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Planets - Data Table

[Dwarf Planets](#) are listed in a separate table [below](#).

	Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune
diameter (Earth=1)	0.382	0.949	1	0.532	11.209	9.44	4.007	3.883
diameter (km)	4,878	12,104	12,756	6,787	142,800	120,000	51,118	49,528
mass (Earth=1)	0.055	0.815	1	0.107	318	95	15	17
mean distance from Sun (AU)	0.39	0.72	1	1.52	5.20	9.54	19.18	30.06
orbital period (Earth years)	0.24	0.62	1	1.88	11.86	29.46	84.01	164.8
orbital eccentricity	0.2056	0.0068	0.0167	0.0934	0.0483	0.0560	0.0461	0.0097
mean orbital velocity (km/sec)	47.89	35.03	29.79	24.13	13.06	9.64	6.81	5.43
rotation period (in Earth days)	58.65	-243*	1	1.03	0.41	0.44	-0.72*	0.72
inclination of axis (degrees)	0.0	177.4	23.45	23.98	3.08	26.73	97.92	28.8
mean temperature at surface (c)	-180 to 430	465	-89 to 58	-82 to 0	-150	-170	-200	-210
gravity at equator (Earth=1)	0.38	0.9	1	0.38	2.64	0.93	0.89	1.12
escape velocity (km/sec)	4.25	10.36	11.18	5.02	59.54	35.49	21.29	23.71
mean density (water=1)	5.43	5.25	5.52	3.93	1.33	0.71	1.24	1.67
atmospheric composition	none	CO ₂	N ₂ + O ₂	CO ₂	H ₂ +He	H ₂ +He	H ₂ +He	H ₂ +He
number of moons	0	0	1	2	63	60	27	13
rings?	no	no	no	no	yes	yes	yes	yes

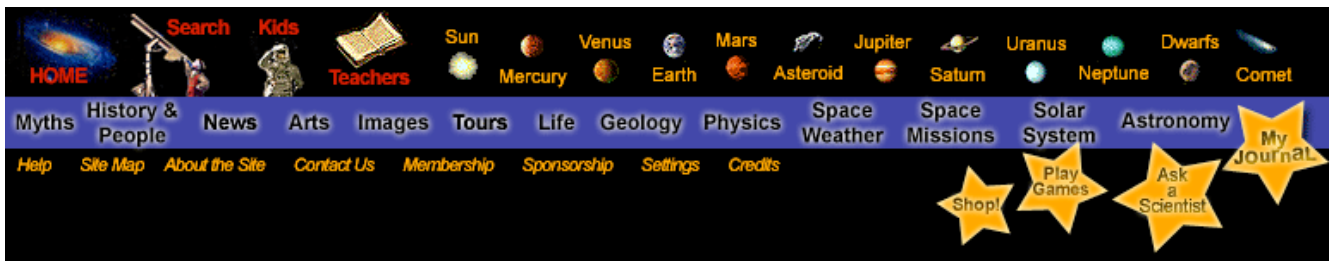
Dwarf Planets

	Ceres	Pluto	Haumea	Makemake	Eris
diameter (Earth=1)	0.076	0.180	0.110 (average)	0.102-0.149	0.188-0.235
diameter (km)	974.6	2,300	1,960 x 1,518 x 996 (ellipsoid)	1,300-1,900	2,400-3,000
mass (Earth=1)	0.00016	0.002	0.00070	0.00067	0.0028

mean distance from Sun (AU)	2.76596	39.44	43.335	45.791	67.6681
orbital period (Earth years)	4.599	247.7	285.4	309.88	557
orbital eccentricity	0.07976	0.2482	0.18874	0.159	0.44177
mean orbital velocity (km/sec)	17.882	4.74	4.484	4.419	3.436
rotation period (in Earth days)	0.378	-6.38*	0.163	?	> 8 hrs ?
inclination of axis (degrees)	3	122	?	?	?
mean temperature at surface (°C)	-106	-220	-223	-240	-230
gravity at equator (Earth=1)	0.028	0.06	0.045	0.051	0.082
escape velocity (km/sec)	0.51	1.27	0.84	0.8	1.31
mean density (water=1)	2.077	2.03	2.6-3.3	2	1.18-2.31
atmospheric composition	none	CH₄	none?	maybe CH₄	maybe CH₄
number of moons	0	3	2	0	1
rings?	no	no	no	no	no

* Negative values of rotation period indicate that the planet rotates in the direction opposite to that in which it orbits the Sun. This is called retrograde rotation.

The [eccentricity](#) (e) is a number which measures how [elliptical](#) orbits are. If e=0, the orbit is a circle. All the planets have eccentricities close to 0, so they must have orbits which are nearly circular.



Last modified October 9, 2008 by [Randy Russell](#).

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