

## Deeper Understanding

$$\textcircled{1} P = \frac{E}{t} \overset{\text{energy}}{\text{time}} = \frac{V \times Q}{t} \therefore W = \frac{W}{Q}$$

$$\Rightarrow I = Q/t \Rightarrow P = VI$$

$V = IR$ , one variable will be fixed  $\Rightarrow$  if  $V$  is fixed  $\therefore$  of 6V supply then increasing  $R$  decreases  $I$

## Deriving Resistance

- You know resistance is measured in  $\Omega$  m & increased area means lower  $R$  & increased length means bigger  $R$  as  $\rho$  is fixed

$$\rho = \frac{RA}{L}$$

## Graphs

