

CONSTANTS

Description	Value
Acceleration of gravity on Earth (g)	9.8 m/s^2
Speed of light in a vacuum (c)	$3.00 \times 10^8 \text{ m/s}$
Planck's constant (h)	$6.63 \times 10^{-34} \text{ J}\cdot\text{s} = 4.14 \times 10^{-15} \text{ eV}\cdot\text{s}$
Electron rest mass	$9.11 \times 10^{-31} \text{ kg}$
Proton rest mass	$1.67 \times 10^{-27} \text{ kg}$
Charge of electron	$-1.60 \times 10^{-19} \text{ C}$
Coulomb's constant (k_e)	$9.0 \times 10^9 \text{ N}\cdot\text{m}^2/\text{C}^2$
Boltzmann's constant (k)	$1.38 \times 10^{-23} \text{ J/K}$
Gas constant (R)	$8.31 \text{ J}/(\text{mol}\cdot\text{K})$
Gravitational constant (G)	$6.67 \times 10^{-11} \text{ N}\cdot\text{m}^2/\text{kg}^2$
Permeability of free space (μ_0)	$4\pi \times 10^{-7} \text{ T}\cdot\text{m/A}$
Permittivity of free space (ϵ_0)	$8.85 \times 10^{-12} \text{ C}^2/(\text{N}\cdot\text{m}^2)$
Avogadro's number	$6.02 \times 10^{23} \text{ particles/mole}$