

1. The rotation of the Earth on its axis causes:
  - (a) the phases of the Moon.
  - (b) diurnal motion of the stars.
  - (c) retrograde motion of the planets.
  - (d) the Sun to move through the zodiacal constellations.
  - (e) none of the other answers is correct.
2. An astronaut on the Moon watches the Earth. When we see the full moon, what phase of the Earth does the astronaut see?
  - (a) new.
  - (b) gibbous.
  - (c) crescent.
  - (d) full.
  - (e) none, the Earth would be in eclipse.
3. The occurrence of seasons on the Earth is due to
  - (a) the Earth being closer to the Sun in summer.
  - (b) the Earth changing its rotation rate during the year.
  - (c) the Earth's axis pointing in different directions during the year.
  - (d) the Earth's axis being inclined to the ecliptic.
  - (e) more clouds covering the Earth in winter and blocking the sunlight.
4. You are in a spacecraft orbiting the Earth and release a pencil, which floats in front of your face. The pencil is
  - (a) acted upon by no forces.
  - (b) too light to be affected by gravity.
  - (c) moving in a straight line at constant velocity.
  - (d) accelerating away from the Earth.
  - (e) accelerating toward the Earth.
5. The best time for astronauts to visit the Sun would be:
  - (a) during the day.
  - (b) at night.
  - (c) during a lunar eclipse.
  - (d) during a solar eclipse.
  - (e) never.
6. If the Sun were the size of a basketball, then the distance between the Sun and the Earth to the same scale would be:
  - (a) 3 cm.
  - (b) 30 cm.
  - (c) 3 m.
  - (d) 30 m.
  - (e) 300 m.
7. True or False: The Moon does not rotate.
8. True or False: The Moon has a hemisphere in perpetual darkness called the dark side.
9. True or False: A leap year occurs every four years.
10. True or False: Most meteors are caused by tiny specks of dust that burn up in the Earth's atmosphere.