

## Self Check

### Astronomy: Life Cycle of a Star

1. What is the difference between a proto star and an actual star?
  - a. Star is bigger
  - b. Nuclear fusion is in the star only
  - c. Proto star will turn into a brown dwarf
  - d. Star is cooler
  
2. What two forces keep a star in balance/equilibrium? Circle Two
  - a. Gravity
  - b. Centripetal Force
  - c. Force from explosion due to nuclear fusion
  - d. Vectors
  
3. Our star will turn into a \_\_\_\_\_ when it dies.
  - a. Pulsar
  - b. Magnetar
  - c. Black Hole
  - d. White Dwarf
  
4. What determines how a star will die?
  - a. Gravity
  - b. Mass
  - c. Force
  - d. Pink Flamingos
  
5. How much starting solar mass do you need to make a black hole?
  - a. 1
  - b. 8
  - c. 10
  - d. 25
  
6. How much starting solar mass do you need to make a neutron star?
  - a. 1
  - b. 8-25
  - c. 25 or more
  - d. 100
  
7. How much starting solar mass do you need to make a white dwarf?
  - a. Less than 8
  - b. 8-25
  - c. More than 25
  - d. 100
  
8. \_\_\_\_\_ forms around a white dwarf when it dies?
  - a. Super nova
  - b. Planetary nebula
  - c. Dark nebula
  - d. Nothing will

9. If a proto star runs out of a source of matter, it will turn into a ...
- Black dwarf
  - Brown dwarf
  - White dwarf
  - Pink dwarf
10. When a star runs out of hydrogen and starts “burning” helium it will ....
- Swell to a white dwarf
  - Swell to a blue giant
  - Swell to a red giant
  - Swell to a yellow giant
11. A star can’t fuse past which element?
- Carbon
  - Oxygen
  - Lithium
  - Iron
12. A teaspoon of neutron star will weigh....
- 1 ton
  - A pound
  - 10, 000 pounds
  - Billions of tons
13. Two types of neutron stars are \_\_\_\_\_ and \_\_\_\_\_.
14. A neutron star is made completely of \_\_\_\_\_.
15. The source of a star’s energy is...
- Nuclear fusion
  - Nuclear fission
  - Heat
  - Light
16. A neutron’s star size is about ...
- Size of Earth
  - About 10-15 km across
  - 1 inch across
  - Size of Jupiter
17. Could you walk on the surface of a neutron star? \_\_\_\_\_
18. Can you see a supernova explosion in another galaxy? \_\_\_\_\_
19. True or False. Our sun will end in a supernova explosion. \_\_\_\_\_
20. The force that stops a neutron star from collapsing further is...
- Weak nuclear force
  - Strong nuclear force
  - Gravity
  - Centripetal force
21. Respond to the statement: “We are made from star dust.”