

$v = \frac{s}{t}$	<i>v</i> velocity <i>s</i> displacement <i>t</i> time
$a = \frac{v - u}{t}$	<i>a</i> acceleration <i>v</i> final velocity <i>u</i> initial velocity <i>t</i> time taken
$F = m \times a$	<i>F</i> force <i>m</i> mass <i>a</i> acceleration
$p = m \times v$	<i>p</i> momentum <i>m</i> mass <i>v</i> velocity
$F = \frac{\Delta p}{t}$	<i>F</i> force Δp change in momentum <i>t</i> time
$W = m \times g$	<i>W</i> weight <i>m</i> mass <i>g</i> gravitational field strength (acceleration of free fall)
$F = k \times e$	<i>F</i> force <i>k</i> spring constant <i>e</i> extension
$W = F \times d$	<i>W</i> work done <i>F</i> force <i>d</i> distance moved in the direction of the force
$P = \frac{W}{t}$	<i>P</i> power <i>W</i> work done <i>t</i> time
$E_p = m \times g \times h$	E_p change in gravitational potential energy <i>m</i> mass <i>g</i> gravitational field strength (acceleration of free fall) <i>h</i> change in height
$E_k = \frac{1}{2} \times m \times v^2$	E_k kinetic energy <i>m</i> mass <i>v</i> speed

$T = \frac{1}{f}$	<i>T</i> time period <i>f</i> frequency
$M = F \times d$	<i>M</i> moment of the force <i>F</i> force <i>d</i> perpendicular distance from the line of action of the force to the pivot
$P = \frac{F}{A}$	<i>P</i> pressure <i>F</i> force <i>A</i> cross-sectional area
$v = f \times \lambda$	<i>v</i> speed <i>f</i> frequency <i>λ</i> wavelength
$s = v \times t$	<i>s</i> distance <i>v</i> speed <i>t</i> time
$n = \frac{\sin i}{\sin r}$	<i>n</i> refractive index <i>i</i> angle of incidence <i>r</i> angle of refraction
$n = \frac{1}{\sin c}$	<i>n</i> refractive index <i>c</i> critical angle
$\frac{1}{u} + \frac{1}{v} = \frac{1}{f}$	<i>u</i> object distance <i>v</i> image distance <i>f</i> focal length
magnification = $\frac{\text{image height}}{\text{object height}}$	
$P = \frac{1}{f}$	<i>P</i> power of a lens <i>f</i> focal length
$E = m \times c \times \theta$	<i>E</i> energy <i>m</i> mass <i>c</i> specific heat capacity <i>θ</i> temperature change
$E = m \times L_v$	<i>E</i> energy <i>m</i> mass <i>L_v</i> specific latent heat of vaporisation
$E = m \times L_f$	<i>E</i> energy

	m mass L_F specific latent heat of fusion
$\text{efficiency} = \frac{\text{useful energy out}}{\text{total energy in}} (\times 100\%)$	
$\text{efficiency} = \frac{\text{useful power out}}{\text{total power in}} (\times 100\%)$	
$I = \frac{Q}{t}$	I current Q charge t time
$V = \frac{E}{Q}$	V potential difference E energy transferred Q charge
$V = I \times R$	V potential difference I current R resistance
$P = \frac{E}{t}$	P power E energy transferred t time
$P = I \times V$	P power I current V potential difference
$E = V \times Q$	E energy transferred V potential difference Q charge
$E = P \times t$	E energy transferred from the mains P power t time
$\frac{V_p}{V_s} = \frac{n_p}{n_s}$	V_p potential difference across the primary coil V_s potential difference across the secondary coil n_p number of turns on the primary coil n_s number of turns on the secondary coil
$V_p \times I_p = V_s \times I_s$	V_p potential difference across the primary coil I_p current in the primary coil V_s potential difference across the secondary coil I_s current in the secondary coil