```
1 -  ::commandwindow
2    clear
3 -  ::cc
4    close all
5 -  A=[1 -2 -1 3; 2 3 0 1; 1 0 -4 -2; 0 -1 3 1]
6    B=[10; 8; 3;  7]
7 -  D=inv(A)
8    C=D*B
9
```

Command Window

New to MATLAB? See resources for Getting Started.

```
A =

     1     2     1     3
     2     3     0     1
     1     0     4     2
     0    -1     3     1


B =

    10
     8
     3
    -7
```

```
commandwindow
clear
clc
close all
A=[1 -2 -1 3; 2 3 0 1; 1 0 -4 -2; 0 -1 3 1]
B=[10; 8; 3;  7]
D=inv(A)
C=D*B
```

Command Window

New to MATLAB? See resources for Getting Started.

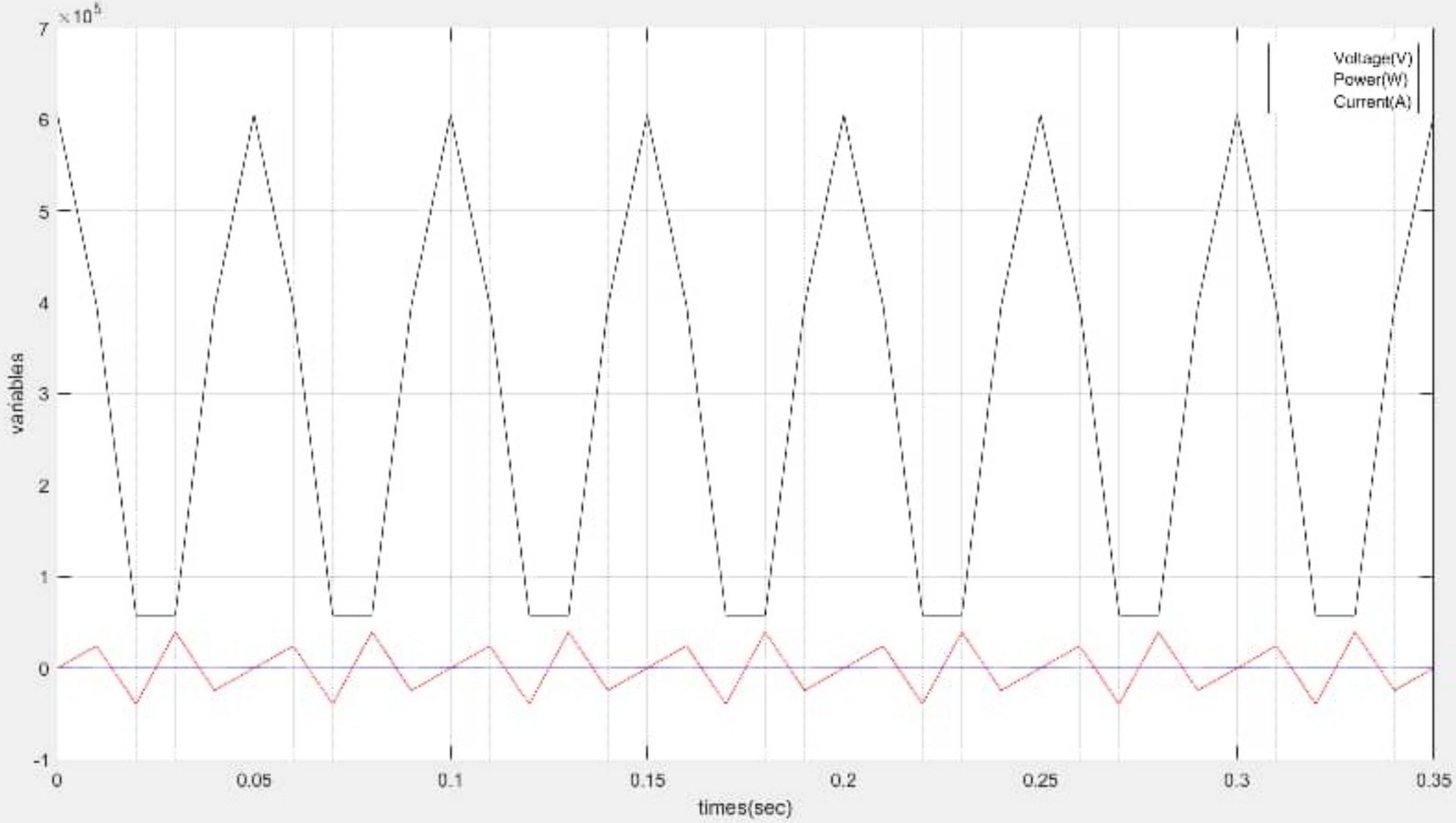
```
B =

    10
     8
     3
     7


D =

    0.0267    0.2400    0.4933    0.6667
    0.0933    0.1600    0.2267    0.3333
   -0.1067    0.0400    0.0267    0.3333
    0.2267    0.0400    0.3067    0.3333
```

fx


×10^5
7
6
5
4
3
2
1
0
-1
variables
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
times(sec)
Voltage(V)
Power(W)
Current(A)

Command Window

New to MATLAB? See resources for Getting Started.

```
t =

  Columns 1 through 11

         0    0.0100    0.0200    0.0300    0.0400    0.0500    0.0600    0.0700    0.0800    0.0900    0.1000

  Columns 12 through 22

    0.1100    0.1200    0.1300    0.1400    0.1500    0.1600    0.1700    0.1800    0.1900    0.2000    0.2100

  Columns 23 through 33

    0.2200    0.2300    0.2400    0.2500    0.2600    0.2700    0.2800    0.2900    0.3000    0.3100    0.3200

  Columns 34 through 36

    0.3300    0.3400    0.3500


Vn =

[ 110, - (55*5^(1/2))/2 - 55/2, (55*5^(1/2))/2 - 55/2, (55*5^(1/2))/2 - 55/2, - (55*5^(1/2))/2 - 55/2, 110, - (55*5^(1/2))/2 - 55/2,


ign =
```

Editor C:\Users\tonia\Documents\MATLAB\Untitled2.m

Command Window

New to MATLAB? See resources for Getting Started.

```
C =

   100


V =

110*cos(120*pi*t)


T1 =

-13200*pi*sin(120*pi*t)


P =

605000*cos(120*pi*t)^2


L =

  Columns 1 through 11
```

ers ▸ tonia ▸ Documents ▸ MATLAB

Editor C:\Users\tonia\Documents\MATLAB\Untitled2.m

Command Window

New to MATLAB? See resources for Getting Started.

```
  Columns 23 through 33

    0.2200    0.2300    0.2400    0.2500    0.2600    0.2700    0.2800    0.2900    0.3000    0.3100    0.3200

  Columns 34 through 36

    0.3300    0.3400    0.3500


Vm =

[ 110,   (55*5^(1/2))/2   55/2, (55*5^(1/2))/2   55/2, (55*5^(1/2))/2   55/2,   (55*5^(1/2))/2   55/2, 110,   (55*5^(1/2))/2   55/2,


Tm =

[ 0, 3300*2^(1/2)*pi*(5 - 5^(1/2))^(1/2), -3300*pi*2^(1/2)*(5^(1/2) + 5)^(1/2), 3300*pi*2^(1/2)*(5^(1/2) + 5)^(1/2), -3300*2^(1/2)*pi*


Pm =

[ 605000, 605000*(5^(1/2)/4 + 1/4)^2, 605000*(5^(1/2)/4 - 1/4)^2, 605000*(5^(1/2)/4 - 1/4)^2, 605000*(5^(1/2)/4 + 1/4)^2, 605000, 605

fx >>
```

Mathcad Professional - [mitbenresler]

File Edit View Insert Format Math Symbolics Window Help

Normal Arial 10

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

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

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

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

$$C := D \cdot B$$

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

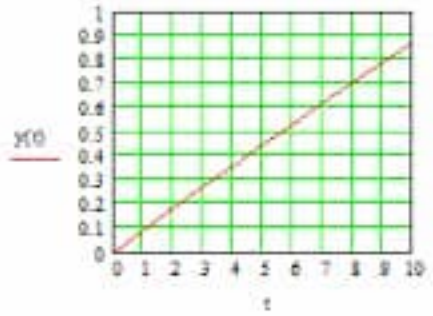
$$y(t) := 2 \cdot \sin\left(t \cdot \frac{\pi}{70}\right) \qquad x(t) := 2 + (2 \cdot t) - 2\left(\cos\left(t \cdot \frac{\pi}{10}\right)\right)$$

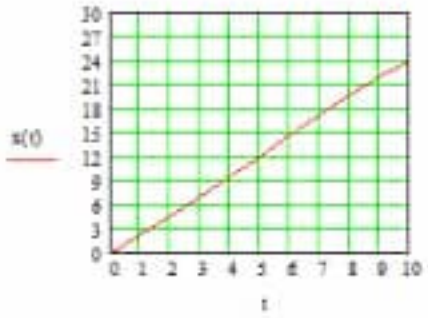
$t := 0..10$

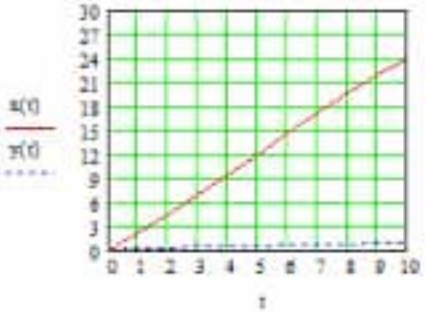
y(t) =
0
0.09
179
0.268
0.357
0.445
0.532
0.618
0.703
0.786
0.868

x(t) =
0
2.098
4.382
6.824
9.382
12
14.618
17.176
19.618
21.902
24

t =
0
1
2
3
4
5
6
7
8
9
10







Press F1 for help.

AUTO Page 1

```
1 - commandwindow
2   clear
3 - clc
4   close all
5 - syms L
6   C=100
7 - V=110*cos(-120*pi*L)
8   ip=diff(V)
9 - P=0.5*C*(V.^2)
10  t=[0:0.01:0.35]
11 - Vn=subs(V)
12  ipn=subs(ip)
13 - Pn=subs(P)
14  plot(t,Vn,'blue',t,Pn,'black',t,ipn,'red')
15 - grid on
16  grid minor
17 - legend('Voltage(V)','Power(W)','Current(A)')
18  xlabel('times(sec)')
19 - ylabel('variables')
20
```

Command Window

New to MATLAB? See resources for Getting Started.

```
Ti =

-13200*pi*sin(120*pi*L)
```