1. List three proofs that the earth is a sphere.

2. What is the direction of rotation of the earth at the South Pole?

3. What is the direction of rotation of the earth at the equator?

4. The distance around the earth at the Equator is approximately 24,900 miles. Since the earth makes one rotation in 24 hours, a person on the equator is moving with earth at what speed?

   Miles per hour

5. A person living at 50°N latitude is rotating at only 670 mph. Explain why there is a difference in the velocity of rotation between two different points on the earth’s surface.

6. On the earth a degree of latitude is about 69 miles long. About how many miles north of the equator is Paris at 49°N?

7. At what time of year is the earth furthest from the sun?

8. At what time of the year is the sun directly overhead at the Equator?

9. At what time of the year is the sun directly overhead at the Tropic of Cancer?

10. What is the longitude of a ship if the Greenwich chronometer reads 11am at noon ship’s time?

11. What time is it on board a ship at 60°E longitude when it is 9pm Greenwich time?

12. What causes the following: rotation or revolution?
   
a. day and night
   
b. time of day
   
c. changing length of day & night
   
d. summer solstice
   
e. direction of sunrise and sunset
   
f. Coriolis force
   
g. tides
   
h. changing altitude of noon sun