

## CONVERSIONS AND CONSTANTS

Length units	inch (in) = 2.54 cm (exact) mile (mi) = 1.609 km
Volume units	L = 1.057 qt
Mass units	lb = 453.6 g $u = 1.6605 \times 10^{-24}$ g
Pressure units	atm = 760 Torr = 14.7 psi
Energy units	$J = \text{kg} \cdot \text{m}^2/\text{s}^2 = \text{V} \cdot \text{C}$ cal = 4.184 J (exact) Cal (nutritional) = 4.184 kJ (exact)
Avogadro's number	$6.022 \times 10^{23}$
Gas constant	$R = 0.08206 \text{ L} \cdot \text{atm}/(\text{mol} \cdot \text{K}) = 8.314 \text{ J}/(\text{mol} \cdot \text{K})$
Speed of light (in vacuum)	$c = 3.00 \times 10^8 \text{ m/s}$
Planck's constant	$h = 6.626 \times 10^{-34} \text{ J} \cdot \text{s}$
Coulomb	$C = 6.242 \times 10^{18}$ charges
Faraday constant	96,485 C/mol
Mass-energy	$u = 931.5 \text{ MeV}$