

Useful Conversion Factors

Mass

$$\begin{aligned} 1 \text{ kg} &= 6.02 \times 10^{26} \text{ u} \\ 1 \text{ slug} &= 14.6 \text{ kg} \end{aligned}$$

Dimensions

$$\begin{aligned} 1 \text{ m} &= 3.28 \text{ ft} = 39.4 \text{ in} \\ 1 \text{ mi} &= 1.61 \text{ km} = 5280 \text{ ft} \\ 1 \text{ in} &= 2.54 \text{ cm} \\ 1 \text{ ly} &= 9.46 \times 10^{15} \text{ m} \\ 1 \text{ m}^3 &= 1000 \text{ L} = 35.3 \text{ ft}^3 = 264 \text{ gal} \end{aligned}$$

Speed

$$\begin{aligned} 1 \text{ m/s} &= 3.28 \text{ m/s} = 2.24 \text{ mi/hr} \\ 1 \text{ km/hr} &= 0.621 \text{ mi/hr} = 0.278 \text{ m/s} \end{aligned}$$

Force & Pressure

$$\begin{aligned} 1 \text{ N} &= 0.225 \text{ lb} \\ 1 \text{ lb} &= 4.45 \text{ N} \\ 1 \text{ ton} &= 1000 \text{ lb} \\ 1 \text{ Pa} &= 1 \text{ N/m}^2 = 1.45 \times 10^{-4} \text{ lb/in}^2 \\ 1 \text{ atm} &= 1.01 \times 10^5 \text{ Pa} = 14.7 \text{ lb/in}^2 = 76 \text{ cm-Hg} \end{aligned}$$

Energy & Power

$$\begin{aligned} 1 \text{ J} &= 0.239 \text{ cal} = 9.48 \times 10^{-4} \text{ Btu} = 1 \times 10^7 \text{ erg} \\ 1 \text{ kWhr} &= 3.60 \times 10^6 \text{ J} \\ 1 \text{ cal} &= 4.19 \text{ J} \\ 1 \text{ eV} &= 1.60 \times 10^{-19} \text{ J} \\ 1 \text{ hp} &= 746 \text{ W} \end{aligned}$$

Magnetism

$$1 \text{ T} = 1 \times 10^4 \text{ Gauss}$$