

Astronomy Ranking Task: The Solar System

Exercise #2

Description: The table below shows some physical data for the eight planets in our solar system. The planets are assigned letters A through H.

Letter	Planet	Rotational Period		Axial Tilt (°)
		(hours)	(sidereal Earth days)	
A	Mercury	1407.5	58.9	0.01
B	Venus	5832.5	244.0	177.40
C	Earth	23.9	1.00	23.45
D	Mars	24.6	1.03	25.19
E	Jupiter	9.9	0.41	3.13
F	Saturn	10.7	0.45	26.73
G	Uranus	17.2	0.72	97.77
H	Neptune	16.1	0.67	28.32

A. Ranking instructions: Rank the lengths of a day on each planet.

Ranking Order: Longest 1 ____ 2 ____ 3 ____ 4 ____ 5 ____ 6 ____ 7 ____ 8 ____ Shortest

Or, the length of a day is the same for each planet. ____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:

B. Ranking instructions: Rank the axial tilts of the planets.

Ranking Order: Largest 1 ____ 2 ____ 3 ____ 4 ____ 5 ____ 6 ____ 7 ____ 8 ____ Smallest

Or, the planets are all tilted by the same amount. ____ (indicate with a check mark)

Carefully explain your reasoning for ranking this way:

C. Which planets experience very mild to no seasonal changes? Explain.

D. Which planets experience moderate seasonal changes (like Earth)? Explain.

E. Which planets experience extremely severe seasonal changes? Explain.