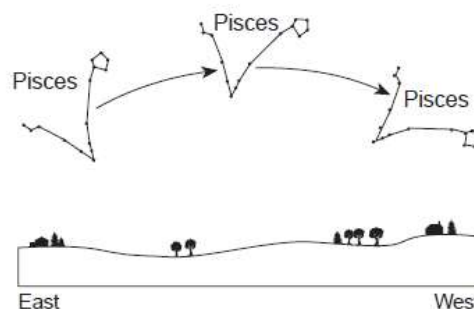


## Altitude, Azimuth, and Apparent Motion of Celestial Objects

1. The constellation Pisces changes position during a night, as shown in the diagram below.

Which motion is mainly responsible for this change in position?

- (1) revolution of Earth around the Sun
- (2) rotation of Earth on its axis
- (3) revolution of Pisces around the Sun
- (4) rotation of Pisces on its axis



2. Because the Earth rotates, the Sun and other stars appear to
- (1) rise in the east and set in the west
  - (2) rise in the west and set in the east
  - (3) rise in the south and set in the north
  - (4) rise in the north and set in the south
3. A person in New York State observes a star that is due east and just above the horizon. During the next hour, the distance between the star and the horizon will appear to
- (1) decrease
  - (2) increase
  - (3) remain the same

Use the diagram to the right to answer **questions 4-7**.

4. For which path is the altitude of the noon Sun  $74^\circ$ ?
- (1) A-A'
  - (2) B-B'
  - (3) C-C'
  - (4) D-D'
5. How many degrees does the altitude of the Sun change from December 21 to June 21?
- (1)  $43^\circ$
  - (2)  $47^\circ$
  - (3)  $66\frac{1}{2}^\circ$
  - (4)  $74^\circ$
6. Which statement best explains the apparent daily motion of the Sun?
- (1) The Earth's orbit is an ellipse.
  - (2) The Earth's shape is an oblate spheroid.
  - (3) The Earth is closest to the Sun in winter.
  - (4) The Earth rotates on its axis.
7. What is the azimuth of sunrise on December 21<sup>st</sup>?
- (1) east
  - (2) northeast
  - (3) southeast
  - (4) southwest

