



Editor - C:\Users\user\TIMOTHYTHREE.m
 TIMOTHYONE.m | TIMOTHYTWO.m | TIMOTHYTHREE.m

```

1 - commandwindow
2 - clear
3 - clc
4 - close all
5 - syms t
6 - V(t)=110*cos(120*pi*t)
7 - C=100.*(10.^6)
8 - dV=diff(V)
9 - I=C*dV
10 - P=V(t) * I
11 - tn=[0:0.01:0.35]
12 - Vn=subs(V,tn)
13 - In=subs(I,tn)
14 - Pn=subs(P,tn)
15 - plot(tn,Vn,tn,In,tn,Pn)
16 - xlabel('Time(secs) ')
17 - ylabel('Variable')
18 - grid on
19 - grid minor
20 - legend('Voltage(V)', 'Current(A)', 'Power(W)')
  
```

Value
 100000000
 1x1 symfun
 1x1 symfun
 1x1 symfun
 1x1 symfun
 1x1 sym
 1x36 double
 1x1 symfun

Command Window
 [0, -363000000000000*2^(1/2)*pi*(5^(1/2)/4 + 1/4)*(5...
 >>

Figure 1
 File Edit View Insert Tools Desktop Window Help

Variable
 2.5 × 10¹⁴
 2
 1.5
 1
 0.5
 0
 -0.5
 -1
 -1.5
 -2
 -2.5

Time(secs)
 0 0.05 0.1 0.15 0.2 0.25 0.3 0.35

Voltage(V)
 Current(A)
 Power(W)

Ln 9 Col 7
 11:05 PM
 11/23/2018

