Spying on the Neighbours - Solar System Facts

Planet	# moons	mass earth=1	diameter (km)	gravity (earth=1)	length of day (days)	length of year	distance from sun (million km)	speed around sun (km/s)
Mercury	0	0.055	4877.9	0.38	58.65	88 d	57.9	48
Venus	0	0.815	12103.9	0.9	243	224.7 d	108	34.9
Earth	1	1	12755.7	1	0.9973	365.26 d	149.5	29.9
Mars	2	0.107	6793	0.38	1.026	687.0 d	227.7	24
Jupiter	16	317.8	142803.5	2.69	0.41	11.86 y	778	12.9
Saturn	18	95.2	120002.4	1.19	0.427	29.46 y	1427	9.7
Uranus	17	14.5	50800.6	0.91	0.45	84.01 y	2869	6.8
Neptune	8	17.2	48600.6	1.19	0.67	164.8 y	4497	5.3

Notes:

1. The number of moons represents the number known when this chart was first created

2. The length of the day is based on how many earth days it takes for the planet to turn itself around once.

3. The length of the year is measured in days (d) or years (y) since the big planets take many days to make one orbit around the sun.

4. The distance of each planet from the sun is the average distance. Most planets are closer to the sun at some points of their orbits than at others because their orbits are not circles.

Neat stuff you can do with this information:

1.   To find out what you would weigh on any planet's surface, take your weight in kilograms and multiply it by the number in the gravity column in the chart. For example, if you weigh 35 kg on Earth, you would weigh 94.15 kg on Jupiter (35 x 2.69= 94.15).

2.   Which planet has the shortest day? Which one has the longest day?   Notice that one day on Venus is almost the same as one year. What do you think seasons would be like on Venus?

3.   Find out how many times earth would "fit" into the gas giants (Jupiter, Saturn, Uranus and Neptune). This is easy on this chart because Earth=1, so Earth fits into Neptune 17.2 times. You do the others.

4.   How many times bigger is Jupiter (the largest planet) than Pluto (the smallest). (Hint: divide the mass of Jupiter by the mass of Pluto).