MATLAB R2018a

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test.m
test4a.m
test4b.m
Test4c.m
TITANIAHARD.m
Untitled.m
Untitled2.m
Untitled3.m
Untitled5.m
UNTITLED4.mat

Test4c.m (Script)

Workspace

Name	Value
C	100
Ip	1x1 sym
Ipn	1x36 sym
P	1x1 sym
Pn	1x36 sym
t	1x36 double
V	1x1 sym
Vn	1x36 sym

Editor - C:\Users\domin\Documents\MATLAB\mathtest4c.m

revisionnnn.m | classwork1.m | eigenvalues1.m | Test4c.m | test4a

```
1 -  commandwindow
2 -  clear
3 -  clc
4 -  close all
5 -  syms t
6 -  C=100
7 -  V=110*cos(-120*pi*t)
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')
```

Figure 1

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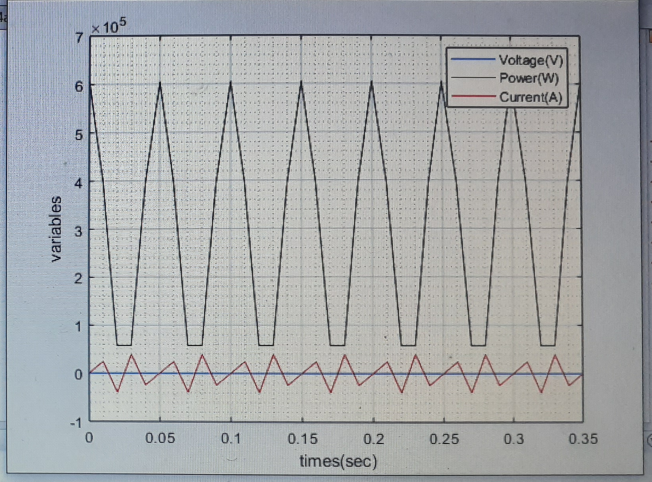

Command Window

```
Ipn =

[ 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)*p:


Pn =

[ 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, 60:

>>
```

script Ln 12 Col 13

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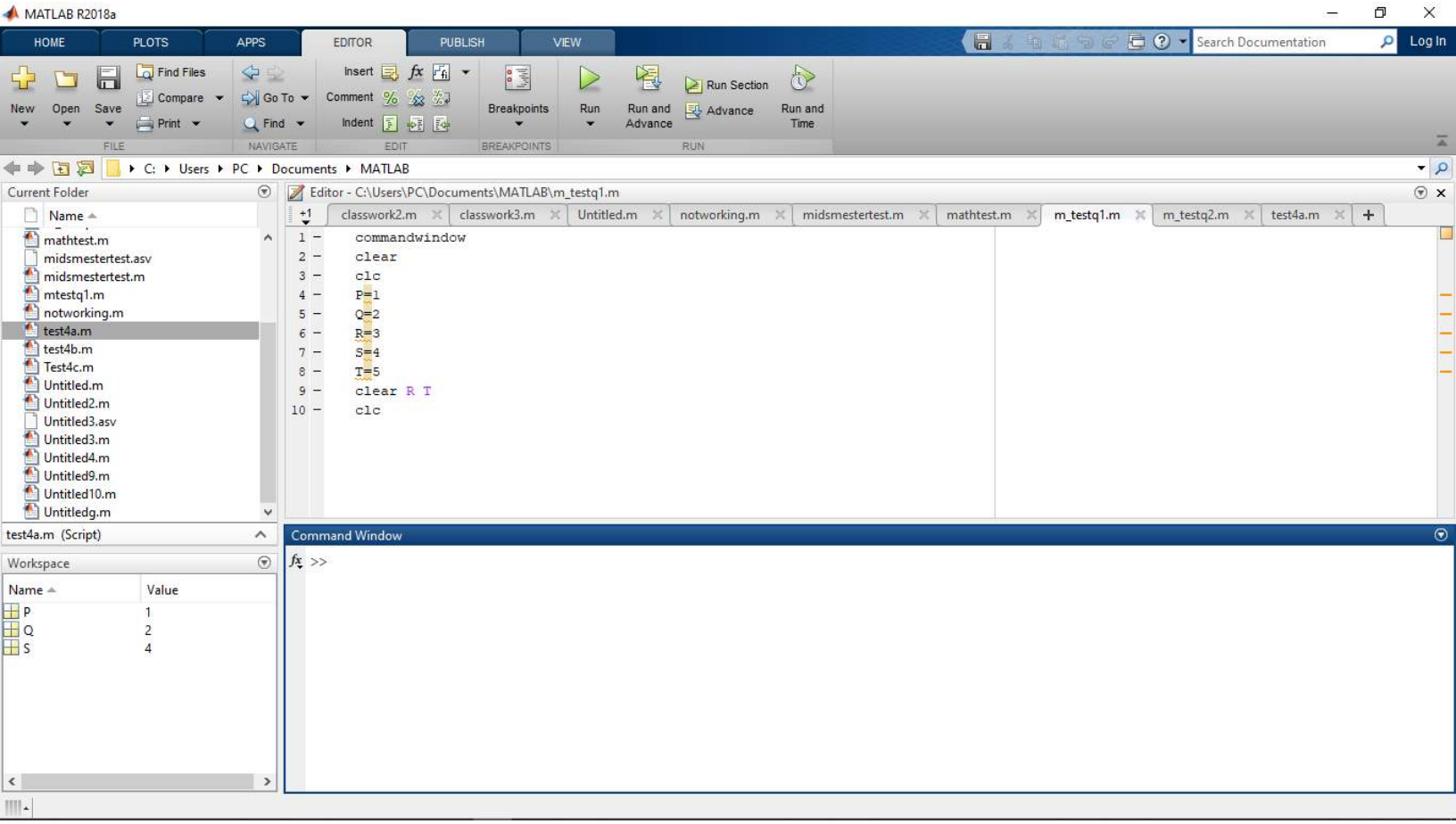
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midsmestertest.m
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Untitled3.m
Untitled4.m
Untitled9.m
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Untitledg.m
test4a.m (Script)
Workspace
Name
Value
P
1
Q
2
S
4
Editor - C:\Users\PC\Documents\MATLAB\m_testq1.m
classwork2.m
classwork3.m
Untitled.m
notworking.m
midsmestertest.m
mathtest.m
m_testq1.m
m_testq2.m
test4a.m
1 commandwindow
2 clear
3 clc
4 P=1
5 Q=2
6 R=3
7 S=4
8 T=5
9 clear R T
10 clc
Command Window
>>

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Current Folder

Name

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- m_testq2.asv
- m_testq2.m
- mathtest.m
- midsmestertest.asv
- midsmestertest.m
- mtestq1.m
- notworking.m
- test4a.m
- test4b.m
- Test4c.m
- Untitled.m

test4b.m (Script)

Workspace

Name	Value
A	4x4 double
B	[10;8;3;-7]
C	[-1.0000;2.0000;-3.000...
D	[272;275;270;277]

Editor - C:\Users\PC\Documents\MATLAB\test4b.m

classwork3.m | Untitled.m | notworking.m | midsmestertest.m | mathtest.m | m_testq1.m | m_testq2.m | test4a.m | test4b.m

```
1 -  commandwindow
2 -  clear
3 -  clc
4 -  A=[1 -2 -1 3;2 3 0 1;1 0 -4 -2;0 -1 3 1]
5 -  B=[10;8;3;-7]
6 -  C=inv(A)*B
7 -  D=C+273
```

Command Window

```
    2.0000
   -3.0000
    4.0000


D =

   272
   275
   270
   277

>>
```

script | Ln 7 | Col 8

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

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

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

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

$$D := B \cdot C$$

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

$t :=$

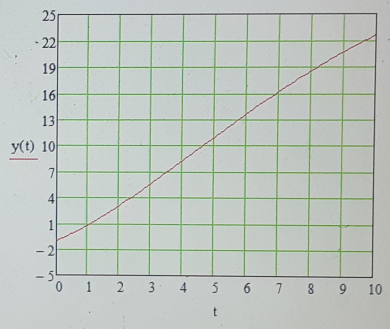
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
1.1
1.2
1.3
1.4
...

$y(t) =$

-1
-0.856
-0.702
-0.541
-0.373
-0.197
-0.015
0.174
0.368
0.568
0.773
0.982
1.197
1.415
1.637
...

$t := 0, 0.1 .. 10$

$$y(t) := \sin(0.25 \cdot t) + (2 \cdot t) + e^{-0.85 \cdot t} - 2 \cdot \cos\left[\left(\frac{\pi}{10}\right) \cdot t\right]$$



Graph

Press F1 for help.

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