

Name: \_\_\_\_\_

~~Wednesday, October 11, 2006~~

1.

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

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

2.

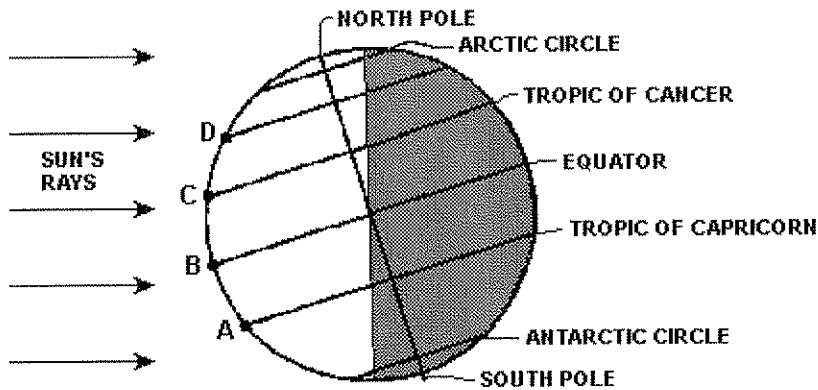


Figure 1

The diagram represents Earth at a specific position in its orbit. Arrows indicate radiation from the Sun. Points A through D are locations on Earth's surface. As an observer travels from position B to position D, the altitude of Polaris in the nighttime sky will

- |                   |                            |
|-------------------|----------------------------|
| 1. decrease, only | 3. increase, then decrease |
| 2. increase, only | 4. remain the same         |

3.

How does the position of Polaris appear to change as an observer travels due north from the Equator?

- |   |                                      |
|---|--------------------------------------|
| 1. The angle of Polaris above the northern horizon decreases. | 3. Polaris appears to move westward. |
| 2. The angle of Polaris above the northern horizon increases. | 4. Polaris appears to move eastward. |

Unit 2-1

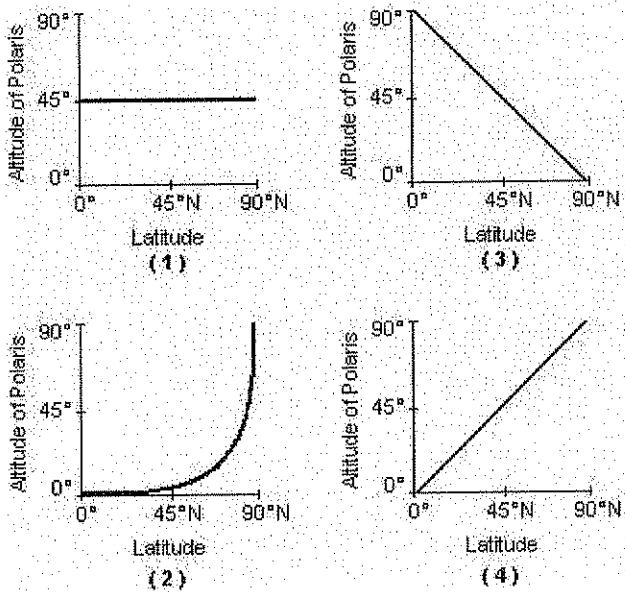
4.

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

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

5.

Which graph below best represents the relationship between the latitude of an observer and the observed altitude of Polaris above the northern horizon?



6.

From which set of polar and equatorial diameters can the actual shape of the Earth be inferred?

- 1. polar diameter = 12,714 km equatorial diameter = 12,714 km
- 2. polar diameter = 12,756 km equatorial diameter = 12,756 km
- 3. polar diameter = 12,714 km equatorial diameter = 12,756 km
- 4. polar diameter = 12,756 km equatorial diameter = 12,714 km

7.

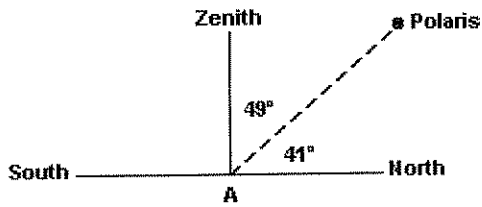


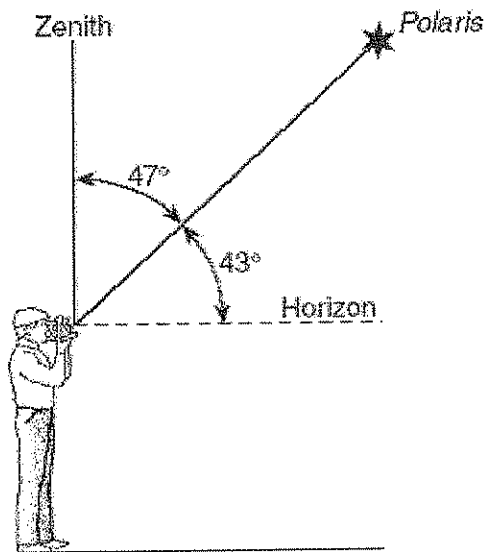
Figure 2

The diagram shows observations of the star *Polaris*. What is the latitude of point *A* in the diagram?

- 1.  $8^\circ$  N
- 2.  $41^\circ$  N
- 3.  $49^\circ$  N
- 4.  $59^\circ$  N

8.

The diagram below shows an observer on Earth measuring the altitude of *Polaris*.



What is the latitude of this observer?

- 1.  $43^\circ$  N
- 2.  $43^\circ$  S
- 3.  $47^\circ$  N
- 4.  $47^\circ$  S