The Solar System

Astronomical unit of distance $\qquad$ $1\,\mathrm{AU} = 1.495978707 \times 10^{11}\,\mathrm{m}$

Mass of the Sun $\qquad$ $M_{\mathrm{Sun}} = 1.98911 \times 10^{30}\,\mathrm{kg}$

Radius of the Sun $\qquad$ $R_{\mathrm{Sun}} = 6.960 \times 10^{5}\,\mathrm{km}$

Planet	m_{p} $(10^{24}\mathrm{kg})$	R (km)	T_{rot} (hr)	$\langle\rho\rangle$	ϵ $(^{\circ})$	J_2	J_4
Mercury	0.3302	2,440	1047.51	5.427	~ 0.1	60	
Venus	4.8685	6,052	-5832.444	5.204	177.3	4	2
Earth	5.9736	6,378	23.93419	5.515	23.45	1083	-2
Mars	0.64185	3,394	24.622962	3.933	25.19	1960	-19
Jupiter	1898.6	71,398	9.92425	1.326	3.12	14736	-587
Saturn	568.46	60,330	10.65622	0.6873	26.73	16298	-915
Uranus	86.832	26,200	-17.24	1.318	97.86	3343	-29
Neptune	102.43	25,225	16.11	1.638	29.56	3411	-35
Pluto	0.0127	1,137	-153.29	2.06	112.52		