

> # Max Mekhanikov - HW 17 Okay to post

> # Question 1

$C := \text{proc}(a, b, c, d, e) \text{ local}$

$\text{eggs_chick_day} := \frac{b}{a \cdot c};$

$d \cdot \text{eggs_chick_day} \cdot e$

end:

> $C\left(\frac{3}{2}, \frac{3}{2}, \frac{3}{2}, 3, 3\right)$

6

(1)

> # Question 2

$W := \text{proc}(a, b, k) \text{ local}$

$vc := \frac{\left(\frac{1}{a} - \frac{1}{b}\right)}{k - 1};$

$\frac{1}{vc}$

end:

> $W(4, 5, 2)$

20

(2)

> # Question 3

> *with(LinearAlgebra) :*

Eigenvalues(Matrix([[0, 0], [0, 0]]))

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

(3)

> *Eigenvalues(Matrix([[-3, -2], [-6, -2]]))*

$\begin{bmatrix} 1 \\ -6 \end{bmatrix}$

(4)

> # Neither point is stable (Both eigenvalues are not <0)

>

Question 4

> $\text{Orb2} := \text{proc}(F, x, y, pt0, K1, K2) \text{ local } pt, L, i :$

$pt := pt0 :$

for i **from** 1 **to** $K1-1$ **do**

$pt := subs(\{x = pt[1], y = pt[2]\}, F) :$

od:

$L := [] :$

for i **from** $K1$ **to** $K2$ **do**

$L := [op(L), pt] :$

$pt := normal(subs(\{x = pt[1], y = pt[2]\}, F)) :$

od:

$L :$

end:

$Dis2 := proc(F, x, y, pt, h, A) local L, i :$

$L := Orb2([x + h * F[1], y + h * F[2]], x, y, pt, 0, trunc(A/h)) :$

$L := [seq([i * h, [L[i][1], L[i][2]]], i = 1 .. nops(L))] :$

end:

> $LI := Dis2([x(t) \cdot (1 - x(t) - y(t)), x(t) \cdot (3 - 2 \cdot x(t) - y(t))], x(t), y(t), [0.1, 0.1], 0.01, 10)$

$LI := [[0.01, [0.1, 0.1]], [0.02, [0.1008, 0.1027]], [0.03, [0.1016028720, 0.1054172656]], [0.04, [0.1024085623, 0.1081517819]], [0.05, [0.1032170161, 0.1109035318]], [0.06, [0.1040281774, 0.1136724959]], [0.07, [0.1048419891, 0.1164586526]], [0.08, [0.1056583930, 0.1192619779]], [0.09, [0.1064773297, 0.1220824455]], [0.10, [0.1072987387, 0.1249200268]], [0.11, [0.1081225583, 0.1277746910]], [0.12, [0.1089487257, 0.1306464047]], [0.13, [0.1097771771, 0.1335351324]], [0.14, [0.1106078475, 0.1364408360]], [0.15, [0.1114406707, 0.1393634752]], [0.16, [0.1122755796, 0.1423030073]], [0.17, [0.1131125058, 0.1452593870]], [0.18, [0.1139513799, 0.1482325669]], [0.19, [0.1147921315, 0.1512224969]], [0.20, [0.1156346890, 0.1542291246]], [0.21, [0.1164789797, 0.1572523953]], [0.22, [0.1173249300, 0.1602922517]], [0.23, [0.1181724651, 0.1633486340]], [0.24, [0.1190215093, 0.1664214802]], [0.25, [0.1198719858, 0.1695107257]], [0.26, [0.1207238169, 0.1726163035]], [0.27, [0.1215769237, 0.1757381442]], [0.28, [0.1224312264, 0.1788761759]], [0.29, [0.1232866443, 0.1820303243]], [0.30, [0.1241430957, 0.1852005126]], [0.31, [0.1250004979, 0.1883866617]], [0.32, [0.1258587674, 0.1915886899]], [0.33, [0.1267178196, 0.1948065132]], [0.34, [0.1275775692, 0.1980400451]], [0.35, [0.1284379299, 0.2012891968]], [0.36, [0.1292988145, 0.2045538770]], [0.37, [0.1301601351, 0.2078339920]], [0.38, [0.1310218028, 0.2111294458]], [0.39, [0.1318837281, 0.2144401400]], [0.40, [0.1327458206, 0.2177659738]], [0.41, [0.1336079890, 0.2211068441]], [0.42,$

[0.1344701415, 0.2244626455]], [0.43, [0.1353321855, 0.2278332701]], [0.44, [0.1361940276, 0.2312186079]], [0.45, [0.1370555738, 0.2346185465]], [0.46, [0.1379167294, 0.2380329713]], [0.47, [0.1387773992, 0.2414617654]], [0.48, [0.1396374872, 0.2449048097]], [0.49, [0.1404968969, 0.2483619828]], [0.50, [0.1413555312, 0.2518331613]], [0.51, [0.1422132925, 0.2553182194]], [0.52, [0.1430700828, 0.2588170293]], [0.53, [0.1439258034, 0.2623294611]], [0.54, [0.1447803553, 0.2658553827]], [0.55, [0.1456336390, 0.2693946600]], [0.56, [0.1464855546, 0.2729471568]], [0.57, [0.1473360018, 0.2765127349]], [0.58, [0.1481848800, 0.2800912542]], [0.59, [0.1490320883, 0.2836825725]], [0.60, [0.1498775255, 0.2872865458]], [0.61, [0.1507210901, 0.2909030281]], [0.62, [0.1515626803, 0.2945318716]], [0.63, [0.1524021942, 0.2981729267]], [0.64, [0.1532395298, 0.3018260419]], [0.65, [0.1540745848, 0.3054910639]], [0.66, [0.1549072568, 0.3091678378]], [0.67, [0.1557374434, 0.3128562069]], [0.68, [0.1565650421, 0.3165560129]], [0.69, [0.1573899503, 0.3202670959]], [0.70, [0.1582120656, 0.3239892943]], [0.71, [0.1590312855, 0.3277224450]], [0.72, [0.1598475076, 0.3314663834]], [0.73, [0.1606606297, 0.3352209434]], [0.74, [0.1614705495, 0.3389859575]], [0.75, [0.1622771651, 0.3427612567]], [0.76, [0.1630803747, 0.3465466708]], [0.77, [0.1638800768, 0.3503420283]], [0.78, [0.1646761700, 0.3541471562]], [0.79, [0.1654685533, 0.3579618805]], [0.80, [0.1662571261, 0.3617860259]], [0.81, [0.1670417880, 0.3656194160]], [0.82, [0.1678224391, 0.3694618733]], [0.83, [0.1685989799, 0.3733132191]], [0.84, [0.1693713113, 0.3771732739]], [0.85, [0.1701393347, 0.3810418571]], [0.86, [0.1709029520, 0.3849187872]], [0.87, [0.1716620658, 0.3888038818]], [0.88, [0.1724165790, 0.3926969577]], [0.89, [0.1731663954, 0.3965978309]], [0.90, [0.1739114192, 0.4005063166]], [0.91, [0.1746515554, 0.4044222293]], [0.92, [0.1753867096, 0.4083453829]], [0.93, [0.1761167882, 0.4122755907]], [0.94, [0.1768416983, 0.4162126654]], [0.95, [0.1775613479, 0.4201564191]], [0.96, [0.1782756457, 0.4241066635]], [0.97, [0.1789845012, 0.4280632099]], [0.98, [0.1796878249, 0.4320258691]], [0.99, [0.1803855281, 0.4359944517]], [1.00, [0.1810775231, 0.4399687679]], [1.01, [0.1817637231, 0.4439486277]], [1.02, [0.1824440423, 0.4479338408]], [1.03, [0.1831183958, 0.4519242169]], [1.04, [0.1837866999, 0.4559195655]], [1.05, [0.1844488719, 0.4599196960]], [1.06, [0.1851048301, 0.4639244177]], [1.07, [0.1857544939, 0.4679335401]], [1.08, [0.1863977839, 0.4719468727]], [1.09, [0.1870346219, 0.4759642250]], [1.10, [0.1876649307, 0.4799854068]], [1.11, [0.1882886345, 0.4840102279]], [1.12, [0.1889056585, 0.4880384985]], [1.13, [0.1895159293, 0.4920700290]], [1.14, [0.1901193746, 0.4961046300]], [1.15, [0.1907159236, 0.5001421127]], [1.16, [0.1913055066, 0.5041822885]], [1.17, [0.1918880552, 0.5082249693]], [1.18,

[0.1924635025, 0.5122699674]], [1.19, [0.1930317828, 0.5163170958]], [1.20, [0.1935928318, 0.5203661678]], [1.21, [0.1941465867, 0.5244169975]], [1.22, [0.1946929859, 0.5284693995]], [1.23, [0.1952319693, 0.5325231890]], [1.24, [0.1957634783, 0.5365781821]], [1.25, [0.1962874556, 0.5406341955]], [1.26, [0.1968038454, 0.5446910468]], [1.27, [0.1973125934, 0.5487485542]], [1.28, [0.1978136467, 0.5528065368]], [1.29, [0.1983069540, 0.5568648147]], [1.30, [0.1987924654, 0.5609232087]], [1.31, [0.1992701325, 0.5649815407]], [1.32, [0.1997399085, 0.5690396335]], [1.33, [0.2002017480, 0.5730973109]], [1.34, [0.2006556072, 0.5771543977]], [1.35, [0.2011014439, 0.5812107198]], [1.36, [0.2015392173, 0.5852661042]], [1.37, [0.2019688882, 0.5893203789]], [1.38, [0.2023904189, 0.5933733731]], [1.39, [0.2028037734, 0.5974249172]], [1.40, [0.2032089172, 0.6014748427]], [1.41, [0.2036058172, 0.6055229824]], [1.42, [0.2039944421, 0.6095691703]], [1.43, [0.2043747620, 0.6136132417]], [1.44, [0.2047467486, 0.6176550331]], [1.45, [0.2051103752, 0.6216943823]], [1.46, [0.2054656166, 0.6257311286]], [1.47, [0.2058124492, 0.6297651124]], [1.48, [0.2061508510, 0.6337961756]], [1.49, [0.2064808016, 0.6378241615]], [1.50, [0.2068022820, 0.6418489147]], [1.51, [0.2071152748, 0.6458702813]], [1.52, [0.2074197642, 0.6498881088]], [1.53, [0.2077157359, 0.6539022462]], [1.54, [0.2080031771, 0.6579125439]], [1.55, [0.2082820767, 0.6619188538]], [1.56, [0.2085524249, 0.6659210293]], [1.57, [0.2088142136, 0.6699189253]], [1.58, [0.2090674360, 0.6739123983]], [1.59, [0.2093120871, 0.6779013062]], [1.60, [0.2095481631, 0.6818855084]], [1.61, [0.2097756618, 0.6858648661]], [1.62, [0.2099945826, 0.6898392418]], [1.63, [0.2102049261, 0.6938084997]], [1.64, [0.2104066946, 0.6977725056]], [1.65, [0.2105998917, 0.7017311268]], [1.66, [0.2107845225, 0.7056842323]], [1.67, [0.2109605934, 0.7096316925]], [1.68, [0.2111281124, 0.7135733796]], [1.69, [0.2112870887, 0.7175091674]], [1.70, [0.2114375330, 0.7214389312]], [1.71, [0.2115794573, 0.7253625479]], [1.72, [0.2117128751, 0.7292798961]], [1.73, [0.2118378010, 0.7331908561]], [1.74, [0.2119542511, 0.7370953097]], [1.75, [0.2120622427, 0.7409931403]], [1.76, [0.2121617945, 0.7448842330]], [1.77, [0.2122529264, 0.7487684745]], [1.78, [0.2123356596, 0.7526457532]], [1.79, [0.2124100165, 0.7565159590]], [1.80, [0.2124760208, 0.7603789835]], [1.81, [0.2125336974, 0.7642347199]], [1.82, [0.2125830723, 0.7680830631]], [1.83, [0.2126241728, 0.7719239094]], [1.84, [0.2126570273, 0.7757571570]], [1.85, [0.2126816654, 0.7795827055]], [1.86, [0.2126981177, 0.7834004562]], [1.87, [0.2127064160, 0.7872103119]], [1.88, [0.2127065931, 0.7910121772]], [1.89, [0.2126986830, 0.7948059580]], [1.90, [0.2126827207, 0.7985915621]], [1.91, [0.2126587422, 0.8023688987]], [1.92, [0.2126267846, 0.8061378785]], [1.93, [0.2125868859, 0.8098984140]], [1.94,

[0.2125390851, 0.8136504191]], [1.95, [0.2124834222, 0.8173938092]], [1.96, [0.2124199380, 0.8211285014]], [1.97, [0.2123486744, 0.8248544143]], [1.98, [0.2122696741, 0.8285714679]], [1.99, [0.2121829807, 0.8322795839]], [2.00, [0.2120886387, 0.8359786853]], [2.01, [0.2119866934, 0.8396686968]], [2.02, [0.2118771908, 0.8433495445]], [2.03, [0.2117601779, 0.8470211560]], [2.04, [0.2116357024, 0.8506834604]], [2.05, [0.2115038128, 0.8543363881]], [2.06, [0.2113645583, 0.8579798712]], [2.07, [0.2112179888, 0.8616138431]], [2.08, [0.2110641549, 0.8652382386]], [2.09, [0.2109031079, 0.8688529939]], [2.10, [0.2107348998, 0.8724580468]], [2.11, [0.2105595832, 0.8760533362]], [2.12, [0.2103772114, 0.8796388027]], [2.13, [0.2101878382, 0.8832143880]], [2.14, [0.2099915181, 0.8867800354]], [2.15, [0.2097883060, 0.8903356893]], [2.16, [0.2095782576, 0.8938812957]], [2.17, [0.2093614289, 0.8974168017]], [2.18, [0.2091378765, 0.9009421558]], [2.19, [0.2089076575, 0.9044573078]], [2.20, [0.2086708294, 0.9079622088]], [2.21, [0.2084274503, 0.9114568111]], [2.22, [0.2081775786, 0.9149410684]], [2.23, [0.2079212732, 0.9184149355]], [2.24, [0.2076585933, 0.9218783686]], [2.25, [0.2073895987, 0.9253313249]], [2.26, [0.2071143493, 0.9287737630]], [2.27, [0.2068329055, 0.9322056427]], [2.28, [0.2065453280, 0.9356269248]], [2.29, [0.2062516779, 0.9390375715]], [2.30, [0.2059520164, 0.9424375460]], [2.31, [0.2056464051, 0.9458268127]], [2.32, [0.2053349059, 0.9492053371]], [2.33, [0.2050175808, 0.9525730859]], [2.34, [0.2046944922, 0.9559300269]], [2.35, [0.2043657027, 0.9592761288]], [2.36, [0.2040312749, 0.9626113617]], [2.37, [0.2036912718, 0.9659356965]], [2.38, [0.2033457565, 0.9692491053]], [2.39, [0.2029947922, 0.9725515611]], [2.40, [0.2026384422, 0.9758430381]], [2.41, [0.2022767701, 0.9791235115]], [2.42, [0.2019098395, 0.9823929574]], [2.43, [0.2015377140, 0.9856513529]], [2.44, [0.2011604574, 0.9888986761]], [2.45, [0.2007781336, 0.9921349061]], [2.46, [0.2003908064, 0.9953600230]], [2.47, [0.1999985397, 0.9985740077]], [2.48, [0.1996013975, 1.001776842]], [2.49, [0.1991994437, 1.004968509]], [2.50, [0.1987927423, 1.008148992]], [2.51, [0.1983813572, 1.011318276]], [2.52, [0.1979653522, 1.014476347]], [2.53, [0.1975447912, 1.017623190]], [2.54, [0.1971197381, 1.020758793]], [2.55, [0.1966902565, 1.023883144]], [2.56, [0.1962564101, 1.026996232]], [2.57, [0.1958182625, 1.030098047]], [2.58, [0.1953758771, 1.033188579]], [2.59, [0.1949293173, 1.036267819]], [2.60, [0.1944786463, 1.039335760]], [2.61, [0.1940239272, 1.042392394]], [2.62, [0.1935652230, 1.045437715]], [2.63, [0.1931025964, 1.048471718]], [2.64, [0.1926361101, 1.051494398]], [2.65, [0.1921658266, 1.054505750]], [2.66, [0.1916918081, 1.057505771]], [2.67, [0.1912141168, 1.060494458]], [2.68, [0.1907328145, 1.063471810]], [2.69, [0.1902479629, 1.066437825]], [2.70,

[0.1897596234, 1.069392502]], [2.71, [0.1892678573, 1.072335841]], [2.72, [0.1887727256, 1.075267843]], [2.73, [0.1882742890, 1.078188510]], [2.74, [0.1877726081, 1.081097843]], [2.75, [0.1872677430, 1.083995845]], [2.76, [0.1867597538, 1.086882519]], [2.77, [0.1862487002, 1.089757868]], [2.78, [0.1857346416, 1.092621898]], [2.79, [0.1852176371, 1.095474613]], [2.80, [0.1846977455, 1.098316018]], [2.81, [0.1841750255, 1.101146120]], [2.82, [0.1836495352, 1.103964926]], [2.83, [0.1831213326, 1.106772443]], [2.84, [0.1825904753, 1.109568678]], [2.85, [0.1820570205, 1.112353640]], [2.86, [0.1815210252, 1.115127338]], [2.87, [0.1809825460, 1.117889781]], [2.88, [0.1804416393, 1.120640978]], [2.89, [0.1798983609, 1.123380941]], [2.90, [0.1793527664, 1.126109680]], [2.91, [0.1788049111, 1.128827206]], [2.92, [0.1782548498, 1.131533531]], [2.93, [0.1777026370, 1.134228667]], [2.94, [0.1771483268, 1.136912627]], [2.95, [0.1765919731, 1.139585425]], [2.96, [0.1760336292, 1.142247073]], [2.97, [0.1754733481, 1.144897586]], [2.98, [0.1749111825, 1.147536978]], [2.99, [0.1743471846, 1.150165265]], [3.00, [0.1737814063, 1.152782461]], [3.01, [0.1732138990, 1.155388582]], [3.02, [0.1726447138, 1.157983644]], [3.03, [0.1720739014, 1.160567664]], [3.04, [0.1715015121, 1.163140658]], [3.05, [0.1709275957, 1.165702644]], [3.06, [0.1703522017, 1.168253640]], [3.07, [0.1697753792, 1.170793663]], [3.08, [0.1691971768, 1.173322731]], [3.09, [0.1686176428, 1.175840864]], [3.10, [0.1680368250, 1.178348080]], [3.11, [0.1674547708, 1.180844399]], [3.12, [0.1668715272, 1.183329840]], [3.13, [0.1662871408, 1.185804423]], [3.14, [0.1657016578, 1.188268169]], [3.15, [0.1651151239, 1.190721098]], [3.16, [0.1645275845, 1.193163231]], [3.17, [0.1639390844, 1.195594589]], [3.18, [0.1633496682, 1.198015194]], [3.19, [0.1627593799, 1.200425068]], [3.20, [0.1621682631, 1.202824233]], [3.21, [0.1615763611, 1.205212711]], [3.22, [0.1609837167, 1.207590525]], [3.23, [0.1603903722, 1.209957697]], [3.24, [0.1597963696, 1.212314251]], [3.25, [0.1592017503, 1.214660210]], [3.26, [0.1586065555, 1.216995598]], [3.27, [0.1580108259, 1.219320439]], [3.28, [0.1574146017, 1.221634757]], [3.29, [0.1568179227, 1.223938576]], [3.30, [0.1562208283, 1.226231921]], [3.31, [0.1556233574, 1.228514817]], [3.32, [0.1550255487, 1.230787289]], [3.33, [0.1544274402, 1.233049362]], [3.34, [0.1538290697, 1.235301062]], [3.35, [0.1532304744, 1.237542414]], [3.36, [0.1526316912, 1.239773445]], [3.37, [0.1520327566, 1.241994180]], [3.38, [0.1514337066, 1.244204646]], [3.39, [0.1508345768, 1.246404869]], [3.40, [0.1502354024, 1.248594875]], [3.41, [0.1496362181, 1.250774692]], [3.42, [0.1490370584, 1.252944347]], [3.43, [0.1484379571, 1.255103866]], [3.44, [0.1478389479, 1.257253278]], [3.45, [0.1472400638, 1.259392609]], [3.46,

[0.1466413376, 1.261521888]], [3.47, [0.1460428016, 1.263641142]], [3.48, [0.14544444877, 1.265750399]], [3.49, [0.1448464274, 1.267849687]], [3.50, [0.1442486518, 1.269939035]], [3.51, [0.1436511916, 1.272018471]], [3.52, [0.1430540772, 1.274088024]], [3.53, [0.1424573384, 1.276147722]], [3.54, [0.1418610048, 1.278197594]], [3.55, [0.1412651055, 1.280237669]], [3.56, [0.1406696692, 1.282267976]], [3.57, [0.1400747242, 1.284288545]], [3.58, [0.1394802985, 1.286299405]], [3.59, [0.1388864197, 1.288300585]], [3.60, [0.1382931150, 1.290292114]], [3.61, [0.1377004111, 1.292274023]], [3.62, [0.1371083345, 1.294246341]], [3.63, [0.1365169113, 1.296209098]], [3.64, [0.1359261671, 1.298162323]], [3.65, [0.1353361273, 1.300106047]], [3.66, [0.1347468167, 1.302040300]], [3.67, [0.1341582600, 1.303965113]], [3.68, [0.1335704813, 1.305880515]], [3.69, [0.1329835045, 1.307786537]], [3.70, [0.1323973531, 1.309683210]], [3.71, [0.1318120501, 1.311570564]], [3.72, [0.1312276184, 1.313448629]], [3.73, [0.1306440804, 1.315317436]], [3.74, [0.1300614581, 1.317177017]], [3.75, [0.1294797732, 1.319027401]], [3.76, [0.1288990471, 1.320868620]], [3.77, [0.1283193009, 1.322700705]], [3.78, [0.1277405552, 1.324523687]], [3.79, [0.1271628303, 1.326337597]], [3.80, [0.1265861463, 1.328142466]], [3.81, [0.1260105229, 1.329938325]], [3.82, [0.1254359794, 1.331725205]], [3.83, [0.1248625348, 1.333503138]], [3.84, [0.1242902078, 1.335272155]], [3.85, [0.1237190168, 1.337032288]], [3.86, [0.1231489798, 1.338783567]], [3.87, [0.1225801146, 1.340526025]], [3.88, [0.1220124386, 1.342259692]], [3.89, [0.1214459689, 1.343984601]], [3.90, [0.1208807222, 1.345700782]], [3.91, [0.1203167151, 1.347408268]], [3.92, [0.1197539638, 1.349107090]], [3.93, [0.1191924841, 1.350797279]], [3.94, [0.1186322916, 1.352478868]], [3.95, [0.1180734016, 1.354151888]], [3.96, [0.1175158291, 1.355816370]], [3.97, [0.1169595888, 1.357472347]], [3.98, [0.1164046952, 1.359119850]], [3.99, [0.1158511623, 1.360758910]], [4.00, [0.1152990040, 1.362389560]], [4.01, [0.1147482338, 1.364011831]], [4.02, [0.1141988651, 1.365625755]], [4.03, [0.1136509108, 1.367231364]], [4.04, [0.1131043837, 1.368828690]], [4.05, [0.1125592963, 1.370417764]], [4.06, [0.1120156607, 1.371998618]], [4.07, [0.1114734889, 1.373571284]], [4.08, [0.1109327926, 1.375135794]], [4.09, [0.1103935831, 1.376692180]], [4.10, [0.1098558717, 1.378240473]], [4.11, [0.1093196692, 1.379780705]], [4.12, [0.1087849863, 1.381312908]], [4.13, [0.1082518334, 1.382837113]], [4.14, [0.1077202206, 1.384353352]], [4.15, [0.1071901579, 1.385861657]], [4.16, [0.1066616549, 1.387362060]], [4.17, [0.1061347210, 1.388854592]], [4.18, [0.1056093655, 1.390339285]], [4.19, [0.1050855973, 1.391816171]], [4.20, [0.1045634251, 1.393285281]], [4.21, [0.1040428574, 1.394746647]], [4.22,

[0.1035239025, 1.396200300]], [4.23, [0.1030065685, 1.397646272]], [4.24, [0.1024908632, 1.399084595]], [4.25, [0.1019767942, 1.400515299]], [4.26, [0.1014643689, 1.401938417]], [4.27, [0.1009535944, 1.403353980]], [4.28, [0.1004444778, 1.404762019]], [4.29, [0.09993702577, 1.406162566]], [4.30, [0.09943124489, 1.407555652]], [4.31, [0.09892714151, 1.408941308]], [4.32, [0.09842472177, 1.410319565]], [4.33, [0.09792399162, 1.411690455]], [4.34, [0.09742495681, 1.413054009]], [4.35, [0.09692762290, 1.414410258]], [4.36, [0.09643199525, 1.415759233]], [4.37, [0.09593807903, 1.417100965]], [4.38, [0.09544587923, 1.418435486]], [4.39, [0.09495540064, 1.419762826]], [4.40, [0.09446664789, 1.421083016]], [4.41, [0.09397962540, 1.422396087]], [4.42, [0.09349433744, 1.423702070]], [4.43, [0.09301078809, 1.425000995]], [4.44, [0.09252898125, 1.426292894]], [4.45, [0.09204892065, 1.427577797]], [4.46, [0.09157060986, 1.428855735]], [4.47, [0.09109405228, 1.430126738]], [4.48, [0.09061925114, 1.431390837]], [4.49, [0.09014620951, 1.432648062]], [4.50, [0.08967493029, 1.433898444]], [4.51, [0.08920541623, 1.435142013]], [4.52, [0.08873766992, 1.436378799]], [4.53, [0.08827169380, 1.437608833]], [4.54, [0.08780749015, 1.438832144]], [4.55, [0.08734506111, 1.440048763]], [4.56, [0.08688440865, 1.441258720]], [4.57, [0.08642553462, 1.442462045]], [4.58, [0.08596844070, 1.443658768]], [4.59, [0.08551312845, 1.444848919]], [4.60, [0.08505959927, 1.446032527]], [4.61, [0.08460785444, 1.447209623]], [4.62, [0.08415789508, 1.448380236]], [4.63, [0.08370972220, 1.449544396]], [4.64, [0.08326333666, 1.450702132]], [4.65, [0.08281873919, 1.451853473]], [4.66, [0.08237593041, 1.452998450]], [4.67, [0.08193491078, 1.454137091]], [4.68, [0.08149568066, 1.455269426]], [4.69, [0.08105824028, 1.456395484]], [4.70, [0.08062258975, 1.457515294]], [4.71, [0.08018872905, 1.458628885]], [4.72, [0.07975665805, 1.459736286]], [4.73, [0.07932637651, 1.460837526]], [4.74, [0.07889788406, 1.461932634]], [4.75, [0.07847118022, 1.463021639]], [4.76, [0.07804626441, 1.464104570]], [4.77, [0.07762313594, 1.465181455]], [4.78, [0.07720179399, 1.466252322]], [4.79, [0.07678223766, 1.467317200]], [4.80, [0.07636446594, 1.468376118]], [4.81, [0.07594847770, 1.469429104]], [4.82, [0.07553427173, 1.470476186]], [4.83, [0.07512184671, 1.471517392]], [4.84, [0.07471120122, 1.472552751]], [4.85, [0.07430233375, 1.473582290]], [4.86, [0.07389524269, 1.474606037]], [4.87, [0.07348992634, 1.475624020]], [4.88, [0.07308638291, 1.476636267]], [4.89, [0.07268461051, 1.477642806]], [4.90, [0.07228460717, 1.478643664]], [4.91, [0.07188637083, 1.479638869]], [4.92, [0.07148989935, 1.480628448]], [4.93, [0.07109519050, 1.481612429]], [4.94, [0.07070224196, 1.482590839]], [4.95, [0.07031105135, 1.483563705]], [4.96, [0.06992161619, 1.484531054]], [4.97, [0.06953393392, 1.485492914]], [4.98,

[0.06914800192, 1.486449311]], [4.99, [0.06876381748, 1.487400272]], [5.00, [0.06838137782, 1.488345824]], [5.01, [0.06800068009, 1.489285994]], [5.02, [0.06762172136, 1.490220808]], [5.03, [0.06724449864, 1.491150293]], [5.04, [0.06686900886, 1.492074475]], [5.05, [0.06649524889, 1.492993381]], [5.06, [0.06612321553, 1.493907036]], [5.07, [0.06575290552, 1.494815468]], [5.08, [0.06538431553, 1.495718702]], [5.09, [0.06501744216, 1.496616764]], [5.10, [0.06465228196, 1.497509680]], [5.11, [0.06428883142, 1.498397476]], [5.12, [0.06392708697, 1.499280178]], [5.13, [0.06356704497, 1.500157811]], [5.14, [0.06320870174, 1.501030401]], [5.15, [0.06285205353, 1.501897973]], [5.16, [0.06249709654, 1.502760553]], [5.17, [0.06214382692, 1.503618166]], [5.18, [0.06179224077, 1.504470838]], [5.19, [0.06144233412, 1.505318593]], [5.20, [0.06109410298, 1.506161457]], [5.21, [0.06074754328, 1.506999454]], [5.22, [0.06040265093, 1.507832610]], [5.23, [0.06005942177, 1.508660949]], [5.24, [0.05971785160, 1.509484496]], [5.25, [0.05937793619, 1.510303275]], [5.26, [0.05903967124, 1.511117311]], [5.27, [0.05870305243, 1.511926629]], [5.28, [0.05836807539, 1.512731253]], [5.29, [0.05803473570, 1.513531206]], [5.30, [0.05770302892, 1.514326514]], [5.31, [0.05737295055, 1.515117200]], [5.32, [0.05704449606, 1.515903288]], [5.33, [0.05671766088, 1.516684802]], [5.34, [0.05639244042, 1.517461766]], [5.35, [0.05606883003, 1.518234203]], [5.36, [0.05574682504, 1.519002137]], [5.37, [0.05542642074, 1.519765592]], [5.38, [0.05510761240, 1.520524591]], [5.39, [0.05479039524, 1.521279158]], [5.40, [0.05447476445, 1.522029315]], [5.41, [0.05416071521, 1.522775086]], [5.42, [0.05384824265, 1.523516494]], [5.43, [0.05353734189, 1.524253562]], [5.44, [0.05322800800, 1.524986312]], [5.45, [0.05292023604, 1.525714768]], [5.46, [0.05261402103, 1.526438952]], [5.47, [0.05230935798, 1.527158887]], [5.48, [0.05200624186, 1.527874595]], [5.49, [0.05170466763, 1.528586099]], [5.50, [0.05140463022, 1.529293421]], [5.51, [0.05110612453, 1.529996584]], [5.52, [0.05080914546, 1.530695609]], [5.53, [0.05051368786, 1.531390519]], [5.54, [0.05021974659, 1.532081335]], [5.55, [0.04992731646, 1.532768080]], [5.56, [0.04963639229, 1.533450775]], [5.57, [0.04934696886, 1.534129442]], [5.58, [0.04905904094, 1.534804102]], [5.59, [0.04877260328, 1.535474777]], [5.60, [0.04848765062, 1.536141489]], [5.61, [0.04820417769, 1.536804259]], [5.62, [0.04792217918, 1.537463108]], [5.63, [0.04764164979, 1.538118057]], [5.64, [0.04736258420, 1.538769127]], [5.65, [0.04708497707, 1.539416339]], [5.66, [0.04680882306, 1.540059715]], [5.67, [0.04653411680, 1.540699275]], [5.68, [0.04626085293, 1.541335039]], [5.69, [0.04598902606, 1.541967029]], [5.70, [0.04571863080, 1.542595264]], [5.71, [0.04544966174, 1.543219766]], [5.72, [0.04518211348, 1.543840554]], [5.73, [0.04491598059, 1.544457649]], [5.74,

[0.04465125764, 1.545071071]], [5.75, [0.04438793920, 1.545680840]], [5.76, [0.04412601983, 1.546286977]], [5.77, [0.04386549407, 1.546889501]], [5.78, [0.04360635647, 1.547488431]], [5.79, [0.04334860157, 1.548083788]], [5.80, [0.04309222390, 1.548675591]], [5.81, [0.04283721799, 1.549263860]], [5.82, [0.04258357836, 1.549848614]], [5.83, [0.04233129953, 1.550429873]], [5.84, [0.04208037602, 1.551007656]], [5.85, [0.04183080235, 1.551581982]], [5.86, [0.04158257302, 1.552152871]], [5.87, [0.04133568255, 1.552720341]], [5.88, [0.04109012544, 1.553284411]], [5.89, [0.04084589620, 1.553845100]], [5.90, [0.04060298933, 1.554402427]], [5.91, [0.04036139934, 1.554956411]], [5.92, [0.04012112074, 1.555507070]], [5.93, [0.03988214803, 1.556054423]], [5.94, [0.03964447572, 1.556598488]], [5.95, [0.03940809832, 1.557139283]], [5.96, [0.03917301034, 1.557676827]], [5.97, [0.03893920629, 1.558211138]], [5.98, [0.03870668069, 1.558742234]], [5.99, [0.03847542805, 1.559270133]], [6.00, [0.03824544289, 1.559794853]], [6.01, [0.03801671973, 1.560316412]], [6.02, [0.03778925310, 1.560834827]], [6.03, [0.03756303753, 1.561350116]], [6.04, [0.03733806756, 1.561862297]], [6.05, [0.03711433772, 1.562371387]], [6.06, [0.03689184256, 1.562877404]], [6.07, [0.03667057663, 1.563380365]], [6.08, [0.03645053449, 1.563880287]], [6.09, [0.03623171070, 1.564377187]], [6.10, [0.03601409982, 1.564871083]], [6.11, [0.03579769643, 1.565361991]], [6.12, [0.03558249511, 1.565849929]], [6.13, [0.03536849045, 1.566334913]], [6.14, [0.03515567704, 1.566816960]], [6.15, [0.03494404948, 1.567296087]], [6.16, [0.03473360239, 1.567772310]], [6.17, [0.03452433038, 1.568245646]], [6.18, [0.03431622808, 1.568716111]], [6.19, [0.03410929013, 1.569183722]], [6.20, [0.03390351117, 1.569648494]], [6.21, [0.03369888585, 1.570110444]], [6.22, [0.03349540883, 1.570569589]], [6.23, [0.03329307479, 1.571025944]], [6.24, [0.03309187841, 1.571479525]], [6.25, [0.03289181438, 1.571930348]], [6.26, [0.03269287740, 1.572378429]], [6.27, [0.03249506218, 1.572823783]], [6.28, [0.03229836344, 1.573266426]], [6.29, [0.03210277592, 1.573706374]], [6.30, [0.03190829437, 1.574143642]], [6.31, [0.03171491353, 1.574578246]], [6.32, [0.031522262818, 1.575010201]], [6.33, [0.03133143309, 1.575439522]], [6.34, [0.03114132305, 1.575866224]], [6.35, [0.03095229287, 1.576290322]], [6.36, [0.03076433736, 1.576711832]], [6.37, [0.03057745134, 1.577130768]], [6.38, [0.03039162966, 1.577547146]], [6.39, [0.03020686716, 1.577960980]], [6.40, [0.03002315871, 1.578372284]], [6.41, [0.02984049918, 1.578781074]], [6.42, [0.02965888346, 1.579187364]], [6.43, [0.02947830646, 1.579591168]], [6.44, [0.02929876309, 1.579992501]], [6.45, [0.02912024829, 1.580391377]], [6.46, [0.02894275699, 1.580787811]], [6.47, [0.02876628415, 1.581181816]], [6.48, [0.02859082475, 1.581573407]], [6.49, [0.02841637376, 1.581962598]], [6.50,

[0.02824292619, 1.582349403]], [6.51, [0.02807047705, 1.582733836]], [6.52, [0.02789902137, 1.583115910]], [6.53, [0.02772855418, 1.583495640]], [6.54, [0.02755907055, 1.583873039]], [6.55, [0.02739056554, 1.584248120]], [6.56, [0.02722303424, 1.584620898]], [6.57, [0.02705647176, 1.584991385]], [6.58, [0.02689087320, 1.585359595]], [6.59, [0.02672623370, 1.585725542]], [6.60, [0.02656254841, 1.586089238]], [6.61, [0.02639981248, 1.586450697]], [6.62, [0.02623802109, 1.586809932]], [6.63, [0.02607716944, 1.587166956]], [6.64, [0.02591725273, 1.587521782]], [6.65, [0.02575826618, 1.587874423]], [6.66, [0.02560020504, 1.588224892]], [6.67, [0.02544306456, 1.588573202]], [6.68, [0.02528684000, 1.588919365]], [6.69, [0.02513152666, 1.589263394]], [6.70, [0.02497711984, 1.589605302]], [6.71, [0.02482361485, 1.589945101]], [6.72, [0.02467100703, 1.590282803]], [6.73, [0.02451929173, 1.590618421]], [6.74, [0.02436846432, 1.590951967]], [6.75, [0.02421852018, 1.591283454]], [6.76, [0.02406945471, 1.591612894]], [6.77, [0.02392126333, 1.591940298]], [6.78, [0.02377394146, 1.592265679]], [6.79, [0.02362748456, 1.592589049]], [6.80, [0.02348188809, 1.592910420]], [6.81, [0.02333714754, 1.593229803]], [6.82, [0.02319325840, 1.593547211]], [6.83, [0.02305021619, 1.593862655]], [6.84, [0.02290801644, 1.594176146]], [6.85, [0.02276665470, 1.594487697]], [6.86, [0.02262612653, 1.594797319]], [6.87, [0.02248642752, 1.595105023]], [6.88, [0.02234755327, 1.595410821]], [6.89, [0.02220949939, 1.595714724]], [6.90, [0.02207226151, 1.596016743]], [6.91, [0.02193583529, 1.596316890]], [6.92, [0.02180021639, 1.596615176]], [6.93, [0.02166540050, 1.596911612]], [6.94, [0.02153138331, 1.597206209]], [6.95, [0.02139816055, 1.597498978]], [6.96, [0.02126572795, 1.597789930]], [6.97, [0.02113408126, 1.598079076]], [6.98, [0.02100321625, 1.598366426]], [6.99, [0.02087312870, 1.598651991]], [7.00, [0.02074381442, 1.598935782]], [7.01, [0.02061526923, 1.599217810]], [7.02, [0.02048748897, 1.599498085]], [7.03, [0.02036046949, 1.599776618]], [7.04, [0.02023420667, 1.600053419]], [7.05, [0.02010869639, 1.600328499]], [7.06, [0.01998393456, 1.600601867]], [7.07, [0.01985991710, 1.600873535]], [7.08, [0.01973663995, 1.601143512]], [7.09, [0.01961409907, 1.601411809]], [7.10, [0.01949229043, 1.601678435]], [7.11, [0.01937121003, 1.601943401]], [7.12, [0.01925085387, 1.602206717]], [7.13, [0.01913121798, 1.602468392]], [7.14, [0.01901229840, 1.602728437]], [7.15, [0.01889409120, 1.602986861]], [7.16, [0.01877659245, 1.603243674]], [7.17, [0.01865979824, 1.603498886]], [7.18, [0.01854370468, 1.603752507]], [7.19, [0.01842830791, 1.604004546]], [7.20, [0.01831360407, 1.604255012]], [7.21, [0.01819958932, 1.604503915]], [7.22, [0.01808625984, 1.604751265]], [7.23, [0.01797361183, 1.604997071]], [7.24, [0.01786164150, 1.605241342]], [7.25, [0.01775034508, 1.605484088]], [7.26,

[0.01763971882, 1.605725318]], [7.27, [0.01752975898, 1.605965041]], [7.28, [0.01742046184, 1.606203266]], [7.29, [0.01731182371, 1.606440002]], [7.30, [0.01720384089, 1.606675259]], [7.31, [0.01709650972, 1.606909045]], [7.32, [0.01698982655, 1.607141369]], [7.33, [0.01688378774, 1.607372240]], [7.34, [0.01677838968, 1.607601667]], [7.35, [0.01667362876, 1.607829659]], [7.36, [0.01656950140, 1.608056224]], [7.37, [0.01646600403, 1.608281371]], [7.38, [0.01636313310, 1.608505109]], [7.39, [0.01626088508, 1.608727446]], [7.40, [0.01615925645, 1.608948391]], [7.41, [0.01605824370, 1.609167952]], [7.42, [0.01595784335, 1.609386138]], [7.43, [0.01585805194, 1.609602957]], [7.44, [0.01575886601, 1.609818417]], [7.45, [0.01566028212, 1.610032527]], [7.46, [0.01556229686, 1.610245295]], [7.47, [0.01546490682, 1.610456729]], [7.48, [0.01536810862, 1.610666837]], [7.49, [0.01527189889, 1.610875628]], [7.50, [0.01517627427, 1.611083109]], [7.51, [0.01508123143, 1.611289288]], [7.52, [0.01498676704, 1.611494174]], [7.53, [0.01489287780, 1.611697774]], [7.54, [0.01479956042, 1.611900096]], [7.55, [0.01470681163, 1.612101148]], [7.56, [0.01461462816, 1.612300938]], [7.57, [0.01452300678, 1.612499473]], [7.58, [0.01443194426, 1.612696761]], [7.59, [0.01434143739, 1.612892810]], [7.60, [0.01425148298, 1.613087628]], [7.61, [0.01416207785, 1.613281221]], [7.62, [0.01407321884, 1.613473598]], [7.63, [0.01398490280, 1.613664766]], [7.64, [0.01389712660, 1.613854732]], [7.65, [0.01380988713, 1.614043504]], [7.66, [0.01372318129, 1.614231089]], [7.67, [0.01363700599, 1.614417494]], [7.68, [0.01355135816, 1.614602727]], [7.69, [0.01346623475, 1.614786794]], [7.70, [0.01338163272, 1.614969703]], [7.71, [0.01329754905, 1.615151461]], [7.72, [0.01321398073, 1.615332075]], [7.73, [0.0131313092478, 1.615511553]], [7.74, [0.01304837821, 1.615689901]], [7.75, [0.01296633806, 1.615867126]], [7.76, [0.01288480139, 1.616043235]], [7.77, [0.01280376526, 1.616218235]], [7.78, [0.01272322676, 1.616392132]], [7.79, [0.01264318299, 1.616564934]], [7.80, [0.01256363106, 1.616736647]], [7.81, [0.01248456809, 1.616907278]], [7.82, [0.01240599124, 1.617076834]], [7.83, [0.01232789766, 1.617245321]], [7.84, [0.01225028452, 1.617412746]], [7.85, [0.01217314901, 1.617579115]], [7.86, [0.01209648833, 1.617744435]], [7.87, [0.01202029970, 1.617908713]], [7.88, [0.01194458034, 1.618071955]], [7.89, [0.01186932751, 1.618234167]], [7.90, [0.01179453846, 1.618395356]], [7.91, [0.01172021047, 1.618555528]], [7.92, [0.01164634083, 1.618714689]], [7.93, [0.01157292684, 1.618872845]], [7.94, [0.01149996581, 1.619030003]], [7.95, [0.01142745508, 1.619186169]], [7.96, [0.01135539199, 1.619341349]], [7.97, [0.01128377390, 1.619495549]], [7.98, [0.01121259819, 1.619648776]], [7.99, [0.01114186224, 1.619801035]], [8.00, [0.01107156345, 1.619952332]], [8.01, [0.01100169924, 1.620102673]], [8.02,

[0.01093226704, 1.620252064]], [8.03, [0.01086326428, 1.620400511]], [8.04, [0.01079468843, 1.620548020]], [8.05, [0.01072653695, 1.620694597]], [8.06, [0.01065880733, 1.620840248]], [8.07, [0.01059149706, 1.620984978]], [8.08, [0.01052460366, 1.621128793]], [8.09, [0.01045812464, 1.621271698]], [8.10, [0.01039205755, 1.621413700]], [8.11, [0.01032639993, 1.621554804]], [8.12, [0.01026114935, 1.621695015]], [8.13, [0.01019630338, 1.621834339]], [8.14, [0.01013185962, 1.621972782]], [8.15, [0.01006781567, 1.622110349]], [8.16, [0.01000416914, 1.622247045]], [8.17, [0.009940917659, 1.622382876]], [8.18, [0.009878058871, 1.622517847]], [8.19, [0.009815590431, 1.622651964]], [8.20, [0.009753510006, 1.622785232]], [8.21, [0.009691815277, 1.622917656]], [8.22, [0.009630503936, 1.623049242]], [8.23, [0.009569573688, 1.623179994]], [8.24, [0.009509022252, 1.623309918]], [8.25, [0.009448847358, 1.623439019]], [8.26, [0.009389046750, 1.623567303]], [8.27, [0.009329618182, 1.623694774]], [8.28, [0.009270559423, 1.623821437]], [8.29, [0.009211868253, 1.623947298]], [8.30, [0.009153542465, 1.624072361]], [8.31, [0.009095579863, 1.624196631]], [8.32, [0.009037978264, 1.624320114]], [8.33, [0.008980735497, 1.624442814]], [8.34, [0.008923849403, 1.624564736]], [8.35, [0.008867317836, 1.624685885]], [8.36, [0.008811138660, 1.624806266]], [8.37, [0.008755309752, 1.624925884]], [8.38, [0.008699829001, 1.625044743]], [8.39, [0.008644694307, 1.625162848]], [8.40, [0.008589903582, 1.625280204]], [8.41, [0.008535454751, 1.625396815]], [8.42, [0.008481345749, 1.625512687]], [8.43, [0.008427574523, 1.625627823]], [8.44, [0.008374139032, 1.625742229]], [8.45, [0.008321037246, 1.625855909]], [8.46, [0.008268267146, 1.625968867]], [8.47, [0.008215826725, 1.626081108]], [8.48, [0.008163713988, 1.626192637]], [8.49, [0.008111926950, 1.626303458]], [8.50, [0.008060463637, 1.626413575]], [8.51, [0.008009322088, 1.626522993]], [8.52, [0.007958500351, 1.626631716]], [8.53, [0.007907996486, 1.626739749]], [8.54, [0.007857808565, 1.626847096]], [8.55, [0.007807934669, 1.626953761]], [8.56, [0.007758372890, 1.627059748]], [8.57, [0.007709121333, 1.627165062]], [8.58, [0.007660178112, 1.627269707]], [8.59, [0.007611541352, 1.627373687]], [8.60, [0.007563209189, 1.627477006]], [8.61, [0.007515179769, 1.627579669]], [8.62, [0.007467451249, 1.627681679]], [8.63, [0.007420021797, 1.627783041]], [8.64, [0.007372889591, 1.627883759]], [8.65, [0.007326052820, 1.627983836]], [8.66, [0.007279509682, 1.628083277]], [8.67, [0.007233258386, 1.628182086]], [8.68, [0.007187297152, 1.628280267]], [8.69, [0.007141624210, 1.628377823]], [8.70, [0.007096237799, 1.628474759]], [8.71, [0.007051136170, 1.628571079]], [8.72, [0.007006317582, 1.628666786]], [8.73, [0.006961780306, 1.628761884]], [8.74, [0.006917522621, 1.628856377]], [8.75, [0.006873542818, 1.628950269]], [8.76, [0.006829839196, 1.629043564]], [8.77, [0.006786410065, 1.629136265]], [8.78,

[0.006743253745, 1.629228376]], [8.79, [0.006700368564, 1.629319901]], [8.80, [0.006657752862, 1.629410844]], [8.81, [0.006615404987, 1.629501208]], [8.82, [0.006573323297, 1.629590997]], [8.83, [0.006531506160, 1.629680214]], [8.84, [0.006489951952, 1.629768863]], [8.85, [0.006448659061, 1.629856948]], [8.86, [0.006407625882, 1.629944472]], [8.87, [0.006366850820, 1.630031439]], [8.88, [0.006326332290, 1.630117852]], [8.89, [0.006286068716, 1.630203715]], [8.90, [0.006246058531, 1.630289031]], [8.91, [0.006206300177, 1.630373804]], [8.92, [0.006166792105, 1.630458037]], [8.93, [0.006127532775, 1.630541733]], [8.94, [0.006088520657, 1.630624896]], [8.95, [0.006049754229, 1.630707529]], [8.96, [0.006011231978, 1.630789636]], [8.97, [0.005972952401, 1.630871220]], [8.98, [0.005934914002, 1.630952284]], [8.99, [0.005897115295, 1.631032831]], [9.00, [0.005859554802, 1.631112865]], [9.01, [0.005822231054, 1.631192389]], [9.02, [0.005785142591, 1.631271406]], [9.03, [0.005748287961, 1.631349920]], [9.04, [0.005711665721, 1.631427933]], [9.05, [0.005675274437, 1.631505449]], [9.06, [0.005639112682, 1.631582471]], [9.07, [0.005603179039, 1.631659002]], [9.08, [0.005567472098, 1.631735045]], [9.09, [0.005531990458, 1.631810603]], [9.10, [0.005496732727, 1.631885679]], [9.11, [0.005461697519, 1.631960276]], [9.12, [0.005426883459, 1.632034398]], [9.13, [0.005392289178, 1.632108047]], [9.14, [0.005357913316, 1.632181226]], [9.15, [0.005323754522, 1.632253938]], [9.16, [0.005289811451, 1.632326187]], [9.17, [0.005256082767, 1.632397975]], [9.18, [0.005222567142, 1.632469305]], [9.19, [0.005189263256, 1.632540180]], [9.20, [0.005156169796, 1.632610603]], [9.21, [0.005123285458, 1.632680576]], [9.22, [0.005090608946, 1.632750103]], [9.23, [0.005058138970, 1.632819186]], [9.24, [0.005025874248, 1.632887828]], [9.25, [0.004993813508, 1.632956032]], [9.26, [0.004961955482, 1.633023801]], [9.27, [0.004930298913, 1.633091137]], [9.28, [0.004898842549, 1.633158044]], [9.29, [0.004867585147, 1.633224523]], [9.30, [0.004836525470, 1.633290578]], [9.31, [0.004805662290, 1.633356211]], [9.32, [0.004774994386, 1.633421425]], [9.33, [0.004744520543, 1.633486223]], [9.34, [0.004714239554, 1.633550607]], [9.35, [0.004684150220, 1.633614580]], [9.36, [0.004654251349, 1.633678145]], [9.37, [0.004624541755, 1.633741304]], [9.38, [0.004595020260, 1.633804059]], [9.39, [0.004565685693, 1.633866414]], [9.40, [0.004536536890, 1.633928370]], [9.41, [0.004507572694, 1.633989931]], [9.42, [0.004478791955, 1.634051099]], [9.43, [0.004450193530, 1.634111876]], [9.44, [0.004421776282, 1.634172265]], [9.45, [0.004393539082, 1.634232268]], [9.46, [0.004365480808, 1.634291887]], [9.47, [0.004337600343, 1.634351126]], [9.48, [0.004309896579, 1.634409986]], [9.49, [0.004282368413, 1.634468470]], [9.50, [0.004255014749, 1.634526580]], [9.51, [0.004227834498, 1.634584319]], [9.52, [0.004200826577, 1.634641689]], [9.53, [0.004173989911, 1.634698692]], [9.54,

[0.004147323430, 1.634755331]], [9.55, [0.004120826071, 1.634811608]], [9.56, [0.004094496777, 1.634867525]], [9.57, [0.004068334498, 1.634923085]], [9.58, [0.004042338190, 1.634978290]], [9.59, [0.004016506815, 1.635033142]], [9.60, [0.003990839342, 1.635087643]], [9.61, [0.003965334746, 1.635141796]], [9.62, [0.003939992009, 1.635195603]], [9.63, [0.003914810118, 1.635249066]], [9.64, [0.003889788066, 1.635302187]], [9.65, [0.003864924853, 1.635354968]], [9.66, [0.003840219484, 1.635407412]], [9.67, [0.003815670972, 1.635459520]], [9.68, [0.003791278334, 1.635511295]], [9.69, [0.003767040594, 1.635562739]], [9.70, [0.003742956782, 1.6355613854]], [9.71, [0.003719025933, 1.635664642]], [9.72, [0.003695247089, 1.635715105]], [9.73, [0.003671619297, 1.635765246]], [9.74, [0.003648141610, 1.635815066]], [9.75, [0.003624813087, 1.635864567]], [9.76, [0.003601632792, 1.635913752]], [9.77, [0.003578599796, 1.635962622]], [9.78, [0.003555713175, 1.636011179]], [9.79, [0.003532972011, 1.636059426]], [9.80, [0.003510375391, 1.636107364]], [9.81, [0.003487922407, 1.636154995]], [9.82, [0.003465612158, 1.636202322]], [9.83, [0.003443443748, 1.636249346]], [9.84, [0.003421416287, 1.636296069]], [9.85, [0.003399528889, 1.636342493]], [9.86, [0.003377780674, 1.636388620]], [9.87, [0.003356170768, 1.636434452]], [9.88, [0.003334698302, 1.636479990]], [9.89, [0.003313362412, 1.636525237]], [9.90, [0.003292162240, 1.636570194]], [9.91, [0.003271096933, 1.636614864]], [9.92, [0.003250165643, 1.636659248]], [9.93, [0.003229367527, 1.636703348]], [9.94, [0.003208701748, 1.636747165]], [9.95, [0.003188167473, 1.636790702]], [9.96, [0.003167763875, 1.636833960]], [9.97, [0.003147490132, 1.636876941]], [9.98, [0.003127345426, 1.636919647]], [9.99, [0.003107328946, 1.636962080]], [10.00, [0.003087439884, 1.637004241]], [10.01, [0.003067677438, 1.637046132]]]

> # (0,0) is unstable

> L2 := Dis2([x(t)·(1 - x(t) - y(t)), x(t)·(3 - 2·x(t) - y(t))], x(t), y(t), [2.1, -1.1], 0.01, 10)

L2 := [[0.01, [2.1, -1.1]], [0.02, [2.1, -1.1021]], [0.03, [2.1000441, -1.1041559]], [0.04, (6)
[2.100130450, -1.106170521]], [0.05, [2.100257299, -1.108146542]], [0.06,
[2.100422993, -1.110086509]], [0.07, [2.100625968, -1.111992842]], [0.08,
[2.100864744, -1.113867842]], [0.09, [2.101137922, -1.115713696]], [0.10,
[2.101444179, -1.117532486]], [0.11, [2.101782266, -1.119326192]], [0.12,
[2.102151001, -1.121096698]], [0.13, [2.102549268, -1.122845799]], [0.14,
[2.102976013, -1.124575203]], [0.15, [2.103430239, -1.126286538]], [0.16,
[2.103911005, -1.127981355]], [0.17, [2.104417424, -1.129661131]], [0.18,
[2.104948657, -1.131327276]], [0.19, [2.105503913, -1.132981135]], [0.20,
[2.106082447, -1.134623990]], [0.21, [2.106683555, -1.136257065]], [0.22,

[2.107306575, -1.137881530]], [0.23, [2.107950883, -1.139498500]], [0.24, [2.108615891, -1.141109043]], [0.25, [2.109301047, -1.142714179]], [0.26, [2.110005831, -1.144314884]], [0.27, [2.110729754, -1.145912090]], [0.28, [2.111472358, -1.147506692]], [0.29, [2.112233213, -1.149099545]], [0.30, [2.113011916, -1.150691469]], [0.31, [2.113808089, -1.152283251]], [0.32, [2.114621380, -1.153875645]], [0.33, [2.115451459, -1.155469374]], [0.34, [2.116298019, -1.157065134]], [0.35, [2.117160773, -1.158663593]], [0.36, [2.118039454, -1.160265394]], [0.37, [2.118933816, -1.161871154]], [0.38, [2.119843630, -1.163481469]], [0.39, [2.120768684, -1.165096913]], [0.40, [2.121708783, -1.166718038]], [0.41, [2.122663748, -1.168345379]], [0.42, [2.123633415, -1.169979450]], [0.43, [2.124617635, -1.171620751]], [0.44, [2.125616271, -1.173269763]], [0.45, [2.126629201, -1.174926953]], [0.46, [2.127656315, -1.176592772]], [0.47, [2.128697515, -1.178267660]], [0.48, [2.129752713, -1.179952042]], [0.49, [2.130821835, -1.181646332]], [0.50, [2.131904814, -1.183350933]], [0.51, [2.133001596, -1.185066236]], [0.52, [2.134112136, -1.186792623]], [0.53, [2.135236397, -1.188530466]], [0.54, [2.136374351, -1.190280128]], [0.55, [2.137525980, -1.192041965]], [0.56, [2.138691273, -1.193816325]], [0.57, [2.139870228, -1.195603548]], [0.58, [2.141062849, -1.197403969]], [0.59, [2.142269148, -1.199217914]], [0.60, [2.143489144, -1.201045706]], [0.61, [2.144722863, -1.202887662]], [0.62, [2.145970337, -1.204744093]], [0.63, [2.147231604, -1.206615306]], [0.64, [2.148506710, -1.208501604]], [0.65, [2.149795704, -1.210403286]], [0.66, [2.151098643, -1.212320648]], [0.67, [2.152415589, -1.214253983]], [0.68, [2.153746608, -1.216203581]], [0.69, [2.155091773, -1.218169728]], [0.70, [2.156451161, -1.220152710]], [0.71, [2.157824854, -1.222152810]], [0.72, [2.159212939, -1.224170309]], [0.73, [2.160615507, -1.226205487]], [0.74, [2.162032654, -1.228258623]], [0.75, [2.163464481, -1.230329995]], [0.76, [2.164911093, -1.232419879]], [0.77, [2.166372598, -1.234528552]], [0.78, [2.167849110, -1.236656290]], [0.79, [2.169340746, -1.238803370]], [0.80, [2.170847627, -1.240970067]], [0.81, [2.172369878, -1.243156657]], [0.82, [2.173907629, -1.245363418]], [0.83, [2.175461012, -1.247590626]], [0.84, [2.177030164, -1.249838560]], [0.85, [2.178615225, -1.252107499]], [0.86,

[2.180216339, -1.254397724]], [0.87, [2.181833654, -1.256709515]], [0.88, [2.183467321, -1.259043156]], [0.89, [2.185117495, -1.261398931]], [0.90, [2.186784334, -1.263777127]], [0.91, [2.188468000, -1.266178031]], [0.92, [2.190168659, -1.268601934]], [0.93, [2.191886480, -1.271049127]], [0.94, [2.193621635, -1.273519905]], [0.95, [2.195374301, -1.276014565]], [0.96, [2.197144657, -1.278533407]], [0.97, [2.198932886, -1.281076732]], [0.98, [2.200739174, -1.283644845]], [0.99, [2.202563712, -1.286238053]], [1.00, [2.204406693, -1.288856667]], [1.01, [2.206268314, -1.291501001]], [1.02, [2.208148776, -1.294171372]], [1.03, [2.210048283, -1.296868100]], [1.04, [2.211967043, -1.299591509]], [1.05, [2.213905267, -1.302341926]], [1.06, [2.215863171, -1.305119682]], [1.07, [2.217840973, -1.307925112]], [1.08, [2.219838896, -1.310758555]], [1.09, [2.221857166, -1.313620354]], [1.10, [2.223896013, -1.316510856]], [1.11, [2.225955671, -1.319430413]], [1.12, [2.228036377, -1.322379380]], [1.13, [2.230138373, -1.325358117]], [1.14, [2.232261905, -1.328366989]], [1.15, [2.234407222, -1.331406366]], [1.16, [2.236574578, -1.334476622]], [1.17, [2.238764230, -1.337578137]], [1.18, [2.240976440, -1.340711295]], [1.19, [2.243211475, -1.343876486]], [1.20, [2.245469604, -1.347074105]], [1.21, [2.247751102, -1.350304552]], [1.22, [2.250056248, -1.353568234]], [1.23, [2.252385326, -1.356865562]], [1.24, [2.254738624, -1.360196955]], [1.25, [2.257116434, -1.363562835]], [1.26, [2.259519053, -1.366963633]], [1.27, [2.261946784, -1.370399785]], [1.28, [2.264399933, -1.373871733]], [1.29, [2.266878812, -1.377379926]], [1.30, [2.269383738, -1.380924819]], [1.31, [2.271915033, -1.384506875]], [1.32, [2.274473024, -1.388126563]], [1.33, [2.277058043, -1.391784359]], [1.34, [2.279670428, -1.395480747]], [1.35, [2.282310522, -1.399216217]], [1.36, [2.284978673, -1.402991269]], [1.37, [2.287675236, -1.406806408]], [1.38, [2.290400570, -1.410662149]], [1.39, [2.293155042, -1.414559013]], [1.40, [2.295939023, -1.418497531]], [1.41, [2.298752892, -1.422478242]], [1.42, [2.301597032, -1.426501693]], [1.43, [2.304471834, -1.430568439]], [1.44, [2.307377695, -1.434679046]], [1.45, [2.310315018, -1.438834087]], [1.46, [2.313284213, -1.443034146]], [1.47, [2.316285698, -1.447279816]], [1.48, [2.319319896, -1.451571698]], [1.49, [2.322387238, -1.455910406]], [1.50,

[2.325488163, -1.460296561]], [1.51, [2.328623116, -1.464730796]], [1.52, [2.331792551, -1.469213755]], [1.53, [2.334996928, -1.473746092]], [1.54, [2.338236717, -1.478328471]], [1.55, [2.341512394, -1.482961569]], [1.56, [2.344824444, -1.487646074]], [1.57, [2.348173360, -1.492382685]], [1.58, [2.351559645, -1.497172114]], [1.59, [2.354983809, -1.502015085]], [1.60, [2.358446372, -1.506912333]], [1.61, [2.361947862, -1.511864608]], [1.62, [2.365488817, -1.516872672]], [1.63, [2.369069785, -1.521937301]], [1.64, [2.372691323, -1.527059284]], [1.65, [2.376353998, -1.532239423]], [1.66, [2.380058388, -1.537478537]], [1.67, [2.383805079, -1.542777457]], [1.68, [2.387594671, -1.548137030]], [1.69, [2.391427772, -1.553558119]], [1.70, [2.395305002, -1.559041601]], [1.71, [2.399226993, -1.564588371]], [1.72, [2.403194388, -1.570199338]], [1.73, [2.407207842, -1.575875429]], [1.74, [2.411268021, -1.581617589]], [1.75, [2.415375606, -1.587426779]], [1.76, [2.419531288, -1.593303978]], [1.77, [2.423735773, -1.599250184]], [1.78, [2.427989779, -1.605266414]], [1.79, [2.432294038, -1.611353704]], [1.80, [2.436649296, -1.617513109]], [1.81, [2.441056313, -1.623745704]], [1.82, [2.445515864, -1.630052586]], [1.83, [2.450028739, -1.636434872]], [1.84, [2.454595743, -1.642893702]], [1.85, [2.459217697, -1.649430236]], [1.86, [2.463895437, -1.656045658]], [1.87, [2.468629818, -1.662741176]], [1.88, [2.473421709, -1.669518021]], [1.89, [2.478271998, -1.676377448]], [1.90, [2.483181590, -1.683320737]], [1.91, [2.488151408, -1.690349195]], [1.92, [2.493182395, -1.697464154]], [1.93, [2.498275512, -1.704666974]], [1.94, [2.503431739, -1.711959042]], [1.95, [2.508652078, -1.719341773]], [1.96, [2.513937549, -1.726816613]], [1.97, [2.519289196, -1.734385035]], [1.98, [2.524708082, -1.742048545]], [1.99, [2.530195294, -1.749808680]], [2.00, [2.535751942, -1.757667009]], [2.01, [2.541379158, -1.765625134]], [2.02, [2.547078098, -1.773684691]], [2.03, [2.552849945, -1.781847351]], [2.04, [2.558695905, -1.790114820]], [2.05, [2.564617211, -1.798488843]], [2.06, [2.570615123, -1.806971201]], [2.07, [2.576690928, -1.815563715]], [2.08, [2.582845941, -1.824268244]], [2.09, [2.589081507, -1.833086691]], [2.10, [2.595399000, -1.842020998]], [2.11, [2.601799825, -1.851073153]], [2.12, [2.608285418, -1.860245187]], [2.13, [2.614857248, -1.869539177]], [2.14,

[2.621516817, -1.878957247]], [2.15, [2.628265661, -1.888501571]], [2.16, [2.635105352, -1.898174371]], [2.17, [2.642037498, -1.907977920]], [2.18, [2.649063744, -1.917914546]], [2.19, [2.656185773, -1.927986629]], [2.20, [2.663405309, -1.938196606]], [2.21, [2.670724115, -1.948546972]], [2.22, [2.678143997, -1.959040281]], [2.23, [2.685666804, -1.969679147]], [2.24, [2.693294429, -1.980466248]], [2.25, [2.701028812, -1.991404326]], [2.26, [2.708871938, -2.002496190]], [2.27, [2.716825843, -2.013744718]], [2.28, [2.724892612, -2.025152859]], [2.29, [2.733074381, -2.036723635]], [2.30, [2.741373341, -2.048460143]], [2.31, [2.749791737, -2.060365558]], [2.32, [2.758331870, -2.072443136]], [2.33, [2.766996101, -2.084696214]], [2.34, [2.775786851, -2.097128216]], [2.35, [2.784706602, -2.109742654]], [2.36, [2.793757902, -2.122543130]], [2.37, [2.802943365, -2.135533341]], [2.38, [2.812265674, -2.148717080]], [2.39, [2.821727581, -2.162098241]], [2.40, [2.831331914, -2.175680822]], [2.41, [2.841081575, -2.189468927]], [2.42, [2.850979544, -2.203466772]], [2.43, [2.861028883, -2.217678686]], [2.44, [2.871232737, -2.232109117]], [2.45, [2.881594338, -2.246762636]], [2.46, [2.892117007, -2.261643940]], [2.47, [2.902804158, -2.276757856]], [2.48, [2.913659301, -2.292109349]], [2.49, [2.924686046, -2.307703523]], [2.50, [2.935888105, -2.323545628]], [2.51, [2.947269296, -2.339641064]], [2.52, [2.958833549, -2.355995388]], [2.53, [2.970584907, -2.372614319]], [2.54, [2.982527532, -2.389503743]], [2.55, [2.994665710, -2.406669720]], [2.56, [3.007003853, -2.424118490]], [2.57, [3.019546506, -2.441856481]], [2.58, [3.032298352, -2.459890316]], [2.59, [3.045264216, -2.478226818]], [2.60, [3.058449071, -2.496873020]], [2.61, [3.071858044, -2.515836173]], [2.62, [3.085496422, -2.535123753]], [2.63, [3.099369657, -2.554743471]], [2.64, [3.113483375, -2.574703283]], [2.65, [3.127843380, -2.595011398]], [2.66, [3.142455664, -2.615676289]], [2.67, [3.157326412, -2.636706703]], [2.68, [3.172462013, -2.658111675]], [2.69, [3.187869064, -2.679900536]], [2.70, [3.203554383, -2.702082927]], [2.71, [3.219525016, -2.724668813]], [2.72, [3.235788247, -2.747668495]], [2.73, [3.252351608, -2.771092625]], [2.74, [3.269222890, -2.794952221]], [2.75, [3.286410154, -2.819258683]], [2.76, [3.303921742, -2.844023809]], [2.77, [3.321766292, -2.869259813]], [2.78,

[3.339952747, -2.894979345]], [2.79, [3.358490373, -2.921195507]], [2.80, [3.377388771, -2.947921878]], [2.81, [3.396657892, -2.975172531]], [2.82, [3.416308055, -3.002962058]], [2.83, [3.436349963, -3.031305596]], [2.84, [3.456794721, -3.060218850]], [2.85, [3.477653854, -3.089718120]], [2.86, [3.498939331, -3.119820330]], [2.87, [3.520663580, -3.150543058]], [2.88, [3.542839517, -3.181904569]], [2.89, [3.565480566, -3.213923848]], [2.90, [3.588600685, -3.246620634]], [2.91, [3.612214393, -3.280015461]], [2.92, [3.636336799, -3.314129695]], [2.93, [3.660983632, -3.348985580]], [2.94, [3.686171271, -3.384606280]], [2.95, [3.711916782, -3.421015930]], [2.96, [3.738237952, -3.458239686]], [2.97, [3.765153330, -3.496303779]], [2.98, [3.792682265, -3.535235573]], [2.99, [3.820844953, -3.575063628]], [3.00, [3.849662479, -3.615817764]], [3.01, [3.879156872, -3.657529134]], [3.02, [3.909351153, -3.700230296]], [3.03, [3.940269396, -3.743955294]], [3.04, [3.971936785, -3.788739746]], [3.05, [4.004379682, -3.834620931]], [3.06, [4.037625694, -3.881637892]], [3.07, [4.071703747, -3.929831537]], [3.08, [4.106644168, -3.979244755]], [3.09, [4.142478769, -4.029922534]], [3.10, [4.179240939, -4.081912093]], [3.11, [4.216965741, -4.135263020]], [3.12, [4.255690023, -4.190027424]], [3.13, [4.295452527, -4.246260096]], [3.14, [4.336294015, -4.304018682]], [3.15, [4.378257402, -4.363363873]], [3.16, [4.421387899, -4.424359607]], [3.17, [4.465733169, -4.487073289]], [3.18, [4.511343494, -4.551576028]], [3.19, [4.558271957, -4.617942897]], [3.20, [4.606574640, -4.686253207]], [3.21, [4.656310839, -4.756590814]], [3.22, [4.707543295, -4.829044448]], [3.23, [4.760338447, -4.903708069]], [3.24, [4.814766711, -4.980681258]], [3.25, [4.870902776, -5.060069643]], [3.26, [4.928825938, -5.141985364]], [3.27, [4.988620454, -5.226547580]], [3.28, [5.050375940, -5.313883025]], [3.29, [5.114187798, -5.404126620]], [3.30, [5.180157692, -5.497422139]], [3.31, [5.248394068, -5.593922947]], [3.32, [5.319012726, -5.693792811]], [3.33, [5.392137454, -5.797206792]], [3.34, [5.467900724, -5.904352236]], [3.35, [5.546444467, -6.015429862]], [3.36, [5.627920926, -6.130654976]], [3.37, [5.712493610, -6.250258813]], [3.38, [5.800338349, -6.374490034]], [3.39, [5.891644473, -6.503616393]], [3.40, [5.986616128, -6.637926595]], [3.41, [6.085473747, -6.777732381]], [3.42,

[6.188455702, -6.923370858]], [3.43, [6.295820158, -7.075207128]], [3.44, [6.407847162, -7.233637236]], [3.45, [6.524840999, -7.399091508]], [3.46, [6.647132865, -7.572038323]], [3.47, [6.775083888, -7.752988396]], [3.48, [6.909088578, -7.942499646]], [3.49, [7.049578750, -8.141182753]], [3.50, [7.197028021, -8.349707512]], [3.51, [7.351956967, -8.568810129]], [3.52, [7.514939058, -8.799301611]], [3.53, [7.686607512, -9.042077467]], [3.54, [7.867663242, -9.298128936]], [3.55, [8.058884098, -9.568556064]], [3.56, [8.261135653, -9.854582956]], [3.57, [8.475383853, -10.15757567]], [3.58, [8.702709905, -10.47906326]], [3.59, [8.944327883, -10.82076268]], [3.60, [9.201605643, -11.18460838]], [3.61, [9.476089791, -11.57278758]], [3.62, [9.769535654, -11.98778270]], [3.63, [10.08394345, -12.43242246]], [3.64, [10.42160218, -12.90994402]], [3.65, [10.78514329, -13.42406879]], [3.66, [11.17760662, -13.97909575]], [3.67, [11.60252212, -14.58001701]], [3.68, [12.06401184, -15.23266204]], [3.69, [12.56691829, -15.94387917]], [3.70, [13.11696739, -16.72176606]], [3.71, [13.72097733, -17.57596511]], [3.72, [14.38712910, -18.51804598]], [3.73, [15.12532074, -19.56200660]], [3.74, [15.94763691, -20.72493729]], [3.75, [16.86897980, -22.02791289]], [3.76, [17.90792898, -23.49720891]], [3.77, [19.08793255, -25.16598596]], [3.78, [20.43898661, -27.07666494]], [3.79, [22.00005066, -29.28434289]], [3.80, [23.82259915, -31.86181568]], [3.81, [25.97597547, -34.90714968]], [3.82, [28.55569485, -38.55542381]], [3.83, [31.69674389, -42.99753796]], [3.84, [35.59569508, -48.51148762]], [3.85, [40.54911816, -55.51668572]], [3.86, [47.02382600, -64.67330536]], [3.87, [55.79352472, -77.07553223]], [3.88, [68.22544209, -94.65691835]], [3.89, [86.94068804, -121.1242731]], [3.90, [117.5295390, -164.3834408]], [3.91, [173.7720092, -243.9223052]], [3.92, [297.4113081, -418.7746779]], [3.93, [661.3338069, -933.4388148]], [3.94, [2467.469553, -3487.700436]], [3.95, [27666.03065, -39123.84989]], [3.96, [3.197866474 × 10⁶, -4.522462606 × 10⁶]], [3.97, [4.236204547 × 10¹⁰, -5.990911076 × 10¹⁰]], [3.98, [7.433295819 × 10¹⁸, -1.051213325 × 10¹⁹]], [3.99, [2.288590940 × 10³⁵, -3.236797734 × 10³⁵]], [4.00, [2.170057478 × 10⁶⁸, -3.067591013 × 10⁶⁸]], [4.01, [1.947699359 × 10¹³⁴, -2.761450098 × 10¹³⁴]], [4.02, [1.584941793 × 10²⁶⁶, -2.208591000 × 10²⁶⁶]], [4.03, [9.884476923 × 10⁵²⁹, -1.523592795 × 10⁵³⁰]], [4.04,

$[5.289629418 \times 10^{1057}, -4.480658990 \times 10^{1057}]$, $[4.05, [-4.279153774 \times 10^{2112}, -3.225933318 \times 10^{2113}]]$, $[4.06, [-1.563538043 \times 10^{4224}, -1.746649614 \times 10^{4224}]]$,
 $[4.07, [-5.175604331 \times 10^{8446}, -7.620255543 \times 10^{8446}]]$, $[4.08, [-6.622630776 \times 10^{16891}, -9.301318795 \times 10^{16891}]]$, $[4.09, [-1.054584385 \times 10^{33782}, -1.493176769 \times 10^{33782}]]$,
 $[4.10, [-2.686829130 \times 10^{67562}, -3.798977355 \times 10^{67562}]]$, $[4.11, [-1.742625380 \times 10^{135123}, -2.464530457 \times 10^{135123}]]$, $[4.12, [-7.331496539 \times 10^{270244}, -1.036823975 \times 10^{270245}]]$,
 $[4.13, [-1.297655554 \times 10^{540488}, -1.835163969 \times 10^{540488}]]$, $[4.14, [-4.065320654 \times 10^{1080974}, -5.749230591 \times 10^{1080974}]]$, $[4.15, [-3.989929789 \times 10^{2161947}, -5.642612991 \times 10^{2161947}]]$,
 $[4.16, [-3.843316938 \times 10^{4323893}, -5.435270911 \times 10^{4323893}]]$, $[4.17, [-3.566055384 \times 10^{8647785}, -5.043163894 \times 10^{8647785}]]$,
 $[4.18, [-3.070095276 \times 10^{17295569}, -4.341770375 \times 10^{17295569}]]$, $[4.19, [-2.275513372 \times 10^{34591137}, -3.218061873 \times 10^{34591137}]]$, $[4.20, [-1.250070393 \times 10^{69182273}, -1.767866504 \times 10^{69182273}]]$,
 $[4.21, [-3.772633563 \times 10^{138364544}, -5.335309550 \times 10^{138364544}]]$, $[4.22, [-3.436093188 \times 10^{276729087}, -4.859369589 \times 10^{276729087}]]$,
 $[4.23, [-2.850398314 \times 10^{553458173}, -4.031071952 \times 10^{553458173}]]$, $[4.24, [-1.961493124 \times 10^{1106916345}, -2.773970179 \times 10^{1106916345}]]$,
 $[4.25, [-9.288578708 \times 10^{2213832688}, -1.313603398 \times 10^{2213832689}]]$, $[4.26, [-2.082927800 \times 10^{4427665376}, -2.945704744 \times 10^{4427665376}]]$,
 $[4.27, [-1.047427852 \times 10^{8855330751}, -1.481286674 \times 10^{8855330751}]]$, $[4.28, [-2.648646024 \times 10^{17710661500}, -3.745751129 \times 10^{17710661500}]]$,
 $[4.29, [-1.693649460 \times 10^{35421322999}, -2.395182036 \times 10^{35421322999}]]$, $[4.30, [-6.925047255 \times 10^{70842645996}, -9.793495749 \times 10^{70842645996}]]$,
 $[4.31, [-1.157767003 \times 10^{141685291992}, -1.637329798 \times 10^{141685291992}]]$, $[4.32, [-3.236070846 \times 10^{283370583982}, -4.576495280 \times 10^{283370583982}]]$,
 $[4.33, [-2.528201747 \times 10^{566741167963}, -3.575417199 \times 10^{566741167963}]]$, $[4.34, [-1.543118008 \times 10^{1133482335925}, -2.182298416 \times 10^{1133482335925}]]$,
 $[4.35, [-5.748757171 \times 10^{2266964671848}, -8.129970358 \times 10^{2266964671848}]]$, $[4.36, [-7.978543441 \times 10^{4533929343695}, -1.128336434 \times 10^{4533929343695}]]$,
 $[4.37, [-1.536819680 \times 10^{9067858687390}, -2.173391234 \times 10^{9067858687390}]]$, $[4.38, [-5.701925150 \times 10^{18135717374778}, -8.063739878 \times 10^{18135717374778}]]$,
 $[4.39, [-7.849079164 \times 10^{36271434749555}, -1.110027421 \times 10^{36271434749555}]]$, $[4.40, [-1.487349747 \times 10^{72542869499110}, -2.103430185 \times 10^{72542869499110}]]$,
 $[4.41, [-5.340745623 \times 10^{145085738998218}, -7.552954893 \times 10^{145085738998218}]]$

$\times 10^{145085738998218}]$, [4.42, $[-6.886197462 \times 10^{290171477996435}$, -9.738553841
 $\times 10^{290171477996435}]$, [4.43, $[-1.144813202 \times 10^{580342955992870}$, -1.619010357
 $\times 10^{580342955992870}]$, [4.44, $[-3.164061698 \times 10^{1160685911985738}$, -4.474658966
 $\times 10^{1160685911985738}]$, [4.45, $[-2.416938347 \times 10^{2321371823971475}$, -3.418066990
 $\times 10^{2321371823971475}]$, [4.46, $[-1.410284815 \times 10^{4642743647942949}$, -1.994443913
 $\times 10^{4642743647942949}]$, [4.47, $[-4.801637224 \times 10^{9285487295885896}$, -6.790540484
 $\times 10^{9285487295885896}]$, [4.48, $[-5.566143200 \times 10^{18570974591771791}$, -7.871715201
 $\times 10^{18570974591771791}]$, [4.49, $[-7.479704416 \times 10^{37141949183543581}$, -1.057789943
 $\times 10^{37141949183543582}]$, [4.50, $[-1.350655393 \times 10^{74283898367087162}$, -1.910115174
 $\times 10^{74283898367087162}]$, [4.51, $[-4.404177352 \times 10^{148567796734174322}$, -6.228447342
 $\times 10^{148567796734174322}]$, [4.52, $[-4.682796485 \times 10^{297135593468348643}$, -6.622474304
 $\times 10^{297135593468348643}]$, [4.53, $[-5.294028232 \times 10^{594271186936697285}$, -7.486886521
 $\times 10^{594271186936697285}]$, [4.54, $[-6.766252352 \times 10^{1188542373873394569}$, -9.568925843
 $\times 10^{1188542373873394569}]$, [4.55, $[-1.105279379 \times 10^{2377084747746789138}$, -1.563101087
 $\times 10^{2377084747746789138}]$, [4.56, $[-2.949305904 \times 10^{4754169495493578274}$, -4.170948410
 $\times 10^{4754169495493578274}]$, [4.57, [Float(- ∞), Float(- ∞)]], [4.58, [Float(- ∞), Float(-
 ∞)]], [4.59, [Float(- ∞), Float(- ∞)]], [4.60, [Float(- ∞), Float(- ∞)]], [4.61, [Float(-
 ∞), Float(- ∞)]], [4.62, [Float(- ∞), Float(- ∞)]], [4.63, [Float(- ∞), Float(- ∞)]],
[4.64, [Float(- ∞), Float(- ∞)]], [4.65, [Float(- ∞), Float(- ∞)]], [4.66, [Float(- ∞),
Float(- ∞)]], [4.67, [Float(- ∞), Float(- ∞)]], [4.68, [Float(- ∞), Float(- ∞)]], [4.69, [
Float(- ∞), Float(- ∞)]], [4.70, [Float(- ∞), Float(- ∞)]], [4.71, [Float(- ∞), Float(-
 ∞)]], [4.72, [Float(- ∞), Float(- ∞)]], [4.73, [Float(- ∞), Float(- ∞)]], [4.74, [Float(-
 ∞), Float(- ∞)]], [4.75, [Float(- ∞), Float(- ∞)]], [4.76, [Float(- ∞), Float(- ∞)]],
[4.77, [Float(- ∞), Float(- ∞)]], [4.78, [Float(- ∞), Float(- ∞)]], [4.79, [Float(- ∞),
Float(- ∞)]], [4.80, [Float(- ∞), Float(- ∞)]], [4.81, [Float(- ∞), Float(- ∞)]], [4.82, [
Float(- ∞), Float(- ∞)]], [4.83, [Float(- ∞), Float(- ∞)]], [4.84, [Float(- ∞), Float(-
 ∞)]], [4.85, [Float(- ∞), Float(- ∞)]], [4.86, [Float(- ∞), Float(- ∞)]], [4.87, [Float(-
 ∞), Float(- ∞)]], [4.88, [Float(- ∞), Float(- ∞)]], [4.89, [Float(- ∞), Float(- ∞)]],
[4.90, [Float(- ∞), Float(- ∞)]], [4.91, [Float(- ∞), Float(- ∞)]], [4.92, [Float(- ∞),
Float(- ∞)]], [4.93, [Float(- ∞), Float(- ∞)]], [4.94, [Float(- ∞), Float(- ∞)]], [4.95, [
Float(- ∞), Float(- ∞)]], [4.96, [Float(- ∞), Float(- ∞)]], [4.97, [Float(- ∞), Float(-
 ∞)]], [4.98, [Float(- ∞), Float(- ∞)]], [4.99, [Float(- ∞), Float(- ∞)]], [5.00, [Float(-
 ∞), Float(- ∞)]], [5.01, [Float(- ∞), Float(- ∞)]], [5.02, [Float(- ∞), Float(- ∞)]],
[5.03, [Float(- ∞), Float(- ∞)]], [5.04, [Float(- ∞), Float(- ∞)]], [5.05, [Float(- ∞),
Float(- ∞)]], [5.06, [Float(- ∞), Float(- ∞)]], [5.07, [Float(- ∞), Float(- ∞)]], [5.08, [

> # (2,-1) is unstable

Question 5

```
SIRS := proc(s, i, beta, gamma, nu, N) : [-beta * s * i + gamma * (N - s - i), beta * s * i - nu * i] :  
end:
```

#Dis2(F,x,y,pt,h,A): The approximate orbit of the Dynamical system approximating the 2D for the autonomous continuous dynamical process

```
#dx/dt=F[1](x(t),y(t))
```

```
#dy/dt=F[2](x(t),y(t)) , x(0)=pt[1], y(0)=pt[2] with mesh size h from t=0 to t=A
```

```
Dis2 := proc(F, x, y, pt, h, A) local L, i :
```

```
L := Orb2([x + h * F[1], y + h * F[2]], x, y, pt, 0, trunc(A/h)) :
```

```
L := [seq([i * h, [L[i][1], L[i][2]]], i = 1 .. nops(L))] :
```

```
end:
```

> Dis2(SIRS(s, i, 0.01, 0.1, 1, 50), s, i, [20, 30], 0.01, 10)

```
[[0.01, [20, 30]], [0.02, [19.9400, 29.7600]], [0.03, [19.88095856, 29.52174144]], [0.04,  
[19.82286381, 29.28521608]], [0.05, [19.76570404, 29.05041560]], [0.06, [19.70946773,  
28.81733163]], [0.07, [19.65414350, 28.58595574]], [0.08, [19.59972015, 28.35627943]],  
[0.09, [19.54618664, 28.12829415]], [0.10, [19.49353207, 27.90199130]], [0.11,  
[19.44174571, 27.67736223]], [0.12, [19.39081698, 27.45439823]], [0.13, [19.34073544,  
27.23309057]], [0.14, [19.29149081, 27.01343046]], [0.15, [19.24307296, 26.79540909]],  
[0.16, [19.19547188, 26.57901760]], [0.17, [19.14867771, 26.36424710]], [0.18,  
[19.10268073, 26.15108868]], [0.19, [19.05747137, 25.93953338]], [0.20, [19.01304018,  
25.72957224]], [0.21, [18.96937783, 25.52119626]], [0.22, [18.92647513, 25.31439642]],  
[0.23, [18.88432302, 25.10916369]], [0.24, [18.84291258, 24.90548901]], [0.25,  
[18.80223498, 24.70336332]], [0.26, [18.76228155, 24.50277753]], [0.27, [18.72304369,  
24.30372255]], [0.28, [18.68451296, 24.10618929]], [0.29, [18.64668102, 23.91016864]],  
[0.30, [18.60953964, 23.71565148]], [0.31, [18.57308071, 23.52262871]], [0.32,  
[18.53729623, 23.33109119]], [0.33, [18.50217831, 23.14102981]], [0.34, [18.46771915,  
22.95243546]], [0.35, [18.43391108, 22.76529902]], [0.36, [18.40074652, 22.57961138]],  
[0.37, [18.36821799, 22.39536344]], [0.38, [18.33631812, 22.21254610]], [0.39,  
[18.30503962, 22.03115027]], [0.40, [18.27437532, 21.85116688]], [0.41, [18.24431813,  
21.67258685]], [0.42, [18.21486106, 21.49540114]], [0.43, [18.18599723, 21.31960070]],  
[0.44, [18.15771981, 21.14517651]], [0.45, [18.13002209, 20.97211956]], [0.46,  
[18.10289745, 20.80042086]], [0.47, [18.07633934, 20.63007144]], [0.48, [18.05034131,  
20.46106235]], [0.49, [18.02489699, 20.29338465]], [0.50, [18.00000009, 20.12702942]],  
[0.51, [17.97564441, 19.96198778]], [0.52, [17.95182382, 19.79825086]], [0.53,
```

(7)

[17.92853228, 19.63580982]], [0.54, [17.90576381, 19.47465585]], [0.55, [17.88351253, 19.31478015]], [0.56, [17.86177263, 19.15617396]], [0.57, [17.84053837, 18.99882854]], [0.58, [17.81980407, 18.84273518]], [0.59, [17.79956415, 18.68788521]], [0.60, [17.77981308, 18.53426998]], [0.61, [17.76054541, 18.38188087]], [0.62, [17.74175576, 18.23070928]], [0.63, [17.72343881, 18.08074667]], [0.64, [17.70558932, 17.93198450]], [0.65, [17.68820211, 17.78441430]], [0.66, [17.67127207, 17.63802759]], [0.67, [17.65479413, 17.49281595]], [0.68, [17.63876331, 17.34877100]], [0.69, [17.62317469, 17.20588438]], [0.70, [17.60802341, 17.06414777]], [0.71, [17.59330465, 16.92355288]], [0.72, [17.57901368, 16.78409147]], [0.73, [17.56514580, 16.64575534]], [0.74, [17.55169638, 16.50853630]], [0.75, [17.53866086, 16.37242622]], [0.76, [17.52603473, 16.23741700]], [0.77, [17.51381353, 16.10350058]], [0.78, [17.50199285, 15.97066894]], [0.79, [17.49056834, 15.83891410]], [0.80, [17.47953570, 15.70822812]], [0.81, [17.46889068, 15.57860309]], [0.82, [17.45862910, 15.45003115]], [0.83, [17.44874680, 15.32250448]], [0.84, [17.43923970, 15.19601529]], [0.85, [17.43010374, 15.07055584]], [0.86, [17.42133494, 14.94611842]], [0.87, [17.41292936, 14.82269537]], [0.88, [17.40488308, 14.70027907]], [0.89, [17.39719226, 14.57886194]], [0.90, [17.38985308, 14.45843645]], [0.91, [17.38286178, 14.33899510]], [0.92, [17.37621464, 14.22053043]], [0.93, [17.36990800, 14.10303503]], [0.94, [17.36393821, 13.98650152]], [0.95, [17.35830170, 13.87092257]], [0.96, [17.35299491, 13.75629091]], [0.97, [17.34801435, 13.64259928]], [0.98, [17.34335654, 13.52984049]], [0.99, [17.33901806, 13.41800737]], [1.00, [17.33499552, 13.30709281]], [1.01, [17.33128559, 13.19708972]], [1.02, [17.32788496, 13.08799107]], [1.03, [17.32479037, 12.97978988]], [1.04, [17.32199858, 12.87247919]], [1.05, [17.31950639, 12.76605211]], [1.06, [17.31731066, 12.66050176]], [1.07, [17.31540827, 12.55582132]], [1.08, [17.31379612, 12.45200403]], [1.09, [17.31247117, 12.34904314]], [1.10, [17.31143041, 12.24693196]], [1.11, [17.31067086, 12.14566383]], [1.12, [17.31018957, 12.04523215]], [1.13, [17.30998362, 11.94563036]], [1.14, [17.31005014, 11.84685193]], [1.15, [17.31038628, 11.74889037]], [1.16, [17.31098922, 11.65173925]], [1.17, [17.31185618, 11.55539217]], [1.18, [17.31298440, 11.45984278]], [1.19, [17.31437117, 11.36508476]], [1.20, [17.31601379, 11.27111184]], [1.21, [17.31790960, 11.17791779]], [1.22, [17.32005595, 11.08549643]], [1.23, [17.32245025, 10.99384161]], [1.24, [17.32508993, 10.90294722]], [1.25, [17.32797244, 10.81280720]], [1.26, [17.33109526, 10.72341553]], [1.27, [17.33445589, 10.63476622]], [1.28, [17.33805187, 10.54685335]], [1.29, [17.34188078, 10.45967101]], [1.30, [17.34594019, 10.37321334]], [1.31, [17.35022773, 10.28747452]], [1.32, [17.35474103, 10.20244877]], [1.33, [17.35947775, 10.11813037]], [1.34, [17.36443559, 10.03451362]], [1.35, [17.36961227, 9.951592851]], [1.36, [17.37500554, 9.869362453]], [1.37, [17.38061315, 9.787816851]], [1.38, [17.38643289, 9.706950508]], [1.39, [17.39246259, 9.626757927]], [1.40, [17.39870007, 9.547233651]], [1.41, [17.40514319, 9.468372259]],

[1.42, [17.41178984, 9.390168373]], [1.43, [17.41863792, 9.312616653]], [1.44, [17.42568535, 9.235711796]], [1.45, [17.43293009, 9.159448539]], [1.46, [17.44037011, 9.083821657]], [1.47, [17.44800340, 9.008825961]], [1.48, [17.45582797, 8.934456304]], [1.49, [17.46384185, 8.860707574]], [1.50, [17.47204310, 8.787574698]], [1.51, [17.48042980, 8.715052639]], [1.52, [17.48900003, 8.643136400]], [1.53, [17.49775191, 8.571821017]], [1.54, [17.50668358, 8.501101567]], [1.55, [17.51579319, 8.430973161]], [1.56, [17.52507891, 8.361430947]], [1.57, [17.53453893, 8.292470112]], [1.58, [17.54417146, 8.224085875]], [1.59, [17.55397472, 8.156273493]], [1.60, [17.56394698, 8.089028260]], [1.61, [17.57408647, 8.022345503]], [1.62, [17.58439149, 7.956220587]], [1.63, [17.59486035, 7.890648911]], [1.64, [17.60549135, 7.825625909]], [1.65, [17.61628283, 7.761147049]], [1.66, [17.62723314, 7.697207835]], [1.67, [17.63834065, 7.633803805]], [1.68, [17.64960375, 7.570930530]], [1.69, [17.66102083, 7.508583617]], [1.70, [17.67259030, 7.446758706]], [1.71, [17.68431060, 7.385451471]], [1.72, [17.69618018, 7.324657618]], [1.73, [17.70819749, 7.264372888]], [1.74, [17.72036103, 7.204593054]], [1.75, [17.73266928, 7.145313922]], [1.76, [17.74512075, 7.086531332]], [1.77, [17.75771396, 7.028241154]], [1.78, [17.77044746, 6.970439292]], [1.79, [17.78331979, 6.913121682]], [1.80, [17.79632952, 6.856284290]], [1.81, [17.80947524, 6.799923116]], [1.82, [17.82275553, 6.744034191]], [1.83, [17.83616901, 6.688613576]], [1.84, [17.84971431, 6.633657364]], [1.85, [17.86339005, 6.579161679]], [1.86, [17.87719489, 6.525122675]], [1.87, [17.89112749, 6.471536537]], [1.88, [17.90518651, 6.418399481]], [1.89, [17.91937066, 6.365707750]], [1.90, [17.93367863, 6.313457620]], [1.91, [17.94810914, 6.261645396]], [1.92, [17.96266091, 6.210267412]], [1.93, [17.97733269, 6.159320031]], [1.94, [17.99212323, 6.108799646]], [1.95, [18.00703128, 6.058702678]], [1.96, [18.02205563, 6.009025576]], [1.97, [18.03719504, 5.959764819]], [1.98, [18.05244834, 5.910916915]], [1.99, [18.06781432, 5.862478398]], [2.00, [18.08329181, 5.814445831]], [2.01, [18.09887964, 5.766815805]], [2.02, [18.11457665, 5.719584938]], [2.03, [18.13038170, 5.672749875]], [2.04, [18.14629366, 5.626307288]], [2.05, [18.16231140, 5.580253877]], [2.06, [18.17843381, 5.534586369]], [2.07, [18.19465978, 5.489301516]], [2.08, [18.21098822, 5.444396098]], [2.09, [18.22741805, 5.399866920]], [2.10, [18.24394820, 5.355710814]], [2.11, [18.26057761, 5.311924637]], [2.12, [18.27730523, 5.268505272]], [2.13, [18.29413000, 5.225449627]], [2.14, [18.31105091, 5.182754636]], [2.15, [18.32806694, 5.140417258]], [2.16, [18.34517706, 5.098434476]], [2.17, [18.36238028, 5.056803299]], [2.18, [18.37967561, 5.015520761]], [2.19, [18.39706205, 4.974583917]], [2.20, [18.41453864, 4.933989851]], [2.21, [18.43210440, 4.893735667]], [2.22, [18.44975838, 4.853818495]], [2.23, [18.46749962, 4.814235488]], [2.24, [18.48532719, 4.774983822]], [2.25, [18.50324017, 4.736060698]], [2.26, [18.52123762, 4.697463338]], [2.27, [18.53931864, 4.659188988]], [2.28, [18.55748231, 4.621234917]], [2.29, [18.57572775, 4.583598417]], [2.30, [18.59405405,

4.546276801]], [2.31, [18.61246035, 4.509267405]], [2.32, [18.63094576, 4.472567587]], [2.33, [18.64950942, 4.436174727]], [2.34, [18.66815049, 4.400086228]], [2.35, [18.68686810, 4.364299513]], [2.36, [18.70566142, 4.328812027]], [2.37, [18.72452962, 4.293621236]], [2.38, [18.74347187, 4.258724628]], [2.39, [18.76248735, 4.224119711]], [2.40, [18.78157524, 4.189804013]], [2.41, [18.80073475, 4.155775085]], [2.42, [18.81996508, 4.122030497]], [2.43, [18.83926543, 4.088567839]], [2.44, [18.85863503, 4.055384722]], [2.45, [18.87807311, 4.022478777]], [2.46, [18.89757890, 3.989847654]], [2.47, [18.91715162, 3.957489023]], [2.48, [18.93679054, 3.925400575]], [2.49, [18.95649490, 3.893580018]], [2.50, [18.97626397, 3.862025081]], [2.51, [18.99609700, 3.830733511]], [2.52, [19.01599327, 3.799703075]], [2.53, [19.03595207, 3.768931557]], [2.54, [19.05597267, 3.738416761]], [2.55, [19.07605436, 3.708156510]], [2.56, [19.09619645, 3.678148645]], [2.57, [19.11639824, 3.648391024]], [2.58, [19.13665904, 3.618881524]], [2.59, [19.15697817, 3.589618039]], [2.60, [19.17735495, 3.560598482]], [2.61, [19.19778871, 3.531820783]], [2.62, [19.21827879, 3.503282890]], [2.63, [19.23882452, 3.474982768]], [2.64, [19.25942526, 3.446918398]], [2.65, [19.28008034, 3.419087781]], [2.66, [19.30078914, 3.391488932]], [2.67, [19.32155102, 3.364119884]], [2.68, [19.34236535, 3.336978686]], [2.69, [19.36323149, 3.310063405]], [2.70, [19.38414885, 3.283372123]], [2.71, [19.40511679, 3.256902939]], [2.72, [19.42613471, 3.230653968]], [2.73, [19.44720202, 3.204623340]], [2.74, [19.46831810, 3.178809203]], [2.75, [19.48948236, 3.153209718]], [2.76, [19.51069423, 3.127823064]], [2.77, [19.53195312, 3.102647433]], [2.78, [19.55325844, 3.077681035]], [2.79, [19.57460963, 3.052922094]], [2.80, [19.59600612, 3.028368849]], [2.81, [19.61744735, 3.004019554]], [2.82, [19.63893276, 2.979872478]], [2.83, [19.66046181, 2.955925905]], [2.84, [19.68203393, 2.932178133]], [2.85, [19.70364860, 2.908627475]], [2.86, [19.72530526, 2.885272257]], [2.87, [19.74700339, 2.862110822]], [2.88, [19.76874247, 2.839141525]], [2.89, [19.79052196, 2.816362736]], [2.90, [19.81234135, 2.793772838]], [2.91, [19.83420012, 2.771370228]], [2.92, [19.85609776, 2.749153317]], [2.93, [19.87803376, 2.727120530]], [2.94, [19.90000763, 2.705270304]], [2.95, [19.92201886, 2.683601091]], [2.96, [19.94406696, 2.662111355]], [2.97, [19.96615145, 2.640799574]], [2.98, [19.98827184, 2.619664238]], [2.99, [20.01042765, 2.598703852]], [3.00, [20.03261840, 2.577916931]], [3.01, [20.05484362, 2.557302005]], [3.02, [20.07710285, 2.536857614]], [3.03, [20.09939561, 2.516582313]], [3.04, [20.12172145, 2.496474668]], [3.05, [20.14407992, 2.476533258]], [3.06, [20.16647056, 2.456756673]], [3.07, [20.18889292, 2.437143517]], [3.08, [20.21134657, 2.417692405]], [3.09, [20.23383105, 2.398401963]], [3.10, [20.25634593, 2.379270829]], [3.11, [20.27889078, 2.360297654]], [3.12, [20.30146517, 2.341481099]], [3.13, [20.32406867, 2.322819838]], [3.14, [20.34670087, 2.304312555]], [3.15, [20.36936134, 2.285957945]], [3.16, [20.39204967, 2.267754716]], [3.17, [20.41476545, 2.249701586]], [3.18, [20.43750827, 2.231797283]], [3.19,

[20.46027772, 2.214040548]], [3.20, [20.48307341, 2.196430131]], [3.21, [20.50589495, 2.178964794]], [3.22, [20.52874194, 2.161643308]], [3.23, [20.55161398, 2.144464457]], [3.24, [20.57451069, 2.127427033]], [3.25, [20.59743167, 2.110529840]], [3.26, [20.62037656, 2.093771691]], [3.27, [20.64334497, 2.077151410]], [3.28, [20.66633654, 2.060667831]], [3.29, [20.68935088, 2.044319798]], [3.30, [20.71238765, 2.028106165]], [3.31, [20.73544646, 2.012025795]], [3.32, [20.75852695, 1.996077562]], [3.33, [20.78162878, 1.980260349]], [3.34, [20.80475159, 1.964573050]], [3.35, [20.82789502, 1.949014565]], [3.36, [20.85105872, 1.933583806]], [3.37, [20.87424235, 1.918279695]], [3.38, [20.89744557, 1.903101162]], [3.39, [20.92066802, 1.888047145]], [3.40, [20.94390938, 1.873116595]], [3.41, [20.96716931, 1.858308467]], [3.42, [20.99044748, 1.843621729]], [3.43, [21.01374357, 1.829055357]], [3.44, [21.03705724, 1.814608333]], [3.45, [21.06038817, 1.800279652]], [3.46, [21.08373604, 1.786068314]], [3.47, [21.10710053, 1.771973330]], [3.48, [21.13048134, 1.757993719]], [3.49, [21.15387814, 1.744128507]], [3.50, [21.17729062, 1.730376730]], [3.51, [21.20071848, 1.716737432]], [3.52, [21.22416141, 1.703209665]], [3.53, [21.24761912, 1.689792488]], [3.54, [21.27109130, 1.676484970]], [3.55, [21.29457766, 1.663286186]], [3.56, [21.31807789, 1.650195222]], [3.57, [21.34159171, 1.637211169]], [3.58, [21.36511884, 1.624333126]], [3.59, [21.38865898, 1.611560202]], [3.60, [21.41221185, 1.598891511]], [3.61, [21.43577717, 1.586326176]], [3.62, [21.45935465, 1.573863327]], [3.63, [21.48294403, 1.561502103]], [3.64, [21.50654502, 1.549241648]], [3.65, [21.53015735, 1.537081116]], [3.66, [21.55378075, 1.525019665]], [3.67, [21.57741496, 1.513056462]], [3.68, [21.60105971, 1.501190682]], [3.69, [21.62471473, 1.489421506]], [3.70, [21.64837977, 1.477748123]], [3.71, [21.67205455, 1.466169727]], [3.72, [21.69573884, 1.454685521]], [3.73, [21.71943236, 1.443294714]], [3.74, [21.74313489, 1.431996521]], [3.75, [21.76684615, 1.420790165]], [3.76, [21.79056590, 1.409674875]], [3.77, [21.81429390, 1.398649887]], [3.78, [21.83802990, 1.387714444]], [3.79, [21.86177367, 1.376867795]], [3.80, [21.88552495, 1.366109194]], [3.81, [21.90928352, 1.355437904]], [3.82, [21.93304913, 1.344853192]], [3.83, [21.95682156, 1.334354333]], [3.84, [21.98060057, 1.323940608]], [3.85, [22.00438593, 1.313611303]], [3.86, [22.02817741, 1.303365711]], [3.87, [22.05197478, 1.293203131]], [3.88, [22.07577784, 1.283122868]], [3.89, [22.09958635, 1.273124233]], [3.90, [22.12340009, 1.263206543]], [3.91, [22.14721884, 1.253369120]], [3.92, [22.17104239, 1.243611293]], [3.93, [22.19487052, 1.233932396]], [3.94, [22.21870302, 1.224331769]], [3.95, [22.24253968, 1.214808757]], [3.96, [22.26638029, 1.205362712]], [3.97, [22.29022464, 1.195992991]], [3.98, [22.31407253, 1.186698956]], [3.99, [22.33792375, 1.177479975]], [4.00, [22.36177810, 1.168335421]], [4.01, [22.38563537, 1.159264673]], [4.02, [22.40949538, 1.150267114]], [4.03, [22.43335792, 1.141342134]], [4.04, [22.45722281, 1.132489127]], [4.05, [22.48108984, 1.123707492]], [4.06, [22.50495882, 1.114996634]], [4.07, [22.52882956, 1.106355963]],

[4.08, [22.55270188, 1.097784893]], [4.09, [22.57657560, 1.089282846]], [4.10, [22.60045051, 1.080849246]], [4.11, [22.62432644, 1.072483522]], [4.12, [22.64820321, 1.064185109]], [4.13, [22.67208063, 1.055953446]], [4.14, [22.69595853, 1.047787978]], [4.15, [22.71983672, 1.039688153]], [4.16, [22.74371504, 1.031653426]], [4.17, [22.76759331, 1.023683255]], [4.18, [22.79147136, 1.015777102]], [4.19, [22.81534900, 1.007934436]], [4.20, [22.83922608, 1.000154729]], [4.21, [22.86310242, 0.9924374577]], [4.22, [22.88697786, 0.9847821030]], [4.23, [22.91085223, 0.9771881506]], [4.24, [22.93472537, 0.9696550904]], [4.25, [22.95859710, 0.9621824168]], [4.26, [22.98246728, 0.9547696284]], [4.27, [23.00633574, 0.9474162283]], [4.28, [23.03020232, 0.9401217236]], [4.29, [23.05406688, 0.9328856258]], [4.30, [23.07792924, 0.9257074503]], [4.31, [23.10178926, 0.9185867169]], [4.32, [23.12564678, 0.9115229494]], [4.33, [23.14950165, 0.9045156757]], [4.34, [23.17335372, 0.8975644276]], [4.35, [23.19720285, 0.8906687411]], [4.36, [23.22104888, 0.8838281560]], [4.37, [23.24489166, 0.8770422161]], [4.38, [23.26873105, 0.8703104690]], [4.39, [23.29256691, 0.8636324663]], [4.40, [23.31639909, 0.8570077633]], [4.41, [23.34022745, 0.8504359192]], [4.42, [23.36405184, 0.8439164968]], [4.43, [23.38787214, 0.8374490627]], [4.44, [23.41168820, 0.8310331873]], [4.45, [23.43549989, 0.8246684444]], [4.46, [23.45930707, 0.8183544117]], [4.47, [23.48310961, 0.8120906703]], [4.48, [23.50690737, 0.8058768050]], [4.49, [23.53070021, 0.7997124041]], [4.50, [23.55448802, 0.7935970594]], [4.51, [23.57827065, 0.7875303660]], [4.52, [23.60204799, 0.7815119227]], [4.53, [23.62581990, 0.7755413317]], [4.54, [23.64958626, 0.7696181984]], [4.55, [23.67334693, 0.7637421316]], [4.56, [23.69710181, 0.7579127435]], [4.57, [23.72085077, 0.7521296496]], [4.58, [23.74459367, 0.7463924686]], [4.59, [23.76833041, 0.7407008225]], [4.60, [23.79206086, 0.7350543365]], [4.61, [23.81578490, 0.7294526389]], [4.62, [23.83950242, 0.7238953612]], [4.63, [23.86321329, 0.7183821381]], [4.64, [23.88691741, 0.7129126073]], [4.65, [23.91061465, 0.7074864097]], [4.66, [23.93430491, 0.7021031891]], [4.67, [23.95798807, 0.6967625924]], [4.68, [23.98166402, 0.6914642695]], [4.69, [24.00533265, 0.6862078732]], [4.70, [24.02899385, 0.6809930593]], [4.71, [24.05264751, 0.6758194865]], [4.72, [24.07629352, 0.6706868164]], [4.73, [24.09993177, 0.6655947135]], [4.74, [24.12356217, 0.6605428451]], [4.75, [24.14718461, 0.6555308812]], [4.76, [24.17079898, 0.6505584949]], [4.77, [24.19440517, 0.6456253619]], [4.78, [24.21800308, 0.6407311605]], [4.79, [24.24159263, 0.6358755718]], [4.80, [24.26517370, 0.6310582798]], [4.81, [24.28874620, 0.6262789709]], [4.82, [24.31231002, 0.6215373343]], [4.83, [24.33586507, 0.6168330618]], [4.84, [24.35941125, 0.6121658478]], [4.85, [24.38294847, 0.6075353893]], [4.86, [24.40647663,

0.6029413858]], [4.87, [24.42999564, 0.5983835394]], [4.88, [24.45350541, 0.5938615547]], [4.89, [24.47700584, 0.5893751389]], [4.90, [24.50049684, 0.5849240014]], [4.91, [24.52397833, 0.5805078543]], [4.92, [24.54745020, 0.5761264120]], [4.93, [24.57091238, 0.5717793913]], [4.94, [24.59436478, 0.5674665115]], [4.95, [24.61780730, 0.5631874942]], [4.96, [24.64123986, 0.5589420634]], [4.97, [24.66466238, 0.5547299453]], [4.98, [24.68807477, 0.5505508685]], [4.99, [24.71147695, 0.5464045639]], [5.00, [24.73486882, 0.5422907647]], [5.01, [24.75825031, 0.5382092062]], [5.02, [24.78162134, 0.5341596259]], [5.03, [24.80498183, 0.5301417638]], [5.04, [24.82833169, 0.5261553619]], [5.05, [24.85167084, 0.5222001643]], [5.06, [24.87499922, 0.5182759174]], [5.07, [24.89831673, 0.5143823695]], [5.08, [24.92162330, 0.5105192713]], [5.09, [24.94491886, 0.5066863755]], [5.10, [24.96820332, 0.5028834368]], [5.11, [24.99147663, 0.4991102120]], [5.12, [25.01473869, 0.4953664600]], [5.13, [25.03798943, 0.4916519417]], [5.14, [25.06122879, 0.4879664199]], [5.15, [25.08445669, 0.4843096595]], [5.16, [25.10767306, 0.4806814274]], [5.17, [25.13087783, 0.4770814923]], [5.18, [25.15407092, 0.4735096251]], [5.19, [25.17725227, 0.4699655983]], [5.20, [25.20042181, 0.4664491865]], [5.21, [25.22357947, 0.4629601662]], [5.22, [25.24672518, 0.4594983158]], [5.23, [25.26985887, 0.4560634154]], [5.24, [25.29298048, 0.4526552470]], [5.25, [25.31608994, 0.4492735945]], [5.26, [25.33918719, 0.4459182437]], [5.27, [25.36227216, 0.4425889819]], [5.28, [25.38534479, 0.4392855983]], [5.29, [25.40840502, 0.4360078839]], [5.30, [25.43145277, 0.4327556316]], [5.31, [25.45448800, 0.4295286357]], [5.32, [25.47751064, 0.4263266924]], [5.33, [25.50052063, 0.4231495998]], [5.34, [25.52351791, 0.4199971573]], [5.35, [25.54650241, 0.4168691662]], [5.36, [25.56947409, 0.4137654294]], [5.37, [25.59243287, 0.4106857515]], [5.38, [25.61537871, 0.4076299388]], [5.39, [25.63831154, 0.4045977989]], [5.40, [25.66123131, 0.4015891413]], [5.41, [25.68413796, 0.3986037771]], [5.42, [25.70703144, 0.3956415187]], [5.43, [25.72991169, 0.3927021804]], [5.44, [25.75277866, 0.3897855778]], [5.45, [25.77563228, 0.3868915282]], [5.46, [25.79847252, 0.3840198503]], [5.47, [25.82129932, 0.3811703644]], [5.48, [25.84411262, 0.3783428922]], [5.49, [25.86691238, 0.3755372569]], [5.50, [25.88969853, 0.3727532832]], [5.51, [25.91247103, 0.3699907974]], [5.52, [25.93522983, 0.3672496270]], [5.53, [25.95797488, 0.3645296010]], [5.54, [25.98070613, 0.3618305500]], [5.55, [26.00342353, 0.3591523058]], [5.56, [26.02612704, 0.3564947017]], [5.57, [26.04881660, 0.3538575723]], [5.58, [26.07149216, 0.3512407537]], [5.59, [26.09415369, 0.3486440833]], [5.60, [26.11680114, 0.3460673997]], [5.61, [26.13943445, 0.3435105430]], [5.62, [26.16205359,

0.3409733547]], [5.63, [26.18465851, 0.3384556775]], [5.64, [26.20724916, 0.3359573553]], [5.65, [26.22982550, 0.3334782335]], [5.66, [26.25238748, 0.3310181588]], [5.67, [26.27493507, 0.3285769789]], [5.68, [26.29746822, 0.3261545430]], [5.69, [26.31998690, 0.3237507015]], [5.70, [26.34249105, 0.3213653059]], [5.71, [26.36498063, 0.3189982091]], [5.72, [26.38745561, 0.3166492652]], [5.73, [26.40991594, 0.3143183293]], [5.74, [26.43236159, 0.3120052581]], [5.75, [26.45479252, 0.3097099091]], [5.76, [26.47720869, 0.3074321411]], [5.77, [26.49961006, 0.3051718142]], [5.78, [26.52199659, 0.3029287895]], [5.79, [26.54436823, 0.3007029292]], [5.80, [26.56672496, 0.2984940968]], [5.81, [26.58906675, 0.2963021569]], [5.82, [26.61139354, 0.2941269751]], [5.83, [26.63370531, 0.2919684182]], [5.84, [26.65600201, 0.2898263541]], [5.85, [26.67828362, 0.2877006518]], [5.86, [26.70055010, 0.2855911813]], [5.87, [26.72280142, 0.2834978137]], [5.88, [26.74503753, 0.2814204212]], [5.89, [26.76725841, 0.2793588770]], [5.90, [26.78946402, 0.2773130553]], [5.91, [26.81165434, 0.2752828315]], [5.92, [26.83382933, 0.2732680820]], [5.93, [26.85598895, 0.2712686841]], [5.94, [26.87813317, 0.2692845162]], [5.95, [26.90026197, 0.2673154575]], [5.96, [26.92237530, 0.2653613885]], [5.97, [26.94447314, 0.2634221905]], [5.98, [26.96655547, 0.2614977458]], [5.99, [26.98862224, 0.2595879376]], [6.00, [27.01067344, 0.2576926503]], [6.01, [27.03270903, 0.2558117690]], [6.02, [27.05472898, 0.2539451798]], [6.03, [27.07673326, 0.2520927698]], [6.04, [27.09872186, 0.2502544270]], [6.05, [27.12069473, 0.2484300402]], [6.06, [27.14265185, 0.2466194993]], [6.07, [27.16459319, 0.2448226950]], [6.08, [27.18651873, 0.2430395189]], [6.09, [27.20842843, 0.2412698635]], [6.10, [27.23032227, 0.2395136223]], [6.11, [27.25220024, 0.2377706894]], [6.12, [27.27406229, 0.2360409599]], [6.13, [27.29590841, 0.2343243299]], [6.14, [27.31773857, 0.2326206961]], [6.15, [27.33955274, 0.2309299562]], [6.16, [27.36135091, 0.2292520088]], [6.17, [27.38313305, 0.2275867532]], [6.18, [27.40489913, 0.2259340895]], [6.19, [27.42664913, 0.2242939187]], [6.20, [27.44838303, 0.2226661426]], [6.21, [27.47010080, 0.2210506638]], [6.22, [27.49180242, 0.2194473856]], [6.23, [27.51348787, 0.2178562121]], [6.24, [27.53515712, 0.2162770484]], [6.25, [27.55681016, 0.2147098002]], [6.26, [27.57844697, 0.2131543739]], [6.27, [27.60006752, 0.2116106769]], [6.28, [27.62167179, 0.2100786170]], [6.29, [27.64325977, 0.2085581031]], [6.30, [27.66483143, 0.2070490447]], [6.31, [27.68638675, 0.2055513520]], [6.32, [27.70792571, 0.2040649359]], [6.33, [27.72944830, 0.2025897081]], [6.34, [27.75095449, 0.2011255811]], [6.35, [27.77244427, 0.1996724680]], [6.36, [27.79391762, 0.1982302825]], [6.37, [27.81537451, 0.1967989393]], [6.38, [27.83681494,

0.1953783535]], [6.39, [27.85823888, 0.1939684411]], [6.40, [27.87964631, 0.1925691186]], [6.41, [27.90103721, 0.1911803033]], [6.42, [27.92241158, 0.1898019132]], [6.43, [27.94376940, 0.1884338668]], [6.44, [27.96511064, 0.1870760834]], [6.45, [27.98643529, 0.1857284829]], [6.46, [28.00774333, 0.1843909859]], [6.47, [28.02903476, 0.1830635135]], [6.48, [28.05030956, 0.1817459878]], [6.49, [28.07156770, 0.1804383310]], [6.50, [28.09280917, 0.1791404664]], [6.51, [28.11403396, 0.1778523176]], [6.52, [28.13524207, 0.1765738090]], [6.53, [28.15643347, 0.1753048656]], [6.54, [28.17760814, 0.1740454129]], [6.55, [28.19876606, 0.1727953771]], [6.56, [28.21990723, 0.1715546849]], [6.57, [28.24103164, 0.1703232638]], [6.58, [28.26213928, 0.1691010417]], [6.59, [28.28323012, 0.1678879470]], [6.60, [28.30430416, 0.1666839088]], [6.61, [28.32536139, 0.1654888569]], [6.62, [28.34640179, 0.1643027215]], [6.63, [28.36742535, 0.1631254334]], [6.64, [28.38843205, 0.1619569240]], [6.65, [28.40942189, 0.1607971251]], [6.66, [28.43039485, 0.1596459691]], [6.67, [28.45135093, 0.1585033892]], [6.68, [28.47229012, 0.1573693189]], [6.69, [28.49321239, 0.1562436922]], [6.70, [28.51411775, 0.1551264438]], [6.71, [28.53500617, 0.1540175088]], [6.72, [28.55587765, 0.1529168228]], [6.73, [28.57673218, 0.1518243220]], [6.74, [28.59756977, 0.1507399431]], [6.75, [28.61839038, 0.1496636233]], [6.76, [28.63919402, 0.1485953003]], [6.77, [28.65998067, 0.1475349123]], [6.78, [28.68075033, 0.1464823980]], [6.79, [28.70150298, 0.1454376965]], [6.80, [28.72223861, 0.1444007475]], [6.81, [28.74295722, 0.1433714913]], [6.82, [28.76365880, 0.1423498685]], [6.83, [28.78434334, 0.1413358201]], [6.84, [28.80501083, 0.1403292878]], [6.85, [28.82566127, 0.1393302136]], [6.86, [28.84629465, 0.1383385401]], [6.87, [28.86691096, 0.1373542101]], [6.88, [28.88751020, 0.1363771672]], [6.89, [28.90809235, 0.1354073552]], [6.90, [28.92865741, 0.1344447184]], [6.91, [28.94920538, 0.1334892017]], [6.92, [28.96973624, 0.1325407503]], [6.93, [28.99024999, 0.1315993099]], [6.94, [29.01074663, 0.1306648265]], [6.95, [29.03122615, 0.1297372466]], [6.96, [29.05168854, 0.1288165172]], [6.97, [29.07213380, 0.1279025857]], [6.98, [29.09256193, 0.1269953999]], [6.99, [29.11297291, 0.1260949081]], [7.00, [29.13336675, 0.1252010588]], [7.01, [29.15374343, 0.1243138010]], [7.02, [29.17410296, 0.1234330843]], [7.03, [29.19444533, 0.1225588585]], [7.04, [29.21477052, 0.1216910737]], [7.05, [29.23507854, 0.1208296807]], [7.06, [29.25536938, 0.1199746304]], [7.07, [29.27564305, 0.1191258743]], [7.08, [29.29589953, 0.1182833643]], [7.09, [29.31613883, 0.1174470525]], [7.10, [29.33636093, 0.1166168914]], [7.11, [29.35656584, 0.1157928340]], [7.12, [29.37675355, 0.1149748337]], [7.13, [29.39692407, 0.1141628441]], [7.14, [29.41707739,

0.1133568193]], [7.15, [29.43721349, 0.1125567137]], [7.16, [29.45733238, 0.1117624822]], [7.17, [29.47743407, 0.1109740799]], [7.18, [29.49751855, 0.1101914622]], [7.19, [29.51758580, 0.1094145851]], [7.20, [29.53763583, 0.1086434046]], [7.21, [29.55766864, 0.1078778775]], [7.22, [29.57768423, 0.1071179606]], [7.23, [29.59768260, 0.1063636111]], [7.24, [29.61766375, 0.1056147866]], [7.25, [29.63762767, 0.1048714450]], [7.26, [29.65757436, 0.1041335447]], [7.27, [29.67750383, 0.1034010441]], [7.28, [29.69741606, 0.1026739022]], [7.29, [29.71731106, 0.1019520782]], [7.30, [29.73718883, 0.1012355316]], [7.31, [29.75704935, 0.1005242223]], [7.32, [29.77689265, 0.09981811050]], [7.33, [29.79671871, 0.09911715672]], [7.34, [29.81652753, 0.09842132175]], [7.35, [29.83631912, 0.09773056673]], [7.36, [29.85609348, 0.09704485310]], [7.37, [29.87585061, 0.09636414259]], [7.38, [29.89559050, 0.09568839723]], [7.39, [29.91531315, 0.09501757937]], [7.40, [29.93501857, 0.09435165164]], [7.41, [29.95470676, 0.09369057696]], [7.42, [29.97437771, 0.09303431857]], [7.43, [29.99403144, 0.09238283996]], [7.44, [30.01366794, 0.09173610494]], [7.45, [30.03328720, 0.09109407759]], [7.46, [30.05288923, 0.09045672227]], [7.47, [30.07247403, 0.08982400364]], [7.48, [30.09204162, 0.08919588660]], [7.49, [30.11159197, 0.08857233636]], [7.50, [30.13112510, 0.08795331841]], [7.51, [30.15064101, 0.08733879847]], [7.52, [30.17013970, 0.08672874257]], [7.53, [30.18962117, 0.08612311697]], [7.54, [30.20908543, 0.08552188823]], [7.55, [30.22853247, 0.08492502315]], [7.56, [30.24796229, 0.08433248880]], [7.57, [30.26737491, 0.08374425250]], [7.58, [30.28677033, 0.08316028185]], [7.59, [30.30614853, 0.08258054467]], [7.60, [30.32550953, 0.08200500905]], [7.61, [30.34485333, 0.08143364333]], [7.62, [30.36417994, 0.08086641610]], [7.63, [30.38348935, 0.08030329618]], [7.64, [30.40278157, 0.07974425265]], [7.65, [30.42205661, 0.07918925483]], [7.66, [30.44131445, 0.07863827228]], [7.67, [30.46055511, 0.07809127480]], [7.68, [30.47977859, 0.07754823241]], [7.69, [30.49898489, 0.07700911539]], [7.70, [30.51817403, 0.07647389422]], [7.71, [30.53734601, 0.07594253964]], [7.72, [30.55650081, 0.07541502260]], [7.73, [30.57563845, 0.07489131429]], [7.74, [30.59475894, 0.07437138612]], [7.75, [30.61386227, 0.07385520972]], [7.76, [30.63294845, 0.07334275694]], [7.77, [30.65201749, 0.07283399986]], [7.78, [30.67106939, 0.07232891076]], [7.79, [30.69010415, 0.07182746215]], [7.80, [30.70912178, 0.07132962676]], [7.81, [30.72812228, 0.07083537751]], [7.82, [30.74710566, 0.07034468754]], [7.83, [30.76607192, 0.06985753021]], [7.84, [30.78502107, 0.06937387909]], [7.85, [30.80395311, 0.068889370793]], [7.86, [30.82286805, 0.06841699070]], [7.87, [30.84176588, 0.06794370158]], [7.88, [30.86064662, 0.06747381493]], [7.89, [30.87951027, 0.06700730534]], [7.90, [30.89835683,

0.06654414757]], [7.91, [30.91718632, 0.06608431657]], [7.92, [30.93599874, 0.06562778751]], [7.93, [30.95479408, 0.06517453575]], [7.94, [30.97357237, 0.06472453682]], [7.95, [30.99233360, 0.06427776646]], [7.96, [31.01107778, 0.06383420060]], [7.97, [31.02980491, 0.06339381533]], [7.98, [31.04851501, 0.06295658695]], [7.99, [31.06720806, 0.06252249193]], [8.00, [31.08588409, 0.06209150694]], [8.01, [31.10454310, 0.06166360881]], [8.02, [31.12318510, 0.06123877456]], [8.03, [31.14181008, 0.06081698138]], [8.04, [31.16041805, 0.06039820666]], [8.05, [31.17900903, 0.05998242793]], [8.06, [31.19758302, 0.05956962292]], [8.07, [31.21614003, 0.05915976952]], [8.08, [31.23468006, 0.05875284578]], [8.09, [31.25320312, 0.05834882995]], [8.10, [31.27170921, 0.05794770043]], [8.11, [31.29019834, 0.05754943579]], [8.12, [31.30867052, 0.05715401476]], [8.13, [31.32712576, 0.05676141623]], [8.14, [31.34556405, 0.05637161927]], [8.15, [31.36398542, 0.05598460310]], [8.16, [31.38238986, 0.05560034710]], [8.17, [31.40077738, 0.05521883081]], [8.18, [31.41914799, 0.05484003392]], [8.19, [31.43750170, 0.05446393629]], [8.20, [31.45583852, 0.05409051794]], [8.21, [31.47415844, 0.05371975902]], [8.22, [31.49246148, 0.05335163985]], [8.23, [31.51074765, 0.05298614090]], [8.24, [31.52901695, 0.05262324278]], [8.25, [31.54726939, 0.05226292626]], [8.26, [31.56550498, 0.05190517226]], [8.27, [31.58372373, 0.05154996184]], [8.28, [31.60192565, 0.05119727620]], [8.29, [31.62011073, 0.05084709669]], [8.30, [31.63827899, 0.05049940480]], [8.31, [31.65643044, 0.05015418218]], [8.32, [31.67456509, 0.04981141060]], [8.33, [31.69268293, 0.04947107197]], [8.34, [31.71078399, 0.04913314835]], [8.35, [31.72886827, 0.04879762194]], [8.36, [31.74693577, 0.04846447505]], [8.37, [31.76498651, 0.04813369016]], [8.38, [31.78302049, 0.04780524986]], [8.39, [31.80103772, 0.04747913688]], [8.40, [31.81903821, 0.04715533409]], [8.41, [31.83702197, 0.04683382449]], [8.42, [31.85498902, 0.04651459120]], [8.43, [31.87293935, 0.04619761747]], [8.44, [31.89087296, 0.04588288669]], [8.45, [31.90878989, 0.04557038235]], [8.46, [31.92669012, 0.04526008811]], [8.47, [31.94457367, 0.04495198771]], [8.48, [31.96244055, 0.04464606504]], [8.49, [31.98029076, 0.04434230411]], [8.50, [31.99812432, 0.04404068905]], [8.51, [32.01594124, 0.04374120410]], [8.52, [32.03374152, 0.04344383364]], [8.53, [32.05152517, 0.04314856215]], [8.54, [32.06929219, 0.04285537425]], [8.55, [32.08704261, 0.04256425466]], [8.56, [32.10477643, 0.04227518822]], [8.57, [32.12249365, 0.04198815989]], [8.58, [32.14019429, 0.04170315473]], [8.59, [32.15787837, 0.04142015793]], [8.60, [32.17554587, 0.04113915479]], [8.61, [32.19319681, 0.04086013072]], [8.62, [32.21083121, 0.04058307123]], [8.63, [32.22844908, 0.04030796197]], [8.64, [32.24605041, 0.04003478866]], [8.65, [32.26363523, 0.03976353715]], [8.66, [32.28120354,

0.03949419341]], [8.67, [32.29875536, 0.03922674349]], [8.68, [32.31629067, 0.03896117356]], [8.69, [32.33380951, 0.03869746988]], [8.70, [32.35131188, 0.03843561884]], [8.71, [32.36879779, 0.03817560692]], [8.72, [32.38626724, 0.03791742070]], [8.73, [32.40372025, 0.03766104686]], [8.74, [32.42115683, 0.03740647219]], [8.75, [32.43857698, 0.03715368358]], [8.76, [32.45598073, 0.03690266800]], [8.77, [32.47336808, 0.03665341255]], [8.78, [32.49073903, 0.03640590440]], [8.79, [32.50809359, 0.03616013083]], [8.80, [32.52543179, 0.03591607921]], [8.81, [32.54275362, 0.03567373702]], [8.82, [32.56005911, 0.03543309181]], [8.83, [32.57734825, 0.03519413125]], [8.84, [32.59462106, 0.03495684309]], [8.85, [32.61187754, 0.03472121517]], [8.86, [32.62911771, 0.03448723542]], [8.87, [32.64634157, 0.03425489188]], [8.88, [32.66354915, 0.03402417265]], [8.89, [32.68074044, 0.03379506594]], [8.90, [32.69791546, 0.03356756006]], [8.91, [32.71507421, 0.03334164338]], [8.92, [32.73221672, 0.03311730438]], [8.93, [32.74934298, 0.03289453162]], [8.94, [32.76645302, 0.03267331373]], [8.95, [32.78354684, 0.03245363945]], [8.96, [32.80062445, 0.03223549760]], [8.97, [32.81768586, 0.03201887707]], [8.98, [32.83473107, 0.03180376684]], [8.99, [32.85176011, 0.03159015598]], [9.00, [32.86877298, 0.03137803364]], [9.01, [32.88576969, 0.03116738905]], [9.02, [32.90275025, 0.03095821152]], [9.03, [32.91971468, 0.03075049043]], [9.04, [32.93666299, 0.03054421527]], [9.05, [32.95359519, 0.03033937557]], [9.06, [32.97051127, 0.03013596096]], [9.07, [32.98741126, 0.02993396115]], [9.08, [33.00429518, 0.02973336593]], [9.09, [33.02116302, 0.02953416515]], [9.10, [33.03801480, 0.029333634875]], [9.11, [33.05485053, 0.02913990673]], [9.12, [33.07167022, 0.02894482919]], [9.13, [33.08847388, 0.02875110628]], [9.14, [33.10526153, 0.02855872824]], [9.15, [33.12203317, 0.02836768538]], [9.16, [33.13878881, 0.02817796807]], [9.17, [33.15552846, 0.02798956676]], [9.18, [33.17225214, 0.02780247198]], [9.19, [33.18895986, 0.02761667432]], [9.20, [33.20565162, 0.02743216445]], [9.21, [33.22232745, 0.02724893310]], [9.22, [33.23898734, 0.02706697107]], [9.23, [33.25563131, 0.02688626923]], [9.24, [33.27225938, 0.02670681853]], [9.25, [33.28887155, 0.02652860996]], [9.26, [33.30546784, 0.02635163461]], [9.27, [33.32204825, 0.02617588361]], [9.28, [33.33861280, 0.02600134818]], [9.29, [33.35516151, 0.02582801959]], [9.30, [33.37169437, 0.02565588917]], [9.31, [33.38821140, 0.02548494833]], [9.32, [33.40471262, 0.02531518853]], [9.33, [33.42119803, 0.02514660130]], [9.34, [33.43766764, 0.02497917824]], [9.35, [33.45412147, 0.02481291101]], [9.36, [33.47055953, 0.02464779131]], [9.37, [33.48698182, 0.02448381094]], [9.38, [33.50338837, 0.02432096172]], [9.39, [33.51977918, 0.02415923556]], [9.40, [33.53615426, 0.02399862442]], [9.41, [33.55251363, 0.02383912034]], [9.42, [33.56885729,

0.02368071538]], [9.43, [33.58518526, 0.02352340169]], [9.44, [33.60149755, 0.02336717145]], [9.45, [33.61779416, 0.02321201694]], [9.46, [33.63407513, 0.02305793045]], [9.47, [33.65034044, 0.02290490437]], [9.48, [33.66659012, 0.02275293111]], [9.49, [33.68282418, 0.02260200316]], [9.50, [33.69904263, 0.02245211306]], [9.51, [33.71524548, 0.02230325340]], [9.52, [33.73143273, 0.02215541684]], [9.53, [33.74760441, 0.02200859607]], [9.54, [33.76376053, 0.02186278385]], [9.55, [33.77990109, 0.02171797299]], [9.56, [33.79602611, 0.02157415636]], [9.57, [33.81213560, 0.02143132688]], [9.58, [33.82822957, 0.02128947750]], [9.59, [33.84430803, 0.02114860125]], [9.60, [33.86037099, 0.02100869122]], [9.61, [33.87641847, 0.02086974052]], [9.62, [33.89245048, 0.02073174232]], [9.63, [33.90846704, 0.02059468985]], [9.64, [33.92446815, 0.02045857639]], [9.65, [33.94045382, 0.02032339526]], [9.66, [33.95642407, 0.02018913984]], [9.67, [33.97237890, 0.02005580354]], [9.68, [33.98831833, 0.01992337984]], [9.69, [34.00424237, 0.01979186226]], [9.70, [34.02015104, 0.01966124437]], [9.71, [34.03604434, 0.01953151978]], [9.72, [34.05192229, 0.01940268215]], [9.73, [34.06778490, 0.01927472519]], [9.74, [34.08363219, 0.01914764266]], [9.75, [34.09946415, 0.01902142835]], [9.76, [34.11528081, 0.01889607612]], [9.77, [34.13108217, 0.01877157985]], [9.78, [34.14686825, 0.01864793348]], [9.79, [34.16263905, 0.01852513100]], [9.80, [34.17839459, 0.01840316643]], [9.81, [34.19413490, 0.01828203384]], [9.82, [34.20985998, 0.01816172733]], [9.83, [34.22556983, 0.01804224107]], [9.84, [34.24126447, 0.01792356926]], [9.85, [34.25694392, 0.01780570614]], [9.86, [34.27260817, 0.01768864599]], [9.87, [34.28825725, 0.01757238313]], [9.88, [34.30389117, 0.01745691194]], [9.89, [34.31950994, 0.01734222682]], [9.90, [34.33511357, 0.01722832222]], [9.91, [34.35070208, 0.01711519264]], [9.92, [34.36627547, 0.01700283260]], [9.93, [34.38183376, 0.01689123667]], [9.94, [34.39737696, 0.01678039947]], [9.95, [34.41290508, 0.01667031565]], [9.96, [34.42841813, 0.01656097989]], [9.97, [34.44391613, 0.01645238692]], [9.98, [34.45939909, 0.01634453151]], [9.99, [34.47486703, 0.01623740846]], [10.00, [34.49031994, 0.01613101263]], [10.01, [34.50575785, 0.01602533888]]]

> $Dis2(SIRS(s, i, 0.01, 0.1, 1, 80), s, i, [50, 30], 0.01, 10)$ (8)
 [[0.01, [50, 30]], [0.02, [49.8500, 29.8500]], [0.03, [49.70149775, 29.70030225]], [0.04, [49.55448100, 29.55091418]], [0.05, [49.40893759, 29.40184306]], [0.06, [49.26485543, 29.25309601]], [0.07, [49.12222252, 29.10468000]], [0.08, [48.98102696, 28.95660186]], [0.09, [48.84125692, 28.80886825]], [0.10, [48.70290066, 28.66148570]], [0.11, [48.56594652, 28.51446059]], [0.12, [48.43038293, 28.36779916]], [0.13, [48.29619841, 28.22150751]], [0.14, [48.16338155, 28.07559158]], [0.15, [48.03192104, 27.93005720]], [0.16, [47.90180563, 27.78491006]], [0.17, [47.77302417, 27.64015570]], [0.18,

[47.64556561, 27.49579952]], [0.19, [47.51941895, 27.35184681]], [0.20, [47.39457329, 27.20830273]], [0.21, [47.27101783, 27.06517229]], [0.22, [47.14874182, 26.92246039]], [0.23, [47.02773461, 26.78017180]], [0.24, [46.90798563, 26.63831116]], [0.25, [46.78948438, 26.49688300]], [0.26, [46.67222047, 26.35589172]], [0.27, [46.55618356, 26.21534160]], [0.28, [46.44136341, 26.07523681]], [0.29, [46.32774986, 25.93558139]], [0.30, [46.21533282, 25.79637929]], [0.31, [46.10410228, 25.65763433]], [0.32, [45.99404833, 25.51935021]], [0.33, [45.88516111, 25.38153053]], [0.34, [45.77743086, 25.24417878]], [0.35, [45.67084789, 25.10729835]], [0.36, [45.56540258, 24.97089253]], [0.37, [45.46108541, 24.83496448]], [0.38, [45.35788692, 24.69951728]], [0.39, [45.25579772, 24.56455390]], [0.40, [45.15480852, 24.43007721]], [0.41, [45.05491008, 24.29608999]], [0.42, [44.95609327, 24.16259490]], [0.43, [44.85834900, 24.02959454]], [0.44, [44.76166827, 23.89709138]], [0.45, [44.66604214, 23.76508784]], [0.46, [44.57146177, 23.63358620]], [0.47, [44.47791837, 23.50258869]], [0.48, [44.38540324, 23.37209742]], [0.49, [44.29390774, 23.24211445]], [0.50, [44.20342331, 23.11264172]], [0.51, [44.11394146, 22.98368109]], [0.52, [44.02545376, 22.85523436]], [0.53, [43.93795187, 22.72730323]], [0.54, [43.85142750, 22.59988932]], [0.55, [43.76587244, 22.47299417]], [0.56, [43.68127856, 22.34661925]], [0.57, [43.59763777, 22.22076595]], [0.58, [43.51494207, 22.09543558]], [0.59, [43.43318353, 21.97062938]], [0.60, [43.35235428, 21.84634853]], [0.61, [43.27244652, 21.72259410]], [0.62, [43.19345250, 21.59936714]], [0.63, [43.11536456, 21.47666859]], [0.64, [43.03817509, 21.35449934]], [0.65, [42.96187654, 21.23286022]], [0.66, [42.88646145, 21.11175197]], [0.67, [42.81192241, 20.99117528]], [0.68, [42.73825205, 20.87113079]], [0.69, [42.66544311, 20.75161904]], [0.70, [42.59348835, 20.63264055]], [0.71, [42.52238061, 20.51419575]], [0.72, [42.45211279, 20.39628503]], [0.73, [42.38267785, 20.27890872]], [0.74, [42.31406881, 20.16206708]], [0.75, [42.24627876, 20.04576032]], [0.76, [42.17930084, 19.92998860]], [0.77, [42.11312825, 19.81475201]], [0.78, [42.04775425, 19.70005061]], [0.79, [41.98317216, 19.58588439]], [0.80, [41.91937535, 19.47225331]], [0.81, [41.85635725, 19.35915725]], [0.82, [41.79411135, 19.24659606]], [0.83, [41.73263120, 19.13456954]], [0.84, [41.67191041, 19.02307743]], [0.85, [41.61194262, 18.91211946]], [0.86, [41.55272156, 18.80169527]], [0.87, [41.49424098, 18.69180448]], [0.88, [41.43649472, 18.58244666]], [0.89, [41.37947663, 18.47362134]], [0.90, [41.32318065, 18.36532801]], [0.91, [41.26760076, 18.25756611]], [0.92, [41.21273100, 18.15033504]], [0.93, [41.15856544, 18.04363418]], [0.94, [41.10509823, 17.93746285]], [0.95, [41.05232355, 17.83182034]], [0.96, [41.00023564, 17.72670591]], [0.97, [40.94882878, 17.62211876]], [0.98, [40.89809732, 17.51805808]], [0.99, [40.84803564, 17.41452302]], [1.00, [40.79863817, 17.31151270]], [1.01, [40.74989941, 17.20902618]], [1.02, [40.70181387, 17.10706253]], [1.03, [40.65437615, 17.00562075]], [1.04, [40.60758086, 16.90469983]], [1.05, [40.56142268, 16.80429873]], [1.06, [40.51589633, 16.70441637]],

[1.07, [40.47099657, 16.60505165]], [1.08, [40.42671822, 16.50620343]], [1.09, [40.38305614, 16.40787056]], [1.10, [40.34000521, 16.31005185]], [1.11, [40.29756039, 16.21274609]], [1.12, [40.25571667, 16.11595204]], [1.13, [40.21446908, 16.01966844]], [1.14, [40.17381269, 15.92389401]], [1.15, [40.13374264, 15.82862742]], [1.16, [40.09425406, 15.73386736]], [1.17, [40.05534217, 15.63961246]], [1.18, [40.01700222, 15.54586134]], [1.19, [39.97922948, 15.45261261]], [1.20, [39.94201929, 15.35986483]], [1.21, [39.90536701, 15.26761658]], [1.22, [39.86926804, 15.17586639]], [1.23, [39.83371783, 15.08461280]], [1.24, [39.79871188, 14.99385429]], [1.25, [39.76424571, 14.90358936]], [1.26, [39.73031487, 14.81381647]], [1.27, [39.69691498, 14.72453407]], [1.28, [39.66404168, 14.63574059]], [1.29, [39.63169064, 14.54743444]], [1.30, [39.59985758, 14.45961404]], [1.31, [39.56853824, 14.37227777]], [1.32, [39.53772842, 14.28542399]], [1.33, [39.50742395, 14.19905107]], [1.34, [39.47762069, 14.11315735]], [1.35, [39.44831452, 14.02774117]], [1.36, [39.41950140, 13.94280083]], [1.37, [39.39117727, 13.85833465]], [1.38, [39.36333815, 13.77434091]], [1.39, [39.33598007, 13.69081790]], [1.40, [39.30909910, 13.60776389]], [1.41, [39.28269135, 13.52517714]], [1.42, [39.25675294, 13.44305591]], [1.43, [39.23128006, 13.36139842]], [1.44, [39.20626890, 13.28020292]], [1.45, [39.18171571, 13.19946761]], [1.46, [39.15761674, 13.11919071]], [1.47, [39.13396831, 13.03937042]], [1.48, [39.11076674, 12.96000495]], [1.49, [39.08800840, 12.88109247]], [1.50, [39.06568967, 12.80263118]], [1.51, [39.04380699, 12.72461923]], [1.52, [39.02235680, 12.64705480]], [1.53, [39.00133560, 12.56993604]], [1.54, [38.98073989, 12.49326111]], [1.55, [38.96056623, 12.41702816]], [1.56, [38.94081119, 12.34123532]], [1.57, [38.92147137, 12.26588074]], [1.58, [38.90254341, 12.19096254]], [1.59, [38.88402397, 12.11647885]], [1.60, [38.86590972, 12.04242781]], [1.61, [38.84819739, 11.96880752]], [1.62, [38.83088372, 11.89561610]], [1.63, [38.81396549, 11.82285167]], [1.64, [38.79743949, 11.75051233]], [1.65, [38.78130256, 11.67859619]], [1.66, [38.76555154, 11.60710135]], [1.67, [38.75018332, 11.53602591]], [1.68, [38.73519480, 11.46536796]], [1.69, [38.72058291, 11.39512561]], [1.70, [38.70634461, 11.32529694]], [1.71, [38.69247689, 11.25588005]], [1.72, [38.67897674, 11.18687304]], [1.73, [38.66584121, 11.11827399]], [1.74, [38.65306736, 11.05008099]], [1.75, [38.64065226, 10.98229213]], [1.76, [38.62859303, 10.91490550]], [1.77, [38.61688679, 10.84791918]], [1.78, [38.60553069, 10.78133128]], [1.79, [38.59452193, 10.71513987]], [1.80, [38.58385770, 10.64934304]], [1.81, [38.57353523, 10.58393888]], [1.82, [38.56355176, 10.51892548]], [1.83, [38.55390457, 10.45430094]], [1.84, [38.54459096, 10.39006334]], [1.85, [38.53560824, 10.32621078]], [1.86, [38.52695374, 10.26274135]], [1.87, [38.51862483, 10.19965316]], [1.88, [38.51061890, 10.13694429]], [1.89, [38.50293334, 10.07461285]], [1.90, [38.49556559, 10.01265694]], [1.91, [38.48851307, 9.951074660]], [1.92, [38.48177328, 9.889864120]], [1.93, [38.47534370, 9.829023430]], [1.94, [38.46922183, 9.768550701]], [1.95, [38.46340521,

9.708444048]], [1.96, [38.45789138, 9.648701590]], [1.97, [38.45267792, 9.589321446]], [1.98, [38.44776241, 9.530301741]], [1.99, [38.44314247, 9.471640602]], [2.00, [38.43881573, 9.413336159]], [2.01, [38.43477982, 9.355386546]], [2.02, [38.43103243, 9.297789903]], [2.03, [38.42757124, 9.240544371]], [2.04, [38.42439396, 9.183648095]], [2.05, [38.42149831, 9.127099225]], [2.06, [38.41888203, 9.070895916]], [2.07, [38.41654288, 9.015036325]], [2.08, [38.41447865, 8.959518615]], [2.09, [38.41268713, 8.904340953]], [2.10, [38.41116613, 8.849501509]], [2.11, [38.40991349, 8.794998461]], [2.12, [38.40892707, 8.740829989]], [2.13, [38.40820472, 8.686994279]], [2.14, [38.40774434, 8.633489521]], [2.15, [38.40754382, 8.580313912]], [2.16, [38.40760109, 8.527465651]], [2.17, [38.40791407, 8.474942944]], [2.18, [38.40848073, 8.422744003]], [2.19, [38.40929903, 8.370867043]], [2.20, [38.41036695, 8.319310287]], [2.21, [38.41168249, 8.268071960]], [2.22, [38.41324368, 8.217150295]], [2.23, [38.41504855, 8.166543532]], [2.24, [38.41709514, 8.116249914]], [2.25, [38.41938152, 8.066267690]], [2.26, [38.42190577, 8.016595115]], [2.27, [38.42466597, 7.967230450]], [2.28, [38.42766025, 7.918171963]], [2.29, [38.43088674, 7.869417925]], [2.30, [38.43434356, 7.820966617]], [2.31, [38.43802888, 7.772816323]], [2.32, [38.44194086, 7.724965334]], [2.33, [38.44607768, 7.677411947]], [2.34, [38.45043755, 7.630154466]], [2.35, [38.45501868, 7.583191199]], [2.36, [38.45981929, 7.536520463]], [2.37, [38.46483763, 7.490140580]], [2.38, [38.47007195, 7.444049878]], [2.39, [38.47552052, 7.398246692]], [2.40, [38.48118161, 7.352729364]], [2.41, [38.48705353, 7.307496241]], [2.42, [38.49313458, 7.262545679]], [2.43, [38.49942309, 7.217876037]], [2.44, [38.50591738, 7.173485683]], [2.45, [38.51261581, 7.129372991]], [2.46, [38.51951674, 7.085536341]], [2.47, [38.52661854, 7.041974122]], [2.48, [38.53391960, 6.998684726]], [2.49, [38.54141832, 6.955666554]], [2.50, [38.54911310, 6.912918013]], [2.51, [38.55700238, 6.870437519]], [2.52, [38.56508459, 6.828223492]], [2.53, [38.57335819, 6.786274359]], [2.54, [38.58182162, 6.744588554]], [2.55, [38.59047336, 6.703164519]], [2.56, [38.59931190, 6.662000703]], [2.57, [38.60833573, 6.621095560]], [2.58, [38.61754334, 6.580447552]], [2.59, [38.62693328, 6.540055148]], [2.60, [38.63650406, 6.499916824]], [2.61, [38.64625423, 6.460031062]], [2.62, [38.65618235, 6.420396351]], [2.63, [38.66628697, 6.381011188]], [2.64, [38.67656667, 6.341874077]], [2.65, [38.68702004, 6.302983528]], [2.66, [38.69764567, 6.264338058]], [2.67, [38.70844217, 6.225936190]], [2.68, [38.71940816, 6.187776457]], [2.69, [38.73054227, 6.149857396]], [2.70, [38.74184314, 6.112177553]], [2.71, [38.75330942, 6.074735479]], [2.72, [38.76493976, 6.037529734]], [2.73, [38.77673284, 6.000558885]], [2.74, [38.78868734, 5.963821503]], [2.75, [38.80080195, 5.927316169]], [2.76, [38.81307537, 5.891041469]], [2.77, [38.82550631, 5.854995998]], [2.78, [38.83809348, 5.819178356]], [2.79, [38.85083563, 5.783587151]], [2.80, [38.86373148, 5.748220998]], [2.81, [38.87677980, 5.713078520]], [2.82, [38.88997933, 5.678158345]], [2.83, [38.90332884, 5.643459108]], [2.84,

[38.91682712, 5.608979452]], [2.85, [38.93047294, 5.574718025]], [2.86, [38.94426511, 5.540673486]], [2.87, [38.95820242, 5.506844497]], [2.88, [38.97228370, 5.473229728]], [2.89, [38.98650776, 5.439827857]], [2.90, [39.00087343, 5.406637567]], [2.91, [39.01537956, 5.373657550]], [2.92, [39.03002499, 5.340886503]], [2.93, [39.04480859, 5.308323131]], [2.94, [39.05972921, 5.275966146]], [2.95, [39.07478573, 5.243814266]], [2.96, [39.08997704, 5.211866215]], [2.97, [39.10530202, 5.180120726]], [2.98, [39.12075958, 5.148576538]], [2.99, [39.13634862, 5.117232395]], [3.00, [39.15206806, 5.086087050]], [3.01, [39.16791682, 5.055139263]], [3.02, [39.18389383, 5.024387797]], [3.03, [39.19999804, 4.993831427]], [3.04, [39.21622839, 4.963468931]], [3.05, [39.23258384, 4.933299095]], [3.06, [39.24906335, 4.903320711]], [3.07, [39.26566590, 4.873532579]], [3.08, [39.28239045, 4.843933503]], [3.09, [39.29923600, 4.814522297]], [3.10, [39.31620154, 4.785297779]], [3.11, [39.33328607, 4.756258774]], [3.12, [39.35048859, 4.727404115]], [3.13, [39.36780813, 4.698732640]], [3.14, [39.38524371, 4.670243194]], [3.15, [39.40279436, 4.641934629]], [3.16, [39.42045912, 4.613805803]], [3.17, [39.43823702, 4.585855579]], [3.18, [39.45612711, 4.558082829]], [3.19, [39.47412847, 4.530486431]], [3.20, [39.49224015, 4.503065267]], [3.21, [39.51046123, 4.475818227]], [3.22, [39.52879079, 4.448744209]], [3.23, [39.54722791, 4.421842115]], [3.24, [39.56577168, 4.395110854]], [3.25, [39.58442120, 4.368549340]], [3.26, [39.60317558, 4.342156497]], [3.27, [39.62203392, 4.315931251]], [3.28, [39.64099536, 4.289872535]], [3.29, [39.66005901, 4.263979292]], [3.30, [39.67922400, 4.238250466]], [3.31, [39.69848948, 4.212685010]], [3.32, [39.71785458, 4.187281883]], [3.33, [39.73731846, 4.162040049]], [3.34, [39.75688027, 4.136958480]], [3.35, [39.77653917, 4.112036151]], [3.36, [39.79629433, 4.087272046]], [3.37, [39.81614494, 4.062665154]], [3.38, [39.83609016, 4.038214468]], [3.39, [39.85612919, 4.013918991]], [3.40, [39.87626121, 3.989777728]], [3.41, [39.89648543, 3.965789693]], [3.42, [39.91680104, 3.941953903]], [3.43, [39.93720727, 3.918269383]], [3.44, [39.95770332, 3.894735163]], [3.45, [39.97828841, 3.871350278]], [3.46, [39.99896177, 3.848113771]], [3.47, [40.01972264, 3.825024689]], [3.48, [40.04057026, 3.802082085]], [3.49, [40.06150386, 3.779285017]], [3.50, [40.08252269, 3.756632551]], [3.51, [40.10362601, 3.734123756]], [3.52, [40.12481307, 3.711757708]], [3.53, [40.14608314, 3.689533489]], [3.54, [40.16743550, 3.667450186]], [3.55, [40.18886940, 3.645506891]], [3.56, [40.21038414, 3.623702702]], [3.57, [40.23197901, 3.602036723]], [3.58, [40.25365328, 3.580508063]], [3.59, [40.27540627, 3.559115835]], [3.60, [40.29723726, 3.537859161]], [3.61, [40.31914556, 3.516737164]], [3.62, [40.34113049, 3.495748976]], [3.63, [40.36319136, 3.474893733]], [3.64, [40.38532750, 3.454170576]], [3.65, [40.40753822, 3.433578651]], [3.66, [40.42982285, 3.413117110]], [3.67, [40.45218074, 3.392785111]], [3.68, [40.47461121, 3.372581816]], [3.69, [40.49711363, 3.352506392]], [3.70, [40.51968733, 3.332558011]], [3.71, [40.54233166, 3.312735852]], [3.72, [40.56504599, 3.293039097]],

[3.73, [40.58782967, 3.273466934]], [3.74, [40.61068208, 3.254018557]], [3.75, [40.63360259, 3.234693162]], [3.76, [40.65659058, 3.215489954]], [3.77, [40.67964541, 3.196408140]], [3.78, [40.70276648, 3.177446934]], [3.79, [40.72595317, 3.158605553]], [3.80, [40.74920489, 3.139883219]], [3.81, [40.77252104, 3.121279161]], [3.82, [40.79590100, 3.102792611]], [3.83, [40.81934419, 3.084422807]], [3.84, [40.84285002, 3.066168991]], [3.85, [40.86641789, 3.048030409]], [3.86, [40.89004723, 3.030006313]], [3.87, [40.91373746, 3.012095960]], [3.88, [40.93748801, 2.994298610]], [3.89, [40.96129831, 2.976613530]], [3.90, [40.98516780, 2.959039990]], [3.91, [41.00909591, 2.941577265]], [3.92, [41.03308209, 2.924224634]], [3.93, [41.05712580, 2.906981383]], [3.94, [41.08122646, 2.889846799]], [3.95, [41.10538353, 2.872820176]], [3.96, [41.12959649, 2.855900812]], [3.97, [41.15386479, 2.839088009]], [3.98, [41.17818790, 2.822381073]], [3.99, [41.20256528, 2.805779316]], [4.00, [41.22699640, 2.789282054]], [4.01, [41.25148075, 2.772888605]], [4.02, [41.27601780, 2.756598295]], [4.03, [41.30060704, 2.740410452]], [4.04, [41.32524796, 2.724324409]], [4.05, [41.34994005, 2.708339503]], [4.06, [41.37468280, 2.692455076]], [4.07, [41.39947571, 2.676670472]], [4.08, [41.42431828, 2.660985042]], [4.09, [41.44921002, 2.645398141]], [4.10, [41.47415044, 2.629909126]], [4.11, [41.49913906, 2.614517360]], [4.12, [41.52417538, 2.599222208]], [4.13, [41.54925892, 2.584023042]], [4.14, [41.57438922, 2.568919236]], [4.15, [41.59956579, 2.553910169]], [4.16, [41.62478815, 2.538995222]], [4.17, [41.65005585, 2.524173784]], [4.18, [41.67536842, 2.509445244]], [4.19, [41.70072539, 2.494808998]], [4.20, [41.72612632, 2.480264442]], [4.21, [41.75157075, 2.465810981]], [4.22, [41.77705822, 2.451448019]], [4.23, [41.80258828, 2.437174968]], [4.24, [41.82816050, 2.422991240]], [4.25, [41.85377442, 2.408896255]], [4.26, [41.87942961, 2.394889432]], [4.27, [41.90512563, 2.380970198]], [4.28, [41.93086204, 2.367137982]], [4.29, [41.95663843, 2.353392216]], [4.30, [41.98245436, 2.339732337]], [4.31, [42.00830941, 2.326157785]], [4.32, [42.03420314, 2.312668003]], [4.33, [42.06013515, 2.299262439]], [4.34, [42.08610502, 2.285940544]], [4.35, [42.11211234, 2.272701772]], [4.36, [42.13815670, 2.259545581]], [4.37, [42.16423768, 2.246471434]], [4.38, [42.19035489, 2.233478796]], [4.39, [42.21650793, 2.220567134]], [4.40, [42.24269639, 2.207735922]], [4.41, [42.26891988, 2.194984635]], [4.42, [42.29517802, 2.182312752]], [4.43, [42.32147040, 2.169719755]], [4.44, [42.34779664, 2.157205130]], [4.45, [42.37415634, 2.144768367]], [4.46, [42.40054913, 2.132408958]], [4.47, [42.42697464, 2.120126399]], [4.48, [42.45343249, 2.107920190]], [4.49, [42.47992230, 2.095789833]], [4.50, [42.50644369, 2.083734834]], [4.51, [42.53299630, 2.071754702]], [4.52, [42.55957976, 2.059848949]], [4.53, [42.58619370, 2.048017091]], [4.54, [42.61283776, 2.036258645]], [4.55, [42.63951158, 2.024573135]], [4.56, [42.66621482, 2.012960085]], [4.57, [42.69294711, 2.001419023]], [4.58, [42.71970809, 1.989949481]], [4.59, [42.74649742, 1.978550992]], [4.60, [42.77331476, 1.967223094]], [4.61, [42.80015976,

1.955965328]], [4.62, [42.82703207, 1.944777238]], [4.63, [42.85393136, 1.933658370]], [4.64, [42.88085728, 1.922608272]], [4.65, [42.90780950, 1.911626498]], [4.66, [42.93478769, 1.900712604]], [4.67, [42.96179152, 1.889866147]], [4.68, [42.98882066, 1.879086690]], [4.69, [43.01587478, 1.868373795]], [4.70, [43.04295357, 1.857727030]], [4.71, [43.07005668, 1.847145966]], [4.72, [43.09718380, 1.836630174]], [4.73, [43.12433463, 1.826179231]], [4.74, [43.15150884, 1.815792715]], [4.75, [43.17870612, 1.805470208]], [4.76, [43.20592615, 1.795211293]], [4.77, [43.23316863, 1.785015557]], [4.78, [43.26043325, 1.774882589]], [4.79, [43.28771972, 1.764811982]], [4.80, [43.31502772, 1.754803331]], [4.81, [43.34235695, 1.744856233]], [4.82, [43.36970711, 1.734970289]], [4.83, [43.39707791, 1.725145101]], [4.84, [43.42446905, 1.715380276]], [4.85, [43.45188025, 1.705675421]], [4.86, [43.47931121, 1.696030147]], [4.87, [43.50676165, 1.686444068]], [4.88, [43.53423128, 1.676916799]], [4.89, [43.56171980, 1.667447959]], [4.90, [43.58922694, 1.658037169]], [4.91, [43.61675241, 1.648684053]], [4.92, [43.64429596, 1.639388236]], [4.93, [43.67185728, 1.630149349]], [4.94, [43.69943611, 1.620967021]], [4.95, [43.72703217, 1.611840885]], [4.96, [43.75464520, 1.602770578]], [4.97, [43.78227491, 1.593755738]], [4.98, [43.80992105, 1.584796006]], [4.99, [43.83758335, 1.575891025]], [5.00, [43.86526155, 1.567040440]], [5.01, [43.89295539, 1.558243900]], [5.02, [43.92066460, 1.549501054]], [5.03, [43.94838893, 1.540811555]], [5.04, [43.97612811, 1.532175058]], [5.05, [44.00388189, 1.523591220]], [5.06, [44.03165003, 1.515059701]], [5.07, [44.05943226, 1.506580162]], [5.08, [44.08722834, 1.498152267]], [5.09, [44.11503802, 1.489775682]], [5.10, [44.14286105, 1.481450076]], [5.11, [44.17069720, 1.473175119]], [5.12, [44.19854620, 1.464950485]], [5.13, [44.22640783, 1.456775848]], [5.14, [44.25428184, 1.448650886]], [5.15, [44.28216801, 1.440575277]], [5.16, [44.31006608, 1.432548704]], [5.17, [44.33797583, 1.424570850]], [5.18, [44.36589702, 1.416641401]], [5.19, [44.39382942, 1.408760044]], [5.20, [44.42177280, 1.400926469]], [5.21, [44.44972694, 1.393140368]], [5.22, [44.47769160, 1.385401435]], [5.23, [44.50566656, 1.377709367]], [5.24, [44.53365159, 1.370063860]], [5.25, [44.56164649, 1.362464616]], [5.26, [44.58965101, 1.354911337]], [5.27, [44.61766495, 1.347403726]], [5.28, [44.64568809, 1.339941490]], [5.29, [44.67372020, 1.332524336]], [5.30, [44.70176108, 1.325151975]], [5.31, [44.72981051, 1.317824118]], [5.32, [44.75786828, 1.310540479]], [5.33, [44.78593417, 1.303300774]], [5.34, [44.81400799, 1.296104720]], [5.35, [44.84208952, 1.288952038]], [5.36, [44.87017855, 1.281842448]], [5.37, [44.89827488, 1.274775674]], [5.38, [44.92637831, 1.267751440]], [5.39, [44.95448863, 1.260769474]], [5.40, [44.98260565, 1.253829504]], [5.41, [45.01072916, 1.246931261]], [5.42, [45.03885897, 1.240074477]], [5.43, [45.06699489, 1.233258886]], [5.44, [45.09513671, 1.226484224]], [5.45, [45.12328424, 1.219750229]], [5.46, [45.15143730, 1.213056641]], [5.47, [45.17959567, 1.206403200]], [5.48, [45.20775919, 1.199789649]], [5.49, [45.23592766, 1.193215733]], [5.50,

[45.26410089, 1.186681198]], [5.51, [45.29227870, 1.180185792]], [5.52, [45.32046090, 1.173729264]], [5.53, [45.34864731, 1.167311366]], [5.54, [45.37683775, 1.160931851]], [5.55, [45.40503204, 1.154590474]], [5.56, [45.43323000, 1.148286991]], [5.57, [45.46143144, 1.142021160]], [5.58, [45.48963620, 1.135792740]], [5.59, [45.51784409, 1.129601493]], [5.60, [45.54605495, 1.123447180]], [5.61, [45.57426859, 1.117329567]], [5.62, [45.60248484, 1.111248419]], [5.63, [45.63070354, 1.105203504]], [5.64, [45.65892452, 1.099194590]], [5.65, [45.68714761, 1.093221448]], [5.66, [45.71537262, 1.087283851]], [5.67, [45.74359941, 1.081381571]], [5.68, [45.77182780, 1.075514384]], [5.69, [45.80005763, 1.069682066]], [5.70, [45.82828874, 1.063884395]], [5.71, [45.85652097, 1.058121151]], [5.72, [45.88475415, 1.052392114]], [5.73, [45.91298813, 1.046697068]], [5.74, [45.94122274, 1.041035796]], [5.75, [45.96945783, 1.035408084]], [5.76, [45.99769325, 1.029813718]], [5.77, [46.02592884, 1.024252487]], [5.78, [46.05416444, 1.018724179]], [5.79, [46.08239991, 1.013228586]], [5.80, [46.11063508, 1.007765500]], [5.81, [46.13886980, 1.002334716]], [5.82, [46.16710394, 0.9969360279]], [5.83, [46.19533734, 0.9915692325]], [5.84, [46.22356984, 0.9862341277]], [5.85, [46.25180131, 0.9809305126]], [5.86, [46.28003160, 0.9756581878]], [5.87, [46.30826056, 0.9704169551]], [5.88, [46.33648805, 0.9652066176]], [5.89, [46.36471392, 0.9600269799]], [5.90, [46.39293804, 0.9548778477]], [5.91, [46.42116026, 0.9497590281]], [5.92, [46.44938045, 0.9446703294]], [5.93, [46.47759846, 0.9396115613]], [5.94, [46.50581416, 0.9345825346]], [5.95, [46.53402742, 0.9295830615]], [5.96, [46.56223809, 0.9246129553]], [5.97, [46.59044604, 0.9196720306]], [5.98, [46.61865113, 0.9147601033]], [5.99, [46.64685323, 0.9098769905]], [6.00, [46.67505221, 0.9050225104]], [6.01, [46.70324794, 0.9001964826]], [6.02, [46.73144028, 0.8953987278]], [6.03, [46.75962911, 0.8906290677]], [6.04, [46.78781430, 0.8858873255]], [6.05, [46.81599573, 0.8811733254]], [6.06, [46.84417326, 0.8764868928]], [6.07, [46.87234677, 0.8718278543]], [6.08, [46.90051613, 0.8671960376]], [6.09, [46.92868122, 0.8625912714]], [6.10, [46.95684192, 0.8580133858]], [6.11, [46.98499811, 0.8534622118]], [6.12, [47.01314966, 0.8489375817]], [6.13, [47.04129645, 0.8444393289]], [6.14, [47.06943836, 0.8399672877]], [6.15, [47.09757527, 0.8355212936]], [6.16, [47.12570707, 0.8311011834]], [6.17, [47.15383364, 0.8267067947]], [6.18, [47.18195486, 0.8223379663]], [6.19, [47.21007062, 0.8179945379]], [6.20, [47.23818080, 0.8136763505]], [6.21, [47.26628528, 0.8093832461]], [6.22, [47.29438396, 0.8051150675]], [6.23, [47.32247672, 0.8008716589]], [6.24, [47.35056345, 0.7966528653]], [6.25, [47.37864404, 0.7924585328]], [6.26, [47.40671838, 0.7882885086]], [6.27, [47.43478635, 0.7841426406]], [6.28, [47.46284786, 0.7800207781]], [6.29, [47.49090279, 0.7759227711]], [6.30, [47.51895104, 0.7718484707]], [6.31, [47.54699250,

0.7677977290]], [6.32, [47.57502706, 0.7637703990]], [6.33, [47.60305462, 0.7597663347]], [6.34, [47.63107508, 0.7557853912]], [6.35, [47.65908832, 0.7518274244]], [6.36, [47.68709426, 0.7478922912]], [6.37, [47.71509280, 0.7439798493]], [6.38, [47.74308382, 0.7400899576]], [6.39, [47.77106723, 0.7362224757]], [6.40, [47.79904293, 0.7323772642]], [6.41, [47.82701082, 0.7285541848]], [6.42, [47.85497080, 0.7247530999]], [6.43, [47.88292278, 0.7209738727]], [6.44, [47.91086666, 0.7172163676]], [6.45, [47.93880232, 0.7134804497]], [6.46, [47.96672970, 0.7097659850]], [6.47, [47.99464868, 0.7060728405]], [6.48, [48.02255919, 0.7024008839]], [6.49, [48.05046112, 0.6987499839]], [6.50, [48.07835438, 0.6951200100]], [6.51, [48.10623889, 0.6915108325]], [6.52, [48.13411454, 0.6879223227]], [6.53, [48.16198126, 0.6843543527]], [6.54, [48.18983894, 0.6808067954]], [6.55, [48.21768749, 0.6772795244]], [6.56, [48.24552683, 0.6737724144]], [6.57, [48.27335688, 0.6702853408]], [6.58, [48.30117754, 0.6668181797]], [6.59, [48.32898873, 0.6633708082]], [6.60, [48.35679037, 0.6599431041]], [6.61, [48.38458237, 0.6565349461]], [6.62, [48.41236464, 0.6531462135]], [6.63, [48.44013709, 0.6497767867]], [6.64, [48.46789964, 0.6464265465]], [6.65, [48.49565222, 0.6430953747]], [6.66, [48.52339474, 0.6397831540]], [6.67, [48.55112712, 0.6364897676]], [6.68, [48.57884927, 0.6332150995]], [6.69, [48.60656111, 0.6299590346]], [6.70, [48.63426258, 0.6267214585]], [6.71, [48.66195359, 0.6235022575]], [6.72, [48.68963406, 0.6203013187]], [6.73, [48.71730391, 0.6171185299]], [6.74, [48.74496305, 0.6139537797]], [6.75, [48.77261142, 0.6108069573]], [6.76, [48.80024893, 0.6076779527]], [6.77, [48.82787552, 0.6045666567]], [6.78, [48.85549110, 0.6014729606]], [6.79, [48.88309561, 0.5983967567]], [6.80, [48.91068896, 0.5953379377]], [6.81, [48.93827109, 0.5922963972]], [6.82, [48.96584192, 0.5892720294]], [6.83, [48.99340139, 0.5862647292]], [6.84, [49.02094942, 0.5832743922]], [6.85, [49.04848593, 0.5803009147]], [6.86, [49.07601085, 0.5773441937]], [6.87, [49.10352413, 0.5744041268]], [6.88, [49.13102568, 0.5714806122]], [6.89, [49.15851543, 0.5685735490]], [6.90, [49.18599332, 0.5656828367]], [6.91, [49.21345928, 0.5628083755]], [6.92, [49.24091324, 0.5599500664]], [6.93, [49.26835513, 0.5571078110]], [6.94, [49.29578488, 0.5542815114]], [6.95, [49.32320245, 0.5514710705]], [6.96, [49.35060775, 0.5486763917]], [6.97, [49.37800071, 0.5458973791]], [6.98, [49.40538128, 0.5431339374]], [6.99, [49.43274940, 0.5403859719]], [7.00, [49.46010498, 0.5376533886]], [7.01, [49.48744799, 0.5349360940]], [7.02, [49.51477834, 0.5322339953]], [7.03, [49.54209599, 0.5295470001]], [7.04, [49.56940085, 0.5268750169]], [7.05, [49.59669288, 0.5242179546]], [7.06, [49.62397202, 0.5215757228]], [7.07, [49.65123820,

0.5189482315]], [7.08, [49.67849137, 0.5163353914]], [7.09, [49.70573146, 0.5137371138]], [7.10, [49.73295842, 0.5111533106]], [7.11, [49.76017219, 0.5085838941]], [7.12, [49.78737272, 0.5060287774]], [7.13, [49.81455994, 0.5034878739]], [7.14, [49.84173379, 0.5009610979]], [7.15, [49.86889422, 0.4984483639]], [7.16, [49.89604117, 0.4959495872]], [7.17, [49.92317459, 0.4934646834]], [7.18, [49.95029443, 0.4909935690]], [7.19, [49.97740062, 0.4885361606]], [7.20, [50.00449310, 0.4860923757]], [7.21, [50.03157184, 0.4836621322]], [7.22, [50.05863677, 0.4812453486]], [7.23, [50.08568783, 0.4788419437]], [7.24, [50.11272499, 0.4764518371]], [7.25, [50.13974819, 0.4740749487]], [7.26, [50.16675737, 0.4717111991]], [7.27, [50.19375248, 0.4693605092]], [7.28, [50.22073347, 0.4670228006]], [7.29, [50.24770030, 0.4646979954]], [7.30, [50.27465290, 0.4623860160]], [7.31, [50.30159123, 0.4600867854]], [7.32, [50.32851524, 0.4578002272]], [7.33, [50.35542488, 0.4555262655]], [7.34, [50.38232011, 0.4532648247]], [7.35, [50.40920088, 0.4510158298]], [7.36, [50.43606713, 0.4487792063]], [7.37, [50.46291881, 0.4465548800]], [7.38, [50.48975589, 0.4443427775]], [7.39, [50.51657831, 0.4421428255]], [7.40, [50.54338604, 0.4399549515]], [7.41, [50.57017902, 0.4377790833]], [7.42, [50.59695720, 0.4356151492]], [7.43, [50.62372054, 0.4334630778]], [7.44, [50.65046901, 0.4313227984]], [7.45, [50.67720255, 0.4291942406]], [7.46, [50.70392112, 0.4270773345]], [7.47, [50.73062467, 0.4249720107]], [7.48, [50.75731317, 0.4228782002]], [7.49, [50.78398656, 0.4207958343]], [7.50, [50.81064480, 0.4187248450]], [7.51, [50.83728787, 0.4166651645]], [7.52, [50.86391570, 0.4146167256]], [7.53, [50.89052826, 0.4125794613]], [7.54, [50.91712551, 0.4105533054]], [7.55, [50.94370741, 0.4085381917]], [7.56, [50.97027391, 0.4065340548]], [7.57, [50.99682499, 0.4045408295]], [7.58, [51.02336060, 0.4025584510]], [7.59, [51.04988069, 0.4005868550]], [7.60, [51.07638523, 0.3986259775]], [7.61, [51.10287417, 0.3966757551]], [7.62, [51.12934749, 0.3947361246]], [7.63, [51.15580514, 0.3928070234]], [7.64, [51.18224708, 0.3908883892]], [7.65, [51.20867329, 0.3889801599]], [7.66, [51.23508372, 0.3870822741]], [7.67, [51.26147834, 0.3851946707]], [7.68, [51.28785711, 0.3833172888]], [7.69, [51.31421998, 0.3814500681]], [7.70, [51.34056693, 0.3795929487]], [7.71, [51.36689792, 0.3777458709]], [7.72, [51.39321291, 0.3759087756]], [7.73, [51.41951187, 0.3740816038]], [7.74, [51.44579477, 0.3722642971]], [7.75, [51.47206158, 0.3704567974]], [7.76, [51.49831224, 0.3686590469]], [7.77, [51.52454674, 0.3668709883]], [7.78, [51.55076503, 0.3650925645]], [7.79, [51.57696709, 0.3633237190]], [7.80, [51.60315289, 0.3615643954]], [7.81, [51.62932239, 0.3598145377]], [7.82, [51.65547556, 0.3580740904]], [7.83, [51.68161236,

0.3563429982]], [7.84, [51.70773277, 0.3546212063]], [7.85, [51.73383675, 0.3529086601]], [7.86, [51.75992427, 0.3512053054]], [7.87, [51.78599530, 0.3495110883]], [7.88, [51.81204981, 0.3478259554]], [7.89, [51.83808777, 0.3461498534]], [7.90, [51.86410916, 0.3444827295]], [7.91, [51.89011394, 0.3428245312]], [7.92, [51.91610209, 0.3411752063]], [7.93, [51.94207356, 0.3395347029]], [7.94, [51.96802835, 0.3379029696]], [7.95, [51.99396640, 0.3362799550]], [7.96, [52.01988770, 0.3346656083]], [7.97, [52.04579221, 0.3330598789]], [7.98, [52.07167992, 0.3314627166]], [7.99, [52.09755080, 0.3298740714]], [8.00, [52.12340482, 0.3282938938]], [8.01, [52.14924195, 0.3267221345]], [8.02, [52.17506216, 0.3251587444]], [8.03, [52.20086542, 0.3236036748]], [8.04, [52.22665171, 0.3220568773]], [8.05, [52.25242100, 0.3205183037]], [8.06, [52.27817327, 0.3189879064]], [8.07, [52.30390850, 0.3174656378]], [8.08, [52.32962665, 0.3159514508]], [8.09, [52.35532771, 0.3144452984]], [8.10, [52.38101164, 0.3129471341]], [8.11, [52.40667843, 0.3114569115]], [8.12, [52.43232805, 0.3099745846]], [8.13, [52.45796048, 0.3085001077]], [8.14, [52.48357569, 0.3070334352]], [8.15, [52.50917366, 0.3055745221]], [8.16, [52.53475437, 0.3041233235]], [8.17, [52.56031780, 0.3026797947]], [8.18, [52.58586391, 0.3012438914]], [8.19, [52.61139269, 0.2998155695]], [8.20, [52.63690411, 0.2983947853]], [8.21, [52.66239816, 0.2969814952]], [8.22, [52.68787480, 0.2955756560]], [8.23, [52.71333402, 0.2941772247]], [8.24, [52.73877580, 0.2927861587]], [8.25, [52.76420011, 0.2914024155]], [8.26, [52.78960695, 0.2900259528]], [8.27, [52.81499627, 0.2886567289]], [8.28, [52.84036807, 0.2872947020]], [8.29, [52.86572233, 0.2859398308]], [8.30, [52.89105903, 0.2845920741]], [8.31, [52.91637814, 0.2832513910]], [8.32, [52.94167965, 0.2819177409]], [8.33, [52.96696353, 0.2805910834]], [8.34, [52.99222977, 0.2792713784]], [8.35, [53.01747835, 0.2779585859]], [8.36, [53.04270924, 0.2766526663]], [8.37, [53.06792244, 0.2753535803]], [8.38, [53.09311793, 0.2740612887]], [8.39, [53.11829567, 0.2727757526]], [8.40, [53.14345565, 0.2714969334]], [8.41, [53.16859786, 0.2702247926]], [8.42, [53.19372229, 0.2689592920]], [8.43, [53.21882892, 0.2677003937]], [8.44, [53.24391772, 0.2664480599]], [8.45, [53.26898868, 0.2652022532]], [8.46, [53.29404178, 0.2639629363]], [8.47, [53.31907701, 0.2627300721]], [8.48, [53.34409435, 0.2615036239]], [8.49, [53.36909379, 0.2602835551]], [8.50, [53.39407531, 0.2590698292]], [8.51, [53.41903888, 0.2578624103]], [8.52, [53.44398450, 0.2566612624]], [8.53, [53.46891216, 0.2554663499]], [8.54, [53.49382183, 0.2542776372]], [8.55, [53.51871350, 0.2530950891]], [8.56, [53.54358716, 0.2519186706]], [8.57, [53.56844279, 0.2507483468]], [8.58, [53.59328038, 0.2495840831]], [8.59, [53.61809992,

0.2484258453]], [8.60, [53.64290138, 0.2472735990]], [8.61, [53.66768476, 0.2461273103]], [8.62, [53.69245004, 0.2449869455]], [8.63, [53.71719721, 0.2438524709]], [8.64, [53.74192625, 0.2427238533]], [8.65, [53.76663716, 0.2416010595]], [8.66, [53.79132991, 0.2404840566]], [8.67, [53.81600450, 0.2393728117]], [8.68, [53.84066092, 0.2382672924]], [8.69, [53.86529914, 0.2371674664]], [8.70, [53.88991916, 0.2360733014]], [8.71, [53.91452097, 0.2349847655]], [8.72, [53.93910456, 0.2339018269]], [8.73, [53.96366991, 0.2328244541]], [8.74, [53.98821701, 0.2317526158]], [8.75, [54.01274585, 0.2306862807]], [8.76, [54.03725641, 0.2296254178]], [8.77, [54.06174869, 0.2285699964]], [8.78, [54.08622268, 0.2275199858]], [8.79, [54.11067837, 0.2264753556]], [8.80, [54.13511574, 0.2254360755]], [8.81, [54.15953478, 0.2244021155]], [8.82, [54.18393550, 0.2233734457]], [8.83, [54.20831786, 0.2223500364]], [8.84, [54.23268187, 0.2213318581]], [8.85, [54.25702752, 0.2203188815]], [8.86, [54.28135479, 0.2193110775]], [8.87, [54.30566368, 0.2183084169]], [8.88, [54.32995417, 0.2173108710]], [8.89, [54.35422626, 0.2163184113]], [8.90, [54.37847993, 0.2153310092]], [8.91, [54.40271518, 0.2143486364]], [8.92, [54.42693200, 0.2133712648]], [8.93, [54.45113039, 0.2123988665]], [8.94, [54.47531032, 0.2114314136]], [8.95, [54.49947180, 0.2104688787]], [8.96, [54.52361482, 0.2095112342]], [8.97, [54.54773937, 0.2085584529]], [8.98, [54.57184543, 0.2076105076]], [8.99, [54.59593300, 0.2066673714]], [9.00, [54.62000208, 0.2057290175]], [9.01, [54.64405266, 0.2047954192]], [9.02, [54.66808472, 0.2038665502]], [9.03, [54.69209827, 0.2029423841]], [9.04, [54.71609330, 0.2020228948]], [9.05, [54.74006980, 0.2011080563]], [9.06, [54.76402775, 0.2001978426]], [9.07, [54.78796716, 0.1992922282]], [9.08, [54.81188802, 0.1983911875]], [9.09, [54.83579032, 0.1974946952]], [9.10, [54.85967406, 0.1966027260]], [9.11, [54.88353923, 0.1957152548]], [9.12, [54.90738582, 0.1948322569]], [9.13, [54.93121383, 0.1939537073]], [9.14, [54.95502326, 0.1930795815]], [9.15, [54.97881409, 0.1922098550]], [9.16, [55.00258632, 0.1913445034]], [9.17, [55.02633995, 0.1904835027]], [9.18, [55.05007497, 0.1896268287]], [9.19, [55.07379137, 0.1887744575]], [9.20, [55.09748916, 0.1879263654]], [9.21, [55.12116831, 0.1870825288]], [9.22, [55.14482884, 0.1862429243]], [9.23, [55.16847074, 0.1854075285]], [9.24, [55.19209400, 0.1845763182]], [9.25, [55.21569861, 0.1837492704]], [9.26, [55.23928458, 0.1829263621]], [9.27, [55.26285190, 0.1821075706]], [9.28, [55.28640056, 0.1812928733]], [9.29, [55.30993057, 0.1804822476]], [9.30, [55.33344191, 0.1796756712]], [9.31, [55.35693458, 0.1788731218]], [9.32, [55.38040859, 0.1780745774]], [9.33, [55.40386393, 0.1772800159]], [9.34, [55.42730059, 0.1764894155]], [9.35, [55.45071857,

0.1757027545]], [9.36, [55.47411787, 0.1749200114]], [9.37, [55.49749848, 0.1741411646]], [9.38, [55.52086040, 0.1733661929]], [9.39, [55.54420363, 0.1725950750]], [9.40, [55.56752816, 0.1718277898]], [9.41, [55.59083400, 0.1710643165]], [9.42, [55.61412115, 0.1703046341]], [9.43, [55.63738960, 0.1695487221]], [9.44, [55.66063934, 0.1687965597]], [9.45, [55.68387037, 0.1680481265]], [9.46, [55.70708269, 0.1673034022]], [9.47, [55.73027631, 0.1665623666]], [9.48, [55.75345121, 0.1658249996]], [9.49, [55.77660741, 0.1650912812]], [9.50, [55.79974489, 0.1643611916]], [9.51, [55.82286366, 0.1636347110]], [9.52, [55.84596371, 0.1629118197]], [9.53, [55.86904504, 0.1621924983]], [9.54, [55.89210765, 0.1614767273]], [9.55, [55.91515153, 0.1607644875]], [9.56, [55.93817670, 0.1600557597]], [9.57, [55.96118314, 0.1593505248]], [9.58, [55.98417087, 0.1586487640]], [9.59, [56.00713987, 0.1579504584]], [9.60, [56.03009014, 0.1572555891]], [9.61, [56.05302169, 0.1565641377]], [9.62, [56.07593452, 0.1558760856]], [9.63, [56.09882862, 0.1551914144]], [9.64, [56.12170399, 0.1545101060]], [9.65, [56.14456064, 0.1538321419]], [9.66, [56.16739857, 0.1531575043]], [9.67, [56.19021776, 0.1524861752]], [9.68, [56.21301823, 0.1518181365]], [9.69, [56.23579997, 0.1511533707]], [9.70, [56.25856300, 0.1504918601]], [9.71, [56.28130730, 0.1498335871]], [9.72, [56.30403288, 0.1491785342]], [9.73, [56.32673973, 0.1485266842]], [9.74, [56.34942786, 0.1478780198]], [9.75, [56.37209727, 0.1472325238]], [9.76, [56.39474796, 0.1465901792]], [9.77, [56.41737993, 0.1459509690]], [9.78, [56.43999318, 0.1453148764]], [9.79, [56.46258772, 0.1446818847]], [9.80, [56.48516354, 0.1440519773]], [9.81, [56.50772065, 0.1434251374]], [9.82, [56.53025904, 0.1428013488]], [9.83, [56.55277872, 0.1421805950]], [9.84, [56.57527969, 0.1415628598]], [9.85, [56.59776195, 0.1409481270]], [9.86, [56.62022551, 0.1403363806]], [9.87, [56.64267035, 0.1397276046]], [9.88, [56.66509650, 0.1391217831]], [9.89, [56.68750395, 0.1385189002]], [9.90, [56.70989270, 0.1379189403]], [9.91, [56.73226275, 0.1373218877]], [9.92, [56.75461411, 0.1367277269]], [9.93, [56.77694678, 0.1361364425]], [9.94, [56.79926075, 0.1355480193]], [9.95, [56.82155604, 0.1349624418]], [9.96, [56.84383264, 0.1343796950]], [9.97, [56.86609056, 0.1337997637]], [9.98, [56.88832980, 0.1332226330]], [9.99, [56.91055037, 0.1326482880]], [10.00, [56.93275226, 0.1320767138]], [10.01, [56.95493548, 0.1315078958]]]

> $Dis2(SIRS(s, i, 0.01, 0.1, 1, 120), s, i, [90, 30], 0.01, 10)$
 [[0.01, [90, 30]], [0.02, [89.7300, 29.9700]], [0.03, [89.46137919, 29.93922081]], [0.04, [89.19413819, 29.90766900]], [0.05, [88.92827750, 29.87535119]], [0.06, [88.66379752, 29.84227403]], [0.07, [88.40069852, 29.80844422]], [0.08, [88.13898065, 29.77386851]],

(9)

[0.09, [87.87864396, 29.73855366]], [0.10, [87.61968839, 29.70250650]], [0.11, [87.36211375, 29.66573388]], [0.12, [87.10591979, 29.62824266]], [0.13, [86.85110610, 29.59003976]], [0.14, [86.59767218, 29.55113213]], [0.15, [86.34561745, 29.51152674]], [0.16, [86.09494120, 29.47123057]], [0.17, [85.84564264, 29.43025065]], [0.18, [85.59772087, 29.38859402]], [0.19, [85.35117489, 29.34626775]], [0.20, [85.10600361, 29.30327891]], [0.21, [84.86220583, 29.25963462]], [0.22, [84.61978028, 29.21534198]], [0.23, [84.37872558, 29.17040814]], [0.24, [84.13904025, 29.12484025]], [0.25, [83.90072276, 29.07864546]], [0.26, [83.66377145, 29.03183095]], [0.27, [83.42818460, 28.98440389]], [0.28, [83.19396040, 28.93637147]], [0.29, [82.96109694, 28.88774089]], [0.30, [82.72959223, 28.83851935]], [0.31, [82.49944423, 28.78871405]], [0.32, [82.27065079, 28.73833220]], [0.33, [82.04320968, 28.68738101]], [0.34, [81.81711861, 28.63586768]], [0.35, [81.59237520, 28.58379942]], [0.36, [81.36897701, 28.53118344]], [0.37, [81.14692153, 28.47802693]], [0.38, [80.92620616, 28.42433708]], [0.39, [80.70682823, 28.37012109]], [0.40, [80.48878503, 28.31538613]], [0.41, [80.27207375, 28.26013937]], [0.42, [80.05669154, 28.20438798]], [0.43, [79.84263546, 28.14813910]], [0.44, [79.62990252, 28.09139987]], [0.45, [79.41848968, 28.03417741]], [0.46, [79.20839381, 27.97647884]], [0.47, [78.99961174, 27.91831125]], [0.48, [78.79214025, 27.85968171]], [0.49, [78.58597604, 27.80059728]], [0.50, [78.38111575, 27.74106502]], [0.51, [78.17755600, 27.68109193]], [0.52, [77.97529334, 27.62068502]], [0.53, [77.77432426, 27.55985127]], [0.54, [77.57464521, 27.49859764]], [0.55, [77.37625256, 27.43693106]], [0.56, [77.17914269, 27.37485844]], [0.57, [76.98331188, 27.31238667]], [0.58, [76.78875638, 27.24952260]], [0.59, [76.59547240, 27.18627307]], [0.60, [76.40345612, 27.12264488]], [0.61, [76.21270364, 27.05864481]], [0.62, [76.02321105, 26.99427961]], [0.63, [75.83497438, 26.92955599]], [0.64, [75.64798963, 26.86448065]], [0.65, [75.46225276, 26.79906024]], [0.66, [75.27775970, 26.73330139]], [0.67, [75.09450634, 26.66721068]], [0.68, [74.91248852, 26.60079467]], [0.69, [74.73170207, 26.53405989]], [0.70, [74.55214276, 26.46701284]], [0.71, [74.37380636, 26.39965996]], [0.72, [74.19668857, 26.33200768]], [0.73, [74.02078509, 26.26406238]], [0.74, [73.84609159, 26.19583041]], [0.75, [73.67260370, 26.12731808]], [0.76, [73.50031702, 26.05853166]], [0.77, [73.32922714, 25.98947737]], [0.78, [73.15932960, 25.92016143]], [0.79, [72.99061995, 25.85058998]], [0.80, [72.82309368, 25.78076914]], [0.81, [72.65674628, 25.71070499]], [0.82, [72.49157321, 25.64040356]], [0.83, [72.32756992, 25.56987084]], [0.84, [72.16473182, 25.49911279]], [0.85, [72.00305432, 25.42813532]], [0.86, [71.84253279, 25.35694431]], [0.87, [71.68316261, 25.28554558]], [0.88, [71.52493911, 25.21394491]], [0.89, [71.36785764, 25.14214805]], [0.90, [71.21191351, 25.07016069]], [0.91, [71.05710203, 24.99798849]], [0.92, [70.90341848, 24.92563707]], [0.93, [70.75085813, 24.85311199]], [0.94, [70.59941626, 24.78041877]], [0.95, [70.44908811, 24.70756289]], [0.96, [70.29986893, 24.63454979]], [0.97, [70.15175395,

24.56138485]], [0.98, [70.00473840, 24.48807342]], [0.99, [69.85881747, 24.41462081]], [1.00, [69.71398638, 24.34103225]], [1.01, [69.57024032, 24.26731297]], [1.02, [69.42757449, 24.19346812]], [1.03, [69.28598407, 24.11950282]], [1.04, [69.14546424, 24.04542214]], [1.05, [69.00601017, 23.97123111]], [1.06, [68.86761703, 23.89693470]], [1.07, [68.73027999, 23.82253784]], [1.08, [68.59399420, 23.74804543]], [1.09, [68.45875483, 23.67346231]], [1.10, [68.32455704, 23.59879327]], [1.11, [68.19139598, 23.52404305]], [1.12, [68.05926681, 23.44921635]], [1.13, [67.92816467, 23.37431784]], [1.14, [67.79808474, 23.29935211]], [1.15, [67.66902217, 23.22432373]], [1.16, [67.54097210, 23.14923722]], [1.17, [67.41392969, 23.07409705]], [1.18, [67.28789010, 22.99890764]], [1.19, [67.16284850, 22.92367336]], [1.20, [67.03880006, 22.84839855]], [1.21, [66.91573994, 22.77308748]], [1.22, [66.79366331, 22.69774441]], [1.23, [66.67256536, 22.62237352]], [1.24, [66.55244125, 22.54697895]], [1.25, [66.43328618, 22.47156481]], [1.26, [66.31509534, 22.39613515]], [1.27, [66.19786392, 22.32069398]], [1.28, [66.08158714, 22.24524527]], [1.29, [65.96626019, 22.16979293]], [1.30, [65.85187831, 22.09434083]], [1.31, [65.73843671, 22.01889280]], [1.32, [65.62593062, 21.94345263]], [1.33, [65.51435529, 21.86802405]], [1.34, [65.40370596, 21.79261076]], [1.35, [65.29397789, 21.71721640]], [1.36, [65.18516635, 21.64184458]], [1.37, [65.07726662, 21.56649885]], [1.38, [64.97027397, 21.49118274]], [1.39, [64.86418372, 21.41589971]], [1.40, [64.75899115, 21.34065320]], [1.41, [64.65469159, 21.26544659]], [1.42, [64.55128036, 21.19028321]], [1.43, [64.44875281, 21.11516637]], [1.44, [64.34710428, 21.04009932]], [1.45, [64.24633013, 20.96508528]], [1.46, [64.14642573, 20.89012741]], [1.47, [64.04738647, 20.81522884]], [1.48, [63.94920775, 20.74039265]], [1.49, [63.85188498, 20.66562189]], [1.50, [63.75541359, 20.59091956]], [1.51, [63.65978900, 20.51628862]], [1.52, [63.56500666, 20.44173199]], [1.53, [63.47106204, 20.36725255]], [1.54, [63.37795061, 20.29285314]], [1.55, [63.28566787, 20.21853655]], [1.56, [63.19420930, 20.14430554]], [1.57, [63.10357043, 20.07016283]], [1.58, [63.01374681, 19.99611109]], [1.59, [62.92473396, 19.92215297]], [1.60, [62.83652746, 19.84829106]], [1.61, [62.74912287, 19.77452792]], [1.62, [62.66251579, 19.70086607]], [1.63, [62.57670182, 19.62730799]], [1.64, [62.49167659, 19.55385613]], [1.65, [62.40743572, 19.48051290]], [1.66, [62.32397488, 19.40728066]], [1.67, [62.24128974, 19.33416174]], [1.68, [62.15937597, 19.26115844]], [1.69, [62.07822927, 19.18827302]], [1.70, [61.99784537, 19.11550769]], [1.71, [61.91821998, 19.04286464]], [1.72, [61.83934887, 18.97034602]], [1.73, [61.76122779, 18.89795394]], [1.74, [61.68385253, 18.82569048]], [1.75, [61.60721888, 18.75355769]], [1.76, [61.53132265, 18.68155756]], [1.77, [61.45615968, 18.60969207]], [1.78, [61.38172581, 18.53796317]], [1.79, [61.30801690, 18.46637276]], [1.80, [61.23502884, 18.39492270]], [1.81, [61.16275753, 18.32361483]], [1.82, [61.09119888, 18.25245096]], [1.83, [61.02034882, 18.18143286]], [1.84, [60.95020330, 18.11056227]], [1.85, [60.88075829, 18.03984090]], [1.86,

[60.81200977, 17.96927041]], [1.87, [60.74395375, 17.89885245]], [1.88, [60.67658624, 17.82858864]], [1.89, [60.60990327, 17.75848054]], [1.90, [60.54390091, 17.68852971]], [1.91, [60.47857522, 17.61873767]], [1.92, [60.41392228, 17.54910591]], [1.93, [60.34993822, 17.47963588]], [1.94, [60.28661915, 17.41032901]], [1.95, [60.22396121, 17.34118671]], [1.96, [60.16196056, 17.27221034]], [1.97, [60.10061339, 17.20340124]], [1.98, [60.03991588, 17.13476073]], [1.99, [59.97986424, 17.06629008]], [2.00, [59.92045471, 16.99799056]], [2.01, [59.86168354, 16.92986338]], [2.02, [59.80354699, 16.86190976]], [2.03, [59.74604133, 16.79413086]], [2.04, [59.68916288, 16.72652783]], [2.05, [59.63290795, 16.65910179]], [2.06, [59.57727287, 16.59185384]], [2.07, [59.52225401, 16.52478504]], [2.08, [59.46784772, 16.45789644]], [2.09, [59.41405040, 16.39118905]], [2.10, [59.36085847, 16.32466385]], [2.11, [59.30826834, 16.25832182]], [2.12, [59.25627646, 16.19216389]], [2.13, [59.20487929, 16.12619098]], [2.14, [59.15407330, 16.06040399]], [2.15, [59.10385500, 15.99480378]], [2.16, [59.05422088, 15.92939120]], [2.17, [59.00516749, 15.86416707]], [2.18, [58.95669137, 15.79913218]], [2.19, [58.90878909, 15.73428732]], [2.20, [58.86145723, 15.66963323]], [2.21, [58.81469240, 15.60517064]], [2.22, [58.76849121, 15.54090026]], [2.23, [58.72285029, 15.47682279]], [2.24, [58.67776631, 15.41293887]], [2.25, [58.63323592, 15.34924916]], [2.26, [58.58925582, 15.28575428]], [2.27, [58.54582271, 15.22245484]], [2.28, [58.50293333, 15.15935140]], [2.29, [58.46058440, 15.09644454]], [2.30, [58.41877268, 15.03373479]], [2.31, [58.37749495, 14.97122267]], [2.32, [58.33674799, 14.90890869]], [2.33, [58.29652861, 14.84679332]], [2.34, [58.25683364, 14.78487704]], [2.35, [58.21765992, 14.72316028]], [2.36, [58.17900431, 14.66164347]], [2.37, [58.14086369, 14.60032702]], [2.38, [58.10323494, 14.53921131]], [2.39, [58.06611498, 14.47829672]], [2.40, [58.02950073, 14.41758359]], [2.41, [57.99338913, 14.35707227]], [2.42, [57.95777714, 14.29676308]], [2.43, [57.92266174, 14.23665631]], [2.44, [57.88803992, 14.17675225]], [2.45, [57.85390869, 14.11705117]], [2.46, [57.82026507, 14.05755332]], [2.47, [57.78710610, 13.99825894]], [2.48, [57.75442884, 13.93916824]], [2.49, [57.72223037, 13.88028143]], [2.50, [57.69050778, 13.82159870]], [2.51, [57.65925817, 13.76312021]], [2.52, [57.62847866, 13.70484614]], [2.53, [57.59816639, 13.64677662]], [2.54, [57.56831851, 13.58891178]], [2.55, [57.53893220, 13.53125174]], [2.56, [57.51000464, 13.47379660]], [2.57, [57.48153303, 13.41654644]], [2.58, [57.45351458, 13.35950135]], [2.59, [57.42594654, 13.30266137]], [2.60, [57.39882614, 13.24602655]], [2.61, [57.37215064, 13.18959692]], [2.62, [57.34591734, 13.13337250]], [2.63, [57.32012352, 13.07735331]], [2.64, [57.29476650, 13.02153933]], [2.65, [57.26984358, 12.96593055]], [2.66, [57.24535213, 12.91052692]], [2.67, [57.22128948, 12.85532842]], [2.68, [57.19765301, 12.80033499]], [2.69, [57.17444012, 12.74554655]], [2.70, [57.15164818, 12.69096303]], [2.71, [57.12927462, 12.63658435]], [2.72, [57.10731688, 12.58241040]], [2.73, [57.08577238, 12.52844107]], [2.74, [57.06463860, 12.47467623]],

[2.75, [57.04391299, 12.42111576]], [2.76, [57.02359306, 12.36775950]], [2.77, [57.00367630, 12.31460731]], [2.78, [56.98416022, 12.26165903]], [2.79, [56.96504237, 12.20891447]], [2.80, [56.94632029, 12.15637346]], [2.81, [56.92799153, 12.10403580]], [2.82, [56.91005366, 12.05190128]], [2.83, [56.89250428, 11.99996970]], [2.84, [56.87534098, 11.94824083]], [2.85, [56.85856137, 11.89671445]], [2.86, [56.84216309, 11.84539032]], [2.87, [56.82614378, 11.79426818]], [2.88, [56.81050109, 11.74334778]], [2.89, [56.79523269, 11.69262885]], [2.90, [56.78033627, 11.64211112]], [2.91, [56.76580952, 11.59179431]], [2.92, [56.75165016, 11.54167813]], [2.93, [56.73785590, 11.49176228]], [2.94, [56.72442448, 11.44204646]], [2.95, [56.71135366, 11.39253035]], [2.96, [56.69864120, 11.34321363]], [2.97, [56.68628487, 11.29409597]], [2.98, [56.67428246, 11.24517704]], [2.99, [56.66263177, 11.19645650]], [3.00, [56.65133061, 11.14793401]], [3.01, [56.64037682, 11.09960920]], [3.02, [56.62976823, 11.05148171]], [3.03, [56.61950270, 11.00355117]], [3.04, [56.60957809, 10.95581722]], [3.05, [56.59999227, 10.90827947]], [3.06, [56.59074315, 10.86093753]], [3.07, [56.58182862, 10.81379100]], [3.08, [56.57324659, 10.76683950]], [3.09, [56.56499499, 10.72008261]], [3.10, [56.55707178, 10.67351992]], [3.11, [56.54947489, 10.62715102]], [3.12, [56.54220229, 10.58097549]], [3.13, [56.53525194, 10.53499291]], [3.14, [56.52862185, 10.48920283]], [3.15, [56.52231001, 10.44360482]], [3.16, [56.51631443, 10.39819844]], [3.17, [56.51063313, 10.35298325]], [3.18, [56.50526416, 10.30795878]], [3.19, [56.50020555, 10.26312458]], [3.20, [56.49545536, 10.21848019]], [3.21, [56.49101165, 10.17402516]], [3.22, [56.48687251, 10.12975901]], [3.23, [56.48303604, 10.08568126]], [3.24, [56.47950033, 10.04179144]], [3.25, [56.47626350, 9.998089062]], [3.26, [56.47332368, 9.954573642]], [3.27, [56.47067900, 9.911244692]], [3.28, [56.46832761, 9.868101717]], [3.29, [56.46626766, 9.825144220]], [3.30, [56.46449733, 9.782371700]], [3.31, [56.46301479, 9.739783653]], [3.32, [56.46181825, 9.697379571]], [3.33, [56.46090588, 9.655158943]], [3.34, [56.46027591, 9.613121256]], [3.35, [56.45992656, 9.571265991]], [3.36, [56.45985606, 9.529592628]], [3.37, [56.46006267, 9.488100645]], [3.38, [56.46054463, 9.446789515]], [3.39, [56.46130021, 9.405658708]], [3.40, [56.46232768, 9.364707693]], [3.41, [56.46362532, 9.323935935]], [3.42, [56.46519143, 9.283342899]], [3.43, [56.46702433, 9.242928043]], [3.44, [56.46912232, 9.202690827]], [3.45, [56.47148372, 9.162630706]], [3.46, [56.47410687, 9.122747134]], [3.47, [56.47699011, 9.083039563]], [3.48, [56.48013181, 9.043507441]], [3.49, [56.48353032, 9.004150216]], [3.50, [56.48718402, 8.964967333]], [3.51, [56.49109129, 8.925958236]], [3.52, [56.49525053, 8.887122366]], [3.53, [56.49966014, 8.848459162]], [3.54, [56.50431853, 8.809968064]], [3.55, [56.50922412, 8.771648507]], [3.56, [56.51437534, 8.733499927]], [3.57, [56.51977063, 8.695521757]], [3.58, [56.52540845, 8.657713429]], [3.59, [56.53128725, 8.620074374]], [3.60, [56.53740550, 8.582604020]], [3.61, [56.54376167, 8.545301796]], [3.62, [56.55035426, 8.508167129]], [3.63, [56.55718175,

8.471199445]], [3.64, [56.56424265, 8.434398168]], [3.65, [56.57153548, 8.397762720]], [3.66, [56.57905875, 8.361292526]], [3.67, [56.58681099, 8.324987007]], [3.68, [56.59479074, 8.288845584]], [3.69, [56.60299655, 8.252867676]], [3.70, [56.61142698, 8.217052703]], [3.71, [56.62008059, 8.181400084]], [3.72, [56.62895596, 8.145909236]], [3.73, [56.63805166, 8.110579578]], [3.74, [56.64736629, 8.075410525]], [3.75, [56.65689844, 8.040401494]], [3.76, [56.66664672, 8.005551900]], [3.77, [56.67660974, 7.970861159]], [3.78, [56.68678613, 7.936328686]], [3.79, [56.69717451, 7.901953896]], [3.80, [56.70777354, 7.867736203]], [3.81, [56.71858185, 7.833675021]], [3.82, [56.72959810, 7.799769765]], [3.83, [56.74082095, 7.766019847]], [3.84, [56.75224908, 7.732424683]], [3.85, [56.76388116, 7.698983685]], [3.86, [56.77571588, 7.665696267]], [3.87, [56.78775192, 7.632561843]], [3.88, [56.79998801, 7.599579828]], [3.89, [56.81242284, 7.566749634]], [3.90, [56.82505513, 7.534070676]], [3.91, [56.83788360, 7.501542367]], [3.92, [56.85090700, 7.469164122]], [3.93, [56.86412405, 7.436935356]], [3.94, [56.87753351, 7.404855483]], [3.95, [56.89113413, 7.372923920]], [3.96, [56.90492468, 7.341140081]], [3.97, [56.91890392, 7.309503382]], [3.98, [56.93307063, 7.278013240]], [3.99, [56.94742359, 7.246669072]], [4.00, [56.96196159, 7.215470294]], [4.01, [56.97668343, 7.184416325]], [4.02, [56.99158791, 7.153506583]], [4.03, [57.00667384, 7.122740487]], [4.04, [57.02194006, 7.092117456]], [4.05, [57.03738537, 7.061636911]], [4.06, [57.05300861, 7.031298273]], [4.07, [57.06880863, 7.001100962]], [4.08, [57.08478427, 6.971044401]], [4.09, [57.10093439, 6.941128014]], [4.10, [57.11725784, 6.911351224]], [4.11, [57.13375349, 6.881713455]], [4.12, [57.15042022, 6.852214132]], [4.13, [57.16725690, 6.822852683]], [4.14, [57.18426241, 6.793628533]], [4.15, [57.20143566, 6.764541112]], [4.16, [57.21877553, 6.735589847]], [4.17, [57.23628094, 6.706774169]], [4.18, [57.25395081, 6.678093508]], [4.19, [57.27178405, 6.649547297]], [4.20, [57.28977958, 6.621134968]], [4.21, [57.30793633, 6.592855954]], [4.22, [57.32625323, 6.564709691]], [4.23, [57.34472925, 6.536695615]], [4.24, [57.36336332, 6.508813163]], [4.25, [57.38215441, 6.481061772]], [4.26, [57.40110147, 6.453440883]], [4.27, [57.42020347, 6.425949936]], [4.28, [57.43945938, 6.398588372]], [4.29, [57.45886818, 6.371355634]], [4.30, [57.47842886, 6.344251166]], [4.31, [57.49814042, 6.317274413]], [4.32, [57.51800186, 6.290424822]], [4.33, [57.53801217, 6.263701841]], [4.34, [57.55817036, 6.237104918]], [4.35, [57.57847546, 6.210633504]], [4.36, [57.59892647, 6.184287050]], [4.37, [57.61952242, 6.158065010]], [4.38, [57.64026235, 6.131966836]], [4.39, [57.66114530, 6.105991986]], [4.40, [57.68217031, 6.080139915]], [4.41, [57.70333643, 6.054410083]], [4.42, [57.72464271, 6.028801948]], [4.43, [57.74608823, 6.003314973]], [4.44, [57.76767203, 5.977948619]], [4.45, [57.78939319, 5.952702351]], [4.46, [57.81125079, 5.927575633]], [4.47, [57.83324390, 5.902567933]], [4.48, [57.85537162, 5.877678719]], [4.49, [57.87763304, 5.852907461]], [4.50, [57.90002726, 5.828253629]], [4.51, [57.92255338, 5.803716697]], [4.52,

[57.94521050, 5.779296139]], [4.53, [57.96799774, 5.754991431]], [4.54, [57.99091422, 5.730802050]], [4.55, [58.01395906, 5.706727475]], [4.56, [58.03713138, 5.682767185]], [4.57, [58.06043033, 5.658920664]], [4.58, [58.08385504, 5.635187394]], [4.59, [58.10740465, 5.611566861]], [4.60, [58.13107832, 5.588058551]], [4.61, [58.15487519, 5.564661952]], [4.62, [58.17879443, 5.541376554]], [4.63, [58.20283520, 5.518201849]], [4.64, [58.22699666, 5.495137330]], [4.65, [58.25127799, 5.472182491]], [4.66, [58.27567837, 5.449336828]], [4.67, [58.30019697, 5.426599840]], [4.68, [58.32483299, 5.403971026]], [4.69, [58.34958562, 5.381449887]], [4.70, [58.37445404, 5.359035925]], [4.71, [58.39943747, 5.336728646]], [4.72, [58.42453510, 5.314527555]], [4.73, [58.44974615, 5.292432159]], [4.74, [58.47506984, 5.270441969]], [4.75, [58.50050538, 5.248556495]], [4.76, [58.52605199, 5.226775251]], [4.77, [58.55170891, 5.205097750]], [4.78, [58.57747536, 5.183523509]], [4.79, [58.60335059, 5.162052046]], [4.80, [58.62933384, 5.140682881]], [4.81, [58.65542435, 5.119415533]], [4.82, [58.68162136, 5.098249527]], [4.83, [58.70792414, 5.077184387]], [4.84, [58.73433194, 5.056219639]], [4.85, [58.76084402, 5.035354811]], [4.86, [58.78745966, 5.014589433]], [4.87, [58.81417811, 4.993923036]], [4.88, [58.84099866, 4.973355154]], [4.89, [58.86792058, 4.952885320]], [4.90, [58.89494316, 4.932513073]], [4.91, [58.92206570, 4.912237950]], [4.92, [58.94928747, 4.892059491]], [4.93, [58.97660778, 4.871977238]], [4.94, [59.00402592, 4.851990735]], [4.95, [59.03154120, 4.832099527]], [4.96, [59.05915293, 4.812303160]], [4.97, [59.08686043, 4.792601183]], [4.98, [59.11466299, 4.772993147]], [4.99, [59.14255995, 4.753478604]], [5.00, [59.17055062, 4.734057107]], [5.01, [59.19863433, 4.714728213]], [5.02, [59.22681042, 4.695491478]], [5.03, [59.25507822, 4.676346461]], [5.04, [59.28343706, 4.657292724]], [5.05, [59.31188630, 4.638329829]], [5.06, [59.34042527, 4.619457340]], [5.07, [59.36905332, 4.600674823]], [5.08, [59.39776983, 4.581981846]], [5.09, [59.42657413, 4.563377978]], [5.10, [59.45546559, 4.544862790]], [5.11, [59.48444357, 4.526435855]], [5.12, [59.51350744, 4.508096748]], [5.13, [59.54265657, 4.489845046]], [5.14, [59.57189033, 4.471680326]], [5.15, [59.60120812, 4.453602168]], [5.16, [59.63060930, 4.435610153]], [5.17, [59.66009327, 4.417703865]], [5.18, [59.68965942, 4.399882888]], [5.19, [59.71930713, 4.382146810]], [5.20, [59.74903579, 4.364495219]], [5.21, [59.77884481, 4.346927705]], [5.22, [59.80873361, 4.329443860]], [5.23, [59.83870158, 4.312043276]], [5.24, [59.86874813, 4.294725550]], [5.25, [59.89887267, 4.277490278]], [5.26, [59.92907463, 4.260337060]], [5.27, [59.95935341, 4.243265495]], [5.28, [59.98970844, 4.226275186]], [5.29, [60.02013915, 4.209365736]], [5.30, [60.05064497, 4.192536751]], [5.31, [60.08122534, 4.175787837]], [5.32, [60.11187967, 4.159118604]], [5.33, [60.14260743, 4.142528662]], [5.34, [60.17340804, 4.126017623]], [5.35, [60.20428096, 4.109585101]], [5.36, [60.23522563, 4.093230712]], [5.37, [60.26624150, 4.076954073]], [5.38, [60.29732804, 4.060754802]], [5.39, [60.32848469, 4.044632520]], [5.40, [60.35971092, 4.028586850]],

[5.41, [60.39100619, 4.012617416]], [5.42, [60.42236996, 3.996723842]], [5.43, [60.45380172, 3.980905757]], [5.44, [60.48530092, 3.965162788]], [5.45, [60.51686705, 3.949494566]], [5.46, [60.54849959, 3.933900724]], [5.47, [60.58019801, 3.918380896]], [5.48, [60.61196180, 3.902934716]], [5.49, [60.64379046, 3.887561822]], [5.50, [60.67568346, 3.872261852]], [5.51, [60.70764031, 3.857034446]], [5.52, [60.73966049, 3.841879248]], [5.53, [60.77174351, 3.826795900]], [5.54, [60.80388886, 3.811784047]], [5.55, [60.83609606, 3.796843336]], [5.56, [60.86836461, 3.781973416]], [5.57, [60.90069403, 3.767173936]], [5.58, [60.93308382, 3.752444548]], [5.59, [60.96553350, 3.737784905]], [5.60, [60.99804258, 3.723194661]], [5.61, [61.03061059, 3.708673473]], [5.62, [61.06323705, 3.694220999]], [5.63, [61.09592148, 3.679836898]], [5.64, [61.12866342, 3.665520832]], [5.65, [61.16146240, 3.651272463]], [5.66, [61.19431795, 3.637091454]], [5.67, [61.22722961, 3.622977472]], [5.68, [61.26019691, 3.608930184]], [5.69, [61.29321940, 3.594949259]], [5.70, [61.32629663, 3.581034367]], [5.71, [61.35942814, 3.567185181]], [5.72, [61.39261348, 3.553401373]], [5.73, [61.42585221, 3.539682619]], [5.74, [61.45914388, 3.526028595]], [5.75, [61.49248804, 3.512438979]], [5.76, [61.52588425, 3.498913450]], [5.77, [61.55933209, 3.485451690]], [5.78, [61.59283110, 3.472053381]], [5.79, [61.62638086, 3.458718207]], [5.80, [61.65998093, 3.445445854]], [5.81, [61.69363089, 3.432236008]], [5.82, [61.72733031, 3.419088358]], [5.83, [61.76107877, 3.406002594]], [5.84, [61.79487585, 3.392978407]], [5.85, [61.82872112, 3.380015491]], [5.86, [61.86261418, 3.367113540]], [5.87, [61.89655462, 3.354272250]], [5.88, [61.93054201, 3.341491318]], [5.89, [61.96457594, 3.328770442]], [5.90, [61.99865601, 3.316109323]], [5.91, [62.03278181, 3.303507662]], [5.92, [62.06695294, 3.290965162]], [5.93, [62.10116900, 3.278481528]], [5.94, [62.13542960, 3.266056467]], [5.95, [62.16973433, 3.253689684]], [5.96, [62.20408281, 3.241380889]], [5.97, [62.23847464, 3.229129793]], [5.98, [62.27290943, 3.216936106]], [5.99, [62.30738678, 3.204799542]], [6.00, [62.34190632, 3.192719815]], [6.01, [62.37646767, 3.180696641]], [6.02, [62.41107044, 3.168729737]], [6.03, [62.44571426, 3.156818821]], [6.04, [62.48039875, 3.144963614]], [6.05, [62.51512353, 3.133163836]], [6.06, [62.54988824, 3.121419210]], [6.07, [62.58469249, 3.109729460]], [6.08, [62.61953592, 3.098094311]], [6.09, [62.65441817, 3.086513491]], [6.10, [62.68933887, 3.074986727]], [6.11, [62.72429765, 3.063513748]], [6.12, [62.75929417, 3.052094286]], [6.13, [62.79432806, 3.040728071]], [6.14, [62.82939895, 3.029414838]], [6.15, [62.86450651, 3.018154321]], [6.16, [62.89965037, 3.006946256]], [6.17, [62.93483018, 2.995790380]], [6.18, [62.97004560, 2.984686432]], [6.19, [63.00529628, 2.973634152]], [6.20, [63.04058188, 2.962633280]], [6.21, [63.07590206, 2.951683560]], [6.22, [63.11125647, 2.940784734]], [6.23, [63.14664477, 2.929936549]], [6.24, [63.18206662, 2.919138750]], [6.25, [63.21752169, 2.908391084]], [6.26, [63.25300965, 2.897693301]], [6.27, [63.28853017, 2.887045150]], [6.28, [63.32408291, 2.876446382]], [6.29, [63.35966755,

2.865896751]], [6.30, [63.39528375, 2.855396010]], [6.31, [63.43093121, 2.844943914]], [6.32, [63.46660960, 2.834540219]], [6.33, [63.50231858, 2.824184683]], [6.34, [63.53805785, 2.813877064]], [6.35, [63.57382708, 2.803617121]], [6.36, [63.60962596, 2.793404617]], [6.37, [63.64545419, 2.783239313]], [6.38, [63.68131145, 2.773120973]], [6.39, [63.71719742, 2.763049361]], [6.40, [63.75311179, 2.753024243]], [6.41, [63.78905427, 2.743045387]], [6.42, [63.82502454, 2.733112560]], [6.43, [63.86102231, 2.723225532]], [6.44, [63.89704726, 2.713384074]], [6.45, [63.93309911, 2.703587956]], [6.46, [63.96917754, 2.693836952]], [6.47, [64.00528227, 2.684130835]], [6.48, [64.04141300, 2.674469382]], [6.49, [64.07756944, 2.664852368]], [6.50, [64.11375129, 2.655279570]], [6.51, [64.14995827, 2.645750767]], [6.52, [64.18619008, 2.636265739]], [6.53, [64.22244643, 2.626824267]], [6.54, [64.25872705, 2.617426132]], [6.55, [64.29503164, 2.608071118]], [6.56, [64.33135994, 2.598759009]], [6.57, [64.36771165, 2.589489589]], [6.58, [64.40408650, 2.580262645]], [6.59, [64.44048420, 2.571077965]], [6.60, [64.47690449, 2.561935336]], [6.61, [64.51334708, 2.552834549]], [6.62, [64.54981171, 2.543775394]], [6.63, [64.58629810, 2.534757662]], [6.64, [64.62280598, 2.525781146]], [6.65, [64.65933508, 2.516845641]], [6.66, [64.69588513, 2.507950942]], [6.67, [64.73245588, 2.499096844]], [6.68, [64.76904705, 2.490283144]], [6.69, [64.80565839, 2.481509640]], [6.70, [64.84228963, 2.472776131]], [6.71, [64.87894051, 2.464082417]], [6.72, [64.91561078, 2.455428299]], [6.73, [64.95230018, 2.446813579]], [6.74, [64.98900845, 2.438238060]], [6.75, [65.02573533, 2.429701546]], [6.76, [65.06248058, 2.421203844]], [6.77, [65.09924395, 2.412744759]], [6.78, [65.13602518, 2.404324097]], [6.79, [65.17282402, 2.395941667]], [6.80, [65.20964023, 2.387597278]], [6.81, [65.24647355, 2.379290741]], [6.82, [65.28332376, 2.371021867]], [6.83, [65.32019060, 2.362790467]], [6.84, [65.35707383, 2.354596354]], [6.85, [65.39397321, 2.346439343]], [6.86, [65.43088850, 2.338319249]], [6.87, [65.46781946, 2.330235888]], [6.88, [65.50476585, 2.322189075]], [6.89, [65.54172744, 2.314178629]], [6.90, [65.57870400, 2.306204369]], [6.91, [65.61569531, 2.298266114]], [6.92, [65.65270111, 2.290363686]], [6.93, [65.68972119, 2.282496905]], [6.94, [65.72675531, 2.274665595]], [6.95, [65.76380324, 2.266869578]], [6.96, [65.80086477, 2.259108678]], [6.97, [65.83793967, 2.251382721]], [6.98, [65.87502771, 2.243691534]], [6.99, [65.91212867, 2.236034943]], [7.00, [65.94924233, 2.228412776]], [7.01, [65.98636847, 2.220824861]], [7.02, [66.02350686, 2.213271029]], [7.03, [66.06065729, 2.205751110]], [7.04, [66.09781954, 2.198264936]], [7.05, [66.13499341, 2.190812339]], [7.06, [66.17217867, 2.183393152]], [7.07, [66.20937511, 2.176007208]], [7.08, [66.24658251, 2.168654344]], [7.09, [66.28380069, 2.161334395]], [7.10, [66.32102941, 2.154047197]], [7.11, [66.35826847, 2.146792588]], [7.12, [66.39551767, 2.139570406]], [7.13, [66.43277679, 2.132380490]], [7.14, [66.47004563, 2.125222681]], [7.15, [66.50732400, 2.118096819]], [7.16, [66.54461168, 2.111002746]], [7.17, [66.58190848, 2.103940305]], [7.18,

[66.61921419, 2.096909338]], [7.19, [66.65652862, 2.089909690]], [7.20, [66.69385157, 2.082941206]], [7.21, [66.73118284, 2.076003731]], [7.22, [66.76852224, 2.069097112]], [7.23, [66.80586956, 2.062221197]], [7.24, [66.84322462, 2.055375833]], [7.25, [66.88058723, 2.048560870]], [7.26, [66.91795718, 2.041776156]], [7.27, [66.95533429, 2.035021543]], [7.28, [66.99271839, 2.028296883]], [7.29, [67.03010926, 2.021602026]], [7.30, [67.06750673, 2.014936826]], [7.31, [67.10491060, 2.008301137]], [7.32, [67.14232070, 2.001694813]], [7.33, [67.17973685, 1.995117709]], [7.34, [67.21715884, 1.988569680]], [7.35, [67.25458651, 1.982050583]], [7.36, [67.29201967, 1.975560276]], [7.37, [67.32945815, 1.969098617]], [7.38, [67.36690176, 1.962665465]], [7.39, [67.40435032, 1.956260679]], [7.40, [67.44180366, 1.949884120]], [7.41, [67.47926161, 1.943535649]], [7.42, [67.51672397, 1.937215128]], [7.43, [67.55419059, 1.930922419]], [7.44, [67.59166129, 1.924657385]], [7.45, [67.62913589, 1.918419890]], [7.46, [67.66661422, 1.912209799]], [7.47, [67.70409612, 1.906026977]], [7.48, [67.74158141, 1.899871290]], [7.49, [67.77906993, 1.893742606]], [7.50, [67.81656151, 1.887640791]], [7.51, [67.85405598, 1.881565714]], [7.52, [67.89155316, 1.875517244]], [7.53, [67.92905291, 1.869495250]], [7.54, [67.96655506, 1.863499602]], [7.55, [68.00405944, 1.857530171]], [7.56, [68.04156589, 1.851586828]], [7.57, [68.07907424, 1.845669447]], [7.58, [68.11658435, 1.839777900]], [7.59, [68.15409605, 1.833912060]], [7.60, [68.19160918, 1.828071801]], [7.61, [68.22912358, 1.822256999]], [7.62, [68.26663910, 1.816467529]], [7.63, [68.30415558, 1.810703267]], [7.64, [68.34167286, 1.804964090]], [7.65, [68.37919080, 1.799249876]], [7.66, [68.41670923, 1.793560502]], [7.67, [68.45422801, 1.787895848]], [7.68, [68.49174698, 1.782255793]], [7.69, [68.52926599, 1.776640216]], [7.70, [68.56678490, 1.771048999]], [7.71, [68.60430356, 1.765482023]], [7.72, [68.64182181, 1.759939169]], [7.73, [68.67933951, 1.754420320]], [7.74, [68.71685651, 1.748925360]], [7.75, [68.75437265, 1.743454171]], [7.76, [68.79188782, 1.738006639]], [7.77, [68.82940184, 1.732582649]], [7.78, [68.86691460, 1.727182086]], [7.79, [68.90442594, 1.721804835]], [7.80, [68.94193571, 1.716450784]], [7.81, [68.97944378, 1.711119820]], [7.82, [69.01695001, 1.705811831]], [7.83, [69.05445426, 1.700526706]], [7.84, [69.09195639, 1.695264333]], [7.85, [69.12945626, 1.690024603]], [7.86, [69.16695373, 1.684807405]], [7.87, [69.20444867, 1.679612631]], [7.88, [69.24194094, 1.674440172]], [7.89, [69.27943041, 1.669289919]], [7.90, [69.31691694, 1.664161765]], [7.91, [69.35440040, 1.659055603]], [7.92, [69.39188066, 1.653971328]], [7.93, [69.42935759, 1.648908833]], [7.94, [69.46683105, 1.643868013]], [7.95, [69.50430092, 1.638848763]], [7.96, [69.54176707, 1.633850979]], [7.97, [69.57922936, 1.628874557]], [7.98, [69.61668768, 1.623919395]], [7.99, [69.65414188, 1.618985390]], [8.00, [69.69159185, 1.614072440]], [8.01, [69.72903746, 1.609180444]], [8.02, [69.76647858, 1.604309300]], [8.03, [69.80391509, 1.599458908]], [8.04, [69.84134686, 1.594629168]], [8.05, [69.87877378, 1.589819981]], [8.06, [69.91619572, 1.585031248]],

[8.07, [69.95361255, 1.580262872]], [8.08, [69.99102417, 1.575514753]], [8.09, [70.02843045, 1.570786794]], [8.10, [70.06583126, 1.566078899]], [8.11, [70.10322649, 1.561390972]], [8.12, [70.14061602, 1.556722916]], [8.13, [70.17799973, 1.552074637]], [8.14, [70.21537751, 1.547446040]], [8.15, [70.25274923, 1.542837031]], [8.16, [70.29011479, 1.538247515]], [8.17, [70.32747407, 1.533677399]], [8.18, [70.36482695, 1.529126591]], [8.19, [70.40217332, 1.524594998]], [8.20, [70.43951308, 1.520082528]], [8.21, [70.47684610, 1.515589090]], [8.22, [70.51417227, 1.511114593]], [8.23, [70.55149149, 1.506658946]], [8.24, [70.58880364, 1.502222061]], [8.25, [70.62610861, 1.497803846]], [8.26, [70.66340629, 1.493404214]], [8.27, [70.70069658, 1.489023075]], [8.28, [70.73797936, 1.484660341]], [8.29, [70.77525453, 1.480315925]], [8.30, [70.81252199, 1.475989740]], [8.31, [70.84978162, 1.471681699]], [8.32, [70.88703333, 1.467391715]], [8.33, [70.92427701, 1.463119703]], [8.34, [70.96151254, 1.458865577]], [8.35, [70.99873983, 1.454629252]], [8.36, [71.03595878, 1.450410643]], [8.37, [71.07316928, 1.446209668]], [8.38, [71.11037123, 1.442026241]], [8.39, [71.14756453, 1.437860281]], [8.40, [71.18474908, 1.433711704]], [8.41, [71.22192478, 1.429580428]], [8.42, [71.25909153, 1.425466371]], [8.43, [71.29624923, 1.421369451]], [8.44, [71.33339778, 1.417289587]], [8.45, [71.37053708, 1.413226699]], [8.46, [71.40766704, 1.409180707]], [8.47, [71.44478756, 1.405151531]], [8.48, [71.48189854, 1.401139091]], [8.49, [71.51899989, 1.397143308]], [8.50, [71.55609152, 1.393164104]], [8.51, [71.59317333, 1.389201401]], [8.52, [71.63024523, 1.385255121]], [8.53, [71.66730710, 1.381325186]], [8.54, [71.70435887, 1.377411520]], [8.55, [71.74140046, 1.373514046]], [8.56, [71.77843177, 1.369632688]], [8.57, [71.81545270, 1.365767370]], [8.58, [71.85246316, 1.361918016]], [8.59, [71.88946306, 1.358084552]], [8.60, [71.92645232, 1.354266903]], [8.61, [71.96343084, 1.350464995]], [8.62, [72.00039854, 1.346678754]], [8.63, [72.03735532, 1.342908107]], [8.64, [72.07430110, 1.339152981]], [8.65, [72.11123580, 1.335413303]], [8.66, [72.14815932, 1.331689000]], [8.67, [72.18507158, 1.327980001]], [8.68, [72.22197250, 1.324286234]], [8.69, [72.25886198, 1.320607628]], [8.70, [72.29573995, 1.316944112]], [8.71, [72.33260633, 1.313295616]], [8.72, [72.36946101, 1.309662069]], [8.73, [72.40630394, 1.306043402]], [8.74, [72.44313502, 1.302439546]], [8.75, [72.47995416, 1.298850431]], [8.76, [72.51676130, 1.295275989]], [8.77, [72.55355634, 1.291716151]], [8.78, [72.59033920, 1.288170849]], [8.79, [72.62710981, 1.284640017]], [8.80, [72.66386809, 1.281123586]], [8.81, [72.70061396, 1.277621490]], [8.82, [72.73734734, 1.274133662]], [8.83, [72.77406815, 1.270660035]], [8.84, [72.81077631, 1.267200545]], [8.85, [72.84747174, 1.263755126]], [8.86, [72.88415437, 1.260323712]], [8.87, [72.92082414, 1.256906238]], [8.88, [72.95748095, 1.253502640]], [8.89, [72.99412473, 1.250112853]], [8.90, [73.03075541, 1.246736813]], [8.91, [73.06737290, 1.243374458]], [8.92, [73.10397715, 1.240025724]], [8.93, [73.14056806, 1.236690548]], [8.94, [73.17714558, 1.233368868]], [8.95, [73.21370962,

1.230060620]], [8.96, [73.25026012, 1.226765744]], [8.97, [73.28679700, 1.223484178]], [8.98, [73.32332020, 1.220215860]], [8.99, [73.35982963, 1.216960729]], [9.00, [73.39632524, 1.213718725]], [9.01, [73.43280694, 1.210489787]], [9.02, [73.46927467, 1.207273855]], [9.03, [73.50572838, 1.204070869]], [9.04, [73.54216797, 1.200880771]], [9.05, [73.57859338, 1.197703501]], [9.06, [73.61500456, 1.194539000]], [9.07, [73.65140142, 1.191387209]], [9.08, [73.68778390, 1.188248071]], [9.09, [73.72415193, 1.185121527]], [9.10, [73.76050545, 1.182007520]], [9.11, [73.79684438, 1.178905992]], [9.12, [73.83316868, 1.175816886]], [9.13, [73.86947826, 1.172740146]], [9.14, [73.90577307, 1.169675715]], [9.15, [73.94205304, 1.166623537]], [9.16, [73.97831812, 1.163583556]], [9.17, [74.01456822, 1.160555715]], [9.18, [74.05080329, 1.157539961]], [9.19, [74.08702327, 1.154536237]], [9.20, [74.12322809, 1.151544490]], [9.21, [74.15941770, 1.148564664]], [9.22, [74.19559203, 1.145596706]], [9.23, [74.23175102, 1.142640562]], [9.24, [74.26789461, 1.139696177]], [9.25, [74.30402274, 1.136763499]], [9.26, [74.34013535, 1.133842474]], [9.27, [74.37623237, 1.130933049]], [9.28, [74.41231376, 1.128035173]], [9.29, [74.44837944, 1.125148792]], [9.30, [74.48442936, 1.122273854]], [9.31, [74.52046347, 1.119410308]], [9.32, [74.55648170, 1.116558102]], [9.33, [74.59248400, 1.113717185]], [9.34, [74.62847031, 1.110887506]], [9.35, [74.66444057, 1.108069015]], [9.36, [74.70039472, 1.105261660]], [9.37, [74.73633272, 1.102465391]], [9.38, [74.77225450, 1.099680159]], [9.39, [74.80816001, 1.096905913]], [9.40, [74.84404919, 1.094142605]], [9.41, [74.87992199, 1.091390185]], [9.42, [74.91577836, 1.088648604]], [9.43, [74.95161823, 1.085917814]], [9.44, [74.98744156, 1.083197766]], [9.45, [75.02324830, 1.080488411]], [9.46, [75.05903838, 1.077789702]], [9.47, [75.09481176, 1.075101591]], [9.48, [75.13056839, 1.072424030]], [9.49, [75.16630822, 1.069756973]], [9.50, [75.20203118, 1.067100371]], [9.51, [75.23773724, 1.064454179]], [9.52, [75.27342634, 1.061818349]], [9.53, [75.30909842, 1.059192837]], [9.54, [75.34475344, 1.056577595]], [9.55, [75.38039135, 1.053972577]], [9.56, [75.41601210, 1.051377738]], [9.57, [75.45161564, 1.048793033]], [9.58, [75.48720192, 1.046218416]], [9.59, [75.52277089, 1.043653842]], [9.60, [75.55832251, 1.041099267]], [9.61, [75.59385672, 1.038554645]], [9.62, [75.62937347, 1.036019934]], [9.63, [75.66487273, 1.033495089]], [9.64, [75.70035443, 1.030980065]], [9.65, [75.73581854, 1.028474820]], [9.66, [75.77126501, 1.025979310]], [9.67, [75.80669378, 1.023493492]], [9.68, [75.84210483, 1.021017323]], [9.69, [75.87749810, 1.018550760]], [9.70, [75.91287354, 1.016093760]], [9.71, [75.94823112, 1.013646282]], [9.72, [75.98357078, 1.011208283]], [9.73, [76.01889248, 1.008779722]], [9.74, [76.05419618, 1.006360557]], [9.75, [76.08948183, 1.003950746]], [9.76, [76.12474939, 1.001550248]], [9.77, [76.15999881, 0.9991590217]], [9.78, [76.19523006, 0.9967770265]], [9.79, [76.23044308, 0.9944042217]], [9.80, [76.26563785, 0.9920405669]], [9.81, [76.30081431, 0.9896860219]], [9.82, [76.33597243, 0.9873405466]], [9.83, [76.37111216,

0.9850041012]], [9.84, [76.40623346, 0.9826766461]], [9.85, [76.44133629, 0.9803581417]], [9.86, [76.47642060, 0.9780485489]], [9.87, [76.51148636, 0.9757478286]], [9.88, [76.54653353, 0.9734559420]], [9.89, [76.58156207, 0.9711728504]], [9.90, [76.61657195, 0.9688985153]], [9.91, [76.65156311, 0.9666328984]], [9.92, [76.68653553, 0.9643759617]], [9.93, [76.72148914, 0.9621276672]], [9.94, [76.75642393, 0.9598879772]], [9.95, [76.79133986, 0.9576568542]], [9.96, [76.82623688, 0.9554342610]], [9.97, [76.86111497, 0.9532201603]], [9.98, [76.89597408, 0.9510145151]], [9.99, [76.93081418, 0.9488172886]], [10.00, [76.96563522, 0.9466284444]], [10.01, [77.00043716, 0.9444479460]]]

> # Approximately 0-1 people remain infected in the long term behavior

$$x'(t) = F(x(t))$$

$$x'(t) = x(t) - x^2(t) - x(t)y(t)$$

$$y'(t) = 3x(t) - 2x^2(t) - x(t)y(t)$$

$$F(x) = x(1 - x - y)$$

$$G(y) = x(3 - 2x - y)$$

$$x(1 - x - y) = 0$$

$$x(3 - 2x - y) = 0$$

$$x - x^2 = 3x - 2x^2$$

$$x(x - 2) = 0$$

$$x = 0, 2 \rightarrow \{[0, 0], [2, -1]\}$$

$$y = 0, -1$$

$$J(x,y) = \begin{bmatrix} -2x-y & -x \\ 3-4x-y & -x \end{bmatrix}$$

$$J(0,0) = \begin{bmatrix} 0 & 0 \\ 0 & 0 \end{bmatrix}$$

$$J(2,-1) = \begin{bmatrix} -3 & -2 \\ -6 & -2 \end{bmatrix}$$