Evolution of Stars

Directions: *The following terms represent, in random order, different steps in the formation and life of a star.*
Number the steps in the space provided as follows: the first step 1, second step 2, and so on.

1. fusion reaction
2. big bang
3. giant star
4. nebula
5. white dwarf
6. protostar

Directions: *Answer the following questions by writing the letter of the correct answer on the line provided.*

7. Which of the following statements best explains why a star is on the main sequence?
a. The star's mass is approximately equal to the mass of the sun.
b. The gravitational force balances the force from nuclear fusion.
c. The star has just undergone a supernova.
d. The star's temperature lies in the main sequence range.

8. Which type of star is formed from a supernova?
a. giant star **b.** supergiant star
c. neutron star **d.** white dwarf star

9. The Hertzsprung-Russell diagram plots
a. the temperature of the star on the horizontal axis and the mass on the vertical axis.
b. the magnitude of the star on the horizontal axis and the temperature on the vertical axis
c. the magnitude of the star on the vertical axis and the temperature on the horizontal axis.
d. the mass of the star on the vertical axis and the temperature on the horizontal axis.

10. How is energy from the core of the Sun transmitted to the photosphere?
a. nuclear fusion **b.** radiation and convection
c. radiation **d.** convection

Section1 ▪ Observing the Universe

Section2 ▪ Evolution of Stars

Directions: *Match the type of device on the left with its description on the right.*

____ **1.** Refracting telescope
____ **2.** Radio telescope

a. Uses a curved mirror
b. Separates wavelengths
c. Uses lenses