Work done =

force x distance moved in direction of force

$$E = F \times d$$

Kinetic energy=

Half X mass x (speed)^2

$$KE = \frac{1}{2} \times m \times v^2$$

Change in gravitational potential energy=

mass x gravitational field strength x change in vertical height

$$\Delta GPE = m \times g \times \Delta h$$

Power = work done ÷ time taken

$$P = \frac{E}{t}$$

Efficiency =

$$\frac{\text{(useful energy transferred by the device)}}{\text{(total energy supplied to the device)}}$$

Power =

energy transferred ÷ time taken

$$P = \frac{E}{t}$$

Density = mass ÷ volume

$$\rho = \frac{m}{V}$$

Distance travelled= average speed x time

Acceleration $= \frac{\text{change in velocity}}{\text{time taken}}$

$$a = \frac{(v-u)}{t}$$

Wave speed =

frequency x wavelength

$$v = f \times \lambda$$

Wave speed =distance ÷ time

$$v = \frac{x}{t}$$

Energy transferred =

charge moved x potential difference

$$E = Q \times V$$

Charge = current x time

$$Q = I \times t$$

Electrical power=

current x potential difference

$$P = I \times V$$

Electrical power =

current squared x resistance

$$P = I^2 \times R$$

Potential Difference=

current x resistance

$$V = I \times R$$

Separates only

Moment of a force =

force x distance normal to the direction of the force

Separates only

Pressure =

Force normal to surface

÷ area of that surface

$$P = \frac{F}{A}$$

Force= mass x acceleration

$F = m \times a$

Weight =

mass x gravitational field strength

$W = m \times g$

Force exerted on a spring=

spring constant x extension

$$F = k \times x$$

Momentum =

mass x velocity

$$p = m \times v$$