

NAME: _____

DATE: _____

PHYS 1040 Homework #1

1. What is the "celestial sphere"?
2. What is a constellation?
3. What is the zodiac?
4. What is the ecliptic?
5. What causes the seasons?
6. Describe the major astronomical contribution(s) of the following people, in a sentence or two for each: Aristotle, Aristarchus, Eratosthenes, Ptolemy, Copernicus, Tycho Brahe, Kepler, Galileo, and Newton.

7. Some people still believe the Earth is flat. What "proof" would you offer them that it is round? Could you persuade them?

8. If the shape of the Earth's orbit was unaltered but its rotation axis was shifted so that it had no tilt with respect to the orbit, how would the seasons be affected?

9. How does "mass" differ from "weight"?

10. If your mass is 70 kilograms on Earth, what is it on the Moon?

11. If you weigh 110 pounds on the Earth, what is your weight on the Moon?

12. A cinder block can be weightless in space. Would you want to kick it with your bare foot? Why or why not?