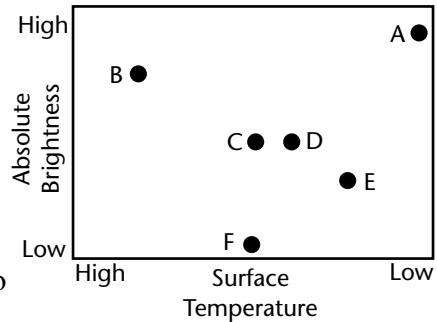


**Stars, Galaxies, and the Universe** ▪ *Review and Reinforce*

# Characteristics of Stars

## Understanding Main Ideas

Use the H-R diagram on the right to answer questions 1–3. Write your answers in the spaces provided.



- \_\_\_\_\_ 1. Which star has the greatest brightness?
- \_\_\_\_\_ 2. Which star has the hottest surface?
- \_\_\_\_\_ 3. Stars C and D have the same absolute brightness. What would you need to know to determine their apparent brightnesses?

\_\_\_\_\_

Answer the following questions on a separate sheet of paper.

4. Explain how astronomers measure the distance to nearby stars.
5. What are the main characteristics used to classify stars?
6. How would you classify the sun based on each of these characteristics?

## Building Vocabulary

From the list below, choose the term that best completes each sentence and write it in the space provided.

- |               |                     |                             |
|---------------|---------------------|-----------------------------|
| spectrograph  | parallax            | Hertzsprung-Russell diagram |
| constellation | apparent brightness | main sequence               |
| light-year    | absolute brightness |                             |

7. A star's brightness as if it were a standard distance from Earth is its \_\_\_\_\_.
8. A device that breaks light into colors and produces an image is a(n) \_\_\_\_\_.
9. A unit that is often used to measure distances between stars is a(n) \_\_\_\_\_.
10. The region of the Hertzsprung-Russell diagram that most stars fall within is the \_\_\_\_\_.
11. A graph of stars showing surface temperature on the *x*-axis and absolute brightness on the *y*-axis is a(n) \_\_\_\_\_.
12. \_\_\_\_\_ is often used to determine the distance to nearby stars.
13. A \_\_\_\_\_ is a(n) imaginary pattern of stars.
14. The brightness of a star as seen from Earth is its \_\_\_\_\_.

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