Star Life

http://vital.cs.ohiou.edu/steamwebsite/downloads /StarLife.swf

- 1) Stars begin as which of the following?
- a. Clouds of gas and dust
- b. Planets with temperatures reaching over 6000 degrees Kelvin
- c. Red giants
- d. Large masses of radioactive elements
- 2) Our solar system's star, the Sun, is in which stage of its life cycle?
- a. A white dwarf
- b. A super giant
- c. A main sequence star
- d. The only star in the Milky Way
- 3) Which causes a black hole to form?
- a. A red giant looses all of its energy and shrinks
- b. A star the size of our Sun dies
- c. A supernova leaves behind a dense stellar core
- d. A low mass star forms out of a nebula

4) A star produces energy because of which of the following reasons?

- a. Uranium and plutonium are fueling nuclear fusion
- b. The core of the star becoming more dense
- c. Hydrogen and helium are fueling nuclear fusion
- d. The core of the star is melting

5) The first stage of a star's life cycle know as?

- a. Main sequence
- b. Nebula
- c. Neutron Star
- d. Giant

6) Which is the largest factor in determining the path a star takes through its life cycle?

- a. Temperature
- b. Brightness
- c. Color
- d. Size
- 7) Which of the following is not part of a nebula?
- a. Dust
- b. Gas
- c. Gravity
- d. Iron

- 8) The smallest of stars will end their life as which of the following?
- a. Black Hole
- b. White Dwarf
- c. Super Red Giant
- d. Neutron Star

9) A main sequence star is mostly made of which two elements?

- a. Hydrogen and Carbon
- b. Hydrogen and Helium
- c. Helium and Carbon
- d. Helium and Iron
- 10) Which stage comes after a supernova?
- a. Nebula
- b. White Dwarf
- c. Red Giant
- d. Back Hole
- 11) Which stage comes before main sequence?
- a. Red Giant
- b. Super Giant
- c. Supernova
- d. Nebula

12) Which of the following is a star that has collapsed under its own gravity?

- a. Main sequence
- b. Red Giant
- c. Nebula
- d. Black Hole

13) A white dwarf began its life cycle as which of the following?

- a. Super giant
- b. Low mass star
- c. High mass star
- d. Main sequence

14) Nebula that never gain enough mass and never reach the appropriate temperature and pressure may end up as which of the following?

- a. White dwarf
- b. Brown dwarf
- c. Neutron Star
- d. Supernova

15) An event horizon is part of which of the following?

- a. Black Hole
- b. Neutron Star
- c. Nebula
- d. White Dwarf
- 16) What is the difference between a giant and a super giant?

a. A giant forms from a low mass star and a super giant forms from a high mass star

b. A giant forms from a high mass star and a super giant forms from a low mass star

c. A giant is occurs right before a supernova and a super giant occurs after

d. A super giant is occurs right before a supernova and a giant occurs after

17) Hydrogen is important to a stars development because of which of the following reasons?

a. It allows for water to be formed inside of the starb. It fuses together to make radioactive uranium and releases energy used to fuel the star

c. It has only one neutron which allows neutron star to be born

d. It fuses together to form helium and releases energy used to fuel the star

18) The temperature inside a nebula required for a star to form can be described by which of the following? a. Cold since space is cold.

b. Cold since hydrogen and helium are gases at this temperature

c. Hot because it is being heated by nearby stars

d. Hot because of the influence of gravity and pressure

19) You are an astronomer studying the stars. You are currently looking at a low-mass main sequence star. Describe how that star looks and predict the final stage of that star's life. (2 points)

20) Explain what happens during a supernova. Describe the next stage of the star following this event. (2 points)
