

**NAME: ISIAYEI TARE NKEM**

**DEPT: COMPUTER ENGINEERING**

**MATRIC NO: 16/ENG02/025**

**MATHS TEST**

**(a)**

commandwindow

clear

clc

format long g

C = [0 10 4 -2; -3 -17 1 2; 1 1 1 0; 8 -34 16 -10]

D = [-4; 2; 6; 4];

titi = inv(C)

X = titi\* D

C =

0	10	4	-2
-3	-17	1	2
1	1	1	0
8	-34	16	-10

tinuke =

-0.178571428571429	-0.102040816326531
0.571428571428571	0.0153061224489796

0.0357142857142857	-0.0153061224489796
0.0357142857142857	-0.0102040816326531

0.142857142857143	0.11734693877551
0.392857142857143	-0.00510204081632653

-0.0357142857142857	0.158163265306122
0.964285714285714	-0.0612244897959184

X =

4
-9.71445146547012e-17
2
6

>>

**(b)**

```

commandwindow
clear
clc
close all
syms t
d = 1.5*exp(-0.75*t)*sin(0.85*t)+0.375*t
tn = [0:0.01:2.5]
dn = subs(d,tn)
V = diff(d)
Vn = subs(V,tn)
figure(1)
plot(tn,Vn)
xlabel('time (min)')
ylabel('velocity (km/min)')
axis tight
grid on
grid minor
A = diff(V)
An = subs(A,tn)
figure(2)
plot(tn,An)
xlabel('time (min)')
ylabel('acceleration (km/min^-2)')
axis tight
grid on
grid minor
figure(3)
plot(tn,Vn,tn,An)
axis tight
grid on
grid minor
xlabel('time (min)')
ylabel('variable')
legend('velocity (km/min)', 'acceleration (km/min^-2)', 'location', 'best'

```

d =

$$(3*t)/8 + (3*\sin((17*t)/20)*\exp(-(3*t)/4))/2$$

tn =

Columns 1 through 5

	0	0.01
0.02	0.03	0.04

Columns 6 through 10

	0.05	0.06
0.07	0.08	0.09

Columns 11 through 15

0.12                    0.1                    0.11  
                          0.13                    0.14

Columns 16 through 20

0.17                    0.15                    0.16  
                          0.18                    0.19

Columns 21 through 25

0.22                    0.2                    0.21  
                          0.23                    0.24

Columns 26 through 30

0.27                    0.25                    0.26  
                          0.28                    0.29

Columns 31 through 35

0.32                    0.3                    0.31  
                          0.33                    0.34

Columns 36 through 40

0.37                    0.35                    0.36  
                          0.38                    0.39

Columns 41 through 45

0.42                    0.4                    0.41  
                          0.43                    0.44

Columns 46 through 50

0.47                    0.45                    0.46  
                          0.48                    0.49

Columns 51 through 55

0.52                    0.5                    0.51  
                          0.53                    0.54

Columns 56 through 60

0.57                    0.55                    0.56  
                          0.58                    0.59

Columns 61 through 65

0.62                    0.6                    0.61  
                          0.63                    0.64

Columns 66 through 70

0.67                    0.65                    0.66  
                          0.68                    0.69

Columns 71 through 75

0.72                    0.7                    0.71  
                          0.73                    0.74

Columns 76 through 80

0.77                    0.75                    0.76  
                          0.78                    0.79

Columns 81 through 85

0.82                    0.8                    0.81  
                          0.83                    0.84

Columns 86 through 90

0.87                    0.85                    0.86  
                          0.88                    0.89

Columns 91 through 95

0.92                    0.9                    0.91  
                          0.93                    0.94

Columns 96 through 100

0.97                    0.95                    0.96  
                          0.98                    0.99

Columns 101 through 105

1.02                    1                    1.01  
                          1.03                    1.04

Columns 106 through 110

1.07                    1.05                    1.06  
                          1.08                    1.09

Columns 111 through 115

1.12	1.1 1.13	1.11 1.14
	Columns 116 through 120	
1.17	1.15 1.18	1.16 1.19
	Columns 121 through 125	
1.22	1.2 1.23	1.21 1.24
	Columns 126 through 130	
1.27	1.25 1.28	1.26 1.29
	Columns 131 through 135	
1.32	1.3 1.33	1.31 1.34
	Columns 136 through 140	
1.37	1.35 1.38	1.36 1.39
	Columns 141 through 145	
1.42	1.4 1.43	1.41 1.44
	Columns 146 through 150	
1.47	1.45 1.48	1.46 1.49
	Columns 151 through 155	
1.52	1.5 1.53	1.51 1.54
	Columns 156 through 160	
1.57	1.55 1.58	1.56 1.59
	Columns 161 through 165	

1.62	1.6 1.63	1.61 1.64
	Columns 166 through 170	
1.67	1.65 1.68	1.66 1.69
	Columns 171 through 175	
1.72	1.7 1.73	1.71 1.74
	Columns 176 through 180	
1.77	1.75 1.78	1.76 1.79
	Columns 181 through 185	
1.82	1.8 1.83	1.81 1.84
	Columns 186 through 190	
1.87	1.85 1.88	1.86 1.89
	Columns 191 through 195	
1.92	1.9 1.93	1.91 1.94
	Columns 196 through 200	
1.97	1.95 1.98	1.96 1.99
	Columns 201 through 205	
2.02	2 2.03	2.01 2.04
	Columns 206 through 210	
2.07	2.05 2.08	2.06 2.09
	Columns 211 through 215	



$+ 27/800, (3*\exp(-3/40)*\sin(17/200))/2 + 3/80, (3*\exp(-33/400)*\sin(187/2000))/2 + 33/800, (3*\exp(-9/100)*\sin(51/500))/2 + 9/200, (3*\exp(-39/400)*\sin(221/2000))/2 + 39/800, (3*\exp(-21/200)*\sin(119/1000))/2 + 21/400, (3*\exp(-9/80)*\sin(51/400))/2 + 9/160, (3*\exp(-3/25)*\sin(17/125))/2 + 3/50, (3*\exp(-51/400)*\sin(289/2000))/2 + 51/800, (3*\exp(-27/200)*\sin(153/1000))/2 + 27/400, (3*\exp(-57/400)*\sin(323/2000))/2 + 57/800, (3*\exp(-3/20)*\sin(17/100))/2 + 3/40, (3*\exp(-63/400)*\sin(357/2000))/2 + 63/800, (3*\exp(-33/200)*\sin(187/1000))/2 + 33/400, (3*\exp(-69/400)*\sin(391/2000))/2 + 69/800, (3*\exp(-9/50)*\sin(51/250))/2 + 9/100, (3*\exp(-3/16)*\sin(17/80))/2 + 3/32, (3*\exp(-39/200)*\sin(221/1000))/2 + 39/400, (3*\exp(-81/400)*\sin(459/2000))/2 + 81/800, (3*\exp(-21/100)*\sin(119/500))/2 + 21/200, (3*\exp(-87/400)*\sin(493/2000))/2 + 87/800, (3*\exp(-9/40)*\sin(51/200))/2 + 9/80, (3*\exp(-93/400)*\sin(527/2000))/2 + 93/800, (3*\exp(-6/25)*\sin(34/125))/2 + 3/25, (3*\exp(-99/400)*\sin(561/2000))/2 + 99/800, (3*\exp(-51/200)*\sin(289/1000))/2 + 51/400, (3*\exp(-21/80)*\sin(119/400))/2 + 21/160, (3*\exp(-27/100)*\sin(153/500))/2 + 27/200, (3*\exp(-111/400)*\sin(629/2000))/2 + 111/800, (3*\exp(-57/200)*\sin(323/1000))/2 + 57/400, (3*\exp(-117/400)*\sin(663/2000))/2 + 117/800, (3*\exp(-3/10)*\sin(17/50))/2 + 3/20, (3*\exp(-123/400)*\sin(697/2000))/2 + 123/800, (3*\exp(-63/200)*\sin(357/1000))/2 + 63/400, (3*\exp(-129/400)*\sin(731/2000))/2 + 129/800, (3*\exp(-33/100)*\sin(187/500))/2 + 33/200, (3*\exp(-27/80)*\sin(153/400))/2 + 27/160, (3*\exp(-69/200)*\sin(391/1000))/2 + 69/400, (3*\exp(-141/400)*\sin(799/2000))/2 + 141/800, (3*\exp(-9/25)*\sin(51/125))/2 + 9/50, (3*\exp(-147/400)*\sin(833/2000))/2 + 147/800, (3*\exp(-3/8)*\sin(17/40))/2 + 3/16, (3*\exp(-153/400)*\sin(867/2000))/2 + 153/800, (3*\exp(-39/100)*\sin(221/500))/2 + 39/200, (3*\exp(-159/400)*\sin(901/2000))/2 + 159/800, (3*\exp(-81/200)*\sin(459/1000))/2 + 81/400, (3*\exp(-33/80)*\sin(187/400))/2 + 33/160, (3*\exp(-21/50)*\sin(119/250))/2 + 21/100, (3*\exp(-171/400)*\sin(969/2000))/2 + 171/800, (3*\exp(-87/200)*\sin(493/1000))/2 + 87/400, (3*\exp(-177/400)*\sin(1003/2000))/2 + 177/800, (3*\exp(-9/20)*\sin(51/100))/2 + 9/40, (3*\exp(-183/400)*\sin(1037/2000))/2 + 183/800, (3*\exp(-93/200)*\sin(527/1000))/2 + 93/400, (3*\exp(-189/400)*\sin(1071/2000))/2 + 189/800, (3*\exp(-12/25)*\sin(68/125))/2 + 6/25, (3*\exp(-39/80)*\sin(221/400))/2 + 39/160, (3*\exp(-99/200)*\sin(561/1000))/2 + 99/400, (3*\exp(-201/400)*\sin(1139/2000))/2 + 201/800, (3*\exp(-$



$51/100) * \sin(289/500))/2 + 51/200, (3 * \exp(-$   
 $207/400) * \sin(1173/2000))/2 + 207/800, (3 * \exp(-$   
 $21/40) * \sin(119/200))/2 + 21/80, (3 * \exp(-$   
 $213/400) * \sin(1207/2000))/2 + 213/800, (3 * \exp(-$   
 $27/50) * \sin(153/250))/2 + 27/100, (3 * \exp(-$   
 $219/400) * \sin(1241/2000))/2 + 219/800, (3 * \exp(-$   
 $111/200) * \sin(629/1000))/2 + 111/400, (3 * \exp(-$   
 $9/16) * \sin(51/80))/2 + 9/32, (3 * \exp(-57/100) * \sin(323/500))/2 +$   
 $57/200, (3 * \exp(-231/400) * \sin(1309/2000))/2 + 231/800, (3 * \exp(-$   
 $117/200) * \sin(663/1000))/2 + 117/400, (3 * \exp(-$   
 $237/400) * \sin(1343/2000))/2 + 237/800, (3 * \exp(-$   
 $3/5) * \sin(17/25))/2 + 3/10, (3 * \exp(-243/400) * \sin(1377/2000))/2$   
 $+ 243/800, (3 * \exp(-123/200) * \sin(697/1000))/2 + 123/400,$   
 $(3 * \exp(-249/400) * \sin(1411/2000))/2 + 249/800, (3 * \exp(-$   
 $63/100) * \sin(357/500))/2 + 63/200, (3 * \exp(-$   
 $51/80) * \sin(289/400))/2 + 51/160, (3 * \exp(-$   
 $129/200) * \sin(731/1000))/2 + 129/400, (3 * \exp(-$   
 $261/400) * \sin(1479/2000))/2 + 261/800, (3 * \exp(-$   
 $33/50) * \sin(187/250))/2 + 33/100, (3 * \exp(-$   
 $267/400) * \sin(1513/2000))/2 + 267/800, (3 * \exp(-$   
 $27/40) * \sin(153/200))/2 + 27/80, (3 * \exp(-$   
 $273/400) * \sin(1547/2000))/2 + 273/800, (3 * \exp(-$   
 $69/100) * \sin(391/500))/2 + 69/200, (3 * \exp(-$   
 $279/400) * \sin(1581/2000))/2 + 279/800, (3 * \exp(-$   
 $141/200) * \sin(799/1000))/2 + 141/400, (3 * \exp(-$   
 $57/80) * \sin(323/400))/2 + 57/160, (3 * \exp(-$   
 $18/25) * \sin(102/125))/2 + 9/25, (3 * \exp(-$   
 $291/400) * \sin(1649/2000))/2 + 291/800, (3 * \exp(-$   
 $147/200) * \sin(833/1000))/2 + 147/400, (3 * \exp(-$   
 $297/400) * \sin(1683/2000))/2 + 297/800, (3 * \exp(-$   
 $3/4) * \sin(17/20))/2 + 3/8, (3 * \exp(-303/400) * \sin(1717/2000))/2 +$   
 $303/800, (3 * \exp(-153/200) * \sin(867/1000))/2 + 153/400, (3 * \exp(-$   
 $309/400) * \sin(1751/2000))/2 + 309/800, (3 * \exp(-$   
 $39/50) * \sin(221/250))/2 + 39/100, (3 * \exp(-$   
 $63/80) * \sin(357/400))/2 + 63/160, (3 * \exp(-$   
 $159/200) * \sin(901/1000))/2 + 159/400, (3 * \exp(-$   
 $321/400) * \sin(1819/2000))/2 + 321/800, (3 * \exp(-$   
 $81/100) * \sin(459/500))/2 + 81/200, (3 * \exp(-$   
 $327/400) * \sin(1853/2000))/2 + 327/800, (3 * \exp(-$   
 $33/40) * \sin(187/200))/2 + 33/80, (3 * \exp(-$   
 $333/400) * \sin(1887/2000))/2 + 333/800, (3 * \exp(-$   
 $21/25) * \sin(119/125))/2 + 21/50, (3 * \exp(-$   
 $339/400) * \sin(1921/2000))/2 + 339/800, (3 * \exp(-$   
 $171/200) * \sin(969/1000))/2 + 171/400, (3 * \exp(-$   
 $69/80) * \sin(391/400))/2 + 69/160, (3 * \exp(-$   
 $87/100) * \sin(493/500))/2 + 87/200, (3 * \exp(-$   
 $351/400) * \sin(1989/2000))/2 + 351/800, (3 * \exp(-$   
 $177/200) * \sin(1003/1000))/2 + 177/400, (3 * \exp(-$   
 $357/400) * \sin(2023/2000))/2 + 357/800, (3 * \exp(-$   
 $9/10) * \sin(51/50))/2 + 9/20, (3 * \exp(-363/400) * \sin(2057/2000))/2$   
 $+ 363/800, (3 * \exp(-183/200) * \sin(1037/1000))/2 + 183/400,$

$(3*\exp(-369/400)*\sin(2091/2000))/2 + 369/800,$   $(3*\exp(-93/100)*\sin(527/500))/2 + 93/200,$   $(3*\exp(-15/16)*\sin(17/16))/2 + 15/32,$   $(3*\exp(-189/200)*\sin(1071/1000))/2 + 189/400,$   
 $(3*\exp(-381/400)*\sin(2159/2000))/2 + 381/800,$   $(3*\exp(-24/25)*\sin(136/125))/2 + 12/25,$   $(3*\exp(-387/400)*\sin(2193/2000))/2 + 387/800,$   $(3*\exp(-39/40)*\sin(221/200))/2 + 39/80,$   $(3*\exp(-393/400)*\sin(2227/2000))/2 + 393/800,$   $(3*\exp(-99/100)*\sin(561/500))/2 + 99/200,$   $(3*\exp(-399/400)*\sin(2261/2000))/2 + 399/800,$   $(3*\exp(-201/200)*\sin(1139/1000))/2 + 201/400,$   $(3*\exp(-81/80)*\sin(459/400))/2 + 81/160,$   $(3*\exp(-51/50)*\sin(289/250))/2 + 51/100,$   $(3*\exp(-411/400)*\sin(2329/2000))/2 + 411/800,$   $(3*\exp(-207/200)*\sin(1173/1000))/2 + 207/400,$   $(3*\exp(-417/400)*\sin(2363/2000))/2 + 417/800,$   $(3*\exp(-21/20)*\sin(119/100))/2 + 21/40,$   $(3*\exp(-423/400)*\sin(2397/2000))/2 + 423/800,$   $(3*\exp(-213/200)*\sin(1207/1000))/2 + 213/400,$   $(3*\exp(-429/400)*\sin(2431/2000))/2 + 429/800,$   $(3*\exp(-27/25)*\sin(153/125))/2 + 27/50,$   $(3*\exp(-87/80)*\sin(493/400))/2 + 87/160,$   $(3*\exp(-219/200)*\sin(1241/1000))/2 + 219/400,$   $(3*\exp(-441/400)*\sin(2499/2000))/2 + 441/800,$   $(3*\exp(-111/100)*\sin(629/500))/2 + 111/200,$   $(3*\exp(-447/400)*\sin(2533/2000))/2 + 447/800,$   $(3*\exp(-9/8)*\sin(51/40))/2 + 9/16,$   $(3*\exp(-453/400)*\sin(2567/2000))/2 + 453/800,$   $(3*\exp(-57/50)*\sin(323/250))/2 + 57/100,$   $(3*\exp(-459/400)*\sin(2601/2000))/2 + 459/800,$   $(3*\exp(-231/200)*\sin(1309/1000))/2 + 231/400,$   $(3*\exp(-93/80)*\sin(527/400))/2 + 93/160,$   $(3*\exp(-117/100)*\sin(663/500))/2 + 117/200,$   $(3*\exp(-471/400)*\sin(2669/2000))/2 + 471/800,$   $(3*\exp(-237/200)*\sin(1343/1000))/2 + 237/400,$   $(3*\exp(-477/400)*\sin(2703/2000))/2 + 477/800,$   $(3*\exp(-6/5)*\sin(34/25))/2 + 3/5,$   $(3*\exp(-483/400)*\sin(2737/2000))/2 + 483/800,$   $(3*\exp(-243/200)*\sin(1377/1000))/2 + 243/400,$   $(3*\exp(-489/400)*\sin(2771/2000))/2 + 489/800,$   $(3*\exp(-123/100)*\sin(697/500))/2 + 123/200,$   $(3*\exp(-99/80)*\sin(561/400))/2 + 99/160,$   $(3*\exp(-249/200)*\sin(1411/1000))/2 + 249/400,$   $(3*\exp(-501/400)*\sin(2839/2000))/2 + 501/800,$   $(3*\exp(-63/50)*\sin(357/250))/2 + 63/100,$   $(3*\exp(-507/400)*\sin(2873/2000))/2 + 507/800,$   $(3*\exp(-51/40)*\sin(289/200))/2 + 51/80,$   $(3*\exp(-513/400)*\sin(2907/2000))/2 + 513/800,$   $(3*\exp(-129/100)*\sin(731/500))/2 + 129/200,$   $(3*\exp(-519/400)*\sin(2941/2000))/2 + 519/800,$   $(3*\exp(-261/200)*\sin(1479/1000))/2 + 261/400,$   $(3*\exp(-21/16)*\sin(119/80))/2 + 21/32,$   $(3*\exp(-33/25)*\sin(187/125))/2 + 33/50,$   $(3*\exp(-531/400)*\sin(3009/2000))/2 + 531/800,$   $(3*\exp(-267/200)*\sin(1513/1000))/2 + 267/400,$   $(3*\exp(-$

$537/400) * \sin(3043/2000))/2 + 537/800, (3 * \exp(-$   
 $27/20) * \sin(153/100))/2 + 27/40, (3 * \exp(-$   
 $543/400) * \sin(3077/2000))/2 + 543/800, (3 * \exp(-$   
 $273/200) * \sin(1547/1000))/2 + 273/400, (3 * \exp(-$   
 $549/400) * \sin(3111/2000))/2 + 549/800, (3 * \exp(-$   
 $69/50) * \sin(391/250))/2 + 69/100, (3 * \exp(-$   
 $111/80) * \sin(629/400))/2 + 111/160, (3 * \exp(-$   
 $279/200) * \sin(1581/1000))/2 + 279/400, (3 * \exp(-$   
 $561/400) * \sin(3179/2000))/2 + 561/800, (3 * \exp(-$   
 $141/100) * \sin(799/500))/2 + 141/200, (3 * \exp(-$   
 $567/400) * \sin(3213/2000))/2 + 567/800, (3 * \exp(-$   
 $57/40) * \sin(323/200))/2 + 57/80, (3 * \exp(-$   
 $573/400) * \sin(3247/2000))/2 + 573/800, (3 * \exp(-$   
 $36/25) * \sin(204/125))/2 + 18/25, (3 * \exp(-$   
 $579/400) * \sin(3281/2000))/2 + 579/800, (3 * \exp(-$   
 $291/200) * \sin(1649/1000))/2 + 291/400, (3 * \exp(-$   
 $117/80) * \sin(663/400))/2 + 117/160, (3 * \exp(-$   
 $147/100) * \sin(833/500))/2 + 147/200, (3 * \exp(-$   
 $591/400) * \sin(3349/2000))/2 + 591/800, (3 * \exp(-$   
 $297/200) * \sin(1683/1000))/2 + 297/400, (3 * \exp(-$   
 $597/400) * \sin(3383/2000))/2 + 597/800, (3 * \exp(-$   
 $3/2) * \sin(17/10))/2 + 3/4, (3 * \exp(-603/400) * \sin(3417/2000))/2 +$   
 $603/800, (3 * \exp(-303/200) * \sin(1717/1000))/2 + 303/400,$   
 $(3 * \exp(-609/400) * \sin(3451/2000))/2 + 609/800, (3 * \exp(-$   
 $153/100) * \sin(867/500))/2 + 153/200, (3 * \exp(-$   
 $123/80) * \sin(697/400))/2 + 123/160, (3 * \exp(-$   
 $309/200) * \sin(1751/1000))/2 + 309/400, (3 * \exp(-$   
 $621/400) * \sin(3519/2000))/2 + 621/800, (3 * \exp(-$   
 $39/25) * \sin(221/125))/2 + 39/50, (3 * \exp(-$   
 $627/400) * \sin(3553/2000))/2 + 627/800, (3 * \exp(-$   
 $63/40) * \sin(357/200))/2 + 63/80, (3 * \exp(-$   
 $633/400) * \sin(3587/2000))/2 + 633/800, (3 * \exp(-$   
 $159/100) * \sin(901/500))/2 + 159/200, (3 * \exp(-$   
 $639/400) * \sin(3621/2000))/2 + 639/800, (3 * \exp(-$   
 $321/200) * \sin(1819/1000))/2 + 321/400, (3 * \exp(-$   
 $129/80) * \sin(731/400))/2 + 129/160, (3 * \exp(-$   
 $81/50) * \sin(459/250))/2 + 81/100, (3 * \exp(-$   
 $651/400) * \sin(3689/2000))/2 + 651/800, (3 * \exp(-$   
 $327/200) * \sin(1853/1000))/2 + 327/400, (3 * \exp(-$   
 $657/400) * \sin(3723/2000))/2 + 657/800, (3 * \exp(-$   
 $33/20) * \sin(187/100))/2 + 33/40, (3 * \exp(-$   
 $663/400) * \sin(3757/2000))/2 + 663/800, (3 * \exp(-$   
 $333/200) * \sin(1887/1000))/2 + 333/400, (3 * \exp(-$   
 $669/400) * \sin(3791/2000))/2 + 669/800, (3 * \exp(-$   
 $42/25) * \sin(238/125))/2 + 21/25, (3 * \exp(-27/16) * \sin(153/80))/2$   
 $+ 27/32, (3 * \exp(-339/200) * \sin(1921/1000))/2 + 339/400,$   
 $(3 * \exp(-681/400) * \sin(3859/2000))/2 + 681/800, (3 * \exp(-$   
 $171/100) * \sin(969/500))/2 + 171/200, (3 * \exp(-$   
 $687/400) * \sin(3893/2000))/2 + 687/800, (3 * \exp(-$   
 $69/40) * \sin(391/200))/2 + 69/80, (3 * \exp(-$   
 $693/400) * \sin(3927/2000))/2 + 693/800, (3 * \exp(-$

$87/50) * \sin(493/250)) / 2 + 87/100, (3 * \exp(-$   
 $699/400) * \sin(3961/2000)) / 2 + 699/800, (3 * \exp(-$   
 $351/200) * \sin(1989/1000)) / 2 + 351/400, (3 * \exp(-$   
 $141/80) * \sin(799/400)) / 2 + 141/160, (3 * \exp(-$   
 $177/100) * \sin(1003/500)) / 2 + 177/200, (3 * \exp(-$   
 $711/400) * \sin(4029/2000)) / 2 + 711/800, (3 * \exp(-$   
 $357/200) * \sin(2023/1000)) / 2 + 357/400, (3 * \exp(-$   
 $717/400) * \sin(4063/2000)) / 2 + 717/800, (3 * \exp(-$   
 $9/5) * \sin(51/25)) / 2 + 9/10, (3 * \exp(-723/400) * \sin(4097/2000)) / 2$   
 $+ 723/800, (3 * \exp(-363/200) * \sin(2057/1000)) / 2 + 363/400,$   
 $(3 * \exp(-729/400) * \sin(4131/2000)) / 2 + 729/800, (3 * \exp(-$   
 $183/100) * \sin(1037/500)) / 2 + 183/200, (3 * \exp(-$   
 $147/80) * \sin(833/400)) / 2 + 147/160, (3 * \exp(-$   
 $369/200) * \sin(2091/1000)) / 2 + 369/400, (3 * \exp(-$   
 $741/400) * \sin(4199/2000)) / 2 + 741/800, (3 * \exp(-$   
 $93/50) * \sin(527/250)) / 2 + 93/100, (3 * \exp(-$   
 $747/400) * \sin(4233/2000)) / 2 + 747/800, (3 * \exp(-$   
 $15/8) * \sin(17/8)) / 2 + 15/16]$

V =

$(51 * \cos((17 * t) / 20) * \exp(-(3 * t) / 4)) / 40 - (9 * \sin((17 * t) / 20) * \exp(-$   
 $(3 * t) / 4)) / 8 + 3 / 8$

Vn =

$[ 33/20, (51 * \cos(17/2000) * \exp(-3/400)) / 40 - (9 * \exp(-$   
 $3/400) * \sin(17/2000)) / 8 + 3/8, (51 * \cos(17/1000) * \exp(-3/200)) / 40$   
 $- (9 * \exp(-3/200) * \sin(17/1000)) / 8 + 3/8, (51 * \cos(51/2000) * \exp(-$   
 $9/400)) / 40 - (9 * \exp(-9/400) * \sin(51/2000)) / 8 + 3/8,$   
 $(51 * \cos(17/500) * \exp(-3/100)) / 40 - (9 * \exp(-$   
 $3/100) * \sin(17/500)) / 8 + 3/8, (51 * \cos(17/400) * \exp(-3/80)) / 40 -$   
 $(9 * \exp(-3/80) * \sin(17/400)) / 8 + 3/8, (51 * \cos(51/1000) * \exp(-$   
 $9/200)) / 40 - (9 * \exp(-9/200) * \sin(51/1000)) / 8 + 3/8,$   
 $(51 * \cos(119/2000) * \exp(-21/400)) / 40 - (9 * \exp(-$   
 $21/400) * \sin(119/2000)) / 8 + 3/8, (51 * \cos(17/250) * \exp(-3/50)) / 40$   
 $- (9 * \exp(-3/50) * \sin(17/250)) / 8 + 3/8, (51 * \cos(153/2000) * \exp(-$   
 $27/400)) / 40 - (9 * \exp(-27/400) * \sin(153/2000)) / 8 + 3/8,$   
 $(51 * \cos(17/200) * \exp(-3/40)) / 40 - (9 * \exp(-3/40) * \sin(17/200)) / 8$   
 $+ 3/8, (51 * \cos(187/2000) * \exp(-33/400)) / 40 - (9 * \exp(-$   
 $33/400) * \sin(187/2000)) / 8 + 3/8, (51 * \cos(51/500) * \exp(-$   
 $9/100)) / 40 - (9 * \exp(-9/100) * \sin(51/500)) / 8 + 3/8,$   
 $(51 * \cos(221/2000) * \exp(-39/400)) / 40 - (9 * \exp(-$   
 $39/400) * \sin(221/2000)) / 8 + 3/8, (51 * \cos(119/1000) * \exp(-$   
 $21/200)) / 40 - (9 * \exp(-21/200) * \sin(119/1000)) / 8 + 3/8,$   
 $(51 * \cos(51/400) * \exp(-9/80)) / 40 - (9 * \exp(-9/80) * \sin(51/400)) / 8$   
 $+ 3/8, (51 * \cos(17/125) * \exp(-3/25)) / 40 - (9 * \exp(-$   
 $3/25) * \sin(17/125)) / 8 + 3/8, (51 * \cos(289/2000) * \exp(-51/400)) / 40$   
 $- (9 * \exp(-51/400) * \sin(289/2000)) / 8 + 3/8,$

$(51 \cdot \cos(153/1000) \cdot \exp(-27/200))/40 - (9 \cdot \exp(-27/200) \cdot \sin(153/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(323/2000) \cdot \exp(-57/400))/40 - (9 \cdot \exp(-57/400) \cdot \sin(323/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(17/100) \cdot \exp(-3/20))/40 - (9 \cdot \exp(-3/20) \cdot \sin(17/100))/8 + 3/8,$ 
 $(51 \cdot \cos(357/2000) \cdot \exp(-63/400))/40 - (9 \cdot \exp(-63/400) \cdot \sin(357/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(187/1000) \cdot \exp(-33/200))/40 - (9 \cdot \exp(-33/200) \cdot \sin(187/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(391/2000) \cdot \exp(-69/400))/40 - (9 \cdot \exp(-69/400) \cdot \sin(391/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(51/250) \cdot \exp(-9/50))/40 - (9 \cdot \exp(-9/50) \cdot \sin(51/250))/8 + 3/8,$ 
 $(51 \cdot \cos(17/80) \cdot \exp(-3/16))/40 - (9 \cdot \exp(-3/16) \cdot \sin(17/80))/8 + 3/8,$ 
 $(51 \cdot \cos(221/1000) \cdot \exp(-39/200))/40 - (9 \cdot \exp(-39/200) \cdot \sin(221/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(459/2000) \cdot \exp(-81/400))/40 - (9 \cdot \exp(-81/400) \cdot \sin(459/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(119/500) \cdot \exp(-21/100))/40 - (9 \cdot \exp(-21/100) \cdot \sin(119/500))/8 + 3/8,$ 
 $(51 \cdot \cos(493/2000) \cdot \exp(-87/400))/40 - (9 \cdot \exp(-87/400) \cdot \sin(493/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(51/200) \cdot \exp(-9/40))/40 - (9 \cdot \exp(-9/40) \cdot \sin(51/200))/8 + 3/8,$ 
 $(51 \cdot \cos(527/2000) \cdot \exp(-93/400))/40 - (9 \cdot \exp(-93/400) \cdot \sin(527/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(34/125) \cdot \exp(-6/25))/40 - (9 \cdot \exp(-6/25) \cdot \sin(34/125))/8 + 3/8,$ 
 $(51 \cdot \cos(561/2000) \cdot \exp(-99/400))/40 - (9 \cdot \exp(-99/400) \cdot \sin(561/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(289/1000) \cdot \exp(-51/200))/40 - (9 \cdot \exp(-51/200) \cdot \sin(289/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(119/400) \cdot \exp(-21/80))/40 - (9 \cdot \exp(-21/80) \cdot \sin(119/400))/8 + 3/8,$ 
 $(51 \cdot \cos(153/500) \cdot \exp(-27/100))/40 - (9 \cdot \exp(-27/100) \cdot \sin(153/500))/8 + 3/8,$ 
 $(51 \cdot \cos(629/2000) \cdot \exp(-111/400))/40 - (9 \cdot \exp(-111/400) \cdot \sin(629/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(323/1000) \cdot \exp(-57/200))/40 - (9 \cdot \exp(-57/200) \cdot \sin(323/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(663/2000) \cdot \exp(-117/400))/40 - (9 \cdot \exp(-117/400) \cdot \sin(663/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(17/50) \cdot \exp(-3/10))/40 - (9 \cdot \exp(-3/10) \cdot \sin(17/50))/8 + 3/8,$ 
 $(51 \cdot \cos(697/2000) \cdot \exp(-123/400))/40 - (9 \cdot \exp(-123/400) \cdot \sin(697/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(357/1000) \cdot \exp(-63/200))/40 - (9 \cdot \exp(-63/200) \cdot \sin(357/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(731/2000) \cdot \exp(-129/400))/40 - (9 \cdot \exp(-129/400) \cdot \sin(731/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(187/500) \cdot \exp(-33/100))/40 - (9 \cdot \exp(-33/100) \cdot \sin(187/500))/8 + 3/8,$ 
 $(51 \cdot \cos(153/400) \cdot \exp(-27/80))/40 - (9 \cdot \exp(-27/80) \cdot \sin(153/400))/8 + 3/8,$ 
 $(51 \cdot \cos(391/1000) \cdot \exp(-69/200))/40 - (9 \cdot \exp(-69/200) \cdot \sin(391/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(799/2000) \cdot \exp(-141/400))/40 - (9 \cdot \exp(-141/400) \cdot \sin(799/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(51/125) \cdot \exp(-9/25))/40 - (9 \cdot \exp(-9/25) \cdot \sin(51/125))/8 + 3/8,$ 
 $(51 \cdot \cos(833/2000) \cdot \exp(-147/400))/40 - (9 \cdot \exp(-147/400) \cdot \sin(833/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(17/40) \cdot \exp(-3/8))/40 - (9 \cdot \exp(-3/8) \cdot \sin(17/40))/8 + 3/8,$ 
 $(51 \cdot \cos(867/2000) \cdot \exp(-153/400))/40 - (9 \cdot \exp(-153/400) \cdot \sin(867/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(221/500) \cdot \exp(-39/100))/40 - (9 \cdot \exp(-39/100) \cdot \sin(221/500))/8 + 3/8,$ 
 $(51 \cdot \cos(901/2000) \cdot \exp(-159/400))/40 - (9 \cdot \exp(-159/400) \cdot \sin(901/2000))/8 + 3/8,$

$(51 \cdot \cos(459/1000) \cdot \exp(-81/200))/40 - (9 \cdot \exp(-81/200) \cdot \sin(459/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(187/400) \cdot \exp(-33/80))/40 - (9 \cdot \exp(-33/80) \cdot \sin(187/400))/8 + 3/8,$ 
 $(51 \cdot \cos(119/250) \cdot \exp(-21/50))/40 - (9 \cdot \exp(-21/50) \cdot \sin(119/250))/8 + 3/8,$ 
 $(51 \cdot \cos(969/2000) \cdot \exp(-171/400))/40 - (9 \cdot \exp(-171/400) \cdot \sin(969/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(493/1000) \cdot \exp(-87/200))/40 - (9 \cdot \exp(-87/200) \cdot \sin(493/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(1003/2000) \cdot \exp(-177/400))/40 - (9 \cdot \exp(-177/400) \cdot \sin(1003/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(51/100) \cdot \exp(-9/20))/40 - (9 \cdot \exp(-9/20) \cdot \sin(51/100))/8 + 3/8,$ 
 $(51 \cdot \cos(1037/2000) \cdot \exp(-183/400))/40 - (9 \cdot \exp(-183/400) \cdot \sin(1037/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(527/1000) \cdot \exp(-93/200))/40 - (9 \cdot \exp(-93/200) \cdot \sin(527/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(1071/2000) \cdot \exp(-189/400))/40 - (9 \cdot \exp(-189/400) \cdot \sin(1071/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(68/125) \cdot \exp(-12/25))/40 - (9 \cdot \exp(-12/25) \cdot \sin(68/125))/8 + 3/8,$ 
 $(51 \cdot \cos(221/400) \cdot \exp(-39/80))/40 - (9 \cdot \exp(-39/80) \cdot \sin(221/400))/8 + 3/8,$ 
 $(51 \cdot \cos(561/1000) \cdot \exp(-99/200))/40 - (9 \cdot \exp(-99/200) \cdot \sin(561/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(1139/2000) \cdot \exp(-201/400))/40 - (9 \cdot \exp(-201/400) \cdot \sin(1139/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(289/500) \cdot \exp(-51/100))/40 - (9 \cdot \exp(-51/100) \cdot \sin(289/500))/8 + 3/8,$ 
 $(51 \cdot \cos(1173/2000) \cdot \exp(-207/400))/40 - (9 \cdot \exp(-207/400) \cdot \sin(1173/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(119/200) \cdot \exp(-21/40))/40 - (9 \cdot \exp(-21/40) \cdot \sin(119/200))/8 + 3/8,$ 
 $(51 \cdot \cos(1207/2000) \cdot \exp(-213/400))/40 - (9 \cdot \exp(-213/400) \cdot \sin(1207/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(153/250) \cdot \exp(-27/50))/40 - (9 \cdot \exp(-27/50) \cdot \sin(153/250))/8 + 3/8,$ 
 $(51 \cdot \cos(1241/2000) \cdot \exp(-219/400))/40 - (9 \cdot \exp(-219/400) \cdot \sin(1241/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(629/1000) \cdot \exp(-111/200))/40 - (9 \cdot \exp(-111/200) \cdot \sin(629/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(51/80) \cdot \exp(-9/16))/40 - (9 \cdot \exp(-9/16) \cdot \sin(51/80))/8 + 3/8,$ 
 $(51 \cdot \cos(323/500) \cdot \exp(-57/100))/40 - (9 \cdot \exp(-57/100) \cdot \sin(323/500))/8 + 3/8,$ 
 $(51 \cdot \cos(1309/2000) \cdot \exp(-231/400))/40 - (9 \cdot \exp(-231/400) \cdot \sin(1309/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(663/1000) \cdot \exp(-117/200))/40 - (9 \cdot \exp(-117/200) \cdot \sin(663/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(1343/2000) \cdot \exp(-237/400))/40 - (9 \cdot \exp(-237/400) \cdot \sin(1343/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(17/25) \cdot \exp(-3/5))/40 - (9 \cdot \exp(-3/5) \cdot \sin(17/25))/8 + 3/8,$ 
 $(51 \cdot \cos(1377/2000) \cdot \exp(-243/400))/40 - (9 \cdot \exp(-243/400) \cdot \sin(1377/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(697/1000) \cdot \exp(-123/200))/40 - (9 \cdot \exp(-123/200) \cdot \sin(697/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(1411/2000) \cdot \exp(-249/400))/40 - (9 \cdot \exp(-249/400) \cdot \sin(1411/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(357/500) \cdot \exp(-63/100))/40 - (9 \cdot \exp(-63/100) \cdot \sin(357/500))/8 + 3/8,$ 
 $(51 \cdot \cos(289/400) \cdot \exp(-51/80))/40 - (9 \cdot \exp(-51/80) \cdot \sin(289/400))/8 + 3/8,$ 
 $(51 \cdot \cos(731/1000) \cdot \exp(-129/200))/40 - (9 \cdot \exp(-129/200) \cdot \sin(731/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(1479/2000) \cdot \exp(-261/400))/40 - (9 \cdot \exp(-261/400) \cdot \sin(1479/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(187/250) \cdot \exp(-33/50))/40 - (9 \cdot \exp(-33/50) \cdot \sin(187/250))/8 + 3/8,$

$(51 \cdot \cos(1513/2000) \cdot \exp(-267/400))/40 - (9 \cdot \exp(-267/400) \cdot \sin(1513/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(153/200) \cdot \exp(-27/40))/40 - (9 \cdot \exp(-27/40) \cdot \sin(153/200))/8 + 3/8,$ 
 $(51 \cdot \cos(1547/2000) \cdot \exp(-273/400))/40 - (9 \cdot \exp(-273/400) \cdot \sin(1547/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(391/500) \cdot \exp(-69/100))/40 - (9 \cdot \exp(-69/100) \cdot \sin(391/500))/8 + 3/8,$ 
 $(51 \cdot \cos(1581/2000) \cdot \exp(-279/400))/40 - (9 \cdot \exp(-279/400) \cdot \sin(1581/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(799/1000) \cdot \exp(-141/200))/40 - (9 \cdot \exp(-141/200) \cdot \sin(799/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(323/400) \cdot \exp(-57/80))/40 - (9 \cdot \exp(-57/80) \cdot \sin(323/400))/8 + 3/8,$ 
 $(51 \cdot \cos(102/125) \cdot \exp(-18/25))/40 - (9 \cdot \exp(-18/25) \cdot \sin(102/125))/8 + 3/8,$ 
 $(51 \cdot \cos(1649/2000) \cdot \exp(-291/400))/40 - (9 \cdot \exp(-291/400) \cdot \sin(1649/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(833/1000) \cdot \exp(-147/200))/40 - (9 \cdot \exp(-147/200) \cdot \sin(833/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(1683/2000) \cdot \exp(-297/400))/40 - (9 \cdot \exp(-297/400) \cdot \sin(1683/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(17/20) \cdot \exp(-3/4))/40 - (9 \cdot \exp(-3/4) \cdot \sin(17/20))/8 + 3/8,$ 
 $(51 \cdot \cos(1717/2000) \cdot \exp(-303/400))/40 - (9 \cdot \exp(-303/400) \cdot \sin(1717/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(867/1000) \cdot \exp(-153/200))/40 - (9 \cdot \exp(-153/200) \cdot \sin(867/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(1751/2000) \cdot \exp(-309/400))/40 - (9 \cdot \exp(-309/400) \cdot \sin(1751/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(221/250) \cdot \exp(-39/50))/40 - (9 \cdot \exp(-39/50) \cdot \sin(221/250))/8 + 3/8,$ 
 $(51 \cdot \cos(357/400) \cdot \exp(-63/80))/40 - (9 \cdot \exp(-63/80) \cdot \sin(357/400))/8 + 3/8,$ 
 $(51 \cdot \cos(901/1000) \cdot \exp(-159/200))/40 - (9 \cdot \exp(-159/200) \cdot \sin(901/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(1819/2000) \cdot \exp(-321/400))/40 - (9 \cdot \exp(-321/400) \cdot \sin(1819/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(459/500) \cdot \exp(-81/100))/40 - (9 \cdot \exp(-81/100) \cdot \sin(459/500))/8 + 3/8,$ 
 $(51 \cdot \cos(1853/2000) \cdot \exp(-327/400))/40 - (9 \cdot \exp(-327/400) \cdot \sin(1853/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(187/200) \cdot \exp(-33/40))/40 - (9 \cdot \exp(-33/40) \cdot \sin(187/200))/8 + 3/8,$ 
 $(51 \cdot \cos(1887/2000) \cdot \exp(-333/400))/40 - (9 \cdot \exp(-333/400) \cdot \sin(1887/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(119/125) \cdot \exp(-21/25))/40 - (9 \cdot \exp(-21/25) \cdot \sin(119/125))/8 + 3/8,$ 
 $(51 \cdot \cos(1921/2000) \cdot \exp(-339/400))/40 - (9 \cdot \exp(-339/400) \cdot \sin(1921/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(969/1000) \cdot \exp(-171/200))/40 - (9 \cdot \exp(-171/200) \cdot \sin(969/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(391/400) \cdot \exp(-69/80))/40 - (9 \cdot \exp(-69/80) \cdot \sin(391/400))/8 + 3/8,$ 
 $(51 \cdot \cos(493/500) \cdot \exp(-87/100))/40 - (9 \cdot \exp(-87/100) \cdot \sin(493/500))/8 + 3/8,$ 
 $(51 \cdot \cos(1989/2000) \cdot \exp(-351/400))/40 - (9 \cdot \exp(-351/400) \cdot \sin(1989/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(1003/1000) \cdot \exp(-177/200))/40 - (9 \cdot \exp(-177/200) \cdot \sin(1003/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(2023/2000) \cdot \exp(-357/400))/40 - (9 \cdot \exp(-357/400) \cdot \sin(2023/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(51/50) \cdot \exp(-9/10))/40 - (9 \cdot \exp(-9/10) \cdot \sin(51/50))/8 + 3/8,$ 
 $(51 \cdot \cos(2057/2000) \cdot \exp(-363/400))/40 - (9 \cdot \exp(-363/400) \cdot \sin(2057/2000))/8 + 3/8,$ 
 $(51 \cdot \cos(1037/1000) \cdot \exp(-183/200))/40 - (9 \cdot \exp(-183/200) \cdot \sin(1037/1000))/8 + 3/8,$ 
 $(51 \cdot \cos(2091/2000) \cdot \exp(-369/400))/40 - (9 \cdot \exp(-369/400) \cdot \sin(2091/2000))/8 + 3/8,$

$369/400) * \sin(2091/2000)) / 8 + 3/8, (51 * \cos(527/500) * \exp(-93/100)) / 40 - (9 * \exp(-93/100) * \sin(527/500)) / 8 + 3/8,$   
 $(51 * \cos(17/16) * \exp(-15/16)) / 40 - (9 * \exp(-15/16) * \sin(17/16)) / 8 + 3/8, (51 * \cos(1071/1000) * \exp(-189/200)) / 40 - (9 * \exp(-189/200) * \sin(1071/1000)) / 8 + 3/8,$   
 $(51 * \cos(2159/2000) * \exp(-381/400)) / 40 - (9 * \exp(-381/400) * \sin(2159/2000)) / 8 + 3/8,$   
 $(51 * \cos(136/125) * \exp(-24/25)) / 40 - (9 * \exp(-24/25) * \sin(136/125)) / 8 + 3/8,$   
 $(51 * \cos(2193/2000) * \exp(-387/400)) / 40 - (9 * \exp(-387/400) * \sin(2193/2000)) / 8 + 3/8,$   
 $(51 * \cos(221/200) * \exp(-39/40)) / 40 - (9 * \exp(-39/40) * \sin(221/200)) / 8 + 3/8,$   
 $(51 * \cos(2227/2000) * \exp(-393/400)) / 40 - (9 * \exp(-393/400) * \sin(2227/2000)) / 8 + 3/8,$   
 $(51 * \cos(561/500) * \exp(-99/100)) / 40 - (9 * \exp(-99/100) * \sin(561/500)) / 8 + 3/8,$   
 $(51 * \cos(2261/2000) * \exp(-399/400)) / 40 - (9 * \exp(-399/400) * \sin(2261/2000)) / 8 + 3/8,$   
 $(51 * \cos(1139/1000) * \exp(-201/200)) / 40 - (9 * \exp(-201/200) * \sin(1139/1000)) / 8 + 3/8,$   
 $(51 * \cos(459/400) * \exp(-81/80)) / 40 - (9 * \exp(-81/80) * \sin(459/400)) / 8 + 3/8,$   
 $(51 * \cos(289/250) * \exp(-51/50)) / 40 - (9 * \exp(-51/50) * \sin(289/250)) / 8 + 3/8,$   
 $(51 * \cos(2329/2000) * \exp(-411/400)) / 40 - (9 * \exp(-411/400) * \sin(2329/2000)) / 8 + 3/8,$   
 $(51 * \cos(1173/1000) * \exp(-207/200)) / 40 - (9 * \exp(-207/200) * \sin(1173/1000)) / 8 + 3/8,$   
 $(51 * \cos(2363/2000) * \exp(-417/400)) / 40 - (9 * \exp(-417/400) * \sin(2363/2000)) / 8 + 3/8,$   
 $(51 * \cos(119/100) * \exp(-21/20)) / 40 - (9 * \exp(-21/20) * \sin(119/100)) / 8 + 3/8,$   
 $(51 * \cos(2397/2000) * \exp(-423/400)) / 40 - (9 * \exp(-423/400) * \sin(2397/2000)) / 8 + 3/8,$   
 $(51 * \cos(1207/1000) * \exp(-213/200)) / 40 - (9 * \exp(-213/200) * \sin(1207/1000)) / 8 + 3/8,$   
 $(51 * \cos(2431/2000) * \exp(-429/400)) / 40 - (9 * \exp(-429/400) * \sin(2431/2000)) / 8 + 3/8,$   
 $(51 * \cos(153/125) * \exp(-27/25)) / 40 - (9 * \exp(-27/25) * \sin(153/125)) / 8 + 3/8,$   
 $(51 * \cos(493/400) * \exp(-87/80)) / 40 - (9 * \exp(-87/80) * \sin(493/400)) / 8 + 3/8,$   
 $(51 * \cos(1241/1000) * \exp(-219/200)) / 40 - (9 * \exp(-219/200) * \sin(1241/1000)) / 8 + 3/8,$   
 $(51 * \cos(2499/2000) * \exp(-441/400)) / 40 - (9 * \exp(-441/400) * \sin(2499/2000)) / 8 + 3/8,$   
 $(51 * \cos(629/500) * \exp(-111/100)) / 40 - (9 * \exp(-111/100) * \sin(629/500)) / 8 + 3/8,$   
 $(51 * \cos(2533/2000) * \exp(-447/400)) / 40 - (9 * \exp(-447/400) * \sin(2533/2000)) / 8 + 3/8,$   
 $(51 * \cos(51/40) * \exp(-9/8)) / 40 - (9 * \exp(-9/8) * \sin(51/40)) / 8 + 3/8,$   
 $(51 * \cos(2567/2000) * \exp(-453/400)) / 40 - (9 * \exp(-453/400) * \sin(2567/2000)) / 8 + 3/8,$   
 $(51 * \cos(323/250) * \exp(-57/50)) / 40 - (9 * \exp(-57/50) * \sin(323/250)) / 8 + 3/8,$   
 $(51 * \cos(2601/2000) * \exp(-459/400)) / 40 - (9 * \exp(-459/400) * \sin(2601/2000)) / 8 + 3/8,$   
 $(51 * \cos(1309/1000) * \exp(-231/200)) / 40 - (9 * \exp(-231/200) * \sin(1309/1000)) / 8 + 3/8,$   
 $(51 * \cos(527/400) * \exp(-93/80)) / 40 - (9 * \exp(-93/80) * \sin(527/400)) / 8 + 3/8,$   
 $(51 * \cos(663/500) * \exp(-117/100)) / 40 - (9 * \exp(-117/100) * \sin(663/500)) / 8 + 3/8,$   
 $(51 * \cos(2669/2000) * \exp(-471/400)) / 40 - (9 * \exp(-471/400) * \sin(2669/2000)) / 8 + 3/8,$   
 $(51 * \cos(1343/1000) * \exp(-$



237/200))/40 - (9\*exp(-237/200)\*sin(1343/1000))/8 + 3/8,  
(51\*cos(2703/2000)\*exp(-477/400))/40 - (9\*exp(-  
477/400)\*sin(2703/2000))/8 + 3/8, (51\*cos(34/25)\*exp(-6/5))/40  
- (9\*exp(-6/5)\*sin(34/25))/8 + 3/8, (51\*cos(2737/2000)\*exp(-  
483/400))/40 - (9\*exp(-483/400)\*sin(2737/2000))/8 + 3/8,  
(51\*cos(1377/1000)\*exp(-243/200))/40 - (9\*exp(-  
243/200)\*sin(1377/1000))/8 + 3/8, (51\*cos(2771/2000)\*exp(-  
489/400))/40 - (9\*exp(-489/400)\*sin(2771/2000))/8 + 3/8,  
(51\*cos(697/500)\*exp(-123/100))/40 - (9\*exp(-  
123/100)\*sin(697/500))/8 + 3/8, (51\*cos(561/400)\*exp(-  
99/80))/40 - (9\*exp(-99/80)\*sin(561/400))/8 + 3/8,  
(51\*cos(1411/1000)\*exp(-249/200))/40 - (9\*exp(-  
249/200)\*sin(1411/1000))/8 + 3/8, (51\*cos(2839/2000)\*exp(-  
501/400))/40 - (9\*exp(-501/400)\*sin(2839/2000))/8 + 3/8,  
(51\*cos(357/250)\*exp(-63/50))/40 - (9\*exp(-  
63/50)\*sin(357/250))/8 + 3/8, (51\*cos(2873/2000)\*exp(-  
507/400))/40 - (9\*exp(-507/400)\*sin(2873/2000))/8 + 3/8,  
(51\*cos(289/200)\*exp(-51/40))/40 - (9\*exp(-  
51/40)\*sin(289/200))/8 + 3/8, (51\*cos(2907/2000)\*exp(-  
513/400))/40 - (9\*exp(-513/400)\*sin(2907/2000))/8 + 3/8,  
(51\*cos(731/500)\*exp(-129/100))/40 - (9\*exp(-  
129/100)\*sin(731/500))/8 + 3/8, (51\*cos(2941/2000)\*exp(-  
519/400))/40 - (9\*exp(-519/400)\*sin(2941/2000))/8 + 3/8,  
(51\*cos(1479/1000)\*exp(-261/200))/40 - (9\*exp(-  
261/200)\*sin(1479/1000))/8 + 3/8, (51\*cos(119/80)\*exp(-  
21/16))/40 - (9\*exp(-21/16)\*sin(119/80))/8 + 3/8,  
(51\*cos(187/125)\*exp(-33/25))/40 - (9\*exp(-  
33/25)\*sin(187/125))/8 + 3/8, (51\*cos(3009/2000)\*exp(-  
531/400))/40 - (9\*exp(-531/400)\*sin(3009/2000))/8 + 3/8,  
(51\*cos(1513/1000)\*exp(-267/200))/40 - (9\*exp(-  
267/200)\*sin(1513/1000))/8 + 3/8, (51\*cos(3043/2000)\*exp(-  
537/400))/40 - (9\*exp(-537/400)\*sin(3043/2000))/8 + 3/8,  
(51\*cos(153/100)\*exp(-27/20))/40 - (9\*exp(-  
27/20)\*sin(153/100))/8 + 3/8, (51\*cos(3077/2000)\*exp(-  
543/400))/40 - (9\*exp(-543/400)\*sin(3077/2000))/8 + 3/8,  
(51\*cos(1547/1000)\*exp(-273/200))/40 - (9\*exp(-  
273/200)\*sin(1547/1000))/8 + 3/8, (51\*cos(3111/2000)\*exp(-  
549/400))/40 - (9\*exp(-549/400)\*sin(3111/2000))/8 + 3/8,  
(51\*cos(391/250)\*exp(-69/50))/40 - (9\*exp(-  
69/50)\*sin(391/250))/8 + 3/8, (51\*cos(629/400)\*exp(-  
111/80))/40 - (9\*exp(-111/80)\*sin(629/400))/8 + 3/8,  
(51\*cos(1581/1000)\*exp(-279/200))/40 - (9\*exp(-  
279/200)\*sin(1581/1000))/8 + 3/8, (51\*cos(3179/2000)\*exp(-  
561/400))/40 - (9\*exp(-561/400)\*sin(3179/2000))/8 + 3/8,  
(51\*cos(799/500)\*exp(-141/100))/40 - (9\*exp(-  
141/100)\*sin(799/500))/8 + 3/8, (51\*cos(3213/2000)\*exp(-  
567/400))/40 - (9\*exp(-567/400)\*sin(3213/2000))/8 + 3/8,  
(51\*cos(323/200)\*exp(-57/40))/40 - (9\*exp(-  
57/40)\*sin(323/200))/8 + 3/8, (51\*cos(3247/2000)\*exp(-  
573/400))/40 - (9\*exp(-573/400)\*sin(3247/2000))/8 + 3/8,  
(51\*cos(204/125)\*exp(-36/25))/40 - (9\*exp(-

$36/25) * \sin(204/125)) / 8 + 3/8,$   $(51 * \cos(3281/2000) * \exp(-579/400)) / 40 - (9 * \exp(-579/400) * \sin(3281/2000)) / 8 + 3/8,$   
 $(51 * \cos(1649/1000) * \exp(-291/200)) / 40 - (9 * \exp(-291/200) * \sin(1649/1000)) / 8 + 3/8,$   $(51 * \cos(663/400) * \exp(-117/80)) / 40 - (9 * \exp(-117/80) * \sin(663/400)) / 8 + 3/8,$   
 $(51 * \cos(833/500) * \exp(-147/100)) / 40 - (9 * \exp(-147/100) * \sin(833/500)) / 8 + 3/8,$   $(51 * \cos(3349/2000) * \exp(-591/400)) / 40 - (9 * \exp(-591/400) * \sin(3349/2000)) / 8 + 3/8,$   
 $(51 * \cos(1683/1000) * \exp(-297/200)) / 40 - (9 * \exp(-297/200) * \sin(1683/1000)) / 8 + 3/8,$   $(51 * \cos(3383/2000) * \exp(-597/400)) / 40 - (9 * \exp(-597/400) * \sin(3383/2000)) / 8 + 3/8,$   
 $(51 * \cos(17/10) * \exp(-3/2)) / 40 - (9 * \exp(-3/2) * \sin(17/10)) / 8 + 3/8,$   $(51 * \cos(3417/2000) * \exp(-603/400)) / 40 - (9 * \exp(-603/400) * \sin(3417/2000)) / 8 + 3/8,$   
 $(51 * \cos(1717/1000) * \exp(-303/200)) / 40 - (9 * \exp(-303/200) * \sin(1717/1000)) / 8 + 3/8,$   $(51 * \cos(3451/2000) * \exp(-609/400)) / 40 - (9 * \exp(-609/400) * \sin(3451/2000)) / 8 + 3/8,$   
 $(51 * \cos(867/500) * \exp(-153/100)) / 40 - (9 * \exp(-153/100) * \sin(867/500)) / 8 + 3/8,$   $(51 * \cos(697/400) * \exp(-123/80)) / 40 - (9 * \exp(-123/80) * \sin(697/400)) / 8 + 3/8,$   
 $(51 * \cos(1751/1000) * \exp(-309/200)) / 40 - (9 * \exp(-309/200) * \sin(1751/1000)) / 8 + 3/8,$   $(51 * \cos(3519/2000) * \exp(-621/400)) / 40 - (9 * \exp(-621/400) * \sin(3519/2000)) / 8 + 3/8,$   
 $(51 * \cos(221/125) * \exp(-39/25)) / 40 - (9 * \exp(-39/25) * \sin(221/125)) / 8 + 3/8,$   $(51 * \cos(3553/2000) * \exp(-627/400)) / 40 - (9 * \exp(-627/400) * \sin(3553/2000)) / 8 + 3/8,$   
 $(51 * \cos(357/200) * \exp(-63/40)) / 40 - (9 * \exp(-63/40) * \sin(357/200)) / 8 + 3/8,$   $(51 * \cos(3587/2000) * \exp(-633/400)) / 40 - (9 * \exp(-633/400) * \sin(3587/2000)) / 8 + 3/8,$   
 $(51 * \cos(901/500) * \exp(-159/100)) / 40 - (9 * \exp(-159/100) * \sin(901/500)) / 8 + 3/8,$   $(51 * \cos(3621/2000) * \exp(-639/400)) / 40 - (9 * \exp(-639/400) * \sin(3621/2000)) / 8 + 3/8,$   
 $(51 * \cos(1819/1000) * \exp(-321/200)) / 40 - (9 * \exp(-321/200) * \sin(1819/1000)) / 8 + 3/8,$   $(51 * \cos(731/400) * \exp(-129/80)) / 40 - (9 * \exp(-129/80) * \sin(731/400)) / 8 + 3/8,$   
 $(51 * \cos(459/250) * \exp(-81/50)) / 40 - (9 * \exp(-81/50) * \sin(459/250)) / 8 + 3/8,$   $(51 * \cos(3689/2000) * \exp(-651/400)) / 40 - (9 * \exp(-651/400) * \sin(3689/2000)) / 8 + 3/8,$   
 $(51 * \cos(1853/1000) * \exp(-327/200)) / 40 - (9 * \exp(-327/200) * \sin(1853/1000)) / 8 + 3/8,$   $(51 * \cos(3723/2000) * \exp(-657/400)) / 40 - (9 * \exp(-657/400) * \sin(3723/2000)) / 8 + 3/8,$   
 $(51 * \cos(187/100) * \exp(-33/20)) / 40 - (9 * \exp(-33/20) * \sin(187/100)) / 8 + 3/8,$   $(51 * \cos(3757/2000) * \exp(-663/400)) / 40 - (9 * \exp(-663/400) * \sin(3757/2000)) / 8 + 3/8,$   
 $(51 * \cos(1887/1000) * \exp(-333/200)) / 40 - (9 * \exp(-333/200) * \sin(1887/1000)) / 8 + 3/8,$   $(51 * \cos(3791/2000) * \exp(-669/400)) / 40 - (9 * \exp(-669/400) * \sin(3791/2000)) / 8 + 3/8,$   
 $(51 * \cos(238/125) * \exp(-42/25)) / 40 - (9 * \exp(-42/25) * \sin(238/125)) / 8 + 3/8,$   $(51 * \cos(153/80) * \exp(-27/16)) / 40 - (9 * \exp(-27/16) * \sin(153/80)) / 8 + 3/8,$   
 $(51 * \cos(1921/1000) * \exp(-339/200)) / 40 - (9 * \exp(-339/200) * \sin(1921/1000)) / 8 + 3/8,$

$(51 \cdot \cos(3859/2000) \cdot \exp(-681/400))/40 - (9 \cdot \exp(-681/400) \cdot \sin(3859/2000))/8 + 3/8,$   
 $(51 \cdot \cos(969/500) \cdot \exp(-171/100))/40 - (9 \cdot \exp(-171/100) \cdot \sin(969/500))/8 + 3/8,$   
 $(51 \cdot \cos(3893/2000) \cdot \exp(-687/400))/40 - (9 \cdot \exp(-687/400) \cdot \sin(3893/2000))/8 + 3/8,$   
 $(51 \cdot \cos(391/200) \cdot \exp(-69/40))/40 - (9 \cdot \exp(-69/40) \cdot \sin(391/200))/8 + 3/8,$   
 $(51 \cdot \cos(3927/2000) \cdot \exp(-693/400))/40 - (9 \cdot \exp(-693/400) \cdot \sin(3927/2000))/8 + 3/8,$   
 $(51 \cdot \cos(493/250) \cdot \exp(-87/50))/40 - (9 \cdot \exp(-87/50) \cdot \sin(493/250))/8 + 3/8,$   
 $(51 \cdot \cos(3961/2000) \cdot \exp(-699/400))/40 - (9 \cdot \exp(-699/400) \cdot \sin(3961/2000))/8 + 3/8,$   
 $(51 \cdot \cos(1989/1000) \cdot \exp(-351/200))/40 - (9 \cdot \exp(-351/200) \cdot \sin(1989/1000))/8 + 3/8,$   
 $(51 \cdot \cos(799/400) \cdot \exp(-141/80))/40 - (9 \cdot \exp(-141/80) \cdot \sin(799/400))/8 + 3/8,$   
 $(51 \cdot \cos(1003/500) \cdot \exp(-177/100))/40 - (9 \cdot \exp(-177/100) \cdot \sin(1003/500))/8 + 3/8,$   
 $(51 \cdot \cos(4029/2000) \cdot \exp(-711/400))/40 - (9 \cdot \exp(-711/400) \cdot \sin(4029/2000))/8 + 3/8,$   
 $(51 \cdot \cos(2023/1000) \cdot \exp(-357/200))/40 - (9 \cdot \exp(-357/200) \cdot \sin(2023/1000))/8 + 3/8,$   
 $(51 \cdot \cos(4063/2000) \cdot \exp(-717/400))/40 - (9 \cdot \exp(-717/400) \cdot \sin(4063/2000))/8 + 3/8,$   
 $(51 \cdot \cos(51/25) \cdot \exp(-9/5))/40 - (9 \cdot \exp(-9/5) \cdot \sin(51/25))/8 + 3/8,$   
 $(51 \cdot \cos(4097/2000) \cdot \exp(-723/400))/40 - (9 \cdot \exp(-723/400) \cdot \sin(4097/2000))/8 + 3/8,$   
 $(51 \cdot \cos(2057/1000) \cdot \exp(-363/200))/40 - (9 \cdot \exp(-363/200) \cdot \sin(2057/1000))/8 + 3/8,$   
 $(51 \cdot \cos(4131/2000) \cdot \exp(-729/400))/40 - (9 \cdot \exp(-729/400) \cdot \sin(4131/2000))/8 + 3/8,$   
 $(51 \cdot \cos(1037/500) \cdot \exp(-183/100))/40 - (9 \cdot \exp(-183/100) \cdot \sin(1037/500))/8 + 3/8,$   
 $(51 \cdot \cos(833/400) \cdot \exp(-147/80))/40 - (9 \cdot \exp(-147/80) \cdot \sin(833/400))/8 + 3/8,$   
 $(51 \cdot \cos(2091/1000) \cdot \exp(-369/200))/40 - (9 \cdot \exp(-369/200) \cdot \sin(2091/1000))/8 + 3/8,$   
 $(51 \cdot \cos(4199/2000) \cdot \exp(-741/400))/40 - (9 \cdot \exp(-741/400) \cdot \sin(4199/2000))/8 + 3/8,$   
 $(51 \cdot \cos(527/250) \cdot \exp(-93/50))/40 - (9 \cdot \exp(-93/50) \cdot \sin(527/250))/8 + 3/8,$   
 $(51 \cdot \cos(4233/2000) \cdot \exp(-747/400))/40 - (9 \cdot \exp(-747/400) \cdot \sin(4233/2000))/8 + 3/8,$   
 $(51 \cdot \cos(17/8) \cdot \exp(-15/8))/40 - (9 \cdot \exp(-15/8) \cdot \sin(17/8))/8 + 3/8]$

A =

$-(153 \cdot \cos((17 \cdot t)/20) \cdot \exp(-(3 \cdot t)/4))/80 - (6 \cdot \sin((17 \cdot t)/20) \cdot \exp(-(3 \cdot t)/4))/25$

An =

$[-153/80, -(153 \cdot \cos(17/2000) \cdot \exp(-3/400))/80 - (6 \cdot \exp(-3/400) \cdot \sin(17/2000))/25, -(153 \cdot \cos(17/1000) \cdot \exp(-3/200))/80 - (6 \cdot \exp(-3/200) \cdot \sin(17/1000))/25, -(153 \cdot \cos(51/2000) \cdot \exp(-9/400))/80 - (6 \cdot \exp(-9/400) \cdot \sin(51/2000))/25, -(153 \cdot \cos(17/500) \cdot \exp(-3/100))/80 - (6 \cdot \exp(-3/100) \cdot \sin(17/500))/25]$

$$\begin{aligned}
& 3/100) * \sin(17/500)) / 25, - (153 * \cos(17/400) * \exp(-3/80)) / 80 - \\
& (6 * \exp(-3/80) * \sin(17/400)) / 25, - (153 * \cos(51/1000) * \exp(- \\
& 9/200)) / 80 - (6 * \exp(-9/200) * \sin(51/1000)) / 25, - \\
& (153 * \cos(119/2000) * \exp(-21/400)) / 80 - (6 * \exp(- \\
& 21/400) * \sin(119/2000)) / 25, - (153 * \cos(17/250) * \exp(-3/50)) / 80 - \\
& (6 * \exp(-3/50) * \sin(17/250)) / 25, - (153 * \cos(153/2000) * \exp(- \\
& 27/400)) / 80 - (6 * \exp(-27/400) * \sin(153/2000)) / 25, - \\
& (153 * \cos(17/200) * \exp(-3/40)) / 80 - (6 * \exp(- \\
& 3/40) * \sin(17/200)) / 25, - (153 * \cos(187/2000) * \exp(-33/400)) / 80 - \\
& (6 * \exp(-33/400) * \sin(187/2000)) / 25, - (153 * \cos(51/500) * \exp(- \\
& 9/100)) / 80 - (6 * \exp(-9/100) * \sin(51/500)) / 25, - \\
& (153 * \cos(221/2000) * \exp(-39/400)) / 80 - (6 * \exp(- \\
& 39/400) * \sin(221/2000)) / 25, - (153 * \cos(119/1000) * \exp(- \\
& 21/200)) / 80 - (6 * \exp(-21/200) * \sin(119/1000)) / 25, - \\
& (153 * \cos(51/400) * \exp(-9/80)) / 80 - (6 * \exp(- \\
& 9/80) * \sin(51/400)) / 25, - (153 * \cos(17/125) * \exp(-3/25)) / 80 - \\
& (6 * \exp(-3/25) * \sin(17/125)) / 25, - (153 * \cos(289/2000) * \exp(- \\
& 51/400)) / 80 - (6 * \exp(-51/400) * \sin(289/2000)) / 25, - \\
& (153 * \cos(153/1000) * \exp(-27/200)) / 80 - (6 * \exp(- \\
& 27/200) * \sin(153/1000)) / 25, - (153 * \cos(323/2000) * \exp(- \\
& 57/400)) / 80 - (6 * \exp(-57/400) * \sin(323/2000)) / 25, - \\
& (153 * \cos(17/100) * \exp(-3/20)) / 80 - (6 * \exp(- \\
& 3/20) * \sin(17/100)) / 25, - (153 * \cos(357/2000) * \exp(-63/400)) / 80 - \\
& (6 * \exp(-63/400) * \sin(357/2000)) / 25, - (153 * \cos(187/1000) * \exp(- \\
& 33/200)) / 80 - (6 * \exp(-33/200) * \sin(187/1000)) / 25, - \\
& (153 * \cos(391/2000) * \exp(-69/400)) / 80 - (6 * \exp(- \\
& 69/400) * \sin(391/2000)) / 25, - (153 * \cos(51/250) * \exp(-9/50)) / 80 - \\
& (6 * \exp(-9/50) * \sin(51/250)) / 25, - (153 * \cos(17/80) * \exp(- \\
& 3/16)) / 80 - (6 * \exp(-3/16) * \sin(17/80)) / 25, - \\
& (153 * \cos(221/1000) * \exp(-39/200)) / 80 - (6 * \exp(- \\
& 39/200) * \sin(221/1000)) / 25, - (153 * \cos(459/2000) * \exp(- \\
& 81/400)) / 80 - (6 * \exp(-81/400) * \sin(459/2000)) / 25, - \\
& (153 * \cos(119/500) * \exp(-21/100)) / 80 - (6 * \exp(- \\
& 21/100) * \sin(119/500)) / 25, - (153 * \cos(493/2000) * \exp(- \\
& 87/400)) / 80 - (6 * \exp(-87/400) * \sin(493/2000)) / 25, - \\
& (153 * \cos(51/200) * \exp(-9/40)) / 80 - (6 * \exp(- \\
& 9/40) * \sin(51/200)) / 25, - (153 * \cos(527/2000) * \exp(-93/400)) / 80 - \\
& (6 * \exp(-93/400) * \sin(527/2000)) / 25, - (153 * \cos(34/125) * \exp(- \\
& 6/25)) / 80 - (6 * \exp(-6/25) * \sin(34/125)) / 25, - \\
& (153 * \cos(561/2000) * \exp(-99/400)) / 80 - (6 * \exp(- \\
& 99/400) * \sin(561/2000)) / 25, - (153 * \cos(289/1000) * \exp(- \\
& 51/200)) / 80 - (6 * \exp(-51/200) * \sin(289/1000)) / 25, - \\
& (153 * \cos(119/400) * \exp(-21/80)) / 80 - (6 * \exp(- \\
& 21/80) * \sin(119/400)) / 25, - (153 * \cos(153/500) * \exp(-27/100)) / 80 \\
& - (6 * \exp(-27/100) * \sin(153/500)) / 25, - (153 * \cos(629/2000) * \exp(- \\
& 111/400)) / 80 - (6 * \exp(-111/400) * \sin(629/2000)) / 25, - \\
& (153 * \cos(323/1000) * \exp(-57/200)) / 80 - (6 * \exp(- \\
& 57/200) * \sin(323/1000)) / 25, - (153 * \cos(663/2000) * \exp(- \\
& 117/400)) / 80 - (6 * \exp(-117/400) * \sin(663/2000)) / 25, - \\
& (153 * \cos(17/50) * \exp(-3/10)) / 80 - (6 * \exp(-3/10) * \sin(17/50)) / 25, \\
& - (153 * \cos(697/2000) * \exp(-123/400)) / 80 - (6 * \exp(-
\end{aligned}$$

123/400)\*sin(697/2000))/25, - (153\*cos(357/1000)\*exp(-63/200))/80 - (6\*exp(-63/200)\*sin(357/1000))/25, - (153\*cos(731/2000)\*exp(-129/400))/80 - (6\*exp(-129/400)\*sin(731/2000))/25, - (153\*cos(187/500)\*exp(-33/100))/80 - (6\*exp(-33/100)\*sin(187/500))/25, - (153\*cos(153/400)\*exp(-27/80))/80 - (6\*exp(-27/80)\*sin(153/400))/25, - (153\*cos(391/1000)\*exp(-69/200))/80 - (6\*exp(-69/200)\*sin(391/1000))/25, - (153\*cos(799/2000)\*exp(-141/400))/80 - (6\*exp(-141/400)\*sin(799/2000))/25, - (153\*cos(51/125)\*exp(-9/25))/80 - (6\*exp(-9/25)\*sin(51/125))/25, - (153\*cos(833/2000)\*exp(-147/400))/80 - (6\*exp(-147/400)\*sin(833/2000))/25, - (153\*cos(17/40)\*exp(-3/8))/80 - (6\*exp(-3/8)\*sin(17/40))/25, - (153\*cos(867/2000)\*exp(-153/400))/80 - (6\*exp(-153/400)\*sin(867/2000))/25, - (153\*cos(221/500)\*exp(-39/100))/80 - (6\*exp(-39/100)\*sin(221/500))/25, - (153\*cos(901/2000)\*exp(-159/400))/80 - (6\*exp(-159/400)\*sin(901/2000))/25, - (153\*cos(459/1000)\*exp(-81/200))/80 - (6\*exp(-81/200)\*sin(459/1000))/25, - (153\*cos(187/400)\*exp(-33/80))/80 - (6\*exp(-33/80)\*sin(187/400))/25, - (153\*cos(119/250)\*exp(-21/50))/80 - (6\*exp(-21/50)\*sin(119/250))/25, - (153\*cos(969/2000)\*exp(-171/400))/80 - (6\*exp(-171/400)\*sin(969/2000))/25, - (153\*cos(493/1000)\*exp(-87/200))/80 - (6\*exp(-87/200)\*sin(493/1000))/25, - (153\*cos(1003/2000)\*exp(-177/400))/80 - (6\*exp(-177/400)\*sin(1003/2000))/25, - (153\*cos(51/100)\*exp(-9/20))/80 - (6\*exp(-9/20)\*sin(51/100))/25, - (153\*cos(1037/2000)\*exp(-183/400))/80 - (6\*exp(-183/400)\*sin(1037/2000))/25, - (153\*cos(527/1000)\*exp(-93/200))/80 - (6\*exp(-93/200)\*sin(527/1000))/25, - (153\*cos(1071/2000)\*exp(-189/400))/80 - (6\*exp(-189/400)\*sin(1071/2000))/25, - (153\*cos(68/125)\*exp(-12/25))/80 - (6\*exp(-12/25)\*sin(68/125))/25, - (153\*cos(221/400)\*exp(-39/80))/80 - (6\*exp(-39/80)\*sin(221/400))/25, - (153\*cos(561/1000)\*exp(-99/200))/80 - (6\*exp(-99/200)\*sin(561/1000))/25, - (153\*cos(1139/2000)\*exp(-201/400))/80 - (6\*exp(-201/400)\*sin(1139/2000))/25, - (153\*cos(289/500)\*exp(-51/100))/80 - (6\*exp(-51/100)\*sin(289/500))/25, - (153\*cos(1173/2000)\*exp(-207/400))/80 - (6\*exp(-207/400)\*sin(1173/2000))/25, - (153\*cos(119/200)\*exp(-21/40))/80 - (6\*exp(-21/40)\*sin(119/200))/25, - (153\*cos(1207/2000)\*exp(-213/400))/80 - (6\*exp(-213/400)\*sin(1207/2000))/25, - (153\*cos(153/250)\*exp(-27/50))/80 - (6\*exp(-27/50)\*sin(153/250))/25, - (153\*cos(1241/2000)\*exp(-219/400))/80 - (6\*exp(-219/400)\*sin(1241/2000))/25, - (153\*cos(629/1000)\*exp(-111/200))/80 - (6\*exp(-111/200)\*sin(629/1000))/25, - (153\*cos(51/80)\*exp(-9/16))/80 - (6\*exp(-9/16)\*sin(51/80))/25, - (153\*cos(323/500)\*exp(-57/100))/80 - (6\*exp(-57/100)\*sin(323/500))/25, - (153\*cos(1309/2000)\*exp(-

$$\begin{aligned}
& 231/400)/80 - (6*\exp(-231/400)*\sin(1309/2000))/25, - \\
& (153*\cos(663/1000)*\exp(-117/200))/80 - (6*\exp(- \\
& 117/200)*\sin(663/1000))/25, - (153*\cos(1343/2000)*\exp(- \\
& 237/400))/80 - (6*\exp(-237/400)*\sin(1343/2000))/25, - \\
& (153*\cos(17/25)*\exp(-3/5))/80 - (6*\exp(-3/5)*\sin(17/25))/25, - \\
& (153*\cos(1377/2000)*\exp(-243/400))/80 - (6*\exp(- \\
& 243/400)*\sin(1377/2000))/25, - (153*\cos(697/1000)*\exp(- \\
& 123/200))/80 - (6*\exp(-123/200)*\sin(697/1000))/25, - \\
& (153*\cos(1411/2000)*\exp(-249/400))/80 - (6*\exp(- \\
& 249/400)*\sin(1411/2000))/25, - (153*\cos(357/500)*\exp(- \\
& 63/100))/80 - (6*\exp(-63/100)*\sin(357/500))/25, - \\
& (153*\cos(289/400)*\exp(-51/80))/80 - (6*\exp(- \\
& 51/80)*\sin(289/400))/25, - (153*\cos(731/1000)*\exp(- \\
& 129/200))/80 - (6*\exp(-129/200)*\sin(731/1000))/25, - \\
& (153*\cos(1479/2000)*\exp(-261/400))/80 - (6*\exp(- \\
& 261/400)*\sin(1479/2000))/25, - (153*\cos(187/250)*\exp(- \\
& 33/50))/80 - (6*\exp(-33/50)*\sin(187/250))/25, - \\
& (153*\cos(1513/2000)*\exp(-267/400))/80 - (6*\exp(- \\
& 267/400)*\sin(1513/2000))/25, - (153*\cos(153/200)*\exp(- \\
& 27/40))/80 - (6*\exp(-27/40)*\sin(153/200))/25, - \\
& (153*\cos(1547/2000)*\exp(-273/400))/80 - (6*\exp(- \\
& 273/400)*\sin(1547/2000))/25, - (153*\cos(391/500)*\exp(- \\
& 69/100))/80 - (6*\exp(-69/100)*\sin(391/500))/25, - \\
& (153*\cos(1581/2000)*\exp(-279/400))/80 - (6*\exp(- \\
& 279/400)*\sin(1581/2000))/25, - (153*\cos(799/1000)*\exp(- \\
& 141/200))/80 - (6*\exp(-141/200)*\sin(799/1000))/25, - \\
& (153*\cos(323/400)*\exp(-57/80))/80 - (6*\exp(- \\
& 57/80)*\sin(323/400))/25, - (153*\cos(102/125)*\exp(-18/25))/80 - \\
& (6*\exp(-18/25)*\sin(102/125))/25, - (153*\cos(1649/2000)*\exp(- \\
& 291/400))/80 - (6*\exp(-291/400)*\sin(1649/2000))/25, - \\
& (153*\cos(833/1000)*\exp(-147/200))/80 - (6*\exp(- \\
& 147/200)*\sin(833/1000))/25, - (153*\cos(1683/2000)*\exp(- \\
& 297/400))/80 - (6*\exp(-297/400)*\sin(1683/2000))/25, - \\
& (153*\cos(17/20)*\exp(-3/4))/80 - (6*\exp(-3/4)*\sin(17/20))/25, - \\
& (153*\cos(1717/2000)*\exp(-303/400))/80 - (6*\exp(- \\
& 303/400)*\sin(1717/2000))/25, - (153*\cos(867/1000)*\exp(- \\
& 153/200))/80 - (6*\exp(-153/200)*\sin(867/1000))/25, - \\
& (153*\cos(1751/2000)*\exp(-309/400))/80 - (6*\exp(- \\
& 309/400)*\sin(1751/2000))/25, - (153*\cos(221/250)*\exp(- \\
& 39/50))/80 - (6*\exp(-39/50)*\sin(221/250))/25, - \\
& (153*\cos(357/400)*\exp(-63/80))/80 - (6*\exp(- \\
& 63/80)*\sin(357/400))/25, - (153*\cos(901/1000)*\exp(- \\
& 159/200))/80 - (6*\exp(-159/200)*\sin(901/1000))/25, - \\
& (153*\cos(1819/2000)*\exp(-321/400))/80 - (6*\exp(- \\
& 321/400)*\sin(1819/2000))/25, - (153*\cos(459/500)*\exp(- \\
& 81/100))/80 - (6*\exp(-81/100)*\sin(459/500))/25, - \\
& (153*\cos(1853/2000)*\exp(-327/400))/80 - (6*\exp(- \\
& 327/400)*\sin(1853/2000))/25, - (153*\cos(187/200)*\exp(- \\
& 33/40))/80 - (6*\exp(-33/40)*\sin(187/200))/25, - \\
& (153*\cos(1887/2000)*\exp(-333/400))/80 - (6*\exp(- \\
& 333/400)*\sin(1887/2000))/25, - (153*\cos(119/125)*\exp(-
\end{aligned}$$

$21/25)/80 - (6*\exp(-21/25)*\sin(119/125))/25, -$   
 $(153*\cos(1921/2000)*\exp(-339/400))/80 - (6*\exp(-$   
 $339/400)*\sin(1921/2000))/25, - (153*\cos(969/1000)*\exp(-$   
 $171/200))/80 - (6*\exp(-171/200)*\sin(969/1000))/25, -$   
 $(153*\cos(391/400)*\exp(-69/80))/80 - (6*\exp(-$   
 $69/80)*\sin(391/400))/25, - (153*\cos(493/500)*\exp(-87/100))/80$   
 $- (6*\exp(-87/100)*\sin(493/500))/25, -$   
 $(153*\cos(1989/2000)*\exp(-351/400))/80 - (6*\exp(-$   
 $351/400)*\sin(1989/2000))/25, - (153*\cos(1003/1000)*\exp(-$   
 $177/200))/80 - (6*\exp(-177/200)*\sin(1003/1000))/25, -$   
 $(153*\cos(2023/2000)*\exp(-357/400))/80 - (6*\exp(-$   
 $357/400)*\sin(2023/2000))/25, - (153*\cos(51/50)*\exp(-9/10))/80$   
 $- (6*\exp(-9/10)*\sin(51/50))/25, - (153*\cos(2057/2000)*\exp(-$   
 $363/400))/80 - (6*\exp(-363/400)*\sin(2057/2000))/25, -$   
 $(153*\cos(1037/1000)*\exp(-183/200))/80 - (6*\exp(-$   
 $183/200)*\sin(1037/1000))/25, - (153*\cos(2091/2000)*\exp(-$   
 $369/400))/80 - (6*\exp(-369/400)*\sin(2091/2000))/25, -$   
 $(153*\cos(527/500)*\exp(-93/100))/80 - (6*\exp(-$   
 $93/100)*\sin(527/500))/25, - (153*\cos(17/16)*\exp(-15/16))/80 -$   
 $(6*\exp(-15/16)*\sin(17/16))/25, - (153*\cos(1071/1000)*\exp(-$   
 $189/200))/80 - (6*\exp(-189/200)*\sin(1071/1000))/25, -$   
 $(153*\cos(2159/2000)*\exp(-381/400))/80 - (6*\exp(-$   
 $381/400)*\sin(2159/2000))/25, - (153*\cos(136/125)*\exp(-$   
 $24/25))/80 - (6*\exp(-24/25)*\sin(136/125))/25, -$   
 $(153*\cos(2193/2000)*\exp(-387/400))/80 - (6*\exp(-$   
 $387/400)*\sin(2193/2000))/25, - (153*\cos(221/200)*\exp(-$   
 $39/40))/80 - (6*\exp(-39/40)*\sin(221/200))/25, -$   
 $(153*\cos(2227/2000)*\exp(-393/400))/80 - (6*\exp(-$   
 $393/400)*\sin(2227/2000))/25, - (153*\cos(561/500)*\exp(-$   
 $99/100))/80 - (6*\exp(-99/100)*\sin(561/500))/25, -$   
 $(153*\cos(2261/2000)*\exp(-399/400))/80 - (6*\exp(-$   
 $399/400)*\sin(2261/2000))/25, - (153*\cos(1139/1000)*\exp(-$   
 $201/200))/80 - (6*\exp(-201/200)*\sin(1139/1000))/25, -$   
 $(153*\cos(459/400)*\exp(-81/80))/80 - (6*\exp(-$   
 $81/80)*\sin(459/400))/25, - (153*\cos(289/250)*\exp(-51/50))/80 -$   
 $(6*\exp(-51/50)*\sin(289/250))/25, - (153*\cos(2329/2000)*\exp(-$   
 $411/400))/80 - (6*\exp(-411/400)*\sin(2329/2000))/25, -$   
 $(153*\cos(1173/1000)*\exp(-207/200))/80 - (6*\exp(-$   
 $207/200)*\sin(1173/1000))/25, - (153*\cos(2363/2000)*\exp(-$   
 $417/400))/80 - (6*\exp(-417/400)*\sin(2363/2000))/25, -$   
 $(153*\cos(119/100)*\exp(-21/20))/80 - (6*\exp(-$   
 $21/20)*\sin(119/100))/25, - (153*\cos(2397/2000)*\exp(-$   
 $423/400))/80 - (6*\exp(-423/400)*\sin(2397/2000))/25, -$   
 $(153*\cos(1207/1000)*\exp(-213/200))/80 - (6*\exp(-$   
 $213/200)*\sin(1207/1000))/25, - (153*\cos(2431/2000)*\exp(-$   
 $429/400))/80 - (6*\exp(-429/400)*\sin(2431/2000))/25, -$   
 $(153*\cos(153/125)*\exp(-27/25))/80 - (6*\exp(-$   
 $27/25)*\sin(153/125))/25, - (153*\cos(493/400)*\exp(-87/80))/80 -$   
 $(6*\exp(-87/80)*\sin(493/400))/25, - (153*\cos(1241/1000)*\exp(-$   
 $219/200))/80 - (6*\exp(-219/200)*\sin(1241/1000))/25, -$   
 $(153*\cos(2499/2000)*\exp(-441/400))/80 - (6*\exp(-$

$$\begin{aligned}
& 441/400) * \sin(2499/2000)) / 25, - (153 * \cos(629/500) * \exp(- \\
& 111/100)) / 80 - (6 * \exp(-111/100) * \sin(629/500)) / 25, - \\
& (153 * \cos(2533/2000) * \exp(-447/400)) / 80 - (6 * \exp(- \\
& 447/400) * \sin(2533/2000)) / 25, - (153 * \cos(51/40) * \exp(-9/8)) / 80 - \\
& (6 * \exp(-9/8) * \sin(51/40)) / 25, - (153 * \cos(2567/2000) * \exp(- \\
& 453/400)) / 80 - (6 * \exp(-453/400) * \sin(2567/2000)) / 25, - \\
& (153 * \cos(323/250) * \exp(-57/50)) / 80 - (6 * \exp(- \\
& 57/50) * \sin(323/250)) / 25, - (153 * \cos(2601/2000) * \exp(- \\
& 459/400)) / 80 - (6 * \exp(-459/400) * \sin(2601/2000)) / 25, - \\
& (153 * \cos(1309/1000) * \exp(-231/200)) / 80 - (6 * \exp(- \\
& 231/200) * \sin(1309/1000)) / 25, - (153 * \cos(527/400) * \exp(- \\
& 93/80)) / 80 - (6 * \exp(-93/80) * \sin(527/400)) / 25, - \\
& (153 * \cos(663/500) * \exp(-117/100)) / 80 - (6 * \exp(- \\
& 117/100) * \sin(663/500)) / 25, - (153 * \cos(2669/2000) * \exp(- \\
& 471/400)) / 80 - (6 * \exp(-471/400) * \sin(2669/2000)) / 25, - \\
& (153 * \cos(1343/1000) * \exp(-237/200)) / 80 - (6 * \exp(- \\
& 237/200) * \sin(1343/1000)) / 25, - (153 * \cos(2703/2000) * \exp(- \\
& 477/400)) / 80 - (6 * \exp(-477/400) * \sin(2703/2000)) / 25, - \\
& (153 * \cos(34/25) * \exp(-6/5)) / 80 - (6 * \exp(-6/5) * \sin(34/25)) / 25, - \\
& (153 * \cos(2737/2000) * \exp(-483/400)) / 80 - (6 * \exp(- \\
& 483/400) * \sin(2737/2000)) / 25, - (153 * \cos(1377/1000) * \exp(- \\
& 243/200)) / 80 - (6 * \exp(-243/200) * \sin(1377/1000)) / 25, - \\
& (153 * \cos(2771/2000) * \exp(-489/400)) / 80 - (6 * \exp(- \\
& 489/400) * \sin(2771/2000)) / 25, - (153 * \cos(697/500) * \exp(- \\
& 123/100)) / 80 - (6 * \exp(-123/100) * \sin(697/500)) / 25, - \\
& (153 * \cos(561/400) * \exp(-99/80)) / 80 - (6 * \exp(- \\
& 99/80) * \sin(561/400)) / 25, - (153 * \cos(1411/1000) * \exp(- \\
& 249/200)) / 80 - (6 * \exp(-249/200) * \sin(1411/1000)) / 25, - \\
& (153 * \cos(2839/2000) * \exp(-501/400)) / 80 - (6 * \exp(- \\
& 501/400) * \sin(2839/2000)) / 25, - (153 * \cos(357/250) * \exp(- \\
& 63/50)) / 80 - (6 * \exp(-63/50) * \sin(357/250)) / 25, - \\
& (153 * \cos(2873/2000) * \exp(-507/400)) / 80 - (6 * \exp(- \\
& 507/400) * \sin(2873/2000)) / 25, - (153 * \cos(289/200) * \exp(- \\
& 51/40)) / 80 - (6 * \exp(-51/40) * \sin(289/200)) / 25, - \\
& (153 * \cos(2907/2000) * \exp(-513/400)) / 80 - (6 * \exp(- \\
& 513/400) * \sin(2907/2000)) / 25, - (153 * \cos(731/500) * \exp(- \\
& 129/100)) / 80 - (6 * \exp(-129/100) * \sin(731/500)) / 25, - \\
& (153 * \cos(2941/2000) * \exp(-519/400)) / 80 - (6 * \exp(- \\
& 519/400) * \sin(2941/2000)) / 25, - (153 * \cos(1479/1000) * \exp(- \\
& 261/200)) / 80 - (6 * \exp(-261/200) * \sin(1479/1000)) / 25, - \\
& (153 * \cos(119/80) * \exp(-21/16)) / 80 - (6 * \exp(- \\
& 21/16) * \sin(119/80)) / 25, - (153 * \cos(187/125) * \exp(-33/25)) / 80 - \\
& (6 * \exp(-33/25) * \sin(187/125)) / 25, - (153 * \cos(3009/2000) * \exp(- \\
& 531/400)) / 80 - (6 * \exp(-531/400) * \sin(3009/2000)) / 25, - \\
& (153 * \cos(1513/1000) * \exp(-267/200)) / 80 - (6 * \exp(- \\
& 267/200) * \sin(1513/1000)) / 25, - (153 * \cos(3043/2000) * \exp(- \\
& 537/400)) / 80 - (6 * \exp(-537/400) * \sin(3043/2000)) / 25, - \\
& (153 * \cos(153/100) * \exp(-27/20)) / 80 - (6 * \exp(- \\
& 27/20) * \sin(153/100)) / 25, - (153 * \cos(3077/2000) * \exp(- \\
& 543/400)) / 80 - (6 * \exp(-543/400) * \sin(3077/2000)) / 25, - \\
& (153 * \cos(1547/1000) * \exp(-273/200)) / 80 - (6 * \exp(-
\end{aligned}$$



$273/200) * \sin(1547/1000)) / 25, - (153 * \cos(3111/2000) * \exp(-549/400)) / 80 - (6 * \exp(-549/400) * \sin(3111/2000)) / 25, -$   
 $(153 * \cos(391/250) * \exp(-69/50)) / 80 - (6 * \exp(-69/50) * \sin(391/250)) / 25, - (153 * \cos(629/400) * \exp(-111/80)) / 80$   
 $- (6 * \exp(-111/80) * \sin(629/400)) / 25, - (153 * \cos(1581/1000) * \exp(-279/200)) / 80 - (6 * \exp(-279/200) * \sin(1581/1000)) / 25, -$   
 $(153 * \cos(3179/2000) * \exp(-561/400)) / 80 - (6 * \exp(-561/400) * \sin(3179/2000)) / 25, -$   
 $(153 * \cos(799/500) * \exp(-141/100)) / 80 - (6 * \exp(-141/100) * \sin(799/500)) / 25, - (153 * \cos(3213/2000) * \exp(-567/400)) / 80 -$   
 $(6 * \exp(-567/400) * \sin(3213/2000)) / 25, - (153 * \cos(323/200) * \exp(-57/40)) / 80 - (6 * \exp(-57/40) * \sin(323/200)) / 25, -$   
 $(153 * \cos(3247/2000) * \exp(-573/400)) / 80 - (6 * \exp(-573/400) * \sin(3247/2000)) / 25, -$   
 $(153 * \cos(204/125) * \exp(-36/25)) / 80 - (6 * \exp(-36/25) * \sin(204/125)) / 25, - (153 * \cos(3281/2000) * \exp(-579/400)) / 80 -$   
 $(6 * \exp(-579/400) * \sin(3281/2000)) / 25, - (153 * \cos(1649/1000) * \exp(-291/200)) / 80 - (6 * \exp(-291/200) * \sin(1649/1000)) / 25, -$   
 $(153 * \cos(663/400) * \exp(-117/80)) / 80 - (6 * \exp(-117/80) * \sin(663/400)) / 25, -$   
 $(153 * \cos(833/500) * \exp(-147/100)) / 80 - (6 * \exp(-147/100) * \sin(833/500)) / 25, - (153 * \cos(3349/2000) * \exp(-591/400)) / 80 -$   
 $(6 * \exp(-591/400) * \sin(3349/2000)) / 25, - (153 * \cos(1683/1000) * \exp(-297/200)) / 80 - (6 * \exp(-297/200) * \sin(1683/1000)) / 25, -$   
 $(153 * \cos(3383/2000) * \exp(-597/400)) / 80 - (6 * \exp(-597/400) * \sin(3383/2000)) / 25, -$   
 $(153 * \cos(17/10) * \exp(-3/2)) / 80 - (6 * \exp(-3/2) * \sin(17/10)) / 25, -$   
 $(153 * \cos(3417/2000) * \exp(-603/400)) / 80 - (6 * \exp(-603/400) * \sin(3417/2000)) / 25, - (153 * \cos(1717/1000) * \exp(-303/200)) / 80 -$   
 $(6 * \exp(-303/200) * \sin(1717/1000)) / 25, - (153 * \cos(3451/2000) * \exp(-609/400)) / 80 - (6 * \exp(-609/400) * \sin(3451/2000)) / 25, -$   
 $(153 * \cos(867/500) * \exp(-153/100)) / 80 - (6 * \exp(-153/100) * \sin(867/500)) / 25, -$   
 $(153 * \cos(697/400) * \exp(-123/80)) / 80 - (6 * \exp(-123/80) * \sin(697/400)) / 25, - (153 * \cos(1751/1000) * \exp(-309/200)) / 80 -$   
 $(6 * \exp(-309/200) * \sin(1751/1000)) / 25, - (153 * \cos(3519/2000) * \exp(-621/400)) / 80 - (6 * \exp(-621/400) * \sin(3519/2000)) / 25, -$   
 $(153 * \cos(221/125) * \exp(-39/25)) / 80 - (6 * \exp(-39/25) * \sin(221/125)) / 25, -$   
 $(153 * \cos(3553/2000) * \exp(-627/400)) / 80 - (6 * \exp(-627/400) * \sin(3553/2000)) / 25, - (153 * \cos(357/200) * \exp(-63/40)) / 80 -$   
 $(6 * \exp(-63/40) * \sin(357/200)) / 25, - (153 * \cos(3587/2000) * \exp(-633/400)) / 80 - (6 * \exp(-633/400) * \sin(3587/2000)) / 25, -$   
 $(153 * \cos(901/500) * \exp(-159/100)) / 80 - (6 * \exp(-159/100) * \sin(901/500)) / 25, -$   
 $(153 * \cos(3621/2000) * \exp(-639/400)) / 80 - (6 * \exp(-639/400) * \sin(3621/2000)) / 25, - (153 * \cos(1819/1000) * \exp(-321/200)) / 80 -$   
 $(6 * \exp(-321/200) * \sin(1819/1000)) / 25, - (153 * \cos(731/400) * \exp(-129/80)) / 80 - (6 * \exp(-129/80) * \sin(731/400)) / 25, -$   
 $(153 * \cos(459/250) * \exp(-81/50)) / 80 - (6 * \exp(-81/50) * \sin(459/250)) / 25, - (153 * \cos(3689/2000) * \exp(-$

$$\begin{aligned}
& 651/400)/80 - (6*\exp(-651/400)*\sin(3689/2000))/25, - \\
& (153*\cos(1853/1000)*\exp(-327/200))/80 - (6*\exp(- \\
& 327/200)*\sin(1853/1000))/25, - (153*\cos(3723/2000)*\exp(- \\
& 657/400))/80 - (6*\exp(-657/400)*\sin(3723/2000))/25, - \\
& (153*\cos(187/100)*\exp(-33/20))/80 - (6*\exp(- \\
& 33/20)*\sin(187/100))/25, - (153*\cos(3757/2000)*\exp(- \\
& 663/400))/80 - (6*\exp(-663/400)*\sin(3757/2000))/25, - \\
& (153*\cos(1887/1000)*\exp(-333/200))/80 - (6*\exp(- \\
& 333/200)*\sin(1887/1000))/25, - (153*\cos(3791/2000)*\exp(- \\
& 669/400))/80 - (6*\exp(-669/400)*\sin(3791/2000))/25, - \\
& (153*\cos(238/125)*\exp(-42/25))/80 - (6*\exp(- \\
& 42/25)*\sin(238/125))/25, - (153*\cos(153/80)*\exp(-27/16))/80 - \\
& (6*\exp(-27/16)*\sin(153/80))/25, - (153*\cos(1921/1000)*\exp(- \\
& 339/200))/80 - (6*\exp(-339/200)*\sin(1921/1000))/25, - \\
& (153*\cos(3859/2000)*\exp(-681/400))/80 - (6*\exp(- \\
& 681/400)*\sin(3859/2000))/25, - (153*\cos(969/500)*\exp(- \\
& 171/100))/80 - (6*\exp(-171/100)*\sin(969/500))/25, - \\
& (153*\cos(3893/2000)*\exp(-687/400))/80 - (6*\exp(- \\
& 687/400)*\sin(3893/2000))/25, - (153*\cos(391/200)*\exp(- \\
& 69/40))/80 - (6*\exp(-69/40)*\sin(391/200))/25, - \\
& (153*\cos(3927/2000)*\exp(-693/400))/80 - (6*\exp(- \\
& 693/400)*\sin(3927/2000))/25, - (153*\cos(493/250)*\exp(- \\
& 87/50))/80 - (6*\exp(-87/50)*\sin(493/250))/25, - \\
& (153*\cos(3961/2000)*\exp(-699/400))/80 - (6*\exp(- \\
& 699/400)*\sin(3961/2000))/25, - (153*\cos(1989/1000)*\exp(- \\
& 351/200))/80 - (6*\exp(-351/200)*\sin(1989/1000))/25, - \\
& (153*\cos(799/400)*\exp(-141/80))/80 - (6*\exp(- \\
& 141/80)*\sin(799/400))/25, - (153*\cos(1003/500)*\exp(- \\
& 177/100))/80 - (6*\exp(-177/100)*\sin(1003/500))/25, - \\
& (153*\cos(4029/2000)*\exp(-711/400))/80 - (6*\exp(- \\
& 711/400)*\sin(4029/2000))/25, - (153*\cos(2023/1000)*\exp(- \\
& 357/200))/80 - (6*\exp(-357/200)*\sin(2023/1000))/25, - \\
& (153*\cos(4063/2000)*\exp(-717/400))/80 - (6*\exp(- \\
& 717/400)*\sin(4063/2000))/25, - (153*\cos(51/25)*\exp(-9/5))/80 - \\
& (6*\exp(-9/5)*\sin(51/25))/25, - (153*\cos(4097/2000)*\exp(- \\
& 723/400))/80 - (6*\exp(-723/400)*\sin(4097/2000))/25, - \\
& (153*\cos(2057/1000)*\exp(-363/200))/80 - (6*\exp(- \\
& 363/200)*\sin(2057/1000))/25, - (153*\cos(4131/2000)*\exp(- \\
& 729/400))/80 - (6*\exp(-729/400)*\sin(4131/2000))/25, - \\
& (153*\cos(1037/500)*\exp(-183/100))/80 - (6*\exp(- \\
& 183/100)*\sin(1037/500))/25, - (153*\cos(833/400)*\exp(- \\
& 147/80))/80 - (6*\exp(-147/80)*\sin(833/400))/25, - \\
& (153*\cos(2091/1000)*\exp(-369/200))/80 - (6*\exp(- \\
& 369/200)*\sin(2091/1000))/25, - (153*\cos(4199/2000)*\exp(- \\
& 741/400))/80 - (6*\exp(-741/400)*\sin(4199/2000))/25, - \\
& (153*\cos(527/250)*\exp(-93/50))/80 - (6*\exp(- \\
& 93/50)*\sin(527/250))/25, - (153*\cos(4233/2000)*\exp(- \\
& 747/400))/80 - (6*\exp(-747/400)*\sin(4233/2000))/25, - \\
& (153*\cos(17/8)*\exp(-15/8))/80 - (6*\exp(-15/8)*\sin(17/8))/25]
\end{aligned}$$

ans =

'location'

ans =

'best'

**(C)**

```
commandwindow
```

```
clear
```

```
clc
```

```
syms x
```

```
y = (5*sin(5*x))^5
```

```
V = int(pi*(y^2))
```

```
int(5*sin(5*x)^5, 0, pi)
```

```
y =
```

```
3125*sin(5*x)^5
```

```
V =
```

```
(390625*pi*(12600*x - 2100*sin(10*x) + 600*sin(20*x) -  
150*sin(30*x) + 25*sin(40*x) - 2*sin(50*x)))/2048
```

ans =

16/15

```
>>Vintd =
```

1.066666666666667

Figure 1

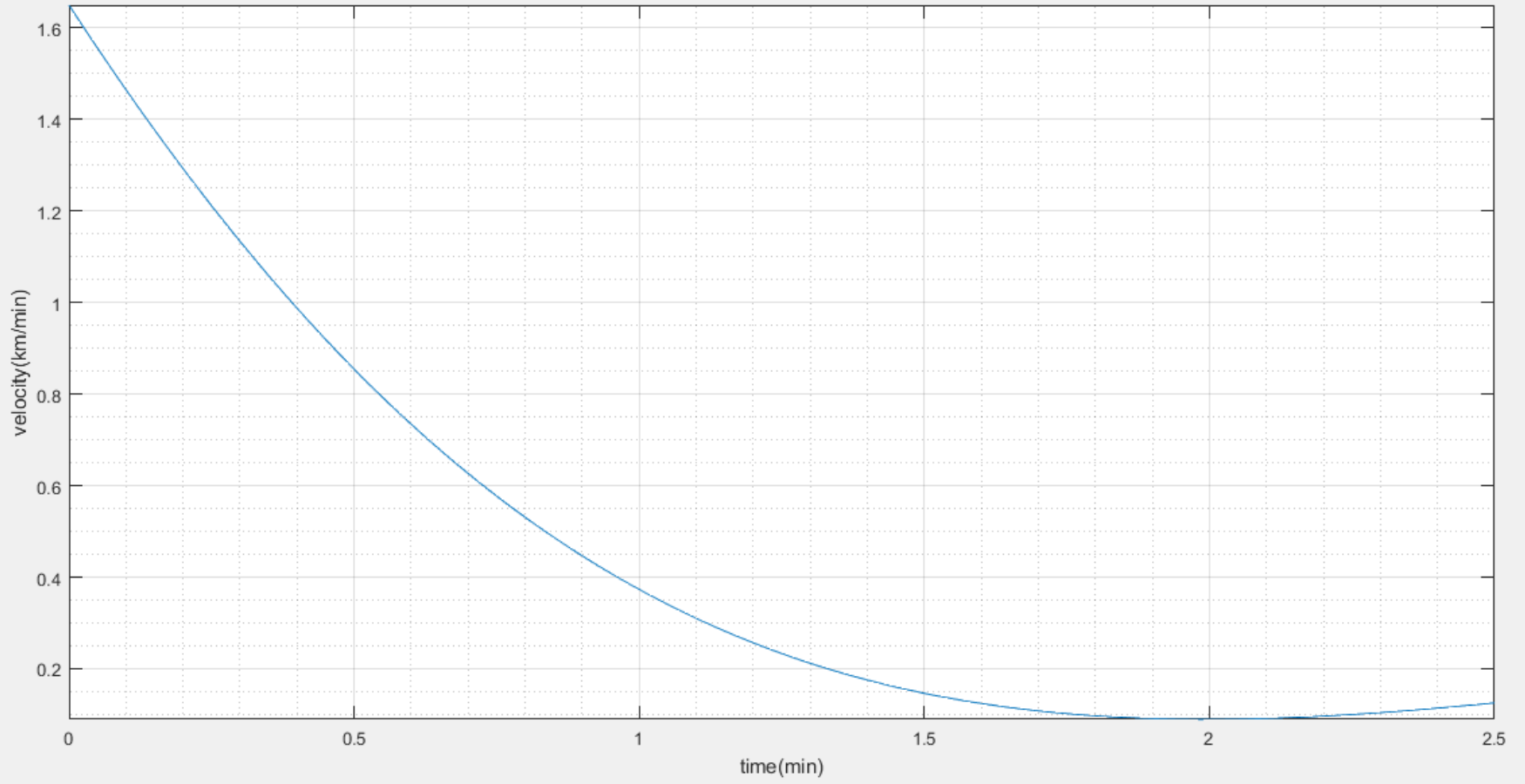


Figure 2

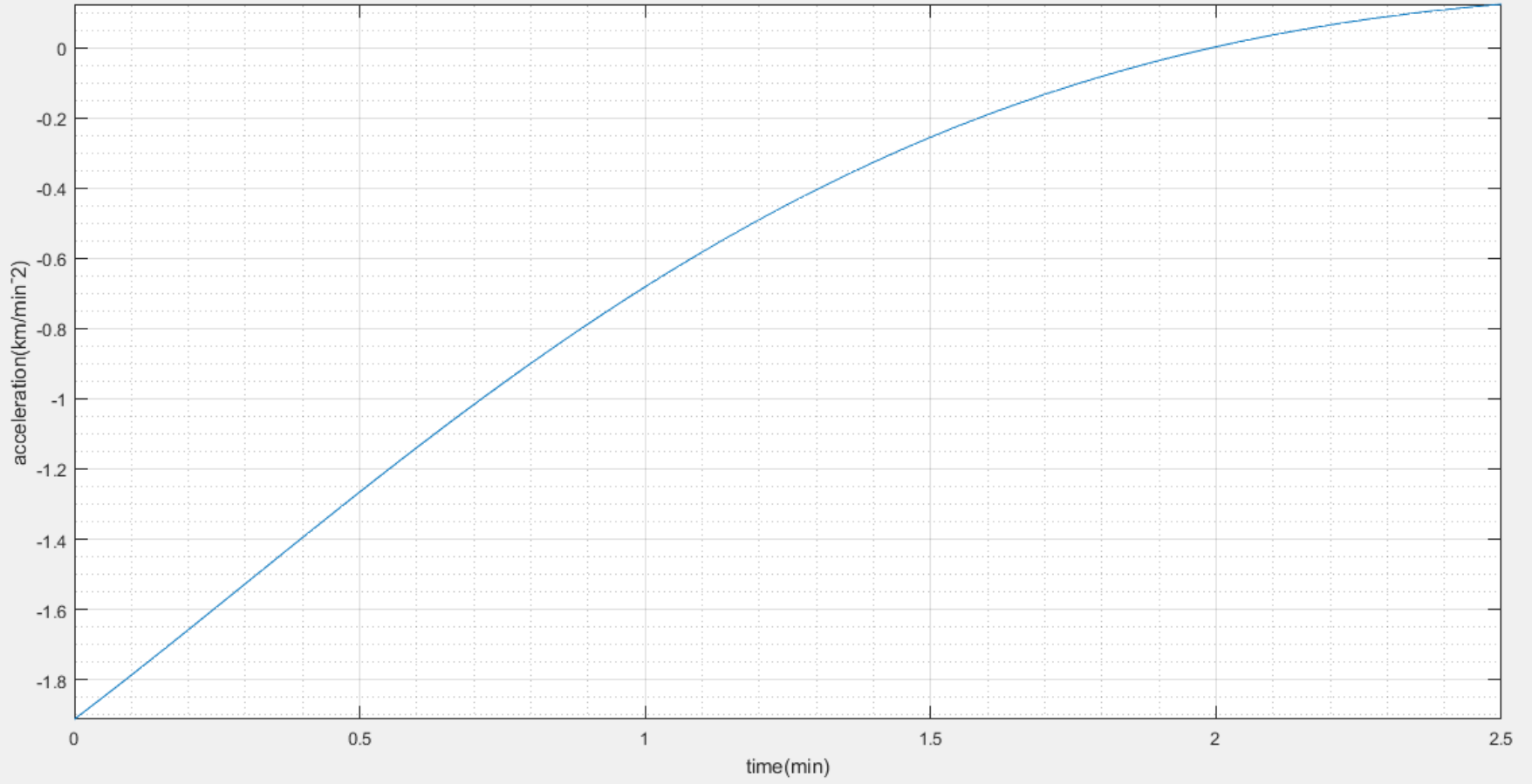


Figure 3

