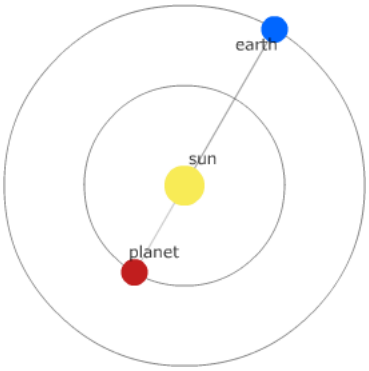
Solar System Models – Pretest

Answer the following questions.

Question 1:Ptolemy introduced _____ to help explain retrograde motion.

a) epicycles
b) circular orbits
c) parabolas
d) hyperbolas
e) ellipses



Question 2:What is the configuration shown?

a) Greatest Elongation
b) Inferior Conjunction
c) Superior Conjunction

Question 3:When a superior planet is on the far side of the Sun at an elongation of 0°, the planet is said to be at

a) conjunction
b) aphelion
c) opposition
d) perihelion
e) quadrature

Question 4:When Venus is directly on the far side of the Sun, it is at

a) superior conjunction
b) inferior conjunction
c) opposition
d) greatest elongation
e) quadrature

Question 5:How long does it take a planet to orbit the sun exactly once?

a) Sidereal period
b) Synodic period
c) One rotation
d) One day

Question 6:The planet Mars is seen directly over the south point of the horizon at exactly midnight. The time interval until the next instance of this occurrence is

a) the synodic period of the Earth
b) the synodic period of Mars
c) the rotational period of the Earth
d) the sidereal period of Mars
e) the sidereal period of the Earth

Question 7:Stars rise in the east and set in the west. If a planet undergoing retrograde motion is near certain star, where will the planet be the following evening?

a) It will remain in the same spot with respect to that star.
b) A small bit east of that star.
c) A small bit west of that star.

Question 8:Based solely on the order of the planets, which planet has a shorter sidereal period, Mercury or Mars?

a) Mercury
b) Mars

Question 9:The best configuration in which to observe a superior planet is at

a) superior conjunction
b) inferior conjunction
c) greatest elongation
d) quadrature
e) opposition