```
> #Hrudai Battini Hw 18
  read "/Users/hb334/Documents/M18.txt";
  with(LinearAlgebra):
> #1
  C := proc(a,b,c,d,e) local r,f:
  r := a/(b/c):
  f := d/r*e:

  end:

  C(3/2,3/2,3/2,3,3);
```

$$6 \tag{1}$$

```
> #2
  W := proc(a,b,k) local va,vb,vc:

  vc = 1/(1/a-1/b)/(k-1):
  end:
  W(4,5,2);
```

$$vc = 20 \tag{2}$$

```
> #3
  #i
  #F(x,y) = 0 = (x*(1-x-y) = (0,0) , (2,-1)
  #G(x,y) = 0 = x(3-2x-y)-> (x,y) = (0,0), (2,-1)
  J = [[1-x-y, x], [3-2*x-y,x]];
  #(0,0)
  J1 := Matrix([[1,0], [3,0]]); #Unstable
  Eigenvalues(J1);
  #(2,-1)
  J2 := Matrix([[0,2],[0,2]]);
  Eigenvalues(J2); #Unstable
```

$$J = [[1 - x - y, x], [3 - 2x - y, x]]$$

$$J1 := \begin{bmatrix} 1 & 0 \\ 3 & 0 \end{bmatrix}$$

$$\begin{bmatrix} 0 \\ 1 \end{bmatrix}$$

$$J2 := \begin{bmatrix} 0 & 2 \\ 0 & 2 \end{bmatrix}$$

$$\begin{bmatrix} 0 \\ 2 \end{bmatrix} \tag{3}$$

```
> #4
  F := [x*(1-x-y), x*(3-2*x-y)];
  Dis2(F,x,y,[2.1,-0.9],0.1,10);
  Dis2(F,x,y,[0.1,0.1],0.1,10);
```

$$F := [x\,(1-x-y), x\,(3-2\,x-y)\,]$$

$\big[\,[0.1, [2.1, -0.9]], [0.2, [2.058, -0.963]], [0.3, [2.0384490, -0.9944874]], [0.4,$
$[2.029487652, -1.011286381]], [0.5, [2.025793727, -1.020964789]], [0.6,$
$[2.024815484, -1.027168309]], [0.7, [2.025291888, -1.031716583]], [0.8,$
$[2.026593076, -1.035537740]], [0.9, [2.028405795, -1.039114355]], [1.0,$
$[2.030577926, -1.042704072]], [1.1, [2.033040234, -1.046450850]], [1.2,$
$[2.035766666, -1.050441630]], [1.3, [2.038754146, -1.054735408]], [1.4,$
$[2.042012332, -1.059378239]], [1.5, [2.045558472, -1.064411069]], [1.6,$
$[2.049414881, -1.069873912]], [1.7, [2.053607785, -1.075808167]], [1.8,$
$[2.058166873, -1.082258016]], [1.9, [2.063125232, -1.089271370]], [2.0,$
$[2.068519508, -1.096900620]], [2.1, [2.074390196, -1.105203326]], [2.2,$
$[2.080782041, -1.114242910]], [2.3, [2.087744519, -1.124089414]], [2.4,$
$[2.095332405, -1.134820342]], [2.5, [2.103606440, -1.146521614]], [2.6,$
$[2.112634104, -1.159288668]], [2.7, [2.122490506, -1.173227731]], [2.8,$
$[2.133259434, -1.188457297]], [2.9, [2.145034570, -1.205109855]], [3.0,$
$[2.157920926, -1.223333915]], [3.1, [2.172036532, -1.243296396]], [3.2,$
$[2.187514435, -1.265185456]], [3.3, [2.204505083, -1.289213861]], [3.4,$
$[2.223179176, -1.315623017]], [3.5, [2.243731098, -1.344687824]], [3.6,$
$[2.266383073, -1.376722554]], [3.7, [2.291390226, -1.412088010]], [3.8,$
$[2.319046798, -1.451200309]], [3.9, [2.349693816, -1.494541737]], [4.0,$
$[2.383728642, -1.542674250]], [4.1, [2.421616962, -1.596256426]], [4.2,$
$[2.463907951, -1.656064916]], [4.3, [2.511253658, -1.723021858]], [4.4,$
$[2.564434025, -1.798230253]], [4.5, [2.624389525, -1.883020135]], [4.6,$
$[2.692264271, -1.979009522]], [4.7, [2.769463670, -2.088185959]], [4.8,$
$[2.857732650, -2.213017147]], [4.9, [2.959263461, -2.356603396]], [5.0,$
$[3.076846816, -2.522891372]], [5.1, [3.214087893, -2.716979564]], [5.2,$
$[3.375721696, -2.945564281]], [5.3, [3.568084694, -3.217606641]], [5.4,$
$[3.799839626, -3.545357609]], [5.5, [4.083124503, -3.945982925]], [5.6,$
$[4.435440340, -4.444232759]], [5.7, [4.882884199, -5.077013933]], [5.8,$
$[5.465963920, -5.901613182]], [5.9, [6.250684627, -7.011375849]], [6.0,$
$[7.351237182, -8.567792196]], [6.1, [8.980679345, -10.87217140]], [6.2,$
$[11.57743564, -14.54453938]], [6.3, [16.17032446, -21.03986503]], [6.4,$

$[25.66156200, -34.46250191]], [6.5, [50.81230472, -70.03102322]], [6.6,$
$[153.5482732, -215.3216246]], [6.7, [1117.422244, -1578.445220]], [6.8,$
$[52744.89730, -74590.73285]], [6.9, [1.152836546 \times 10^8, -1.630355511 \times 10^8]], [7.0,$
$[5.505014411 \times 10^{14}, -7.785309159 \times 10^{14}]], [7.1, [1.255305545 \times 10^{28}, -1.775212821$
$\times 10^{28}]], [7.2, [6.526424864 \times 10^{54}, -9.231495249 \times 10^{54}]], [7.3, [1.765443862$
$\times 10^{108}, -2.493978290 \times 10^{108}]], [7.4, [1.286186634 \times 10^{215}, -1.830605396 \times 10^{215}]],$
$[7.5, [7.002241350 \times 10^{428}, -9.540519225 \times 10^{428}]], [7.6, [1.777363429 \times 10^{856},$
$-3.125774963 \times 10^{856}]], [7.7, [2.396617348 \times 10^{1711}, -7.624034110 \times 10^{1710}]], [7.8,$
$[-3.916585472 \times 10^{3421}, -9.660360184 \times 10^{3421}]], [7.9, [-5.317526813 \times 10^{6842},$
$-6.851490988 \times 10^{6842}]], [8.0, [-6.470907844 \times 10^{13684}, -9.298516988 \times 10^{13684}]],$
$[8.1, [-1.020424948 \times 10^{27369}, -1.439151432 \times 10^{27369}]], [8.2, [-2.509813100$
$\times 10^{54737}, -3.551080174 \times 10^{54737}]], [8.3, [-1.521170934 \times 10^{109474}, -2.151087113$
$\times 10^{109474}]], [8.4, [-5.586132203 \times 10^{218947}, -7.900093214 \times 10^{218947}]], [8.5,$
$[-7.533583812 \times 10^{437894}, -1.065407111 \times 10^{437895}]], [8.6, [-1.370182227$
$\times 10^{875789}, -1.937731077 \times 10^{875789}]], [8.7, [-4.532444018 \times 10^{1751577}, -6.409843353$
$\times 10^{1751577}]], [8.8, [-4.959530493 \times 10^{3503154}, -7.013835372 \times 10^{3503154}]], [8.9,$
$[-5.938227309 \times 10^{7006308}, -8.397921583 \times 10^{7006308}]], [9.0, [-8.513131084$
$\times 10^{14012616}, -1.203938544 \times 10^{14012617}]], [9.1, [-1.749662672 \times 10^{28025233},$
$-2.474396681 \times 10^{28025233}]], [9.2, [-7.390678974 \times 10^{56050465}, -1.045199844$
$\times 10^{56050466}]], [9.3, [-1.318695008 \times 10^{112100931}, -1.864916365 \times 10^{112100931}]], [9.4,$
$[-4.198212425 \times 10^{224201861}, -5.937168949 \times 10^{224201861}]], [9.5, [-4.255048400$
$\times 10^{448403722}, -6.017547159 \times 10^{448403722}]], [9.6, [-4.371039130 \times 10^{896807444},$
$-6.181582819 \times 10^{896807444}]], [9.7, [-4.612592347 \times 10^{1793614888}, -6.523190654$
$\times 10^{1793614888}]], [9.8, [-5.136482744 \times 10^{3587229776}, -7.264083562 \times 10^{3587229776}]],$
$[9.9, [-6.369529487 \times 10^{7174459552}, -9.007874983 \times 10^{7174459552}]], [10.0,$
$[-9.794683121 \times 10^{14348919104}, -1.385177370 \times 10^{14348919105}]], [10.1, [-2.316095515$
$\times 10^{28697838209}, -3.275453689 \times 10^{28697838209}]]]$

$[[0.1, [0.1, 0.1]], [0.2, [0.108, 0.127]], [0.3, [0.1162620, 0.1556956]], [0.4,$ **(4)**
$[0.1247263666, 0.1860606813]], [0.5, [0.1333226693, 0.2180465907]], [0.6,$
$[0.1419703875, 0.2515813493]], [0.7, [0.1505801570, 0.2865696372]], [0.8,$
$[0.1590555642, 0.3228936375]], [0.9, [0.1672954504, 0.3604147693]], [1.0,$
$[0.1751966436, 0.3989762758]], [1.1, [0.1826569911, 0.4384065656]], [1.2,$
$[0.1895785302, 0.4785231452]], [1.3, [0.1958706099, 0.5191369290]], [1.4,$

[0.2014527746, 0.5600566861]], [1.5, [0.2062572327, 0.6010933771]], [1.6, [0.2102307657, 0.6420641521]], [1.7, [0.2133359810, 0.6827958230]], [1.8, [0.2155518633, 0.7231276775]], [1.9, [0.2168736372, 0.7629135635]], [2.0, [0.2173119995, 0.8020232358]], [2.1, [0.2168918216, 0.8403430073]], [2.2, [0.2156504450, 0.8777757888]], [2.3, [0.2136357041, 0.9142406255]], [2.4, [0.2109038091, 0.9496718499]], [2.5, [0.2075172073, 0.9840179682]], [2.6, [0.2035425228, 1.017240386]], [2.7, [0.1990486518, 1.049312064]], [2.8, [0.1941050652, 1.080216171]], [2.9, [0.1887803511, 1.109944792]], [3.0, [0.1831410074, 1.138497716]], [3.1, [0.1772504834, 1.165881331]], [3.2, [0.1711684554, 1.192107626]], [3.3, [0.1649503148, 1.217193312]], [3.4, [0.1586468436, 1.241159043]], [3.5, [0.1523040494, 1.264028735]], [3.6, [0.1459631325, 1.285828976]], [3.7, [0.1396605596, 1.306588506]], [3.8, [0.1334282202, 1.326337771]], [3.9, [0.1272936444, 1.345108530]], [4.0, [0.1212802650, 1.362933512]], [4.1, [0.1154077075, 1.379846117]], [4.2, [0.1096920966, 1.395880154]], [4.3, [0.1041463686, 1.411069610]], [4.4, [0.09878058128, 1.425448450]], [4.5, [0.09360221644, 1.439050441]], [4.6, [0.08861646951, 1.451909000]], [4.7, [0.08382652363, 1.464057060]], [4.8, [0.07923380601, 1.475526958]], [4.9, [0.07483822533, 1.486350339]], [5.0, [0.07063838971, 1.496558072]], [5.1, [0.06663180524, 1.506180187]], [5.2, [0.06281505553, 1.515245819]], [5.3, [0.05918396294, 1.523783164]], [5.4, [0.05573373246, 1.531819452]], [5.5, [0.05245907926, 1.539380920]], [5.6, [0.04935434112, 1.546492802]], [5.7, [0.04641357680, 1.553179321]], [5.8, [0.04363065170, 1.559463689]], [5.9, [0.04099931179, 1.565368116]], [6.0, [0.03851324707, 1.570913819]], [6.1, [0.03616614555, 1.576121040]], [6.2, [0.03395173880, 1.581009063]], [6.3, [0.03186383995, 1.585596240]], [6.4, [0.02989637503, 1.589900013]], [6.5, [0.02804340850, 1.593936942]], [6.6, [0.02629916360, 1.597722736]], [6.7, [0.02465803820, 1.601272279]], [6.8, [0.02311461683, 1.604599663]], [6.9, [0.02166367932, 1.607718220]], [7.0, [0.02030020656, 1.610640552]], [7.1, [0.01901938379, 1.613378561]], [7.2, [0.01781660187, 1.615943482]], [7.3, [0.01668745676, 1.618345914]], [7.4, [0.01562774757, 1.620595849]], [7.5, [0.01463347339, 1.622702702]], [7.6, [0.01370082919, 1.624675339]], [7.7, [0.01282620091, 1.626522105]], [7.8, [0.01200615993, 1.628250853]], [7.9, [0.01123745712, 1.629868967]], [8.0, [0.01051701652, 1.631383390]], [8.1, [0.009841928802, 1.632800645]], [8.2, [0.009209444556, 1.634126860]], [8.3, [0.008616967553, 1.635367791]], [8.4, [0.008062047976, 1.636528840]], [8.5, [0.007542375710, 1.637615078]], [8.6, [0.007055773719, 1.638631262]], [8.7, [0.006600191557, 1.639581856]], [8.8, [0.006173699028, 1.640471046]], [8.9, [0.005774480025, 1.641302755]], [9.0,

[0.005400826568, 1.642080663]], [9.1, [0.005051133045, 1.642808218]], [9.2, [0.004723890667, 1.643488651]], [9.3, [0.004417682149, 1.644124989]], [9.4, [0.004131176611, 1.644720068]], [9.5, [0.003863124702, 1.645276545]], [9.6, [0.003612353953, 1.645796907]], [9.7, [0.003377764342, 1.646283483]], [9.8, [0.003158324082, 1.646738455]], [9.9, [0.002953065617, 1.647163864]], [10.0, [0.002761081822, 1.647561621]], [10.1, [0.002581522403, 1.647933516]]]

```
> #5
  N := 50;
  Dis2(SIRS(x,y,0.01,0.01,1,N),x,y,[N-30,30],0.1,10);
  N2 := 80;
  Dis2(SIRS(x,y,0.01,0.01,1,N2),x,y,[N2-50, 50],0.1,10);

  N3 := 120;
  Dis2(SIRS(x,y,0.01,0.01,1,N3),x,y,[N3-110, 110],0.1,10); #It
  looks as if no one is infected given enough time.
  # Nβ/v is the famous R0-factor, aka infectuous contact number.
```

$$N := 50$$

$[[0.1, [20, 30]], [0.2, [19.400, 27.600]], [0.3, [18.86756000, 25.37544000]], [0.4, [18.39454436, 23.31666864]], [0.5, [17.97393365, 21.41390128]], [0.6, [17.59965378, 19.65740319]], [0.7, [17.26643324, 18.03762636]], [0.8, [16.96968371, 16.54530919]], [0.9, [16.70540006, 15.17154693]], [1.0, [16.47007635, 13.90783900]], [1.1, [16.26063526, 12.74611827]], [1.2, [16.07436852, 11.67876642]], [1.3, [15.90888658, 10.69861858]], [1.4, [15.76207596, 9.798959832]], [1.5, [15.63206297, 8.973515798]], [1.6, [15.51718283, 8.216438782]], [1.7, [15.41595323, 7.522290887]], [1.8, [15.32705171, 6.886025082]], [1.9, [15.24929617, 6.302965036]], [2.0, [15.18162812, 5.768784313]], [2.1, [15.12309817, 5.279485420]], [2.2, [15.07285340, 4.831379054]], [2.3, [15.03012650, 4.421063817]], [2.4, [14.99422616, 4.045406583]], [2.5, [14.96452878, 3.701523666]], [2.6, [14.94047117, 3.386762856]], [2.7, [14.92154411, 3.098686403]], [2.8, [14.90728669, 2.835054949]], [2.9, [14.89728137, 2.593812431]], [3.0, [14.89114953, 2.373071942]], [3.1, [14.88854754, 2.171102517]], [3.2, [14.88916333, 1.986316828]], [3.3, [14.89271325, 1.817259741]], [3.4, [14.89893935, 1.662597695]], [3.5, [14.90760687, 1.521108868]], [3.6, [14.91850206, 1.391674074]], [3.7, [14.93143020, 1.273268360]], [3.8, [14.94621378, 1.164953242]], [3.9, [14.96269098, 1.065869558]], [4.0, [14.98071414, 0.9752308790]], [4.1, [15.00014854, 0.8923174461]], [4.2, [15.02087118, 0.8164705957]], [4.3, [15.04276974, 0.7470876357]], [4.4, [15.06574161, 0.6836171394]], [4.5, [15.08969305, 0.6255546247]], [4.6, [15.11453838, 0.5724385895]], [4.7, [15.14019925, 0.5238468756]], [4.8, [15.16660405, 0.4793933341]], [4.9, [15.19368729, 0.4387247696]], [5.0, [15.22138903, 0.4015181396]], [5.1, [15.24965446, 0.3674779894]], [5.2, [15.27843342, 0.3363341029]], [5.3, [15.30768000,$

0.3078393508]], [5.4, [15.33735217, 0.2817677220]], [5.5, [15.36741148, 0.2579125206]], [5.6, [15.39782271, 0.2360847163]], [5.7, [15.42855362, 0.2161114353]], [5.8, [15.45957467, 0.1978345787]], [5.9, [15.49085883, 0.1811095592]], [6.0, [15.52238132, 0.1658041459]], [6.1, [15.55411946, 0.1517974065]], [6.2, [15.58605247, 0.1389787408]], [6.3, [15.61816131, 0.1272469966]], [6.4, [15.65042854, 0.1165096610]], [6.5, [15.68283817, 0.1066821210]], [6.6, [15.71537557, 0.09768698734]], [6.7, [15.74802731, 0.08945347630]], [6.8, [15.78078111, 0.08191684446]], [6.9, [15.81362570, 0.07501787180]], [7.0, [15.84655075, 0.06870238916]], [7.1, [15.87954680, 0.06292084614]], [7.2, [15.91260518, 0.05762791605]], [7.3, [15.94571793, 0.05278213472]], [7.4, [15.97887778, 0.04834557028]], [7.5, [16.01207804, 0.04428352121]], [7.6, [16.04531261, 0.04056424029]], [7.7, [16.07857587, 0.03715868218]], [7.8, [16.11186267, 0.03404027265]], [7.9, [16.14516832, 0.03118469758]], [8.0, [16.17848849, 0.02856971001]], [8.1, [16.21181922, 0.02617495373]], [8.2, [16.24515689, 0.02398180198]], [8.3, [16.27849816, 0.02197320992]], [8.4, [16.31184000, 0.02013357979]], [8.5, [16.34517961, 0.01844863754]], [8.6, [16.37851443, 0.01690532008]], [8.7, [16.41184213, 0.01549167210]], [8.8, [16.44516055, 0.01419675177]], [8.9, [16.47846772, 0.01301054445]], [9.0, [16.51176185, 0.01192388384]], [9.1, [16.54504129, 0.01092837979]], [9.2, [16.57830451, 0.01001635231]], [9.3, [16.61155014, 0.009180771218]], [9.4, [16.64477690, 0.008415200937]], [9.5, [16.67798363, 0.007713749985]], [9.6, [16.71116929, 0.007071024782]], [9.7, [16.74433288, 0.006482087396]], [9.8, [16.77747353, 0.005942416885]], [9.9, [16.81059042, 0.005447873938]], [10.0, [16.84368280, 0.004994668521]], [10.1, [16.87675000, 0.004579330281]]]]

$$N2 := 80$$

[[0.1, [30, 50]], [0.2, [28.500, 46.500]], [0.3, [27.17975000, 43.17525000]], [0.4, [26.01590250, 40.03121750]], [0.5, [24.98840713, 37.06954400]], [0.6, [24.08004032, 34.28889846]], [0.7, [23.27599332, 31.68568667]], [0.8, [22.56351581, 29.25463383]], [0.9, [21.93161027, 26.98925784]], [1.0, [21.37077152, 24.88224994]], [1.1, [20.87276562, 22.92577783]], [1.2, [20.43044268, 21.11172444]], [1.3, [20.03757864, 19.43187388]], [1.4, [19.68874149, 17.87805419]], [1.5, [19.37917831, 16.44224516]], [1.6, [19.10471968, 15.11665784]], [1.7, [18.86169879, 13.89379157]], [1.8, [18.64688279, 12.76647292]], [1.9, [18.45741452, 11.72788055]], [2.0, [18.29076288, 10.77155885]], [2.1, [18.14468053, 9.891422994]], [2.2, [18.01716772, 9.081757405]], [2.3, [17.90644124, 8.337209210]], [2.4, [17.81090784, 7.652778036]], [2.5, [17.72914123, 7.023803156]], [2.6, [17.65986229, 6.445948838]], [2.7, [17.60192191, 5.915188523]], [2.8, [17.55428611, 5.427788358]], [2.9, [17.51602308, 4.980290472]],

[3.0, [17.48629189, 4.569496308]], [3.1, [17.46433255, 4.192450223]], [3.2, [17.44945743, 3.846423546]], [3.3, [17.44104355, 3.528899195]], [3.4, [17.43852593, 3.237556961]], [3.5, [17.44139162, 2.970259486]], [3.6, [17.44917451, 2.725038996]], [3.7, [17.46145062, 2.500084777]], [3.8, [17.47783398, 2.293731406]], [3.9, [17.49797296, 2.104447722]], [4.0, [17.52154697, 1.930826519]], [4.1, [17.54826352, 1.771574935]], [4.2, [17.57785563, 1.625505506]], [4.3, [17.61007936, 1.491527856]], [4.4, [17.64471183, 1.368640994]], [4.5, [17.68154920, 1.255926171]], [4.6, [17.72040500, 1.152540274]], [4.7, [17.76110858, 1.057709727]], [4.8, [17.80350366, 0.9707248516]], [4.9, [17.84744714, 0.8909346698]], [5.0, [17.89280785, 0.8177421122]], [5.1, [17.93946560, 0.7505996035]], [5.2, [17.98731017, 0.6890049990]], [5.3, [18.03624051, 0.6324978457]], [5.4, [18.08616389, 0.5806559444]], [5.5, [18.13699523, 0.5330921886]], [5.6, [18.18865645, 0.4894516602]], [5.7, [18.24107587, 0.4494089623]], [5.8, [18.29418768, 0.4126657691]], [5.9, [18.34793143, 0.3789485772]], [6.0, [18.40225163, 0.3480066420]], [6.1, [18.45709726, 0.3196100836]], [6.2, [18.51242148, 0.2935481496]], [6.3, [18.56818122, 0.2696276217]], [6.4, [18.62433692, 0.2476713540]], [6.5, [18.68085220, 0.2275169333]], [6.6, [18.73769362, 0.2090154502]], [6.7, [18.79483044, 0.1920303727]], [6.8, [18.85223440, 0.1764365137]], [6.9, [18.90987951, 0.1621190848]], [7.0, [18.96774186, 0.1489728287]], [7.1, [19.02579947, 0.1369012240]], [7.2, [19.08403211, 0.1258157568]], [7.3, [19.14242119, 0.1156352530]], [7.4, [19.20094959, 0.1062852664]], [7.5, [19.25960157, 0.09769751780]], [7.6, [19.31836265, 0.08980938129]], [7.7, [19.37721951, 0.08256341336]], [7.8, [19.43615988, 0.07590692140]], [7.9, [19.49517247, 0.06979156832]], [8.0, [19.55424691, 0.06417301015]], [8.1, [19.61337364, 0.05901056402]], [8.2, [19.67254386, 0.05426690386]], [8.3, [19.73174948, 0.04990778152]], [8.4, [19.79098305, 0.04590177121]], [8.5, [19.85023773, 0.04222003527]], [8.6, [19.90950719, 0.03883610948]], [8.7, [19.96878563, 0.03572570633]], [8.8, [20.02806771, 0.03286653467]], [8.9, [20.08734852, 0.03023813438]], [9.0, [20.14662353, 0.02782172488]], [9.1, [20.20588858, 0.02560006621]], [9.2, [20.26513982, 0.02355733168]], [9.3, [20.32437373, 0.02167899113]], [9.4, [20.38358707, 0.01995170394]], [9.5, [20.44277684, 0.01836322084]], [9.6, [20.50194030, 0.01690229399]], [9.7, [20.56107493, 0.01555859441]], [9.8, [20.62017840, 0.01432263640]], [9.9, [20.67924856, 0.01318570808]], [10.0, [20.73828345, 0.01213980780]], [10.1, [20.79728127, 0.01117758580]]]

$$N3 := 120$$

[[0.1, [10, 110]], [0.2, [8.900, 100.100]], [0.3, [8.020110000, 90.98089000]], [0.4, [7.311432254, 82.61247775]], [0.5, [6.737492810, 74.95524551]], [0.6, [6.270789643, (5)

67.96473139]], [0.7, [5.890361588, 61.59445078]], [0.8, [5.580063188, 55.79781929]], [0.9, [5.327329949, 50.52939272]], [1.0, [5.122286479, 45.74564020]], [1.1, [4.957096279, 41.40539845]], [1.2, [4.825483238, 37.47010915]], [1.3, [4.722376262, 33.90390962]], [1.4, [4.643642958, 30.67362568]], [1.5, [4.585888323, 27.74870048]], [1.6, [4.546301294, 25.10108287]], [1.7, [4.522536825, 22.70509167]], [1.8, [4.512624583, 20.53726711]], [1.9, [4.514897715, 18.57621738]], [2.0, [4.527936879, 16.80246536]], [2.1, [4.550525974, 15.19829932]], [2.2, [4.581616893, 13.74762965]], [2.3, [4.620301274, 12.43585305]], [2.4, [4.665787732, 11.24972513]], [2.5, [4.717383389, 10.17724145]], [2.6, [4.774478815, 9.207527255]], [2.7, [4.836535665, 8.330735674]], [2.8, [4.903076493, 7.537954007]], [2.9, [4.973676298, 6.821117771]], [3.0, [5.047955472, 6.172932026]], [3.1, [5.125573899, 5.586799509]], [3.2, [5.206225971, 5.056755112]], [3.3, [5.289636380, 4.577406211]], [3.4, [5.375556524, 4.143878404]], [3.5, [5.463761436, 3.751766217]], [3.6, [5.554047153, 3.397088351]], [3.7, [5.646228429, 3.076247105]], [3.8, [5.740136760, 2.785991588]], [3.9, [5.835618658, 2.523384402]], [4.0, [5.932534146, 2.285771471]], [4.1, [6.030755424, 2.070754741]], [4.2, [6.130165699, 1.876167482]], [4.3, [6.230658148, 1.700051952]], [4.4, [6.332134995, 1.540639200]], [4.5, [6.434506686, 1.396330815]], [4.6, [6.537691148, 1.265682434]], [4.7, [6.641613134, 1.147388832]], [4.8, [6.746203619, 1.040270462]], [4.9, [6.851399269, 0.9432612922]], [5.0, [6.957141949, 0.8553978227]], [5.1, [7.063378285, 0.7758091645]], [5.2, [7.170059264, 0.7037080816]], [5.3, [7.277139868, 0.6383829020]], [5.4, [7.384578743, 0.5791902135]], [5.5, [7.492337898, 0.5255482679]], [5.6, [7.600382427, 0.4769310263]], [5.7, [7.708680256, 0.4328627819]], [5.8, [7.817201912, 0.3929133045]], [5.9, [7.925920314, 0.3566934566]], [6.0, [8.034810577, 0.3238512348]], [6.1, [8.143849832, 0.2940681946]], [6.2, [8.253017067, 0.2670562223]], [6.3, [8.362292974, 0.2425546197]], [6.4, [8.471659813, 0.2203274705]], [6.5, [8.581101287, 0.2001612628]], [6.6, [8.690602421, 0.1818627406]], [6.7, [8.800149459, 0.1652569633]], [6.8, [8.909729767, 0.1501855530]], [6.9, [9.019331738, 0.1365051104]], [7.0, [9.128944716, 0.1240857843]], [7.1, [9.238558913, 0.1128099782]], [7.2, [9.348165342, 0.1025711820]], [7.3, [9.457755754, 0.09327291617]], [7.4, [9.567322573, 0.08482777701]], [7.5, [9.676858847, 0.07715657402]], [7.6, [9.786358198, 0.07018754990]], [7.7, [9.895814771, 0.06385567541]], [7.8, [10.00522319, 0.05810201181]], [7.9, [10.11457854, 0.05287313423]], [8.0, [10.22387630, 0.04812061028]], [8.1, [10.33311232, 0.04380052842]], [8.2, [10.44228281, 0.03987307136]], [8.3, [10.55138429, 0.03630213011]], [8.4, [10.66041357, 0.03305495483]], [8.5, [10.76936773, 0.03010183884]], [8.6, [10.87824408, 0.02741583273]], [8.7, [10.98704018, 0.02497248558]], [8.8, [11.09575380,

0.02274961072]], [8.9, [11.20438288, 0.02072707373]], [9.0, [11.31292554, 0.01888660043]], [9.1, [11.42138006, 0.01721160309]], [9.2, [11.52974489, 0.01568702304]], [9.3, [11.63801859, 0.01429918811]], [9.4, [11.74619986, 0.01303568352]], [9.5, [11.85428750, 0.01188523491]], [9.6, [11.96228043, 0.01083760241]], [9.7, [12.07017767, 0.009883484608]], [9.8, [12.17797831, 0.009014431562]], [9.9, [12.28568154, 0.008222765958]], [10.0, [12.39328662, 0.007501511646]], [10.1, [12.50079286, 0.006844328865]]]

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