Akpan Nsikan paul
Mechatronic Engineering
16/eng05/009

```
commandwindow
clear
clc
close all
syms t
PY=vpa(pi)
Q(t)=0.25*sin(25*PY*t)
V(t)=0.5*cos(0.2*PY*t)
st=(0:0.0001:0.35)
I(t) = diff(Q(t))
In=subs(I(t),st)
p(t)= V(t)*I(t)
pn=subs(p(t),st)
figure(1)
plot(st,In,st,pn)
xlabel('Time(mins)')
ylabel('variable')
legend('current(a)','power(w)')
grid on
grid minor
axis tight
```