Mathcad Professional - [Untitled:1]

File Edit View Insert Format Math Symbolics Window Help

Constants | Times New Roman | 10 | 100%

$$t := (0, 1 .. 10)$$

$$f(t) := 2 + 2 \cdot t - 2\cos\left(\frac{\pi t}{10}\right)$$

$$g(t) := 2\sin\left(\frac{\pi \cdot t}{10}\right)$$

$$A := \begin{pmatrix} 1 & -2 & -1 & 3 \\ 2 & 3 & 0 & 1 \\ 1 & 0 & -4 & -2 \\ 0 & -1 & 3 & 1 \end{pmatrix}$$

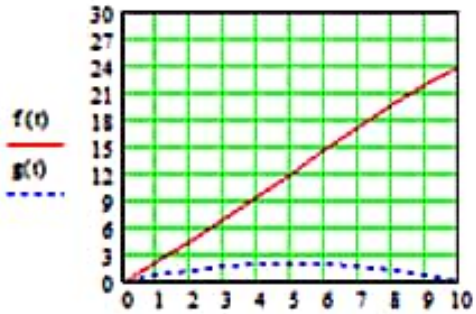
$$B := \begin{pmatrix} 10 \\ 8 \\ 3 \\ -7 \end{pmatrix}$$

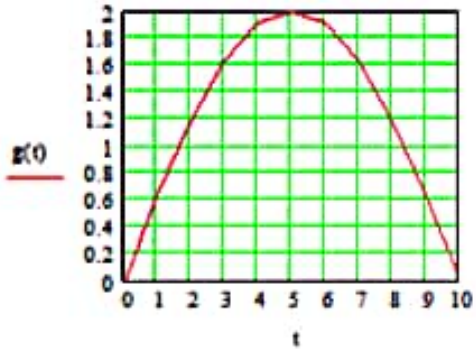
$$C := A^{-1}$$

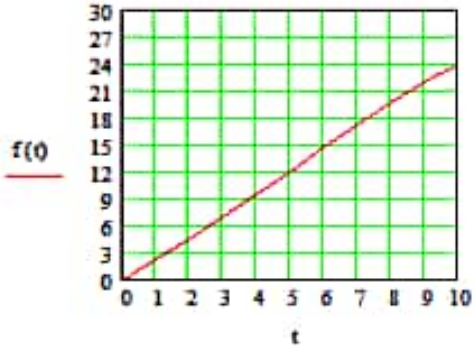
$$C = \begin{pmatrix} 0.027 & 0.24 & 0.493 & 0.667 \\ -0.093 & 0.16 & -0.227 & -0.333 \\ -0.107 & 0.04 & 0.027 & 0.333 \\ 0.227 & 0.04 & -0.307 & -0.333 \end{pmatrix}$$

$$X := A^{-1} \cdot B$$

$$X = \begin{pmatrix} -1 \\ 2 \\ -3 \\ 4 \end{pmatrix}$$







Press F1 for help.

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Editor - C:\Users\Boma Longjohn\Documents\MATLAB\hyelapatuhda.m

```
commandwindow
clear
clc
close all
syms t

v= 110*cos(120*pi*t)
c=100*10^-6
q=c*v
i= diff(q)
p=v*i
t=[0:0.01:0.35]
vn=subs(v)
in=subs(i)
pn=subs(p)
plot(t,vn,'blue',t,in,'red',t,pn,'black')
xlabel=('time(s)')
ylabel=('variable')
grid on
grid minor
legend('voltage(v)','current(a)','power(w)')
```

Command Window

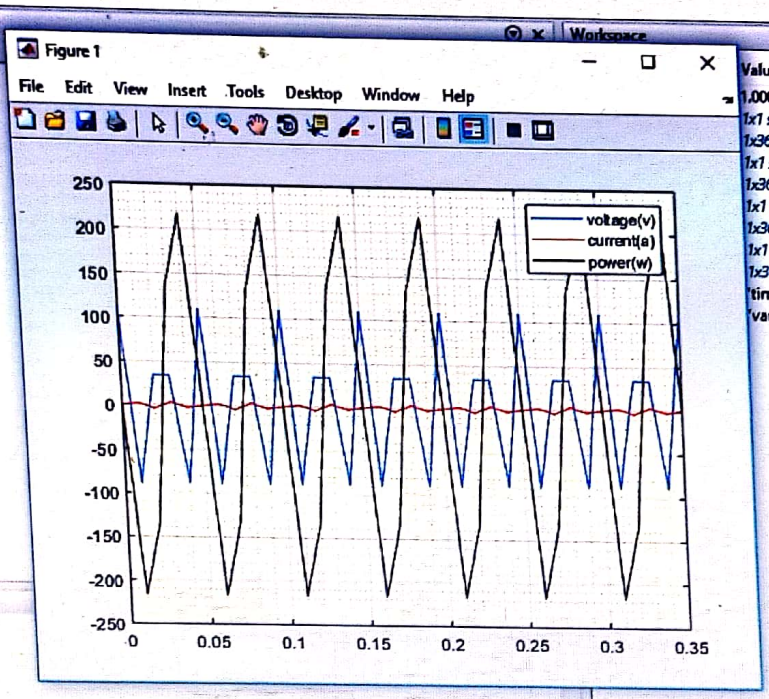
```
xlabel =

    'time(s)'


ylabel =

    'variable'

>>
```



Workspace

Value
1.0000e-04
1x1 sym
1x36 sym
1x1 sym
1x36 sym
1x1 sym
1x36 double
1x1 sym
1x36 sym
'time(s)'
'variable'

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```
commandwindow
clear
clc
a=[1,-2,-1,3;2,3,0,1;1,0,-4,-2;0,-1,3,1]
b=[10;8;3;-7]
c=inv(a)
d=c*b
```

Command Window

```
    0.2267    0.0400   -0.3067   -0.3333


d =

   -1.0000
    2.0000
   -3.0000
    4.0000

>>
```

Name	Value
a	4x4 double
b	[10;8;3;-7]
c	4x4 double
d	[-1.0000;2.0000;-3.000...

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