

## QUESTION 4

**A**

### INPUT IN EDITOR

```
commandwindow
clear
clc
A=[0 10 4 -2;-3 -17 1 2;1 1 1 0;8 -34 16 -10]
B=inv(A)
C=[-4;2;6;4]
X=B*C
```

### OUTPUT IN EDITOR

A =

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

B =

```
-0.1786 -0.1020 0.5714 0.0153
 0.0357 -0.0153 0.0357 -0.0102
 0.1429 0.1173 0.3929 -0.0051
-0.0357 0.1582 0.9643 -0.0612
```

C =

```
 -4
  2
  6
  4
```

X =

```
 4.0000
-0.0000
 2.0000
 6.0000
```

>>

## **B**

### **INPUT IN THE EDITOR**

```
_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)
dp= diff(d)
dpn=subs(dp,tn)
figure(1)
plot(tn,dpn)
xlabel('time (mins)')
ylabel('velocity (m/s)')
grid on
grid minor

dl= diff(dp)
dln= subs(dl,tn)
figure(2)
plot(tn,dln)
xlabel('time (mins)')
ylabel('acceleration (m/s^2)')
grid on
grid minor

figure(3)
plot(tn,dpn,tn,dln)
xlabel('time (mins)')
ylabel('variable')
legend('velocity (m/s)', 'acceleration (m/s^2)')
axis tight
grid on
grid minor
```

### **OUTPUT IN EDITOR**

d =

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

tn =

Columns 1 through 12

0 0.0100 0.0200 0.0300 0.0400 0.0500 0.0600 0.0700 0.0800 0.0900 0.1000  
0.1100

Columns 13 through 24

0.1200 0.1300 0.1400 0.1500 0.1600 0.1700 0.1800 0.1900 0.2000 0.2100 0.2200  
0.2300

Columns 25 through 36

0.2400 0.2500 0.2600 0.2700 0.2800 0.2900 0.3000 0.3100 0.3200 0.3300 0.3400  
0.3500

Columns 37 through 48

0.3600 0.3700 0.3800 0.3900 0.4000 0.4100 0.4200 0.4300 0.4400 0.4500 0.4600  
0.4700

Columns 49 through 60

0.4800 0.4900 0.5000 0.5100 0.5200 0.5300 0.5400 0.5500 0.5600 0.5700 0.5800  
0.5900

Columns 61 through 72

0.6000 0.6100 0.6200 0.6300 0.6400 0.6500 0.6600 0.6700 0.6800 0.6900 0.7000  
0.7100

Columns 73 through 84

0.7200 0.7300 0.7400 0.7500 0.7600 0.7700 0.7800 0.7900 0.8000 0.8100 0.8200  
0.8300

Columns 85 through 96

0.8400 0.8500 0.8600 0.8700 0.8800 0.8900 0.9000 0.9100 0.9200 0.9300 0.9400  
0.9500

Columns 97 through 108

0.9600 0.9700 0.9800 0.9900 1.0000 1.0100 1.0200 1.0300 1.0400 1.0500 1.0600  
1.0700

Columns 109 through 120

1.0800 1.0900 1.1000 1.1100 1.1200 1.1300 1.1400 1.1500 1.1600 1.1700 1.1800  
1.1900

Columns 121 through 132

1.2000 1.2100 1.2200 1.2300 1.2400 1.2500 1.2600 1.2700 1.2800 1.2900 1.3000  
1.3100

Columns 133 through 144

1.3200 1.3300 1.3400 1.3500 1.3600 1.3700 1.3800 1.3900 1.4000 1.4100 1.4200  
1.4300

Columns 145 through 156

1.4400 1.4500 1.4600 1.4700 1.4800 1.4900 1.5000 1.5100 1.5200 1.5300 1.5400  
1.5500

Columns 157 through 168

1.5600 1.5700 1.5800 1.5900 1.6000 1.6100 1.6200 1.6300 1.6400 1.6500 1.6600  
1.6700

Columns 169 through 180

1.6800 1.6900 1.7000 1.7100 1.7200 1.7300 1.7400 1.7500 1.7600 1.7700 1.7800  
1.7900

Columns 181 through 192

1.8000 1.8100 1.8200 1.8300 1.8400 1.8500 1.8600 1.8700 1.8800 1.8900 1.9000  
1.9100

Columns 193 through 204

1.9200 1.9300 1.9400 1.9500 1.9600 1.9700 1.9800 1.9900 2.0000 2.0100 2.0200  
2.0300

Columns 205 through 216

2.0400 2.0500 2.0600 2.0700 2.0800 2.0900 2.1000 2.1100 2.1200 2.1300 2.1400  
2.1500

Columns 217 through 228

2.1600 2.1700 2.1800 2.1900 2.2000 2.2100 2.2200 2.2300 2.2400 2.2500 2.2600  
2.2700

Columns 229 through 240

2.2800 2.2900 2.3000 2.3100 2.3200 2.3300 2.3400 2.3500 2.3600 2.3700 2.3800  
2.3900

Columns 241 through 251

2.4000 2.4100 2.4200 2.4300 2.4400 2.4500 2.4600 2.4700 2.4800 2.4900 2.5000

dp =

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

dpn =

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

$(51/400) \cdot \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,$

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



$\frac{177}{200} \sin(\frac{1003}{1000}) / 8 + 3/8, (51 \cos(\frac{2023}{2000}) \exp(-\frac{357}{400})) / 40 - (9 \exp(-\frac{357}{400}) \sin(\frac{2023}{2000})) / 8 + 3/8, (51 \cos(\frac{51}{50}) \exp(-\frac{9}{10})) / 40 - (9 \exp(-\frac{9}{10}) \sin(\frac{51}{50})) / 8 + 3/8,$   
 $(51 \cos(\frac{2057}{2000}) \exp(-\frac{363}{400})) / 40 - (9 \exp(-\frac{363}{400}) \sin(\frac{2057}{2000})) / 8 + 3/8,$   
 $(51 \cos(\frac{1037}{1000}) \exp(-\frac{183}{200})) / 40 - (9 \exp(-\frac{183}{200}) \sin(\frac{1037}{1000})) / 8 + 3/8,$   
 $(51 \cos(\frac{2091}{2000}) \exp(-\frac{369}{400})) / 40 - (9 \exp(-\frac{369}{400}) \sin(\frac{2091}{2000})) / 8 + 3/8,$   
 $(51 \cos(\frac{527}{500}) \exp(-\frac{93}{100})) / 40 - (9 \exp(-\frac{93}{100}) \sin(\frac{527}{500})) / 8 + 3/8, (51 \cos(\frac{17}{16}) \exp(-\frac{15}{16})) / 40 - (9 \exp(-\frac{15}{16}) \sin(\frac{17}{16})) / 8 + 3/8, (51 \cos(\frac{1071}{1000}) \exp(-\frac{189}{200})) / 40 - (9 \exp(-\frac{189}{200}) \sin(\frac{1071}{1000})) / 8 + 3/8, (51 \cos(\frac{2159}{2000}) \exp(-\frac{381}{400})) / 40 - (9 \exp(-\frac{381}{400}) \sin(\frac{2159}{2000})) / 8 + 3/8, (51 \cos(\frac{136}{125}) \exp(-\frac{24}{25})) / 40 - (9 \exp(-\frac{24}{25}) \sin(\frac{136}{125})) / 8 + 3/8, (51 \cos(\frac{2193}{2000}) \exp(-\frac{387}{400})) / 40 - (9 \exp(-\frac{387}{400}) \sin(\frac{2193}{2000})) / 8 + 3/8,$   
 $(51 \cos(\frac{221}{200}) \exp(-\frac{39}{40})) / 40 - (9 \exp(-\frac{39}{40}) \sin(\frac{221}{200})) / 8 + 3/8, (51 \cos(\frac{2227}{2000}) \exp(-\frac{393}{400})) / 40 - (9 \exp(-\frac{393}{400}) \sin(\frac{2227}{2000})) / 8 + 3/8, (51 \cos(\frac{561}{500}) \exp(-\frac{99}{100})) / 40 - (9 \exp(-\frac{99}{100}) \sin(\frac{561}{500})) / 8 + 3/8, (51 \cos(\frac{2261}{2000}) \exp(-\frac{399}{400})) / 40 - (9 \exp(-\frac{399}{400}) \sin(\frac{2261}{2000})) / 8 + 3/8, (51 \cos(\frac{1139}{1000}) \exp(-\frac{201}{200})) / 40 - (9 \exp(-\frac{201}{200}) \sin(\frac{1139}{1000})) / 8 + 3/8, (51 \cos(\frac{459}{400}) \exp(-\frac{81}{80})) / 40 - (9 \exp(-\frac{81}{80}) \sin(\frac{459}{400})) / 8 + 3/8, (51 \cos(\frac{289}{250}) \exp(-\frac{51}{50})) / 40 - (9 \exp(-\frac{51}{50}) \sin(\frac{289}{250})) / 8 + 3/8,$   
 $(51 \cos(\frac{2329}{2000}) \exp(-\frac{411}{400})) / 40 - (9 \exp(-\frac{411}{400}) \sin(\frac{2329}{2000})) / 8 + 3/8,$   
 $(51 \cos(\frac{1173}{1000}) \exp(-\frac{207}{200})) / 40 - (9 \exp(-\frac{207}{200}) \sin(\frac{1173}{1000})) / 8 + 3/8,$   
 $(51 \cos(\frac{2363}{2000}) \exp(-\frac{417}{400})) / 40 - (9 \exp(-\frac{417}{400}) \sin(\frac{2363}{2000})) / 8 + 3/8,$   
 $(51 \cos(\frac{119}{100}) \exp(-\frac{21}{20})) / 40 - (9 \exp(-\frac{21}{20}) \sin(\frac{119}{100})) / 8 + 3/8, (51 \cos(\frac{2397}{2000}) \exp(-\frac{423}{400})) / 40 - (9 \exp(-\frac{423}{400}) \sin(\frac{2397}{2000})) / 8 + 3/8, (51 \cos(\frac{1207}{1000}) \exp(-\frac{213}{200})) / 40 - (9 \exp(-\frac{213}{200}) \sin(\frac{1207}{1000})) / 8 + 3/8, (51 \cos(\frac{2431}{2000}) \exp(-\frac{429}{400})) / 40 - (9 \exp(-\frac{429}{400}) \sin(\frac{2431}{2000})) / 8 + 3/8, (51 \cos(\frac{153}{125}) \exp(-\frac{27}{25})) / 40 - (9 \exp(-\frac{27}{25}) \sin(\frac{153}{125})) / 8 + 3/8, (51 \cos(\frac{493}{400}) \exp(-\frac{87}{80})) / 40 - (9 \exp(-\frac{87}{80}) \sin(\frac{493}{400})) / 8 + 3/8,$   
 $(51 \cos(\frac{1241}{1000}) \exp(-\frac{219}{200})) / 40 - (9 \exp(-\frac{219}{200}) \sin(\frac{1241}{1000})) / 8 + 3/8,$   
 $(51 \cos(\frac{2499}{2000}) \exp(-\frac{441}{400})) / 40 - (9 \exp(-\frac{441}{400}) \sin(\frac{2499}{2000})) / 8 + 3/8,$   
 $(51 \cos(\frac{629}{500}) \exp(-\frac{111}{100})) / 40 - (9 \exp(-\frac{111}{100}) \sin(\frac{629}{500})) / 8 + 3/8,$   
 $(51 \cos(\frac{2533}{2000}) \exp(-\frac{447}{400})) / 40 - (9 \exp(-\frac{447}{400}) \sin(\frac{2533}{2000})) / 8 + 3/8,$   
 $(51 \cos(\frac{51}{40}) \exp(-\frac{9}{8})) / 40 - (9 \exp(-\frac{9}{8}) \sin(\frac{51}{40})) / 8 + 3/8, (51 \cos(\frac{2567}{2000}) \exp(-\frac{453}{400})) / 40 - (9 \exp(-\frac{453}{400}) \sin(\frac{2567}{2000})) / 8 + 3/8, (51 \cos(\frac{323}{250}) \exp(-\frac{57}{50})) / 40 - (9 \exp(-\frac{57}{50}) \sin(\frac{323}{250})) / 8 + 3/8, (51 \cos(\frac{2601}{2000}) \exp(-\frac{459}{400})) / 40 - (9 \exp(-\frac{459}{400}) \sin(\frac{2601}{2000})) / 8 + 3/8, (51 \cos(\frac{1309}{1000}) \exp(-\frac{231}{200})) / 40 - (9 \exp(-\frac{231}{200}) \sin(\frac{1309}{1000})) / 8 + 3/8, (51 \cos(\frac{527}{400}) \exp(-\frac{93}{80})) / 40 - (9 \exp(-\frac{93}{80}) \sin(\frac{527}{400})) / 8 + 3/8, (51 \cos(\frac{663}{500}) \exp(-\frac{117}{100})) / 40 - (9 \exp(-\frac{117}{100}) \sin(\frac{663}{500})) / 8 + 3/8,$   
 $(51 \cos(\frac{2669}{2000}) \exp(-\frac{471}{400})) / 40 - (9 \exp(-\frac{471}{400}) \sin(\frac{2669}{2000})) / 8 + 3/8,$   
 $(51 \cos(\frac{1343}{1000}) \exp(-\frac{237}{200})) / 40 - (9 \exp(-\frac{237}{200}) \sin(\frac{1343}{1000})) / 8 + 3/8,$   
 $(51 \cos(\frac{2703}{2000}) \exp(-\frac{477}{400})) / 40 - (9 \exp(-\frac{477}{400}) \sin(\frac{2703}{2000})) / 8 + 3/8,$   
 $(51 \cos(\frac{34}{25}) \exp(-\frac{6}{5})) / 40 - (9 \exp(-\frac{6}{5}) \sin(\frac{34}{25})) / 8 + 3/8, (51 \cos(\frac{2737}{2000}) \exp(-\frac{483}{400})) / 40 - (9 \exp(-\frac{483}{400}) \sin(\frac{2737}{2000})) / 8 + 3/8, (51 \cos(\frac{1377}{1000}) \exp(-\frac{243}{200})) / 40 - (9 \exp(-\frac{243}{200}) \sin(\frac{1377}{1000})) / 8 + 3/8, (51 \cos(\frac{2771}{2000}) \exp(-\frac{489}{400})) / 40 - (9 \exp(-\frac{489}{400}) \sin(\frac{2771}{2000})) / 8 + 3/8, (51 \cos(\frac{697}{500}) \exp(-\frac{123}{100})) / 40 - (9 \exp(-\frac{123}{100}) \sin(\frac{697}{500})) / 8 + 3/8, (51 \cos(\frac{561}{400}) \exp(-\frac{99}{80})) / 40 - (9 \exp(-\frac{99}{80}) \sin(\frac{561}{400})) / 8 + 3/8, (51 \cos(\frac{1411}{1000}) \exp(-\frac{249}{200})) / 40 - (9 \exp(-\frac{249}{200}) \sin(\frac{1411}{1000})) / 8 + 3/8,$   
 $(51 \cos(\frac{2839}{2000}) \exp(-\frac{501}{400})) / 40 - (9 \exp(-\frac{501}{400}) \sin(\frac{2839}{2000})) / 8 + 3/8,$

$(51 \cdot \cos(357/250) \cdot \exp(-63/50))/40 - (9 \cdot \exp(-63/50) \cdot \sin(357/250))/8 + 3/8, (51 \cdot \cos(2873/2000) \cdot \exp(-507/400))/40 - (9 \cdot \exp(-507/400) \cdot \sin(2873/2000))/8 + 3/8, (51 \cdot \cos(289/200) \cdot \exp(-51/40))/40 - (9 \cdot \exp(-51/40) \cdot \sin(289/200))/8 + 3/8, (51 \cdot \cos(2907/2000) \cdot \exp(-513/400))/40 - (9 \cdot \exp(-513/400) \cdot \sin(2907/2000))/8 + 3/8, (51 \cdot \cos(731/500) \cdot \exp(-129/100))/40 - (9 \cdot \exp(-129/100) \cdot \sin(731/500))/8 + 3/8, (51 \cdot \cos(2941/2000) \cdot \exp(-519/400))/40 - (9 \cdot \exp(-519/400) \cdot \sin(2941/2000))/8 + 3/8, (51 \cdot \cos(1479/1000) \cdot \exp(-261/200))/40 - (9 \cdot \exp(-261/200) \cdot \sin(1479/1000))/8 + 3/8, (51 \cdot \cos(119/80) \cdot \exp(-21/16))/40 - (9 \cdot \exp(-21/16) \cdot \sin(119/80))/8 + 3/8, (51 \cdot \cos(187/125) \cdot \exp(-33/25))/40 - (9 \cdot \exp(-33/25) \cdot \sin(187/125))/8 + 3/8, (51 \cdot \cos(3009/2000) \cdot \exp(-531/400))/40 - (9 \cdot \exp(-531/400) \cdot \sin(3009/2000))/8 + 3/8, (51 \cdot \cos(1513/1000) \cdot \exp(-267/200))/40 - (9 \cdot \exp(-267/200) \cdot \sin(1513/1000))/8 + 3/8, (51 \cdot \cos(3043/2000) \cdot \exp(-537/400))/40 - (9 \cdot \exp(-537/400) \cdot \sin(3043/2000))/8 + 3/8, (51 \cdot \cos(153/100) \cdot \exp(-27/20))/40 - (9 \cdot \exp(-27/20) \cdot \sin(153/100))/8 + 3/8, (51 \cdot \cos(3077/2000) \cdot \exp(-543/400))/40 - (9 \cdot \exp(-543/400) \cdot \sin(3077/2000))/8 + 3/8, (51 \cdot \cos(1547/1000) \cdot \exp(-273/200))/40 - (9 \cdot \exp(-273/200) \cdot \sin(1547/1000))/8 + 3/8, (51 \cdot \cos(3111/2000) \cdot \exp(-549/400))/40 - (9 \cdot \exp(-549/400) \cdot \sin(3111/2000))/8 + 3/8, (51 \cdot \cos(391/250) \cdot \exp(-69/50))/40 - (9 \cdot \exp(-69/50) \cdot \sin(391/250))/8 + 3/8, (51 \cdot \cos(629/400) \cdot \exp(-111/80))/40 - (9 \cdot \exp(-111/80) \cdot \sin(629/400))/8 + 3/8, (51 \cdot \cos(1581/1000) \cdot \exp(-279/200))/40 - (9 \cdot \exp(-279/200) \cdot \sin(1581/1000))/8 + 3/8, (51 \cdot \cos(3179/2000) \cdot \exp(-561/400))/40 - (9 \cdot \exp(-561/400) \cdot \sin(3179/2000))/8 + 3/8, (51 \cdot \cos(799/500) \cdot \exp(-141/100))/40 - (9 \cdot \exp(-141/100) \cdot \sin(799/500))/8 + 3/8, (51 \cdot \cos(3213/2000) \cdot \exp(-567/400))/40 - (9 \cdot \exp(-567/400) \cdot \sin(3213/2000))/8 + 3/8, (51 \cdot \cos(323/200) \cdot \exp(-57/40))/40 - (9 \cdot \exp(-57/40) \cdot \sin(323/200))/8 + 3/8, (51 \cdot \cos(3247/2000) \cdot \exp(-573/400))/40 - (9 \cdot \exp(-573/400) \cdot \sin(3247/2000))/8 + 3/8, (51 \cdot \cos(204/125) \cdot \exp(-36/25))/40 - (9 \cdot \exp(-36/25) \cdot \sin(204/125))/8 + 3/8, (51 \cdot \cos(3281/2000) \cdot \exp(-579/400))/40 - (9 \cdot \exp(-579/400) \cdot \sin(3281/2000))/8 + 3/8, (51 \cdot \cos(1649/1000) \cdot \exp(-291/200))/40 - (9 \cdot \exp(-291/200) \cdot \sin(1649/1000))/8 + 3/8, (51 \cdot \cos(663/400) \cdot \exp(-117/80))/40 - (9 \cdot \exp(-117/80) \cdot \sin(663/400))/8 + 3/8, (51 \cdot \cos(833/500) \cdot \exp(-147/100))/40 - (9 \cdot \exp(-147/100) \cdot \sin(833/500))/8 + 3/8, (51 \cdot \cos(3349/2000) \cdot \exp(-591/400))/40 - (9 \cdot \exp(-591/400) \cdot \sin(3349/2000))/8 + 3/8, (51 \cdot \cos(1683/1000) \cdot \exp(-297/200))/40 - (9 \cdot \exp(-297/200) \cdot \sin(1683/1000))/8 + 3/8, (51 \cdot \cos(3383/2000) \cdot \exp(-597/400))/40 - (9 \cdot \exp(-597/400) \cdot \sin(3383/2000))/8 + 3/8, (51 \cdot \cos(17/10) \cdot \exp(-3/2))/40 - (9 \cdot \exp(-3/2) \cdot \sin(17/10))/8 + 3/8, (51 \cdot \cos(3417/2000) \cdot \exp(-603/400))/40 - (9 \cdot \exp(-603/400) \cdot \sin(3417/2000))/8 + 3/8, (51 \cdot \cos(1717/1000) \cdot \exp(-303/200))/40 - (9 \cdot \exp(-303/200) \cdot \sin(1717/1000))/8 + 3/8, (51 \cdot \cos(3451/2000) \cdot \exp(-609/400))/40 - (9 \cdot \exp(-609/400) \cdot \sin(3451/2000))/8 + 3/8, (51 \cdot \cos(867/500) \cdot \exp(-153/100))/40 - (9 \cdot \exp(-153/100) \cdot \sin(867/500))/8 + 3/8, (51 \cdot \cos(697/400) \cdot \exp(-123/80))/40 - (9 \cdot \exp(-123/80) \cdot \sin(697/400))/8 + 3/8, (51 \cdot \cos(1751/1000) \cdot \exp(-309/200))/40 - (9 \cdot \exp(-309/200) \cdot \sin(1751/1000))/8 + 3/8, (51 \cdot \cos(3519/2000) \cdot \exp(-621/400))/40 - (9 \cdot \exp(-621/400) \cdot \sin(3519/2000))/8 + 3/8, (51 \cdot \cos(221/125) \cdot \exp(-39/25))/40 - (9 \cdot \exp(-39/25) \cdot \sin(221/125))/8 + 3/8, (51 \cdot \cos(3553/2000) \cdot \exp(-627/400))/40 - (9 \cdot \exp(-627/400) \cdot \sin(3553/2000))/8 + 3/8, (51 \cdot \cos(357/200) \cdot \exp(-63/40))/40 - (9 \cdot \exp(-63/40) \cdot \sin(357/200))/8 + 3/8, (51 \cdot \cos(3587/2000) \cdot \exp(-633/400))/40 - (9 \cdot \exp(-633/400) \cdot \sin(3587/2000))/8 + 3/8, (51 \cdot \cos(901/500) \cdot \exp(-159/100))/40 - (9 \cdot \exp(-159/100) \cdot \sin(901/500))/8 + 3/8, (51 \cdot \cos(3621/2000) \cdot \exp(-639/400))/40 - (9 \cdot \exp(-639/400) \cdot \sin(3621/2000))/8 + 3/8, (51 \cdot \cos(1819/1000) \cdot \exp(-321/200))/40 - (9 \cdot \exp(-321/200) \cdot \sin(1819/1000))/8 + 3/8, (51 \cdot \cos(731/400) \cdot \exp(-129/80))/40 - (9 \cdot \exp(-129/80) \cdot \sin(731/400))/8 + 3/8, (51 \cdot \cos(459/250) \cdot \exp(-81/50))/40 - (9 \cdot \exp(-81/50) \cdot \sin(459/250))/8 +$

$$\begin{aligned}
& \frac{3}{8}, (51 \cdot \cos(3689/2000) \cdot \exp(-651/400))/40 - (9 \cdot \exp(-651/400) \cdot \sin(3689/2000))/8 + 3/8, \\
& (51 \cdot \cos(1853/1000) \cdot \exp(-327/200))/40 - (9 \cdot \exp(-327/200) \cdot \sin(1853/1000))/8 + 3/8, \\
& (51 \cdot \cos(3723/2000) \cdot \exp(-657/400))/40 - (9 \cdot \exp(-657/400) \cdot \sin(3723/2000))/8 + 3/8, \\
& (51 \cdot \cos(187/100) \cdot \exp(-33/20))/40 - (9 \cdot \exp(-33/20) \cdot \sin(187/100))/8 + 3/8, (51 \cdot \cos(3757/2000) \cdot \exp(- \\
& 663/400))/40 - (9 \cdot \exp(-663/400) \cdot \sin(3757/2000))/8 + 3/8, (51 \cdot \cos(1887/1000) \cdot \exp(-333/200))/40 - \\
& (9 \cdot \exp(-333/200) \cdot \sin(1887/1000))/8 + 3/8, (51 \cdot \cos(3791/2000) \cdot \exp(-669/400))/40 - (9 \cdot \exp(- \\
& 669/400) \cdot \sin(3791/2000))/8 + 3/8, (51 \cdot \cos(238/125) \cdot \exp(-42/25))/40 - (9 \cdot \exp(-42/25) \cdot \sin(238/125))/8 \\
& + 3/8, (51 \cdot \cos(153/80) \cdot \exp(-27/16))/40 - (9 \cdot \exp(-27/16) \cdot \sin(153/80))/8 + 3/8, \\
& (51 \cdot \cos(1921/1000) \cdot \exp(-339/200))/40 - (9 \cdot \exp(-339/200) \cdot \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
\end{aligned}$$

dl =

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

dln =

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

$\frac{159}{400} \sin(\frac{901}{2000}) / 25, - (153 \cos(\frac{459}{1000}) \exp(-\frac{81}{200})) / 80 - (6 \exp(-\frac{81}{200}) \sin(\frac{459}{1000})) / 25, - (153 \cos(\frac{187}{400}) \exp(-\frac{33}{80})) / 80 - (6 \exp(-\frac{33}{80}) \sin(\frac{187}{400})) / 25, - (153 \cos(\frac{119}{250}) \exp(-\frac{21}{50})) / 80 - (6 \exp(-\frac{21}{50}) \sin(\frac{119}{250})) / 25, - (153 \cos(\frac{969}{2000}) \exp(-\frac{171}{400})) / 80 - (6 \exp(-\frac{171}{400}) \sin(\frac{969}{2000})) / 25, - (153 \cos(\frac{493}{1000}) \exp(-\frac{87}{200})) / 80 - (6 \exp(-\frac{87}{200}) \sin(\frac{493}{1000})) / 25, - (153 \cos(\frac{1003}{2000}) \exp(-\frac{177}{400})) / 80 - (6 \exp(-\frac{177}{400}) \sin(\frac{1003}{2000})) / 25, - (153 \cos(\frac{51}{100}) \exp(-\frac{9}{20})) / 80 - (6 \exp(-\frac{9}{20}) \sin(\frac{51}{100})) / 25, - (153 \cos(\frac{1037}{2000}) \exp(-\frac{183}{400})) / 80 - (6 \exp(-\frac{183}{400}) \sin(\frac{1037}{2000})) / 25, - (153 \cos(\frac{527}{1000}) \exp(-\frac{93}{200})) / 80 - 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(6 \exp(-\frac{147}{200}) \sin(\frac{833}{1000})) / 25, - (153 \cos(\frac{1683}{2000}) \exp(-\frac{297}{400})) / 80 - (6 \exp(-\frac{297}{400}) \sin(\frac{1683}{2000})) / 25, - (153 \cos(\frac{17}{20}) \exp(-\frac{3}{4})) / 80 - (6 \exp(-\frac{3}{4}) \sin(\frac{17}{20})) / 25, - (153 \cos(\frac{1717}{2000}) \exp(-\frac{303}{400})) / 80 - (6 \exp(-\frac{303}{400}) \sin(\frac{1717}{2000})) / 25, - (153 \cos(\frac{867}{1000}) \exp(-\frac{153}{200})) / 80 - (6 \exp(-\frac{153}{200}) \sin(\frac{867}{1000})) / 25, - (153 \cos(\frac{1751}{2000}) \exp(-\frac{309}{400})) / 80 - (6 \exp(-\frac{309}{400}) \sin(\frac{1751}{2000})) / 25, -$

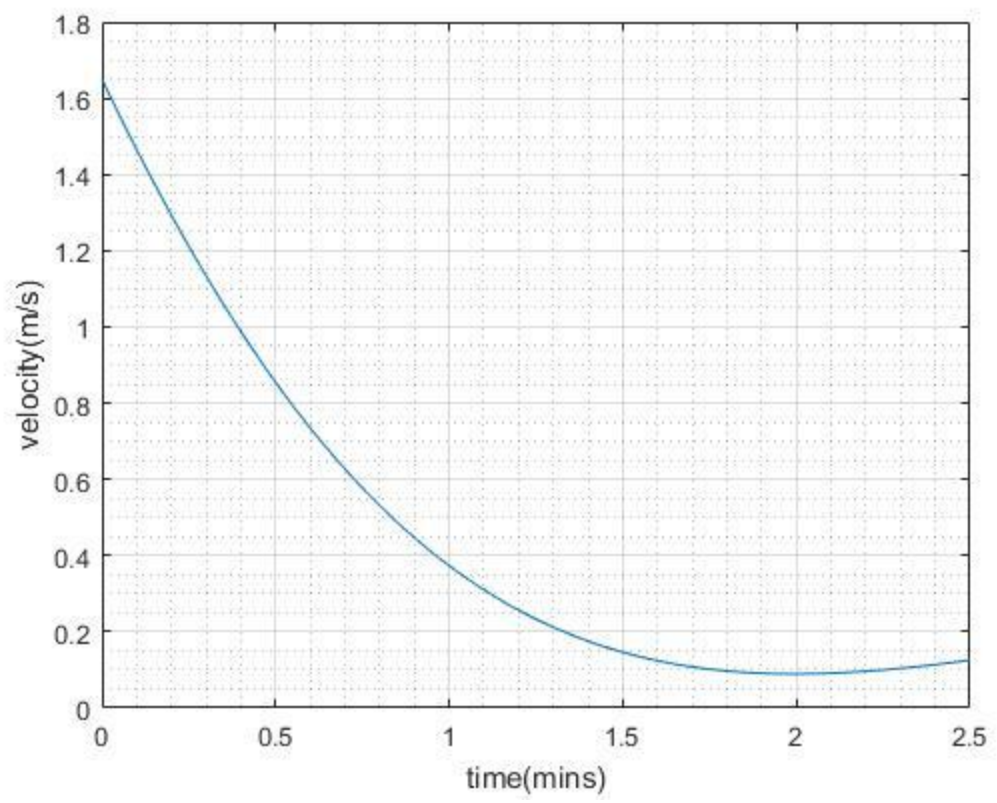
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(153 \cdot \cos(969/1000) \cdot \exp(-171/200))/80 - (6 \cdot \exp(-171/200) \cdot \sin(969/1000))/25, - (153 \cdot \cos(391/400) \cdot \exp(-69/80))/80 - (6 \cdot \exp(-69/80) \cdot \sin(391/400))/25, - (153 \cdot \cos(493/500) \cdot \exp(-87/100))/80 - (6 \cdot \exp(-87/100) \cdot \sin(493/500))/25, - (153 \cdot \cos(1989/2000) \cdot \exp(-351/400))/80 - (6 \cdot \exp(-351/400) \cdot \sin(1989/2000))/25, - (153 \cdot \cos(1003/1000) \cdot \exp(-177/200))/80 - (6 \cdot \exp(-177/200) \cdot \sin(1003/1000))/25, - (153 \cdot \cos(2023/2000) \cdot \exp(-357/400))/80 - (6 \cdot \exp(-357/400) \cdot \sin(2023/2000))/25, - (153 \cdot \cos(51/50) \cdot \exp(-9/10))/80 - (6 \cdot \exp(-9/10) \cdot \sin(51/50))/25, - (153 \cdot \cos(2057/2000) \cdot \exp(-363/400))/80 - (6 \cdot \exp(-363/400) \cdot \sin(2057/2000))/25, - (153 \cdot \cos(1037/1000) \cdot \exp(-183/200))/80 - (6 \cdot \exp(-183/200) \cdot \sin(1037/1000))/25, - (153 \cdot \cos(2091/2000) \cdot \exp(-369/400))/80 - (6 \cdot \exp(-369/400) \cdot \sin(2091/2000))/25, - (153 \cdot \cos(527/500) \cdot \exp(-93/100))/80 - (6 \cdot \exp(-93/100) \cdot \sin(527/500))/25, - (153 \cdot \cos(17/16) \cdot \exp(-15/16))/80 - (6 \cdot \exp(-15/16) \cdot \sin(17/16))/25, - (153 \cdot \cos(1071/1000) \cdot \exp(-189/200))/80 - (6 \cdot \exp(-189/200) \cdot \sin(1071/1000))/25, - (153 \cdot \cos(2159/2000) \cdot \exp(-381/400))/80 - (6 \cdot \exp(-381/400) \cdot \sin(2159/2000))/25, - (153 \cdot \cos(136/125) \cdot \exp(-24/25))/80 - (6 \cdot \exp(-24/25) \cdot \sin(136/125))/25, - (153 \cdot \cos(2193/2000) \cdot \exp(-387/400))/80 - (6 \cdot \exp(-387/400) \cdot \sin(2193/2000))/25, - (153 \cdot \cos(221/200) \cdot \exp(-39/40))/80 - (6 \cdot \exp(-39/40) \cdot \sin(221/200))/25, - (153 \cdot \cos(2227/2000) \cdot \exp(-393/400))/80 - (6 \cdot \exp(-393/400) \cdot \sin(2227/2000))/25, - (153 \cdot \cos(561/500) \cdot \exp(-99/100))/80 - (6 \cdot \exp(-99/100) \cdot \sin(561/500))/25, - (153 \cdot \cos(2261/2000) \cdot \exp(-399/400))/80 - (6 \cdot \exp(-399/400) \cdot \sin(2261/2000))/25, - (153 \cdot \cos(1139/1000) \cdot \exp(-201/200))/80 - (6 \cdot \exp(-201/200) \cdot \sin(1139/1000))/25, - (153 \cdot \cos(459/400) \cdot \exp(-81/80))/80 - (6 \cdot \exp(-81/80) \cdot \sin(459/400))/25, - (153 \cdot \cos(289/250) \cdot \exp(-51/50))/80 - (6 \cdot \exp(-51/50) \cdot \sin(289/250))/25, - (153 \cdot \cos(2329/2000) \cdot \exp(-411/400))/80 - (6 \cdot \exp(-411/400) \cdot \sin(2329/2000))/25, - (153 \cdot \cos(1173/1000) \cdot \exp(-207/200))/80 - (6 \cdot \exp(-207/200) \cdot \sin(1173/1000))/25, - (153 \cdot \cos(2363/2000) \cdot \exp(-417/400))/80 - (6 \cdot \exp(-417/400) \cdot \sin(2363/2000))/25, - (153 \cdot \cos(119/100) \cdot \exp(-21/20))/80 - (6 \cdot \exp(-21/20) \cdot \sin(119/100))/25, - (153 \cdot \cos(2397/2000) \cdot \exp(-423/400))/80 - (6 \cdot \exp(-423/400) \cdot \sin(2397/2000))/25, - (153 \cdot \cos(1207/1000) \cdot \exp(-213/200))/80 - (6 \cdot \exp(-213/200) \cdot \sin(1207/1000))/25, - (153 \cdot \cos(2431/2000) \cdot \exp(-429/400))/80 - (6 \cdot \exp(-429/400) \cdot \sin(2431/2000))/25, - 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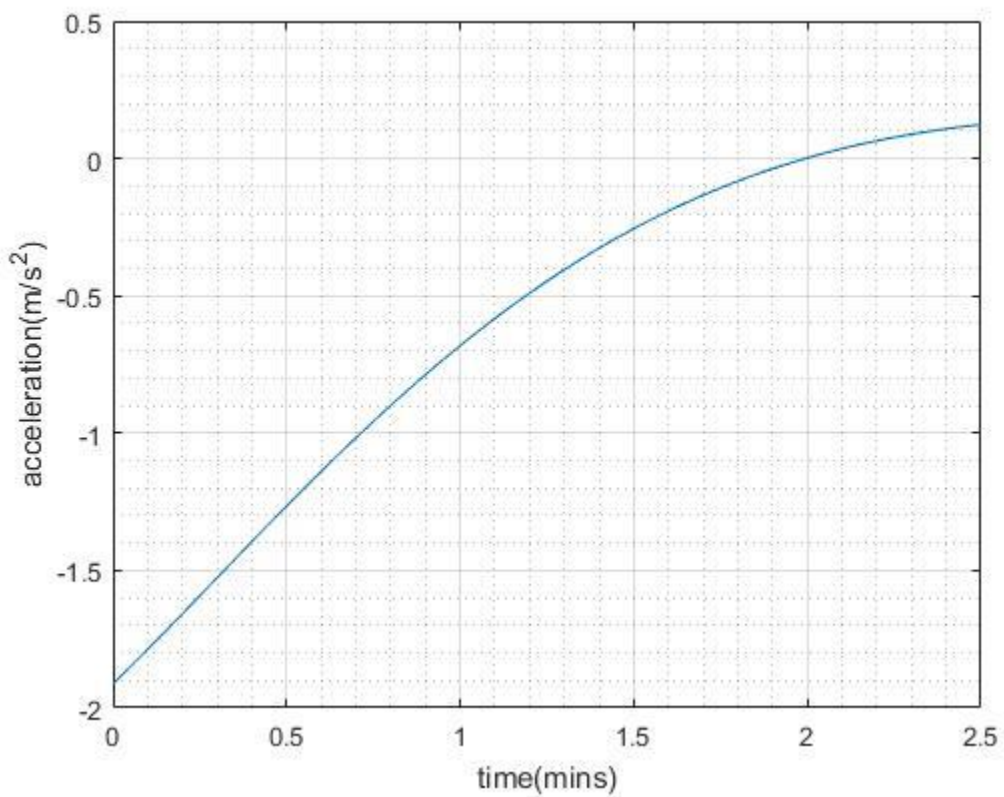
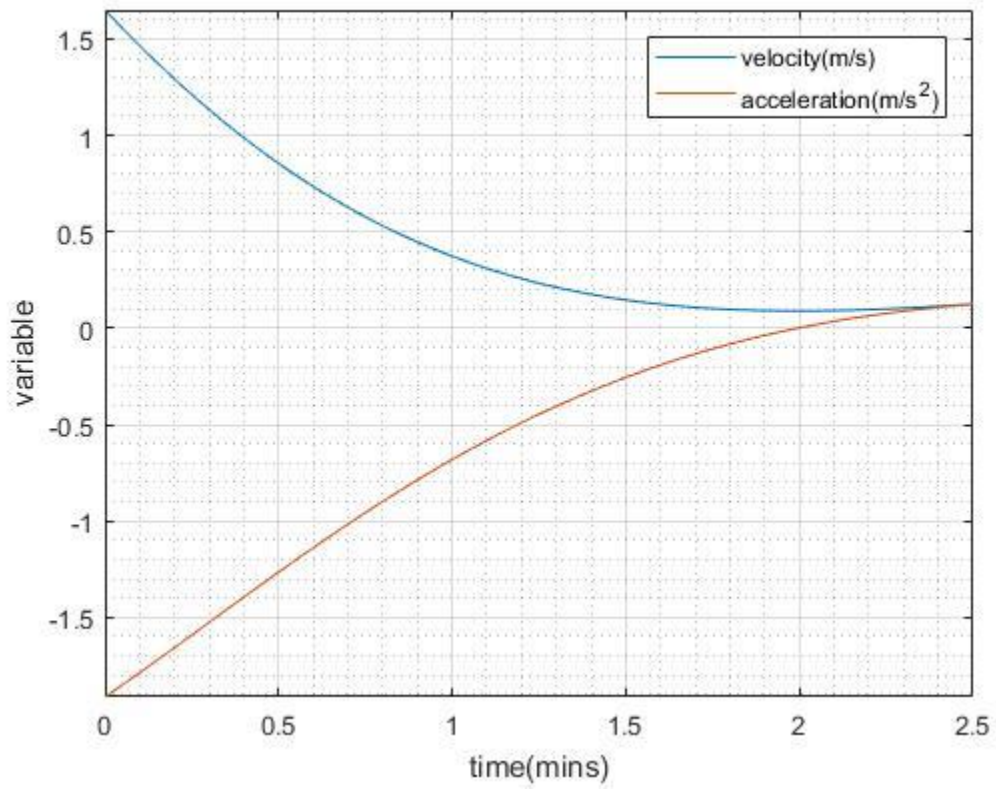
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(6 \cdot \exp(-69/50) \cdot \sin(391/250))/25, - (153 \cdot \cos(629/400) \cdot \exp(-111/80))/80 - (6 \cdot \exp(-111/80) \cdot \sin(629/400))/25, - (153 \cdot \cos(1581/1000) \cdot \exp(-279/200))/80 - (6 \cdot \exp(-279/200) \cdot \sin(1581/1000))/25, - (153 \cdot \cos(3179/2000) \cdot \exp(-561/400))/80 - (6 \cdot \exp(-561/400) \cdot \sin(3179/2000))/25, - (153 \cdot \cos(799/500) \cdot \exp(-141/100))/80 - (6 \cdot \exp(-141/100) \cdot \sin(799/500))/25, - (153 \cdot \cos(3213/2000) \cdot \exp(-567/400))/80 - (6 \cdot \exp(-567/400) \cdot \sin(3213/2000))/25, - (153 \cdot \cos(323/200) \cdot \exp(-57/40))/80 - (6 \cdot \exp(-57/40) \cdot \sin(323/200))/25, - (153 \cdot \cos(3247/2000) \cdot \exp(-573/400))/80 - (6 \cdot \exp(-573/400) \cdot \sin(3247/2000))/25, - (153 \cdot \cos(204/125) \cdot \exp(-36/25))/80 - (6 \cdot \exp(-36/25) \cdot \sin(204/125))/25, - (153 \cdot \cos(3281/2000) \cdot \exp(-579/400))/80 - (6 \cdot \exp(-579/400) \cdot \sin(3281/2000))/25, - (153 \cdot \cos(1649/1000) \cdot \exp(-291/200))/80 - (6 \cdot \exp(-291/200) \cdot \sin(1649/1000))/25, - (153 \cdot \cos(663/400) \cdot \exp(-117/80))/80 - (6 \cdot \exp(-117/80) \cdot \sin(663/400))/25, - (153 \cdot \cos(833/500) \cdot \exp(-147/100))/80 - (6 \cdot \exp(-147/100) \cdot \sin(833/500))/25, - (153 \cdot \cos(3349/2000) \cdot \exp(-591/400))/80 - (6 \cdot \exp(-591/400) \cdot \sin(3349/2000))/25, - (153 \cdot \cos(1683/1000) \cdot \exp(-297/200))/80 - (6 \cdot \exp(-297/200) \cdot \sin(1683/1000))/25, - (153 \cdot \cos(3383/2000) \cdot \exp(-597/400))/80 - (6 \cdot \exp(-597/400) \cdot \sin(3383/2000))/25, - (153 \cdot \cos(17/10) \cdot \exp(-3/2))/80 - (6 \cdot \exp(-3/2) \cdot \sin(17/10))/25, - (153 \cdot \cos(3417/2000) \cdot \exp(-603/400))/80 - (6 \cdot \exp(-603/400) \cdot \sin(3417/2000))/25, - (153 \cdot \cos(1717/1000) \cdot \exp(-303/200))/80 - (6 \cdot \exp(-303/200) \cdot \sin(1717/1000))/25, - (153 \cdot \cos(3451/2000) \cdot \exp(-609/400))/80 - (6 \cdot \exp(-609/400) \cdot \sin(3451/2000))/25, -$

$(153 \cdot \cos(867/500) \cdot \exp(-153/100))/80 - (6 \cdot \exp(-153/100) \cdot \sin(867/500))/25, - (153 \cdot \cos(697/400) \cdot \exp(-123/80))/80 - (6 \cdot \exp(-123/80) \cdot \sin(697/400))/25, - (153 \cdot \cos(1751/1000) \cdot \exp(-309/200))/80 - (6 \cdot \exp(-309/200) \cdot \sin(1751/1000))/25, - (153 \cdot \cos(3519/2000) \cdot \exp(-621/400))/80 - (6 \cdot \exp(-621/400) \cdot \sin(3519/2000))/25, - (153 \cdot \cos(221/125) \cdot \exp(-39/25))/80 - (6 \cdot \exp(-39/25) \cdot \sin(221/125))/25, - (153 \cdot \cos(3553/2000) \cdot \exp(-627/400))/80 - (6 \cdot \exp(-627/400) \cdot \sin(3553/2000))/25, - (153 \cdot \cos(357/200) \cdot \exp(-63/40))/80 - (6 \cdot \exp(-63/40) \cdot \sin(357/200))/25, - (153 \cdot \cos(3587/2000) \cdot \exp(-633/400))/80 - (6 \cdot \exp(-633/400) \cdot \sin(3587/2000))/25, - (153 \cdot \cos(901/500) \cdot \exp(-159/100))/80 - (6 \cdot \exp(-159/100) \cdot \sin(901/500))/25, - (153 \cdot \cos(3621/2000) \cdot \exp(-639/400))/80 - (6 \cdot \exp(-639/400) \cdot \sin(3621/2000))/25, - (153 \cdot \cos(1819/1000) \cdot \exp(-321/200))/80 - (6 \cdot \exp(-321/200) \cdot \sin(1819/1000))/25, - (153 \cdot \cos(731/400) \cdot \exp(-129/80))/80 - (6 \cdot \exp(-129/80) \cdot \sin(731/400))/25, - (153 \cdot \cos(459/250) \cdot \exp(-81/50))/80 - (6 \cdot \exp(-81/50) \cdot \sin(459/250))/25, - (153 \cdot \cos(3689/2000) \cdot \exp(-651/400))/80 - (6 \cdot \exp(-651/400) \cdot \sin(3689/2000))/25, - (153 \cdot \cos(1853/1000) \cdot \exp(-327/200))/80 - (6 \cdot \exp(-327/200) \cdot \sin(1853/1000))/25, - (153 \cdot \cos(3723/2000) \cdot \exp(-657/400))/80 - (6 \cdot \exp(-657/400) \cdot \sin(3723/2000))/25, - (153 \cdot \cos(187/100) \cdot \exp(-33/20))/80 - (6 \cdot \exp(-33/20) \cdot \sin(187/100))/25, - (153 \cdot \cos(3757/2000) \cdot \exp(-663/400))/80 - (6 \cdot \exp(-663/400) \cdot \sin(3757/2000))/25, - (153 \cdot \cos(1887/1000) \cdot \exp(-333/200))/80 - (6 \cdot \exp(-333/200) \cdot \sin(1887/1000))/25, - (153 \cdot \cos(3791/2000) \cdot \exp(-669/400))/80 - (6 \cdot \exp(-669/400) \cdot \sin(3791/2000))/25, - (153 \cdot \cos(238/125) \cdot \exp(-42/25))/80 - (6 \cdot \exp(-42/25) \cdot \sin(238/125))/25, - (153 \cdot \cos(153/80) \cdot \exp(-27/16))/80 - (6 \cdot \exp(-27/16) \cdot \sin(153/80))/25, - (153 \cdot \cos(1921/1000) \cdot \exp(-339/200))/80 - (6 \cdot \exp(-339/200) \cdot \sin(1921/1000))/25, - (153 \cdot \cos(3859/2000) \cdot \exp(-681/400))/80 - (6 \cdot \exp(-681/400) \cdot \sin(3859/2000))/25, - (153 \cdot \cos(969/500) \cdot \exp(-171/100))/80 - (6 \cdot \exp(-171/100) \cdot \sin(969/500))/25, - (153 \cdot \cos(3893/2000) \cdot \exp(-687/400))/80 - (6 \cdot \exp(-687/400) \cdot \sin(3893/2000))/25, - (153 \cdot \cos(391/200) \cdot \exp(-69/40))/80 - (6 \cdot \exp(-69/40) \cdot \sin(391/200))/25, - (153 \cdot \cos(3927/2000) \cdot \exp(-693/400))/80 - (6 \cdot \exp(-693/400) \cdot \sin(3927/2000))/25, - (153 \cdot \cos(493/250) \cdot \exp(-87/50))/80 - (6 \cdot \exp(-87/50) \cdot \sin(493/250))/25, - (153 \cdot \cos(3961/2000) \cdot \exp(-699/400))/80 - (6 \cdot \exp(-699/400) \cdot \sin(3961/2000))/25, - (153 \cdot \cos(1989/1000) \cdot \exp(-351/200))/80 - (6 \cdot \exp(-351/200) \cdot \sin(1989/1000))/25, - (153 \cdot \cos(799/400) \cdot \exp(-141/80))/80 - (6 \cdot \exp(-141/80) \cdot \sin(799/400))/25, - (153 \cdot \cos(1003/500) \cdot \exp(-177/100))/80 - (6 \cdot \exp(-177/100) \cdot \sin(1003/500))/25, - (153 \cdot \cos(4029/2000) \cdot \exp(-711/400))/80 - (6 \cdot \exp(-711/400) \cdot \sin(4029/2000))/25, - (153 \cdot \cos(2023/1000) \cdot \exp(-357/200))/80 - (6 \cdot \exp(-357/200) \cdot \sin(2023/1000))/25, - (153 \cdot \cos(4063/2000) \cdot \exp(-717/400))/80 - (6 \cdot \exp(-717/400) \cdot \sin(4063/2000))/25, - (153 \cdot \cos(51/25) \cdot \exp(-9/5))/80 - (6 \cdot \exp(-9/5) \cdot \sin(51/25))/25, - (153 \cdot \cos(4097/2000) \cdot \exp(-723/400))/80 - (6 \cdot \exp(-723/400) \cdot \sin(4097/2000))/25, - (153 \cdot \cos(2057/1000) \cdot \exp(-363/200))/80 - (6 \cdot \exp(-363/200) \cdot \sin(2057/1000))/25, - (153 \cdot \cos(4131/2000) \cdot \exp(-729/400))/80 - (6 \cdot \exp(-729/400) \cdot \sin(4131/2000))/25, - (153 \cdot \cos(1037/500) \cdot \exp(-183/100))/80 - (6 \cdot \exp(-183/100) \cdot \sin(1037/500))/25, - (153 \cdot \cos(833/400) \cdot \exp(-147/80))/80 - (6 \cdot \exp(-147/80) \cdot \sin(833/400))/25, - (153 \cdot \cos(2091/1000) \cdot \exp(-369/200))/80 - (6 \cdot \exp(-369/200) \cdot \sin(2091/1000))/25, - (153 \cdot \cos(4199/2000) \cdot \exp(-741/400))/80 - (6 \cdot \exp(-741/400) \cdot \sin(4199/2000))/25, - (153 \cdot \cos(527/250) \cdot \exp(-93/50))/80 - (6 \cdot \exp(-93/50) \cdot \sin(527/250))/25, - (153 \cdot \cos(4233/2000) \cdot \exp(-747/400))/80 - (6 \cdot \exp(-747/400) \cdot \sin(4233/2000))/25, - (153 \cdot \cos(17/8) \cdot \exp(-15/8))/80 - (6 \cdot \exp(-15/8) \cdot \sin(17/8))/25]$

>> \_\_\_\_\_







**C**

INPUT IN EDITOR

```
commandwindow
clear
clc
syms x
y= 5*(sin(5*x))^5
d=3.142*y^2
D=int(d,0,180)
B=double(D)
```

OUTPUT IN EDITOR

y =

$5\sin(5x)^5$

d =

$(1571\sin(5x)^{10})/20$

D =

$(4713\sin(3600))/5120 - (32991\sin(1800))/10240 - (4713\sin(5400))/20480 + (1571\sin(7200))/40960 - (1571\sin(9000))/512000 + 890757/256$

B =

3.4787e+03

>>