

Chapter 26 Exploring the Universe

## Section 26.4 Groups of Stars

(pages 846–849)

*This section describes star systems, star clusters, and galaxies.*

### Reading Strategy (page 846)

**Comparing and Contrasting** After you read, compare types of star clusters by completing the table. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.

Types of Star Clusters		
Cluster Type	Appearance	Age and Type of Stars
Open cluster		
		Bright, young stars
	Spherical, densely packed	

1. A group of stars that seems to form a pattern as seen from Earth is called a(n) \_\_\_\_\_.
2. Is the following sentence true or false? Constellations are important to astronomy because they help to form a map of the sky.  
\_\_\_\_\_

### Star Systems (pages 846–847)

3. A group of two or more stars that are held together by gravity is called a(n) \_\_\_\_\_.
4. Is the following sentence true or false? Astronomers have concluded that more than half of all stars are members of groups of two or more stars. \_\_\_\_\_
5. A star system with two stars is called a(n) \_\_\_\_\_.

### Star Clusters (page 847)

Match each basic kind of star cluster to its description.

Description	Star Cluster
_____ 6. A loose grouping of no more than a few thousand stars that are well spread out	a. globular cluster b. open cluster c. associations
_____ 7. Loose groupings of bright, young stars	
_____ 8. A large group of older stars	

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9. Is the following sentence true or false? Astronomers estimate that the oldest globular clusters are at least 20 billion years old.  
\_\_\_\_\_

**Galaxies (pages 848–849)**

10. A huge group of individual stars, star systems, star clusters, dust, and gas bound together by gravity is called a(n) \_\_\_\_\_.
11. Our galaxy is called the \_\_\_\_\_.
12. Galaxies that have a bulge of stars at the center with arms extending outward like a pinwheel are called \_\_\_\_\_.
13. Is the following sentence true or false? The arms of spiral galaxies contain very little gas and dust. \_\_\_\_\_
14. A spiral galaxy that has a bar through the center with the arms extending outward from the bar on either side is called a(n) \_\_\_\_\_.
15. Circle the letter of each sentence that is true about elliptical galaxies.
- a. They are spherical or oval shaped.
  - b. They typically have lots of dust and gas.
  - c. They come in a wide range of sizes.
  - d. They usually contain only old stars.
16. A(n) \_\_\_\_\_ galaxy has a disorganized appearance and is typically smaller than other types of galaxies.

*Match each type of galaxy to its description.*

<b>Description</b>	<b>Galaxy</b>
_____ 17. Spherical or oval, no spiral arms, and usually contains only old stars	a. barred-spiral galaxy
_____ 18. Bulge of stars at the center with arms extending outward like a pinwheel	b. elliptical galaxy
_____ 19. Composed of many young stars, comes in many shapes, and has a disorganized appearance	c. spiral galaxy
_____ 20. Has a bar through the center with arms extending outward from the bar on either side	d. irregular galaxy
21. Is the following sentence true or false? The Milky Way appears as a band from Earth because we are looking at it edgewise. _____	
22. The enormously bright centers of distant galaxies are called _____.	