

```

commandwindow
clear
clc
A=[0 10 4 -2; -3 -17 1 2; 1 1 1 0; 8 -34 16 -10];
S=[-4;2;6;4];
Aq=inv(A)
wxyz=Aq*S
Aq =

    -0.17857    -0.10204     0.57143     0.015306
    0.035714   -0.015306    0.035714   -0.010204
    0.14286     0.11735     0.39286    -0.005102
   -0.035714     0.15816     0.96429    -0.061224

```

```

wxyz =

         4
   -9.7145e-17
         2
         6

```

```

commandwindow
clear
clc
close all
syms t
d=1.5*exp(-0.75*t)*sin(0.82*t)+0.375*t
tn=[0:0.01:2.5]
dn=subs(d,tn)
figure(1)
plot(dn,tn)
xlabel('x')
ylabel('y')
grid on
grid minor
axis tight
v=diff(d)
vn=subs(v,tn)
figure(2)
plot(tn,vn)
xlabel('time (min)')
ylabel('velocity(m/mins)')
grid on
grid minor
axis tight
a=diff(v)
an=subs(a,tn)
figure(3)
plot(tn,an)
xlabel('time (min)')
ylabel('Acceleration(m/min)')
grid on
grid minor
axis tight
figure(4)
plot(tn,dn,tn,vn,tn,an)

```

```
xlabel('time (min)')
ylabel('variable')
legend('Distance (min)', 'Velocity (m/min)', 'Acceleration (m/min^2)', 'Location', 'Best')
d =
```

$$(3*t)/8 + (3*\sin((41*t)/50)*\exp(-(3*t)/4))/2$$

tn =

Columns 1 through 9

0 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08

Columns 10 through 18

0.09 0.1 0.11 0.12 0.13 0.14 0.15 0.16 0.17

Columns 19 through 27

0.18 0.19 0.2 0.21 0.22 0.23 0.24 0.25 0.26

Columns 28 through 36

0.27 0.28 0.29 0.3 0.31 0.32 0.33 0.34 0.35

Columns 37 through 45

0.36 0.37 0.38 0.39 0.4 0.41 0.42 0.43 0.44

Columns 46 through 54

0.45 0.46 0.47 0.48 0.49 0.5 0.51 0.52 0.53

Columns 55 through 63

0.54 0.55 0.56 0.57 0.58 0.59 0.6 0.61 0.62

Columns 64 through 72

0.63 0.64 0.65 0.66 0.67 0.68 0.69 0.7 0.71

Columns 73 through 81

0.72 0.73 0.74 0.75 0.76 0.77 0.78 0.79 0.8

Columns 82 through 90

0.81 0.82 0.83 0.84 0.85 0.86 0.87 0.88 0.89

Columns 91 through 99

0.9 0.91 0.92 0.93 0.94 0.95 0.96 0.97 0.98

Columns 100 through 108

0.99 1 1.01 1.02 1.03 1.04 1.05 1.06 1.07

Columns 109 through 117

1.08 1.09 1.1 1.11 1.12 1.13 1.14 1.15 1.16

Columns 118 through 126

1.17 1.18 1.19 1.2 1.21 1.22 1.23 1.24 1.25

Columns 127 through 135

1.26 1.27 1.28 1.29 1.3 1.31 1.32 1.33 1.34

Columns 136 through 144

1.35 1.36 1.37 1.38 1.39 1.4 1.41 1.42 1.43

Columns 145 through 153

1.44 1.45 1.46 1.47 1.48 1.49 1.5 1.51 1.52

Columns 154 through 162

1.53 1.54 1.55 1.56 1.57 1.58 1.59 1.6 1.61

Columns 163 through 171

1.62 1.63 1.64 1.65 1.66 1.67 1.68 1.69 1.7

Columns 172 through 180

1.71 1.72 1.73 1.74 1.75 1.76 1.77 1.78 1.79

Columns 181 through 189

1.8 1.81 1.82 1.83 1.84 1.85 1.86 1.87 1.88

Columns 190 through 198

1.89 1.9 1.91 1.92 1.93 1.94 1.95 1.96 1.97

Columns 199 through 207

1.98 1.99 2 2.01 2.02 2.03 2.04 2.05 2.06

Columns 208 through 216

2.07 2.08 2.09 2.1 2.11 2.12 2.13 2.14 2.15

Columns 217 through 225

2.16 2.17 2.18 2.19 2.2 2.21 2.22 2.23 2.24

Columns 226 through 234

2.25 2.26 2.27 2.28 2.29 2.3 2.31 2.32 2.33

Columns 235 through 243

2.34 2.35 2.36 2.37 2.38 2.39 2.4 2.41 2.42

Columns 244 through 251

2.43 2.44 2.45 2.46 2.47 2.48 2.49 2.5

dn =

[0, (3*exp(-3/400)*sin(41/5000))/2 + 3/800, (3*exp(-3/200)*sin(41/2500))/2 + 3/400, (3*exp(-9/400)*sin(123/5000))/2 + 9/800, (3*exp(-3/100)*sin(41/1250))/2 + 3/200, (3*exp(-3/80)*sin(41/1000))/2 + 3/160, (3*exp(-9/200)*sin(123/2500))/2 + 9/400, (3*exp(-21/400)*sin(287/5000))/2 + 21/800, (3*exp(-3/50)*sin(41/625))/2 + 3/100, (3*exp(-27/400)*sin(369/5000))/2 + 27/800, (3*exp(-3/40)*sin(41/500))/2 + 3/80, (3*exp(-33/400)*sin(451/5000))/2 + 33/800, (3*exp(-9/100)*sin(123/1250))/2 + 9/200, (3*exp(-39/400)*sin(533/5000))/2 + 39/800, (3*exp(-21/200)*sin(287/2500))/2 + 21/400, (3*exp(-9/80)*sin(123/1000))/2 + 9/160, (3*exp(-3/25)*sin(82/625))/2 + 3/50, (3*exp(-51/400)*sin(697/5000))/2 + 51/800, (3*exp(-27/200)*sin(369/2500))/2 + 27/400, (3*exp(-57/400)*sin(779/5000))/2 + 57/800, (3*exp(-3/20)*sin(41/250))/2 + 3/40, (3*exp(-63/400)*sin(861/5000))/2 + 63/800, (3*exp(-33/200)*sin(451/2500))/2 + 33/400, (3*exp(-69/400)*sin(943/5000))/2 + 69/800, (3*exp(-9/50)*sin(123/625))/2 + 9/100, (3*exp(-3/16)*sin(41/200))/2 + 3/32, (3*exp(-39/200)*sin(533/2500))/2 + 39/400, (3*exp(-81/400)*sin(1107/5000))/2 + 81/800, (3*exp(-21/100)*sin(287/1250))/2 + 21/200, (3*exp(-87/400)*sin(1189/5000))/2 + 87/800, (3*exp(-9/40)*sin(123/500))/2 + 9/80, (3*exp(-93/400)*sin(1271/5000))/2 + 93/800, (3*exp(-6/25)*sin(164/625))/2 + 3/25, (3*exp(-99/400)*sin(1353/5000))/2 + 99/800, (3*exp(-51/200)*sin(697/2500))/2 + 51/400, (3*exp(-21/80)*sin(287/1000))/2 + 21/160, (3*exp(-27/100)*sin(369/1250))/2 + 27/200, (3*exp(-111/400)*sin(1517/5000))/2 + 111/800, (3*exp(-57/200)*sin(779/2500))/2 + 57/400, (3*exp(-117/400)*sin(1599/5000))/2 + 117/800, (3*exp(-3/10)*sin(41/125))/2 + 3/20, (3*exp(-123/400)*sin(1681/5000))/2 + 123/800, (3*exp(-63/200)*sin(861/2500))/2 + 63/400, (3*exp(-129/400)*sin(1763/5000))/2 + 129/800, (3*exp(-33/100)*sin(451/1250))/2 + 33/200, (3*exp(-27/80)*sin(369/1000))/2 + 27/160, (3*exp(-69/200)*sin(943/2500))/2 + 69/400, (3*exp(-141/400)*sin(1927/5000))/2 + 141/800, (3*exp(-9/25)*sin(246/625))/2 + 9/50, (3*exp(-147/400)*sin(2009/5000))/2 + 147/800, (3*exp(-3/8)*sin(41/100))/2 + 3/16, (3*exp(-153/400)*sin(2091/5000))/2 + 153/800, (3*exp(-39/100)*sin(533/1250))/2 + 39/200, (3*exp(-159/400)*sin(2173/5000))/2 + 159/800, (3*exp(-81/200)*sin(1107/2500))/2 + 81/400, (3*exp(-33/80)*sin(451/1000))/2 + 33/160, (3*exp(-21/50)*sin(287/625))/2 + 21/100, (3*exp(-171/400)*sin(2337/5000))/2 + 171/800, (3*exp(-87/200)*sin(1189/2500))/2 + 87/400, (3*exp(-177/400)*sin(2419/5000))/2 + 177/800, (3*exp(-9/20)*sin(123/250))/2 + 9/40, (3*exp(-183/400)*sin(2501/5000))/2 + 183/800, (3*exp(-93/200)*sin(1271/2500))/2 + 93/400, (3*exp(-189/400)*sin(2583/5000))/2 + 189/800, (3*exp(-12/25)*sin(328/625))/2 + 6/25, (3*exp(-

$39/80 \cdot \sin(533/1000))/2 + 39/160, (3 \cdot \exp(-99/200) \cdot \sin(1353/2500))/2 + 99/400, (3 \cdot \exp(-201/400) \cdot \sin(2747/5000))/2 + 201/800, (3 \cdot \exp(-51/100) \cdot \sin(697/1250))/2 + 51/200, (3 \cdot \exp(-207/400) \cdot \sin(2829/5000))/2 + 207/800, (3 \cdot \exp(-21/40) \cdot \sin(287/500))/2 + 21/80, (3 \cdot \exp(-213/400) \cdot \sin(2911/5000))/2 + 213/800, (3 \cdot \exp(-27/50) \cdot \sin(369/625))/2 + 27/100, (3 \cdot \exp(-219/400) \cdot \sin(2993/5000))/2 + 219/800, (3 \cdot \exp(-111/200) \cdot \sin(1517/2500))/2 + 111/400, (3 \cdot \exp(-9/16) \cdot \sin(123/200))/2 + 9/32, (3 \cdot \exp(-57/100) \cdot \sin(779/1250))/2 + 57/200, (3 \cdot \exp(-231/400) \cdot \sin(3157/5000))/2 + 231/800, (3 \cdot \exp(-117/200) \cdot \sin(1599/2500))/2 + 117/400, (3 \cdot \exp(-237/400) \cdot \sin(3239/5000))/2 + 237/800, (3 \cdot \exp(-3/5) \cdot \sin(82/125))/2 + 3/10, (3 \cdot \exp(-243/400) \cdot \sin(3321/5000))/2 + 243/800, (3 \cdot \exp(-123/200) \cdot \sin(1681/2500))/2 + 123/400, (3 \cdot \exp(-249/400) \cdot \sin(3403/5000))/2 + 249/800, (3 \cdot \exp(-63/100) \cdot \sin(861/1250))/2 + 63/200, (3 \cdot \exp(-51/80) \cdot \sin(697/1000))/2 + 51/160, (3 \cdot \exp(-129/200) \cdot \sin(1763/2500))/2 + 129/400, (3 \cdot \exp(-261/400) \cdot \sin(3567/5000))/2 + 261/800, (3 \cdot \exp(-33/50) \cdot \sin(451/625))/2 + 33/100, (3 \cdot \exp(-267/400) \cdot \sin(3649/5000))/2 + 267/800, (3 \cdot \exp(-27/40) \cdot \sin(369/500))/2 + 27/80, (3 \cdot \exp(-273/400) \cdot \sin(3731/5000))/2 + 273/800, (3 \cdot \exp(-69/100) \cdot \sin(943/1250))/2 + 69/200, (3 \cdot \exp(-279/400) \cdot \sin(3813/5000))/2 + 279/800, (3 \cdot \exp(-141/200) \cdot \sin(1927/2500))/2 + 141/400, (3 \cdot \exp(-57/80) \cdot \sin(779/1000))/2 + 57/160, (3 \cdot \exp(-18/25) \cdot \sin(492/625))/2 + 9/25, (3 \cdot \exp(-291/400) \cdot \sin(3977/5000))/2 + 291/800, (3 \cdot \exp(-147/200) \cdot \sin(2009/2500))/2 + 147/400, (3 \cdot \exp(-297/400) \cdot \sin(4059/5000))/2 + 297/800, (3 \cdot \exp(-3/4) \cdot \sin(41/50))/2 + 3/8, (3 \cdot \exp(-303/400) \cdot \sin(4141/5000))/2 + 303/800, (3 \cdot \exp(-153/200) \cdot \sin(2091/2500))/2 + 153/400, (3 \cdot \exp(-309/400) \cdot \sin(4223/5000))/2 + 309/800, (3 \cdot \exp(-39/50) \cdot \sin(533/625))/2 + 39/100, (3 \cdot \exp(-63/80) \cdot \sin(861/1000))/2 + 63/160, (3 \cdot \exp(-159/200) \cdot \sin(2173/2500))/2 + 159/400, (3 \cdot \exp(-321/400) \cdot \sin(4387/5000))/2 + 321/800, (3 \cdot \exp(-81/100) \cdot \sin(1107/1250))/2 + 81/200, (3 \cdot \exp(-327/400) \cdot \sin(4469/5000))/2 + 327/800, (3 \cdot \exp(-33/40) \cdot \sin(451/500))/2 + 33/80, (3 \cdot \exp(-333/400) \cdot \sin(4551/5000))/2 + 333/800, (3 \cdot \exp(-21/25) \cdot \sin(574/625))/2 + 21/50, (3 \cdot \exp(-339/400) \cdot \sin(4633/5000))/2 + 339/800, (3 \cdot \exp(-171/200) \cdot \sin(2337/2500))/2 + 171/400, (3 \cdot \exp(-69/80) \cdot \sin(943/1000))/2 + 69/160, (3 \cdot \exp(-87/100) \cdot \sin(1189/1250))/2 + 87/200, (3 \cdot \exp(-351/400) \cdot \sin(4797/5000))/2 + 351/800, (3 \cdot \exp(-177/200) \cdot \sin(2419/2500))/2 + 177/400, (3 \cdot \exp(-357/400) \cdot \sin(4879/5000))/2 + 357/800, (3 \cdot \exp(-9/10) \cdot \sin(123/125))/2 + 9/20, (3 \cdot \exp(-363/400) \cdot \sin(4961/5000))/2 + 363/800, (3 \cdot \exp(-183/200) \cdot \sin(2501/2500))/2 + 183/400, (3 \cdot \exp(-369/400) \cdot \sin(5043/5000))/2 + 369/800, (3 \cdot \exp(-93/100) \cdot \sin(1271/1250))/2 + 93/200, (3 \cdot \exp(-15/16) \cdot \sin(41/40))/2 + 15/32, (3 \cdot \exp(-189/200) \cdot \sin(2583/2500))/2 + 189/400, (3 \cdot \exp(-381/400) \cdot \sin(5207/5000))/2 + 381/800, (3 \cdot \exp(-24/25) \cdot \sin(656/625))/2 + 12/25, (3 \cdot \exp(-387/400) \cdot \sin(5289/5000))/2 + 387/800, (3 \cdot \exp(-39/40) \cdot \sin(533/500))/2 + 39/80, (3 \cdot \exp(-393/400) \cdot \sin(5371/5000))/2 + 393/800, (3 \cdot \exp(-99/100) \cdot \sin(1353/1250))/2 + 99/200, (3 \cdot \exp(-399/400) \cdot \sin(5453/5000))/2 + 399/800, (3 \cdot \exp(-201/200) \cdot \sin(2747/2500))/2 + 201/400, (3 \cdot \exp(-81/80) \cdot \sin(1107/1000))/2 + 81/160, (3 \cdot \exp(-51/50) \cdot \sin(697/625))/2 + 51/100, (3 \cdot \exp(-411/400) \cdot \sin(5617/5000))/2 + 411/800, (3 \cdot \exp(-207/200) \cdot \sin(2829/2500))/2 + 207/400, (3 \cdot \exp(-417/400) \cdot \sin(5699/5000))/2 + 417/800, (3 \cdot \exp(-21/20) \cdot \sin(287/250))/2 + 21/40, (3 \cdot \exp(-423/400) \cdot \sin(5781/5000))/2 + 423/800, (3 \cdot \exp(-213/200) \cdot \sin(2911/2500))/2 + 213/400, (3 \cdot \exp(-429/400) \cdot \sin(5863/5000))/2 + 429/800, (3 \cdot \exp(-27/25) \cdot \sin(738/625))/2 + 27/50, (3 \cdot \exp(-87/80) \cdot \sin(1189/1000))/2 + 87/160, (3 \cdot \exp(-219/200) \cdot \sin(2993/2500))/2 + 219/400, (3 \cdot \exp(-441/400) \cdot \sin(6027/5000))/2 + 441/800, (3 \cdot \exp(-111/100) \cdot \sin(1517/1250))/2 + 111/200, (3 \cdot \exp(-447/400) \cdot \sin(6109/5000))/2 + 447/800, (3 \cdot \exp(-9/8) \cdot \sin(123/100))/2 + 9/16, (3 \cdot \exp(-453/400) \cdot \sin(6191/5000))/2 + 453/800, (3 \cdot \exp(-57/50) \cdot \sin(779/625))/2 + 57/100, (3 \cdot \exp(-$

$459/400 * \sin(6273/5000) / 2 + 459/800, (3 * \exp(-231/200) * \sin(3157/2500)) / 2 + 231/400, (3 * \exp(-93/80) * \sin(1271/1000)) / 2 + 93/160, (3 * \exp(-117/100) * \sin(1599/1250)) / 2 + 117/200, (3 * \exp(-471/400) * \sin(6437/5000)) / 2 + 471/800, (3 * \exp(-237/200) * \sin(3239/2500)) / 2 + 237/400, (3 * \exp(-477/400) * \sin(6519/5000)) / 2 + 477/800, (3 * \exp(-6/5) * \sin(164/125)) / 2 + 3/5, (3 * \exp(-483/400) * \sin(6601/5000)) / 2 + 483/800, (3 * \exp(-243/200) * \sin(3321/2500)) / 2 + 243/400, (3 * \exp(-489/400) * \sin(6683/5000)) / 2 + 489/800, (3 * \exp(-123/100) * \sin(1681/1250)) / 2 + 123/200, (3 * \exp(-99/80) * \sin(1353/1000)) / 2 + 99/160, (3 * \exp(-249/200) * \sin(3403/2500)) / 2 + 249/400, (3 * \exp(-501/400) * \sin(6847/5000)) / 2 + 501/800, (3 * \exp(-63/50) * \sin(861/625)) / 2 + 63/100, (3 * \exp(-507/400) * \sin(6929/5000)) / 2 + 507/800, (3 * \exp(-51/40) * \sin(697/500)) / 2 + 51/80, (3 * \exp(-513/400) * \sin(7011/5000)) / 2 + 513/800, (3 * \exp(-129/100) * \sin(1763/1250)) / 2 + 129/200, (3 * \exp(-519/400) * \sin(7093/5000)) / 2 + 519/800, (3 * \exp(-261/200) * \sin(3567/2500)) / 2 + 261/400, (3 * \exp(-21/16) * \sin(287/200)) / 2 + 21/32, (3 * \exp(-33/25) * \sin(902/625)) / 2 + 33/50, (3 * \exp(-531/400) * \sin(7257/5000)) / 2 + 531/800, (3 * \exp(-267/200) * \sin(3649/2500)) / 2 + 267/400, (3 * \exp(-537/400) * \sin(7339/5000)) / 2 + 537/800, (3 * \exp(-27/20) * \sin(369/250)) / 2 + 27/40, (3 * \exp(-543/400) * \sin(7421/5000)) / 2 + 543/800, (3 * \exp(-273/200) * \sin(3731/2500)) / 2 + 273/400, (3 * \exp(-549/400) * \sin(7503/5000)) / 2 + 549/800, (3 * \exp(-69/50) * \sin(943/625)) / 2 + 69/100, (3 * \exp(-111/80) * \sin(1517/1000)) / 2 + 111/160, (3 * \exp(-279/200) * \sin(3813/2500)) / 2 + 279/400, (3 * \exp(-561/400) * \sin(7667/5000)) / 2 + 561/800, (3 * \exp(-141/100) * \sin(1927/1250)) / 2 + 141/200, (3 * \exp(-567/400) * \sin(7749/5000)) / 2 + 567/800, (3 * \exp(-57/40) * \sin(779/500)) / 2 + 57/80, (3 * \exp(-573/400) * \sin(7831/5000)) / 2 + 573/800, (3 * \exp(-36/25) * \sin(984/625)) / 2 + 18/25, (3 * \exp(-579/400) * \sin(7913/5000)) / 2 + 579/800, (3 * \exp(-291/200) * \sin(3977/2500)) / 2 + 291/400, (3 * \exp(-117/80) * \sin(1599/1000)) / 2 + 117/160, (3 * \exp(-147/100) * \sin(2009/1250)) / 2 + 147/200, (3 * \exp(-591/400) * \sin(8077/5000)) / 2 + 591/800, (3 * \exp(-297/200) * \sin(4059/2500)) / 2 + 297/400, (3 * \exp(-597/400) * \sin(8159/5000)) / 2 + 597/800, (3 * \exp(-3/2) * \sin(41/25)) / 2 + 3/4, (3 * \exp(-603/400) * \sin(8241/5000)) / 2 + 603/800, (3 * \exp(-303/200) * \sin(4141/2500)) / 2 + 303/400, (3 * \exp(-609/400) * \sin(8323/5000)) / 2 + 609/800, (3 * \exp(-153/100) * \sin(2091/1250)) / 2 + 153/200, (3 * \exp(-123/80) * \sin(1681/1000)) / 2 + 123/160, (3 * \exp(-309/200) * \sin(4223/2500)) / 2 + 309/400, (3 * \exp(-621/400) * \sin(8487/5000)) / 2 + 621/800, (3 * \exp(-39/25) * \sin(1066/625)) / 2 + 39/50, (3 * \exp(-627/400) * \sin(8569/5000)) / 2 + 627/800, (3 * \exp(-63/40) * \sin(861/500)) / 2 + 63/80, (3 * \exp(-633/400) * \sin(8651/5000)) / 2 + 633/800, (3 * \exp(-159/100) * \sin(2173/1250)) / 2 + 159/200, (3 * \exp(-639/400) * \sin(8733/5000)) / 2 + 639/800, (3 * \exp(-321/200) * \sin(4387/2500)) / 2 + 321/400, (3 * \exp(-129/80) * \sin(1763/1000)) / 2 + 129/160, (3 * \exp(-81/50) * \sin(1107/625)) / 2 + 81/100, (3 * \exp(-651/400) * \sin(8897/5000)) / 2 + 651/800, (3 * \exp(-327/200) * \sin(4469/2500)) / 2 + 327/400, (3 * \exp(-657/400) * \sin(8979/5000)) / 2 + 657/800, (3 * \exp(-33/20) * \sin(451/250)) / 2 + 33/40, (3 * \exp(-663/400) * \sin(9061/5000)) / 2 + 663/800, (3 * \exp(-333/200) * \sin(4551/2500)) / 2 + 333/400, (3 * \exp(-669/400) * \sin(9143/5000)) / 2 + 669/800, (3 * \exp(-42/25) * \sin(1148/625)) / 2 + 21/25, (3 * \exp(-27/16) * \sin(369/200)) / 2 + 27/32, (3 * \exp(-339/200) * \sin(4633/2500)) / 2 + 339/400, (3 * \exp(-681/400) * \sin(9307/5000)) / 2 + 681/800, (3 * \exp(-171/100) * \sin(2337/1250)) / 2 + 171/200, (3 * \exp(-687/400) * \sin(9389/5000)) / 2 + 687/800, (3 * \exp(-69/40) * \sin(943/500)) / 2 + 69/80, (3 * \exp(-693/400) * \sin(9471/5000)) / 2 + 693/800, (3 * \exp(-87/50) * \sin(1189/625)) / 2 + 87/100, (3 * \exp(-699/400) * \sin(9553/5000)) / 2 + 699/800, (3 * \exp(-351/200) * \sin(4797/2500)) / 2 + 351/400, (3 * \exp(-141/80) * \sin(1927/1000)) / 2 + 141/160, (3 * \exp(-177/100) * \sin(2419/1250)) / 2 + 177/200, (3 * \exp(-711/400) * \sin(9717/5000)) / 2 + 711/800, (3 * \exp(-357/200) * \sin(4879/2500)) / 2 + 357/400, (3 * \exp(-717/400) * \sin(9799/5000)) / 2 + 717/800, (3 * \exp(-9/5) * \sin(246/125)) / 2 + 9/10, (3 * \exp(-$

$723/400 * \sin(9881/5000))/2 + 723/800, (3 * \exp(-363/200) * \sin(4961/2500))/2 + 363/400, (3 * \exp(-729/400) * \sin(9963/5000))/2 + 729/800, (3 * \exp(-183/100) * \sin(2501/1250))/2 + 183/200, (3 * \exp(-147/80) * \sin(2009/1000))/2 + 147/160, (3 * \exp(-369/200) * \sin(5043/2500))/2 + 369/400, (3 * \exp(-741/400) * \sin(10127/5000))/2 + 741/800, (3 * \exp(-93/50) * \sin(1271/625))/2 + 93/100, (3 * \exp(-747/400) * \sin(10209/5000))/2 + 747/800, (3 * \exp(-15/8) * \sin(41/20))/2 + 15/16]$

v =

$(123 * \cos((41 * t)/50) * \exp(-(3 * t)/4))/100 - (9 * \sin((41 * t)/50) * \exp(-(3 * t)/4))/8 + 3/8$

vn =

$[321/200, (123 * \cos(41/5000) * \exp(-3/400))/100 - (9 * \exp(-3/400) * \sin(41/5000))/8 + 3/8,$
 $(123 * \cos(41/2500) * \exp(-3/200))/100 - (9 * \exp(-3/200) * \sin(41/2500))/8 + 3/8, (123 * \cos(123/5000) * \exp(-9/400))/100 - (9 * \exp(-9/400) * \sin(123/5000))/8 + 3/8, (123 * \cos(41/1250) * \exp(-3/100))/100 - (9 * \exp(-3/100) * \sin(41/1250))/8 + 3/8,$
 $(123 * \cos(41/1000) * \exp(-3/80))/100 - (9 * \exp(-3/80) * \sin(41/1000))/8 + 3/8, (123 * \cos(123/2500) * \exp(-9/200))/100 - (9 * \exp(-9/200) * \sin(123/2500))/8 + 3/8,$
 $(123 * \cos(287/5000) * \exp(-21/400))/100 - (9 * \exp(-21/400) * \sin(287/5000))/8 + 3/8,$
 $(123 * \cos(41/625) * \exp(-3/50))/100 - (9 * \exp(-3/50) * \sin(41/625))/8 + 3/8, (123 * \cos(369/5000) * \exp(-27/400))/100 - (9 * \exp(-27/400) * \sin(369/5000))/8 + 3/8,$
 $(123 * \cos(41/500) * \exp(-3/40))/100 - (9 * \exp(-3/40) * \sin(41/500))/8 + 3/8, (123 * \cos(451/5000) * \exp(-33/400))/100 - (9 * \exp(-33/400) * \sin(451/5000))/8 + 3/8,$
 $(123 * \cos(123/1250) * \exp(-9/100))/100 - (9 * \exp(-9/100) * \sin(123/1250))/8 + 3/8,$
 $(123 * \cos(533/5000) * \exp(-39/400))/100 - (9 * \exp(-39/400) * \sin(533/5000))/8 + 3/8,$
 $(123 * \cos(287/2500) * \exp(-21/200))/100 - (9 * \exp(-21/200) * \sin(287/2500))/8 + 3/8,$
 $(123 * \cos(123/1000) * \exp(-9/80))/100 - (9 * \exp(-9/80) * \sin(123/1000))/8 + 3/8, (123 * \cos(82/625) * \exp(-3/25))/100 - (9 * \exp(-3/25) * \sin(82/625))/8 + 3/8,$
 $(123 * \cos(697/5000) * \exp(-51/400))/100 - (9 * \exp(-51/400) * \sin(697/5000))/8 + 3/8, (123 * \cos(369/2500) * \exp(-27/200))/100 - (9 * \exp(-27/200) * \sin(369/2500))/8 + 3/8,$
 $(123 * \cos(779/5000) * \exp(-57/400))/100 - (9 * \exp(-57/400) * \sin(779/5000))/8 + 3/8, (123 * \cos(41/250) * \exp(-3/20))/100 - (9 * \exp(-3/20) * \sin(41/250))/8 + 3/8,$
 $(123 * \cos(861/5000) * \exp(-63/400))/100 - (9 * \exp(-63/400) * \sin(861/5000))/8 + 3/8,$
 $(123 * \cos(451/2500) * \exp(-33/200))/100 - (9 * \exp(-33/200) * \sin(451/2500))/8 + 3/8,$
 $(123 * \cos(943/5000) * \exp(-69/400))/100 - (9 * \exp(-69/400) * \sin(943/5000))/8 + 3/8,$
 $(123 * \cos(123/625) * \exp(-9/50))/100 - (9 * \exp(-9/50) * \sin(123/625))/8 + 3/8, (123 * \cos(41/200) * \exp(-3/16))/100 - (9 * \exp(-3/16) * \sin(41/200))/8 + 3/8,$
 $(123 * \cos(533/2500) * \exp(-39/200))/100 - (9 * \exp(-39/200) * \sin(533/2500))/8 + 3/8, (123 * \cos(1107/5000) * \exp(-81/400))/100 - (9 * \exp(-81/400) * \sin(1107/5000))/8 + 3/8,$
 $(123 * \cos(287/1250) * \exp(-21/100))/100 - (9 * \exp(-21/100) * \sin(287/1250))/8 + 3/8, (123 * \cos(1189/5000) * \exp(-87/400))/100 - (9 * \exp(-87/400) * \sin(1189/5000))/8 + 3/8,$

$87/400) \cdot \sin(1189/5000))/8 + 3/8, (123 \cdot \cos(123/500) \cdot \exp(-9/40))/100 - (9 \cdot \exp(-9/40) \cdot \sin(123/500))/8$
 $+ 3/8, (123 \cdot \cos(1271/5000) \cdot \exp(-93/400))/100 - (9 \cdot \exp(-93/400) \cdot \sin(1271/5000))/8 + 3/8,$
 $(123 \cdot \cos(164/625) \cdot \exp(-6/25))/100 - (9 \cdot \exp(-6/25) \cdot \sin(164/625))/8 + 3/8, (123 \cdot \cos(1353/5000) \cdot \exp(-$
 $99/400))/100 - (9 \cdot \exp(-99/400) \cdot \sin(1353/5000))/8 + 3/8, (123 \cdot \cos(697/2500) \cdot \exp(-51/200))/100 -$
 $(9 \cdot \exp(-51/200) \cdot \sin(697/2500))/8 + 3/8, (123 \cdot \cos(287/1000) \cdot \exp(-21/80))/100 - (9 \cdot \exp(-$
 $21/80) \cdot \sin(287/1000))/8 + 3/8, (123 \cdot \cos(369/1250) \cdot \exp(-27/100))/100 - (9 \cdot \exp(-$
 $27/100) \cdot \sin(369/1250))/8 + 3/8, (123 \cdot \cos(1517/5000) \cdot \exp(-111/400))/100 - (9 \cdot \exp(-$
 $111/400) \cdot \sin(1517/5000))/8 + 3/8, (123 \cdot \cos(779/2500) \cdot \exp(-57/200))/100 - (9 \cdot \exp(-$
 $57/200) \cdot \sin(779/2500))/8 + 3/8, (123 \cdot \cos(1599/5000) \cdot \exp(-117/400))/100 - (9 \cdot \exp(-$
 $117/400) \cdot \sin(1599/5000))/8 + 3/8, (123 \cdot \cos(41/125) \cdot \exp(-3/10))/100 - (9 \cdot \exp(-3/10) \cdot \sin(41/125))/8 +$
 $3/8, (123 \cdot \cos(1681/5000) \cdot \exp(-123/400))/100 - (9 \cdot \exp(-123/400) \cdot \sin(1681/5000))/8 + 3/8,$
 $(123 \cdot \cos(861/2500) \cdot \exp(-63/200))/100 - (9 \cdot \exp(-63/200) \cdot \sin(861/2500))/8 + 3/8,$
 $(123 \cdot \cos(1763/5000) \cdot \exp(-129/400))/100 - (9 \cdot \exp(-129/400) \cdot \sin(1763/5000))/8 + 3/8,$
 $(123 \cdot \cos(451/1250) \cdot \exp(-33/100))/100 - (9 \cdot \exp(-33/100) \cdot \sin(451/1250))/8 + 3/8,$
 $(123 \cdot \cos(369/1000) \cdot \exp(-27/80))/100 - (9 \cdot \exp(-27/80) \cdot \sin(369/1000))/8 + 3/8,$
 $(123 \cdot \cos(943/2500) \cdot \exp(-69/200))/100 - (9 \cdot \exp(-69/200) \cdot \sin(943/2500))/8 + 3/8,$
 $(123 \cdot \cos(1927/5000) \cdot \exp(-141/400))/100 - (9 \cdot \exp(-141/400) \cdot \sin(1927/5000))/8 + 3/8,$
 $(123 \cdot \cos(246/625) \cdot \exp(-9/25))/100 - (9 \cdot \exp(-9/25) \cdot \sin(246/625))/8 + 3/8, (123 \cdot \cos(2009/5000) \cdot \exp(-$
 $147/400))/100 - (9 \cdot \exp(-147/400) \cdot \sin(2009/5000))/8 + 3/8, (123 \cdot \cos(41/100) \cdot \exp(-3/8))/100 - (9 \cdot \exp(-$
 $3/8) \cdot \sin(41/100))/8 + 3/8, (123 \cdot \cos(2091/5000) \cdot \exp(-153/400))/100 - (9 \cdot \exp(-$
 $153/400) \cdot \sin(2091/5000))/8 + 3/8, (123 \cdot \cos(533/1250) \cdot \exp(-39/100))/100 - (9 \cdot \exp(-$
 $39/100) \cdot \sin(533/1250))/8 + 3/8, (123 \cdot \cos(2173/5000) \cdot \exp(-159/400))/100 - (9 \cdot \exp(-$
 $159/400) \cdot \sin(2173/5000))/8 + 3/8, (123 \cdot \cos(1107/2500) \cdot \exp(-81/200))/100 - (9 \cdot \exp(-$
 $81/200) \cdot \sin(1107/2500))/8 + 3/8, (123 \cdot \cos(451/1000) \cdot \exp(-33/80))/100 - (9 \cdot \exp(-$
 $33/80) \cdot \sin(451/1000))/8 + 3/8, (123 \cdot \cos(287/625) \cdot \exp(-21/50))/100 - (9 \cdot \exp(-21/50) \cdot \sin(287/625))/8$
 $+ 3/8, (123 \cdot \cos(2337/5000) \cdot \exp(-171/400))/100 - (9 \cdot \exp(-171/400) \cdot \sin(2337/5000))/8 + 3/8,$
 $(123 \cdot \cos(1189/2500) \cdot \exp(-87/200))/100 - (9 \cdot \exp(-87/200) \cdot \sin(1189/2500))/8 + 3/8,$
 $(123 \cdot \cos(2419/5000) \cdot \exp(-177/400))/100 - (9 \cdot \exp(-177/400) \cdot \sin(2419/5000))/8 + 3/8,$
 $(123 \cdot \cos(123/250) \cdot \exp(-9/20))/100 - (9 \cdot \exp(-9/20) \cdot \sin(123/250))/8 + 3/8, (123 \cdot \cos(2501/5000) \cdot \exp(-$
 $183/400))/100 - (9 \cdot \exp(-183/400) \cdot \sin(2501/5000))/8 + 3/8, (123 \cdot \cos(1271/2500) \cdot \exp(-93/200))/100 -$
 $(9 \cdot \exp(-93/200) \cdot \sin(1271/2500))/8 + 3/8, (123 \cdot \cos(2583/5000) \cdot \exp(-189/400))/100 - (9 \cdot \exp(-$
 $189/400) \cdot \sin(2583/5000))/8 + 3/8, (123 \cdot \cos(328/625) \cdot \exp(-12/25))/100 - (9 \cdot \exp(-$
 $12/25) \cdot \sin(328/625))/8 + 3/8, (123 \cdot \cos(533/1000) \cdot \exp(-39/80))/100 - (9 \cdot \exp(-39/80) \cdot \sin(533/1000))/8$
 $+ 3/8, (123 \cdot \cos(1353/2500) \cdot \exp(-99/200))/100 - (9 \cdot \exp(-99/200) \cdot \sin(1353/2500))/8 + 3/8,$
 $(123 \cdot \cos(2747/5000) \cdot \exp(-201/400))/100 - (9 \cdot \exp(-201/400) \cdot \sin(2747/5000))/8 + 3/8,$
 $(123 \cdot \cos(697/1250) \cdot \exp(-51/100))/100 - (9 \cdot \exp(-51/100) \cdot \sin(697/1250))/8 + 3/8,$
 $(123 \cdot \cos(2829/5000) \cdot \exp(-207/400))/100 - (9 \cdot \exp(-207/400) \cdot \sin(2829/5000))/8 + 3/8,$
 $(123 \cdot \cos(287/500) \cdot \exp(-21/40))/100 - (9 \cdot \exp(-21/40) \cdot \sin(287/500))/8 + 3/8,$
 $(123 \cdot \cos(2911/5000) \cdot \exp(-213/400))/100 - (9 \cdot \exp(-213/400) \cdot \sin(2911/5000))/8 + 3/8,$
 $(123 \cdot \cos(369/625) \cdot \exp(-27/50))/100 - (9 \cdot \exp(-27/50) \cdot \sin(369/625))/8 + 3/8,$
 $(123 \cdot \cos(2993/5000) \cdot \exp(-219/400))/100 - (9 \cdot \exp(-219/400) \cdot \sin(2993/5000))/8 + 3/8,$
 $(123 \cdot \cos(1517/2500) \cdot \exp(-111/200))/100 - (9 \cdot \exp(-111/200) \cdot \sin(1517/2500))/8 + 3/8,$
 $(123 \cdot \cos(123/200) \cdot \exp(-9/16))/100 - (9 \cdot \exp(-9/16) \cdot \sin(123/200))/8 + 3/8, (123 \cdot \cos(779/1250) \cdot \exp(-$
 $57/100))/100 - (9 \cdot \exp(-57/100) \cdot \sin(779/1250))/8 + 3/8, (123 \cdot \cos(3157/5000) \cdot \exp(-231/400))/100 -$

$(9*\exp(-231/400)*\sin(3157/5000))/8 + 3/8, (123*\cos(1599/2500)*\exp(-117/200))/100 - (9*\exp(-117/200)*\sin(1599/2500))/8 + 3/8, (123*\cos(3239/5000)*\exp(-237/400))/100 - (9*\exp(-237/400)*\sin(3239/5000))/8 + 3/8, (123*\cos(82/125)*\exp(-3/5))/100 - (9*\exp(-3/5)*\sin(82/125))/8 + 3/8, (123*\cos(3321/5000)*\exp(-243/400))/100 - (9*\exp(-243/400)*\sin(3321/5000))/8 + 3/8, (123*\cos(1681/2500)*\exp(-123/200))/100 - (9*\exp(-123/200)*\sin(1681/2500))/8 + 3/8, (123*\cos(3403/5000)*\exp(-249/400))/100 - (9*\exp(-249/400)*\sin(3403/5000))/8 + 3/8, (123*\cos(861/1250)*\exp(-63/100))/100 - (9*\exp(-63/100)*\sin(861/1250))/8 + 3/8, (123*\cos(697/1000)*\exp(-51/80))/100 - (9*\exp(-51/80)*\sin(697/1000))/8 + 3/8, (123*\cos(1763/2500)*\exp(-129/200))/100 - (9*\exp(-129/200)*\sin(1763/2500))/8 + 3/8, (123*\cos(3567/5000)*\exp(-261/400))/100 - (9*\exp(-261/400)*\sin(3567/5000))/8 + 3/8, (123*\cos(451/625)*\exp(-33/50))/100 - (9*\exp(-33/50)*\sin(451/625))/8 + 3/8, (123*\cos(3649/5000)*\exp(-267/400))/100 - (9*\exp(-267/400)*\sin(3649/5000))/8 + 3/8, (123*\cos(369/500)*\exp(-27/40))/100 - (9*\exp(-27/40)*\sin(369/500))/8 + 3/8, (123*\cos(3731/5000)*\exp(-273/400))/100 - (9*\exp(-273/400)*\sin(3731/5000))/8 + 3/8, (123*\cos(943/1250)*\exp(-69/100))/100 - (9*\exp(-69/100)*\sin(943/1250))/8 + 3/8, (123*\cos(3813/5000)*\exp(-279/400))/100 - (9*\exp(-279/400)*\sin(3813/5000))/8 + 3/8, (123*\cos(1927/2500)*\exp(-141/200))/100 - (9*\exp(-141/200)*\sin(1927/2500))/8 + 3/8, (123*\cos(779/1000)*\exp(-57/80))/100 - (9*\exp(-57/80)*\sin(779/1000))/8 + 3/8, (123*\cos(492/625)*\exp(-18/25))/100 - (9*\exp(-18/25)*\sin(492/625))/8 + 3/8, (123*\cos(3977/5000)*\exp(-291/400))/100 - (9*\exp(-291/400)*\sin(3977/5000))/8 + 3/8, (123*\cos(2009/2500)*\exp(-147/200))/100 - (9*\exp(-147/200)*\sin(2009/2500))/8 + 3/8, (123*\cos(4059/5000)*\exp(-297/400))/100 - (9*\exp(-297/400)*\sin(4059/5000))/8 + 3/8, (123*\cos(41/50)*\exp(-3/4))/100 - (9*\exp(-3/4)*\sin(41/50))/8 + 3/8, (123*\cos(4141/5000)*\exp(-303/400))/100 - (9*\exp(-303/400)*\sin(4141/5000))/8 + 3/8, (123*\cos(2091/2500)*\exp(-153/200))/100 - (9*\exp(-153/200)*\sin(2091/2500))/8 + 3/8, (123*\cos(4223/5000)*\exp(-309/400))/100 - (9*\exp(-309/400)*\sin(4223/5000))/8 + 3/8, (123*\cos(533/625)*\exp(-39/50))/100 - (9*\exp(-39/50)*\sin(533/625))/8 + 3/8, (123*\cos(861/1000)*\exp(-63/80))/100 - (9*\exp(-63/80)*\sin(861/1000))/8 + 3/8, (123*\cos(2173/2500)*\exp(-159/200))/100 - (9*\exp(-159/200)*\sin(2173/2500))/8 + 3/8, (123*\cos(4387/5000)*\exp(-321/400))/100 - (9*\exp(-321/400)*\sin(4387/5000))/8 + 3/8, (123*\cos(1107/1250)*\exp(-81/100))/100 - (9*\exp(-81/100)*\sin(1107/1250))/8 + 3/8, (123*\cos(4469/5000)*\exp(-327/400))/100 - (9*\exp(-327/400)*\sin(4469/5000))/8 + 3/8, (123*\cos(451/500)*\exp(-33/40))/100 - (9*\exp(-33/40)*\sin(451/500))/8 + 3/8, (123*\cos(4551/5000)*\exp(-333/400))/100 - (9*\exp(-333/400)*\sin(4551/5000))/8 + 3/8, (123*\cos(574/625)*\exp(-21/25))/100 - (9*\exp(-21/25)*\sin(574/625))/8 + 3/8, (123*\cos(4633/5000)*\exp(-339/400))/100 - (9*\exp(-339/400)*\sin(4633/5000))/8 + 3/8, (123*\cos(2337/2500)*\exp(-171/200))/100 - (9*\exp(-171/200)*\sin(2337/2500))/8 + 3/8, (123*\cos(943/1000)*\exp(-69/80))/100 - (9*\exp(-69/80)*\sin(943/1000))/8 + 3/8, (123*\cos(1189/1250)*\exp(-87/100))/100 - (9*\exp(-87/100)*\sin(1189/1250))/8 + 3/8, (123*\cos(4797/5000)*\exp(-351/400))/100 - (9*\exp(-351/400)*\sin(4797/5000))/8 + 3/8, (123*\cos(2419/2500)*\exp(-177/200))/100 - (9*\exp(-177/200)*\sin(2419/2500))/8 + 3/8, (123*\cos(4879/5000)*\exp(-357/400))/100 - (9*\exp(-357/400)*\sin(4879/5000))/8 + 3/8, (123*\cos(123/125)*\exp(-9/10))/100 - (9*\exp(-9/10)*\sin(123/125))/8 + 3/8, (123*\cos(4961/5000)*\exp(-363/400))/100 - (9*\exp(-363/400)*\sin(4961/5000))/8 + 3/8, (123*\cos(2501/2500)*\exp(-183/200))/100 - (9*\exp(-183/200)*\sin(2501/2500))/8 + 3/8, (123*\cos(5043/5000)*\exp(-369/400))/100 - (9*\exp(-$

$369/400*\sin(5043/5000))/8 + 3/8, (123*\cos(1271/1250)*\exp(-93/100))/100 - (9*\exp(-93/100)*\sin(1271/1250))/8 + 3/8, (123*\cos(41/40)*\exp(-15/16))/100 - (9*\exp(-15/16)*\sin(41/40))/8 + 3/8, (123*\cos(2583/2500)*\exp(-189/200))/100 - (9*\exp(-189/200)*\sin(2583/2500))/8 + 3/8, (123*\cos(5207/5000)*\exp(-381/400))/100 - (9*\exp(-381/400)*\sin(5207/5000))/8 + 3/8, (123*\cos(656/625)*\exp(-24/25))/100 - (9*\exp(-24/25)*\sin(656/625))/8 + 3/8, (123*\cos(5289/5000)*\exp(-387/400))/100 - (9*\exp(-387/400)*\sin(5289/5000))/8 + 3/8, (123*\cos(533/500)*\exp(-39/40))/100 - (9*\exp(-39/40)*\sin(533/500))/8 + 3/8, (123*\cos(5371/5000)*\exp(-393/400))/100 - (9*\exp(-393/400)*\sin(5371/5000))/8 + 3/8, (123*\cos(1353/1250)*\exp(-99/100))/100 - (9*\exp(-99/100)*\sin(1353/1250))/8 + 3/8, (123*\cos(5453/5000)*\exp(-399/400))/100 - (9*\exp(-399/400)*\sin(5453/5000))/8 + 3/8, (123*\cos(2747/2500)*\exp(-201/200))/100 - (9*\exp(-201/200)*\sin(2747/2500))/8 + 3/8, (123*\cos(1107/1000)*\exp(-81/80))/100 - (9*\exp(-81/80)*\sin(1107/1000))/8 + 3/8, (123*\cos(697/625)*\exp(-51/50))/100 - (9*\exp(-51/50)*\sin(697/625))/8 + 3/8, (123*\cos(5617/5000)*\exp(-411/400))/100 - (9*\exp(-411/400)*\sin(5617/5000))/8 + 3/8, (123*\cos(2829/2500)*\exp(-207/200))/100 - (9*\exp(-207/200)*\sin(2829/2500))/8 + 3/8, (123*\cos(5699/5000)*\exp(-417/400))/100 - (9*\exp(-417/400)*\sin(5699/5000))/8 + 3/8, (123*\cos(287/250)*\exp(-21/20))/100 - (9*\exp(-21/20)*\sin(287/250))/8 + 3/8, (123*\cos(5781/5000)*\exp(-423/400))/100 - (9*\exp(-423/400)*\sin(5781/5000))/8 + 3/8, (123*\cos(2911/2500)*\exp(-213/200))/100 - (9*\exp(-213/200)*\sin(2911/2500))/8 + 3/8, (123*\cos(5863/5000)*\exp(-429/400))/100 - (9*\exp(-429/400)*\sin(5863/5000))/8 + 3/8, (123*\cos(738/625)*\exp(-27/25))/100 - (9*\exp(-27/25)*\sin(738/625))/8 + 3/8, (123*\cos(1189/1000)*\exp(-87/80))/100 - (9*\exp(-87/80)*\sin(1189/1000))/8 + 3/8, (123*\cos(2993/2500)*\exp(-219/200))/100 - (9*\exp(-219/200)*\sin(2993/2500))/8 + 3/8, (123*\cos(6027/5000)*\exp(-441/400))/100 - (9*\exp(-441/400)*\sin(6027/5000))/8 + 3/8, (123*\cos(1517/1250)*\exp(-111/100))/100 - (9*\exp(-111/100)*\sin(1517/1250))/8 + 3/8, (123*\cos(6109/5000)*\exp(-447/400))/100 - (9*\exp(-447/400)*\sin(6109/5000))/8 + 3/8, (123*\cos(123/100)*\exp(-9/8))/100 - (9*\exp(-9/8)*\sin(123/100))/8 + 3/8, (123*\cos(6191/5000)*\exp(-453/400))/100 - (9*\exp(-453/400)*\sin(6191/5000))/8 + 3/8, (123*\cos(779/625)*\exp(-57/50))/100 - (9*\exp(-57/50)*\sin(779/625))/8 + 3/8, (123*\cos(6273/5000)*\exp(-459/400))/100 - (9*\exp(-459/400)*\sin(6273/5000))/8 + 3/8, (123*\cos(3157/2500)*\exp(-231/200))/100 - (9*\exp(-231/200)*\sin(3157/2500))/8 + 3/8, (123*\cos(1271/1000)*\exp(-93/80))/100 - (9*\exp(-93/80)*\sin(1271/1000))/8 + 3/8, (123*\cos(1599/1250)*\exp(-117/100))/100 - (9*\exp(-117/100)*\sin(1599/1250))/8 + 3/8, (123*\cos(6437/5000)*\exp(-471/400))/100 - (9*\exp(-471/400)*\sin(6437/5000))/8 + 3/8, (123*\cos(3239/2500)*\exp(-237/200))/100 - (9*\exp(-237/200)*\sin(3239/2500))/8 + 3/8, (123*\cos(6519/5000)*\exp(-477/400))/100 - (9*\exp(-477/400)*\sin(6519/5000))/8 + 3/8, (123*\cos(164/125)*\exp(-6/5))/100 - (9*\exp(-6/5)*\sin(164/125))/8 + 3/8, (123*\cos(6601/5000)*\exp(-483/400))/100 - (9*\exp(-483/400)*\sin(6601/5000))/8 + 3/8, (123*\cos(3321/2500)*\exp(-243/200))/100 - (9*\exp(-243/200)*\sin(3321/2500))/8 + 3/8, (123*\cos(6683/5000)*\exp(-489/400))/100 - (9*\exp(-489/400)*\sin(6683/5000))/8 + 3/8, (123*\cos(1681/1250)*\exp(-123/100))/100 - (9*\exp(-123/100)*\sin(1681/1250))/8 + 3/8, (123*\cos(1353/1000)*\exp(-99/80))/100 - (9*\exp(-99/80)*\sin(1353/1000))/8 + 3/8, (123*\cos(3403/2500)*\exp(-249/200))/100 - (9*\exp(-249/200)*\sin(3403/2500))/8 + 3/8, (123*\cos(6847/5000)*\exp(-501/400))/100 - (9*\exp(-501/400)*\sin(6847/5000))/8 + 3/8, (123*\cos(861/625)*\exp(-63/50))/100 - (9*\exp(-63/50)*\sin(861/625))/8 + 3/8,$

$(123 \cdot \cos(6929/5000) \cdot \exp(-507/400))/100 - (9 \cdot \exp(-507/400) \cdot \sin(6929/5000))/8 + 3/8,$
 $(123 \cdot \cos(697/500) \cdot \exp(-51/40))/100 - (9 \cdot \exp(-51/40) \cdot \sin(697/500))/8 + 3/8,$
 $(123 \cdot \cos(7011/5000) \cdot \exp(-513/400))/100 - (9 \cdot \exp(-513/400) \cdot \sin(7011/5000))/8 + 3/8,$
 $(123 \cdot \cos(1763/1250) \cdot \exp(-129/100))/100 - (9 \cdot \exp(-129/100) \cdot \sin(1763/1250))/8 + 3/8,$
 $(123 \cdot \cos(7093/5000) \cdot \exp(-519/400))/100 - (9 \cdot \exp(-519/400) \cdot \sin(7093/5000))/8 + 3/8,$
 $(123 \cdot \cos(3567/2500) \cdot \exp(-261/200))/100 - (9 \cdot \exp(-261/200) \cdot \sin(3567/2500))/8 + 3/8,$
 $(123 \cdot \cos(287/200) \cdot \exp(-21/16))/100 - (9 \cdot \exp(-21/16) \cdot \sin(287/200))/8 + 3/8, (123 \cdot \cos(902/625) \cdot \exp(-$
 $33/25))/100 - (9 \cdot \exp(-33/25) \cdot \sin(902/625))/8 + 3/8, (123 \cdot \cos(7257/5000) \cdot \exp(-531/400))/100 -$
 $(9 \cdot \exp(-531/400) \cdot \sin(7257/5000))/8 + 3/8, (123 \cdot \cos(3649/2500) \cdot \exp(-267/200))/100 - (9 \cdot \exp(-$
 $267/200) \cdot \sin(3649/2500))/8 + 3/8, (123 \cdot \cos(7339/5000) \cdot \exp(-537/400))/100 - (9 \cdot \exp(-$
 $537/400) \cdot \sin(7339/5000))/8 + 3/8, (123 \cdot \cos(369/250) \cdot \exp(-27/20))/100 - (9 \cdot \exp(-$
 $27/20) \cdot \sin(369/250))/8 + 3/8, (123 \cdot \cos(7421/5000) \cdot \exp(-543/400))/100 - (9 \cdot \exp(-$
 $543/400) \cdot \sin(7421/5000))/8 + 3/8, (123 \cdot \cos(3731/2500) \cdot \exp(-273/200))/100 - (9 \cdot \exp(-$
 $273/200) \cdot \sin(3731/2500))/8 + 3/8, (123 \cdot \cos(7503/5000) \cdot \exp(-549/400))/100 - (9 \cdot \exp(-$
 $549/400) \cdot \sin(7503/5000))/8 + 3/8, (123 \cdot \cos(943/625) \cdot \exp(-69/50))/100 - (9 \cdot \exp(-$
 $69/50) \cdot \sin(943/625))/8 + 3/8, (123 \cdot \cos(1517/1000) \cdot \exp(-111/80))/100 - (9 \cdot \exp(-$
 $111/80) \cdot \sin(1517/1000))/8 + 3/8, (123 \cdot \cos(3813/2500) \cdot \exp(-279/200))/100 - (9 \cdot \exp(-$
 $279/200) \cdot \sin(3813/2500))/8 + 3/8, (123 \cdot \cos(7667/5000) \cdot \exp(-561/400))/100 - (9 \cdot \exp(-$
 $561/400) \cdot \sin(7667/5000))/8 + 3/8, (123 \cdot \cos(1927/1250) \cdot \exp(-141/100))/100 - (9 \cdot \exp(-$
 $141/100) \cdot \sin(1927/1250))/8 + 3/8, (123 \cdot \cos(7749/5000) \cdot \exp(-567/400))/100 - (9 \cdot \exp(-$
 $567/400) \cdot \sin(7749/5000))/8 + 3/8, (123 \cdot \cos(779/500) \cdot \exp(-57/40))/100 - (9 \cdot \exp(-$
 $57/40) \cdot \sin(779/500))/8 + 3/8, (123 \cdot \cos(7831/5000) \cdot \exp(-573/400))/100 - (9 \cdot \exp(-$
 $573/400) \cdot \sin(7831/5000))/8 + 3/8, (123 \cdot \cos(984/625) \cdot \exp(-36/25))/100 - (9 \cdot \exp(-$
 $36/25) \cdot \sin(984/625))/8 + 3/8, (123 \cdot \cos(7913/5000) \cdot \exp(-579/400))/100 - (9 \cdot \exp(-$
 $579/400) \cdot \sin(7913/5000))/8 + 3/8, (123 \cdot \cos(3977/2500) \cdot \exp(-291/200))/100 - (9 \cdot \exp(-$
 $291/200) \cdot \sin(3977/2500))/8 + 3/8, (123 \cdot \cos(1599/1000) \cdot \exp(-117/80))/100 - (9 \cdot \exp(-$
 $117/80) \cdot \sin(1599/1000))/8 + 3/8, (123 \cdot \cos(2009/1250) \cdot \exp(-147/100))/100 - (9 \cdot \exp(-$
 $147/100) \cdot \sin(2009/1250))/8 + 3/8, (123 \cdot \cos(8077/5000) \cdot \exp(-591/400))/100 - (9 \cdot \exp(-$
 $591/400) \cdot \sin(8077/5000))/8 + 3/8, (123 \cdot \cos(4059/2500) \cdot \exp(-297/200))/100 - (9 \cdot \exp(-$
 $297/200) \cdot \sin(4059/2500))/8 + 3/8, (123 \cdot \cos(8159/5000) \cdot \exp(-597/400))/100 - (9 \cdot \exp(-$
 $597/400) \cdot \sin(8159/5000))/8 + 3/8, (123 \cdot \cos(41/25) \cdot \exp(-3/2))/100 - (9 \cdot \exp(-3/2) \cdot \sin(41/25))/8 + 3/8,$
 $(123 \cdot \cos(8241/5000) \cdot \exp(-603/400))/100 - (9 \cdot \exp(-603/400) \cdot \sin(8241/5000))/8 + 3/8,$
 $(123 \cdot \cos(4141/2500) \cdot \exp(-303/200))/100 - (9 \cdot \exp(-303/200) \cdot \sin(4141/2500))/8 + 3/8,$
 $(123 \cdot \cos(8323/5000) \cdot \exp(-609/400))/100 - (9 \cdot \exp(-609/400) \cdot \sin(8323/5000))/8 + 3/8,$
 $(123 \cdot \cos(2091/1250) \cdot \exp(-153/100))/100 - (9 \cdot \exp(-153/100) \cdot \sin(2091/1250))/8 + 3/8,$
 $(123 \cdot \cos(1681/1000) \cdot \exp(-123/80))/100 - (9 \cdot \exp(-123/80) \cdot \sin(1681/1000))/8 + 3/8,$
 $(123 \cdot \cos(4223/2500) \cdot \exp(-309/200))/100 - (9 \cdot \exp(-309/200) \cdot \sin(4223/2500))/8 + 3/8,$
 $(123 \cdot \cos(8487/5000) \cdot \exp(-621/400))/100 - (9 \cdot \exp(-621/400) \cdot \sin(8487/5000))/8 + 3/8,$
 $(123 \cdot \cos(1066/625) \cdot \exp(-39/25))/100 - (9 \cdot \exp(-39/25) \cdot \sin(1066/625))/8 + 3/8,$
 $(123 \cdot \cos(8569/5000) \cdot \exp(-627/400))/100 - (9 \cdot \exp(-627/400) \cdot \sin(8569/5000))/8 + 3/8,$
 $(123 \cdot \cos(861/500) \cdot \exp(-63/40))/100 - (9 \cdot \exp(-63/40) \cdot \sin(861/500))/8 + 3/8,$
 $(123 \cdot \cos(8651/5000) \cdot \exp(-633/400))/100 - (9 \cdot \exp(-633/400) \cdot \sin(8651/5000))/8 + 3/8,$
 $(123 \cdot \cos(2173/1250) \cdot \exp(-159/100))/100 - (9 \cdot \exp(-159/100) \cdot \sin(2173/1250))/8 + 3/8,$
 $(123 \cdot \cos(8733/5000) \cdot \exp(-639/400))/100 - (9 \cdot \exp(-639/400) \cdot \sin(8733/5000))/8 + 3/8,$

$(123 \cdot \cos(4387/2500) \cdot \exp(-321/200))/100 - (9 \cdot \exp(-321/200) \cdot \sin(4387/2500))/8 + 3/8,$
 $(123 \cdot \cos(1763/1000) \cdot \exp(-129/80))/100 - (9 \cdot \exp(-129/80) \cdot \sin(1763/1000))/8 + 3/8,$
 $(123 \cdot \cos(1107/625) \cdot \exp(-81/50))/100 - (9 \cdot \exp(-81/50) \cdot \sin(1107/625))/8 + 3/8,$
 $(123 \cdot \cos(8897/5000) \cdot \exp(-651/400))/100 - (9 \cdot \exp(-651/400) \cdot \sin(8897/5000))/8 + 3/8,$
 $(123 \cdot \cos(4469/2500) \cdot \exp(-327/200))/100 - (9 \cdot \exp(-327/200) \cdot \sin(4469/2500))/8 + 3/8,$
 $(123 \cdot \cos(8979/5000) \cdot \exp(-657/400))/100 - (9 \cdot \exp(-657/400) \cdot \sin(8979/5000))/8 + 3/8,$
 $(123 \cdot \cos(451/250) \cdot \exp(-33/20))/100 - (9 \cdot \exp(-33/20) \cdot \sin(451/250))/8 + 3/8,$
 $(123 \cdot \cos(9061/5000) \cdot \exp(-663/400))/100 - (9 \cdot \exp(-663/400) \cdot \sin(9061/5000))/8 + 3/8,$
 $(123 \cdot \cos(4551/2500) \cdot \exp(-333/200))/100 - (9 \cdot \exp(-333/200) \cdot \sin(4551/2500))/8 + 3/8,$
 $(123 \cdot \cos(9143/5000) \cdot \exp(-669/400))/100 - (9 \cdot \exp(-669/400) \cdot \sin(9143/5000))/8 + 3/8,$
 $(123 \cdot \cos(1148/625) \cdot \exp(-42/25))/100 - (9 \cdot \exp(-42/25) \cdot \sin(1148/625))/8 + 3/8,$
 $(123 \cdot \cos(369/200) \cdot \exp(-27/16))/100 - (9 \cdot \exp(-27/16) \cdot \sin(369/200))/8 + 3/8,$
 $(123 \cdot \cos(4633/2500) \cdot \exp(-339/200))/100 - (9 \cdot \exp(-339/200) \cdot \sin(4633/2500))/8 + 3/8,$
 $(123 \cdot \cos(9307/5000) \cdot \exp(-681/400))/100 - (9 \cdot \exp(-681/400) \cdot \sin(9307/5000))/8 + 3/8,$
 $(123 \cdot \cos(2337/1250) \cdot \exp(-171/100))/100 - (9 \cdot \exp(-171/100) \cdot \sin(2337/1250))/8 + 3/8,$
 $(123 \cdot \cos(9389/5000) \cdot \exp(-687/400))/100 - (9 \cdot \exp(-687/400) \cdot \sin(9389/5000))/8 + 3/8,$
 $(123 \cdot \cos(943/500) \cdot \exp(-69/40))/100 - (9 \cdot \exp(-69/40) \cdot \sin(943/500))/8 + 3/8,$
 $(123 \cdot \cos(9471/5000) \cdot \exp(-693/400))/100 - (9 \cdot \exp(-693/400) \cdot \sin(9471/5000))/8 + 3/8,$
 $(123 \cdot \cos(1189/625) \cdot \exp(-87/50))/100 - (9 \cdot \exp(-87/50) \cdot \sin(1189/625))/8 + 3/8,$
 $(123 \cdot \cos(9553/5000) \cdot \exp(-699/400))/100 - (9 \cdot \exp(-699/400) \cdot \sin(9553/5000))/8 + 3/8,$
 $(123 \cdot \cos(4797/2500) \cdot \exp(-351/200))/100 - (9 \cdot \exp(-351/200) \cdot \sin(4797/2500))/8 + 3/8,$
 $(123 \cdot \cos(1927/1000) \cdot \exp(-141/80))/100 - (9 \cdot \exp(-141/80) \cdot \sin(1927/1000))/8 + 3/8,$
 $(123 \cdot \cos(2419/1250) \cdot \exp(-177/100))/100 - (9 \cdot \exp(-177/100) \cdot \sin(2419/1250))/8 + 3/8,$
 $(123 \cdot \cos(9717/5000) \cdot \exp(-711/400))/100 - (9 \cdot \exp(-711/400) \cdot \sin(9717/5000))/8 + 3/8,$
 $(123 \cdot \cos(4879/2500) \cdot \exp(-357/200))/100 - (9 \cdot \exp(-357/200) \cdot \sin(4879/2500))/8 + 3/8,$
 $(123 \cdot \cos(9799/5000) \cdot \exp(-717/400))/100 - (9 \cdot \exp(-717/400) \cdot \sin(9799/5000))/8 + 3/8,$
 $(123 \cdot \cos(246/125) \cdot \exp(-9/5))/100 - (9 \cdot \exp(-9/5) \cdot \sin(246/125))/8 + 3/8, (123 \cdot \cos(9881/5000) \cdot \exp(-$
 $723/400))/100 - (9 \cdot \exp(-723/400) \cdot \sin(9881/5000))/8 + 3/8, (123 \cdot \cos(4961/2500) \cdot \exp(-363/200))/100 -$
 $(9 \cdot \exp(-363/200) \cdot \sin(4961/2500))/8 + 3/8, (123 \cdot \cos(9963/5000) \cdot \exp(-729/400))/100 - (9 \cdot \exp(-$
 $729/400) \cdot \sin(9963/5000))/8 + 3/8, (123 \cdot \cos(2501/1250) \cdot \exp(-183/100))/100 - (9 \cdot \exp(-$
 $183/100) \cdot \sin(2501/1250))/8 + 3/8, (123 \cdot \cos(2009/1000) \cdot \exp(-147/80))/100 - (9 \cdot \exp(-$
 $147/80) \cdot \sin(2009/1000))/8 + 3/8, (123 \cdot \cos(5043/2500) \cdot \exp(-369/200))/100 - (9 \cdot \exp(-$
 $369/200) \cdot \sin(5043/2500))/8 + 3/8, (123 \cdot \cos(10127/5000) \cdot \exp(-741/400))/100 - (9 \cdot \exp(-$
 $741/400) \cdot \sin(10127/5000))/8 + 3/8, (123 \cdot \cos(1271/625) \cdot \exp(-93/50))/100 - (9 \cdot \exp(-$
 $93/50) \cdot \sin(1271/625))/8 + 3/8, (123 \cdot \cos(10209/5000) \cdot \exp(-747/400))/100 - (9 \cdot \exp(-$
 $747/400) \cdot \sin(10209/5000))/8 + 3/8, (123 \cdot \cos(41/20) \cdot \exp(-15/8))/100 - (9 \cdot \exp(-15/8) \cdot \sin(41/20))/8 +$
 $3/8]$

a =

$-(369 \cdot \cos((41 \cdot t)/50) \cdot \exp(-(3 \cdot t)/4))/200 - (3297 \cdot \sin((41 \cdot t)/50) \cdot \exp(-(3 \cdot t)/4))/20000$

an =

$$\begin{aligned} & [-369/200, - (369*\cos(41/5000)*\exp(-3/400))/200 - (3297*\exp(-3/400)*\sin(41/5000))/20000, - \\ & (369*\cos(41/2500)*\exp(-3/200))/200 - (3297*\exp(-3/200)*\sin(41/2500))/20000, - \\ & (369*\cos(123/5000)*\exp(-9/400))/200 - (3297*\exp(-9/400)*\sin(123/5000))/20000, - \\ & (369*\cos(41/1250)*\exp(-3/100))/200 - (3297*\exp(-3/100)*\sin(41/1250))/20000, - \\ & (369*\cos(41/1000)*\exp(-3/80))/200 - (3297*\exp(-3/80)*\sin(41/1000))/20000, - \\ & (369*\cos(123/2500)*\exp(-9/200))/200 - (3297*\exp(-9/200)*\sin(123/2500))/20000, - \\ & (369*\cos(287/5000)*\exp(-21/400))/200 - (3297*\exp(-21/400)*\sin(287/5000))/20000, - \\ & (369*\cos(41/625)*\exp(-3/50))/200 - (3297*\exp(-3/50)*\sin(41/625))/20000, - (369*\cos(369/5000)*\exp(- \\ & 27/400))/200 - (3297*\exp(-27/400)*\sin(369/5000))/20000, - (369*\cos(41/500)*\exp(-3/40))/200 - \\ & (3297*\exp(-3/40)*\sin(41/500))/20000, - (369*\cos(451/5000)*\exp(-33/400))/200 - (3297*\exp(- \\ & 33/400)*\sin(451/5000))/20000, - (369*\cos(123/1250)*\exp(-9/100))/200 - (3297*\exp(- \\ & 9/100)*\sin(123/1250))/20000, - (369*\cos(533/5000)*\exp(-39/400))/200 - (3297*\exp(- \\ & 39/400)*\sin(533/5000))/20000, - (369*\cos(287/2500)*\exp(-21/200))/200 - (3297*\exp(- \\ & 21/200)*\sin(287/2500))/20000, - (369*\cos(123/1000)*\exp(-9/80))/200 - (3297*\exp(- \\ & 9/80)*\sin(123/1000))/20000, - (369*\cos(82/625)*\exp(-3/25))/200 - (3297*\exp(- \\ & 3/25)*\sin(82/625))/20000, - (369*\cos(697/5000)*\exp(-51/400))/200 - (3297*\exp(- \\ & 51/400)*\sin(697/5000))/20000, - (369*\cos(369/2500)*\exp(-27/200))/200 - (3297*\exp(- \\ & 27/200)*\sin(369/2500))/20000, - (369*\cos(779/5000)*\exp(-57/400))/200 - (3297*\exp(- \\ & 57/400)*\sin(779/5000))/20000, - (369*\cos(41/250)*\exp(-3/20))/200 - (3297*\exp(- \\ & 3/20)*\sin(41/250))/20000, - (369*\cos(861/5000)*\exp(-63/400))/200 - (3297*\exp(- \\ & 63/400)*\sin(861/5000))/20000, - (369*\cos(451/2500)*\exp(-33/200))/200 - (3297*\exp(- \\ & 33/200)*\sin(451/2500))/20000, - (369*\cos(943/5000)*\exp(-69/400))/200 - (3297*\exp(- \\ & 69/400)*\sin(943/5000))/20000, - (369*\cos(123/625)*\exp(-9/50))/200 - (3297*\exp(- \\ & 9/50)*\sin(123/625))/20000, - (369*\cos(41/200)*\exp(-3/16))/200 - (3297*\exp(- \\ & 3/16)*\sin(41/200))/20000, - (369*\cos(533/2500)*\exp(-39/200))/200 - (3297*\exp(- \\ & 39/200)*\sin(533/2500))/20000, - (369*\cos(1107/5000)*\exp(-81/400))/200 - (3297*\exp(- \\ & 81/400)*\sin(1107/5000))/20000, - (369*\cos(287/1250)*\exp(-21/100))/200 - (3297*\exp(- \\ & 21/100)*\sin(287/1250))/20000, - (369*\cos(1189/5000)*\exp(-87/400))/200 - (3297*\exp(- \\ & 87/400)*\sin(1189/5000))/20000, - (369*\cos(123/500)*\exp(-9/40))/200 - (3297*\exp(- \\ & 9/40)*\sin(123/500))/20000, - (369*\cos(1271/5000)*\exp(-93/400))/200 - (3297*\exp(- \\ & 93/400)*\sin(1271/5000))/20000, - (369*\cos(164/625)*\exp(-6/25))/200 - (3297*\exp(- \\ & 6/25)*\sin(164/625))/20000, - (369*\cos(1353/5000)*\exp(-99/400))/200 - (3297*\exp(- \\ & 99/400)*\sin(1353/5000))/20000, - (369*\cos(697/2500)*\exp(-51/200))/200 - (3297*\exp(- \\ & 51/200)*\sin(697/2500))/20000, - (369*\cos(287/1000)*\exp(-21/80))/200 - (3297*\exp(- \\ & 21/80)*\sin(287/1000))/20000, - (369*\cos(369/1250)*\exp(-27/100))/200 - (3297*\exp(- \\ & 27/100)*\sin(369/1250))/20000, - (369*\cos(1517/5000)*\exp(-111/400))/200 - (3297*\exp(- \\ & 111/400)*\sin(1517/5000))/20000, - (369*\cos(779/2500)*\exp(-57/200))/200 - (3297*\exp(- \\ & 57/200)*\sin(779/2500))/20000, - (369*\cos(1599/5000)*\exp(-117/400))/200 - (3297*\exp(- \end{aligned}$$

$117/400*\sin(1599/5000))/20000, - (369*\cos(41/125)*\exp(-3/10))/200 - (3297*\exp(-3/10)*\sin(41/125))/20000, - (369*\cos(1681/5000)*\exp(-123/400))/200 - (3297*\exp(-123/400)*\sin(1681/5000))/20000, - (369*\cos(861/2500)*\exp(-63/200))/200 - (3297*\exp(-63/200)*\sin(861/2500))/20000, - (369*\cos(1763/5000)*\exp(-129/400))/200 - (3297*\exp(-129/400)*\sin(1763/5000))/20000, - (369*\cos(451/1250)*\exp(-33/100))/200 - (3297*\exp(-33/100)*\sin(451/1250))/20000, - (369*\cos(369/1000)*\exp(-27/80))/200 - (3297*\exp(-27/80)*\sin(369/1000))/20000, - (369*\cos(943/2500)*\exp(-69/200))/200 - (3297*\exp(-69/200)*\sin(943/2500))/20000, - (369*\cos(1927/5000)*\exp(-141/400))/200 - (3297*\exp(-141/400)*\sin(1927/5000))/20000, - (369*\cos(246/625)*\exp(-9/25))/200 - (3297*\exp(-9/25)*\sin(246/625))/20000, - (369*\cos(2009/5000)*\exp(-147/400))/200 - (3297*\exp(-147/400)*\sin(2009/5000))/20000, - (369*\cos(41/100)*\exp(-3/8))/200 - (3297*\exp(-3/8)*\sin(41/100))/20000, - (369*\cos(2091/5000)*\exp(-153/400))/200 - (3297*\exp(-153/400)*\sin(2091/5000))/20000, - (369*\cos(533/1250)*\exp(-39/100))/200 - (3297*\exp(-39/100)*\sin(533/1250))/20000, - (369*\cos(2173/5000)*\exp(-159/400))/200 - (3297*\exp(-159/400)*\sin(2173/5000))/20000, - (369*\cos(1107/2500)*\exp(-81/200))/200 - (3297*\exp(-81/200)*\sin(1107/2500))/20000, - (369*\cos(451/1000)*\exp(-33/80))/200 - (3297*\exp(-33/80)*\sin(451/1000))/20000, - (369*\cos(287/625)*\exp(-21/50))/200 - (3297*\exp(-21/50)*\sin(287/625))/20000, - (369*\cos(2337/5000)*\exp(-171/400))/200 - (3297*\exp(-171/400)*\sin(2337/5000))/20000, - (369*\cos(1189/2500)*\exp(-87/200))/200 - (3297*\exp(-87/200)*\sin(1189/2500))/20000, - (369*\cos(2419/5000)*\exp(-177/400))/200 - (3297*\exp(-177/400)*\sin(2419/5000))/20000, - (369*\cos(123/250)*\exp(-9/20))/200 - (3297*\exp(-9/20)*\sin(123/250))/20000, - (369*\cos(2501/5000)*\exp(-183/400))/200 - (3297*\exp(-183/400)*\sin(2501/5000))/20000, - (369*\cos(1271/2500)*\exp(-93/200))/200 - (3297*\exp(-93/200)*\sin(1271/2500))/20000, - (369*\cos(2583/5000)*\exp(-189/400))/200 - (3297*\exp(-189/400)*\sin(2583/5000))/20000, - (369*\cos(328/625)*\exp(-12/25))/200 - (3297*\exp(-12/25)*\sin(328/625))/20000, - (369*\cos(533/1000)*\exp(-39/80))/200 - (3297*\exp(-39/80)*\sin(533/1000))/20000, - (369*\cos(1353/2500)*\exp(-99/200))/200 - (3297*\exp(-99/200)*\sin(1353/2500))/20000, - (369*\cos(2747/5000)*\exp(-201/400))/200 - (3297*\exp(-201/400)*\sin(2747/5000))/20000, - (369*\cos(697/1250)*\exp(-51/100))/200 - (3297*\exp(-51/100)*\sin(697/1250))/20000, - (369*\cos(2829/5000)*\exp(-207/400))/200 - (3297*\exp(-207/400)*\sin(2829/5000))/20000, - (369*\cos(287/500)*\exp(-21/40))/200 - (3297*\exp(-21/40)*\sin(287/500))/20000, - (369*\cos(2911/5000)*\exp(-213/400))/200 - (3297*\exp(-213/400)*\sin(2911/5000))/20000, - (369*\cos(369/625)*\exp(-27/50))/200 - (3297*\exp(-27/50)*\sin(369/625))/20000, - (369*\cos(2993/5000)*\exp(-219/400))/200 - (3297*\exp(-219/400)*\sin(2993/5000))/20000, - (369*\cos(1517/2500)*\exp(-111/200))/200 - (3297*\exp(-111/200)*\sin(1517/2500))/20000, - (369*\cos(123/200)*\exp(-9/16))/200 - (3297*\exp(-9/16)*\sin(123/200))/20000, - (369*\cos(779/1250)*\exp(-57/100))/200 - (3297*\exp(-57/100)*\sin(779/1250))/20000, - (369*\cos(3157/5000)*\exp(-231/400))/200 - (3297*\exp(-231/400)*\sin(3157/5000))/20000, - (369*\cos(1599/2500)*\exp(-117/200))/200 - (3297*\exp(-117/200)*\sin(1599/2500))/20000, - (369*\cos(3239/5000)*\exp(-237/400))/200 - (3297*\exp(-237/400)*\sin(3239/5000))/20000, - (369*\cos(82/125)*\exp(-3/5))/200 - (3297*\exp(-3/5)*\sin(82/125))/20000, - (369*\cos(3321/5000)*\exp(-243/400))/200 - (3297*\exp(-243/400)*\sin(3321/5000))/20000, - (369*\cos(1681/2500)*\exp(-123/200))/200 - (3297*\exp(-123/200)*\sin(1681/2500))/20000, - (369*\cos(3403/5000)*\exp(-249/400))/200 - (3297*\exp(-$

$249/400 * \sin(3403/5000) / 20000, - (369 * \cos(861/1250) * \exp(-63/100)) / 200 - (3297 * \exp(-63/100) * \sin(861/1250)) / 20000, - (369 * \cos(697/1000) * \exp(-51/80)) / 200 - (3297 * \exp(-51/80) * \sin(697/1000)) / 20000, - (369 * \cos(1763/2500) * \exp(-129/200)) / 200 - (3297 * \exp(-129/200) * \sin(1763/2500)) / 20000, - (369 * \cos(3567/5000) * \exp(-261/400)) / 200 - (3297 * \exp(-261/400) * \sin(3567/5000)) / 20000, - (369 * \cos(451/625) * \exp(-33/50)) / 200 - (3297 * \exp(-33/50) * \sin(451/625)) / 20000, - (369 * \cos(3649/5000) * \exp(-267/400)) / 200 - (3297 * \exp(-267/400) * \sin(3649/5000)) / 20000, - (369 * \cos(369/500) * \exp(-27/40)) / 200 - (3297 * \exp(-27/40) * \sin(369/500)) / 20000, - (369 * \cos(3731/5000) * \exp(-273/400)) / 200 - (3297 * \exp(-273/400) * \sin(3731/5000)) / 20000, - (369 * \cos(943/1250) * \exp(-69/100)) / 200 - (3297 * \exp(-69/100) * \sin(943/1250)) / 20000, - (369 * \cos(3813/5000) * \exp(-279/400)) / 200 - (3297 * \exp(-279/400) * \sin(3813/5000)) / 20000, - (369 * \cos(1927/2500) * \exp(-141/200)) / 200 - (3297 * \exp(-141/200) * \sin(1927/2500)) / 20000, - (369 * \cos(779/1000) * \exp(-57/80)) / 200 - (3297 * \exp(-57/80) * \sin(779/1000)) / 20000, - (369 * \cos(492/625) * \exp(-18/25)) / 200 - (3297 * \exp(-18/25) * \sin(492/625)) / 20000, - (369 * \cos(3977/5000) * \exp(-291/400)) / 200 - (3297 * \exp(-291/400) * \sin(3977/5000)) / 20000, - (369 * \cos(2009/2500) * \exp(-147/200)) / 200 - (3297 * \exp(-147/200) * \sin(2009/2500)) / 20000, - (369 * \cos(4059/5000) * \exp(-297/400)) / 200 - (3297 * \exp(-297/400) * \sin(4059/5000)) / 20000, - (369 * \cos(41/50) * \exp(-3/4)) / 200 - (3297 * \exp(-3/4) * \sin(41/50)) / 20000, - (369 * \cos(4141/5000) * \exp(-303/400)) / 200 - (3297 * \exp(-303/400) * \sin(4141/5000)) / 20000, - (369 * \cos(2091/2500) * \exp(-153/200)) / 200 - (3297 * \exp(-153/200) * \sin(2091/2500)) / 20000, - (369 * \cos(4223/5000) * \exp(-309/400)) / 200 - (3297 * \exp(-309/400) * \sin(4223/5000)) / 20000, - (369 * \cos(533/625) * \exp(-39/50)) / 200 - (3297 * \exp(-39/50) * \sin(533/625)) / 20000, - (369 * \cos(861/1000) * \exp(-63/80)) / 200 - (3297 * \exp(-63/80) * \sin(861/1000)) / 20000, - (369 * \cos(2173/2500) * \exp(-159/200)) / 200 - (3297 * \exp(-159/200) * \sin(2173/2500)) / 20000, - (369 * \cos(4387/5000) * \exp(-321/400)) / 200 - (3297 * \exp(-321/400) * \sin(4387/5000)) / 20000, - (369 * \cos(1107/1250) * \exp(-81/100)) / 200 - (3297 * \exp(-81/100) * \sin(1107/1250)) / 20000, - (369 * \cos(4469/5000) * \exp(-327/400)) / 200 - (3297 * \exp(-327/400) * \sin(4469/5000)) / 20000, - (369 * \cos(451/500) * \exp(-33/40)) / 200 - (3297 * \exp(-33/40) * \sin(451/500)) / 20000, - (369 * \cos(4551/5000) * \exp(-333/400)) / 200 - (3297 * \exp(-333/400) * \sin(4551/5000)) / 20000, - (369 * \cos(574/625) * \exp(-21/25)) / 200 - (3297 * \exp(-21/25) * \sin(574/625)) / 20000, - (369 * \cos(4633/5000) * \exp(-339/400)) / 200 - (3297 * \exp(-339/400) * \sin(4633/5000)) / 20000, - (369 * \cos(2337/2500) * \exp(-171/200)) / 200 - (3297 * \exp(-171/200) * \sin(2337/2500)) / 20000, - (369 * \cos(943/1000) * \exp(-69/80)) / 200 - (3297 * \exp(-69/80) * \sin(943/1000)) / 20000, - (369 * \cos(1189/1250) * \exp(-87/100)) / 200 - (3297 * \exp(-87/100) * \sin(1189/1250)) / 20000, - (369 * \cos(4797/5000) * \exp(-351/400)) / 200 - (3297 * \exp(-351/400) * \sin(4797/5000)) / 20000, - (369 * \cos(2419/2500) * \exp(-177/200)) / 200 - (3297 * \exp(-177/200) * \sin(2419/2500)) / 20000, - (369 * \cos(4879/5000) * \exp(-357/400)) / 200 - (3297 * \exp(-357/400) * \sin(4879/5000)) / 20000, - (369 * \cos(123/125) * \exp(-9/10)) / 200 - (3297 * \exp(-9/10) * \sin(123/125)) / 20000, - (369 * \cos(4961/5000) * \exp(-363/400)) / 200 - (3297 * \exp(-363/400) * \sin(4961/5000)) / 20000, - (369 * \cos(2501/2500) * \exp(-183/200)) / 200 - (3297 * \exp(-183/200) * \sin(2501/2500)) / 20000, - (369 * \cos(5043/5000) * \exp(-369/400)) / 200 - (3297 * \exp(-369/400) * \sin(5043/5000)) / 20000, - (369 * \cos(1271/1250) * \exp(-93/100)) / 200 - (3297 * \exp(-93/100) * \sin(1271/1250)) / 20000, - (369 * \cos(41/40) * \exp(-15/16)) / 200 - (3297 * \exp(-15/16) * \sin(41/40)) / 20000, - (369 * \cos(2583/2500) * \exp(-189/200)) / 200 - (3297 * \exp(-189/200) * \sin(2583/2500)) / 20000, - (369 * \cos(5207/5000) * \exp(-381/400)) / 200 - (3297 * \exp(-381/400) * \sin(5207/5000)) / 20000$

$381/400 * \sin(5207/5000) / 20000, - (369 * \cos(656/625) * \exp(-24/25)) / 200 - (3297 * \exp(-24/25) * \sin(656/625)) / 20000, - (369 * \cos(5289/5000) * \exp(-387/400)) / 200 - (3297 * \exp(-387/400) * \sin(5289/5000)) / 20000, - (369 * \cos(533/500) * \exp(-39/40)) / 200 - (3297 * \exp(-39/40) * \sin(533/500)) / 20000, - (369 * \cos(5371/5000) * \exp(-393/400)) / 200 - (3297 * \exp(-393/400) * \sin(5371/5000)) / 20000, - (369 * \cos(1353/1250) * \exp(-99/100)) / 200 - (3297 * \exp(-99/100) * \sin(1353/1250)) / 20000, - (369 * \cos(5453/5000) * \exp(-399/400)) / 200 - (3297 * \exp(-399/400) * \sin(5453/5000)) / 20000, - (369 * \cos(2747/2500) * \exp(-201/200)) / 200 - (3297 * \exp(-201/200) * \sin(2747/2500)) / 20000, - (369 * \cos(1107/1000) * \exp(-81/80)) / 200 - (3297 * \exp(-81/80) * \sin(1107/1000)) / 20000, - (369 * \cos(697/625) * \exp(-51/50)) / 200 - (3297 * \exp(-51/50) * \sin(697/625)) / 20000, - (369 * \cos(5617/5000) * \exp(-411/400)) / 200 - (3297 * \exp(-411/400) * \sin(5617/5000)) / 20000, - (369 * \cos(2829/2500) * \exp(-207/200)) / 200 - (3297 * \exp(-207/200) * \sin(2829/2500)) / 20000, - (369 * \cos(5699/5000) * \exp(-417/400)) / 200 - (3297 * \exp(-417/400) * \sin(5699/5000)) / 20000, - (369 * \cos(287/250) * \exp(-21/20)) / 200 - (3297 * \exp(-21/20) * \sin(287/250)) / 20000, - (369 * \cos(5781/5000) * \exp(-423/400)) / 200 - (3297 * \exp(-423/400) * \sin(5781/5000)) / 20000, - (369 * \cos(2911/2500) * \exp(-213/200)) / 200 - (3297 * \exp(-213/200) * \sin(2911/2500)) / 20000, - (369 * \cos(5863/5000) * \exp(-429/400)) / 200 - (3297 * \exp(-429/400) * \sin(5863/5000)) / 20000, - (369 * \cos(738/625) * \exp(-27/25)) / 200 - (3297 * \exp(-27/25) * \sin(738/625)) / 20000, - (369 * \cos(1189/1000) * \exp(-87/80)) / 200 - (3297 * \exp(-87/80) * \sin(1189/1000)) / 20000, - (369 * \cos(2993/2500) * \exp(-219/200)) / 200 - (3297 * \exp(-219/200) * \sin(2993/2500)) / 20000, - (369 * \cos(6027/5000) * \exp(-441/400)) / 200 - (3297 * \exp(-441/400) * \sin(6027/5000)) / 20000, - (369 * \cos(1517/1250) * \exp(-111/100)) / 200 - (3297 * \exp(-111/100) * \sin(1517/1250)) / 20000, - (369 * \cos(6109/5000) * \exp(-447/400)) / 200 - (3297 * \exp(-447/400) * \sin(6109/5000)) / 20000, - (369 * \cos(123/100) * \exp(-9/8)) / 200 - (3297 * \exp(-9/8) * \sin(123/100)) / 20000, - (369 * \cos(6191/5000) * \exp(-453/400)) / 200 - (3297 * \exp(-453/400) * \sin(6191/5000)) / 20000, - (369 * \cos(779/625) * \exp(-57/50)) / 200 - (3297 * \exp(-57/50) * \sin(779/625)) / 20000, - (369 * \cos(6273/5000) * \exp(-459/400)) / 200 - (3297 * \exp(-459/400) * \sin(6273/5000)) / 20000, - (369 * \cos(3157/2500) * \exp(-231/200)) / 200 - (3297 * \exp(-231/200) * \sin(3157/2500)) / 20000, - (369 * \cos(1271/1000) * \exp(-93/80)) / 200 - (3297 * \exp(-93/80) * \sin(1271/1000)) / 20000, - (369 * \cos(1599/1250) * \exp(-117/100)) / 200 - (3297 * \exp(-117/100) * \sin(1599/1250)) / 20000, - (369 * \cos(6437/5000) * \exp(-471/400)) / 200 - (3297 * \exp(-471/400) * \sin(6437/5000)) / 20000, - (369 * \cos(3239/2500) * \exp(-237/200)) / 200 - (3297 * \exp(-237/200) * \sin(3239/2500)) / 20000, - (369 * \cos(6519/5000) * \exp(-477/400)) / 200 - (3297 * \exp(-477/400) * \sin(6519/5000)) / 20000, - (369 * \cos(164/125) * \exp(-6/5)) / 200 - (3297 * \exp(-6/5) * \sin(164/125)) / 20000, - (369 * \cos(6601/5000) * \exp(-483/400)) / 200 - (3297 * \exp(-483/400) * \sin(6601/5000)) / 20000, - (369 * \cos(3321/2500) * \exp(-243/200)) / 200 - (3297 * \exp(-243/200) * \sin(3321/2500)) / 20000, - (369 * \cos(6683/5000) * \exp(-489/400)) / 200 - (3297 * \exp(-489/400) * \sin(6683/5000)) / 20000, - (369 * \cos(1681/1250) * \exp(-123/100)) / 200 - (3297 * \exp(-123/100) * \sin(1681/1250)) / 20000, - (369 * \cos(1353/1000) * \exp(-99/80)) / 200 - (3297 * \exp(-99/80) * \sin(1353/1000)) / 20000, - (369 * \cos(3403/2500) * \exp(-249/200)) / 200 - (3297 * \exp(-249/200) * \sin(3403/2500)) / 20000, - (369 * \cos(6847/5000) * \exp(-501/400)) / 200 - (3297 * \exp(-501/400) * \sin(6847/5000)) / 20000, - (369 * \cos(861/625) * \exp(-63/50)) / 200 - (3297 * \exp(-63/50) * \sin(861/625)) / 20000, - (369 * \cos(6929/5000) * \exp(-507/400)) / 200 - (3297 * \exp(-507/400) * \sin(6929/5000)) / 20000, - (369 * \cos(697/500) * \exp(-51/40)) / 200 - (3297 * \exp(-51/40) * \sin(697/500)) / 20000, - (369 * \cos(7011/5000) * \exp(-513/400)) / 200 - (3297 * \exp(-$

$513/400 * \sin(7011/5000) / 20000, - (369 * \cos(1763/1250) * \exp(-129/100)) / 200 - (3297 * \exp(-129/100) * \sin(1763/1250)) / 20000, - (369 * \cos(7093/5000) * \exp(-519/400)) / 200 - (3297 * \exp(-519/400) * \sin(7093/5000)) / 20000, - (369 * \cos(3567/2500) * \exp(-261/200)) / 200 - (3297 * \exp(-261/200) * \sin(3567/2500)) / 20000, - (369 * \cos(287/200) * \exp(-21/16)) / 200 - (3297 * \exp(-21/16) * \sin(287/200)) / 20000, - (369 * \cos(902/625) * \exp(-33/25)) / 200 - (3297 * \exp(-33/25) * \sin(902/625)) / 20000, - (369 * \cos(7257/5000) * \exp(-531/400)) / 200 - (3297 * \exp(-531/400) * \sin(7257/5000)) / 20000, - (369 * \cos(3649/2500) * \exp(-267/200)) / 200 - (3297 * \exp(-267/200) * \sin(3649/2500)) / 20000, - (369 * \cos(7339/5000) * \exp(-537/400)) / 200 - (3297 * \exp(-537/400) * \sin(7339/5000)) / 20000, - (369 * \cos(369/250) * \exp(-27/20)) / 200 - (3297 * \exp(-27/20) * \sin(369/250)) / 20000, - (369 * \cos(7421/5000) * \exp(-543/400)) / 200 - (3297 * \exp(-543/400) * \sin(7421/5000)) / 20000, - (369 * \cos(3731/2500) * \exp(-273/200)) / 200 - (3297 * \exp(-273/200) * \sin(3731/2500)) / 20000, - (369 * \cos(7503/5000) * \exp(-549/400)) / 200 - (3297 * \exp(-549/400) * \sin(7503/5000)) / 20000, - (369 * \cos(943/625) * \exp(-69/50)) / 200 - (3297 * \exp(-69/50) * \sin(943/625)) / 20000, - (369 * \cos(1517/1000) * \exp(-111/80)) / 200 - (3297 * \exp(-111/80) * \sin(1517/1000)) / 20000, - (369 * \cos(3813/2500) * \exp(-279/200)) / 200 - (3297 * \exp(-279/200) * \sin(3813/2500)) / 20000, - (369 * \cos(7667/5000) * \exp(-561/400)) / 200 - (3297 * \exp(-561/400) * \sin(7667/5000)) / 20000, - (369 * \cos(1927/1250) * \exp(-141/100)) / 200 - (3297 * \exp(-141/100) * \sin(1927/1250)) / 20000, - (369 * \cos(7749/5000) * \exp(-567/400)) / 200 - (3297 * \exp(-567/400) * \sin(7749/5000)) / 20000, - (369 * \cos(779/500) * \exp(-57/40)) / 200 - (3297 * \exp(-57/40) * \sin(779/500)) / 20000, - (369 * \cos(7831/5000) * \exp(-573/400)) / 200 - (3297 * \exp(-573/400) * \sin(7831/5000)) / 20000, - (369 * \cos(984/625) * \exp(-36/25)) / 200 - (3297 * \exp(-36/25) * \sin(984/625)) / 20000, - (369 * \cos(7913/5000) * \exp(-579/400)) / 200 - (3297 * \exp(-579/400) * \sin(7913/5000)) / 20000, - (369 * \cos(3977/2500) * \exp(-291/200)) / 200 - (3297 * \exp(-291/200) * \sin(3977/2500)) / 20000, - (369 * \cos(1599/1000) * \exp(-117/80)) / 200 - (3297 * \exp(-117/80) * \sin(1599/1000)) / 20000, - (369 * \cos(2009/1250) * \exp(-147/100)) / 200 - (3297 * \exp(-147/100) * \sin(2009/1250)) / 20000, - (369 * \cos(8077/5000) * \exp(-591/400)) / 200 - (3297 * \exp(-591/400) * \sin(8077/5000)) / 20000, - (369 * \cos(4059/2500) * \exp(-297/200)) / 200 - (3297 * \exp(-297/200) * \sin(4059/2500)) / 20000, - (369 * \cos(8159/5000) * \exp(-597/400)) / 200 - (3297 * \exp(-597/400) * \sin(8159/5000)) / 20000, - (369 * \cos(41/25) * \exp(-3/2)) / 200 - (3297 * \exp(-3/2) * \sin(41/25)) / 20000, - (369 * \cos(8241/5000) * \exp(-603/400)) / 200 - (3297 * \exp(-603/400) * \sin(8241/5000)) / 20000, - (369 * \cos(4141/2500) * \exp(-303/200)) / 200 - (3297 * \exp(-303/200) * \sin(4141/2500)) / 20000, - (369 * \cos(8323/5000) * \exp(-609/400)) / 200 - (3297 * \exp(-609/400) * \sin(8323/5000)) / 20000, - (369 * \cos(2091/1250) * \exp(-153/100)) / 200 - (3297 * \exp(-153/100) * \sin(2091/1250)) / 20000, - (369 * \cos(1681/1000) * \exp(-123/80)) / 200 - (3297 * \exp(-123/80) * \sin(1681/1000)) / 20000, - (369 * \cos(4223/2500) * \exp(-309/200)) / 200 - (3297 * \exp(-309/200) * \sin(4223/2500)) / 20000, - (369 * \cos(8487/5000) * \exp(-621/400)) / 200 - (3297 * \exp(-621/400) * \sin(8487/5000)) / 20000, - (369 * \cos(1066/625) * \exp(-39/25)) / 200 - (3297 * \exp(-39/25) * \sin(1066/625)) / 20000, - (369 * \cos(8569/5000) * \exp(-627/400)) / 200 - (3297 * \exp(-627/400) * \sin(8569/5000)) / 20000, - (369 * \cos(861/500) * \exp(-63/40)) / 200 - (3297 * \exp(-63/40) * \sin(861/500)) / 20000, - (369 * \cos(8651/5000) * \exp(-633/400)) / 200 - (3297 * \exp(-633/400) * \sin(8651/5000)) / 20000, - (369 * \cos(2173/1250) * \exp(-159/100)) / 200 - (3297 * \exp(-159/100) * \sin(2173/1250)) / 20000, - (369 * \cos(8733/5000) * \exp(-639/400)) / 200 - (3297 * \exp(-639/400) * \sin(8733/5000)) / 20000, - (369 * \cos(4387/2500) * \exp(-321/200)) / 200 - (3297 * \exp(-321/200) * \sin(4387/2500)) / 20000, - (369 * \cos(1763/1000) * \exp(-129/80)) / 200 - (3297 * \exp(-$

$$\begin{aligned}
& 129/80) \cdot \sin(1763/1000))/20000, - (369 \cdot \cos(1107/625) \cdot \exp(-81/50))/200 - (3297 \cdot \exp(-81/50) \cdot \sin(1107/625))/20000, - (369 \cdot \cos(8897/5000) \cdot \exp(-651/400))/200 - (3297 \cdot \exp(-651/400) \cdot \sin(8897/5000))/20000, - (369 \cdot \cos(4469/2500) \cdot \exp(-327/200))/200 - (3297 \cdot \exp(-327/200) \cdot \sin(4469/2500))/20000, - (369 \cdot \cos(8979/5000) \cdot \exp(-657/400))/200 - (3297 \cdot \exp(-657/400) \cdot \sin(8979/5000))/20000, - (369 \cdot \cos(451/250) \cdot \exp(-33/20))/200 - (3297 \cdot \exp(-33/20) \cdot \sin(451/250))/20000, - (369 \cdot \cos(9061/5000) \cdot \exp(-663/400))/200 - (3297 \cdot \exp(-663/400) \cdot \sin(9061/5000))/20000, - (369 \cdot \cos(4551/2500) \cdot \exp(-333/200))/200 - (3297 \cdot \exp(-333/200) \cdot \sin(4551/2500))/20000, - (369 \cdot \cos(9143/5000) \cdot \exp(-669/400))/200 - (3297 \cdot \exp(-669/400) \cdot \sin(9143/5000))/20000, - (369 \cdot \cos(1148/625) \cdot \exp(-42/25))/200 - (3297 \cdot \exp(-42/25) \cdot \sin(1148/625))/20000, - (369 \cdot \cos(369/200) \cdot \exp(-27/16))/200 - (3297 \cdot \exp(-27/16) \cdot \sin(369/200))/20000, - (369 \cdot \cos(4633/2500) \cdot \exp(-339/200))/200 - (3297 \cdot \exp(-339/200) \cdot \sin(4633/2500))/20000, - (369 \cdot \cos(9307/5000) \cdot \exp(-681/400))/200 - (3297 \cdot \exp(-681/400) \cdot \sin(9307/5000))/20000, - (369 \cdot \cos(2337/1250) \cdot \exp(-171/100))/200 - (3297 \cdot \exp(-171/100) \cdot \sin(2337/1250))/20000, - (369 \cdot \cos(9389/5000) \cdot \exp(-687/400))/200 - (3297 \cdot \exp(-687/400) \cdot \sin(9389/5000))/20000, - (369 \cdot \cos(943/500) \cdot \exp(-69/40))/200 - (3297 \cdot \exp(-69/40) \cdot \sin(943/500))/20000, - (369 \cdot \cos(9471/5000) \cdot \exp(-693/400))/200 - (3297 \cdot \exp(-693/400) \cdot \sin(9471/5000))/20000, - (369 \cdot \cos(1189/625) \cdot \exp(-87/50))/200 - (3297 \cdot \exp(-87/50) \cdot \sin(1189/625))/20000, - (369 \cdot \cos(9553/5000) \cdot \exp(-699/400))/200 - (3297 \cdot \exp(-699/400) \cdot \sin(9553/5000))/20000, - (369 \cdot \cos(4797/2500) \cdot \exp(-351/200))/200 - (3297 \cdot \exp(-351/200) \cdot \sin(4797/2500))/20000, - (369 \cdot \cos(1927/1000) \cdot \exp(-141/80))/200 - (3297 \cdot \exp(-141/80) \cdot \sin(1927/1000))/20000, - (369 \cdot \cos(2419/1250) \cdot \exp(-177/100))/200 - (3297 \cdot \exp(-177/100) \cdot \sin(2419/1250))/20000, - (369 \cdot \cos(9717/5000) \cdot \exp(-711/400))/200 - (3297 \cdot \exp(-711/400) \cdot \sin(9717/5000))/20000, - (369 \cdot \cos(4879/2500) \cdot \exp(-357/200))/200 - (3297 \cdot \exp(-357/200) \cdot \sin(4879/2500))/20000, - (369 \cdot \cos(9799/5000) \cdot \exp(-717/400))/200 - (3297 \cdot \exp(-717/400) \cdot \sin(9799/5000))/20000, - (369 \cdot \cos(246/125) \cdot \exp(-9/5))/200 - (3297 \cdot \exp(-9/5) \cdot \sin(246/125))/20000, - (369 \cdot \cos(9881/5000) \cdot \exp(-723/400))/200 - (3297 \cdot \exp(-723/400) \cdot \sin(9881/5000))/20000, - (369 \cdot \cos(4961/2500) \cdot \exp(-363/200))/200 - (3297 \cdot \exp(-363/200) \cdot \sin(4961/2500))/20000, - (369 \cdot \cos(9963/5000) \cdot \exp(-729/400))/200 - (3297 \cdot \exp(-729/400) \cdot \sin(9963/5000))/20000, - (369 \cdot \cos(2501/1250) \cdot \exp(-183/100))/200 - (3297 \cdot \exp(-183/100) \cdot \sin(2501/1250))/20000, - (369 \cdot \cos(2009/1000) \cdot \exp(-147/80))/200 - (3297 \cdot \exp(-147/80) \cdot \sin(2009/1000))/20000, - (369 \cdot \cos(5043/2500) \cdot \exp(-369/200))/200 - (3297 \cdot \exp(-369/200) \cdot \sin(5043/2500))/20000, - (369 \cdot \cos(10127/5000) \cdot \exp(-741/400))/200 - (3297 \cdot \exp(-741/400) \cdot \sin(10127/5000))/20000, - (369 \cdot \cos(1271/625) \cdot \exp(-93/50))/200 - (3297 \cdot \exp(-93/50) \cdot \sin(1271/625))/20000, - (369 \cdot \cos(10209/5000) \cdot \exp(-747/400))/200 - (3297 \cdot \exp(-747/400) \cdot \sin(10209/5000))/20000, - (369 \cdot \cos(41/20) \cdot \exp(-15/8))/200 - (3297 \cdot \exp(-15/8) \cdot \sin(41/20))/20000]
\end{aligned}$$

```

commandwindow
clear
clc
format short g
close all
syms x
Y=5*((sin(5*x))^5)
a=vpa(pi)

```

```
X=a*(int((Y^2),0,a))  
X=double(X)
```

Y =

5*sin(5*x)^5

a =

3.1415926535897932384626433832795

X =

60.721198952014608690095012987519

X =

60.721