Look at the underlined word in each sentence or pair of sentences below. Use the **Strategies to Improve Context Skills** in this section to help you guess the best synonym to replace each underlined word.

1. interval—The researcher spent three-month <u>intervals</u> in Antarctica for each of the past four winters in order to complete his experiments.
   Ⓐ travels Ⓑ periods of time Ⓒ research methods

2. persist—The young man has practiced his guitar daily for the past two years. If he <u>persists</u> with this schedule, he will definitely become a successful musician.
   Ⓐ practices Ⓑ continues Ⓒ observes

3. immense—The television program featured an <u>immense</u> whale, spotted in the Atlantic Ocean. The narrator said the whale's size broke all previous records that had been set.
   Ⓐ massive Ⓑ tiny Ⓒ common

4. encompass—These bamboo trees now <u>encompass</u> the entire house. There is no area around the house where they don't grow.
   Ⓐ surround Ⓑ invade Ⓒ rise

5. hue—The beautiful <u>blue</u> hue of Margaret's dress matches her eyes.
   Ⓐ shape  Ⓑ color  Ⓒ size

6. diminish—When someone feels anger at another person, the emotion can be strong in the beginning. However, it should <u>diminish</u> as time passes, so the person begins to calm down.
   Ⓐ get larger  Ⓑ express  Ⓒ decrease

7. merge—If the two companies are <u>merged</u> with each other, they can control the majority of the market for this particular product.
   Ⓐ combined  Ⓑ divided  Ⓒ sold

8. replication—*West Side Story* is a modern <u>replication</u> of the story from *Romeo and Juliet*. However, it uses almost all of the themes from the original play, and *West Side Story* is set in twentieth-century United States.
   Ⓐ substitution  Ⓑ copy  Ⓒ comparison

Be aware of all of a word's parts of speech. A word may have different meanings, depending on whether it is a noun or a verb.

## The Great Red Spot on Jupiter

1▶ One distinctive feature of the planet Jupiter is the Great Red Spot, a massive oval of swirling reddish-brown clouds. Although it is not known exactly how long the spot has been in existence, it was first observed nearly 400 years ago, when telescopic lenses became effective enough to pick it out of the night sky. Since that first discovery, the phenomenon has been observed and measured at various intervals to gather more information both about the spot and the planet Jupiter.

2▶ The Great Red Spot draws the attention of scientists, especially astronomers, because it is considered the most powerful storm in the entire solar system. It is a high-pressure storm much like a hurricane on Earth, but it is much larger and has persisted for far longer than any storms on our planet. The storm turns in a counter-clockwise direction, and completes a full rotation in about six days. Scientists speculate that one reason it may have endured for so long is that it does not pass over land areas, which would cause it to weaken and break apart. They also suggest that the storm is controlled by Jupiter's considerable amount of internal heat, which also allows it to continue on indefinitely.

3▶ The spot's immense size is clearly one of its notable aspects. While the size of the spot has fluctuated over the centuries, growing and shrinking in width and length, it can still easily encompass the entire Earth within its area. And, although the size remains impressive, it seems to have steadily declined in recent decades. A century ago, it measured almost 25,000 miles (40,000 kilometers) in surface area; it is now approximately half that size. If it continues at its current pace of decrease, scientists predict it will shrink so much that its shape will change from an oval to more of a circle by the middle of the twenty-first century.

4▶ It's not just the size, but also the color of the spot that fascinates amateur and professional astronomers alike. The spot is generally described as reddish-brown, but in fact, it varies in hue across its entire area. The reddest area is in the center of the spot, which is also the warmest part. As one moves away from the center, the color diminishes to lighter shades of red, pale salmon, and finally, white. The variation in color has led astronomers to establish various theories of how the spot has been formed. The relationship of heat to color seems to back the influence of environmental factors on the spot's development. Another widely accepted theory, related to the composition of the spot, suggests that it is composed of complex organic molecules along with various sulfur compounds.

5▶ Modern astronomers are getting a hand in tracing the development of the Great Red Spot through another storm that began to form more recently and has been nicknamed by many "Red Spot, Junior." This new spot first appeared in 2000, when three smaller storms merged

into a single storm. The official name of this new storm is "Oval BA," but its almost exact replication of the Great Red Spot's color led to its unofficial title. Red Spot, Junior did not start out as a red spot; it began as a white spot, and then gradually deepened its hue to a dark red over a period of a few years. This gradual change in color suggests that the force of the storm winds pull up material from Jupiter's surface through the clouds, where the Sun's radiation reacts with the material to produce the red shade.

6▶ Since Red Spot, Junior has come into existence, it has not lessened interest in the Great Red Spot. For one thing, Red Spot, Junior is only about 50 percent of the size of its namesake. Though scientists monitor the new spot for changes in size, there has been no indication that it will grow to match the span of the Great Red Spot. In addition, the new spot is only in its infancy. No one knows if it will persist for a longer period than the Great Red Spot. The diminishing size of the Great Red Spot suggests that these storms can eventually die out, even though it may take centuries. For now, the Great Red Spot remains the most powerful, and perhaps the oldest, storm in the solar system.