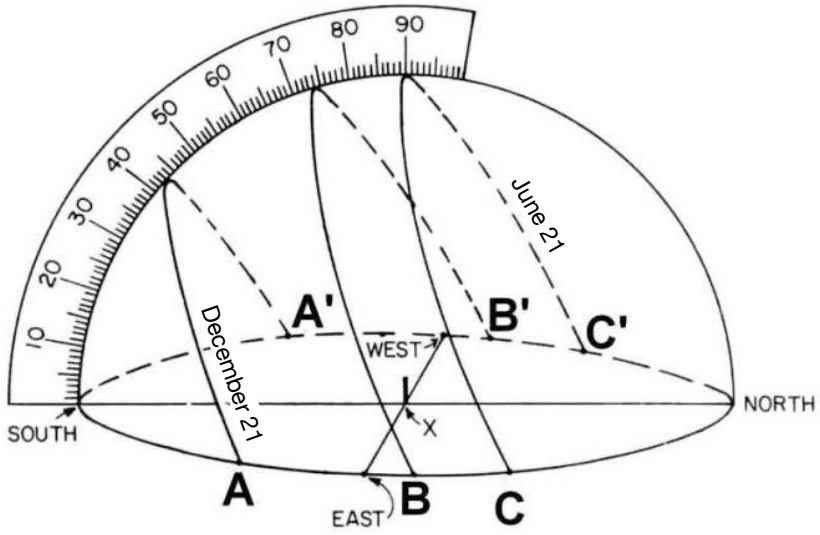
Name: _____

Date: _____ Period: _____

Worksheet: Apparent Motions I

Questions 1 through 4 refer to the diagram below that represents a plastic hemisphere upon which lines have been drawn to show the apparent paths of the Sun on three days at one location in the Northern Hemisphere. Two of the paths are dated. The protractor is placed over the north-south line. X represents the position of a vertical post.



1. For which path is the altitude of the noon Sun 74º?
    a. A - A'
    b. B - B'
    c. C - C'

2. What is the latitude of this location?
    a. 0°
    b. 23.5° N
    c. 66.5° N
    d. 90° N

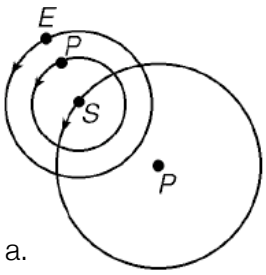
3. How many degrees does the altitude of the Sun change from December 21 to June 21?
    a. 43°
    b. 66°
    c. 74°
    d. 47°

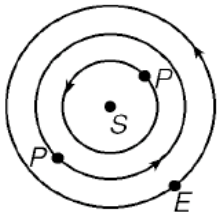
4. Which path of the Sun would result in the longest shadow of the vertical post at solar noon?
    a. A - A'
    b. B - B'
    c. C - C'

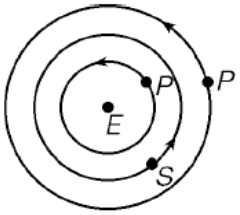
Worksheet: Apparent Motions I

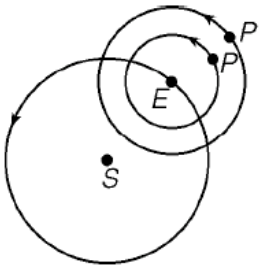
5. The length of time that daylight is received at a location during one day is called the location's
    a. intensity of insolation
    b. angle of insolation
    c. eccentricity of insolation
    d. duration of insolation

6. Which diagram best represents a geocentric model of the solar system? [Diagrams are not drawn to scale.] KEY: E = Earth; P = Planet; S = Sun

a. 

b. 

c. 

d. 

7. As seen from New York State, the noon Sun is
    a. never directly overhead
    b. directly overhead every day
    c. directly overhead on the first day of spring and fall
    d. directly overhead only on the first day of summer

8. Which statement best describes the geocentric model of our solar system?
    a. All planets revolve around the Sun.
    b. The Earth is located at the center of the model.
    c. All planets except the Earth revolve around the Sun.
    d. The Sun is located at the center of the model.

9. In New York State, which day has the shortest period of daylight?
    a. December 21
    b. March 21
    c. September 21
    d. June 21

10. In New York State, which day has the longest period of daylight?
    a. December 21
    b. March 21
    c. September 21
    d. June 21