

Gravitational constant	$G = 6.7 \times 10^{-8} \text{ erg cm g}^{-2}$	or $\text{cm}^3 \text{g}^{-1} \text{s}^{-2}$
Speed of light	$c = 3.0 \times 10^{10} \text{ cm s}^{-1}$	
Planck's constant	$h = 6.6 \times 10^{-27} \text{ erg s}$ $\hbar = h/2\pi = 1.05 \times 10^{-27} \text{ erg s}$	
Boltzmann's constant	$k = 1.4 \times 10^{-16} \text{ erg K}^{-1}$ $= 8.6 \times 10^{-5} \text{ eV K}^{-1}$	
Stefan-Boltzmann constant	$\sigma = 5.7 \times 10^{-5} \text{ erg cm}^{-2} \text{ s}^{-1} \text{ K}^{-4}$	
Radiation constant	$a = 4\sigma/c = 7.6 \times 10^{-15} \text{ erg cm}^{-3} \text{ K}^{-4}$	
Proton mass	$m_p = 1.7 \times 10^{-24} \text{ g}$	
Electron mass	$m_e = 9.1 \times 10^{-28} \text{ g}$	
Electron charge	$e = 4.8 \times 10^{-10} \text{ esu}$	
Electron volt	$1 \text{ eV} = 1.6 \times 10^{-12} \text{ erg}$	
Thomson cross section	$\sigma_T = 6.7 \times 10^{-25} \text{ cm}^2$	
Wien's law	$\lambda_{\text{max}} = 2900 \text{ \AA} \cdot 10^4 \text{ K}/T$ $h\nu_{\text{max}} = 2.4 \text{ eV} \cdot T/10^4 \text{ K}$	
Angstrom	$1 \text{ \AA} = 10^{-8} \text{ cm}$	
Solar mass	$M_{\odot} = 2.0 \times 10^{33} \text{ g}$	
Solar luminosity	$L_{\odot} = 3.8 \times 10^{33} \text{ erg s}^{-1}$	
Solar radius	$r_{\odot} = 7.0 \times 10^{10} \text{ cm}$	

Solar distance	$d_{\odot} = 1 \text{ AU} = 1.5 \times 10^{13} \text{ cm}$
Jupiter mass	$M_J = 1.9 \times 10^{30} \text{ g}$
Jupiter radius	$r_J = 7.0 \times 10^9 \text{ cm}$
Jupiter-Sun distance	$d_J = 5.2 \text{ AU} = 7.8 \times 10^{13} \text{ cm}$
Earth mass	$M_{\oplus} = 6.0 \times 10^{27} \text{ g}$
Earth radius	$r_{\oplus} = 6.4 \times 10^8 \text{ cm}$
Moon mass	$M_{\text{moon}} = 7.4 \times 10^{25} \text{ g}$
Moon radius	$r_{\text{moon}} = 1.7 \times 10^8 \text{ cm}$
Moon distance	$d_{\text{moon}} = 3.8 \times 10^{10} \text{ cm}$
Astronomical unit	$1 \text{ AU} = 1.5 \times 10^{13} \text{ cm}$
Parsec	$1 \text{ pc} = 3.1 \times 10^{18} \text{ cm} = 3.3 \text{ light year}$
Year	$1 \text{ yr} = 3.15 \times 10^7 \text{ s}$

Redshift: $1 + z = \lambda_{\text{obs}}/\lambda_{\text{emitted}}$, $z \approx v/c$

Hubble constant: 70 km/s/Mpc