Formulae

$$s = ut + \frac{1}{2}at^2$$
$$v^2 = u^2 + 2as$$

$$W = p\Delta V$$

$$\phi = -\frac{Gm}{r}$$

$$p = \rho gh$$

$$p = \frac{1}{3} \frac{Nm}{V} < c^2 >$$

$$a = -\omega^2 x$$

$$v = v_0 \cos \omega t$$
$$v = \pm \omega \sqrt{(x_0^2 - x^2)}$$

$$f_{\rm o} = \frac{f_{\rm s}V}{V \pm V_{\rm s}}$$

$$V = \frac{\mathsf{Q}}{4\pi\varepsilon_0 r}$$

$$1/C = 1/C_1 + 1/C_2 + \dots$$

$$C = C_1 + C_2 + \dots$$

energy of charged capacitor

$$W = \frac{1}{2}QV$$

electric current

$$I = Anvq$$

resistors in series

$$R = R_1 + R_2 + \dots$$

resistors in parallel

$$1/R = 1/R_1 + 1/R_2 + \dots$$

Hall voltage

$$V_{\rm H} = \frac{BI}{ntq}$$

alternating current/voltage

$$x = x_0 \sin \omega t$$

radioactive decay

$$x = x_0 \exp(-\lambda t)$$

decay constant

$$\lambda = \frac{0.693}{t_{\frac{1}{2}}}$$