

TABLE 3A Planetary Orbital Data

Planet	Semi-Major Axis		Eccentricity (e)	Perihelion		Aphelion	
	(AU)	(10 <sup>6</sup> km)		(AU)	(10 <sup>6</sup> km)	(AU)	(10 <sup>6</sup> km)
Mercury	0.39	57.9	0.206	0.31	46.0	0.47	69.8
Venus	0.72	108.2	0.007	0.72	107.5	0.73	108.9
Earth	1.00	149.6	0.017	0.98	147.1	1.02	152.1
Mars	1.52	227.9	0.093	1.38	206.6	1.67	249.2
Jupiter	5.20	778.4	0.048	4.95	740.7	5.46	816
Saturn	9.54	1427	0.054	9.02	1349	10.1	1504
Uranus	19.19	2871	0.047	18.3	2736	20.1	3006
Neptune	30.07	4498	0.009	29.8	4460	30.3	4537

  

Planet	Mean Orbital Speed (km/s)	Sidereal Period (tropical years)	Synodic Period (days)	Inclination to the Ecliptic (degrees)	Greatest Angular Diameter as Seen from Earth (arc seconds)
Mercury	47.87	0.24	115.88	7.00	13
Venus	35.02	0.62	583.92	3.39	64
Earth	29.79	1.00	—	0.01	—
Mars	24.13	1.88	779.94	1.85	25
Jupiter	13.06	11.86	398.88	1.31	50
Saturn	9.65	29.42	378.09	2.49	21
Uranus	6.80	83.75	369.66	0.77	4.1
Neptune	5.43	163.7	367.49	1.77	2.4

TABLE 3B Planetary Physical Data

Planet	Equatorial Radius		Mass (kg)	Mean Density (kg/m <sup>3</sup> )	Surface Gravity (Earth = 1)	Escape Speed (km/s)	
	(km)	(Earth = 1)					
Mercury	2440	0.38	$3.30 \times 10^{23}$	0.055	5430	0.38	4.2
Venus	6052	0.95	$4.87 \times 10^{24}$	0.82	5240	0.91	10.4
Earth	6378	1.00	$5.97 \times 10^{24}$	1.00	5520	1.00	11.2
Mars	3394	0.53	$6.42 \times 10^{23}$	0.11	3930	0.38	5.0
Jupiter	71,492	11.21	$1.90 \times 10^{27}$	317.8	1330	2.53	60
Saturn	60,268	9.45	$5.68 \times 10^{26}$	95.16	690	1.07	36
Uranus	25,559	4.01	$8.68 \times 10^{25}$	14.54	1270	0.91	21
Neptune	24,766	3.88	$1.02 \times 10^{26}$	17.15	1640	1.14	24

  

Planet	Sidereal Rotation Period (solar days)*	Axial Tilt (degrees)	Surface Magnetic Field (Earth = 1)	Magnetic Axis Tilt (degrees relative to rotation axis)	Albedo <sup>†</sup>	Surface Temperature <sup>‡</sup> (K)	Number of Moons**
Mercury	58.6	0.0	0.011	<10	0.11	100–700	0
Venus	−243.0	177.4	<0.001		0.65	730	0
Earth	0.9973	23.45	1.0	11.5	0.37	290	1
Mars	1.026	23.98	0.001		0.15	180–270	2
Jupiter	0.41	3.08	13.89	9.6	0.52	124	16
Saturn	0.44	26.73	0.67	0.8	0.47	97	18
Uranus	−0.72	97.92	0.74	58.6	0.50	58	27
Neptune	0.67	29.6	0.43	46.0	0.5	59	13

\*A negative sign indicates retrograde rotation; <sup>†</sup>Fraction of sunlight reflected from surface; <sup>‡</sup>Temperature is effective temperature for jovian planets; \*\*Moons more than 10 km in diameter.