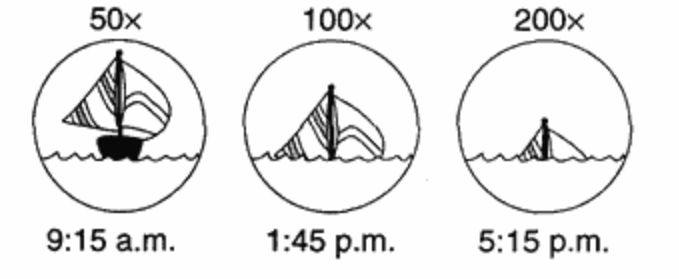
1. The diagrams below represent photographs of a large sailboat taken through a telescope over time as the boat sailed away from shore out to sea. Each diagram shows the magnification of the lenses and the time of day.



Which statement best explains the apparent sinking of this sailboat?

1) The sailboat is moving around the curved surface of Earth.
2) The sailboat appears smaller as it moves farther away.
3) The change in density of the atmosphere is causing refraction of light rays.
4) The tide is causing an increase in the depth of the ocean.

2. The Earth's actual shape is most correctly described as

1) a circle
2) a perfect sphere
3) an oblate sphere
4) an eccentric ellipse

3. Which object best represents a true scale model of the shape of the Earth?

1) a Ping-Pong ball
2) a football
3) an egg
4) a pear

4. Compared to the weight of a person at the North Pole, the weight of the same person at the Equator would be

1) slightly less, because the person is farther from the center of Earth
2) slightly less, because the person is closer to the center of Earth
3) slightly more, because the person is farther from the center of Earth
4) slightly more, because the person is closer to the center of Earth

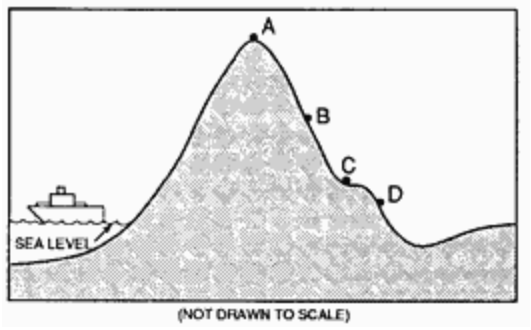
5. Precise measurements of the Earth indicate that its polar diameter is

1) shorter than its equatorial diameter
2) longer than its equatorial diameter
3) the same length as its equatorial diameter

6. The best evidence that the Earth has a spherical shape is provided by

1) photographs of the Earth taken from space satellites
2) the amount of daylight received at the North Pole on June 21
3) the changing orbital speed of the Earth in its orbit around the Sun
4) the cyclic change of seasons

7. In the diagram below, letters *A* through *D* represent the locations of four observers on the Earth's surface. Each observer has the same mass.



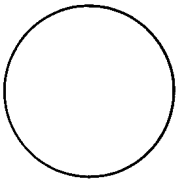
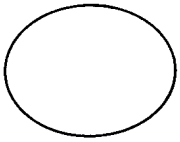
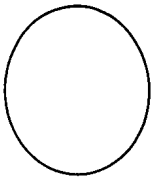
The gravitational force is strongest between the center of the Earth and the observer at location

1) *A*
2) *B*
3) *C*
4) *D*

8. The polar circumference of the Earth is 40,008 kilometers. What is the equatorial circumference?

1) 12,740 km
2) 25,000 km
3) 40,008 km
4) 40,076 km

9. Which diagram most accurately shows the cross-sectional shape of the Earth drawn to scale?

1) 
2) 
3) 
4) 

10. Which statement provides the best evidence that the Earth has a nearly spherical shape?

1) The Sun has a spherical shape.
2) The altitude of *Polaris* changes in a definite pattern as an observer's latitude changes.
3) Star trails photographed over a period of time show a circular path.
4) The lengths of noontime shadows change throughout the year.