

Astronomy #3 - Planetary Comparisons

ALTERNATE

Got It!	Not Yet
8-6	5-0

Use the Solar System Data Chart to answer the questions below.

Solar System Data

Celestial Object	Mean Distance from Sun (million km)	Period of Revolution (d=days) (y=years)	Period of Rotation at Equator	Eccentricity of Orbit	Equatorial Diameter (km)	Mass (Earth = 1)	Density (g/cm ³)
SUN	—	—	27 d	—	1,392,000	333,000.00	1.4
MERCURY	57.9	88 d	59 d	0.206	4,879	0.06	5.4
VENUS	108.2	224.7 d	243 d	0.007	12,104	0.82	5.2
EARTH	149.6	365.26 d	23 h 56 min 4 s	0.017	12,756	1.00	5.5
MARS	227.9	687 d	24 h 37 min 23 s	0.093	6,794	0.11	3.9
JUPITER	778.4	11.9 y	9 h 50 min 30 s	0.048	142,984	317.83	1.3
SATURN	1,426.7	29.5 y	10 h 14 min	0.054	120,536	95.16	0.7
URANUS	2,871.0	84.0 y	17 h 14 min	0.047	51,118	14.54	1.3
NEPTUNE	4,498.3	164.8 y	16 h	0.009	49,528	17.15	1.8
EARTH'S MOON	149.6 (0.386 from Earth)	27.3 d	27.3 d	0.055	3,476	0.01	3.3

1. Rank the 8 planets from the the **LARGEST** to the **SMALLEST** mass.

_____, _____, _____, _____, _____, _____, _____, _____

2. What do the planets with the **SMALLEST** mass have in common with each other? _____

3. What are the four **LEAST DENSE** planets in our solar system? _____, _____

_____ and _____.

4. Are the **LEAST** dense planets the Inner or Outer Planets? _____

5. Earth's twin is Venus, what is a characteristic in which they are **NOT** similar. _____

6. What planet has the **SHORTEST** period of revolution? _____ What explanation can you give for this? _____

7. Which planet in our solar system has the **SLOWEST** period of rotation? _____

8. What body in our solar system is the smallest? _____ What data did you use to determine this? _____