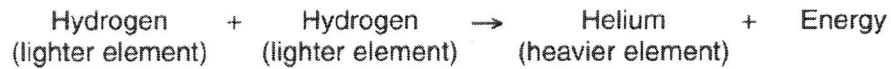


Name _____

Stars Review

- Which process produces the energy that allows the stars of the universe to radiate visible light?
 - convection
 - nuclear fusion
 - insolation
 - radioactive decay
- Which two stars are most similar in luminosity?
 - Betelgeuse* and *Barnard's Star*
 - Procyon B* and *Proxima Centauri*
 - Polaris* and the Sun
 - Alpha Centauri* and *Sirius*
- Which statement describes the general relationship between the temperature and the luminosity of main sequence stars?
 - As temperature decreases, luminosity increases.
 - As temperature decreases, luminosity remains the same.
 - As temperature increases, luminosity increases.
 - As temperature increases, luminosity remains the same.
- Compared with our Sun, the star *Betelgeuse* is
 - smaller, hotter, and less luminous
 - smaller, cooler, and more luminous
 - larger, hotter, and less luminous
 - larger, cooler, and more luminous
- Which star has a higher luminosity and a lower temperature than the Sun?
 - Rigel*
 - Barnard's Star*
 - Alpha Centauri*
 - Aldebaran*
- Which list shows stars in order of increasing temperature?
 - Barnard's Star*, *Polaris*, *Sirius*, *Rigel*
 - Aldebaran*, the Sun, *Rigel*, *Procyon B*
 - Rigel*, *Polaris*, *Aldebaran*, *Barnard's Star*
 - Procyon B*, *Alpha Centauri*, *Polaris*, *Betelgeuse*
- Compared to the temperature and luminosity of the star *Polaris*, the star *Sirius* is
 - hotter and more luminous
 - hotter and less luminous
 - cooler and more luminous
 - cooler and less luminous
- Which star color indicates the hottest star surface temperature?
 - blue
 - white
 - yellow
 - red
- Which of the following stars is least bright?
 - the sun
 - a blue supergiant
 - a white dwarf
 - a red giant
- Compared to the sun a white dwarf star is
 - hotter and larger
 - hotter and smaller
 - cooler and larger
 - cooler and smaller
- Barnard's Star* has a surface temperature of about
 - 300 K
 - 3000 K
 - 5000 K
 - 10,000 K

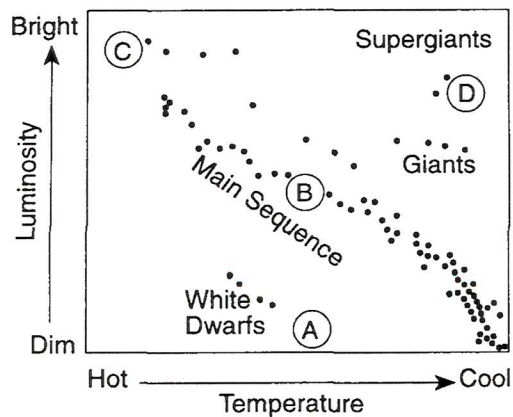
12. The reaction below represents an energy-producing process.



The reaction represents how energy is produced

- 1) in the Sun by fusion
- 2) when water condenses in Earth's atmosphere
- 3) from the movement of crustal plates
- 4) during nuclear decay

13. The graph below represents the brightness and temperature of stars visible from Earth.



Which location on the graph best represents a star with average brightness and temperature?

- 1) A
- 2) B
- 3) C
- 4) D

14. Compared to other groups of stars, the group that has relatively low luminosities and relatively low temperatures is the

- 1) Red Dwarfs
- 2) White Dwarfs
- 3) Red Giants
- 4) Blue Supergiants

15. Which star is cooler and many times brighter than Earth's Sun?

- 1) *Barnard's Star*
- 2) *Betelgeuse*
- 3) *Rigel*
- 4) *Sirius*

Answer Key
[New Exam]

1. 2

2. 2

3. 3

4. 4

5. 4

6. 1

7. 2

8. 1

9. 3

10. 2

11. 2

12. 1

13. 2

14. 1

15. 2
