

Work and Power

Important Units:

Work = Joule (J)

Time = Seconds (s)

Power = Watt (W)

Distance = meters (m)

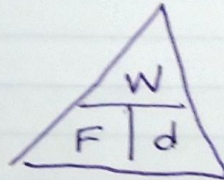
Force = Newton (N)

Work

- work is using force to make something move (in the same direction as the force)

Work = Force \times Distance

$$\begin{array}{ccc} W & = & F \cdot d \\ \text{(J)} & & \text{(N)} \text{ (m)} \end{array}$$



Power

- Power is how much time it takes to do work

$$\begin{array}{ccc} \text{Power} & = & \frac{\text{Work (J)}}{\text{time (s)}} \\ \text{(W)} & & \end{array} \quad P = \frac{W}{t}$$

