

$$\begin{array}{l} restart; \\ Ds1 := 4e-10 \\ \qquad \qquad \qquad 4. \cdot 10^{-10} \end{array} \qquad (1)$$

$$\begin{array}{l} Ds2 := 1e-10 \\ \qquad \qquad \qquad 1. \cdot 10^{-10} \end{array} \qquad (2)$$

$$\begin{array}{l} Rd1 := 3.3 \\ \qquad \qquad \qquad 3.3 \end{array} \qquad (3)$$

$$\begin{array}{l} Rd2 := 1 \\ \qquad \qquad \qquad 1 \end{array} \qquad (4)$$

$$\begin{array}{l} n1 := 0.444 \\ \qquad \qquad \qquad 0.444 \end{array} \qquad (5)$$

$$\begin{array}{l} n2 := 0.375 \\ \qquad \qquad \qquad 0.375 \end{array} \qquad (6)$$

$$\begin{array}{l} h1 := 0.9 \\ \qquad \qquad \qquad 0.9 \end{array} \qquad (7)$$

$$\begin{array}{l} h2 := 1.1 \\ \qquad \qquad \qquad 1.1 \end{array} \qquad (8)$$

$$\begin{array}{l} \text{delta} := \frac{Ds2}{Ds1} \\ \qquad \qquad \qquad 0.2500000000 \end{array} \qquad (9)$$

$$\begin{array}{l} \text{rho} := \frac{Rd2}{Rd1} \\ \qquad \qquad \qquad 0.3030303030 \end{array} \qquad (10)$$

$$\begin{array}{l} \text{nu} := \frac{n2}{n1} \\ \qquad \qquad \qquad 0.8445945946 \end{array} \qquad (11)$$

$$\begin{array}{l} \text{theta} := \frac{h2}{h1} \\ \qquad \qquad \qquad 1.222222222 \end{array} \qquad (12)$$

$$\begin{array}{l} 1 \\ \qquad \qquad \qquad 1 \end{array} \qquad (13)$$

$$\begin{array}{l} 1 \\ \qquad \qquad \qquad 1 \end{array} \qquad (14)$$

$$\begin{array}{l} \text{mu} := \text{sqrt}\left(\frac{\text{rho}}{\text{delta}}\right) \\ \qquad \qquad \qquad 1.100963765 \end{array} \qquad (15)$$

$$\begin{array}{l} \delta, \rho, \nu, \theta, \mu \\ \qquad \qquad \qquad 0.2500000000, 0.3030303030, 0.8445945946, 1.222222222, 1.100963765 \end{array} \qquad (16)$$

$$\begin{array}{l} Eq := \delta \cdot \nu \cdot \mu \cdot \sin(x) \cdot \cos(\mu \cdot \theta \cdot x) + \cos(x) \cdot \sin(\mu \cdot \theta \cdot x) = 0 \\ \qquad \qquad \qquad 0.2324670111 \sin(x) \cos(1.345622379 x) + \cos(x) \sin(1.345622379 x) = 0 \end{array} \qquad (17)$$

$\xrightarrow{\text{to string}}$

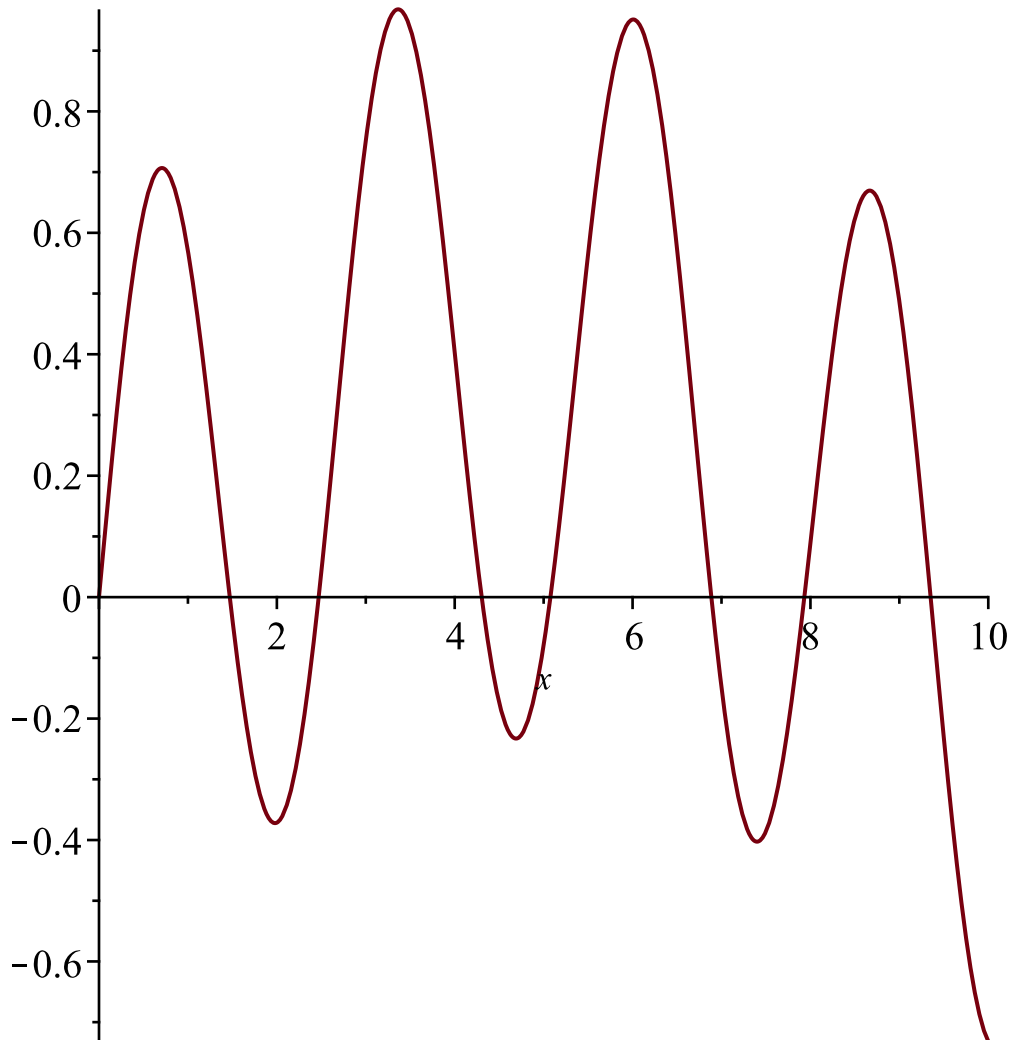
$$".2324670111*\sin(x)*\cos(1.345622379*x)+\cos(x)*\sin(1.345622379*x) = 0" \quad (18)$$

fsolve(Eq, x = 0)

0.

(19)

plot($\delta \cdot v \cdot \mu \cdot \sin(x) \cdot \cos(\mu \cdot \theta \cdot x) + \cos(x) \cdot \sin(\mu \cdot \theta \cdot x)$, x = 0..10)



NN := 500 :

lambda1 := *Vector*(*NN*) :

#*A* := [*seq*(1, *i* = 1 ..100)] :

for *i* **from** 1 **to** *NN* **do**

lambda1[*i*] := *fsolve*(*Eq*, $x = \frac{(i-1)}{2}$) :

od:

#*A* := *ListTools*:-*MakeUnique*(*sort*(*A*))

lambda1 := *sort*(*lambda1*) :

lambda2 := *Vector*(*NN*) :

ii := 1 :

for *i* **from** 2 **to** *NN* **do**

if *lambda1*[*i*] ≠ *lambda1*[*i* - 1] **and** *lambda1*[*i*] > 0 **and** *lambda1*[*i*] - *lambda1*[*i* - 1] ≤ 4 **then**

lambda2[*ii*] := *lambda1*[*i*] :

else

B[*ii*] := *A*[*i*] :

```

ii := ii + 1 :
fi:
od:
temp := Vector(NN) :
NNI := ii - 1 :
lambda3 := Vector(NNI) :
printf("%16.16f", B[1]);
lambda3[1] := lambda2[1] :
for i from 2 to ii - 1 do
  lambda3[i] := lambda2[i] :
  printf("%f", lambda2[i]);
od:

for i from 1 to NNI do
# CC[i] := B[i] :
od:

```

Error, (in fprintf) number expected for floating point format

```

2.470363 4.303455 5.076448 6.886098 7.931558 9.351403 10.871635
11.828249 13.679992 14.459706 16.241357 17.334626 18.702917
20.271200 21.187808 23.053246 23.846212 25.595612 26.738330
28.054655 29.669010 30.549307 32.423383 33.235777 34.949041
36.142426 37.406736 39.064747 39.913029 41.790632 42.628146
44.301806 45.546681 46.759289 48.458093 49.279263 51.155263
52.023024 53.654048 54.950864 56.112452 57.848741 58.648289
60.517561 61.420094 63.005901 64.354743 65.466378 67.236420
68.020351 69.877814 70.819038 72.357485 73.758078 74.821237
76.620912 77.395643 79.236298 80.219545 81.708917 83.160621
84.177223 86.002079 86.774281 88.593266 89.621319 91.060306
92.562105 93.534548 95.379873 96.156289 97.948950 99.024084
100.411766 101.962248 102.893449 104.754342 105.541596 107.303559
108.427579 109.763406 111.360753 112.254188 114.125624 114.930041
116.657278 117.831556 119.115344 120.757304 121.617043 123.493926
124.321392 126.010275 127.235778 128.467705 130.151583 130.982303
132.859504 133.715365 135.362697 136.640016 137.820622 139.543276
140.350251 142.222643 143.111652 144.714681 146.044036 147.174243
148.932097 149.721149 151.583630 152.509930 154.066352 155.447604
156.528731 158.317805 159.095212 160.942745 161.909887 163.417827
164.850473 165.884271 167.700229 168.472588 170.300253 171.311220
172.769220 174.252386 175.241067 177.079286 177.853336 179.656393
180.713645 182.120640 183.653066 184.599348 186.454990 187.237421
189.011382 190.116895 191.472199 193.052221 193.959367 195.827446
196.624713 198.365414 199.520720 200.824012 202.449542 203.321395
205.196836 206.015006 207.718663 208.924878 210.176199 211.844710
212.685720 214.563403 215.408032 217.071284 218.329136 219.528891
221.237408 222.052628 223.927422 224.803489 226.423417 227.733265
228.882230 230.627336 231.422392 233.289182 234.201058 235.775191
237.137031 238.236372 240.014235 240.795248 242.648967 243.600422
245.126726 246.540191 247.591496 249.397904

```

```

lambda3;
lambda2;

```

$$\left[\begin{array}{l} 1 \dots 186 \text{ Vector}_{column} \\ \text{Data Type: anything} \\ \text{Storage: rectangular} \\ \text{Order: Fortran_order} \end{array} \right]$$

$$\left[\begin{array}{l} 1 \dots 500 \text{ Vector}_{column} \\ \text{Data Type: anything} \\ \text{Storage: rectangular} \\ \text{Order: Fortran_order} \end{array} \right]$$

(20)

```

lambda := Vector(NN1) :
A := Vector(NN1) :
B := Vector(NN1) :
for i from 1 to NN1 do
lambda[i] := lambda3[i] :
od:
#lambda:=lambda3:
A := Vector(NN1) :
B := Vector(NN1) :
beta := Vector(NN1) :
for i from 1 to NN1 do
x := lambda[i] :

```

$$A[i] := \frac{\sin(x)}{\sin(\mu \cdot \theta \cdot x)} :$$

$$B[i] := 1 \cdot \frac{(\theta \cdot x \cdot \cos(x) - \theta \cdot x - \delta \cdot \nu \cdot x + \mu \cdot \delta \cdot \nu \cdot \theta \cdot x \cdot \sin(x) \cdot \cot(\mu \cdot \theta \cdot x))}{x^2 \cdot (\delta \cdot \nu + \theta) \cdot (1 + \rho \cdot \nu \cdot \theta \cdot A[i]^2) \cdot \left(\frac{1}{2}\right)} :$$

$$\beta[i] := \left(\frac{DsI}{RdI}\right) \cdot \left(\frac{\lambda[i]}{hI}\right)^2 :$$

```

od:
lambda;
A;
B;
beta;

```

$$\left[\begin{array}{l} 1 \dots 186 \text{ Vector}_{column} \\ \text{Data Type: anything} \\ \text{Storage: rectangular} \\ \text{Order: Fortran_order} \end{array} \right]$$

$$\begin{aligned}
 & \left[\begin{array}{l} 1 \dots 186 \text{ Vector}_{column} \\ \text{Data Type: anything} \\ \text{Storage: rectangular} \\ \text{Order: Fortran_order} \end{array} \right] \\
 & \left[\begin{array}{l} 1 \dots 186 \text{ Vector}_{column} \\ \text{Data Type: anything} \\ \text{Storage: rectangular} \\ \text{Order: Fortran_order} \end{array} \right] \\
 & \left[\begin{array}{l} 1 \dots 186 \text{ Vector}_{column} \\ \text{Data Type: anything} \\ \text{Storage: rectangular} \\ \text{Order: Fortran_order} \end{array} \right] \tag{21}
 \end{aligned}$$

$$1 \qquad \qquad \qquad 1 \tag{22}$$

$$1 \qquad \qquad \qquad 1 \tag{23}$$

$$1 \qquad \qquad \qquad 1 \tag{24}$$

$$1 \qquad \qquad \qquad 1 \tag{25}$$

$$1 \qquad \qquad \qquad 1 \tag{26}$$

$$1 \qquad \qquad \qquad 1 \tag{27}$$

$$1 \qquad \qquad \qquad 1 \tag{28}$$

$$1 \qquad \qquad \qquad 1 \tag{29}$$

$$1 \qquad \qquad \qquad 1 \tag{30}$$

$$1 \qquad \qquad \qquad 1 \tag{31}$$

$$c1 := 1 \cdot \frac{\left(\text{delta} \cdot \text{nu} \cdot \left(1 - \frac{z}{hl} \right) + \text{theta} \right)}{\text{delta} \cdot \text{nu} + \text{theta}} :$$

$$c2 := 1 \cdot \frac{\left(1 + \text{theta} - \frac{z}{hl} \right)}{\text{delta} \cdot \text{nu} + \text{theta}} :$$

for i from 1 to NNI do

$$c1 := c1 + B[i] \cdot \sin\left(\frac{\text{lambda}[i] \cdot z}{h1}\right) \cdot \exp(-\text{beta}[i] \cdot t) :$$

$$c2 := c2 + A[i] \cdot B[i] \cdot \sin\left(\text{mu} \cdot \text{lambda}[i] \cdot \left(\frac{h1 + h2 - z}{h1}\right)\right) \cdot \exp(-\text{beta}[i] \cdot t) :$$

od:

c1 :

c2 :

1

1

(32)

$$f := (zz, tt) \rightarrow \text{piecewise}(zz < h1, \text{subs}([t = tt, z = zz], c1), \text{subs}([t = tt, z = zz], c2))$$

$$(zz, tt) \rightarrow \text{piecewise}(zz < h1, \text{subs}([t = tt, z = zz], c1), \text{subs}([t = tt, z = zz], c2))$$

(33)

$$\text{evalf}(f(0.9, 120 \cdot 365 \cdot 86400))$$

$$0.5585642953$$

(34)

$$\text{subs}([t = tt, z = zz], t^2 + z)$$

$$tt^2 + zz$$

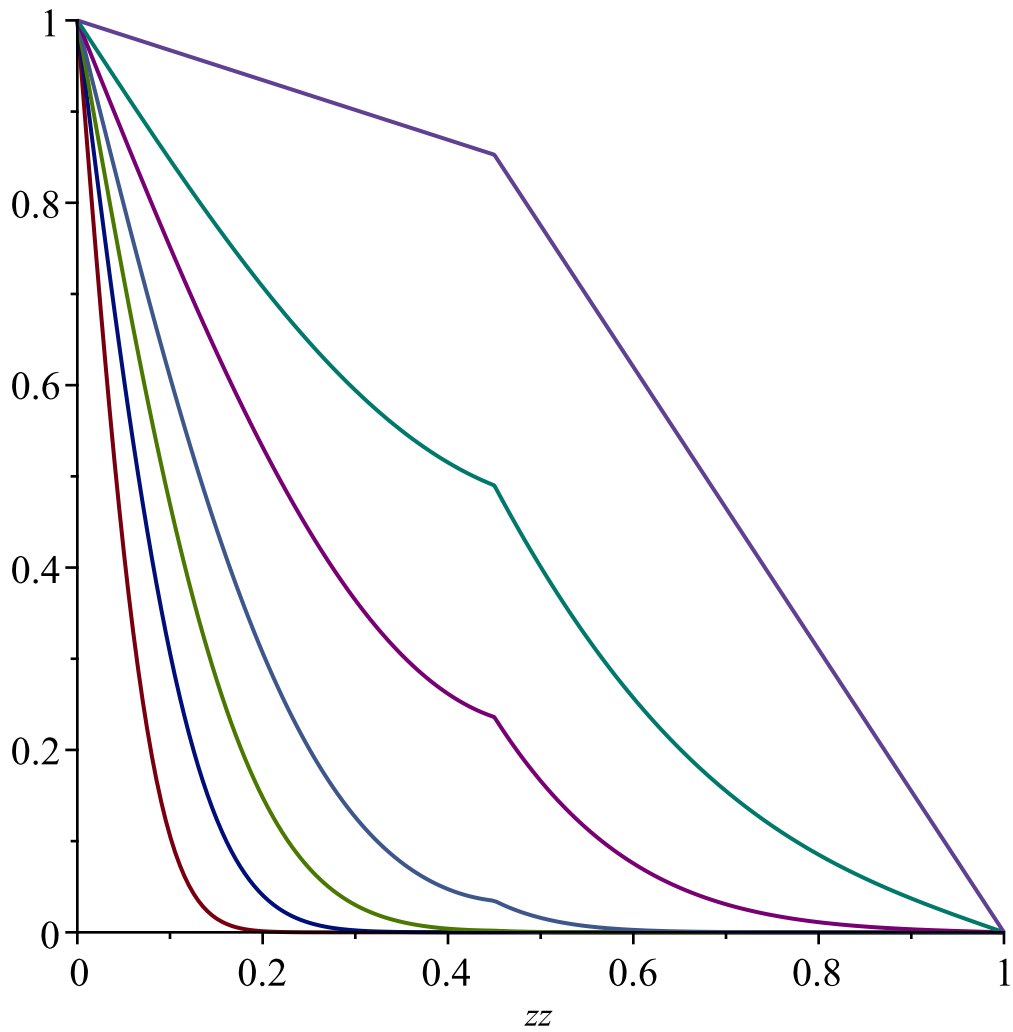
(35)

$$H := h1 + h2$$

2.0

(36)

$$p := \text{plot}([f(zz \cdot H, 86400 \cdot (2 \cdot 365)), f(zz \cdot H, 86400 \cdot (5 \cdot 365)), f(zz \cdot H, 86400 \cdot (10 \cdot 365)), f(zz \cdot H, 86400 \cdot (20 \cdot 365)), f(zz \cdot H, 86400 \cdot (50 \cdot 365)), f(zz \cdot H, 86400 \cdot (100 \cdot 365)), f(zz \cdot H, 86400 \cdot (2000 \cdot 365))], zz = 0 .. 1)$$



$$1 \qquad \qquad \qquad 1 \qquad \qquad \qquad (37)$$

$$\text{evalf}(f(h1, 0)) \qquad \qquad \qquad 0.0002115837 \qquad \qquad \qquad (38)$$

$$1 \qquad \qquad \qquad 1 \qquad \qquad \qquad (39)$$

$$B \qquad \qquad \qquad \left[\begin{array}{l} 1 \dots 186 \text{ Vector}_{column} \\ \text{Data Type: anything} \\ \text{Storage: rectangular} \\ \text{Order: Fortran_order} \end{array} \right] \qquad \qquad \qquad (40)$$

$$\begin{array}{l} c1 : \xrightarrow{\text{to visual basic}} \\ c2 : \xrightarrow{\text{to visual basic}} \\ \text{printf}("h1=\%f \backslash n \ h2=\%f \backslash n \ Ds1=\%f \backslash n \ Ds2=\%f \backslash n \ Rd1=\%f \backslash n \ Rd2=\%f \backslash n \ ", h1, h2, Ds1, Ds2, Rd1, \\ \quad Rd2); \\ \text{printf}("n1=\%f \backslash n \ n2=\%f \backslash n \ ", n1, n2); \end{array}$$

```
printf("delta=%f\n rho=%f\n nu=%f\n theta=%f\n mu=%f\n", delta, rho, nu, theta, mu);
printf("NN1=%d\n", NN1);
```

```
printf("c0=1\n");
```

```
printf(" dim A(%d) as double\n dim B(%d) as double\n dim beta(%d) as double\n dim lambda\n\n", NN1, NN1, NN1, NN1)
```

```
h1=0.900000
h2=1.100000
Ds1=0.000000
Ds2=0.000000
Rd1=3.300000
Rd2=1.000000
n1=0.444000
n2=0.375000
delta=0.250000
rho=0.303030
nu=0.844595
theta=1.222222
mu=1.100964
NN1=186
c0=1
dim A(186) as double
dim B(186) as double
dim beta(186) as double
dim lambda(186) as double
```

1

1

(41)

mod(99, 10)

9

(42)

```
for i from 1 to NN1 do
printf("lambda(%d)=%g: ", i, lambda[i]);
if mod(i, 5) = 0 then
printf("\n") :
fi:
od:
printf("\n\n") :
```

```
for i from 1 to NN1 do
printf("A(%d)=%g: ", i, A[i]);
if mod(i, 5) = 0 then
printf("\n") :
fi:
od:
printf("\n\n") :
```

```
for i from 1 to NN1 do
printf("B(%d)=%g: ", i, B[i]);
if mod(i, 5) = 0 then
```



```
printf("\n") :  
fi:  
od:  
printf("\n\n") :
```

```
for i from 1 to NN1 do  
printf("beta(%d)=%g : ", i, beta[i]);  
if mod(i, 5) = 0 then  
printf("\n") :  
fi:  
od:  
printf("\n\n") :
```

```
lambda(1)=1.47062 : lambda(2)=2.47036 : lambda(3)=4.30345 :  
lambda(4)=5.07645 : lambda(5)=6.8861 :  
lambda(6)=7.93156 : lambda(7)=9.3514 : lambda(8)=10.8716 : lambda  
(9)=11.8282 : lambda(10)=13.68 :  
lambda(11)=14.4597 : lambda(12)=16.2414 : lambda(13)=17.3346 :  
lambda(14)=18.7029 : lambda(15)=20.2712 :  
lambda(16)=21.1878 : lambda(17)=23.0532 : lambda(18)=23.8462 :  
lambda(19)=25.5956 : lambda(20)=26.7383 :  
lambda(21)=28.0547 : lambda(22)=29.669 : lambda(23)=30.5493 :  
lambda(24)=32.4234 : lambda(25)=33.2358 :  
lambda(26)=34.949 : lambda(27)=36.1424 : lambda(28)=37.4067 :  
lambda(29)=39.0647 : lambda(30)=39.913 :  
lambda(31)=41.7906 : lambda(32)=42.6281 : lambda(33)=44.3018 :  
lambda(34)=45.5467 : lambda(35)=46.7593 :  
lambda(36)=48.4581 : lambda(37)=49.2793 : lambda(38)=51.1553 :  
lambda(39)=52.023 : lambda(40)=53.654 :  
lambda(41)=54.9509 : lambda(42)=56.1125 : lambda(43)=57.8487 :  
lambda(44)=58.6483 : lambda(45)=60.5176 :  
lambda(46)=61.4201 : lambda(47)=63.0059 : lambda(48)=64.3547 :  
lambda(49)=65.4664 : lambda(50)=67.2364 :  
lambda(51)=68.0204 : lambda(52)=69.8778 : lambda(53)=70.819 :  
lambda(54)=72.3575 : lambda(55)=73.7581 :  
lambda(56)=74.8212 : lambda(57)=76.6209 : lambda(58)=77.3956 :  
lambda(59)=79.2363 : lambda(60)=80.2195 :  
lambda(61)=81.7089 : lambda(62)=83.1606 : lambda(63)=84.1772 :  
lambda(64)=86.0021 : lambda(65)=86.7743 :  
lambda(66)=88.5933 : lambda(67)=89.6213 : lambda(68)=91.0603 :  
lambda(69)=92.5621 : lambda(70)=93.5345 :  
lambda(71)=95.3799 : lambda(72)=96.1563 : lambda(73)=97.949 :  
lambda(74)=99.0241 : lambda(75)=100.412 :  
lambda(76)=101.962 : lambda(77)=102.893 : lambda(78)=104.754 :  
lambda(79)=105.542 : lambda(80)=107.304 :  
lambda(81)=108.428 : lambda(82)=109.763 : lambda(83)=111.361 :  
lambda(84)=112.254 : lambda(85)=114.126 :  
lambda(86)=114.93 : lambda(87)=116.657 : lambda(88)=117.832 :  
lambda(89)=119.115 : lambda(90)=120.757 :  
lambda(91)=121.617 : lambda(92)=123.494 : lambda(93)=124.321 :  
lambda(94)=126.01 : lambda(95)=127.236 :  
lambda(96)=128.468 : lambda(97)=130.152 : lambda(98)=130.982 :  
lambda(99)=132.86 : lambda(100)=133.715 :
```

lambda(101)=135.363 : lambda(102)=136.64 : lambda(103)=137.821 :
lambda(104)=139.543 : lambda(105)=140.35 :
lambda(106)=142.223 : lambda(107)=143.112 : lambda(108)=144.715 :
lambda(109)=146.044 : lambda(110)=147.174 :
lambda(111)=148.932 : lambda(112)=149.721 : lambda(113)=151.584 :
lambda(114)=152.51 : lambda(115)=154.066 :
lambda(116)=155.448 : lambda(117)=156.529 : lambda(118)=158.318 :
lambda(119)=159.095 : lambda(120)=160.943 :
lambda(121)=161.91 : lambda(122)=163.418 : lambda(123)=164.85 :
lambda(124)=165.884 : lambda(125)=167.7 :
lambda(126)=168.473 : lambda(127)=170.3 : lambda(128)=171.311 :
lambda(129)=172.769 : lambda(130)=174.252 :
lambda(131)=175.241 : lambda(132)=177.079 : lambda(133)=177.853 :
lambda(134)=179.656 : lambda(135)=180.714 :
lambda(136)=182.121 : lambda(137)=183.653 : lambda(138)=184.599 :
lambda(139)=186.455 : lambda(140)=187.237 :
lambda(141)=189.011 : lambda(142)=190.117 : lambda(143)=191.472 :
lambda(144)=193.052 : lambda(145)=193.959 :
lambda(146)=195.827 : lambda(147)=196.625 : lambda(148)=198.365 :
lambda(149)=199.521 : lambda(150)=200.824 :
lambda(151)=202.45 : lambda(152)=203.321 : lambda(153)=205.197 :
lambda(154)=206.015 : lambda(155)=207.719 :
lambda(156)=208.925 : lambda(157)=210.176 : lambda(158)=211.845 :
lambda(159)=212.686 : lambda(160)=214.563 :
lambda(161)=215.408 : lambda(162)=217.071 : lambda(163)=218.329 :
lambda(164)=219.529 : lambda(165)=221.237 :
lambda(166)=222.053 : lambda(167)=223.927 : lambda(168)=224.803 :
lambda(169)=226.423 : lambda(170)=227.733 :
lambda(171)=228.882 : lambda(172)=230.627 : lambda(173)=231.422 :
lambda(174)=233.289 : lambda(175)=234.201 :
lambda(176)=235.775 : lambda(177)=237.137 : lambda(178)=238.236 :
lambda(179)=240.014 : lambda(180)=240.795 :
lambda(181)=242.649 : lambda(182)=243.6 : lambda(183)=245.127 :
lambda(184)=246.54 : lambda(185)=247.591 :
lambda(186)=249.398 :

A(1)=1.08401: A(2)=-3.4254: A(3)=1.94104: A(4)=-1.79425: A(5)=
3.58833:
A(6)=-1.05125: A(7)=4.29074: A(8)=-1.12584: A(9)=3.25247: A(10)=
-2.10017:
A(11)=1.66095: A(12)=-3.73886: A(13)=1.02693: A(14)=-4.25803: A
(15)=1.17751:
A(16)=-3.07217: A(17)=2.26985: A(18)=-1.54169: A(19)=3.87485: A
(20)=-1.01053:
A(21)=4.20396: A(22)=-1.23991: A(23)=2.88734: A(24)=-2.44781: A
(25)=1.43649:
A(26)=-3.99444: A(27)=1.00174: A(28)=-4.1292: A(29)=1.31396: A
(30)=-2.70097:
A(31)=2.63134: A(32)=-1.34492: A(33)=4.09604: A(34)=-1.00036: A
(35)=4.03471:
A(36)=-1.4006: A(37)=2.51609: A(38)=-2.81751: A(39)=1.26625: A
(40)=-4.17832:
A(41)=1.00636: A(42)=-3.92169: A(43)=1.50063: A(44)=-2.33572: A
(45)=3.00327:
A(46)=-1.19959: A(47)=4.24023: A(48)=-1.01987: A(49)=3.79164: A
(50)=-1.61459:
A(51)=2.16264: A(52)=-3.18561: A(53)=1.14401: A(54)=-4.28101: A

(55)=1.04118:
A(56)=-3.64632: A(57)=1.74266: A(58)=-1.99932: A(59)=3.36162: A
(60)=-1.09859:
A(61)=4.30012: A(62)=-1.07071: A(63)=3.48778: A(64)=-1.8845: A
(65)=1.84774:
A(66)=-3.52859: A(67)=1.06251: A(68)=-4.29739: A(69)=1.10905: A
(70)=-3.3183:
A(71)=2.03918: A(72)=-1.70928: A(73)=3.68403: A(74)=-1.03509: A
(75)=4.27282:
A(76)=-1.15694: A(77)=3.14044: A(78)=-2.20515: A(79)=1.58473: A
(80)=-3.8257:
A(81)=1.01577: A(82)=-4.22668: A(83)=1.2152: A(84)=-2.95696: A
(85)=2.3803:
A(86)=-1.47429: A(87)=3.95165: A(88)=-1.00416: A(89)=4.15959: A
(90)=-1.28478:
A(91)=2.77081: A(92)=-2.56208: A(93)=1.37768: A(94)=-4.06016: A
(95)=1.00001:
A(96)=-4.07237: A(97)=1.3666: A(98)=-2.58502: A(99)=2.74761: A
(100)=-1.29428:
A(101)=4.14982: A(102)=-1.00324: A(103)=3.96613: A(104)=-1.46153:
A(105)=2.40262:
A(106)=-2.93388: A(107)=1.22323: A(108)=-4.21946: A(109)=1.01392:
A(110)=-3.84227:
A(111)=1.57022: A(112)=-2.22649: A(113)=3.11785: A(114)=-1.1636:
A(115)=4.26825:
A(116)=-1.03226: A(117)=3.70245: A(118)=-1.69302: A(119)=2.05926:
A(120)=-3.29657:
A(121)=1.11447: A(122)=-4.29554: A(123)=1.05864: A(124)=-3.54861:
A(125)=1.82977:
A(126)=-1.90308: A(127)=3.46723: A(128)=-1.07498: A(129)=4.30094:
A(130)=-1.0936:
A(131)=3.38294: A(132)=-1.97979: A(133)=1.75957: A(134)=-3.62727:
A(135)=1.04439:
A(136)=-4.28457: A(137)=1.13782: A(138)=-3.20791: A(139)=2.14174:
A(140)=-1.62976:
A(141)=3.77435: A(142)=-1.02209: A(143)=4.24646: A(144)=-1.19209:
A(145)=3.0262:
A(146)=-2.31373: A(147)=1.51404: A(148)=-3.9064: A(149)=1.00763:
A(150)=-4.18714:
A(151)=1.25732: A(152)=-2.8407: A(153)=2.49335: A(154)=-1.41231:
A(155)=4.02162:
A(156)=-1.0007: A(157)=4.10735: A(158)=-1.33444: A(159)=2.65442:
A(160)=-2.67782:
A(161)=1.32404: A(162)=-4.1185: A(163)=1.00117: A(164)=-4.00809:
A(165)=1.42437:
A(166)=-2.4704: A(167)=2.86417: A(168)=-1.24847: A(169)=4.19577:
A(170)=-1.00903:
A(171)=3.89066: A(172)=-1.52784: A(173)=2.29159: A(174)=-3.04936:
A(175)=1.18467:
A(176)=-4.25245: A(177)=1.02446: A(178)=-3.75661: A(179)=1.64534:
A(180)=-2.12075:
A(181)=3.23038: A(182)=-1.13171: A(183)=4.28784: A(184)=-1.04778:
A(185)=3.60778:
A(186)=-1.77691:

B(1)=-0.994437: B(2)=-0.173348: B(3)=-0.213325: B(4)=-0.196296: B
(5)=-0.0577667:

B(6)=-0.18738: B(7)=-0.0316424: B(8)=-0.131733: B(9)=-0.0392393:
B(10)=-0.0614352:
B(11)=-0.0742446: B(12)=-0.0229195: B(13)=-0.0867564: B(14)=-
-0.0160286: B(15)=-0.0688153:
B(16)=-0.0238827: B(17)=-0.0332183: B(18)=-0.0481049: B(19)=-
-0.0137164: B(20)=-0.05669:
B(21)=-0.0109199: B(22)=-0.0455196: B(23)=-0.018146: B(24)=-
-0.0214605: B(25)=-0.0365703:
B(26)=-0.00955185: B(27)=-0.0421162: B(28)=-0.00844175: B(29)=-
-0.0332433: B(30)=-0.0152676:
B(31)=-0.0151166: B(32)=-0.0299635: B(33)=-0.00722523: B(34)=-
-0.0334423: B(35)=-0.00702078:
B(36)=-0.0255774: B(37)=-0.0136176: B(38)=-0.0112243: B(39)=-
-0.0256031: B(40)=-0.00576919:
B(41)=-0.0276397: B(42)=-0.00613371: B(43)=-0.0202843: B(44)=-
-0.0125995: B(45)=-0.00864808:
B(46)=-0.0224548: B(47)=-0.00479195: B(48)=-0.0234484: B(49)=-
-0.00555742: B(50)=-0.0163846:
B(51)=-0.0119377: B(52)=-0.00685631: B(53)=-0.0200377: B(54)=-
-0.00410527: B(55)=-0.0202491:
B(56)=-0.00518125: B(57)=-0.0133861: B(58)=-0.0114829: B(59)=-
-0.00556588: B(60)=-0.0180987:
B(61)=-0.00360793: B(62)=-0.0177018: B(63)=-0.00494448: B(64)=-
-0.0110167: B(65)=-0.0111453:
B(66)=-0.00461203: B(67)=-0.016492: B(68)=-0.00324094: B(69)=-
-0.0156035: B(70)=-0.00481109:
B(71)=-0.00911386: B(72)=-0.0108674: B(73)=-0.00389261: B(74)=-
-0.0151272: B(75)=-0.00296795:
B(76)=-0.0138261: B(77)=-0.0047582: B(78)=-0.00757297: B(79)=-
-0.0106127: B(80)=-0.00334127:
B(81)=-0.0139447: B(82)=-0.00276564: B(83)=-0.0122848: B(84)=-
-0.00477005: B(85)=-0.0063212:
B(86)=-0.0103588: B(87)=-0.00291334: B(88)=-0.0129034: B(89)=-
-0.00261846: B(90)=-0.0109224:
B(91)=-0.00483453: B(92)=-0.005304: B(93)=-0.0100942: B(94)=-
-0.00257797: B(95)=-0.0119733:
B(96)=-0.00251596: B(97)=-0.00969992: B(98)=-0.004941: B(99)=-
-0.00447816: B(100)=-0.00981434:
B(101)=-0.00231333: B(102)=-0.0111321: B(103)=-0.00245103: B(104)
=-0.00859164: B(105)=-0.00507891:
B(106)=-0.00380829: B(107)=-0.00951946: B(108)=-0.00210378: B
(109)=-0.0103622: B(110)=-0.00241886:
B(111)=-0.00758153: B(112)=-0.00523707: B(113)=-0.00326516: B
(114)=-0.00921218: B(115)=-0.00193787:
B(116)=-0.00964967: B(117)=-0.00241622: B(118)=-0.00666071: B
(119)=-0.00540345: B(120)=-0.00282462:
B(121)=-0.00889614: B(122)=-0.00180726: B(123)=-0.00898299: B
(124)=-0.00244103: B(125)=-0.0058252:
B(126)=-0.0055658: B(127)=-0.00246694: B(128)=-0.00857495: B(129)
=-0.00170579: B(130)=-0.00835273:
B(131)=-0.00249193: B(132)=-0.00507364: B(133)=-0.00571258: B
(134)=-0.00217612: B(135)=-0.00825173:
B(136)=-0.00162874: B(137)=-0.00775108: B(138)=-0.00256793: B
(139)=-0.00440531: B(140)=-0.00583419:
B(141)=-0.00193931: B(142)=-0.00792881: B(143)=-0.00157292: B
(144)=-0.0071718: B(145)=-0.0026681:
B(146)=-0.00381855: B(147)=-0.00592386: B(148)=-0.00174632: B

(149)=-0.00760776: B(150)=-0.00153586:
B(151)=-0.0066102: B(152)=-0.00279111: B(153)=-0.00330994: B(154)
=-0.00597807: B(155)=-0.00158904:
B(156)=-0.00728939: B(157)=-0.00151592: B(158)=-0.00606336: B
(159)=-0.00293488: B(160)=-0.00287419:
B(161)=-0.00599637: B(162)=-0.0014611: B(163)=-0.00697387: B(164)
=-0.00151203: B(165)=-0.00553031:
B(166)=-0.00309615: B(167)=-0.00250451: B(168)=-0.00598066: B
(169)=-0.00135748: B(170)=-0.00666081:
B(171)=-0.00152362: B(172)=-0.00501215: B(173)=-0.00327021: B
(174)=-0.00219331: B(175)=-0.00593438:
B(176)=-0.0012743: B(177)=-0.00634941: B(178)=-0.00155048: B(179)
=-0.00451198: B(180)=-0.00345084:
B(181)=-0.00193287: B(182)=-0.00586171: B(183)=-0.00120852: B
(184)=-0.00603853: B(185)=-0.00159276:
B(186)=-0.00403451:

beta(1)=3.23640e-10 : beta(2)=9.13235e-10 : beta(3)=2.77138e-09 :
beta(4)=3.85639e-09 : beta(5)=7.09590e-09 :
beta(6)=9.41408e-09 : beta(7)=1.30862e-08 : beta(8)=1.76869e-08 :
beta(9)=2.09364e-08 : beta(10)=2.80048e-08 :
beta(11)=3.12882e-08 : beta(12)=3.94735e-08 : beta(13)=
4.49666e-08 : beta(14)=5.23455e-08 : beta(15)=6.14922e-08 :
beta(16)=6.71789e-08 : beta(17)=7.95289e-08 : beta(18)=
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1.39657e-07 : beta(24)=1.57318e-07 : beta(25)=1.65300e-07 :
beta(26)=1.82781e-07 : beta(27)=1.95477e-07 : beta(28)=
2.09392e-07 : beta(29)=2.28366e-07 : beta(30)=2.38391e-07 :
beta(31)=2.61348e-07 : beta(32)=2.71928e-07 : beta(33)=
2.93700e-07 : beta(34)=3.10438e-07 : beta(35)=3.27188e-07 :
beta(36)=3.51393e-07 : beta(37)=3.63404e-07 : beta(38)=
3.91599e-07 : beta(39)=4.04997e-07 : beta(40)=4.30790e-07 :
beta(41)=4.51866e-07 : beta(42)=4.71172e-07 : beta(43)=
5.00782e-07 : beta(44)=5.14721e-07 : beta(45)=5.48055e-07 :
beta(46)=5.64523e-07 : beta(47)=5.94051e-07 : beta(48)=
6.19758e-07 : beta(49)=6.41354e-07 : beta(50)=6.76504e-07 :
beta(51)=6.92371e-07 : beta(52)=7.30701e-07 : beta(53)=
7.50518e-07 : beta(54)=7.83480e-07 : beta(55)=8.14105e-07 :
beta(56)=8.37743e-07 : beta(57)=8.78528e-07 : beta(58)=
8.96384e-07 : beta(59)=9.39527e-07 : beta(60)=9.62989e-07 :
beta(61)=9.99079e-07 : beta(62)=1.03490e-06 : beta(63)=
1.06035e-06 : beta(64)=1.10682e-06 : beta(65)=1.12679e-06 :
beta(66)=1.17453e-06 : beta(67)=1.20194e-06 : beta(68)=
1.24085e-06 : beta(69)=1.28212e-06 : beta(70)=1.30920e-06 :
beta(71)=1.36136e-06 : beta(72)=1.38362e-06 : beta(73)=
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beta(76)=1.55575e-06 : beta(77)=1.58430e-06 : beta(78)=
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beta(81)=1.75930e-06 : beta(82)=1.80292e-06 : beta(83)=
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beta(86)=1.97664e-06 : beta(87)=2.03650e-06 : beta(88)=
2.07771e-06 : beta(89)=2.12323e-06 : beta(90)=2.18217e-06 :
beta(91)=2.21335e-06 : beta(92)=2.28219e-06 : beta(93)=
2.31288e-06 : beta(94)=2.37615e-06 : beta(95)=2.42259e-06 :
beta(96)=2.46973e-06 : beta(97)=2.53489e-06 : beta(98)=
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beta(101)=2.74195e-06 : beta(102)=2.79394e-06 : beta(103)=
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beta(106)=3.02690e-06 : beta(107)=3.06486e-06 : beta(108)=
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beta(111)=3.31923e-06 : beta(112)=3.35450e-06 : beta(113)=
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beta(116)=3.61601e-06 : beta(117)=3.66648e-06 : beta(118)=
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beta(121)=3.92290e-06 : beta(122)=3.99632e-06 : beta(123)=
4.06669e-06 : beta(124)=4.11786e-06 : beta(125)=4.20851e-06 :
beta(126)=4.24736e-06 : beta(127)=4.34002e-06 : beta(128)=
4.39170e-06 : beta(129)=4.46677e-06 : beta(130)=4.54379e-06 :
beta(131)=4.59550e-06 : beta(132)=4.69242e-06 : beta(133)=
4.73353e-06 : beta(134)=4.82999e-06 : beta(135)=4.88701e-06 :
beta(136)=4.96340e-06 : beta(137)=5.04728e-06 : beta(138)=
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beta(141)=5.34610e-06 : beta(142)=5.40882e-06 : beta(143)=
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beta(146)=5.73863e-06 : beta(147)=5.78545e-06 : beta(148)=
5.88834e-06 : beta(149)=5.95713e-06 : beta(150)=6.03521e-06 :
beta(151)=6.13331e-06 : beta(152)=6.18625e-06 : beta(153)=
6.30090e-06 : beta(154)=6.35124e-06 : beta(155)=6.45672e-06 :
beta(156)=6.53193e-06 : beta(157)=6.61041e-06 : beta(158)=
6.71578e-06 : beta(159)=6.76921e-06 : beta(160)=6.88926e-06 :
beta(161)=6.94360e-06 : beta(162)=7.05124e-06 : beta(163)=
7.13320e-06 : beta(164)=7.21181e-06 : beta(165)=7.32450e-06 :
beta(166)=7.37858e-06 : beta(167)=7.50370e-06 : beta(168)=
7.56253e-06 : beta(169)=7.67191e-06 : beta(170)=7.76093e-06 :
beta(171)=7.83944e-06 : beta(172)=7.95944e-06 : beta(173)=
8.01441e-06 : beta(174)=8.14423e-06 : beta(175)=8.20803e-06 :
beta(176)=8.31873e-06 : beta(177)=8.41511e-06 : beta(178)=
8.49331e-06 : beta(179)=8.62055e-06 : beta(180)=8.67675e-06 :
beta(181)=8.81085e-06 : beta(182)=8.88008e-06 : beta(183)=
8.99171e-06 : beta(184)=9.09571e-06 : beta(185)=9.17345e-06 :
beta(186)=9.30779e-06 :