

# PHYS 1051. Stars and Galaxies

## Quiz 1 Review Questions.

1. T or F. All of the constellation names originated with the ancient Greeks (roughly 600-0 BC).
2. T or F. Other than the Milky Way, no galaxies are visible to the naked eye from Earth.
3. T or F. The video “Powers of 10” has nothing to do with cosmology.
4. T or F. The nearest star to the Sun is about 10 times farther away than Pluto.
5. (2pt) Answer at least two of the following from the “Powers of 10” video.
  - (a) the largest scale shown, in meters. \_\_\_\_\_
  - (b) the smallest scale shown, in meters. \_\_\_\_\_
  - (c) the ratio of the largest to the smallest scale. \_\_\_\_\_
  - (d) the thing that was about 2 light-seconds across? \_\_\_\_\_
6. Which representation of the sky will have the greatest distortions?
  - (a) a star map poster showing the entire sky
  - (b) a star atlas page showing a  $15 \times 15^\circ$  region
  - (c) a celestial sphere globe
  - (d) a planetarium
7. Which planet is the brightest as seen from Earth? (Don't include Earth, and just consider maximum brightnesses. )
8. A \_\_\_\_\_ is a model of the sky that can show rising and setting motions but it fails to represent the distances to stars.
  - (a) cardinal pointer
  - (b) night sky
  - (c) celestial equator
  - (d) astronomical twilight
  - (e) celestial sphere
9. What is the name of the planetarium program that Pinkney keeps telling you to get?  
\_\_\_\_\_

10. (2pts) Put these objects in order from smallest to largest: \_\_\_\_\_
- (a) a cluster of galaxies
  - (b) the Milky Way
  - (c) human being
  - (d) Earth
  - (e) a supercluster of galaxies
  - (f) a neutron star
11. (2pts) Put these things in order from smallest to largest: \_\_\_\_\_
- (a) the distance between stars
  - (b) a supercluster of galaxies
  - (c) radius of Neptune's orbit
  - (d) human being
  - (e) distance to Sun
  - (f) Cosmic Microwave Background
12. (1pt) Name one of the asterisms in the Constellation Taurus.
13. What unit is the most practical for measuring distances between galaxies?
- (a) the astronomical unit (AU)
  - (b) the parsec (pc)
  - (c) the light year (LY)
  - (d) the kilometer (km)
  - (e) the megaparsec (Mpc)
14. What unit is the most practical for measuring distances between planets in the solar system?
- (a) AU
  - (b) pc
  - (c) LY
  - (d) km
  - (e) Mpc
15. What unit is the most practical for measuring distances to nearby stars?
- (a) the light year
  - (b) the Astronomical Unit
  - (c) the micrometer
  - (d) the kilometer
  - (e) the meter

16. Which of these was **not** the title of a subsection in Chapter 1?
- (a) Earth's Orbital Motion
  - (b) Planet Formation
  - (c) Our place in Space
  - (d) Scientific Theory and the Scientific Method
  - (e) The Obvious View
17. What is the brightest star in the nighttime sky? \_\_\_\_\_
18. What is the brightest star in the sky? \_\_\_\_\_
19. What process can be simplified into these three steps: Observation, Theory, and Prediction?  
The \_\_\_\_\_.
20. (1pt) What are two qualities of a good theory?  
\_\_\_\_\_  
\_\_\_\_\_.
21. The height of an adult human is about  $10^x$  meters, where  $x =$  \_\_\_\_\_
- (a) -2
  - (b) 0
  - (c) 1
  - (d) 2
  - (e) 5
22. Write this number in scientific notation:  $2,540,000 =$  \_\_\_\_\_
23. Write this number in scientific notation:  $93 \times 10^6 =$  \_\_\_\_\_