Name: _____ Class #: _____
Date: _____ Science

Unit #2 Review: Astronomy

Part I: Vocabulary

Directions: Choose a word from the word bank for each question. The vocabulary term can only be used once.

Asteroid	Big Bang Theory	Comet	Constellation
Coriolis Effect	Doppler Effect	Eccentricity	Eclipse
Ellipse	Focus	Foucault Pendulum	Galaxy
Geocentric Model	Heliocentric Model	Impact Craters	Inertia
Jovian Planet	Luminosity	Meteor	Milky Way Galaxy
Moon	Phases (of the Moon)	Red Shift	Revolution
Rotation	Solar System	Star	Tides
Terrestrial Planet	Universe		

1. _____ Caused by an increased distance between the observer and the source of the electromagnetic energy.
2. _____ The movement of one body around another body in a path called an orbit.
3. _____ The concept that an object at rest will tend to remain at rest and that an object in motion will maintain the direction and speed of that motion until an opposing force affects it.
4. _____ The complete or partial blocking of light when one celestial body moves into the shadow of another celestial body.
5. _____ The modern concept of celestial objects and their motions, in which a rotating Earth and other planets revolve around the Sun.

Part II: Earth Science Reference Tables

Directions: Use pg. 15 of the *Earth Science Reference Tables* to answer questions 6 through 15.

6. Which planet's orbit around the Sun is most nearly circular?
   (1) Mercury (3) Earth
   (2) Neptune (4) Venus

7. The Sun is best described as
   (1) very large star (3) red star
   (2) medium-sized star (4) cool star

8. The same side of the moon always faces Earth because the
   (1) Moon's period of rotation is longer than its period of revolution around Earth
   (2) Moon's period of rotation is shorter than its period of revolution around Earth
   (3) Moon rotates once as it completes one revolution around Earth
   (4) Moon does not rotate as it completes one revolution around Earth

9. A main sequence star is 1,000 times more luminous than the Sun. The temperature is likely to be most nearly
   (1) 3,000K (3) 5,000K
   (2) 12,000K (4) 25,000K

10. A belt of asteroids is located an average distance of 503 million kilometers from the Sun. Between which two planets is this belt located?
    (1) Mars and Jupiter (3) Jupiter and Saturn
    (2) Mars and Earth (4) Saturn and Uranus

11. Which type of star is associated with the last stage in the evolutionary development of most stars?
    (1) main sequence star (3) giant
    (2) supergiant (4) white dwarf

12. In our solar system, the orbits of the planets are best described as
    (1) circular, with the planet at the center
    (2) circular, with the Sun at the center
    (3) elliptical, with the planet at one of the foci
    (4) elliptical, with the Sun at one of the foci

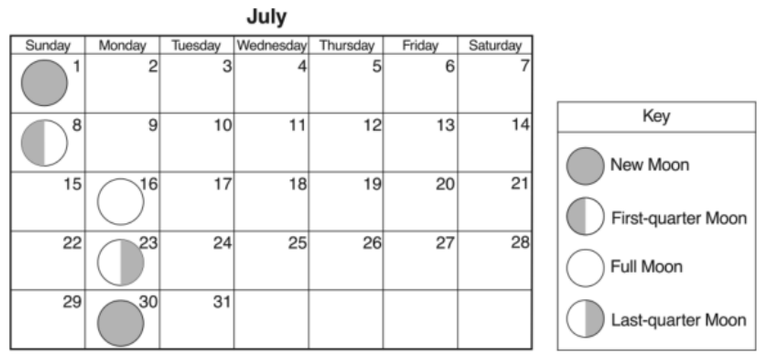
13. As star color changes from blue to red, the surface temperature of the star
    (1) decreases (3) remains the same
    (2) increases

14. Compared to the Jovian planets, the terrestrial planets are
    (1) smaller and more dense
    (2) larger and more dense
    (3) farther from the Sun and more rocky
    (4) closer to the Sun and less rocky

15. Put the following stars in order of increasing temperature: Aldebaran, Sirius, Spica, Barnard's Star, and the Sun.
Answer: _____ → _____ → _____ → _____ → _____

Part III: Earth's Moon

Base your answers to questions 16 through 20 on the calendar below, which shows the month of July of a recent year. The dates of major Moon phases, as seen in New York State, are shown.



16. The diagram below represents the phase of the Moon observed from New York State one night during the month of July.

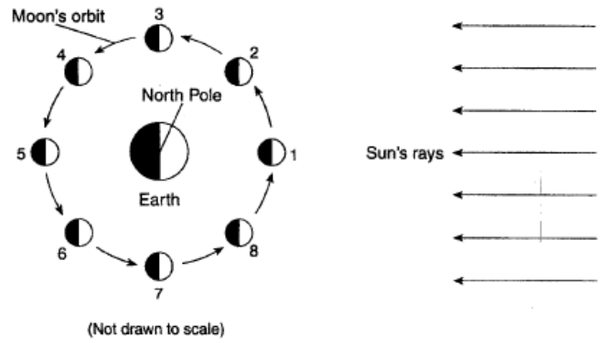
On which date was this phase of the Moon visible in New York State?
(1) July 4 (3) July 19
(2) July 11 (4) July 26

17. On which dates would the highest high tide occur?
(1) July 1 and July 8 (3) July 8 and July 16
(2) July 1 and July 16 (4) July 16 and July 23

18. On which date would a solar eclipse occur between the Sun, Earth, and the Moon?
(1) July 8 (3) July 23
(2) July 16 (4) July 30

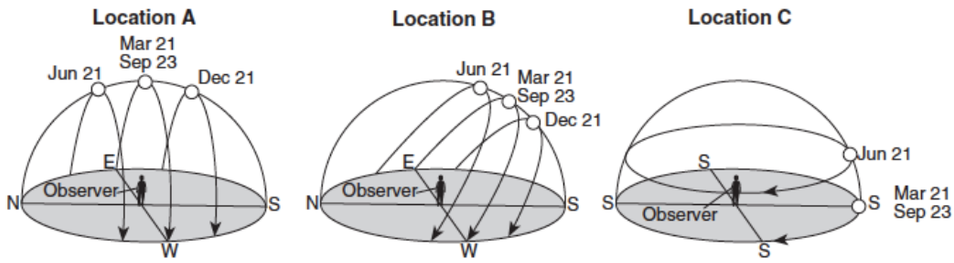
19. What is the approximate length of time the Moon takes to travel from new -to- new Moon phase?
(1) 1 day (3) 30 days
(2) 15 days (4) 365 days

20. Which orbital position of the Moon could be observed on July 23?
(1) 1 (3) 3
(2) 5 (4) 7



Part IV: Sun's Path

Base your answers to questions 21 through 25 on the diagrams below, which show the apparent path and solar noon positions of the Sun on specific dates at three different locations on Earth.



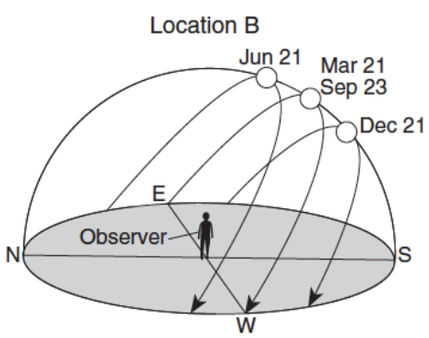
21. What evidence indicates that the observer at location A is at the equator?

_____

22. Explain why the observer's shadow at location B will always point northward at solar noon.

_____

23. On the following diagram, draw a line representing the apparent path of the Sun at location B on August 21.



24. How many hours of daylight are seen by the observer at location C on June 21? _____

25. Calculate the altitude for the Sun's path for location B for the following seasons when the observer is located in Massena, New York.
    Summer Solstice: _____°
    Winter Solstice: _____°
    Equinox: _____°