824052\, q^{171}\, p^{136} + 330095772\, q^{164}\, p^{78} + 3636\, p^{33}\, q^{6} + 1304596034\, p^{46}\, q^{25} + 2703247403\, p^{46}\, q^{27} + 224690787\, p^{45}\, q^{21}$$
$$+ 886588171\, p^{46}\, q^{24} + 1891181408\, p^{46}\, q^{26} + 20742492503\, p^{47}\, q^{33} + 8417268818\, p^{47}\, q^{30} + 6095851236\, p^{47}\, q^{29} + 15518796800\, p^{47}\, q^{32}$$
$$+ 11491244440\, p^{47}\, q^{31} + 27451855799\, p^{47}\, q^{34} + 35989113153\, p^{47}\, q^{35} + 54368786614\, p^{48}\, q^{36} + 448895\, p^{39}\, q^{11} + 988405\, p^{40}\, q^{12}$$
$$+ 210024\, p^{39}\, q^{10} + 2098897\, p^{41}\, q^{13} + 48711166\, p^{44}\, q^{18} + 15265719\, p^{43}\, q^{16} + 89830336686\, p^{48}\, q^{38} + 179541521465\, p^{48}\, q^{41}$$
$$+ 274408929686\, p^{48}\, q^{43} + 222761729148\, p^{48}\, q^{42} + 114041915419\, p^{48}\, q^{39} + 70182416558\, p^{48}\, q^{37} + 256\, p^{28}\, q^{4} + 1043\, p^{31}\, q^{5}$$
$$+ 81058\, p^{37}\, q^{9} + 11477\, p^{35}\, q^{7} + 31662\, p^{36}\, q^{8} + 335682314904\, p^{48}\, q^{44} + 480514283625\, p^{49}\, q^{45} + 143639679231\, p^{48}\, q^{40}$$
$$+ 26185105\, p^{43}\, q^{17} + 4317194\, p^{42}\, q^{14} + 127460384\, p^{44}\, q^{20} + 79708948\, p^{44}\, q^{19} + 346579085\, p^{45}\, q^{22} + 524937235\, p^{45}\, q^{23}$$
$$+ 3813198920\, p^{46}\, q^{28} + 7846387\, p^{42}\, q^{15} + 229805409136936\, p^{120}\, q^{82} + 108439764322\, p^{41}\, q^{45} + 159482362849\, p^{42}\, q^{46}$$
$$+ 35989113153\, p^{35}\, q^{47} + 23587244962\, p^{34}\, q^{46} + 4962306492\, p^{28}\, q^{48} + 3082195428\, p^{27}\, q^{47} + 6046192\, q^{91}\, p^{16} + 2714220\, q^{90}\, p^{15}$$
$$+ 225986484\, p^{147}\, q^{46} + 881946311\, p^{149}\, q^{52} + 106241746999\, p^{158}\, q^{104} + 1229338790\, p^{149}\, q^{53} + 2755870031\, p^{150}\, q^{57} + 313899\, p^{55}\, q^{10}$$
$$+ 217945945222\, p^{70}\, q^{34} + 1769954430365\, p^{71}\, q^{41} + 1663140823\, q^{48}\, p^{25} + 35914217\, p^{70}\, q^{16} + 2241602764\, p^{167}\, q^{112} + 1846035\, p^{144}\, q^{34}$$
$$+ 8601181\, p^{148}\, q^{40} + 4904500584\, p^{158}\, q^{150} + 184478965972\, p^{154}\, q^{89} + 238555799025\, p^{156}\, q^{117} + 346725686750\, p^{155}\, q^{107}$$
$$+ 20319959588994\, p^{50}\, q^{84} + 2590681\, q^{106}\, p^{18} + 5167\, q^{82}\, p^{9} + 403889753515864\, p^{69}\, q^{88} + 965361\, q^{106}\, p^{17} + 171566\, q^{104}\, p^{15}$$
$$+ 18236818\, q^{109}\, p^{21} + 757748\, q^{107}\, p^{17} + 2063683\, q^{107}\, p^{18} + 5206545\, q^{107}\, p^{19} + 4982924133601\, p^{44}\, q^{85} + 517858219172853\, p^{74}\, q^{80}$$
$$+ 3467173020\, q^{135}\, p^{42} + 86580921243983\, p^{101}\, q^{60} + 375791702498690\, p^{102}\, q^{71} + 3545580597504\, p^{137}\, q^{137} + 934375595732\, q^{152}\, p^{108}$$

$$+ 100540340470\, q^{145} p^{64} + 1252461609097233\, p^{86} q^{100} + 92155\, q^{90} p^{12} + 166299496\, p^{154} q^{54} + 16977494612\, p^{161} q^{95}$$
$$+ 2300061164\, p^{165} q^{139} + 22929834\, p^{150} q^{44} + 324612954\, p^{154} q^{56} + 4\, p^{47} q^{3} + 1700461556919\, p^{109} q^{150} + 40739922655419\, p^{62} q^{114}$$
$$+ 119216132\, q^{48} p^{19} + 2428315893\, q^{48} p^{26} + 7627338690\, p^{93} q^{27} + 13842663900900\, p^{102} q^{51} + 4341165868385\, p^{101} q^{46}$$
$$+ 32454466111\, p^{60} q^{30} + 6642894865\, p^{59} q^{26} + 22650681114\, p^{60} q^{29} + 8761856558078\, p^{63} q^{51} + 10428186175765\, p^{63} q^{52}$$
$$+ 1707461075\, p^{58} q^{23} + 119599033\, p^{56} q^{18} + 17386522\, p^{54} q^{15} + 237887071582\, p^{61} q^{36} + 12710530439512\, p^{58} q^{57}$$
$$+ 332956066514822\, p^{110} q^{121} + 194815805\, q^{137} p^{37} + 317835705\, q^{137} p^{38} + 508180684\, q^{137} p^{39} + 342069580\, q^{49} p^{21}$$
$$+ 64559891944834\, p^{118} q^{68} + 247490049693670\, p^{120} q^{83} + 406079446014502\, p^{121} q^{101} + 265354588495016\, p^{120} q^{84} + 303\, p^{113} q^{183}$$
$$+ 1259294691720809\, q^{105} p^{92} + 48053326321460\, p^{118} q^{66} + 19746998461894\, p^{117} q^{60} + 38254593\, q^{47} p^{17} + 9945066819447\, p^{100} q^{49}$$
$$+ 2900860209877\, p^{99} q^{44} + 18540951702742\, p^{101} q^{52} + 1537836772838789\, p^{90} q^{94} + 80581629151\, q^{82} p^{31} + 7037\, p^{119} q^{182}$$
$$+ 3726354684\, q^{160} p^{79} + 189582\, p^{178} q^{104} + 11313\, p^{171} q^{64} + 80439\, p^{174} q^{79} + 11098\, p^{182} q^{165} + 301946\, p^{178} q^{107} + 321192\, p^{179} q^{117}$$
$$+ 827509069\, p^{160} q^{156} + 30215822609529\, q^{110} p^{58} + 1581446322017\, p^{134} q^{144} + 1591187655753\, p^{125} q^{148} + 2288619972283\, p^{119} q^{148}$$
$$+ 1848661227042\, p^{118} q^{149} + 1769954430365\, p^{119} q^{149} + 1687245801299\, p^{120} q^{149} + 1601380450301\, p^{121} q^{149}$$
$$+ 619955715751\, p^{146} q^{138} + 1359677409141\, p^{127} q^{148} + 1474276175301\, p^{126} q^{148} + 1828447513101\, p^{123} q^{148}$$
$$+ 1709555630991\, p^{124} q^{148} + 788444688041884\, p^{111} q^{108} + 1565493071995537\, p^{99} q^{96} + 1597255403280730\, p^{94} q^{97}$$
$$+ 1584901592659564\, p^{93} q^{97} + 30567742481333\, p^{57} q^{66} + 1193690892390732\, p^{107} q^{100} + 312236107896\, p^{71} q^{35}$$
$$+ 26505330621037\, p^{73} q^{53} + 3918313407837\, p^{72} q^{44} + 10243612107769\, p^{87} q^{47} + 38578687364042\, p^{58} q^{67} + 865156438\, q^{159} p^{69}$$
$$+ 416668693\, q^{159} p^{66} + 5277056397\, q^{83} p^{25} + 317800743\, q^{82} p^{20} + 163494772\, q^{82} p^{19} + 1130550662953106\, p^{103} q^{86}$$
$$+ 20742492503\, p^{143} q^{157} + 17869167027\, p^{144} q^{157} + 8342841642\, p^{150} q^{156} + 28049\, q^{121} p^{18} + 1178743071000032\, p^{103} q^{87}$$
$$+ 748447160675199\, p^{103} q^{79} + 66324965546146\, p^{65} q^{114} + 5147862176\, q^{109} p^{30} + 70387999\, q^{106} p^{22} + 319601320497\, q^{114} p^{42}$$
$$+ 6197323157914\, q^{118} p^{55} + 7712426189975\, q^{118} p^{56} + 8604570\, q^{100} p^{18} + 130565147\, q^{161} p^{66} + 49662696399477\, q^{120} p^{68}$$
$$+ 26635775\, q^{103} p^{20} + 57384324\, q^{103} p^{21} + 118153841\, q^{103} p^{22} + 549892960145449\, p^{72} q^{89} + 451402961042686\, p^{70} q^{89}$$
$$+ 16511821519\, p^{75} q^{27} + 661265035320698\, q^{90} p^{74} + 452385755183961\, q^{90} p^{70} + 11839507926\, q^{103} p^{30} + 1254737990171284\, p^{85} q^{88}$$
$$+ 194531278\, q^{48} p^{20} + 97093632261190\, p^{129} q^{116} + 1311867513\, q^{167} p^{102} + 50353164329470\, p^{104} q^{58} + 632857168642901\, p^{91} q^{115}$$
$$+ 222887\, p^{85} q^{12} + 449\, p^{84} q^{8} + 11971610613\, p^{122} q^{37} + 194347937858\, p^{150} q^{140} + 2783743731\, q^{137} p^{43} + 65053436\, q^{134} p^{33}$$

$$+ 575891025927087\, p^{85} q^{113} + 2846\, p^{50} q^{6} + 2178050513587\, p^{148} q^{120} + 1591187655753\, p^{148} q^{125} + 669469017019955\, p^{77} q^{102}$$
$$+ 748447160675199\, p^{79} q^{103} + 839947679190263\, p^{80} q^{102} + 725294595793410\, p^{78} q^{102} + 782256502912046\, p^{79} q^{102}$$
$$+ 562650228141047\, p^{75} q^{102} + 615146462287909\, p^{76} q^{102} + 15303920543\, p^{145} q^{157} + 832593883585399\, p^{110} q^{108}$$
$$+ 450579438936\, p^{39} q^{59} + 580132654680\, p^{40} q^{59} + 740801744838\, p^{41} q^{59} + 45483082480900\, p^{58} q^{69} + 820588728413849\, p^{77} q^{88}$$
$$+ 949741584109504\, p^{79} q^{89} + 993857498096149\, p^{80} q^{88} + 878537457782206\, p^{78} q^{88} + 936457980633531\, p^{79} q^{88}$$
$$+ 706434676405626\, p^{75} q^{88} + 763077086123559\, p^{76} q^{88} + 3538111919737\, p^{123} q^{56} + 20126639337835\, p^{125} q^{67}$$
$$+ 91345586624373\, p^{129} q^{117} + 14550719711741\, p^{125} q^{65} + 3042500475556\, p^{128} q^{144} + 123577125971881\, p^{122} q^{123}$$
$$+ 423865595608\, p^{148} q^{78} + 73483957657221\, p^{67} q^{63} + 65264876179796\, p^{67} q^{62} + 57673188886972\, p^{67} q^{61} + 82327586925935\, p^{67} q^{64}$$
$$+ 1099065904753\, q^{67} p^{40} + 1423553454755\, q^{67} p^{41} + 2329564913358\, q^{67} p^{43} + 1828447513101\, q^{67} p^{42} + 2944873170533\, q^{67} p^{44}$$
$$+ 3450037239\, q^{63} p^{24} + 2162185220\, q^{63} p^{23} + 24917344103601\, p^{87} q^{51} + 2881307178416\, p^{86} q^{42} + 54313503258143\, p^{87} q^{55}$$
$$+ 8149344762402\, p^{86} q^{46} + 222050996309487\, p^{88} q^{64} + 53811952891\, p^{82} q^{30} + 340218292058\, p^{84} q^{35} + 8295230312\, q^{63} p^{26}$$
$$+ 1366551719\, q^{64} p^{22} + 1031130733909\, q^{66} p^{40} + 28789132932\, q^{64} p^{29} + 39791682\, q^{61} p^{16} + 19797830\, q^{60} p^{15} + 264923394\, q^{63} p^{19}$$
$$+ 36446868620418\, p^{80} q^{131} + 32975032510624\, p^{79} q^{131} + 5398470088\, q^{63} p^{25} + 498926065510\, q^{80} p^{36} + 680141172393\, q^{102} p^{40}$$
$$+ 54419428318\, q^{71} p^{30} + 395780938940482\, p^{108} q^{120} + 19596030910\, q^{64} p^{28} + 5831502327\, q^{65} p^{25} + 724\, q^{46} p^{5} + 3392\, q^{47} p^{6}$$
$$+ 61\, p^{49} q^{4} + 131915429997820\, p^{81} q^{61} + 173079663318095\, p^{81} q^{63} + 151500060406958\, p^{81} q^{62} + 70277322\, q^{164} p^{71}$$
$$+ 22093505426281\, p^{53} q^{70} + 66081055020\, q^{66} p^{31} + 1265889301685485\, p^{94} q^{84} + 337232549206\, q^{66} p^{36} + 248896321482\, q^{66} p^{35}$$
$$+ 131272730412\, q^{66} p^{33} + 181763286509\, q^{66} p^{34} + 93709895564\, q^{66} p^{32} + 108667606\, q^{171} p^{143} + 71103593\, q^{171} p^{147}$$
$$+ 790621455685\, q^{66} p^{39} + 553\, q^{116} p^{14} + q^{113} p^{11} + 600798290502\, q^{66} p^{38} + 479429150733\, q^{67} p^{37} + 317371659687\, q^{65} p^{36}$$
$$+ 3104330\, p^{70} q^{13} + 16\, q^{114} p^{12} + 11061328868130\, p^{58} q^{56} + 7087451\, p^{71} q^{14} + 122171221037922\, p^{66} q^{69} + 535998209\, q^{159} p^{67}$$
$$+ 683734527\, q^{159} p^{68} + 1156022362579630\, p^{85} q^{85} + 1229962971746698\, p^{89} q^{84} + 1247340882113714\, p^{90} q^{84}$$
$$+ 69837536609074\, p^{60} q^{71} + 17012034813953\, p^{67} q^{126} + 92200894608\, q^{104} p^{35} + 1311849571535231\, p^{91} q^{85}$$
$$+ 743414623215789\, p^{112} q^{108} + 38847612798396\, p^{56} q^{71} + 1075199826245\, p^{112} q^{45} + 950969816401\, p^{73} q^{143}$$
$$+ 1335600361680849\, p^{87} q^{99} + 18319103661910\, p^{92} q^{50} + 20932\, p^{62} q^{8} + 1244035284841196\, p^{84} q^{96} + 136149293\, q^{138} p^{37}$$
$$+ 675343880\, q^{140} p^{42} + 4690229092\, q^{140} p^{47} + 6637083472\, q^{140} p^{48} + 360183019\, q^{138} p^{39} + 223756245\, q^{138} p^{38}$$

$$+ 3709009914889\, q^{113} p^{50} + 1229456084806\, q^{151} p^{113} + 1800922045395\, p^{129} q^{146} + 1632135369343\, p^{130} q^{146}$$
$$+ 2052641800857\, p^{115} q^{149} + 2174522341136\, p^{124} q^{147} + 1333237719922\, p^{124} q^{149} + 1243033033224\, p^{125} q^{149}$$
$$+ 2020629032894\, p^{125} q^{147} + 1438532739524\, p^{129} q^{147} + 1577113868992\, p^{128} q^{147} + 1869064333477\, p^{126} q^{147}$$
$$+ 1720905096419\, p^{127} q^{147} + 2484486507673\, p^{122} q^{147} + 2351414190561\, p^{126} q^{146} + 2161509656448\, p^{127} q^{146}$$
$$+ 1393199186676\, p^{135} q^{144} + 2025103655656\, p^{130} q^{145} + 1633784359753\, p^{132} q^{145} + 1823442900863\, p^{131} q^{145} + 457794\, p^{69} q^{11}$$
$$+ 1354228955293559\, p^{96} q^{86} + 109\, p^{101} q^{10} + 14694982739924\, q^{134} p^{77} + 1446876848\, q^{139} p^{43} + 958848074\, q^{139} p^{42}$$
$$+ 2150217967\, q^{139} p^{44} + 11763145651694\, q^{77} p^{48} + 17861590532200\, q^{77} p^{50} + 26403495023272\, q^{77} p^{52} + 21787604911639\, q^{77} p^{51}$$
$$+ 31794090885704\, q^{77} p^{53} + 38047892101284\, q^{77} p^{54} + 46969343752295\, q^{78} p^{55} + 14545149969434\, q^{77} p^{49} + 77961682062\, p^{124} q^{43}$$
$$+ 2944873170533\, p^{123} q^{146} + 3145694033226\, p^{122} q^{146} + 2744505552185\, p^{124} q^{146} + 607019997091135\, p^{115} q^{108}$$
$$+ 719825913668459\, p^{110} q^{111} + 83593405\, p^{140} q^{172} + 77396467\, p^{141} q^{172} + 41503155\, p^{142} q^{173} + 804331281824696\, p^{103} q^{80}$$
$$+ 1223812152506986\, p^{103} q^{88} + 401635607221\, q^{151} p^{86} + 1204581933751433\, p^{107} q^{99} + 1211545206294359\, p^{107} q^{97}$$
$$+ 7725460994521\, p^{144} q^{112} + 2461753654872\, p^{145} q^{128} + 104464768100110\, p^{99} q^{131} + 102713405277385\, p^{98} q^{131}$$
$$+ 100570936088577\, p^{97} q^{131} + 92063863004537\, p^{94} q^{131} + 95215846871839\, p^{95} q^{131} + 105804476753655\, p^{100} q^{131}$$
$$+ 85041683915823\, p^{97} q^{132} + 698066248546634\, p^{95} q^{75} + 99355973\, p^{79} q^{18} + 630510296\, p^{81} q^{21} + 1083127000\, p^{82} q^{22}$$
$$+ 174474\, p^{67} q^{10} + 1123506545979096\, p^{96} q^{82} + 56284139540306\, p^{132} q^{118} + 23738649773253\, p^{129} q^{73} + 70305384005092\, p^{132} q^{114}$$
$$+ 79398460034477\, p^{132} q^{111} + 34981273729128\, p^{126} q^{72} + 138007095456860\, p^{128} q^{92} + 1256412138934\, p^{122} q^{51}$$
$$+ 535468931637897\, p^{89} q^{116} + 557363994649281\, p^{90} q^{116} + 41115818617034\, p^{125} q^{72} + 160398611192502\, p^{127} q^{92}$$
$$+ 1489774988360\, p^{121} q^{51} + 577712073123508\, p^{91} q^{116} + 596292738790358\, p^{92} q^{116} + 16\, q^{40} p^{3} + 779606220785253\, p^{76} q^{92}$$
$$+ 214004316624544\, p^{76} q^{116} + 235945479361619\, p^{77} q^{116} + 1292943721\, q^{168} p^{112} + 52350\, q^{150} p^{34} + 482600\, q^{151} p^{38}$$
$$+ 29002597\, q^{162} p^{63} + 21170762\, q^{162} p^{62} + 1157730036444255\, p^{102} q^{107} + 31868594\, q^{139} p^{35} + 108\, q^{45} p^{4} + 19567134576402\, p^{114} q^{58}$$
$$+ 505985362884033\, p^{117} q^{90} + 1313747301166234\, p^{95} q^{105} + 611\, q^{48} p^{5} + 18853970466244\, p^{128} q^{70} + 170254558\, p^{161} q^{67}$$
$$+ 839947679190263\, p^{88} q^{110} + 804331281824696\, p^{87} q^{110} + 766956778550306\, p^{86} q^{110} + 258923802511731\, p^{78} q^{116}$$
$$+ 282830329112835\, p^{79} q^{116} + 1104345212516657\, p^{104} q^{107} + 122322421\, q^{172} p^{115} + 111290494\, q^{172} p^{113} + 4182096241236\, p^{122} q^{56}$$
$$+ 23673833375729\, p^{124} q^{67} + 104040773162765\, p^{128} q^{117} + 17162230732932\, p^{124} q^{65} + 12087507272\, q^{129} p^{41}$$

$$+ 739754792397\, p^{151}\, q^{125} + 270032033717409\, p^{110}\, q^{123} + 61871776141\, p^{149}\, q^{148} + 50158354489\, p^{148}\, q^{150} + 41143316567\, p^{149}\, q^{150}$$
$$+ 33513529655\, p^{150}\, q^{150} + 27102744783\, p^{151}\, q^{150} + 41143316567\, p^{150}\, q^{149} + 48762452990\, p^{151}\, q^{147} + 82694186384\, p^{144}\, q^{151}$$
$$+ 114041915419\, p^{142}\, q^{151} + 97400740270\, p^{143}\, q^{151} + 148408\, p^{94}\, q^{13} + 122171221037922\, p^{124}\, q^{121} + 96013475251\, q^{115}\, p^{39}$$
$$+ 138087190569\, q^{115}\, p^{40} + 196124071509\, q^{115}\, p^{41} + 63013302989\, p^{155}\, q^{139} + 47992880056\, p^{67}\, q^{30} + 465457513\, p^{63}\, q^{20}$$
$$+ 9103453\, q^{136}\, p^{31} + 494926712\, q^{142}\, p^{43} + 748132019\, q^{142}\, p^{44} + 100465870994728\, p^{92}\, q^{130} + 68789275561296\, p^{88}\, q^{131}$$
$$+ 181045219\, p^{160}\, q^{65} + 834521565160\, q^{152}\, p^{117} + 9960980\, p^{108}\, q^{20} + 51935492219740\, p^{97}\, q^{56} + 71464547396132\, p^{98}\, q^{58}$$
$$+ 112977052853232\, p^{61}\, q^{99} + 243815192934905\, p^{66}\, q^{98} + 4061\, p^{41}\, q^{6} + 160731321153189\, p^{128}\, q^{97} + 143481831410273\, p^{128}\, q^{93}$$
$$+ 663736333\, q^{169}\, p^{110} + 1846166\, p^{52}\, q^{12} + 791310\, p^{51}\, q^{11} + 4104275\, p^{53}\, q^{13} + 8750534\, p^{54}\, q^{14} + 106964144\, p^{166}\, q^{157}$$
$$+ 3217238588988\, q^{132}\, p^{64} + 2665540084427\, q^{132}\, p^{63} + 1794629350380\, q^{132}\, p^{61} + 2194350023634\, q^{132}\, p^{62} + 133702435726\, p^{42}\, q^{45}$$
$$+ 195664287884\, p^{43}\, q^{46} + 16209485480130\, p^{87}\, q^{49} + 830837049558376\, p^{89}\, q^{77} + 898404212721103\, p^{90}\, q^{78} + 46754532487\, p^{36}\, q^{47}$$
$$+ 30844275896\, p^{35}\, q^{46} + 1299474155\, p^{54}\, q^{23} + 5174\, p^{61}\, q^{7} + 1556911177511\, q^{125}\, p^{54} + 194225679075249\, p^{105}\, q^{67}$$
$$+ 6752647441553\, p^{102}\, q^{48} + 4362077673\, p^{28}\, q^{47} + 13190596110\, p^{31}\, q^{48} + p^{18}\, q + 60211827233\, p^{37}\, q^{47} + 6956319239\, p^{29}\, q^{48}$$
$$+ 744300402\, p^{23}\, q^{48} + 9634255538\, p^{30}\, q^{48} + 1862702755\, p^{25}\, q^{49} + 485243526\, p^{22}\, q^{48} + 310407527\, p^{21}\, q^{48} + 881591550618\, q^{152}\, p^{115}$$
$$+ 859571394488\, q^{152}\, p^{116} + 806727847947\, q^{152}\, p^{118} + 744171168224\, q^{152}\, p^{120} + 776500805919\, q^{152}\, p^{119} + 5386946673\, p^{91}\, q^{26}$$
$$+ 146301423\, p^{63}\, q^{18} + 19897105\, p^{61}\, q^{15} + 264305562821275\, p^{120}\, q^{116} + 4688377597489\, q^{115}\, p^{52} + 873280808301\, p^{150}\, q^{91}$$
$$+ 750240397\, p^{165}\, q^{148} + 33381509448775\, p^{123}\, q^{133} + 28131790\, p^{153}\, q^{48} + 190009077\, p^{167}\, q^{152} + 3450037239\, p^{166}\, q^{127} + 248\, p^{186}\, q^{163}$$
$$+ 1244035284841196\, p^{96}\, q^{84} + 11935693272191\, p^{140}\, q^{121} + 965361\, p^{106}\, q^{17} + 1293455628564\, p^{146}\, q^{82} + 11315267103\, q^{113}\, p^{33}$$
$$+ 15038883803787\, q^{119}\, p^{60} + 600439330814850\, p^{116}\, q^{106} + 863383243882594\, p^{103}\, q^{112} + 936457980633531\, p^{102}\, q^{111}$$
$$+ 949741584109504\, p^{101}\, q^{111} + 926960475795070\, p^{105}\, q^{110} + 40586235774\, q^{157}\, p^{86} + 124514443633\, q^{157}\, p^{99} + 31743398325\, q^{157}\, p^{84}$$
$$+ 35986885363\, q^{157}\, p^{85} + 45539890067\, q^{157}\, p^{87} + 3109279134999\, q^{133}\, p^{65} + 224528271064421\, p^{90}\, q^{124} + 494926712\, q^{147}\, p^{48}$$
$$+ 336921864\, q^{147}\, p^{47} + 37658313774\, q^{153}\, p^{74} + 31615278583\, q^{153}\, p^{73} + 3276305\, q^{140}\, p^{32} + 1013326\, q^{141}\, p^{31} + 299212874480\, q^{154}\, p^{95}$$
$$+ 169116962320160\, p^{115}\, q^{125} + 2153652004739\, q^{117}\, p^{50} + 957621394789\, q^{115}\, p^{46} + 1219\, q^{137}\, p^{22} + 25562\, q^{138}\, p^{25}$$
$$+ 819933534944568\, p^{83}\, q^{79} + 1500424136399031\, p^{89}\, q^{95} + 1184770159453491\, p^{83}\, q^{96} + 1534974811023798\, p^{90}\, q^{95}$$
$$+ 34598209194624\, p^{62}\, q^{61} + 38693078312868\, p^{63}\, q^{61} + 30026325548746\, p^{59}\, q^{63} + 30592527908638\, p^{60}\, q^{62}$$

$$+ 34598209194624\, p^{61} q^{62} + 1011415369247914\, p^{95} q^{80} + 8950166\, p^{65} q^{14} + 4027480\, p^{64} q^{13} + 1642443982868\, p^{94} q^{41}$$
$$+ 172674203124\, p^{92} q^{34} + 842820770\, p^{86} q^{22} + 1025660457608298\, p^{100} q^{82} + 1143138186785735\, p^{100} q^{84} + 7633395397810\, q^{113} p^{53}$$
$$+ 6047638757698\, q^{113} p^{52} + 9563808064201\, q^{113} p^{54} + 11896487938610\, q^{113} p^{55} + 14694982739924\, q^{113} p^{56}$$
$$+ 19278489634940\, p^{90} q^{50} + 24821\, p^{60} q^{8} + 13094264306182\, p^{48} q^{83} + 4035577258\, p^{69} q^{24} + 834521565160\, p^{73} q^{38}$$
$$+ 51280664094422\, p^{76} q^{56} + 165662147022\, p^{72} q^{33} + 10290779559\, p^{70} q^{26} + 238555799025\, p^{73} q^{34} + 1990782804976\, p^{74} q^{41}$$
$$+ 193349686909137\, p^{71} q^{69} + 143214376223571\, p^{129} q^{105} + 10136949142693\, p^{124} q^{62} + 77373907075997\, p^{126} q^{79} + 20918687\, q^{160} p^{58}$$
$$+ 3779\, p^{34} q^{6} + 1477025627\, p^{47} q^{25} + 3082195428\, p^{47} q^{27} + 251596873\, p^{46} q^{21} + 999969134\, p^{47} q^{24} + 2148872772\, p^{47} q^{26}$$
$$+ 23940062772\, p^{48} q^{33} + 9634255538\, p^{48} q^{30} + 6956319239\, p^{48} q^{29} + 17863257920\, p^{48} q^{32} + 13190596110\, p^{48} q^{31}$$
$$+ 31765751783\, p^{48} q^{34} + 41748845145\, p^{48} q^{35} + 62862256365\, p^{49} q^{36} + 484913\, p^{40} q^{11} + 1072421\, p^{41} q^{12} + 224392\, p^{40} q^{10}$$
$$+ 2285216\, p^{42} q^{13} + 54009454\, p^{45} q^{18} + 16813564\, p^{44} q^{16} + 104339009738\, p^{49} q^{38} + 209876165256\, p^{49} q^{41} + 322056416939\, p^{49} q^{43}$$
$$+ 260925695851\, p^{49} q^{42} + 132751082706\, p^{49} q^{39} + 81334571473\, p^{49} q^{37} + 134083943\, p^{59} q^{18} + 18956989\, p^{57} q^{15} + 86461\, p^{38} q^{9}$$
$$+ 11993\, p^{36} q^{7} + 33464\, p^{37} q^{8} + 394729779570\, p^{49} q^{44} + 562781499954\, p^{50} q^{45} + 167560665131\, p^{49} q^{40} + 29022207\, p^{44} q^{17}$$
$$+ 4712910\, p^{43} q^{14} + 142824893\, p^{45} q^{20} + 88863634\, p^{45} q^{19} + 389830673\, p^{46} q^{22} + 592954979\, p^{46} q^{23} + 4362077673\, p^{47} q^{28}$$
$$+ 8630389\, p^{43} q^{15} + 820679397\, q^{169} p^{116} + 801169789\, q^{169} p^{115} + 163694853897\, p^{43} q^{45} + 238408747640\, p^{44} q^{46}$$
$$+ 17863257920\, p^{32} q^{48} + 76892642666\, p^{38} q^{47} + 2729334420\, p^{26} q^{49} + 540459\, q^{119} p^{20} + 657500250381980\, p^{89} q^{74}$$
$$+ 323874189134751\, p^{89} q^{67} + 499395939751276\, p^{89} q^{71} + 363544738458427\, p^{89} q^{68} + 549892960145449\, p^{89} q^{72}$$
$$+ 1251681877\, q^{49} p^{24} + 827258146\, q^{49} p^{23} + 177438339748158\, p^{63} q^{95} + 229244\, p^{178} q^{162} + 1698605\, p^{167} q^{66} + 9563601\, p^{173} q^{96}$$
$$+ 152421\, p^{162} q^{50} + 153140868617061\, p^{62} q^{95} + 479429150733\, q^{153} p^{123} + 177119707993\, p^{105} q^{37} + 45539890067\, p^{103} q^{33}$$
$$+ 14807061409465\, p^{109} q^{54} + 13348558995\, p^{102} q^{30} + 5803757615\, p^{96} q^{27} + 3399412416798\, p^{104} q^{46} + 10941640860138\, p^{105} q^{51}$$
$$+ 911937165990072\, p^{107} q^{109} + 1279486697606\, p^{102} q^{42} + 4439071828397\, p^{104} q^{47} + 804331281824696\, p^{80} q^{103} + 45509\, p^{135} q^{24}$$
$$+ 592416744645964\, p^{73} q^{94} + 39084943\, p^{137} q^{34} + 17276271\, p^{136} q^{32} + 191167158\, p^{141} q^{40} + 30761447494\, p^{149} q^{65}$$
$$+ 322087610\, p^{142} q^{42} + 174079795\, p^{140} q^{39} + 10131381\, p^{134} q^{30} + 13405392347\, p^{158} q^{144} + 39615302638\, p^{150} q^{68} + 4245\, p^{107} q^{13}$$
$$+ 167420568824\, p^{154} q^{88} + 302354092\, p^{141} q^{41} + 612900300122927\, p^{116} q^{93} + 29691855550010\, p^{112} q^{59} + 4587682888998\, p^{45} q^{96}$$
$$+ 3497816659771\, p^{44} q^{96} + 5791223081850\, p^{114} q^{145} + 3864927707334\, p^{106} q^{147} + 2765462110028\, p^{102} q^{148}$$

$$+ 6105013528444\, p^{122} q^{143} + 1531291886\, p^{140} q^{44} + 20203607012\, p^{144} q^{56} + 11871086147263\, p^{49} q^{97} + 57035747\, p^{170} q^{152}$$
$$+ 204484206657492\, p^{64} q^{95} + 6029480041683\, q^{111} p^{51} + 3167974693447\, q^{110} p^{48} + 36446868620418\, q^{110} p^{59}$$
$$+ 4107806357732\, q^{110} p^{49} + 5282620971560\, q^{110} p^{50} + 851914880532\, q^{109} p^{43} + 622166458225\, q^{109} p^{42} + 1154532201273\, q^{109} p^{44}$$
$$+ 6472708607464\, p^{124} q^{142} + 6986804810660\, p^{123} q^{142} + 7741081471115\, p^{118} q^{143} + 8835943886871\, p^{115} q^{143}$$
$$+ 82829473029644\, p^{132} q^{96} + 81131042668157\, p^{91} q^{131} + 537091775\, q^{49} p^{22} + 346725686750\, q^{83} p^{35} + 12046341256\, p^{137} q^{47}$$
$$+ 1504408783415737\, p^{94} q^{89} + 2461753654872\, p^{45} q^{62} + 3042500475556\, p^{46} q^{62} + 3734220761008\, p^{47} q^{62} + 4552344639431\, p^{48} q^{62}$$
$$+ 123630791873\, p^{79} q^{32} + 84437371003\, p^{79} q^{31} + 89369543279386\, p^{84} q^{58} + 688023131999\, p^{80} q^{37} + 104666632256990\, p^{84} q^{59}$$
$$+ 91246458\, q^{95} p^{20} + 1424452291764831\, p^{89} q^{99} + 29105022249092\, p^{132} q^{126} + 10939316883019\, q^{117} p^{57} + 13407182977235\, q^{117} p^{58}$$
$$+ 24883321266785\, q^{118} p^{62} + 20799091529213\, q^{118} p^{61} + 55306611533481\, p^{122} q^{130} + 65064180194230\, p^{118} q^{131} + 35\, q^{127} p^{16}$$
$$+ 5\, q^{126} p^{15} + 2623203045\, q^{110} p^{29} + 113359224264\, p^{158} q^{106} + 20943896100\, p^{154} q^{73} + 32122431975354\, p^{65} q^{58} + 2758\, p^{98} q^{11}$$
$$+ 2094461619530\, q^{95} p^{42} + 4982330253709\, p^{49} q^{61} + 141141042674\, p^{62} q^{34} + 191598158927\, p^{62} q^{35} + 91373478236549\, p^{90} q^{130}$$
$$+ 96017117284910\, p^{91} q^{130} + 4463955138314\, p^{45} q^{70} + 21253161\, p^{155} q^{50} + 112028039965\, q^{144} p^{63} + 89787252345\, q^{144} p^{62}$$
$$+ 8515308588\, q^{144} p^{53} + 102860643678\, p^{62} q^{33} + 13596228628369\, p^{64} q^{53} + 2161509656448\, p^{63} q^{44} + 1126436911\, p^{59} q^{22}$$
$$+ 109660703\, p^{168} q^{153} + 631817093\, p^{160} q^{70} + 6576278899\, p^{165} q^{115} + 6997125526\, p^{163} q^{96} + 856602107439\, p^{149} q^{87}$$
$$+ 103642498\, q^{94} p^{20} + 757812628\, q^{94} p^{23} + 208767298\, q^{94} p^{21} + 404680603\, q^{94} p^{22} + 1624163098104\, p^{86} q^{40} + 1201734079751\, p^{86} q^{39}$$
$$+ 652642615910\, p^{85} q^{37} + 2173534453776\, p^{86} q^{41} + 165707134972\, p^{84} q^{33} + 24343384436199\, p^{89} q^{51} + 7919897752567\, p^{88} q^{46}$$
$$+ 221433152999495\, p^{90} q^{64} + 53580195245371\, p^{89} q^{55} + 367090796882602\, p^{70} q^{80} + 1883980056262\, q^{91} p^{41}$$
$$+ 3336392396143\, q^{91} p^{43} + 5698137318814\, q^{91} p^{45} + 59423136935084\, p^{62} q^{66} + 73483957657221\, p^{63} q^{67} + 41115818617034\, p^{72} q^{125}$$
$$+ 2518957995984\, p^{99} q^{148} + 2421007106646\, p^{98} q^{148} + 2316876905231\, p^{97} q^{148} + 1978392231818\, p^{94} q^{148} + 2094461619530\, p^{95} q^{148}$$
$$+ 89408394\, p^{112} q^{24} + q^{64} p^{4} + 540790403432521\, p^{116} q^{109} + 83866613043\, q^{142} p^{59} + 173873793\, p^{131} q^{33} + 25054449440218\, p^{53} q^{72}$$
$$+ 442359224732\, p^{36} q^{72} + 38393166993\, p^{74} q^{29} + 25401836283\, p^{74} q^{28} + 19361269\, p^{65} q^{15} + 218795578666\, p^{36} q^{60}$$
$$+ 57582802136560\, p^{102} q^{58} + 151254314694253\, q^{122} p^{80} + 2238149212872\, p^{45} q^{61} + 1248163745411\, p^{42} q^{62} + 1800922045395\, p^{44} q^{61}$$
$$+ 1140415885752\, p^{42} q^{61} + 1438532739524\, p^{43} q^{61} + 349391293626458\, p^{68} q^{94} + 4055234701816\, p^{138} q^{135} + 638854568113\, p^{39} q^{63}$$
$$+ 763381045465\, p^{40} q^{62} + 980099248626\, p^{41} q^{62} + 9745247\, p^{126} q^{26} + 195923714060019\, p^{90} q^{125} + 10290779559\, p^{164} q^{120}$$

$$+ 16511821519\, p^{115} q^{163} + 6668977590\, p^{102} q^{164} + 24603624721\, p^{119} q^{162} + 24132585293\, p^{120} q^{162} + 23567487281\, p^{121} q^{162}$$
$$+ 7921048896\, p^{105} q^{164} + 24974985508\, p^{118} q^{162} + 7513608582\, p^{104} q^{164} + 7094878289\, p^{103} q^{164} + 32454466111\, p^{130} q^{160}$$
$$+ 16263625648\, p^{113} q^{163} + 15743110246\, p^{111} q^{163} + 16422853677\, p^{114} q^{163} + 16036093921\, p^{112} q^{163} + 16529361761\, p^{116} q^{163}$$
$$+ 15388221171\, p^{110} q^{163} + 30133347917\, p^{131} q^{160} + 31587863978\, p^{124} q^{161} + 32867586016\, p^{123} q^{161} + 35099770757\, p^{154} q^{76}$$
$$+ 4865\, p^{115} q^{15} + 9576\, p^{117} q^{16} + 56571389978\, p^{155} q^{82} + 1446876848\, p^{147} q^{51} + 64361311819\, p^{154} q^{80} + 1445945131001\, p^{147} q^{86}$$
$$+ 2881307178416\, p^{148} q^{104} + 605436742\, q^{154} p^{58} + 4602611715\, p^{161} q^{145} + 11177304966\, p^{161} q^{138} + 232839677\, p^{170} q^{140}$$
$$+ 1056872637\, q^{115} p^{29} + 1812634702\, q^{115} p^{30} + 733987590\, q^{114} p^{28} + 71305867474430\, p^{116} q^{67} + 109137585024336\, p^{85} q^{127}$$
$$+ 132105110112465\, p^{88} q^{127} + 124500698960886\, p^{87} q^{127} + 116822939363640\, p^{86} q^{127} + 582304180485302\, p^{107} q^{116}$$
$$+ 562348786601407\, p^{108} q^{116} + 448\, p^{185} q^{139} + 199\, p^{179} q^{85} + 187\, p^{186} q^{169} + 4\, p^{176} q^{67} + 31\, p^{178} q^{77} + 77307810498\, p^{152} q^{76}$$
$$+ 10641\, p^{113} q^{15} + 20757\, p^{115} q^{16} + 123855787469\, p^{153} q^{82} + 3149778592\, p^{145} q^{51} + 138511629108\, p^{152} q^{80}$$
$$+ 706434676405626\, p^{102} q^{115} + 662305702929667\, p^{99} q^{116} + 964184703873\, p^{140} q^{68} + 267676464528\, p^{138} q^{59}$$
$$+ 5402201348693\, p^{145} q^{116} + 4756178932952\, p^{131} q^{65} + 6697452821050\, p^{131} q^{67} + 1139954152249\, p^{129} q^{56}$$
$$+ 772451383914153\, p^{107} q^{112} + 16726119915\, p^{104} q^{31} + 73832360231420\, p^{113} q^{65} + 170934311916972\, p^{114} q^{72}$$
$$+ 159541667895200\, p^{119} q^{123} + 199049823648\, p^{44} q^{45} + 288553320333\, p^{45} q^{46} + 13680\, p^{41} q^{7} + 102713405277385\, p^{92} q^{59}$$
$$+ 444175622729488\, p^{93} q^{70} + 3553917039144\, p^{89} q^{43} + 5936502874559\, p^{115} q^{53} + 3263332543924\, p^{114} q^{50} + 97400740270\, p^{39} q^{47}$$
$$+ 10\, q^{43} p^{3} + 122414629548\, p^{40} q^{47} + 23940062772\, p^{33} q^{48} + 69120333177\, p^{67} q^{31} + 10475942158526\, p^{70} q^{49} + 2574\, q^{120} p^{16}$$
$$+ 115370560573116\, p^{71} q^{64} + 1928833\, p^{56} q^{12} + 3695\, p^{45} q^{6} + 31765751783\, p^{34} q^{48} + 41748845145\, p^{35} q^{48} + 10966451979\, p^{30} q^{49}$$
$$+ 5398470088\, p^{63} q^{25} + 33708772538005\, p^{69} q^{56} + 7894803518\, p^{29} q^{49} + 5614397449\, p^{28} q^{49} + 124345920873\, p^{65} q^{33}$$
$$+ 1282336422\, p^{62} q^{22} + 2075235502\, p^{25} q^{50} + 3941425314\, p^{27} q^{49} + 6918862910619\, p^{124} q^{60} + 17162230732932\, p^{125} q^{66}$$
$$+ 493762595781\, p^{121} q^{47} + 22542705030\, p^{97} q^{30} + 75196183883\, p^{98} q^{33} + 635786600347\, q^{94} p^{38} + 1112453447548\, p^{151} q^{117}$$
$$+ 1021982966660\, p^{149} q^{89} + 538153346983682\, p^{72} q^{94} + 1130550662953106\, q^{104} p^{87} + 929486548890110\, q^{104} p^{83}$$
$$+ 32535663883786\, p^{135} q^{88} + 1143332554310124\, p^{92} q^{107} + 698174864739628\, p^{82} q^{108} + 468735\, q^{150} p^{37} + 724535\, q^{155} p^{43}$$
$$+ 500993499\, q^{168} p^{98} + 2264\, q^{163} p^{45} + 73128890\, q^{173} p^{120} + 3944527\, q^{170} p^{78} + 5035929\, q^{170} p^{79} + 1104984291\, p^{150} q^{54}$$
$$+ 95940491054\, p^{157} q^{95} + 10006476761\, p^{161} q^{139} + 150642255\, p^{146} q^{44} + 2053272080\, p^{150} q^{56} + 306\, p^{104} q^{11}$$

$$+ 268534074598024\, p^{72} q^{109} + 85237601860210\, q^{119} p^{71} + 108928751255011\, q^{119} p^{73} + 136468899554540\, q^{119} p^{75}$$
$$+ 122222290859125\, q^{119} p^{74} + 151642357005143\, q^{119} p^{76} + 184590566712274\, q^{119} p^{78} + 167701705856377\, q^{119} p^{77}$$
$$+ 145462547352590\, p^{101} q^{129} + 821292904141\, q^{114} p^{45} + 369058109451\, q^{113} p^{42} + 605919290492\, q^{114} p^{44} + 264235892225\, q^{113} p^{41}$$
$$+ 72605595004184\, p^{63} q^{110} + 61657485648609\, p^{62} q^{110} + 10719601086071\, p^{53} q^{110} + 114622432433843\, p^{66} q^{110}$$
$$+ 6739356346688\, p^{51} q^{110} + 367989392779698\, p^{75} q^{109} + 1823496859\, p^{166} q^{99} + 51180579\, p^{158} q^{57} + 50954619982650\, q^{133} p^{89}$$
$$+ 53960244289256\, q^{133} p^{90} + 56896206020711\, q^{133} p^{91} + 59734250491946\, q^{133} p^{92} + 16033124442797\, q^{133} p^{76}$$
$$+ 25030301388\, q^{116} p^{36} + 393811947\, p^{162} q^{73} + 315326374\, p^{162} q^{72} + 2173534453776\, q^{86} p^{41} + 210330909481\, p^{88} q^{34}$$
$$+ 7921048896\, p^{85} q^{26} + 53785376827797\, p^{113} q^{63} + 3167974693447\, p^{110} q^{48} + 99127797209659\, p^{113} q^{67} + 743656372451961\, p^{82} q^{107}$$
$$+ 935928925621007\, p^{106} q^{85} + 198799816\, p^{88} q^{20} + 964056400478392\, p^{79} q^{93} + 875\, p^{143} q^{25} + 3720829\, p^{177} q^{140} + 1916756\, p^{177} q^{150}$$
$$+ 1955219070038\, p^{90} q^{41} + 1065500931552\, p^{90} q^{39} + 579510146676\, p^{89} q^{37} + 144473568015\, p^{88} q^{33} + 64725954952752\, q^{134} p^{102}$$
$$+ 64957511134550\, q^{134} p^{103} + 1520605044759618\, p^{99} q^{92} + 1587056478241401\, p^{92} q^{94} + 1565493071995537\, p^{91} q^{94}$$
$$+ 75196183883\, q^{98} p^{33} + 220812045565\, q^{99} p^{36} + 49583925415\, q^{98} p^{32} + 23738649773253\, p^{117} q^{61} + 202236738836244\, p^{119} q^{79}$$
$$+ 607711710\, q^{168} p^{100} + 1139920638\, q^{168} p^{109} + 1194217945\, q^{168} p^{110} + 5563075906\, p^{146} q^{54} + 478492163274\, p^{154} q^{106}$$
$$+ 50773979648\, p^{160} q^{106} + 8751556110\, p^{156} q^{73} + 53\, p^{176} q^{70} + 883\, p^{185} q^{147} + 215\, p^{186} q^{153} + 496\, p^{183} q^{115} + 2047\, p^{184} q^{136} + p^{170} q^{50}$$
$$+ 99661012711\, p^{150} q^{73} + 90194507876373\, p^{126} q^{122} + 4369339863\, p^{77} q^{159} + 26386339717\, p^{90} q^{159} + 766956778550306\, q^{104} p^{80}$$
$$+ 713056851357408\, q^{104} p^{79} + 1386563922840203\, p^{97} q^{87} + 77591354676514\, p^{58} q^{96} + 267309230120121\, p^{66} q^{95}$$
$$+ 587620133977547\, p^{75} q^{101} + 82634623978\, p^{111} q^{37} + 21099301578\, p^{109} q^{33} + 46969343752295\, p^{135} q^{112}$$
$$+ 1541233225800159\, p^{99} q^{93} + 1566154019533287\, p^{98} q^{93} + 22183004540\, p^{162} q^{123} + 7222274974\, p^{156} q^{72} + 16624265183\, p^{162} q^{129}$$
$$+ 1762316453\, p^{163} q^{147} + 198841\, p^{134} q^{25} + 3494894437\, p^{163} q^{142} + 21379695332\, p^{162} q^{124} + 40990982\, p^{130} q^{30} + 174854902\, p^{81} q^{19}$$
$$+ 1520605044759618\, p^{98} q^{91} + 1042568741747947\, p^{97} q^{81} + 745472618660035\, p^{96} q^{76} + 807114100030750\, p^{96} q^{77}$$
$$+ 571539962323719\, p^{96} q^{73} + 1474099710159165\, p^{97} q^{89} + 627347480041055\, p^{96} q^{74} + 295632170321734\, p^{96} q^{67}$$
$$+ 3950577756\, p^{125} q^{36} + 23387979079751\, p^{139} q^{99} + 15116775645893\, p^{140} q^{117} + 1705962097369\, p^{134} q^{63} + 158012503157\, p^{106} q^{37}$$
$$+ 40586235774\, p^{104} q^{33} + 13371155005958\, p^{110} q^{54} + 11839507926\, p^{103} q^{30} + 831925970895\, p^{151} q^{95} + 112072\, p^{167} q^{59}$$
$$+ 1484916\, p^{177} q^{111} + 12222\, p^{164} q^{49} + 30368\, p^{180} q^{167} + 678737\, p^{174} q^{87} + 1026500055613332\, p^{110} q^{99} + 1027388534876757\, p^{110} q^{97}$$

$$+ 85349\, p^{74} q^{10} + 1010\, p^{60} q^{6} + 17744862988995\, p^{93} q^{50} + 19029\, p^{63} q^{8} + 422454\, p^{70} q^{11} + 1336329429608866\, p^{97} q^{86}$$
$$+ 38668538\, q^{59} p^{16} + 4054960399\, p^{151} q^{158} + 467032076\, p^{73} q^{20} + 30317690813198\, p^{83} q^{52} + 24831216379168\, p^{83} q^{51}$$
$$+ 630428\, p^{64} q^{11} + 749123564645\, p^{133} q^{58} + 5965111489025\, p^{144} q^{94} + 6397989117107\, p^{145} q^{109} + 666144789\, p^{130} q^{35}$$
$$+ 2161509656448\, p^{146} q^{127} + 211553350523\, p^{132} q^{52} + 4264384661452\, p^{136} q^{71} + 20964167799657\, p^{138} q^{91} + 106517\, p^{101} q^{14}$$
$$+ 12615231490396\, p^{138} q^{84} + 462937971425\, p^{132} q^{55} + 58054538\, p^{117} q^{25} + 13291299342\, p^{127} q^{40} + 1975393043282\, p^{135} q^{65}$$
$$+ 2555942784\, p^{148} q^{54} + 238967818472\, p^{156} q^{106} + 47009536481\, p^{152} q^{73} + 2973539840036\, p^{82} q^{42} + 357747409580\, p^{80} q^{35}$$
$$+ 16322001912577\, p^{83} q^{49} + 212445470112931\, p^{84} q^{64} + 57388085169\, p^{78} q^{30} + 53091272954685\, p^{83} q^{55} + 8205267564970\, p^{82} q^{46}$$
$$+ 4991540\, q^{98} p^{17} + 872448913189\, q^{148} p^{84} + 1066626313106\, q^{148} p^{86} + 118974794\, q^{107} p^{23} + 806251942\, q^{107} p^{26}$$
$$+ 3612540208\, q^{108} p^{29} + 232915084\, q^{107} p^{24} + 29738\, p^{182} q^{155} + 115867\, p^{181} q^{145} + 118499\, p^{181} q^{138} + 406\, p^{163} q^{43} + 231305\, p^{180} q^{127}$$
$$+ 257736\, p^{180} q^{129} + 227856220\, p^{76} q^{19} + 162\, p^{41} q^{4} + 100570936088577\, p^{131} q^{97} + 90368863946445\, p^{132} q^{105}$$
$$+ 5988926198166\, p^{127} q^{62} + 88640944333648\, p^{131} q^{93} + 20799091529213\, p^{129} q^{72} + 726545511017\, p^{125} q^{51}$$
$$+ 84983904349796\, p^{131} q^{92} + 1663140823\, p^{48} q^{25} + 3494894437\, p^{48} q^{27} + 280205747\, p^{47} q^{21} + 1121756063\, p^{48} q^{24}$$
$$+ 2428315893\, p^{48} q^{26} + 27475666111\, p^{49} q^{33} + 10966451979\, p^{49} q^{30} + 7894803518\, p^{49} q^{29} + 20447281802\, p^{49} q^{32}$$
$$+ 15057382872\, p^{49} q^{31} + 36550215969\, p^{49} q^{34} + 48155650034\, p^{49} q^{35} + 72276134118\, p^{50} q^{36} + 520957\, p^{41} q^{11} + 1157262\, p^{42} q^{12}$$
$$+ 238282\, p^{41} q^{10} + 2474569\, p^{43} q^{13} + 59562164\, p^{46} q^{18} + 18417221\, p^{45} q^{16} + 120505753636\, p^{50} q^{38} + 243925803463\, p^{50} q^{41}$$
$$+ 375781224649\, p^{50} q^{43} + 303861892421\, p^{50} q^{42} + 153650903274\, p^{50} q^{39} + 93728710982\, p^{50} q^{37} + 91725\, p^{39} q^{9} + 35195\, p^{38} q^{8}$$
$$+ 461452961380\, p^{50} q^{44} + 655345225978\, p^{51} q^{45} + 194347937858\, p^{50} q^{40} + 31992120\, p^{45} q^{17} + 5117199\, p^{44} q^{14} + 159169329\, p^{46} q^{20}$$
$$+ 98530608\, p^{46} q^{19} + 436093492\, p^{47} q^{22} + 666125966\, p^{47} q^{23} + 4962306492\, p^{48} q^{28} + 9440218\, p^{44} q^{15} + 85041683915823\, p^{58} q^{93}$$
$$+ 346976320239\, p^{46} q^{46} + 152689467504\, p^{41} q^{47} + 109885773939305\, p^{69} q^{65} + 132892050631547\, p^{70} q^{66} + 54368786614\, p^{36} q^{48}$$
$$+ 15057382872\, p^{31} q^{49} + 60050530087817\, p^{69} q^{60} + 39264352061880\, p^{69} q^{57} + 3051458981\, p^{26} q^{50} + 40970517\, q^{161} p^{62}$$
$$+ 771953322879743\, p^{89} q^{76} + 313595985768\, p^{125} q^{48} + 602681252323907\, p^{89} q^{73} + 1389358345\, q^{50} p^{24} + 10275869623650\, p^{63} q^{125}$$
$$+ 7251\, q^{114} p^{15} + 10641\, q^{113} p^{15} + 60211827233\, p^{143} q^{153} + 39972343902\, p^{144} q^{154} + 25401836283\, p^{116} q^{162} + 9034327876\, p^{108} q^{164}$$
$$+ 8313072928\, p^{106} q^{164} + 8685511536\, p^{107} q^{164} + 5032164701\, p^{106} q^{165} + 9355580703\, p^{109} q^{164} + 9645603899\, p^{110} q^{164}$$
$$+ 9900963104\, p^{111} q^{164} + 28789132932\, p^{126} q^{161} + 6856519539\, p^{151} q^{156} + 30223495899\, p^{125} q^{161} + 25242124195\, p^{117} q^{162}$$

$$+ 14975742237\, p^{109}\, q^{163} + 1506577995856\, p^{100}\, q^{42} + 5231862527773\, p^{102}\, q^{47} + 377251806354\, p^{154}\, q^{99} + 202731762935\, p^{152}\, q^{83}$$
$$+ 395375961327\, p^{154}\, q^{100} + 117655347146\, p^{150}\, q^{74} + 38133934681\, p^{149}\, q^{66} + 275706\, p^{121}\, q^{20} + 19975733308\, p^{147}\, q^{60} + 10150\, p^{109}\, q^{14}$$
$$+ 134231\, p^{120}\, q^{19} + 549\, p^{97}\, q^{10} + 845380\, p^{126}\, q^{23} + 11911199222\, p^{147}\, q^{58} + 18\, p^{77}\, q^{6} + 31359993363\, p^{157}\, q^{140}$$
$$+ 161627278306\, p^{156}\, q^{126} + 358386150716\, p^{154}\, q^{98} + 7478708032\, p^{146}\, q^{55} + 9268976852\, p^{157}\, q^{148} + 7743452133\, p^{157}\, q^{149}$$
$$+ 58402190808\, p^{150}\, q^{70} + 398241705187\, p^{153}\, q^{94} + 200793708475\, p^{156}\, q^{122} + 141141042674\, p^{156}\, q^{128} + 50463516128\, p^{157}\, q^{136}$$
$$+ 101794250297\, p^{156}\, q^{132} + 629108452814737\, p^{115}\, q^{107} + 583094680506403\, p^{95}\, q^{117} + 1535234\, p^{87}\, q^{14} + 36262\, p^{180}\, q^{166}$$
$$+ 1519086\, p^{178}\, q^{124} + 6035\, p^{160}\, q^{42} + 3994\, p^{158}\, q^{39} + 1696377\, p^{175}\, q^{97} + 14037\, p^{162}\, q^{46} + 520957\, p^{179}\, q^{149}$$
$$+ 235586710045913\, p^{107}\, q^{125} + 2150217967\, p^{139}\, q^{44} + 28264549803\, p^{143}\, q^{56} + 3453903\, p^{177}\, q^{122} + 190837\, p^{171}\, q^{71}$$
$$+ 1460554338539219\, p^{88}\, q^{95} + 56571389978\, p^{108}\, q^{35} + 21300046257469\, p^{130}\, q^{131} + 18806219762550\, p^{131}\, q^{131}$$
$$+ 23551409670125\, p^{128}\, q^{132} + 259137286213931\, q^{79}\, p^{67} + 821292904141\, p^{145}\, q^{76} + 2968878766619\, p^{148}\, q^{107}$$
$$+ 3644666614333\, p^{147}\, q^{102} + 3101263301475\, p^{146}\, q^{92} + 535912518260\, p^{149}\, q^{134} + 2288619972283\, p^{148}\, q^{119}$$
$$+ 3553917039144\, p^{147}\, q^{101} + 53501020078\, p^{141}\, q^{56} + 4096256779\, p^{137}\, q^{44} + 214812273632992\, p^{115}\, q^{75} + 3663245321544\, p^{111}\, q^{49}$$
$$+ 1025387361932\, p^{110}\, q^{44} + 437127380007081\, p^{116}\, q^{85} + 99386187868\, p^{121}\, q^{42} + 1584352561213\, p^{147}\, q^{87} + 638760573971\, p^{150}\, q^{130}$$
$$+ 61657485648609\, p^{80}\, q^{128} + 34229384221883\, p^{76}\, q^{129} + 1349212903012985\, p^{102}\, q^{90} + 77121492775855\, p^{100}\, q^{59}$$
$$+ 1178012305524554\, p^{101}\, q^{107} + 48510653647\, q^{106}\, p^{34} + 939642841745\, q^{69}\, p^{39} + 42698753454\, q^{156}\, p^{83} + 612900300122927\, p^{74}\, q^{97}$$
$$+ 78131033\, q^{63}\, p^{17} + 15\, q^{93}\, p^{8} + 106617\, q^{56}\, p^{9} + 299705676701917\, p^{81}\, q^{117} + 40083224\, q^{62}\, p^{16} + 1082441673479599\, p^{92}\, q^{108}$$
$$+ 272117748\, q^{65}\, p^{19} + 281102\, q^{59}\, p^{10} + 163276524955985\, p^{70}\, q^{112} + 85783298786436\, p^{66}\, q^{113} + 207647084456682\, p^{72}\, q^{112}$$
$$+ 143693060828772\, p^{69}\, q^{112} + 184590566712274\, p^{71}\, q^{112} + 184920657811083\, p^{117}\, q^{123} + 32867586016\, q^{67}\, p^{29}$$
$$+ 2886763773314\, q^{120}\, p^{53} + 2260609117797\, q^{120}\, p^{52} + 3657828427815\, q^{120}\, p^{54} + 4600079302402\, q^{120}\, p^{55} + 47992880056\, q^{67}\, p^{30}$$
$$+ 1669\, q^{69}\, p^{7} + 14195286127344\, p^{98}\, q^{50} + 535468931637897\, p^{101}\, q^{74} + 244318303364359\, p^{101}\, q^{67} + 485672985117747\, p^{101}\, q^{73}$$
$$+ 1311528983078013\, p^{102}\, q^{89} + 641879789400785\, p^{101}\, q^{76} + 697953623798790\, p^{101}\, q^{77} + 1335600361680849\, p^{103}\, q^{91}$$
$$+ 897924689919884\, p^{102}\, q^{81} + 34192\, q^{55}\, p^{8} + 2641\, q^{51}\, p^{6} + 225\, q^{56}\, p^{5} + 282253265868326\, p^{92}\, q^{66} + 106241746999\, p^{86}\, q^{32}$$
$$+ 74581469883694\, p^{91}\, q^{57} + 4649771932430\, p^{89}\, q^{44} + 898143650370376\, p^{84}\, q^{80} + 761907\, q^{59}\, p^{11} + 7119021011414\, q^{120}\, p^{57}$$
$$+ 395\, p^{52}\, q^{5} + 9148966\, p^{64}\, q^{14} + 4134149\, p^{63}\, q^{13} + 300173\, q^{57}\, p^{10} + 74730798\, p^{83}\, q^{18} + 489986838\, p^{85}\, q^{21} + 23\, q^{54}\, p^{4}$$

$$+ 3700557322\, q^{65}\, p^{24} + 40187666\, q^{63}\, p^{16} + 9422764\, q^{62}\, p^{14} + 10231\, q^{53}\, p^{7} + 3787468\, p^{171}\, q^{164} + 375699285275\, q^{68}\, p^{36}$$
$$+ 69120333177\, q^{67}\, p^{31} + 191465119309\, q^{67}\, p^{34} + 98260086273\, q^{67}\, p^{32} + 589140\, q^{108}\, p^{17} + 30715546730\, p^{153}\, q^{147}$$
$$+ 137969602251\, q^{67}\, p^{33} + 262747094738\, q^{67}\, p^{35} + 9493989\, q^{61}\, p^{14} + 398124653291804\, p^{93}\, q^{69} + 376647734\, p^{79}\, q^{20}$$
$$+ 832613241885\, p^{88}\, q^{38} + 482885651\, q^{65}\, p^{20} + 2301835421\, q^{65}\, p^{23} + 833165989\, q^{65}\, p^{21} + 1401188793\, q^{65}\, p^{22} + 1430274092\, q^{66}\, p^{22}$$
$$+ 1146943880371622\, p^{82}\, q^{91} + 1891759\, q^{59}\, p^{12} + 4870560774339\, p^{126}\, q^{60} + 12154954317909\, p^{127}\, q^{66} + 343212089502\, p^{123}\, q^{47}$$
$$+ 22183004540\, q^{67}\, p^{28} + 3806898460\, q^{66}\, p^{24} + 9343633168\, q^{66}\, p^{26} + 21379695332\, q^{66}\, p^{28} + 14249917279\, q^{66}\, p^{27}$$
$$+ 6020318759\, q^{66}\, p^{25} + 890695122\, q^{113}\, p^{28} + 31587863978\, q^{66}\, p^{29} + 269107500\, q^{64}\, p^{19} + 475169184\, q^{64}\, p^{20} + 78475043\, q^{64}\, p^{17}$$
$$+ 147814430\, q^{64}\, p^{18} + 1555435942667\, p^{149}\, q^{95} + 19813604\, q^{63}\, p^{15} + 102470\, q^{57}\, p^{9} + 4292355\, q^{61}\, p^{13} + 741101\, q^{60}\, p^{11}$$
$$+ 1861171\, q^{60}\, p^{12} + 39456854087687\, p^{135}\, q^{116} + 54125473301742\, p^{134}\, q^{94} + 5367791523146\, q^{112}\, p^{51} + 6105013528444\, q^{68}\, p^{47}$$
$$+ 32463\, q^{56}\, p^{8} + 40105830\, q^{64}\, p^{16} + 1821751\, q^{61}\, p^{12} + 14264\, q^{176}\, p^{82} + 13050132365749\, q^{114}\, p^{56} + 64141286659\, p^{32}\, q^{60}$$
$$+ 872448913189\, p^{148}\, q^{84} + 163532291059\, p^{35}\, q^{60} + 120998080476\, p^{34}\, q^{60} + 49339642097\, p^{31}\, q^{61} + 88585522499\, p^{33}\, q^{60}$$
$$+ 121251\, p^{181}\, q^{141} + p^{140}\, q^{20} + 220969\, p^{177}\, q^{98} + 4451\, p^{166}\, q^{51} + 313899\, p^{180}\, q^{135} + 19815\, p^{182}\, q^{160} + 171566\, p^{175}\, q^{86}$$
$$+ 2609674010367\, p^{100}\, q^{148} + 1143545362970\, p^{150}\, q^{95} + 45119189193\, p^{159}\, q^{96} + 38579966447\, p^{161}\, q^{115} + 458576357\, p^{164}\, q^{153}$$
$$+ 1726765961945\, p^{97}\, q^{149} + 92697678929\, p^{133}\, q^{156} + 138266470439235\, q^{122}\, p^{79} + 1174877632821306\, p^{84}\, q^{99}$$
$$+ 1452070906667157\, p^{89}\, q^{98} + 26450642681\, p^{144}\, q^{57} + 535468931637897\, p^{116}\, q^{89} + 261832469870473\, p^{115}\, q^{77}$$
$$+ 524925727821172\, p^{117}\, q^{91} + 332887990528204\, p^{116}\, q^{81} + 136468899554540\, p^{115}\, q^{71} + 237719601372549\, p^{115}\, q^{76}$$
$$+ 413785851474882\, p^{78}\, q^{111} + 378872546374681\, p^{77}\, q^{111} + 345307421433086\, p^{76}\, q^{111} + 132105110112465\, p^{127}\, q^{88}$$
$$+ 168170055240805\, p^{128}\, q^{103} + 12115141\, q^{76}\, p^{15} + 24552563109175\, p^{112}\, q^{58} + 611105607268344\, p^{115}\, q^{90} + 62456802291438\, q^{91}\, p^{56}$$
$$+ 74581469883694\, q^{91}\, p^{57} + 122565089824079\, q^{91}\, p^{60} + 104464768100110\, q^{91}\, p^{59} + 191451187116094\, q^{91}\, p^{63}$$
$$+ 250922534221609\, q^{91}\, p^{65} + 282253265868326\, q^{92}\, p^{66} + 142993489780610\, q^{91}\, p^{61} + 219753809552894\, q^{91}\, p^{64}$$
$$+ 165907209726511\, q^{91}\, p^{62} + 88526958924699\, q^{91}\, p^{58} + 8831708329170\, p^{98}\, q^{48} + 43589371005902\, p^{128}\, q^{127}$$
$$+ 2063763031902\, p^{42}\, q^{69} + 46686977649296\, p^{73}\, q^{125} + 394607169758482\, p^{69}\, q^{86} + 437456028151590\, p^{70}\, q^{86}$$
$$+ 667266421569819\, p^{75}\, q^{85} + 39615302638\, p^{122}\, q^{40} + 891027389635\, p^{39}\, q^{68} + 966431949120833\, p^{98}\, q^{111} + 11127143592296\, p^{50}\, q^{68}$$
$$+ 16013321343031\, p^{88}\, q^{49} + 780453346563932\, p^{109}\, q^{85} + 146981080\, p^{91}\, q^{20} + 4777020243\, p^{165}\, q^{105} + 436093492\, p^{168}\, q^{143}$$

$$+ 18358740799840\, p^{111} q^{56} + 70092281038252\, p^{112} q^{64} + 14904372453580\, p^{111} q^{55} + 374754787483758\, p^{114} q^{80}$$
$$+ 615146462287909\, p^{114} q^{88} + 696016685314021\, p^{115} q^{103} + 652638082612602\, p^{115} q^{92} + 13415194205161\, p^{51} q^{68}$$
$$+ 10326727468569\, p^{50} q^{67} + 488209355367\, p^{152} q^{127} + 1259954906690\, p^{151} q^{111} + 1269562930767\, p^{151} q^{109} + 710083088538\, p^{152} q^{121}$$
$$+ 1073433991541\, p^{151} q^{118} + 1794629350380\, p^{129} q^{58} + 638939974423836\, p^{84} q^{111} + 18028678410019\, q^{133} p^{77} + 34\, q^{65} p^{5}$$
$$+ 56703113473349\, p^{64} q^{114} + 8522106365095\, p^{49} q^{67} + 537\, q^{123} p^{16} + 1170963140888\, q^{103} p^{42} + 396281299\, p^{161} q^{158}$$
$$+ 4060759106210\, q^{105} p^{47} + 324565532694545\, p^{93} q^{122} + 238967818472\, p^{84} q^{34} + 9355580703\, p^{81} q^{26} + 341159071756802\, p^{69} q^{99}$$
$$+ 195923714060019\, p^{65} q^{100} + 267044624236908\, p^{67} q^{99} + 302595654320438\, p^{68} q^{99} + 1658483\, p^{64} q^{12} + 10261049871327\, p^{81} q^{47}$$
$$+ 1694575326324\, p^{80} q^{40} + 1267422541325\, p^{80} q^{39} + 259045938\, p^{72} q^{19} + 379180429813863\, p^{84} q^{69} + 419589425163834\, p^{84} q^{70}$$
$$+ 1166258290685\, p^{40} q^{68} + 796561593573154\, p^{80} q^{81} + 1513204564904\, p^{41} q^{68} + 414586020503\, p^{47} q^{46} + 189056688587\, p^{42} q^{47}$$
$$+ 70182416558\, p^{37} q^{48} + 232422469151\, p^{43} q^{47} + 15087531\, q^{106} p^{20} + 89830336686\, p^{38} q^{48} + 20447281802\, p^{32} q^{49}$$
$$+ 1008310651455\, q^{150} p^{93} + 1076189723900\, q^{150} p^{94} + 114041915419\, p^{39} q^{48} + 48155650034\, p^{35} q^{49} + 36550215969\, p^{34} q^{49}$$
$$+ 17094887235\, p^{31} q^{50} + 27475666111\, p^{33} q^{49} + 12415387000\, p^{30} q^{50} + 4933834414\, p^{27} q^{51} + 8911717044\, p^{29} q^{50}$$
$$+ 4421369193\, p^{27} q^{50} + 6318232931\, p^{28} q^{50} + 1170963140888\, q^{148} p^{87} + 12264539076171\, p^{64} q^{125} + 135501027068105\, p^{82} q^{61}$$
$$+ 178144997712439\, p^{82} q^{63} + 155777076685926\, p^{82} q^{62} + 101506757973532\, p^{127} q^{84} + 3273243600\, p^{140} q^{46} + 3721968334868\, p^{87} q^{43}$$
$$+ 19950317384417\, p^{88} q^{50} + 349252020\, q^{145} p^{45} + 6215117434798\, p^{118} q^{144} + 70583\, p^{167} q^{58} + 1891759\, p^{178} q^{131} + 177771\, p^{169} q^{65}$$
$$+ 604\, p^{153} q^{32} + 3282853\, p^{177} q^{121} + 6992\, p^{162} q^{45} + 670\, p^{154} q^{33} + 28723\, p^{58} q^{8} + 159019145430522\, p^{126} q^{114}$$
$$+ 124109153722675\, p^{126} q^{118} + 202670666514499\, p^{126} q^{108} + 190128241268385\, p^{126} q^{110} + 873437995134295\, p^{101} q^{80}$$
$$+ 1311528983078013\, p^{101} q^{88} + 44180226387\, q^{144} p^{59} + 4\, q^{30} p^{2} + 97894\, p^{58} q^{9} + 229398829190152\, p^{82} q^{65} + 57814367843\, q^{127} p^{44}$$
$$+ 80934229295\, q^{127} p^{45} + 53849490941939\, p^{128} q^{125} + 214094147628945\, p^{66} q^{101} + 244318303364359\, p^{67} q^{101} + 40860\, q^{50} p^{8}$$
$$+ 1823496859\, p^{91} q^{24} + 788444688041884\, p^{82} q^{79} + 1450700534063\, p^{90} q^{40} + 10275869623650\, p^{65} q^{127} + 12476662007\, p^{142} q^{52}$$
$$+ 2046\, q^{175} p^{73} + 7251\, q^{175} p^{76} + 775\, q^{175} p^{71} + 4865\, q^{175} p^{75} + 10641\, q^{175} p^{77} + 665188707261\, q^{153} p^{106} + 283437290729\, q^{152} p^{86}$$
$$+ 313828039035\, q^{152} p^{87} + 282897153535287\, q^{103} p^{69} + 2326563498\, p^{141} q^{46} + 3415961\, q^{135} p^{29} + 59\, p^{90} q^{8}$$
$$+ 1493786668450659\, p^{89} q^{92} + 48202717723479\, p^{63} q^{114} + 396171788782082\, p^{108} q^{75} + 28515579\, p^{117} q^{24} + 6816394525202\, p^{138} q^{78}$$
$$+ 18319103661910\, p^{140} q^{98} + 916732672224273\, p^{82} q^{103} + 538153346983682\, p^{96} q^{118} + 6026\, q^{72} p^{8} + 1996988\, q^{92} p^{15}$$

$$+ 60211827233\, p^{153}\, q^{143} + 749051179385251\, p^{106}\, q^{113} + 28\, q^{53}\, p^{4} + 603953109340463\, p^{98}\, q^{117} + 100540340470\, q^{126}\, p^{45}$$
$$+ 12962925\, q^{114}\, p^{22} + 626222692459908\, p^{114}\, q^{109} + 562348786601407\, p^{116}\, q^{108} + 758847295602834\, p^{110}\, q^{110}$$
$$+ 26215960696844\, q^{136}\, p^{120} + 20609270828709\, q^{137}\, p^{121} + 1603069291866724\, p^{95}\, q^{97} + 20172713866517\, q^{133}\, p^{78}$$
$$+ 22462011398572\, q^{133}\, p^{79} + 4481314256420\, p^{47}\, q^{64} + 14433671836100\, p^{57}\, q^{59} + 6655011906505\, p^{64}\, q^{49} + 4647872698\, p^{60}\, q^{25}$$
$$+ 600418854677\, p^{37}\, q^{72} + 71980647317\, p^{68}\, q^{31} + 11122750016292\, p^{71}\, q^{49} + 124109153722675\, p^{72}\, q^{64} + 1925841\, p^{57}\, q^{12}$$
$$+ 1862702755\, p^{49}\, q^{25} + 3941425314\, p^{49}\, q^{27} + 310407527\, p^{48}\, q^{21} + 1251681877\, p^{49}\, q^{24} + 2729334420\, p^{49}\, q^{26} + 31359993363\, p^{50}\, q^{33}$$
$$+ 12415387000\, p^{50}\, q^{30} + 8911717044\, p^{50}\, q^{29} + 23277137722\, p^{50}\, q^{32} + 17094887235\, p^{50}\, q^{31} + 41822754456\, p^{50}\, q^{34}$$
$$+ 55236704023\, p^{50}\, q^{35} + 82643874701\, p^{51}\, q^{36} + 556439\, p^{42}\, q^{11} + 1241728\, p^{43}\, q^{12} + 2664781\, p^{44}\, q^{13} + 65335767\, p^{47}\, q^{18}$$
$$+ 20066860\, p^{46}\, q^{16} + 138405789194\, p^{51}\, q^{38} + 281903130964\, p^{51}\, q^{41} + 435973745341\, p^{51}\, q^{43} + 351860281395\, p^{51}\, q^{42}$$
$$+ 176850035203\, p^{51}\, q^{39} + 107415904353\, p^{51}\, q^{37} + 536369758919\, p^{51}\, q^{44} + 758836094990\, p^{52}\, q^{45} + 224154669845\, p^{51}\, q^{40}$$
$$+ 35075862\, p^{46}\, q^{17} + 5525887\, p^{45}\, q^{14} + 176429865\, p^{47}\, q^{20} + 108667606\, p^{47}\, q^{19} + 485243526\, p^{48}\, q^{22} + 744300402\, p^{48}\, q^{23}$$
$$+ 5614397449\, p^{49}\, q^{28} + 10270783\, p^{45}\, q^{15} + 492308697546\, p^{48}\, q^{46} + 283763191108\, p^{44}\, q^{47} + 143639679231\, p^{40}\, q^{48}$$
$$+ 62862256365\, p^{36}\, q^{49} + 23277137722\, p^{32}\, q^{50} + 7072919469\, p^{28}\, q^{51} + 143214376223571\, p^{61}\, q^{85} + 240931612171590\, p^{65}\, q^{84}$$
$$+ 271859933141362\, p^{66}\, q^{84} + 1758640841352\, q^{128}\, p^{57} + 1059690001746\, q^{127}\, p^{54} + 873235245349\, p^{121}\, q^{49} + 97\, q^{46}\, p^{4}$$
$$+ 1442684\, q^{67}\, p^{12} + 2196\, q^{113}\, p^{14} + 83\, q^{47}\, p^{4} + 35285281538305\, p^{58}\, q^{66} + 44345092847733\, p^{59}\, q^{67} + 80419560310181\, p^{68}\, q^{63}$$
$$+ 71347248123310\, p^{68}\, q^{62} + 62978734986829\, p^{68}\, q^{61} + 90194507876373\, p^{68}\, q^{64} + 729569236738045\, p^{76}\, q^{97} + 4012\, p^{42}\, q^{6}$$
$$+ 1880407\, p^{53}\, q^{12} + 801642\, p^{52}\, q^{11} + 4198518\, p^{54}\, q^{13} + 8982085\, p^{55}\, q^{14} + 12154954317909\, p^{124}\, q^{63} + 771137857665777\, p^{85}\, q^{77}$$
$$+ 844970498954610\, p^{86}\, q^{78} + 567119836445532\, p^{85}\, q^{73} + 718920281246312\, p^{85}\, q^{76} + 89101702700\, p^{125}\, q^{44}$$
$$+ 10549684700244\, p^{114}\, q^{55} + 600909019702822\, p^{83}\, q^{111} + 904446528554773\, p^{90}\, q^{110} + 141183329785085\, p^{84}\, q^{61}$$
$$+ 186368176589046\, p^{84}\, q^{63} + 162640995058842\, p^{84}\, q^{62} + 240931612171590\, p^{84}\, q^{65} + 422899\, q^{105}\, p^{16} + 890256926689189\, p^{101}\, q^{112}$$
$$+ 832593883585399\, p^{108}\, q^{110} + 796561593573154\, p^{110}\, q^{109} + 898404212721103\, p^{100}\, q^{112} + 899174323920218\, p^{104}\, q^{111}$$
$$+ 903640961560894\, p^{98}\, q^{112} + 875604080698037\, p^{105}\, q^{111} + 898143650370376\, p^{106}\, q^{110} + 1597255403280730\, p^{93}\, q^{96}$$
$$+ 206981418218641\, p^{84}\, q^{122} + 1386563922840203\, p^{87}\, q^{97} + 9170156302191\, p^{49}\, q^{68} + 6986804810660\, p^{48}\, q^{67} + 728495\, q^{165}\, p^{59}$$
$$+ 7606\, q^{165}\, p^{50} + 41984842630927\, p^{68}\, q^{58} + 46\, p^{30}\, q^{3} + 554727295303284\, p^{78}\, q^{107} + 375766057565\, p^{150}\, q^{135}$$

$$+ 2154472184165\, p^{149} q^{113} + 2258194907102\, p^{149} q^{108} + 1927749200\, p^{101} q^{26} + 965251814881526\, p^{90} q^{109} + 94929356044060\, p^{66} q^{112}$$
$$+ 143909801409690\, p^{67} q^{109} + 121146100395\, q^{74} p^{32} + 56455294043\, q^{73} p^{30} + 10519129526\, q^{72} p^{26} + 822893410\, p^{103} q^{25}$$
$$+ 451029499520\, p^{146} q^{74} + 151931760426\, p^{145} q^{66} + 247972073535\, q^{75} p^{34} + 55600396438715\, q^{78} p^{56} + 17862035526\, p^{107} q^{32}$$
$$+ 3551711735667\, q^{76} p^{43} + 2747588704506\, q^{76} p^{42} + 4553415127262\, q^{76} p^{44} + 7530207127586\, q^{77} p^{46} + 5791223081850\, q^{76} p^{45}$$
$$+ 880071642131\, p^{152} q^{104} + 412570727666\, p^{89} q^{36} + 74072143418771\, p^{120} q^{129} + 65434450902155\, q^{78} p^{57} + 103107570238630\, q^{78} p^{60}$$
$$+ 89097404552766\, q^{78} p^{59} + 154763403619271\, q^{78} p^{63} + 197721248978804\, q^{78} p^{65} + 231903207838487\, q^{79} p^{66}$$
$$+ 118678644445339\, q^{78} p^{61} + 175370757680560\, q^{78} p^{64} + 135878968726103\, q^{78} p^{62} + 76568909818749\, q^{78} p^{58}$$
$$+ 289912552360\, q^{153} p^{130} + 315857747714\, q^{153} p^{129} + 217830285683\, q^{153} p^{133} + 175665042667\, q^{153} p^{135} + 119659777498\, q^{154} p^{136}$$
$$+ 264837967186\, q^{153} p^{131} + 397205568312\, q^{153} p^{126} + 715090015293076\, p^{75} q^{93} + 314048605719433\, p^{68} q^{98} + 38042712107\, q^{73} p^{29}$$
$$+ 25242124195\, q^{73} p^{28} + 16475265319\, q^{73} p^{27} + 1489037238364330\, p^{100} q^{92} + 151221975397\, q^{112} p^{39} + 82634623978\, q^{111} p^{37}$$
$$+ 38759063\, q^{67} p^{16} + 2107414695578\, q^{76} p^{41} + 6273480342201\, p^{46} q^{95} + 1105074354132241\, p^{82} q^{97} + 1602113567492\, q^{76} p^{40}$$
$$+ 477820347327\, q^{75} p^{36} + 652406065971\, q^{75} p^{37} + 881591550618\, q^{75} p^{38} + 1252461609097233\, p^{104} q^{90} + 487970262599937\, p^{103} q^{74}$$
$$+ 441791579463290\, p^{103} q^{73} + 1215518961372769\, p^{104} q^{89} + 587026452117936\, p^{103} q^{76} + 639426879063696\, p^{103} q^{77}$$
$$+ 1231389930489569\, p^{105} q^{91} + 821289162677300\, p^{104} q^{81} + 2490205321\, p^{167} q^{118} + 101127393\, p^{169} q^{151} + 887838232\, p^{168} q^{135}$$
$$+ 342069580\, p^{169} q^{141} + 462129012\, p^{146} q^{167} + 327458640\, p^{153} q^{165} + 446115950\, p^{149} q^{166} + 524937235\, p^{145} q^{167} + 235469655\, p^{148} q^{168}$$
$$+ 389830673\, p^{144} q^{168} + 306423131\, p^{146} q^{168} + 129399491\, p^{152} q^{168} + 62450260\, p^{154} q^{169} + 205327466\, p^{157} q^{164} + 138918998\, p^{160} q^{163}$$
$$+ 223191431\, p^{158} q^{163} + 176850666\, p^{159} q^{163} + 279337225\, p^{157} q^{163} + 311437645\, p^{155} q^{164} + 379272594\, p^{154} q^{164} + 253848943\, p^{156} q^{164}$$
$$+ 142970008\, p^{161} q^{162} + 184489894\, p^{160} q^{162} + 391586521\, p^{152} q^{165} + 517846900\, p^{148} q^{166} + 465151577\, p^{151} q^{165} + 183572817\, p^{156} q^{165}$$
$$+ 11974\, q^{123} p^{18} + 356989044767575\, p^{103} q^{71} + 1537836772838789\, p^{100} q^{96} + 24760180247518\, p^{103} q^{54} + 317104346886\, p^{99} q^{37}$$
$$+ 807186505691\, p^{100} q^{40} + 581356872488\, p^{100} q^{39} + 1083441455574689\, p^{104} q^{86} + 1130550662953106\, p^{104} q^{87}$$
$$+ 713056851357408\, p^{104} q^{79} + 54498260761584\, q^{117} p^{66} + 63265688911062\, q^{117} p^{67} + 258759346558424\, q^{119} p^{82}$$
$$+ 766956778550306\, p^{104} q^{80} + 1174733559046867\, p^{104} q^{88} + 84099166970\, p^{64} q^{32} + 12532156826\, p^{63} q^{27} + 59595700737\, p^{64} q^{31}$$
$$+ 8522106365095\, p^{67} q^{49} + 237\, p^{35} q^{4} + 1064\, p^{38} q^{5} + 23703922922643\, p^{51} q^{80} + 409413992\, p^{59} q^{20} + 39435603273\, p^{63} q^{30}$$
$$+ 7901157400\, p^{62} q^{26} + 27299804030\, p^{63} q^{29} + 1994595131\, p^{61} q^{23} + 20915607102366\, p^{67} q^{54} + 26657142918991\, p^{68} q^{55}$$

$$+ 4601216620805\, p^{67} q^{46} + 12433623308027\, p^{67} q^{51} + 14877130889067\, p^{67} q^{52} + 317371659687\, p^{65} q^{36} + 10326727468569\, p^{67} q^{50}$$
$$+ 1709555630991\, p^{66} q^{42} + 2174522341136\, p^{66} q^{43} + 790621455685\, p^{66} q^{39} + 1031130733909\, p^{66} q^{40} + 5689592268930\, p^{67} q^{47}$$
$$+ 6986804810660\, p^{67} q^{48} + 18635020718\, p^{63} q^{28} + 3437877789164\, p^{66} q^{45} + 563194669599\, p^{65} q^{38} + 424822479839\, p^{65} q^{37}$$
$$+ 71290095\, p^{58} q^{17} + 120838\, p^{48} q^{9} + 42466\, p^{47} q^{8} + 1146959304339347\, p^{108} q^{96} + 71432380495\, p^{144} q^{61} + 1642443982868\, p^{149} q^{96}$$
$$+ 36306\, p^{70} q^{9} + 1597255403280730\, p^{96} q^{93} + 1404013844628119\, p^{87} q^{96} + 545456055684823\, p^{118} q^{102} + 552075549541301\, p^{118} q^{100}$$
$$+ 32867586016\, p^{161} q^{123} + 11311969490\, p^{155} q^{72} + 24215993534\, p^{161} q^{129} + 2460884546\, p^{162} q^{147} + 312646\, p^{133} q^{25}$$
$$+ 4962306492\, p^{162} q^{142} + 31587863978\, p^{161} q^{124} + 68743138595\, p^{158} q^{96} + 634168488\, p^{163} q^{153} + 57564747739\, p^{160} q^{115}$$
$$+ 880071642131\, q^{152} p^{104} + 21529702771\, p^{92} q^{29} + 333\, p^{182} q^{105} + 15\, p^{174} q^{62} + 1064\, p^{185} q^{152} + 117\, p^{177} q^{75} + 108581377\, p^{87} q^{19}$$
$$+ 323269382028400\, p^{73} q^{108} + 452312348281\, q^{66} p^{37} + 234725335184\, q^{65} p^{35} + 44324140988158\, p^{54} q^{83} + 4224141215\, q^{99} p^{27}$$
$$+ 163115103\, q^{96} p^{21} + 537851277\, q^{97} p^{23} + 346579085\, p^{145} q^{168} + 269389145\, p^{147} q^{168} + 109660703\, p^{153} q^{168}$$
$$+ 728198297309455\, q^{105} p^{80} + 109796012\, p^{111} q^{24} + 303\, p^{183} q^{113} + 988\, p^{182} q^{109} + 670\, p^{185} q^{143} + 77346618\, p^{67} q^{17}$$
$$+ 165907209726511\, p^{128} q^{99} + 670\, q^{47} p^{5} + 8890258033\, p^{143} q^{52} + 781\, q^{45} p^{5} + 226134576399\, p^{86} q^{34} + 8685511536\, p^{83} q^{26}$$
$$+ 162\, q^{41} p^{4} + 39318756\, q^{60} p^{16} + 808644\, p^{55} q^{11} + 9436806\, p^{58} q^{14} + 4364489\, p^{57} q^{13} + 144142226\, q^{62} p^{18}$$
$$+ 193967742218691\, p^{101} q^{127} + 228277021722\, q^{55} p^{38} + 252796085\, q^{51} p^{20} + 44985863095272\, p^{116} q^{64} + 247603000899363\, p^{118} q^{80}$$
$$+ 69548595033983\, p^{133} q^{96} + 11531199721889\, p^{115} q^{56} + 506737116531\, q^{108} p^{41} + 699862536316\, q^{108} p^{42}$$
$$+ 1029542022432929\, p^{109} q^{103} + 848734\, p^{174} q^{88} + 2881218\, p^{176} q^{108} + 1219213\, p^{173} q^{85} + 132783\, p^{170} q^{67} + 20726\, p^{180} q^{169}$$
$$+ 7\, p^{134} q^{18} + 717786315\, p^{60} q^{21} + 3158850942\, p^{61} q^{24} + 36875708\, p^{57} q^{16} + 237669466\, p^{59} q^{19} + 320490\, p^{50} q^{10}$$
$$+ 1333237719922\, p^{66} q^{41} + 171785280308\, p^{65} q^{34} + 234725335184\, p^{65} q^{35} + 17692546348527\, p^{67} q^{53} + 2744505552185\, p^{66} q^{44}$$
$$+ 6423968551811\, p^{45} q^{85} + 1979161393\, p^{165} q^{94} + 2363126790\, p^{167} q^{114} + 418666689630542\, p^{102} q^{72} + 263878625314358\, p^{102} q^{68}$$
$$+ 106716665047480\, p^{101} q^{131} + 86948191026630\, p^{98} q^{132} + 48422419549752\, p^{133} q^{118} + 19746998461894\, p^{130} q^{73}$$
$$+ 60214832326627\, p^{133} q^{114} + 67777844028679\, p^{133} q^{111} + 1518664\, p^{153} q^{42} + 906017\, p^{151} q^{39} + 451432374\, p^{168} q^{97}$$
$$+ 15716574714083\, p^{129} q^{70} + 1050555753354660\, p^{101} q^{83} + 120078376751\, p^{132} q^{50} + 2631234550194\, p^{142} q^{133}$$
$$+ 17744862988995\, p^{140} q^{97} + 89180407439\, p^{132} q^{49} + 5856117018\, p^{127} q^{38} + 25008729126918\, p^{51} q^{84} + 258349925016622\, p^{66} q^{82}$$
$$+ 8214723487730\, p^{46} q^{85} + 598619954180920\, p^{76} q^{80} + 581073116041\, p^{49} q^{46} + 82074442928\, q^{148} p^{68} + 344119385330\, p^{45} q^{47}$$

$$+ 414586020503\, p^{46}\, q^{47} + 179541521465\, p^{41}\, q^{48} + 222761729148\, p^{42}\, q^{48} + 81334571473\, p^{37}\, q^{49} + 274408929686\, p^{43}\, q^{48}$$
$$+ 104339009738\, p^{38}\, q^{49} + 31359993363\, p^{33}\, q^{50} + 132751082706\, p^{39}\, q^{49} + 167560665131\, p^{40}\, q^{49} + 93728710982\, p^{37}\, q^{50}$$
$$+ 47596110427\, p^{34}\, q^{51} + 72276134118\, p^{36}\, q^{50} + 41822754456\, p^{34}\, q^{50} + 55236704023\, p^{35}\, q^{50} + 10006476761\, p^{29}\, q^{51}$$
$$+ 13981076040\, p^{30}\, q^{51} + 19304462198\, p^{31}\, q^{51} + 21685150230\, p^{31}\, q^{52} + 26356327754\, p^{32}\, q^{51} + 35600255760\, p^{33}\, q^{51} + 771\, q^{82}\, p^{8}$$
$$+ 906076745271\, p^{111}\, q^{44} + 3566592872655\, p^{90}\, q^{145} + 38600808284\, p^{76}\, q^{29} + 25392505003\, p^{76}\, q^{28} + 18564698\, p^{67}\, q^{15}$$
$$+ 28130636741643\, p^{92}\, q^{52} + 866574199474884\, p^{110}\, q^{107} + 1073433991541\, p^{72}\, q^{39} + 8125043537567\, p^{73}\, q^{47} + 1415034952160\, p^{72}\, q^{40}$$
$$+ 15116775645893\, p^{73}\, q^{50} + 521574325\, q^{144}\, p^{45} + 411236722131\, q^{154}\, p^{120} + 288943827187\, q^{155}\, p^{121} + 151221975397\, q^{151}\, p^{78}$$
$$+ 174004178004\, q^{151}\, p^{79} + 1055790967966811\, p^{86}\, q^{82} + 33548699793085\, q^{93}\, p^{53} + 22095524966177\, q^{93}\, p^{51}$$
$$+ 166999129909417\, p^{128}\, q^{104} + 27219805457316\, p^{125}\, q^{69} + 153140868617061\, p^{128}\, q^{95} + 31397228435150\, p^{125}\, q^{70}$$
$$+ 10535642895\, p^{116}\, q^{34} + 40366210922\, p^{151}\, q^{148} + 50632001495\, p^{149}\, q^{149} + 50158354489\, p^{150}\, q^{148} + 634364477847\, p^{149}\, q^{84}$$
$$+ 75091245528\, p^{147}\, q^{149} + 22503406601084\, p^{112}\, q^{139} + 89830336686\, p^{152}\, q^{142} + 111379477764\, p^{148}\, q^{146} + 8205267564970\, p^{144}\, q^{108}$$
$$+ 7530207127586\, p^{144}\, q^{113} + 74749439386\, p^{135}\, q^{51} + 1792364\, p^{115}\, q^{20} + 1140066462532\, p^{145}\, q^{135} + 209038488297073\, p^{72}\, q^{69}$$
$$+ 466335766196269\, p^{76}\, q^{107} + 887838557927851\, p^{84}\, q^{106} + 43589371005902\, p^{127}\, q^{128} + 56284139540306\, p^{118}\, q^{132}$$
$$+ 52659764529257\, p^{119}\, q^{132} + 49050025188071\, p^{120}\, q^{132} + 45483082480900\, p^{121}\, q^{132} + 44345092847733\, p^{131}\, q^{123}$$
$$+ 232915084\, p^{107}\, q^{24} + 117585877399854\, p^{125}\, q^{82} + 328257623422\, p^{118}\, q^{44} + 43902534766047\, p^{131}\, q^{82} + 1005726127184\, p^{126}\, q^{53}$$
$$+ 402592466841687\, p^{98}\, q^{121} + 10535141809360\, p^{139}\, q^{125} + 123287124646\, p^{128}\, q^{47} + 24375436988491\, p^{138}\, q^{115} + 15\, p^{56}\, q^{4}$$
$$+ 25423440651295\, p^{138}\, q^{114} + 20935072825554\, p^{138}\, q^{118} + 28118058560135\, p^{138}\, q^{111} + 5742937895036\, p^{134}\, q^{70}$$
$$+ 37268756057721\, p^{137}\, q^{103} + 11531199721889\, p^{134}\, q^{75} + 9078101534\, q^{147}\, p^{57} + 4551552981\, q^{144}\, p^{51} + 39357\, p^{94}\, q^{12}$$
$$+ 5200914480391\, p^{133}\, q^{68} + 1465362316597\, p^{131}\, q^{59} + 336144647366\, p^{130}\, q^{52} + 6673445731131\, p^{134}\, q^{71} + 31882738748741\, p^{136}\, q^{91}$$
$$+ 171748\, p^{99}\, q^{14} + 19547452344234\, p^{136}\, q^{84} + 725420245533\, p^{130}\, q^{55} + 92344224\, p^{115}\, q^{25} + 21027402007\, p^{125}\, q^{40}$$
$$+ 196104711559\, q^{153}\, p^{134} + 240772075174\, q^{153}\, p^{132} + 342512809888\, q^{153}\, p^{128} + 424822479839\, q^{153}\, p^{125} + 452312348281\, q^{153}\, p^{124}$$
$$+ 369696000801\, q^{153}\, p^{127} + 3109279134999\, p^{133}\, q^{65} + 69697685020\, q^{149}\, p^{69} + 46941885325\, q^{149}\, p^{67} + 57390035915\, q^{149}\, p^{68}$$
$$+ 45905287886\, p^{130}\, q^{159} + 46000382597\, p^{124}\, q^{160} + 2398151422\, q^{151}\, p^{58} + 30567742481333\, p^{133}\, q^{124} + 340218292058\, q^{155}\, p^{106}$$
$$+ 2820323638577\, q^{111}\, p^{48} + 2152730220986\, q^{111}\, p^{47} + 40094723395730\, p^{131}\, q^{81} + 60293573460587\, p^{131}\, q^{86}$$

$$+ 90999923938448\, p^{132} q^{104} + 13551983268959\, p^{129} q^{69} + 3431150041\, p^{164} q^{94} + 3963067689\, p^{166} q^{114} + 1086165438\, p^{120} q^{31}$$
$$+ 35676675135\, p^{126} q^{42} + 98062193889557\, p^{96} q^{131} + 15753447340507\, q^{89} p^{49} + 1835864816869\, p^{110} q^{46} + 6029480041683\, p^{111} q^{51}$$
$$+ 699862536316\, p^{108} q^{42} + 2422353431470\, p^{110} q^{47} + 482663809540771\, p^{71} q^{86} + 8485947738624\, p^{129} q^{138}$$
$$+ 9429860080258\, p^{128} q^{138} + 1068702087688043\, p^{88} q^{106} + 64543467759674\, p^{103} q^{59} + 11786948750147\, p^{101} q^{50}$$
$$+ 2075235502\, p^{50} q^{25} + 4421369193\, p^{50} q^{27} + 342069580\, p^{49} q^{21} + 1389358345\, p^{50} q^{24} + 3051458981\, p^{50} q^{26} + 35600255760\, p^{51} q^{33}$$
$$+ 13981076040\, p^{51} q^{30} + 10006476761\, p^{51} q^{29} + 26356327754\, p^{51} q^{32} + 19304462198\, p^{51} q^{31} + 47596110427\, p^{51} q^{34}$$
$$+ 63013302989\, p^{51} q^{35} + 93989937383\, p^{52} q^{36} + 158099975020\, p^{52} q^{38} + 323994103965\, p^{52} q^{41} + 502987114352\, p^{52} q^{43}$$
$$+ 405179625866\, p^{52} q^{42} + 202438935204\, p^{52} q^{39} + 122435452521\, p^{52} q^{37} + 619955715751\, p^{52} q^{44} + 873818436336\, p^{53} q^{45}$$
$$+ 257112293842\, p^{52} q^{40} + 38254593\, p^{47} q^{17} + 194531278\, p^{48} q^{20} + 119216132\, p^{48} q^{19} + 537091775\, p^{49} q^{22} + 827258146\, p^{49} q^{23}$$
$$+ 6318232931\, p^{50} q^{28} + 681794133332\, p^{50} q^{46} + 496301094447\, p^{47} q^{47} + 335682314904\, p^{44} q^{48} + 209876165256\, p^{41} q^{49}$$
$$+ 120505753636\, p^{38} q^{50} + 63013302989\, p^{35} q^{51} + 29685378959\, p^{32} q^{52} + 3075355974657\, p^{72} q^{43} + 87603763456798\, p^{63} q^{69}$$
$$+ 5029916454872\, p^{44} q^{83} + 81630526\, q^{109} p^{23} + 133872890\, q^{110} p^{24} + 10354274671571\, p^{86} q^{47} + 2394358590815\, p^{72} q^{42}$$
$$+ 76265905\, q^{68} p^{17} + 1416271823618741\, p^{87} q^{92} + 2010286\, q^{85} p^{14} + 124017965823\, q^{125} p^{45} + 7735116966\, q^{124} p^{37}$$
$$+ 6947470579\, p^{107} q^{30} + 534\, p^{64} q^{6} + 492307085\, q^{69} p^{20} + 271868933\, q^{69} p^{19} + 19003431\, q^{66} p^{15} + 147129981\, q^{68} p^{18}$$
$$+ 9602688282\, p^{90} q^{27} + 755501089970957\, p^{101} q^{78} + 150\, q^{42} p^{4} + 29691855550010\, p^{78} q^{131} + 135\, q^{43} p^{4} + 123\, q^{44} p^{4}$$
$$+ 119706726153706\, p^{62} q^{101} + 269932\, q^{60} p^{10} + 1683515770456\, p^{115} q^{48} + 110289176241\, q^{93} p^{33} + 162556768418\, q^{93} p^{34}$$
$$+ 73735052124\, q^{93} p^{32} + 1209768063037\, q^{94} p^{40} + 1642443982868\, q^{94} p^{41} + 346179469224\, q^{75} p^{35} + 6047638757698\, p^{113} q^{52}$$
$$+ 155179662790985\, p^{116} q^{73} + 19517844025\, p^{115} q^{35} + 632857168642901\, p^{99} q^{75} + 5200914480391\, p^{122} q^{57} + 120145608775\, p^{118} q^{41}$$
$$+ 29729987829\, p^{115} q^{36} + 2457932001552\, p^{121} q^{53} + 15432933855775\, p^{90} q^{49} + 19\, q^{39} p^{3} + 21\, q^{38} p^{3} + 1352945545843\, p^{120} q^{50}$$
$$+ 2445\, q^{52} p^{6} + 796531717273\, p^{112} q^{44} + 1163943792673\, p^{130} q^{57} + 536555619769576\, p^{117} q^{107} + 9597\, q^{54} p^{7} + 143421\, q^{113} p^{17}$$
$$+ 1673845407\, p^{118} q^{31} + 45036507484\, p^{87} q^{30} + 2518957995984\, p^{91} q^{42} + 6542434707\, p^{165} q^{120} + 3273243600\, q^{144} p^{50}$$
$$+ 174079795\, q^{140} p^{39} + 3999563\, q^{138} p^{31} + 67333757564\, q^{148} p^{67} + 97894\, q^{58} p^{9} + 54868808786\, p^{124} q^{42} + 118858\, q^{81} p^{11}$$
$$+ 36044\, q^{80} p^{10} + 1231389930489569\, p^{85} q^{99} + 30606\, q^{57} p^{8} + 300288656067\, p^{140} q^{62} + 5647313305769\, p^{144} q^{93}$$
$$+ 1081076844370\, p^{142} q^{72} + 6423968551811\, p^{145} q^{105} + 3149778592\, q^{145} p^{51} + 1646789\, p^{177} q^{112} + 78765\, p^{169} q^{63} + 67642\, p^{180} q^{162}$$

$$+ 260171\, p^{169}\, q^{66} + 1431101\, p^{175}\, q^{96} + 22680\, p^{164}\, q^{50} + 4626565\, q^{136}\, p^{30} + 310742\, q^{135}\, p^{26} + 81010915\, q^{138}\, p^{36}$$
$$+ 99386187868\, q^{148}\, p^{69} + 1073653191\, p^{112}\, q^{28} + 142978758556\, p^{119}\, q^{42} + 33383391\, p^{106}\, q^{21} + 5822589135885\, p^{60}\, q^{125}$$
$$+ 18329566781602\, p^{133}\, q^{129} + 35285281538305\, p^{132}\, q^{124} + 44719495392860\, p^{100}\, q^{56} + 61173612845513\, p^{101}\, q^{58}$$
$$+ 26284134458\, p^{104}\, q^{32} + 1238057212\, p^{100}\, q^{25} + 81796463747704\, p^{112}\, q^{65} + 188841413044733\, p^{113}\, q^{72} + 141720889659530\, p^{116}\, q^{126}$$
$$+ 90683590699387\, p^{62}\, q^{71} + 1508598133542175\, p^{91}\, q^{90} + 1549544596403612\, p^{92}\, q^{91} + 7507641995517\, p^{48}\, q^{68}$$
$$+ 5689592268930\, p^{47}\, q^{67} + 139087378326864\, p^{65}\, q^{72} + 210565491019367\, p^{75}\, q^{67} + 643739824\, p^{165}\, q^{149} + 768533\, p^{143}\, q^{32}$$
$$+ 60214832326627\, p^{57}\, q^{76} + 646015036830156\, p^{112}\, q^{111} + 297481631\, q^{83}\, p^{20} + 80838909\, q^{82}\, p^{18} + 290190451116\, q^{89}\, p^{35}$$
$$+ 487970262599937\, p^{87}\, q^{116} + 12263963851749\, q^{90}\, p^{48} + 19278489634940\, q^{90}\, p^{50} + 29451468016017\, q^{90}\, p^{52}$$
$$+ 23910956380917\, q^{90}\, p^{51} + 36031644703385\, q^{90}\, p^{53} + 52885817164967\, q^{90}\, p^{55} + 43792970814072\, q^{90}\, p^{54}$$
$$+ 51983100031430\, q^{91}\, p^{55} + 15432933855775\, q^{90}\, p^{49} + 79884122\, q^{170}\, p^{94} + 2358677\, q^{74}\, p^{13} + 486084967878\, p^{76}\, q^{36}$$
$$+ 832593883585399\, p^{80}\, q^{82} + 552781379683239\, p^{73}\, q^{84} + 724552326514428\, p^{77}\, q^{83} + 77219494647884\, p^{57}\, q^{87}$$
$$+ 91255257269068\, p^{58}\, q^{87} + 948713153208\, p^{147}\, q^{133} + 5292623355468\, p^{145}\, q^{97} + 23279058657\, p^{137}\, q^{49} + 1543836114\, p^{132}\, q^{38}$$
$$+ 629108452814737\, p^{107}\, q^{115} + 649264951545513\, p^{106}\, q^{115} + 607019997091135\, p^{108}\, q^{115} + 583238918756733\, p^{109}\, q^{115}$$
$$+ 54125473301742\, p^{56}\, q^{96} + 36821010691965\, p^{54}\, q^{96} + 30073688768942\, p^{53}\, q^{96} + 1427\, q^{100}\, p^{11} + 945926530\, q^{164}\, p^{84}$$
$$+ 161627278306\, p^{126}\, q^{156} + 1634504\, p^{140}\, q^{31} + 26284134458\, p^{158}\, q^{86} + 20424974700\, p^{158}\, q^{84} + 795352741669\, p^{51}\, q^{46}$$
$$+ 590430093628\, p^{48}\, q^{47} + 863042211\, q^{169}\, p^{122} + 865452969\, q^{169}\, p^{121} + 836902742\, q^{169}\, p^{117} + 698148861881\, p^{49}\, q^{47}$$
$$+ 57975017\, q^{114}\, p^{24} + 407863907062\, p^{45}\, q^{48} + 492308697546\, p^{46}\, q^{48} + 590430093628\, p^{47}\, q^{48} + 322056416939\, p^{43}\, q^{49}$$
$$+ 260925695851\, p^{42}\, q^{49} + 153650903274\, p^{39}\, q^{50} + 394729779570\, p^{44}\, q^{49} + 194347937858\, p^{40}\, q^{50} + 82643874701\, p^{36}\, q^{51}$$
$$+ 480514283625\, p^{45}\, q^{49} + 243925803463\, p^{41}\, q^{50} + 303861892421\, p^{42}\, q^{50} + 375781224649\, p^{43}\, q^{50} + 107415904353\, p^{37}\, q^{51}$$
$$+ 138405789194\, p^{38}\, q^{51} + 176850035203\, p^{39}\, q^{51} + 202438935204\, p^{39}\, q^{52} + 224154669845\, p^{40}\, q^{51} + 281903130964\, p^{41}\, q^{51}$$
$$+ 53877697179\, p^{34}\, q^{52} + 40199461191\, p^{33}\, q^{52} + 71499518446\, p^{35}\, q^{52} + 138813136700\, p^{37}\, q^{53} + 158099975020\, p^{38}\, q^{52}$$
$$+ 93989937383\, p^{36}\, q^{52} + 122435452521\, p^{37}\, q^{52} + 74630751639\, p^{69}\, q^{31} + 11757766506708\, p^{72}\, q^{49} + 132916233804614\, p^{73}\, q^{64}$$
$$+ 1913584\, p^{58}\, q^{12} + 1269562930767\, q^{151}\, p^{109} + 2335062\, p^{102}\, q^{17} + 486563871161578\, p^{71}\, q^{94} + 5079074831325\, p^{139}\, q^{132}$$
$$+ 21246127227852\, p^{136}\, q^{85} + 5720782777262\, p^{139}\, q^{131} + 142835115\, p^{116}\, q^{26} + 10137115666921\, p^{134}\, q^{74} + 20726492\, p^{112}\, q^{22}$$

$$+ 3713007365479\, p^{133}\, q^{66} + 1457863284871\, p^{132}\, q^{60} + 7149467029457\, p^{139}\, q^{129} + 12433623308027\, p^{139}\, q^{123} + 2602598\, q^{171}\, p^{80}$$
$$+ 2029965\, q^{171}\, p^{79} + 681341\, q^{171}\, p^{75} + 909055\, q^{171}\, p^{76} + 4166780\, p^{108}\, q^{19} + 35264253\, p^{113}\, q^{23} + 31322678683906\, p^{137}\, q^{95}$$
$$+ 791591420\, p^{119}\, q^{30} + 2410072819\, p^{121}\, q^{33} + 36591736846226\, p^{137}\, q^{101} + 19727162219004\, p^{138}\, q^{119} + 14409056736226\, p^{139}\, q^{121}$$
$$+ 5791223081850\, p^{145}\, q^{114} + 165901701587\, p^{138}\, q^{57} + 1219213\, p^{105}\, q^{17} + 1623657644474\, p^{148}\, q^{91} + 365238912063286\, p^{93}\, q^{121}$$
$$+ 24581895202691\, p^{123}\, q^{135} + 137173051878136\, p^{125}\, q^{84} + 9599283837320\, p^{122}\, q^{60} + 23673833375729\, p^{123}\, q^{66}$$
$$+ 84097220138574\, p^{128}\, q^{120} + 5191800330\, p^{112}\, q^{31} + 222201966795077\, p^{126}\, q^{101} + 102542488877438\, p^{127}\, q^{119}$$
$$+ 169862932971\, p^{137}\, q^{56} + 13131496586\, p^{133}\, q^{44} + 13415194205161\, p^{122}\, q^{139} + 554517557\, p^{127}\, q^{33} + 5904184054976\, p^{144}\, q^{119}$$
$$+ 9900501597447\, p^{143}\, q^{101} + 358319160138219\, p^{108}\, q^{121} + 194027499629895\, p^{102}\, q^{127} + 202670666514499\, p^{108}\, q^{126}$$
$$+ 157218467368310\, p^{96}\, q^{128} + 193283988609463\, p^{103}\, q^{127} + 186824052\, p^{171}\, q^{136} + 4080960488552\, p^{98}\, q^{45}$$
$$+ 186631733284822\, p^{101}\, q^{65} + 119706726153706\, p^{101}\, q^{62} + 151500060406958\, p^{109}\, q^{128} + 2195101075598\, p^{140}\, q^{137}$$
$$+ 696571665645\, p^{77}\, q^{146} + 1076189723900\, q^{96}\, p^{40} + 190837\, q^{119}\, p^{19} + 17132\, q^{119}\, p^{17} + 997480\, q^{96}\, p^{15} + 3239900\, p^{163}\, q^{172}$$
$$+ 5991720\, p^{162}\, q^{171} + 1199161\, q^{95}\, p^{15} + 1376696260697\, p^{97}\, q^{41} + 142134961527\, p^{95}\, q^{34} + 916732672224273\, p^{103}\, q^{82}$$
$$+ 1026819493509153\, p^{103}\, q^{84} + 9268457761\, q^{101}\, p^{29} + 5619370315\, q^{101}\, p^{28} + 17521\, p^{84}\, q^{10} + 7523811067385\, p^{121}\, q^{58}$$
$$+ 1034100509\, p^{109}\, q^{27} + 125574093575899\, p^{127}\, q^{116} + 47\, q^{154}\, p^{31} + 1835864816869\, q^{110}\, p^{46} + 66006682930334\, p^{111}\, q^{63}$$
$$+ 1603069291866724\, p^{97}\, q^{95} + 200340870204933\, p^{114}\, q^{124} + 24340\, q^{96}\, p^{12} + 1613030863576349\, p^{95}\, q^{96} + 1275995\, q^{109}\, p^{18}$$
$$+ 38578687364042\, p^{67}\, q^{58} + 11385438275888\, q^{76}\, p^{48} + 17242196746983\, q^{76}\, p^{50} + 25423440651295\, q^{76}\, p^{52}$$
$$+ 21005150586391\, q^{76}\, p^{51} + 30576507114612\, q^{76}\, p^{53} + 43419807808130\, q^{76}\, p^{55} + 36547014881736\, q^{76}\, p^{54}$$
$$+ 45255997643648\, q^{77}\, p^{55} + 14059191617108\, q^{76}\, p^{49} + p^{103}\, q^{9} + 76265905\, q^{173}\, p^{122} + 964817507268269\, q^{91}\, p^{79}$$
$$+ 1029068355037523\, p^{92}\, q^{80} + 300048019339082\, p^{120}\, q^{114} + 282228401294432\, p^{120}\, q^{115} + 367090796882602\, p^{120}\, q^{110}$$
$$+ 381972401273117\, p^{120}\, q^{109} + 228739975205329\, p^{120}\, q^{118} + 395780938940482\, p^{120}\, q^{108} + 50841171495\, q^{102}\, p^{33} + 48\, p^{29}\, q^{3}$$
$$+ 14510532570\, p^{82}\, q^{27} + 852834634350073\, p^{112}\, q^{93} + 43902534766047\, p^{108}\, q^{59} + 926473\, p^{83}\, q^{13} + 36487933955859\, p^{108}\, q^{58}$$
$$+ 843753690313168\, p^{111}\, q^{90} + 616552691251306\, p^{74}\, q^{85} + 5563075906\, q^{136}\, p^{44} + 23753306930\, q^{138}\, p^{50} + 43361704252\, q^{138}\, p^{52}$$
$$+ 32255086157\, q^{138}\, p^{51} + 57732892693\, q^{138}\, p^{53} + 99568363431\, q^{138}\, p^{55} + 76157349549\, q^{138}\, p^{54} + 17309830329\, q^{138}\, p^{49}$$
$$+ 1352945545843\, q^{140}\, p^{70} + 706\, q^{155}\, p^{34} + 284425490734663\, p^{66}\, q^{87} + 1174733559046867\, p^{102}\, q^{86} + 2540097\, q^{117}\, p^{21}$$

$$+ 919536784451336\, p^{79} q^{87} + 200\, q^{114} p^{13} + 406079446014502\, p^{69} q^{89} + 697910117795060\, p^{82} q^{77} + 772451383914153\, p^{83} q^{78}$$
$$+ 518623603824995\, p^{82} q^{73} + 652321944033815\, p^{82} q^{76} + 966984454087\, q^{148} p^{85} + 464038125518\, p^{148} q^{137}$$
$$+ 54057995137522\, p^{135} q^{102} + 44324140988158\, p^{136} q^{107} + 4933834414\, p^{51} q^{27} + 40199461191\, p^{52} q^{33} + 52\, p^{25} q^{3}$$
$$+ 29685378959\, p^{52} q^{32} + 21685150230\, p^{52} q^{31} + 53877697179\, p^{52} q^{34} + 71499518446\, p^{52} q^{35} + 179631571613\, p^{53} q^{38}$$
$$+ 370351736922\, p^{53} q^{41} + 577126605565\, p^{53} q^{43} + 464038125518\, p^{53} q^{42} + 230486436981\, p^{53} q^{39} + 138813136700\, p^{53} q^{37}$$
$$+ 712628936313\, p^{53} q^{44} + 1000770556937\, p^{54} q^{45} + 293324894667\, p^{53} q^{40} + 7072919469\, p^{51} q^{28} + 165259816705\, q^{98} p^{35}$$
$$+ 922575860097\, p^{52} q^{46} + 820622134862\, p^{50} q^{47} + 703683095016\, p^{48} q^{48} + 581073116041\, p^{46} q^{49} + 461452961380\, p^{44} q^{50}$$
$$+ 257112293842\, p^{40} q^{52} + 351860281395\, p^{42} q^{51} + 179631571613\, p^{38} q^{53} + 23004183435242\, p^{101} q^{53} + 1223812152506986\, p^{102} q^{87}$$
$$+ 1860539806034\, p^{97} q^{42} + 782256502912046\, p^{102} q^{79} + 15446397692\, q^{149} p^{62} + 112193982094238\, p^{60} q^{95} + 98885062\, p^{108} q^{23}$$
$$+ 958980962211\, p^{143} q^{139} + 53960244289256\, p^{100} q^{57} + 6471031110274\, p^{99} q^{47} + 40783\, p^{69} q^{9} + 1618891912030\, p^{139} q^{140}$$
$$+ 1207535212799277\, p^{107} q^{96} + 665863445702\, q^{147} p^{79} + 622166458225\, q^{148} p^{81} + 164704371455371\, p^{81} q^{122}$$
$$+ 972313347249823\, p^{103} q^{83} + 19582306076\, q^{149} p^{63} + 1613030863576349\, p^{96} q^{95} + 89756884\, q^{118} p^{26} + 39972343902\, p^{154} q^{144}$$
$$+ 9403162140112\, q^{140} p^{86} + 9168099735\, p^{105} q^{30} + 748\, p^{62} q^{6} + 933507178201188\, p^{96} q^{79} + 360870303\, q^{95} p^{22} + 56080984\, q^{93} p^{19}$$
$$+ 117072530\, q^{93} p^{20} + 266191626391\, q^{101} p^{37} + 1102260871479\, p^{114} q^{46} + 1239578347\, q^{95} p^{24} + 1201734079751\, q^{86} p^{39}$$
$$+ 168426685522397\, p^{128} q^{101} + 79787657423806\, p^{129} q^{119} + 64905448945356\, p^{130} q^{120} + 3654211993\, p^{114} q^{31}$$
$$+ 1378617646669\, p^{110} q^{45} + 597293420230709\, p^{117} q^{102} + 605605227216784\, p^{117} q^{100} + 1432656240024295\, p^{102} q^{93}$$
$$+ 47009536481\, q^{152} p^{73} + 55819580260\, q^{152} p^{74} + 1680724\, p^{131} q^{26} + 1546410819730934\, p^{92} q^{98} + 1279176505\, q^{164} p^{86}$$
$$+ 1353780779750764\, p^{89} q^{101} + 1391563608487811\, p^{90} q^{101} + 1624163098104\, q^{86} p^{40} + 2486903199276\, q^{116} p^{50}$$
$$+ 1914002115891\, q^{116} p^{49} + 1460423768145\, q^{116} p^{48} + 1104407222432\, q^{116} p^{47} + 132892050631547\, p^{120} q^{124}$$
$$+ 143896757688847\, p^{119} q^{124} + 220548\, q^{175} p^{87} + 14239\, q^{174} p^{74} + 3778549853318\, p^{133} q^{140} + 275249236042\, q^{148} p^{75}$$
$$+ 235722852540\, q^{148} p^{74} + 169913525017\, q^{148} p^{72} + 1122853988380251\, p^{85} q^{102} + 1474099710159165\, p^{93} q^{101}$$
$$+ 1490281031800146\, p^{94} q^{101} + 51280664094422\, p^{114} q^{134} + 55600396438715\, p^{112} q^{134} + 53510797603690\, p^{113} q^{134}$$
$$+ 1391563608487811\, p^{89} q^{100} + 1215518961372769\, p^{86} q^{101} + 1494049552433607\, p^{91} q^{99} + 1079737923542252\, p^{85} q^{103}$$
$$+ 972313347249823\, p^{83} q^{103} + 524272\, p^{87} q^{13} + 200717933496\, q^{148} p^{73} + 380590631186\, q^{152} p^{130} + 451426168969\, q^{152} p^{128}$$

$$+ 415474843370\, q^{152}\, p^{129} + 319601320497\, q^{148}\, p^{76} + 1026819493509153\, p^{84}\, q^{103} + 1130550662953106\, p^{86}\, q^{103}$$
$$+ 1223812152506986\, p^{88}\, q^{103} + 1178743071000032\, p^{87}\, q^{103} + 1265275011671933\, p^{89}\, q^{103} + 1335600361680849\, p^{91}\, q^{103}$$
$$+ 1302677122569968\, p^{90}\, q^{103} + 1285149931605957\, p^{91}\, q^{104} + 1520605044759618\, p^{92}\, q^{99} + 11998\, q^{131}\, p^{21} + 6471031110274\, p^{143}\, q^{91}$$
$$+ 3697360422304\, p^{143}\, q^{84} + 131404006141\, p^{137}\, q^{55} + 6273480342201\, p^{144}\, q^{95} + 137288208\, p^{126}\, q^{30} + 211553350523\, p^{138}\, q^{58}$$
$$+ 2039593265466\, p^{135}\, q^{142} + 7\, p^{23}\, q^{2} + 48315852346102\, p^{68}\, q^{59} + 13774\, p^{44}\, q^{7} + 38578687364042\, p^{132}\, q^{123} + 1623657644474\, p^{91}\, q^{148}$$
$$+ 4341697\, q^{60}\, p^{13} + 1378344397167\, p^{140}\, q^{140} + 1472009471513\, p^{131}\, q^{146} + 1922537347731\, p^{117}\, q^{149} + 143639679231\, p^{150}\, q^{142}$$
$$+ 2178050513587\, p^{120}\, q^{148} + 17861590532200\, p^{113}\, q^{140} + 291301\, q^{58}\, p^{10} + 468825285473533\, p^{74}\, q^{78} + 7712426189975\, q^{134}\, p^{72}$$
$$+ 674589187679\, q^{152}\, p^{122} + 356737458650\, q^{67}\, p^{36} + 849627569\, q^{169}\, p^{118} + 334744293275503\, p^{120}\, q^{112} + 211367437570161\, p^{120}\, q^{119}$$
$$+ 178029282234034\, p^{121}\, q^{120} + 146301423\, q^{63}\, p^{18} + 1105101406990\, q^{89}\, p^{39} + 1548109575052\, q^{88}\, p^{40} + 2079071694200\, q^{88}\, p^{41}$$
$$+ 251048479998134\, q^{121}\, p^{85} + 298363166520229\, q^{121}\, p^{88} + 327641742583351\, q^{121}\, p^{90} + 267077286311559\, q^{121}\, p^{86}$$
$$+ 234950651583022\, q^{121}\, p^{84} + 187529165648322\, q^{121}\, p^{81} + 865156438\, p^{159}\, q^{69} + 2839755676\, p^{166}\, q^{131} + 271950242\, p^{154}\, q^{165}$$
$$+ 261880000\, p^{150}\, q^{167} + 164768510\, p^{158}\, q^{164} + 131134726\, p^{159}\, q^{164} + 200\, p^{114}\, q^{13} + 224255138\, p^{155}\, q^{165} + 3134145621\, q^{83}\, p^{24}$$
$$+ 57732892693\, p^{137}\, q^{52} + 1215837963411\, p^{141}\, q^{71} + 218916838431253\, p^{69}\, q^{107} + 8241159452810\, p^{136}\, q^{132}$$
$$+ 683393574402125\, p^{79}\, q^{79} + 120554914563137\, p^{111}\, q^{67} + 3938452974306\, p^{108}\, q^{48} + 185040537\, p^{95}\, q^{21} + 21222922675\, p^{102}\, q^{31}$$
$$+ 5619370315\, p^{101}\, q^{28} + 104666632256990\, p^{131}\, q^{106} + 26336284840884\, p^{66}\, q^{56} + 476437834\, p^{170}\, q^{118} + 26707036\, p^{172}\, q^{151}$$
$$+ 663736333\, p^{169}\, q^{110} + 6753896\, p^{173}\, q^{157} + p^{63}\, q^{4} + 468735\, p^{150}\, q^{37} + 8564\, p^{136}\, q^{23} + 14510532570\, p^{163}\, q^{108} + 924927990\, p^{156}\, q^{63}$$
$$+ 71963710\, p^{152}\, q^{49} + 4729659\, p^{147}\, q^{38} + 509780095779449\, p^{77}\, q^{107} + 97400740270\, p^{151}\, q^{143} + 46268824313547\, p^{66}\, q^{60}$$
$$+ 57527012157286\, p^{56}\, q^{79} + 30567742481333\, p^{66}\, q^{57} + 10243612107769\, q^{87}\, p^{47} + 12933951350418\, q^{87}\, p^{48}$$
$$+ 83297928831898\, p^{66}\, q^{65} + 101833502418149\, p^{67}\, q^{66} + 225371671643\, p^{141}\, q^{62} + 4336412489515\, p^{145}\, q^{93} + 814280512375\, p^{143}\, q^{72}$$
$$+ 4982924133601\, p^{146}\, q^{105} + 9292987796679\, p^{89}\, q^{141} + 34755\, p^{102}\, q^{179} + 868928\, p^{116}\, q^{178} + 36775060587423\, p^{53}\, q^{83}$$
$$+ 27128453\, p^{76}\, q^{16} + 286353406770869\, p^{102}\, q^{124} + 59893051317386\, p^{132}\, q^{117} + 8557119380358\, p^{128}\, q^{65} + 11938632112576\, p^{128}\, q^{67}$$
$$+ 2066514518473\, p^{126}\, q^{56} + 354125\, q^{101}\, p^{15} + 140893572510848\, p^{92}\, q^{61} + 189024461137140\, p^{92}\, q^{63} + 4\, p^{188}\, q^{160} + p^{183}\, q^{99}$$
$$+ 671278\, q^{137}\, p^{28} + 2869722181228\, p^{113}\, q^{49} + 197911219\, p^{171}\, q^{135} + 77396467\, p^{172}\, q^{141} + 177838058313651\, p^{66}\, q^{74}$$
$$+ 197761603341292\, p^{67}\, q^{74} + 218865696935957\, p^{68}\, q^{74} + 241078075310601\, p^{69}\, q^{74} + 5660735242445\, q^{131}\, p^{66} + 35851\, p^{54}\, q^{8}$$

$$+ 3226\, p^{48} q^{6} + 193349686909137\, p^{69} q^{71} + 523568144863\, p^{97} q^{38} + 2965713645821\, p^{42} q^{81} + 196712952669376\, p^{109} q^{126}$$
$$+ 117280613072076\, p^{62} q^{75} + 102753877184451\, p^{61} q^{75} + 8645012607286\, q^{102} p^{49} + 10981086671891\, q^{102} p^{50}$$
$$+ 11947570068157\, p^{91} q^{48} + 5874789194876\, p^{90} q^{45} + 244550174045528\, p^{93} q^{65} + 160731321153189\, p^{93} q^{62}$$
$$+ 61205503335922\, p^{92} q^{56} + 159146982237474\, p^{65} q^{74} + 150447982155032\, p^{64} q^{75} + 133171255346323\, p^{63} q^{75}$$
$$+ 169116962320160\, p^{65} q^{75} + 223221324457679\, p^{67} q^{76} + 233261870529160\, p^{68} q^{75} + 189166515603732\, p^{66} q^{75}$$
$$+ 210565491019367\, p^{67} q^{75} + 155111571126912\, p^{66} q^{72} + 2572239221\, q^{103} p^{27} + 1297895506746321\, p^{90} q^{85}$$
$$+ 1323956190917898\, p^{89} q^{86} + 1267306980970474\, p^{86} q^{87} + 173079663318095\, p^{63} q^{81} + 675102915289\, p^{37} q^{83} + 7783912\, q^{138} p^{32}$$
$$+ 554091191938\, q^{125} p^{50} + 154763403619271\, p^{112} q^{127} + 161324860479351\, p^{111} q^{127} + 145802261888790\, p^{102} q^{129}$$
$$+ 6277097747015\, q^{87} p^{45} + 8050675678670\, q^{87} p^{46} + 18530\, q^{122} p^{18} + 914534929313\, q^{84} p^{38} + 7380837022296\, p^{104} q^{49}$$
$$+ 2122690991104\, p^{103} q^{44} + 21005150586391\, p^{114} q^{139} + 9573364648592\, p^{142} q^{118} + 12397987088426\, p^{142} q^{111}$$
$$+ 2260609117797\, p^{138} q^{70} + 16209485480130\, p^{141} q^{103} + 4688377597489\, p^{138} q^{75} + 7496185796393\, p^{139} q^{81}$$
$$+ 5278516188292\, p^{143} q^{124} + 2457932001552\, p^{137} q^{69} + 4391348\, p^{115} q^{21} + 2667\, p^{92} q^{10} + 81889438\, p^{121} q^{27} + 14436\, p^{98} q^{12}$$
$$+ 2080708636996\, p^{137} q^{68} + 581627006180\, p^{135} q^{59} + 10530382458004\, p^{142} q^{116} + 12483533522136\, p^{141} q^{94}$$
$$+ 4100402088903\, p^{143} q^{127} + 12848692915997\, p^{142} q^{109} + 1509921430\, p^{127} q^{35} + 14195286127344\, p^{140} q^{92} + 1922832142694\, p^{143} q^{134}$$
$$+ 170254558\, p^{123} q^{29} + 720501091197464\, p^{115} q^{99} + 715090015293076\, p^{115} q^{97} + 18412\, p^{75} q^{9} + 900327223547\, q^{152} p^{114}$$
$$+ 927104582042\, q^{152} p^{112} + 915558316641\, q^{152} p^{113} + 2306694498\, p^{167} q^{113} + 23625\, p^{132} q^{22} + 30590270087\, q^{86} p^{29}$$
$$+ 19530153110\, q^{86} p^{28} + 12236615962\, q^{86} p^{27} + 7380837022296\, q^{104} p^{49} + 210330909481\, p^{102} q^{156} + 17794853855810\, p^{92} q^{139}$$
$$+ 16822247693675\, p^{91} q^{139} + 25052034858957\, p^{104} q^{139} + 30575219402315\, p^{103} q^{138} + 30702011535375\, p^{104} q^{138}$$
$$+ 14837504293085\, p^{89} q^{139} + 14971430778992\, p^{93} q^{140} + 15833516192624\, p^{90} q^{139} + 4719767451\, p^{98} q^{27} + 2821917972621\, p^{106} q^{46}$$
$$+ 9142007740341\, p^{107} q^{51} + 1066626313106\, p^{104} q^{42} + 3697360422304\, p^{106} q^{47} + 902883204682677\, p^{112} q^{99}$$
$$+ 900668683833986\, p^{112} q^{97} + 65799\, p^{76} q^{10} + 1293455628564\, q^{108} p^{44} + 956320957964\, q^{108} p^{43} + 75694371\, p^{167} q^{157}$$
$$+ 35117119469\, p^{161} q^{121} + 3537035\, p^{129} q^{26} + 1064212860008\, p^{53} q^{46} + 398124653291804\, p^{121} q^{97} + 405426768210007\, p^{121} q^{99}$$
$$+ 135895932114\, q^{104} p^{36} + 298363166520229\, p^{121} q^{88} + 358806835149310\, p^{122} q^{103} + 36044\, p^{80} q^{10} + 958980962211\, p^{51} q^{47}$$
$$+ 1114295949263\, p^{52} q^{47} + 3273243600\, q^{140} p^{46} + 252079255\, q^{139} p^{39} + 509739971307\, q^{147} p^{77} + 219007413664995\, p^{104} q^{126}$$

$$+ 75436\, p^{91} q^{12} + 833542313702\, p^{49} q^{48} + 2335062\, q^{102} p^{17} + 76719\, q^{97} p^{13} + 981477975888\, p^{50} q^{48} + 1148926685458\, p^{51} q^{48}$$
$$+ 698148861881\, p^{47} q^{49} + 833542313702\, p^{48} q^{49} + 989088293155\, p^{49} q^{49} + 681794133332\, p^{46} q^{50} + 435973745341\, p^{43} q^{51}$$
$$+ 562781499954\, p^{45} q^{50} + 865156438\, q^{121} p^{31} + 1166625177360\, p^{50} q^{49} + 820622134862\, p^{47} q^{50} + 536369758919\, p^{44} q^{51}$$
$$+ 323994103965\, p^{41} q^{52} + 981477975888\, p^{48} q^{50} + 1166625177360\, p^{49} q^{50} + 655345225978\, p^{45} q^{51} + 795352741669\, p^{46} q^{51}$$
$$+ 958980962211\, p^{47} q^{51} + 1148926685458\, p^{48} q^{51} + 502987114352\, p^{43} q^{52} + 405179625866\, p^{42} q^{52} + 619955715751\, p^{44} q^{52}$$
$$+ 1064212860008\, p^{46} q^{53} + 1114295949263\, p^{47} q^{52} + 758836094990\, p^{45} q^{52} + 922575860097\, p^{46} q^{52} + 293324894667\, p^{40} q^{53}$$
$$+ 464038125518\, p^{42} q^{53} + 370351736922\, p^{41} q^{53} + 577126605565\, p^{43} q^{53} + 873818436336\, p^{45} q^{53} + 712628936313\, p^{44} q^{53}$$
$$+ 1000770556937\, p^{45} q^{54} + 230486436981\, p^{39} q^{53} + 32485231239295\, p^{53} q^{94} + 1071851655928139\, p^{83} q^{85} + 314032737\, p^{54} q^{20}$$
$$+ 3567799879\, p^{56} q^{25} + 1594879561553121\, p^{93} q^{93} + 1437306220295\, p^{112} q^{46} + 14\, p^{41} q^{3} + 123577125971881\, p^{123} q^{122} + 12808\, q^{48} p^{7}$$
$$+ 3559\, q^{46} p^{6} + 190128241268385\, p^{64} q^{80} + 307535162409037\, p^{110} q^{74} + 37369209\, p^{90} q^{18} + 883719791343197\, p^{112} q^{95}$$
$$+ 869943651571697\, p^{112} q^{94} + 771137857665777\, p^{113} q^{105} + 844970498954610\, p^{112} q^{104} + 11521234904060\, p^{107} q^{52}$$
$$+ 18772411\, p^{89} q^{17} + 1313415252488\, p^{105} q^{43} + 11567597208\, p^{99} q^{29} + 276614101869245\, p^{110} q^{73} + 227824936994\, q^{106} p^{38}$$
$$+ 204802400605445\, p^{65} q^{99} + 178\, q^{40} p^{4} + 321479\, q^{53} p^{10} + 120074\, q^{51} p^{9} + 138247527622974\, p^{61} q^{93} + 369058109451\, q^{148} p^{77}$$
$$+ 1922014\, q^{55} p^{12} + 60878\, q^{119} p^{18} + 1031344\, q^{120} p^{21} + 810363\, q^{54} p^{11} + 112977052853232\, p^{99} q^{61} + 153785274480717\, p^{99} q^{63}$$
$$+ 4601216620805\, p^{46} q^{67} + 149108941322324\, p^{65} q^{73} + 110704177463540\, p^{62} q^{74} + 132916233804614\, p^{64} q^{73}$$
$$+ 246429242396844\, p^{73} q^{70} + 27096718\, p^{171} q^{154} + 18584959612842\, p^{116} q^{59} + 261512124243081\, p^{122} q^{113} + 60177023\, p^{98} q^{20}$$
$$+ 249147810854278\, p^{72} q^{71} + 1066879118090281\, p^{89} q^{81} + 21520084085461\, p^{102} q^{53} + 6946766\, q^{90} p^{16} + 39357\, q^{94} p^{12}$$
$$+ 1086471973\, q^{101} p^{25} + 187523878\, q^{100} p^{22} + 363687312\, q^{100} p^{23} + 681540984\, q^{100} p^{24} + 20000004775556\, p^{82} q^{50}$$
$$+ 3864445386830\, p^{81} q^{43} + 247668159800\, q^{150} p^{79} + 5689764\, p^{173} q^{158} + 282755030248\, q^{150} p^{80} + 1008790222148358\, p^{101} q^{110}$$
$$+ 676437474371830\, p^{111} q^{85} + 340285950350522\, p^{110} q^{75} + 6186968992994\, p^{106} q^{49} + 1766223347369\, p^{105} q^{44}$$
$$+ 214004316624544\, p^{114} q^{74} + 639468778344042\, p^{116} q^{95} + 627347480041055\, p^{116} q^{94} + 567119836445532\, p^{117} q^{105}$$
$$+ 630462042714252\, p^{116} q^{104} + 117072530\, p^{93} q^{20} + 176047540192615\, p^{68} q^{71} + 211367437570161\, p^{71} q^{70} + 2920922\, p^{71} q^{13}$$
$$+ 6701220\, p^{72} q^{14} + 20\, q^{172} p^{57} + 52\, q^{172} p^{58} + 10\, q^{171} p^{54} + 3\, q^{171} p^{53} + 844\, p^{161} q^{41} + 289749\, p^{179} q^{116} + 300173\, p^{180} q^{133} + 4\, p^{141} q^{21}$$
$$+ 291301\, p^{180} q^{132} + 135926\, p^{176} q^{90} + 105701\, p^{181} q^{148} + 85041683915823\, p^{93} q^{58} + 118248966656864\, p^{93} q^{60}$$

$$+ 486563871161578\, p^{94} q^{71} + 42034635836153\, p^{92} q^{54} + 1198465\, p^{70} q^{12} + 34501253356210\, p^{92} q^{53} + 16822247693675\, p^{99} q^{51}$$
$$+ 5323120379758\, p^{98} q^{46} + 170060487248118\, p^{100} q^{64} + 38922686497259\, p^{99} q^{55} + 48533459854\, p^{93} q^{31} + 13482147703\, p^{92} q^{28}$$
$$+ 1008310651455\, p^{150} q^{93} + 218865696935957\, p^{74} q^{68} + 19358312665916\, p^{80} q^{50} + 3783772424922\, p^{79} q^{43} + 1719724\, q^{63} p^{12}$$
$$+ 1210556930275437\, p^{107} q^{98} + 8950166\, q^{65} p^{14} + 690619\, q^{62} p^{11} + 863995917\, q^{70} p^{21} + 1482407980\, q^{71} p^{22} + 2495309749\, q^{71} p^{23}$$
$$+ 4103978446\, q^{71} p^{24} + 722659517\, p^{88} q^{22} + 707991970543109\, p^{96} q^{115} + 670228517259147\, p^{93} q^{115} + 652638082612602\, p^{92} q^{115}$$
$$+ 777705938655295\, p^{100} q^{114} + 780266977565179\, p^{99} q^{114} + 779606220785253\, p^{98} q^{114} + 820588728413849\, p^{102} q^{113}$$
$$+ 685429438826481\, p^{94} q^{115} + 698066248546634\, p^{95} q^{115} + 715090015293076\, p^{97} q^{115} + 719276344966114\, p^{98} q^{115}$$
$$+ 955712741124352\, p^{82} q^{102} + 335672576199476\, p^{102} q^{70} + 2335336815920\, p^{98} q^{43} + 60883\, p^{65} q^{9} + 172910427262\, q^{74} p^{33}$$
$$+ 2624\, q^{85} p^{9} + 28259\, q^{89} p^{11} + 22742\, q^{90} p^{11} + 37532798593\, p^{118} q^{161} + 24947769004\, p^{112} q^{162} + 37077661523\, p^{136} q^{158}$$
$$+ 3423421\, q^{168} p^{71} + q^{147} p^{24} + 997311329529670\, p^{96} q^{80} + 69048557295618\, p^{66} q^{115} + 209038488297073\, p^{118} q^{121} + 25\, q^{37} p^{3}$$
$$+ 5338506974334\, p^{114} q^{52} + 6026\, p^{101} q^{12} + 345842\, q^{110} p^{17} + 146173\, q^{109} p^{16} + 1568415\, q^{112} p^{19} + 2029965\, q^{111} p^{19} + 760208\, q^{111} p^{18}$$
$$+ 500371057\, q^{121} p^{30} + 591195496524\, q^{132} p^{56} + 13551025342133\, p^{119} q^{140} + 1399190347849\, q^{134} p^{62} + 359597453371\, q^{132} p^{54}$$
$$+ 6642608635\, q^{72} p^{25} + 2193265374358\, p^{149} q^{112} + 197721248978804\, p^{112} q^{125} + 1568419582517415\, p^{98} q^{98}$$
$$+ 26912166030064\, p^{128} q^{131} + 30026325548746\, p^{127} q^{131} + 24002244985727\, p^{131} q^{129} + 27251847654233\, p^{129} q^{130}$$
$$+ 34173182634055\, p^{127} q^{130} + 24154361623837\, p^{130} q^{130} + 30592527908638\, p^{128} q^{130} + 23551409670125\, p^{132} q^{128} + q^{150} p^{26}$$
$$+ 65434450902155\, p^{133} q^{112} + 4088261068009\, p^{128} q^{61} + 25397555751452\, p^{130} q^{75} + 8242860569279\, p^{144} q^{107}$$
$$+ 10091752735272\, p^{143} q^{102} + 1053254472147\, p^{139} q^{67} + 481609\, q^{165} p^{58} + 10120646\, q^{168} p^{75} + 7831173\, q^{168} p^{74} + 6453400\, q^{171} p^{84}$$
$$+ 7\, p^{70} q^{5} + 339541966532\, p^{155} q^{116} + 92697678929\, p^{156} q^{133} + 111246081172\, p^{156} q^{131} + 69697685020\, p^{149} q^{69} + 375016\, p^{123} q^{21}$$
$$+ 291216754798\, p^{153} q^{90} + 87499\, p^{118} q^{18} + 338967478824\, p^{154} q^{97} + 41115818617034\, q^{118} p^{65} + 64559891944834\, q^{118} p^{68}$$
$$+ 48053326321460\, q^{118} p^{66} + 55850429348635\, q^{118} p^{67} + 29590561125479\, q^{118} p^{63} + 34981273729128\, q^{118} p^{64} + 589\, q^{83} p^{8}$$
$$+ 3318\, q^{84} p^{9} + 483383546374907\, p^{81} q^{112} + 138602209122808\, p^{61} q^{83} + 12305216\, q^{107} p^{20} + 267077286311559\, p^{104} q^{69}$$
$$+ 192166591810769\, p^{103} q^{66} + 419547399606722\, p^{71} q^{81} + 231305\, p^{63} q^{10} + 878537457782206\, p^{102} q^{112} + 4929958130602\, p^{144} q^{122}$$
$$+ 10920\, q^{99} p^{12} + 1081076844370\, q^{142} p^{72} + 462846423474135\, p^{86} q^{116} + 44701253\, q^{80} p^{17} + 68682274348\, q^{99} p^{33}$$
$$+ 102843424422\, q^{99} p^{34} + 151746879102\, q^{99} p^{35} + 1220912831610\, p^{54} q^{46} + 1287550296355\, p^{53} q^{47} + 1337260915619\, p^{52} q^{48}$$

$$+ 1367961913949\, p^{51} q^{49} + 1378344397167\, p^{50} q^{50} + 1367961913949\, p^{49} q^{51} + 1287550296355\, p^{47} q^{53} + 1337260915619\, p^{48} q^{52}$$
$$+ 625210289\, q^{139} p^{41} + 563194669599\, q^{152} p^{125} + 525561658628\, q^{152} p^{126} + 400675162\, q^{139} p^{40} + 1220912831610\, p^{46} q^{54}$$
$$+ 24174947335120\, p^{51} q^{81} + 19358312665916\, p^{50} q^{80} + 445728750\, p^{133} q^{36} + 163638894317998\, p^{98} q^{128} + 118083697039825\, p^{92} q^{129}$$
$$+ 329272\, q^{106} p^{16} + 1630080\, q^{108} p^{18} + 45740709\, p^{157} q^{55} + 264837967186\, p^{37} q^{59} + 493172065248517\, p^{71} q^{93} + 550972028\, p^{55} q^{21}$$
$$+ 2337317791\, p^{56} q^{24} + 381925729637\, p^{147} q^{75} + 37676025459\, p^{79} q^{29} + 24568224499\, p^{79} q^{28} + 16819694\, p^{70} q^{15} + 131958359\, p^{73} q^{18}$$
$$+ 801169789\, p^{75} q^{21} + 3883842430\, p^{77} q^{24} + 1374814587\, p^{76} q^{22} + 6391002196\, p^{77} q^{25} + 44804317396931\, p^{84} q^{54}$$
$$+ 76637158186376\, p^{85} q^{57} + 934375595732\, p^{82} q^{38} + 37129277945826\, p^{84} q^{53} + 123521938299830\, p^{85} q^{60}$$
$$+ 281340903673548\, p^{86} q^{66} + 5029916454872\, p^{83} q^{44} + 2363126790\, p^{76} q^{23} + 64611917116609\, p^{85} q^{56} + 68830115\, p^{72} q^{17}$$
$$+ 13136107902810\, p^{84} q^{48} + 6464933132416\, p^{83} q^{45} + 1449531972080770\, p^{96} q^{88} + 1184770159453491\, p^{96} q^{83}$$
$$+ 4587682888998\, p^{96} q^{45} + 204802400605445\, p^{99} q^{65} + 132179128853084\, p^{99} q^{62} + 12954973\, p^{75} q^{15} + 24397223555336\, p^{52} q^{96}$$
$$+ 529216506654606\, p^{95} q^{118} + 103703191750\, p^{150} q^{144} + 5323120379758\, p^{92} q^{144} + 9672104943058\, p^{100} q^{143}$$
$$+ 9409211311140\, p^{99} q^{143} + 599397032867557\, p^{97} q^{117} + 10717136032685\, p^{120} q^{59} + 31755080\, p^{102} q^{20} + 167353878805508\, p^{126} q^{113}$$
$$+ 2966\, p^{76} q^{8} + 4264384661452\, p^{119} q^{54} + 71616293\, p^{158} q^{58} + 496890371809\, p^{81} q^{36} + 16036093921\, p^{78} q^{27} + 3172513554\, p^{131} q^{39}$$
$$+ 2671765426449\, p^{148} q^{115} + 606030805852183\, p^{99} q^{117} + 506588158132333\, p^{118} q^{106} + 15490997503\, q^{147} p^{59}$$
$$+ 33289761584226\, p^{136} q^{116} + 44786131275593\, p^{135} q^{94} + 1580973004251901\, p^{98} q^{97} + 1586597871138173\, p^{98} q^{95} + 1031344\, q^{169} p^{70}$$
$$+ 3356401\, q^{169} p^{74} + 1902021\, q^{169} p^{72} + 29794\, q^{174} p^{76} + 117\, q^{172} p^{59} + 247\, q^{172} p^{60} + 31\, q^{171} p^{55} + 9576\, q^{174} p^{73} + 20757\, q^{174} p^{75}$$
$$+ 1563810807592872\, p^{95} q^{99} + 1461875426356366\, p^{91} q^{100} + 1363670472424709\, p^{103} q^{92} + p^{108} q^{10} + 14587536\, p^{173} q^{99}$$
$$+ 312646\, p^{165} q^{57} + 2540097\, p^{169} q^{73} + 1902021\, p^{169} q^{72} + 16819694\, p^{175} q^{120} + 17309830329\, q^{141} p^{52} + 6685861689\, q^{141} p^{49}$$
$$+ 4761064858\, q^{141} p^{48} + 1534974811023798\, p^{100} q^{95} + 1012811548531361\, p^{83} q^{102} + 1510429945017850\, p^{93} q^{100}$$
$$+ 1223812152506986\, p^{87} q^{102} + 1174733559046867\, p^{86} q^{102} + 1489037238364330\, p^{92} q^{100} + 197761603341292\, p^{123} q^{116}$$
$$+ 13407182977235\, p^{117} q^{58} + 12483533522136\, q^{96} p^{49} + 2498245161434\, p^{112} q^{48} + 486352422804\, p^{98} q^{38} + 252600211\, q^{73} p^{19}$$
$$+ 820679397\, q^{74} p^{21} + 68830115\, q^{72} p^{17} + 4026111351\, q^{75} p^{24} + 16422853677\, q^{76} p^{27} + 11192680780\, p^{154} q^{151}$$
$$+ 217945945222\, p^{120} q^{156} + 57694373180\, p^{113} q^{160} + 857841922272\, p^{152} q^{103} + 132179128853084\, p^{62} q^{99} + 956320957964\, p^{147} q^{82}$$
$$+ 22192922\, p^{104} q^{20} + 3119894223070\, p^{121} q^{54} + 129929738827991\, p^{128} q^{113} + 421088725348\, p^{149} q^{136} + 845133787859\, p^{148} q^{132}$$

$$+ 2352464741365\, p^{145} q^{85} + 1828447513101\, p^{148} q^{123} + 17115949183868\, p^{140} q^{96} + 193951\, q^{136} p^{26} + 27\, q^{76} p^{6}$$
$$+ 289517058942970\, p^{108} q^{123} + 4194043998668\, p^{78} q^{140} + 4583693054567\, p^{81} q^{141} + 4718670288858\, p^{79} q^{140}$$
$$+ 3709009914889\, p^{77} q^{140} + 5282620971560\, p^{80} q^{140} + 34684481\, q^{71} p^{16} + 346179469224\, p^{115} q^{155} + 26278450158\, p^{155} q^{145}$$
$$+ 22252892083\, p^{155} q^{146} + 7878122663091\, p^{122} q^{59} + 65348792772184\, q^{119} p^{69} + 1883980056262\, p^{149} q^{99} + 2208313876332\, p^{149} q^{105}$$
$$+ 77428313\, q^{62} p^{17} + 3212062789871\, q^{92} p^{43} + 4222921193557\, q^{92} p^{44} + 116373\, q^{53} p^{9} + 2424\, q^{77} p^{8} + 2081424669\, q^{62} p^{23}$$
$$+ 253248244\, q^{61} p^{19} + 4882434\, q^{103} p^{18} + 3226\, q^{48} p^{6} + 12401\, q^{49} p^{7} + 744171168224\, p^{38} q^{70} + 393928482639\, p^{36} q^{69}$$
$$+ 531519456026\, p^{37} q^{69} + 831\, q^{44} p^{5} + 40923972518236\, q^{93} p^{54} + 14147927588369\, q^{93} p^{49} + 11196158795140\, q^{93} p^{48}$$
$$+ 17744862988995\, q^{93} p^{50} + 11916\, q^{50} p^{7} + 27319791812917\, q^{93} p^{52} + 9020472346\, q^{65} p^{26} + 772361227\, q^{62} p^{21}$$
$$+ 33708772538005\, p^{56} q^{69} + 39859\, q^{51} p^{8} + 11399\, q^{51} p^{7} + 118499\, q^{52} p^{9} + 38707\, q^{52} p^{8} + 10824\, q^{52} p^{7} + 719276344966114\, p^{75} q^{92}$$
$$+ 318547\, q^{54} p^{10} + 137994948\, q^{60} p^{18} + 4370616\, q^{59} p^{13} + 19606640\, q^{59} p^{15} + 74992155\, q^{60} p^{17} + 9436806\, q^{58} p^{14} + 19324700\, q^{58} p^{15}$$
$$+ 1913584\, q^{58} p^{12} + 1925841\, q^{57} p^{12} + 795718238\, q^{63} p^{21} + 13139167653\, q^{64} p^{27} + 5623418760\, q^{64} p^{25} + 8669704437\, q^{64} p^{26}$$
$$+ 2235938668\, q^{64} p^{23} + 3581144333\, q^{64} p^{24} + 2846\, q^{50} p^{6} + 1928833\, q^{56} p^{12} + 313899\, q^{55} p^{10} + 848734\, q^{102} p^{16} + 35851\, q^{54} p^{8}$$
$$+ 76378414\, q^{61} p^{17} + 27570572559352\, p^{124} q^{68} + 440564950\, q^{61} p^{20} + 141360490\, q^{61} p^{18} + 4364489\, q^{57} p^{13} + 9501109\, q^{59} p^{14}$$
$$+ 37336\, q^{53} p^{8} + 62895248478\, q^{65} p^{31} + 20514182966\, q^{65} p^{28} + 41699453836\, q^{64} p^{30} + 30223495899\, q^{65} p^{29} + 13713862263\, q^{65} p^{27}$$
$$+ 43895155595\, q^{65} p^{30} + 1282336422\, q^{62} p^{22} + 792933\, q^{57} p^{11} + 808644\, q^{55} p^{11} + 779173\, q^{58} p^{11} + 19897105\, q^{61} p^{15} + 307814\, q^{56} p^{10}$$
$$+ 4378047\, q^{58} p^{13} + 9520587\, q^{60} p^{14} + 1859022329\, p^{112} q^{29} + 109680483969291\, p^{126} q^{83} + 1921326035678\, p^{121} q^{52}$$
$$+ 127082672693397\, p^{126} q^{85} + 1326772205\, q^{63} p^{22} + 110387\, q^{55} p^{9} + 802714\, q^{56} p^{11} + 171785280308\, q^{65} p^{34} + 1823523068\, q^{120} p^{32}$$
$$+ 2744505552185\, q^{66} p^{44} + 1709555630991\, q^{66} p^{42} + 2174522341136\, q^{66} p^{43} + 1333237719922\, q^{66} p^{41} + 124345920873\, q^{65} p^{33}$$
$$+ 95732233716\, p^{107} q^{36} + 453877549\, q^{62} p^{20} + 259613291\, q^{62} p^{19} + 46000382597\, q^{66} p^{30} + 88973642302\, q^{65} p^{32} + 3033\, q^{49} p^{6}$$
$$+ 61\, q^{49} p^{4} + 2201694577356\, q^{113} p^{48} + 54313503258143\, p^{135} q^{103} + 1261991854588\, q^{113} p^{46} + 73\, q^{48} p^{4} + 557\, q^{49} p^{5}$$
$$+ 237494047151\, p^{118} q^{43} + 135878968726103\, p^{128} q^{112} + 59292285442456\, p^{125} q^{75} + 857841922272\, q^{87} p^{38} + 622166458225\, p^{148} q^{81}$$
$$+ 113622\, q^{54} p^{9} + 1200271\, q^{113} p^{19} + 909055\, q^{114} p^{19} + 2354224\, q^{114} p^{20} + 5690109\, q^{114} p^{21} + 109357071709616\, q^{118} p^{72}$$
$$+ 305378049086\, p^{144} q^{68} + 83866613043\, p^{142} q^{59} + 423865595608\, q^{112} p^{42} + 557886377461755\, p^{93} q^{117} + 542289873704375\, p^{92} q^{117}$$
$$+ 464202028329138\, p^{88} q^{117} + 485672985117747\, p^{89} q^{117} + 10535642895\, q^{116} p^{34} + 227761\, p^{165} q^{177} + 23725494441877\, q^{114} p^{59}$$

$$+ 16033124442797\, q^{114}\, p^{57} + 19567134576402\, q^{114}\, p^{58} + 223\, p^{149}\, q^{28} + 2018\, p^{155}\, q^{35} + 10\, p^{136}\, q^{19} + 2714220\, p^{175}\, q^{100}$$
$$+ 10428186175765\, p^{127}\, q^{138} + 3021865395746\, p^{82}\, q^{143} + 9155372585249\, q^{76}\, p^{47} + 96017117284910\, p^{99}\, q^{60}$$
$$+ 411119999982561\, p^{100}\, q^{71} + 1942865940\, p^{105}\, q^{27} + 23778\, p^{182}\, q^{158} + 17893\, p^{182}\, q^{161} + 21764\, p^{182}\, q^{159} + 160044\, p^{178}\, q^{103}$$
$$+ 307814\, p^{180}\, q^{134} + 1899\, p^{165}\, q^{48} + 231715\, p^{179}\, q^{114} + 67379724073343\, p^{57}\, q^{95} + 394607169758482\, p^{104}\, q^{121}$$
$$+ 1151697984535586\, p^{108}\, q^{98} + 1229962971746698\, p^{84}\, q^{89} + 1323956190917898\, p^{86}\, q^{89} + 20042535821880\, p^{103}\, q^{53}$$
$$+ 638043817572\, q^{67}\, p^{38} + 465457513\, q^{63}\, p^{20} + 621\, q^{74}\, p^{7} + 753273012\, p^{77}\, q^{21} + 1292943721\, p^{78}\, q^{22} + 122322421\, p^{75}\, q^{18}$$
$$+ 1116181016989218\, p^{83}\, q^{99} + 1363670472424709\, p^{87}\, q^{98} + 1410125848464269\, p^{88}\, q^{98} + 1541233225800159\, p^{91}\, q^{97}$$
$$+ 37011535\, p^{69}\, q^{16} + 3036597457\, q^{115}\, p^{31} + 6258995982\, q^{78}\, p^{25} + 84437371003\, q^{79}\, p^{31} + 688023131999\, q^{80}\, p^{37}$$
$$+ 24727868444577\, q^{108}\, p^{56} + 6363446131612\, q^{86}\, p^{45} + 2828760043791\, q^{87}\, p^{42} + 4928469057117\, q^{86}\, p^{44} + 2881307178416\, q^{86}\, p^{42}$$
$$+ 3784914950328\, q^{86}\, p^{43} + 7340062682\, p^{146}\, q^{159} + 6394472206\, p^{104}\, q^{29} + 755093981582\, p^{110}\, q^{43} + 295632170321734\, p^{94}\, q^{123}$$
$$+ 2329564913358\, p^{147}\, q^{123} + 4396627\, p^{121}\, q^{23} + 528605143460\, p^{148}\, q^{136} + 1060568807095\, p^{147}\, q^{132} + 3104518771149\, p^{144}\, q^{85}$$
$$+ 22240070477\, q^{146}\, p^{59} + 1077247769\, q^{146}\, p^{49} + 1531291886\, q^{146}\, p^{50} + 2154\, q^{134}\, p^{21} + 37658313774\, q^{116}\, p^{37} + 8\, p^{22}\, q^{2}$$
$$+ 44345092847733\, p^{67}\, q^{59} + 30380573779447\, p^{135}\, q^{87} + 36825543006139\, p^{135}\, q^{90} + 11477245558393\, p^{138}\, q^{126}$$
$$+ 8031167332584\, p^{142}\, q^{121} + 589140\, p^{108}\, q^{17} + 720501091197464\, p^{91}\, q^{75} + 2088673419\, q^{167}\, p^{110} + 6317915\, p^{157}\, q^{50}$$
$$+ 77635173118608\, p^{59}\, q^{75} + 97093632261190\, p^{61}\, q^{74} + 13830\, p^{43}\, q^{7} + 96600650204364\, p^{118}\, q^{71} + 382735199539648\, p^{120}\, q^{91}$$
$$+ 77040847402\, p^{70}\, q^{31} + 12374976184726\, p^{73}\, q^{49} + 141720889659530\, p^{74}\, q^{64} + 52384509936\, q^{83}\, p^{30} + 53811952891\, q^{82}\, p^{30}$$
$$+ 35370568175\, q^{82}\, p^{29} + 18236818\, p^{109}\, q^{21} + 25\, p^{66}\, q^{5} + 7149467029457\, p^{51}\, q^{61} + 8485947738624\, p^{52}\, q^{61} + 5006151388245\, p^{48}\, q^{63}$$
$$+ 5513319855502\, p^{49}\, q^{62} + 6634473423587\, p^{50}\, q^{62} + 61173612845513\, p^{89}\, q^{132} + 64706231474732\, p^{90}\, q^{132}$$
$$+ 68147691645329\, p^{91}\, q^{132} + 71464547396132\, p^{92}\, q^{132} + 18583\, q^{163}\, p^{48} + 1087394172490714\, p^{109}\, q^{99} + 1090125014230651\, p^{109}\, q^{97}$$
$$+ 96240\, p^{73}\, q^{10} + 1154\, p^{59}\, q^{6} + 419589425163834\, p^{120}\, q^{106} + 14510265581040\, p^{63}\, q^{54} + 18748081378849\, p^{64}\, q^{55}$$
$$+ 3335795441916\, p^{63}\, q^{46} + 1479609203906\, p^{54}\, q^{47} + 1547753656047\, p^{53}\, q^{48} + 1781543081154\, p^{54}\, q^{48} + 139106795\, q^{135}\, p^{35}$$
$$+ 1848887310212\, p^{53}\, q^{49} + 1594838874177\, p^{52}\, q^{49} + 2131583400394\, p^{54}\, q^{49} + 1618891912030\, p^{51}\, q^{50} + 1890455149609\, p^{52}\, q^{50}$$
$$+ 2195101075598\, p^{53}\, q^{50} + 1594838874177\, p^{49}\, q^{52} + 1618891912030\, p^{50}\, q^{51} + 1904508611691\, p^{51}\, q^{51} + 2534723266016\, p^{54}\, q^{50}$$
$$+ 1890455149609\, p^{50}\, q^{52} + 2227535050994\, p^{52}\, q^{51} + 1547753656047\, p^{48}\, q^{53} + 2590566459227\, p^{53}\, q^{51} + 2996003319254\, p^{54}\, q^{51}$$

$$+ 2227535050994\, p^{51} q^{52} + 3039400055105\, p^{53} q^{52} + 2609441133625\, p^{52} q^{52} + 3520425897121\, p^{54} q^{52} + 2195101075598\, p^{50} q^{53}$$
$$+ 3039400055105\, p^{52} q^{53} + 2590566459227\, p^{51} q^{53} + 3545580597504\, p^{53} q^{53} + 4112854279059\, p^{54} q^{53} + 1848887310212\, p^{49} q^{53}$$
$$+ 2131583400394\, p^{49} q^{54} + 1781543081154\, p^{48} q^{54} + 3520425897121\, p^{52} q^{54} + 4777904984521\, p^{54} q^{54} + 6386045355406\, p^{55} q^{55}$$
$$+ 2534723266016\, p^{50} q^{54} + 4112854279059\, p^{53} q^{54} + 2996003319254\, p^{51} q^{54} + 1479609203906\, p^{47} q^{54} + 56168862734290\, p^{56} q^{95}$$
$$+ 48141529239666\, p^{55} q^{94} + 197151432\, p^{79} q^{19} + 1146943880371622\, p^{99} q^{108} + 9403162140112\, p^{104} q^{50} + 301946\, q^{83} p^{12}$$
$$+ 109575173601049\, p^{67} q^{112} + 58043546235180\, p^{56} q^{94} + 66833267505359\, p^{66} q^{63} + 59423136935084\, p^{66} q^{62}$$
$$+ 1143138186785735\, p^{106} q^{90} + 437127380007081\, p^{105} q^{74} + 395035351683371\, p^{105} q^{73} + 1107615384443553\, p^{106} q^{89}$$
$$+ 527760922718968\, p^{105} q^{76} + 575891025927087\, p^{105} q^{77} + 1116181016989218\, p^{107} q^{91} + 738468099939342\, p^{106} q^{81}$$
$$+ 318017430310713\, p^{105} q^{71} + 982409848754579\, p^{106} q^{86} + 1026819493509153\, p^{106} q^{87} + 638939974423836\, p^{106} q^{79}$$
$$+ 132194392614\, p^{136} q^{54} + 5506895531\, p^{132} q^{41} + 778575621849\, p^{138} q^{64} + 8246023249604\, p^{144} q^{106} + 2153652004739\, p^{140} q^{73}$$
$$+ 159169329\, q^{170} p^{144} + 8076739223045\, p^{47} q^{95} + 7855488\, q^{51} p^{14} + 3863863\, q^{51} p^{13} + 153337304962962\, p^{102} q^{64}$$
$$+ 34690128629176\, p^{101} q^{55} + 138684471526\, p^{100} q^{35} + 5886433\, p^{84} q^{15} + 239432645487520\, p^{71} q^{109} + 52056655885403\, p^{61} q^{110}$$
$$+ 48004325761488\, p^{60} q^{109} + 171785280308\, p^{125} q^{156} + 1116181016989218\, p^{91} q^{107} + 35099770757\, q^{114} p^{36} + 552953255007\, p^{68} q^{142}$$
$$+ 500993499\, p^{92} q^{22} + 203071510543638\, p^{108} q^{69} + 146923297033625\, p^{107} q^{66} + 6374170\, p^{110} q^{20} + 2910983073111\, p^{140} q^{135}$$
$$+ 1282492810724204\, p^{97} q^{85} + 277480905477\, p^{90} q^{35} + 47983748\, p^{79} q^{17} + 18569404334\, p^{87} q^{28} + 1717630643\, p^{84} q^{23}$$
$$+ 65298662737\, p^{88} q^{31} + 204484206657492\, p^{95} q^{64} + 48141529239666\, p^{94} q^{55} + 21340681942395\, p^{94} q^{51} + 6849708630056\, p^{93} q^{46}$$
$$+ 93294933977\, p^{89} q^{32} + 69548595033983\, p^{94} q^{57} + 4222921193557\, p^{92} q^{44} + 375538027236655\, p^{96} q^{69} + 317800743\, p^{82} q^{20}$$
$$+ 741929835808\, p^{91} q^{38} + 267309230120121\, p^{95} q^{66} + 23766765\, p^{78} q^{16} + 11196158795140\, p^{93} q^{48} + 5503364496684\, p^{92} q^{45}$$
$$+ 234406174172144\, p^{95} q^{65} + 153140868617061\, p^{95} q^{62} + 58043546235180\, p^{94} q^{56} + 80336738408910\, p^{95} q^{58}$$
$$+ 112193982094238\, p^{95} q^{60} + 467746209940031\, p^{96} q^{71} + 39675328713698\, p^{94} q^{54} + 1031554\, p^{72} q^{12} + 32485231239295\, p^{94} q^{53}$$
$$+ 349\, p^{53} q^{5} + 153337304962962\, p^{88} q^{126} + 148544882534533\, p^{128} q^{94} + 57855497531\, p^{118} q^{39} + 44985863095272\, p^{126} q^{74}$$
$$+ 83914959996\, p^{118} q^{40} + 2587751017988\, p^{57} q^{126} + 5811331240\, p^{164} q^{100} + 1489184687\, p^{160} q^{74} + 2485204094\, p^{162} q^{83}$$
$$+ 23470710045236\, q^{125} p^{68} + 434903\, q^{113} p^{18} + 2416059705\, q^{127} p^{36} + 41967315\, q^{121} p^{26} + 942196999698\, q^{113} p^{45}$$
$$+ 95077225225\, q^{110} p^{37} + 584135292419\, q^{112} p^{43} + 52569295555417\, p^{66} q^{61} + 305234937698005\, p^{123} q^{106} + 596173100\, p^{169} q^{108}$$

$$+ 29002597\, p^{162}\, q^{63} + 326179791\, p^{166}\, q^{85} + 27704859668\, p^{102}\, q^{161} + 585935\, q^{93}\, p^{14} + 95839753830118\, q^{117}\, p^{70}$$
$$+ 108928751255011\, q^{117}\, p^{71} + 132212\, q^{175}\, p^{85} + 171566\, q^{175}\, p^{86} + 100754\, q^{175}\, p^{84} + q^{170}\, p^{50} + 3\, q^{61}\, p^{4} + 2\, q^{62}\, p^{4} + q^{63}\, p^{4}$$
$$+ 1525802943059972\, p^{100}\, q^{94} + 18412\, q^{75}\, p^{9} + 1566154019533287\, p^{93}\, q^{98} + 95077225225\, p^{110}\, q^{37} + 24308348609\, p^{108}\, q^{33}$$
$$+ 509739971307\, q^{113}\, p^{43} + 304185300761\, q^{112}\, p^{41} + 40512437998085\, p^{59}\, q^{66} + 50703913460050\, p^{60}\, q^{67} + 347845388342236\, p^{77}\, q^{112}$$
$$+ 2131583400394\, p^{141}\, q^{136} + 16396207144123\, p^{49}\, q^{84} + 21\, p^{38}\, q^{3} + 144522537077605\, p^{90}\, q^{61} + 193105517420668\, p^{90}\, q^{63}$$
$$+ 1613030863576349\, p^{94}\, q^{95} + 1490281031800146\, p^{89}\, q^{96} + 4634669020\, p^{154}\, q^{155} + 1275334629\, p^{160}\, q^{154} + 1473285320\, q^{168}\, p^{118}$$
$$+ 1482407980\, q^{168}\, p^{119} + 1484983671\, q^{168}\, p^{120} + 1480964910\, q^{168}\, p^{121} + 71\, p^{62}\, q^{5} + 536555619769576\, p^{107}\, q^{117}$$
$$+ 552781379683239\, p^{106}\, q^{117} + 597293420230709\, p^{102}\, q^{117} + 589505301893982\, p^{103}\, q^{117} + 135180009731056\, p^{121}\, q^{123}$$
$$+ 670228517259147\, p^{97}\, q^{75} + 87014333\, p^{81}\, q^{18} + 561083049\, p^{83}\, q^{21} + 964427602\, p^{84}\, q^{22} + 146504\, p^{69}\, q^{10}$$
$$+ 1082441673479599\, p^{98}\, q^{82} + 1202476201643296\, p^{98}\, q^{84} + 1847\, p^{55}\, q^{6} + 192257691475\, p^{90}\, q^{34} + 7094878289\, p^{87}\, q^{26}$$
$$+ 1807556929036\, p^{92}\, q^{41} + 977781610061\, p^{92}\, q^{39} + 532156169225\, p^{91}\, q^{37} + 131419014244\, p^{90}\, q^{33} + 1336293910203\, p^{92}\, q^{40}$$
$$+ 377251806354\, p^{91}\, q^{36} + 40668757240\, p^{89}\, q^{30} + 2316876905231\, p^{93}\, q^{42} + 894928961084701\, p^{98}\, q^{79} + 2718650909931\, p^{131}\, q^{62}$$
$$+ 42922924821086\, p^{135}\, q^{93} + 9530907911234\, p^{133}\, q^{72} + 45101280561738\, p^{136}\, q^{105} + 100540340470\, p^{126}\, q^{45} + 22742\, p^{90}\, q^{11}$$
$$+ 8642156087282\, q^{140}\, p^{85} + 1229962971746698\, p^{101}\, q^{106} + 1568419582517415\, p^{92}\, q^{92} + 478055517934928\, p^{71}\, q^{95}$$
$$+ 62446036369591\, p^{57}\, q^{97} + 198751002127614\, p^{64}\, q^{96} + 207037009352633\, p^{86}\, q^{123} + 1363670472424709\, p^{98}\, q^{87} + 163494772\, p^{82}\, q^{19}$$
$$+ 1494049552433607\, p^{99}\, q^{91} + 1020375780561500\, p^{98}\, q^{81} + 729569236738045\, p^{97}\, q^{76} + 790570968401637\, p^{97}\, q^{77}$$
$$+ 557886377461755\, p^{97}\, q^{73} + 1452070906667157\, p^{98}\, q^{89} + 612900300122927\, p^{97}\, q^{74} + 286982269744842\, p^{97}\, q^{67}$$
$$+ 17115949183868\, p^{94}\, q^{50} + 387793\, p^{71}\, q^{11} + 1313213440707052\, p^{98}\, q^{86} + 388\, p^{183}\, q^{114} + 3\, p^{173}\, q^{58} + 15\, p^{175}\, q^{65} + 442\, p^{184}\, q^{125}$$
$$+ 1154\, p^{184}\, q^{131} + 184478965972\, q^{101}\, p^{36} + 9008552\, q^{88}\, p^{16} + 212445470112931\, p^{126}\, q^{106} + 10249531\, p^{99}\, q^{18}$$
$$+ 807112462842736\, p^{77}\, q^{87} + 630462042714252\, p^{86}\, q^{74} + 316477475556882\, p^{86}\, q^{67} + 482663809540771\, p^{86}\, q^{71}$$
$$+ 530054458460846\, p^{86}\, q^{72} + 354250401878537\, p^{86}\, q^{68} + 682909991821638\, p^{86}\, q^{75} + 7811701\, p^{69}\, q^{14} + 3453903\, p^{68}\, q^{13}$$
$$+ 37384432344\, q^{156}\, p^{82} + 1549243407859\, q^{109}\, p^{45} + 39472954\, p^{109}\, q^{22} + 3971989753429\, p^{59}\, q^{126} + 32300950481\, p^{123}\, q^{40}$$
$$+ 19865592718542\, p^{68}\, q^{126} + 1336329429608866\, p^{86}\, q^{97} + 194596846\, q^{134}\, p^{35} + 8557119380358\, p^{62}\, q^{125} + 648021089679803\, q^{107}\, p^{80}$$
$$+ 282393424\, q^{97}\, p^{22} + 994505650284426\, p^{81}\, q^{99} + 724582946966508\, p^{77}\, q^{100} + 932635885714362\, p^{80}\, q^{99}$$

$$+ 375791702498690\, p^{71} q^{102} + 755501089970957\, p^{78} q^{101} + 814137641740373\, p^{79} q^{101} + 1452070906667157\, p^{101} q^{92}$$
$$+ 1247340882113714\, p^{100} q^{106} + 771953322879743\, p^{101} q^{114} + 807112462842736\, p^{103} q^{113} + 720501091197464\, p^{99} q^{115}$$
$$+ 9308152738900\, q^{115} p^{55} + 600909019702822\, p^{79} q^{107} + 10762356106\, q^{145} p^{55} + 176\, p^{182} q^{103} + 1666\, p^{184} q^{134}$$
$$+ 54868808786\, q^{148} p^{66} + 30134981236332\, p^{133} q^{82} + 672889295317\, p^{128} q^{53} + 20319959588994\, p^{84} q^{50} + 3881030517590\, p^{83} q^{43}$$
$$+ 3\, q^{170} p^{51} + 81630526\, p^{109} q^{23} + 145462547352590\, p^{129} q^{101} + 69837536609074\, p^{130} q^{119} + 56574746737195\, p^{131} q^{120}$$
$$+ 3036597457\, p^{115} q^{31} + 202\, p^{186} q^{168} + 449\, p^{182} q^{106} + 298\, p^{184} q^{123} + 993\, q^{163} p^{44} + 39319069\, p^{132} q^{31} + 7599161703281\, p^{130} q^{138}$$
$$+ 8156349869\, q^{132} p^{42} + 4158415962\, q^{130} p^{39} + 324807174\, q^{127} p^{32} + 37093890992\, p^{111} q^{35} + 6003215783850\, p^{138} q^{132}$$
$$+ 228281549259\, p^{114} q^{41} + 55777932392\, p^{111} q^{36} + 11214\, p^{78} q^{9} + 12515581458\, p^{133} q^{162} + 6316717682\, p^{145} q^{160}$$
$$+ 11246975299\, p^{129} q^{163} + 9909892795\, p^{131} q^{163} + 5424438797\, p^{146} q^{160} + 10006476761\, p^{139} q^{161} + 11177304966\, p^{138} q^{161}$$
$$+ 4521925172868\, p^{117} q^{53} + 2486903199276\, p^{116} q^{50} + 9530907911234\, p^{118} q^{57} + 57235344533333\, p^{120} q^{69}$$
$$+ 65613846926388\, p^{120} q^{70} + 24282357262\, p^{111} q^{34} + 303271054945616\, p^{123} q^{95} + 295632170321734\, p^{123} q^{94}$$
$$+ 94335510697671\, p^{121} q^{74} + 186985703505\, p^{113} q^{40} + 130705075050\, p^{113} q^{39} + 277135979509340\, p^{124} q^{105}$$
$$+ 316477475556882\, p^{123} q^{104} + 21717357280567\, p^{119} q^{62} + 399838487\, q^{164} p^{79} + 26136793316451\, p^{135} q^{85} + 6771282600632\, p^{138} q^{131}$$
$$+ 178070385\, p^{115} q^{26} + 127368004943932\, p^{129} q^{94} + 48273728422\, p^{119} q^{39} + 38149092387429\, p^{127} q^{74} + 70225481229\, p^{119} q^{40}$$
$$+ 121524\, q^{166} p^{57} + 105736\, q^{163} p^{51} + 119\, p^{71} q^{6} + 235613892128075\, p^{113} q^{123} + 265573921629431\, p^{107} q^{124} + 10111875939\, p^{164} q^{121}$$
$$+ 8232924445\, p^{161} q^{88} + 14520846\, p^{148} q^{41} + 21300046257469\, p^{131} q^{130} + 18128337671396\, p^{119} q^{61} + 157754871878111\, p^{121} q^{79}$$
$$+ 36272452773215\, p^{108} q^{137} + 12490078770501\, p^{133} q^{74} + 27736916\, q^{171} p^{92} + 16894849\, q^{171} p^{89} + 14134446\, q^{171} p^{88}$$
$$+ 25889398\, p^{111} q^{22} + 36293967\, q^{145} p^{40} + 6326\, q^{118} p^{16} + 4600407517715\, p^{132} q^{66} + 1812889380432\, p^{131} q^{60}$$
$$+ 8485947738624\, p^{138} q^{129} + 3537035\, q^{129} p^{26} + 1584328\, q^{129} p^{25} + 7513525\, q^{129} p^{27} + 3654211993\, p^{76} q^{159} + 1914002115891\, p^{116} q^{49}$$
$$+ 77961682062\, q^{147} p^{66} + 1394\, p^{70} q^{7} + 144671516249438\, p^{129} q^{104} + 23069542452178\, p^{126} q^{69} + 131445945517082\, p^{129} q^{95}$$
$$+ 26644833286345\, p^{126} q^{70} + 8751556110\, p^{117} q^{34} + 890695122\, p^{113} q^{28} + 119579986143\, p^{120} q^{42} + 27489198\, p^{107} q^{21}$$
$$+ 1139954152249\, q^{134} p^{61} + 1727127069\, q^{130} p^{37} + 14877130889067\, p^{138} q^{123} + 9409211311140\, q^{91} p^{47} + 112028039965\, p^{144} q^{63}$$
$$+ 661265035320698\, p^{100} q^{116} + 247625404165156\, p^{112} q^{123} + 248230765764184\, p^{98} q^{125} + 271859933141362\, p^{106} q^{124}$$
$$+ 86634655664578\, p^{82} q^{127} + 170060487248118\, p^{90} q^{126} + 161830072265156\, p^{89} q^{126} + 284425490734663\, p^{103} q^{124}$$

$$+ 281340903673548\, p^{104}\, q^{124} + 244550174045528\, p^{97}\, q^{125} + 239924035004548\, p^{96}\, q^{125} + 18748081378849\, p^{135}\, q^{126}$$
$$+ 25274024386280\, p^{126}\, q^{133} + 30567742481333\, p^{124}\, q^{133} + 34173182634055\, p^{130}\, q^{127} + 19731410430430\, p^{134}\, q^{127}$$
$$+ 34598209194624\, p^{129}\, q^{128} + 30592527908638\, p^{130}\, q^{128} + 48998893399\, q^{85}\, p^{30} + 229805409136936\, q^{108}\, p^{70}$$
$$+ 11947570068157\, q^{91}\, p^{48} + 18832258396860\, q^{91}\, p^{50} + 28843924180889\, q^{91}\, p^{52} + 23387979079751\, q^{91}\, p^{51}$$
$$+ 35332093531495\, q^{91}\, p^{53} + 42994668957057\, q^{91}\, p^{54} + 15055525523724\, q^{91}\, p^{49} + 241078075310601\, p^{74}\, q^{69}$$
$$+ 1555692074099696\, p^{96}\, q^{91} + 81631371539114\, p^{59}\, q^{76} + 108273739278524\, p^{61}\, q^{76} + 140615703055441\, p^{63}\, q^{76}$$
$$+ 123709669199712\, p^{62}\, q^{76} + 159019145430522\, p^{64}\, q^{76} + 200340870204933\, p^{66}\, q^{76} + 178930380415814\, p^{65}\, q^{76}$$
$$+ 211258314303888\, p^{66}\, q^{77} + 94265846778538\, p^{60}\, q^{76} + 688430157952309\, p^{84}\, q^{110} + 2631234550194\, p^{133}\, q^{142}$$
$$+ 3345261672591\, p^{121}\, q^{146} + 36272452773215\, p^{53}\, q^{82} + 2900860209877\, q^{99}\, p^{44} + 2027088867574\, q^{100}\, p^{43} + 70305384005092\, p^{58}\, q^{76}$$
$$+ 253208561335\, p^{123}\, q^{46} + 86580921243983\, p^{130}\, q^{89} + 76730747440891\, p^{130}\, q^{87} + 34229384221883\, p^{129}\, q^{76}$$
$$+ 91373478236549\, p^{130}\, q^{90} + 38287614806925\, p^{129}\, q^{77} + 102713405277385\, p^{131}\, q^{98} + 42619304586468\, p^{129}\, q^{78}$$
$$+ 71804254002056\, p^{57}\, q^{81} + 6277097747015\, p^{87}\, q^{45} + 468509605568\, p^{85}\, q^{36} + 64227493950117\, p^{89}\, q^{56} + 12760057893282\, p^{88}\, q^{48}$$
$$+ 991420539\, q^{97}\, p^{24} + 84898690269667\, q^{118}\, p^{70} + 2498245161434\, q^{112}\, p^{48} + 1903475493651\, q^{112}\, p^{47} + 138062266966194\, q^{118}\, p^{74}$$
$$+ 123178448539648\, q^{118}\, p^{73} + 117233134816431\, p^{60}\, q^{82} + 5016877469974\, p^{44}\, q^{84} + 3832759552755\, p^{43}\, q^{85} + 500\, p^{50}\, q^{5}$$
$$+ 451927\, q^{144}\, p^{32} + 1566154019533287\, p^{97}\, q^{92} + 478437093815574\, p^{73}\, q^{80} + 194531278\, q^{170}\, p^{142} + 176429865\, q^{170}\, p^{143}$$
$$+ 922318975025\, q^{142}\, p^{71} + 15303\, q^{112}\, p^{15} + 12490078770501\, q^{116}\, p^{57} + 883\, q^{43}\, p^{5} + 562348786601407\, p^{82}\, q^{74}$$
$$+ 289517058942970\, p^{82}\, q^{67} + 435109071313817\, p^{82}\, q^{71} + 476127509822880\, p^{82}\, q^{72} + 322863274886176\, p^{82}\, q^{68}$$
$$+ 23231079629\, q^{105}\, p^{32} + 12908457338\, q^{106}\, p^{31} + 597668592282\, p^{126}\, q^{51} + 607019997091135\, p^{82}\, q^{75} + 10581751205\, p^{130}\, q^{163}$$
$$+ 11520962713\, p^{134}\, q^{162} + 10554171026\, p^{135}\, q^{162} + 9621265340\, p^{136}\, q^{162} + 233367037015\, q^{146}\, p^{70} + 41792072946381\, q^{104}\, p^{57}$$
$$+ 2241770270\, p^{104}\, q^{27} + 277418129584755\, p^{123}\, q^{92} + 74229131793161\, p^{121}\, q^{72} + 2779990652024\, p^{117}\, q^{51} + 31397228435150\, p^{120}\, q^{65}$$
$$+ 67963294975\, p^{136}\, q^{156} + 22192922\, q^{170}\, p^{86} + 406593772731788\, p^{100}\, q^{121} + 42860053691991\, p^{120}\, q^{67} + 166454875982744\, p^{124}\, q^{117}$$
$$+ 172393163932123\, p^{121}\, q^{80} + 7712426189975\, p^{118}\, q^{56} + 15292985146\, p^{135}\, q^{46} + 3\, q^{89}\, p^{7} + 25\, q^{92}\, p^{8} + 5206545\, p^{107}\, q^{19}$$
$$+ 19960810\, p^{126}\, q^{27} + 43990771\, p^{112}\, q^{23} + 38302665325688\, p^{136}\, q^{95} + 984314015\, p^{118}\, q^{30} + 2995018221\, p^{120}\, q^{33}$$
$$+ 44420187868975\, p^{136}\, q^{101} + 23579440478282\, p^{137}\, q^{119} + 309811964800551\, p^{123}\, q^{96} + 73414\, p^{84}\, q^{11} + 83889843071095\, p^{121}\, q^{73}$$

$$+ 4396627\, q^{121}\, p^{23} + 11667608\, q^{123}\, p^{25} + 24141001\, q^{123}\, p^{26} + 2\, p^{172}\, q^{55} + 59\, p^{178}\, q^{78} + 1160\, p^{183}\, q^{119} + 126\, p^{182}\, q^{102} + 42\, p^{179}\, q^{82}$$
$$+ 16\, p^{178}\, q^{76} + 37304818\, p^{154}\, q^{50} + 535998209\, p^{159}\, q^{67} + 369696000801\, p^{153}\, q^{127} + 934828024759\, p^{152}\, q^{111} + 938484719475\, p^{152}\, q^{109}$$
$$+ 531519456026\, p^{153}\, q^{121} + 806727847947\, p^{152}\, q^{118} + 17285648264374\, p^{138}\, q^{121} + 30610146109234\, p^{119}\, q^{64} + 27736916\, p^{98}\, q^{19}$$
$$+ 13749351740823\, q^{138}\, p^{85} + 17321608927652\, q^{138}\, p^{88} + 19758639087887\, q^{138}\, p^{90} + 14916973989341\, q^{138}\, p^{86}$$
$$+ 12615231490396\, q^{138}\, p^{84} + 9475220630355\, q^{138}\, p^{81} + 9690348\, p^{104}\, q^{19} + 12264539076171\, p^{125}\, q^{64} + 9309998489\, q^{155}\, p^{71}$$
$$+ 5088887\, q^{149}\, p^{40} + 3984747175\, q^{155}\, p^{67} + 72605595004184\, p^{127}\, q^{80} + 144522537077605\, p^{129}\, q^{100} + 323683995566347\, p^{123}\, q^{100}$$
$$+ 322724851711919\, p^{123}\, q^{102} + 3182\, q^{175}\, p^{74} + 12\, q^{173}\, p^{59} + 2036\, q^{161}\, p^{42} + 844\, q^{161}\, p^{41} + 314\, q^{161}\, p^{40} + 231903207838487\, p^{124}\, q^{111}$$
$$+ 265573921629431\, p^{124}\, q^{107} + 8000237\, q^{170}\, p^{81} + 89554811514850\, p^{130}\, q^{115} + 244318303364359\, p^{89}\, q^{123} + 5988926198166\, p^{128}\, q^{63}$$
$$+ 334744293275503\, p^{112}\, q^{120} + 7829985\, p^{152}\, q^{44} + 89250353388098\, p^{76}\, q^{123} + 85783298786436\, p^{77}\, q^{124} + 5811331240\, p^{100}\, q^{164}$$
$$+ 13444080536\, p^{106}\, q^{163} + 375016838\, p^{169}\, q^{140} + 125265829035793\, p^{103}\, q^{130} + 915929467\, p^{149}\, q^{164} + 550619099\, p^{152}\, q^{164}$$
$$+ 427247986\, p^{155}\, q^{163} + 4600407517715\, q^{124}\, p^{58} + 2934423\, p^{150}\, q^{40} + 2131583400394\, p^{136}\, q^{141} + 637977\, p^{146}\, q^{34} + 1526397\, p^{104}\, q^{17}$$
$$+ 21222922675\, p^{88}\, q^{159} + 29584859575\, p^{87}\, q^{158} + 137288208\, q^{126}\, p^{30} + 10648982764\, q^{131}\, p^{42} + 222890265205\, q^{135}\, p^{55}$$
$$+ 286651299057\, q^{135}\, p^{56} + 562421039447\, p^{150}\, q^{86} + 69\, q^{73}\, p^{6} + 93662180198\, q^{133}\, p^{50} + 69363000673\, q^{133}\, p^{49} + 50846433702\, q^{133}\, p^{48}$$
$$+ 36878015004\, q^{133}\, p^{47} + 39319069\, q^{132}\, p^{31} + 23753306930\, p^{138}\, q^{50} + 2590566459227\, p^{137}\, q^{139} + 4804210350899\, p^{131}\, q^{140}$$
$$+ 4760901478929\, p^{102}\, q^{146} + 14386058425\, q^{119}\, p^{36} + 273094837\, q^{170}\, p^{138} + 4874836092422\, p^{143}\, q^{125} + 47705086727\, p^{132}\, q^{47}$$
$$+ 10973020566579\, p^{142}\, q^{115} + 19975733308\, p^{130}\, q^{43} + 11786948750147\, p^{140}\, q^{89} + 6935454679289\, p^{143}\, q^{120} + 36410\, p^{100}\, q^{13}$$
$$+ 57390035915\, q^{122}\, p^{41} + 115945045646\, q^{122}\, p^{43} + 223535179470\, q^{122}\, p^{45} + q^{84}\, p^{6} + 3075355974657\, p^{118}\, q^{147} + 6\, p^{26}\, q^{2} + 28\, p^{152}\, q^{29}$$
$$+ 76719\, p^{177}\, q^{93} + 25772\, p^{182}\, q^{157} + 5081\, p^{182}\, q^{170} + 8069\, p^{168}\, q^{56} + 353880\, p^{179}\, q^{118} + 91725\, p^{181}\, q^{151} + 74795511263143\, p^{66}\, q^{64}$$
$$+ 989764\, q^{110}\, p^{18} + 20371365148958\, q^{134}\, p^{80} + 18358740799840\, q^{134}\, p^{79} + 11531199721889\, q^{134}\, p^{75} + 13050132365749\, q^{134}\, p^{76}$$
$$+ 16465257387055\, q^{134}\, p^{78} + 3102167049\, p^{126}\, q^{36} + 18832258396860\, p^{140}\, q^{99} + 12374976184726\, p^{141}\, q^{117} + 1349727128981\, p^{135}\, q^{63}$$
$$+ 18363276\, p^{105}\, q^{20} + 2645796886765\, p^{122}\, q^{54} + 264305562821275\, p^{116}\, q^{120} + 396171788782082\, p^{75}\, q^{108} + 7644664543763\, p^{111}\, q^{52}$$
$$+ 7274994276\, p^{103}\, q^{29} + 191728485781270\, p^{114}\, q^{73} + 851914880532\, p^{109}\, q^{43} + 90683162916211\, p^{103}\, q^{61} + 124500698960886\, p^{103}\, q^{63}$$
$$+ 376899356024483\, p^{104}\, q^{72} + 39607517933862\, p^{102}\, q^{56} + 167177828124704\, p^{103}\, q^{65} + 106555862850804\, p^{103}\, q^{62}$$
$$+ 832789660283885\, p^{105}\, q^{82} + 935928925621007\, p^{105}\, q^{84} + 47907061538633\, p^{102}\, q^{57} + 884768090774379\, p^{105}\, q^{83}$$

$$+ 14197022\, q^{150}\, p^{43} + 2063683\, p^{107}\, q^{18} + 12016584985710\, p^{136}\, q^{79} + 280689\, p^{102}\, q^{15} + 538238\, p^{104}\, q^{16} + 19582306076\, p^{127}\, q^{41}$$
$$+ 2587751017988\, p^{133}\, q^{64} + 25008729126918\, p^{139}\, q^{106} + 7134820932839\, p^{135}\, q^{73} + 13371155005958\, p^{136}\, q^{80}$$
$$+ 29451468016017\, p^{138}\, q^{100} + 134022127188\, p^{129}\, q^{48} + 34\, p^{65}\, q^{5} + 23703922922643\, p^{139}\, q^{110} + 20943896100\, q^{117}\, p^{36}$$
$$+ 478055517934928\, q^{119}\, p^{95} + 500399609721727\, q^{119}\, p^{99} + 497802288470982\, q^{119}\, p^{98} + 495806538353955\, q^{119}\, p^{102}$$
$$+ 482663809540771\, q^{119}\, p^{104} + 429323122154947\, q^{120}\, p^{105} + 500932998524291\, q^{119}\, p^{100} + 490207200404529\, q^{119}\, p^{103}$$
$$+ 486563871161578\, q^{119}\, p^{96} + 142824893\, q^{170}\, p^{145} + 127460384\, q^{170}\, p^{146} + 113114646\, q^{170}\, p^{147} + 232839677\, q^{170}\, p^{140}$$
$$+ 499395939751276\, q^{119}\, p^{101} + 493172065248517\, q^{119}\, p^{97} + 467746209940031\, q^{119}\, p^{94} + 455754714142624\, q^{119}\, p^{93}$$
$$+ 851914880532\, p^{147}\, q^{81} + 2046\, q^{117}\, p^{15} + 2335772\, p^{175}\, q^{99} + 369753\, p^{171}\, q^{73} + 267349\, p^{171}\, q^{72} + 3104330\, p^{177}\, q^{120} + 43466\, p^{167}\, q^{57}$$
$$+ 1623459388878\, q^{122}\, p^{52} + 2080708636996\, q^{122}\, p^{53} + 2645796886765\, q^{122}\, p^{54} + 168686945136049\, q^{123}\, p^{83} + 12\, q^{158}\, p^{34}$$
$$+ 468825285473533\, p^{112}\, q^{116} + 39084943\, p^{156}\, q^{53} + 16840837943\, q^{142}\, p^{53} + 17902189660499\, p^{136}\, q^{83} + 452818380088\, p^{131}\, q^{54}$$
$$+ 71963710\, q^{152}\, p^{49} + 725420245533\, q^{130}\, p^{55} + 922408201807\, q^{130}\, p^{56} + 315613293\, p^{160}\, q^{160} + 242492589\, p^{161}\, q^{160} + 3755\, p^{179}\, q^{93}$$
$$+ 3636\, p^{184}\, q^{157} + 1178\, p^{184}\, q^{170} + 473\, p^{170}\, q^{56} + 28241\, p^{181}\, q^{118} + 13218\, p^{183}\, q^{151} + 4079\, q^{174}\, p^{71} + 537\, q^{174}\, p^{67} + 1132121660\, q^{143}\, p^{46}$$
$$+ 79506682\, q^{142}\, p^{39} + 2\, q^{148}\, p^{25} + 64680009489\, p^{145}\, q^{62} + 955712741124352\, p^{88}\, q^{108} + 5096004\, q^{158}\, p^{51} + 2065209\, q^{158}\, p^{49}$$
$$+ 175509373\, q^{171}\, p^{137} + 75606340\, q^{159}\, p^{60} + 54846714\, q^{159}\, p^{59} + 1550220314\, p^{113}\, q^{29} + 93988204758548\, p^{127}\, q^{83}$$
$$+ 1623459388878\, p^{122}\, q^{52} + 109137585024336\, p^{127}\, q^{85} + 324612954\, p^{134}\, q^{36} + 367827083\, p^{155}\, q^{58} + 8669704437\, p^{164}\, q^{126}$$
$$+ 13482147703\, p^{162}\, q^{98} + 233732658\, p^{154}\, q^{55} + 14545149969434\, p^{113}\, q^{141} + 235722852540\, q^{116}\, p^{42} + 536369758919\, p^{146}\, q^{139}$$
$$+ 2421007106646\, q^{92}\, p^{42} + 1807556929036\, q^{92}\, p^{41} + 23470710045236\, p^{125}\, q^{68} + 1445945131001\, q^{104}\, p^{43} + 1066626313106\, q^{104}\, p^{42}$$
$$+ 1940821020613\, q^{104}\, p^{44} + 3104518771149\, q^{105}\, p^{46} + 4439071828397\, q^{104}\, p^{47} + 2580379662049\, q^{104}\, p^{45} + 3399412416798\, q^{104}\, p^{46}$$
$$+ 977560\, p^{90}\, q^{14} + 16659080\, p^{96}\, q^{18} + 120713025185\, p^{111}\, q^{38} + 223221324457679\, p^{123}\, q^{114} + 270032033717409\, p^{123}\, q^{110}$$
$$+ 172147927801089\, p^{123}\, q^{118} + 289517058942970\, p^{123}\, q^{108} + 280195149579130\, p^{123}\, q^{109} + 257181708322670\, p^{115}\, q^{121}$$
$$+ 210565491019367\, p^{123}\, q^{115} + 8207805\, p^{95}\, q^{17} + 117448937593\, q^{157}\, p^{98} + 39097353727\, q^{142}\, p^{56} + p^{155}\, q^{30} + 3182\, p^{175}\, q^{74}$$
$$+ 16726119915\, q^{104}\, p^{31} + 113599805409129\, p^{129}\, q^{113} + 6697452821050\, p^{123}\, q^{59} + 280195149579130\, p^{109}\, q^{123}$$
$$+ 382735199539648\, p^{70}\, q^{99} + 224528271064421\, p^{66}\, q^{100} + 1336293910203\, q^{92}\, p^{40} + 77307810498\, p^{114}\, q^{38} + 585935\, p^{93}\, q^{14}$$
$$+ 374402\, p^{173}\, q^{170} + 194015\, p^{174}\, q^{171} + 68743138595\, p^{94}\, q^{32} + 56896206020711\, p^{99}\, q^{57} + 6884703474456\, p^{98}\, q^{47}$$

$$+ 3437542688\, p^{90} q^{25} + 278985843528\, p^{127} q^{49} + 688430157952309\, p^{106} q^{80} + 1068702087688043\, p^{106} q^{88} + 79884122\, q^{96} p^{20}$$
$$+ 1208\, q^{139} p^{23} + 13406798\, q^{159} p^{55} + 3276305\, q^{158} p^{50} + 68967966763\, p^{156} q^{87} + 32555443017\, p^{156} q^{81} + 296450\, p^{131} q^{24}$$
$$+ 27369756892547\, p^{98} q^{53} + 3345065103469\, p^{130} q^{62} + 51935492219740\, p^{134} q^{93} + 11698126996172\, p^{132} q^{72}$$
$$+ 54147993214927\, p^{135} q^{105} + 124017965823\, p^{125} q^{45} + 28259\, p^{89} q^{11} + 12677168\, q^{145} p^{38} + 84096692878\, q^{120} p^{41}$$
$$+ 58402190808\, q^{120} p^{40} + 1781543081154\, p^{142} q^{136} + 3907\, q^{141} p^{25} + 218547343\, p^{156} q^{58} + 5623418760\, p^{165} q^{126}$$
$$+ 8274756907\, p^{163} q^{98} + 139106795\, p^{155} q^{55} + 24132585293\, p^{162} q^{120} + 665188707261\, q^{84} p^{37} + 22081823576479\, q^{107} p^{55}$$
$$+ 143909801409690\, p^{109} q^{67} + 4802785704656\, p^{106} q^{48} + 234277304\, p^{93} q^{21} + 26386339717\, p^{100} q^{31} + 7066973072\, p^{99} q^{28}$$
$$+ 323618\, p^{114} q^{18} + 175\, q^{110} p^{12} + 8645012607286\, p^{88} q^{141} + 80701392598\, p^{137} q^{155} + 74827685607880\, p^{120} q^{71}$$
$$+ 302595654320438\, p^{122} q^{91} + 7452220249\, q^{152} p^{64} + 9409029592\, q^{152} p^{65} + 139567667037601\, p^{89} q^{127} + 5822589135885\, p^{125} q^{60}$$
$$+ 14486255940808\, p^{126} q^{66} + 412944771704\, p^{122} q^{47} + 189582\, p^{86} q^{12} + 4463955138314\, p^{145} q^{120} + 4802\, q^{163} p^{46}$$
$$+ 2623203045\, q^{161} p^{80} + 2215184801\, q^{161} p^{79} + 3184496772081\, p^{145} q^{125} + 28264549803\, p^{134} q^{47} + 6258868937\, q^{138} p^{46}$$
$$+ 71426916177\, p^{112} q^{37} + 18212239329\, p^{110} q^{33} + 924927990\, q^{127} p^{34} + 8125043537567\, p^{117} q^{143} + 7725460994521\, p^{112} q^{144}$$
$$+ 7892363173702\, p^{111} q^{144} + 8028974175392\, p^{110} q^{144} + 868\, q^{111} p^{13} + 339541966532\, p^{116} q^{155} + 225583819384\, p^{119} q^{156}$$
$$+ 11911199222\, q^{132} p^{43} + 1865791780\, q^{128} p^{36} + 283401507975\, q^{133} p^{54} + 125242002899\, q^{133} p^{51} + 165901701587\, q^{133} p^{52}$$
$$+ 217781421675\, q^{133} p^{53} + 621\, p^{74} q^{7} + 18\, q^{77} p^{6} + 336921864\, p^{147} q^{47} + 54826846380\, p^{156} q^{85} + 32454466111\, p^{160} q^{130}$$
$$+ 1121713\, p^{134} q^{27} + 81939173149\, p^{157} q^{93} + 346130117\, q^{146} p^{46} + 11572746\, q^{144} p^{37} + 4854208\, q^{142} p^{34} + 5997485473\, p^{108} q^{30}$$
$$+ 442\, p^{65} q^{6} + 1460423768145\, p^{116} q^{48} + 1870276\, q^{168} p^{69} + 974260\, q^{168} p^{67} + 1358472\, q^{168} p^{68} + 6655011906505\, p^{126} q^{141}$$
$$+ 72270064\, p^{113} q^{24} + 121896361838503\, p^{130} q^{106} + 957621394789\, p^{115} q^{46} + 16402092190979\, p^{105} q^{141} + 10769511561074\, p^{96} q^{142}$$
$$+ 16209485480130\, p^{103} q^{141} + 9341190386894\, p^{93} q^{142} + 776500805919\, p^{152} q^{119} + 1141272887447\, p^{151} q^{102}$$
$$+ 1105101406990\, p^{151} q^{101} + 940491526332\, p^{150} q^{92} + 196104711559\, p^{153} q^{134} + 576537\, p^{78} q^{12} + 66816285104846\, p^{105} q^{60}$$
$$+ 161729414\, p^{101} q^{22} + 272391992\, p^{102} q^{23} + 346725686750\, q^{155} p^{107} + 126756097\, p^{157} q^{58} + 3581144333\, p^{166} q^{126}$$
$$+ 4970015659\, p^{164} q^{98} + 80818381\, p^{156} q^{55} + 34690128629176\, q^{101} p^{55} + 42178037212441\, q^{101} p^{56} + 1074944249630697\, p^{95} q^{81}$$
$$+ 5\, q^{88} p^{7} + 7039800\, q^{127} p^{26} + 222438036787310\, p^{65} q^{81} + 4222635\, q^{62} p^{13} + 2359076847\, q^{66} p^{23} + 39836885\, p^{65} q^{16}$$
$$+ 846797804\, q^{66} p^{21} + 1401425153885451\, p^{88} q^{89} + 1432854189810242\, p^{89} q^{89} + 1458915170247098\, p^{90} q^{89}$$

$$+ 1603069291866724\, p^{95} q^{93} + 298363166520229\, p^{69} q^{102} + 53965792027336\, p^{103} q^{58} + 1364988545056595\, p^{87} q^{89}$$
$$+ 19901910\, q^{62} p^{15} + 1979161393\, p^{94} q^{165} + 504826\, p^{171} q^{74} + 415\, p^{151} q^{30} + 3253009\, p^{173} q^{161} + 4758695\, p^{173} q^{159} + 3949767\, p^{173} q^{160}$$
$$+ 9318047\, p^{173} q^{155} + 253248244\, p^{171} q^{129} + 468509605568\, q^{85} p^{36} + 77212\, q^{62} p^{9} + 68545\, p^{143} q^{29} + 81582369652\, q^{151} p^{74}$$
$$+ 323394100643\, q^{86} p^{35} + 226134576399\, q^{86} p^{34} + 563587\, q^{66} p^{11} + 174812218\, p^{112} q^{25} + 7661\, q^{57} p^{7} + 505917960647\, q^{68} p^{37}$$
$$+ 71980647317\, q^{68} p^{31} + 200793708475\, q^{68} p^{34} + 102576804107\, q^{68} p^{32} + 9635458151\, q^{67} p^{26} + 14741345134\, q^{67} p^{27}$$
$$+ 144367947220\, q^{68} p^{33} + 276141666463\, q^{68} p^{35} + 6187685462\, q^{67} p^{25} + 2869722181228\, q^{141} p^{77} + 3842123\, p^{94} q^{16} + 1996988\, p^{92} q^{15}$$
$$+ 1103209493\, p^{105} q^{26} + 6197323157914\, p^{118} q^{55} + 712063152012\, p^{115} q^{45} + 30026325548746\, p^{131} q^{127} + 33338176574550\, p^{126} q^{131}$$
$$+ 26244996180359\, p^{132} q^{127} + 22818079704140\, p^{133} q^{127} + 21030523218257\, p^{132} q^{129} + 21828254118384\, p^{134} q^{126} + 534\, p^{184} q^{126}$$
$$+ 733488272304\, p^{122} q^{49} + 10275869623650\, p^{125} q^{63} + 16465257387055\, p^{134} q^{78} + 42034635836153\, p^{136} q^{98} + 23940062772\, p^{142} q^{157}$$
$$+ 12102470144\, p^{148} q^{156} + 72458135023\, p^{134} q^{50} + 142993489780610\, p^{129} q^{99} + 18685950427640\, p^{130} q^{132}$$
$$+ 10843467817563\, p^{135} q^{131} + 74730798\, q^{172} p^{107} + 6002683\, q^{168} p^{73} + 221382653467190\, p^{122} q^{85} + 49662696399477\, p^{120} q^{68}$$
$$+ 192663156833970\, p^{122} q^{83} + 300288656067\, p^{128} q^{50} + 1483\, p^{184} q^{133} + 927\, p^{185} q^{148} + 557\, p^{185} q^{141} + 348\, p^{181} q^{98} + 3\, p^{170} q^{51}$$
$$+ 1847\, p^{184} q^{135} + 1318\, p^{184} q^{132} + 172\, p^{180} q^{90} + 23753306930\, p^{140} q^{52} + 516159504347\, p^{144} q^{71} + 55578433778\, p^{140} q^{55}$$
$$+ 88248\, q^{141} p^{28} + 211105\, q^{141} p^{29} + 3559492073568\, p^{117} q^{52} + 468079024671\, q^{134} p^{57} + 591195496524\, q^{134} p^{58}$$
$$+ 1104861907161\, q^{135} p^{62} + 898357449403\, q^{135} p^{61} + 55594479\, q^{127} p^{29} + 6211822644\, p^{164} q^{132} + 971\, p^{185} q^{149} + 621\, p^{183} q^{116}$$
$$+ 382\, p^{180} q^{92} + 3\, p^{171} q^{53} + 306\, p^{179} q^{86} + 1971\, p^{183} q^{122} + 19278489634940\, p^{100} q^{140} + 248\, p^{181} q^{97} + 23144599606556\, p^{111} q^{139}$$
$$+ 105560788453338\, p^{121} q^{75} + 456213920441\, p^{150} q^{84} + 5295054588361\, p^{138} q^{133} + 3612540208\, p^{108} q^{29} + 442436694964\, p^{114} q^{43}$$
$$+ 14734416527\, p^{153} q^{69} + 78765\, p^{127} q^{21} + 124187903826\, p^{112} q^{158} + 30133347917\, p^{160} q^{131} + 1975393043282\, q^{135} p^{65}$$
$$+ 3338751368738\, q^{135} p^{68} + 2367331818987\, q^{135} p^{66} + 2819788897421\, q^{135} p^{67} + 1349727128981\, q^{135} p^{63} + 1638089905152\, q^{135} p^{64}$$
$$+ 19395\, q^{161} p^{45} + 221814116844391\, p^{124} q^{112} + 119405673402440\, p^{125} q^{120} + 143896757688847\, p^{124} q^{119} + 8400745057\, p^{109} q^{31}$$
$$+ 1099388\, p^{145} q^{34} + 5088887\, p^{149} q^{40} + 98216048\, p^{155} q^{54} + 10523015509\, p^{162} q^{95} + 1534232044\, p^{166} q^{139} + 13569629\, p^{151} q^{44}$$
$$+ 194596846\, p^{155} q^{56} + 5035929\, p^{111} q^{20} + 2444202701503\, p^{141} q^{135} + 323874189134751\, p^{123} q^{101} + 206981418218641\, p^{122} q^{84}$$
$$+ 36786488947172\, p^{120} q^{66} + 15038883803787\, p^{119} q^{60} + 9237408339\, p^{163} q^{132} + 24668178487\, p^{160} q^{94} + 25392505003\, p^{162} q^{114}$$
$$+ 10735205435\, p^{155} q^{150} + 40923972518236\, p^{136} q^{97} + 145802261888790\, p^{129} q^{102} + 119791913042459\, p^{130} q^{107}$$

$$+ 17690069438\, p^{124} q^{39} + 603943800\, p^{112} q^{27} + 182591414566606\, p^{63} q^{83} + 48004325761488\, p^{130} q^{81} + 71760858013697\, p^{130} q^{86}$$
$$+ 45101280561738\, p^{54} q^{85} + 121896361838503\, p^{60} q^{84} + 54147993214927\, p^{55} q^{85} + 310742\, q^{164} p^{55} + 1698605\, q^{167} p^{66}$$
$$+ 82232876495\, p^{105} q^{35} + 282393424\, p^{97} q^{22} + 130273610349775\, p^{113} q^{69} + 94929356044060\, p^{112} q^{66} + 39577892679064\, p^{111} q^{60}$$
$$+ 148184098361454\, p^{113} q^{70} + 125808763380176\, p^{112} q^{68} + 42619304586468\, p^{112} q^{61} + 557803154129250\, p^{114} q^{86}$$
$$+ 345307421433086\, p^{114} q^{79} + 474685325\, p^{98} q^{23} + 719276344966114\, p^{115} q^{98} + 10719601086071\, p^{110} q^{53}$$
$$+ 347845388342236\, p^{113} q^{78} + 5885074833558\, p^{109} q^{50} + 587026452117936\, p^{114} q^{87} + 776417958\, p^{99} q^{24} + 1255061\, q^{139} p^{30}$$
$$+ 2053272080\, q^{150} p^{56} + 1104984291\, q^{150} p^{54} + 2201694577356\, p^{113} q^{48} + 37987081493290\, p^{126} q^{130} + 38693078312868\, p^{127} q^{129}$$
$$+ 13055457946364\, p^{48} q^{86} + 16339597515624\, p^{49} q^{86} + 9114819110331\, p^{92} q^{47} + 5032164701\, p^{84} q^{25} + 30590270087\, p^{86} q^{29}$$
$$+ 2976896588\, p^{84} q^{24} + 12854829095\, p^{85} q^{27} + 505437765821732\, p^{93} q^{118} + 267676464528\, q^{138} p^{59} + 419049248049\, q^{138} p^{61}$$
$$+ 45211517093154\, p^{54} q^{86} + 24917344103601\, p^{51} q^{87} + 37377585431943\, p^{53} q^{86} + 25052034858957\, p^{51} q^{86}$$
$$+ 30702011535375\, p^{52} q^{86} + 1449531972080770\, p^{88} q^{96} + 291216754798\, q^{100} p^{37} + 63195037015377\, p^{113} q^{64}$$
$$+ 13348529387402\, p^{112} q^{55} + 340285950350522\, p^{115} q^{80} + 562650228141047\, p^{115} q^{88} + 642007774575610\, p^{116} q^{103}$$
$$+ 596292738790358\, p^{116} q^{92} + 16465257387055\, p^{112} q^{56} + 1012811548531361\, p^{102} q^{83} + 123712315363\, p^{114} q^{158}$$
$$+ 6213092859988\, p^{137} q^{133} + 272391992\, q^{102} p^{23} + 822893410\, q^{103} p^{25} + 138657128\, q^{102} p^{22} + 1584901592659564\, p^{97} q^{93}$$
$$+ 89369543279386\, p^{58} q^{84} + 358319160138219\, p^{69} q^{82} + 540790403432521\, p^{74} q^{81} + 930591717113\, q^{93} p^{39} + 672303107566\, q^{93} p^{38}$$
$$+ 358386150716\, q^{92} p^{36} + 162640995058842\, p^{62} q^{84} + 942196999698\, p^{145} q^{77} + 265573921629431\, p^{66} q^{83} + 528724\, q^{67} p^{11}$$
$$+ 3453903\, q^{68} p^{13} + 352662256\, p^{89} q^{21} + 1474099710159165\, p^{101} q^{93} + 106805213008393\, p^{131} q^{104} + 16280030344944\, p^{128} q^{69}$$
$$+ 95215846871839\, p^{131} q^{95} + 36286415309923\, p^{122} q^{133} + 39264352061880\, p^{121} q^{133} + 51469140132629\, p^{117} q^{133}$$
$$+ 48422419549752\, p^{118} q^{133} + 1555692074099696\, p^{99} q^{94} + 85041985916\, q^{101} p^{34} + 821289162677300\, p^{86} q^{109}$$
$$+ 192663156833970\, q^{107} p^{68} + 359427785293731\, p^{68} q^{92} + 8402833921\, q^{158} p^{78} + 8400745057\, q^{159} p^{81} + 9883996281\, q^{158} p^{79}$$
$$+ 7100826521\, q^{158} p^{77} + 11558096882\, q^{158} p^{80} + 1432854189810242\, p^{101} q^{101} + 716944064\, q^{147} p^{49} + 6293924652\, q^{150} p^{60}$$
$$+ 98984012978040\, p^{80} q^{125} + 93988204758548\, p^{83} q^{127} + 177947220875601\, p^{91} q^{126} + 45513515205568\, p^{77} q^{128} + 1375428792\, p^{94} q^{24}$$
$$+ 10774\, p^{68} q^{8} + 993\, p^{146} q^{27} + 2821917972621\, p^{144} q^{84} + 4832407342524\, p^{145} q^{95} + 103094899\, p^{127} q^{30} + 160125607279\, p^{139} q^{58}$$
$$+ 43361704252\, p^{138} q^{52} + 922318975025\, p^{142} q^{71} + 404680603\, p^{168} q^{96} + 12517126\, p^{173} q^{153} + 442726676\, p^{170} q^{115}$$

$$+ 99568363431\, p^{138}\, q^{55} + 52401293198503\, p^{131}\, q^{121} + 449351693470681\, p^{119}\, q^{107} + 399784179073650\, p^{118}\, q^{112}$$
$$+ 456606315858467\, p^{117}\, q^{111} + 493789421368210\, p^{116}\, q^{111} + 122100\, q^{142}\, p^{29} + 465644\, q^{136}\, p^{27} + 14506099331\, p^{162}\, q^{99}$$
$$+ 15535824170\, p^{162}\, q^{100} + 4127533136\, p^{158}\, q^{74} + 6947470579\, p^{160}\, q^{83} + 362820585053699\, p^{117}\, q^{115} + 417173379914094\, p^{114}\, q^{116}$$
$$+ 17585111990595\, p^{136}\, q^{125} + 83914959996\, q^{118}\, p^{40} + 146722143201914\, p^{110}\, q^{128} + 478437093815574\, p^{110}\, q^{117}$$
$$+ 37251801038494\, q^{123}\, p^{69} + 2140182525423\, q^{127}\, p^{57} + 1288607083779\, q^{126}\, p^{54} + 12264539076171\, q^{126}\, p^{65}$$
$$+ 10322586034279\, q^{126}\, p^{64} + 1033412444807\, q^{120}\, p^{49} + 11621147490673\, p^{129}\, q^{68} + 3296564426874\, p^{127}\, q^{59}$$
$$+ 62904453257870\, p^{133}\, q^{113} + 420316938063816\, p^{111}\, q^{118} + 410568096794415\, p^{113}\, q^{117} + 122565089824079\, p^{99}\, q^{130}$$
$$+ 118248966656864\, p^{97}\, q^{130} + 144671516249438\, p^{104}\, q^{129} + 141183329785085\, p^{106}\, q^{129} + 125363543555168\, p^{102}\, q^{130}$$
$$+ 124005025646720\, p^{100}\, q^{130} + 24033082881462\, p^{134}\, q^{125} + 468825285473533\, p^{116}\, q^{112} + 504288901508998\, p^{115}\, q^{112}$$
$$+ 385147285338415\, p^{119}\, q^{111} + 778575621849\, p^{126}\, q^{52} + 56073987132500\, p^{131}\, q^{85} + 47850809602472\, p^{131}\, q^{83}$$
$$+ 1288607083779\, p^{126}\, q^{54} + 6178530838\, q^{155}\, p^{69} + 47853201\, q^{152}\, p^{48} + 74803423920601\, p^{133}\, q^{107} + 91131868892217\, p^{132}\, q^{102}$$
$$+ 127287902121333\, p^{83}\, q^{125} + 105558418\, q^{120}\, p^{27} + 177019012566508\, p^{125}\, q^{88} + 220981935950710\, p^{126}\, q^{103} + 266542\, p^{91}\, q^{13}$$
$$+ 505917960647\, p^{153}\, q^{122} + 86\, p^{182}\, q^{101} + 75\, p^{181}\, q^{94} + 261\, p^{186}\, q^{160} + 489\, p^{181}\, q^{99} + 33\, p^{177}\, q^{73} + 342512809888\, p^{153}\, q^{128}$$
$$+ 119659777498\, p^{154}\, q^{136} + 240772075174\, p^{153}\, q^{132} + 363670277246523\, p^{100}\, q^{122} + 10380682141\, p^{90}\, q^{161} + 31419829949\, p^{97}\, q^{160}$$
$$+ 33743202424\, p^{98}\, q^{160} + 71272990330\, p^{104}\, q^{159} + 89787252345\, p^{128}\, q^{46} + 26403495023272\, p^{138}\, q^{113} + 319527567851\, p^{129}\, q^{51}$$
$$+ 91860824\, p^{162}\, q^{67} + 29939718253662\, p^{138}\, q^{108} + 293324894667\, p^{150}\, q^{137} + 4995493097000\, p^{144}\, q^{91} + 17585111990595\, p^{125}\, q^{136}$$
$$+ 13596228628369\, p^{126}\, q^{137} + 517858219172853\, p^{116}\, q^{110} + 531612361345532\, p^{111}\, q^{115} + 447928378849575\, p^{115}\, q^{114}$$
$$+ 478828445848372\, p^{114}\, q^{114} + 509619607894503\, p^{113}\, q^{114} + 410568096794415\, p^{117}\, q^{113} + 504288901508998\, p^{112}\, q^{115}$$
$$+ 476308403924537\, p^{113}\, q^{115} + 264305562821275\, p^{70}\, q^{74} + 247520156123601\, p^{68}\, q^{76} + 257181708322670\, p^{69}\, q^{75}$$
$$+ 10243612107769\, p^{143}\, q^{103} + 2856324075381\, p^{140}\, q^{75} + 4583693054567\, p^{141}\, q^{81} + 3437877789164\, p^{145}\, q^{124}$$
$$+ 1489774988360\, p^{139}\, q^{69} + 2540097\, p^{117}\, q^{21} + 47958864\, p^{123}\, q^{27} + 264305562821275\, p^{74}\, q^{70} + 268671286778784\, p^{73}\, q^{71}$$
$$+ 324565532694545\, p^{122}\, q^{93} + 168008555720\, p^{147}\, q^{70} + 1076189723900\, p^{150}\, q^{94} + 1226036381176831\, p^{85}\, q^{87}$$
$$+ 533776648587\, p^{151}\, q^{89} + 619925086689\, p^{153}\, q^{117} + 257181708322670\, p^{75}\, q^{69} + 235613892128075\, p^{67}\, q^{77}$$
$$+ 17242196746983\, p^{76}\, q^{50} + 3448185394602\, p^{75}\, q^{43} + 2671765426449\, p^{75}\, q^{42} + 108132043808849\, p^{65}\, q^{109} + 3089147479\, p^{97}\, q^{26}$$

$$+ 894001906687151\, p^{112} q^{96} + 71411141\, p^{91} q^{19} + 562421039447\, p^{104} q^{40} + 401635607221\, p^{104} q^{39} + 2010286\, p^{85} q^{14} + 158284\, p^{79} q^{11}$$
$$+ 76773136695\, p^{102} q^{34} + 156158439755796\, p^{67} q^{108} + 68789275561296\, p^{131} q^{88} + 744171168224\, p^{152} q^{120} + 3345065103469\, p^{128} q^{60}$$
$$+ 8401488763908\, p^{129} q^{66} + 1091010570585811\, p^{81} q^{92} + 512781\, p^{79} q^{12} + 61935148724466\, p^{106} q^{60} + 12831428085\, q^{140} p^{50}$$
$$+ 17548973098\, q^{140} p^{51} + 9280898964\, q^{140} p^{49} + 63281225035\, q^{147} p^{65} + 849092368399970\, p^{111} q^{106} + 1297895506746321\, p^{100} q^{105}$$
$$+ 310657\, p^{155} q^{179} + 132649\, p^{171} q^{175} + 758836094990\, p^{145} q^{138} + 3335795441916\, p^{127} q^{144} + 365702014373\, q^{133} p^{55}$$
$$+ 14984183558536\, p^{141} q^{112} + 4552344639431\, p^{142} q^{128} + 13842663900900\, p^{139} q^{88} + 1807556929036\, p^{149} q^{98}$$
$$+ 926359680196\, p^{152} q^{107} + 228281549259\, p^{149} q^{76} + 396710024980\, p^{149} q^{80} + 30272\, p^{110} q^{15} + 58588\, p^{112} q^{16}$$
$$+ 362828046933\, p^{150} q^{82} + 5147862176\, q^{160} p^{81} + 15537383514\, p^{161} q^{94} + 16422853677\, p^{163} q^{114} + 8531535234454\, q^{138} p^{80}$$
$$+ 3076605253741\, q^{138} p^{72} + 7478708032\, q^{135} p^{44} + 2152730220986\, p^{143} q^{79} + 1623459388878\, q^{138} p^{68} + q^{90} p^{7}$$
$$+ 2671765426449\, p^{115} q^{148} + 2193265374358\, p^{112} q^{149} + 3052841704028\, p^{130} q^{143} + 297602405\, q^{131} p^{34} + 1543836114\, q^{132} p^{38}$$
$$+ 21340681942395\, q^{139} p^{96} + 153403903049\, q^{143} p^{63} + 123287124646\, q^{143} p^{62} + 1274596\, q^{158} p^{48} + 9924895\, p^{169} q^{163}$$
$$+ 989764\, p^{110} q^{18} + 6029480041683\, p^{139} q^{79} + 132212\, p^{105} q^{15} + 253793\, p^{107} q^{16} + 192751934367\, p^{140} q^{60} + 1438532739524\, p^{147} q^{129}$$
$$+ 18211897\, q^{153} p^{47} + 468735\, p^{153} q^{40} + 103439\, p^{149} q^{34} + 257\, p^{121} q^{15} + 1258862\, p^{155} q^{44} + 4028959\, p^{172} q^{162} + 553\, p^{116} q^{14}$$
$$+ 1460423768145\, p^{142} q^{74} + 508033389713\, p^{141} q^{66} + 1179735795232\, p^{147} q^{131} + 18036260\, p^{124} q^{26} + 4667277733395\, p^{144} q^{90}$$
$$+ 3345261672591\, p^{146} q^{121} + 106554612\, q^{140} p^{38} + 11417754\, p^{174} q^{104} + 845380\, p^{167} q^{64} + 5035929\, p^{170} q^{79} + 672719\, p^{178} q^{154}$$
$$+ 11\, p^{122} q^{14} + 11569\, p^{156} q^{38} + 7933825076891\, p^{128} q^{139} + 8761856558078\, p^{127} q^{139} + 260925695851\, p^{148} q^{141}$$
$$+ 381297250751\, p^{66} q^{142} + 453466\, p^{178} q^{110} + 18530\, p^{172} q^{68} + 109117\, p^{174} q^{80} + 2156\, p^{183} q^{171} + 754960186612173\, p^{81} q^{79}$$
$$+ 102968156621711\, p^{59} q^{83} + 37129277945826\, p^{53} q^{84} + 176\, p^{79} q^{7} + 49387\, p^{78} q^{10} + 29859989\, p^{129} q^{29} + 375791702498690\, p^{119} q^{88}$$
$$+ 443893814158062\, p^{120} q^{103} + 396475752462522\, p^{120} q^{92} + 46686977649296\, p^{117} q^{65} + 109357071709616\, p^{118} q^{72}$$
$$+ 4190494130236\, p^{114} q^{51} + 484227390441\, p^{111} q^{42} + 1674468496720\, p^{113} q^{47} + 186631733284822\, p^{89} q^{125}$$
$$+ 163173685055625\, p^{121} q^{121} + 1265889301685485\, p^{96} q^{106} + 1525802943059972\, p^{90} q^{96} + 1616364586510804\, p^{95} q^{95}$$
$$+ 1259294691720809\, p^{85} q^{98} + 1474099710159165\, p^{89} q^{97} + 1143332554310124\, p^{83} q^{98} + 5\, p^{28} q^{2} + 1555692074099696\, p^{91} q^{96}$$
$$+ 620278560328\, q^{87} p^{37} + 210330909481\, q^{88} p^{34} + 443444917437\, q^{87} p^{36} + 218562176667\, q^{87} p^{34} + 313273843228\, q^{87} p^{35}$$
$$+ 71272990330\, q^{86} p^{31} + 355110391573037\, p^{122} q^{97} + 362292446642138\, p^{122} q^{99} + 816066418\, q^{64} p^{21} + 674589187679\, q^{68} p^{38}$$

$$+ 37304818\, q^{140}\, p^{36} + 63802315\, q^{140}\, p^{37} + 192369331371342\, p^{93}\, q^{126} + q^{75}\, p^{5} + 330778\, q^{168}\, p^{64} + 17309830329\, p^{141}\, q^{52}$$
$$+ 13707875364882\, p^{138}\, q^{124} + 7523811067385\, p^{132}\, q^{69} + 393811947\, p^{117}\, q^{28} + 3896274473\, p^{121}\, q^{34} + 16072544791934\, p^{138}\, q^{122}$$
$$+ 176047540192615\, p^{119}\, q^{122} + 86634655664578\, p^{127}\, q^{82} + 233367037015\, p^{120}\, q^{44} + 162095843\, p^{109}\, q^{24} + 250922534221609\, p^{99}\, q^{125}$$
$$+ 200357711103\, p^{119}\, q^{43} + 118678644445339\, p^{129}\, q^{112} + 50630751209553\, p^{126}\, q^{75} + 159482362849\, p^{148}\, q^{144} + 11\, p^{150}\, q^{27}$$
$$+ 8401488763908\, p^{124}\, q^{61} + 143273\, p^{146}\, q^{32} + 19975733308\, q^{130}\, p^{43} + 9563808064201\, p^{136}\, q^{77} + 8468543308199\, p^{136}\, q^{76}$$
$$+ 6148548364\, p^{125}\, q^{37} + 283763191108\, p^{146}\, q^{143} + 89180407439\, q^{141}\, p^{58} + 24727868444577\, p^{134}\, q^{82} + 544822857665\, p^{129}\, q^{53}$$
$$+ 469571044\, q^{141}\, p^{42} + 31662\, p^{182}\, q^{154} + 139\, p^{160}\, q^{38} + 58\, p^{157}\, q^{34} + 314\, p^{161}\, q^{40} + 993\, p^{163}\, q^{44} + 256764580935\, q^{151}\, p^{82}$$
$$+ 289311149865\, q^{151}\, p^{83} + 4169\, p^{83}\, q^{9} + 2227484131789\, p^{131}\, q^{61} + 135086194388615\, p^{129}\, q^{96} + 14343773478008\, p^{140}\, q^{118}$$
$$+ 18925650653390\, p^{140}\, q^{111} + 3657828427815\, p^{136}\, q^{70} + 24917344103601\, p^{139}\, q^{103} + 7460688262052\, p^{136}\, q^{75} + 24340\, p^{96}\, q^{12}$$
$$+ 3338751368738\, p^{135}\, q^{68} + 937135383142\, p^{133}\, q^{59} + 15862509418609\, p^{140}\, q^{116} + 19655114383652\, p^{139}\, q^{94}$$
$$+ 6071697752416\, p^{141}\, q^{127} + 19717830465645\, p^{140}\, q^{109} + 2492997131\, p^{125}\, q^{35} + 771\, p^{82}\, q^{8} + 11887774306157\, p^{137}\, q^{81}$$
$$+ 7883981549543\, p^{141}\, q^{124} + 3930216461237\, p^{135}\, q^{69} + 7306160\, p^{113}\, q^{21} + 4551\, p^{90}\, q^{10} + 134903232\, p^{119}\, q^{27} + 10081910344\, p^{149}\, q^{156}$$
$$+ 167526477536\, q^{142}\, p^{62} + 69\, q^{180}\, p^{88} + 1556101\, q^{143}\, p^{33} + 1634504\, q^{140}\, p^{31} + 780856\, q^{140}\, p^{30} + 354928\, q^{140}\, p^{29}$$
$$+ 51193031278179\, q^{135}\, p^{109} + 49954516731955\, q^{135}\, p^{110} + 869943651571697\, p^{96}\, q^{78} + 15292985146\, q^{144}\, p^{55}$$
$$+ 135086194388615\, p^{94}\, q^{61} + 181977037315729\, p^{94}\, q^{63} + 5386307\, q^{123}\, p^{24} + 557886377461755\, p^{117}\, q^{93} + 26606642648425\, p^{113}\, q^{59}$$
$$+ 2058199501436\, q^{119}\, p^{51} + 1588666029225\, q^{119}\, p^{50} + 288877256160929\, p^{77}\, q^{69} + 317607373662836\, p^{77}\, q^{70}$$
$$+ 338831811793790\, p^{74}\, q^{73} + 315027266924414\, p^{73}\, q^{73} + 1311849571535231\, p^{99}\, q^{105} + 109\, q^{180}\, p^{89} + 567119836445532\, p^{105}\, q^{117}$$
$$+ 1108549240190\, q^{149}\, p^{90} + 724552326514428\, p^{107}\, q^{113} + 247765542\, p^{98}\, q^{22} + 42922924821086\, q^{135}\, p^{93} + 416655922\, p^{99}\, q^{23}$$
$$+ 681540984\, p^{100}\, q^{24} + 538238\, q^{104}\, p^{16} + 417173379914094\, p^{76}\, q^{74} + 335201316815276\, p^{72}\, q^{75} + 58931307489\, p^{96}\, q^{32}$$
$$+ 2916110149\, p^{92}\, q^{25} + 64418571321\, q^{107}\, p^{35} + 95732233716\, q^{107}\, p^{36} + 9320\, p^{180}\, q^{103} + 32463\, p^{182}\, q^{134} + 95\, p^{167}\, q^{48} + 15718\, p^{181}\, q^{114}$$
$$+ 20609270828709\, p^{137}\, q^{121} + 2352464741365\, p^{105}\, q^{45} + 167420568824\, p^{102}\, q^{36} + 878537457782206\, p^{112}\, q^{102}$$
$$+ 313828039035\, p^{103}\, q^{38} + 898404212721103\, p^{112}\, q^{100} + 814137641740373\, p^{111}\, q^{89} + 374754787483758\, p^{110}\, q^{76}$$
$$+ 410797618814739\, p^{110}\, q^{77} + 809443080925716\, p^{112}\, q^{91} + 524564396207152\, p^{111}\, q^{81} + 220552065778730\, p^{110}\, q^{71}$$
$$+ 778721676185\, p^{104}\, q^{41} + 229805409136936\, p^{108}\, q^{70} + 257181708322670\, p^{121}\, q^{115} + 332956066514822\, p^{121}\, q^{110}$$

$$+ 346135085818888\, p^{121} q^{109} + 209038488297073\, p^{121} q^{118} + 358319160138219\, p^{121} q^{108} + 19721\, q^{176} p^{83} + q^{173} p^{57} + 298\, q^{174} p^{66}$$
$$+ 77\, q^{174} p^{64} + 35\, q^{174} p^{63} + 273162229854685\, p^{121} q^{114} + 192663156833970\, p^{107} q^{68} + 92200894608\, p^{104} q^{35} + 320096106\, p^{96} q^{22}$$
$$+ 143693060828772\, p^{112} q^{69} + 104555832718086\, p^{111} q^{66} + 43690500504390\, p^{110} q^{60} + 163276524955985\, p^{112} q^{70}$$
$$+ 138266470439235\, p^{111} q^{68} + 47213965521229\, p^{111} q^{61} + 608131948178871\, p^{113} q^{86} + 378872546374681\, p^{113} q^{79}$$
$$+ 537851277\, p^{97} q^{23} + 779606220785253\, p^{114} q^{98} + 11887774306157\, p^{109} q^{53} + 380254989750741\, p^{112} q^{78} + 6524618883452\, p^{108} q^{50}$$
$$+ 639426879063696\, p^{113} q^{87} + 879709583\, p^{98} q^{24} + 315179362737694\, q^{93} p^{67} + 25454348\, q^{77} p^{16} + 5091639\, q^{76} p^{14} + 5495291\, q^{75} p^{14}$$
$$+ 3487\, p^{184} q^{158} + 2931\, p^{184} q^{161} + 3309\, p^{184} q^{159} + 182591414566606\, p^{107} q^{127} + 122171221037922\, p^{121} q^{124} + 401807\, q^{95} p^{14}$$
$$+ 85560708857828\, p^{118} q^{129} + 274408929686\, p^{147} q^{142} + 2787770550269\, p^{141} q^{134} + 281905820\, p^{121} q^{29} + 22146603042434\, p^{138} q^{92}$$
$$+ 16518835346316\, p^{132} q^{131} + 288433856240938\, p^{74} q^{71} + 378621322676613\, p^{77} q^{72} + 273162229854685\, p^{69} q^{76}$$
$$+ 2410224330\, p^{115} q^{167} + 2359076847\, p^{124} q^{167} + 2301835421\, p^{125} q^{167} + 9634255538\, p^{142} q^{160} + 4439919691\, p^{149} q^{159}$$
$$+ 3707124371\, p^{150} q^{159} + 4100747592\, p^{117} q^{166} + 579360084\, p^{162} q^{155} + 4103978446\, p^{119} q^{166} + 6642894865\, p^{131} q^{164}$$
$$+ 5355325221\, p^{134} q^{164} + 5781426636\, p^{133} q^{164} + 304180227162867\, p^{112} q^{121} + 252593551512450\, p^{100} q^{125} + 74854749\, q^{173} p^{121}$$
$$+ 221382653467190\, p^{85} q^{122} + 343694718918\, q^{153} p^{92} + 3115892861\, q^{149} p^{56} + 1259294691720809\, p^{98} q^{85} + 264170192929\, p^{91} q^{35}$$
$$+ 44701253\, p^{80} q^{17} + 17576922481\, p^{88} q^{28} + 1617028394\, p^{85} q^{23} + 62089851203\, p^{89} q^{31} + 198751002127614\, p^{96} q^{64}$$
$$+ 46531925087524\, p^{95} q^{55} + 20524291652890\, p^{95} q^{51} + 6569359507377\, p^{94} q^{46} + 88556876576\, p^{90} q^{32} + 67379724073343\, p^{95} q^{57}$$
$$+ 4054791897556\, p^{93} q^{44} + 365238912063286\, p^{97} q^{69} + 297481631\, p^{83} q^{20} + 707801973539\, p^{92} q^{38} + 260325991569044\, p^{96} q^{66}$$
$$+ 22080050\, p^{79} q^{16} + 10769511561074\, p^{94} q^{48} + 5292623355468\, p^{93} q^{45} + 228059948338124\, p^{96} q^{65} + 148544882534533\, p^{96} q^{62}$$
$$+ 56168862734290\, p^{95} q^{56} + 77591354676514\, p^{96} q^{58} + 108597714033505\, p^{96} q^{60} + 455754714142624\, p^{97} q^{71}$$
$$+ 38302665325688\, p^{95} q^{54} + 949252\, p^{73} q^{12} + 31322678683906\, p^{95} q^{53} + 276141666463\, q^{155} p^{122} + 9148903742\, p^{142} q^{51}$$
$$+ 200717933496\, p^{117} q^{42} + 48224427\, p^{104} q^{21} + 1530035809\, p^{110} q^{28} + 29280134110395\, p^{115} q^{137} + 14195286127344\, p^{50} q^{98}$$
$$+ 894001906687151\, p^{78} q^{94} + 1323689845129854\, p^{85} q^{93} + 67854246760106\, p^{107} q^{61} + 93988204758548\, p^{107} q^{63}$$
$$+ 289926338310709\, p^{108} q^{72} + 29461831033027\, p^{106} q^{56} + 27929\, q^{124} p^{19} + 5096004\, q^{139} p^{32} + 109680483969291\, p^{107} q^{64}$$
$$+ 24078940082032\, p^{106} q^{55} + 346978743295\, q^{152} p^{131} + 314813853030\, q^{152} p^{132} + 255366232103\, q^{152} p^{134} + 228277021722\, q^{152} p^{135}$$
$$+ 284238975738\, q^{152} p^{133} + 710065835\, p^{104} q^{25} + 15535952664\, p^{108} q^{32} + 736405763054380\, p^{104} q^{114} + 652321944033815\, p^{108} q^{114}$$

$$+ 682909991821638\, p^{104} q^{115} + 566695271552841\, p^{109} q^{80} + 897924689919884\, p^{109} q^{88} + 4754830226344\, q^{113} p^{51} + 50442\, p^{67} q^{9}$$
$$+ 957692901846437\, p^{98} q^{80} + 1410125848464269\, p^{98} q^{88} + 1143332554310124\, p^{98} q^{83} + 11273498\, p^{77} q^{15} + 8444961838813\, p^{94} q^{47}$$
$$+ 4514232222\, p^{86} q^{25} + 27704859668\, p^{88} q^{29} + 2649066142\, p^{86} q^{24} + 11595929522\, p^{87} q^{27} + 832590731610597\, p^{98} q^{78}$$
$$+ 127368004943932\, p^{96} q^{61} + 172289719536537\, p^{96} q^{63} + 505437765821732\, p^{97} q^{72} + 324565532694545\, p^{97} q^{68}$$
$$+ 1489037238364330\, p^{98} q^{90} + 92063863004537\, p^{96} q^{59} + 408987628116638\, p^{97} q^{70} + 3079132178069\, p^{93} q^{43} + 2173688\, p^{75} q^{13}$$
$$+ 5091639\, p^{76} q^{14} + 25442828357931\, p^{95} q^{52} + 13627907534851\, p^{94} q^{49} + 16709241117\, q^{100} p^{30} + 7906174084963\, q^{106} p^{50}$$
$$+ 12615231490396\, q^{106} p^{52} + 10024681605290\, q^{106} p^{51} + 15759337283813\, q^{106} p^{53} + 19547452344234\, q^{106} p^{54}$$
$$+ 6186968992994\, q^{106} p^{49} + 14059191617108\, p^{76} q^{49} + 167353878805508\, p^{77} q^{64} + 18462944710\, p^{94} q^{29} + 575891025927087\, p^{113} q^{85}$$
$$+ 287050474246040\, p^{112} q^{75} + 5089921859158\, p^{108} q^{49} + 1441964503124\, p^{107} q^{44} + 91246458\, p^{95} q^{20} + 39319069\, q^{159} p^{58}$$
$$+ 143639679231\, p^{142} q^{150} + 32241471499\, p^{152} q^{148} + 33191139158\, p^{151} q^{149} + 26576168254\, p^{152} q^{149} + 3311934471465\, q^{101} p^{45}$$
$$+ 1279486697606\, q^{102} p^{42} + 2504151542338\, q^{101} p^{44} + 1391591349049\, q^{101} p^{42} + 1875822649684\, q^{101} p^{43} + 29859989\, q^{161} p^{61}$$
$$+ 20501377922\, q^{98} p^{30} + 22542705030\, q^{97} p^{30} + 278336730757680\, p^{97} q^{124} + 33684352334418\, p^{73} q^{127} + 92971689184289\, p^{81} q^{126}$$
$$+ 481083333\, q^{164} p^{80} + 115092048\, q^{165} p^{76} + 683038952\, q^{164} p^{82} + 575062777\, q^{164} p^{81} + 745472618660035\, p^{76} q^{96}$$
$$+ 1515249004\, q^{167} p^{104} + 220334874\, q^{164} p^{76} + 782305740\, q^{168} p^{103} + 842820770\, q^{168} p^{104} + 903702013\, q^{168} p^{105}$$
$$+ 964427602\, q^{168} p^{106} + 9341190386894\, p^{97} q^{48} + 790570968401637\, p^{113} q^{93} + 40094723395730\, p^{109} q^{59} + 33281860304488\, p^{109} q^{58}$$
$$+ 783651763809632\, p^{112} q^{90} + 451487086\, q^{119} p^{29} + 250529014\, q^{119} p^{28} + 39615302638\, q^{122} p^{40} + 224987568053307\, p^{117} q^{121}$$
$$+ 11938632112576\, p^{67} q^{128} + 676643331572900\, p^{114} q^{107} + 571539962323719\, p^{94} q^{117} + 14733043109\, p^{105} q^{31} + 302354092\, q^{141} p^{41}$$
$$+ 716944064\, q^{141} p^{43} + 11745215295948\, p^{129} q^{136} + 8954031165075\, p^{130} q^{137} + 2665540084427\, p^{127} q^{58} + 69909032403811\, p^{133} q^{110}$$
$$+ 73442001841263\, p^{133} q^{108} + 596173100\, q^{169} p^{108} + 1413238211\, q^{167} p^{103} + 552953255007\, p^{142} q^{68} + 152723638179\, p^{140} q^{59}$$
$$+ 524564396207152\, p^{79} q^{109} + 195483382679844\, p^{70} q^{110} + 172393163932123\, p^{69} q^{110} + 458686488923490\, p^{118} q^{109}$$
$$+ 440017802498443\, p^{118} q^{110} + 4718670288858\, p^{140} q^{79} + 100754\, p^{106} q^{15} + 193688\, p^{108} q^{16} + 509619607894503\, p^{114} q^{113}$$
$$+ 476308403924537\, p^{115} q^{113} + 420316938063816\, p^{118} q^{111} + 352046432\, p^{167} q^{148} + 13094264306182\, p^{142} q^{107}$$
$$+ 16013321343031\, p^{141} q^{102} + 1750982726029\, p^{137} q^{67} + 286651299057\, p^{135} q^{56} + 22240070477\, p^{131} q^{44} + 320096106\, p^{168} q^{94}$$
$$+ 4413850573487\, p^{146} q^{115} + 32919839440163\, p^{137} q^{112} + 25562\, q^{165} p^{52} + 335201316815276\, p^{118} q^{115} + 3445983402494\, p^{135} q^{139}$$

$$+ 194532\, q^{112}\, p^{17} + 21706\, q^{111}\, p^{15} + 2001\, q^{109}\, p^{13} + 58588\, q^{112}\, p^{16} + 695\, q^{107}\, p^{12} + 202438935204\, p^{138}\, q^{151}$$
$$+ 362292446642138\, p^{99}\, q^{122} + 207611472771\, q^{155}\, p^{95} + 264170192929\, q^{155}\, p^{99} + 250393943744\, q^{155}\, p^{98} + 302164694714\, q^{155}\, p^{102}$$
$$+ 323394100643\, q^{155}\, p^{104} + 277480905477\, q^{155}\, p^{100} + 313273843228\, q^{155}\, p^{103} + 221984008590\, q^{155}\, p^{96} + 290190451116\, q^{155}\, p^{101}$$
$$+ 236287653016\, q^{155}\, p^{97} + 193291961235\, q^{155}\, p^{94} + 1232915\, p^{172}\, q^{167} + 445725497\, p^{166}\, q^{87} + 542870472331065\, p^{113}\, q^{113}$$
$$+ 347573860098857\, p^{119}\, q^{113} + 1352945545843\, q^{120}\, p^{50} + 48155650034\, p^{155}\, q^{141} + 177584\, q^{163}\, p^{52} + 517858219172853\, p^{110}\, q^{116}$$
$$+ 493789421368210\, p^{111}\, q^{116} + 338831811793790\, p^{117}\, q^{116} + 198841\, q^{165}\, p^{56} + 75191\, q^{165}\, p^{54} + 44519\, q^{165}\, p^{53}$$
$$+ 246429242396844\, p^{117}\, q^{120} + 935624808\, q^{125}\, p^{33} + 554764257\, q^{125}\, p^{32} + 540034430515702\, p^{114}\, q^{112} + 386800766395686\, p^{117}\, q^{114}$$
$$+ 357028533170233\, p^{118}\, q^{114} + 390954521778962\, p^{116}\, q^{115} + 443207282646500\, p^{113}\, q^{116} + 419397969743401\, p^{115}\, q^{115}$$
$$+ 1024427156\, q^{168}\, p^{107} + 1083127000\, q^{168}\, p^{108} + 760208\, p^{111}\, q^{18} + 483383546374907\, p^{78}\, q^{109} + 151254314694253\, p^{68}\, q^{110}$$
$$+ 3149778592\, p^{139}\, q^{45} + 16840837943\, p^{142}\, q^{53} + 462118027982626\, p^{119}\, q^{106} + 59329248\, q^{145}\, p^{41} + 6211822644\, p^{132}\, q^{164}$$
$$+ 4936819817\, p^{135}\, q^{164} + 5477351209\, p^{138}\, q^{163} + 518623603824995\, p^{108}\, q^{117} + 261512124243081\, p^{77}\, q^{68} + 9695024\, q^{139}\, p^{33}$$
$$+ 321125745218\, q^{150}\, p^{81} + 362828046933\, q^{150}\, p^{82} + 324342799054\, q^{151}\, p^{84} + 3050527\, q^{137}\, p^{30} + 3559801\, p^{80}\, q^{14}$$
$$+ 1257512010807044\, p^{95}\, q^{106} + 1210556930275437\, p^{92}\, q^{83} + 1457549876188911\, p^{92}\, q^{88} + 289749\, p^{74}\, q^{11} + 313327756839886\, p^{74}\, q^{72}$$
$$+ 2861\, q^{123}\, p^{17} + 939\, q^{122}\, p^{16} + 8983007\, q^{155}\, p^{48} + 362820585053699\, p^{75}\, q^{73} + 7523811067385\, q^{121}\, p^{58} + 32204026586129\, q^{122}\, p^{67}$$
$$+ 37408176919596\, q^{122}\, p^{68} + 2506817823\, q^{116}\, p^{31} + 245221965\, p^{126}\, q^{31} + 8156349869\, p^{132}\, q^{42} + 20695462\, p^{121}\, q^{25}$$
$$+ 4823193961\, p^{131}\, q^{40} + 726545511017\, p^{139}\, q^{65} + 3400180428\, q^{117}\, p^{32} + 5508264170\, q^{117}\, p^{33} + 49053109701669\, q^{123}\, p^{71}$$
$$+ 123457675359452\, p^{129}\, q^{111} + 39770478278720\, p^{126}\, q^{73} + 683734527\, q^{122}\, p^{31} + 119605839\, q^{122}\, p^{28} + 393092093\, q^{122}\, p^{30}$$
$$+ 220025259\, q^{122}\, p^{29} + 133973489656\, p^{154}\, q^{135} + 682265701323\, p^{153}\, q^{108} + 674968031037\, p^{153}\, q^{113} + 57814367843\, p^{146}\, q^{63}$$
$$+ 2856324075381\, q^{115}\, p^{50} + 1683515770456\, q^{115}\, p^{48} + 2202276001318\, q^{115}\, p^{49} + 107653617888917\, q^{120}\, p^{74}$$
$$+ 163276524955985\, q^{120}\, p^{78} + 148184098361454\, q^{120}\, p^{77} + 133853225410164\, q^{120}\, p^{76} + 134903232\, q^{119}\, p^{27} + 75748466746\, p^{135}\, q^{156}$$
$$+ 39577892679064\, p^{130}\, q^{79} + 868\, p^{111}\, q^{13} + 2101426855\, p^{162}\, q^{148} + 1783385121\, p^{162}\, q^{149} + 3276305\, p^{140}\, q^{32}$$
$$+ 34847355450309\, p^{110}\, q^{137} + 690085180476478\, p^{91}\, q^{114} + 61871776141\, p^{148}\, q^{149} + 46754532487\, p^{154}\, q^{143} + 1199161\, p^{95}\, q^{15}$$
$$+ 448876968308\, p^{118}\, q^{45} + 683038952\, p^{108}\, q^{26} + 2302167\, p^{97}\, q^{16} + 3930216461237\, p^{121}\, q^{55} + 313250306211609\, p^{75}\, q^{111}$$
$$+ 161139787725\, q^{150}\, p^{76} + 3182\, q^{116}\, p^{15} + 42516\, q^{123}\, p^{19} + 3333420449147\, p^{147}\, q^{116} + 17309830329\, p^{138}\, q^{49} + 1149864703\, p^{133}\, q^{38}$$

$$+ 757327031285\, p^{148}\, q^{133} + 4054791897556\, p^{146}\, q^{97} + 57130265225\, p^{160}\, q^{116} + 18022827862\, p^{161}\, q^{133} + 34340\, p^{141}\, q^{27}$$
$$+ 454621955\, p^{169}\, q^{104} + 482600\, p^{151}\, q^{38} + 553165904\, q^{168}\, p^{99} + 664324380\, q^{168}\, p^{101} + 1082441673479599\, p^{82}\, q^{98}$$
$$+ 195664287884\, p^{147}\, q^{144} + 3325251950955\, p^{134}\, q^{140} + 46773685933939\, p^{105}\, q^{58} + 8557119380358\, p^{65}\, q^{128} + 1802\, p^{183}\, q^{172}$$
$$+ 13888\, p^{179}\, q^{173} + 10319096\, p^{154}\, q^{47} + 32415284461\, q^{128}\, p^{43} + 46064099613\, q^{128}\, p^{44} + 64680009489\, q^{128}\, p^{45} + 71432380495\, q^{129}\, p^{46}$$
$$+ 319310513120147\, p^{98}\, q^{123} + 322863274886176\, p^{108}\, q^{122} + 189530041191\, p^{143}\, q^{64} + 2234206810993\, p^{149}\, q^{106}$$
$$+ 526477093692\, p^{145}\, q^{73} + 31004655342\, p^{141}\, q^{54} + 1618603\, q^{135}\, p^{28} + 198841\, q^{134}\, p^{25} + 398241705187\, q^{153}\, p^{94}$$
$$+ 906076745271\, p^{146}\, q^{79} + 699951289617\, p^{150}\, q^{129} + 142365117\, q^{165}\, p^{77} + 2975615917123\, p^{124}\, q^{56} + 17012034813953\, p^{126}\, q^{67}$$
$$+ 79781850309802\, p^{130}\, q^{117} + 12264539076171\, p^{126}\, q^{65} + 445728750\, q^{133}\, p^{36} + 71616293\, q^{132}\, p^{32} + 9429860080258\, p^{138}\, q^{128}$$
$$+ 29590561125479\, p^{127}\, q^{72} + 118083697039825\, p^{129}\, q^{92} + 1053254472147\, p^{123}\, q^{51} + 109885773939305\, p^{125}\, q^{121}$$
$$+ 138247527622974\, p^{129}\, q^{97} + 122897711120383\, p^{129}\, q^{93} + 218547343\, p^{132}\, q^{34} + 10366044452582\, p^{143}\, q^{108}$$
$$+ 9446050810747\, p^{143}\, q^{113} + 97164291019\, p^{134}\, q^{51} + 2354224\, p^{114}\, q^{20} + 1393199186676\, p^{144}\, q^{135} + 123521938299830\, p^{130}\, q^{105}$$
$$+ 8557119380358\, p^{125}\, q^{62} + 66006682930334\, p^{127}\, q^{79} + 110\, p^{60}\, q^{5} + 20066860\, p^{144}\, q^{174} + 18417221\, p^{145}\, q^{174} + 11399\, p^{139}\, q^{183}$$
$$+ 210024\, p^{151}\, q^{180} + 25942201046522\, q^{137}\, p^{91} + 6047638757698\, p^{138}\, q^{77} + 3794494048\, p^{127}\, q^{37} + 5338506974334\, p^{138}\, q^{76}$$
$$+ 14510265581040\, p^{127}\, q^{136} + 11141250735915\, p^{128}\, q^{137} + 18540951702742\, q^{138}\, p^{89} + 10473011865061\, q^{138}\, p^{82} + 4300\, p^{74}\, q^{8}$$
$$+ 5701056607611\, p^{117}\, q^{54} + 245221965\, q^{126}\, p^{31} + 39293727\, q^{126}\, p^{28} + 74639940\, q^{126}\, p^{29} + 869094748\, p^{147}\, q^{165} + 750240397\, p^{148}\, q^{165}$$
$$+ 2398\, p^{129}\, q^{19} + 607711710\, p^{168}\, q^{100} + 142835115\, p^{164}\, q^{74} + 232915084\, p^{166}\, q^{83} + 14263116105075\, p^{118}\, q^{59}$$
$$+ 211258314303888\, p^{124}\, q^{113} + 44262755\, p^{100}\, q^{20} + 696016685314021\, p^{75}\, q^{87} + 120638855481912\, p^{98}\, q^{130}$$
$$+ 124941575420728\, p^{101}\, q^{130} + 50600768642920\, p^{112}\, q^{62} + 497180686388739\, p^{114}\, q^{84} + 22462011398572\, p^{111}\, q^{57}$$
$$+ 466335766196269\, p^{114}\, q^{83} + 714042134377142\, p^{115}\, q^{101} + 435488072948091\, p^{114}\, q^{82} + 178144997712439\, p^{108}\, q^{127}$$
$$+ 159146982237474\, p^{116}\, q^{125} + 168647779217739\, p^{102}\, q^{128} + 108597714033505\, p^{94}\, q^{130} + 140893572510848\, p^{98}\, q^{129}$$
$$+ 142993489780610\, p^{99}\, q^{129} + 419589425163834\, q^{120}\, p^{106} + 975090335418528\, p^{110}\, q^{103} + 108273739278524\, p^{129}\, q^{114}$$
$$+ 85560708857828\, p^{129}\, q^{118} + 679871398302640\, p^{78}\, q^{80} + 241459524420\, q^{129}\, p^{50} + 693349764171977\, p^{103}\, q^{78}$$
$$+ 1107615384443553\, p^{84}\, q^{101} + 485672985117747\, p^{117}\, q^{89} + 235945479361619\, p^{116}\, q^{77} + 474724269773865\, p^{118}\, q^{91}$$
$$+ 299705676701917\, p^{117}\, q^{81} + 122222290859125\, p^{116}\, q^{71} + 214004316624544\, p^{116}\, q^{76} + 1579602706520450\, p^{98}\, q^{94}$$

$$+ 30127325518593\, p^{100} q^{54} + 1008310651455\, p^{97} q^{40} + 730652394859\, p^{97} q^{39} + 398241705187\, p^{96} q^{37} + 141183329785085\, p^{61} q^{84}$$
$$+ 186368176589046\, p^{63} q^{84} + 64611917116609\, p^{56} q^{85} + 105950692850126\, p^{59} q^{85} + 90368863946445\, p^{58} q^{85}$$
$$+ 54343633295148\, p^{55} q^{86} + 76637158186376\, p^{57} q^{85} + 54\, q^{158} p^{35} + 235586710045913\, p^{65} q^{83} + 529216506654606\, p^{95} q^{72}$$
$$+ 342337465822623\, p^{95} q^{68} + 6239855634\, p^{164} q^{101} + 791418857961128\, p^{83} q^{107} + 126756097\, q^{132} p^{33} + 395780938940482\, p^{70} q^{82}$$
$$+ 8303981\, p^{151} q^{43} + 6606797835\, p^{165} q^{119} + 6668977590\, p^{164} q^{102} + 149213793\, q^{147} p^{45} + 96883683\, q^{147} p^{44} + 469571044\, q^{148} p^{49}$$
$$+ 61166191\, q^{146} p^{42} + 297895022539339\, p^{67} q^{83} + 104666632256990\, p^{59} q^{84} + 37330915179029\, p^{53} q^{85} + 388683\, q^{170} p^{70}$$
$$+ 540459\, q^{170} p^{71} + 1525802943059972\, p^{96} q^{90} + 719825913668459\, p^{79} q^{80} + 20303090387994\, p^{50} q^{86} + 39347745429\, q^{152} p^{72}$$
$$+ 4761064858\, p^{142} q^{49} + 317835705\, p^{137} q^{38} + 2494166071443\, p^{148} q^{117} + 207902742027\, p^{142} q^{63} + 38149092387429\, p^{116} q^{63}$$
$$+ 42466\, p^{143} q^{182} + 109606\, p^{147} q^{181} + 19758639087887\, p^{100} q^{52} + 10595910065944\, p^{99} q^{49} + 1581856088\, q^{98} p^{25}$$
$$+ 3101263301475\, p^{98} q^{44} + 298363166520229\, p^{102} q^{69} + 214094147628945\, p^{101} q^{66} + 1025660457608298\, p^{108} q^{90}$$
$$+ 384840801727804\, p^{107} q^{74} + 347136770759757\, p^{107} q^{73} + 51894015\, p^{87} q^{18} + 1074944249630697\, p^{109} q^{95}$$
$$+ 1060829111140742\, p^{109} q^{94} + 926960475795070\, p^{110} q^{105} + 1005077615947080\, p^{109} q^{104} + 388683\, q^{120} p^{20} + 134231\, q^{120} p^{19}$$
$$+ 41706\, q^{120} p^{18} + 89369543279386\, p^{132} q^{106} + 3823622870130\, p^{99} q^{45} + 1286573234155\, p^{98} q^{41} + 132003978996\, p^{96} q^{34}$$
$$+ 1337260915619\, p^{142} q^{138} + 1358472\, p^{122} q^{22} + 527760922718968\, p^{114} q^{85} + 261832469870473\, p^{113} q^{75} + 4583693054567\, p^{109} q^{49}$$
$$+ 1293455628564\, p^{108} q^{44} + p^{127} q^{186} + 2820323638577\, p^{79} q^{142} + 8246023249604\, p^{46} q^{84} + 10447205318607\, p^{47} q^{84}$$
$$+ 13136107902810\, p^{48} q^{84} + 75\, p^{96} q^{9} + 247765542\, q^{98} p^{22} + 135926\, q^{100} p^{14} + 429782256541427\, q^{120} p^{95}$$
$$+ 451497967025941\, q^{120} p^{99} + 448750330325084\, q^{120} p^{98} + 448561123079400\, q^{120} p^{102} + 437456028151590\, q^{120} p^{104}$$
$$+ 387623393734450\, q^{121} p^{105} + 452385755183961\, q^{120} p^{100} + 443893814158062\, q^{120} p^{103} + 437828061834907\, q^{120} p^{96}$$
$$+ 451402961042686\, q^{120} p^{101} + 444175622729488\, q^{120} p^{97} + 420131824694385\, q^{120} p^{94} + 408987628116638\, q^{120} p^{93}$$
$$+ 33684352334418\, q^{117} p^{63} + 91373478236549\, p^{100} q^{60} + 393896107997311\, p^{101} q^{71} + 194225679075249\, q^{105} p^{67}$$
$$+ 92063863004537\, p^{59} q^{96} + 1258862\, q^{155} p^{44} + 73515985120327\, p^{116} q^{131} + 7\, q^{115} p^{12} + 907\, q^{128} p^{18} + 28751509010146\, p^{53} q^{97}$$
$$+ 11239873203528\, p^{49} q^{98} + 42922924821086\, p^{55} q^{97} + 116259\, q^{145} p^{31} + 6992\, q^{145} p^{28} + 830835493584260\, p^{77} q^{94}$$
$$+ 5519827174085\, p^{135} q^{136} + 4112854279059\, p^{136} q^{137} + 17384261187798\, p^{118} q^{139} + 148544882534533\, p^{62} q^{96}$$
$$+ 23294729290689\, p^{52} q^{97} + 35246190329182\, p^{54} q^{97} + 3644733451\, p^{156} q^{154} + 61496302381502\, p^{116} q^{66} + 25397555751452\, p^{115} q^{60}$$

$$+ 82234424424751\, p^{116} q^{68} + 333478845760804\, p^{118} q^{84} + 311629421745235\, p^{118} q^{83} + 499395939751276\, p^{119} q^{101}$$
$$+ 289926338310709\, p^{118} q^{82} + 332517532818302\, p^{107} q^{122} + 299705676701917\, p^{73} q^{109} + p\, q^{18} + 176850035203\, p^{151} q^{139} + 2\, p^{112} q^{11}$$
$$+ 52\, p^{74} q^{6} + 4626565\, q^{160} p^{54} + 8531535234454\, p^{52} q^{110} + 12595825890116\, p^{140} q^{90} + 4481314256420\, p^{143} q^{126}$$
$$+ 865699781890\, p^{136} q^{62} + 14971430778992\, p^{140} q^{93} + 3076605253741\, p^{138} q^{72} + 16402092190979\, p^{141} q^{105} + 6\, p^{188} q^{165} + 16\, p^{187} q^{150}$$
$$+ 1681601791385\, p^{111} q^{150} + 1635094938322\, p^{113} q^{150} + 1922832142694\, p^{134} q^{143} + 1357112373740\, p^{119} q^{150}$$
$$+ 939642841745\, p^{121} q^{151} + 53510797603690\, q^{77} p^{56} + 11315267103\, q^{157} p^{77} + 9540971227\, q^{157} p^{76} + 8751556110\, q^{156} p^{73}$$
$$+ 14982284620\, q^{156} p^{76} + 3896274473\, q^{156} p^{69} + 5920401765\, q^{156} p^{71} + 12602878297\, q^{156} p^{75} + 17702971530\, q^{156} p^{77}$$
$$+ 13338689085\, q^{157} p^{78} + 78655811508\, q^{83} p^{31} + 309811964800551\, p^{67} q^{94} + 62904453257870\, q^{77} p^{57} + 98798720169352\, q^{77} p^{60}$$
$$+ 85465156454181\, q^{77} p^{59} + 147836813763567\, q^{77} p^{63} + 188496014305076\, q^{77} p^{65} + 221814116844391\, q^{78} p^{66}$$
$$+ 113599805409129\, q^{77} p^{61} + 167353878805508\, q^{77} p^{64} + 129929738827991\, q^{77} p^{62} + 73527148255367\, q^{77} p^{58} + 109117\, q^{110} p^{16}$$
$$+ 955581026710469\, p^{83} q^{82} + 1918\, p^{184} q^{166} + 13802\, p^{182} q^{124} + 579408275897491\, p^{73} q^{86} + 530054458460846\, p^{72} q^{86}$$
$$+ 240129\, p^{167} q^{176} + 332691\, p^{163} q^{177} + 370807331657\, q^{153} p^{93} + 455754714142624\, p^{71} q^{97} + 30322268245836\, p^{88} q^{52}$$
$$+ 4690229092\, q^{143} p^{50} + 929486548890110\, p^{86} q^{107} + 1865791780\, p^{128} q^{36} + 8125043537567\, p^{143} q^{117} + 825389882599\, p^{137} q^{63}$$
$$+ 11947570068157\, p^{142} q^{99} + 315659752\, q^{101} p^{23} + 594951340\, q^{101} p^{24} + 134186\, q^{88} p^{12} + 42432\, q^{87} p^{11} + 28195004157\, q^{110} p^{34}$$
$$+ 42932309874\, q^{110} p^{35} + 28833458977486\, p^{110} q^{138} + 67182\, p^{176} q^{172} + 35370568175\, p^{161} q^{108} + 2416059705\, p^{154} q^{63}$$
$$+ 191167158\, p^{150} q^{49} + 12677168\, p^{145} q^{38} + 304180227162867\, p^{121} q^{112} + 193349686909137\, p^{121} q^{119} + 162258248938245\, p^{122} q^{120}$$
$$+ 435488072948091\, p^{76} q^{108} + 384840801727804\, p^{74} q^{107} + 287050474246040\, p^{78} q^{115} + 687204669\, q^{169} p^{131} + 654875550\, q^{169} p^{132}$$
$$+ 621159465\, q^{169} p^{133} + 586405019\, q^{169} p^{134} + 6954\, q^{127} p^{19} + 281905820\, p^{161} q^{69} + 632857168642901\, p^{75} q^{99} + 4\, p^{30} q^{2}$$
$$+ 965251814881526\, p^{81} q^{100} + 1025660457608298\, p^{82} q^{100} + 1143138186785735\, p^{84} q^{100} + 1199098595288115\, p^{85} q^{100}$$
$$+ 242166128084\, q^{102} p^{37} + 68967966763\, q^{103} p^{34} + 167420568824\, q^{102} p^{36} + 76773136695\, q^{102} p^{34} + 114187362877\, q^{102} p^{35}$$
$$+ 23723623547\, q^{101} p^{31} + 120145608775\, q^{149} p^{72} + 361812547367\, q^{151} p^{85} + 30450874247736\, p^{115} q^{61} + 254146355130912\, p^{117} q^{79}$$
$$+ 549601820698783\, p^{118} q^{98} + 7633395397810\, p^{113} q^{53} + 258923802511731\, p^{116} q^{78} + 4194043998668\, p^{112} q^{50}$$
$$+ 441791579463290\, p^{117} q^{87} + 418662777455943\, p^{117} q^{86} + 1285149931605957\, p^{86} q^{99} + 69\, q^{102} p^{10} + 268671286778784\, p^{71} q^{73}$$
$$+ 235613892128075\, p^{77} q^{67} + 10535642895\, q^{156} p^{74} + 31296696\, q^{152} p^{47} + 813882489\, q^{154} p^{59} + 136149293\, q^{153} p^{52}$$

$$+ 12677168\, q^{152} p^{45} + 194815805\, q^{153} p^{53} + 30576507114612\, p^{76} q^{53} + 4413850573487\, p^{75} q^{44} + 188496014305076\, p^{77} q^{65}$$
$$+ 221814116844391\, p^{78} q^{66} + 98798720169352\, p^{77} q^{60} + 62904453257870\, p^{77} q^{57} + 36547014881736\, p^{76} q^{54} + 8156349869\, q^{148} p^{58}$$
$$+ 186985703505\, q^{150} p^{77} + 253793\, q^{107} p^{16} + 45462423\, q^{118} p^{25} + 6002683\, q^{117} p^{22} + 13409801\, q^{117} p^{23} + 28515579\, q^{117} p^{24}$$
$$+ 142816130\, p^{70} q^{18} + 849627569\, p^{72} q^{21} + 449509000324\, p^{109} q^{41} + 247520156123601\, p^{76} q^{68} + 270141999237684\, p^{72} q^{72}$$
$$+ 949252\, q^{73} p^{12} + 51254112\, q^{78} p^{17} + 11273498\, q^{77} p^{15} + 2173688\, q^{75} p^{13} + 23766765\, q^{78} p^{16} + 7788014035\, p^{122} q^{36}$$
$$+ 42994668957057\, p^{136} q^{99} + 26505330621037\, p^{137} q^{117} + 2426\, q^{138} p^{23} + 15432933855775\, p^{100} q^{141} + 1313213440707052\, p^{86} q^{98}$$
$$+ 1510429945017850\, p^{90} q^{97} + 97853225306\, q^{88} p^{32} + 45036507484\, q^{87} p^{30} + 7513608582\, q^{86} p^{26} + 61205503335922\, q^{92} p^{56}$$
$$+ 3450768152438\, q^{90} p^{43} + 2609674010367\, q^{90} p^{42} + 4522069021471\, q^{90} p^{44} + 5874789194876\, q^{90} p^{45} + 73170150426444\, q^{92} p^{57}$$
$$+ 120638855481912\, q^{92} p^{60} + 102713405277385\, q^{92} p^{59} + 189024461137140\, q^{92} p^{63} + 248230765764184\, q^{92} p^{65}$$
$$+ 140893572510848\, q^{92} p^{61} + 217183977079835\, q^{92} p^{64} + 163638894317998\, q^{92} p^{62} + 86948191026630\, q^{92} p^{58}$$
$$+ 29176720452\, q^{87} p^{29} + 18569404334\, q^{87} p^{28} + 1955219070038\, q^{90} p^{41} + 1450700534063\, q^{90} p^{40} + 412570727666\, q^{89} p^{36}$$
$$+ 579510146676\, q^{89} p^{37} + 804673415231\, q^{89} p^{38} + 619925086689\, q^{153} p^{117} + 637320781245\, q^{153} p^{116} + 600418854677\, q^{153} p^{118}$$
$$+ 579022713415\, q^{153} p^{119} + 859571394488\, p^{74} q^{38} + 53510797603690\, p^{77} q^{56} + 277605160282\, q^{119} p^{44} + 5354011426537\, q^{135} p^{71}$$
$$+ 54552937\, q^{120} p^{26} + 12960429\, q^{120} p^{24} + 20695462\, q^{121} p^{25} + 321100514\, q^{125} p^{31} + 91860824\, q^{123} p^{28} + 31985746\, q^{122} p^{26}$$
$$+ 575775300568245\, p^{113} q^{112} + 26377264690\, q^{118} p^{37} + 17414290632\, q^{118} p^{36} + 7222274974\, q^{118} p^{34} + 11311969490\, q^{118} p^{35}$$
$$+ 1145532580900\, q^{121} p^{50} + 1921326035678\, q^{121} p^{52} + 1489774988360\, q^{121} p^{51} + 2457932001552\, q^{121} p^{53} + 3930216461237\, q^{121} p^{55}$$
$$+ 3119894223070\, q^{121} p^{54} + 3338751368738\, q^{122} p^{55} + 873235245349\, q^{121} p^{49} + 659708112375\, q^{121} p^{48} + 462118027982626\, p^{106} q^{119}$$
$$+ 2326563498\, q^{144} p^{49} + 1121713\, q^{134} p^{27} + 70583\, q^{132} p^{23} + 1198574777653415\, p^{95} q^{107} + 64957511134550\, p^{134} q^{103}$$
$$+ 56398650766\, p^{144} q^{60} + 71616293\, q^{158} p^{58} + 192369331371342\, p^{126} q^{93} + 213754085065790\, p^{126} q^{97} + 12745938805927\, p^{120} q^{140}$$
$$+ 19395\, q^{145} p^{29} + 36120980\, q^{158} p^{56} + 51180579\, q^{158} p^{57} + 99023088\, q^{158} p^{59} + 553\, q^{136} p^{21} + 2242954504633\, p^{131} q^{144}$$
$$+ 6317915\, q^{157} p^{50} + 14622814\, q^{157} p^{52} + 9695024\, q^{157} p^{51} + 21704569\, q^{157} p^{53} + 45740709\, q^{157} p^{55} + 31732425\, q^{157} p^{54}$$
$$+ 4042186\, q^{157} p^{49} + 268671286778784\, p^{119} q^{117} + 875619352806762\, p^{86} q^{108} + 120505753636\, p^{140} q^{152} + 42860053691991\, q^{123} p^{70}$$
$$+ 63454851603840\, p^{74} q^{58} + 73515985120327\, p^{74} q^{59} + 30844275896\, p^{155} q^{144} + 4854208\, p^{156} q^{48} + 474778\, q^{141} p^{30}$$
$$+ 4823193961\, q^{150} p^{59} + 2755870031\, q^{150} p^{57} + 1779\, q^{132} p^{20} + 659992699215888\, p^{86} q^{112} + 1304724125\, p^{131} q^{37}$$

$$+ 2421007106646\, p^{148}\, q^{98} + 777032000\, p^{161}\, q^{155} + 4111392311\, p^{118}\, q^{166} + 6020318759\, p^{124}\, q^{165} + 6648933258\, p^{136}\, q^{163}$$
$$+ 4078609494\, p^{120}\, q^{166} + 7070838425\, p^{130}\, q^{164} + 6049923385\, p^{137}\, q^{163} + 4110639093\, p^{132}\, q^{165} + 3308752541\, p^{128}\, q^{166}$$
$$+ 3450037239\, p^{127}\, q^{166} + 3581144333\, p^{126}\, q^{166} + 3898886248\, p^{123}\, q^{166} + 3806898460\, p^{124}\, q^{166} + 3975429434\, p^{122}\, q^{166}$$
$$+ 4035577258\, p^{121}\, q^{166} + 3158850942\, p^{129}\, q^{166} + 2235938668\, p^{126}\, q^{167} + 772361227\, p^{169}\, q^{128} + 127460384\, p^{170}\, q^{146}$$
$$+ 1450700534063\, q^{150}\, p^{100} + 1548109575052\, q^{150}\, p^{102} + 1501818062842\, q^{150}\, p^{101} + 977781610061\, q^{151}\, p^{98}$$
$$+ 713056851357408\, p^{86}\, q^{111} + 1123468860571303\, p^{101}\, q^{108} + 881815015683\, q^{151}\, p^{96} + 101506757973532\, p^{84}\, q^{127}$$
$$+ 6816394525202\, p^{112}\, q^{52} + 172903111528870\, p^{115}\, q^{73} + 1727924279695\, p^{102}\, q^{43} + 726545511017\, q^{125}\, p^{51}$$
$$+ 1269067719537096\, p^{84}\, q^{93} + 208603564926\, q^{124}\, p^{46} + 11315267103\, p^{113}\, q^{33} + 922318975025\, p^{119}\, q^{48} + 3726354684\, p^{111}\, q^{30}$$
$$+ 607556636184\, p^{118}\, q^{46} + 1610966679603177\, p^{94}\, q^{94} + 5758\, q^{60}\, p^{7} + 1911420780\, q^{167}\, p^{108} + 2002614346\, q^{167}\, p^{109}$$
$$+ 1245414576\, q^{168}\, p^{111} + 957719299791210\, p^{96}\, q^{111} + 474778\, p^{160}\, q^{49} + 240129\, p^{176}\, q^{167} + 26635775\, p^{170}\, q^{87} + 2513645\, p^{163}\, q^{58}$$
$$+ 38668538\, p^{174}\, q^{131} + 1193690892390732\, p^{100}\, q^{107} + 982409848754579\, p^{86}\, q^{106} + 254743349662\, q^{152}\, p^{85} + 369058109451\, p^{113}\, q^{42}$$
$$+ 13086538480234\, p^{128}\, q^{136} + 10012541830666\, p^{129}\, q^{137} + 73527148255367\, p^{113}\, q^{132} + 671278\, p^{137}\, q^{28} + 12602878297\, p^{156}\, q^{75}$$
$$+ 4630\, p^{122}\, q^{17} + 5679172\, p^{143}\, q^{35} + 915176623\, p^{163}\, q^{151} + 1304724125\, p^{153}\, q^{59} + 4042186\, p^{141}\, q^{33} + 4819907863\, q^{156}\, p^{70}$$
$$+ 21470902339\, p^{143}\, q^{55} + 177019012566508\, q^{102}\, p^{65} + 263878625314358\, q^{102}\, p^{68} + 203271989311034\, q^{102}\, p^{66}$$
$$+ 232198793203047\, q^{102}\, p^{67} + 132105110112465\, q^{102}\, p^{63} + 153337304962962\, q^{102}\, p^{64} + 1201734079751\, q^{151}\, p^{104}$$
$$+ 914534929313\, q^{152}\, p^{106} + 52\, p^{50}\, q^{4} + 171748\, q^{176}\, p^{91} + 1762257\, q^{176}\, p^{104} + 106517\, q^{176}\, p^{89} + 76719\, q^{177}\, p^{93}$$
$$+ 282228401294432\, p^{70}\, q^{75} + 288433856240938\, p^{71}\, q^{74} + 313327756839886\, p^{72}\, q^{74} + 60050530087817\, p^{130}\, q^{121} + 112072\, q^{167}\, p^{59}$$
$$+ 218\, q^{157}\, p^{35} + 12\, q^{156}\, p^{32} + 387793\, p^{179}\, q^{119} + 134186\, p^{178}\, q^{102} + 56611\, p^{175}\, q^{82} + 2426\, p^{167}\, q^{52} + 3700557322\, p^{166}\, q^{125}$$
$$+ 61994\, p^{130}\, q^{22} + 10554171026\, p^{162}\, q^{135} + 3941425314\, p^{163}\, q^{141} + 38455547977\, p^{161}\, q^{113} + 36279860348\, p^{161}\, q^{109}$$
$$+ 37532798593\, p^{161}\, q^{118} + 2490205321\, p^{118}\, q^{167} + 22128137\, p^{118}\, q^{24} + 5367791523146\, p^{139}\, q^{78} + 14625567135944\, p^{141}\, q^{98}$$
$$+ 29794\, p^{174}\, q^{76} + 4479\, p^{168}\, q^{55} + 6\, p^{149}\, q^{26} + 58588\, p^{174}\, q^{78} + 47705086727\, p^{143}\, q^{58} + 549\, p^{180}\, q^{93} + 1089\, p^{185}\, q^{157} + 488\, p^{185}\, q^{170}$$
$$+ 75\, p^{171}\, q^{56} + 6026\, p^{182}\, q^{118} + 4104\, p^{184}\, q^{151} + 40990982\, p^{160}\, q^{60} + 405179625866\, p^{138}\, q^{148} + 464038125518\, p^{137}\, q^{148}$$
$$+ 2465977556\, p^{164}\, q^{91} + 631817093\, q^{160}\, p^{70} + 321100514\, q^{159}\, p^{65} + 12572364388740\, p^{125}\, q^{138} + 581073116041\, p^{144}\, q^{141}$$
$$+ 963049311535\, p^{125}\, q^{150} + 199144595628\, q^{151}\, p^{80} + 598991650041\, p^{135}\, q^{148} + 535912518260\, p^{134}\, q^{149} + 476271370666\, p^{135}\, q^{149}$$

$$+ 421088725348\, p^{136} q^{149} + 370351736922\, p^{137} q^{149} + 351860281395\, p^{139} q^{148} + 303861892421\, p^{140} q^{148} + 346976320239\, p^{144} q^{144}$$
$$+ 3141750598\, q^{160} p^{78} + 740801744838\, p^{131} q^{149} + 375781224649\, p^{140} q^{147} + 322056416939\, p^{141} q^{147} + 502987114352\, p^{138} q^{147}$$
$$+ 335682314904\, p^{142} q^{146} + 536369758919\, p^{139} q^{146} + 619955715751\, p^{138} q^{146} + 461452961380\, p^{140} q^{146} + 716\, p^{185} q^{166}$$
$$+ 2696\, p^{183} q^{124} + 607556636184\, p^{72} q^{144} + 2422353431470\, p^{80} q^{143} + 2152730220986\, p^{79} q^{143} + 1508598133542175\, p^{90} q^{91}$$
$$+ 18107997509\, q^{152} p^{68} + 22206182233\, q^{152} p^{69} + 832789660283885\, p^{85} q^{108} + 156158439755796\, p^{108} q^{67} + 5266222620385\, p^{105} q^{48}$$
$$+ 261515270\, p^{92} q^{21} + 29203146090\, p^{99} q^{31} + 7864823850\, p^{98} q^{28} + 14433671836100\, p^{133} q^{131} + 8409616989278\, p^{135} q^{133}$$
$$+ 22818079704140\, p^{127} q^{133} + 89831347\, p^{139} q^{172} + 48106450\, p^{140} q^{173} + 228643980\, p^{171} q^{132} + 32255086157\, q^{139} p^{52}$$
$$+ 43082648809\, q^{139} p^{53} + 57006012584\, q^{139} p^{54} + 135926\, q^{176} p^{90} + 215160\, q^{176} p^{92} + 3026288\, p^{143} q^{34} + 14197022\, p^{147} q^{40}$$
$$+ 2492997131\, p^{155} q^{65} + 23949792\, p^{148} q^{42} + 13569629\, p^{146} q^{39} + 780856\, p^{140} q^{30} + 363687312\, p^{167} q^{90} + 891027389635\, p^{151} q^{122}$$
$$+ 453189578662\, q^{153} p^{96} + 707801973539\, q^{152} p^{98} + 443687910072\, q^{151} p^{87} + 10131381\, q^{160} p^{56} + 1486\, p^{94} q^{10}$$
$$+ 1336329429608866\, p^{104} q^{93} + 1927749200\, q^{101} p^{26} + 780266977565179\, p^{114} q^{99} + 775731729352060\, p^{114} q^{97}$$
$$+ 347573860098857\, p^{77} q^{71} + 48541312517982\, q^{135} p^{111} + 328053163892207\, p^{76} q^{71} + 2887070430\, p^{106} q^{28} + 93071019\, p^{100} q^{21}$$
$$+ 448561123079400\, p^{70} q^{88} + 357028533170233\, p^{76} q^{72} + 291585983918990\, p^{72} q^{73} + 308282397225732\, p^{75} q^{71}$$
$$+ 390954521778962\, p^{75} q^{74} + 1792364\, q^{115} p^{20} + 681341\, q^{115} p^{19} + 6165953681963\, q^{88} p^{45} + 7919897752567\, q^{88} p^{46}$$
$$+ 10091752735272\, q^{88} p^{47} + 1530035809\, p^{162} q^{80} + 765931704\, p^{168} q^{137} + 389830673\, p^{168} q^{144} + 393092093\, p^{160} q^{68}$$
$$+ 114187362877\, p^{102} q^{35} + 404680603\, p^{94} q^{22} + 172393163932123\, p^{110} q^{69} + 125079693629780\, p^{109} q^{66} + 1111457032\, p^{96} q^{24}$$
$$+ 398450\, p^{81} q^{12} + 52499567265029\, p^{108} q^{60} + 195483382679844\, p^{110} q^{70} + 164704371455371\, p^{109} q^{68} + 57127839838779\, p^{109} q^{61}$$
$$+ 4655344\, p^{86} q^{15} + 1446876848\, q^{147} p^{51} + 25535\, q^{82} p^{10} + 260348\, q^{84} p^{12} + 1238057212\, q^{165} p^{90} + 194947757\, q^{166} p^{82}$$
$$+ 300048019339082\, p^{76} q^{70} + 957692901846437\, p^{110} q^{92} + 45158357707\, p^{99} q^{32} + 2196880590\, p^{95} q^{25} + 127287902121333\, p^{107} q^{65}$$
$$+ 80088917037955\, p^{107} q^{62} + 652609186012932\, p^{109} q^{82} + 738468099939342\, p^{109} q^{84} + 35812317286316\, p^{106} q^{57}$$
$$+ 695726027016191\, p^{109} q^{83} + 1008790222148358\, p^{110} q^{101} + 1510429945017850\, p^{100} q^{93} + 713056851357408\, p^{111} q^{86}$$
$$+ 449857000709484\, p^{111} q^{79} + 679522520\, p^{95} q^{23} + 9008552\, p^{88} q^{16} + 903640961560894\, p^{112} q^{98} + 14413066591613\, p^{107} q^{53}$$
$$+ 448237708853226\, p^{110} q^{78} + 7906174084963\, p^{106} q^{50} + 748447160675199\, p^{111} q^{87} + 781388942297\, q^{96} p^{39}$$
$$+ 5266222620385\, q^{105} p^{48} + 8642156087282\, q^{105} p^{50} + 13749351740823\, q^{105} p^{52} + 10941640860138\, q^{105} p^{51}$$

$$+ 17152124678521\, q^{105} p^{53} + 26136793316451\, q^{105} p^{55} + 21246127227852\, q^{105} p^{54} + 24078940082032\, q^{106} p^{55}$$
$$+ 6773262906327\, q^{105} p^{49} + 41\, q^{103} p^{10} + 425780141675\, q^{95} p^{37} + 24482536881415\, p^{100} q^{53} + 3296564426874\, p^{131} q^{63}$$
$$+ 3942307690209\, p^{134} q^{139} + 2642942295704\, p^{94} q^{147} + 669410379833902\, p^{113} q^{109} + 712447360223458\, p^{112} q^{109} + 17842615\, p^{139} q^{34}$$
$$+ 86071361\, p^{143} q^{40} + 14171564530\, p^{151} q^{65} + 145004797\, p^{144} q^{42} + 79506682\, p^{142} q^{39} + 4626565\, p^{136} q^{30} + 7312729063\, p^{160} q^{144}$$
$$+ 18107997509\, p^{152} q^{68} + 2001\, p^{109} q^{13} + 7783912\, p^{138} q^{32} + 3928244893\, p^{160} q^{148} + 3311701343\, p^{160} q^{149} + 103060740\, p^{159} q^{61}$$
$$+ 19453910\, q^{134} p^{31} + 25156185\, q^{135} p^{32} + 45740709\, q^{135} p^{33} + 4100747592\, p^{166} q^{117} + 5277056397\, p^{165} q^{107} + 1927749200\, p^{164} q^{89}$$
$$+ 8797440059\, p^{151} q^{155} + 45156107638\, p^{137} q^{157} + 5032164701\, p^{165} q^{106} + 700934477\, p^{161} q^{73} + 2406984950\, p^{167} q^{123}$$
$$+ 564669494\, p^{161} q^{72} + 1994595131\, p^{167} q^{129} + 3173703179\, p^{165} q^{99} + 91356085\, p^{157} q^{57} + 32919839440163\, p^{112} q^{137}$$
$$+ 1401728\, p^{154} q^{43} + 264923394\, p^{171} q^{127} + q^{177} p^{69} + 23910956380917\, p^{100} q^{139} + 25423440651295\, p^{114} q^{138} + 3838714352\, p^{133} q^{165}$$
$$+ 3001974822\, p^{130} q^{166} + 2162185220\, p^{127} q^{167} + 1147946410417\, p^{74} q^{39} + 8835943886871\, p^{75} q^{47} + 1518620792571\, p^{74} q^{40}$$
$$+ 16573450206266\, p^{75} q^{50} + 3333420449147\, p^{74} q^{43} + 2586974576405\, p^{74} q^{42} + 526477093692\, q^{117} p^{45} + 169913525017\, q^{118} p^{42}$$
$$+ 270032033717409\, p^{67} q^{80} + 241421865094777\, p^{66} q^{80} + 863749556\, q^{161} p^{74} + 2130035\, q^{155} p^{45} + 1534354722546451\, p^{97} q^{100}$$
$$+ 1298018532527339\, p^{104} q^{102} + 1371776489609522\, p^{102} q^{102} + 1337176859097601\, p^{103} q^{102} + 1415815050935950\, p^{95} q^{103}$$
$$+ 1401425153885451\, p^{102} q^{101} + 11896487938610\, q^{135} p^{77} + 16561055216261\, q^{135} p^{80} + 13348529387402\, q^{135} p^{78}$$
$$+ 14904372453580\, q^{135} p^{79} + 9308152738900\, q^{135} p^{75} + 10549684700244\, q^{135} p^{76} + 1902021\, q^{118} p^{21} + 416668693\, q^{124} p^{31}$$
$$+ 6148548364\, q^{125} p^{37} + 62960254\, q^{122} p^{27} + 154341228\, q^{121} p^{28} + 281905820\, q^{121} p^{29} + 81889438\, q^{121} p^{27} + 4712655285008\, p^{145} q^{119}$$
$$+ 7758559843946\, p^{144} q^{101} + 33338176574550\, p^{131} q^{126} + 142196586\, p^{106} q^{23} + 455754714142624\, p^{119} q^{93} + 1693439\, q^{133} p^{27}$$
$$+ 3632176\, q^{133} p^{28} + 558016626494483\, p^{115} q^{110} + 242166128084\, p^{102} q^{37} + 19547452344234\, p^{106} q^{54} + 129059940639\, p^{138} q^{56}$$
$$+ 9956450823\, p^{134} q^{44} + 421122701\, p^{128} q^{33} + 104555832718086\, p^{124} q^{79} + 1215837963411\, p^{119} q^{49} + 189431624439124\, p^{127} q^{105}$$
$$+ 13980446741408\, p^{122} q^{62} + 18554189508\, p^{99} q^{30} + 62433021519\, p^{100} q^{33} + 122100\, p^{142} q^{29} + 280689\, p^{175} q^{88} + 1051604\, p^{177} q^{108}$$
$$+ 422899\, p^{174} q^{85} + 42516\, p^{171} q^{67} + 11507\, p^{181} q^{169} + 2\, p^{135} q^{18} + 32485231239295\, p^{137} q^{96} + 3942307690209\, p^{139} q^{134}$$
$$+ 33594562256186\, p^{136} q^{92} + 451487086\, p^{119} q^{29} + 249957672880173\, p^{87} q^{122} + 228739975205329\, p^{118} q^{120}$$
$$+ 7180602305010\, p^{128} q^{64} + 4563498149\, p^{164} q^{97} + 332071879\, p^{115} q^{27} + 43690500504390\, p^{130} q^{80} + 89759514066779\, p^{132} q^{100}$$
$$+ 390954521778962\, p^{74} q^{75} + 362820585053699\, p^{73} q^{75} + 443207282646500\, p^{77} q^{74} + 447928378849575\, p^{76} q^{75}$$

$$+ 419397969743401\, p^{75} q^{75} + 476308403924537\, p^{77} q^{75} + 4379251509237\, p^{99} q^{146} + 1064212860008\, p^{144} q^{137} + 15537383514\, p^{96} q^{29}$$
$$+ 1257512010807044\, p^{95} q^{84} + 1774549\, p^{62} q^{12} + 9928434857919\, p^{79} q^{47} + 1661696082221\, p^{78} q^{40} + 1247248753791\, p^{78} q^{39}$$
$$+ 410568096794415\, p^{77} q^{73} + 364771446483448\, p^{74} q^{74} + 386800766395686\, p^{76} q^{73} + 120961625417\, p^{81} q^{32}$$
$$+ 90999923938448\, p^{86} q^{58} + 82199529916\, p^{81} q^{31} + 10824\, p^{52} q^{7} + 177947220875601\, p^{64} q^{99} + 8274756907\, p^{92} q^{27}$$
$$+ 14837504293085\, p^{101} q^{51} + 4667277733395\, p^{100} q^{46} + 268742271\, p^{70} q^{19} + 358319160138219\, p^{82} q^{69} + 395780938940482\, p^{82} q^{70}$$
$$+ 449723654186\, p^{99} q^{38} + 308282397225732\, p^{71} q^{75} + 338831811793790\, p^{73} q^{74} + 99200334\, q^{161} p^{65} + 328053163892207\, p^{71} q^{76}$$
$$+ 386800766395686\, p^{73} q^{76} + 447928378849575\, p^{75} q^{76} + 417173379914094\, p^{74} q^{76} + 478828445848372\, p^{76} q^{76}$$
$$+ 509619607894503\, p^{77} q^{76} + 357028533170233\, p^{72} q^{76} + 300048019339082\, p^{70} q^{76} + 21520084085461\, q^{102} p^{53} + 57635747\, p^{76} q^{17}$$
$$+ 21316870096\, p^{84} q^{28} + 2002614346\, p^{81} q^{23} + 73974497598\, p^{85} q^{31} + 261512124243081\, p^{68} q^{77} + 288877256160929\, p^{69} q^{77}$$
$$+ 378621322676613\, p^{72} q^{77} + 347573860098857\, p^{71} q^{77} + 476308403924537\, p^{75} q^{77} + 542870472331065\, p^{77} q^{77}$$
$$+ 611207800801399\, p^{78} q^{78} + 410568096794415\, p^{73} q^{77} + 509619607894503\, p^{76} q^{77} + 443207282646500\, p^{74} q^{77}$$
$$+ 317607373662836\, p^{70} q^{77} + 1408851\, q^{169} p^{71} + 238408747640\, p^{146} q^{144} + 76892642666\, p^{152} q^{143} + 10\, q^{155} p^{31} + 4586\, q^{161} p^{43}$$
$$+ 9666\, q^{161} p^{44} + 9597\, p^{54} q^{7} + 133702435726\, p^{145} q^{148} + 24308348609\, q^{108} p^{33} + 15535952664\, q^{108} p^{32} + 340\, q^{113} p^{13}$$
$$+ 718920281246312\, p^{105} q^{114} + 68456400847066\, p^{129} q^{121} + 1084748234778335\, p^{96} q^{109} + 36\, p^{52} q^{4} + 1608442276052264\, p^{96} q^{94}$$
$$+ 1275578131239\, p^{115} q^{47} + 314048605719433\, p^{122} q^{92} + 84898690269667\, p^{120} q^{72} + 3204478490030\, p^{116} q^{51}$$
$$+ 36023536256133\, p^{119} q^{65} + 418666689630542\, p^{72} q^{102} + 6258995982\, p^{165} q^{112} + 5191800330\, q^{112} p^{31} + 8402833921\, q^{112} p^{32}$$
$$+ 13338689085\, q^{112} p^{33} + 11268240541\, q^{126} p^{39} + 7452220249\, q^{126} p^{38} + 3950577756\, q^{125} p^{36} + 4832407342524\, p^{95} q^{45}$$
$$+ 5679172\, q^{155} p^{47} + 3516936\, q^{155} p^{46} + 213176418892077\, p^{98} q^{65} + 138007095456860\, p^{98} q^{62} + 32144\, q^{71} p^{9} + 85349\, q^{74} p^{10}$$
$$+ 8177\, q^{70} p^{8} + 9837222311150\, p^{96} q^{48} + 158727771\, p^{133} q^{34} + 188841413044733\, q^{118} p^{77} + 202236738836244\, q^{119} p^{79}$$
$$+ 247603000899363\, q^{118} p^{80} + 207647084456682\, q^{118} p^{78} + 227267930066422\, q^{118} p^{79} + 153991669376120\, q^{118} p^{75}$$
$$+ 170934311916972\, q^{118} p^{76} + 1457723260\, q^{168} p^{117} + 873437995134295\, p^{80} q^{101} + 932940472779193\, p^{81} q^{101}$$
$$+ 959232038789172\, p^{100} q^{111} + 562650228141047\, p^{88} q^{115} + 437127380007081\, p^{85} q^{116} + 1163943792673\, q^{133} p^{60}$$
$$+ 21246127227852\, q^{136} p^{85} + 17902189660499\, q^{136} p^{83} + 19547452344234\, q^{136} p^{84} + 22987663602791\, q^{136} p^{86}$$
$$+ 26550575669651\, q^{136} p^{88} + 24760180247518\, q^{136} p^{87} + 28344659695935\, q^{136} p^{89} + 31882738748741\, q^{136} p^{91}$$

$$+ 30127325518593\, q^{136} p^{90} + 7208870\, p^{153} q^{45} + 605\, q^{162} p^{42} + 192751934367\, q^{130} p^{50} + 79707878\, q^{101} p^{21} + 857047\, q^{153} p^{41}$$
$$+ 1083449213\, p^{159} q^{156} + 1261\, p^{182} q^{110} + 25423440651295\, p^{76} q^{52} + 21005150586391\, p^{76} q^{51} + 11385438275888\, p^{76} q^{48}$$
$$+ 5605289579715\, p^{75} q^{45} + 147836813763567\, p^{77} q^{63} + 129929738827991\, p^{77} q^{62} + 113599805409129\, p^{77} q^{61}$$
$$+ 381972401273117\, p^{70} q^{81} + 119791913042459\, p^{60} q^{83} + 416655922\, q^{167} p^{91} + 8934886686\, p^{91} q^{27} + 725294595793410\, p^{102} q^{78}$$
$$+ 385883780355\, q^{117} p^{44} + 279852150937\, q^{117} p^{43} + 2191558538\, q^{114} p^{30} + 2632383340\, q^{113} p^{30} + 200717933496\, q^{117} p^{42}$$
$$+ 666948590751889\, p^{76} q^{100} + 485672985117747\, p^{73} q^{101} + 11248687099\, q^{107} p^{31} + 123855787469\, q^{108} p^{37} + 1942865940\, q^{105} p^{27}$$
$$+ 3830585023\, q^{104} p^{28} + 6394472206\, q^{104} p^{29} + 2241770270\, q^{104} p^{27} + 62913525\, p^{85} q^{18} + 81796463747704\, p^{65} q^{112}$$
$$+ 227267930066422\, p^{72} q^{111} + 1042568741747947\, p^{109} q^{93} + 695726027016191\, p^{81} q^{107} + 21224\, p^{83} q^{10} + 8764126948739\, p^{120} q^{58}$$
$$+ 1198574777653415\, p^{107} q^{95} + 1184770159453491\, p^{107} q^{94} + 1025565531057381\, p^{108} q^{105} + 1104345212516657\, p^{107} q^{104}$$
$$+ 63457111\, p^{171} q^{98} + 218964\, p^{155} q^{41} + 63582863\, p^{173} q^{116} + 36875708\, p^{174} q^{133} + 1127\, p^{135} q^{21} + 37851370\, p^{174} q^{132}$$
$$+ 44262755\, p^{170} q^{90} + 73527148255367\, p^{77} q^{58} + 85465156454181\, p^{77} q^{59} + 24002244985727\, p^{129} q^{131} + 180768076790\, q^{129} p^{49}$$
$$+ 1457863284871\, q^{132} p^{60} + 27369756892547\, q^{137} p^{92} + 195923714060019\, p^{125} q^{90} + 157198756813500\, p^{125} q^{86}$$
$$+ 94929356044060\, p^{124} q^{78} + 108132043808849\, p^{125} q^{81} + 217183977079835\, p^{126} q^{98} + 167177828124704\, p^{125} q^{87}$$
$$+ 186631733284822\, p^{125} q^{89} + 77148893786735\, p^{124} q^{76} + 85783298786436\, p^{124} q^{77} + 3250523635514\, q^{112} p^{49}$$
$$+ 405426768210007\, p^{99} q^{121} + 106766290575289\, p^{120} q^{126} + 55578433778\, q^{135} p^{50} + 40911190999\, q^{135} p^{49} + 93744853855\, p^{156} q^{90}$$
$$+ 28049\, p^{121} q^{18} + 110289176241\, p^{157} q^{97} + 630\, q^{145} p^{26} + 23\, q^{145} p^{24} + 4587682888998\, p^{145} q^{94} + 4992861011947\, p^{146} q^{109}$$
$$+ 497538783\, p^{131} q^{35} + 1720905096419\, p^{147} q^{127} + 5068186026506\, p^{145} q^{96} + 2422353431470\, p^{143} q^{80} + 22508667805\, p^{136} q^{48}$$
$$+ 4943203742779\, p^{146} q^{110} + 3350600826924\, p^{143} q^{83} + 5874789194876\, p^{145} q^{100} + 20203607012\, q^{134} p^{46} + 55306611533481\, p^{130} q^{122}$$
$$+ 24424576743811\, q^{136} p^{121} + 19138618179326\, q^{137} p^{122} + 83297928831898\, p^{124} q^{125} + 2257725\, q^{136} p^{29} + 1052596\, q^{136} p^{28}$$
$$+ 521574325\, q^{145} p^{46} + 4980132381\, q^{155} p^{68} + 1083292165\, q^{154} p^{60} + 18212239329\, q^{157} p^{80} + 18358740799840\, q^{111} p^{56}$$
$$+ 12016584985710\, q^{111} p^{54} + 9619659467419\, q^{111} p^{53} + 168008555720\, q^{120} p^{43} + 119579986143\, q^{120} p^{42} + 233367037015\, q^{120} p^{44}$$
$$+ 365988141672\, q^{121} p^{46} + 586816830233\, q^{120} p^{47} + 320630004088\, q^{120} p^{45} + 435942626611\, q^{120} p^{46} + 199\, q^{105} p^{11} + 1082865\, q^{130} p^{25}$$
$$+ 8751556110\, q^{117} p^{34} + 32204026586129\, q^{123} p^{68} + 93\, p^{72} q^{6} + 438431363415317\, p^{118} q^{89} + 211598290080331\, p^{117} q^{77}$$
$$+ 268534074598024\, p^{118} q^{81} + 191728485781270\, p^{117} q^{76} + 497802288470982\, p^{119} q^{98} + 232436125794899\, p^{117} q^{78}$$

$$+ 398088840909927\, p^{118}\, q^{87} + 376899356024483\, p^{118}\, q^{86} + 49053109701669\, p^{119}\, q^{67} + 7644664543763\, q^{111}\, p^{52}$$
$$+ 457182525467981\, p^{118}\, q^{90} + 200357711103\, p^{147}\, q^{71} + 133555518633\, p^{146}\, q^{67} + 540790403432521\, p^{109}\, q^{116}$$
$$+ 184920657811083\, p^{123}\, q^{117} + 2745588744364\, p^{130}\, q^{61} + 25397555751452\, q^{115}\, p^{60} + 65884053473\, p^{115}\, q^{38} + 487103\, p^{94}\, q^{14}$$
$$+ 5082393\, q^{134}\, p^{29} + 10131381\, q^{134}\, p^{30} + 296450\, q^{131}\, p^{24} + 6131469294\, p^{159}\, q^{79} + 1282336422\, p^{168}\, q^{128} + 199556998\, p^{169}\, q^{146}$$
$$+ 2075235502\, p^{165}\, q^{140} + 1199849175\, p^{156}\, q^{64} + 4369339863\, p^{159}\, q^{77} + 26550575669651\, q^{102}\, p^{54} + 131063281\, p^{166}\, q^{156}$$
$$+ 6300882\, p^{165}\, q^{65} + 19449\, p^{149}\, q^{32} + 80838909\, p^{172}\, q^{108} + 3244614\, p^{165}\, q^{63} + 40260551\, p^{169}\, q^{85} + 5386307\, p^{166}\, q^{67} + 149328\, p^{176}\, q^{169}$$
$$+ 396475752462522\, q^{120}\, p^{92} + 11688571\, p^{158}\, q^{53} + 29859989\, p^{161}\, q^{61} + 992152279054577\, p^{82}\, q^{101} + 1050555753354660\, p^{83}\, q^{101}$$
$$+ 496890371809\, q^{154}\, p^{109} + 492768551183\, q^{154}\, p^{108} + 682265701323\, q^{153}\, p^{108} + 7921048896\, p^{164}\, q^{105} + 183087301\, p^{158}\, q^{61}$$
$$+ 666125966\, p^{167}\, q^{143} + 12677168\, p^{152}\, q^{45} + 952706015328915\, p^{104}\, q^{110} + 195483382679844\, p^{120}\, q^{80} + 8865415924224\, p^{117}\, q^{56}$$
$$+ q^{97}\, p^{8} + 1086471973\, q^{165}\, p^{89} + 465457513\, q^{170}\, p^{127} + 482885651\, q^{170}\, p^{125} + 79144775707230\, p^{105}\, q^{61} + 109137585024336\, p^{105}\, q^{63}$$
$$+ 333478845760804\, p^{106}\, q^{72} + 34467333631417\, p^{104}\, q^{56} + 809443080925716\, p^{78}\, q^{99} + 175\, p^{178}\, q^{80} + 11\, p^{176}\, q^{68} + 47\, p^{187}\, q^{171}$$
$$+ 1732354827069\, p^{145}\, q^{82} + 28\, q^{152}\, p^{29} + 19\, q^{151}\, p^{28} + 472593\, p^{178}\, q^{157} + 1294565\, q^{100}\, p^{16} + 711182722\, p^{154}\, q^{162}$$
$$+ 115945045646\, p^{147}\, q^{68} + 5641243970120\, q^{101}\, p^{47} + 852834634350073\, p^{93}\, q^{112} + 14837504293085\, q^{101}\, p^{51}$$
$$+ 18540951702742\, q^{101}\, p^{52} + 1661696082221\, p^{150}\, q^{112} + 247\, p^{130}\, q^{18} + 16\, p^{114}\, q^{12} + 51254112\, p^{173}\, q^{112} + 74854749\, p^{173}\, q^{121}$$
$$+ 31755080\, p^{170}\, q^{88} + 258366\, p^{158}\, q^{45} + 22600\, p^{150}\, q^{33} + 1006\, q^{101}\, p^{11} + 1816422\, q^{77}\, p^{13} + 2767153635\, q^{98}\, p^{26}$$
$$+ 1978392231818\, q^{96}\, p^{42} + 985798267669677\, p^{105}\, q^{85} + 79493336404388\, p^{109}\, q^{63} + 24727868444577\, p^{108}\, q^{56}$$
$$+ 92971689184289\, p^{109}\, q^{64} + 20156923070442\, p^{108}\, q^{55} + 486865941568618\, p^{111}\, q^{80} + 782256502912046\, p^{111}\, q^{88}$$
$$+ 863383243882594\, p^{112}\, q^{103} + 832590731610597\, p^{112}\, q^{92} + 36915640487\, p^{101}\, q^{32} + 1773970782\, p^{97}\, q^{25} + 108132043808849\, p^{109}\, q^{65}$$
$$+ 247603000899363\, p^{110}\, q^{72} + 217624196\, p^{87}\, q^{20} + 15833516192624\, p^{100}\, q^{51} + 4995493097000\, p^{99}\, q^{46} + 161830072265156\, p^{101}\, q^{64}$$
$$+ 36825543006139\, p^{100}\, q^{55} + 102\, q^{119}\, p^{14} + 82694186384\, p^{151}\, q^{144} + 222761729148\, p^{142}\, q^{148} + 159482362849\, p^{144}\, q^{148}$$
$$+ 189056688587\, p^{143}\, q^{148} + 316729332569375\, p^{76}\, q^{112} + 76632269577\, q^{137}\, p^{53} + 57732892693\, q^{137}\, p^{52} + 607328854066307\, p^{80}\, q^{108}$$
$$+ 496933\, p^{173}\, q^{169} + 1566154019533287\, p^{92}\, q^{97} + 181860\, q^{93}\, p^{13} + 14339\, q^{92}\, p^{11} + 486865941568618\, p^{80}\, q^{111}$$
$$+ 1020375780561500\, p^{92}\, q^{109} + 1074944249630697\, p^{95}\, q^{109} + 125810\, q^{153}\, p^{38} + 449509000324\, q^{109}\, p^{41} + 311376197\, p^{159}\, q^{161}$$
$$+ 28726149196961\, p^{134}\, q^{123} + 1221607323\, p^{108}\, q^{27} + 141720889659530\, p^{126}\, q^{116} + 1638089905152\, p^{126}\, q^{55}$$

$$+ 1033894943030731\, p^{104} q^{85} + 3212062789871\, p^{147} q^{98} + 43061349999877\, p^{129} q^{126} + 48565993355403\, p^{128} q^{126}$$
$$+ 5647313305769\, q^{97} p^{46} + 108804804978\, q^{153} p^{81} + 11549\, p^{104} q^{13} + 19\, p^{187} q^{151} + 891027389635\, p^{122} q^{151} + 14037\, q^{162} p^{46}$$
$$+ 1461875426356366\, p^{90} q^{99} + 3122\, p^{65} q^{7} + 3791963376\, p^{95} q^{26} + 1021480784120170\, p^{110} q^{96} + 28241\, p^{72} q^{9} + 88985243\, p^{89} q^{19}$$
$$+ 488209355367\, q^{152} p^{127} + 109456642087\, q^{146} p^{66} + 408366464763622\, p^{120} q^{107} + 351293828537728\, p^{120} q^{111}$$
$$+ 9341190386894\, q^{97} p^{48} + 772451383914153\, p^{112} q^{107} + 291585983918990\, p^{73} q^{72} + 1453439844\, p^{123} q^{168} + 2363126790\, p^{114} q^{167}$$
$$+ 2447388708\, p^{116} q^{167} + 2406984950\, p^{123} q^{167} + 2444960166\, p^{122} q^{167} + 335201316815276\, p^{75} q^{72} + 14151142813\, q^{97} p^{29}$$
$$+ 1005077615947080\, p^{104} q^{109} + 56073987132500\, p^{105} q^{59} + 1331201\, p^{80} q^{13} + 125079693629780\, p^{66} q^{109} + 44262755\, q^{100} p^{20}$$
$$+ 1225323471337\, q^{85} p^{39} + 2922481181688\, q^{85} p^{42} + 2208313876332\, q^{85} p^{41} + 1653039432088\, q^{85} p^{40} + 2059236821026\, p^{81} q^{144}$$
$$+ 5641243970120\, p^{89} q^{143} + 5231862527773\, p^{88} q^{143} + 332410482664\, q^{85} p^{35} + 487803928428\, p^{151} q^{88} + 282228401294432\, p^{75} q^{70}$$
$$+ 273162229854685\, p^{76} q^{69} + 237048469\, p^{86} q^{20} + 598601207786\, p^{95} q^{38} + 3497816659771\, p^{96} q^{44} + 327641742583351\, p^{100} q^{69}$$
$$+ 66833267505359\, p^{124} q^{127} + 54500819265995\, p^{127} q^{126} + 592416744645964\, p^{117} q^{96} + 234469617299288\, p^{99} q^{66}$$
$$+ 362292446642138\, p^{91} q^{68} + 551978053663305\, p^{91} q^{72} + 319527567851\, q^{129} p^{51} + 4112854279059\, p^{137} q^{136}$$
$$+ 605605227216784\, p^{100} q^{117} + 602681252323907\, p^{101} q^{117} + 1353331116\, p^{119} q^{31} + 44402215420\, p^{125} q^{42}$$
$$+ 1029068355037523\, q^{92} p^{80} + 5519827174085\, p^{136} q^{135} + 548984\, q^{99} p^{15} + 518623603824995\, p^{117} q^{108} + 881946311\, p^{138} q^{41}$$
$$+ 25562\, p^{165} q^{52} + 73739792919449\, p^{82} q^{128} + 67584428237092\, p^{81} q^{128} + 1430274092\, p^{124} q^{168} + 495806538353955\, p^{119} q^{102}$$
$$+ 500932998524291\, p^{119} q^{100} + 173079663318095\, p^{127} q^{109} + 4172877\, p^{99} q^{17} + 84196249\, p^{105} q^{22} + 133171255346323\, p^{127} q^{115}$$
$$+ 99568363431\, p^{135} q^{52} + 2058199501436\, p^{139} q^{71} + 10595910065944\, p^{141} q^{91} + 48284\, p^{104} q^{14} + 6186968992994\, p^{141} q^{84}$$
$$+ 222890265205\, p^{135} q^{55} + 10314945378043\, p^{142} q^{95} + 236527839\, p^{124} q^{30} + 359597453371\, p^{136} q^{58} + 1756122727589\, q^{139} p^{70}$$
$$+ 2058199501436\, q^{139} p^{71} + 288553320333\, p^{144} q^{145} + 14904372453580\, q^{111} p^{55} + 189530041191\, p^{126} q^{47} + 34955488691590\, p^{136} q^{115}$$
$$+ 486563871161578\, p^{119} q^{96} + 3039400055105\, p^{138} q^{137} + 778575621849\, q^{126} p^{52} + 791591420\, p^{160} q^{71} + 7094878289\, p^{164} q^{103}$$
$$+ 4719767451\, p^{163} q^{92} + 2337317791\, p^{166} q^{134} + 116841064\, q^{137} p^{36} + 437671055\, q^{140} p^{41} + 1024901560\, q^{140} p^{43}$$
$$+ 2254438092\, q^{140} p^{45} + 138597427940323\, p^{117} q^{73} + 492153437252966\, p^{118} q^{107} + 558016626494483\, p^{110} q^{115}$$
$$+ 3707124371\, p^{159} q^{150} + 169611925449\, p^{157} q^{117} + 244079751039\, p^{156} q^{107} + 126144660835\, p^{155} q^{89} + 322156673245742\, p^{99} q^{123}$$
$$+ 203271989311034\, p^{88} q^{124} + 1930323802312\, p^{142} q^{76} + 31533020015\, p^{145} q^{59} + 88973642302\, p^{125} q^{158} + 12275\, p^{155} q^{37}$$

$$+ 3863863\, p^{177} q^{139} + 8207805\, p^{173} q^{95} + 449703\, p^{166} q^{60} + 162861\, p^{178} q^{164} + 246\, p^{141} q^{23} + 1126436911\, p^{168} q^{131}$$
$$+ 1513204564904\, p^{122} q^{149} + 1423553454755\, p^{123} q^{149} + 2329564913358\, p^{123} q^{147} + 1977668992667\, p^{128} q^{146}$$
$$+ 1099065904753\, p^{123} q^{150} + 2394358590815\, p^{118} q^{148} + 1456545977144\, p^{133} q^{145} + 2107414695578\, p^{114} q^{149}$$
$$+ 1990782804976\, p^{116} q^{149} + 25859709750770\, p^{119} q^{63} + 13028606617\, p^{146} q^{157} + 1870276\, p^{168} q^{69} + 193966\, p^{178} q^{163}$$
$$+ 10249531\, p^{172} q^{91} + 245070354\, p^{158} q^{62} + 3026288\, p^{156} q^{47} + 3423421\, q^{119} p^{22} + 5021880330742\, p^{146} q^{108} + 43082648809\, p^{137} q^{51}$$
$$+ 747693514484\, p^{147} q^{135} + 4677460862789\, p^{146} q^{113} + 18751508678\, q^{133} p^{45} + 26450642681\, q^{133} p^{46} + 3540904478515\, p^{81} q^{142}$$
$$+ 382441904\, p^{104} q^{24} + 91356085\, p^{133} q^{33} + 323618\, p^{172} q^{76} + 45509\, p^{166} q^{55} + 5\, p^{129} q^{16} + 89\, p^{147} q^{26} + 578122\, p^{172} q^{78}$$
$$+ 2920922\, p^{177} q^{119} + 1329350\, p^{176} q^{102} + 589140\, p^{173} q^{82} + 7174090\, p^{172} q^{89} + 9422764\, p^{176} q^{128} + 2664781\, p^{177} q^{146}$$
$$+ 6999357\, p^{173} q^{94} + 193951\, p^{164} q^{54} + 3061583\, p^{170} q^{77} + 6464933132416\, p^{145} q^{107} + 7919897752567\, p^{144} q^{102}$$
$$+ 331608320488\, p^{117} q^{155} + 524214372493\, p^{115} q^{44} + 178537371313944\, p^{122} q^{82} + 4182096241236\, q^{134} p^{68} + 4914710843785\, q^{134} p^{69}$$
$$+ 398088840909927\, q^{103} p^{72} + 318576884168776\, q^{103} p^{70} + 233732658\, q^{135} p^{36} + 2238149212872\, p^{129} q^{145} + 2637943240470\, p^{121} q^{147}$$
$$+ 2494166071443\, p^{117} q^{148} + 1287550296355\, p^{137} q^{143} + 23\, p^{54} q^{4} + 654875550\, p^{169} q^{132} + 11789532756\, p^{152} q^{66}$$
$$+ 8149344762402\, p^{104} q^{144} + 9704721040131\, p^{112} q^{143} + 9928434857919\, p^{111} q^{143} + 897052606442\, p^{129} q^{149} + 200285621065\, p^{131} q^{154}$$
$$+ 136965848851\, p^{132} q^{155} + 238555799025\, p^{117} q^{156} + 1181597594\, p^{168} q^{130} + 30272\, q^{175} p^{80} + 1271\, q^{175} p^{72} + 461452961380\, p^{146} q^{140}$$
$$+ 13131496586\, q^{146} p^{57} + 8038749507\, q^{145} p^{54} + 322056416939\, p^{147} q^{141} + 820622134862\, p^{140} q^{143} + 926536320977\, p^{135} q^{146}$$
$$+ 1000770556937\, p^{136} q^{145} + 873818436336\, p^{137} q^{145} + 1140066462532\, p^{135} q^{145} + 1179732078129\, p^{133} q^{146}$$
$$+ 1179735795232\, p^{131} q^{147} + 1060568807095\, p^{132} q^{147} + 948713153208\, p^{133} q^{147} + 1048187800690\, p^{134} q^{146} + 758836094990\, p^{138} q^{145}$$
$$+ 1064212860008\, p^{137} q^{144} + 922575860097\, p^{138} q^{144} + 590430093628\, p^{143} q^{142} + 335682314904\, p^{146} q^{142} + 958980962211\, p^{139} q^{143}$$
$$+ 492308697546\, p^{144} q^{142} + 407863907062\, p^{145} q^{142} + 814736044817\, p^{136} q^{146} + 496301094447\, p^{143} q^{143} + 414586020503\, p^{144} q^{143}$$
$$+ 344119385330\, p^{145} q^{143} + 1140415885752\, p^{129} q^{148} + 1037019601429\, p^{130} q^{148} + 1065819823634\, p^{127} q^{149} + 492308697546\, p^{142} q^{144}$$
$$+ 581073116041\, p^{141} q^{144} + 681794133332\, p^{140} q^{144} + 130986751602\, p^{129} q^{156} + 165662147022\, p^{118} q^{157} + 116338032164\, p^{107} q^{158}$$
$$+ 111246081172\, p^{131} q^{156} + 29121562393\, p^{160} q^{96} + 25452142706\, p^{162} q^{115} + 327458640\, p^{165} q^{153} + 1330932732\, q^{151} p^{56}$$
$$+ 64361311819\, q^{154} p^{80} + 122550955327\, p^{110} q^{158} + 118882310543\, p^{108} q^{158} + 192446870\, p^{166} q^{154} + 138237797\, q^{149} p^{47}$$
$$+ 205965200\, q^{149} p^{48} + 2995018221\, p^{157} q^{70} + 15182469981\, p^{163} q^{122} + 11899248709\, p^{163} q^{128} + 4528939984\, p^{164} q^{136} + 155\, q^{174} p^{65}$$

$$+ 3101263301475\, p^{92} q^{146} + 414586020503\, p^{143} q^{144} + 938462285165\, p^{131} q^{148} + 980099248626\, p^{128} q^{149} + 828670338012\, p^{127} q^{150}$$
$$+ 699951289617\, p^{129} q^{150} + 375766057565\, p^{135} q^{150} + 230486436981\, p^{137} q^{151} + 7656654\, q^{162} p^{59} + 5289904\, q^{163} p^{60} + 218964\, q^{155} p^{41}$$
$$+ 470782\, p^{166} q^{175} + 15198\, q^{167} p^{55} + 122550955327\, p^{80} q^{32} + 83489984776\, p^{80} q^{31} + 90368863946445\, p^{85} q^{58} + 686590223171\, p^{81} q^{37}$$
$$+ 105950692850126\, p^{85} q^{59} + 455750437\, p^{74} q^{20} + 30572493039811\, p^{84} q^{52} + 25008729126918\, p^{84} q^{51} + 2968878766619\, p^{83} q^{42}$$
$$+ 355543746601\, p^{81} q^{35} + 16396207144123\, p^{84} q^{49} + 216150737468455\, p^{85} q^{64} + 56838470580\, p^{79} q^{30} + 53728885836646\, p^{84} q^{55}$$
$$+ 8242860569279\, p^{83} q^{46} + 9280898964\, p^{141} q^{50} + 137582\, p^{80} q^{11} + 6381\, p^{59} q^{7} + 349391293626458\, p^{122} q^{96} + 119023063\, p^{86} q^{19}$$
$$+ 600798290502\, q^{152} p^{124} + 86846\, p^{83} q^{11} + 95839753830118\, p^{120} q^{73} + 437828061834907\, p^{70} q^{94} + 343212089502\, p^{143} q^{67}$$
$$+ 790565259346792\, p^{86} q^{77} + 863383243882594\, p^{87} q^{78} + 579408275897491\, p^{86} q^{73} + 736405763054380\, p^{86} q^{76}$$
$$+ 143214376223571\, p^{85} q^{61} + 189431624439124\, p^{85} q^{63} + 165148840176037\, p^{85} q^{62} + 245372136447110\, p^{85} q^{65} + 21508701\, q^{130} p^{29}$$
$$+ 6954\, p^{127} q^{19} + 289926338310709\, p^{72} q^{108} + 247490049693670\, p^{70} q^{107} + 49622015304567\, p^{134} q^{92} + 7530207127586\, p^{113} q^{144}$$
$$+ 5932975015292\, q^{126} p^{61} + 54498260761584\, p^{117} q^{66} + 22451894713336\, p^{116} q^{60} + 73046031722607\, p^{117} q^{68}$$
$$+ 298204109943964\, p^{119} q^{84} + 278398700466244\, p^{119} q^{83} + 451402961042686\, p^{120} q^{101} + 258759346558424\, p^{119} q^{82}$$
$$+ 2492997131\, q^{155} p^{65} + 28131790\, q^{153} p^{48} + 289517058942970\, p^{67} q^{82} + 1534354722546451\, p^{93} q^{90} + 639350997508070\, p^{77} q^{80}$$
$$+ 1401728\, q^{154} p^{43} + 838599277696156\, p^{83} q^{106} + 788663331721377\, p^{82} q^{106} + 24891108525915\, q^{133} p^{80} + 159504951431809\, p^{62} q^{83}$$
$$+ 458686488923490\, p^{72} q^{81} + 823797\, p^{175} q^{93} + 124736\, p^{180} q^{157} + 16880\, p^{180} q^{170} + 15631308256\, q^{157} p^{79} + 93872727\, q^{153} p^{51}$$
$$+ 20793745955\, q^{156} p^{78} + 566695271552841\, p^{80} q^{109} + 628\, p^{183} q^{177} + 16465257387055\, p^{56} q^{112} + 66006682930334\, p^{63} q^{111}$$
$$+ 47213965521229\, p^{61} q^{111} + 39577892679064\, p^{60} q^{111} + 32975032510624\, p^{59} q^{111} + 916732672224273\, p^{87} q^{108}$$
$$+ 221602370919\, p^{136} q^{56} + 17163700526\, p^{132} q^{44} + q^{35} p^{2} + 3663245321544\, p^{49} q^{111} + 4718670288858\, p^{50} q^{111}$$
$$+ 55988287791527\, p^{62} q^{111} + 395035351683371\, p^{85} q^{117} + 1150244723868064\, p^{104} q^{106} + 26336284840884\, p^{134} q^{124}$$
$$+ 443414147994949\, p^{77} q^{109} + 75319\, p^{166} q^{56} + p^{121} q^{13} + 2734053\, p^{177} q^{118} + 448895\, p^{179} q^{151} + 3559801\, p^{176} q^{110} + 192849\, p^{170} q^{68}$$
$$+ 989764\, p^{172} q^{80} + 7767\, p^{181} q^{171} + 415\, q^{160} p^{39} + 31743398325\, q^{106} p^{33} + 77373907075997\, p^{64} q^{111} + 247603000899363\, p^{72} q^{110}$$
$$+ 220552065778730\, p^{71} q^{110} + 42510983952\, p^{131} q^{159} + 132783\, q^{123} p^{20} + 29002597\, q^{127} p^{28} + 204608935\, p^{149} q^{168}$$
$$+ 352046432\, p^{148} q^{167} + 381972058\, p^{150} q^{166} + 1196958764572\, q^{149} p^{91} + 233261870529160\, p^{115} q^{122} + 3\, q^{72} p^{5} + 17326549\, q^{172} p^{154}$$
$$+ 696571665645\, q^{113} p^{44} + 108024823\, q^{99} p^{21} + 296\, q^{127} p^{17} + 91784331172676\, p^{125} q^{123} + 827453797247\, p^{144} q^{74}$$

$$+ 283442076207\, p^{143}\, q^{66} + 740801744838\, p^{149}\, q^{131} + 2701301372703\, p^{146}\, q^{90} + 3336392396143\, p^{147}\, q^{99} + 14409056736226\, p^{121}\, q^{139}$$
$$+ 723481492\, p^{126}\, q^{33} + 7343260771589\, p^{143}\, q^{119} + 12535847578600\, p^{142}\, q^{101} + 670106\, p^{166}\, q^{61} + 68545\, p^{161}\, q^{47}$$
$$+ 186368176589046\, p^{127}\, q^{106} + 8604570\, p^{100}\, q^{18} + 353736840280034\, p^{92}\, q^{121} + 509780095779449\, p^{83}\, q^{113}$$
$$+ 443414147994949\, p^{81}\, q^{113} + 476492100617422\, p^{82}\, q^{113} + 543008154692386\, p^{84}\, q^{113} + 6131469294\, q^{111}\, p^{31} + 9883996281\, q^{111}\, p^{32}$$
$$+ 15631308256\, q^{111}\, p^{33} + 37093890992\, q^{111}\, p^{35} + 24282357262\, q^{111}\, p^{34} + 3726354684\, q^{111}\, p^{30} + 48071392902\, q^{112}\, p^{36}$$
$$+ 2215184801\, q^{111}\, p^{29} + 976143201\, q^{132}\, p^{37} + 1321082135586\, p^{132}\, q^{146} + 349640320648\, q^{137}\, p^{59} + 544822857665\, q^{137}\, p^{61}$$
$$+ 825389882599\, q^{137}\, p^{63} + 9142007740341\, q^{139}\, p^{83} + 171877426095\, q^{136}\, p^{55} + 76157349549\, q^{136}\, p^{52} + 221602370919\, q^{136}\, p^{56}$$
$$+ 100791670426\, q^{136}\, p^{53} + 132194392614\, q^{136}\, p^{54} + 169862932971\, q^{137}\, p^{56} + 283401507975\, q^{136}\, p^{57} + 605436742\, q^{132}\, p^{36}$$
$$+ 2130035\, p^{155}\, q^{45} + 170565\, p^{147}\, q^{33} + 1104407222432\, p^{74}\, q^{143} + 2788534009768\, p^{147}\, q^{120} + 2020629032894\, p^{147}\, q^{125}$$
$$+ 16160010343\, p^{136}\, q^{47} + 11757766506708\, p^{118}\, q^{141} + 481160\, q^{125}\, p^{22} + 672889295317\, q^{137}\, p^{62} + 1464618484313\, q^{137}\, p^{66}$$
$$+ 1005726127184\, q^{137}\, p^{64} + 260171\, q^{169}\, p^{66} + 442217146332358\, q^{119}\, p^{92} + 1207535212799277\, p^{96}\, q^{107} + 10428342860198\, p^{143}\, q^{107}$$
$$+ 12760057893282\, p^{142}\, q^{102} + 1363614668194\, p^{138}\, q^{67} + 172674203124\, p^{98}\, q^{156} + 253388516969\, p^{113}\, q^{156} + 135377666\, q^{130}\, p^{32}$$
$$+ 111906\, p^{180}\, q^{158} + 77507\, p^{180}\, q^{161} + 99677\, p^{180}\, q^{159} + 1535234\, p^{176}\, q^{103} + 1928833\, p^{178}\, q^{134} + 18583\, p^{163}\, q^{48} + 1992306\, p^{177}\, q^{114}$$
$$+ 314\, p^{150}\, q^{29} + 31\, q^{135}\, p^{19} + 119791913042459\, p^{107}\, q^{130} + 107220092843903\, p^{103}\, q^{131} + 6685861689\, p^{141}\, q^{49} + 445915900\, p^{136}\, q^{38}$$
$$+ 180768076790\, p^{129}\, q^{49} + 9520587\, p^{176}\, q^{130} + 265\, p^{139}\, q^{22} + 29\, p^{130}\, q^{17} + 12128774\, p^{172}\, q^{92} + 7933632\, p^{174}\, q^{101} + 9148966\, p^{176}\, q^{126}$$
$$+ 290954\, p^{163}\, q^{53} + 12962925\, q^{168}\, p^{76} + 487480\, q^{164}\, p^{56} + 152092\, p^{180}\, q^{155} + 656370\, p^{179}\, q^{145} + 801642\, p^{179}\, q^{138} + 4586\, p^{161}\, q^{43}$$
$$+ 1719724\, p^{178}\, q^{127} + 1821751\, p^{178}\, q^{129} + 759138\, p^{179}\, q^{141} + 13\, p^{138}\, q^{20} + 11789532756\, p^{124}\, q^{38} + 1460189425\, p^{121}\, q^{32}$$
$$+ 165707134972\, p^{106}\, q^{157} + 226134576399\, p^{104}\, q^{156} + 232962604916\, p^{105}\, q^{156} + 230\, p^{183}\, q^{112} + 2\, p^{175}\, q^{63} + 256\, p^{186}\, q^{162}$$
$$+ 1226036381176831\, p^{103}\, q^{105} + 131272730412\, p^{124}\, q^{157} + 1996988\, p^{175}\, q^{98} + 40537\, p^{164}\, q^{51} + 1922014\, p^{178}\, q^{135} + 88231\, p^{180}\, q^{160}$$
$$+ 1137496995579010\, p^{90}\, q^{82} + 4392893363\, p^{160}\, q^{80} + 3437542688\, p^{165}\, q^{100} + 863749556\, p^{161}\, q^{74} + 1434382868\, p^{163}\, q^{83} + 340\, p^{113}\, q^{13}$$
$$+ 4646158708359\, p^{134}\, q^{138} + 2392260\, p^{146}\, q^{36} + 1842675116\, p^{166}\, q^{137} + 886588171\, p^{166}\, q^{144} + 1160360960\, p^{158}\, q^{68}$$
$$+ 7274994276\, p^{161}\, q^{87} + 3087553615\, p^{161}\, q^{81} + 6394472206\, p^{161}\, q^{86} + 4860409030\, p^{161}\, q^{84} + 1891181408\, p^{164}\, q^{144}$$
$$+ 3126758226\, p^{156}\, q^{68} + 321100514\, p^{159}\, q^{65} + 12101941948710\, p^{112}\, q^{142} + 10447205318607\, p^{106}\, q^{143} + 790621455685\, p^{151}\, q^{124}$$
$$+ 438037062076\, q^{137}\, p^{60} + 1138396693850\, q^{138}\, p^{66} + 277007810388\, q^{137}\, p^{58} + 86\, p^{89}\, q^{8} + 333\, p^{105}\, q^{182} + 15\, p^{97}\, q^{182} + 246\, p^{104}\, q^{182}$$

$$+ 86\, p^{101}\, q^{182} + 38\, p^{99}\, q^{182} + 176\, p^{103}\, q^{182} + p^{99}\, q^{183} + 126\, p^{102}\, q^{182} + 8297988767469\, q^{139}\, p^{82} + 496\, p^{75}\, q^{7} + 57975017\, p^{114}\, q^{24}$$
$$+ 8297988767469\, p^{139}\, q^{82} + 169862932971\, p^{134}\, q^{53} + 702440405238\, p^{136}\, q^{61} + 31533020015\, p^{131}\, q^{45} + 6651\, p^{95}\, q^{11}$$
$$+ 10184554102340\, p^{140}\, q^{87} + 119605839\, p^{122}\, q^{28} + 1199849175\, p^{126}\, q^{34} + 13348529387402\, p^{135}\, q^{78} + 34501253356210\, p^{137}\, q^{98}$$
$$+ 241459524420\, p^{129}\, q^{50} + 4486368592949\, p^{139}\, q^{133} + 33548699793085\, p^{137}\, q^{97} + 14171564530\, p^{125}\, q^{39} + 554764257\, p^{125}\, q^{32}$$
$$+ 9403162140112\, p^{140}\, q^{86} + 3052841704028\, p^{143}\, q^{130} + 16339597515624\, p^{141}\, q^{104} + 554517557\, q^{127}\, p^{33} + 52673631\, q^{125}\, p^{28}$$
$$+ 3349515470\, p^{141}\, q^{47} + 1526397\, p^{173}\, q^{86} + 7579\, p^{159}\, q^{41} + 2358677\, p^{177}\, q^{116} + 1925841\, p^{178}\, q^{133} + 43\, p^{139}\, q^{21} + 1913584\, p^{178}\, q^{132}$$
$$+ 1294565\, p^{174}\, q^{90} + 556439\, p^{179}\, q^{148} + 10594688\, p^{157}\, q^{172} + 29\, q^{130}\, p^{17} + 70245\, q^{138}\, p^{26} + 4042186\, p^{157}\, q^{49} + 3886\, p^{184}\, q^{155}$$
$$+ 13655\, p^{183}\, q^{145} + 10824\, p^{183}\, q^{138} + 14\, p^{165}\, q^{43} + 844552\, p^{173}\, q^{167} + 233673760\, p^{167}\, q^{87} + 90638\, q^{148}\, p^{33} + 2513111\, p^{160}\, q^{174}$$
$$+ 408366464763622\, p^{107}\, q^{120} + 28118058560135\, p^{111}\, q^{138} + 170934311916972\, p^{72}\, q^{114} + 213176418892077\, p^{92}\, q^{125}$$
$$+ 475169184\, q^{170}\, p^{126} + 1207808150013102\, p^{102}\, q^{106} + 1102260871479\, q^{114}\, p^{46} + 1465355011672\, q^{114}\, p^{47} + 1930323802312\, q^{114}\, p^{48}$$
$$+ 1674468496720\, q^{113}\, p^{47} + 6748912190934\, q^{114}\, p^{53} + 4190494130236\, q^{114}\, p^{51} + 5338506974334\, q^{114}\, p^{52} + 3674105743435\, q^{115}\, p^{51}$$
$$+ 8468543308199\, q^{114}\, p^{54} + 10549684700244\, q^{114}\, p^{55} + 30701105582030\, p^{52}\, q^{85} + 75872662416047\, p^{57}\, q^{84}$$
$$+ 10354274671571\, p^{47}\, q^{86} + 2489879993361\, q^{97}\, p^{43} + 1466580034264\, q^{96}\, p^{41} + 680141172393\, p^{102}\, q^{40} + 487803928428\, p^{102}\, q^{39}$$
$$+ 1587056478241401\, p^{98}\, q^{96} + 20918687\, p^{160}\, q^{58} + 237669466\, p^{171}\, q^{131} + 500993499\, p^{168}\, q^{98} + 1601615\, p^{152}\, q^{41} + 2570201\, p^{83}\, q^{14}$$
$$+ 205381\, p^{77}\, q^{11} + 34684481\, p^{71}\, q^{16} + 258923802511731\, p^{74}\, q^{112} + 524564396207152\, p^{81}\, q^{111} + 115092048\, p^{165}\, q^{76}$$
$$+ 194947757\, p^{166}\, q^{82} + 380254989750741\, p^{78}\, q^{112} + 6\, p^{59}\, q^{4} + 452\, q^{120}\, p^{15} + 54183752387\, p^{97}\, q^{32} + 2666493759\, p^{93}\, q^{25} + 549\, p^{93}\, q^{180}$$
$$+ 67584428237092\, p^{109}\, q^{62} + 638939974423836\, p^{111}\, q^{84} + 30134981236332\, p^{108}\, q^{57} + 600909019702822\, p^{111}\, q^{83}$$
$$+ 890256926689189\, p^{112}\, q^{101} + 562677979030878\, p^{111}\, q^{82} + 1269067719537096\, p^{97}\, q^{106} + 235722852540\, p^{116}\, q^{42}$$
$$+ 57384324\, p^{103}\, q^{21} + 1809420269\, p^{109}\, q^{28} + 147169375385633\, p^{105}\, q^{65} + 93204264757822\, p^{105}\, q^{62} + 743656372451961\, p^{107}\, q^{82}$$
$$+ 838599277696156\, p^{107}\, q^{84} + 41792072946381\, p^{104}\, q^{57} + 791418857961128\, p^{107}\, q^{83} + 220981935950710\, p^{103}\, q^{126} + 9\, q^{58}\, p^{4}$$
$$+ 244871\, p^{62}\, q^{10} + 161890511843\, q^{146}\, p^{68} + 37\, q^{75}\, p^{6} + 4480648472622\, p^{130}\, q^{141} + 4107806357732\, p^{141}\, q^{80} + 39097353727\, p^{134}\, q^{48}$$
$$+ 8028974175392\, p^{144}\, q^{110} + 5625013274913\, p^{141}\, q^{83} + 9672104943058\, p^{143}\, q^{100} + 120961625417\, p^{158}\, q^{109} + 116612314810\, p^{158}\, q^{118}$$
$$+ 55777932392\, p^{154}\, q^{79} + 11268240541\, p^{151}\, q^{64} + 41195558032\, p^{154}\, q^{77} + 13406798\, p^{159}\, q^{55} + 228281549259\, q^{149}\, p^{76}$$
$$+ 423865595608\, q^{148}\, p^{78} + 484227390441\, q^{148}\, p^{79} + 550296621632\, q^{148}\, p^{80} + 1549243407859\, p^{145}\, q^{81} + 80088917037955\, p^{83}\, q^{128}$$

$$+ 14271490552\, q^{145} p^{56} + 388\, p^{76} q^{7} + 46142066\, p^{115} q^{24} + 10746772311968\, p^{136} q^{78} + 28130636741643\, p^{138} q^{98}$$
$$+ 192751934367\, p^{130} q^{50} + 3778549853318\, p^{140} q^{133} + 27319791812917\, p^{138} q^{97} + 15303\, q^{175} p^{78} + 3930216461237\, q^{135} p^{69}$$
$$+ 277380379135439\, p^{89} q^{122} + 14154001294046\, p^{134} q^{130} + 118531018\, q^{141} p^{39} + 50909\, q^{128} p^{21} + 535080\, p^{178} q^{156}$$
$$+ 8444961838813\, p^{143} q^{96} + 505917960647\, q^{153} p^{122} + 531519456026\, q^{153} p^{121} + 27016131\, q^{125} p^{27} + 711182722\, p^{162} q^{154}$$
$$+ 2126873023\, p^{82} q^{162} + 315326374\, q^{162} p^{72} + 250529014\, q^{162} p^{71} + 17690069438\, q^{151} p^{66} + 21922436684\, q^{151} p^{67} + 31296696\, q^{143} p^{38}$$
$$+ 1274596\, q^{142} p^{32} + 2534996\, q^{142} p^{33} + 507776377222\, p^{150} q^{85} + 17163700526\, q^{132} p^{44} + 2703225470\, q^{130} p^{38} + 15490997503\, q^{131} p^{43}$$
$$+ 25610410\, q^{172} p^{97} + 29212998\, q^{172} p^{98} + 37369209\, q^{172} p^{100} + 46763676\, q^{172} p^{102} + 41915917\, q^{172} p^{101} + 51894015\, q^{172} p^{103}$$
$$+ 11887774306157\, q^{137} p^{81} + 17152124678521\, q^{137} p^{85} + 15759337283813\, q^{137} p^{84} + 21520084085461\, q^{137} p^{88}$$
$$+ 24482536881415\, q^{137} p^{90} + 20964167799657\, q^{138} p^{91} + 18583029701216\, q^{137} p^{86} + 23004183435242\, q^{137} p^{89}$$
$$+ 13120536828318\, q^{137} p^{82} + 1391591349049\, p^{89} q^{148} + 6363446131612\, p^{104} q^{145} + 695506043\, q^{169} p^{111} + 27918487199218\, p^{137} q^{116}$$
$$+ 36821010691965\, p^{136} q^{94} + 21316870096\, p^{162} q^{106} + 3400180428\, p^{158} q^{73} + 9635458151\, p^{164} q^{123} + 2782056474\, p^{158} q^{72}$$
$$+ 7491625869\, p^{164} q^{129} + 267044624236908\, p^{91} q^{123} + 23279058657\, q^{141} p^{53} + 29800613919\, q^{142} p^{55} + 68447511\, q^{137} p^{35}$$
$$+ 1531291886\, q^{140} p^{44} + 3349515470\, q^{141} p^{47} + 143932014624\, p^{130} q^{49} + 9409029592\, p^{125} q^{38} + 1160360960\, p^{122} q^{32}$$
$$+ 806642919642\, p^{140} q^{67} + 1077247769\, q^{141} p^{44} + 14982284620\, p^{156} q^{76} + 2046\, p^{117} q^{15} + 4079\, p^{119} q^{16} + 24308348609\, p^{157} q^{82}$$
$$+ 625210289\, p^{149} q^{51} + 28195004157\, p^{156} q^{80} + 24731274\, p^{141} q^{36} + 12421254438\, p^{161} q^{137} + 149213793\, p^{145} q^{43}$$
$$+ 79183415235\, p^{159} q^{119} + 97853225306\, p^{158} q^{102} + 93294933977\, p^{158} q^{101} + 108141465\, p^{163} q^{161} + 30702011535375\, p^{138} q^{104}$$
$$+ 18583029701216\, p^{137} q^{86} + 5376343021633\, p^{140} q^{130} + 8133688462077\, p^{109} q^{144} + 290330017028215\, p^{90} q^{122}$$
$$+ 218795578666\, p^{154} q^{130} + 8890258033\, p^{138} q^{47} + 3915090197339\, q^{137} p^{72} + 2886763773314\, q^{137} p^{70} + 200357711103\, q^{147} p^{71}$$
$$+ 279852150937\, q^{147} p^{73} + 327859042594\, q^{147} p^{74} + 381925729637\, q^{147} p^{75} + 50846433702\, q^{142} p^{57} + 9280898964\, q^{141} p^{50}$$
$$+ 119579986143\, q^{148} p^{70} + 2447374732710\, p^{132} q^{143} + 989088293155\, p^{141} q^{141} + 107415904353\, p^{139} q^{153} + 72276134118\, p^{140} q^{154}$$
$$+ 1337260915619\, p^{138} q^{142} + 2174863661376\, p^{133} q^{143} + 1173607770043\, p^{151} q^{103} + 1148926685458\, p^{139} q^{142} + 103094899\, q^{127} p^{30}$$
$$+ 7295570\, q^{122} p^{24} + 20042535821880\, q^{137} p^{87} + 14413066591613\, q^{137} p^{83} + 10719601086071\, q^{137} p^{80} + 9619659467419\, q^{137} p^{79}$$
$$+ 2546192764501\, p^{125} q^{146} + 115945045646\, q^{147} p^{68} + 237494047151\, q^{147} p^{72} + 168008555720\, q^{147} p^{70} + 243815192934905\, p^{98} q^{66}$$
$$+ 18771275\, p^{81} q^{16} + 256933887\, p^{85} q^{20} + 635786600347\, p^{94} q^{38} + 3690379252123\, p^{95} q^{44} + 341159071756802\, p^{99} q^{69}$$

$$+ 64543467759674\, q^{103} p^{59} + 31893508\, p^{73} q^{16} + 419321\, p^{138} q^{28} + 7995350421\, p^{157} q^{75} + 3516936\, p^{144} q^{35} + 656677066\, p^{164} q^{151}$$
$$+ 813882489\, p^{154} q^{59} + 2534996\, p^{142} q^{33} + 38726\, p^{131} q^{22} + 7271222972\, p^{163} q^{135} + 2729334420\, p^{164} q^{141} + 25223657127\, p^{162} q^{113}$$
$$+ 23518056478\, p^{162} q^{109} + 24974985508\, p^{162} q^{118} + 611207800801399\, p^{112} q^{112} + 1597255403280730\, p^{97} q^{94}$$
$$+ 1123468860571303\, p^{108} q^{101} + 20156923070442\, q^{135} p^{82} + 1983698916\, p^{90} q^{24} + 753273012\, q^{169} p^{113} + 858700490\, q^{169} p^{119}$$
$$+ 492307085\, q^{170} p^{121} + 188496014305076\, p^{113} q^{125} + 447296\, p^{88} q^{13} + 67584428237092\, p^{128} q^{81} + 99876604994668\, p^{128} q^{86}$$
$$+ 126058470781583\, p^{128} q^{90} + 59725649194355\, p^{127} q^{78} + 53785376827797\, p^{127} q^{77} + 140893572510848\, p^{129} q^{98}$$
$$+ 119706726153706\, p^{128} q^{89} + 48202717723479\, p^{127} q^{76} + 106555862850804\, p^{128} q^{87} + 252796085\, p^{170} q^{139}$$
$$+ 10428186175765\, p^{138} q^{127} + 35627373911688\, p^{137} q^{109} + 263878625314358\, p^{122} q^{88} + 320249535892575\, p^{123} q^{103} + 30435\, p^{81} q^{10}$$
$$+ 4980132381\, p^{122} q^{35} + 2191558538\, p^{114} q^{30} + 365988141672\, p^{121} q^{46} + 6657848363\, p^{116} q^{33} + 552953255007\, p^{122} q^{48}$$
$$+ 16813564\, p^{146} q^{174} + 19324700\, p^{132} q^{175} + 177838058313651\, p^{124} q^{116} + 11698126996172\, p^{118} q^{58} + 1674235266\, p^{106} q^{27}$$
$$+ 204484206657492\, p^{95} q^{126} + 2490420466\, q^{156} p^{67} + 8303981\, q^{151} p^{43} + 13569629\, q^{151} p^{44} + 69899368\, q^{124} p^{28}$$
$$+ 271859933141362\, p^{124} q^{106} + 1166625177360\, p^{140} q^{141} + 171877426095\, q^{135} p^{54} + 97164291019\, q^{134} p^{51} + 129059940639\, q^{134} p^{52}$$
$$+ 2230594022432\, q^{136} p^{67} + 1059690001746\, q^{136} p^{63} + 1288607083779\, q^{136} p^{64} + 1556911177511\, q^{136} p^{65} + 2645796886765\, q^{136} p^{68}$$
$$+ 1869287686581\, q^{136} p^{66} + 537851277\, q^{167} p^{93} + 474685325\, q^{167} p^{92} + 62960254\, p^{163} q^{68} + 829909\, p^{91} q^{14} + 14259243\, p^{97} q^{18}$$
$$+ 104631523087\, p^{112} q^{38} + 200340870204933\, p^{124} q^{114} + 241421865094777\, p^{124} q^{110} + 155111571126912\, p^{124} q^{118}$$
$$+ 258349925016622\, p^{124} q^{108} + 250269408590557\, p^{124} q^{109} + 189166515603732\, p^{124} q^{115} + 6999357\, p^{96} q^{17} + 138657128\, p^{102} q^{22}$$
$$+ 233673760\, p^{103} q^{23} + 1580\, p^{79} q^{8} + 22497097691112\, p^{134} q^{81} + 363544738458427\, p^{101} q^{122} + 286982269744842\, p^{123} q^{93}$$
$$+ 315179362737694\, p^{123} q^{97} + 322156673245742\, p^{123} q^{99} + 155111571126912\, p^{118} q^{124} + 168170055240805\, p^{103} q^{128}$$
$$+ 50353164329470\, p^{86} q^{132} + 288877256160929\, p^{113} q^{121} + 5856117018\, q^{127} p^{38} + 1239578347\, p^{166} q^{95} + 609142759\, p^{105} q^{25}$$
$$+ 13438104656\, p^{109} q^{32} + 1154532201273\, p^{146} q^{81} + 1946866519612\, p^{148} q^{122} + 319601320497\, p^{114} q^{42} + 2485204094\, p^{107} q^{28}$$
$$+ 79707878\, p^{101} q^{21} + 263878625314358\, p^{88} q^{122} + 50600768642920\, p^{78} q^{128} + 1104407222432\, p^{116} q^{47} + 322863274886176\, p^{68} q^{82}$$
$$+ 1333237719922\, p^{149} q^{124} + 3329374545\, p^{152} q^{158} + 5479236052940\, p^{126} q^{142} + 493762595781\, p^{143} q^{69} + 1082944\, p^{173} q^{166}$$
$$+ 32\, p^{175} q^{66} + 169\, p^{181} q^{96} + 26954396016078\, p^{116} q^{61} + 227267930066422\, p^{118} q^{79} + 6748912190934\, p^{114} q^{53}$$
$$+ 3709009914889\, p^{113} q^{50} + 525561658628\, p^{152} q^{126} + 93744853855\, p^{100} q^{34} + 2817190143230\, p^{103} q^{45} + 937832698088\, p^{102} q^{41}$$

$$+ 1336293910203\, p^{150}\, q^{98} + 202306770469\, p^{100}\, q^{36} + 993857498096149\, p^{110}\, q^{102} + 1027388534876757\, p^{80}\, q^{93}$$
$$+ 8417268818\, p^{143}\, q^{160} + 12421254438\, p^{137}\, q^{161} + 7312729063\, p^{144}\, q^{160} + 2495309749\, p^{119}\, q^{167} + 2472548978\, p^{121}\, q^{167}$$
$$+ 2489396364\, p^{120}\, q^{167} + 11268240541\, p^{126}\, q^{39} + 11621147490673\, p^{122}\, q^{61} + 198751002127614\, p^{126}\, q^{94} + 117655347146\, p^{116}\, q^{40}$$
$$+ 81582369652\, p^{116}\, q^{39} + 61496302381502\, p^{124}\, q^{74} + 37251801038494\, p^{123}\, q^{69} + 14982284620\, p^{114}\, q^{34} + 204484206657492\, p^{126}\, q^{95}$$
$$+ 42860053691991\, p^{123}\, q^{70} + 219007413664995\, p^{126}\, q^{104} + 93989937383\, p^{154}\, q^{138} + 410797618814739\, p^{80}\, q^{113}$$
$$+ 1031130733909\, p^{124}\, q^{150} + 1291955721118\, p^{134}\, q^{145} + 73739792919449\, p^{128}\, q^{82} + 194980690222\, p^{121}\, q^{44} + 133872890\, p^{110}\, q^{24}$$
$$+ 168008555720\, p^{120}\, q^{43} + 103107570238630\, p^{130}\, q^{112} + 42988747060251\, p^{127}\, q^{75} + 7081343509309\, p^{125}\, q^{61} + 4096256779\, q^{137}\, p^{44}$$
$$+ 12046341256\, q^{137}\, p^{47} + 5944839959\, q^{137}\, p^{45} + 8515308588\, q^{137}\, p^{46} + 964184703873\, q^{140}\, p^{68} + 253223859166850\, p^{101}\, q^{125}$$
$$+ 2410072819\, p^{157}\, q^{69} + 6642894865\, p^{164}\, q^{131} + 715427307\, p^{124}\, q^{32} + 11887712394539\, p^{139}\, q^{86} + 3710537658328\, p^{142}\, q^{130}$$
$$+ 20303090387994\, p^{140}\, q^{104} + 10532847\, p^{128}\, q^{27} + 23673833375729\, p^{67}\, q^{124} + 104555832718086\, p^{79}\, q^{124} + 27570572559352\, p^{68}\, q^{124}$$
$$+ 31932873745775\, p^{69}\, q^{124} + 730652394859\, p^{151}\, q^{93} + 94929356044060\, p^{78}\, q^{124} + 114622432433843\, p^{80}\, q^{124}$$
$$+ 31397228435150\, p^{70}\, q^{125} + 2322656758722\, p^{134}\, q^{142} + 1367961913949\, p^{139}\, q^{141} + 26189683636\, p^{101}\, q^{161} + 55039452743\, p^{109}\, q^{160}$$
$$+ 17162230732932\, p^{65}\, q^{124} + 20214394565389\, p^{66}\, q^{124} + 406079446014502\, p^{101}\, q^{121} + 302595654320438\, p^{91}\, q^{122}$$
$$+ 21030523218257\, p^{129}\, q^{132} + 277418129584755\, p^{92}\, q^{123} + 109575173601049\, p^{78}\, q^{123} + 132019178000150\, p^{80}\, q^{123}$$
$$+ 125079693629780\, p^{81}\, q^{124} + 120554914563137\, p^{79}\, q^{123} + 99127797209659\, p^{77}\, q^{123} + 97853225306\, p^{102}\, q^{158}$$
$$+ 33130762185\, p^{88}\, q^{158} + 409052638\, p^{139}\, q^{169} + 3437877789164\, p^{124}\, q^{145} + 56586756\, p^{156}\, q^{54} + 6388130611\, p^{163}\, q^{95}$$
$$+ 1006151513\, p^{167}\, q^{139} + 113954731\, p^{156}\, q^{56} + 589602099451\, p^{151}\, q^{128} + 1510113060\, p^{163}\, q^{148} + 1286078482\, p^{163}\, q^{149}$$
$$+ 2065209\, p^{141}\, q^{32} + 62\, q^{116}\, p^{13} + 385883780355\, q^{146}\, p^{73} + 1865791780\, q^{154}\, p^{62} + 1428206363\, q^{154}\, p^{61} + 549\, q^{97}\, p^{10} + 2758\, q^{98}\, p^{11}$$
$$+ 203023853461\, p^{152}\, q^{136} + 408013773064\, p^{151}\, q^{132} + 828670338012\, p^{150}\, q^{127} + 1848661227042\, p^{149}\, q^{118} + 2223337568107\, p^{149}\, q^{111}$$
$$+ 320630004088\, p^{145}\, q^{70} + 1978392231818\, p^{148}\, q^{94} + 2255996783519\, p^{149}\, q^{109} + 1232087340373\, p^{150}\, q^{121} + 7260277356006\, p^{125}\, q^{141}$$
$$+ 484227390441\, p^{148}\, q^{79} + 100540340470\, p^{145}\, q^{64} + 114117\, p^{155}\, q^{40} + 25266\, p^{151}\, q^{34} + 71\, p^{123}\, q^{15} + 309725\, p^{157}\, q^{44}$$
$$+ 396426120514\, q^{128}\, p^{51} + 207902742027\, q^{127}\, p^{48} + 278985843528\, q^{127}\, p^{49} + 370827251981\, q^{127}\, p^{50} + 51004833787\, q^{126}\, p^{43}$$
$$+ 1785854489971\, p^{144}\, q^{133} + 11196158795140\, p^{142}\, q^{97} + 53501020078\, p^{134}\, q^{49} + 3528074261\, p^{129}\, q^{38} + 369058109451\, p^{148}\, q^{77}$$
$$+ 14585279\, q^{127}\, p^{27} + 25391\, q^{118}\, p^{17} + 98062193889557\, p^{94}\, q^{59} + 429782256541427\, p^{95}\, q^{70} + 3336392396143\, p^{91}\, q^{43}$$

$$+ 40739922655419\, p^{114} q^{62} + 411049376380448\, p^{116} q^{84} + 18028678410019\, p^{113} q^{57} + 384840801727804\, p^{116} q^{83}$$
$$+ 602681252323907\, p^{117} q^{101} + 358719098114877\, p^{116} q^{82} + 12741845890\, q^{141} p^{51} + 369753\, q^{117} p^{19} + 51180579\, q^{133} p^{32}$$
$$+ 31882738748741\, p^{99} q^{54} + 17321608927652\, q^{102} p^{52} + 179139786215\, q^{97} p^{35} + 299212874480\, p^{95} q^{36} + 31419829949\, p^{93} q^{30}$$
$$+ 103099318864\, p^{94} q^{33} + 1076189723900\, p^{96} q^{40} + 781388942297\, p^{96} q^{39} + 425780141675\, p^{95} q^{37} + 1248163745411\, p^{128} q^{148}$$
$$+ 12572364388740\, p^{138} q^{125} + 9602688282\, p^{163} q^{100} + 2506817823\, p^{159} q^{74} + 4202257475\, p^{161} q^{83} + 17548973098\, p^{139} q^{50}$$
$$+ 2227535050994\, p^{138} q^{139} + 4991311551\, p^{124} q^{36} + 28843924180889\, p^{138} q^{99} + 18344886610788\, p^{139} q^{117} + 2140182525423\, p^{133} q^{63}$$
$$+ 327859042594\, p^{147} q^{74} + 24282357262\, q^{156} p^{79} + 109456642087\, p^{146} q^{66} + 9068688390098\, p^{119} q^{142} + 153403903049\, p^{127} q^{47}$$
$$+ 29280134110395\, p^{137} q^{115} + 207902742027\, q^{142} p^{63} + 18\, p^{55} q^{4} + 30576507114612\, p^{137} q^{114} + 25054449440218\, p^{137} q^{118}$$
$$+ 33941406170749\, p^{137} q^{111} + 7119021011414\, p^{133} q^{70} + 5986945451195\, p^{129} q^{140} + 7883981549543\, p^{124} q^{141}$$
$$+ 138405789194\, p^{139} q^{152} + 158099975020\, p^{138} q^{152} + 45133735294830\, p^{136} q^{103} + 5725636445\, p^{165} q^{109} + 6642608635\, p^{165} q^{118}$$
$$+ 223783522\, p^{167} q^{151} + 173873793\, p^{157} q^{59} + 2169712972\, p^{166} q^{135} + 827258146\, p^{167} q^{141} + 6391002196\, p^{165} q^{113}$$
$$+ 1812634702\, p^{160} q^{75} + 255703466339\, q^{130} p^{51} + 169646317469\, p^{107} q^{157} + 238967818472\, p^{106} q^{156} + 16396207144123\, p^{106} q^{141}$$
$$+ 55578433778\, p^{135} q^{50} + 358806835149310\, p^{103} q^{122} + 403889753515864\, p^{102} q^{121} + 224690787\, p^{169} q^{145} + 443938399\, p^{169} q^{138}$$
$$+ 27305019957657\, p^{138} q^{112} + 6105013528444\, p^{143} q^{122} + 2150217967\, q^{146} p^{51} + 1113542502\, q^{145} p^{48} + 1594426380\, q^{145} p^{49}$$
$$+ 2254438092\, q^{145} p^{50} + 225986484\, q^{144} p^{43} + 733488272304\, p^{141} q^{68} + 203120668177\, p^{139} q^{59} + 4260336563746\, p^{146} q^{116}$$
$$+ 33941406170749\, p^{111} q^{137} + 7933825076891\, p^{139} q^{128} + 75196183883\, p^{157} q^{92} + 23442815211\, p^{160} q^{134} + 3964767194\, p^{161} q^{146}$$
$$+ 102184286085\, p^{158} q^{103} + 43895155595\, p^{160} q^{125} + 14386058425\, p^{154} q^{71} + 4564599736\, p^{152} q^{62} + 652406065971\, p^{153} q^{115}$$
$$+ 2147624065\, p^{166} q^{101} + 2495309749\, p^{167} q^{119} + 2314071044\, p^{166} q^{102} + 4392\, p^{102} q^{12} + 317607373662836\, p^{113} q^{120} + 61174\, q^{163} p^{50}$$
$$+ 1382\, q^{159} p^{39} + 2360596\, q^{167} p^{67} + 1848887310212\, p^{141} q^{137} + 831925970895\, q^{151} p^{95} + 14187184610139\, p^{133} q^{75}$$
$$+ 21099301578\, q^{157} p^{81} + 38393166993\, p^{161} q^{116} + 12515581458\, p^{162} q^{133} + 72458135023\, q^{134} p^{50} + 34328790027\, q^{132} p^{46}$$
$$+ 2642942295704\, p^{43} q^{96} + 1444563644655825\, p^{88} q^{91} + 1410125848464269\, p^{102} q^{92} + 47213965521229\, p^{129} q^{79}$$
$$+ 32162796372320\, p^{74} q^{128} + 79493336404388\, p^{81} q^{127} + 1090125014230651\, p^{81} q^{93} + 102860717921\, p^{103} q^{35} + 360870303\, p^{95} q^{22}$$
$$+ 157754871878111\, p^{111} q^{69} + 332887990528204\, p^{74} q^{109} + 30924394089662\, p^{120} q^{135} + 19222697909076\, p^{136} q^{124}$$
$$+ 49053109701669\, p^{123} q^{71} + 111603\, p^{89} q^{12} + 44584460970\, p^{115} q^{37} + 204802400605445\, p^{125} q^{91} + 57582802136560\, p^{88} q^{132}$$

$$+ 11061328868130\, p^{134} q^{132} + 9574078519362\, p^{135} q^{132} + 279852150937\, p^{147} q^{73} + 16160010343\, p^{143} q^{54} + 1244096194965\, p^{151} q^{106}$$
$$+ 41851187877884\, q^{136} p^{110} + 36547014881736\, q^{136} p^{114} + 38047892101284\, q^{136} p^{113} + 44786131275593\, p^{55} q^{96}$$
$$+ 600798290502\, p^{152} q^{124} + 5831502327\, p^{125} q^{165} + 5398470088\, p^{127} q^{165} + 4647872698\, p^{130} q^{165} + 4908075072\, p^{129} q^{165}$$
$$+ 5159148479\, p^{128} q^{165} + 5623418760\, p^{126} q^{165} + 4381201708\, p^{131} q^{165} + 49313\, p^{93} q^{12} + 235892759\, p^{159} q^{162}$$
$$+ 2227535050994\, p^{139} q^{138} + 56611\, q^{108} p^{15} + 479418161\, p^{169} q^{137} + 251596873\, p^{169} q^{144} + 15273722\, p^{129} q^{28}$$
$$+ 5660735242445\, q^{124} p^{59} + 517846900\, p^{166} q^{148} + 62913525\, q^{172} p^{105} + 45509\, q^{166} p^{55} + 26778\, q^{166} p^{54} + 69535995\, q^{170} p^{93}$$
$$+ 57287311\, q^{172} p^{104} + 275249236042\, p^{148} q^{75} + 176725518\, p^{168} q^{150} + 333\, p^{85} q^{8} + 36550215969\, p^{141} q^{156} + 1460423768145\, q^{142} p^{74}$$
$$+ 89101702700\, q^{146} p^{65} + 208486\, p^{144} q^{31} + 55384002\, p^{154} q^{51} + 483842281\, p^{170} q^{119} + 385709734\, p^{169} q^{102} + 382441904\, p^{166} q^{86}$$
$$+ 38969505\, p^{172} q^{148} + 55564\, p^{66} q^{9} + 979334193657660\, p^{97} q^{80} + 114622432433843\, p^{110} q^{66} + 48004325761488\, p^{109} q^{60}$$
$$+ 179068441057686\, p^{111} q^{70} + 151254314694253\, p^{110} q^{68} + 52056655885403\, p^{110} q^{61} + 4104702\, p^{87} q^{15} + 659992699215888\, p^{112} q^{86}$$
$$+ 413785851474882\, p^{112} q^{79} + 606150525\, p^{96} q^{23} + 7933632\, p^{89} q^{16} + 841206764496864\, p^{113} q^{98} + 13120536828318\, p^{108} q^{53}$$
$$+ 413785851474882\, p^{111} q^{78} + 7199213681847\, p^{107} q^{50} + 693349764171977\, p^{112} q^{87} + 991420539\, p^{97} q^{24} + 135886045960145\, p^{104} q^{64}$$
$$+ 30380573779447\, p^{103} q^{55} + 1432656240024295\, p^{97} q^{88} + 1166284066481661\, p^{97} q^{83} + 12115141\, p^{76} q^{15} + 13348558995\, q^{102} p^{30}$$
$$+ 1313415252488\, q^{105} p^{43} + 966984454087\, q^{105} p^{42} + 1766223347369\, q^{105} p^{44} + 2352464741365\, q^{105} p^{45} + 57152416488027\, q^{107} p^{60}$$
$$+ 47850809602472\, q^{107} p^{59} + 93988204758548\, q^{107} p^{63} + 127287902121333\, q^{107} p^{65} + 67854246760106\, q^{107} p^{61}$$
$$+ 109680483969291\, q^{107} p^{64} + 80088917037955\, q^{107} p^{62} + 39818213504973\, q^{107} p^{58} + 197549681020\, q^{104} p^{37}$$
$$+ 283437290729\, q^{104} p^{38} + 368\, q^{66} p^{6} + 1217527199640\, q^{125} p^{53} + 53965792027336\, p^{87} q^{132} + 8792225058113\, p^{93} q^{47}$$
$$+ 4777020243\, p^{85} q^{25} + 29176720452\, p^{87} q^{29} + 2814656959\, p^{85} q^{24} + 12236615962\, p^{86} q^{27} + 151746879102\, p^{99} q^{35} + 4\, p^{29} q^{2}$$
$$+ 852834634350073\, p^{97} q^{78} + 131445945517082\, p^{95} q^{61} + 177438339748158\, p^{95} q^{63} + 518269168544894\, p^{96} q^{72}$$
$$+ 334030592160132\, p^{96} q^{68} + 4088261068009\, q^{128} p^{61} + 1510429945017850\, p^{97} q^{90} + 356989044767575\, q^{103} p^{71}$$
$$+ 441791579463290\, q^{103} p^{73} + 536453885531123\, q^{103} p^{75} + 487970262599937\, q^{103} p^{74} + 587026452117936\, q^{103} p^{76}$$
$$+ 693349764171977\, q^{103} p^{78} + 639426879063696\, q^{103} p^{77} + 95215846871839\, p^{95} q^{59} + 420131824694385\, p^{96} q^{70}$$
$$+ 3212062789871\, p^{92} q^{43} + 1479305622238069\, p^{89} q^{91} + 1151703073194671\, p^{82} q^{93} + 2358677\, p^{74} q^{13} + 5495291\, p^{75} q^{14}$$
$$+ 2055544587\, p^{117} q^{31} + 107910\, q^{72} p^{10} + 289749\, q^{74} p^{11} + 26420540582494\, p^{94} q^{52} + 14147927588369\, p^{93} q^{49}$$

$$+ 524925727821172\, p^{91} q^{117} + 945946642959385\, p^{109} q^{106} + 870783850435737\, p^{79} q^{99} + 13331802\, p^{125} q^{26}$$
$$+ 77637398668330\, p^{128} q^{121} + 27452185765415\, q^{133} p^{81} + 456213920441\, q^{106} p^{40} + 872448913189\, q^{106} p^{42} + 4336412489515\, q^{97} p^{45}$$
$$+ 55988287791527\, p^{111} q^{62} + 543008154692386\, p^{113} q^{84} + 24891108525915\, p^{110} q^{57} + 509780095779449\, p^{113} q^{83}$$
$$+ 771953322879743\, p^{114} q^{101} + 476492100617422\, p^{113} q^{82} + 122\, q^{106} p^{11} + 3260926\, q^{95} p^{16} + 16659080\, q^{96} p^{18} + 13340\, q^{77} p^{9}$$
$$+ 49387\, q^{78} p^{10} + 15718\, q^{76} p^{9} + 64361311819\, q^{110} p^{36} + 1279176505\, q^{104} p^{26} + 178537371313944\, p^{68} q^{108} + 1513204564904\, p^{149} q^{122}$$
$$+ 1608442276052264\, p^{94} q^{96} + 28726149196961\, p^{123} q^{134} + 451497967025941\, p^{120} q^{99} + 444175622729488\, p^{120} q^{97}$$
$$+ 369375321437091\, q^{121} p^{107} + 1441964503124\, p^{83} q^{146} + 1154532201273\, p^{81} q^{146} + 1293455628564\, p^{82} q^{146}$$
$$+ 851914880532\, p^{81} q^{147} + 1599719047639\, p^{84} q^{146} + 1766223347369\, p^{85} q^{146} + 1940821020613\, p^{86} q^{146} + 3\, q^{81} p^{6}$$
$$+ 3761152429\, p^{163} q^{90} + 129073615586\, p^{149} q^{144} + 6422862975618\, p^{132} q^{68} + 1812889380432\, p^{130} q^{59} + 42619304586468\, p^{78} q^{129}$$
$$+ 332864603635\, p^{150} q^{136} + 668322329168\, p^{149} q^{132} + 1766223347369\, p^{146} q^{85} + 1423553454755\, p^{149} q^{123} + 3223455\, p^{177} q^{143}$$
$$+ 12747112\, p^{174} q^{105} + 4391348\, p^{169} q^{75} + 26386339717\, p^{159} q^{90} + 7574\, p^{124} q^{18} + 454\, q^{108} p^{12} + 176850035203\, p^{139} q^{151}$$
$$+ 231903207838487\, p^{111} q^{124} + 177416213203\, p^{157} q^{110} + 122\, p^{106} q^{11} + 419777078\, p^{169} q^{103} + 208652283\, p^{171} q^{134}$$
$$+ 4944082807042\, q^{136} p^{72} + 3657828427815\, q^{136} p^{70} + 666144789\, q^{130} p^{35} + 412118143\, p^{170} q^{113} + 116259\, p^{145} q^{31} + 982549\, p^{166} q^{62}$$
$$+ 18771275\, p^{174} q^{109} + 485\, p^{142} q^{24} + 1571256\, p^{177} q^{152} + 11273498\, p^{175} q^{113} + 3349\, p^{150} q^{31} + 12520\, p^{154} q^{36}$$
$$+ 249957672880173\, p^{122} q^{87} + 235749401068918\, p^{122} q^{86} + 319310513120147\, p^{123} q^{98} + 143693060828772\, p^{121} q^{78}$$
$$+ 164704371455371\, p^{122} q^{81} + 117549452310628\, p^{121} q^{76} + 277380379135439\, p^{122} q^{89} + 130273610349775\, p^{121} q^{77}$$
$$+ 290330017028215\, p^{122} q^{90} + 4600407517715\, p^{124} q^{58} + 117233134816431\, p^{130} q^{108} + 110875058392359\, p^{130} q^{110}$$
$$+ 2309541430\, p^{135} q^{41} + 342969739416\, p^{141} q^{64} + 3864927707334\, p^{147} q^{106} + 950969816401\, p^{143} q^{73} + 57006012584\, p^{139} q^{54}$$
$$+ 1576\, q^{174} p^{69} + 268548041469\, p^{121} q^{45} + 2367331818987\, p^{124} q^{55} + 399838487\, p^{111} q^{26} + 17285648264374\, p^{121} q^{138}$$
$$+ 2456456\, q^{130} p^{26} + 419049248049\, p^{129} q^{52} + 8259584220972\, p^{133} q^{71} + 38922686497259\, p^{135} q^{91} + 36878015004\, q^{143} p^{57}$$
$$+ 104355\, p^{114} q^{17} + 15038883803787\, p^{71} q^{130} + 6563920\, p^{83} q^{15} + 1560718808321181\, p^{91} q^{93} + 3172513554\, q^{151} p^{59}$$
$$+ 11268240541\, q^{151} p^{64} + 8890827472\, q^{151} p^{63} + 5402593837\, q^{151} p^{61} + 6959268407\, q^{151} p^{62} + 790570968401637\, p^{93} q^{113}$$
$$+ 497180686388739\, p^{84} q^{114} + 698924630170138\, p^{114} q^{106} + 453189578662\, q^{94} p^{37} + 3981705\, q^{154} p^{45} + 6478084\, q^{154} p^{46}$$
$$+ 2546214\, p^{73} q^{13} + 5900991\, p^{74} q^{14} + 4224141215\, p^{99} q^{27} + 2552879150860\, p^{107} q^{46} + 8297988767469\, p^{108} q^{51}$$

$$+ 966984454087\, p^{105}\, q^{42} + 3350600826924\, p^{107}\, q^{47} + 35676675135\, q^{126}\, p^{42} + 72029913458\, q^{126}\, p^{44} + 45255997643648\, p^{135}\, q^{113}$$
$$+ 202731762935\, q^{152}\, p^{83} + 34559760\, p^{172}\, q^{149} + 151206635511\, p^{154}\, q^{87} + 73861418251\, p^{154}\, q^{81} + 670106\, p^{129}\, q^{24}$$
$$+ 693271099821\, p^{119}\, q^{47} + 379234878092\, p^{101}\, q^{38} + 3216\, q^{131}\, p^{20} + 139567667037601\, p^{63}\, q^{101} + 15304030\, q^{131}\, p^{29}$$
$$+ 62125761604650\, p^{108}\, q^{134} + 1586597871138173\, p^{92}\, q^{95} + 27570572559352\, q^{122}\, p^{66} + 8635980541129\, p^{64}\, q^{127}$$
$$+ 34981273729128\, p^{72}\, q^{126} + 30610146109234\, p^{71}\, q^{126} + 213754085065790\, p^{64}\, q^{93} + 6244089464483\, q^{103}\, p^{48}$$
$$+ 5988926198166\, q^{128}\, p^{63} + 4963981187103\, q^{128}\, p^{62} + 3345065103469\, q^{128}\, p^{60} + 916580618674184\, p^{108}\, q^{108}$$
$$+ 34981273729128\, p^{118}\, q^{64} + 32312432\, p^{97}\, q^{19} + 3721968334868\, p^{147}\, q^{103} + 957621394789\, p^{144}\, q^{75} + 31765751783\, p^{142}\, q^{156}$$
$$+ 1669\, p^{183}\, q^{121} + 139106795\, p^{135}\, q^{35} + 77\, q^{126}\, p^{16} + 44519\, q^{137}\, p^{25} + 175518569247\, p^{115}\, q^{157} + 15568166371\, p^{163}\, q^{121}$$
$$+ 13348558995\, p^{160}\, q^{88} + 23690866\, p^{147}\, q^{41} + 2445139\, p^{134}\, q^{28} + 44584460970\, p^{153}\, q^{75} + 17132\, p^{119}\, q^{17} + 21253161\, p^{140}\, q^{35}$$
$$+ 2308155358\, p^{160}\, q^{151} + 4823193961\, p^{150}\, q^{59} + 14622814\, p^{138}\, q^{33} + 451487086\, p^{161}\, q^{71} + 12101941948710\, p^{142}\, q^{112}$$
$$+ 3734220761008\, p^{143}\, q^{128} + 9103453\, p^{136}\, q^{31} + 135895932114\, p^{154}\, q^{86} + 108138801848\, p^{154}\, q^{84} + 40537\, q^{164}\, p^{51} + q^{155}\, p^{30}$$
$$+ 36061201628\, p^{161}\, q^{120} + 25225\, p^{180}\, q^{168} + 1591162\, p^{178}\, q^{125} + 2279867\, p^{176}\, q^{106} + 1442684\, p^{178}\, q^{123} + 1762257\, p^{176}\, q^{104}$$
$$+ 119371\, p^{169}\, q^{64} + 760208\, p^{172}\, q^{79} + 42884\, p^{180}\, q^{165} + 426429193\, q^{126}\, p^{32} + 8727379797\, p^{137}\, q^{162} + 9237408339\, p^{132}\, q^{163}$$
$$+ 4630314558\, p^{147}\, q^{160} + 275106038671854\, p^{112}\, q^{122} + 316477475556882\, p^{104}\, q^{123} + 74803423920601\, p^{107}\, q^{133}$$
$$+ 75872662416047\, p^{106}\, q^{133} + 77030477680906\, p^{102}\, q^{133} + 77219494647884\, p^{103}\, q^{133} + 84300106149081\, p^{109}\, q^{132}$$
$$+ 81985087861602\, p^{110}\, q^{132} + 8000237\, p^{109}\, q^{20} + 5064243\, p^{152}\, q^{175} + 2084879\, p^{161}\, q^{174} + 1716012\, p^{162}\, q^{174}$$
$$+ 3445983402494\, p^{139}\, q^{135} + 80336738408910\, p^{58}\, q^{95} + 154\, p^{70}\, q^{6} + 137969602251\, p^{157}\, q^{123} + 57855497531\, p^{151}\, q^{72}$$
$$+ 95678671141\, p^{157}\, q^{129} + 8339535810\, p^{158}\, q^{147} + 1584328\, p^{129}\, q^{25} + 17863257920\, p^{158}\, q^{142} + 131272730412\, p^{157}\, q^{124}$$
$$+ 319182542839\, p^{154}\, q^{96} + 248\, p^{93}\, q^{9} + 2071312190\, p^{159}\, q^{153} + 3329374545\, p^{158}\, q^{152} + 93872727\, p^{139}\, q^{37} + 110074054226\, p^{157}\, q^{127}$$
$$+ 254546317938\, p^{156}\, q^{111} + 1633484239\, p^{144}\, q^{48} + 2570201\, p^{176}\, q^{107} + 2546214\, p^{177}\, q^{117} + 9670\, p^{182}\, q^{166} + 188825\, p^{180}\, q^{124}$$
$$+ 699862536316\, q^{148}\, p^{82} + 178144997712439\, p^{63}\, q^{82} + 69535995\, p^{97}\, q^{20} + 288877256160929\, p^{121}\, q^{113} + 1083127000\, q^{82}\, p^{22}$$
$$+ 18832258396860\, p^{99}\, q^{140} + 5184175459737\, p^{145}\, q^{117} + 488411419736\, p^{139}\, q^{63} + 1083292165\, p^{130}\, q^{36} + 9321265020988\, p^{131}\, q^{136}$$
$$+ 7053976907671\, p^{132}\, q^{137} + 74803423920601\, p^{57}\, q^{83} + 142970008\, p^{162}\, q^{161} + 1378617646669\, p^{145}\, q^{80} + 12476662007\, p^{138}\, q^{48}$$
$$+ 2945492384265\, p^{148}\, q^{110} + 1927635825551\, p^{145}\, q^{83} + 3450768152438\, p^{147}\, q^{100} + 21051499896344\, p^{115}\, q^{59}$$

$$+ 212430585102016\, p^{70} q^{109} + 10326727468569\, p^{123} q^{140} + 11127143592296\, p^{122} q^{140} + 107147443814672\, p^{130} q^{111}$$
$$+ 33684352334418\, p^{127} q^{73} + 94265846778538\, p^{130} q^{114} + 74809674407617\, p^{130} q^{118} + 321100514\, p^{125} q^{31} + 10648982764\, p^{131} q^{42}$$
$$+ 1914002115891\, p^{141} q^{74} + 670671678132\, p^{140} q^{66} + 3423421\, p^{119} q^{22} + 113738759035\, q^{141} p^{59} + 11770246\, p^{140} q^{34}$$
$$+ 56382742\, p^{144} q^{40} + 9409029592\, p^{152} q^{65} + 94996871\, p^{145} q^{42} + 52488494\, p^{143} q^{39} + 3050527\, p^{137} q^{30} + 5312005024\, p^{161} q^{144}$$
$$+ 11971610613\, p^{153} q^{68} + 88556876576\, p^{100} q^{158} + 167526477536\, p^{142} q^{62} + 3300835959247\, p^{146} q^{93} + 607556636184\, p^{144} q^{72}$$
$$+ 3832759552755\, p^{147} q^{105} + 23294729290689\, q^{138} p^{93} + 3467173020\, p^{135} q^{42} + 2053272080\, p^{134} q^{40} + 313595985768\, p^{142} q^{65}$$
$$+ 103060740\, p^{129} q^{31} + 320630004088\, q^{145} p^{70} + 448876968308\, q^{145} p^{72} + 380499049213\, q^{145} p^{71} + 140013012588\, q^{121} p^{43}$$
$$+ 99386187868\, q^{121} p^{42} + 194980690222\, q^{121} p^{44} + 8173182524422\, q^{123} p^{60} + 6697452821050\, q^{123} p^{59} + 5451701574363\, q^{123} p^{58}$$
$$+ 18010258150\, q^{120} p^{37} + 27047887062\, q^{120} p^{38} + 82074442928\, q^{122} p^{42} + 4246422486\, p^{165} q^{103} + 1503850808\, p^{167} q^{134}$$
$$+ 104912\, p^{174} q^{173} + 2767153635\, p^{164} q^{92} + 412944771704\, q^{122} p^{47} + 552953255007\, q^{122} p^{48} + 40023916760\, q^{120} p^{39} + 348\, q^{92} p^{9}$$
$$+ 19029\, p^{182} q^{127} + 22847\, p^{182} q^{129} + 1716\, p^{184} q^{167} + 215160\, p^{98} q^{14} + 29800613919\, p^{142} q^{55} + 48204343\, p^{108} q^{22}$$
$$+ 114249536293531\, p^{130} q^{109} + 1769078\, p^{171} q^{167} + 24078940082032\, p^{135} q^{84} + 898357449403\, p^{129} q^{55} + 277605160282\, p^{146} q^{71}$$
$$+ 1472009471513\, p^{146} q^{131} + 24141001\, p^{123} q^{26} + 184889056133\, p^{145} q^{67} + 115092048\, p^{114} q^{25} + 14195286127344\, p^{92} q^{140}$$
$$+ 1617028394\, q^{167} p^{105} + 19717830465645\, p^{109} q^{140} + 822893410\, p^{165} q^{87} + 27153482\, p^{120} q^{25} + 6293924652\, p^{130} q^{40}$$
$$+ 944463692257\, p^{138} q^{65} + 2492997131\, q^{125} p^{35} + 4556638\, q^{118} p^{22} + 35294490\, q^{119} p^{25} + 4564599736\, q^{128} p^{38}$$
$$+ 5200914480391\, q^{133} p^{68} + 6102059240005\, q^{133} p^{69} + 18685950427640\, p^{132} q^{130} + 145537557897791\, p^{103} q^{129}$$
$$+ 115423209115302\, p^{96} q^{130} + 26154836045\, p^{124} q^{40} + 31419829949\, p^{160} q^{97} + 744300402\, p^{142} q^{167} + 1071557273\, p^{148} q^{164}$$
$$+ 964184703873\, p^{122} q^{50} + 2397\, q^{136} p^{22} + 26778\, q^{136} p^{24} + 8564\, q^{136} p^{23} + 13654269477\, p^{117} q^{35} + 3713007365479\, p^{124} q^{57}$$
$$+ 84096692878\, p^{120} q^{41} + 20943896100\, p^{117} q^{36} + 1750982726029\, p^{123} q^{53} + 2303903\, p^{171} q^{166} + 1437306220295\, p^{144} q^{78}$$
$$+ 168647779217739\, p^{128} q^{102} + 138602209122808\, p^{129} q^{107} + 3858923752498\, p^{132} q^{65} + 39347745429\, p^{118} q^{38}$$
$$+ 1687245801299\, p^{149} q^{120} + 1243033033224\, p^{149} q^{125} + 9823204163688\, p^{141} q^{121} + 757748\, p^{107} q^{17} + 4977446391\, p^{115} q^{32}$$
$$+ 213135174\, p^{111} q^{25} + 1404013844628119\, p^{103} q^{94} + 37251801038494\, q^{121} p^{67} + 24891108525915\, q^{110} p^{57} + 1233755480\, p^{168} q^{129}$$
$$+ 8797440059\, p^{155} q^{151} + 20616230290851\, p^{135} q^{125} + 16518835346316\, p^{131} q^{132} + 18329566781602\, p^{129} q^{133}$$
$$+ 12710530439512\, p^{133} q^{132} + 670\, q^{157} p^{36} + 4396627\, q^{167} p^{69} + 20371365148958\, q^{110} p^{56} + 81582369652\, q^{116} p^{39}$$

$$+ 167542288209\, q^{116} p^{41} + 117655347146\, q^{116} p^{40} + 2422353431470\, q^{110} p^{47} + 6102059240005\, q^{121} p^{57} + 6055385118074\, p^{143} q^{90}$$
$$+ 2474167388\, p^{167} q^{117} + 2976896588\, p^{166} q^{106} + 1453439844\, p^{168} q^{123} + 3134145621\, p^{166} q^{107} + 1000840195\, p^{165} q^{146}$$
$$+ 1460554338539219\, p^{95} q^{102} + 1019713944378528\, p^{110} q^{100} + 3983695\, q^{104} p^{18} + 169515996428308\, p^{85} q^{124}$$
$$+ 158166688300333\, p^{84} q^{124} + 180881203855150\, p^{86} q^{124} + 66324965546146\, p^{76} q^{125} + 932940472779193\, p^{109} q^{89}$$
$$+ 435488072948091\, p^{108} q^{76} + 476492100617422\, p^{108} q^{77} + 932635885714362\, p^{110} q^{91} + 609483766101348\, p^{109} q^{81}$$
$$+ 258759346558424\, p^{108} q^{71} + 821289162677300\, p^{109} q^{86} + 860578238180325\, p^{109} q^{87} + 524564396207152\, p^{109} q^{79}$$
$$+ 1444563644655825\, p^{102} q^{99} + 43690500504390\, p^{60} q^{110} + 40094723395730\, p^{59} q^{109} + 551978053663305\, p^{99} q^{118}$$
$$+ 544975264927766\, p^{97} q^{118} + 549601820698783\, p^{98} q^{118} + 552075549541301\, p^{100} q^{118} + 545456055684823\, p^{102} q^{118}$$
$$+ 549892960145449\, p^{101} q^{118} + 538817214783678\, p^{103} q^{118} + 519269959610714\, p^{105} q^{118} + 530054458460846\, p^{104} q^{118}$$
$$+ 473264508457205\, p^{105} q^{119} + 1464587364662218\, p^{102} q^{97} + 144522537077605\, p^{100} q^{129} + 112193982094238\, p^{95} q^{130}$$
$$+ 80419560310181\, p^{127} q^{122} + 48933322824304\, p^{115} q^{134} + 46492595081420\, p^{116} q^{134} + 41426399066434\, p^{118} q^{134}$$
$$+ 36268124926059\, p^{120} q^{134} + 38847612798396\, p^{119} q^{134} + 43982402312517\, p^{117} q^{134} + 1370414589926876\, p^{104} q^{98}$$
$$+ 930591717113\, q^{151} p^{97} + 1022908473037\, q^{151} p^{99} + 1225323471337\, q^{151} p^{105} + 1366701813654740\, p^{95} q^{104}$$
$$+ 1360367412894133\, p^{99} q^{104} + 1370414589926876\, p^{98} q^{104} + 1298018532527339\, p^{102} q^{104} + 1232171746458284\, p^{104} q^{104}$$
$$+ 1156022362579630\, p^{105} q^{105} + 1344820328961010\, p^{100} q^{104} + 1267306980970474\, p^{103} q^{104} + 1373600526302976\, p^{96} q^{104}$$
$$+ 933492\, q^{138} p^{29} + 140615703055441\, p^{127} q^{114} + 110195056233618\, p^{127} q^{118} + 178144997712439\, p^{127} q^{108}$$
$$+ 167452284835359\, p^{127} q^{110} + 91255257269068\, p^{132} q^{103} + 51916670141321\, p^{131} q^{84} + 1486627561146908\, p^{100} q^{100}$$
$$+ 1354228955293559\, p^{104} q^{94} + 108804804978\, p^{109} q^{37} + 27852896661\, p^{107} q^{33} + 8635980541129\, q^{126} p^{63} + 7180602305010\, q^{126} p^{62}$$
$$+ 1005726127184\, q^{126} p^{53} + 1479305622238069\, p^{101} q^{99} + 56703113473349\, p^{114} q^{64} + 11896487938610\, p^{113} q^{55}$$
$$+ 307535162409037\, p^{116} q^{80} + 512258240810043\, p^{116} q^{88} + 589505301893982\, p^{117} q^{103} + 542289873704375\, p^{117} q^{92}$$
$$+ 14694982739924\, p^{113} q^{56} + 1415815050935950\, p^{103} q^{95} + 1366701813654740\, p^{104} q^{95} + 9298098\, q^{112} p^{21}$$
$$+ 19567134576402\, q^{132} p^{76} + 1404013844628119\, p^{94} q^{103} + 675056\, q^{98} p^{15} + 2667\, q^{92} p^{10} + 7937859\, q^{105} p^{19}$$
$$+ 1404768594519965\, p^{103} q^{99} + 1026819493509153\, p^{87} q^{106} + 13400969498320\, p^{91} q^{140} + 1323956190917898\, p^{101} q^{104}$$
$$+ 1374843093680484\, p^{97} q^{104} + 1354228955293559\, p^{94} q^{104} + 1336329429608866\, p^{93} q^{104} + 840799266\, p^{93} q^{23} + 11417754\, p^{86} q^{16}$$

$$+ 1029068355037523\, p^{110}\, q^{98} + 17152124678521\, p^{105}\, q^{53} + 2572239221\, p^{103}\, q^{27} + 518971492894923\, p^{108}\, q^{78}$$
$$+ 189431624439124\, p^{105}\, q^{127} + 138247527622974\, p^{97}\, q^{129} + 1137523188513151\, p^{95}\, q^{108} + 1123506545979096\, p^{94}\, q^{108}$$
$$+ 207934783256009\, p^{64}\, q^{83} + 74623382036504\, p^{93}\, q^{132} + 77591354676514\, p^{94}\, q^{132} + 173079663318095\, p^{109}\, q^{127}$$
$$+ 166999129909417\, p^{104}\, q^{128} + 175370757680560\, p^{112}\, q^{126} + 186368176589046\, p^{106}\, q^{127} + 159019145430522\, p^{114}\, q^{126}$$
$$+ 167353878805508\, p^{113}\, q^{126} + 101833502418149\, p^{124}\, q^{123} + 2186123116\, p^{100}\, q^{26} + 707991970543109\, p^{115}\, q^{96}$$
$$+ 122435452521\, p^{153}\, q^{138} + 407869537887\, p^{107}\, q^{40} + 289311149865\, p^{107}\, q^{39} + 54826846380\, p^{105}\, q^{34} + 258065556\, p^{165}\, q^{80}$$
$$+ 282830329112835\, p^{74}\, q^{111} + 607328854066307\, p^{82}\, q^{110} + 1690781220466\, q^{150}\, p^{107} + 21717357280567\, q^{119}\, p^{62}$$
$$+ 18128337671396\, q^{119}\, p^{61} + 3713007365479\, q^{133}\, p^{66} + 4407379678382\, q^{133}\, p^{67} + 9409029592\, q^{125}\, p^{38} + 715427307\, q^{124}\, p^{32}$$
$$+ 1199700617\, q^{124}\, p^{33} + 7352065997599\, p^{144}\, q^{99} + 4391348\, q^{115}\, p^{21} + 499181492867831\, p^{73}\, q^{81} + 27319791812917\, p^{93}\, q^{52}$$
$$+ 66324965546146\, p^{114}\, q^{65} + 153991669376120\, p^{115}\, q^{72} + 31938511434272\, q^{105}\, p^{56} + 1457549876188911\, p^{88}\, q^{92}$$
$$+ 82569076545\, p^{159}\, q^{117} + 116338032164\, p^{158}\, q^{107} + 56478138451\, p^{157}\, q^{89} + 2053853727\, p^{161}\, q^{150} + 7574\, q^{124}\, p^{18} + 78765\, q^{127}\, p^{21}$$
$$+ 17999\, q^{125}\, p^{19} + 583238918756733\, p^{75}\, q^{81} + 56571389978\, q^{108}\, p^{35} + 869094748\, p^{165}\, q^{147} + 435109071313817\, p^{71}\, q^{82}$$
$$+ 75872662416047\, p^{133}\, q^{106} + 14625567135944\, p^{92}\, q^{49} + 18748081378849\, p^{126}\, q^{135} + 12218712948232\, p^{130}\, q^{135}$$
$$+ 13699425639301\, p^{129}\, q^{135} + 8409616989278\, p^{133}\, q^{135} + 6386045355406\, p^{135}\, q^{135} + 4777904984521\, p^{136}\, q^{136}$$
$$+ 10843467817563\, p^{131}\, q^{135} + 7347979968570\, p^{134}\, q^{135} + 16968336869856\, p^{127}\, q^{135} + 9574078519362\, p^{132}\, q^{135}$$
$$+ 15283766767731\, p^{128}\, q^{135} + 20616230290851\, p^{125}\, q^{135} + 22564259638015\, p^{124}\, q^{135} + 4\, q^{176}\, p^{67} + 11\, q^{176}\, p^{68}$$
$$+ 5323120379758\, p^{144}\, q^{92} + 844386115347\, p^{147}\, q^{134} + 55594479\, p^{127}\, q^{29} + 99200334\, p^{161}\, q^{65} + 11567597208\, p^{161}\, q^{91}$$
$$+ 15388221171\, p^{163}\, q^{110} + 12856948072980\, p^{87}\, q^{139} + 11887712394539\, p^{86}\, q^{139} + 3761152429\, p^{90}\, q^{163} + 69111831130\, p^{129}\, q^{158}$$
$$+ 1942865940\, p^{163}\, q^{85} + 205381\, p^{179}\, q^{113} + 200\, p^{158}\, q^{36} + 398450\, p^{178}\, q^{109} + 119824\, p^{181}\, q^{143} + 222887\, p^{178}\, q^{105} + 74983\, p^{173}\, q^{75}$$
$$+ 47\, p^{154}\, q^{31} + 2\, q^{177}\, p^{70} + 826644493\, p^{168}\, q^{136} + 2081424669\, p^{167}\, q^{128} + 306423131\, p^{168}\, q^{146} + 3284783494\, p^{166}\, q^{108}$$
$$+ 185521986\, p^{159}\, q^{63} + 15609\, p^{170}\, q^{62} + 6\, p^{146}\, q^{24} + 86461\, p^{181}\, q^{152} + 1465355011672\, p^{143}\, q^{76} + 5029916454872\, p^{146}\, q^{107}$$
$$+ 6165953681963\, p^{145}\, q^{102} + 93872727\, q^{139}\, p^{37} + 23387979079751\, p^{99}\, q^{139} + 4060759106210\, p^{85}\, q^{143} + 28130636741643\, p^{98}\, q^{138}$$
$$+ 36177802\, q^{163}\, p^{66} + 134903232\, q^{163}\, p^{71} + 81889438\, q^{163}\, p^{69} + 62960254\, q^{163}\, p^{68} + 47958864\, q^{163}\, p^{67} + 1741959717457\, p^{148}\, q^{92}$$
$$+ 329660681303\, p^{151}\, q^{134} + 1357112373740\, p^{150}\, q^{119} + 2020493660104\, p^{149}\, q^{101} + 2079071694200\, p^{149}\, q^{102}$$

$$+ 31794090885704\, p^{113} q^{137} + 26403495023272\, p^{113} q^{138} + 24343384436199\, p^{101} q^{139} + 28843924180889\, p^{99} q^{138} + 898\, q^{115} p^{14}$$
$$+ 10024681605290\, p^{84} q^{139} + 86623470\, p^{158} q^{166} + 75694371\, p^{157} q^{167} + 96116037\, p^{159} q^{165} + 64073530\, p^{156} q^{168}$$
$$+ 10981086671891\, p^{88} q^{140} + 10941640860138\, p^{85} q^{139} + 29451468016017\, p^{100} q^{138} + 155477996\, q^{139} p^{38} + 16529361761\, p^{163} q^{116}$$
$$+ 5781426636\, p^{164} q^{133} + 3924167\, p^{111} q^{176} + 17132\, p^{173} q^{71} + 886588171\, p^{144} q^{166} + 605\, p^{162} q^{42} + 415\, p^{160} q^{39} + 181860\, p^{177} q^{97}$$
$$+ 1456\, p^{164} q^{46} + 101408\, p^{181} q^{149} + 493256\, p^{179} q^{122} + 166407\, p^{180} q^{154} + 1634\, p^{158} q^{38} + 2\, p^{127} q^{15} + 706\, p^{155} q^{34} + 3349\, p^{159} q^{40}$$
$$+ 9666\, p^{161} q^{44} + 146\, p^{148} q^{27} + p^{124} q^{14} + 4224141215\, p^{163} q^{91} + 1085139237245009\, p^{90} q^{107} + 3541788802798\, p^{146} q^{120}$$
$$+ 2546192764501\, p^{146} q^{125} + 21470902339\, p^{135} q^{47} + 679522520\, p^{167} q^{95} + 317800743\, p^{170} q^{108} + 14585279\, p^{163} q^{63}$$
$$+ 168857083\, p^{167} q^{85} + 116841064\, p^{154} q^{53} + 269043935\, p^{155} q^{57} + 247972073535\, p^{115} q^{156} + 53811952891\, p^{160} q^{108}$$
$$+ 3794494048\, p^{153} q^{63} + 302354092\, p^{149} q^{49} + 20109504\, p^{144} q^{38} + 96970\, p^{129} q^{22} + 15110076862\, p^{161} q^{135} + 5614397449\, p^{162} q^{141}$$
$$+ 57694373180\, p^{160} q^{113} + 152632533\, p^{171} q^{139} + 55039452743\, p^{160} q^{109} + 55548064517\, p^{160} q^{118} + 218547343\, q^{156} p^{58}$$
$$+ 1525718123\, q^{157} p^{67} + 1924960878\, q^{157} p^{68} + 2260463865\, q^{158} p^{71} + 6326\, q^{174} p^{72} + 620278560328\, p^{153} q^{103}$$
$$+ 20147461467\, p^{156} q^{145} + 17105803309\, p^{156} q^{146} + 53877697179\, p^{156} q^{138} + p^{157} q^{32} + p^{158} q^{33} + 40783\, p^{181} q^{121} + 23\, p^{166} q^{45}$$
$$+ 166299496\, p^{136} q^{36} + 32415284461\, p^{147} q^{62} + 60668632564\, p^{156} q^{137} + 1024901560\, p^{140} q^{43} + 1663140823\, p^{165} q^{142}$$
$$+ 9343633168\, p^{164} q^{124} + 297337226067\, p^{126} q^{154} + 205950804190\, p^{127} q^{155} + 1327\, p^{110} q^{13} + 2889491426\, p^{161} q^{148}$$
$$+ 2443920605\, p^{161} q^{149} + 5096004\, p^{139} q^{32} + 427439351835\, p^{154} q^{119} + 600837200865\, p^{153} q^{102} + 579510146676\, p^{153} q^{101}$$
$$+ 486352422804\, p^{152} q^{92} + 112517651681\, p^{155} q^{134} + 234725335184\, p^{155} q^{125} + 254508075904\, p^{112} q^{156} + 100829450421\, p^{149} q^{71}$$
$$+ 67333757564\, p^{148} q^{67} + 411236722131\, p^{154} q^{120} + 96\, p^{81} q^{7} + 15304030\, p^{131} q^{29} + 652642615910\, p^{153} q^{105} + 25547814960\, p^{147} q^{61}$$
$$+ 4690229092\, p^{143} q^{50} + 27451855799\, p^{156} q^{143} + 1594426380\, p^{141} q^{45} + 8515308588\, p^{144} q^{53} + 18751508678\, p^{145} q^{57}$$
$$+ 4962306492\, p^{142} q^{162} + 1633484239\, p^{142} q^{46} + 637613695415\, p^{153} q^{104} + 6258868937\, p^{144} q^{52} + 1360367412894133\, p^{86} q^{91}$$
$$+ 165122351324\, p^{146} q^{146} + 136075522762\, p^{147} q^{146} + 209876165256\, p^{141} q^{149} + 179541521465\, p^{142} q^{149} + 136075522762\, p^{146} q^{147}$$
$$+ 163694853897\, p^{145} q^{147} + 232422469151\, p^{143} q^{147} + 195664287884\, p^{144} q^{147} + 238408747640\, p^{144} q^{146} + 65430063969\, p^{152} q^{144}$$
$$+ 163694853897\, p^{147} q^{145} + 108439764322\, p^{149} q^{145} + 133702435726\, p^{148} q^{145} + 174812218\, q^{165} p^{78} + 290954\, q^{137} p^{27}$$
$$+ 96883683\, q^{146} p^{43} + 150642255\, q^{146} p^{44} + 230205382\, q^{146} p^{45} + 225986484\, q^{147} p^{46} + 147628\, p^{173} q^{173} + 82199529916\, p^{159} q^{109}$$
$$+ 81033418459\, p^{159} q^{118} + 2301835421\, p^{167} q^{125} + 5277056397\, p^{107} q^{165} + 10118632398\, p^{112} q^{164} + 27299804030\, p^{127} q^{161}$$

$$+ 5595314085\, p^{152}\, q^{156} + 5625013274913\, p^{83}\, q^{141} + 75\, p^{107}\, q^{11} + 561086699232\, q^{152}\, p^{94} + 29176720452\, p^{103}\, q^{161}$$
$$+ 356737458650\, p^{154}\, q^{123} + 1220613424851\, p^{79}\, q^{145} + p^{171}\, q^{189} + 4451\, q^{166}\, p^{51} + 6046192\, q^{174}\, p^{99} + 5230860\, q^{174}\, p^{98}$$
$$+ 9008552\, q^{174}\, p^{102} + 11417754\, q^{174}\, p^{104} + 6946766\, q^{174}\, p^{100} + 10170137\, q^{174}\, p^{103} + 7933632\, q^{174}\, p^{101} + 4497116\, q^{174}\, p^{97} + 6\, q^{164}\, p^{41}$$
$$+ q^{158}\, p^{33} + 4602611715\, p^{145}\, q^{161} + 6035\, q^{160}\, p^{42} + 25054449440218\, p^{118}\, q^{137} + 18507175490161\, p^{120}\, q^{138} + 6430\, p^{177}\, q^{178}$$
$$+ 356737458650\, p^{123}\, q^{154} + 248896321482\, p^{124}\, q^{155} + 8\, p^{187}\, q^{146} + 18319103661910\, p^{98}\, q^{140} + 17744862988995\, p^{97}\, q^{140}$$
$$+ 23579440478282\, p^{119}\, q^{137} + 19727162219004\, p^{119}\, q^{138} + 24831216379168\, p^{107}\, q^{139} + 30572493039811\, p^{106}\, q^{138}$$
$$+ 10489498472782\, p^{130}\, q^{136} + 7967573180641\, p^{131}\, q^{137} + 6524618883452\, p^{82}\, q^{140} + 47\, q^{159}\, p^{36} + 172\, q^{159}\, p^{37} + 1285770975\, p^{162}\, q^{79}$$
$$+ 591406919\, p^{168}\, q^{140} + 245221965\, p^{159}\, q^{64} + 890695122\, p^{162}\, q^{77} + 755093981582\, p^{147}\, q^{80} + 1033412444807\, p^{70}\, q^{141}$$
$$+ 749123564645\, p^{132}\, q^{57} + 188\, q^{118}\, p^{14} + 727215018\, p^{111}\, q^{27} + 12741845890\, p^{141}\, q^{51} + 5451701574363\, p^{123}\, q^{58}$$
$$+ 135501027068105\, p^{129}\, q^{108} + 127886029343367\, p^{129}\, q^{110} + 36837933683044\, p^{131}\, q^{125} + 3720482616196\, p^{147}\, q^{112}$$
$$+ 1248163745411\, p^{148}\, q^{128} + 1215837963411\, q^{119}\, p^{49} + 17899\, p^{179}\, q^{172} + 12472112322\, p^{162}\, q^{97} + 533776648587\, q^{151}\, p^{89}$$
$$+ 581356872488\, q^{151}\, p^{90} + 630254941633\, q^{151}\, p^{91} + 680141753617\, q^{151}\, p^{92} + 112343322899\, q^{151}\, p^{76} + 832613241885\, q^{152}\, p^{102}$$
$$+ 857841922272\, q^{152}\, p^{103} + 2019272\, q^{166}\, p^{64} + 91326749\, q^{144}\, p^{41} + 30761447494\, q^{149}\, p^{65} + 148866879026894\, p^{122}\, q^{121}$$
$$+ 19422133\, p^{156}\, q^{171} + 15618723\, q^{122}\, p^{25} + 2201694577356\, p^{77}\, q^{142} + 3149778592\, q^{139}\, p^{45} + 741140731288\, q^{134}\, p^{59}$$
$$+ 922408201807\, q^{134}\, p^{60} + 5899731\, q^{120}\, p^{23} + 2\, q^{172}\, p^{55} + 7\, q^{172}\, p^{56} + 15721917717381\, p^{94}\, q^{140} + 18742224450838\, p^{93}\, q^{139}$$
$$+ 1690781220466\, p^{150}\, q^{107} + 442436694964\, p^{147}\, q^{76} + 30701105582030\, p^{105}\, q^{138} + 55578433778\, q^{140}\, p^{55} + 17548973098\, q^{139}\, p^{50}$$
$$+ 23913429159\, q^{139}\, p^{51} + 12741845890\, q^{139}\, p^{49} + 179631571613\, p^{137}\, q^{152} + 90631281265532\, p^{132}\, q^{101} + 45355734156871\, p^{133}\, q^{119}$$
$$+ 36268124926059\, p^{134}\, q^{120} + 192751934367\, q^{140}\, p^{60} + 152723638179\, q^{140}\, p^{59} + 120078376751\, q^{140}\, p^{58} + 4202257475\, p^{83}\, q^{161}$$
$$+ 24141001\, p^{164}\, q^{67} + 538153346983682\, p^{118}\, q^{96} + 90987\, p^{144}\, q^{30} + 49583\, p^{142}\, q^{28} + 404810\, p^{148}\, q^{35} + 20447281802\, p^{141}\, q^{158}$$
$$+ 35942232720\, p^{133}\, q^{159} + 39182252119\, p^{132}\, q^{159} + 1025387361932\, q^{110}\, p^{44} + 1378617646669\, q^{110}\, p^{45} + 161729414\, q^{101}\, p^{22}$$
$$+ 948199054\, q^{102}\, p^{25} + 34328790027\, p^{144}\, q^{58} + 2586974576405\, p^{148}\, q^{116} + 12741845890\, p^{139}\, q^{49} + 847702001\, p^{134}\, q^{38}$$
$$+ 599966336932\, p^{149}\, q^{133} + 3079132178069\, p^{147}\, q^{97} + 435488072948091\, p^{82}\, q^{114} + 608131948178871\, p^{86}\, q^{113}$$
$$+ 639426879063696\, p^{87}\, q^{113} + 120713025185\, q^{111}\, p^{38} + 64611917116609\, q^{134}\, p^{105} + 1526397\, q^{104}\, p^{17} + 678737\, q^{103}\, p^{16}$$
$$+ 82234424424751\, q^{116}\, p^{68} + 94335510697671\, q^{116}\, p^{69} + 22508667805\, q^{136}\, p^{48} + 7\, p^{167}\, q^{188} + 9\, p^{171}\, q^{188} + 9\, p^{170}\, q^{188} + 8\, p^{168}\, q^{188}$$

$$+ 7\, p^{166}\, q^{188} + 141279370\, p^{171}\, q^{140} + 4784569619549\, p^{146}\, q^{112} + 1577113868992\, p^{147}\, q^{128} + 1006903\, q^{170}\, p^{73} + 29090136\, q^{173}\, p^{105}$$
$$+ 359597453371\, q^{136}\, p^{58} + 370351736922\, p^{149}\, q^{137} + 1024901560\, q^{147}\, p^{50} + 39675328713698\, p^{136}\, q^{96} + 40537\, q^{139}\, p^{26} + 4451\, q^{139}\, p^{24}$$
$$+ 7606\, q^{140}\, p^{25} + 208486\, q^{144}\, p^{31} + 49583\, q^{142}\, p^{28} + 12222\, q^{141}\, p^{26} + 4646158708359\, p^{138}\, q^{134} + 778606742\, p^{169}\, q^{114}$$
$$+ 2534723266016\, p^{140}\, q^{136} + 297602405\, q^{156}\, p^{59} + 534909625\, q^{156}\, p^{61} + 111736554\, p^{167}\, q^{155} + 3\, q^{132}\, p^{17} + 53\, q^{176}\, p^{70} + 102\, q^{176}\, p^{71}$$
$$+ 337898185\, q^{170}\, p^{109} + 19\, p^{67}\, q^{5} + 15262\, p^{137}\, q^{24} + 23266047\, p^{172}\, q^{152} + 2447388708\, p^{167}\, q^{116} + 1009531050\, p^{168}\, q^{133}$$
$$+ 12374976184726\, p^{117}\, q^{141} + 930591717113\, p^{151}\, q^{97} + 859571394488\, p^{152}\, q^{116} + 217830285683\, p^{153}\, q^{133} + 264837967186\, p^{153}\, q^{131}$$
$$+ 3\, p^{188}\, q^{158} + 4\, p^{188}\, q^{161} + 3\, p^{188}\, q^{159} + 5\, p^{186}\, q^{130} + 9960980\, q^{170}\, p^{82} + 12305216\, q^{170}\, p^{83} + 159392202\, p^{166}\, q^{155} + 406\, q^{163}\, p^{43}$$
$$+ 1000840195\, p^{146}\, q^{165} + 1304843\, p^{161}\, q^{175} + 1986924\, p^{155}\, q^{176} + 515\, q^{159}\, p^{38} + 1618603\, p^{135}\, q^{28} + 29729987829\, p^{154}\, q^{75}$$
$$+ 11313\, p^{120}\, q^{17} + 13940940\, p^{141}\, q^{35} + 1714733919\, p^{161}\, q^{151} + 3172513554\, p^{151}\, q^{59} + 9695024\, p^{139}\, q^{33} + 6131469294\, p^{79}\, q^{159}$$
$$+ 7198007950\, p^{80}\, q^{159} + 32163194063\, p^{92}\, q^{159} + 29203146090\, p^{91}\, q^{159} + 35252843008\, p^{93}\, q^{159} + 6947470579\, p^{83}\, q^{160}$$
$$+ 5191800330\, p^{78}\, q^{159} + 255944\, p^{162}\, q^{51} + 8982085\, p^{176}\, q^{135} + 1199700617\, p^{157}\, q^{66} + 1145913847\, p^{165}\, q^{145} + 2536241689\, p^{165}\, q^{138}$$
$$+ 1367961913949\, p^{141}\, q^{139} + 2250901647110\, p^{107}\, q^{149} + 2258194907102\, p^{108}\, q^{149} + 10\, q^{159}\, p^{35} + q^{159}\, p^{34} + 36120980\, p^{158}\, q^{56}$$
$$+ 17276271\, p^{158}\, q^{54} + 105701\, p^{148}\, q^{181} + 91725\, p^{151}\, q^{181} + 96698\, p^{150}\, q^{181} + 101408\, p^{149}\, q^{181} + 138211\, p^{156}\, q^{180} + 339793\, p^{174}\, q^{169}$$
$$+ 2703247403\, p^{163}\, q^{144} + 4980132381\, p^{155}\, q^{68} + 26278450158\, p^{145}\, q^{155} + 110074054226\, p^{127}\, q^{157} + 419321\, q^{138}\, p^{28}$$
$$+ 270644249\, p^{164}\, q^{77} + 74639940\, p^{161}\, q^{64} + 399838487\, p^{164}\, q^{79} + 3880870072773\, p^{108}\, q^{147} + 4677460862789\, p^{113}\, q^{146}$$
$$+ 53082909786\, p^{160}\, q^{120} + 6331592915\, p^{165}\, q^{122} + 2004418139\, p^{166}\, q^{136} + 5159148479\, p^{165}\, q^{128} + 4481314256420\, p^{126}\, q^{143}$$
$$+ 4874836092422\, p^{125}\, q^{143} + 4761064858\, p^{141}\, q^{48} + 3570319535915\, p^{132}\, q^{141} + p^{107}\, q^{184} + 1699191295421\, p^{108}\, q^{150}$$
$$+ 2828760043791\, p^{103}\, q^{148} + 4953531687839\, p^{118}\, q^{145} + 1883980056262\, p^{99}\, q^{149} + 4601216620805\, p^{123}\, q^{144} + 13802\, p^{124}\, q^{182}$$
$$+ 20932\, p^{128}\, q^{182} + 17218\, p^{126}\, q^{182} + 24821\, p^{130}\, q^{182} + 22847\, p^{129}\, q^{182} + 322866\, p^{138}\, q^{180} + 10774\, p^{122}\, q^{182} + 87923\, p^{130}\, q^{181}$$
$$+ 2020493660104\, p^{101}\, q^{149} + 1654484297644\, p^{73}\, q^{141} + 6773262906327\, p^{85}\, q^{141} + 1914002115891\, p^{74}\, q^{141} + 2202276001318\, p^{75}\, q^{141}$$
$$+ 6186968992994\, p^{84}\, q^{141} + 7380837022296\, p^{86}\, q^{141} + 1930323802312\, p^{76}\, q^{142} + 1215837963411\, p^{71}\, q^{141} + 1422292900196\, p^{72}\, q^{141}$$
$$+ 1408851\, p^{119}\, q^{21} + 915916840557553\, p^{111}\, q^{93} + 47850809602472\, p^{107}\, q^{59} + 1051604\, p^{82}\, q^{13} + 312838\, p^{178}\, q^{160} + 601794\, p^{178}\, q^{155}$$
$$+ 98\, p^{136}\, q^{20} + 2854467\, p^{177}\, q^{145} + 3992040\, p^{177}\, q^{138} + 32459\, p^{159}\, q^{43} + 9306872\, p^{176}\, q^{127} + 575775300568245\, p^{112}\, q^{113}$$
$$+ 151700767\, p^{151}\, q^{168} + 436093492\, p^{143}\, q^{168} + 24375436988491\, p^{115}\, q^{138} + 569795604892621\, p^{111}\, q^{114} + 12476662007\, q^{142}\, p^{52}$$

$$+ 22508667805\, q^{142} p^{54} + 172903111528870\, p^{117} q^{75} + 355297808132233\, p^{118} q^{85} + 209876165256\, p^{149} q^{141}$$
$$+ 39818213504973\, p^{107} q^{58} + 904446528554773\, p^{110} q^{90} + 332887990528204\, p^{109} q^{74} + 299705676701917\, p^{109} q^{73} + 41915917\, p^{89} q^{18}$$
$$+ 947495974387949\, p^{111} q^{95} + 933507178201188\, p^{111} q^{94} + 823510902069720\, p^{112} q^{105} + 899174323920218\, p^{111} q^{104}$$
$$+ 12615231490396\, p^{106} q^{52} + 4943203742779\, p^{110} q^{146} + 712628936313\, p^{146} q^{137} + 1940821020613\, p^{146} q^{86}$$
$$+ 3784914950328\, p^{147} q^{104} + 31833017484\, p^{140} q^{53} + 5944839959\, p^{137} q^{45} + 2122690991104\, p^{146} q^{87} + 817153428409\, p^{149} q^{130}$$
$$+ 1560151\, p^{143} q^{178} + 21116127\, p^{88} q^{17} + 1209768063037\, p^{150} q^{96} + 4271488011661\, p^{132} q^{140} + 16894849\, p^{101} q^{19}$$
$$+ 19865592718542\, p^{122} q^{64} + 114622432433843\, p^{124} q^{80} + 221433152999495\, p^{126} q^{100} + 2520527157347\, p^{76} q^{141}$$
$$+ 48141529239666\, p^{135} q^{96} + 3896274473\, p^{156} q^{69} + 9909892795\, p^{163} q^{131} + 1445945131001\, p^{104} q^{43} + 12825918284\, p^{98} q^{29}$$
$$+ 7335\, q^{121} p^{17} + 569795604892621\, p^{114} q^{111} + 16715469553198\, p^{122} q^{63} + 442116\, p^{149} q^{36} + 36837933683044\, p^{125} q^{131}$$
$$+ 31188901431663\, p^{122} q^{134} + 8890827472\, q^{127} p^{39} + 152723638179\, q^{131} p^{50} + 10746772311968\, p^{112} q^{54} + 5443905105059\, p^{137} q^{134}$$
$$+ 849092368399970\, p^{106} q^{111} + 9493989\, p^{176} q^{129} + 3565307\, p^{177} q^{141} + 414747\, p^{178} q^{158} + 2036\, p^{148} q^{29} + 268757\, p^{178} q^{161}$$
$$+ 361418\, p^{178} q^{159} + 1975825\, q^{138} p^{30} + 4080960488552\, q^{98} p^{45} + 16011802367323\, p^{126} q^{136} + 12337191302822\, p^{127} q^{137}$$
$$+ 612351795091\, p^{141} q^{67} + 14147927588369\, p^{97} q^{141} + 177771\, q^{169} p^{65} + 8973\, p^{176} q^{178} + 617\, p^{174} q^{184} + 509\, p^{175} q^{184} + 602\, p^{168} q^{185}$$
$$+ 488\, p^{170} q^{185} + 546\, p^{169} q^{185} + 433\, p^{171} q^{185} + 281\, p^{174} q^{185} + 51\, p^{163} q^{187} + 52\, p^{165} q^{187} + 47\, p^{171} q^{187} + 52\, p^{166} q^{187} + 49\, p^{162} q^{187}$$
$$+ 51\, p^{164} q^{187} + 49\, p^{170} q^{187} + 10\, p^{172} q^{188} + 52\, p^{167} q^{187} + 46\, p^{160} q^{187} + 41\, p^{173} q^{187} + 44\, p^{172} q^{187} + 51\, p^{168} q^{187} + 51\, p^{169} q^{187}$$
$$+ 48\, p^{161} q^{187} + 248\, p^{163} q^{186} + 240\, p^{185} q^{175} + 3144\, p^{178} q^{87} + 714\, p^{171} q^{59} + 9369\, p^{181} q^{111} + 40\, p^{168} q^{49} + 10062221180398\, p^{117} q^{142}$$
$$+ 10114603661370\, p^{110} q^{143} + 375699285275\, p^{122} q^{154} + 262747094738\, p^{123} q^{155} + 943469\, p^{172} q^{168} + 2038604\, p^{172} q^{165}$$
$$+ 2701301372703\, p^{90} q^{146} + 13627907534851\, p^{96} q^{141} + 956320957964\, p^{82} q^{147} + 20000004775556\, p^{108} q^{140} + 310742\, p^{135} q^{26}$$
$$+ 2196283933\, p^{158} q^{154} + q^{180} p^{82} + 1538\, p^{85} q^{178} + 61281\, p^{98} q^{178} + 733987590\, p^{162} q^{76} + 1221607323\, p^{163} q^{82} + 2835517\, q^{166} p^{65}$$
$$+ 6244089464483\, p^{87} q^{142} + 47\, q^{163} p^{41} + 2256\, q^{166} p^{50} + 41343\, p^{147} q^{182} + 189056688587\, p^{148} q^{143} + 6\, q^{149} p^{26} + 17326549\, p^{172} q^{154}$$
$$+ 2215184801\, p^{161} q^{79} + 914674872\, p^{167} q^{140} + 426429193\, p^{158} q^{64} + 1550220314\, p^{161} q^{77} + 658693848\, p^{157} q^{160} + 41\, p^{180} q^{87}$$
$$+ 12\, p^{173} q^{59} + 176\, p^{183} q^{111} + 5503364496684\, p^{145} q^{98} + 567523\, p^{167} q^{174} + 12483533522136\, p^{94} q^{141} + 4802785704656\, p^{84} q^{142}$$
$$+ 1440251457\, p^{164} q^{146} + 13713862263\, p^{163} q^{125} + 3695121011\, p^{157} q^{71} + 1160028201\, p^{155} q^{62} + 29176720452\, p^{161} q^{103}$$
$$+ 20501377922\, p^{160} q^{92} + 7913015019\, p^{163} q^{134} + 5117199\, p^{146} q^{176} + 5525887\, p^{145} q^{176} + 5935985\, p^{144} q^{176} + 35294490\, p^{119} q^{25}$$

$$+ 8142073060\, p^{129} q^{40} + 1217527199640\, p^{137} q^{65} + 20915607102366\, p^{123} q^{136} + 16281049485119\, p^{124} q^{137} + 53501020078\, q^{141} p^{56}$$
$$+ 313595985768\, q^{142} p^{65} + 172289719536537\, p^{94} q^{127} + 113185586055156\, p^{88} q^{128} + 258349925016622\, p^{108} q^{124}$$
$$+ 3938452974306\, p^{142} q^{82} + 476271370666\, p^{149} q^{135} + 2813578637421\, p^{148} q^{113} + 2973539840036\, p^{148} q^{108} + 23913429159\, p^{139} q^{51}$$
$$+ 177438339748158\, p^{95} q^{127} + 169913525017\, p^{148} q^{72} + 60883\, p^{125} q^{181} + 4264384661452\, q^{136} p^{71} + 5701056607611\, q^{136} p^{73}$$
$$+ 7460688262052\, q^{136} p^{75} + 6538930640650\, q^{136} p^{74} + 8468543308199\, q^{136} p^{76} + 10746772311968\, q^{136} p^{78} + 9563808064201\, q^{136} p^{77}$$
$$+ 31533020015\, q^{131} p^{45} + 13783352239\, q^{130} p^{42} + 22240070477\, q^{131} p^{44} + 9381511912\, q^{130} p^{41} + 11428249516\, p^{152} q^{153}$$
$$+ 7313728986\, p^{153} q^{154} + 1968258111\, p^{156} q^{66} + 1655100640\, p^{164} q^{145} + 3755332692\, p^{164} q^{138} + 237887071582\, p^{154} q^{129} + 15\, p^{93} q^{8}$$
$$+ 7087451\, p^{119} q^{176} + 10170137\, p^{174} q^{103} + 9175578\, p^{176} q^{134} + 19746998461894\, p^{73} q^{130} + 28585844931085\, p^{76} q^{130}$$
$$+ 8038749507\, q^{136} p^{45} + 16160010343\, q^{136} p^{47} + 11467595727\, q^{136} p^{46} + 251344347655155\, p^{103} q^{125} + 22564259638015\, p^{135} q^{124}$$
$$+ 14154001294046\, p^{130} q^{134} + 17750081738822\, p^{128} q^{134} + 15889762355113\, p^{129} q^{134} + 119706726153706\, p^{89} q^{128}$$
$$+ 93204264757822\, p^{85} q^{128} + 160398611192502\, p^{92} q^{127} + 210565491019367\, p^{115} q^{123} + 40961807669605\, p^{135} q^{92}$$
$$+ 25397555751452\, p^{75} q^{130} + 22451894713336\, p^{74} q^{130} + 148866879026894\, p^{121} q^{122} + 122100\, p^{161} q^{48} + 12115141\, p^{175} q^{114}$$
$$+ 487480\, p^{164} q^{56} + 106555862850804\, p^{87} q^{128} + 51304833687\, p^{145} q^{61} + 7308841803604\, p^{144} q^{114} + 217781421675\, p^{137} q^{57}$$
$$+ 1160360960\, q^{158} p^{68} + 281102\, p^{131} q^{180} + 808112\, p^{137} q^{179} + 17278302394989\, p^{72} q^{130} + 47213965521229\, p^{79} q^{129}$$
$$+ 67854246760106\, p^{83} q^{129} + 57127839838779\, p^{81} q^{129} + 62403315190412\, p^{82} q^{129} + 48004325761488\, p^{81} q^{130}$$
$$+ 73447280683863\, p^{84} q^{129} + 79144775707230\, p^{85} q^{129} + 84905119409034\, p^{86} q^{129} + 152689467504\, p^{143} q^{149} + 742206\, p^{118} q^{20}$$
$$+ 2574\, q^{174} p^{70} + 841197232543\, p^{151} q^{123} + 2544812\, q^{168} p^{70} + 38\, q^{160} p^{37} + 22811\, p^{179} q^{171} + 7\, p^{119} q^{13} + 15375056\, p^{175} q^{118}$$
$$+ 1740594\, p^{177} q^{151} + 20410790\, p^{174} q^{110} + 1358472\, p^{168} q^{68} + 6374170\, p^{170} q^{80} + 32015591872167\, p^{77} q^{130}$$
$$+ 162258248938245\, p^{120} q^{122} + 228277021722\, p^{152} q^{135} + 1266351117599\, p^{151} q^{108} + 1229456084806\, p^{151} q^{113}$$
$$+ 18727156074\, p^{155} q^{147} + 591406919\, p^{140} q^{168} + 957422519\, p^{154} q^{161} + 223221324457679\, p^{114} q^{123} + 1864307438\, q^{137} p^{42}$$
$$+ 6492772821\, q^{139} p^{47} + 70245\, p^{138} q^{26} + 179631571613\, p^{152} q^{137} + 224154669845\, p^{150} q^{139} + 2351414190561\, p^{146} q^{126}$$
$$+ 2907844269\, p^{156} q^{155} + 282393424\, p^{168} q^{93} + 11521234904060\, q^{138} p^{83} + 16110538206324\, q^{138} p^{87} + 4549704\, p^{126} q^{25}$$
$$+ 486352422804\, q^{152} p^{92} + 379234878092\, q^{152} p^{89} + 345807120619\, q^{152} p^{88} + 274746174\, p^{152} q^{166} + 324998323\, p^{151} q^{166}$$
$$+ 149138073\, p^{157} q^{165} + 230727785\, p^{153} q^{166} + 131063281\, p^{156} q^{166} + 106964144\, p^{157} q^{166} + 159392202\, p^{155} q^{166} + 192446870\, p^{154} q^{166}$$

$$+ 223783522\, p^{151} q^{167} + 404526171\, p^{147} q^{167} + 304560804\, p^{149} q^{167} + 92306577\, p^{156} q^{167} + 111736554\, p^{155} q^{167} + 190009077\, p^{152} q^{167}$$
$$+ 134289190\, p^{154} q^{167} + 160278478\, p^{153} q^{167} + 485243526\, p^{142} q^{168} + 120214410\, p^{158} q^{165} + 77181173\, p^{155} q^{168} + 92315806\, p^{154} q^{168}$$
$$+ 176725518\, p^{150} q^{168} + 1860539806034\, q^{97} p^{42} + 87499\, q^{118} p^{18} + 275706\, q^{121} p^{20} + 745969\, q^{121} p^{21} + 1870276\, q^{121} p^{22}$$
$$+ 847702001\, q^{134} p^{38} + 564669494\, p^{118} q^{29} + 478437093815574\, p^{117} q^{110} + 499181492867831\, p^{117} q^{109} + 893542\, p^{152} q^{40}$$
$$+ 196405\, p^{148} q^{34} + 452\, p^{120} q^{15} + 2392260\, p^{154} q^{44} + 3662966147\, q^{150} p^{58} + 443207282646500\, p^{116} q^{113} + 334302397\, p^{170} q^{135}$$
$$+ 130113172\, p^{171} q^{141} + 849627569\, p^{169} q^{118} + 42501137\, p^{171} q^{151} + 1194217945\, p^{168} q^{110} + 10594688\, p^{172} q^{157} + 2\, p^{62} q^{4}$$
$$+ 857047\, p^{149} q^{37} + 15198\, p^{135} q^{23} + 8867263\, p^{172} q^{158} + 944463692257\, q^{138} p^{65} + 689609\, q^{124} p^{22} + 637631728399\, q^{138} p^{63}$$
$$+ 518702071163\, q^{138} p^{62} + 778575621849\, q^{138} p^{64} + 366665956974018\, p^{119} q^{112} + 3823622870130\, p^{145} q^{91}$$
$$+ 41851187877884\, p^{136} q^{110} + 458686488923490\, p^{109} q^{118} + q^{178} p^{73} + 3\, q^{178} p^{74} + 7\, q^{178} p^{75} + 4042186\, q^{141} p^{33}$$
$$+ 10136949142693\, q^{124} p^{62} + 305378049086\, q^{122} p^{46} + 160125607279\, q^{132} p^{51} + 6992\, q^{162} p^{45} + 5930701\, p^{173} q^{93} + 47111\, p^{178} q^{170}$$
$$+ 32968741085\, q^{121} p^{39} + 706\, q^{156} p^{35} + 41748845145\, p^{155} q^{142} + 2868971160402\, p^{148} q^{112} + 61496302381502\, q^{124} p^{74}$$
$$+ 337232549206\, p^{154} q^{124} + 11789532756\, q^{152} p^{66} + 14663584773\, q^{152} p^{67} + 84310676967\, q^{154} p^{82} + 683734527\, p^{122} q^{31}$$
$$+ 22525175639\, p^{128} q^{42} + 38287614806925\, p^{77} q^{129} + 113185586055156\, p^{128} q^{88} + 145537557897791\, p^{129} q^{103}$$
$$+ 1489774988360\, q^{139} p^{69} + 336144647366\, q^{138} p^{60} + 2398151422\, p^{132} q^{39} + 86591976707208\, p^{128} q^{84} + 12154954317909\, q^{124} p^{63}$$
$$+ 412944771704\, p^{143} q^{68} + 113738759035\, p^{141} q^{59} + 881815015683\, p^{151} q^{96} + 4854208\, p^{142} q^{34} + 22929834\, p^{146} q^{40}$$
$$+ 3950577756\, p^{154} q^{65} + 38657712\, p^{147} q^{42} + 21712270\, p^{145} q^{39} + 1255061\, p^{139} q^{30} + 14486255940808\, q^{124} p^{64} + 2274625082\, p^{157} q^{155}$$
$$+ 16121012\, p^{142} q^{36} + 8727379797\, p^{162} q^{137} + 96883683\, p^{146} q^{43} + 54419428318\, p^{160} q^{119} + 65298662737\, p^{159} q^{102}$$
$$+ 62089851203\, p^{159} q^{101} + 1363614668194\, q^{123} p^{52} + 612351795091\, q^{123} p^{49} + 460624385643\, q^{123} p^{48} + 243925803463\, p^{149} q^{140}$$
$$+ 3538111919737\, q^{123} p^{56} + 4407379678382\, q^{123} p^{57} + 69697685020\, q^{121} p^{41} + 48258677271\, q^{121} p^{40} + 9155372585249\, p^{143} q^{114}$$
$$+ 283401507975\, p^{136} q^{57} + 90530713944\, p^{146} q^{149} + 46517339597\, p^{152} q^{146} + 55340297324\, p^{152} q^{145} + 73056916009\, p^{150} q^{146}$$
$$+ 92180293234\, p^{148} q^{147} + 75091245528\, p^{149} q^{147} + 60734743470\, p^{150} q^{147} + 58519786985\, p^{151} q^{146} + 111379477764\, p^{146} q^{148}$$
$$+ 92180293234\, p^{147} q^{148} + 129073615586\, p^{144} q^{149} + 75781204205\, p^{148} q^{148} + 108439764322\, p^{145} q^{149} + 103703191750\, p^{144} q^{150}$$
$$+ 73056916009\, p^{146} q^{150} + 21756060124\, p^{152} q^{150} + 24033082881462\, p^{125} q^{134} + 21828254118384\, p^{126} q^{134} + 958848074\, q^{148} p^{51}$$
$$+ 2498245161434\, p^{78} q^{142} + 9892565715\, p^{164} q^{122} + 3037802362\, p^{165} q^{136} + 7901157400\, p^{164} q^{128} + 20203607012\, p^{134} q^{46}$$

$$+ 120078376751\, q^{132}\, p^{50} + 65569163636\, q^{132}\, p^{48} + 89180407439\, q^{132}\, p^{49} + 5194850396819\, q^{137}\, p^{74} + 8590450080359\, q^{137}\, p^{78}$$
$$+ 7633395397810\, q^{137}\, p^{77} + 6748912190934\, q^{137}\, p^{76} + 675102915289\, q^{153}\, p^{107} + 142298849656\, q^{149}\, p^{73} + 30610146109234\, p^{126}\, q^{71}$$
$$+ 26377264690\, p^{118}\, q^{37} + 132179128853084\, p^{128}\, q^{91} + 44180226387\, p^{131}\, q^{46} + 11134879354240\, p^{133}\, q^{133} + 9702942351207\, p^{134}\, q^{133}$$
$$+ 433909543661662\, p^{117}\, q^{112} + 440017802498443\, p^{110}\, q^{118} + 433909543661662\, p^{112}\, q^{117} + 141496231370988\, p^{128}\, q^{111}$$
$$+ 46686977649296\, p^{125}\, q^{73} + 386800766395686\, p^{114}\, q^{117} + 315027266924414\, p^{117}\, q^{117} + 291585983918990\, p^{118}\, q^{117}$$
$$+ 181763286509\, p^{124}\, q^{156} + 417173379914094\, p^{116}\, q^{114} + 378621322676613\, p^{118}\, q^{113} + 447928378849575\, p^{114}\, q^{115}$$
$$+ 390954521778962\, p^{115}\, q^{116} + 281654\, p^{142}\, q^{30} + 3944527\, q^{112}\, p^{20} + 402834780553170\, p^{110}\, q^{119} + 328053163892207\, p^{114}\, q^{119}$$
$$+ 347573860098857\, p^{113}\, q^{119} + 268671286778784\, p^{117}\, q^{119} + 230004198108938\, p^{119}\, q^{119} + 194429120260381\, p^{120}\, q^{120}$$
$$+ 308282397225732\, p^{115}\, q^{119} + 249147810854278\, p^{118}\, q^{119} + 385147285338415\, p^{111}\, q^{119} + 288433856240938\, p^{116}\, q^{119}$$
$$+ 366665956974018\, p^{112}\, q^{119} + 419547399606722\, p^{109}\, q^{119} + 435109071313817\, p^{108}\, q^{119} + 405179625866\, p^{148}\, q^{138} + 823797\, p^{97}\, q^{15}$$
$$+ 476127509822880\, p^{108}\, q^{118} + 328053163892207\, p^{119}\, q^{114} + 308282397225732\, p^{119}\, q^{115} + 265237\, q^{129}\, p^{23} + 32241\, q^{129}\, p^{21}$$
$$+ 96970\, q^{129}\, p^{22} + 499181492867831\, p^{109}\, q^{117} + 7459349\, p^{120}\, q^{176} + 18956989\, p^{133}\, q^{175} + 419\, p^{184}\, q^{176} + 2835\, p^{180}\, q^{177}$$
$$+ 4338\, p^{179}\, q^{177} + 793\, p^{183}\, q^{176} + 6430\, p^{178}\, q^{177} + 4094563156484\, p^{146}\, q^{117} + 370827251981\, p^{140}\, q^{63} + 813882489\, p^{131}\, q^{36}$$
$$+ 9540392567220\, p^{124}\, q^{140} + 553\, p^{176}\, q^{74} + 713503\, p^{172}\, q^{169} + 531612361345532\, p^{115}\, q^{111} + 402834780553170\, p^{119}\, q^{110}$$
$$+ 363670277246523\, p^{122}\, q^{100} + 361917187509991\, p^{122}\, q^{102} + 419547399606722\, p^{119}\, q^{109} + 362820585053699\, p^{115}\, q^{117}$$
$$+ 338831811793790\, p^{116}\, q^{117} + 449351693470681\, p^{107}\, q^{119} + 357028533170233\, p^{114}\, q^{118} + 399784179073650\, p^{112}\, q^{118}$$
$$+ 378621322676613\, p^{113}\, q^{118} + 335201316815276\, p^{115}\, q^{118} + 291585983918990\, p^{117}\, q^{118} + 313327756839886\, p^{116}\, q^{118}$$
$$+ 270141999237684\, p^{118}\, q^{118} + 249147810854278\, p^{119}\, q^{118} + 435109071313817\, p^{119}\, q^{108} + 320630004088\, p^{120}\, q^{45} + 1580018\, p^{99}\, q^{16}$$
$$+ 2819788897421\, p^{123}\, q^{55} + 481083333\, p^{110}\, q^{26} + 105558418\, q^{163}\, p^{70} + 13654269477\, q^{117}\, p^{35} + 364771446483448\, p^{116}\, q^{116}$$
$$+ 159504951431809\, p^{107}\, q^{128} + 162640995058842\, p^{106}\, q^{128} + 476127509822880\, p^{118}\, q^{108} + 194027499629895\, p^{127}\, q^{102}$$
$$+ 159504951431809\, p^{128}\, q^{107} + 152421\, p^{140}\, q^{28} + 1258862\, p^{146}\, q^{35} + 881946311\, q^{138}\, p^{41} + 568716470\, q^{138}\, p^{40}$$
$$+ 312236107896\, p^{119}\, q^{155} + 1035961274127547\, p^{106}\, q^{107} + 36878015004\, p^{143}\, q^{57} + 12218712948232\, p^{135}\, q^{130}$$
$$+ 24760180247518\, p^{136}\, q^{87} + 30127325518593\, p^{136}\, q^{90} + 9630314955426\, p^{139}\, q^{126} + 3\, q^{137}\, p^{19} + 10823\, p^{172}\, q^{180}$$
$$+ 2194350023634\, p^{132}\, q^{62} + 35246190329182\, p^{136}\, q^{93} + 7712426189975\, p^{134}\, q^{72} + 37330915179029\, p^{137}\, q^{105} + 80934229295\, p^{127}\, q^{45}$$

$$+ 18162\, p^{91} q^{11} + 50703913460050\, p^{130} q^{123} + 187529165648322\, p^{69} q^{109} + 613988984332\, q^{116} p^{45} + 827453797247\, q^{116} p^{46}$$
$$+ 722659517\, q^{168} p^{102} + 5020\, p^{96} q^{11} + 155179662790985\, p^{117} q^{74} + 478055517934928\, p^{119} q^{95} + 467746209940031\, p^{119} q^{94}$$
$$+ 429323122154947\, p^{120} q^{105} + 482663809540771\, p^{119} q^{104} + 46517339597\, p^{146} q^{152} + 21756060124\, p^{150} q^{152} + 14269979793\, p^{152} q^{152}$$
$$+ 9177811193\, p^{153} q^{153} + 32241471499\, p^{148} q^{152} + 17684340162\, p^{151} q^{152} + 65430063969\, p^{144} q^{152} + 26576168254\, p^{149} q^{152}$$
$$+ 55340297324\, p^{145} q^{152} + 89830336686\, p^{142} q^{152} + 104339009738\, p^{141} q^{152} + 251517\, q^{152} p^{38} + 234469617299288\, p^{91} q^{124}$$
$$+ 5246884356\, p^{97} q^{27} + 3104518771149\, p^{105} q^{46} + 10024681605290\, p^{106} q^{51} + 1170963140888\, p^{103} q^{42} + 4060759106210\, p^{105} q^{47}$$
$$+ 209504390423169\, p^{126} q^{96} + 4914710843785\, p^{121} q^{56} + 20126639337835\, p^{123} q^{65} + 27688470669818\, p^{123} q^{67}$$
$$+ 117893227553604\, p^{127} q^{117} + 48053326321460\, p^{124} q^{72} + 1756122727589\, p^{120} q^{51} + 185409683853362\, p^{126} q^{92} + 42432\, p^{87} q^{11}$$
$$+ 132019178000150\, p^{67} q^{110} + 404884661562843\, p^{76} q^{109} + 964817507268269\, p^{111} q^{99} + 964056400478392\, p^{111} q^{97} + 75156\, p^{75} q^{10}$$
$$+ 90191571639005\, p^{79} q^{125} + 18462944710\, p^{161} q^{96} + 230727785\, p^{166} q^{153} + 1823523068\, p^{158} q^{70} + 16511821519\, p^{163} q^{115}$$
$$+ 3217238588988\, p^{126} q^{58} + 81985087861602\, p^{132} q^{110} + 184889056133\, p^{123} q^{45} + 86317371353854\, p^{132} q^{108}$$
$$+ 728198297309455\, p^{110} q^{85} + 131528895\, p^{92} q^{20} + 8601181\, q^{150} p^{42} + 367989392779698\, p^{109} q^{75} + 85041683915823\, p^{132} q^{97}$$
$$+ 76637158186376\, p^{133} q^{105} + 4963981187103\, p^{128} q^{62} + 74623382036504\, p^{132} q^{93} + 17278302394989\, p^{130} q^{72}$$
$$+ 71464547396132\, p^{132} q^{92} + 14528070572945\, p^{132} q^{132} + 672889295317\, p^{137} q^{62} + 11871086147263\, p^{141} q^{93}$$
$$+ 2398656294936\, p^{139} q^{72} + 13123116793616\, p^{142} q^{105} + 11998\, q^{169} p^{59} + 3968\, q^{169} p^{57} + 6773262906327\, p^{105} q^{49}$$
$$+ 1940821020613\, p^{104} q^{44} + 16376097035\, q^{116} p^{35} + 3101263301475\, q^{98} p^{44} + 5323120379758\, q^{98} p^{46} + 6884703474456\, q^{98} p^{47}$$
$$+ 8831708329170\, q^{98} p^{48} + 5845231566\, p^{154} q^{154} + 393928482639\, p^{121} q^{154} + 566009984205\, p^{136} q^{60} + 3384553637120\, p^{143} q^{129}$$
$$+ 5689592268930\, p^{143} q^{123} + 1568415\, p^{112} q^{19} + 13409801\, p^{117} q^{23} + 1220912831610\, p^{144} q^{136} + 5924315532\, p^{165} q^{110}$$
$$+ 6627240608\, p^{165} q^{116} + 2505848690\, p^{166} q^{133} + 7248695987422\, p^{133} q^{136} + 5443905105059\, p^{134} q^{137} + 2447374732710\, p^{143} q^{132}$$
$$+ 8642156087282\, p^{140} q^{85} + 2740189720119\, p^{143} q^{131} + 54552937\, p^{120} q^{26} + 4095982624355\, p^{138} q^{74} + 7831173\, p^{116} q^{22}$$
$$+ 1464618484313\, p^{137} q^{66} + 7292747063907\, q^{97} p^{47} + 9945066819447\, p^{141} q^{90} + 3640206692601\, p^{144} q^{126} + 3761152429\, p^{100} q^{27}$$
$$+ 2298405185078\, p^{108} q^{46} + 7496185796393\, p^{109} q^{51} + 872448913189\, p^{106} q^{42} + 3021865395746\, p^{108} q^{47}$$
$$+ 1278783834076702\, p^{101} q^{105} + 449509000324\, p^{149} q^{81} + 31\, q^{113} p^{12} + 22462011398572\, p^{57} q^{111} + 13371155005958\, p^{54} q^{110}$$
$$+ 98984012978040\, p^{65} q^{110} + 524214372493\, q^{115} p^{44} + 327859042594\, q^{116} p^{43} + 42153863497085\, p^{71} q^{124} + 48053326321460\, p^{72} q^{124}$$

$$+ 1102260871479\, p^{144}\, q^{76} + 3881030517590\, p^{147}\, q^{107} + 4760901478929\, p^{146}\, q^{102} + 4080960488552\, p^{145}\, q^{92} + 675242386063\, p^{148}\, q^{134}$$
$$+ 90191908751\, q^{113}\, p^{38} + 14877130889067\, p^{123}\, q^{138} + 575062777\, q^{109}\, p^{26} + 1376696260697\, q^{97}\, p^{41} + 1520605044759618\, p^{91}\, q^{98}$$
$$+ 1594879561553121\, p^{97}\, q^{97} + 1602274208102399\, p^{96}\, q^{97} + 199049823648\, p^{145}\, q^{146} + 194347937858\, p^{140}\, q^{150}$$
$$+ 87315162580\, p^{150}\, q^{145} + 199049823648\, p^{146}\, q^{145} + 9020472346\, p^{164}\, q^{125} + 2260463865\, p^{158}\, q^{71} + 706662734\, p^{156}\, q^{62}$$
$$+ 18569404334\, p^{162}\, q^{103} + 12825918284\, p^{161}\, q^{92} + 5355325221\, p^{164}\, q^{134} + 81131042668157\, p^{131}\, q^{91} + 18128337671396\, p^{129}\, q^{71}$$
$$+ 1349212903012985\, p^{88}\, q^{100} + 1162785586418615\, p^{85}\, q^{101} + 1302677122569968\, p^{87}\, q^{100} + 7\, p^{185}\, q^{120} + p^{186}\, q^{127} + 3\, p^{186}\, q^{129}$$
$$+ 300568080730314\, p^{110}\, q^{122} + 5660735242445\, p^{131}\, q^{66} + 138237797\, q^{143}\, p^{41} + 217766856\, q^{143}\, p^{42} + 2238635922848\, p^{130}\, q^{60}$$
$$+ 323874189134751\, p^{101}\, q^{123} + 112028039965\, p^{127}\, q^{46} + 14124436326\, p^{151}\, q^{153} + 9081292267\, p^{152}\, q^{154} + 50331\, p^{180}\, q^{164}$$
$$+ 275706\, p^{170}\, q^{69} + 58551\, p^{180}\, q^{163} + 1580018\, p^{174}\, q^{91} + 1052329\, p^{174}\, q^{89} + 1774549\, p^{178}\, q^{128} + 624549\, p^{179}\, q^{146} + 34\, p^{143}\, q^{23}$$
$$+ 144367947220\, p^{122}\, q^{157} + 261880000\, p^{167}\, q^{150} + 1838\, p^{157}\, q^{37} + 791310\, p^{179}\, q^{139} + 1199161\, p^{175}\, q^{95} + 61994\, p^{168}\, q^{60}$$
$$+ 207611472771\, p^{155}\, q^{95} + 19304462198\, p^{159}\, q^{139} + 5506895531\, q^{132}\, p^{41} + 31794090885704\, p^{137}\, q^{113} + 1220613424851\, p^{145}\, q^{79}$$
$$+ 106425445009\, p^{142}\, q^{60} + 897052606442\, p^{149}\, q^{129} + 2581961\, q^{139}\, p^{31} + 256209464089\, p^{142}\, q^{64} + 2951789861070\, p^{148}\, q^{106}$$
$$+ 711033708314\, p^{144}\, q^{73} + 42255746262\, p^{140}\, q^{54} + 9381511912\, q^{149}\, p^{60} + 54498260761584\, q^{124}\, p^{73} + 396426120514\, p^{128}\, q^{51}$$
$$+ 90530713944\, p^{149}\, q^{146} + 135109626\, p^{169}\, q^{149} + 36306\, p^{181}\, q^{120} + 346130117\, p^{144}\, q^{44} + 4655755631\, p^{148}\, q^{56} + 689\, p^{102}\, q^{11}$$
$$+ 2230594022432\, p^{123}\, q^{54} + 1284290120\, p^{114}\, q^{29} + 80088917037955\, p^{128}\, q^{83} + 1363614668194\, p^{123}\, q^{52} + 93204264757822\, p^{128}\, q^{85}$$
$$+ 19865592718542\, p^{126}\, q^{68} + 98798720169352\, p^{130}\, q^{113} + 5660735242445\, p^{124}\, q^{59} + 1271\, p^{175}\, q^{72} + 174\, p^{171}\, q^{57}$$
$$+ 2975615917123\, q^{124}\, p^{56} + 9774137\, q^{121}\, p^{24} + 2265164380\, q^{129}\, p^{37} + 534909625\, q^{129}\, p^{34} + 883203091\, q^{129}\, p^{35} + 3528074261\, q^{129}\, p^{38}$$
$$+ 581627006180\, q^{135}\, p^{59} + 725420245533\, q^{135}\, p^{60} + 6514066989830\, p^{117}\, q^{144} + 4982924133601\, p^{105}\, q^{146} + 286651299057\, q^{134}\, p^{55}$$
$$+ 367758921003\, q^{134}\, p^{56} + 69363000673\, q^{141}\, p^{57} + 40911190999\, q^{141}\, p^{55} + 84711651092948\, p^{130}\, q^{116} + 69048557295618\, q^{124}\, p^{75}$$
$$+ 8491269642874\, p^{116}\, q^{143} + 4522069021471\, p^{100}\, q^{146} + 16339597515624\, p^{104}\, q^{141} + 2819788897421\, q^{123}\, p^{55}$$
$$+ 14550719711741\, q^{125}\, p^{65} + 57393496532064\, p^{133}\, q^{115} + 964184703873\, q^{122}\, p^{50} + 1256412138934\, q^{122}\, p^{51} + 733488272304\, q^{122}\, p^{49}$$
$$+ 7081343509309\, q^{129}\, p^{65} + 10012541830666\, p^{137}\, q^{129} + 12968296309259\, p^{116}\, q^{141} + 13094264306182\, p^{107}\, q^{142}$$
$$+ 14059191617108\, p^{114}\, q^{141} + 8028628\, p^{81}\, q^{15} + 1084748234778335\, p^{81}\, q^{94} + 204454925982633\, p^{122}\, q^{117} + 529216506654606\, p^{72}\, q^{95}$$
$$+ 1021480784120170\, p^{80}\, q^{94} + 1421980779785956\, p^{87}\, q^{93} + 260325991569044\, p^{66}\, q^{96} + 639468778344042\, p^{74}\, q^{95}$$

$$+ 997311329529670\, p^{94} q^{110} + 955581026710469\, p^{108} q^{107} + 843753690313168\, p^{90} q^{111} + 1055790967966811\, p^{104} q^{108}$$
$$+ 3686069316\, p^{155} q^{155} + 442436694964\, q^{114} p^{43} + 451029499520\, q^{116} p^{44} + 31938511434272\, p^{134} q^{85} + 7967573180641\, p^{137} q^{131}$$
$$+ 220334874\, p^{114} q^{26} + 374754787483758\, p^{80} q^{114} + 237719601372549\, p^{76} q^{115} + 316729332569375\, p^{78} q^{114}$$
$$+ 345307421433086\, p^{79} q^{114} + 5289904\, q^{130} p^{27} + 957719299791210\, p^{79} q^{94} + 743656372451961\, p^{83} q^{108} + 1638089905152\, q^{126} p^{55}$$
$$+ 277135979509340\, p^{105} q^{124} + 40739922655419\, p^{76} q^{128} + 1166284066481661\, p^{93} q^{107} + 29463811\, p^{160} q^{59} + 47046964\, p^{155} q^{52}$$
$$+ 7513608582\, p^{164} q^{104} + 85012032613176\, p^{64} q^{110} + 295632170321734\, p^{67} q^{96} + 122897711120383\, p^{61} q^{97}$$
$$+ 59734250491946\, p^{57} q^{98} + 166588922358698\, p^{63} q^{97} + 104674192942681\, p^{60} q^{97} + 143481831410273\, p^{62} q^{97}$$
$$+ 124649535149140\, p^{104} q^{130} + 3694585749404\, p^{145} q^{123} + 909055\, p^{114} q^{19} + 7834470\, p^{119} q^{23} + 814736044817\, p^{146} q^{136}$$
$$+ 1633784359753\, p^{145} q^{132} + 5266222620385\, p^{142} q^{85} + 27369756892547\, p^{53} q^{98} + 17794853855810\, p^{51} q^{98} + 260348\, p^{84} q^{12}$$
$$+ 22146603042434\, p^{52} q^{98} + 16822247693675\, p^{51} q^{99} + 33594562256186\, p^{54} q^{98} + 40961807669605\, p^{55} q^{98}$$
$$+ 49622015304567\, p^{56} q^{98} + 4336412489515\, p^{97} q^{45} + 195923714060019\, p^{100} q^{65} + 126058470781583\, p^{100} q^{62}$$
$$+ 3697360422304\, q^{106} p^{47} + 4802785704656\, q^{106} p^{48} + 135377666\, q^{158} p^{60} + 976143201\, p^{153} q^{58} + 19596030910\, p^{162} q^{126}$$
$$+ 33743202424\, p^{160} q^{98} + 618277935\, p^{152} q^{55} + 24974\, p^{127} q^{20} + 36072734210\, p^{160} q^{99} + 17862035526\, p^{158} q^{83}$$
$$+ 38388322422\, p^{160} q^{100} + 10535642895\, p^{156} q^{74} + 3371211780492\, q^{137} p^{71} + 4521925172868\, q^{137} p^{73} + 5936502874559\, q^{137} p^{75}$$
$$+ 47705086727\, q^{132} p^{47} + 24420551505\, q^{132} p^{45} + 6293924652\, q^{130} p^{40} + 4823193961\, q^{131} p^{40} + 365702014373\, q^{135} p^{57}$$
$$+ 462937971425\, q^{135} p^{58} + 36177802\, q^{124} p^{27} + 1750982726029\, q^{137} p^{67} + 4754830226344\, p^{139} q^{77} + 2944386996\, p^{128} q^{37}$$
$$+ 4190494130236\, p^{139} q^{76} + 1071557273\, p^{164} q^{148} + 915929467\, p^{164} q^{149} + 1274596\, p^{142} q^{32} + 20524291652890\, q^{139} p^{95} + 667\, p^{90} q^{9}$$
$$+ 4532930352\, p^{156} q^{153} + 7158229639\, p^{155} q^{152} + 18583\, q^{142} p^{27} + 11770246\, q^{156} p^{50} + 2555942784\, q^{136} p^{42}$$
$$+ 126058470781583\, p^{90} q^{128} + 3733430477515\, p^{146} q^{119} + 6031327617161\, p^{145} q^{101} + 97164291019\, p^{139} q^{56} + 7478708032\, p^{135} q^{44}$$
$$+ 316774384\, p^{129} q^{33} + 1086165438\, q^{159} p^{70} + 275211285\, p^{136} q^{37} + 11248687099\, q^{159} p^{83} + 361917187509991\, p^{102} q^{122} + 42\, q^{108} p^{11}$$
$$+ 24\, q^{109} p^{11} + 20501291944862\, p^{128} q^{133} + 16306528693373\, p^{130} q^{133} + 277303782804\, p^{154} q^{127} + 686546506659\, p^{153} q^{111}$$
$$+ 686590223171\, p^{153} q^{109} + 393928482639\, p^{154} q^{121} + 600418854677\, p^{153} q^{118} + 2006428307152\, p^{132} q^{144} + 2740189720119\, p^{131} q^{143}$$
$$+ 1284290120\, q^{161} p^{76} + 36272452773215\, p^{137} q^{108} + 8773530398500\, p^{140} q^{125} + 98363005611\, p^{129} q^{47} + 20164557583900\, p^{139} q^{115}$$
$$+ 71426916177\, p^{153} q^{78} + 7\, p^{45} q^{3} + 40813303286\, p^{127} q^{43} + 23004183435242\, p^{137} q^{89} + 12745938805927\, p^{140} q^{120} + 76719\, p^{97} q^{13}$$

$$+ 24831216379168\, p^{139} q^{107} + 30322268245836\, p^{138} q^{102} + 3538111919737\, p^{134} q^{67} + 591195496524\, p^{132} q^{56} + 46064099613\, p^{128} q^{44}$$
$$+ 24420551505\, q^{145} p^{58} + 5035929\, q^{111} p^{20} + 54458138\, q^{111} p^{23} + 11733777\, q^{111} p^{21} + 25889398\, q^{111} p^{22} + 6317970496\, p^{162} q^{90}$$
$$+ 26657142918991\, p^{135} q^{122} + 47705086727\, q^{143} p^{58} + 697910117795060\, p^{113} q^{108} + 401635607221\, q^{104} p^{39} + 619957722119\, q^{103} p^{40}$$
$$+ 856602107439\, q^{103} p^{41} + 879709583\, q^{98} p^{24} + 767457032\, q^{143} p^{45} + 12544514240289\, p^{134} q^{131} + 212430585102016\, q^{120} p^{81}$$
$$+ 283258325490502\, q^{120} p^{85} + 265354588495016\, q^{120} p^{84} + 335672576199476\, q^{120} p^{88} + 367915429927357\, q^{120} p^{90}$$
$$+ 341159071756802\, q^{121} p^{91} + 301051438542387\, q^{120} p^{86} + 352173734552751\, q^{120} p^{89} + 229805409136936\, q^{120} p^{82}$$
$$+ 3570319535915\, p^{141} q^{132} + 13749351740823\, p^{138} q^{85} + 4009676735779\, p^{141} q^{131} + 89756884\, p^{118} q^{26} + 6538930640650\, p^{136} q^{74}$$
$$+ 12962925\, p^{114} q^{22} + 2367331818987\, p^{135} q^{66} + 11075353\, q^{93} p^{17} + 5230860\, q^{92} p^{16} + 43066684\, q^{95} p^{19} + 49284566\, q^{94} p^{19}$$
$$+ 22323028\, q^{94} p^{18} + 408987628116638\, p^{120} q^{93} + 25082624996827\, p^{105} q^{139} + 6457935139645\, p^{106} q^{145} + 7507641995517\, p^{122} q^{142}$$
$$+ 4649771932430\, p^{101} q^{146} + 6464933132416\, p^{107} q^{145} + 6423968551811\, p^{105} q^{145} + 1366551719\, p^{168} q^{126} + 899043821686\, q^{152} p^{105}$$
$$+ 4630\, q^{122} p^{17} + 1661696082221\, p^{112} q^{150} + 1602113567492\, p^{114} q^{150} + 1295918618772\, p^{120} q^{150} + 5167\, p^{82} q^{9}$$
$$+ 82569076545\, p^{117} q^{159} + 178070385\, p^{164} q^{75} + 7960105\, p^{173} q^{156} + 40970517\, p^{161} q^{62} + 630510296\, p^{169} q^{109}$$
$$+ 1344820328961010\, p^{104} q^{100} + 1457549876188911\, p^{98} q^{102} + 44797246\, p^{141} q^{173} + 1902653679\, p^{167} q^{130} + 24397223555336\, p^{94} q^{138}$$
$$+ 10446275029\, q^{104} p^{30} + 11531199721889\, q^{115} p^{56} + 9369\, q^{79} p^{9} + 259137286213931\, p^{123} q^{111} + 297895022539339\, p^{123} q^{107}$$
$$+ 1914281\, p^{174} q^{92} + 1658483\, p^{178} q^{126} + 44519\, p^{165} q^{53} + 1143592\, p^{176} q^{101} + 797373653\, q^{137} p^{40} + 1229338790\, q^{137} p^{41}$$
$$+ 71347248123310\, p^{128} q^{122} + 163532291059\, p^{130} q^{155} + 30715546730\, p^{147} q^{153} + 20087389314\, p^{148} q^{154} + 172910427262\, p^{157} q^{116}$$
$$+ 49842647013\, p^{158} q^{133} + 267309230120121\, p^{95} q^{124} + 147169375385633\, p^{85} q^{125} + 1506577995856\, p^{148} q^{90}$$
$$+ 89097404552766\, p^{112} q^{131} + 92489941927393\, p^{111} q^{131} + 100875121422583\, p^{108} q^{131} + 98411750846094\, p^{109} q^{131}$$
$$+ 9214315965277\, p^{131} q^{69} + 488154849\, p^{116} q^{28} + 4819907863\, p^{120} q^{34} + 121896361838503\, p^{106} q^{130} + 107190438528083\, p^{102} q^{131}$$
$$+ 78458742\, p^{125} q^{173} + 40105830\, p^{126} q^{174} + 2773954950\, p^{160} q^{150} + 119113695158\, p^{158} q^{117} + 169646317469\, p^{157} q^{107}$$
$$+ 85041985916\, p^{156} q^{89} + 105950692850126\, p^{105} q^{131} + 19138618179326\, p^{137} q^{122} + 123521938299830\, p^{105} q^{130}$$
$$+ 38455450227\, p^{94} q^{159} + 93294933977\, p^{101} q^{158} + 102753877184451\, p^{115} q^{129} + 997480\, p^{175} q^{94} + 434903\, p^{172} q^{77} + 96970\, p^{168} q^{61}$$
$$+ 9681\, p^{163} q^{47} + 1861171\, p^{178} q^{130} + 40\, p^{141} q^{22} + 3\, p^{132} q^{17} + 26778\, p^{166} q^{54} + 77087878111525\, p^{104} q^{133} + 64038815814527\, p^{106} q^{134}$$
$$+ 109885773939305\, p^{121} q^{125} + 3705721372\, p^{165} q^{101} + 4103978446\, p^{166} q^{119} + 3976103844\, p^{165} q^{102} + 22542705030\, p^{93} q^{160}$$

$$+ 50630751209553\, p^{75}\, q^{126} + 19222697909076\, p^{124}\, q^{136} + 14913029853187\, p^{125}\, q^{137} + 98798720169352\, p^{113}\, q^{130}$$
$$+ 107147443814672\, p^{111}\, q^{130} + 94265846778538\, p^{114}\, q^{130} + 20109504\, p^{152}\, q^{46} + 81010915\, p^{154}\, q^{52} + 12236615962\, p^{163}\, q^{104}$$
$$+ 103107570238630\, p^{112}\, q^{130} + 110704177463540\, p^{116}\, q^{128} + 117233134816431\, p^{108}\, q^{130} + 118678644445339\, p^{112}\, q^{129}$$
$$+ 113599805409129\, p^{113}\, q^{129} + 689609\, q^{168}\, p^{66} + 30844275896\, p^{144}\, q^{155} + 22680\, p^{140}\, q^{26} + 117257340997\, p^{126}\, q^{157}$$
$$+ 69548595033983\, p^{96}\, q^{133} + 6103512086580\, p^{145}\, q^{112} + 1977668992667\, p^{146}\, q^{128} + 17242196746983\, p^{114}\, q^{140}$$
$$+ 62978734986829\, p^{129}\, q^{122} + 594418543290\, p^{133}\, q^{57} + 672303107566\, q^{152}\, p^{97} + 741929835808\, q^{152}\, p^{99} + 425780141675\, q^{153}\, p^{95}$$
$$+ 1279486697606\, p^{148}\, q^{88} + 132916233804614\, p^{117}\, q^{126} + 104040773162765\, p^{117}\, q^{128} + 89759514066779\, p^{100}\, q^{132}$$
$$+ 73170150426444\, p^{98}\, q^{133} + 129814835\, q^{171}\, p^{105} + 91131868892217\, p^{102}\, q^{132} + 21704569\, q^{137}\, p^{33} + 6855649875\, q^{147}\, p^{56}$$
$$+ 3263332543924\, p^{76}\, q^{140} + 141279370\, q^{171}\, p^{140} + 90631281265532\, p^{101}\, q^{132} + 9622384772\, p^{121}\, q^{36} + 1238057212\, q^{100}\, p^{25}$$
$$+ 776417958\, q^{99}\, p^{24} + 3761152429\, q^{100}\, p^{27} + 6611097\, p^{154}\, q^{174} + 27839751\, p^{133}\, q^{31} + 401635607221\, p^{151}\, q^{86} + 324342799054\, p^{151}\, q^{84}$$
$$+ 5068186026506\, p^{96}\, q^{145} + 8050675678670\, p^{103}\, q^{144} + 13009467406\, p^{149}\, q^{155} + 232556069420\, p^{65}\, q^{143} + 1465355011672\, p^{76}\, q^{143}$$
$$+ 12128774\, q^{172}\, p^{92} + 8069\, q^{168}\, p^{56} + 5943\, p^{176}\, q^{179} + 98216048\, q^{155}\, p^{54} + 139106795\, q^{155}\, p^{55} + 269043935\, q^{155}\, p^{57}$$
$$+ 23587244962\, p^{144}\, q^{156} + 2444960166\, p^{167}\, q^{122} + 4421369193\, p^{163}\, q^{140} + 3102167049\, p^{154}\, q^{64} + 11315267103\, p^{157}\, q^{77}$$
$$+ 15631308256\, p^{157}\, q^{79} + 93662180198\, p^{133}\, q^{50} + 2174863661376\, p^{143}\, q^{133} + 14147927588369\, p^{141}\, q^{97} + 69363000673\, p^{133}\, q^{49}$$
$$+ 4564599736\, p^{128}\, q^{38} + 495184652115\, p^{151}\, q^{130} + 237908\, p^{115}\, q^{18} + 3051458981\, p^{164}\, q^{140} + 1948316496\, p^{155}\, q^{64}$$
$$+ 7100826521\, p^{158}\, q^{77} + 9883996281\, p^{158}\, q^{79} + 4667\, q^{167}\, p^{53} + 2426\, q^{167}\, p^{52} + 8564\, q^{167}\, p^{54} + 17175494\, q^{174}\, p^{108} + 982549\, q^{166}\, p^{62}$$
$$+ 9681\, q^{163}\, p^{47} + 116951426\, q^{172}\, p^{114} + 22081823576479\, p^{135}\, q^{83} + 566009984205\, p^{130}\, q^{54} + 2590681\, p^{106}\, q^{18}$$
$$+ 14904372453580\, p^{135}\, q^{79} + 354125\, p^{101}\, q^{15} + 545269\, p^{145}\, q^{33} + 678737\, p^{103}\, q^{16} + 24635185420\, p^{126}\, q^{41} + 3217238588988\, p^{132}\, q^{64}$$
$$+ 30572493039811\, p^{138}\, q^{106} + 8865415924224\, p^{134}\, q^{73} + 16561055216261\, p^{135}\, q^{80} + 36031644703385\, p^{137}\, q^{100}$$
$$+ 167526477536\, p^{128}\, q^{48} + 43\, p^{64}\, q^{5} + 28833458977486\, p^{138}\, q^{110} + 22780520407735\, p^{98}\, q^{139} + 11896487938610\, p^{135}\, q^{77}$$
$$+ 10549684700244\, p^{135}\, q^{76} + 7735116966\, p^{124}\, q^{37} + 74623382036504\, p^{58}\, q^{97} + 348299017398\, p^{149}\, q^{79} + 72029913458\, p^{146}\, q^{64}$$
$$+ 264235892225\, p^{149}\, q^{77} + 35627373911688\, p^{109}\, q^{137} + 88640944333648\, p^{59}\, q^{97} + 375538027236655\, p^{69}\, q^{96}$$
$$+ 334030592160132\, p^{68}\, q^{96} + 698066248546634\, p^{75}\, q^{95} + 935624808\, p^{157}\, q^{65} + 4966397\, p^{148}\, q^{39} + 8601181\, p^{150}\, q^{42}$$
$$+ 228059948338124\, p^{65}\, q^{96} + 583094680506403\, p^{73}\, q^{95} + 28362547512900\, q^{117}\, p^{62} + 382441904\, q^{104}\, p^{24} + 7460688262052\, q^{115}\, p^{54}$$

$$+ 10136949142693\, p^{66} q^{128} + 827453797247\, p^{74} q^{144} + 12710530439512\, p^{132} q^{133} + 2173688\, p^{177} q^{115} + 1905969\, p^{178} q^{136}$$
$$+ 388683\, p^{170} q^{70} + 591177\, p^{179} q^{147} + 180883\, p^{180} q^{153} + 19731410430430\, p^{127} q^{134} + 51983100031430\, p^{135} q^{99}$$
$$+ 177119707993\, q^{153} p^{85} + 140255242863\, q^{153} p^{83} + 158012503157\, q^{153} p^{84} + 197549681020\, q^{153} p^{86} + 242166128084\, q^{153} p^{88}$$
$$+ 219254951961\, q^{153} p^{87} + 266191626391\, q^{153} p^{89} + 317104346886\, q^{153} p^{91} + 291216754798\, q^{153} p^{90} + 31\, q^{178} p^{77} + 8174\, q^{178} p^{90}$$
$$+ 100661463049164\, p^{125} q^{122} + 202438935204\, p^{151} q^{138} + 243925803463\, p^{140} q^{149} + 224154669845\, p^{139} q^{150}$$
$$+ 4854166365537\, p^{103} q^{146} + 2793128963495\, p^{95} q^{147} + q^{103} p^{9} + 396710024980\, q^{149} p^{80} + 348299017398\, q^{149} p^{79}$$
$$+ 6569359507377\, p^{144} q^{96} + 17015100\, p^{119} q^{24} + 4194043998668\, p^{140} q^{78} + 11590294241251\, p^{142} q^{98} + 711033708314\, p^{73} q^{144}$$
$$+ 725420245533\, p^{135} q^{60} + 4119915658868\, p^{142} q^{129} + 6986804810660\, p^{142} q^{123} + 2029965\, p^{111} q^{19} + 17299114\, p^{116} q^{23}$$
$$+ 1479609203906\, p^{143} q^{136} + 7\, p^{188} q^{167} + 15273722\, q^{162} p^{61} + 3167974693447\, p^{142} q^{80} + 29800613919\, p^{135} q^{48}$$
$$+ 6324840288742\, p^{145} q^{110} + 4359567405081\, p^{142} q^{83} + 7568551776008\, p^{144} q^{100} + 8313566602521\, p^{91} q^{142} + 71499518446\, p^{155} q^{138}$$
$$+ 88526958924699\, p^{132} q^{99} + 418794337028\, p^{125} q^{49} + 1674468496720\, p^{143} q^{77} + 498926065510\, q^{154} p^{110} + 486084967878\, q^{154} p^{114}$$
$$+ 492390977285\, q^{154} p^{113} + 763381045465\, p^{150} q^{128} + 3673568\, q^{131} p^{27} + 4222921193557\, p^{146} q^{98} + 59250085390\, p^{158} q^{131}$$
$$+ 32968741085\, p^{151} q^{69} + 177771\, p^{125} q^{21} + 138684471526\, p^{155} q^{90} + 41706\, p^{120} q^{18} + 162556768418\, p^{156} q^{97} + 81033418459\, p^{118} q^{159}$$
$$+ 62076639557\, p^{134} q^{157} + 27053524032804\, p^{134} q^{83} + 702440405238\, p^{129} q^{54} + 3225205\, p^{105} q^{18} + 18358740799840\, p^{134} q^{79}$$
$$+ 9576\, q^{117} p^{16} + 554091191938\, q^{140} p^{65} + 129059940639\, q^{138} p^{56} + 2052524297\, q^{131} p^{38} + 1083292165\, q^{130} p^{36} + 3172513554\, q^{131} p^{39}$$
$$+ 449723654186\, q^{152} p^{91} + 2456456\, p^{130} q^{26} + 185521986\, q^{127} p^{31} + 53501020078\, q^{134} p^{49} + 221602370919\, q^{134} p^{54}$$
$$+ 169862932971\, q^{134} p^{53} + 3999563\, p^{138} q^{31} + 61648033541\, p^{156} q^{86} + 48510653647\, p^{156} q^{84} + 1601380450301\, p^{149} q^{121}$$
$$+ 442711\, p^{100} q^{15} + 1673845407\, q^{159} p^{72} + 31833017484\, q^{140} p^{53} + 42255746262\, q^{140} p^{54} + 143932014624\, q^{141} p^{60}$$
$$+ 180768076790\, q^{141} p^{61} + 87014333\, q^{172} p^{109} + 93206685\, q^{172} p^{110} + 1728067\, p^{173} q^{164} + 31566498846604\, p^{136} q^{117}$$
$$+ 788444688041884\, p^{108} q^{111} + 2235938668\, p^{167} q^{126} + 2916110149\, p^{165} q^{98} + 618277935\, q^{135} p^{38} + 71\, q^{129} p^{17} + 15\, q^{128} p^{16}$$
$$+ 714\, q^{131} p^{19} + 1330\, q^{130} p^{19} + 247\, q^{130} p^{18} + 2394358590815\, p^{148} q^{118} + 2913116348354\, p^{148} q^{111} + 435942626611\, p^{144} q^{70}$$
$$+ 2642942295704\, p^{147} q^{94} + 2965713645821\, p^{148} q^{109} + 1065819823634\, p^{149} q^{127} + 460624385643\, p^{142} q^{67} + 1257827574119\, p^{151} q^{107}$$
$$+ 319601320497\, p^{148} q^{76} + 2055544587\, q^{159} p^{73} + 14733043109\, q^{159} p^{85} + 2506817823\, q^{159} p^{74} + 3036597457\, q^{159} p^{75}$$
$$+ 12908457338\, q^{159} p^{84} + 16726119915\, q^{159} p^{86} + 2191558538\, q^{160} p^{76} + 1353331116\, q^{159} p^{71} + 550296621632\, p^{148} q^{80}$$

$$+ 148704\, q^{168}\, p^{62} + 119\, p^{119}\, q^{184} + p^{115}\, q^{185} + 69\, p^{117}\, q^{184} + 93\, p^{118}\, q^{184} + 73\, q^{150}\, p^{28} + 20695462\, q^{165}\, p^{69} + 25401836283\, p^{162}\, q^{116}$$
$$+ 8570026715\, p^{163}\, q^{133} + 8\, p^{169}\, q^{188} + 25266\, q^{151}\, p^{34} + 135377666\, p^{158}\, q^{60} + 5944839959\, q^{145}\, p^{53} + 41695\, p^{109}\, q^{15} + 80439\, p^{111}\, q^{16}$$
$$+ 487103\, p^{96}\, q^{176} + 699877\, p^{98}\, q^{176} + 2065209\, p^{158}\, q^{49} + 567523\, p^{174}\, q^{167} + 118153841\, p^{168}\, q^{87} + 10747979\, p^{161}\, q^{58}$$
$$+ 134083943\, p^{172}\, q^{131} + 261515270\, p^{169}\, q^{98} + 857047\, p^{153}\, q^{41} + 3349\, q^{150}\, p^{31} + 354928\, q^{161}\, p^{50} + 245189659\, p^{171}\, q^{116}$$
$$+ 124830611\, p^{172}\, q^{133} + 3968\, p^{133}\, q^{21} + 6045\, p^{169}\, q^{182} + 3090\, p^{175}\, q^{181} + 971\, p^{181}\, q^{179} + 925\, p^{162}\, q^{185} + 152137965\, q^{171}\, p^{107}$$
$$+ 506737116531\, p^{149}\, q^{82} + 3986\, p^{184}\, q^{154} + 4\, p^{162}\, q^{38} + p^{159}\, q^{34} + 7513525\, q^{163}\, p^{61} + 4553415127262\, p^{146}\, q^{114}$$
$$+ 125242002899\, p^{139}\, q^{57} + 606150525\, p^{167}\, q^{94} + 18554189508\, p^{160}\, q^{91} + 24089732200\, p^{162}\, q^{110} + 1221607323\, q^{163}\, p^{82}$$
$$+ 1034100509\, q^{163}\, p^{81} + 3\, q^{173}\, p^{58} + 833165989\, q^{169}\, p^{125} + 387793\, p^{119}\, q^{179} + 1719724\, p^{127}\, q^{178} + 3981705\, p^{145}\, q^{36}$$
$$+ 2782627278\, p^{165}\, q^{137} + 1304596034\, p^{165}\, q^{144} + 1924960878\, p^{157}\, q^{68} + 33\, q^{177}\, p^{73} + 62\, q^{177}\, p^{74} + 15\, q^{177}\, p^{72} + 155\, q^{125}\, p^{16}$$
$$+ 1619\, q^{127}\, p^{18} + 8\, p^{188}\, q^{168} + 11\, p^{163}\, q^{40} + 48\, p^{165}\, q^{44} + 10319096\, p^{143}\, q^{36} + 6049923385\, p^{163}\, q^{137} + 61790289\, p^{147}\, q^{43}$$
$$+ 36869654338\, p^{161}\, q^{119} + 42892244612\, p^{160}\, q^{102} + 40668757240\, p^{160}\, q^{101} + 117247380\, p^{169}\, q^{150} + 11839507926\, p^{160}\, q^{87}$$
$$+ 5147862176\, p^{160}\, q^{81} + 1374843093680484\, p^{86}\, q^{93} + 14622814\, q^{138}\, p^{33} + 21005150586391\, p^{139}\, q^{114} + 17384261187798\, p^{139}\, q^{118}$$
$$+ 23144599606556\, p^{139}\, q^{111} + 4600079302402\, p^{135}\, q^{70} + 30575219402315\, p^{138}\, q^{103} + 9308152738900\, p^{135}\, q^{75} + 31086\, p^{95}\, q^{12}$$
$$+ 4182096241236\, p^{134}\, q^{68} + 1176120545058\, p^{132}\, q^{59} + 675056\, p^{98}\, q^{15} + 126756097\, p^{132}\, q^{33} + 233732658\, p^{135}\, q^{36}$$
$$+ 2180651829364\, p^{147}\, q^{91} + 29443034310840\, p^{109}\, q^{138} + 848734\, p^{102}\, q^{16} + 28455855552\, q^{148}\, p^{63} + 8241159452810\, p^{132}\, q^{136}$$
$$+ 6213092859988\, p^{133}\, q^{137} + 613877\, p^{142}\, q^{31} + 10446275029\, p^{160}\, q^{86} + 8002928871\, p^{160}\, q^{84} + 22146603042434\, q^{138}\, p^{92}$$
$$+ 138984286\, q^{128}\, p^{31} + 245070354\, q^{128}\, p^{32} + 421122701\, q^{128}\, p^{33} + 1160028201\, q^{128}\, p^{35} + 706662734\, q^{128}\, p^{34} + 1428206363\, q^{129}\, p^{36}$$
$$+ 44180226387\, q^{131}\, p^{46} + 255972864188000\, p^{90}\, q^{123} + 181045219\, q^{125}\, p^{30} + 255703466339\, p^{139}\, q^{60} + 1800922045395\, p^{146}\, q^{129}$$
$$+ 19274744353036\, p^{139}\, q^{116} + 24397223555336\, p^{138}\, q^{94} + 7316746496235\, p^{140}\, q^{127} + 24174947335120\, p^{139}\, q^{109}$$
$$+ 3164191820\, p^{124}\, q^{35} + 988\, p^{81}\, q^{8} + 14807061409465\, p^{136}\, q^{81} + 9540392567220\, p^{140}\, q^{124} + 4914710843785\, p^{134}\, q^{69}$$
$$+ 181977037315729\, p^{96}\, q^{127} + 9298098\, p^{112}\, q^{21} + 5834\, p^{89}\, q^{10} + 170976598\, p^{118}\, q^{27} + 424822479839\, p^{153}\, q^{125}$$
$$+ 132179128853084\, p^{91}\, q^{128} + 13531676041708\, p^{115}\, q^{141} + 3282853\, p^{121}\, q^{177} + 3253009\, p^{161}\, q^{173} + 13652028\, p^{141}\, q^{175}$$
$$+ 512781\, p^{111}\, q^{178} + 28259\, p^{101}\, q^{179} + 9501109\, p^{131}\, q^{176} + 33261339578\, p^{137}\, q^{158} + 844552\, p^{167}\, q^{173} + 1694575326324\, p^{110}\, q^{150}$$
$$+ 58\, q^{157}\, p^{34} + 224\, q^{156}\, p^{34} + 1792364\, q^{170}\, p^{75} + 9298098\, q^{169}\, p^{78} + 2457932001552\, q^{137}\, p^{69} + 170976598\, q^{163}\, p^{72}$$

$$+ 1304724125\, q^{131} p^{37} + 39097353727\, q^{134} p^{48} + 3797927240\, q^{136} p^{43} + 1807556929036\, p^{98} q^{149} + 451487086\, q^{161} p^{71}$$
$$+ 10380682141\, p^{161} q^{90} + 46064099613\, p^{146} q^{62} + 37377585431943\, p^{137} q^{104} + 22987663602791\, p^{136} q^{86} + 6411227848947\, p^{139} q^{130}$$
$$+ 68741873\, q^{172} p^{106} + 80701392598\, p^{155} q^{137} + 1446876848\, p^{139} q^{43} + 219753809552894\, p^{99} q^{126} + 30761447494\, p^{125} q^{41}$$
$$+ 166588922358698\, p^{93} q^{127} + 222201966795077\, p^{101} q^{126} + 221433152999495\, p^{100} q^{126} + 98356379088725\, p^{126} q^{121}$$
$$+ 43690500504390\, p^{80} q^{130} + 23725494441877\, p^{76} q^{131} + 35682301456273\, p^{78} q^{130} + 39577892679064\, p^{79} q^{130}$$
$$+ 1580973004251901\, p^{93} q^{92} + 5924315532\, p^{110} q^{165} + 6258995982\, p^{112} q^{165} + 6576278899\, p^{115} q^{165} + 6497194307\, p^{114} q^{165}$$
$$+ 6391002196\, p^{113} q^{165} + 6102813996\, p^{111} q^{165} + 6627240608\, p^{116} q^{165} + 117072530\, q^{170} p^{97} + 146981080\, q^{170} p^{99}$$
$$+ 256933887\, q^{170} p^{105} + 561083049\, q^{169} p^{107} + 49730996\, p^{167} q^{159} + 35049340\, p^{168} q^{159} + 317371659687\, p^{125} q^{154}$$
$$+ 220367239189\, p^{126} q^{155} + 7783912\, p^{158} q^{52} + 2\, p^{73} q^{5} + 332071879\, p^{163} q^{75} + 12568747\, p^{172} q^{156} + 76634707\, p^{160} q^{62}$$
$$+ 1139920638\, p^{168} q^{109} + 4768347\, p^{167} q^{168} + 8643940\, p^{166} q^{167} + 6340763\, p^{168} q^{166} + 3931829\, q^{166} p^{66} + 27153482\, q^{165} p^{70}$$
$$+ 129679221\, p^{172} q^{132} + 187523878\, p^{168} q^{90} + 1382\, q^{151} p^{31} + 14967991\, p^{164} q^{167} + 8643940\, p^{167} q^{166} + 19390427\, p^{163} q^{167}$$
$$+ 6340763\, p^{166} q^{168} + 17818475\, p^{162} q^{168} + 10846536\, p^{164} q^{168} + 1882490\, p^{170} q^{168} + 4252164\, p^{170} q^{165} + 11639694\, p^{166} q^{166}$$
$$+ 5997071\, p^{169} q^{165} + 13968897\, p^{163} q^{168} + 8337101\, p^{165} q^{168} + 10823\, p^{180} q^{172} + 455750437\, q^{170} p^{116} + 177423704333\, p^{129} q^{155}$$
$$+ 33132319\, q^{172} p^{99} + 3312\, q^{146} p^{28} + 216165973\, q^{168} p^{91} + 71\, q^{175} p^{67} + 15618723\, q^{165} p^{68} + 43990771\, q^{167} p^{78} + 54458138\, q^{167} p^{79}$$
$$+ 66914589\, q^{167} p^{80} + 147129981\, q^{172} p^{122} + 145288227\, q^{172} p^{121} + 3050527\, q^{160} p^{53} + 3415961\, q^{161} p^{55} + 62603\, q^{159} p^{44}$$
$$+ 162498\, q^{160} p^{47} + 17015100\, q^{166} p^{71} + 28515579\, q^{166} p^{73} + 36427403\, q^{166} p^{74} + 46142066\, q^{166} p^{75} + 7445431\, q^{161} p^{57}$$
$$+ 780856\, q^{160} p^{50} + 7295570\, q^{166} p^{68} + 22128137\, q^{166} p^{72} + 12960429\, q^{166} p^{70} + 20738797\, p^{165} q^{165} + 15491778\, p^{166} q^{165}$$
$$+ 44519\, p^{137} q^{25} + 29828155\, p^{169} q^{158} + 48767047\, p^{171} q^{150} + 43787982\, p^{169} q^{156} + 200\, q^{177} p^{76} + 19984011889\, p^{161} q^{97} + q^{176} p^{66}$$
$$+ 20424974700\, p^{84} q^{158} + 18889536599\, p^{87} q^{159} + 23231079629\, p^{85} q^{158} + 17862035526\, p^{83} q^{158} + 26284134458\, p^{86} q^{158}$$
$$+ 3632176\, p^{133} q^{28} + 65884053473\, p^{152} q^{75} + 18236818\, q^{169} p^{81} + 22472766\, q^{169} p^{82} + 15087531\, q^{170} p^{84} + 7783912\, q^{158} p^{52}$$
$$+ 17276271\, q^{158} p^{54} + 11688571\, q^{158} p^{53} + 10920\, p^{178} q^{91} + 306243273\, p^{160} q^{67} + 11\, p^{133} q^{186} + 12748\, q^{160} p^{43} + 2679\, q^{160} p^{41}$$
$$+ 76444820413\, p^{159} q^{106} + 13654269477\, p^{155} q^{73} + p^{184} q^{106} + 126\, p^{88} q^{8} + 237887071582\, p^{129} q^{154} + 6293924652\, p^{150} q^{60}$$
$$+ 3320\, p^{112} q^{14} + 42516\, p^{123} q^{19} + 172\, p^{100} q^{10} + 265237\, p^{129} q^{23} + 3662966147\, p^{150} q^{58} + 12415387000\, p^{160} q^{140}$$
$$+ 59595700737\, p^{159} q^{126} + 117448937593\, p^{157} q^{98} + 2309541430\, p^{149} q^{55} + 89977\, p^{124} q^{20} + 124514443633\, p^{157} q^{99}$$

$$+ 64418571321\, p^{155} q^{83} + 131419014244\, p^{157} q^{100} + 37658313774\, p^{153} q^{74} + 3700557322\, p^{125} q^{166} + 2841872072\, p^{154} q^{157}$$
$$+ 3523322970\, p^{153} q^{157} + 4904500584\, p^{150} q^{158} + 2965540180648\, p^{142} q^{132} + 10941640860138\, p^{139} q^{85} + 3325462920724\, p^{142} q^{131}$$
$$+ 70277322\, p^{119} q^{26} + 5194850396819\, p^{137} q^{74} + 10120646\, p^{115} q^{22} + 1869287686581\, p^{136} q^{66} + 8468543308199\, p^{114} q^{54}$$
$$+ 397205568312\, p^{153} q^{126} + 977781610061\, p^{151} q^{98} + 820679397\, p^{169} q^{116} + 373460628\, p^{170} q^{133} + 1972\, p^{182} q^{112} + 35\, p^{174} q^{63}$$
$$+ 925\, p^{185} q^{162} + 298\, p^{174} q^{66} + 1486\, p^{180} q^{96} + 3694585749404\, p^{123} q^{145} + 3349\, q^{159} p^{40} + 7627338690\, p^{163} q^{97} + 392865\, p^{171} q^{172}$$
$$+ 746472\, p^{170} q^{171} + 9806538\, p^{151} q^{174} + 35989113153\, p^{143} q^{155} + 119371\, q^{169} p^{64} + 78765\, q^{169} p^{63} + 32241\, q^{169} p^{61} + 50909\, q^{169} p^{62}$$
$$+ 4991540\, q^{173} p^{92} + 1219\, q^{168} p^{53} + 590\, q^{168} p^{52} + 2397\, q^{168} p^{54} + 4479\, q^{168} p^{55} + 59861\, q^{170} p^{65} + 579022713415\, p^{153} q^{119}$$
$$+ 832613241885\, p^{152} q^{102} + 804673415231\, p^{152} q^{101} + 680141753617\, p^{151} q^{92} + 149242932789\, p^{154} q^{134} + 58931307489\, p^{94} q^{158}$$
$$+ 81939173149\, p^{93} q^{157} + 19655114383652\, p^{94} q^{139} + 2152465\, p^{173} q^{163} + 416655922\, p^{167} q^{91} + 245902243\, p^{171} q^{130} + 16\, q^{178} p^{76}$$
$$+ 5690109\, q^{169} p^{76} + 17115949183868\, p^{96} q^{140} + 24174947335120\, p^{109} q^{139} + 5700014\, p^{151} q^{175} + 175\, p^{110} q^{12} + 725462134\, p^{169} q^{112}$$
$$+ 865452969\, p^{169} q^{121} + 516445549\, p^{166} q^{88} + 24552188938446\, p^{108} q^{139} + 16439231104870\, p^{95} q^{140} + 30317690813198\, p^{107} q^{138}$$
$$+ 3334841463\, p^{162} q^{85} + 25391\, p^{118} q^{17} + 31868594\, p^{139} q^{35} + 3074636197\, p^{159} q^{151} + 7219534642\, p^{149} q^{59} + 21704569\, p^{137} q^{33}$$
$$+ 16475265319\, p^{163} q^{117} + 22123506132\, p^{162} q^{107} + 9268457761\, p^{161} q^{89} + 106241746999\, p^{104} q^{158} + 90191908751\, q^{152} p^{77}$$
$$+ 86677457\, p^{169} q^{152} + 257\, p^{91} q^{180} + 10735205435\, p^{150} q^{155} + p^{19} q + 48202717723479\, p^{114} q^{63} + 2820323638577\, p^{111} q^{48}$$
$$+ 89250353388098\, p^{114} q^{67} + 50463516128\, p^{136} q^{157} + 1132087\, p^{132} q^{26} + 18889536599\, p^{159} q^{87} + 75319\, p^{134} q^{24}$$
$$+ 8400745057\, p^{159} q^{81} + 56080984\, q^{171} p^{97} + 71411141\, q^{171} p^{99} + 19342181\, q^{172} p^{95} + 58\, q^{156} p^{33} + 75319\, q^{166} p^{56}$$
$$+ 13071149029034\, p^{95} q^{141} + 7791419432346\, p^{90} q^{142} + 14625567135944\, p^{98} q^{141} + 393092093\, q^{160} p^{68} + 74123183676\, p^{128} q^{158}$$
$$+ 473\, q^{134} p^{20} + 75\, q^{134} p^{19} + 2\, p^{188} q^{156} + 18010258150\, p^{153} q^{70} + 132003978996\, p^{156} q^{94} + 71980647317\, p^{159} q^{122}$$
$$+ 52786184833\, p^{159} q^{128} + 19354236525\, p^{160} q^{136} + 39182252119\, p^{159} q^{132} + 77040847402\, p^{120} q^{159} + 56838470580\, p^{111} q^{160}$$
$$+ 79183415235\, p^{119} q^{159} + 123712315363\, p^{158} q^{114} + 448237708853226\, p^{78} q^{110} + 410797618814739\, p^{77} q^{110}$$
$$+ 374754787483758\, p^{76} q^{110} + 657500250381980\, p^{101} q^{116} + 42323\, p^{111} q^{180} + 5\, p^{95} q^{182} + 482885651\, p^{170} q^{125} + 964427602\, p^{168} q^{106}$$
$$+ 491986258\, p^{170} q^{123} + 1024427156\, p^{168} q^{107} + 836902742\, p^{169} q^{117} + 93872727\, p^{153} q^{51} + 20932\, p^{182} q^{128} + 6026\, p^{178} q^{89} + 6\, p^{161} q^{37}$$
$$+ 6651\, p^{179} q^{95} + 247\, p^{172} q^{60} + 2325\, p^{184} q^{164} + 1576\, p^{174} q^{69} + 236910060\, q^{171} p^{115} + 245189659\, q^{171} p^{116} + 259045938\, q^{171} p^{118}$$
$$+ 268742271\, q^{171} p^{120} + 264451139\, q^{171} p^{119} + 13\, q^{138} p^{20} + 148313440\, q^{172} p^{123} + 14585279\, q^{163} p^{63} + 10532847\, q^{163} p^{62}$$

$$+ 290954\, q^{163}\, p^{53} + 176\, p^{87}\, q^{8} + 9690348\, q^{171}\, p^{86} + 11744937\, q^{171}\, p^{87} + 10446275029\, p^{86}\, q^{160} + 258366\, q^{158}\, p^{45} + 933492\, q^{161}\, p^{52}$$
$$+ 2257725\, q^{161}\, p^{54} + 196405\, q^{156}\, p^{42} + 768533\, q^{158}\, p^{47} + q^{140}\, p^{20} + 13\, q^{140}\, p^{21} + 110\, q^{140}\, p^{22} + 3\, q^{143}\, p^{22} + 85029955544\, p^{112}\, q^{159}$$
$$+ 42892244612\, p^{102}\, q^{160} + 871\, p^{184}\, q^{172} + 6478084\, p^{144}\, q^{36} + 4134335684\, p^{164}\, q^{137} + 49\, p^{97}\, q^{9} + 1580\, p^{103}\, q^{181} + 4274133\, p^{135}\, q^{177}$$
$$+ 3005764\, p^{159}\, q^{174} + 907\, p^{128}\, q^{18} + 2\, p^{157}\, q^{188} + 2581961\, p^{139}\, q^{31} + 40586235774\, p^{157}\, q^{86} + 31743398325\, p^{157}\, q^{84}$$
$$+ 3644733451\, p^{154}\, q^{156} + 4\, q^{141}\, p^{21} + 1111\, q^{150}\, p^{30} + 415\, q^{151}\, p^{30} + 109\, q^{138}\, p^{21} + 14967991\, p^{167}\, q^{164} + 5461869\, p^{170}\, q^{164}$$
$$+ 99261\, p^{172}\, q^{175} + 6\, p^{111}\, q^{11} + 16894849\, p^{171}\, q^{89} + 19901910\, p^{175}\, q^{128} + 5117199\, p^{176}\, q^{146} + 16659080\, p^{172}\, q^{94} + 465644\, p^{163}\, q^{54}$$
$$+ 7306160\, p^{169}\, q^{77} + 257436198974\, p^{128}\, q^{154} + 943469\, p^{168}\, q^{172} + 3089147479\, p^{164}\, q^{93} + 1013326\, p^{141}\, q^{31} + 16726119915\, p^{159}\, q^{86}$$
$$+ 12908457338\, p^{159}\, q^{84} + 3726354684\, p^{160}\, q^{79} + 1389358345\, p^{166}\, q^{140} + 723481492\, p^{157}\, q^{64} + 2632383340\, p^{160}\, q^{77}$$
$$+ 2841872072\, p^{157}\, q^{154} + 71426916177\, q^{112}\, p^{37} + 20793745955\, q^{112}\, p^{34} + 31869572243\, q^{112}\, p^{35} + 104631523087\, q^{112}\, p^{38}$$
$$+ 2580379662049\, p^{86}\, q^{145} + 6273480342201\, p^{95}\, q^{144} + 5965111489025\, p^{94}\, q^{144} + 12397987088426\, p^{111}\, q^{142}$$
$$+ 12647875018629\, p^{110}\, q^{142} + 3061555660057\, p^{88}\, q^{145} + 10422414194000\, p^{105}\, q^{143} + 10091752735272\, p^{102}\, q^{143}$$
$$+ 14263116105075\, q^{118}\, p^{59} + 17278302394989\, q^{118}\, p^{60} + 259137286213931\, p^{111}\, q^{123} + 11621147490673\, p^{68}\, q^{129}$$
$$+ 20799091529213\, p^{72}\, q^{129} + 15716574714083\, p^{70}\, q^{129} + 18128337671396\, p^{71}\, q^{129} + 13019825268604\, p^{70}\, q^{130}$$
$$+ 23738649773253\, p^{73}\, q^{129} + 26954396016078\, p^{74}\, q^{129} + 30450874247736\, p^{75}\, q^{129} + 53\, q^{120}\, p^{14} + 2059236821026\, p^{144}\, q^{81}$$
$$+ 1709555630991\, p^{148}\, q^{124} + 659708112375\, p^{142}\, q^{69} + 232422469151\, p^{147}\, q^{143} + 3971989753429\, p^{131}\, q^{64} + 29794\, q^{114}\, p^{16}$$
$$+ 1972\, p^{78}\, q^{8} + 24581895202691\, p^{135}\, q^{123} + 131134726\, p^{164}\, q^{159} + 117\, q^{177}\, p^{75} + 37129277945826\, p^{137}\, q^{106} + 3709009914889\, p^{140}\, q^{77}$$
$$+ 10939316883019\, p^{133}\, q^{73} + 20371365148958\, p^{134}\, q^{80} + 43792970814072\, p^{136}\, q^{100} + 51304833687\, q^{145}\, p^{61} + 40382517632\, q^{145}\, p^{60}$$
$$+ 31533020015\, q^{145}\, p^{59} + 64680009489\, q^{145}\, p^{62} + 80934229295\, q^{145}\, p^{63} + 207902742027\, p^{127}\, q^{48} + 3349515470\, q^{143}\, p^{49}$$
$$+ 240436545992\, p^{145}\, q^{145} + 16180352824094\, p^{141}\, q^{108} + 3713007365479\, q^{124}\, p^{57} + 93709895564\, p^{124}\, q^{158} + 21520084085461\, p^{137}\, q^{88}$$
$$+ 3001974822\, p^{166}\, q^{130} + 5246884356\, p^{163}\, q^{93} + 221602370919\, p^{134}\, q^{54} + 9381511912\, p^{130}\, q^{41} + 1288607083779\, p^{136}\, q^{64}$$
$$+ 13136107902810\, p^{142}\, q^{106} + 3559492073568\, p^{138}\, q^{73} + 6739356346688\, p^{139}\, q^{80} + 15432933855775\, p^{141}\, q^{100} + 65569163636\, p^{132}\, q^{48}$$
$$+ 12647875018629\, p^{142}\, q^{110} + 9142007740341\, p^{139}\, q^{83} + 938484719475\, q^{152}\, p^{109} + 449\, q^{84}\, p^{8} + 33\, q^{84}\, p^{7} + 806642919642\, q^{123}\, p^{50}$$
$$+ 1750982726029\, q^{123}\, p^{53} + 5969070243192\, p^{125}\, q^{142} + 7343260771589\, p^{119}\, q^{143} + 5089921859158\, p^{141}\, q^{82} + 71616293\, p^{132}\, q^{32}$$
$$+ 797373653\, p^{137}\, q^{40} + 124017965823\, p^{145}\, q^{65} + 1344816795\, p^{138}\, q^{42} + 708418596\, p^{136}\, q^{39} + 2230594022432\, q^{123}\, p^{54}$$

$$+ 2367331818987\, q^{124} p^{55} + 57\, p^{63} q^{5} + 9309998489\, q^{119} p^{35} + 35676675135\, q^{148} p^{64} + 22525175639\, q^{148} p^{62} + 13783352239\, q^{148} p^{60}$$
$$+ 17691593866\, q^{148} p^{61} + 44402215420\, q^{148} p^{65} + 161890511843\, q^{122} p^{44} + 6918862910619\, q^{124} p^{60} + 184889056133\, q^{145} p^{67}$$
$$+ 1395325274644\, q^{150} p^{99} + 1266351117599\, q^{151} p^{108} + 31004655342\, q^{141} p^{54} + 151931760426\, q^{145} p^{66} + 72029913458\, q^{146} p^{64}$$
$$+ 268548041469\, q^{145} p^{69} + 223535179470\, q^{145} p^{68} + 34847355450309\, p^{137} q^{110} + 8401488763908\, q^{124} p^{61} + 109\, q^{101} p^{10}$$
$$+ 22503406601084\, p^{139} q^{112} + 6634473423587\, p^{140} q^{128} + 143421\, p^{113} q^{17} + 343212089502\, q^{123} p^{47} + 1053254472147\, q^{123} p^{51}$$
$$+ 138511629108\, q^{152} p^{80} + 120713025185\, q^{152} p^{79} + 65884053473\, q^{152} p^{75} + 77307810498\, q^{152} p^{76} + 1460554338539219\, p^{102} q^{95}$$
$$+ 1549544596403612\, p^{98} q^{99} + 1416271823618741\, p^{103} q^{98} + 1294565\, p^{100} q^{16} + 1151703073194671\, p^{97} q^{108}$$
$$+ 1421827860658495\, p^{96} q^{103} + 27452185765415\, p^{133} q^{81} + 1466580034264\, q^{149} p^{94} + 1555435942667\, q^{149} p^{95}$$
$$+ 1274229659450\, q^{150} p^{97} + 9475220630355\, q^{109} p^{52} + 23663084\, q^{99} p^{19} + 42323\, q^{79} p^{10} + 137582\, q^{80} p^{11}$$
$$+ 1502187544591564\, p^{101} q^{97} + 289926338310709\, q^{118} p^{82} + 41\, q^{180} p^{87} + 24\, q^{180} p^{86} + 7\, q^{180} p^{84} + 1504408783415737\, p^{101} q^{96}$$
$$+ 1588666029225\, p^{119} q^{50} + 6102059240005\, p^{121} q^{57} + 2886763773314\, p^{120} q^{53} + 142298849656\, p^{117} q^{41} + 35099770757\, p^{114} q^{36}$$
$$+ 23120350849\, p^{114} q^{35} + 14545149969434\, p^{141} q^{113} + 160125607279\, p^{132} q^{51} + 1532102621337972\, p^{99} q^{99} + 336144647366\, p^{138} q^{60}$$
$$+ 2238149212872\, p^{145} q^{129} + 67379724073343\, p^{95} q^{133} + 1364988545056595\, p^{103} q^{101} + 1323956190917898\, p^{104} q^{101}$$
$$+ 1444563644655825\, p^{99} q^{102} + 1387606964571647\, p^{103} q^{100} + 1458915170247098\, p^{100} q^{101} + 1404768594519965\, p^{99} q^{103}$$
$$+ 1421980779785956\, p^{97} q^{103} + 1416271823618741\, p^{98} q^{103} + 1387606964571647\, p^{100} q^{103} + 1337176859097601\, p^{102} q^{103}$$
$$+ 1364988545056595\, p^{101} q^{103} + 1304492461329573\, p^{103} q^{103} + 1267306980970474\, p^{104} q^{103} + 7134820932839\, q^{117} p^{55}$$
$$+ 8865415924224\, q^{117} p^{56} + 3944527\, p^{112} q^{20} + 2039593265466\, p^{142} q^{135} + 1465592789054143\, p^{96} q^{102} + 1464587364662218\, p^{97} q^{102}$$
$$+ 1401425153885451\, p^{101} q^{102} + 1425781961019645\, p^{100} q^{102} + 4583693054567\, q^{109} p^{49} + 111603\, p^{101} q^{178} + 2007\, p^{91} q^{179}$$
$$+ 2223\, p^{86} q^{178} + 92155\, p^{100} q^{178} + 75436\, p^{99} q^{178} + 1493786668450659\, p^{101} q^{98} + 1457549876188911\, p^{102} q^{98}$$
$$+ 392076198730134\, p^{96} q^{121} + 1421827860658495\, p^{103} q^{96} + 1534354722546451\, p^{100} q^{97} + 1465592789054143\, p^{102} q^{96}$$
$$+ 1373600526302976\, p^{104} q^{96} + 1549544596403612\, p^{99} q^{98} + 1421980779785956\, p^{103} q^{97} + 21374\, p^{74} q^{9}$$
$$+ 1493786668450659\, p^{98} q^{101} + 24482536881415\, p^{137} q^{90} + 8030931116606\, p^{140} q^{126} + 1758640841352\, p^{133} q^{62}$$
$$+ 28751509010146\, p^{137} q^{93} + 6197323157914\, p^{135} q^{72} + 30701105582030\, p^{138} q^{105} + 64680009489\, p^{128} q^{45} + 14339\, p^{92} q^{11}$$
$$+ 20042535821880\, p^{137} q^{87} + 1524569912553803\, p^{98} q^{100} + 1508598133542175\, p^{99} q^{100} + 1508598133542175\, p^{100} q^{99}$$

$$+ 1524569912553803\, p^{100}\, q^{98} + 1374843093680484\, p^{104}\, q^{97} + 9704721040131\, p^{143}\, q^{112} + 3042500475556\, p^{144}\, q^{128}$$
$$+ 250529014\, p^{119}\, q^{28} + 2490420466\, p^{123}\, q^{34} + 11127143592296\, p^{140}\, q^{122} + 16319490706478\, p^{136}\, q^{82} + 349640320648\, p^{131}\, q^{53}$$
$$+ 2624\, p^{85}\, q^{9} + 1435587829659\, p^{133}\, q^{61} + 330778\, q^{126}\, p^{22} + 75998\, p^{175}\, q^{83} + 118125\, p^{181}\, q^{144} + 116373\, p^{181}\, q^{137} + 100754\, p^{175}\, q^{84}$$
$$+ 41695\, p^{175}\, q^{81} + 317371659687\, p^{154}\, q^{125} + 1504408783415737\, p^{96}\, q^{101} + 1502187544591564\, p^{97}\, q^{101} + 1360367412894133\, p^{104}\, q^{99}$$
$$+ 7260277356006\, p^{141}\, q^{125} + 77889931123\, p^{130}\, q^{47} + 16573450206266\, p^{140}\, q^{115} + 32415284461\, p^{128}\, q^{43} + 18540951702742\, p^{138}\, q^{89}$$
$$+ 10475942158526\, p^{141}\, q^{120} + 60425\, p^{98}\, q^{13} + 20201509614075\, p^{140}\, q^{107} + 24680179799656\, p^{139}\, q^{102} + 2819788897421\, p^{135}\, q^{67}$$
$$+ 468079024671\, p^{133}\, q^{56} + 36424498091\, p^{129}\, q^{44} + 1425781961019645\, p^{102}\, q^{100} + 1479305622238069\, p^{99}\, q^{101}$$
$$+ 1458915170247098\, p^{101}\, q^{100} + 4556638\, q^{168}\, p^{72} + 18363276\, q^{170}\, p^{85} + 980099248626\, p^{149}\, q^{128} + 1405220358\, p^{158}\, q^{156}$$
$$+ 3467173020\, q^{148}\, p^{55} + 324807174\, p^{127}\, q^{32} + 5747568103835\, p^{142}\, q^{86} + 2025103655656\, p^{145}\, q^{130} + 10354274671571\, p^{143}\, q^{104}$$
$$+ 100791670426\, p^{136}\, q^{53} + 18751508678\, p^{133}\, q^{45} + 6244089464483\, p^{142}\, q^{87} + 69899368\, p^{124}\, q^{28} + 706662734\, p^{128}\, q^{34}$$
$$+ 419049248049\, p^{138}\, q^{61} + 446115950\, p^{166}\, q^{149} + 120838\, p^{181}\, q^{142} + 14663584773\, p^{152}\, q^{67} + 3415961\, p^{135}\, q^{29}$$
$$+ 161164957763\, p^{157}\, q^{105} + 5402593837\, p^{151}\, q^{61} + 1024901560\, p^{147}\, q^{50} + 8417268818\, p^{160}\, q^{143} + 349252020\, p^{145}\, q^{45}$$
$$+ 110325767991\, p^{158}\, q^{120} + 6257996447\, p^{123}\, q^{36} + 35332093531495\, p^{137}\, q^{99} + 22119936664238\, p^{138}\, q^{117} + 298980494\, p^{158}\, q^{162}$$
$$+ 764427627\, p^{152}\, q^{163} + 2665540084427\, p^{132}\, q^{63} + 13627907534851\, p^{141}\, q^{96} + 512544447\, q^{143}\, p^{44} + 55384002\, q^{139}\, p^{36}$$
$$+ 336921864\, q^{143}\, p^{43} + 316774384\, q^{129}\, p^{33} + 1065500931552\, q^{151}\, p^{100} + 1105101406990\, q^{151}\, p^{101} + 12016584985710\, q^{136}\, p^{79}$$
$$+ 83297928831898\, p^{125}\, q^{124} + 450579438936\, p^{151}\, q^{131} + 110875058392359\, p^{110}\, q^{130} + 367663063693\, p^{151}\, q^{133}$$
$$+ 1726765961945\, p^{149}\, q^{97} + 1518620792571\, p^{150}\, q^{116} + 108273739278524\, p^{114}\, q^{129} + 114249536293531\, p^{109}\, q^{130}$$
$$+ 102542488877438\, p^{119}\, q^{127} + 123457675359452\, p^{111}\, q^{129} + 88013747989772\, p^{107}\, q^{132} + 86317371353854\, p^{108}\, q^{132}$$
$$+ 97348749948531\, p^{118}\, q^{128} + 94994155794329\, p^{120}\, q^{127} + 65264876179796\, p^{128}\, q^{123} + 1267422541325\, q^{151}\, p^{110}$$
$$+ 10184554102340\, q^{140}\, p^{87} + 260897\, q^{111}\, p^{17} + 70277322\, q^{119}\, p^{26} + 197458713\, q^{120}\, p^{28} + 4158415962\, p^{130}\, q^{39}$$
$$+ 71486059969898\, p^{97}\, q^{133} + 220334874\, p^{164}\, q^{76} + 370845412\, p^{165}\, q^{82} + 782305740\, p^{168}\, q^{103} + 354181251\, p^{170}\, q^{134}$$
$$+ 2398656294936\, q^{139}\, p^{72} + 4754830226344\, q^{139}\, p^{77} + 2779990652024\, q^{139}\, p^{73} + 4190494130236\, q^{139}\, p^{76} + 3204478490030\, q^{139}\, p^{74}$$
$$+ 3674105743435\, q^{139}\, p^{75} + 3559492073568\, q^{138}\, p^{73} + 5338506974334\, q^{138}\, p^{76} + 1921326035678\, q^{138}\, p^{69} + 2644637537569\, q^{138}\, p^{71}$$
$$+ 4688377597489\, q^{138}\, p^{75} + 6047638757698\, q^{138}\, p^{77} + 5367791523146\, q^{139}\, p^{78} + 74581469883694\, p^{99}\, q^{133}$$

$$+ 76637158186376\, p^{105} q^{133} + 101833502418149\, p^{123} q^{124} + 119405673402440\, p^{120} q^{125} + 92320265225931\, p^{124} q^{124}$$
$$+ 117280613072076\, p^{115} q^{128} + 8069\, p^{134} q^{22} + 16781246994\, q^{150} p^{64} + 13291299342\, q^{150} p^{63} + 8142073060\, q^{150} p^{61}$$
$$+ 10445029033\, q^{150} p^{62} + 68447511\, p^{155} q^{53} + 158727771\, p^{156} q^{57} + 591195496524\, p^{134} q^{58} + 165901701587\, p^{133} q^{52}$$
$$+ 3371211780492\, p^{137} q^{71} + 16822247693675\, p^{139} q^{91} + 82702\, p^{102} q^{14} + 10024681605290\, p^{139} q^{84} + 365702014373\, p^{133} q^{55}$$
$$+ 197151432\, q^{171} p^{111} + 4095982624355\, q^{138} p^{74} + 10762356106\, q^{135} p^{45} + 15292985146\, q^{135} p^{46} + 131404006141\, q^{135} p^{53}$$
$$+ 28264549803\, q^{134} p^{47} + 239886699219\, q^{154} p^{92} + 217766856\, q^{148} p^{47} + 1229338790\, q^{149} p^{53} + 625210289\, q^{149} p^{51}$$
$$+ 881946311\, q^{149} p^{52} + 1694168106\, q^{149} p^{54} + 2309541430\, q^{149} p^{55} + 452818380088\, q^{136} p^{59} + 99568363431\, q^{135} p^{52}$$
$$+ 10981086671891\, p^{140} q^{88} + 2\, q^{151} p^{27} + 2995018221\, q^{157} p^{70} + 3695121011\, q^{157} p^{71} + 86623470\, p^{166} q^{158} + 33183367024\, p^{106} q^{161}$$
$$+ 9596546946\, p^{94} q^{162} + 10523015509\, p^{95} q^{162} + 30590270087\, p^{104} q^{161} + 57753553406\, p^{114} q^{160} + 35370568175\, p^{108} q^{161}$$
$$+ 34334394363\, p^{107} q^{161} + 31930685338\, p^{105} q^{161} + 74630751639\, p^{121} q^{159} + 71980647317\, p^{122} q^{159} + 57388085169\, p^{112} q^{160}$$
$$+ 11483508815\, p^{96} q^{162} + 5803757615\, p^{94} q^{163} + 16562508259\, p^{101} q^{162} + 14506099331\, p^{99} q^{162} + 13482147703\, p^{98} q^{162}$$
$$+ 12472112322\, p^{97} q^{162} + 15535824170\, p^{100} q^{162} + 57564747739\, p^{115} q^{160} + 27451855799\, p^{143} q^{156} + 4514232222\, p^{165} q^{104}$$
$$+ 554764257\, p^{158} q^{65} + 34340\, q^{163} p^{49} + 127345586\, q^{172} p^{116} + 139741986\, q^{172} p^{119} + 136108761\, q^{172} p^{118} + 131958359\, q^{172} p^{117}$$
$$+ 1690755979\, p^{88} q^{164} + 218795578666\, p^{130} q^{154} + 150018593881\, p^{131} q^{155} + 88248\, p^{162} q^{49} + 91460\, p^{178} q^{167} + 4882434\, p^{172} q^{87}$$
$$+ 481609\, p^{165} q^{58} + 9501109\, p^{176} q^{131} + 791591420\, q^{160} p^{71} + 36279860348\, p^{109} q^{161} + 69120333177\, p^{123} q^{159} + 6388130611\, p^{95} q^{163}$$
$$+ 17576922481\, p^{102} q^{162} + 57130265225\, p^{116} q^{160} + 41\, p^{103} q^{10} + 489157248\, p^{170} q^{120} + 18211897\, p^{153} q^{47} + 77346618\, p^{123} q^{173}$$
$$+ 56052404143\, p^{110} q^{160} + 84099166970\, p^{126} q^{158} + 16439231104870\, p^{140} q^{95} + 393092093\, p^{122} q^{30} + 1199700617\, p^{124} q^{33}$$
$$+ 19652637005479\, p^{140} q^{101} + 11122750016292\, p^{141} q^{119} + 333\, q^{85} p^{8} + 9148903742\, q^{142} p^{51} + 49\, q^{83} p^{7} + 70583\, q^{167} p^{58}$$
$$+ 7306160\, q^{169} p^{77} + 59423136935084\, p^{124} q^{128} + 258366\, p^{145} q^{32} + 59\, p^{112} q^{12} + 207864680\, p^{171} q^{112} + 271868933\, p^{171} q^{121}$$
$$+ 138657128\, p^{168} q^{88} + 4634669020\, p^{155} q^{154} + 119599033\, q^{172} p^{134} + 129679221\, q^{172} p^{132} + 144142226\, q^{172} p^{128}$$
$$+ 148658398\, q^{172} p^{125} + 148826574\, q^{172} p^{124} + 146301423\, q^{172} p^{127} + 15\, p^{177} q^{72} + 1394\, p^{183} q^{120} + p^{173} q^{57} + 1707461075\, p^{167} q^{132}$$
$$+ 842820770\, p^{168} q^{104} + 893542\, p^{150} q^{38} + 632\, p^{184} q^{127} + 869\, p^{184} q^{129} + 443687910072\, p^{151} q^{87} + 226715565674\, p^{151} q^{81}$$
$$+ 2019272\, p^{126} q^{24} + 498926065510\, p^{154} q^{110} + 14171564530\, q^{151} p^{65} + 11436576\, p^{167} q^{165} + 26567449\, p^{163} q^{166} + 20393821\, p^{164} q^{166}$$
$$+ 209652181822\, p^{121} q^{156} + 52476915\, p^{155} q^{169} + 108141465\, p^{161} q^{163} + 109739000\, p^{162} q^{162} + 8983007\, p^{155} q^{48}$$

$$+ 15889762355113\, p^{134} q^{129} + 500\, p^{140} q^{185} + 395\, p^{138} q^{185} + 349\, p^{137} q^{185} + 781\, p^{145} q^{185} + 73\, p^{142} q^{186} + 557\, p^{141} q^{185}$$
$$+ 31662\, p^{154} q^{182} + 13774\, p^{146} q^{183} + 13830\, p^{147} q^{183} + 13479\, p^{150} q^{183} + 13680\, p^{149} q^{183} + 13786\, p^{148} q^{183} + 13218\, p^{151} q^{183}$$
$$+ 35195\, p^{152} q^{182} + 69932\, p^{155} q^{181} + 75502\, p^{154} q^{181} + 81058\, p^{153} q^{181} + 99677\, p^{159} q^{180} + 88231\, p^{160} q^{180} + 111906\, p^{158} q^{180}$$
$$+ 13\, p^{112} q^{184} + 37\, p^{115} q^{184} + 27\, p^{114} q^{184} + 18\, p^{113} q^{184} + 8\, p^{111} q^{184} + 52\, p^{116} q^{184} + 5\, p^{110} q^{184} + 114117\, q^{155} p^{40} + 476437834\, q^{170} p^{118}$$
$$+ 22600\, q^{150} p^{33} + 5679172\, p^{155} q^{47} + 5172\, q^{155} p^{36} + 2018\, q^{155} p^{35} + 369753\, q^{171} p^{73} + 504826\, q^{171} p^{74} + 320834369\, q^{169} p^{100}$$
$$+ 385709734\, q^{169} p^{102} + 352662256\, q^{169} p^{101} + 131528895\, q^{170} p^{98} + 103642498\, q^{170} p^{96} + 237048469\, q^{170} p^{104} + 670\, q^{154} p^{33}$$
$$+ 1099388\, p^{156} q^{45} + 90638\, p^{148} q^{33} + 28219\, q^{154} p^{37} + 35049340\, p^{159} q^{168} + 3981705\, p^{154} q^{45} + 1568415\, q^{171} p^{78} + 26052\, q^{167} p^{56}$$
$$+ 19\, q^{162} p^{39} + 1104\, p^{185} q^{155} + 3695\, p^{184} q^{145} + 2445\, p^{184} q^{138} + p^{166} q^{43} + 309725\, p^{146} q^{33} + 34066751\, p^{151} q^{46} + 136149293\, p^{153} q^{52}$$
$$+ 19530153110\, p^{162} q^{104} + 63457111\, q^{171} p^{98} + 26635775\, q^{170} p^{87} + 22323028\, q^{172} p^{96} + 204271\, p^{173} q^{172} + 1593746\, p^{172} q^{166}$$
$$+ 245372136447110\, p^{105} q^{125} + 34328790027\, q^{144} p^{58} + 10354274671571\, p^{104} q^{143} + 6569359507377\, p^{96} q^{144}$$
$$+ 7352065997599\, p^{99} q^{144} + 7111559971874\, p^{98} q^{144} + 6849708630056\, p^{97} q^{144} + 14271490552\, q^{134} p^{45} + 25562\, p^{138} q^{25}$$
$$+ 30471697\, p^{172} q^{150} + 103060740\, q^{129} p^{31} + 183087301\, q^{129} p^{32} + 9956450823\, q^{134} p^{44} + 6855649875\, q^{134} p^{43} + 4655755631\, q^{134} p^{42}$$
$$+ 1907517250\, p^{160} q^{152} + 56215287952\, p^{159} q^{127} + 123630791873\, p^{158} q^{111} + 748132019\, p^{146} q^{48} + 42710946\, p^{141} q^{37}$$
$$+ 69120333177\, p^{159} q^{123} + 26377264690\, p^{153} q^{72} + 49339642097\, p^{159} q^{129} + 4630314558\, p^{160} q^{147} + 728495\, p^{131} q^{25}$$
$$+ 9634255538\, p^{160} q^{142} + 66081055020\, p^{159} q^{124} + 152347311279\, p^{156} q^{96} + 116\, p^{95} q^{9} + 1170991284\, p^{161} q^{153} + 1206710\, p^{167} q^{65}$$
$$+ 3994\, p^{151} q^{32} + 122685118243\, p^{158} q^{115} + 695\, p^{107} q^{12} + 10966451979\, p^{141} q^{160} + 76773136695\, p^{156} q^{88} + 138237797\, p^{143} q^{41}$$
$$+ 76634707\, q^{128} p^{30} + 481083333\, p^{164} q^{80} + 3119894223070\, q^{136} p^{69} + 121146100395\, p^{116} q^{158} + 406934363\, p^{159} q^{160}$$
$$+ 656677066\, p^{151} q^{164} + 778034169\, p^{150} q^{164} + 1052596\, p^{136} q^{28} + 19517844025\, p^{155} q^{75} + 7335\, p^{121} q^{17} + 8983007\, p^{142} q^{35}$$
$$+ 1259967265\, p^{162} q^{151} + 2052524297\, p^{152} q^{59} + 6317915\, p^{140} q^{33} + 54846714\, p^{159} q^{59} + 4532930352\, p^{153} q^{156} + 24215993534\, p^{129} q^{161}$$
$$+ 11491244440\, p^{143} q^{159} + 17454749436\, p^{137} q^{160} + 21685150230\, p^{138} q^{159} + 22650681114\, p^{130} q^{161} + 21088300873\, p^{131} q^{161}$$
$$+ 20514182966\, p^{125} q^{162} + 21379695332\, p^{124} q^{162} + 22183004540\, p^{123} q^{162} + 19354236525\, p^{136} q^{160} + 10295938431\, p^{113} q^{164}$$
$$+ 16155546310\, p^{119} q^{163} + 16350140479\, p^{118} q^{163} + 25611685065\, p^{133} q^{160} + 17094887235\, p^{140} q^{159} + 9828325490\, p^{146} q^{158}$$
$$+ 15057382872\, p^{141} q^{159} + 11512554657\, p^{145} q^{158} + 19304462198\, p^{139} q^{159} + 8339535810\, p^{147} q^{158} + 25770475102\, p^{128} q^{161}$$
$$+ 775\, p^{175} q^{71} + 21353282826\, p^{135} q^{160} + 23442815211\, p^{134} q^{160} + 13190596110\, p^{142} q^{159} + 27016131\, p^{163} q^{65} + 388\, p^{114} q^{183}$$

$$+ 76703\, p^{147}\, q^{32} + 39092\, q^{170}\, p^{64} + 24974\, q^{170}\, p^{63} + 9494\, q^{170}\, p^{61} + 15609\, q^{170}\, p^{62} + 5206545\, q^{171}\, p^{83} + 17465825\, p^{175}\, q^{121}$$
$$+ 49201\, p^{160}\, q^{45} + 4548\, p^{152}\, q^{33} + 5939993\, p^{172}\, q^{88} + 127\, p^{186}\, q^{173} + 73861418251\, q^{154}\, p^{81} + 14197022\, q^{147}\, p^{40} + 48533459854\, p^{97}\, q^{159}$$
$$+ 2582243\, p^{172}\, q^{164} + 56382742\, p^{150}\, q^{46} + 223756245\, p^{152}\, q^{52} + 30590270087\, p^{161}\, q^{104} + 317835705\, p^{152}\, q^{53} + 722990958\, p^{153}\, q^{57}$$
$$+ 4088261068009\, p^{129}\, q^{62} + 62446036369591\, p^{133}\, q^{93} + 14263116105075\, p^{131}\, q^{72} + 64611917116609\, p^{134}\, q^{105}$$
$$+ 151931760426\, p^{124}\, q^{45} + 547\, p^{112}\, q^{13} + 34755\, p^{88}\, q^{11} + 31732425\, q^{136}\, p^{33} + 17175494\, p^{174}\, q^{108} + 7937859\, p^{171}\, q^{85} + 974260\, p^{168}\, q^{67}$$
$$+ 59377\, p^{178}\, q^{169} + 52\, p^{132}\, q^{18} + 3\, p^{116}\, q^{12} + 10436693\, p^{175}\, q^{112} + 583771\, p^{167}\, q^{63} + 68\, q^{82}\, p^{7} + 3431150041\, p^{96}\, q^{26}$$
$$+ 957719299791210\, p^{111}\, q^{96} + 24670\, p^{73}\, q^{9} + 79927094\, p^{90}\, q^{19} + 3663245321544\, p^{141}\, q^{79} + 75998\, p^{107}\, q^{15} + 146173\, p^{109}\, q^{16}$$
$$+ 578122\, p^{112}\, q^{18} + 705871\, p^{85}\, q^{13} + 1181133457023575\, p^{103}\, q^{106} + 619957722119\, p^{103}\, q^{40} + 443687910072\, p^{103}\, q^{39}$$
$$+ 2279867\, p^{84}\, q^{14} + 180834\, p^{78}\, q^{11} + 783651763809632\, p^{90}\, q^{112} + 771149641300457\, p^{92}\, q^{113} + 25\, q^{66}\, p^{5} + 85041985916\, p^{101}\, q^{34}$$
$$+ 2580379662049\, p^{104}\, q^{45} + 856602107439\, p^{103}\, q^{41} + 184478965972\, p^{101}\, q^{36} + 936457980633531\, p^{111}\, q^{102} + 15304030\, q^{161}\, p^{59}$$
$$+ 1329350\, p^{88}\, q^{14} + 697910117795060\, p^{108}\, q^{113} + 345807120619\, p^{102}\, q^{38} + 959232038789172\, p^{111}\, q^{100} + 873437995134295\, p^{110}\, q^{89}$$
$$+ 404884661562843\, p^{109}\, q^{76} + 443414147994949\, p^{109}\, q^{77} + 870783850435737\, p^{111}\, q^{91} + 566695271552841\, p^{110}\, q^{81}$$
$$+ 239432645487520\, p^{109}\, q^{71} + 766956778550306\, p^{110}\, q^{86} + 804331281824696\, p^{110}\, q^{87} + 486865941568618\, p^{110}\, q^{79}$$
$$+ 2306694498\, p^{113}\, q^{167} + 119113695158\, p^{117}\, q^{158} + 757812628\, p^{94}\, q^{23} + 10170137\, p^{87}\, q^{16} + 966431949120833\, p^{111}\, q^{98}$$
$$+ 15759337283813\, p^{106}\, q^{53} + 483383546374907\, p^{109}\, q^{78} + 1254737990171284\, p^{102}\, q^{105} + 27302721626960\, p^{58}\, q^{111}$$
$$+ 1184770159453491\, p^{94}\, q^{107} + 142978758556\, q^{119}\, p^{42} + 493762595781\, q^{121}\, p^{47} + 10565786359\, p^{164}\, q^{117} + 13998044099\, p^{163}\, q^{107}$$
$$+ 5619370315\, p^{162}\, q^{89} + 56109664051\, p^{135}\, q^{157} + 4158415962\, p^{151}\, q^{60} + 2196\, p^{113}\, q^{14} + 27929\, p^{124}\, q^{19} + 174059\, p^{130}\, q^{23}$$
$$+ 208603564926\, p^{124}\, q^{46} + 72994595640182\, p^{131}\, q^{89} + 64543467759674\, p^{131}\, q^{87} + 28585844931085\, p^{130}\, q^{76}$$
$$+ 77121492775855\, p^{131}\, q^{90} + 32015591872167\, p^{130}\, q^{77} + 86948191026630\, p^{132}\, q^{98} + 35682301456273\, p^{130}\, q^{78}$$
$$+ 7568551776008\, p^{100}\, q^{144} + 38726\, q^{168}\, p^{59} + 14008\, q^{168}\, p^{57} + 23625\, q^{168}\, p^{58} + 14587536\, q^{173}\, p^{99} + 12748075\, q^{173}\, p^{98}$$
$$+ 21116127\, q^{173}\, p^{102} + 26283999\, q^{173}\, p^{104} + 12747112\, q^{174}\, p^{105} + 16595047\, q^{173}\, p^{100} + 23623048\, q^{173}\, p^{103} + 9563601\, q^{173}\, p^{96}$$
$$+ 18772411\, q^{173}\, p^{101} + 11075353\, q^{173}\, p^{97} + 6999357\, q^{173}\, p^{94} + 5930701\, q^{173}\, p^{93} + 18771275\, q^{174}\, p^{109} + 1602113567492\, p^{150}\, q^{114}$$
$$+ 1547753656047\, p^{142}\, q^{137} + 1149864703\, q^{133}\, p^{38} + 2173534453776\, p^{149}\, q^{104} + 2260609117797\, q^{138}\, p^{70} + 369\, q^{165}\, p^{46}$$
$$+ 15633019\, q^{174}\, p^{107} + 1350790\, q^{170}\, p^{74} + 235749401068918\, p^{86}\, q^{122} + 69048557295618\, p^{124}\, q^{75} + 279852150937\, p^{117}\, q^{43}$$

$$+ 154763403619271\, p^{127} q^{112} + 2215184801\, p^{111} q^{29} + 147169375385633\, p^{125} q^{85} + 127287902121333\, p^{125} q^{83}$$
$$+ 2260609117797\, p^{120} q^{52} + 32204026586129\, p^{123} q^{68} + 942094630385\, p^{132} q^{58} + 1628542740438\, q^{111} p^{46} + 1143545362970\, q^{150} p^{95}$$
$$+ 1209768063037\, q^{150} p^{96} + 254546317938\, p^{111} q^{156} + 47958864\, q^{123} p^{27} + 1727127069\, p^{153} q^{60} + 11313\, p^{126} q^{19} + 70583\, p^{132} q^{23}$$
$$+ 31833017484\, q^{137} p^{50} + 1486\, q^{94} p^{10} + 937832698088\, q^{149} p^{88} + 22095524966177\, p^{97} q^{139} + 25442828357931\, p^{95} q^{138}$$
$$+ 14694982739924\, p^{134} q^{77} + 13050132365749\, p^{134} q^{76} + 404526171\, p^{167} q^{147} + 142978758556\, p^{148} q^{71} + 95392530086\, p^{147} q^{67}$$
$$+ 237719601372549\, p^{75} q^{114} + 214004316624544\, p^{74} q^{114} + 519976215\, p^{158} q^{160} + 406934363\, p^{160} q^{159} + 1031130733909\, p^{150} q^{124}$$
$$+ 365988141672\, p^{144} q^{69} + 555973215104\, p^{153} q^{120} + 2398151422\, p^{151} q^{58} + 41699453836\, p^{160} q^{126} + 78730713650\, p^{158} q^{98}$$
$$+ 1514295839\, p^{150} q^{55} + 59861\, p^{125} q^{20} + 83686479274\, p^{158} q^{99} + 42698753454\, p^{156} q^{83} + 88556876576\, p^{158} q^{100}$$
$$+ 25030301388\, p^{154} q^{74} + 8911717044\, p^{161} q^{140} + 2484486507673\, p^{147} q^{122} + 176\, q^{87} p^{8} + 246\, q^{86} p^{8} + 236527839\, p^{160} q^{66}$$
$$+ 59734250491946\, p^{133} q^{92} + 112376072752\, p^{147} q^{147} + 764427627\, p^{163} q^{152} + 18635020718\, p^{162} q^{127} + 37676025459\, p^{161} q^{111}$$
$$+ 205965200\, p^{149} q^{48} + 11572746\, p^{144} q^{37} + 13338689085\, p^{157} q^{78} + 37304818\, p^{140} q^{36} + 17454749436\, p^{160} q^{137} + 225986484\, p^{144} q^{43}$$
$$+ 113671507178\, p^{158} q^{119} + 144473568015\, p^{157} q^{102} + 138094825601\, p^{157} q^{101} + 112291006174\, p^{156} q^{92} + 32811256937\, p^{159} q^{134}$$
$$+ 5424438797\, p^{160} q^{146} + 150487966724\, p^{157} q^{103} + 62895248478\, p^{159} q^{125} + 21867257140\, p^{153} q^{71} + 6959268407\, p^{151} q^{62}$$
$$+ 37093890992\, p^{155} q^{79} + 7452220249\, p^{152} q^{64} + 27224365545\, p^{155} q^{77} + 2196880590\, p^{165} q^{95} + 409052638\, p^{169} q^{139}$$
$$+ 269389145\, p^{168} q^{147} + 223191431\, p^{163} q^{158} + 298980494\, p^{162} q^{158} + 164768510\, p^{164} q^{158} + 526781725\, p^{159} q^{159} + 5834\, p^{180} q^{101}$$
$$+ 5020\, p^{179} q^{94} + 45158357707\, q^{158} p^{91} + 4078609494\, p^{166} q^{120} + 755093981582\, q^{147} p^{80} + 9658167741\, p^{123} q^{37}$$
$$+ 267676464528\, p^{131} q^{52} + 5354011426537\, p^{135} q^{71} + 25942201046522\, p^{137} q^{91} + 135926\, p^{100} q^{14} + 15759337283813\, p^{137} q^{84}$$
$$+ 581627006180\, p^{131} q^{55} + 73514565\, p^{116} q^{25} + 16781246994\, p^{126} q^{40} + 2487440660632\, p^{134} q^{65} + 129\, p^{80} q^{7} + 21508701\, p^{130} q^{29}$$
$$+ 2080708636996\, q^{137} p^{68} + 3132\, p^{184} q^{160} + 18162\, p^{179} q^{99} + 2046\, p^{175} q^{73} + 14436\, p^{178} q^{92} + 17218\, p^{182} q^{126} + 259\, p^{169} q^{53}$$
$$+ 11549\, p^{177} q^{86} + 30606\, p^{182} q^{133} + 8174\, p^{178} q^{90} + 13786\, p^{183} q^{148} + 12401\, p^{183} q^{141} + 14339\, p^{179} q^{98} + 265\, p^{168} q^{51} + 34192\, p^{182} q^{135}$$
$$+ 28723\, p^{182} q^{132} + 2398151422\, q^{132} p^{39} + 3662966147\, q^{132} p^{40} + 235913984\, q^{130} p^{33} + 566009984205\, q^{136} p^{60}$$
$$+ 6739356346688\, q^{139} p^{80} + 232198793203047\, p^{88} q^{123} + 312174377225999\, p^{109} q^{122} + 13406798\, p^{135} q^{31} + 197549681020\, p^{153} q^{86}$$
$$+ 158012503157\, p^{153} q^{84} + 41699453836\, p^{126} q^{160} + 5892109819\, p^{149} q^{158} + 2274625082\, p^{155} q^{157} + 1806123357\, p^{156} q^{157}$$
$$+ 34598209194624\, p^{128} q^{129} + 30783537823031\, p^{129} q^{129} + 25274024386280\, p^{133} q^{126} + 20501291944862\, p^{133} q^{128}$$

$$+ 2532556549\, p^{159} q^{152} + 79133646377\, p^{158} q^{127} + 178552519952\, p^{157} q^{111} + 1113542502\, p^{145} q^{48} + 63802315\, p^{140} q^{37}$$
$$+ 462937971425\, q^{132} p^{55} + 548945583\, p^{165} q^{150} + 8642156087282\, p^{105} q^{50} + 23663084\, q^{171} p^{91} + 126144660835\, p^{101} q^{35}$$
$$+ 5249893\, p^{85} q^{15} + 451432374\, p^{93} q^{22} + 187529165648322\, p^{109} q^{69} + 135869089433467\, p^{108} q^{66} + 98260086273\, p^{158} q^{123}$$
$$+ 39347745429\, p^{152} q^{72} + 69111831130\, p^{158} q^{129} + 6246495454\, p^{159} q^{147} + 1082865\, p^{130} q^{25} + 13190596110\, p^{159} q^{142}$$
$$+ 93709895564\, p^{158} q^{124} + 221984008590\, p^{155} q^{96} + 169\, p^{94} q^{9} + 1565377067\, p^{160} q^{153} + 48284\, q^{104} p^{14} + 80336738408910\, p^{132} q^{95}$$
$$+ 138602209122808\, p^{107} q^{129} + 44701253\, q^{173} p^{110} + 57635747\, q^{173} p^{114} + 54483122\, q^{173} p^{113} + 11\, q^{150} p^{27} + 1239578347\, p^{95} q^{24}$$
$$+ 9409\, p^{69} q^{8} + 453466\, p^{80} q^{12} + 57152416488027\, p^{107} q^{60} + 212430585102016\, p^{109} q^{70} + 178537371313944\, p^{108} q^{68}$$
$$+ 1589048944028\, q^{150} p^{103} + 1653039432088\, q^{150} p^{105} + 1675334910520\, q^{150} p^{106} + 1624163098104\, q^{150} p^{104}$$
$$+ 371124287769440\, p^{84} q^{117} + 62403315190412\, p^{108} q^{61} + 86634655664578\, p^{108} q^{63} + 268534074598024\, p^{109} q^{72}$$
$$+ 27053524032804\, p^{107} q^{56} + 101210833438792\, p^{108} q^{64} + 22081823576479\, p^{107} q^{55} + 526441843727409\, p^{110} q^{80}$$
$$+ 839947679190263\, p^{110} q^{88} + 554764257\, q^{158} p^{65} + 919536784451336\, p^{111} q^{103} + 268548041469\, q^{121} p^{45} + 14294526333362\, q^{123} p^{63}$$
$$+ 20126639337835\, q^{123} p^{65} + 9909458636866\, q^{123} p^{61} + 17012034813953\, q^{123} p^{64} + 11938632112576\, q^{123} p^{62}$$
$$+ 323683995566347\, p^{100} q^{123} + 214094147628945\, p^{89} q^{124} + 81796463747704\, p^{78} q^{125} + 4914710843785\, q^{121} p^{56} + 27\, p^{164} q^{42}$$
$$+ 11229\, p^{179} q^{97} + 75\, p^{166} q^{46} + 13680\, p^{183} q^{149} + 45477\, p^{181} q^{122} + 47\, p^{163} q^{41} + 21374\, p^{181} q^{116} + 19\, p^{162} q^{39} + 70225481229\, q^{119} p^{40}$$
$$+ 100829450421\, q^{119} p^{41} + 894928961084701\, p^{111} q^{92} + 40929542648\, p^{100} q^{32} + 1979161393\, p^{96} q^{25} + 117585877399854\, p^{108} q^{65}$$
$$+ 73739792919449\, p^{108} q^{62} + 607328854066307\, p^{110} q^{82} + 688430157952309\, p^{110} q^{84} + 32926759485980\, p^{107} q^{57}$$
$$+ 648021089679803\, p^{110} q^{83} + 949741584109504\, p^{111} q^{101} + 500399609721727\, p^{119} q^{99} + 493172065248517\, p^{119} q^{97}$$
$$+ 492153437252966\, p^{107} q^{118} + 38726\, q^{131} p^{22} + 17276271\, q^{136} p^{32} + 6085262\, q^{137} p^{31} + 6899925\, q^{135} p^{30} + 1576\, q^{121} p^{16}$$
$$+ 5831502327\, p^{165} q^{125} + 89408394\, p^{166} q^{78} + 39836885\, q^{174} p^{125} + 602\, p^{185} q^{168} + 3318\, p^{181} q^{106} + 2320\, p^{183} q^{123} + 52\, p^{172} q^{58}$$
$$+ 6381\, p^{183} q^{131} + 155\, p^{174} q^{65} + 3122\, p^{183} q^{125} + 14369127\, p^{152} q^{173} + 96970\, q^{168} p^{61} + 35077085\, q^{173} p^{107} + 138094825601\, p^{101} q^{157}$$
$$+ 182606366631\, p^{99} q^{156} + 192257691475\, p^{100} q^{156} + 3276813\, p^{170} q^{166} + 4590263\, p^{169} q^{166} + 3475176\, p^{169} q^{167} + 11436576\, p^{165} q^{167}$$
$$+ 6459291\, p^{167} q^{167} + 2497811\, p^{170} q^{167} + 28214082\, p^{160} q^{168} + 3543681\, p^{168} q^{168} + 27789\, p^{182} q^{156} + 7629699\, p^{141} q^{34}$$
$$+ 36293967\, p^{145} q^{40} + 6148548364\, p^{153} q^{65} + 61166191\, p^{146} q^{42} + 34066751\, p^{144} q^{39} + 1975825\, p^{138} q^{30} + 3813198920\, p^{162} q^{144}$$
$$+ 7788014035\, p^{154} q^{68} + 6\, q^{146} p^{24} + 79707878\, q^{169} p^{89} + 93071019\, q^{169} p^{90} + 108024823\, q^{169} p^{91} + 124643108\, q^{169} p^{92}$$

$$+ 13331802\, q^{164}\, p^{65} + 244079751039\, p^{107}\, q^{156} + 172935824751\, p^{108}\, q^{157} + 113954731\, q^{156}\, p^{56} + 7834470\, q^{167}\, p^{71} + 57087\, q^{155}\, p^{39}$$
$$+ 605\, q^{148}\, p^{28} + 89\, q^{147}\, p^{26} + 297481631\, q^{170}\, p^{107} + 198799816\, q^{170}\, p^{102} + 217624196\, q^{170}\, p^{103} + 277135068\, q^{170}\, p^{106}$$
$$+ 3244614\, q^{165}\, p^{63} + 2283139\, q^{165}\, p^{62} + 177416213203\, p^{110}\, q^{157} + 95940491054\, p^{95}\, q^{157} + 83686479274\, p^{99}\, q^{158}$$
$$+ 103099318864\, p^{96}\, q^{157} + 396281299\, p^{158}\, q^{161} + 500048910\, p^{157}\, q^{161} + 73974497598\, p^{105}\, q^{159} + 767457032\, p^{145}\, q^{47}$$
$$+ 121530901917\, p^{154}\, q^{85} + 64141286659\, p^{158}\, q^{130} + 2513645\, p^{132}\, q^{27} + 179139786215\, p^{155}\, q^{93} + 2798\, p^{126}\, q^{18} + 7\, q^{134}\, p^{18}$$
$$+ 264451139\, p^{171}\, q^{119} + 198799816\, p^{170}\, q^{102} + 199251425\, p^{167}\, q^{86} + 23493594\, p^{173}\, q^{148} + 419321\, p^{162}\, q^{52} + 5690109\, p^{169}\, q^{76}$$
$$+ 9960980\, p^{170}\, q^{82} + 729879\, p^{163}\, q^{55} + 77\, p^{126}\, q^{16} + 1456\, p^{144}\, q^{26} + 5386307\, q^{166}\, p^{67} + 191465119309\, p^{123}\, q^{156} + 43787982\, p^{156}\, q^{169}$$
$$+ 13968897\, p^{168}\, q^{163} + 31613549\, p^{161}\, q^{167} + 172\, q^{153}\, p^{31} + 200\, q^{154}\, p^{32} + 14975742237\, p^{163}\, q^{109} + 16350140479\, p^{163}\, q^{118}$$
$$+ 452312348281\, p^{153}\, q^{124} + 255944\, p^{139}\, q^{28} + 2130035\, p^{145}\, q^{35} + 465151577\, p^{165}\, q^{151} + 497538783\, p^{155}\, q^{59} + 1556101\, p^{143}\, q^{33}$$
$$+ 4936819817\, p^{164}\, q^{135} + 1862702755\, p^{165}\, q^{141} + 16263625648\, p^{163}\, q^{113} + 4977446391\, p^{158}\, q^{75} + 1112453447548\, q^{151}\, p^{117}$$
$$+ 937135383142\, p^{131}\, q^{57} + 2665540084427\, q^{127}\, p^{58} + 111799573714853\, p^{122}\, q^{124} + 4953531687839\, p^{145}\, q^{118}$$
$$+ 191728485781270\, p^{73}\, q^{114} + 262809134853549\, p^{76}\, q^{114} + 328257623422\, q^{146}\, p^{72} + 277605160282\, q^{146}\, p^{71}$$
$$+ 3971989753429\, q^{131}\, p^{64} + 2544812\, q^{120}\, p^{22} + 1999\, q^{93}\, p^{10} + 46142066\, q^{115}\, p^{24} + 523568144863\, q^{152}\, p^{93} + 667\, q^{90}\, p^{9}$$
$$+ 1082377943011844\, p^{103}\, q^{108} + 317897420445014\, p^{77}\, q^{113} + 554727295303284\, p^{83}\, q^{112} + 518971492894923\, p^{82}\, q^{112}$$
$$+ 32926759485980\, p^{133}\, q^{83} + 865699781890\, p^{128}\, q^{54} + 379180429813863\, q^{121}\, p^{106} + 3983695\, p^{104}\, q^{18} + 22462011398572\, p^{133}\, q^{79}$$
$$+ 814137641740373\, p^{89}\, q^{111} + 782256502912046\, p^{88}\, q^{111} + 748447160675199\, p^{87}\, q^{111} + 10118632398\, p^{164}\, q^{112}$$
$$+ 12854829095\, p^{163}\, q^{105} + 316774384\, p^{157}\, q^{61} + 999969134\, p^{166}\, q^{143} + 21712270\, p^{151}\, q^{45} + 12998079200948\, p^{142}\, q^{108}$$
$$+ 1859022329\, q^{161}\, p^{78} + 1550220314\, q^{161}\, p^{77} + 2044322677\, p^{163}\, q^{146} + 20514182966\, p^{162}\, q^{125} + 5920401765\, p^{156}\, q^{71}$$
$$+ 1865791780\, p^{154}\, q^{62} + 45036507484\, p^{160}\, q^{103} + 1056872637\, q^{161}\, p^{75} + 478492163274\, q^{154}\, p^{106} + 32163194063\, p^{159}\, q^{92}$$
$$+ 11520962713\, p^{162}\, q^{134} + 2130283873244\, p^{149}\, q^{103} + 11763145651694\, p^{142}\, q^{113} + 125242002899\, p^{133}\, q^{51} + 3061583\, p^{113}\, q^{20}$$
$$+ 1691190430828\, p^{143}\, q^{135} + 26886\, q^{162}\, p^{47} + 79927094\, q^{171}\, p^{100} + 88985243\, q^{171}\, p^{101} + 123791\, q^{165}\, p^{55} + 7269716432676\, p^{89}\, q^{142}$$
$$+ 38657712\, p^{148}\, q^{43} + 24603624721\, p^{162}\, q^{119} + 27704859668\, p^{161}\, q^{102} + 26189683636\, p^{161}\, q^{101} + 1353331116\, p^{159}\, q^{71}$$
$$+ 11595929522\, p^{163}\, q^{103} + 7864823850\, p^{162}\, q^{92} + 3567799879\, p^{165}\, q^{134} + 421122701\, p^{157}\, q^{62} + 20201509614075\, p^{107}\, q^{140}$$
$$+ 20319959588994\, p^{106}\, q^{140} + 20353950462785\, p^{105}\, q^{140} + 20164557583900\, p^{115}\, q^{139} + 2107414695578\, p^{149}\, q^{114}$$

$$+ 5266222620385\, p^{85} q^{142} + 3520425897121\, p^{136} q^{138} + 6342379198241\, p^{134} q^{136} + 4744636613528\, p^{135} q^{137}$$
$$+ 5747568103835\, p^{86} q^{142} + 189530041191\, p^{64} q^{143} + 4\, q^{152} p^{28} + 180834\, p^{179} q^{112} + 6954\, p^{171} q^{63} + 16068\, p^{182} q^{162} + 27929\, p^{171} q^{66}$$
$$+ 148408\, p^{177} q^{96} + 2256\, p^{166} q^{50} + 11567597208\, p^{91} q^{161} + 18344886610788\, p^{117} q^{139} + 19274744353036\, p^{116} q^{139} + 1470\, p^{180} q^{179}$$
$$+ 15055525523724\, p^{99} q^{141} + 1275578131239\, p^{75} q^{143} + 1903475493651\, p^{78} q^{143} + 1674468496720\, p^{77} q^{143} + 2\, q^{112} p^{11}$$
$$+ 6752647441553\, p^{88} q^{142} + 1111457032\, q^{166} p^{94} + 369\, q^{144} p^{25} + 6035\, q^{148} p^{30} + 12275\, q^{155} p^{37} + 312838\, p^{160} q^{178} + 120475\, p^{168} q^{177}$$
$$+ 9496\, p^{170} q^{181} + 5063\, p^{175} q^{180} + 8508\, p^{173} q^{180} + 114\, p^{186} q^{174} + 41\, p^{187} q^{173} + 148704\, p^{168} q^{62} + 75\, p^{144} q^{24} + 413067\, p^{179} q^{152}$$
$$+ 1816422\, p^{177} q^{113} + 515\, p^{152} q^{31} + 1972\, p^{156} q^{36} + 3211339\, p^{176} q^{109} + 713342\, p^{179} q^{143} + 2010286\, p^{176} q^{105} + 681341\, p^{171} q^{75}$$
$$+ 879\, p^{163} q^{185} + 261\, p^{160} q^{186} + 3470\, p^{172} q^{182} + 3449\, p^{168} q^{183} + 3963\, p^{167} q^{183} + 4505\, p^{166} q^{183} + 18\, p^{99} q^{9} + 318547\, p^{180} q^{136}$$
$$+ 41706\, p^{172} q^{70} + 109606\, p^{181} q^{147} + 33464\, p^{182} q^{153} + 259936\, p^{179} q^{115} + 24\, p^{104} q^{10} + 268742271\, p^{171} q^{120} + 2\, p^{156} q^{188}$$
$$+ 5172\, q^{154} p^{35} + 2\, p^{181} q^{88} + 68\, p^{183} q^{108} + 49\, p^{183} q^{107} + 69\, p^{184} q^{117} + 52\, p^{186} q^{140} + 227856220\, q^{171} p^{114} + 207864680\, q^{171} p^{112}$$
$$+ 218138986\, q^{171} p^{113} + 1346\, p^{169} q^{184} + 1531\, p^{168} q^{184} + 661\, p^{167} q^{185} + 2269\, p^{174} q^{182} + 1411\, p^{176} q^{182} + 243\, p^{164} q^{186} + 233\, p^{165} q^{186}$$
$$+ 114\, p^{174} q^{186} + 127\, p^{173} q^{186} + 212\, p^{167} q^{186} + 1795\, p^{177} q^{181} + 1086\, p^{177} q^{182} + 1797\, p^{175} q^{182} + 2156\, p^{171} q^{183} + 1496\, p^{173} q^{183}$$
$$+ 971\, p^{179} q^{181} + 1802\, p^{172} q^{183} + 1331\, p^{178} q^{181} + 1025\, p^{180} q^{180} + 44\, p^{159} q^{187} + 419\, p^{176} q^{184} + 774\, p^{165} q^{185} + 208486\, q^{159} p^{46}$$
$$+ 72270064\, q^{166} p^{77} + 35264253\, q^{167} p^{77} + 43\, q^{139} p^{21} + p^{50} q^{3} + 290406366\, p^{169} q^{99} + 7445431\, p^{161} q^{57} + 58054538\, p^{165} q^{73}$$
$$+ 45462423\, p^{165} q^{72} + 29\, p^{92} q^{181} + 15\, p^{134} q^{186} + 3096\, p^{179} q^{178} + 181860\, q^{177} p^{97} + 2445139\, q^{162} p^{56} + 6\, p^{131} q^{186} + 52\, p^{140} q^{186}$$
$$+ 61\, p^{141} q^{186} + 28219\, q^{153} p^{36} + 442726676\, q^{170} p^{115} + 2\, q^{145} p^{23} + 273162229854685\, p^{114} q^{121} + 3975429434\, p^{166} q^{122}$$
$$+ 2555942784\, p^{136} q^{42} + 1514295839\, p^{135} q^{40} + 232556069420\, p^{143} q^{65} + 99261\, p^{175} q^{172} + 1474276175301\, p^{148} q^{126}$$
$$+ 1330932732\, p^{134} q^{39} + 135377666\, p^{130} q^{32} + 1079318549719397\, p^{100} q^{109} + 957692901846437\, p^{92} q^{110} + 1580018\, q^{99} p^{16}$$
$$+ 1105024228042835\, p^{102} q^{108} + 381925729637\, q^{115} p^{43} + 445915900\, q^{136} p^{38} + 289183672478318\, p^{77} q^{114}$$
$$+ 105560788453338\, p^{69} q^{115} + 120331726649084\, p^{70} q^{115} + 214812273632992\, p^{75} q^{115} + 138062266966194\, p^{72} q^{116}$$
$$+ 193188208926014\, p^{74} q^{115} + 153991669376120\, p^{72} q^{115} + 172903111528870\, p^{73} q^{115} + 9355580703\, p^{164} q^{109}$$
$$+ 10519129526\, p^{164} q^{118} + 324998323\, p^{166} q^{151} + 297602405\, p^{156} q^{59} + 932932\, p^{144} q^{33} + 3300149439\, p^{165} q^{135} + 1251681877\, p^{166} q^{141}$$
$$+ 10295938431\, p^{164} q^{113} + 3036597457\, p^{159} q^{75} + 378872546374681\, p^{79} q^{113} + 17702971530\, q^{113} p^{34} + 1021480784120170\, p^{96} q^{110}$$
$$+ 16160010343\, q^{143} p^{54} + 71804254002056\, p^{133} q^{109} + 2140182525423\, p^{127} q^{57} + 554091191938\, p^{125} q^{50} + 6226294191612\, p^{145} q^{111}$$

$$+ 1033412444807\, p^{141}\, q^{70} + 8002928871\, p^{84}\, q^{160} + 2714119653\, p^{153}\, q^{158} + 1422300083\, p^{157}\, q^{157} + 118201\, q^{164}\, p^{53} + 12\, q^{157}\, p^{33}$$
$$+ 194596846\, q^{155}\, p^{56} + 17842615\, p^{156}\, q^{51} + 42\, p^{108}\, q^{11} + 194815805\, p^{153}\, q^{53} + 445728750\, p^{154}\, q^{57} + 2933\, q^{177}\, p^{82} + 120174\, q^{177}\, p^{95}$$
$$+ 2001\, q^{177}\, p^{81} + 27096718\, q^{171}\, p^{154} + 113622\, p^{136}\, q^{181} + 316756\, p^{141}\, q^{180} + 137994948\, q^{172}\, p^{130} + 141360490\, q^{172}\, p^{129}$$
$$+ 124830611\, q^{172}\, p^{133} + 114041714\, q^{172}\, p^{135} + 134083943\, q^{172}\, p^{131} + 147814430\, q^{172}\, p^{126} + 3307470\, q^{171}\, p^{81} + 6\, q^{161}\, p^{37}$$
$$+ 984314015\, q^{160}\, p^{72} + 3632176\, q^{162}\, p^{57} + 314\, q^{150}\, p^{29} + 86461\, p^{152}\, q^{181} + 124736\, p^{157}\, q^{180} + 98885062\, q^{167}\, p^{82} + 152092\, p^{155}\, q^{180}$$
$$+ 175\, p^{170}\, q^{186} + 144\, p^{172}\, q^{186} + 158\, p^{171}\, q^{186} + 716\, p^{166}\, q^{185} + 1178\, p^{170}\, q^{184} + 2370\, p^{176}\, q^{181} + 5020\, p^{181}\, q^{173} + 161729414\, p^{168}\, q^{89}$$
$$+ 144142226\, p^{172}\, q^{128} + 29022207\, p^{173}\, q^{146} + 1411\, p^{182}\, q^{176} + 441642\, p^{168}\, q^{174} + 163115103\, p^{169}\, q^{94} + 38\, q^{137}\, p^{20} + 199\, q^{143}\, p^{24}$$
$$+ 48\, q^{146}\, p^{25} + 407869537887\, q^{150}\, p^{83} + 2980\, p^{169}\, q^{183} + 5020\, p^{173}\, q^{181} + 6275\, p^{172}\, q^{181} + 7767\, p^{171}\, q^{181} + 2835\, p^{177}\, q^{180}$$
$$+ 2067\, p^{178}\, q^{180} + 3826\, p^{176}\, q^{180} + 5081\, p^{170}\, q^{182} + 1693439\, q^{163}\, p^{57} + 1121713\, q^{163}\, p^{56} + 496933\, p^{169}\, q^{173} + 91784331172676\, p^{123}\, q^{125}$$
$$+ 100661463049164\, p^{122}\, q^{125} + 359\, q^{132}\, p^{19} + 174\, q^{133}\, p^{19} + 938\, q^{133}\, p^{20} + 74795511263143\, p^{126}\, q^{124} + 320249535892575\, p^{103}\, q^{123}$$
$$+ 346579085\, p^{168}\, q^{145} + 706200024\, p^{168}\, q^{138} + p^{36}\, q^{2} + 73262\, p^{175}\, q^{173} + 26450642681\, p^{133}\, q^{46} + 7149467029457\, p^{129}\, q^{139}$$
$$+ 21787604911639\, p^{113}\, q^{139} + 1869064333477\, p^{147}\, q^{126} + 1795507759\, p^{133}\, q^{39} + 396742\, q^{128}\, p^{23} + 183087301\, p^{129}\, q^{32}$$
$$+ 3399412416798\, p^{144}\, q^{86} + 1305877271342\, p^{147}\, q^{130} + 6363446131612\, p^{145}\, q^{104} + 57732892693\, p^{138}\, q^{53} + 10762356106\, p^{135}\, q^{45}$$
$$+ 3705060816281\, p^{144}\, q^{87} + 39293727\, p^{126}\, q^{28} + 1299474155\, p^{167}\, q^{136} + 3308752541\, p^{166}\, q^{128} + 86071361\, p^{150}\, q^{47}$$
$$+ 14733043109\, p^{159}\, q^{85} + 10581751205\, p^{163}\, q^{130} + 290954\, p^{137}\, q^{27} + 22542705030\, p^{160}\, q^{93} + 2416059705\, p^{127}\, q^{36}$$
$$+ 15055525523724\, p^{141}\, q^{99} + 10062221180398\, p^{142}\, q^{117} + 1059690001746\, p^{136}\, q^{63} + 1068882928\, p^{132}\, q^{168} + 1806610459\, p^{131}\, q^{167}$$
$$+ 914674872\, p^{140}\, q^{167} + 827258146\, p^{141}\, q^{167} + 2505848690\, p^{133}\, q^{166} + 2169712972\, p^{135}\, q^{166} + 1246004483\, p^{147}\, q^{164}$$
$$+ 2337317791\, p^{134}\, q^{166} + 2075235502\, p^{140}\, q^{165} + 2004418139\, p^{136}\, q^{166} + 1440251457\, p^{146}\, q^{164} + 999969134\, p^{143}\, q^{166}$$
$$+ 1121756063\, p^{142}\, q^{166} + 1534232044\, p^{139}\, q^{166} + 1389358345\, p^{140}\, q^{166} + 1685621553\, p^{138}\, q^{166} + 1842675116\, p^{137}\, q^{166}$$
$$+ 1503850808\, p^{134}\, q^{167} + 647889605\, p^{139}\, q^{168} + 1902653679\, p^{130}\, q^{167} + 1707461075\, p^{132}\, q^{167} + 1006151513\, p^{139}\, q^{167}$$
$$+ 1101180619\, p^{138}\, q^{167} + 829909\, p^{176}\, q^{99} + 123801\, p^{172}\, q^{73} + 87499\, p^{172}\, q^{72} + 1198465\, p^{178}\, q^{120} + 14008\, p^{168}\, q^{57} + 4902\, q^{176}\, p^{79}$$
$$+ 7141\, p^{168}\, q^{182} + 4626565\, p^{160}\, q^{54} + 72270064\, p^{166}\, q^{77} + 3423413\, p^{155}\, q^{175} + 3999563\, p^{159}\, q^{52} + p^{74}\, q^{5} + 57975017\, p^{166}\, q^{76}$$
$$+ 98885062\, p^{167}\, q^{82} + 695\, p^{83}\, q^{178} + 6899925\, p^{160}\, q^{55} + 537\, p^{123}\, q^{16} + q^{133}\, p^{17} + 1618603\, q^{162}\, p^{55} + 16272472\, p^{157}\, q^{171}$$
$$+ 3925257\, p^{154}\, q^{175} + 614\, p^{182}\, q^{179} + 1170991284\, p^{153}\, q^{161} + 1401309436\, p^{135}\, q^{167} + 1199182900\, p^{137}\, q^{167} + 1299474155\, p^{136}\, q^{167}$$

$$+ 7745\, p^{181} q^{110} + 1327\, p^{177} q^{80} + 158\, p^{186} q^{171} + 136\, p^{175} q^{68} + 1401188793\, p^{125} q^{168} + 1862702755\, p^{141} q^{165} + 1477025627\, p^{143} q^{165}$$
$$+ 1145913847\, p^{145} q^{165} + 1304596034\, p^{144} q^{165} + 1663140823\, p^{142} q^{165} + p^{139} q^{187} + 1510113060\, p^{148} q^{163} + 706200024\, p^{138} q^{168}$$
$$+ 765931704\, p^{137} q^{168} + 1009531050\, p^{133} q^{168} + 948990643\, p^{134} q^{168} + 1110448176\, p^{157} q^{158} + 107910\, p^{118} q^{180} + 630428\, p^{126} q^{179}$$
$$+ 661617\, p^{127} q^{179} + 133126\, p^{120} q^{180} + 120183\, p^{119} q^{180} + 96240\, p^{117} q^{180} + 1925841\, p^{133} q^{178} + 528724\, p^{123} q^{179} + 1913584\, p^{132} q^{178}$$
$$+ 3565307\, p^{141} q^{177} + 2624\, p^{105} q^{181} + 5167\, p^{108} q^{181} + 449\, p^{106} q^{182} + 13340\, p^{113} q^{181} + 9369\, p^{111} q^{181} + 7745\, p^{110} q^{181} + 6365\, p^{109} q^{181}$$
$$+ 11214\, p^{112} q^{181} + 4169\, p^{107} q^{181} + 3318\, p^{106} q^{181} + p^{187} q^{139} + 8\, p^{188} q^{169} + 1366551719\, p^{126} q^{168} + 224255138\, p^{165} q^{155}$$
$$+ 38726\, p^{168} q^{59} + 512781\, p^{178} q^{111} + 3907\, p^{165} q^{49} + 16381\, p^{181} q^{167} + 220548\, p^{175} q^{87} + 1251681877\, p^{141} q^{166}$$
$$+ 100791670426\, q^{137} p^{54} + 131404006141\, q^{137} p^{55} + 217781421675\, q^{137} p^{57} + 6029480041683\, q^{139} p^{79} + 1922537347731\, p^{149} q^{117}$$
$$+ 777032000\, p^{155} q^{161} + 175518569247\, p^{157} q^{115} + 1048\, p^{106} q^{12} + 7629699\, q^{141} p^{34} + 158088201712\, q^{152} p^{81} + 82702\, p^{176} q^{88}$$
$$+ 348025\, p^{178} q^{108} + 532481\, q^{169} p^{68} + 184489894\, p^{162} q^{160} + 138918998\, p^{163} q^{160} + 625815588\, p^{156} q^{161} + 3216\, p^{131} q^{20}$$
$$+ 54009454\, p^{172} q^{145} + 96056802\, p^{172} q^{138} + 139\, q^{160} p^{38} + 70245\, q^{164} p^{52} + 462129012\, p^{167} q^{146} + 5509058614\, p^{165} q^{108}$$
$$+ 324807174\, p^{158} q^{63} + 24731274\, p^{154} q^{49} + 1860539806034\, p^{148} q^{93} + 74749439386\, q^{135} p^{51} + 3115892861\, q^{134} p^{41}$$
$$+ 7066973072\, p^{162} q^{91} + 9645603899\, p^{164} q^{110} + 10566512792\, p^{164} q^{116} + 3838714352\, p^{165} q^{133} + 6816394525202\, q^{138} p^{78}$$
$$+ 899043821686\, p^{152} q^{105} + 42255746262\, p^{136} q^{50} + 8338\, p^{167} q^{182} + 462937971425\, p^{135} q^{58} + 129059940639\, p^{134} q^{52}$$
$$+ 2644637537569\, p^{138} q^{71} + 13400969498320\, p^{140} q^{91} + 63511\, p^{103} q^{14} + 7906174084963\, p^{140} q^{84} + 286651299057\, p^{134} q^{55}$$
$$+ 1875822649684\, p^{147} q^{89} + 13071149029034\, p^{141} q^{95} + 306243273\, p^{123} q^{30} + 935624808\, p^{125} q^{33} + 15753447340507\, p^{141} q^{101}$$
$$+ 9068688390098\, p^{142} q^{119} + 275211285\, p^{153} q^{54} + 26865752855\, p^{160} q^{95} + 3393848795\, p^{164} q^{139} + 37854151\, p^{149} q^{44}$$
$$+ 529877776\, p^{153} q^{56} + 2637943240470\, p^{147} q^{121} + 11467595727\, p^{136} q^{46} + 114187362877\, p^{155} q^{88} + 757748\, p^{173} q^{83}$$
$$+ 205965200\, p^{142} q^{41} + 142196586\, q^{167} p^{84} + 199251425\, q^{167} p^{86} + 12222\, p^{141} q^{26} + p^{155} q^{188} + 1543836114\, p^{152} q^{58}$$
$$+ 28789132932\, p^{161} q^{126} + 51967388299\, p^{159} q^{98} + 976325766\, p^{151} q^{55} + 39092\, p^{126} q^{20} + 55392052532\, p^{159} q^{99}$$
$$+ 27852896661\, p^{157} q^{83} + 58776783261\, p^{159} q^{100} + 16376097035\, p^{155} q^{74} + 6318232931\, p^{162} q^{140} + 24282357262\, p^{156} q^{79}$$
$$+ 4849592716\, p^{153} q^{64} + 17702971530\, p^{156} q^{77} + 1584328\, q^{165} p^{61} + 1891759\, p^{131} q^{178} + 20726492\, q^{168} p^{78} + 4768347\, p^{168} q^{167}$$
$$+ 18583\, p^{142} q^{27} + 237048469\, p^{170} q^{104} + 251517\, p^{152} q^{38} + 757812628\, p^{167} q^{96} + 20141806\, p^{172} q^{153} + 801169789\, p^{169} q^{115}$$
$$+ 104631523087\, p^{152} q^{78} + 118974794\, q^{167} p^{83} + 19960810\, p^{163} q^{64} + 109796012\, p^{166} q^{79} + 57975017\, q^{166} p^{76} + 10474\, q^{151} p^{33}$$

$$+ 3\, q^{139}\, p^{20} + 486\, p^{183}\, q^{178} + 5\, q^{129}\, p^{16} + 152421\, q^{162}\, p^{50} + 337232549206\, p^{124}\, q^{154} + 11757766506708\, p^{141}\, q^{118}$$
$$+ 15371349387344\, p^{141}\, q^{111} + 2886763773314\, p^{137}\, q^{70} + 20168002501591\, p^{140}\, q^{103} + 5936502874559\, p^{137}\, q^{75}$$
$$+ 488411419736\, q^{127}\, p^{51} + 767457032\, q^{145}\, p^{47} + 686017\, p^{179}\, q^{144} + 808112\, p^{179}\, q^{137} + 965361\, p^{173}\, q^{84} + 453758\, p^{173}\, q^{81}$$
$$+ 737741\, p^{179}\, q^{142} + 18751508678\, q^{145}\, p^{57} + 11467595727\, q^{144}\, p^{54} + 170724533083\, q^{144}\, p^{65} + 138779364969\, q^{144}\, p^{64} + 1198\, q^{88}\, p^{9}$$
$$+ 938636555057\, q^{152}\, p^{110} + 3\, q^{180}\, p^{83} + 489\, q^{91}\, p^{9} + 5614397449\, p^{141}\, q^{162} + 7491625869\, p^{129}\, q^{164} + 7271222972\, p^{135}\, q^{163}$$
$$+ 6187685462\, p^{123}\, q^{165} + 36424498091\, p^{146}\, q^{61} + 51\, p^{187}\, q^{163} + 26652\, p^{176}\, q^{175} + 28131790\, q^{142}\, p^{37} + q^{121}\, p^{13}$$
$$+ 167560665131\, p^{141}\, q^{150} + 69781973494\, p^{151}\, q^{145} + 114041915419\, p^{151}\, q^{142} + 5963814758\, q^{158}\, p^{76} + 747217\, p^{178}\, q^{153}$$
$$+ 12954973\, p^{175}\, q^{115} + 8750534\, p^{176}\, q^{136} + 2544812\, p^{168}\, q^{70} + 1326772205\, p^{168}\, q^{127} + 61174\, p^{140}\, q^{27} + 6611097\, p^{174}\, q^{154}$$
$$+ 250269408590557\, p^{109}\, q^{124} + 146818067704938\, p^{90}\, q^{127} + 213754085065790\, p^{97}\, q^{126} + 217183977079835\, p^{98}\, q^{126}$$
$$+ 1630080\, p^{108}\, q^{18} + 9619659467419\, p^{137}\, q^{79} + 220548\, p^{103}\, q^{15} + 422899\, p^{105}\, q^{16} + 15446397692\, p^{128}\, q^{41} + 2066514518473\, p^{134}\, q^{64}$$
$$+ 20319959588994\, p^{140}\, q^{106} + 5701056607611\, p^{136}\, q^{73} + 10719601086071\, p^{137}\, q^{80} + 23910956380917\, p^{139}\, q^{100}$$
$$+ 106425445009\, p^{130}\, q^{48} + 19358312665916\, p^{140}\, q^{110} + 14413066591613\, p^{137}\, q^{83} + 359597453371\, p^{132}\, q^{54}$$
$$+ 209504390423169\, p^{96}\, q^{126} + 248856666976207\, p^{104}\, q^{125} + 86591976707208\, p^{84}\, q^{128} + 153785274480717\, p^{91}\, q^{127}$$
$$+ 1525718123\, q^{123}\, p^{33} + 28577423201\, q^{130}\, p^{44} + 3356401\, q^{116}\, p^{21} + 240931612171590\, p^{106}\, q^{125} + 4139\, p^{128}\, q^{19} + 3791963376\, p^{164}\, q^{95}$$
$$+ 647889605\, p^{168}\, q^{139} + 1114281859\, p^{167}\, q^{100} + 268183244\, p^{163}\, q^{74} + 440277173\, p^{165}\, q^{83} + 188\, p^{118}\, q^{14} + 1716012\, p^{174}\, q^{162}$$
$$+ 722990958\, q^{133}\, p^{37} + 659708112375\, p^{69}\, q^{142} + 416668693\, p^{124}\, q^{31} + 13783352239\, p^{130}\, q^{42} + 3918313407837\, p^{146}\, q^{118}$$
$$+ 4873498200104\, p^{146}\, q^{111} + 782343187002\, p^{142}\, q^{70} + 6411227848947\, p^{130}\, q^{139} + 1217527199640\, q^{137}\, p^{65} + 7906174084963\, q^{140}\, p^{84}$$
$$+ 21470902339\, q^{135}\, p^{47} + 29800613919\, q^{135}\, p^{48} + 2053272080\, q^{134}\, p^{40} + 241421865094777\, p^{110}\, q^{124} + 11385438275888\, p^{142}\, q^{114}$$
$$+ 2939007727752\, p^{96}\, q^{147} + 3553917039144\, p^{101}\, q^{147} + 3450768152438\, p^{100}\, q^{147} + 3336392396143\, p^{99}\, q^{147} + 3079132178069\, p^{97}\, q^{147}$$
$$+ 3644666614333\, p^{102}\, q^{147} + 6226294191612\, p^{111}\, q^{145} + 5957928753896\, p^{113}\, q^{145} + 3832759552755\, p^{105}\, q^{147}$$
$$+ 2692152283075\, p^{101}\, q^{148} + 3721968334868\, p^{103}\, q^{147} + 3784914950328\, p^{104}\, q^{147} + 6103512086580\, p^{112}\, q^{145}$$
$$+ 6521475100329\, p^{121}\, q^{143} + 4928469057117\, p^{104}\, q^{146} + 6444872237184\, p^{108}\, q^{145} + 7063861941980\, p^{115}\, q^{144}$$
$$+ 7308841803604\, p^{114}\, q^{144} + 6324840288742\, p^{110}\, q^{145} + 6935454679289\, p^{120}\, q^{143} + 3212062789871\, p^{98}\, q^{147} + 2616758\, p^{153}\, q^{43}$$
$$+ 465457513\, p^{170}\, q^{127} + 36177802\, p^{163}\, q^{66} + 3311934471465\, p^{89}\, q^{145} + 10243612107769\, p^{103}\, q^{143} + 2817190143230\, p^{87}\, q^{145}$$

$$+ 3823622870130\, p^{91} q^{145} + 2122690991104\, p^{87} q^{146} + 4336412489515\, p^{93} q^{145} + 4080960488552\, p^{92} q^{145}$$
$$+ 115370560573116\, p^{119} q^{126} + 365702014373\, p^{135} q^{57} + 51004833787\, p^{126} q^{43} + 28344659695935\, p^{136} q^{89}$$
$$+ 15407457206181\, p^{139} q^{120} + 96414\, p^{96} q^{13} + 30317690813198\, p^{138} q^{107} + 37005752113172\, p^{137} q^{102} + 4407379678382\, p^{133} q^{67}$$
$$+ 741140731288\, p^{131} q^{56} + 57814367843\, p^{127} q^{44} + 6637083472\, p^{142} q^{50} + 27319791812917\, p^{97} q^{138} + 11\, q^{57} p^{4} + 11733777\, p^{111} q^{21}$$
$$+ 7421\, p^{88} q^{10} + 214966996\, p^{117} q^{27} + 3090\, p^{181} q^{175} + 120998080476\, p^{130} q^{156} + 1812634702\, p^{75} q^{160} + 16709241117\, p^{90} q^{160}$$
$$+ 156000914227\, p^{120} q^{157} + 79133646377\, p^{127} q^{158} + 161107603249\, p^{119} q^{157} + 150400272022\, p^{121} q^{157} + 17330599577\, p^{150} q^{153}$$
$$+ 11192680780\, p^{151} q^{154} + 151382649846\, p^{127} q^{156} + 1899\, q^{165} p^{48} + 5943\, p^{179} q^{176} + 25156185\, p^{158} q^{55} + 39319069\, p^{159} q^{58}$$
$$+ 2897419\, p^{151} q^{41} + 651476\, p^{168} q^{173} + 493256\, p^{122} q^{179} + 3720829\, p^{140} q^{177} + 57176\, p^{113} q^{180} + 75156\, p^{115} q^{180} + 597705\, p^{125} q^{179}$$
$$+ 409413992\, p^{170} q^{131} + 261515270\, q^{169} p^{98} + 98260086273\, p^{123} q^{158} + 928156178\, p^{167} q^{98} + 208767298\, p^{169} q^{96} + 89831347\, p^{172} q^{139}$$
$$+ 36915640487\, q^{158} p^{89} + 360870303\, p^{168} q^{95} + 262747094738\, p^{155} q^{123} + 3375312546\, p^{142} q^{48} + 120145608775\, p^{149} q^{72}$$
$$+ 138237797\, p^{149} q^{47} + 23231079629\, p^{158} q^{85} + 15594152972\, p^{162} q^{130} + 465644\, p^{136} q^{27} + 35252843008\, p^{159} q^{93}$$
$$+ 177423704333\, p^{155} q^{129} + 14433888571\, p^{156} q^{147} + 3244614\, p^{127} q^{25} + 31765751783\, p^{156} q^{142} + 248896321482\, p^{155} q^{124}$$
$$+ 2474569\, p^{177} q^{147} + 635786600347\, p^{152} q^{96} + 489\, p^{91} q^{9} + 3523322970\, p^{157} q^{153} + 5595314085\, p^{156} q^{152} + 194815805\, p^{137} q^{37}$$
$$+ 205950804190\, p^{155} q^{127} + 498850144819\, p^{154} q^{111} + 496890371809\, p^{154} q^{109} + 288943827187\, p^{155} q^{121} + 442359224732\, p^{154} q^{118}$$
$$+ 247668159800\, p^{150} q^{79} + 51004833787\, p^{147} q^{64} + 186985703505\, p^{150} q^{77} + 2\, p^{167} q^{45} + 9409\, p^{182} q^{121} + 63281225035\, p^{125} q^{43}$$
$$+ 84003104017\, p^{134} q^{156} + 12848692915997\, p^{109} q^{142} + 4019663483202\, p^{144} q^{88} + 589\, p^{83} q^{8} + 9475220630355\, p^{138} q^{81}$$
$$+ 6472708607464\, p^{142} q^{124} + 3119894223070\, p^{136} q^{69} + 5690109\, p^{114} q^{21} + 3499\, p^{91} q^{10} + 105558418\, p^{120} q^{27} + 18834\, p^{97} q^{12}$$
$$+ 2645796886765\, p^{136} q^{68} + 741140731288\, p^{134} q^{59} + 12968296309259\, p^{141} q^{116} + 15721917717381\, p^{140} q^{94}$$
$$+ 5006151388245\, p^{142} q^{127} + 15972940604205\, p^{141} q^{109} + 1948316496\, p^{126} q^{35} + 175665042667\, p^{153} q^{135} + 934375595732\, p^{152} q^{108}$$
$$+ 915558316641\, p^{152} q^{113} + 21508701\, p^{161} q^{60} + 583771\, q^{167} p^{63} + 43066684\, q^{171} p^{95} + 32312432\, p^{171} q^{93} + 115848\, p^{176} q^{170}$$
$$+ 58045\, p^{177} q^{171} + 33\, p^{117} q^{13} + 68830115\, p^{173} q^{118} + 5700014\, p^{175} q^{151} + 93206685\, p^{172} q^{110} + 80934229295\, p^{145} q^{63}$$
$$+ 104631523087\, q^{152} p^{78} + 7295570\, p^{166} q^{68} + 32088771\, p^{168} q^{80} + 3\, p^{96} q^{8} + 613877\, p^{159} q^{48} + 57635747\, p^{173} q^{114} + 2445139\, p^{162} q^{56}$$
$$+ 191816\, q^{132} p^{24} + 2934822251210\, p^{147} q^{119} + 4649771932430\, p^{146} q^{101} + 72458135023\, p^{140} q^{56} + 5563075906\, p^{136} q^{44}$$
$$+ 235913984\, p^{130} q^{33} + 58043546235180\, p^{134} q^{96} + 12415387000\, p^{140} q^{160} + 6542434707\, p^{120} q^{165} + 4072204868\, p^{116} q^{166} + 3\, p^{48} q^{3}$$

$$+ 665863445702\, p^{147} q^{79} + 138779364969\, p^{144} q^{64} + 385883780355\, p^{146} q^{73} + 22508667805\, p^{142} q^{54} + 1675334910520\, p^{150} q^{106}$$
$$+ 142816130\, q^{172} p^{120} + 260171\, q^{124} p^{21} + 984314015\, q^{118} p^{30} + 113682747\, q^{117} p^{26} + 11805755611\, q^{120} p^{36} + 4729659\, p^{152} q^{43}$$
$$+ 1698605\, q^{124} p^{23} + 60425\, q^{98} p^{13} + 34690128629176\, p^{135} q^{89} + 2301315869\, p^{156} q^{156} + 13734031842\, p^{136} q^{161}$$
$$+ 69909032403811\, p^{110} q^{133} + 168426685522397\, p^{101} q^{128} + 15694\, p^{103} q^{13} + 11210570858079\, q^{130} p^{69} + 13407182977235\, p^{132} q^{73}$$
$$+ 24891108525915\, p^{133} q^{80} + 52885817164967\, p^{135} q^{100} + 795718238\, p^{169} q^{127} + 8831708329170\, p^{142} q^{92} + 1291955721118\, p^{145} q^{134}$$
$$+ 99200334\, p^{125} q^{29} + 455750437\, p^{170} q^{116} + 218936009\, p^{171} q^{133} + 7003\, p^{132} q^{21} + 324807174\, q^{158} p^{63} + 183087301\, q^{158} p^{61}$$
$$+ 426429193\, q^{158} p^{64} + 245070354\, q^{158} p^{62} + 2241602764\, p^{112} q^{167} + 35989113153\, p^{155} q^{143} + p^{189} q^{171} + 6178530838\, p^{155} q^{69}$$
$$+ 32241\, p^{129} q^{21} + 14560149738\, p^{162} q^{131} + 10\, p^{185} q^{121} + 2254438092\, p^{140} q^{45} + 12046341256\, p^{143} q^{53} + 500371057\, q^{160} p^{69}$$
$$+ 135109626\, p^{149} q^{169} + 73817246\, p^{153} q^{169} + 86677457\, p^{152} q^{169} + 117247380\, p^{150} q^{169} + 154763181\, p^{148} q^{169} + 48824099\, p^{153} q^{170}$$
$$+ 101127393\, p^{151} q^{169} + 605436742\, p^{154} q^{58} + 13139167653\, p^{163} q^{126} + 21529702771\, p^{161} q^{98} + 384090684\, p^{153} q^{55} + 15609\, p^{128} q^{20}$$
$$+ 23088019413\, p^{161} q^{99} + 11248687099\, p^{159} q^{83} + 24645925915\, p^{161} q^{100} + 6657848363\, p^{157} q^{74} + 1505389\, p^{176} q^{157} + 61160\, p^{153} q^{37}$$
$$+ 1208\, p^{139} q^{23} + 15264061\, p^{175} q^{139} + 43066684\, p^{171} q^{95} + 2456456\, p^{164} q^{60} + 454561\, p^{176} q^{164} + 2572239221\, p^{163} q^{87}$$
$$+ 2241770270\, p^{163} q^{86} + 1674235266\, p^{163} q^{84} + 1034100509\, p^{163} q^{81} + 47596110427\, p^{156} q^{139} + 1077247769\, p^{141} q^{44}$$
$$+ 14271490552\, p^{145} q^{56} + 2007\, p^{99} q^{11} + 598601207786\, p^{152} q^{95} + 7811701\, p^{121} q^{176} + 18506953\, p^{134} q^{175} + 3087553615\, p^{81} q^{161}$$
$$+ 13348558995\, p^{88} q^{160} + 14972607578\, p^{89} q^{160} + 1535234\, q^{176} p^{103} + 121146100395\, p^{158} q^{116} + 35942232720\, p^{159} q^{133}$$
$$+ 41751638102\, p^{95} q^{159} + 8982085\, p^{135} q^{176} + 644244\, p^{113} q^{178} + 3766738\, p^{124} q^{177} + 7586527\, p^{153} q^{174} + 1489184687\, p^{74} q^{160}$$
$$+ 120961625417\, p^{109} q^{158} + 223\, q^{135} p^{20} + 545269\, q^{145} p^{33} + 7\, p^{188} q^{166} + 5\, p^{188} q^{162} + 8890258033\, q^{138} p^{47} + 370827251981\, q^{140} p^{63}$$
$$+ 241459524420\, q^{140} p^{61} + 454806180662\, q^{140} p^{64} + 300288656067\, q^{140} p^{62} + 2939007727752\, p^{147} q^{96} + 6342708\, p^{143} q^{176}$$
$$+ 105558418\, p^{163} q^{70} + 43690638\, p^{172} q^{147} + 7208870\, q^{153} p^{45} + 16079\, q^{148} p^{31} + 39522\, q^{148} p^{32} + 4394297\, q^{153} p^{44} + 2616758\, q^{153} p^{43}$$
$$+ 1518664\, q^{153} p^{42} + 12748\, q^{147} p^{30} + 17794853855810\, p^{139} q^{92} + 2322656758722\, p^{142} q^{134} + 220025259\, p^{122} q^{29}$$
$$+ 1330932732\, q^{134} p^{39} + 27305019957657\, p^{112} q^{138} + 20303090387994\, p^{104} q^{140} + 13\, q^{105} p^{10} + 1469068102883\, p^{150} q^{117}$$
$$+ 1391591349049\, p^{148} q^{89} + 6753896\, p^{157} q^{173} + 2042\, p^{104} q^{181} + 23270509271344\, p^{138} q^{116} + 30073688768942\, p^{137} q^{94}$$
$$+ 4655755631\, q^{148} p^{56} + 8761856558078\, p^{139} q^{127} + 29443034310840\, p^{138} q^{109} + 3984747175\, p^{123} q^{35} + 1261\, p^{80} q^{8}$$
$$+ 18313997219533\, p^{135} q^{81} + 3427169519\, p^{166} q^{109} + 4111392311\, p^{166} q^{118} + 151700767\, p^{168} q^{151} + 1401309436\, p^{167} q^{135}$$

$$+ 537091775\, p^{168} q^{141} + 3883842430\, p^{166} q^{113} + 1056872637\, p^{161} q^{75} + 496663167836\, p^{154} q^{112} + 449723654186\, p^{152} q^{91}$$
$$+ 11023763386\, p^{147} q^{157} + 15535952664\, p^{82} q^{158} + 63795891574\, p^{95} q^{158} + 247765542\, q^{168} p^{92} + 406\, q^{147} p^{27} + 1082\, p^{95} q^{180}$$
$$+ 282393424\, q^{168} p^{93} + 7579\, q^{149} p^{31} + 88869629331\, p^{94} q^{157} + 200793708475\, p^{122} q^{156} + 13438104656\, p^{81} q^{158} + 468\, p^{179} q^{87}$$
$$+ 117\, p^{172} q^{59} + 1580\, p^{182} q^{111} + 4\, p^{169} q^{49} + 145\, q^{145} p^{25} + 2264\, q^{145} p^{27} + 139\, q^{152} p^{30} + 116612314810\, p^{118} q^{158}$$
$$+ 2703225470\, p^{152} q^{60} + 1426\, p^{114} q^{14} + 17999\, p^{125} q^{19} + 112072\, p^{131} q^{23} + 205327466\, p^{164} q^{157} + 991420539\, p^{166} q^{93} + 509\, p^{184} q^{175}$$
$$+ 4394297\, p^{153} q^{44} + 1644662\, p^{151} q^{40} + 359617\, p^{147} q^{34} + 775\, p^{119} q^{15} + 3276305\, p^{158} q^{50} + 11471465513805\, p^{139} q^{124}$$
$$+ 6102059240005\, p^{133} q^{69} + 315326374\, p^{118} q^{28} + 3126758226\, p^{122} q^{34} + 13415194205161\, p^{139} q^{122} + 20156923070442\, p^{135} q^{82}$$
$$+ 438037062076\, p^{130} q^{53} + 3318\, p^{84} q^{9} + 1794629350380\, p^{132} q^{61} + 26763\, p^{131} q^{182} + 52488494\, q^{143} p^{39} + 327\, p^{117} q^{14}$$
$$+ 2657238\, p^{173} q^{162} + 27489198\, p^{169} q^{83} + 11114486\, p^{175} q^{144} + 16730180\, p^{175} q^{137} + p^{90} q^{7} + 33383391\, p^{169} q^{84} + 18236818\, p^{169} q^{81}$$
$$+ 12813243\, p^{175} q^{142} + 1048556050\, p^{162} q^{152} + 27299804030\, p^{161} q^{127} + 56838470580\, p^{160} q^{111} + 322087610\, p^{148} q^{48}$$
$$+ 18211897\, p^{143} q^{37} + 20793745955\, p^{156} q^{78} + 224690787\, p^{145} q^{169} + 199556998\, p^{146} q^{169} + 176243707\, p^{147} q^{169}$$
$$+ 1421955063\, p^{161} q^{152} + 39435603273\, p^{160} q^{127} + 84437371003\, p^{159} q^{111} + 494926712\, p^{147} q^{48} + 28131790\, p^{142} q^{37}$$
$$+ 638854568113\, p^{151} q^{127} + 1415034952160\, p^{150} q^{118} + 1681601791385\, p^{150} q^{111} + 1700461556919\, p^{150} q^{109} + 939642841745\, p^{151} q^{121}$$
$$+ 124187903826\, p^{158} q^{112} + 102843424422\, p^{156} q^{91} + 375016838\, p^{140} q^{169} + 342069580\, p^{141} q^{169} + 10\, p^{188} q^{172} + 3211339\, p^{109} q^{176}$$
$$+ 31869572243\, p^{155} q^{78} + 906017\, q^{151} p^{39} + 1644662\, q^{151} p^{40} + 46325\, q^{149} p^{33} + 31833017484\, p^{137} q^{50} + 2310849344105\, p^{88} q^{146}$$
$$+ 4587682888998\, p^{94} q^{145} + 106327987775\, p^{154} q^{137} + 813882489\, q^{131} p^{36} + 122550955327\, p^{158} q^{110} + 6191188517\, q^{133} p^{42}$$
$$+ 12748\, p^{147} q^{30} + 6992\, p^{145} q^{28} + 57087\, p^{151} q^{35} + 359\, p^{132} q^{19} + 79927094\, p^{171} q^{100} + 17299114\, p^{167} q^{74} + 322724851711919\, p^{102} q^{123}$$
$$+ 56703113473349\, p^{76} q^{126} + 177019012566508\, p^{88} q^{125} + 178029282234034\, p^{120} q^{121} + 18424842994453\, p^{112} q^{140}$$
$$+ 18925650653390\, p^{111} q^{140} + 102968156621711\, p^{107} q^{131} + 104666632256990\, p^{106} q^{131} + 2018356506\, p^{138} q^{43}$$
$$+ 38853467454\, p^{152} q^{147} + 75703542936835\, p^{100} q^{133} + 76523131873093\, p^{101} q^{133} + 49583925415\, p^{158} q^{92} + 16542420245\, p^{161} q^{134}$$
$$+ 2864452324\, p^{162} q^{146} + 68370544721\, p^{159} q^{103} + 30223495899\, p^{161} q^{125} + 9309998489\, p^{155} q^{71} + 2944386996\, p^{153} q^{62}$$
$$+ 497538783\, q^{131} p^{35} + 98356379088725\, p^{121} q^{126} + 183572817\, p^{165} q^{156} + 273335947638199\, p^{96} q^{124} + 288168807886393\, p^{111} q^{122}$$
$$+ 29590561125479\, p^{72} q^{127} + 85012032613176\, p^{80} q^{126} + 77373907075997\, p^{79} q^{126} + 11239873203528\, p^{92} q^{141}$$
$$+ 10595910065944\, p^{91} q^{141} + 11871086147263\, p^{93} q^{141} + 4359567405081\, p^{83} q^{142} + 16072544791934\, p^{122} q^{138}$$

$$+ 252465447833301\, p^{93} q^{124} + 260325991569044\, p^{94} q^{124} + 137173051878136\, p^{84} q^{125} + 8709093514\, p^{93} q^{162}$$
$$+ 167177828124704\, p^{87} q^{125} + 5402593837\, p^{129} q^{39} + 26550575669651\, p^{136} q^{88} + 65335767\, p^{172} q^{143} + 489986838\, p^{169} q^{105} + 3\, p^{81} q^{6}$$
$$+ 343212089502\, q^{143} p^{67} + 157198756813500\, p^{86} q^{125} + 12154954317909\, p^{66} q^{127} + 7180602305010\, p^{64} q^{128}$$
$$+ 25859709750770\, p^{71} q^{127} + 19437821044370\, p^{69} q^{127} + 16715469553198\, p^{68} q^{127} + 14294526333362\, p^{67} q^{127}$$
$$+ 22480282993266\, p^{70} q^{127} + 70092281038252\, p^{78} q^{126} + 63195037015377\, p^{77} q^{126} + 211367437570161\, p^{119} q^{120} + 80818381\, p^{135} q^{34}$$
$$+ 113359224264\, p^{106} q^{158} + 264170192929\, p^{155} q^{99} + 140255242863\, p^{153} q^{83} + 277480905477\, p^{155} q^{100} + 81582369652\, p^{151} q^{74}$$
$$+ 26154836045\, p^{150} q^{66} + 192849\, p^{122} q^{20} + 13783352239\, p^{148} q^{60} + 7123\, p^{110} q^{14} + 93061\, p^{121} q^{19} + 382\, p^{98} q^{10} + 583771\, p^{127} q^{23}$$
$$+ 8156349869\, p^{148} q^{58} + 13\, p^{78} q^{6} + 23277137722\, p^{158} q^{140} + 117257340997\, p^{157} q^{126} + 250393943744\, p^{155} q^{98} + 5128113291\, p^{147} q^{55}$$
$$+ 7032272804\, p^{158} q^{148} + 5892109819\, p^{158} q^{149} + 7274994276\, p^{87} q^{161} + 6394472206\, p^{86} q^{161} + 4860409030\, p^{84} q^{161}$$
$$+ 103477234\, p^{164} q^{160} + 6035\, p^{148} q^{30} + 3312\, p^{146} q^{28} + 27200\, p^{152} q^{35} + 174\, p^{133} q^{19} + 37369209\, p^{172} q^{100} + 7831173\, p^{168} q^{74}$$
$$+ 36120980\, p^{134} q^{32} + 400675162\, p^{139} q^{40} + 63281225035\, p^{147} q^{65} + 675343880\, p^{140} q^{42} + 360183019\, p^{138} q^{39} + 20918687\, p^{132} q^{30}$$
$$+ 23587244962\, p^{156} q^{144} + 82074442928\, p^{148} q^{68} + 8405\, p^{105} q^{13} + 345807120619\, p^{152} q^{88} + 625210289\, p^{139} q^{41}$$
$$+ 22240070477\, p^{146} q^{59} + 65053436\, p^{134} q^{33} + 2047\, p^{136} q^{184} + 11916\, p^{140} q^{183} + 12401\, p^{141} q^{183} + 194466\, p^{159} q^{179} + 147718\, p^{161} q^{179}$$
$$+ 170061\, p^{160} q^{179} + 195526\, p^{152} q^{180} + 111884\, p^{166} q^{178} + 180883\, p^{153} q^{180} + 2445\, p^{138} q^{184} + 33464\, p^{153} q^{182} + 185942\, p^{166} q^{177}$$
$$+ 14154701\, q^{174} p^{106} + 39386613\, p^{174} q^{124} + 47983748\, p^{173} q^{111} + 196405\, p^{156} q^{42} + 121794\, p^{154} q^{39} + 56080984\, p^{171} q^{97}$$
$$+ 451927\, p^{158} q^{46} + 7094173\, p^{175} q^{149} + 2207659105418\, p^{148} q^{96} + 8890258033\, q^{143} p^{52} + 2\, p^{184} q^{108} + p^{184} q^{107} + 2\, p^{185} q^{117} + p^{187} q^{140}$$
$$+ 69899368\, p^{162} q^{66} + 20087389314\, p^{154} q^{148} + 16643055752\, p^{154} q^{149} + 24\, q^{104} p^{10} + 2\, q^{102} p^{9} + 2673849362\, p^{166} q^{132} + 37\, p^{75} q^{6}$$
$$+ p^{188} q^{154} + 2\, p^{186} q^{128} + 14225\, q^{165} p^{51} + 6332\, q^{164} p^{48} + 12222\, q^{164} p^{49} + 22680\, q^{164} p^{50} + 3673568\, p^{163} q^{59} + 76265905\, p^{173} q^{122}$$
$$+ 299893\, p^{176} q^{166} + 7834470\, p^{167} q^{71} + 7\, p^{177} q^{71} + 18507175490161\, p^{138} q^{120} + 895387102432\, p^{150} q^{126} + 98363005611\, p^{143} q^{61}$$
$$+ 865156438\, p^{121} q^{31} + 28455855552\, p^{127} q^{42} + 151221975397\, p^{151} q^{78} + 16036093921\, p^{163} q^{112} + 354928\, p^{140} q^{29}$$
$$+ 20449228033\, p^{162} q^{105} + 534909625\, p^{156} q^{61} + 1477025627\, p^{165} q^{143} + 36293967\, p^{150} q^{45} + 120174\, p^{95} q^{13}$$
$$+ 36775060587423\, p^{137} q^{107} + 44868896211182\, p^{136} q^{102} + 2363442639\, p^{142} q^{47} + 5\, p^{60} q^{4} + 361812547367\, p^{151} q^{85}$$
$$+ 163532291059\, p^{155} q^{130} + 3559737981\, p^{166} q^{110} + 4072204868\, p^{166} q^{116} + 1606218809\, p^{167} q^{133} + 204608935\, p^{168} q^{149}$$
$$+ 7513525\, p^{129} q^{27} + 523568144863\, p^{152} q^{93} + 477820347327\, p^{154} q^{115} + 3144\, p^{103} q^{12} + 1031554\, p^{118} q^{178} + 715912\, p^{114} q^{178}$$

$$+ 4027480\, p^{126} q^{177} + 61646\, p^{105} q^{179} + 42432\, p^{103} q^{179} + 118858\, p^{109} q^{179} + 4551\, p^{100} q^{180} + 86846\, p^{107} q^{179} + 101923\, p^{108} q^{179}$$
$$+ 73414\, p^{106} q^{179} + 51324\, p^{104} q^{179} + 8750534\, p^{136} q^{176} + 3904678\, p^{125} q^{177} + 4134149\, p^{127} q^{177} + 949252\, p^{117} q^{178} + 10884977\, p^{130} q^{28}$$
$$+ 196124071509\, p^{149} q^{75} + 74983\, p^{115} q^{17} + 98216048\, p^{136} q^{35} + 6856519539\, p^{156} q^{151} + 185521986\, q^{159} p^{63} + 245221965\, q^{159} p^{64}$$
$$+ 306243273\, q^{160} p^{67} + 5997485473\, q^{160} p^{82} + 14622814\, p^{157} q^{52} + 3\, p^{72} q^{5} + 11839507926\, p^{87} q^{160} + 1406754\, p^{145} q^{178}$$
$$+ 34559760\, p^{149} q^{172} + 18591645\, p^{150} q^{173} + 6\, p^{188} q^{164} + 9168099735\, p^{85} q^{160} + 33183367024\, p^{161} q^{106} + 5508264170\, p^{157} q^{73}$$
$$+ 14741345134\, p^{163} q^{123} + 4526944206\, p^{157} q^{72} + 11246975299\, p^{163} q^{129} + 58776783261\, p^{100} q^{159} + 55392052532\, p^{99} q^{159}$$
$$+ 62089851203\, p^{101} q^{159} + 18554189508\, p^{91} q^{160} + 138211\, p^{180} q^{156} + 88526958924699\, p^{99} q^{132} + 708418596\, p^{151} q^{54}$$
$$+ 63795891574\, p^{158} q^{95} + 7072919469\, p^{162} q^{139} + 96883683\, p^{147} q^{44} + 1330932732\, p^{151} q^{56} + 322087610\, q^{148} p^{48} + 145004797\, q^{148} p^{46}$$
$$+ 26377264690\, q^{153} p^{72} + 38657712\, q^{147} p^{42} + 7219534642\, q^{149} p^{59} + 4162160798\, q^{149} p^{57} + 5506895531\, q^{149} p^{58}$$
$$+ 73442001841263\, p^{108} q^{133} + 29203146090\, p^{159} q^{91} + 37051426536\, p^{161} q^{110} + 38145980821\, p^{161} q^{112} + 3984747175\, p^{155} q^{67}$$
$$+ 933492\, p^{138} q^{29} + 48998893399\, p^{160} q^{105} + 140615703055441\, p^{114} q^{127} + 2526\, p^{163} q^{184} + 1224\, p^{183} q^{174} + 2196880590\, p^{95} q^{165}$$
$$+ 110195056233618\, p^{118} q^{127} + 129929738827991\, p^{113} q^{128} + 131915429997820\, p^{109} q^{129} + 135501027068105\, p^{108} q^{129}$$
$$+ 127886029343367\, p^{110} q^{129} + 123709669199712\, p^{114} q^{128} + 141496231370988\, p^{111} q^{128} + 217766856\, p^{148} q^{47}$$
$$+ 35986885363\, p^{157} q^{85} + 22650681114\, p^{161} q^{130} + 729879\, p^{135} q^{27} + 54183752387\, p^{158} q^{93} + 1121756063\, p^{166} q^{142}$$
$$+ 6020318759\, p^{165} q^{124} + 106805213008393\, p^{104} q^{131} + 3787468\, p^{164} q^{171} + 54650151\, p^{138} q^{173} + 28505743\, p^{139} q^{174}$$
$$+ 4692835\, p^{113} q^{176} + 19632098\, p^{126} q^{175} + 1086\, p^{182} q^{177} + 515\, q^{152} p^{31} + 20269540\, p^{170} q^{158} + 36275705\, p^{157} q^{169}$$
$$+ 428126440\, q^{170} p^{114} + 489157248\, q^{170} p^{120} + 394895284\, q^{170} p^{112} + 73514565\, q^{165} p^{74} + 58449907\, q^{168} p^{83} + 92344224\, q^{165} p^{75}$$
$$+ 13\, q^{142} p^{22} + 118153841\, q^{168} p^{87} + 246\, q^{141} p^{23} + 40\, q^{141} p^{22} + 95\, q^{142} p^{23} + 875\, q^{143} p^{25} + 671278\, q^{162} p^{53} + 57384324\, q^{169} p^{87}$$
$$+ 14225\, p^{139} q^{25} + 18591645\, p^{173} q^{150} + 73735052124\, p^{97} q^{158} + q^{130} p^{16} + 434903\, q^{172} p^{77} + 989764\, q^{172} p^{80} + 578122\, q^{172} p^{78}$$
$$+ 760208\, q^{172} p^{79} + 237908\, q^{172} p^{75} + 323618\, q^{172} p^{76} + 1082865\, q^{165} p^{60} + 2616758\, p^{147} q^{37} + 3141750598\, p^{160} q^{78}$$
$$+ 9900963104\, p^{164} q^{111} + 47853201\, p^{152} q^{48} + 274746174\, p^{166} q^{152} + 5398470088\, p^{165} q^{127} + 875\, q^{165} p^{47} + 103\, p^{111} q^{12}$$
$$+ 394895284\, p^{170} q^{112} + 492307085\, p^{170} q^{121} + 272391992\, p^{167} q^{88} + 568716470\, q^{150} p^{52} + 797373653\, q^{150} p^{53} + 78079963\, p^{124} q^{173}$$
$$+ 2130035\, q^{145} p^{35} + 1215021266\, p^{73} q^{160} + 932932\, q^{144} p^{33} + 1846035\, q^{144} p^{34} + 23690866\, q^{147} p^{41} + 45119189193\, p^{96} q^{159}$$
$$+ 1157262\, p^{148} q^{178} + 801642\, p^{138} q^{179} + 13569629\, q^{146} p^{39} + 48155650034\, p^{141} q^{155} + 1246004483\, p^{164} q^{147} + 2428315893\, p^{164} q^{142}$$

$$+ 14249917279\, p^{163} q^{124} + 123791\, p^{135} q^{25} + 18010258150\, q^{153} p^{70} + 1795507759\, q^{151} p^{57} + 179139786215\, q^{155} p^{93}$$
$$+ 5856117018\, q^{152} p^{63} + 1363614668194\, q^{138} p^{67} + 1795507759\, q^{133} p^{39} + 4162160798\, q^{133} p^{41} + 2755870031\, q^{133} p^{40} + 63423\, q^{171} p^{68}$$
$$+ 93061\, q^{171} p^{69} + 31004655342\, q^{136} p^{49} + 34328790027\, p^{132} q^{46} + 9078101534\, q^{133} p^{43} + 13131496586\, q^{133} p^{44}$$
$$+ 586816830233\, q^{143} p^{70} + 493762595781\, q^{143} p^{69} + 1428206363\, p^{154} q^{61} + 3082195428\, p^{163} q^{143} + 94996871\, p^{148} q^{45}$$
$$+ 278658769\, p^{150} q^{50} + 96698\, p^{181} q^{150} + 14\, p^{147} q^{25} + 120960\, p^{181} q^{140} + 55236704023\, p^{155} q^{140} + 377251806354\, q^{154} p^{99}$$
$$+ 358386150716\, q^{154} p^{98} + 428652604920\, q^{154} p^{102} + 456781628304\, q^{154} p^{104} + 332410482664\, q^{155} p^{105} + 395375961327\, q^{154} p^{100}$$
$$+ 443444917437\, q^{154} p^{103} + 319182542839\, q^{154} p^{96} + 412570727666\, q^{154} p^{101} + 338967478824\, q^{154} p^{97} + 279232813061\, q^{154} p^{94}$$
$$+ 259406548586\, q^{154} p^{93} + 42516\, q^{171} p^{67} + 1208\, q^{167} p^{51} + 134903232\, p^{163} q^{71} + 1706\, p^{124} q^{17} + 879709583\, p^{166} q^{92} + 19269\, p^{181} q^{166}$$
$$+ 563587\, p^{179} q^{124} + 2036\, p^{161} q^{42} + 1382\, p^{159} q^{39} + 585935\, p^{176} q^{97} + 4802\, p^{163} q^{46} + 238282\, p^{180} q^{149} + 1363325\, p^{178} q^{122}$$
$$+ 60878\, p^{172} q^{71} + 145\, p^{145} q^{25} + 776990\, p^{179} q^{140} + 484913\, p^{179} q^{150} + 188\, p^{176} q^{72} + 20\, p^{172} q^{57} + 8177\, p^{182} q^{120}$$
$$+ 12825918284\, p^{92} q^{161} + 664324380\, p^{168} q^{101} + 177584\, q^{138} p^{27} + 475169184\, p^{170} q^{126} + 19003431\, p^{175} q^{124} + 22080050\, p^{174} q^{111}$$
$$+ 90638\, p^{157} q^{42} + 57087\, p^{155} q^{39} + 25610410\, p^{172} q^{97} + 208486\, p^{159} q^{46} + 3932458\, p^{176} q^{149} + 1680724\, p^{164} q^{59} + 37964575\, p^{174} q^{122}$$
$$+ 185942\, p^{177} q^{166} + 3423421\, p^{168} q^{71} + 13444080536\, p^{163} q^{106} + 2055544587\, p^{159} q^{73} + 6187685462\, p^{165} q^{123} + 1673845407\, p^{159} q^{72}$$
$$+ 4908075072\, p^{165} q^{129} + 168857083\, q^{167} p^{85} + 109796012\, q^{166} p^{79} + 81630526\, q^{167} p^{81} + 22120512\, q^{167} p^{75} + 17299114\, q^{167} p^{74}$$
$$+ 10298921\, q^{167} p^{72} + 13409801\, q^{167} p^{73} + 245902243\, q^{171} p^{130} + 259613291\, q^{171} p^{128} + 253248244\, q^{171} p^{129} + 28044254\, q^{167} p^{76}$$
$$+ 273785413\, q^{171} p^{122} + 1465941\, q^{161} p^{53} + 1257695\, p^{154} q^{177} + 791310\, p^{139} q^{179} + 5082393\, q^{161} p^{56} + 614\, p^{179} q^{182} + 253\, q^{146} p^{26}$$
$$+ 355543746601\, p^{109} q^{155} + 91356085\, q^{157} p^{57} + 235913984\, q^{157} p^{60} + 173873793\, q^{157} p^{59} + 715427307\, q^{158} p^{66} + 126756097\, q^{157} p^{58}$$
$$+ 8342841642\, p^{156} q^{150} + 379234878092\, p^{152} q^{89} + 455829120054\, p^{154} q^{117} + 675102915289\, p^{153} q^{107} + 161139787725\, p^{150} q^{76}$$
$$+ 282755030248\, p^{150} q^{80} + 21706\, p^{111} q^{15} + 42065\, p^{113} q^{16} + 256764580935\, p^{151} q^{82} + 6492772821\, p^{143} q^{51} + 36550215969\, p^{156} q^{141}$$
$$+ 101229140347\, p^{155} q^{135} + 492768551183\, p^{154} q^{108} + 492390977285\, p^{154} q^{113} + 40813303286\, p^{147} q^{63} + 3349515470\, p^{143} q^{49}$$
$$+ 223756245\, p^{138} q^{38} + 974260\, p^{123} q^{22} + 564669494\, q^{161} p^{72} + 685410696\, p^{166} q^{146} + 9034327876\, p^{164} q^{108} + 554517557\, p^{157} q^{63}$$
$$+ 42710946\, p^{153} q^{49} + 2789031\, p^{148} q^{38} + 9622384772\, p^{154} q^{69} + 50909\, p^{128} q^{21} + 21088300873\, p^{161} q^{131} + 9774137\, p^{166} q^{69}$$
$$+ 552184\, p^{176} q^{163} + 51766973\, p^{170} q^{91} + 39318756\, p^{174} q^{130} + 1219\, p^{137} q^{22} + 14259243\, q^{172} p^{93} + p^{160} q^{35} + 4551\, p^{180} q^{100}$$
$$+ 68370544721\, p^{103} q^{159} + 7219534642\, q^{131} p^{41} + 147\, p^{128} q^{17} + 60177023\, p^{170} q^{92} + 41915917\, p^{172} q^{101} + 40105830\, p^{174} q^{126}$$

$$+ 1465941\, p^{161}\, q^{53} + 3537035\, p^{164}\, q^{61} + 362784\, p^{159}\, q^{47} + 2649066142\, p^{166}\, q^{104} + 297337226067\, p^{154}\, q^{126} + 707801973539\, p^{152}\, q^{98}$$
$$+ 36869654338\, p^{119}\, q^{161} + 39435603273\, p^{127}\, q^{160} + 35117119469\, p^{121}\, q^{161} + 36061201628\, p^{120}\, q^{161} + 32811256937\, p^{134}\, q^{159}$$
$$+ 29806917389\, p^{135}\, q^{159} + 43895155595\, p^{125}\, q^{160} + 13998044099\, p^{107}\, q^{163} + 25392505003\, p^{114}\, q^{162} + 178931060799\, p^{112}\, q^{157}$$
$$+ 355267191589\, p^{113}\, q^{155} + 397062\, p^{177}\, q^{162} + 3931829\, p^{166}\, q^{66} + 22323028\, p^{172}\, q^{96} + 354928\, p^{161}\, q^{50} + 1899\, p^{142}\, q^{25}$$
$$+ 3562081\, p^{176}\, q^{150} + 7503426\, p^{176}\, q^{140} + 3559\, p^{184}\, q^{144} + 1048\, p^{178}\, q^{84} + 285\, p^{178}\, q^{81} + 3226\, p^{184}\, q^{142} + 2238\, p^{184}\, q^{137}$$
$$+ 7032272804\, p^{148}\, q^{158} + p^{100}\, q^{183} + 8\, p^{154}\, q^{30} + 14239\, p^{174}\, q^{74} + 189\, p^{186}\, q^{151} + p^{113}\, q^{11} + 605\, p^{148}\, q^{28} + 5172\, p^{154}\, q^{35} + 31\, p^{135}\, q^{19}$$
$$+ 6946766\, p^{174}\, q^{100} + 1350790\, p^{170}\, q^{74} + 1111\, p^{150}\, q^{30} + 9650\, p^{183}\, q^{158} + 7654\, p^{183}\, q^{161} + 8998\, p^{183}\, q^{159} + 42432\, p^{179}\, q^{103}$$
$$+ 106617\, p^{181}\, q^{134} + 485\, p^{166}\, q^{48} + 65799\, p^{180}\, q^{114} + 8573100491\, p^{159}\, q^{145} + 21685150230\, p^{159}\, q^{138} + 518702071163\, p^{138}\, q^{62}$$
$$+ 9341190386894\, p^{142}\, q^{93} + 1854877046406\, p^{140}\, q^{72} + 10422414194000\, p^{143}\, q^{105} + 96116037\, p^{165}\, q^{159} + 40023916760\, p^{151}\, q^{70}$$
$$+ 279232813061\, p^{154}\, q^{94} + 144367947220\, p^{157}\, q^{122} + 102860643678\, p^{157}\, q^{128} + 37077661523\, p^{158}\, q^{136} + 74871792182\, p^{157}\, q^{132}$$
$$+ 4110639093\, p^{165}\, q^{132} + 712063152012\, p^{75}\, q^{145} + 15292985146\, p^{144}\, q^{55} + 2821917972621\, p^{84}\, q^{144} + 2552879150860\, p^{83}\, q^{144}$$
$$+ 12535847578600\, p^{101}\, q^{142} + 9658167741\, p^{153}\, q^{67} + 2257725\, p^{136}\, q^{29} + 109980774942\, p^{158}\, q^{105} + 3528074261\, p^{152}\, q^{61}$$
$$+ 675343880\, p^{148}\, q^{50} + 6095851236\, p^{161}\, q^{143} + 230205382\, p^{146}\, q^{45} + 12263963851749\, p^{100}\, q^{142} + 16180352824094\, p^{108}\, q^{141}$$
$$+ 251201131438\, p^{156}\, q^{114} + 2968878766619\, p^{107}\, q^{148} + 2951789861070\, p^{106}\, q^{148} + 11947570068157\, p^{99}\, q^{142}$$
$$+ 15116775645893\, p^{117}\, q^{140} + 15862509418609\, p^{116}\, q^{140} + 16573450206266\, p^{115}\, q^{140} + 10535141809360\, p^{125}\, q^{139}$$
$$+ 15972940604205\, p^{109}\, q^{141} + 50841171495\, p^{88}\, q^{157} + 12433623308027\, p^{123}\, q^{139} + 6003215783850\, p^{132}\, q^{138} + 40023916760\, q^{151}\, p^{70}$$
$$+ 48273728422\, q^{151}\, p^{71} + 942196999698\, p^{77}\, q^{145} + 13055457946364\, p^{104}\, q^{142} + 7691377496788\, p^{94}\, q^{143} + 8792225058113\, p^{97}\, q^{143}$$
$$+ 8444961838813\, p^{96}\, q^{143} + 6471031110274\, p^{91}\, q^{143} + 29\, q^{173}\, p^{60} + 10966451979\, p^{160}\, q^{141} + 118882310543\, p^{158}\, q^{108}$$
$$+ 124215211825\, p^{158}\, q^{113} + 8890827472\, p^{151}\, q^{63} + 716944064\, p^{147}\, q^{49} + 47853201\, p^{142}\, q^{38} + 223679\, p^{127}\, q^{22} + 29806917389\, p^{159}\, q^{135}$$
$$+ 1068882928\, p^{168}\, q^{132} + 521574325\, p^{145}\, q^{46} + 2018356506\, p^{147}\, q^{52} + 226134576399\, p^{156}\, q^{104} + 2783743731\, p^{147}\, q^{53}$$
$$+ 6191188517\, p^{148}\, q^{57} + 178552519952\, p^{111}\, q^{157} + 45158357707\, p^{158}\, q^{91} + 56052404143\, p^{160}\, q^{110} + 57388085169\, p^{160}\, q^{112}$$
$$+ 235892759\, p^{162}\, q^{159} + 939\, q^{174}\, p^{68} + 6257996447\, p^{154}\, q^{67} + 1465941\, p^{137}\, q^{29} + 73974497598\, p^{159}\, q^{105} + 2265164380\, p^{153}\, q^{61}$$
$$+ 437671055\, p^{149}\, q^{50} + 4362077673\, p^{162}\, q^{143} + 149213793\, p^{147}\, q^{45} + 1543143210\, q^{156}\, p^{65} + 924927990\, q^{156}\, p^{63} + 706662734\, q^{156}\, p^{62}$$
$$+ 1199849175\, q^{156}\, p^{64} + 2410072819\, q^{157}\, p^{69} + 401006449\, q^{156}\, p^{60} + 37151\, q^{161}\, p^{46} + 1460189425\, q^{158}\, p^{69} + 25223657127\, p^{113}\, q^{162}$$

$$+ 37125861546\, p^{128}\, q^{160} + 6239855634\, p^{101}\, q^{164} + 34048447153\, p^{122}\, q^{161} + 26943789721\, p^{136}\, q^{159} + 14510532570\, p^{108}\, q^{163}$$
$$+ 25452142706\, p^{115}\, q^{162} + 34791854177\, p^{129}\, q^{160} + 26356327754\, p^{139}\, q^{158} + 3164191820\, p^{155}\, q^{66} + 2357579752\, p^{163}\, q^{145}$$
$$+ 5477351209\, p^{163}\, q^{138} + 130565147\, p^{161}\, q^{66} + 1456\, q^{164}\, p^{46} + 121794\, q^{154}\, p^{39} + 48106450\, p^{173}\, q^{140} + 3959\, p^{174}\, q^{181} + 1918\, p^{166}\, q^{184}$$
$$+ 2325\, p^{164}\, q^{184} + 1224\, p^{174}\, q^{183} + 827\, p^{178}\, q^{182} + 256\, p^{162}\, q^{186} + 7366350\, p^{159}\, q^{172} + 1646789\, p^{112}\, q^{177} + 1331201\, p^{110}\, q^{177}$$
$$+ 8714152\, p^{124}\, q^{176} + 134186\, p^{102}\, q^{178} + 1186739\, p^{109}\, q^{177} + 8443017\, p^{123}\, q^{176} + 1816422\, p^{113}\, q^{177} + 1484916\, p^{111}\, q^{177}$$
$$+ 8141264\, p^{122}\, q^{176} + 17981661\, p^{135}\, q^{175} + 15659824592\, p^{155}\, q^{148} + 13009467406\, p^{155}\, q^{149} + 71499518446\, p^{138}\, q^{155} + p\, q^{19}$$
$$+ 15303920543\, p^{157}\, q^{145} + 40199461191\, p^{157}\, q^{138} + 116841064\, p^{137}\, q^{36} + 22525175639\, p^{148}\, q^{62} + 45156107638\, p^{157}\, q^{137}$$
$$+ 716944064\, p^{141}\, q^{43} + 312236107896\, p^{155}\, q^{119} + 428652604920\, p^{154}\, q^{102} + 412570727666\, p^{154}\, q^{101} + 343694718918\, p^{153}\, q^{92}$$
$$+ 84003104017\, p^{156}\, q^{134} + 13028606617\, p^{157}\, q^{146} + 2191558538\, p^{160}\, q^{76} + 3612540208\, p^{161}\, q^{82} + 2186123116\, p^{164}\, q^{90}$$
$$+ 243740202639\, p^{116}\, q^{156} + 443444917437\, p^{154}\, q^{103} + 13786\, p^{181}\, q^{168} + 597705\, p^{179}\, q^{125} + 811116\, p^{177}\, q^{106} + 528724\, p^{179}\, q^{123}$$
$$+ 610242\, p^{177}\, q^{104} + 39092\, p^{170}\, q^{64} + 260897\, p^{173}\, q^{79} + 22493\, p^{181}\, q^{165} + 926473\, p^{177}\, q^{107} + 949252\, p^{178}\, q^{117} + 53214\, p^{174}\, q^{175}$$
$$+ 115848\, p^{170}\, q^{176} + 190406\, p^{168}\, q^{176} + 149328\, p^{169}\, q^{176} + 38032\, p^{175}\, q^{175} + 73\, q^{162}\, p^{40} + 1630080\, q^{172}\, p^{82} + 59\, p^{100}\, q^{182} + 25\, p^{98}\, q^{182}$$
$$+ 742206\, q^{170}\, p^{72} + 201\, p^{176}\, q^{185} + 486\, p^{178}\, q^{183} + 617\, p^{184}\, q^{174} + 4603\, p^{183}\, q^{128} + 1006\, p^{179}\, q^{89} + 1082\, p^{180}\, q^{95} + 29\, p^{173}\, q^{60}$$
$$+ 826\, p^{185}\, q^{164} + 257\, p^{175}\, q^{69} + 6275\, p^{181}\, q^{172} + 2007\, p^{179}\, q^{91} + 826\, p^{164}\, q^{185} + 257\, p^{161}\, q^{186} + 2817\, p^{173}\, q^{182} + 2544\, p^{170}\, q^{183}$$
$$+ 1470\, p^{179}\, q^{180} + 88764\, p^{171}\, q^{176} + p^{116}\, q^{185} + 1096\, p^{185}\, q^{154} + p^{164}\, q^{40} + 6\, p^{166}\, q^{44} + 69932\, p^{181}\, q^{155} + 286860\, p^{180}\, q^{145}$$
$$+ 322866\, p^{180}\, q^{138} + 1466\, p^{162}\, q^{43} + 661617\, p^{179}\, q^{127} + 717321\, p^{179}\, q^{129} + 316756\, p^{180}\, q^{141} + 3\, p^{139}\, q^{20} + 699877\, p^{176}\, q^{98}$$
$$+ 14225\, p^{165}\, q^{51} + 808644\, p^{179}\, q^{135} + 43252\, p^{181}\, q^{160} + 538238\, p^{174}\, q^{86} + 2679\, p^{160}\, q^{41} + 868928\, p^{178}\, q^{116} + 792933\, p^{179}\, q^{133}$$
$$+ 13\, p^{140}\, q^{21} + 779173\, p^{179}\, q^{132} + 442711\, p^{175}\, q^{90} + 251713\, p^{180}\, q^{148} + 53452\, p^{181}\, q^{158} + 38521\, p^{181}\, q^{161} + 48259\, p^{181}\, q^{159}$$
$$+ 524272\, p^{177}\, q^{103} + 802714\, p^{179}\, q^{134} + 6332\, p^{164}\, q^{48} + 715912\, p^{178}\, q^{114} + 105\, p^{151}\, q^{29} + 267113\, p^{176}\, q^{93} + 58851\, p^{181}\, q^{157}$$
$$+ 9496\, p^{181}\, q^{170} + 26052\, p^{167}\, q^{56} + 1031554\, p^{178}\, q^{118} + 210024\, p^{180}\, q^{151} + 1331201\, p^{177}\, q^{110} + 63423\, p^{171}\, q^{68} + 345842\, p^{173}\, q^{80}$$
$$+ 4215\, p^{182}\, q^{171} + 2\, p^{102}\, q^{9} + 3\, p^{107}\, q^{10} + 35914217\, p^{174}\, q^{120} + 33132319\, p^{172}\, q^{99} + 749598\, p^{164}\, q^{57} + 6002683\, p^{168}\, q^{73}$$
$$+ 4556638\, p^{168}\, q^{72} + 104355\, p^{173}\, q^{76} + 15198\, p^{167}\, q^{55} + p^{130}\, q^{16} + 27\, p^{148}\, q^{26} + 194532\, p^{173}\, q^{78} + 1114750\, p^{178}\, q^{119} + 447296\, p^{177}\, q^{102}$$
$$+ 193688\, p^{174}\, q^{82} + 8417\, p^{166}\, q^{52} + 73262\, p^{173}\, q^{175} + 134231\, q^{171}\, p^{70} + 190837\, q^{171}\, p^{71} + 6616\, p^{174}\, q^{180} + 2238\, p^{137}\, q^{184}$$
$$+ 12808\, p^{142}\, q^{183} + 127324\, p^{162}\, q^{179} + 1275995\, q^{172}\, p^{81} + 55384002\, p^{139}\, q^{36} + 24233612959\, p^{159}\, q^{137} + 336921864\, p^{143}\, q^{43}$$

$$+ 161107603249\, p^{157} q^{119} + 210330909481\, p^{156} q^{102} + 201531275787\, p^{156} q^{101} + 165259816705\, p^{155} q^{92} + 45385069304\, p^{158} q^{134}$$
$$+ 7340062682\, p^{159} q^{146} + 218562176667\, p^{156} q^{103} + 88973642302\, p^{158} q^{125} + 32728379192\, p^{152} q^{71} + 10445029033\, p^{150} q^{62}$$
$$+ 4777020243\, p^{105} q^{165} + 2147624065\, p^{101} q^{166} + 4246422486\, p^{103} q^{165} + 4514232222\, p^{104} q^{165} + 171785280308\, p^{156} q^{125}$$
$$+ 70225481229\, p^{150} q^{71} + 46941885325\, p^{149} q^{67} + 301018805299\, p^{155} q^{120} + 68\, p^{82} q^{7} + 10747979\, p^{132} q^{29} + 468509605568\, p^{154} q^{105}$$
$$+ 17691593866\, p^{148} q^{61} + 3273243600\, p^{144} q^{50} + 20742492503\, p^{157} q^{143} + 1113542502\, p^{142} q^{45} + 5944839959\, p^{145} q^{53}$$
$$+ 13131496586\, p^{146} q^{57} + 1505389\, p^{157} q^{176} + 3039400055105\, p^{137} q^{138} + 774003124\, p^{144} q^{46} + 2984341515\, p^{146} q^{52}$$
$$+ 323394100643\, p^{155} q^{104} + 4096256779\, p^{146} q^{53} + 145004797\, p^{148} q^{46} + 568716470\, p^{150} q^{52} + 71272990330\, p^{159} q^{104}$$
$$+ 797373653\, p^{150} q^{53} + 1795507759\, p^{151} q^{57} + 9078101534\, p^{147} q^{57} + 4486368592949\, p^{133} q^{139} + 323994103965\, p^{149} q^{138}$$
$$+ 747693514484\, p^{135} q^{147} + 480514283625\, p^{141} q^{145} + 344119385330\, p^{143} q^{145} + 1530035809\, q^{162} p^{80} + 1073653191\, q^{162} p^{78}$$
$$+ 890695122\, q^{162} p^{77} + 733987590\, q^{162} p^{76} + 1285770975\, q^{162} p^{79} + 3690379252123\, p^{95} q^{146} + 3300835959247\, p^{93} q^{146}$$
$$+ 3497816659771\, p^{94} q^{146} + 2489879993361\, p^{93} q^{147} + 3876661552937\, p^{96} q^{146} + 4054791897556\, p^{97} q^{146} + 4222921193557\, p^{98} q^{146}$$
$$+ 11512554657\, p^{158} q^{145} + 29685378959\, p^{158} q^{138} + 81010915\, p^{138} q^{36} + 15446397692\, p^{149} q^{62} + 33261339578\, p^{158} q^{137}$$
$$+ 494926712\, p^{142} q^{43} + 225583819384\, p^{156} q^{119} + 302164694714\, p^{155} q^{102} + 290190451116\, p^{155} q^{101} + 239886699219\, p^{154} q^{92}$$
$$+ 62076639557\, p^{157} q^{134} + 9828325490\, p^{158} q^{146} + 313273843228\, p^{155} q^{103} + 124345920873\, p^{157} q^{125} + 48273728422\, p^{151} q^{71}$$
$$+ 32300950481\, p^{150} q^{67} + 217945945222\, p^{156} q^{120} + 49\, p^{83} q^{7} + 7445431\, p^{133} q^{29} + 332410482664\, p^{155} q^{105} + 12087507272\, p^{149} q^{61}$$
$$+ 2254438092\, p^{145} q^{50} + 15518796800\, p^{158} q^{143} + 767457032\, p^{143} q^{45} + 235469655\, p^{168} q^{148} + 1287550296355\, p^{143} q^{137}$$
$$+ 1068205085276\, p^{83} q^{147} + 77040847402\, p^{159} q^{120} + 1313415252488\, p^{85} q^{147} + 1727924279695\, p^{88} q^{147} + 1584352561213\, p^{87} q^{147}$$
$$+ 1445945131001\, p^{86} q^{147} + 1187348572439\, p^{84} q^{147} + 1875822649684\, p^{89} q^{147} + 698148861881\, p^{143} q^{141} + 64141286659\, p^{130} q^{158}$$
$$+ 7\, q^{177} p^{71} + 8030931116606\, p^{126} q^{140} + 24731274\, q^{154} p^{49} + 55384002\, q^{154} p^{51} + 37304818\, q^{154} p^{50} + 3400180428\, q^{158} p^{73}$$
$$+ 4127533136\, q^{158} p^{74} + 2782056474\, q^{158} p^{72} + 4977446391\, q^{158} p^{75} + 5503364496684\, p^{98} q^{145} + 8242860569279\, p^{107} q^{144}$$
$$+ 8246023249604\, p^{106} q^{144} + 5874789194876\, p^{100} q^{145} + 441642\, p^{174} q^{168} + 908680\, p^{174} q^{165} + 148658398\, p^{172} q^{125}$$
$$+ 277135068\, p^{170} q^{106} + 148313440\, p^{172} q^{123} + 297481631\, p^{170} q^{107} + 252600211\, p^{171} q^{117} + 330095772\, p^{164} q^{78}$$
$$+ 8205267564970\, p^{108} q^{144} + 2335336815920\, p^{92} q^{147} + 1279486697606\, p^{88} q^{148} + 2027088867574\, p^{90} q^{147} + 2180651829364\, p^{91} q^{147}$$
$$+ 178931060799\, p^{157} q^{112} + 151746879102\, p^{155} q^{91} + 22915092410\, p^{122} q^{162} + 16475265319\, p^{117} q^{163} + 27846862913\, p^{132} q^{160}$$

$$+ 6031327617161\, p^{101} q^{145} + 5698137318814\, p^{99} q^{145} + 6277097747015\, p^{103} q^{145} + 11763145651694\, p^{113} q^{142}$$
$$+ 10475942158526\, p^{120} q^{141} + 6634473423587\, p^{128} q^{140} + 7316746496235\, p^{127} q^{140} + 9823204163688\, p^{121} q^{141}$$
$$+ 10530382458004\, p^{116} q^{142} + 10261049871327\, p^{109} q^{143} + 10366044452582\, p^{108} q^{143} + 2900860209877\, p^{91} q^{146}$$
$$+ 8522106365095\, p^{123} q^{141} + 11385438275888\, p^{114} q^{142} + 4832407342524\, p^{95} q^{145} + 7919897752567\, p^{102} q^{144}$$
$$+ 7758559843946\, p^{101} q^{144} + 5720782777262\, p^{131} q^{139} + 9573364648592\, p^{118} q^{142} + 5292623355468\, p^{97} q^{145} + 58402190808\, q^{150} p^{70}$$
$$+ 117655347146\, q^{150} p^{74} + 83914959996\, q^{150} p^{72} + 5079074831325\, p^{132} q^{139} + 2609441133625\, p^{138} q^{138} + 10973020566579\, p^{115} q^{142}$$
$$+ 9170156302191\, p^{122} q^{141} + 10428342860198\, p^{107} q^{143} + 11122750016292\, p^{119} q^{141} + 57819277\, p^{137} q^{173} + 30120442\, p^{138} q^{174}$$
$$+ 8028628\, p^{109} q^{175} + 19003431\, p^{124} q^{175} + 18564698\, p^{123} q^{175} + 4302943\, p^{112} q^{176} + 8808058\, p^{110} q^{175} + 9613036\, p^{111} q^{175}$$
$$+ 6563920\, p^{107} q^{175} + 19361269\, p^{125} q^{175} + 7278834\, p^{108} q^{175} + 38759063\, p^{123} q^{174} + 39386613\, p^{124} q^{174} + 37964575\, p^{122} q^{174}$$
$$+ 486084967878\, p^{154} q^{114} + 6478084\, p^{154} q^{46} + 223756245\, q^{152} p^{52} + 6257996447\, q^{154} p^{67} + 3102167049\, q^{154} p^{64}$$
$$+ 3950577756\, q^{154} p^{65} + 7788014035\, q^{154} p^{68} + 4991311551\, q^{154} p^{66} + 56382742\, q^{150} p^{46} + 17414290632\, q^{154} p^{72}$$
$$+ 11805755611\, q^{154} p^{70} + 122032282119\, q^{156} p^{93} + 7829985\, q^{146} p^{38} + 1518488847\, p^{166} q^{97} + 2052524297\, q^{152} p^{59}$$
$$+ 2703225470\, q^{152} p^{60} + 14386058425\, q^{154} p^{71} + 20943896100\, q^{154} p^{73} + 29729987829\, q^{154} p^{75} + 25030301388\, q^{154} p^{74}$$
$$+ 35099770757\, q^{154} p^{76} + 48071392902\, q^{154} p^{78} + 41195558032\, q^{154} p^{77} + 59329248\, q^{149} p^{45} + 23949792\, q^{148} p^{42} + 37854151\, q^{149} p^{44}$$
$$+ 14520846\, q^{148} p^{41} + 68967966763\, q^{156} p^{87} + 400675162\, q^{150} p^{51} + 278658769\, q^{150} p^{50} + 129263306\, q^{150} p^{48} + 191167158\, q^{150} p^{49}$$
$$+ 16376097035\, q^{155} p^{74} + 31869572243\, q^{155} p^{78} + 27224365545\, q^{155} p^{77} + 23120350849\, q^{155} p^{76} + 2616758\, q^{147} p^{37} + 4729659\, q^{147} p^{38}$$
$$+ 1304724125\, q^{153} p^{59} + 1727127069\, q^{153} p^{60} + 618277935\, q^{152} p^{55} + 847702001\, q^{152} p^{56} + 13654269477\, q^{155} p^{73}$$
$$+ 19517844025\, q^{155} p^{75} + 86071361\, q^{150} p^{47} + 36293967\, q^{150} p^{45} + 8601181\, q^{148} p^{40} + 722990958\, q^{153} p^{57} + 976143201\, q^{153} p^{58}$$
$$+ 132003978996\, q^{156} p^{94} + 445915900\, q^{152} p^{54} + 317835705\, q^{152} p^{53} + 251391669569\, q^{156} p^{109} + 112291006174\, q^{156} p^{92}$$
$$+ 91326749\, q^{149} p^{46} + 55777932392\, q^{154} p^{79} + 9622384772\, q^{154} p^{69} + 110289176241\, q^{157} p^{97} + 142134961527\, q^{156} p^{95}$$
$$+ 8313072928\, p^{164} q^{106} + 1215021266\, p^{160} q^{73} + 3898886248\, p^{166} q^{123} + 984314015\, p^{160} q^{72} + 3158850942\, p^{166} q^{129}$$
$$+ 61166191\, q^{148} p^{44} + 724\, p^{185} q^{144} + 24\, p^{179} q^{81} + 611\, p^{185} q^{142} + 349\, p^{185} q^{137} + 122\, p^{179} q^{84} + 2264\, p^{145} q^{27} + 26283999\, p^{173} q^{104}$$
$$+ 27200\, p^{155} q^{38} + 2019272\, p^{166} q^{64} + 11733777\, p^{169} q^{79} + 1257695\, p^{177} q^{154} + 25\, p^{121} q^{14} + 8702428\, q^{149} p^{41} + 152347311279\, q^{156} p^{96}$$
$$+ 5386946673\, p^{164} q^{99} + 8303981\, q^{147} p^{39} + 4394297\, q^{146} p^{37} + 4966397\, q^{148} p^{39} + 3528074261\, q^{152} p^{61} + 54826846380\, q^{156} p^{85}$$

$$+ 76773136695\, q^{156} p^{88} + 93744853855\, q^{156} p^{90} + 61648033541\, q^{156} p^{86} + 48510653647\, q^{156} p^{84} + 14520846\, q^{149} p^{42}$$
$$+ 174079795\, q^{151} p^{50} + 118531018\, q^{151} p^{49} + 79506682\, q^{151} p^{48} + 61994\, q^{168} p^{60} + 1099388\, q^{145} p^{34} + 2392260\, q^{146} p^{36}$$
$$+ 708418596\, q^{151} p^{54} + 252079255\, q^{151} p^{51} + 360183019\, q^{151} p^{52} + 508180684\, q^{151} p^{53} + 1149864703\, q^{152} p^{57} + 1543836114\, q^{152} p^{58}$$
$$+ 2944386996\, q^{153} p^{62} + 2265164380\, q^{153} p^{61} + 6148548364\, q^{153} p^{65} + 11971610613\, q^{153} p^{68} + 7735116966\, q^{153} p^{66}$$
$$+ 9658167741\, q^{153} p^{67} + 3794494048\, q^{153} p^{63} + 4849592716\, q^{153} p^{64} + 976325766\, q^{151} p^{55} + 38657712\, q^{148} p^{43} + 768533\, q^{143} p^{32}$$
$$+ 151746879102\, q^{155} p^{91} + 85041985916\, q^{156} p^{89} + 253503218935\, q^{156} p^{110} + 21867257140\, q^{153} p^{71} + 51254112\, q^{173} p^{112}$$
$$+ 1773970782\, p^{165} q^{93} + 73817246\, p^{169} q^{153} + 4026111351\, p^{166} q^{115} + 4170058514\, p^{164} q^{96} + 165259816705\, q^{155} p^{92}$$
$$+ 24947769004\, p^{162} q^{112} + 582271\, p^{139} q^{29} + 31930685338\, p^{161} q^{105} + 883203091\, p^{155} q^{61} + 2148872772\, p^{164} q^{143} + 59329248\, p^{149} q^{45}$$
$$+ 174079795\, p^{151} q^{50} + 2490420466\, p^{156} q^{67} + 14734416527\, q^{153} p^{69} + 22929834\, q^{150} p^{44} + 2789031\, q^{148} p^{38} + 23690866\, q^{149} p^{43}$$
$$+ 49416075544\, q^{155} p^{81} + 82232876495\, q^{155} p^{85} + 72970704188\, q^{155} p^{84} + 114187362877\, q^{155} p^{88} + 138684471526\, q^{155} p^{90}$$
$$+ 102843424422\, q^{156} p^{91} + 92200894608\, q^{155} p^{86} + 126144660835\, q^{155} p^{89} + 56571389978\, q^{155} p^{82} + 102860717921\, q^{155} p^{87}$$
$$+ 64418571321\, q^{155} p^{83} + 42932309874\, q^{155} p^{80} + 37093890992\, q^{155} p^{79} + 1019485839\, q^{167} p^{99} + 928156178\, q^{167} p^{98}$$
$$+ 840799266\, q^{167} p^{97} + 606150525\, q^{167} p^{94} + 679522520\, q^{167} p^{95} + 52569295555417\, p^{129} q^{124} + 27860831848667\, p^{133} q^{125}$$
$$+ 418794337028\, q^{125} p^{49} + 227824936994\, q^{152} p^{84} + 17163700526\, q^{146} p^{58} + 196124071509\, q^{149} p^{75} + 167542288209\, q^{149} p^{74}$$
$$+ 57006012584\, q^{136} p^{51} + 42255746262\, q^{136} p^{50} + 346130117\, p^{146} q^{46} + 1344816795\, p^{148} q^{52} + 156072498250\, p^{157} q^{104}$$
$$+ 1864307438\, p^{148} q^{53} + 4162160798\, p^{149} q^{57} + 63013302989\, p^{139} q^{155} + 4392\, p^{178} q^{88} + 25535\, p^{180} q^{108} + 5899731\, q^{167} p^{70}$$
$$+ 37\, p^{187} q^{174} + 9\, p^{188} q^{173} + 98\, p^{175} q^{186} + 688\, p^{180} q^{181} + 688\, p^{181} q^{180} + 337\, p^{177} q^{184} + 119579986143\, p^{148} q^{70}$$
$$+ 781388942297\, p^{151} q^{94} + 18036260\, q^{124} p^{26} + 99200334\, q^{125} p^{29} + 375699285275\, p^{154} q^{122} + 257436198974\, p^{154} q^{128}$$
$$+ 90615659916\, p^{155} q^{136} + 182465371531\, p^{154} q^{132} + 152689467504\, p^{149} q^{143} + 122414629548\, p^{150} q^{143} + 3167974693447\, p^{80} q^{142}$$
$$+ 122435452521\, p^{138} q^{153} + 82643874701\, p^{139} q^{154} + 45462423\, p^{118} q^{25} + 10445029033\, p^{128} q^{40} + 1556911177511\, p^{136} q^{65}$$
$$+ 14320\, p^{85} q^{10} + 3208692515323\, p^{147} q^{117} + 278985843528\, p^{141} q^{63} + 605436742\, p^{132} q^{36} + 481609\, q^{132} p^{25} + 174059\, q^{130} p^{23}$$
$$+ 1680724\, q^{131} p^{26} + 728495\, q^{131} p^{25} + 66310758\, q^{173} p^{117} + 71113087\, q^{173} p^{119} + 60680984\, q^{173} p^{115} + 68830115\, q^{173} p^{118}$$
$$+ 47983748\, q^{173} p^{111} + 63582863\, q^{173} p^{116} + 4966861\, p^{172} q^{161} + 7366350\, p^{172} q^{159} + 6073064\, p^{172} q^{160} + 14806739\, p^{172} q^{155}$$
$$+ 667\, p^{181} q^{100} + 440564950\, p^{170} q^{129} + 533022\, p^{172} q^{170} + 278521\, p^{173} q^{171} + 21224\, p^{180} q^{107} + 24670\, p^{181} q^{117}$$

$$+ 906076745271\, p^{79}\, q^{146} + 2153652004739\, q^{140}\, p^{73} + 2486903199276\, q^{140}\, p^{74} + 1854877046406\, q^{140}\, p^{72} + 914849560\, q^{158}\, p^{67}$$
$$+ 13940940\, p^{155}\, q^{49} + 2856324075381\, q^{140}\, p^{75} + 865699781890\, q^{136}\, p^{62} + 702440405238\, q^{136}\, p^{61} + 38388322422\, p^{100}\, q^{160}$$
$$+ 29121562393\, p^{96}\, q^{160} + 24668178487\, p^{94}\, q^{160} + 80581629151\, p^{108}\, q^{159} + 741929835808\, p^{152}\, q^{99} + 11916\, p^{183}\, q^{140} + 11618\, p^{180}\, q^{104}$$
$$+ 550\, p^{173}\, q^{64} + 4902\, p^{176}\, q^{79} + 2114\, p^{184}\, q^{165} + 13479\, p^{183}\, q^{150} + 25551880986\, p^{153}\, q^{148} + 21115530921\, p^{153}\, q^{149}$$
$$+ 21340681942395\, p^{139}\, q^{96} + 62433021519\, p^{157}\, q^{90} + 18530\, p^{122}\, q^{18} + 73735052124\, p^{158}\, q^{97} + 670106\, q^{129}\, p^{24} + 6374170\, q^{170}\, p^{80}$$
$$+ 20447281802\, p^{158}\, q^{141} + 248237765912\, p^{156}\, q^{108} + 253388516969\, p^{156}\, q^{113} + 19582306076\, p^{149}\, q^{63} + 1594426380\, p^{145}\, q^{49}$$
$$+ 106554612\, p^{140}\, q^{38} + 481160\, p^{125}\, q^{22} + 56109664051\, p^{157}\, q^{135} + 11483508815\, p^{162}\, q^{96} + 160278478\, p^{167}\, q^{153} + 1086165438\, p^{159}\, q^{70}$$
$$+ 10521289245\, p^{164}\, q^{115} + 24420551505\, p^{145}\, q^{58} + 11558096882\, p^{158}\, q^{80} + 302354092\, q^{149}\, p^{49} + 2065209\, q^{141}\, p^{32}$$
$$+ 725294595793410\, p^{88}\, q^{112} + 3\, q^{96}\, p^{8} + 799247725727675\, p^{112}\, q^{106} + 185409683853362\, p^{92}\, q^{126} + 1011415369247914\, p^{95}\, q^{110}$$
$$+ 4870560774339\, p^{130}\, q^{64} + 55777932392\, q^{111}\, p^{36} + 140879524\, q^{171}\, p^{106} + 5451701574363\, p^{132}\, q^{67} + 922408201807\, p^{130}\, q^{56}$$
$$+ 1090125014230651\, p^{97}\, q^{109} + 1114295949263\, p^{138}\, q^{143} + 165707134972\, p^{157}\, q^{106} + 31615278583\, p^{153}\, q^{73} + 82199529916\, p^{109}\, q^{159}$$
$$+ 40929542648\, p^{158}\, q^{90} + 11974\, p^{123}\, q^{18} + 48533459854\, p^{159}\, q^{97} + 73\, p^{150}\, q^{28} + 706\, p^{156}\, q^{35} + 3\, p^{137}\, q^{19} + 977560\, p^{176}\, q^{100}$$
$$+ 7213987530717\, q^{127}\, p^{63} + 4940464599885\, q^{127}\, p^{61} + 4049142435647\, q^{127}\, p^{60} + 3296564426874\, q^{127}\, p^{59} + 5988926198166\, q^{127}\, p^{62}$$
$$+ 681540984\, p^{166}\, q^{90} + 7586527\, p^{174}\, q^{153} + 236910060\, p^{171}\, q^{115} + 225371671643\, q^{141}\, p^{62} + 278985843528\, q^{141}\, p^{63}$$
$$+ 342969739416\, q^{141}\, p^{64} + 23753306930\, q^{140}\, p^{52} + 93662180198\, q^{140}\, p^{57} + 72458135023\, q^{140}\, p^{56} + 136468899554540\, p^{71}\, q^{115}$$
$$+ 693349764171977\, p^{87}\, q^{112} + 870783850435737\, p^{91}\, q^{111} + 997066056384522\, p^{107}\, q^{107} + 625552768445574\, p^{85}\, q^{112}$$
$$+ 894928961084701\, p^{92}\, q^{111} + 6538930640650\, q^{116}\, p^{54} + 3204478490030\, q^{116}\, p^{51} + 4095982624355\, q^{116}\, p^{52} + 460624385643\, p^{67}\, q^{142}$$
$$+ 72029913458\, p^{126}\, q^{44} + 5194850396819\, q^{116}\, p^{53} + 92122361306560\, p^{68}\, q^{115} + 1633484239\, q^{144}\, p^{48} + 979334193657660\, p^{93}\, q^{110}$$
$$+ 79970394702437\, p^{67}\, q^{115} + 51469140132629\, p^{133}\, q^{117} + 7081343509309\, p^{129}\, q^{65} + 9909458636866\, p^{129}\, q^{67}$$
$$+ 1705962097369\, p^{127}\, q^{56} + 49284566\, q^{171}\, p^{96} + 11618\, p^{86}\, q^{10} + 147836813763567\, p^{113}\, q^{127} + 212\, p^{186}\, q^{167}$$
$$+ 15371349387344\, p^{111}\, q^{141} + 12760057893282\, p^{102}\, q^{142} + 407869537887\, p^{150}\, q^{83} + 774335224266\, p^{152}\, q^{100}$$
$$+ 7292747063907\, p^{93}\, q^{143} + 859345\, p^{177}\, q^{157} + 28219\, p^{154}\, q^{37} + 561\, p^{140}\, q^{23} + 7855488\, p^{176}\, q^{139} + 19342181\, p^{172}\, q^{95}$$
$$+ 1082865\, p^{165}\, q^{60} + 276413\, p^{177}\, q^{164} + 7937859\, q^{171}\, p^{85} + 5590267633\, p^{85}\, q^{161} + 3797927240\, p^{147}\, q^{54} + 340218292058\, p^{155}\, q^{106}$$
$$+ 68910648925\, p^{151}\, q^{73} + 26707036\, p^{151}\, q^{172} + 108224474\, p^{172}\, q^{136} + 21704569\, p^{157}\, q^{53} + 1694168106\, p^{149}\, q^{54} + 20410790\, q^{174}\, p^{110}$$

$$+ 2\, q^{163}\, p^{39} + 1219213\, q^{173}\, p^{85} + 1526397\, q^{173}\, p^{86} + 2335062\, q^{173}\, p^{88} + 1895587\, q^{173}\, p^{87} + 2854742\, q^{173}\, p^{89} + 4172877\, q^{173}\, p^{91}$$
$$+ 3463758\, q^{173}\, p^{90} + 561\, q^{167}\, p^{50} + 192849\, q^{170}\, p^{68} + 275706\, q^{170}\, p^{69} + 146\, q^{163}\, p^{42} + 56360872\, p^{160}\, q^{61} + 176850666\, p^{163}\, q^{159}$$
$$+ 49583925415\, q^{158}\, p^{92} + 487480\, p^{134}\, q^{26} + 142134961527\, p^{156}\, q^{95} + 13981076040\, p^{160}\, q^{139} + 230205382\, p^{145}\, q^{44}$$
$$+ 3115892861\, p^{149}\, q^{56} + 468\, p^{103}\, q^{11} + 3104518771149\, p^{85}\, q^{144} + 1927635825551\, p^{83}\, q^{145} + 4667277733395\, p^{90}\, q^{144}$$
$$+ 4019663483202\, p^{88}\, q^{144} + 3705060816281\, p^{87}\, q^{144} + 3399412416798\, p^{86}\, q^{144} + 4341165868385\, p^{89}\, q^{144} + 52471331182\, p^{153}\, q^{76}$$
$$+ 7251\, p^{114}\, q^{15} + 14239\, p^{116}\, q^{16} + 84310676967\, p^{154}\, q^{82} + 2150217967\, p^{146}\, q^{51} + 95077225225\, p^{153}\, q^{80} + 8006113522591\, p^{87}\, q^{141}$$
$$+ 7199213681847\, p^{83}\, q^{140} + 6316717682\, p^{160}\, q^{145} + 15661980678\, p^{160}\, q^{138} + 2154472184165\, p^{113}\, q^{149} + 540034430515702\, p^{112}\, q^{114}$$
$$+ 26644833286345\, p^{70}\, q^{126} + 23069542452178\, p^{69}\, q^{126} + 3217238588988\, p^{58}\, q^{126} + 41523399\, p^{154}\, q^{170} + 351293828537728\, p^{111}\, q^{120}$$
$$+ 4392\, q^{178}\, p^{88} + 1460189425\, p^{158}\, q^{69} + 4381201708\, p^{165}\, q^{131} + 177584\, p^{163}\, q^{52} + 2354224\, p^{170}\, q^{76} + 4166780\, p^{171}\, q^{82}$$
$$+ 310742\, p^{164}\, q^{55} + 35\, p^{127}\, q^{16} + 630\, p^{145}\, q^{26} + 7496185796393\, q^{139}\, p^{81} + 226715565674\, q^{151}\, p^{81} + 10489498472782\, p^{136}\, q^{130}$$
$$+ 22860081735\, p^{162}\, q^{108} + 1509921430\, p^{155}\, q^{63} + 118531018\, p^{151}\, q^{49} + 7829985\, p^{146}\, q^{38} + 313327756839886\, p^{118}\, q^{116}$$
$$+ 288433856240938\, p^{119}\, q^{116} + 62450260\, p^{169}\, q^{154} + 70277322\, p^{164}\, q^{71} + 993\, p^{125}\, q^{17} + 474685325\, p^{167}\, q^{92} + 352662256\, p^{169}\, q^{101}$$
$$+ 269107500\, p^{171}\, q^{126} + 24821\, p^{182}\, q^{130} + 98\, p^{170}\, q^{54} + 13774\, p^{183}\, q^{146} + 484\, p^{172}\, q^{61} + 8337101\, p^{168}\, q^{165} + 15491778\, p^{165}\, q^{166}$$
$$+ 24874291\, p^{162}\, q^{167} + 7629699\, p^{156}\, q^{49} + 223\, q^{162}\, p^{41} + 178547097474\, p^{113}\, q^{157} + 500371057\, p^{160}\, q^{69} + 1806610459\, p^{167}\, q^{131}$$
$$+ 27\, p^{76}\, q^{6} + 41822754456\, p^{156}\, q^{140} + 220367239189\, p^{155}\, q^{126} + 506633564097\, p^{153}\, q^{98} + 10762356106\, p^{145}\, q^{55}$$
$$+ 12102470144\, p^{156}\, q^{148} + 10081910344\, p^{156}\, q^{149} + 2526\, p^{184}\, q^{163} + 11399\, p^{183}\, q^{139} + 8405\, p^{177}\, q^{85} + 1346\, p^{184}\, q^{169} + 537\, p^{174}\, q^{67}$$
$$+ 2196\, p^{176}\, q^{77} + 34\, p^{167}\, q^{47} + 84096692878\, p^{149}\, q^{70} + 561086699232\, p^{152}\, q^{94} + 276141666463\, p^{155}\, q^{122} + 191598158927\, p^{155}\, q^{128}$$
$$+ 67963294975\, p^{156}\, q^{136} + 136965848851\, p^{155}\, q^{132} + 532156169225\, p^{153}\, q^{99} + 17163700526\, p^{146}\, q^{58} + 289311149865\, p^{151}\, q^{83}$$
$$+ 556533618306\, p^{153}\, q^{100} + 3944527\, p^{170}\, q^{78} + 16120400\, p^{175}\, q^{119} + 9008552\, p^{174}\, q^{102} + 9690348\, p^{171}\, q^{86} + 2285216\, p^{177}\, q^{148}$$
$$+ 358438728187\, p^{111}\, q^{155} + 167542288209\, p^{149}\, q^{74} + 54868808786\, p^{148}\, q^{66} + 4472506\, p^{153}\, q^{175} + 1048\, p^{84}\, q^{178} + 388683\, p^{120}\, q^{20}$$
$$+ 28577423201\, p^{146}\, q^{60} + 14264\, p^{108}\, q^{14} + 5312005024\, p^{144}\, q^{161} + 6318232931\, p^{140}\, q^{162} + 7072919469\, p^{139}\, q^{162}$$
$$+ 7876812212\, p^{138}\, q^{162} + 7901157400\, p^{128}\, q^{164} + 7913015019\, p^{134}\, q^{163} + 8570026715\, p^{133}\, q^{163} + 6095851236\, p^{143}\, q^{161}$$
$$+ 190837\, p^{119}\, q^{19} + 780\, p^{96}\, q^{10} + 81334571473\, p^{141}\, q^{153} + 54368786614\, p^{142}\, q^{154} + 1206710\, p^{125}\, q^{23} + 11114486\, p^{144}\, q^{175}$$
$$+ 1078\, q^{166}\, p^{49} + 19907\, q^{169}\, p^{60} + 119605839\, p^{162}\, q^{68} + 1109964\, p^{159}\, q^{176} + 1297264\, p^{158}\, q^{176} + 943019\, p^{160}\, q^{176} + 28\, q^{161}\, p^{38}$$

$$+ 357747409580\, p^{110} q^{155} + 25623\, q^{160} p^{44} + 11667608\, q^{165} p^{67} + 251201131438\, p^{114} q^{156} + 70182416558\, p^{142} q^{153}$$
$$+ 46754532487\, p^{143} q^{154} + 67182\, p^{172} q^{176} + 858700490\, p^{169} q^{119} + 722659517\, p^{168} q^{102} + 710065835\, p^{165} q^{86} + 54552937\, p^{164} q^{70}$$
$$+ 26185105\, p^{173} q^{147} + 63069268\, p^{171} q^{148} + 34066751\, q^{144} p^{39} + 20109504\, q^{144} p^{38} + 10319096\, q^{143} p^{36} + 4158415962\, q^{151} p^{60}$$
$$+ 121530901917\, q^{154} p^{85} + 95732233716\, q^{154} p^{83} + 108138801848\, q^{154} p^{84} + 135895932114\, q^{154} p^{86} + 167420568824\, q^{154} p^{88}$$
$$+ 151206635511\, q^{154} p^{87} + 184478965972\, q^{154} p^{89} + 220812045565\, q^{154} p^{91} + 202306770469\, q^{154} p^{90} + 675343880\, q^{148} p^{50}$$
$$+ 55622734\, p^{171} q^{149} + 76200091\, p^{165} q^{160} + 39820392\, p^{160} q^{167} + 20393821\, p^{166} q^{164} + 1466\, q^{147} p^{28} + 3\, p^{109} q^{184} + 4712910\, p^{147} q^{176}$$
$$+ 4198518\, p^{136} q^{177} + 14\, q^{147} p^{25} + 175536341347\, p^{109} q^{157} + 2679\, q^{149} p^{30} + 63802315\, p^{153} q^{50} + 914849560\, p^{158} q^{67}$$
$$+ 753273012\, p^{169} q^{113} + 217624196\, p^{170} q^{103} + 119599033\, p^{172} q^{134} + 218138986\, p^{171} q^{113} + 62603\, p^{146} q^{31} + 49201\, q^{160} p^{45}$$
$$+ 604\, q^{153} p^{32} + 576537\, p^{178} q^{112} + 24974\, p^{170} q^{63} + 34041\, p^{181} q^{162} + 89977\, p^{170} q^{66} + 487103\, p^{176} q^{96} + 7606\, p^{165} q^{50} + 3907\, q^{165} p^{49}$$
$$+ 48224427\, q^{169} p^{86} + 5679172\, q^{143} p^{35} + 26976448346\, q^{151} p^{68} + 32968741085\, q^{151} p^{69} + 47958864\, p^{163} q^{67} + 257\, p^{180} q^{91}$$
$$+ 229\, p^{186} q^{154} + 158727771\, q^{156} p^{57} + 1199700617\, q^{157} p^{66} + 26611198\, p^{138} q^{34} + 129263306\, p^{142} q^{40} + 21027402007\, p^{150} q^{65}$$
$$+ 217766856\, p^{143} q^{42} + 118531018\, p^{141} q^{39} + 6899925\, p^{135} q^{30} + 9954244304\, p^{159} q^{144} + 26976448346\, p^{151} q^{68} + 2933\, p^{108} q^{13}$$
$$+ 11688571\, p^{137} q^{32} + 1104984291\, q^{136} p^{40} + 825389882599\, q^{127} p^{53} + 11805755611\, p^{154} q^{70} + 49851070022\, p^{160} q^{122}$$
$$+ 37125861546\, p^{160} q^{128} + 13734031842\, p^{161} q^{136} + 27846862913\, p^{160} q^{132} + 85125817223\, p^{159} q^{114} + 88869629331\, p^{157} q^{94}$$
$$+ 3938452974306\, p^{82} q^{142} + 236532\, q^{154} p^{40} + 7629699\, q^{156} p^{49} + 5283035189\, p^{159} q^{148} + 445915900\, p^{152} q^{54} + 41751638102\, p^{159} q^{95}$$
$$+ 4933834414\, p^{163} q^{139} + 61166191\, p^{148} q^{44} + 847702001\, p^{152} q^{56} + 4439919691\, p^{159} q^{149} + 1073433991541\, q^{151} p^{118} + 748\, p^{184} q^{128}$$
$$+ 116\, p^{181} q^{95} + p^{174} q^{60} + 243\, p^{186} q^{164} + 25\, p^{176} q^{69} + 109\, p^{180} q^{89} + 2712206557489\, p^{143} q^{81} + 2174522341136\, p^{147} q^{124}$$
$$+ 873235245349\, p^{141} q^{69} + 27016131\, p^{125} q^{27} + 52476915\, p^{169} q^{155} + 16402102523720\, p^{119} q^{139} + 16394248\, p^{151} q^{173}$$
$$+ 63781179\, p^{135} q^{173} + 33136823\, p^{136} q^{174} + 60873490\, p^{136} q^{173} + 31669394\, p^{137} q^{174} + 18049508\, p^{122} q^{175} + 37011535\, p^{121} q^{174}$$
$$+ 133171255346323\, p^{115} q^{127} + 95606178432194\, p^{110} q^{131} + 9343633168\, p^{124} q^{164} + 13531197232\, p^{132} q^{162} + 379272594\, p^{164} q^{154}$$
$$+ 259\, q^{137} p^{21} + 34340\, q^{141} p^{27} + 152421\, q^{140} p^{28} + 61174\, q^{140} p^{27} + 362784\, q^{143} p^{31} + 4335717760\, p^{152} q^{157} + 11899248709\, p^{128} q^{163}$$
$$+ 729879\, q^{135} p^{27} + 125574093575899\, p^{116} q^{127} + 90194507876373\, p^{122} q^{126} + 117893227553604\, p^{117} q^{127} + 866618690\, p^{153} q^{162}$$
$$+ 97093632261190\, p^{116} q^{129} + 322087610\, q^{142} p^{42} + 205965200\, q^{142} p^{41} + 129263306\, q^{142} p^{40} + 124109153722675\, p^{118} q^{126}$$
$$+ 45483082480900\, p^{132} q^{121} + 13136107902810\, p^{106} q^{142} + 12998079200948\, p^{108} q^{142} + 4055234701816\, p^{135} q^{138}$$

$$+ 2352464741365\, p^{85} q^{145} + 135878968726103\, p^{112} q^{128} + 26420540582494\, p^{96} q^{138} + 91255257269068\, p^{103} q^{132}$$
$$+ 90999923938448\, p^{104} q^{132} + 90368863946445\, p^{105} q^{132} + 89369543279386\, p^{106} q^{132} + 73483957657221\, p^{127} q^{123}$$
$$+ 82327586925935\, p^{126} q^{123} + 145004797\, q^{144} p^{42} + 346130117\, q^{144} p^{44} + 52673631\, p^{162} q^{65} + 1176120545058\, p^{131} q^{58}$$
$$+ 11964939\, p^{143} q^{175} + 236532\, p^{150} q^{36} + 6010\, q^{177} p^{84} + 3144\, q^{178} p^{87} + 8405\, q^{177} p^{85} + 4245\, q^{177} p^{83} + 11549\, q^{177} p^{86} + 96414\, q^{177} p^{94}$$
$$+ 14685890\, p^{110} q^{21} + 535998209\, p^{123} q^{31} + 153403903049\, p^{143} q^{63} + 17691593866\, p^{129} q^{42} + 291301\, p^{132} q^{180} + 776990\, p^{140} q^{179}$$
$$+ 759138\, p^{141} q^{179} + 307814\, p^{134} q^{180} + 300173\, p^{133} q^{180} + 1241728\, p^{147} q^{178} + 1325329\, p^{146} q^{178} + 1114929\, p^{155} q^{177} + 8177\, p^{120} q^{182}$$
$$+ 71764\, p^{127} q^{181} + 66270\, p^{126} q^{181} + 2881218\, p^{108} q^{176} + 43466\, q^{167} p^{57} + 4078\, p^{183} q^{127} + 5174\, p^{183} q^{129} + 661\, p^{185} q^{167}$$
$$+ 4166780\, q^{171} p^{82} + 162498\, p^{143} q^{30} + 88248\, p^{141} q^{28} + 724535\, p^{147} q^{35} + 4526944206\, q^{157} p^{72} + 5508264170\, q^{157} p^{73}$$
$$+ 6657848363\, q^{157} p^{74} + 7995350421\, q^{157} p^{75} + 458576357\, p^{153} q^{164} + 346805850\, p^{156} q^{163} + 89977\, q^{170} p^{66} + 132783\, q^{170} p^{67}$$
$$+ 4\, q^{162} p^{38} + 40537\, p^{139} q^{26} + 16079\, q^{159} p^{42} + 362784\, q^{159} p^{47} + 613877\, q^{159} p^{48} + 10474\, q^{157} p^{39} + 4548\, q^{157} p^{38}$$
$$+ 412118143\, q^{170} p^{113} + 76703\, q^{158} p^{43} + 39522\, q^{158} p^{42} + 143273\, q^{158} p^{44} + 252600211\, q^{171} p^{117} + 219254951961\, p^{153} q^{87}$$
$$+ 108804804978\, p^{153} q^{81} + 982549\, p^{128} q^{24} + 253503218935\, p^{156} q^{110} + 223679\, q^{168} p^{63} + 142298849656\, p^{149} q^{73}$$
$$+ 8038749507\, p^{145} q^{54} + 665188707261\, p^{153} q^{106} + 90615659916\, p^{136} q^{155} + 133973489656\, p^{135} q^{154} + 7644664543763\, q^{138} p^{79}$$
$$+ 367827083\, q^{132} p^{35} + 3026288\, q^{143} p^{34} + 235722852540\, p^{148} q^{74} + 77961682062\, p^{147} q^{66} + 304560804\, p^{167} q^{149} + 1329350\, q^{176} p^{102}$$
$$+ 17690069438\, p^{151} q^{66} + 9381511912\, p^{149} q^{60} + 4902\, p^{111} q^{14} + 63423\, p^{122} q^{19} + 257\, p^{99} q^{10} + 396742\, p^{128} q^{23} + 5506895531\, p^{149} q^{58}$$
$$+ 17094887235\, p^{159} q^{140} + 84099166970\, p^{158} q^{126} + 172674203124\, p^{156} q^{98} + 3467173020\, p^{148} q^{55} + 132783\, p^{123} q^{20}$$
$$+ 182606366631\, p^{156} q^{99} + 95732233716\, p^{154} q^{83} + 192257691475\, p^{156} q^{100} + 55819580260\, p^{152} q^{74} + 14197022\, p^{150} q^{43}$$
$$+ 10427076043\, p^{164} q^{119} + 10939182834\, p^{163} q^{102} + 10272738504\, p^{163} q^{101} + 1256412138934\, p^{139} q^{68} + 349640320648\, p^{137} q^{59}$$
$$+ 6797978788103\, p^{144} q^{116} + 7691377496788\, p^{143} q^{94} + 2694880161583\, p^{145} q^{127} + 8133688462077\, p^{144} q^{109} + 883203091\, p^{129} q^{35}$$
$$+ 9837222311150\, p^{94} q^{142} + 10314945378043\, p^{95} q^{142} + 3697360422304\, p^{84} q^{143} + 4830236984221\, p^{87} q^{143} + 4439071828397\, p^{86} q^{143}$$
$$+ 11196158795140\, p^{97} q^{142} + 21115530921\, p^{149} q^{153} + 13696160744\, p^{150} q^{154} + 749598\, p^{133} q^{26} + 13707875364882\, p^{124} q^{138}$$
$$+ 5376343021633\, p^{130} q^{140} + 2996003319254\, p^{136} q^{139} + 173873793\, q^{131} p^{33} + 5021880330742\, p^{108} q^{146} + 5016877469974\, p^{106} q^{146}$$
$$+ 5029916454872\, p^{107} q^{146} + 4992861011947\, p^{109} q^{146} + 6521475100329\, p^{143} q^{121} + 453758\, p^{109} q^{17} + 171748\, p^{176} q^{91}$$
$$+ 244871\, p^{180} q^{128} + 106517\, p^{176} q^{89} + 59562164\, p^{172} q^{144} + 102207433\, p^{172} q^{137} + 9\, p^{87} q^{7} + 276497519\, p^{166} q^{84} + 162095843\, p^{166} q^{81}$$

$$+ 71295555\, p^{172}\, q^{142} + 273911438\, p^{171}\, q^{124} + 376647734\, p^{170}\, q^{111} + 3239900\, p^{172}\, q^{163} + 776417958\, p^{166}\, q^{91} + 425686942\, p^{170}\, q^{130}$$
$$+ 613988984332\, p^{74}\, q^{145} + 1031283468\, p^{160}\, q^{155} + 74749439386\, q^{139}\, p^{55} + 12476662007\, q^{138}\, p^{48} + 9320\, p^{87}\, q^{10} + 68447511\, q^{155}\, p^{53}$$
$$+ 47046964\, q^{155}\, p^{52} + 41523399\, p^{170}\, q^{154} + 357608700656\, p^{112}\, q^{155} + 172\, p^{159}\, q^{37} + 120174\, p^{177}\, q^{95} + 5623\, p^{170}\, q^{60} + 2\, p^{145}\, q^{23}$$
$$+ 12659\, p^{182}\, q^{164} + 28049\, p^{172}\, q^{69} + 14303\, p^{182}\, q^{163} + 120074\, p^{181}\, q^{139} + 10619\, p^{174}\, q^{179} + 8014\, p^{175}\, q^{179} + 1331\, p^{181}\, q^{178}$$
$$+ 2067\, p^{180}\, q^{178} + 285526\, p^{172}\, q^{172} + 78730713650\, p^{98}\, q^{158} + 14008\, p^{133}\, q^{22} + 38254593\, p^{173}\, q^{143} + 256933887\, p^{170}\, q^{105} + 2\, p^{82}\, q^{6}$$
$$+ 165426204089\, p^{133}\, q^{154} + 112517651681\, p^{134}\, q^{155} + 36684549048\, p^{146}\, q^{153} + 24085135830\, p^{147}\, q^{154} + 68743138595\, p^{96}\, q^{158}$$
$$+ 301018805299\, p^{120}\, q^{155} + 4991311551\, p^{154}\, q^{66} + 172796\, p^{172}\, q^{74} + 139\, p^{152}\, q^{30} + 277303782804\, p^{127}\, q^{154} + 191598158927\, p^{128}\, q^{155}$$
$$+ 3314530217\, p^{162}\, q^{145} + 7876812212\, p^{162}\, q^{138} + 92344224\, p^{165}\, q^{75} + 4923526\, p^{174}\, q^{156} + 21170762\, p^{162}\, q^{62} + 337898185\, p^{170}\, q^{109}$$
$$+ 1797\, p^{182}\, q^{175} + 78475043\, p^{126}\, q^{173} + 40187666\, p^{127}\, q^{174} + 69\, p^{102}\, q^{10} + 8417\, p^{138}\, q^{24} + 14369127\, p^{173}\, q^{152} + 863995917\, p^{169}\, q^{120}$$
$$+ 243740202639\, p^{156}\, q^{116} + 68340677542\, p^{157}\, q^{133} + 81634069694\, p^{157}\, q^{131} + 48258677271\, p^{150}\, q^{69} + 260171\, p^{124}\, q^{21}$$
$$+ 202306770469\, p^{154}\, q^{90} + 60878\, p^{119}\, q^{18} + 236287653016\, p^{155}\, q^{97} + 31985746\, p^{164}\, q^{68} + 163494772\, q^{171}\, p^{108} + 9745247\, q^{164}\, p^{64}$$
$$+ 4956\, q^{156}\, p^{37} + 11569\, q^{156}\, p^{38} + 25266\, q^{156}\, p^{39} + 359617\, q^{156}\, p^{43} + 1838\, q^{153}\, p^{33} + 197761603341292\, p^{116}\, q^{123} + 268183244\, p^{116}\, q^{27}$$
$$+ 124345920873\, p^{125}\, q^{157} + 252805833280142\, p^{102}\, q^{125} + 2265164380\, p^{129}\, q^{37} + 3263332543924\, p^{140}\, q^{76} + 132212\, p^{175}\, q^{85}$$
$$+ 6045\, p^{182}\, q^{169} + 11974\, p^{172}\, q^{67} + 5402593837\, q^{129}\, p^{39} + 2944386996\, q^{128}\, p^{37} + 21170762\, p^{128}\, q^{28} + 15407457206181\, p^{120}\, q^{139}$$
$$+ 873818436336\, p^{145}\, q^{137} + 99876604994668\, p^{86}\, q^{128} + 52056655885403\, p^{80}\, q^{129} + 3074636197\, p^{151}\, q^{159} + 427247986\, p^{163}\, q^{155}$$
$$+ 971\, p^{161}\, q^{185} + 401006449\, q^{130}\, p^{34} + 9945066819447\, p^{90}\, q^{141} + 2580379662049\, p^{145}\, q^{86} + 4928469057117\, p^{146}\, q^{104}$$
$$+ 43082648809\, p^{139}\, q^{53} + 8038749507\, p^{136}\, q^{45} + 2817190143230\, p^{145}\, q^{87} + 1037019601429\, p^{148}\, q^{130} + 19652637005479\, p^{101}\, q^{140}$$
$$+ 1113542502\, q^{142}\, p^{45} + 68910648925\, q^{151}\, p^{73} + 219732692361205\, p^{87}\, q^{123} + 42065\, p^{174}\, q^{77} + 875\, p^{165}\, q^{47} + 269932\, p^{180}\, q^{130}$$
$$+ 3\, p^{143}\, q^{22} + 2397\, p^{168}\, q^{54} + 112979\, p^{181}\, q^{146} + 9494\, p^{170}\, q^{61} + 63265688911062\, p^{73}\, q^{123} + 79970394702437\, p^{75}\, q^{123} + 3968\, q^{133}\, p^{21}$$
$$+ 4035577258\, p^{166}\, q^{121} + 2935249342\, p^{163}\, q^{88} + 23277137722\, p^{140}\, q^{158} + 39818213504973\, q^{132}\, p^{83} + 77148893786735\, p^{76}\, q^{124}$$
$$+ 71305867474430\, p^{74}\, q^{123} + 215160\, p^{176}\, q^{92} + 217400\, p^{180}\, q^{126} + 4667\, p^{167}\, q^{53} + 111603\, p^{178}\, q^{101} + 96414\, p^{177}\, q^{94}$$
$$+ 129399491\, p^{168}\, q^{152} + 55850429348635\, p^{72}\, q^{123} + 13699425639301\, p^{135}\, q^{129} + 16306528693373\, p^{133}\, q^{130} + 52\, p^{187}\, q^{166}$$
$$+ 25\, p^{185}\, q^{124} + 110\, q^{168}\, p^{50} + 13\, p^{184}\, q^{112} + 49\, p^{187}\, q^{162} + 11477\, p^{183}\, q^{155} + 42376\, p^{182}\, q^{145} + 38707\, p^{182}\, q^{138} + 89\, p^{164}\, q^{43}$$
$$+ 71764\, p^{181}\, q^{127} + 82651\, p^{181}\, q^{129} + 193\, p^{184}\, q^{121} + 1779\, q^{170}\, p^{58} + 11313\, q^{171}\, p^{64} + 17999\, q^{171}\, p^{65} + 2154\, q^{169}\, p^{56} + 553\, q^{169}\, p^{54}$$

$$+ 3963\, p^{183} q^{167} + 15694\, p^{177} q^{87} + 3216\, p^{170} q^{59} + 42323\, p^{180} q^{111} + 246\, p^{167} q^{49} + 6046192\, p^{174} q^{99} + 121524\, p^{166} q^{57}$$
$$+ 1006903\, p^{170} q^{73} + 742206\, p^{170} q^{72} + 7459349\, p^{176} q^{120} + 3260926\, q^{174} p^{95} + 3842123\, q^{174} p^{96} + 2749487\, q^{174} p^{94} + 74875\, p^{170} q^{177}$$
$$+ 6\, q^{166} p^{44} + 2\, q^{165} p^{42} + 11477245558393\, p^{126} q^{138} + 2712206557489\, p^{81} q^{143} + 8214723487730\, p^{105} q^{144} + 9446050810747\, p^{113} q^{143}$$
$$+ 18212239329\, p^{157} q^{80} + 589602099451\, p^{128} q^{151} + 541612095902\, p^{129} q^{151} + 495184652115\, p^{130} q^{151} + 841197232543\, p^{123} q^{151}$$
$$+ 590430093628\, p^{142} q^{143} + 698148861881\, p^{141} q^{143} + 795352741669\, p^{139} q^{144} + 303861892421\, p^{148} q^{140} + 9316\, p^{177} q^{177} + 44\, p^{187} q^{172}$$
$$+ 2641\, p^{139} q^{184} + 13442\, p^{144} q^{183} + 38200\, p^{150} q^{182} + 43538052202\, p^{145} q^{153} + 28693601058\, p^{146} q^{154} + 763381045465\, p^{128} q^{150}$$
$$+ 638760573971\, p^{130} q^{150} + 332864603635\, p^{136} q^{150} + 5623\, p^{130} q^{20} + 88863634\, p^{171} q^{145} + 164075152\, p^{171} q^{138}$$
$$+ 895387102432\, p^{126} q^{150} + 655345225978\, p^{139} q^{145} + 833542313702\, p^{141} q^{142} + 230486436981\, p^{151} q^{137} + 98530608\, p^{171} q^{144}$$
$$+ 175509373\, p^{171} q^{137} + 14\, p^{86} q^{7} + 519452120\, p^{165} q^{84} + 310375193\, p^{165} q^{81} + 119216132\, p^{171} q^{142} + 488517033\, p^{170} q^{124}$$
$$+ 695506043\, p^{169} q^{111} + 281903130964\, p^{149} q^{139} + 790621455685\, p^{124} q^{151} + 408013773064\, p^{132} q^{151} + 329660681303\, p^{134} q^{151}$$
$$+ 261035481383\, p^{136} q^{151} + 294099940803\, p^{135} q^{151} + 367663063693\, p^{133} q^{151} + 450579438936\, p^{131} q^{151} + 435973745341\, p^{147} q^{139}$$
$$+ 351860281395\, p^{148} q^{139} + 203023853461\, p^{136} q^{152} + 5312485\, p^{132} q^{28} + 96013475251\, p^{151} q^{75} + 37036\, p^{117} q^{17} + 47046964\, p^{138} q^{35}$$
$$+ 4054960399\, p^{158} q^{151} + 10648982764\, p^{148} q^{59} + 31732425\, p^{136} q^{33} + 197458713\, p^{162} q^{70} + 7123\, q^{176} p^{80} + 71103593\, p^{171} q^{147}$$
$$+ 85349\, p^{116} q^{180} + 1928833\, p^{134} q^{178} + 563587\, p^{124} q^{179} + 65799\, p^{114} q^{180} + 9101\, q^{150} p^{32} + 271868933\, q^{171} p^{121} + 376647734\, q^{170} p^{111}$$
$$+ 483842281\, q^{170} p^{119} + 133872890\, p^{166} q^{80} + 161729414\, q^{168} p^{89} + 122100\, q^{161} p^{48} + 90987\, q^{160} p^{46} + 11998\, p^{131} q^{21}$$
$$+ 9774137\, q^{166} p^{69} + 9\, p^{94} q^{8} + 67843660\, q^{169} p^{88} + 2534996\, p^{157} q^{48} + 100059328\, q^{168} p^{86} + 84196249\, q^{168} p^{85} + 70387999\, q^{168} p^{84}$$
$$+ 39472954\, q^{168} p^{81} + 48204343\, q^{168} p^{82} + 14\, q^{165} p^{43} + 48\, q^{165} p^{44} + 145\, q^{165} p^{45} + 75\, q^{166} p^{46} + 404680603\, q^{168} p^{96}$$
$$+ 40260551\, q^{169} p^{85} + 108667606\, p^{171} q^{143} + 903702013\, p^{168} q^{105} + 5\, p^{80} q^{6} + 3225205\, q^{172} p^{85} + 2063683\, q^{172} p^{83} + 2590681\, q^{172} p^{84}$$
$$+ 3983695\, q^{172} p^{86} + 5939993\, q^{172} p^{88} + 4882434\, q^{172} p^{87} + 7174090\, q^{172} p^{89} + 10249531\, q^{172} p^{91} + 8604570\, q^{172} p^{90} + 23625\, p^{168} q^{58}$$
$$+ 761907\, p^{179} q^{131} + 59861\, p^{170} q^{65} + 200\, p^{154} q^{32} + 1281479\, p^{178} q^{121} + 2264\, p^{163} q^{45} + 218\, p^{155} q^{33} + 40083224\, p^{128} q^{174}$$
$$+ 6073064\, p^{160} q^{172} + 1075199826245\, p^{78} q^{145} + 540459\, p^{119} q^{20} + 177404988316\, p^{157} q^{114} + 91326749\, p^{149} q^{46} + 360183019\, p^{151} q^{52}$$
$$+ 47079371430\, p^{160} q^{104} + 508180684\, p^{151} q^{53} + 1149864703\, p^{152} q^{57} + 5803757615\, p^{163} q^{94} + 6497194307\, p^{165} q^{114}$$
$$+ 2195101075598\, p^{137} q^{140} + 2534723266016\, p^{136} q^{140} + q^{182} p^{93} + 253\, q^{164} p^{44} + 4009676735779\, p^{131} q^{141} + 468509605568\, q^{154} p^{105}$$
$$+ 7735116966\, p^{153} q^{66} + 3325462920724\, p^{131} q^{142} + 5278516188292\, p^{124} q^{143} + 40382517632\, p^{145} q^{60} + 1890455149609\, p^{138} q^{140}$$

$$+ 3733430477515\, p^{119}\, q^{146} + 4553415127262\, p^{114}\, q^{146} + 4463955138314\, p^{120}\, q^{145} + 4413850573487\, p^{115}\, q^{146}$$
$$+ 4209827544635\, p^{121}\, q^{145} + 4712655285008\, p^{119}\, q^{145} + 1955219070038\, p^{100}\, q^{149} + 251596873\, p^{144}\, q^{169} + 310407527\, p^{142}\, q^{169}$$
$$+ 280205747\, p^{143}\, q^{169} + 4094563156484\, p^{117}\, q^{146} + 3864445386830\, p^{109}\, q^{147} + 577126605565\, p^{147}\, q^{137} + 2255996783519\, p^{109}\, q^{149}$$
$$+ 2244331318716\, p^{110}\, q^{149} + 3831950410652\, p^{110}\, q^{147} + 3448185394602\, p^{115}\, q^{147} + 3551711735667\, p^{114}\, q^{147}$$
$$+ 3642827282874\, p^{113}\, q^{147} + 3783772424922\, p^{111}\, q^{147} + 3333420449147\, p^{116}\, q^{147} + 3208692515323\, p^{117}\, q^{147}$$
$$+ 3918313407837\, p^{118}\, q^{146} + 3952617300795\, p^{122}\, q^{145} + 3720482616196\, p^{112}\, q^{147} + 12270\, p^{175}\, q^{178} + 106554612\, p^{152}\, q^{50}$$
$$+ 1525718123\, p^{157}\, q^{67} + 1904508611691\, p^{139}\, q^{139} + 3881030517590\, p^{107}\, q^{147} + 4873498200104\, p^{111}\, q^{146} + 4784569619549\, p^{112}\, q^{146}$$
$$+ 5258609146735\, p^{121}\, q^{144} + 5584336479327\, p^{120}\, q^{144} + 4929958130602\, p^{122}\, q^{144} + 5605289579715\, p^{115}\, q^{145}$$
$$+ 5184175459737\, p^{117}\, q^{145} + 5006151388245\, p^{127}\, q^{142} + 2787770550269\, p^{134}\, q^{141} + 2444202701503\, p^{135}\, q^{141}$$
$$+ 3710537658328\, p^{130}\, q^{142} + 5689592268930\, p^{123}\, q^{143} + 4552344639431\, p^{128}\, q^{142} + 2965540180648\, p^{132}\, q^{142}$$
$$+ 4119915658868\, p^{129}\, q^{142} + 3163015323669\, p^{133}\, q^{141} + 1132121660\, p^{144}\, q^{47} + 177119707993\, p^{153}\, q^{85} + 88585522499\, p^{157}\, q^{130}$$
$$+ 3673568\, p^{131}\, q^{27} + 259406548586\, p^{154}\, q^{93} + 247972073535\, p^{156}\, q^{115} + 1538\, p^{105}\, q^{12} + 3541788802798\, p^{120}\, q^{146}$$
$$+ 4100402088903\, p^{127}\, q^{143} + 5402201348693\, p^{116}\, q^{145} + 27047887062\, p^{152}\, q^{70} + 193291961235\, p^{155}\, q^{94} + 102576804107\, p^{158}\, q^{122}$$
$$+ 74123183676\, p^{158}\, q^{128} + 26943789721\, p^{159}\, q^{136} + 54473442638\, p^{158}\, q^{132} + 5904184054976\, p^{119}\, q^{144} + 11471465513805\, p^{124}\, q^{139}$$
$$+ 1864307438\, q^{148}\, p^{53} + 1344816795\, q^{148}\, p^{52} + 2555942784\, q^{148}\, p^{54} + 33130762185\, p^{158}\, q^{88} + 59329248\, p^{145}\, q^{41} + 65335767\, p^{143}\, q^{172}$$
$$+ 35075862\, p^{144}\, q^{173} + 89\, q^{164}\, p^{43} + 27\, q^{164}\, p^{42} + 11\, q^{163}\, p^{40} + 220773\, p^{158}\, q^{179} + 135547\, p^{165}\, q^{178} + 3734220761008\, p^{128}\, q^{143}$$
$$+ 6884703474456\, p^{92}\, q^{143} + 2945492384265\, p^{110}\, q^{148} + 3537035\, q^{164}\, p^{61} + 2456456\, q^{164}\, p^{60} + 1680724\, q^{164}\, p^{59} + 5023048\, q^{164}\, p^{62}$$
$$+ 7039800\, q^{164}\, p^{63} + 174854902\, q^{171}\, p^{109} + 24141001\, q^{164}\, p^{67} + 290406366\, q^{169}\, p^{99} + 317800743\, q^{170}\, p^{108} + 18036260\, q^{164}\, p^{66}$$
$$+ 4549704\, q^{165}\, p^{64} + 41967315\, q^{164}\, p^{69} + 31985746\, q^{164}\, p^{68} + 320096106\, q^{168}\, p^{94} + 360870303\, q^{168}\, p^{95} + 234277304\, q^{169}\, p^{97}$$
$$+ 163389059\, q^{170}\, p^{100} + 180687206\, q^{170}\, p^{101} + 351854776140\, p^{108}\, q^{155} + 381972058\, p^{166}\, q^{150} + 46325\, p^{157}\, q^{41} + 13783575\, p^{175}\, q^{116}$$
$$+ 9327475\, p^{176}\, q^{133} + 259\, p^{137}\, q^{21} + 9436806\, p^{176}\, q^{132} + 8604570\, p^{172}\, q^{90} + 12748075\, p^{173}\, q^{98} + 2910983073111\, p^{135}\, q^{140}$$
$$+ 12933951350418\, p^{103}\, q^{142} + 2881307178416\, p^{104}\, q^{148} + 1861171\, p^{130}\, q^{178} + 3992040\, p^{138}\, q^{177} + 457794\, p^{121}\, q^{179} + 49387\, p^{112}\, q^{180}$$
$$+ 422454\, p^{120}\, q^{179} + 4317194\, p^{148}\, q^{176} + 4104275\, p^{137}\, q^{177} + 3863863\, p^{139}\, q^{177} + 1821751\, p^{129}\, q^{178} + 15702214352190\, p^{110}\, q^{141}$$
$$+ 19721\, p^{107}\, q^{14} + 9540971227\, p^{157}\, q^{76} + 15535952664\, p^{158}\, q^{82} + 400675162\, p^{150}\, q^{51} + 2590566459227\, p^{139}\, q^{137} + 4586\, q^{147}\, p^{29}$$

$$+ 821292904141\, p^{76}\, q^{145} + 2130283873244\, p^{103}\, q^{149} + 2173534453776\, p^{104}\, q^{149} + 2208313876332\, p^{105}\, q^{149}$$
$$+ 2234206810993\, p^{106}\, q^{149} + 6771282600632\, p^{131}\, q^{138} + 1378617646669\, p^{80}\, q^{145} + 605919290492\, p^{76}\, q^{146} + 1732354827069\, p^{82}\, q^{145}$$
$$+ 1549243407859\, p^{81}\, q^{145} + 8076739223045\, p^{95}\, q^{143} + 43466\, q^{133}\, p^{23} + 16322001912577\, p^{107}\, q^{141} + 14343773478008\, p^{118}\, q^{140}$$
$$+ 276413\, p^{164}\, q^{177} + 70245\, p^{164}\, q^{52} + 909055\, p^{171}\, q^{76} + 1630080\, p^{172}\, q^{82} + 123791\, p^{165}\, q^{55} + 15\, p^{128}\, q^{16} + 253\, p^{146}\, q^{26}$$
$$+ 1568415\, p^{171}\, q^{78} + 7087451\, p^{176}\, q^{119} + 3597623\, p^{175}\, q^{102} + 3983695\, p^{172}\, q^{86} + 1157262\, p^{178}\, q^{148} + 19449\, p^{158}\, q^{41} + 5900991\, p^{176}\, q^{116}$$
$$+ 4364489\, p^{177}\, q^{133} + 109\, p^{138}\, q^{21} + 4378047\, p^{177}\, q^{132} + 3463758\, p^{173}\, q^{90} + 5230860\, p^{174}\, q^{98} + 47172\, p^{177}\, q^{91} + 77212\, p^{181}\, q^{128}$$
$$+ 27836\, p^{177}\, q^{89} + 38\, p^{160}\, q^{37} + 31086\, p^{178}\, q^{95} + 1330\, p^{171}\, q^{60} + 5694\, p^{183}\, q^{164} + 7335\, p^{173}\, q^{69} + 6333\, p^{183}\, q^{163} + 39859\, p^{182}\, q^{139}$$
$$+ 36260\, p^{176}\, q^{85} + 2980\, p^{183}\, q^{169} + 2861\, p^{173}\, q^{67} + 10641\, p^{175}\, q^{77} + 199\, p^{166}\, q^{47} + 87923\, p^{181}\, q^{130} + 553\, p^{169}\, q^{54} + 41997\, p^{182}\, q^{146}$$
$$+ 2398\, p^{171}\, q^{61} + 473\, q^{170}\, p^{56} + 345842\, q^{173}\, p^{80} + 3\, q^{168}\, p^{47} + 13\, q^{168}\, p^{48} + 1996988\, q^{175}\, p^{98} + 11273498\, q^{175}\, p^{113} + 105736\, p^{163}\, q^{51}$$
$$+ 4274133\, p^{177}\, q^{135} + 170061\, p^{179}\, q^{160} + 310657\, p^{179}\, q^{155} + 38\, p^{137}\, q^{20} + 1406754\, p^{178}\, q^{145} + 1846166\, p^{178}\, q^{138} + 12748\, p^{160}\, q^{43}$$
$$+ 4134149\, p^{177}\, q^{127} + 4292355\, p^{177}\, q^{129} + 1694571\, p^{178}\, q^{141} + 220773\, p^{179}\, q^{158} + 844\, p^{149}\, q^{29} + 147718\, p^{179}\, q^{161} + 194466\, p^{179}\, q^{159}$$
$$+ 4104702\, p^{175}\, q^{103} + 4329492\, p^{177}\, q^{134} + 49583\, p^{162}\, q^{48} + 5091639\, p^{176}\, q^{114} + 198841\, p^{165}\, q^{56} + 13583\, p^{180}\, q^{171} + 2\, p^{120}\, q^{13}$$
$$+ 6701220\, p^{176}\, q^{118} + 905635\, p^{178}\, q^{151} + 8808058\, p^{175}\, q^{110} + 532481\, p^{169}\, q^{68} + 2602598\, p^{171}\, q^{80} + 32\, p^{187}\, q^{155} + 108\, p^{186}\, q^{145}$$
$$+ 36\, p^{186}\, q^{138} + 2302167\, p^{174}\, q^{93} + 28706\, p^{179}\, q^{170} + 3216\, q^{170}\, p^{59} + 249032\, p^{179}\, q^{157} + 10436693\, q^{175}\, p^{112} + 27929\, q^{171}\, p^{66}$$
$$+ 589140\, q^{173}\, p^{82} + 2835517\, p^{166}\, q^{65} + 9101\, p^{150}\, q^{32} + 38221452\, p^{173}\, q^{108} + 1418567\, p^{166}\, q^{63} + 18363276\, p^{170}\, q^{85} + 2360596\, p^{167}\, q^{67}$$
$$+ 95521\, p^{177}\, q^{169} + 117\, p^{131}\, q^{18} + 7\, p^{115}\, q^{12} + 23766765\, p^{174}\, q^{112} + 37011535\, p^{174}\, q^{121} + 14134446\, p^{171}\, q^{88} + 116259\, p^{159}\, q^{45}$$
$$+ 10474\, p^{151}\, q^{33} + 101229140347\, p^{135}\, q^{155} + 149242932789\, p^{134}\, q^{154} + 235913984\, p^{157}\, q^{60} + 12275\, q^{153}\, p^{35} + 27\, q^{148}\, p^{26} + 146\, q^{148}\, p^{27}$$
$$+ 48998893399\, p^{105}\, q^{160} + 2\, p^{188}\, q^{157} + 9\, p^{188}\, q^{170} + 3\, p^{185}\, q^{118} + 585935\, p^{97}\, q^{176} + 3559801\, p^{110}\, q^{176} + 401807\, p^{95}\, q^{176}$$
$$+ 266542\, p^{99}\, q^{177} + 1576\, p^{121}\, q^{16} + 407863907062\, p^{142}\, q^{145} + 658637352716\, p^{136}\, q^{147} + 845133787859\, p^{132}\, q^{148} + 700934477\, q^{161}\, p^{73}$$
$$+ 580132654680\, p^{131}\, q^{150} + 524335333362\, p^{132}\, q^{150} + 257112293842\, p^{138}\, q^{150} + 293324894667\, p^{137}\, q^{150} + 471579735973\, p^{133}\, q^{150}$$
$$+ 422022274096\, p^{134}\, q^{150} + 16659080\, q^{172}\, p^{94} + 1972\, q^{154}\, p^{34} + 90638\, q^{157}\, p^{42} + 309725\, q^{157}\, p^{44} + 451927\, q^{158}\, p^{46} + 545269\, q^{157}\, p^{45}$$
$$+ 170565\, q^{157}\, p^{43} + 48284\, q^{176}\, p^{86} + 26929\, q^{176}\, p^{84} + 36260\, q^{176}\, p^{85} + 63511\, q^{176}\, p^{87} + 39791682\, p^{174}\, q^{129} + 310407527\, p^{169}\, q^{142}$$
$$+ 1430274092\, p^{168}\, q^{124} + 2168647423\, p^{167}\, q^{111} + 38\, q^{153}\, p^{30} + 41438627\, q^{173}\, p^{109} + 38221452\, q^{173}\, p^{108} + 80838909\, q^{172}\, p^{108}$$
$$+ 6\, q^{153}\, p^{29} + 4\, q^{123}\, p^{14} + 13652028\, p^{175}\, q^{141} + 1297264\, p^{176}\, q^{158} + 9666\, p^{146}\, q^{29} + 795098\, p^{176}\, q^{161} + 1109964\, p^{176}\, q^{159}$$

$$+ 943019\, p^{176}\, q^{160} + 1986924\, p^{176}\, q^{155} + 169611925449\, p^{117}\, q^{157} + 267349\, p^{118}\, q^{19} + 9954244304\, p^{144}\, q^{159} + 14585279\, p^{127}\, q^{27}$$
$$+ 3061583\, q^{170}\, p^{77} + 2162185220\, p^{167}\, q^{127} + 473\, p^{134}\, q^{20} + 10270783\, p^{175}\, q^{145} + 16019469\, p^{175}\, q^{138} + 170565\, p^{157}\, q^{43}$$
$$+ 40187666\, p^{174}\, q^{127} + 1255061\, p^{160}\, q^{51} + 34503828\, p^{174}\, q^{135} + 102\, p^{176}\, q^{71} + 3384553637120\, p^{129}\, q^{143} + 2813578637421\, p^{113}\, q^{148}$$
$$+ 2868971160402\, p^{112}\, q^{148} + 2913116348354\, p^{111}\, q^{148} + 2973539840036\, p^{108}\, q^{148} + 2965713645821\, p^{109}\, q^{148} + 1082\, p^{95}\, q^{10}$$
$$+ 21922436684\, p^{151}\, q^{67} + 33\, p^{84}\, q^{7} + 5082393\, p^{134}\, q^{29} + 232962604916\, p^{156}\, q^{105} + 8142073060\, p^{150}\, q^{61} + 1531291886\, p^{146}\, q^{50}$$
$$+ 11491244440\, p^{159}\, q^{143} + 521574325\, p^{144}\, q^{45} + 156000914227\, p^{157}\, q^{120} + 93728710982\, p^{140}\, q^{153} + 62862256365\, p^{141}\, q^{154}$$
$$+ 82702\, q^{176}\, p^{88} + 2747588704506\, p^{114}\, q^{148} + 2223337568107\, p^{111}\, q^{149} + 42562\, p^{144}\, q^{182} + 41997\, p^{146}\, q^{182} + 42376\, p^{145}\, q^{182}$$
$$+ 166407\, p^{154}\, q^{180} + 188\, q^{176}\, p^{72} + 327\, q^{176}\, p^{73} + 553\, q^{176}\, p^{74} + 898\, q^{176}\, p^{75} + 220969\, q^{177}\, p^{98} + 148408\, q^{177}\, p^{96} + 154341228\, p^{162}\, q^{69}$$
$$+ 1114295949263\, p^{143}\, q^{138} + 790854\, p^{115}\, q^{178} + 42510983952\, p^{159}\, q^{131} + 22206182233\, p^{152}\, q^{69} + 119371\, p^{126}\, q^{21} + 6563920\, p^{175}\, q^{107}$$
$$+ 6304034\, p^{176}\, q^{117} + 44055\, p^{179}\, q^{168} + 77870\, p^{179}\, q^{165} + 3904678\, p^{177}\, q^{125} + 5886433\, p^{175}\, q^{106} + 3616059\, p^{177}\, q^{123} + 10899\, p^{183}\, q^{156}$$
$$+ 4655344\, p^{175}\, q^{104} + 330778\, p^{168}\, q^{64} + 2029965\, p^{171}\, q^{79} + 343664\, p^{179}\, q^{154} + 4\, p^{123}\, q^{14} + 4548\, p^{157}\, q^{38} + 19721\, p^{176}\, q^{83}$$
$$+ 42562\, p^{182}\, q^{144} + 37336\, p^{182}\, q^{137} + 26929\, p^{176}\, q^{84} + 10150\, p^{176}\, q^{81} + 2846\, p^{140}\, q^{184} + 36754\, p^{151}\, q^{182} + 58851\, p^{157}\, q^{181}$$
$$+ 39431\, p^{149}\, q^{182} + 40511\, p^{148}\, q^{182} + 13169\, p^{143}\, q^{183} + 108958\, p^{163}\, q^{179} + 193\, p^{133}\, q^{185} + 264\, p^{135}\, q^{185} + 225\, p^{134}\, q^{185} + 303\, p^{136}\, q^{185}$$
$$+ 724\, p^{144}\, q^{185} + 670\, p^{143}\, q^{185} + 611\, p^{142}\, q^{185} + 448\, p^{139}\, q^{185} + 42175\, p^{182}\, q^{142} + 5\, p^{126}\, q^{15} + 1972\, p^{154}\, q^{34} + 9101\, p^{158}\, q^{40} + 27\, p^{184}\, q^{114}$$
$$+ 34\, p^{185}\, q^{125} + 135\, p^{185}\, q^{131} + 9\, p^{183}\, q^{103} + 225\, p^{185}\, q^{134} + 25623\, p^{160}\, q^{44} + 406\, p^{147}\, q^{27} + 51967388299\, p^{98}\, q^{159} + 83593405\, p^{172}\, q^{140}$$
$$+ 976143201\, p^{132}\, q^{37} + 75\, p^{179}\, q^{83} + 248\, p^{186}\, q^{156} + 599966336932\, p^{133}\, q^{149} + 528605143460\, p^{136}\, q^{148} + 123630791873\, p^{111}\, q^{158}$$
$$+ 5023048\, p^{128}\, q^{26} + 10\, p^{69}\, q^{5} + 480225292668\, p^{153}\, q^{97} + 467695448448\, p^{154}\, q^{116} + 124445728655\, p^{155}\, q^{133} + 150018593881\, p^{155}\, q^{131}$$
$$+ 99386187868\, p^{148}\, q^{69} + 532481\, p^{122}\, q^{21} + 413940882975\, p^{152}\, q^{90} + 123801\, p^{117}\, q^{18} + 285\, q^{178}\, p^{81} + 712628936313\, p^{137}\, q^{146}$$
$$+ 80818381\, q^{156}\, p^{55} + 56586756\, q^{156}\, p^{54} + 1823523068\, q^{158}\, p^{70} + 844386115347\, p^{134}\, q^{147} + 375781224649\, p^{147}\, q^{140}$$
$$+ 6165953681963\, p^{102}\, q^{145} + 2504151542338\, p^{89}\, q^{146} + 8773530398500\, p^{125}\, q^{140} + 177404988316\, p^{114}\, q^{157} + 49387\, p^{180}\, q^{112}$$
$$+ 1619\, p^{172}\, q^{63} + 6982\, p^{183}\, q^{162} + 7574\, p^{172}\, q^{66} + 39357\, p^{178}\, q^{96} + 561\, p^{167}\, q^{50} + 113622\, p^{181}\, q^{136} + 11313\, p^{173}\, q^{70} + 41343\, p^{182}\, q^{147}$$
$$+ 12471\, p^{183}\, q^{153} + 75156\, p^{180}\, q^{115} + 374402\, p^{170}\, q^{173} + 2966123\, p^{156}\, q^{175} + 4028959\, p^{162}\, q^{172} + 7436547\, p^{161}\, q^{171} + 3\, p^{183}\, q^{101}$$
$$+ 3\, p^{182}\, q^{94} + 46\, p^{187}\, q^{160} + 38\, p^{182}\, q^{99} + p^{178}\, q^{73} + 36072734210\, p^{99}\, q^{160} + 2935249342\, p^{88}\, q^{163} + 2241770270\, p^{86}\, q^{163}$$
$$+ 122685118243\, p^{115}\, q^{158} + 638854568113\, p^{127}\, q^{151} + 739754792397\, p^{125}\, q^{151} + 689030288387\, p^{126}\, q^{151} + 8867263\, p^{158}\, q^{172}$$

$$+ 554517557\, q^{157} p^{63} + 935624808\, q^{157} p^{65} + 316774384\, q^{157} p^{61} + 723481492\, q^{157} p^{64} + 421122701\, q^{157} p^{62} + 40929542648\, q^{158} p^{90}$$
$$+ 323994103965\, p^{138} q^{149} + 281903130964\, p^{139} q^{149} + 435973745341\, p^{139} q^{147} + 675242386063\, p^{134} q^{148} + 817153428409\, p^{130} q^{149}$$
$$+ 668322329168\, p^{132} q^{149} + 577126605565\, p^{137} q^{147} + 757327031285\, p^{133} q^{148} + 1019485839\, p^{167} q^{99} + 27839751\, p^{159} q^{57}$$
$$+ 214966996\, p^{163} q^{73} + 170976598\, p^{163} q^{72} + 257112293842\, p^{150} q^{138} + 512544447\, p^{146} q^{47} + 82232876495\, p^{155} q^{85}$$
$$+ 45905287886\, p^{159} q^{130} + 1693439\, p^{133} q^{27} + 122032282119\, p^{156} q^{93} + 394729779570\, p^{146} q^{141} + 394729779570\, p^{141} q^{146}$$
$$+ 7579\, q^{159} p^{41} + 703683095016\, p^{142} q^{142} + 8934886686\, p^{163} q^{99} + 562781499954\, p^{140} q^{145} + 9956450823\, q^{146} p^{56}$$
$$+ 5563075906\, q^{146} p^{54} + 4096256779\, q^{146} p^{53} + 2984341515\, q^{146} p^{52} + 562781499954\, p^{145} q^{140} + 7610711185\, p^{155} q^{70}$$
$$+ 34048447153\, p^{161} q^{122} + 25770475102\, p^{161} q^{128} + 9621265340\, p^{162} q^{136} + 19541702729\, p^{161} q^{132} + 57753553406\, p^{160} q^{114}$$
$$+ 58931307489\, p^{158} q^{94} + 105\, q^{151} p^{29} + 227856220\, p^{171} q^{114} + 10131381\, p^{160} q^{56} + 11569\, q^{152} p^{34} + 27200\, q^{152} p^{35} + 4548\, q^{152} p^{33}$$
$$+ 4956\, q^{153} p^{34} + 268757\, p^{161} q^{178} + 1485475\, p^{144} q^{178} + 1571256\, p^{152} q^{177} + 1132121660\, p^{143} q^{46} + 4350827551\, p^{145} q^{52}$$
$$+ 101794250297\, p^{132} q^{156} + 23567487281\, p^{162} q^{121} + 456781628304\, p^{154} q^{104} + 3928244893\, p^{148} q^{160} + 428126440\, p^{170} q^{114}$$
$$+ 21222922675\, p^{159} q^{88} + 37854151\, p^{146} q^{41} + 24233612959\, p^{137} q^{159} + 142992549\, p^{169} q^{93} + 453877549\, p^{170} q^{128} + 79708948\, p^{171} q^{146}$$
$$+ 5\, p^{163} q^{188} + 6\, p^{164} q^{188} + 6\, p^{165} q^{188} + 485243526\, p^{168} q^{142} + 2359076847\, p^{167} q^{124} + 1073653191\, p^{162} q^{78} + 3680957818\, p^{166} q^{111}$$
$$+ 234725335184\, p^{125} q^{155} + 1410129\, p^{177} q^{153} + 28770612\, p^{174} q^{115} + 17386522\, p^{175} q^{136} + 5899731\, p^{167} q^{70} + 4712910\, p^{176} q^{147}$$
$$+ 863042211\, p^{169} q^{122} + 136\, q^{175} p^{68} + 2922481181688\, p^{105} q^{148} + 22929834\, q^{146} p^{40} + 37854151\, q^{146} p^{41} + 266542\, p^{177} q^{99}$$
$$+ 37036\, p^{173} q^{73} + 1514295839\, q^{150} p^{55} + 312646\, q^{165} p^{57} + 193951\, q^{164} p^{54} + 594951340\, p^{166} q^{89} + 5963814758\, p^{158} q^{76}$$
$$+ 9748348568\, p^{159} q^{82} + 252079255\, p^{151} q^{51} + 45539890067\, p^{157} q^{87} + 21099301578\, p^{157} q^{81} + 191816\, p^{132} q^{24} + 597514374\, p^{166} q^{147}$$
$$+ 118201\, q^{137} p^{26} + 922575860097\, p^{144} q^{138} + 254508075904\, p^{156} q^{112} + 220812045565\, p^{154} q^{91} + 20059271\, q^{171} p^{90}$$
$$+ 4260336563746\, p^{116} q^{146} + 1232915\, p^{167} q^{172} + 19606640\, p^{131} q^{175} + 3331470931\, p^{89} q^{163} + 2572239221\, p^{87} q^{163}$$
$$+ 4224141215\, p^{91} q^{163} + 1474759426\, p^{87} q^{164} + 5246884356\, p^{93} q^{163} + 4719767451\, p^{92} q^{163} + 1942865940\, p^{85} q^{163}$$
$$+ 38969505\, p^{148} q^{172} + 20960212\, p^{149} q^{173} + 102860717921\, p^{155} q^{87} + 49416075544\, p^{155} q^{81} + 449703\, p^{130} q^{24}$$
$$+ 3640206692601\, p^{126} q^{144} + 3953968474363\, p^{125} q^{144} + 4275059529222\, p^{124} q^{144} + 2079071694200\, p^{102} q^{149} + 4785775\, p^{163} q^{171}$$
$$+ 4564599736\, q^{152} p^{62} + 3981705\, q^{145} p^{36} + 25391\, p^{173} q^{72} + 3968\, p^{169} q^{57} + 422454\, p^{179} q^{120} + 4392893363\, q^{160} p^{80}$$
$$+ 66506802\, p^{134} q^{173} + 2570201\, p^{107} q^{176} + 5886433\, p^{106} q^{175} + 1618891912030\, p^{140} q^{139} + 6450331536\, p^{165} q^{121}$$

$$+ 4971998396\, p^{162} q^{88} + 8702428\, p^{149} q^{41} + 2314071044\, p^{102} q^{166} + p^{176} q^{66} + 9\, p^{182} q^{96} + 123\, p^{186} q^{146} + 41\, p^{187} q^{158} + 48\, p^{187} q^{161}$$
$$+ 44\, p^{187} q^{159} + 110\, p^{185} q^{130} + 204\, p^{152} q^{186} + 229\, p^{154} q^{186} + 215\, p^{153} q^{186} + 927\, p^{148} q^{185} + 4095\, p^{152} q^{184} + 1013326\, p^{159} q^{49}$$
$$+ 373532\, p^{175} q^{167} + 57384324\, p^{169} q^{87} + 5312485\, p^{162} q^{58} + 73289738\, p^{173} q^{131} + 131528895\, p^{170} q^{98} + 442116\, p^{154} q^{41}$$
$$+ 127345586\, p^{172} q^{116} + 69020651\, p^{173} q^{133} + 2154\, p^{134} q^{21} + 71290095\, p^{173} q^{132} + 93071019\, p^{169} q^{90} + 137582\, p^{179} q^{110} + 4630\, p^{173} q^{68}$$
$$+ 30272\, p^{175} q^{80} + 1014\, p^{184} q^{171} + 484\, p^{129} q^{18} + 4956\, p^{156} q^{37} + 1803223\, p^{178} q^{139} + 3260926\, p^{174} q^{95} + 174059\, p^{167} q^{60}$$
$$+ 92470\, p^{179} q^{164} + 95\, p^{142} q^{23} + 745969\, p^{169} q^{69} + 108958\, p^{179} q^{163} + 4172877\, p^{173} q^{91} + 2854742\, p^{173} q^{89} + 4222635\, p^{177} q^{128}$$
$$+ 1325329\, p^{178} q^{146} + 2749487\, p^{174} q^{94} + 75191\, p^{165} q^{54} + 1200271\, p^{171} q^{77} + 265237\, p^{167} q^{61} + 26886\, p^{162} q^{47} + 4341697\, p^{177} q^{130}$$
$$+ 110\, p^{140} q^{22} + 12\, p^{131} q^{17} + 4991540\, p^{173} q^{92} + 3134617\, p^{175} q^{101} + 4027480\, p^{177} q^{126} + 118201\, p^{164} q^{53} + 3\, p^{178} q^{74} + 31\, p^{113} q^{12}$$
$$+ 105405575\, p^{172} q^{112} + 145288227\, p^{172} q^{121} + 67843660\, p^{169} q^{88} + 545269\, p^{157} q^{45} + 46325\, p^{149} q^{33} + 13331802\, p^{164} q^{65}$$
$$+ 39522\, p^{148} q^{32} + 51\, p^{187} q^{168} + 33\, p^{183} q^{106} + 19\, p^{185} q^{123} + 120183\, p^{180} q^{119} + 34755\, p^{179} q^{102} + 14264\, p^{176} q^{82} + 590\, p^{168} q^{52}$$
$$+ 7251\, p^{175} q^{76} + 1127\, p^{169} q^{55} + p^{150} q^{26} + 15303\, p^{175} q^{78} + 53452\, p^{158} q^{181} + 92470\, p^{164} q^{179} + 3\, p^{180} q^{83} + 35\, p^{187} q^{156}$$
$$+ 163494772\, p^{171} q^{108} + 7039800\, p^{164} q^{63} + 84196249\, p^{168} q^{85} + 11667608\, p^{165} q^{67} + 227809\, p^{175} q^{169} + q^{179} p^{77} + 6\, q^{179} p^{79}$$
$$+ 4338\, p^{177} q^{179} + 2167\, p^{179} q^{179} + 3096\, p^{178} q^{179} + 57176\, p^{180} q^{113} + 47\, p^{159} q^{36} + 118858\, p^{179} q^{109} + 42466\, p^{182} q^{143} + 61646\, p^{179} q^{105}$$
$$+ 20757\, p^{174} q^{75} + 10\, p^{155} q^{31} + 4139\, p^{171} q^{62} + p^{147} q^{24} + 35195\, p^{182} q^{152} + 8950166\, p^{125} q^{176} + 160044\, p^{103} q^{178} + 1992306\, p^{114} q^{177}$$
$$+ 17386522\, p^{136} q^{175} + 44413\, p^{177} q^{172} + 13534404\, p^{158} q^{171} + 258423\, p^{174} q^{170} + 132649\, p^{175} q^{171} + 31086\, p^{95} q^{178} + 926473\, p^{107} q^{177}$$
$$+ 267113\, p^{93} q^{176} + 328980\, p^{94} q^{176} + 829909\, p^{99} q^{176} + 2\, p^{128} q^{186} + q^{164} p^{40} + 117\, p^{115} q^{13} + 259045938\, p^{171} q^{118} + 16394248\, p^{173} q^{151}$$
$$+ 357582974\, p^{170} q^{110} + 4206183\, p^{174} q^{157} + p^{64} q^{4} + 247689\, p^{151} q^{37} + 4667\, p^{137} q^{23} + 51402149\, p^{173} q^{139} + 185040537\, p^{169} q^{95}$$
$$+ 10884977\, p^{162} q^{60} + 19453910\, p^{159} q^{56} + 142992549\, q^{169} p^{93} + 163115103\, q^{169} p^{94} + 233673760\, q^{167} p^{87} + 3673568\, q^{163} p^{59}$$
$$+ 1200271\, q^{171} p^{77} + 68545\, q^{161} p^{47} + 108224474\, q^{172} p^{136} + 351442099512\, p^{114} q^{155} + 1698605\, p^{124} q^{23} + 2303903\, p^{166} q^{171}$$
$$+ 9318047\, p^{155} q^{173} + 21748453\, p^{143} q^{174} + 56455294043\, p^{160} q^{117} + 78655811508\, p^{159} q^{107} + 36915640487\, p^{158} q^{89}$$
$$+ 1503899117\, p^{162} q^{150} + 726695\, p^{164} q^{175} + 890766\, p^{163} q^{175} + 1082445\, p^{162} q^{175} + 264923394\, q^{171} p^{127} + 8622386\, q^{165} p^{66}$$
$$+ 1972\, q^{156} p^{36} + 32459\, q^{159} p^{43} + 116259\, q^{159} p^{45} + 278997\, p^{156} q^{179} + 249032\, p^{157} q^{179} + 193966\, p^{163} q^{178} + 229244\, p^{162} q^{178}$$
$$+ 12520\, q^{154} p^{36} + 1133320\, p^{174} q^{164} + 695\, p^{178} q^{83} + 1098\, p^{185} q^{156} + 273911438\, q^{171} p^{124} + 844\, q^{149} p^{29} + 75502\, p^{181} q^{154}$$
$$+ 515\, p^{159} q^{38} + 224\, p^{156} q^{34} + 1111\, p^{160} q^{40} + 3312\, p^{162} q^{44} + 47\, p^{149} q^{27} + 2789031\, p^{152} q^{42} + 1644662\, p^{150} q^{39} + 4215\, p^{171} q^{182}$$

$$+ 2582243\, p^{164}\, q^{172} + 42\, p^{186}\, q^{139} + 13\, p^{180}\, q^{85} + 51\, p^{187}\, q^{169} + p^{179}\, q^{77} + 3449\, p^{183}\, q^{168} + 60883\, p^{181}\, q^{125} + 73414\, p^{179}\, q^{106}$$
$$+ 50442\, p^{181}\, q^{123} + 1779\, p^{170}\, q^{58} + 93058\, p^{181}\, q^{131} + 4662\, p^{172}\, q^{65} + 13\, q^{180}\, p^{85} + 48711166\, p^{146}\, q^{172} + 26185105\, p^{147}\, q^{173}$$
$$+ 378\, p^{185}\, q^{172} + 281\, p^{185}\, q^{174} + 8652027\, p^{152}\, q^{174} + 2152465\, p^{163}\, q^{173} + 94996871\, q^{148}\, p^{45} + 17465825\, p^{121}\, q^{175} + 34503828\, p^{135}\, q^{174}$$
$$+ 35914217\, p^{120}\, q^{174} + 55236704023\, p^{140}\, q^{155} + 1795\, p^{181}\, q^{177} + 377947\, p^{179}\, q^{153} + 5495291\, p^{176}\, q^{115} + 4198518\, p^{177}\, q^{136}$$
$$+ 1031344\, p^{169}\, q^{70} + 1241728\, p^{178}\, q^{147} + 5689764\, p^{158}\, q^{173} + 5758\, p^{183}\, q^{130} + 10\, p^{171}\, q^{54} + 3826\, p^{184}\, q^{146} + 71\, p^{173}\, q^{61}$$
$$+ 18727156074\, p^{147}\, q^{155} + 1067\, p^{185}\, q^{158} + 971\, p^{185}\, q^{161} + 1043\, p^{185}\, q^{159} + 840799266\, p^{167}\, q^{97} + 1999\, p^{97}\, q^{180} + 1486\, p^{96}\, q^{180}$$
$$+ 780\, p^{94}\, q^{180} + 102576804107\, p^{122}\, q^{158} + 52384509936\, p^{107}\, q^{160} + 85125817223\, p^{114}\, q^{159} + 15518796800\, p^{143}\, q^{158} + 223\, q^{149}\, p^{28}$$
$$+ 827\, p^{182}\, q^{178} + 3826\, p^{180}\, q^{176} + 1355126535\, p^{159}\, q^{155} + 689\, p^{179}\, q^{88} + 5167\, p^{181}\, q^{108} + 4169\, p^{181}\, q^{107} + 5103\, p^{182}\, q^{117} + 2846\, p^{184}\, q^{140}$$
$$+ 2042\, p^{181}\, q^{104} + 77\, p^{174}\, q^{64} + 868\, p^{177}\, q^{79} + 774\, p^{185}\, q^{165} + 4102\, p^{184}\, q^{150} + 1763727502\, p^{158}\, q^{155} + 9268976852\, p^{148}\, q^{157}$$
$$+ 255944\, q^{162}\, p^{51} + 9\, q^{144}\, p^{23} + 1456\, q^{144}\, p^{26} + 75\, q^{144}\, p^{24} + 6426309909\, p^{150}\, q^{157} + 2649066142\, p^{104}\, q^{166} + 58054538\, q^{165}\, p^{73}$$
$$+ 993\, q^{146}\, p^{27} + 1255061\, q^{160}\, p^{51} + 10\, q^{136}\, p^{19} + 1634\, q^{152}\, p^{32} + 91246458\, q^{170}\, p^{95} + 1716\, p^{167}\, q^{184} + 2\, q^{127}\, p^{15} + 6300882\, q^{165}\, p^{65}$$
$$+ 4\, p^{152}\, q^{28} + 54\, p^{158}\, q^{35} + 92155\, p^{178}\, q^{100} + 306\, q^{179}\, p^{86} + 122\, q^{179}\, p^{84} + 11\, p^{179}\, q^{80} + 9\, p^{188}\, q^{171} + 1427\, q^{179}\, p^{90} + 689\, q^{179}\, p^{88}$$
$$+ 1006\, q^{179}\, p^{89} + 468\, q^{179}\, p^{87} + 199\, q^{179}\, p^{85} + 59562164\, p^{144}\, q^{172} + 236532\, p^{154}\, q^{40} + 52350\, p^{150}\, q^{34} + 136\, p^{122}\, q^{15} + 637977\, p^{156}\, q^{44}$$
$$+ 50122\, p^{173}\, q^{176} + 18\, p^{181}\, q^{91} + 28\, p^{187}\, q^{154} + 71\, p^{185}\, q^{128} + 5\, p^{182}\, q^{95} + 51\, p^{187}\, q^{164} + p^{177}\, q^{69} + 5\, p^{181}\, q^{89} + 453466\, p^{110}\, q^{178}$$
$$+ 22742\, p^{100}\, q^{179} + 398450\, p^{109}\, q^{178} + 348025\, p^{108}\, q^{178} + 9520587\, p^{130}\, q^{176} + 4758695\, p^{159}\, q^{173} + 13784471\, p^{148}\, q^{174}$$
$$+ 2920922\, p^{119}\, q^{177} + 2734053\, p^{118}\, q^{177} + 3104330\, p^{120}\, q^{177} + 3949767\, p^{160}\, q^{173} + 14471569\, p^{140}\, q^{175} + 189582\, p^{104}\, q^{178}$$
$$+ 2358677\, p^{116}\, q^{177} + 6651\, p^{95}\, q^{179} + 3755\, p^{93}\, q^{179} + 24\, p^{81}\, q^{179} + 18162\, p^{99}\, q^{179} + 172\, p^{90}\, q^{180} + 11229\, p^{97}\, q^{179} + 14339\, p^{98}\, q^{179}$$
$$+ 8679\, p^{96}\, q^{179} + 5020\, p^{94}\, q^{179} + 42\, p^{82}\, q^{179} + 15264061\, p^{139}\, q^{175} + 16019469\, p^{138}\, q^{175} + 9148966\, p^{126}\, q^{176} + 2173688\, p^{115}\, q^{177}$$
$$+ 16730180\, p^{137}\, q^{175} + 12376582\, p^{149}\, q^{174} + 11049413\, p^{150}\, q^{174} + 533022\, p^{170}\, q^{172} + 1007739\, p^{169}\, q^{171} + 2546214\, p^{117}\, q^{177}$$
$$+ 9306872\, p^{127}\, q^{176} + 6026\, p^{118}\, q^{182} + 1261\, p^{110}\, q^{182} + 5103\, p^{117}\, q^{182} + 2966\, p^{114}\, q^{182} + 1972\, p^{112}\, q^{182} + 4300\, p^{116}\, q^{182} + 230\, p^{112}\, q^{183}$$
$$+ 3580\, p^{115}\, q^{182} + 779173\, p^{132}\, q^{179} + 1752621\, p^{140}\, q^{178} + 1133320\, p^{164}\, q^{174} + 188825\, p^{124}\, q^{180} + 771\, p^{108}\, q^{182} + 21374\, p^{116}\, q^{181}$$
$$+ 2285216\, p^{148}\, q^{177} + 301946\, p^{107}\, q^{178} + 9422764\, p^{128}\, q^{176} + 9493989\, p^{129}\, q^{176} + 47596110427\, p^{139}\, q^{156} + 102860643678\, p^{128}\, q^{157}$$
$$+ 110325767991\, p^{120}\, q^{158} + 7003\, q^{169}\, p^{58} + 71295555\, p^{142}\, q^{172} + 38254593\, p^{143}\, q^{173} + 29212998\, p^{172}\, q^{98} + 103439\, p^{156}\, q^{41}$$
$$+ 30365383\, p^{174}\, q^{116} + 18956989\, p^{175}\, q^{133} + 553\, p^{136}\, q^{21} + 19324700\, p^{175}\, q^{132} + 20059271\, p^{171}\, q^{90} + 5297041281\, p^{151}\, q^{157}$$

$$+ 34268827\, p^{162}\, q^{166} + 29428284\, p^{170}\, q^{156} + 11770246\, p^{156}\, q^{50} + 27453272\, p^{164}\, q^{165} + 2600225\, p^{169}\, q^{168} + 22520233\, p^{161}\, q^{168}$$
$$+ 43189306\, p^{158}\, q^{168} + 14151142813\, p^{93}\, q^{161} + 49201\, p^{145}\, q^{30} + 26886\, p^{143}\, q^{28} + 218964\, p^{149}\, q^{35} + 1330\, p^{130}\, q^{19} + 320834369\, p^{169}\, q^{100}$$
$$+ 73514565\, p^{165}\, q^{74} + 118974794\, p^{167}\, q^{83} + 45036507484\, p^{103}\, q^{160} + 2036\, q^{148}\, p^{29} + 16459506\, q^{168}\, p^{77} + 981964\, p^{156}\, q^{177}$$
$$+ 10566512792\, p^{116}\, q^{164} + 10427076043\, p^{119}\, q^{164} + 10519129526\, p^{118}\, q^{164} + 10565786359\, p^{117}\, q^{164} + 12532156826\, p^{127}\, q^{163}$$
$$+ 13713862263\, p^{125}\, q^{163} + 13139167653\, p^{126}\, q^{163} + 14249917279\, p^{124}\, q^{163} + 1634504\, q^{159}\, p^{50} + 2581961\, q^{159}\, p^{51} + 1013326\, q^{159}\, p^{49}$$
$$+ 15594152972\, p^{130}\, q^{162} + 9892565715\, p^{122}\, q^{164} + 10290779559\, p^{120}\, q^{164} + 10111875939\, p^{121}\, q^{164} + 9635458151\, p^{123}\, q^{164}$$
$$+ 14560149738\, p^{131}\, q^{162} + 14741345134\, p^{123}\, q^{163} + 47\, q^{149}\, p^{27} + 35075862\, p^{173}\, q^{144} + 57819277\, p^{173}\, q^{137} + 5\, p^{88}\, q^{7}$$
$$+ 142196586\, p^{167}\, q^{84} + 81630526\, p^{167}\, q^{81} + 41503155\, p^{173}\, q^{142} + 148826574\, p^{172}\, q^{124} + 197151432\, p^{171}\, q^{111} + 1132087\, q^{164}\, p^{58}$$
$$+ 5312485\, q^{162}\, p^{58} + 799307\, p^{154}\, q^{42} + 482600\, p^{152}\, q^{39} + 234277304\, p^{169}\, q^{97} + 52350\, q^{156}\, p^{40} + 103439\, q^{156}\, p^{41} + 150438\, p^{167}\, q^{177}$$
$$+ 95521\, p^{169}\, q^{177} + 8508\, p^{180}\, q^{173} + 32088771\, q^{168}\, p^{80} + 25889398\, q^{168}\, p^{79} + 60120\, q^{154}\, p^{38} + 56611\, q^{175}\, p^{82} + 84627685093\, p^{115}\, q^{159}$$
$$+ 522415705\, p^{163}\, q^{154} + 8754922\, p^{170}\, q^{162} + 88585522499\, p^{130}\, q^{157} + 95678671141\, p^{129}\, q^{157} + 81634069694\, p^{131}\, q^{157}$$
$$+ 60668632564\, p^{137}\, q^{156} + 103477234\, p^{160}\, q^{164} + 113671507178\, p^{119}\, q^{158} + 375016\, q^{169}\, p^{67} + p^{188}\, q^{155} + 7\, p^{187}\, q^{145}$$
$$+ 19984011889\, p^{97}\, q^{161} + 18462944710\, p^{96}\, q^{161} + 15537383514\, p^{94}\, q^{161} + 83489984776\, p^{110}\, q^{159} + 84437371003\, p^{111}\, q^{159}$$
$$+ 40668757240\, p^{101}\, q^{160} + 85260447084\, p^{113}\, q^{159} + 3334841463\, p^{85}\, q^{162} + 1434382868\, p^{83}\, q^{163} + 6317970496\, p^{90}\, q^{162}$$
$$+ 4971998396\, p^{88}\, q^{162} + 4375917806\, p^{87}\, q^{162} + 3830585023\, p^{86}\, q^{162} + 5619370315\, p^{89}\, q^{162} + 879\, p^{185}\, q^{163} + 2641\, p^{184}\, q^{139}$$
$$+ 1538\, p^{178}\, q^{85} + 546\, p^{185}\, q^{169} + 71\, p^{175}\, q^{67} + 340\, p^{177}\, q^{77} + 3\, p^{168}\, q^{47} + 795098\, p^{161}\, q^{176} + 69588435\, p^{166}\, q^{159} + 50773979648\, p^{106}\, q^{160}$$
$$+ 47079371430\, p^{104}\, q^{160} + 16977494612\, p^{95}\, q^{161} + 22252892083\, p^{146}\, q^{155} + 485\, q^{166}\, p^{48} + 199\, q^{166}\, p^{47} + 8207805\, q^{173}\, p^{95}$$
$$+ 2887070430\, p^{84}\, q^{162} + 2485204094\, p^{83}\, q^{162} + 106613527706\, p^{121}\, q^{158} + p^{189}\, q^{174} + 9\, p^{188}\, q^{174} + 278\, p^{180}\, q^{183} + 449\, p^{180}\, q^{182}$$
$$+ 220\, p^{182}\, q^{182} + 317\, p^{181}\, q^{182} + 53\, p^{185}\, q^{182} + 91\, p^{184}\, q^{182} + 373\, p^{179}\, q^{183} + 112\, p^{179}\, q^{185} + 137\, p^{178}\, q^{185} + 24\, p^{187}\, q^{178} + 449\, p^{182}\, q^{180}$$
$$+ 6\, p^{188}\, q^{179} + 478\, p^{181}\, q^{181} + 211\, p^{179}\, q^{184} + 123\, p^{181}\, q^{184} + p^{189}\, q^{179} + 278\, p^{183}\, q^{180} + 89\, p^{185}\, q^{180} + 164\, p^{184}\, q^{180} + 317\, p^{182}\, q^{181}$$
$$+ 44\, p^{186}\, q^{180} + 21\, p^{187}\, q^{179} + 52\, p^{186}\, q^{179} + 112\, p^{185}\, q^{179} + 211\, p^{184}\, q^{179} + 7\, p^{188}\, q^{178} + p^{189}\, q^{178} + 164\, p^{180}\, q^{184} + 204\, p^{181}\, q^{183}$$
$$+ 271\, p^{178}\, q^{184} + 27\, p^{177}\, q^{187} + 18\, p^{187}\, q^{180} + 204\, p^{183}\, q^{181} + 5\, p^{181}\, q^{188} + 6\, p^{179}\, q^{188} + 6\, p^{180}\, q^{188} + p^{189}\, q^{175} + 8\, p^{188}\, q^{175} + 34\, p^{187}\, q^{175}$$
$$+ 63\, p^{186}\, q^{178} + 45\, p^{184}\, q^{184} + 5\, p^{187}\, q^{186} + 3\, p^{188}\, q^{186} + 12\, p^{185}\, q^{186} + 123\, p^{184}\, q^{181} + 16\, p^{187}\, q^{181} + 35\, p^{186}\, q^{181} + 70\, p^{185}\, q^{181}$$
$$+ 144\, p^{183}\, q^{182} + 168\, p^{177}\, q^{185} + 144\, p^{182}\, q^{183} + 100\, p^{183}\, q^{183} + 86\, p^{176}\, q^{186} + 73\, p^{177}\, q^{186} + 34\, p^{175}\, q^{187} + 6\, p^{188}\, q^{180} + p^{189}\, q^{180}$$

$$+ 77428313\, p^{128}\, q^{173} + 2907844269\, p^{155}\, q^{156} + 43189306\, p^{168}\, q^{158} + 729879\, q^{163}\, p^{55} + 485\, q^{142}\, p^{24} + 187523878\, q^{168}\, p^{90}$$
$$+ 237669466\, q^{171}\, p^{131} + 228643980\, q^{171}\, p^{132} + 208652283\, q^{171}\, p^{134} + 197911219\, q^{171}\, p^{135} + 218936009\, q^{171}\, p^{133} + 6947155\, p^{170}\, q^{163}$$
$$+ 7753142\, p^{169}\, q^{164} + 10846536\, p^{168}\, q^{164} + 298\, p^{123}\, q^{184} + 4603\, p^{128}\, q^{183} + 32463\, p^{134}\, q^{182} + 610242\, p^{104}\, q^{177} + 27836\, p^{89}\, q^{177}$$
$$+ 447296\, p^{102}\, q^{177} + 21008\, p^{88}\, q^{177} + 5900991\, p^{116}\, q^{176} + 1593746\, p^{166}\, q^{172} + 19797830\, p^{130}\, q^{175} + 19897105\, p^{129}\, q^{175} + 47172\, p^{91}\, q^{177}$$
$$+ 24340\, p^{94}\, q^{178} + 60425\, p^{92}\, q^{177} + 36410\, p^{90}\, q^{177} + 379126\, p^{101}\, q^{177} + 5495291\, p^{115}\, q^{176} + 6304034\, p^{117}\, q^{176} + 811116\, p^{106}\, q^{177}$$
$$+ 705871\, p^{105}\, q^{177} + 524272\, p^{103}\, q^{177} + 5091639\, p^{114}\, q^{176} + 2969022\, p^{165}\, q^{171} + 977560\, p^{100}\, q^{176} + 10834641\, p^{154}\, q^{173}$$
$$+ 19901910\, p^{128}\, q^{175} + 23449415\, p^{142}\, q^{174} + 23266047\, p^{152}\, q^{172} + 12517126\, p^{153}\, q^{173} + 2667\, p^{98}\, q^{180} + 18\, p^{91}\, q^{181} + 26844680\, p^{140}\, q^{174}$$
$$+ 19813604\, p^{127}\, q^{175} + 25153055\, p^{141}\, q^{174} + 194015\, p^{171}\, q^{174} + 193\, p^{121}\, q^{184} + 3576\, p^{126}\, q^{183} + 624549\, p^{146}\, q^{179} + 905635\, p^{151}\, q^{178}$$
$$+ 7198007950\, p^{159}\, q^{80} + 3041205\, p^{177}\, q^{144} + 4104275\, p^{177}\, q^{137} + 6453400\, p^{171}\, q^{84} + 3307470\, p^{171}\, q^{81} + 3398661\, p^{177}\, q^{142}$$
$$+ 5206545\, p^{171}\, q^{83} + 31755080\, q^{170}\, p^{88} + 5461869\, p^{164}\, q^{170} + 1882490\, p^{168}\, q^{170} + 1030025\, p^{170}\, q^{170} + 545574\, p^{171}\, q^{171}$$
$$+ 3276813\, p^{166}\, q^{170} + 1401458\, p^{169}\, q^{170} + 8754922\, p^{162}\, q^{170} + 2497811\, p^{167}\, q^{170} + 6947155\, p^{163}\, q^{170} + 13541857\, p^{160}\, q^{170}$$
$$+ 16632911\, p^{159}\, q^{170} + 61597582\, p^{167}\, q^{158} + 211105\, q^{161}\, p^{49} + 1846035\, p^{156}\, q^{46} + q^{124}\, p^{14} + 61597582\, p^{158}\, q^{167} + 49730996\, p^{159}\, q^{167}$$
$$+ 27453272\, p^{165}\, q^{164} + 36539635\, p^{164}\, q^{164} + 43784811\, p^{161}\, q^{166} + 55439699\, p^{160}\, q^{166} + 52803681\, p^{157}\, q^{168} + 59882077\, p^{161}\, q^{165}$$
$$+ 35959288\, p^{163}\, q^{165} + 46627024\, p^{162}\, q^{165} + 76200091\, p^{160}\, q^{165} + 26567449\, p^{166}\, q^{163} + 69588435\, p^{159}\, q^{166} + 61160\, q^{153}\, p^{37}$$
$$+ 9175578\, p^{134}\, q^{176} + 576537\, p^{112}\, q^{178} + 9327475\, p^{133}\, q^{176} + 3616059\, p^{123}\, q^{177} + 9436806\, p^{132}\, q^{176} + 10270783\, p^{145}\, q^{175}$$
$$+ 3453903\, p^{122}\, q^{177} + 98\, q^{136}\, p^{20} + 2\, q^{135}\, p^{18} + 12305216\, p^{170}\, q^{83} + 5935985\, p^{176}\, q^{144} + 8482925\, p^{176}\, q^{137} + p^{91}\, q^{7} + 15087531\, p^{170}\, q^{84}$$
$$+ 8000237\, p^{170}\, q^{81} + 6742676\, p^{176}\, q^{142} + 102207433\, p^{137}\, q^{172} + 154\, p^{184}\, q^{120} + 57\, p^{185}\, q^{127} + 90\, p^{185}\, q^{129} + 831\, p^{146}\, q^{185} + 83\, p^{143}\, q^{186}$$
$$+ 29738\, p^{155}\, q^{182} + 12870\, p^{152}\, q^{183} + 77507\, p^{161}\, q^{180} + 96056802\, p^{138}\, q^{172} + 51402149\, p^{139}\, q^{173} + 2481692241\, p^{103}\, q^{166}$$
$$+ 7743452133\, p^{149}\, q^{157} + 391941206\, p^{170}\, q^{132} + 35077225\, p^{170}\, q^{155} + 80926088\, p^{164}\, q^{161} + 59882077\, p^{165}\, q^{161} + 13541857\, p^{170}\, q^{160}$$
$$+ 39820392\, p^{167}\, q^{160} + 19700226\, p^{169}\, q^{160} + 28214082\, p^{168}\, q^{160} + 48111181\, p^{163}\, q^{164} + 10934770\, p^{170}\, q^{161} + 16632911\, p^{170}\, q^{159}$$
$$+ 62703223\, p^{162}\, q^{164} + 19390427\, p^{167}\, q^{163} + 34268827\, p^{166}\, q^{162} + 83389566\, p^{162}\, q^{163} + 62703223\, p^{164}\, q^{162} + 46627024\, p^{165}\, q^{162}$$
$$+ 31613549\, p^{167}\, q^{161} + 15814190\, p^{169}\, q^{161} + 22520233\, p^{168}\, q^{161} + 83389566\, p^{163}\, q^{162} + 43784811\, p^{166}\, q^{161} + 80926088\, p^{161}\, q^{164}$$
$$+ 24874291\, p^{167}\, q^{162} + 63670652\, p^{163}\, q^{163} + 35959288\, p^{165}\, q^{163} + 48111181\, p^{164}\, q^{163} + 17818475\, p^{168}\, q^{162} + 12584679\, p^{169}\, q^{162}$$
$$+ 50909\, p^{169}\, q^{62} + 23\, p^{145}\, q^{24} + 195526\, p^{180}\, q^{152} + 644244\, p^{178}\, q^{113} + 172\, p^{153}\, q^{31} + 670\, p^{157}\, q^{36} + 1186739\, p^{177}\, q^{109} + 304663\, p^{180}\, q^{143}$$

$$+ 705871\, p^{177} q^{105} + 237908\, p^{172} q^{75} + 120475\, p^{177} q^{168} + 227761\, p^{177} q^{165} + 19361269\, p^{175} q^{125} + 32026105\, p^{173} q^{106}$$
$$+ 18564698\, p^{175} q^{123} + 35077085\, p^{173} q^{107} + 31893508\, p^{174} q^{117} + 5725636445\, p^{109} q^{165} + 18022827862\, p^{133} q^{161}$$
$$+ 15110076862\, p^{135} q^{161} + 16542420245\, p^{134} q^{161} + 13981076040\, p^{139} q^{160} + 15568166371\, p^{121} q^{163} + 17641139902\, p^{128} q^{162}$$
$$+ 2814656959\, p^{105} q^{166} + 18635020718\, p^{127} q^{162} + 10521289245\, p^{115} q^{164} + 15182469981\, p^{122} q^{163} + 16624265183\, p^{129} q^{162}$$
$$+ 6606797835\, p^{119} q^{165} + 4026111351\, p^{115} q^{166} + 6649455120\, p^{117} q^{165} + 6642608635\, p^{118} q^{165} + 13405392347\, p^{144} q^{158} + 12\, q^{131} p^{17}$$
$$+ 32026105\, q^{173} p^{106} + 60120\, q^{152} p^{36} + 3994\, q^{151} p^{32} + 20960212\, p^{173} q^{149} + 3883842430\, p^{113} q^{166} + 3789429890\, p^{112} q^{166}$$
$$+ 3680957818\, p^{111} q^{166} + 3284783494\, p^{108} q^{166} + 3427169519\, p^{109} q^{166} + 3134145621\, p^{107} q^{166} + 2976896588\, p^{106} q^{166}$$
$$+ 3963067689\, p^{114} q^{166} + 2168647423\, p^{111} q^{167} + 3559737981\, p^{110} q^{166} + 20\, q^{133} p^{18} + 23\, q^{166} p^{45} + 246\, q^{167} p^{49} + 267349\, q^{171} p^{72}$$
$$+ 274471117\, q^{171} p^{123} + 89408394\, q^{166} p^{78} + 10884977\, q^{162} p^{60} + 34\, q^{167} p^{47} + 265\, q^{168} p^{51} + 453758\, q^{173} p^{81} + 52\, p^{187} q^{167}$$
$$+ 1143592\, q^{176} p^{101} + 2335772\, q^{175} p^{99} + 2714220\, q^{175} p^{100} + 1560151\, p^{178} q^{143} + 5249893\, p^{175} q^{105} + 1792364\, p^{170} q^{75}$$
$$+ 396742\, p^{167} q^{62} + 8028628\, p^{175} q^{109} + 199\, p^{143} q^{24} + 825136\, p^{178} q^{152} + 4692835\, p^{176} q^{113} + 1382\, p^{151} q^{31} + 5172\, p^{155} q^{36}$$
$$+ 4061\, p^{149} q^{184} + 10619\, p^{179} q^{174} + 95\, q^{167} p^{48} + 9\, q^{167} p^{46} + 87499\, q^{172} p^{72} + 109\, q^{169} p^{52} + 259\, q^{169} p^{53} + 41706\, q^{172} p^{70} + 938\, q^{170} p^{57}$$
$$+ 2302167\, q^{174} p^{93} + 6954\, q^{171} p^{63} + 4630\, q^{173} p^{68} + 25391\, q^{173} p^{72} + 11313\, q^{173} p^{70} + 823797\, q^{175} p^{93} + 714\, q^{171} p^{59} + 1330\, q^{171} p^{60}$$
$$+ 17132\, q^{173} p^{71} + 37036\, q^{173} p^{73} + 74983\, q^{173} p^{75} + 53070\, q^{173} p^{74} + 104355\, q^{173} p^{76} + 194532\, q^{173} p^{78} + 143421\, q^{173} p^{77} + 43\, q^{169} p^{51}$$
$$+ 13\, q^{169} p^{50} + 4\, q^{169} p^{49} + 58588\, q^{174} p^{78} + 42065\, q^{174} p^{77} + 75\, q^{171} p^{56} + 997480\, q^{175} p^{94} + 675056\, q^{175} p^{92} + 260897\, q^{173} p^{79}$$
$$+ 7335\, q^{173} p^{69} + 1199161\, q^{175} p^{95} + 1431101\, q^{175} p^{96} + 2398\, q^{171} p^{61} + 280689\, q^{175} p^{88} + 442711\, q^{175} p^{90} + 98\, q^{170} p^{54} + 13\, q^{170} p^{52}$$
$$+ 38\, q^{170} p^{53} + 174\, q^{171} p^{57} + 359\, q^{171} p^{58} + 907\, q^{172} p^{62} + 484\, q^{172} p^{61} + 4662\, q^{172} p^{65} + 18530\, q^{172} p^{68} + 7574\, q^{172} p^{66} + 11974\, q^{172} p^{67}$$
$$+ 1619\, q^{172} p^{63} + 2798\, q^{172} p^{64} + 223\, q^{170} p^{55} + 1580018\, q^{174} p^{91} + 354125\, q^{175} p^{89} + 60878\, q^{172} p^{71} + 1914281\, q^{174} p^{92} + 28049\, q^{172} p^{69}$$
$$+ 146173\, q^{174} p^{81} + 422899\, q^{174} p^{85} + 329272\, q^{174} p^{84} + 848734\, q^{174} p^{88} + 1294565\, q^{174} p^{90} + 548984\, q^{175} p^{91} + 538238\, q^{174} p^{86}$$
$$+ 1052329\, q^{174} p^{89} + 193688\, q^{174} p^{82} + 678737\, q^{174} p^{87} + 253793\, q^{174} p^{83} + 109117\, q^{174} p^{80} + 80439\, q^{174} p^{79} + 40\, q^{168} p^{49}$$
$$+ 12115141\, q^{175} p^{114} + 5623\, q^{170} p^{60} + 757748\, q^{173} p^{83} + 965361\, q^{173} p^{84} + 1127\, q^{169} p^{55} + 4139\, q^{171} p^{62} + 2\, q^{167} p^{45}$$
$$+ 12568747\, p^{156} q^{172} + 120960\, p^{140} q^{181} + 276165\, p^{146} q^{180} + 413067\, p^{152} q^{179} + 86\, p^{186} q^{176} + 1666\, p^{134} q^{184} + 110\, p^{130} q^{185}$$
$$+ 1318\, p^{132} q^{184} + 1483\, p^{133} q^{184} + 75397\, p^{174} q^{174} + 632\, p^{127} q^{184} + 1010\, p^{130} q^{184} + 869\, p^{129} q^{184} + 748\, p^{128} q^{184} + 534\, p^{126} q^{184}$$
$$+ 1154\, p^{131} q^{184} + 442\, p^{125} q^{184} + 5174\, p^{129} q^{183} + 172796\, q^{172} p^{74} + 123801\, q^{172} p^{73} + 1485475\, p^{178} q^{144} + 1880407\, p^{178} q^{137}$$

$$+ 2590681\, p^{172}\, q^{84} + 1275995\, p^{172}\, q^{81} + 1630294\, p^{178}\, q^{142} + 2063683\, p^{172}\, q^{83} + 1343095\, p^{168}\, q^{171} + 6\, p^{153}\, q^{29} + 18834\, p^{178}\, q^{93}$$
$$+ 10296\, p^{183}\, q^{157} + 2544\, p^{183}\, q^{170} + 2154\, p^{169}\, q^{56} + 107910\, p^{180}\, q^{118} + 36754\, p^{182}\, q^{151} + 10939182834\, p^{102}\, q^{163}$$
$$+ 38579966447\, p^{115}\, q^{161} + 35600255760\, p^{139}\, q^{157} + 311437645\, p^{164}\, q^{155} + 870080131\, p^{158}\, q^{158} + 49339642097\, p^{129}\, q^{159}$$
$$+ 40199461191\, p^{138}\, q^{157} + 1927749200\, p^{89}\, q^{164} + 47992880056\, p^{123}\, q^{160} + 66081055020\, p^{124}\, q^{159} + 21316870096\, p^{106}\, q^{162}$$
$$+ 22123506132\, p^{107}\, q^{162} + 38393166993\, p^{116}\, q^{161} + 38042712107\, p^{117}\, q^{161} + 22860081735\, p^{108}\, q^{162} + 24568224499\, p^{111}\, q^{162}$$
$$+ 24089732200\, p^{110}\, q^{162} + 23518056478\, p^{109}\, q^{162} + 49851070022\, p^{122}\, q^{160} + 2767153635\, p^{92}\, q^{164} + 41123767540\, p^{135}\, q^{158}$$
$$+ 17105803309\, p^{146}\, q^{156} + 20449228033\, p^{105}\, q^{162} + 5781786156\, p^{153}\, q^{155} + 2465977556\, p^{91}\, q^{164} + 2186123116\, p^{90}\, q^{164}$$
$$+ 1681718192\, p^{159}\, q^{154} + 56455294043\, p^{117}\, q^{160} + 9602688282\, p^{100}\, q^{163} + 8274756907\, p^{98}\, q^{163} + 10272738504\, p^{101}\, q^{163}$$
$$+ 8934886686\, p^{99}\, q^{163} + 11595929522\, p^{103}\, q^{163} + 5386946673\, p^{99}\, q^{164} + 12854829095\, p^{105}\, q^{163} + 12236615962\, p^{104}\, q^{163}$$
$$+ 7627338690\, p^{97}\, q^{163} + 7158229639\, p^{152}\, q^{155} + 45385069304\, p^{134}\, q^{158} + 54419428318\, p^{119}\, q^{160} + 59595700737\, p^{126}\, q^{159}$$
$$+ 31359993363\, p^{140}\, q^{157} + 54473442638\, p^{132}\, q^{158} + 56215287952\, p^{127}\, q^{159} + 27475666111\, p^{141}\, q^{157} + 59250085390\, p^{131}\, q^{158}$$
$$+ 62895248478\, p^{125}\, q^{159} + 55548064517\, p^{118}\, q^{160} + 49842647013\, p^{133}\, q^{158} + 37676025459\, p^{111}\, q^{161} + 37051426536\, p^{110}\, q^{161}$$
$$+ 18569404334\, p^{103}\, q^{162} + 1282336422\, p^{128}\, q^{168} + 1181597594\, p^{130}\, q^{168} + 826644493\, p^{136}\, q^{168} + 1565377067\, p^{153}\, q^{160}$$
$$+ 1681718192\, p^{154}\, q^{159} + 3964767194\, p^{146}\, q^{161} + 3395033994\, p^{147}\, q^{161} + 1907517250\, p^{152}\, q^{160} + 3311701343\, p^{149}\, q^{160}$$
$$+ 1083449213\, p^{156}\, q^{159} + 859249585\, p^{157}\, q^{159} + 1355126535\, p^{155}\, q^{159} + 2308155358\, p^{151}\, q^{160} + 2773954950\, p^{150}\, q^{160}$$
$$+ 1994595131\, p^{129}\, q^{167} + 1655100640\, p^{145}\, q^{164} + 2300061164\, p^{139}\, q^{165} + 134289190\, p^{167}\, q^{154} + 3037802362\, p^{136}\, q^{165}$$
$$+ 2673849362\, p^{132}\, q^{166} + 1421955063\, p^{152}\, q^{161} + 2081424669\, p^{128}\, q^{167} + 1126436911\, p^{131}\, q^{168} + 2532556549\, p^{152}\, q^{159}$$
$$+ 1763727502\, p^{155}\, q^{158} + 1326772205\, p^{127}\, q^{168} + 1233755480\, p^{129}\, q^{168} + 887838232\, p^{135}\, q^{168} + 479418161\, p^{137}\, q^{169}$$
$$+ 1891181408\, p^{144}\, q^{164} + 1286078482\, p^{149}\, q^{163} + 3051458981\, p^{140}\, q^{164} + 2101426855\, p^{148}\, q^{162} + 2703247403\, p^{144}\, q^{163}$$
$$+ 1405220358\, p^{156}\, q^{158} + 161\, p^{132}\, q^{185} + 2071312190\, p^{153}\, q^{159} + 831\, p^{185}\, q^{146} + 5\, p^{174}\, q^{61} + 259\, p^{186}\, q^{158} + 257\, p^{186}\, q^{161} + 259\, p^{186}\, q^{159}$$
$$+ 675731300\, p^{159}\, q^{158} + 3082195428\, p^{143}\, q^{163} + 3941425314\, p^{141}\, q^{163} + 3494894437\, p^{142}\, q^{163} + 4421369193\, p^{140}\, q^{163}$$
$$+ 2864452324\, p^{146}\, q^{162} + 3755332692\, p^{138}\, q^{164} + 4134335684\, p^{137}\, q^{164} + 3393848795\, p^{139}\, q^{164} + 2460884546\, p^{147}\, q^{162}$$
$$+ 2443920605\, p^{149}\, q^{161} + 1714733919\, p^{151}\, q^{161} + 2053853727\, p^{150}\, q^{161} + 1031283468\, p^{155}\, q^{160} + 3813198920\, p^{144}\, q^{162}$$
$$+ 4362077673\, p^{143}\, q^{162} + 3314530217\, p^{145}\, q^{162} + 3300149439\, p^{135}\, q^{165} + 2839755676\, p^{131}\, q^{166} + 3567799879\, p^{134}\, q^{165} + 1010\, p^{184}\, q^{130}$$

$$+ 468412292\, p^{162}\, q^{156} + 346805850\, p^{163}\, q^{156} + 2889491426\, p^{148}\, q^{161} + 625815588\, p^{161}\, q^{156} + 1275334629\, p^{154}\, q^{160} + 15\, q^{175}\, p^{65}$$
$$+ 2\, q^{175}\, p^{63} + 5\, q^{175}\, p^{64} + 25\, q^{176}\, p^{69} + 278997\, p^{179}\, q^{156} + 15265719\, p^{147}\, q^{174} + 1400533\, p^{163}\, q^{174} + 4505\, p^{183}\, q^{166} + 55564\, p^{181}\, q^{124}$$
$$+ 6997125526\, p^{96}\, q^{163} + 2536241689\, p^{138}\, q^{165} + 2148872772\, p^{143}\, q^{164} + 12223\, p^{123}\, q^{182} + 97894\, p^{132}\, q^{181} + 110387\, p^{135}\, q^{181}$$
$$+ 106617\, p^{134}\, q^{181} + 102470\, p^{133}\, q^{181} + 496\, p^{115}\, q^{183} + 320490\, p^{140}\, q^{180} + 93058\, p^{131}\, q^{181} + 19029\, p^{127}\, q^{182} + 15452\, p^{125}\, q^{182}$$
$$+ 322460\, p^{139}\, q^{180} + 621\, p^{116}\, q^{183} + 1160\, p^{119}\, q^{183} + 950\, p^{118}\, q^{183} + 2782627278\, p^{137}\, q^{165} + 1519086\, p^{124}\, q^{178} + 17521\, p^{106}\, q^{180}$$
$$+ 1591162\, p^{125}\, q^{178} + 289749\, p^{116}\, q^{179} + 231715\, p^{114}\, q^{179} + 353880\, p^{118}\, q^{179} + 321192\, p^{117}\, q^{179} + 259936\, p^{115}\, q^{179} + 1658483\, p^{126}\, q^{178}$$
$$+ 8630389\, p^{147}\, q^{175} + 1082944\, p^{166}\, q^{173} + 25535\, p^{108}\, q^{180} + 21224\, p^{107}\, q^{180} + 14320\, p^{105}\, q^{180} + 1281479\, p^{121}\, q^{178} + 158284\, p^{111}\, q^{179}$$
$$+ 1198465\, p^{120}\, q^{178} + 7130746\, p^{141}\, q^{176} + 4341697\, p^{130}\, q^{177} + 4292355\, p^{129}\, q^{177} + 4370616\, p^{131}\, q^{177} + 6377306\, p^{150}\, q^{175}$$
$$+ 7094173\, p^{149}\, q^{175} + 7846387\, p^{148}\, q^{175} + 8183642\, p^{138}\, q^{176} + 7855488\, p^{139}\, q^{176} + 7503426\, p^{140}\, q^{176} + 1374727\, p^{165}\, q^{173}$$
$$+ 30435\, p^{109}\, q^{180} + 1198\, p^{102}\, q^{181} + 1442684\, p^{123}\, q^{178} + 4329492\, p^{134}\, q^{177} + 4364489\, p^{133}\, q^{177} + 3568637\, p^{158}\, q^{174} + 36044\, p^{110}\, q^{180}$$
$$+ 49\, p^{93}\, q^{181} + 258423\, p^{170}\, q^{174} + 1735306\, p^{156}\, q^{176} + 169\, p^{96}\, q^{181} + 3\, p^{94}\, q^{182} + 904\, p^{101}\, q^{181} + 489\, p^{99}\, q^{181} + 348\, p^{98}\, q^{181}$$
$$+ 248\, p^{97}\, q^{181} + 667\, p^{100}\, q^{181} + 116\, p^{95}\, q^{181} + 75\, p^{94}\, q^{181} + 38600808284\, p^{114}\, q^{161} + 1606218809\, p^{133}\, q^{167} + 859249585\, p^{159}\, q^{157}$$
$$+ 658693848\, p^{160}\, q^{157} + 500048910\, p^{161}\, q^{157} + 14433888571\, p^{147}\, q^{156} + 311525\, p^{180}\, q^{142} + 3791963376\, p^{95}\, q^{164} + 3089147479\, p^{93}\, q^{164}$$
$$+ 3431150041\, p^{94}\, q^{164} + 1773970782\, p^{93}\, q^{165} + 4170058514\, p^{96}\, q^{164} + 4563498149\, p^{97}\, q^{164} + 4970015659\, p^{98}\, q^{164} + 337\, p^{184}\, q^{177}$$
$$+ 2729334420\, p^{141}\, q^{164} + 2428315893\, p^{142}\, q^{164} + 253793\, p^{174}\, q^{83} + 296474\, p^{180}\, q^{144} + 321479\, p^{180}\, q^{137} + 329272\, p^{174}\, q^{84}$$
$$+ 146173\, p^{174}\, q^{81} + 776\, p^{117}\, q^{183} + 1394\, p^{120}\, q^{183} + 1669\, p^{121}\, q^{183} + 154\, p^{120}\, q^{184} + 2320\, p^{123}\, q^{183} + 2696\, p^{124}\, q^{183} + 3122\, p^{125}\, q^{183}$$
$$+ 713342\, p^{143}\, q^{179} + 656370\, p^{145}\, q^{179} + 686017\, p^{144}\, q^{179} + 318547\, p^{136}\, q^{180} + 82651\, p^{129}\, q^{181} + 988405\, p^{150}\, q^{178} + 321479\, p^{137}\, q^{180}$$
$$+ 339793\, p^{169}\, q^{174} + 1971\, p^{122}\, q^{183} + 38455547977\, p^{113}\, q^{161} + 51554191115\, p^{121}\, q^{160} + 31992120\, p^{145}\, q^{173} + 1774549\, p^{128}\, q^{178}$$
$$+ 76378414\, p^{129}\, q^{173} + 39318756\, p^{130}\, q^{174} + 53082909786\, p^{120}\, q^{160} + 52786184833\, p^{128}\, q^{159} + 12813243\, p^{142}\, q^{175} + 15304030\, p^{161}\, q^{59}$$
$$+ 19541702729\, p^{132}\, q^{161} + 19596030910\, p^{126}\, q^{162} + 273785413\, p^{171}\, q^{122} + 721781\, p^{174}\, q^{166} + 27\, p^{187}\, q^{177} + p^{189}\, q^{181} + 53\, p^{182}\, q^{185}$$
$$+ 52\, p^{179}\, q^{186} + 11\, p^{187}\, q^{183} + 22\, p^{186}\, q^{183} + 40\, p^{185}\, q^{183} + 8\, p^{175}\, q^{188} + 4\, p^{188}\, q^{184} + 9\, p^{187}\, q^{184} + 12\, p^{186}\, q^{185} + 22\, p^{183}\, q^{186} + 17\, p^{184}\, q^{186}$$
$$+ 9\, p^{186}\, q^{186} + 24\, p^{178}\, q^{187} + 28\, p^{184}\, q^{185} + p^{189}\, q^{186} + 20\, p^{185}\, q^{185} + p^{189}\, q^{184} + 4\, p^{188}\, q^{183} + p^{189}\, q^{182} + 13\, p^{187}\, q^{182} + 29\, p^{186}\, q^{182}$$
$$+ 9\, p^{174}\, q^{188} + 373532\, p^{167}\, q^{175} + 243\, p^{122}\, q^{184} + 39859\, p^{139}\, q^{182} + 41607\, p^{141}\, q^{182} + 37336\, p^{137}\, q^{182} + 115867\, p^{145}\, q^{181}$$
$$+ 414747\, p^{158}\, q^{178} + 18943\, p^{176}\, q^{176} + 26652\, p^{175}\, q^{176} + 13178\, p^{177}\, q^{176} + 44413\, p^{172}\, q^{177} + 3779\, p^{156}\, q^{184} + 7654\, p^{161}\, q^{183}$$

$$+ 17893\, p^{161}\, q^{182} + 14303\, p^{163}\, q^{182} + 16068\, p^{162}\, q^{182} + 3636\, p^{157}\, q^{184} + 9670\, p^{166}\, q^{182} + 11098\, p^{165}\, q^{182} + 8320\, p^{160}\, q^{183}$$
$$+ 1006\, p^{150}\, q^{185} + 1064\, p^{152}\, q^{185} + 1040\, p^{151}\, q^{185} + 1086\, p^{153}\, q^{185} + 1008\, p^{160}\, q^{185} + 1043\, p^{159}\, q^{185} + 1098\, p^{156}\, q^{185} + 7\, p^{145}\, q^{187}$$
$$+ 10\, p^{147}\, q^{187} + 25\, p^{153}\, q^{187} + 12\, p^{148}\, q^{187} + 5\, p^{144}\, q^{187} + 8\, p^{146}\, q^{187} + 21\, p^{152}\, q^{187} + p^{154}\, q^{188} + 14\, p^{149}\, q^{187} + 3\, p^{142}\, q^{187} + 32\, p^{155}\, q^{187}$$
$$+ 28\, p^{154}\, q^{187} + 16\, p^{150}\, q^{187} + 19\, p^{151}\, q^{187} + 4\, p^{143}\, q^{187} + 108\, p^{145}\, q^{186} + 5063\, p^{180}\, q^{175} + 8014\, p^{179}\, q^{175} + 3959\, p^{181}\, q^{174}$$
$$+ 33558\, p^{173}\, q^{177} + 8973\, p^{178}\, q^{176} + 74088\, p^{168}\, q^{178} + 58551\, p^{163}\, q^{180} + 35761\, p^{169}\, q^{179} + 4104\, p^{151}\, q^{184} + 883\, p^{147}\, q^{185} + 4102\, p^{150}\, q^{184}$$
$$+ 971\, p^{149}\, q^{185} + 6616\, p^{180}\, q^{174} + 1496\, p^{183}\, q^{173} + 27789\, p^{156}\, q^{182} + 23778\, p^{158}\, q^{182} + 34041\, p^{162}\, q^{181} + 3132\, p^{160}\, q^{184} + 2736\, p^{162}\, q^{184}$$
$$+ 123\, p^{146}\, q^{186} + 2269\, p^{182}\, q^{174} + 18309\, p^{177}\, q^{175} + 135\, p^{147}\, q^{186} + 248\, p^{156}\, q^{186} + 237\, p^{155}\, q^{186} + 162\, p^{149}\, q^{186} + 28706\, p^{170}\, q^{179}$$
$$+ 22811\, p^{171}\, q^{179} + 50331\, p^{164}\, q^{180} + 36262\, p^{166}\, q^{180} + 42884\, p^{165}\, q^{180} + 48259\, p^{159}\, q^{181} + 28630\, p^{172}\, q^{178} + 29887\, p^{163}\, q^{181}$$
$$+ 21764\, p^{159}\, q^{182} + 25772\, p^{157}\, q^{182} + 12471\, p^{153}\, q^{183} + 11477\, p^{155}\, q^{183} + 38521\, p^{161}\, q^{181} + 11993\, p^{154}\, q^{183} + 30368\, p^{167}\, q^{180}$$
$$+ 43252\, p^{160}\, q^{181} + 67642\, p^{162}\, q^{180} + 44055\, p^{168}\, q^{179} + 53775\, p^{167}\, q^{179} + 64983\, p^{166}\, q^{179} + 77870\, p^{165}\, q^{179} + 16523\, p^{174}\, q^{178}$$
$$+ 59377\, p^{169}\, q^{178} + 47111\, p^{170}\, q^{178} + 36931\, p^{171}\, q^{178} + 18309\, p^{175}\, q^{177} + 13178\, p^{176}\, q^{177} + 21889\, p^{173}\, q^{178} + 24972\, p^{174}\, q^{177}$$
$$+ 144\, p^{186}\, q^{172} + 2\, p^{141}\, q^{187} + 2931\, p^{161}\, q^{184} + 3487\, p^{158}\, q^{184} + 6982\, p^{162}\, q^{183} + 3309\, p^{159}\, q^{184} + 15618723\, p^{165}\, q^{68} + 66914589\, p^{167}\, q^{80}$$
$$+ 5\, p^{95}\, q^{8} + 1274596\, p^{158}\, q^{48} + 4966861\, p^{161}\, q^{172} + 369\, p^{144}\, q^{25} + 1752621\, p^{178}\, q^{140} + 988405\, p^{178}\, q^{150} + 116951426\, p^{172}\, q^{114}$$
$$+ 5082393\, p^{161}\, q^{56} + 69535995\, p^{170}\, q^{93} + 174877\, p^{175}\, q^{170} + 88764\, p^{176}\, q^{171} + 62\, p^{116}\, q^{13} + 136108761\, p^{172}\, q^{118} + 9806538\, p^{174}\, q^{151}$$
$$+ 186109046\, p^{171}\, q^{110} + 2552999\, p^{175}\, q^{157} + 125810\, p^{152}\, q^{37} + 2426\, p^{138}\, q^{23} + 28505743\, p^{174}\, q^{139} + 91246458\, p^{170}\, q^{95}$$
$$+ 5289904\, p^{163}\, q^{60} + 726695\, p^{175}\, q^{164} + 54009454\, p^{145}\, q^{172} + 25623\, p^{146}\, q^{30} + 14037\, p^{144}\, q^{28} + 114117\, p^{150}\, q^{35} + 714\, p^{131}\, q^{19}$$
$$+ 163389059\, p^{170}\, q^{100} + 36427403\, p^{166}\, q^{74} + 58449907\, p^{168}\, q^{83} + 20066860\, p^{174}\, q^{144} + 31669394\, p^{174}\, q^{137} + 3\, p^{89}\, q^{7}$$
$$+ 70387999\, p^{168}\, q^{84} + 39472954\, p^{168}\, q^{81} + 23449415\, p^{174}\, q^{142} + 78079963\, p^{173}\, q^{124} + 99355973\, p^{172}\, q^{111} + 404810\, p^{155}\, q^{42}$$
$$+ 247689\, p^{153}\, q^{39} + 117072530\, p^{170}\, q^{97} + 932932\, p^{157}\, q^{46} + 12376582\, p^{174}\, q^{149} + 29022207\, p^{146}\, q^{173} + 74992155\, p^{130}\, q^{173}$$
$$+ 38668538\, p^{131}\, q^{174} + 7656654\, p^{162}\, q^{59} + 147129981\, p^{172}\, q^{122} + 470782\, p^{175}\, q^{166} + 1916756\, p^{150}\, q^{177} + 17015100\, p^{166}\, q^{71}$$
$$+ 296\, p^{127}\, q^{17} + 124643108\, p^{169}\, q^{92} + 88985243\, p^{171}\, q^{101} + 78475043\, p^{173}\, q^{126} + 3050527\, p^{160}\, q^{53} + 7513525\, p^{163}\, q^{61} + 768533\, p^{158}\, q^{47}$$
$$+ 20695462\, p^{165}\, q^{69} + 890766\, p^{175}\, q^{163} + 108024823\, p^{169}\, q^{91} + 74992155\, p^{173}\, q^{130} + 2397\, p^{136}\, q^{22} + 9152058\, p^{160}\, q^{171}$$
$$+ 13783575\, p^{116}\, q^{175} + 938\, p^{133}\, q^{20} + 18417221\, p^{174}\, q^{145} + 30120442\, p^{174}\, q^{138} + 3499\, p^{99}\, q^{180} + 359617\, p^{156}\, q^{43} + 78131033\, p^{173}\, q^{127}$$
$$+ 2581961\, p^{159}\, q^{51} + 63781179\, p^{173}\, q^{135} + 25153055\, p^{174}\, q^{141} + 2182141\, p^{175}\, q^{158} + 19395\, p^{145}\, q^{29} + 1304843\, p^{175}\, q^{161}$$

$$+ 1852145\, p^{175}\, q^{159} + 1560414\, p^{175}\, q^{160} + 3423413\, p^{175}\, q^{155} + 76378414\, p^{173}\, q^{129} + 28770612\, p^{115}\, q^{174} + 97\, p^{186}\, q^{144}$$
$$+ 10430726865\, p^{114}\, q^{164} + 15893818337\, p^{120}\, q^{163} + 19449\, q^{158}\, p^{41} + 272117748\, q^{171}\, p^{125} + 269107500\, q^{171}\, p^{126} + 9101\, q^{158}\, p^{40}$$
$$+ 1975825\, q^{160}\, p^{52} + 474778\, q^{160}\, p^{49} + 281654\, q^{160}\, p^{48} + 4396627\, p^{167}\, q^{69} + 332691\, p^{177}\, q^{163} + 23663084\, p^{171}\, q^{91} + 19797830\, p^{175}\, q^{130}$$
$$+ 590\, p^{138}\, q^{22} + 71\, p^{129}\, q^{17} + 27736916\, p^{171}\, q^{92} + 18772411\, p^{173}\, q^{101} + 19632098\, p^{175}\, q^{126} + 671278\, p^{162}\, q^{53} + 1584328\, p^{165}\, q^{61}$$
$$+ 162498\, p^{160}\, q^{47} + 5509058614\, p^{108}\, q^{165} + 35077225\, p^{155}\, q^{170} + 537851277\, p^{167}\, q^{93} + 9440218\, p^{146}\, q^{175} + 24513037\, p^{170}\, q^{157}$$
$$+ 25\, p^{92}\, q^{8} + 24338531\, p^{169}\, q^{159} + 12584679\, p^{162}\, q^{169} + 19700226\, p^{160}\, q^{169} + 15814190\, p^{161}\, q^{169} + 10934770\, p^{161}\, q^{170}$$
$$+ 4252164\, p^{165}\, q^{170} + 799307\, p^{148}\, q^{36} + 24513037\, p^{157}\, q^{170} + 29428284\, p^{156}\, q^{170} + 55439699\, p^{166}\, q^{160} + 52803681\, p^{168}\, q^{157}$$
$$+ 36275705\, p^{169}\, q^{157} + 1783385121\, p^{149}\, q^{162} + 2357579752\, p^{145}\, q^{163} + 1762316453\, p^{147}\, q^{163} + 2044322677\, p^{146}\, q^{163}$$
$$+ 1503899117\, p^{150}\, q^{162} + 1259967265\, p^{151}\, q^{162} + 1110448176\, p^{158}\, q^{157} + 13\, p^{169}\, q^{50} + 452\, p^{175}\, q^{70} + 3922\, p^{184}\, q^{147} + 1086\, p^{185}\, q^{153}$$
$$+ 3580\, p^{182}\, q^{115} + 9597\, p^{183}\, q^{136} + 174812218\, p^{165}\, q^{78} + 981964\, p^{177}\, q^{156} + 2283139\, p^{165}\, q^{62} + 41438627\, p^{173}\, q^{109} + 1078\, p^{141}\, q^{24}$$
$$+ 2872024\, p^{176}\, q^{152} + 25454348\, p^{174}\, q^{113} + 7579\, p^{149}\, q^{31} + 28219\, p^{153}\, q^{36} + 6342708\, p^{176}\, q^{143} + 29090136\, p^{173}\, q^{105} + 10120646\, p^{168}\, q^{75}$$
$$+ 35294490\, p^{165}\, q^{71} + 550\, p^{126}\, q^{17} + 247765542\, p^{168}\, q^{92} + 180687206\, p^{170}\, q^{101} + 147814430\, p^{172}\, q^{126} + 75998\, q^{175}\, p^{83}$$
$$+ 737741\, p^{142}\, q^{179} + 313899\, p^{135}\, q^{180} + 9409\, p^{121}\, q^{182} + 77212\, p^{128}\, q^{181} + 1072421\, p^{149}\, q^{178} + 2424\, p^{182}\, q^{113} + 6365\, p^{181}\, q^{109}$$
$$+ 3392\, p^{184}\, q^{143} + 2624\, p^{181}\, q^{105} + 898\, p^{176}\, q^{75} + 147\, p^{173}\, q^{62} + 1114750\, p^{119}\, q^{178} + 4095\, p^{184}\, q^{152} + 11\, q^{179}\, p^{80} + 73289738\, p^{131}\, q^{173}$$
$$+ 37851370\, p^{132}\, q^{174} + 36875708\, p^{133}\, q^{174} + 4104702\, p^{103}\, q^{175} + 15375056\, p^{118}\, q^{175} + 14593592\, p^{117}\, q^{175} + 43690638\, p^{147}\, q^{172}$$
$$+ 23493594\, p^{148}\, q^{173} + 69020651\, p^{133}\, q^{173} + 2279867\, p^{106}\, q^{176} + 4655344\, p^{104}\, q^{175} + 5249893\, p^{105}\, q^{175} + 3134617\, p^{101}\, q^{175}$$
$$+ 1769078\, p^{167}\, q^{171} + 16120400\, p^{119}\, q^{175} + 12\, p^{156}\, q^{32} + 145\, p^{165}\, q^{45} + 12\, p^{157}\, q^{33} + 146504\, p^{180}\, q^{121} + 3597623\, p^{102}\, q^{175}$$
$$+ 31893508\, p^{117}\, q^{174} + 71290095\, p^{132}\, q^{173} + 16819694\, p^{120}\, q^{175} + 33339476\, p^{118}\, q^{174} + 30365383\, p^{116}\, q^{174} + 35755853\, p^{134}\, q^{174}$$
$$+ 7960105\, p^{156}\, q^{173} + 2657238\, p^{162}\, q^{173} + 1051604\, p^{108}\, q^{177} + 34684481\, p^{119}\, q^{174} + 993\, p^{183}\, q^{175} + 41\, p^{158}\, q^{187} + 64338\, p^{156}\, q^{181}$$
$$+ 4012\, p^{148}\, q^{184} + 3392\, p^{143}\, q^{184} + 3826\, p^{146}\, q^{184} + 3695\, p^{145}\, q^{184} + 6085262\, p^{159}\, q^{53} + 15273722\, p^{162}\, q^{61} + 1556101\, p^{157}\, q^{47}$$
$$+ 14259243\, p^{172}\, q^{93} + 74875\, p^{177}\, q^{170} + 36931\, p^{178}\, q^{171} + 15\, p^{118}\, q^{13} + 33339476\, p^{174}\, q^{118} + 3207767\, p^{176}\, q^{151} + 44701253\, p^{173}\, q^{110}$$
$$+ 3240181\, p^{167}\, q^{68} + 14685890\, p^{169}\, q^{80} + p^{97}\, q^{8} + 281654\, p^{160}\, q^{48} + 27128453\, p^{174}\, q^{114} + 1121713\, p^{163}\, q^{56} + 24972\, p^{177}\, q^{174}$$
$$+ 16523\, p^{178}\, q^{174} + 41967315\, p^{164}\, q^{69} + 1400533\, p^{174}\, q^{163} + 216165973\, p^{168}\, q^{91} + 137994948\, p^{172}\, q^{130} + 46325\, q^{157}\, p^{41}$$
$$+ 22600\, q^{157}\, p^{40} + 137582\, p^{110}\, q^{179} + 8482925\, p^{137}\, q^{176} + 4222635\, p^{128}\, q^{177} + 64338\, p^{181}\, q^{156} + 5834\, p^{101}\, q^{180} + 4523\, p^{178}\, q^{178}$$

$$+ 201\, p^{185} q^{176} + 9320\, p^{103} q^{180} + 143744\, p^{174} q^{172} + 205381\, p^{113} q^{179} + 15694\, p^{87} q^{177} + 6701220\, p^{118} q^{176} + 222887\, p^{105} q^{178}$$
$$+ 988\, p^{109} q^{182} + 17899\, p^{172} q^{179} + 10899\, p^{156} q^{183} + 25225\, p^{168} q^{180} + 19815\, p^{160} q^{182} + 26019\, p^{164} q^{181} + 97\, p^{144} q^{186}$$
$$+ 269932\, p^{130} q^{180} + 810363\, p^{136} q^{179} + 28241\, p^{118} q^{181} + 40783\, p^{121} q^{181} + 55564\, p^{124} q^{181} + 50442\, p^{123} q^{181} + 45477\, p^{122} q^{181}$$
$$+ 36306\, p^{120} q^{181} + 32144\, p^{119} q^{181} + 3\, p^{101} q^{183} + 808644\, p^{135} q^{179} + 217400\, p^{126} q^{180} + 244871\, p^{128} q^{180} + 721781\, p^{166} q^{174}$$
$$+ 3\, p^{129} q^{186} + 24670\, p^{117} q^{181} + 2424\, p^{113} q^{182} + 1580\, p^{111} q^{182} + 2552999\, p^{157} q^{175} + 257736\, p^{129} q^{180} + 231305\, p^{127} q^{180}$$
$$+ 802714\, p^{134} q^{179} + 203126\, p^{125} q^{180} + 792933\, p^{133} q^{179} + 1630294\, p^{142} q^{178} + 5\, p^{102} q^{183} + 23\, p^{105} q^{183} + 14\, p^{104} q^{183} + 9\, p^{103} q^{183}$$
$$+ 68\, p^{108} q^{183} + 33\, p^{106} q^{183} + 49\, p^{107} q^{183} + p^{106} q^{184} + 96\, p^{109} q^{183} + 129\, p^{110} q^{183} + 176\, p^{111} q^{183} + 908680\, p^{165} q^{174} + 278521\, p^{171} q^{173}$$
$$+ 204271\, p^{172} q^{173} + 2182141\, p^{158} q^{175} + 1880407\, p^{137} q^{178} + 1846166\, p^{138} q^{178} + 717321\, p^{129} q^{179} + 761907\, p^{131} q^{179} + 741101\, p^{130} q^{179}$$
$$+ 1803223\, p^{139} q^{178} + 1560414\, p^{160} q^{175} + 2260682\, p^{154} q^{176} + 3223455\, p^{143} q^{177} + 3041205\, p^{144} q^{177} + 3207767\, p^{151} q^{176}$$
$$+ 2872024\, p^{152} q^{176} + 2555785\, p^{153} q^{176} + 160378\, p^{122} q^{180} + 18412\, p^{115} q^{181} + 1905969\, p^{136} q^{178} + 2474569\, p^{147} q^{177}$$
$$+ 2664781\, p^{146} q^{177} + 174474\, p^{123} q^{180} + 1694571\, p^{141} q^{178} + 36864\, p^{176} q^{174} + 1852145\, p^{159} q^{175} + 3562081\, p^{150} q^{176}$$
$$+ 2854467\, p^{145} q^{177} + 28630\, p^{178} q^{172} + 30\, p^{176} q^{187} + 63\, p^{178} q^{186} + 64\, p^{184} q^{183} + 5\, p^{188} q^{181} + 5\, p^{130} q^{186} + 42\, p^{139} q^{186} + 36\, p^{138} q^{186}$$
$$+ 9\, p^{132} q^{186} + 23623048\, p^{173} q^{103} + 18506953\, p^{175} q^{134} + 630\, q^{164} p^{45} + 790854\, p^{178} q^{115} + 810363\, p^{179} q^{136} + 134231\, p^{171} q^{70}$$
$$+ 264333\, p^{180} q^{147} + 81058\, p^{181} q^{153} + 30471697\, p^{150} q^{172} + 5723896\, p^{155} q^{174} + q^{166} p^{43} + 14\, p^{183} q^{104} + 6\, p^{179} q^{79} + 52\, p^{187} q^{165}$$
$$+ 178\, p^{186} q^{150} + 6326\, p^{174} q^{72} + 938\, p^{170} q^{57} + 133126\, p^{180} q^{120} + 1696377\, q^{175} p^{97} + 7037\, p^{182} q^{119} + 1198\, p^{181} q^{102} + 454\, p^{178} q^{82}$$
$$+ 13\, p^{170} q^{52} + 200\, p^{177} q^{76} + 31\, p^{171} q^{55} + 547\, p^{177} q^{78} + 5\, p^{162} q^{188} + 4\, p^{160} q^{188} + 4\, p^{161} q^{188} + 452\, q^{175} p^{70} + 4479\, p^{135} q^{22}$$
$$+ 14806739\, q^{172} p^{155} + 5\, q^{174} p^{61} + 15\, q^{174} p^{62} + 8417\, q^{166} p^{52} + 318984\, p^{100} q^{177} + 19897105\, p^{175} q^{129} + 8338\, p^{182} q^{167} + 63511\, p^{176} q^{87}$$
$$+ 7130746\, p^{176} q^{141} + 746902\, p^{177} q^{158} + 4586\, p^{147} q^{29} + 470268\, p^{177} q^{161} + 644817\, p^{177} q^{159} + 552640\, p^{177} q^{160} + 1114929\, p^{177} q^{155}$$
$$+ 223\, p^{135} q^{20} + 5525887\, p^{176} q^{145} + 8183642\, p^{176} q^{138} + 76703\, p^{158} q^{43} + 19813604\, p^{175} q^{127} + 582271\, p^{161} q^{51} + 17981661\, p^{175} q^{135}$$
$$+ 1580\, p^{181} q^{103} + 8305\, p^{183} q^{134} + 13\, p^{168} q^{48} + 2966\, p^{182} q^{114} + 15262\, q^{166} p^{53} + 2196\, q^{176} p^{77} + 1426\, q^{176} p^{76} + 257\, q^{175} p^{69}$$
$$+ 3320\, q^{176} p^{78} + q^{174} p^{60} + 32\, q^{175} p^{66} + 675056\, p^{175} q^{92} + 630428\, p^{179} q^{126} + 15262\, p^{166} q^{53} + 379126\, p^{177} q^{101} + 162861\, p^{164} q^{178}$$
$$+ 328980\, p^{176} q^{94} + 143421\, p^{173} q^{77} + 32241\, p^{169} q^{61} + 3118\, p^{164} q^{47} + 741101\, p^{179} q^{130} + 13\, p^{142} q^{22} + p^{133} q^{17} + 8564\, p^{167} q^{54}$$
$$+ 276165\, p^{180} q^{146} + 604\, p^{158} q^{37} + 322460\, p^{180} q^{139} + 401807\, p^{176} q^{95} + 19907\, p^{169} q^{60} + 9\, p^{144} q^{23} + 26019\, p^{181} q^{164} + 93061\, p^{171} q^{69}$$
$$+ 29887\, p^{181} q^{163} + 548984\, p^{175} q^{91} + 354125\, p^{175} q^{89} + 690619\, p^{179} q^{128} + 50122\, p^{176} q^{173} + 2\, p^{165} q^{42} + 1999\, p^{180} q^{97} + 9\, p^{167} q^{46}$$

$$+ 4061\, p^{184} q^{149} + 10774\, p^{182} q^{122} + 6\, p^{164} q^{41} + 4300\, p^{182} q^{116} + 2\, p^{163} q^{39} + 2758\, p^{179} q^{92} + 38\, p^{170} q^{53} + 2223\, p^{178} q^{86} + 7661\, p^{183} q^{133}$$
$$+ 1427\, p^{179} q^{90} + 4012\, p^{184} q^{148} + 3033\, p^{184} q^{141} + 2667\, p^{180} q^{98} + 43\, p^{169} q^{51} + 8964\, p^{183} q^{135} + 7008\, p^{183} q^{132} + 3576\, p^{183} q^{126}$$
$$+ 11173227\, p^{159} q^{171} + 23766765\, p^{112} q^{174} + 43990771\, p^{167} q^{78} + 139741986\, p^{172} q^{119} + 98549911\, p^{171} q^{102} + 100059328\, p^{168} q^{86}$$
$$+ 13784471\, p^{174} q^{148} + 9\, p^{100} q^{9} + 13\, p^{105} q^{10} + 142816130\, p^{172} q^{120} + 146981080\, p^{170} q^{99} + 3632176\, p^{162} q^{57} + 28515579\, p^{166} q^{73}$$
$$+ 22128137\, p^{166} q^{72} + 24\, p^{109} q^{11} + 79707878\, p^{169} q^{89} + 77428313\, p^{173} q^{128} + 16813564\, p^{174} q^{146} + 79884122\, p^{170} q^{94}$$
$$+ 2257725\, p^{161} q^{54} + 35264253\, p^{167} q^{77} + 1975825\, p^{160} q^{52} + p^{75} q^{5} + 28044254\, p^{167} q^{76} + 48204343\, p^{168} q^{82} + 3415961\, p^{161} q^{55}$$
$$+ 298\, p^{124} q^{16} + 6332\, p^{142} q^{26} + 9681\, p^{143} q^{27} + 119023063\, p^{171} q^{104} + 125810\, p^{153} q^{38} + 9745247\, p^{164} q^{64} + 54458138\, p^{167} q^{79}$$
$$+ 3925257\, p^{175} q^{154} + 102\, p^{119} q^{14} + 1082445\, p^{175} q^{162} + 18036260\, p^{164} q^{66} + 103642498\, p^{170} q^{96} + 2\, p^{151} q^{27} + 11993\, p^{183} q^{154}$$
$$+ 28\, p^{161} q^{38} + 12\, p^{158} q^{34} + 73\, p^{162} q^{40} + 253\, p^{164} q^{44} + 1634504\, p^{159} q^{50} + 7606\, p^{140} q^{25} + 11049413\, p^{174} q^{150} + 26844680\, p^{174} q^{140}$$
$$+ 293260\, p^{175} q^{168} + 587693\, p^{175} q^{165} + 78458742\, p^{173} q^{125} + 140879524\, p^{171} q^{106} + 77346618\, p^{173} q^{123} + 152137965\, p^{171} q^{107}$$
$$+ 131958359\, p^{172} q^{117} + 4472506\, p^{175} q^{153} + 122322421\, p^{172} q^{115} + 60873490\, p^{173} q^{136} + 27153482\, p^{165} q^{70} + 15265719\, p^{174} q^{147}$$
$$+ 108581377\, p^{171} q^{103} + 66506802\, p^{173} q^{134} + 111290494\, p^{172} q^{113} + 32459\, p^{147} q^{31} + 121794\, p^{151} q^{36} + 21748453\, p^{174} q^{143}$$
$$+ 129814835\, p^{171} q^{105} + p^{83} q^{6} + 46142066\, p^{166} q^{75} + 2966123\, p^{175} q^{156} + 10532847\, p^{163} q^{62} + 174854902\, p^{171} q^{109} + 4451\, p^{139} q^{24}$$
$$+ 8652027\, p^{174} q^{152} + 904\, p^{181} q^{101} + 780\, p^{180} q^{94} + 1008\, p^{185} q^{160} + 3499\, p^{180} q^{99} + 327\, p^{176} q^{73} + 39\, p^{187} q^{157} + 49\, p^{187} q^{170}$$
$$+ 93\, p^{184} q^{118} + p^{182} q^{93} + 78131033\, p^{127} q^{173} + 12954973\, p^{115} q^{175} + 25454348\, p^{113} q^{174} + 11998\, p^{169} q^{59} + 158284\, p^{179} q^{111}$$
$$+ 1078\, p^{166} q^{49} + 22080050\, p^{111} q^{174} + 39791682\, p^{129} q^{174} + 8\, q^{160} p^{36} + q^{160} p^{35} + 53877697179\, p^{138} q^{156} + 174877\, p^{170} q^{175}$$
$$+ 227809\, p^{169} q^{175} + 377947\, p^{153} q^{179} + 343664\, p^{154} q^{179} + 293260\, p^{168} q^{175} + 368\, p^{124} q^{184} + 665331\, p^{162} q^{176} + 264333\, p^{147} q^{180}$$
$$+ 238282\, p^{149} q^{180} + 251713\, p^{148} q^{180} + 34192\, p^{135} q^{182} + 120838\, p^{142} q^{181} + 121251\, p^{141} q^{181} + 4923526\, p^{156} q^{174} + 11618\, p^{104} q^{180}$$
$$+ 4206183\, p^{157} q^{174} + 552184\, p^{163} q^{176} + 3470\, p^{182} q^{172} + 21889\, p^{178} q^{173} + p^{172} q^{189} + 30606\, p^{133} q^{182} + 28723\, p^{132} q^{182} + 4078\, p^{127} q^{183}$$
$$+ 591177\, p^{147} q^{179} + 601794\, p^{155} q^{178} + 2\, p^{117} q^{185} + 5\, p^{119} q^{185} + 3\, p^{118} q^{185} + 7\, p^{120} q^{185} + 71\, p^{128} q^{185} + 57\, p^{127} q^{185} + 43\, p^{126} q^{185}$$
$$+ 19\, p^{123} q^{185} + 25\, p^{124} q^{185} + 13\, p^{122} q^{185} + 10\, p^{121} q^{185} + 90\, p^{129} q^{185} + p^{126} q^{186} + 34\, p^{125} q^{185} + 38707\, p^{138} q^{182} + 5758\, p^{130} q^{183}$$
$$+ 112979\, p^{146} q^{181} + 42175\, p^{142} q^{182} + 40860\, p^{140} q^{182} + 6381\, p^{131} q^{183} + 8305\, p^{134} q^{183} + 7661\, p^{133} q^{183} + 104912\, p^{173} q^{174}$$
$$+ 7008\, p^{132} q^{183} + 8964\, p^{135} q^{183} + 9597\, p^{136} q^{183} + 10824\, p^{138} q^{183} + 118125\, p^{144} q^{181} + 10231\, p^{137} q^{183} + 224392\, p^{150} q^{180}$$
$$+ 35851\, p^{136} q^{182} + 119824\, p^{143} q^{181} + 33558\, p^{177} q^{173} + 286860\, p^{145} q^{180} + 448895\, p^{151} q^{179} + 120074\, p^{139} q^{181} + 118499\, p^{138} q^{181}$$

$$+ 116373\, p^{137}\, q^{181} + 484913\, p^{150}\, q^{179} + 304663\, p^{143}\, q^{180} + 296474\, p^{144}\, q^{180} + 311525\, p^{142}\, q^{180} + 520957\, p^{149}\, q^{179} + 556439\, p^{148}\, q^{179}$$
$$+ 472593\, p^{157}\, q^{178} + 825136\, p^{152}\, q^{178} + 747217\, p^{153}\, q^{178} + 672719\, p^{154}\, q^{178} + 746902\, p^{158}\, q^{177} + 644817\, p^{159}\, q^{177} + 299893\, p^{166}\, q^{176}$$
$$+ 397062\, p^{162}\, q^{177} + 470268\, p^{161}\, q^{177} + 535080\, p^{156}\, q^{178} + 370857\, p^{165}\, q^{176} + 552640\, p^{160}\, q^{177} + 143744\, p^{172}\, q^{174} + 859345\, p^{157}\, q^{177}$$
$$+ 454561\, p^{164}\, q^{176} + 4378047\, p^{132}\, q^{177} + 1363325\, p^{122}\, q^{178} + 180834\, p^{112}\, q^{179} + 6742676\, p^{142}\, q^{176} + 7421\, p^{102}\, q^{180}$$
$$+ 38145980821\, p^{112}\, q^{161} + 19530153110\, p^{104}\, q^{162} + 20147461467\, p^{145}\, q^{156} + 23088019413\, p^{99}\, q^{161} + 21529702771\, p^{98}\, q^{161}$$
$$+ 7066973072\, p^{91}\, q^{162} + 357582974\, q^{170}\, p^{110} + 582271\, q^{161}\, p^{51} + 2513645\, q^{163}\, p^{58} + 1779\, p^{132}\, q^{20} + 31992120\, p^{173}\, q^{145}$$
$$+ 54650151\, p^{173}\, q^{138} + 185040537\, q^{169}\, p^{95} + 208767298\, q^{169}\, p^{96} + 138657128\, q^{168}\, p^{88} + 133872890\, q^{166}\, p^{80} + 419777078\, q^{169}\, p^{103}$$
$$+ 489986838\, q^{169}\, p^{105} + 525575407\, q^{169}\, p^{106} + 454621955\, q^{169}\, p^{104} + 467032076\, q^{170}\, p^{117} + 45462423\, q^{165}\, p^{72} + 35294490\, q^{165}\, p^{71}$$
$$+ 265\, q^{139}\, p^{22} + 15661980678\, p^{138}\, q^{160} + 3475176\, p^{167}\, q^{169} + 1401458\, p^{170}\, q^{169} + 2600225\, p^{168}\, q^{169} + 4590263\, p^{166}\, q^{169}$$
$$+ 1921750\, p^{169}\, q^{169} + 9924895\, p^{163}\, q^{169} + 7753142\, p^{164}\, q^{169} + 5997071\, p^{165}\, q^{169} + 29828155\, p^{158}\, q^{169} + 24338531\, p^{159}\, q^{169}$$
$$+ 26778\, p^{136}\, q^{24} + 36812514\, p^{171}\, q^{152} + 587693\, p^{165}\, q^{175} + 20269540\, p^{158}\, q^{170} + 27200\, q^{155}\, p^{38} + 1052596\, q^{162}\, p^{54} + 724535\, p^{155}\, q^{43}$$
$$+ 146301423\, p^{172}\, q^{127} + 749598\, q^{164}\, p^{57} + 465644\, q^{163}\, p^{54} + 27016131\, q^{163}\, p^{65} + 19960810\, q^{163}\, p^{64} + 186109046\, q^{171}\, p^{110} + 34\, q^{143}\, p^{23}$$
$$+ 419321\, q^{162}\, p^{52} + 105\, q^{161}\, p^{39} + 2038604\, p^{165}\, q^{172} + 211105\, p^{161}\, q^{49} + 150438\, p^{177}\, q^{167} + 11744937\, p^{171}\, q^{87} + 1132087\, p^{164}\, q^{58}$$
$$+ 19606640\, p^{175}\, q^{131} + 9298098\, p^{169}\, q^{78} + 34684481\, p^{174}\, q^{119} + 21116127\, p^{173}\, q^{102} + 22192922\, p^{170}\, q^{86} + 4317194\, p^{176}\, q^{148}$$
$$+ 5096004\, p^{158}\, q^{51} + 1740594\, p^{151}\, q^{177} + 1410129\, p^{153}\, q^{177} + 2370\, p^{181}\, q^{176} + 114041714\, p^{172}\, q^{135} + 44797246\, p^{173}\, q^{141}$$
$$+ 3568637\, p^{174}\, q^{158} + 9\, p^{173}\, q^{188} + 37\, p^{174}\, q^{187} + 98\, p^{186}\, q^{175} + 1728067\, p^{164}\, q^{173} + 37151\, p^{144}\, q^{29} + 2084879\, p^{174}\, q^{161}$$
$$+ 3005764\, p^{174}\, q^{159} + 2513111\, p^{174}\, q^{160} + 5723896\, p^{174}\, q^{155} + 141360490\, p^{172}\, q^{129} + 9\, q^{181}\, p^{90} + 2\, q^{181}\, p^{88} + q^{181}\, p^{87} + 5\, q^{181}\, p^{89}$$
$$+ 320490\, p^{180}\, q^{140} + 224392\, p^{180}\, q^{150} + p^{189}\, q^{172} + 48\, p^{146}\, q^{25} + 38200\, p^{182}\, q^{150} + 2\, p^{148}\, q^{25} + 40860\, p^{182}\, q^{140} + 73\, p^{186}\, q^{142}$$
$$+ 28\, p^{186}\, q^{137} + 7\, p^{180}\, q^{84} + 59\, p^{182}\, q^{100} + 91460\, p^{167}\, q^{178} + 51324\, p^{179}\, q^{104} + 2798\, p^{172}\, q^{64} + 21706\, p^{175}\, q^{79} + 5090\, p^{183}\, q^{165}$$
$$+ 86846\, p^{179}\, q^{107} + 96240\, p^{180}\, q^{117} + 2\, p^{179}\, q^{78} + 119\, p^{184}\, q^{119} + 5\, p^{183}\, q^{102} + p^{180}\, q^{82} + 8141264\, p^{176}\, q^{122} + 540459\, p^{170}\, q^{71}$$
$$+ 64983\, p^{179}\, q^{166} + 3766738\, p^{177}\, q^{124} + 16079\, p^{159}\, q^{42} + 10474\, p^{157}\, q^{39} + 4497116\, p^{174}\, q^{97} + 37151\, p^{161}\, q^{46} + 1072421\, p^{178}\, q^{149}$$
$$+ 296450\, p^{166}\, q^{59} + 3924167\, p^{176}\, q^{111} + 2817\, p^{182}\, q^{173} + p^{140}\, q^{187} + 690619\, p^{128}\, q^{179} + 146504\, p^{121}\, q^{180} + 3398661\, p^{142}\, q^{177}$$
$$+ 589\, p^{107}\, q^{182} + 15718\, p^{114}\, q^{181} + 21008\, p^{177}\, q^{88} + 101923\, p^{179}\, q^{108} + 713503\, p^{169}\, q^{172} + 129\, p^{183}\, q^{110} + 2758\, p^{92}\, q^{179} + 34340\, p^{163}\, q^{49}$$
$$+ 53775\, p^{179}\, q^{167} + 1895587\, p^{173}\, q^{87} + 191816\, p^{166}\, q^{58} + 4370616\, p^{177}\, q^{131} + 481160\, p^{168}\, q^{65} + 1634\, p^{152}\, q^{32} + 7811701\, p^{176}\, q^{121}$$

$$+ 19395\, p^{161} q^{45} + 1838\, p^{153} q^{33} + 2335062\, p^{173} q^{88} + 7278834\, p^{175} q^{108} + 3225205\, p^{172} q^{85} + 375016\, p^{169} q^{67} + 35761\, p^{179} q^{169}$$
$$+ 20\, p^{133} q^{18} + p^{117} q^{12} + 4302943\, p^{176} q^{112} + 223679\, p^{168} q^{63} + 4079\, p^{174} q^{71} + 146\, p^{163} q^{42} + 105\, p^{161} q^{39} + 49313\, p^{178} q^{97}$$
$$+ 369\, p^{165} q^{46} + 39431\, p^{182} q^{149} + 160378\, p^{180} q^{122} + 223\, p^{162} q^{41} + 85349\, p^{180} q^{116} + 102470\, p^{181} q^{133} + 97894\, p^{181} q^{132}$$
$$+ 36410\, p^{177} q^{90} + 40511\, p^{182} q^{148} + 41607\, p^{182} q^{141} + 61281\, p^{178} q^{98} + 1208\, p^{167} q^{51} + 110387\, p^{181} q^{135} + 8320\, p^{183} q^{160}$$
$$+ 48284\, p^{176} q^{86} + 23\, p^{183} q^{105} + 204\, p^{186} q^{152} + 7\, p^{178} q^{75} + 18\, p^{184} q^{113} + 96\, p^{183} q^{109} + 83\, p^{186} q^{143} + 3559\, p^{144} q^{184} + 3922\, p^{147} q^{184}$$
$$+ 3033\, p^{141} q^{184} + 13655\, p^{145} q^{183} + 3226\, p^{142} q^{184} + 2114\, p^{165} q^{184} + 202\, p^{168} q^{186} + 240\, p^{175} q^{185} + 329\, p^{173} q^{185} + 378\, p^{172} q^{185}$$
$$+ 187\, p^{169} q^{186} + 225\, p^{166} q^{186} + 1014\, p^{171} q^{184} + 993\, p^{175} q^{183} + 793\, p^{176} q^{183} + 734\, p^{173} q^{184} + 871\, p^{172} q^{184} + 628\, p^{177} q^{183}$$
$$+ 23019546\, p^{155} q^{171} + 2\, q^{179} p^{78} + 75436\, p^{178} q^{99} + 9576\, p^{174} q^{73} + 60425\, p^{177} q^{92} + 66270\, p^{181} q^{126} + 1219\, p^{168} q^{53} + 28259\, p^{179} q^{101}$$
$$+ 24340\, p^{178} q^{94} + 1922014\, p^{135} q^{178} + p^{181} q^{87} + 8\, p^{184} q^{111} + 3932458\, p^{149} q^{176} + 2\, p^{177} q^{70} + 135\, p^{186} q^{147} + 25\, p^{187} q^{153} + 37\, p^{184} q^{115}$$
$$+ 303\, p^{185} q^{136} + 127324\, p^{179} q^{162} + 689609\, p^{168} q^{66} + 3842123\, p^{174} q^{96} + 61174\, p^{163} q^{50} + 43\, p^{185} q^{126} + 193\, p^{185} q^{133} + 150\, p^{186} q^{148}$$
$$+ 61\, p^{186} q^{141} + 2\, p^{188} q^{188} + 5\, p^{188} q^{182} + 70\, p^{181} q^{185} + 8\, p^{176} q^{188} + 7\, p^{177} q^{188} + 7\, p^{178} q^{188} + 89\, p^{180} q^{185} + p^{189} q^{177} + p^{183} q^{189}$$
$$+ p^{187} q^{189} + p^{189} q^{189} + p^{190} q^{190} + p^{185} q^{189} + p^{188} q^{189} + p^{181} q^{189} + p^{186} q^{189} + p^{182} q^{189} + p^{179} q^{189} + p^{178} q^{189} + 271\, p^{184} q^{178} + p^{189} q^{173}$$
$$+ 5\, p^{182} q^{188} + 4\, p^{183} q^{188} + 4\, p^{184} q^{188} + 373\, p^{183} q^{179} + 17\, p^{186} q^{184} + 73\, p^{186} q^{177} + 7\, p^{188} q^{177} + p^{174} q^{189} + p^{180} q^{189} + p^{184} q^{189}$$
$$+ p^{176} q^{189} + p^{175} q^{189} + p^{177} q^{189} + p^{173} q^{189} + 12270\, p^{178} q^{175} + 22493\, p^{165} q^{181} + 13786\, p^{168} q^{181} + 16381\, p^{167} q^{181} + 19269\, p^{166} q^{181}$$
$$+ 12659\, p^{164} q^{182} + 734\, p^{184} q^{173} + 178\, p^{150} q^{186} + 1089\, p^{157} q^{185} + 1104\, p^{155} q^{185} + 1096\, p^{154} q^{185} + 1067\, p^{158} q^{185} + 6333\, p^{163} q^{183}$$
$$+ 5694\, p^{164} q^{183} + 189\, p^{151} q^{186} + 150\, p^{148} q^{186} + 252\, p^{157} q^{186} + 259\, p^{158} q^{186} + 35\, p^{156} q^{187} + 4045\, p^{153} q^{184} + 10296\, p^{157} q^{183}$$
$$+ 9650\, p^{158} q^{183} + 20726\, p^{169} q^{180} + 16880\, p^{170} q^{180} + 3886\, p^{155} q^{184} + 58045\, p^{171} q^{177} + 3986\, p^{154} q^{184} + 8998\, p^{159} q^{183}$$
$$+ 36864\, p^{174} q^{176} + 260348\, p^{106} q^{178} + 25\, p^{182} q^{98} + 264\, p^{185} q^{135} + 161\, p^{185} q^{132} + 9\, p^{181} q^{90} + 162\, p^{186} q^{149} + 52\, p^{184} q^{116} + 29\, p^{181} q^{92}$$
$$+ 24\, p^{180} q^{86} + 243\, p^{184} q^{122} + 15\, p^{182} q^{97} + 27128453\, p^{114} q^{174} + 3\, p^{186} q^{188} + p^{189} q^{188} + 2\, p^{187} q^{188} + 3\, p^{185} q^{188} + 7\, p^{187} q^{185} + p^{189} q^{185}$$
$$+ 3\, p^{188} q^{185} + 13\, p^{182} q^{187} + 9\, p^{184} q^{187} + 7\, p^{185} q^{187} + 16\, p^{181} q^{187} + 11\, p^{183} q^{187} + p^{189} q^{187} + 5\, p^{186} q^{187} + 21\, p^{179} q^{187} + 4\, p^{187} q^{187}$$
$$+ 2\, p^{188} q^{187} + 18\, p^{180} q^{187} + 29\, p^{182} q^{186} + 137\, p^{185} q^{178} + 168\, p^{185} q^{177} + 91\, p^{182} q^{184} + 28\, p^{185} q^{184} + 64\, p^{183} q^{184} + 35\, p^{181} q^{186}$$
$$+ p^{189} q^{176} + 30\, p^{187} q^{176} + 8\, p^{188} q^{176} + 40\, p^{183} q^{185} + 44\, p^{180} q^{186} + p^{189} q^{183}$$

>

Sample INPUT/OUTPUT from http://www.math.rutgers.edu/~zeilberg/mamarim/mamarimhtml/invmaj.html
get FM(1,1)(n,i) ab initio

```
> print(`The (1,1)-factorial moment of (inv,maj) over permutations of {1,..,n} that end with
  i is:`):
  lprint(frs(1,1,n,i)):
```

The (1,1)-factorial moment of (inv,maj) over permutations of {1,..,n} that end with i is:

```
FAIL, [5/2, 1/2, -1/2, -1/2, 1/2, 5/2]
```

comment: I don't know at this point why this FAIL occurs.
But if one reloads the package, then the expected result is obtained.

```
>
```

```
> restart;
> read "C:\\Documents and Settings\\Manfred\\Desktop\\InvMaj.mpl";
  print(`The (1,1)-factorial moment of (inv,maj) over permutations of {1,..,n} that end with
  i is:`):
  lprint(frs(1,1,n,i)):
```

Created: March 30, 2010

This is InvMaj

A Maple package that accompanies the article

The Number of Inversions and the Major Index of Permutations

are Asymptotically Joint-Independently-Normal

by Andrew Baxter and Doron Zeilberger

and also available from Baxter's Zeilberger's websites.

Please report bugs to zeilberg at math dot rutgers dot edu

The most current version of this package and paper

are available from

http://www.math.rutgers.edu/~zeilberg/ .

For a list of the procedures type ezra();, for help with

a specific procedure, type ezra(procedure_name); .

```
Warning, the protected name Chi has been redefined and unprotected
```

The (1,1)-factorial moment of (inv,maj) over permutations of {1,..,n} that end with i is:

```
1/4-1/2*i+1/2*i^2+1/8*n-1/2*i*n+1/8*n^2
>
```

Sample INPUT/OUTPUT from http://www.math.rutgers.edu/~zeilberg/mamarim/mamarimhtml/invmaj.htm
The (beginnings, up to order 5) of the infinite-dimensional operators annihilating
FM(r,s)(n,i) mentioned on p. 8 of the article, and given there only to first-order.

```
> print(`The beginning (up to order 5) of the infinite-dimensional recurrence operator let's
  call it OPER(1/R,1/S,r,s,n,i) such that`):
  print(`the mixed-fatorial moment of (inv,maj) defined over permutations of {1, ..., n} that
  end in i (let's call if f[r,s](n,i)`):
  print(`f[r,s](n,i)=OPER(1/R,1/S,r,s,n,i) f[r,s](n,i) , corresponding to (RecG) of the
  article is`):
  lprint(MOP(I1/q+(q^(n-1)-1)/(n-1)*p^(n/2-i)/q^(n/2)/N,p,q,N,I1,r,s,R,S,5));

  lprint(MOP(I1/q+(q^(n-1)-1)/(n-1)*p^(n/2-i)/q^(n/2)/N,p,q,N,I1,r,s,R,S,5));
  print(`The beginning (up to order 5) of the infinite-dimensional recurrence operator let's
  call it OPER(1/R,1/S,r,s,n,i) such that`):
  print(`the mixed-fatorial moment of (inv,maj) defined over permutations of {1, ..., n} that
  end in i (let's call if f[r,s](n,i)`):
  print(`f[r,s](n,i)=OPER(1/R,1/S,r,s,n,i) f[r,s](n,i) , corresponding to (Gnn) of the
  article is`):
  print(`You have to stick Sum(%,i=1..n-1) in front!`):
  lprint(MOP((p*q)^(n/2-i)/N/(n-1),p,q,N,I1,r,s,R,S,5)):
```

The beginning (up to order 5) of the infinite-dimensional recurrence operator let's call it OPER(1/R,1/S,r,s,n,i) such that

the mixed-fatorial moment of (inv,maj) defined over permutations of {1, ..., n} that end in i (let's call if f[r,s](n,i)

f[r,s](n,i)=OPER(1/R,1/S,r,s,n,i) f[r,s](n,i) , corresponding to (RecG) of the article is

```
-1/48*r*s*(r-1)*(r-2)*(-n+2*i+4)*(-n+2*i+2)*(-n+2*i)/R^3/S/N-s/S*I1+s*(s-1)/S^2*I1+1/3840*r*s*(r-1)*(r-2)*(r-3)*
(r-4)*(-n+2*i)*(-n+2*i+6)*(-n+2*i+2)*(-n+2*i+8)*(-n+2*i+4)*(s-1)/R^5/S^2/N+s/S/N+s*(s-1)*(s-2)*(s-3)/S^4*I1-s*(s
-1)*(s-2)/S^3*I1-1/7372800*r*s*(s-1)*(s-2)*(s-3)*(s-4)*(n^4+1920-464*n+236*n^2-4*n^3)*(r-1)*(r-2)*(r-3)*(r-4)*(-
n+2*i+8)*(-n+2*i+4)*(-n+2*i)*(-n+2*i+6)*(-n+2*i+2)/R^5/S^5/N-1/92160*r*s*(s-1)*(s-2)*(s-3)*(s-4)*(n^4+1920-464*n
+236*n^2-4*n^3)*(r-1)*(r-2)*(-n+2*i+4)*(-n+2*i+2)*(-n+2*i)/R^3/S^5/N+1/737280*r*s*(s-1)*(s-2)*(s-3)*(s-4)*(n^4+1
920-464*n+236*n^2-4*n^3)*(r-1)*(r-2)*(r-3)*(-n+2*i+6)*(-n+2*i+2)*(-n+2*i+4)*(-n+2*i)/R^4/S^5/N+1/9216*r*s*(s-1)*
(s-2)*(24-2*n+n^2)*(r-1)*(r-2)*(r-3)*(-n+2*i+2)*(-n+2*i+4)*(-n+2*i)*(-n+2*i+6)/R^4/S^3/N+1/48*r*s*(r-1)*(r-2)*(-
n+2*i+4)*(-n+2*i+2)*(-n+2*i)*(s-1)/R^3/S^2/N+1/15360*r*s*(s-1)*(s-2)*(s-3)*(s-4)*(n^4+1920-464*n+236*n^2-4*n^3)*
(-n+2*i+2)*(-n+2*i)*(r-1)/R^2/S^5/N-1/96*r*s*(s-1)*(s-2)*(s-3)*(-2*n+12+n^2)*(-n+2*i+2)*(-n+2*i)*(r-1)/R^2/S^4/N
```

```
+1/1920*s*(s-1)*(s-2)*(s-3)*(s-4)*(n^4+1920-464*n+236*n^2-4*n^3)/S^5/N-1/3840*r*s*(r-1)*(r-2)*(r-3)*(r-4)*(-n+2*
i+4)*(-n+2*i)*(-n+2*i+6)*(-n+2*i+2)*(-n+2*i+8)/R^5/S/N-s*(s-1)*(s-2)*(s-3)*(s-4)/S^5*I1+1/384*r*s*(r-1)*(r-2)*(r
-3)*(-n+2*i+2)*(-n+2*i+4)*(-n+2*i)*(-n+2*i+6)/R^4/S/N-1/3840*r*s*(s-1)*(s-2)*(s-3)*(s-4)*(n^4+1920-464*n+236*n^2
-4*n^3)*(-n+2*i)/R/S^5/N-1/384*r*s*(r-1)*(r-2)*(r-3)*(-n+2*i+2)*(-n+2*i+4)*(-n+2*i)*(-n+2*i+6)*(s-1)/R^4/S^2/N+1
/576*r*s*(s-1)*(s-2)*(s-3)*(-2*n+12+n^2)*(r-1)*(r-2)*(-n+2*i+4)*(-n+2*i+2)*(-n+2*i)/R^3/S^4/N+I1-s*(s-1)/S^2/N+1
/46080*r*s*(s-1)*(s-2)*(s-3)*(-2*n+12+n^2)*(r-1)*(r-2)*(r-3)*(r-4)*(-n+2*i+8)*(-n+2*i+4)*(-n+2*i)*(-n+2*i+6)*(-n
+2*i+2)/R^5/S^4/N+1/2*r*s*(s-1)*(-n+2*i)/R/S^2/N-1/8*r*s*(-n+2*i+2)*(-n+2*i)*(s-1)*(r-1)/R^2/S^2/N-1/1152*r*s*(s
-1)*(s-2)*(24-2*n+n^2)*(r-1)*(r-2)*(-n+2*i+4)*(-n+2*i+2)*(-n+2*i)/R^3/S^3/N-1/2*r*s*(-n+2*i)/R/S/N-1/12*s*(s-1)*
(s-2)*(s-3)*(-2*n+12+n^2)/S^4/N+1/192*r*s*(s-1)*(s-2)*(24-2*n+n^2)*(-n+2*i+2)*(-n+2*i)*(r-1)/R^2/S^3/N+1/24*r*s*
(s-1)*(s-2)*(s-3)*(-2*n+12+n^2)*(-n+2*i)/R/S^4/N-1/4608*r*s*(s-1)*(s-2)*(s-3)*(-2*n+12+n^2)*(r-1)*(r-2)*(r-3)*(-
n+2*i+6)*(-n+2*i+2)*(-n+2*i+4)*(-n+2*i)/R^4/S^4/N-1/92160*r*s*(s-1)*(s-2)*(24-2*n+n^2)*(r-1)*(r-2)*(r-3)*(r-4)*(
-n+2*i+8)*(-n+2*i+4)*(-n+2*i)*(-n+2*i+6)*(-n+2*i+2)/R^5/S^3/N+1/24*s*(s-1)*(s-2)*(24-2*n+n^2)/S^3/N+1/8*r*s*(-n+
2*i+2)*(-n+2*i)*(r-1)/R^2/S/N-1/48*r*s*(s-1)*(s-2)*(24-2*n+n^2)*(-n+2*i)/R/S^3/N
-1/48*r*s*(r-1)*(r-2)*(-n+2*i+4)*(-n+2*i+2)*(-n+2*i)/R^3/S/N-s/S*I1+s*(s-1)/S^2*I1+1/3840*r*s*(r-1)*(r-2)*(r-3)*
(r-4)*(-n+2*i)*(-n+2*i+6)*(-n+2*i+2)*(-n+2*i+8)*(-n+2*i+4)*(s-1)/R^5/S^2/N+s/S/N+s*(s-1)*(s-2)*(s-3)/S^4*I1-s*(s
-1)*(s-2)/S^3*I1-1/7372800*r*s*(s-1)*(s-2)*(s-3)*(s-4)*(n^4+1920-464*n+236*n^2-4*n^3)*(r-1)*(r-2)*(r-3)*(r-4)*(-
n+2*i+8)*(-n+2*i+4)*(-n+2*i)*(-n+2*i+6)*(-n+2*i+2)/R^5/S^5/N-1/92160*r*s*(s-1)*(s-2)*(s-3)*(s-4)*(n^4+1920-464*n
+236*n^2-4*n^3)*(r-1)*(r-2)*(-n+2*i+4)*(-n+2*i+2)*(-n+2*i)/R^3/S^5/N+1/737280*r*s*(s-1)*(s-2)*(s-3)*(s-4)*(n^4+1
920-464*n+236*n^2-4*n^3)*(r-1)*(r-2)*(r-3)*(-n+2*i+6)*(-n+2*i+2)*(-n+2*i+4)*(-n+2*i)/R^4/S^5/N+1/9216*r*s*(s-1)*
(s-2)*(24-2*n+n^2)*(r-1)*(r-2)*(r-3)*(-n+2*i+2)*(-n+2*i+4)*(-n+2*i)*(-n+2*i+6)/R^4/S^3/N+1/48*r*s*(r-1)*(r-2)*(-
n+2*i+4)*(-n+2*i+2)*(-n+2*i)*(s-1)/R^3/S^2/N+1/15360*r*s*(s-1)*(s-2)*(s-3)*(s-4)*(n^4+1920-464*n+236*n^2-4*n^3)*
(-n+2*i+2)*(-n+2*i)*(r-1)/R^2/S^5/N-1/96*r*s*(s-1)*(s-2)*(s-3)*(-2*n+12+n^2)*(-n+2*i+2)*(-n+2*i)*(r-1)/R^2/S^4/N
+1/1920*s*(s-1)*(s-2)*(s-3)*(s-4)*(n^4+1920-464*n+236*n^2-4*n^3)/S^5/N-1/3840*r*s*(r-1)*(r-2)*(r-3)*(r-4)*(-n+2*
i+4)*(-n+2*i)*(-n+2*i+6)*(-n+2*i+2)*(-n+2*i+8)/R^5/S/N-s*(s-1)*(s-2)*(s-3)*(s-4)/S^5*I1+1/384*r*s*(r-1)*(r-2)*(r
-3)*(-n+2*i+2)*(-n+2*i+4)*(-n+2*i)*(-n+2*i+6)/R^4/S/N-1/3840*r*s*(s-1)*(s-2)*(s-3)*(s-4)*(n^4+1920-464*n+236*n^2
-4*n^3)*(-n+2*i)/R/S^5/N-1/384*r*s*(r-1)*(r-2)*(r-3)*(-n+2*i+2)*(-n+2*i+4)*(-n+2*i)*(-n+2*i+6)*(s-1)/R^4/S^2/N+1
/576*r*s*(s-1)*(s-2)*(s-3)*(-2*n+12+n^2)*(r-1)*(r-2)*(-n+2*i+4)*(-n+2*i+2)*(-n+2*i)/R^3/S^4/N+I1-s*(s-1)/S^2/N+1
/46080*r*s*(s-1)*(s-2)*(s-3)*(-2*n+12+n^2)*(r-1)*(r-2)*(r-3)*(r-4)*(-n+2*i+8)*(-n+2*i+4)*(-n+2*i)*(-n+2*i+6)*(-n
+2*i+2)/R^5/S^4/N+1/2*r*s*(s-1)*(-n+2*i)/R/S^2/N-1/8*r*s*(-n+2*i+2)*(-n+2*i)*(s-1)*(r-1)/R^2/S^2/N-1/1152*r*s*(s
-1)*(s-2)*(24-2*n+n^2)*(r-1)*(r-2)*(-n+2*i+4)*(-n+2*i+2)*(-n+2*i)/R^3/S^3/N-1/2*r*s*(-n+2*i)/R/S/N-1/12*s*(s-1)*
(s-2)*(s-3)*(-2*n+12+n^2)/S^4/N+1/192*r*s*(s-1)*(s-2)*(24-2*n+n^2)*(-n+2*i+2)*(-n+2*i)*(r-1)/R^2/S^3/N+1/24*r*s*
(s-1)*(s-2)*(s-3)*(-2*n+12+n^2)*(-n+2*i)/R/S^4/N-1/4608*r*s*(s-1)*(s-2)*(s-3)*(-2*n+12+n^2)*(r-1)*(r-2)*(r-3)*(-
n+2*i+6)*(-n+2*i+2)*(-n+2*i+4)*(-n+2*i)/R^4/S^4/N-1/92160*r*s*(s-1)*(s-2)*(24-2*n+n^2)*(r-1)*(r-2)*(r-3)*(r-4)*(
-n+2*i+8)*(-n+2*i+4)*(-n+2*i)*(-n+2*i+6)*(-n+2*i+2)/R^5/S^3/N+1/24*s*(s-1)*(s-2)*(24-2*n+n^2)/S^3/N+1/8*r*s*(-n+
2*i+2)*(-n+2*i)*(r-1)/R^2/S/N-1/48*r*s*(s-1)*(s-2)*(24-2*n+n^2)*(-n+2*i)/R/S^3/N
```

The beginning (up to order 5) of the infinite-dimensional recurrence operator let's call it OPER(1/R,1/S,r,s,n,i) such that the mixed-fatorial moment of (inv,maj) defined over permutations of {1, ..., n} that end in i (let's call if f[r,s](n,i) f[r,s](n,i)=OPER(1/R,1/S,r,s,n,i) f[r,s](n,i) , corresponding to (Gnn) of the article is

You have to stick Sum(%,i=1..n-1) in front!

```
1/96*r*s*(s-1)*(s-2)*(-n+2*i+4)*(-n+2*i+2)*(-n+2*i)^2/(n-1)/R/S^3/N+1/8*r*(-n+2*i+2)*(-n+2*i)*(r-1)/(n-1)/R^2/N+
```

```
1/147456*r*s*(s-1)*(s-2)*(s-3)*(r-1)*(r-2)*(r-3)*(-n+2*i+6)^2*(-n+2*i+2)^2*(-n+2*i+4)^2*(-n+2*i)^2/(n-1)/R^4/S^4
/N+1/384*r*(r-1)*(r-2)*(r-3)*(-n+2*i+2)*(-n+2*i+4)*(-n+2*i)*(-n+2*i+6)/(n-1)/R^4/N+1/8*s*(-n+2*i+2)*(-n+2*i)*(s-
1)/(n-1)/S^2/N-1/3840*s*(s-1)*(s-2)*(s-3)*(s-4)*(-n+2*i+4)*(-n+2*i)*(-n+2*i+6)*(-n+2*i+2)*(-n+2*i+8)/(n-1)/S^5/N
+1/184320*r*s*(s-1)*(s-2)*(r-1)*(r-2)*(r-3)*(r-4)*(-n+2*i+8)*(-n+2*i+6)*(-n+2*i+2)^2*(-n+2*i)^2*(-n+2*i+4)^2/(n-
1)/R^5/S^3/N-1/384*r*s*(r-1)*(r-2)*(-n+2*i+4)*(-n+2*i+2)^2*(-n+2*i)^2*(s-1)/(n-1)/R^3/S^2/N-1/384*r*s*(s-1)*(s-2
)*(-n+2*i+4)*(-n+2*i+2)^2*(-n+2*i)^2*(r-1)/(n-1)/R^2/S^3/N+1/2304*r*s*(s-1)*(s-2)*(r-1)*(r-2)*(-n+2*i+4)^2*(-n+2
*i+2)^2*(-n+2*i)^2/(n-1)/R^3/S^3/N+1/(n-1)/N+1/64*r*s*(-n+2*i+2)^2*(-n+2*i)^2*(s-1)*(r-1)/(n-1)/R^2/S^2/N-1/768*
r*s*(s-1)*(s-2)*(s-3)*(-n+2*i+2)*(-n+2*i+6)*(-n+2*i+4)*(-n+2*i)^2/(n-1)/R/S^4/N-1/18432*r*s*(s-1)*(s-2)*(r-1)*(r
-2)*(r-3)*(-n+2*i+6)*(-n+2*i+4)^2*(-n+2*i+2)^2*(-n+2*i)^2/(n-1)/R^4/S^3/N-1/48*r*(r-1)*(r-2)*(-n+2*i)*(-n+2*i+4)
*(-n+2*i+2)/(n-1)/R^3/N+1/184320*r*s*(s-1)*(s-2)*(s-3)*(s-4)*(r-1)*(r-2)*(-n+2*i+8)*(-n+2*i+6)*(-n+2*i+4)^2*(-n+
2*i+2)^2*(-n+2*i)^2/(n-1)/R^3/S^5/N+1/7680*r*s*(r-1)*(r-2)*(r-3)*(r-4)*(-n+2*i+6)*(-n+2*i+2)*(-n+2*i+8)*(-n+2*i+
4)*(-n+2*i)^2/(n-1)/R^5/S/N-1/768*r*s*(r-1)*(r-2)*(r-3)*(-n+2*i+6)*(-n+2*i+4)*(-n+2*i+2)*(-n+2*i)^2/(n-1)/R^4/S/
N+1/384*s*(s-1)*(s-2)*(s-3)*(-n+2*i+2)*(-n+2*i+4)*(-n+2*i)*(-n+2*i+6)/(n-1)/S^4/N-1/18432*r*s*(s-1)*(s-2)*(s-3)*
(r-1)*(r-2)*(-n+2*i+6)*(-n+2*i)^2*(-n+2*i+4)^2*(-n+2*i+2)^2/(n-1)/R^3/S^4/N+1/3072*r*s*(s-1)*(s-2)*(s-3)*(-n+2*i
+6)*(-n+2*i+4)*(-n+2*i+2)^2*(-n+2*i)^2*(r-1)/(n-1)/R^2/S^4/N-1/30720*r*s*(s-1)*(s-2)*(s-3)*(s-4)*(-n+2*i+8)*(-n+
2*i+6)*(-n+2*i+4)*(-n+2*i+2)^2*(-n+2*i)^2*(r-1)/(n-1)/R^2/S^5/N+1/7680*r*s*(s-1)*(s-2)*(s-3)*(s-4)*(-n+2*i+8)*(-
n+2*i+4)*(-n+2*i+6)*(-n+2*i+2)*(-n+2*i)^2/(n-1)/R/S^5/N+1/14745600*r*s*(s-1)*(s-2)*(s-3)*(s-4)*(r-1)*(r-2)*(r-3)
*(r-4)*(-n+2*i+8)^2*(-n+2*i+4)^2*(-n+2*i)^2*(-n+2*i+6)^2*(-n+2*i+2)^2/(n-1)/R^5/S^5/N-1/48*s*(s-1)*(s-2)*(-n+2*i
+4)*(-n+2*i+2)*(-n+2*i)/(n-1)/S^3/N-1/30720*r*s*(r-1)*(r-2)*(r-3)*(r-4)*(-n+2*i+6)*(-n+2*i+4)*(-n+2*i+8)*(-n+2*i
+2)^2*(-n+2*i)^2*(s-1)/(n-1)/R^5/S^2/N-1/16*r*s*(-n+2*i+2)*(-n+2*i)^2*(s-1)/(n-1)/R/S^2/N-1/1474560*r*s*(s-1)*(s
-2)*(s-3)*(r-1)*(r-2)*(r-3)*(r-4)*(-n+2*i+8)*(-n+2*i+6)^2*(-n+2*i+2)^2*(-n+2*i+4)^2*(-n+2*i)^2/(n-1)/R^5/S^4/N-1
/2*s*(-n+2*i)/(n-1)/S/N+1/4*r*s*(-n+2*i)^2/(n-1)/R/S/N-1/16*r*s*(-n+2*i+2)*(-n+2*i)^2*(r-1)/(n-1)/R^2/S/N-1/1474
560*r*s*(s-1)*(s-2)*(s-3)*(s-4)*(r-1)*(r-2)*(r-3)*(-n+2*i+8)*(-n+2*i+6)^2*(-n+2*i+2)^2*(-n+2*i+4)^2*(-n+2*i)^2/(
n-1)/R^4/S^5/N-1/3840*r*(r-1)*(r-2)*(r-3)*(r-4)*(-n+2*i+4)*(-n+2*i)*(-n+2*i+6)*(-n+2*i+2)*(-n+2*i+8)/(n-1)/R^5/N
+1/3072*r*s*(r-1)*(r-2)*(r-3)*(-n+2*i+6)*(-n+2*i+4)*(-n+2*i+2)^2*(-n+2*i)^2*(s-1)/(n-1)/R^4/S^2/N-1/2*r*(-n+2*i)
/(n-1)/R/N+1/96*r*s*(r-1)*(r-2)*(-n+2*i+4)*(-n+2*i+2)*(-n+2*i)^2/(n-1)/R^3/S/N
>
```

Sample INPUT/OUTPUT from http://www.math.rutgers.edu/~zeilberg/mamarim/mamarimhtml/invmaj.htm
The empirical-yet-rigorous proof of the explicit expressions for the leading terms of the mixed-factorial moments FM(r,s)(n,i) mentioned on p. 8 of the article, equation (RecG')

```
> print(`The assertion claimed on p. 8 of the article, that Eq (RecG') is true for all `):
  print(`four cases (even, even), (even, odd), (odd, even), (odd, odd) `):
  print(`is (empirically)`):
  print(Check1(FM8m(n,i),n,i)):
  print(`but since we reduced it to the polynomial ansatz, and we checked enough special
  cases, as explained in the article`):
  print(`it is also RIGOROUSLY proved!`):

  print(`This took `, time(), ` seconds. `):
```

The assertion claimed on p. 8 of the article, that Eq (RecG') is true for all

four cases (even, even), (even, odd), (odd, even), (odd, odd)

is (empirically)

true

but since we reduced it to the polynomial ansatz, and we checked enough special cases, as explained in the article

it is also RIGOROUSLY proved!

This took , 309.951, *seconds.*

```
>
```

Sample INPUT/OUTPUT from http://www.math.rutgers.edu/~zeilberg/mamarim/mamarimhtml/invmaj.htm
The empirical-yet-rigorous proof of the explicit expressions for the leading terms of the mixed-factorial moments FM(r,s)(n,i) mentioned on p. 8 of the article, equation (Gnn')

```
> print(`The assertion claimed on p. 8 of the article, that Eq (Gnn') is true for all `):
  print(`four cases (even, even), (even, odd), (odd, even), (odd, odd) `):
  print(`is (empirically)`):
  print(Check2(FM8m(n,i),n,i)):
  print(`but since we reduced it to the polynomial ansatz, and we checked enough special
  cases, as explained in the article`):
  print(`it is also RIGOROUSLY proved!`):

  print(`This took `, time(), ` seconds. `):
```

The assertion claimed on p. 8 of the article, that Eq (Gnn') is true for all

four cases (even, even), (even, odd), (odd, even), (odd, odd)

is (empirically)

true

but since we reduced it to the polynomial ansatz, and we checked enough special cases, as explained in the article

it is also RIGOROUSLY proved!

This took , 317.436, *seconds.*

```
>
```