Data

acceleration of free fall
$$g = 9.81 \,\mathrm{m \, s^{-2}}$$

speed of light in free space
$$c = 3.00 \times 10^8 \,\mathrm{m \, s}^{-1}$$

elementary charge
$$e = 1.60 \times 10^{-19} \text{ C}$$

unified atomic mass unit
$$1 \text{ u} = 1.66 \times 10^{-27} \text{ kg}$$

rest mass of proton
$$m_{\rm p} = 1.67 \times 10^{-27} \, \rm kg$$

rest mass of electron
$$m_e = 9.11 \times 10^{-31} \text{kg}$$

Avogadro constant
$$N_A = 6.02 \times 10^{23} \, \text{mol}^{-1}$$

molar gas constant
$$R = 8.31 \,\mathrm{J} \,\mathrm{K}^{-1} \,\mathrm{mol}^{-1}$$

Boltzmann constant
$$k = 1.38 \times 10^{-23} \,\mathrm{J \, K^{-1}}$$

gravitational constant
$$G = 6.67 \times 10^{-11} \,\mathrm{N} \,\mathrm{m}^2 \,\mathrm{kg}^{-2}$$

permittivity of free space
$$\varepsilon_0 = 8.85 \times 10^{-12} \,\mathrm{F \, m^{-1}}$$

$$\left(\frac{1}{4\pi\varepsilon_0}\right] = 8.99 \times 10^9 \,\mathrm{m\,F^{-1}}$$

Planck constant
$$h = 6.63 \times 10^{-34} \,\mathrm{J}\,\mathrm{s}$$

Stefan–Boltzmann constant
$$\sigma = 5.67 \times 10^{-8} \,\mathrm{W \, m^{-2} \, K^{-4}}$$

Formulae

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

hydrostatic pressure
$$\Delta p = \rho g \Delta h$$

upthrust
$$F = \rho gV$$

Doppler effect for sound waves
$$f_o = \frac{f_s v}{v \pm v_s}$$

electric current
$$I = Anvq$$

resistors in series
$$R = R_1 + R_2 + ...$$

resistors in parallel
$$\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2} + \dots$$