commandwindow

clc

clear

syms t

Qt = 0.25\*sin(25\*pi\*t)

Vt = 0.5\*cos(0.2\*pi\*t)

tn = [0:0.0001:0.35]

q = subs(Qt,tn)

I = q./tn

figure (1)

plot(tn,I,'r')

xlabel = ('time(s)')

ylabel = ('variable')

axis tight

grid on

grid minor

v = subs(Vt,tn)

P = I.\*v

figure (2)

plot(tn,P,'b')

xlabel = ('time(s)')

ylabel = ('variable')

axis tight

grid on

grid minor

figure (3)

plot(tn,I,'r',tn,P,'b')

xlabel = ('time(s)')

ylabel = ('variable')

axis tight

grid on

grid minor

legend = ('current(A)''power(W)')