

TEAM NUMBER \_\_\_\_\_

10. Which is not a late stage in the life cycle of a star?
  - A. White dwarf
  - B. Red dwarf
  - C. Black hole
  - D. Neutron star
  
11. Which of these "rays" consist of photons: x-rays, cosmic rays, gamma rays, cathode rays?
  - A. x-rays and gamma rays
  - B. All except cosmic rays
  - C. All of them
  - D. None of them
  
12. A group of astronomers, estimated the masses of black holes, found in the center of galaxy clusters that are filled with hot gas, by looking at the
  - A. apparent size visible through a telescope.
  - B. amount of xrays and radio waves that they generate.
  - C. atlas of all available stars.
  - D. comparative sizes of stars in space.
  
13. Absolute magnitude is defined as
  - A. the definitive size of stars.
  - B. the positive value of the calculated magnitude.
  - C. the size of the sun.
  - D. the brightness of a star at a distance of 10 parsecs from the Sun.
  
14. Parallax is always good to measure
  - A. distant stars and galaxies.
  - B. stars and galaxies within our solar system.
  - C. Cepheid and Algol variables.
  - D. objects that are relatively close.
  - E. the distance to quasars.
  
15. A plot of surface temperatures of stars against their absolute magnitude is called:
  - A. an H-R diagram
  - B. a Cepheid variable
  - C. a constellation map
  - D. a spectrum
  
16. The apparent magnitude of a star is a measure of its
  - A. surface temperature and composition.
  - B. distance from earth.
  - C. brightness as it appears from the earth.
  - D. position on the H-R diagram.
  
17. An exoplanet is the technical term for any planet that does not circle the sun. True False
  
18. Kepler's third, or harmonic, law states that the
  - A. period of an orbit cubed equals the semi-major axis squared.
  - B. semi-major axis of an orbit cubed equals the period squared.
  - C. planets move fastest when they are closest to the Sun.
  - D. semi-major axis of an orbit in inversely proportional to the period.
  
19. Kepler's \_\_\_\_\_ law states that the orbits of planets are elliptical, with the Sun in once focus.
  - A. First
  - B. Second
  - C. Third
  - D. Fourth