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DEPARTMENT: ELECT ELECT

MATRIC NO: 16/ENG04/032

ENG281

```
commandwindow  
clear  
clc  
syms t  
q= 0.25 * sin (25 * pi * t);  
tn=[0:0.0001:0.35];  
qn = subs(q,tn);  
figure(1)  
plot(tn, qn)  
xlabel("Time(s)");  
ylabel("Charge(Q)");  
title("Charge against Time Graph");  
grid on  
grid minor  
v = 0.5 * cos(0.2 * pi * t);  
w = v * q;  
wn = subs(w,tn);  
figure(2)  
plot(tn, wn)  
xlabel("Time(s)");  
ylabel("Work(J)");  
title("Work against Time Graph");  
grid on
```

```
grid minor
```

```
figure(3)
```

```
plot( tn, wn,tn, qn)
```

```
xlabel("Time(s)");
```

```
ylabel("Charge(Q) & Work(J)");
```

```
title("Charge/Work against Time Graph");
```

```
grid on
```

```
grid minor
```

```
legend("Power(W)", "Current(A)");
```



