

Section Review

Gravity and Motion

USING KEY TERMS

1. Use each of the following terms in a separate sentence: *terminal velocity* and *free fall*.

UNDERSTANDING KEY IDEAS

- _____ 2. Which of the following is in projectile motion?
- a. a feather falling in a vacuum
 - b. a cat leaping on a toy
 - c. a car driving up a hill
 - d. a book laying on a desk

3. How does air resistance affect the acceleration of falling objects?

4. How does gravity affect the two components of projectile motion?

5. How is the acceleration of falling objects affected by gravity?

6. Why is the acceleration due to gravity the same for all objects?

Section Review *continued*

MATH SKILLS

7. A rock at rest falls off a tall cliff and hits the valley below after 3.5 s. What is the rock's velocity as it hits the ground? Show your work below.

CRITICAL THINKING

8. **Applying Concepts** Think about a sport that uses a ball. Identify four examples from that sport in which an object is in projectile motion.

9. **Making Inferences** The moon has no atmosphere. Predict what would happen if an astronaut on the moon dropped a hammer and a feather at the same time from the same height.

INTERPRETING GRAPHICS

10. Whenever Jon delivers a newspaper to the Zapanta house, the newspaper lands in the bushes, as shown below. What should Jon do to make sure the newspaper lands on the porch?


