

Astronomical

Solar mass	$1 M_{\odot}$	$= 1.9891 \times 10^{30} \text{ kg}$
Solar irradiance		$= 1.365(2) \times 10^3 \text{ W/s/m}^2$
Solar luminosity	$1 L_{\odot}$	$= 3.839(5) \times 10^{26} \text{ W s}^{-1}$
Solar radius	$1 R_{\odot}$	$= 6.95508(26) \times 10^8 \text{ m}$
Solar effective temperature	$T_{\text{eff},\odot}$	$\equiv (L_{\odot}/4\pi\sigma R_{\odot}^2)^{1/4}$ $= 5777(2) \text{ K}$
Solar absolute bolometric magnitude	$M_{\text{bol},\odot}$	$= 4.74$
Solar apparent bolometric magnitude	$m_{\text{bol},\odot}$	$= -26.83$
Solar apparent ultraviolet magnitude	U_{\odot}	$= -25.91$
Solar apparent blue magnitude	B_{\odot}	$= -26.10$
Solar apparent visual magnitude	V_{\odot}	$= -26.75$
Solar bolometric correction	BC_V	$= -0.08$
Earth mass	$1 M_{\oplus}$	$= 5.6736 \times 10^{24} \text{ kg}$
Earth radius (equatorial)	$1 R_{\oplus}$	$= 6.378136 \times 10^6 \text{ m}$
Astronomical unit	1 AU	$= 1.4959787066 \times 10^{11} \text{ m}$
Light (Julian) year	1 ly	$= 9.460730472 \times 10^{15} \text{ m}$
Parsec	1 pc	$= 206264.806 \text{ AU}$ $= 3.0856776 \times 10^{16} \text{ m}$ $= 3.2615638 \text{ ly}$
Sidereal day		$= 23^{\text{h}}56^{\text{m}}04.0905309^{\text{s}}$
Solar day		$= 86400 \text{ s}$
Sidereal year		$= 3.15581450 \times 10^7 \text{ s}$ $= 365.256308 \text{ d}$
Tropical year		$= 3.155692519 \times 10^7 \text{ s}$ $= 365.2421897 \text{ d}$
Julian year		$= 3.1557600 \times 10^7 \text{ s}$ $= 365.25 \text{ d}$
Gregorian year		$= 3.1556952 \times 10^7 \text{ s}$ $= 365.2425 \text{ d}$
Full sky	$4\pi \text{ ster}$	$= 4\pi(180/\pi)^2 \text{ deg}^2$ $= 41,252.96 \text{ deg}^2$

Physical

Gravitational constant	G	$= 6.67428(67) \times 10^{-11} \text{ m}^3/\text{kg s}^2$
Speed of light	c	$\equiv 2.99794258 \times 10^8 \text{ m/s}$
Electric charge	e	$= 1.60218 \times 10^{-19} \text{ C}$
Electron volt	1 eV	$= 1.602176487(40) \times 10^{-19} \text{ J}$
Planck's constant	h	$= 6.62606896(34) \times 10^{-34} \text{ J s}$ $= 4.13566733(10) \times 10^{-15} \text{ eV s}$
	\hbar	$= 1.054571628(53) \times 10^{-34} \text{ J s}$ $= 6.58211899(16) \times 10^{-16} \text{ eV s}$
	hc	$= 1.23984187(3) \times 10^3 \text{ eV nm}$
Boltzmann's constant	k	$= 1.3806504(24) \times 10^{-23} \text{ J/K}$ $= 8.617343(15 \times 10^{-5} \text{ eV/K})$
Stefan-Boltzmann	σ	$\equiv 2\pi^5 k^4 / (15c^2 h^3)$ $= 5.670400(40) \times 10^{-8} \text{ J/m}^2/\text{s/K}$
Radiation constant	a	$= 4\sigma/c$ $= 7.565767(54) \times 10^{-16} \text{ J/m}^3/\text{K}^4$
Wien displacement	$\lambda_{\text{max}}T$	$= 0.0028979 \text{ m K}$
Atomic mass unit	1 u	$= 1.660538782(83) \times 10^{-27} \text{ kg}$ $= 931.494028(83) \text{ MeV}/c^2$
Electron mass	m_e	$= 9.10938215(45) \times 10^{-31} \text{ kg}$ $= 5.4857990943(23) \times 10^{-4} \text{ u}$ $= 510.9989 \text{ keV}/c^2$
Proton mass	m_p	$= 1.672621637(83) \times 10^{-27} \text{ kg}$
Neutron mass	m_n	$= 1.67492711(84) \times 10^{-27} \text{ kg}$
Hydrogen mass	m_{H}	$= 1.673552499(13) \times 10^{-27} \text{ kg}$
Avogadro's number	N_A	$= 6.02214179(30) \times 10^{23} \text{ mol}^{-1}$
Gas constant	R	$= 8.314472(15) \text{ J/mol/K}$
Bohr radius	$a_{0,\infty}$	$\equiv \hbar / m_e c \alpha$ $= 0.51917720859(36) \text{ \AA}$
	$a_{0,\text{H}}$	$\equiv (m_e/\mu)a_{0,\infty}$ $= 0.5294654075(20) \text{ \AA}$
Classical electron radius	r_e	$\equiv e^2/m_e c^2$ $= 2.8179402894(58) \times 10^{-15} \text{ m}$
Thomson cross section	σ_T	$\equiv (8\pi/3)(\alpha\hbar/m_e c)^2$ $= 6.6524586 \times 10^{-29} \text{ m}^2$
	1 MK	$= 1.38 \times 10^{-17} \text{ J}$ $= 86.17 \text{ eV}$
	1 keV	$= 1.602 \times 10^{-16} \text{ J}$ $= 1.1604 \times 10^7 \text{ K}$
Balmer series	$\text{H}\alpha$	$= 6563.8 \text{ \AA}$