Planet Parameters – December, 2007

	Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune	Pluto
diameter (Earth=1)	0.382	0.949	1	0.532	11.209	9.44	4.007	3.883	0.180
diameter (km)	4,878	12,104	12,756	6,787	142,800	120,000	51,118	49,528	2,300
mass (Earth=1)	0.055	0.815	1	0.107	318	95	15	17	0.002
mean distance from Sun (AU)	0.39	0.72	1	1.52	5.20	9.54	19.18	30.06	39.44
orbital period (Earth years)	0.24	0.62	1	1.88	11.86	29.46	84.01	164.8	247.7
orbital eccentricity	0.2056	0.0068	0.0167	0.0934	0.0483	0.0560	0.0461	0.0097	0.2482
mean orbital velocity (km/sec)	47.89	35.03	29.79	24.13	13.06	9.64	6.81	5.43	4.74
rotation period (in Earth days)	58.65	-243*	1	1.03	0.41	0.44	-0.72*	0.72	-6.38*
inclination of axis (degrees)	0.0	177.4	23.45	23.98	3.08	26.73	97.92	28.8	122
mean temperature at surface (C)	-180 to 430	465	-89 to 58	-82 to 0	-150	-170	-200	-210	-220
gravity at equator (Earth=1)	0.38	0.9	1	0.38	2.64	0.93	0.89	1.12	0.06
escape velocity (km/sec)	4.25	10.36	11.18	5.02	59.54	35.49	21.29	23.71	1.27
mean density (water=1)	5.43	5.25	5.52	3.93	1.33	0.71	1.24	1.67	2.03
atmospheric composition	none	CO_2	N_2+O_2	CO_2	H_2+He	H_2+He	H_2+He	H_2+He	CH_4
number of moons	0	0	1	2	63	59	27	13	3
rings?	no	no	no	no	yes	yes	yes	yes	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.