Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (65 Points)

Faces of Astronomy Web quest

Earth Science

**Aristotle (10 Points)**

Site #1 <http://www.ucmp.berkeley.edu/history/aristotle.html>

1. Aristotle was born in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

2. Aristotle was said to have written \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ treatises.

3. Aristotle’s teacher was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

4. His observations on the anatomy of octopus, cuttlefish, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ were remarkably accurate.

5. Aristotle’s classification of animals grouped together with similar characters into

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

6. Aristotle’s thoughts on earth sciences can be found in his treatise \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

7. Where Aristotle differed most sharply from medieval and modern thinkers was

in the belief that the universe had never had a beginning and would \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_.

**Aristarchus (8 Points)**

Site #2

<http://www.britannica.com/EBchecked/topic/34377/Aristarchus-of-Samos>

8. Aristarchus was the Greek Astronomer who maintained that Earth \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

on it’s axis.

9. His ideas are known from references by the Greek mathematician \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

10. In the 16th century Aristarchus was an inspiration for polish astronomer

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

11. Aristarchus takes a premise that:

1. During a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the diameter of Earth’s shadow is twice the diameter of the moon.

2. The moon and \_\_\_\_\_\_\_\_\_\_\_\_\_\_ are each 2 degrees in diameter.

3. At the time of quarter moon, the angular distance between the Moon and Sun is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ degrees.

**Ptolemy (8 points)**

Site #3 <http://www.windows2universe.org/people/ancient_epoch/ptolemy.html>

12. Ptolemy was a Greek astronomer who lived between \_\_\_\_\_\_\_\_\_-\_\_\_\_\_\_\_\_\_\_\_ A.D.

13. He put together his own ideas with those of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and formed the geocentric model.

14. This theory states that the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was at the center of the

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

15. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was also famous for his work in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Copernicus (10 Points)**

Site #4

<http://www.space.com/15684-nicolaus-copernicus.html>

16. Polish scientist \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ propose that the planets

instead revolved around the sun.

17. Born on February \_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Copernicus traveled to Italy at the age of 18 to attend college.

18. Astronomers called this \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

19. He also suggested that the Earth’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ accounted for the rise and setting of the sun.

20. At the age of 70 Copernicus published his book De \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which means On the Revolutions of the Heavenly Spheres.

**Kepler (12 Points)**

Site #5 <https://www.nasa.gov/kepler/education/johannes>

21. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was born about 1 PM on December 27th, 1571.

22. Kepler’s family was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

23. In spite of more forces relocations, Kepler published the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in 1621.

24. First to correctly explain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, thereby becoming founder of celestial mechanics.

25. In his book *Dioptrice* he was the first to explain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a telescope works.

26. He coined the word \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in his pamphlet *Narratio de Observatis.*

27. His first law states: Planets move in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with the Sun at one focus.

28. The second law states: The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ vector describes equal areas in equal times.

29. His third law states: The squares of the periodic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are to each other as the cubes of the mean distances

**Galileo (7 Points)**

Site #6

<http://solar-center.stanford.edu/galileo/>

30. Galileo Galilei was a Tuscan (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) astronomer.

31. In 1609 he built his first \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

32. In 1632 he angered the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_when he published a book in which he openly

stated that the Earth was moving around the Sun.

33. Galileo became completely \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ by the age of 74.

34. He observed Neptune in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

35. Galileo attempted to measure the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ by placing observers with lanterns about a mile apart.

Do a google search to complete questions 36 and 37

**Draw a picture of the Geocentric Solar System (5 Points)**

**Draw a picture of the Heliocentric Solar System (5 Points)**