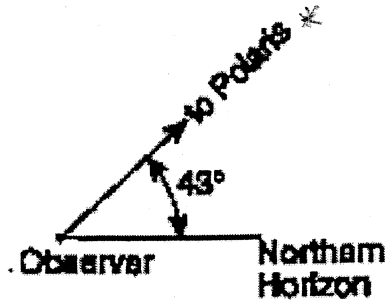


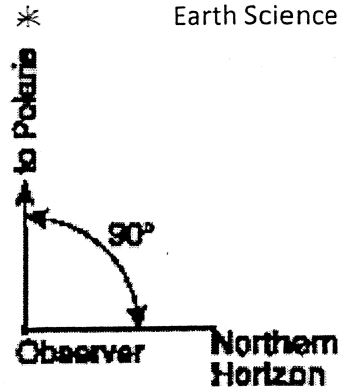
Altitude of Polaris = 23°

Latitude = 23° NORTH



Altitude of Polaris = 43°

Latitude = 43° North



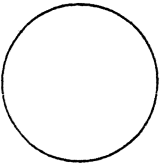
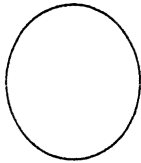
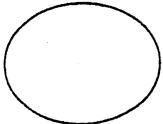

Altitude of Polaris =

Latitude =

1. The best evidence of the Earth's nearly spherical shape is obtained through

- (1) telescopic observations of other planets
- (2) photographs of the Earth from an orbiting satellite
- (3) observations of the Sun's altitude made during the day
- (4) observations of the Moon made during lunar eclipses

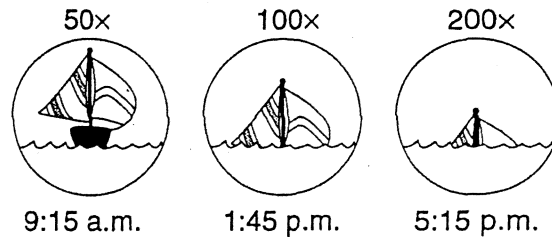
2. Which diagram most accurately shows the cross-sectional shape of the Earth drawn to scale?

- | | |
|---|---|
| (1)  | (3)  |
| (2)  | (4)  |

3. 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

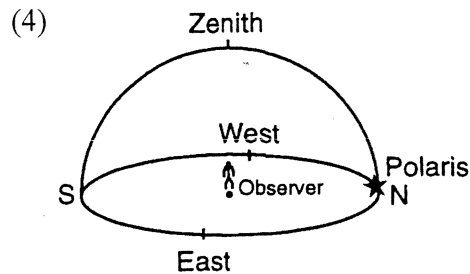
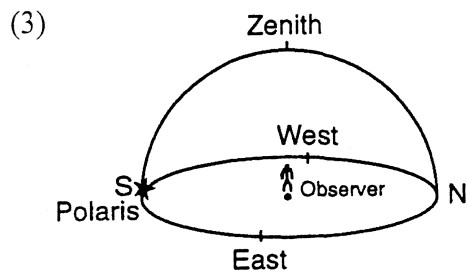
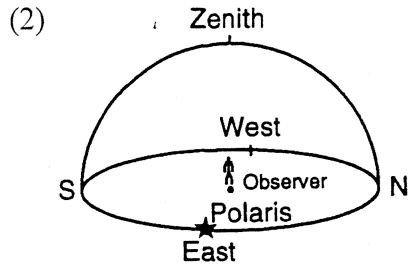
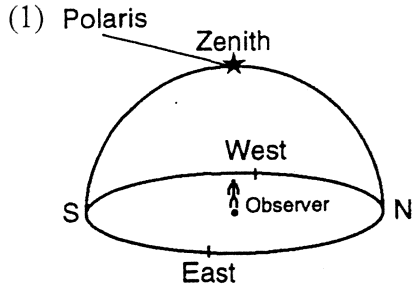
4. The diagrams below represent photographs of a large sailboat taken through a telescope over time as the boat sailed away from shore out to sea. Each diagram shows the magnification of the lenses and the time of day.



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.

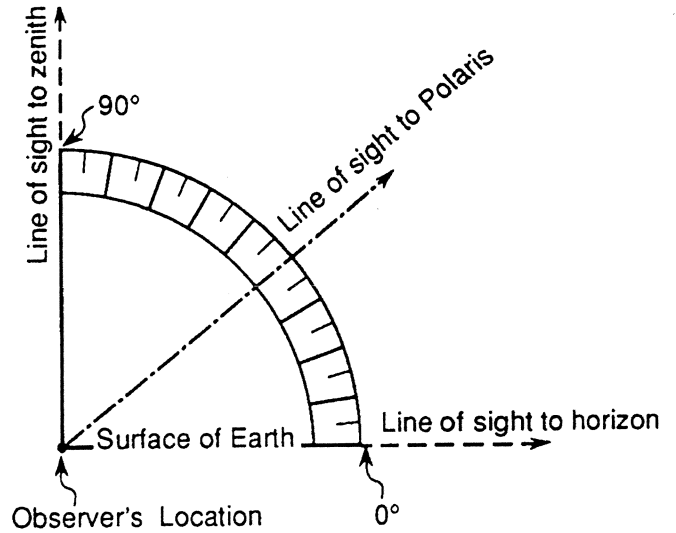
1. Which diagram best represents the location of Polaris for an observer located at the Equator?



2. The latitude of an observer on Earth's surface can be determined by measuring the altitude of Polaris because Earth has a

- (1) nearly spherical shape
- (2) nearly circular orbit around the Sun
- (3) variable length of day
- (4) fairly constant period of revolution

3. The diagram below shows the altitude of Polaris above the horizon at a certain location.



What is the latitude of the observer?

- (1) 10° N
- (2) 40° N
- (3) 50° N
- (4) 90° N

4. According to the data below, what is the exact shape of the Earth?

Actual Dimensions of the Earth

Equatorial Radius	6,378 km
Polar Radius	6,357 km
Equatorial Circumference	40,076 km
Polar Circumference	40,008 km

- (1) slightly flattened at both the Equator and the Poles
- (2) slightly bulging at both the Equator and the Poles
- (3) slightly flattened at the Equator and slightly bulging at the Poles
- (4) slightly flattened at the Poles and slightly bulging at the Equator