

SCORE  
(5 pts max)

ASTRONOMY 5  
THIRD HOUR SESSION "A"  
VIDEO: "Cosmic Voyage"

NAME

DATE

ID#

1. Most early thinkers assumed the Earth was the center of an   ?   universe.

2. With an acrobat's ring as a unit step of measure (1 meter), how many powers of ten best represents the farthest reaches of human travel?

3. About how many powers of ten represents the outer limits of the visible Universe? [Hint: You may want to count the power-of-ten circles in the video.]

4. The tiniest bits of nuclear matter are called   ?  .

5. Current theory suggests that the all of the matter in the Universe may once have been crammed into a volume about the size of a (grain of sand, ping pong ball, soccer ball).

6. About how many years after the Big Bang did galaxies form out of the "cosmic webbing" of the early Universe?

7. What cosmic event is thought to be responsible for the creation of elements important to the formation of life?

8. What molecule in the Earth's atmosphere blocks most of the Sun's dangerous-to-life ultraviolet (UV) radiation?

9. Some black holes may be the collapsed cores of   ?  .

(Questions continue on back)

10. Scientists estimate that there may be how many Earth-like planets in our galaxy alone?

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11. The deeper astronomers look into space, the farther back they see in \_?\_.

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12. The author of the very last quote in the video is most noted for what historical event?

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Answer the following questions about scales (the objects in the blanks will be given in class):

13. If one edge of cube A is \_\_\_\_\_ times longer than one edge of cube B, and one edge of cube B is \_\_\_\_\_ times longer than cube C (exhibited on front desk), then how long is one edge of cube A? Would it fit in the classroom?

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14. What is the ratio of diameters between the planets \_\_\_\_\_ and \_\_\_\_\_? Suppose the marble you were given in class represented the size of the planet \_\_\_\_\_. What diameter (mm) marble would be required to represent the size of the planet \_\_\_\_\_?

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15. Estimate how many people set end-to-end would reach from the Earth to \_\_\_\_\_? Do we have enough people in \_\_\_\_\_ to do this?

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