

## Physical Constants and Characteristics

Gravitational constant [1]:	$G = 6.674\ 08 \times 10^{-11} \text{ m}^3 \text{ kg}^{-1} \text{ s}^{-2}$
Stefan-Boltzmann constant [1]:	$\sigma = 5.670\ 367 \times 10^{-8} \text{ W m}^{-2} \text{ K}^{-4}$
GM Sun:	$\mu_{\text{Sun}} = 1.327 \times 10^{20} \text{ m}^3 \text{ s}^{-2}$
GM Earth:	$\mu_{\text{Earth}} = 3.986 \times 10^{14} \text{ m}^3 \text{ s}^{-2}$
GM Moon:	$\mu_{\text{Moon}} = 4.903 \times 10^{12} \text{ m}^3 \text{ s}^{-2}$
GM Mercury:	$\mu_{\text{Mercury}} = 2.203 \times 10^{13} \text{ m}^3 \text{ s}^{-2}$
GM Venus :	$\mu_{\text{Venus}} = 3.249 \times 10^{14} \text{ m}^3 \text{ s}^{-2}$
GM Mars :	$\mu_{\text{Mars}} = 4.283 \times 10^{13} \text{ m}^3 \text{ s}^{-2}$
GM Jupiter :	$\mu_{\text{Jupiter}} = 1.267 \times 10^{17} \text{ m}^3 \text{ s}^{-2}$
GM Saturn :	$\mu_{\text{Saturn}} = 3.793 \times 10^{16} \text{ m}^3 \text{ s}^{-2}$
Solar Constant:	$S = 1.361 \times 10^3 \text{ W m}^{-2} \text{ at } 1 \text{ AU}$
Sun radius (equatorial) :	$R_{\text{Sun}} = 6.957 \times 10^8 \text{ m}$
Astronomical Unit:	$1 \text{ AU} = 1.496 \times 10^{11} \text{ m}$
Earth mass:	$M_{\text{Earth}} = 5.973 \times 10^{24} \text{ kg}$
Earth radius (equatorial):	$R_{\text{Earth}} = 6.378 \times 10^6 \text{ m}$
Earth's gravitational acceleration:	$g = 9.80665 \text{ m s}^{-2}$
Sidereal day:	23h 56 min 04.09 s
Moon mass:	$M_{\text{Moon}} = 7.346 \times 10^{22} \text{ kg}$
Moon radius (equatorial):	$R_{\text{Moon}} = 1.738 \times 10^6 \text{ m}$
Moon's mean distance from Earth:	$d_{\text{Moon}} = 3.844 \times 10^8 \text{ m}$
Mercury's mean distance from Sun:	$D_{\text{Mercury}} = 0.387 \text{ AU}$
Venus' mean distance from Sun :	$D_{\text{Venus}} = 0.723 \text{ AU}$
Mars' mean distance from Sun:	$D_{\text{Mars}} = 1.524 \text{ AU}$
Jupiter's mean distance from Sun:	$D_{\text{Jupiter}} = 5.204 \text{ AU}$
Saturn's mean distance from Sun	$D_{\text{Saturn}} = 9.583 \text{ AU}$

[1] : <http://www.physics.nist.gov/cuu/Constants/index.html>

[others] : <https://nssdc.gsfc.nasa.gov/planetary/planetfact.html>