Planetary data

Planet	Orbital radius, R / km $\times 10^7$	Orbital period (planet's year), T / days	R^3 / $km^3 \times 10^{23}$	T^2 / $days^2$	R^3 / T^2 ($km^3 \times 10^{19}$ / $Days^2$)
Mercury	5.785	87.97	1.936	7739	2.502
Venus	10.81	224.7	12.63	50 490	2.501
Earth	14.94	365.3	33.41	133 400	2.504
Mars	22.78	687.1	118.21	472 100	2.504
Jupiter	77.76	4333	470.18	18 770 000	2.505
Saturn	142.58	10 760	2898.5	115 800 000	2.503

Orbital radius is mean distance of planet from the Centre of the Sun.

Artificial satellites of the Earth

Name of satellite	Orbital radius, R / km	Orbital period, T / mins	R^3 $(km)^3 / 10^{10}$	T^2 $(mins)^2 / 10^3$	$\frac{R^3}{T^2}$
Gemini 6	6.632	89.6	29.3	8.04	
Tiros 1	7.092	99.2	35.7	9.83	
Echo 2	7 539	109.0	42.8	11.9	
Echo l	7 967	118.2	50.6	13.9	
Early Bird	42 173	1 437	7 510	2 060	
Moon	386 000	39 343	574 000	1 540 000	

Orbital radius is mean distance of satellite from centre of the Earth.

Jupiter's moons

Name of satellite	Mean distance from Jupiter in Jovian diameters	Orbital radius, R / km	Orbital period, T / hours	R^3 $km^3 \times 10^{16}$	T^2 $(days)^2$	$\frac{R^3}{T^2}$
Io	3.02	421 600	42.36	1.803	1 802.8	
Europa	4.80	670 900	85.23	7.261	7 264	
Ganymede	7.66	1 070 000	171.71	29.473	29 484	
Callisto	13.48	1 880 000	400.54	160.440	160 430	

Orbital radius is mean distance of moon from the centre of Jupiter.

Note

It is simplest to measure the moon's orbits in terms of Jupiter's diameter. The radii could remain in those units for a test of Kepler's Law III; but, if these data are to he used in gravitational theory (e.g. to compare Jupiter's mass with the Sun's), then the same units (e.g. km) must be used on both sides of the comparison.