

**Review and Reinforce**

# Friction and Gravity Read pp. 36- 43

### Understanding Main Ideas

Answer the following questions in the spaces provided.

1. What are the two factors that affect the frictional force between two surfaces? \_\_\_\_\_  
\_\_\_\_\_
2. What two factors affect the gravitational force between two objects? \_\_\_\_\_
3. How does mass differ from weight? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Building Vocabulary

Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

- |                          |  |
|--------------------------|--|
| 4. ____ friction         | a. the force that pulls objects toward each other  |
| 5. ____ rolling friction | b. the type of friction that exists between oil and a door hinge                         |
| 6. ____ sliding friction | c. the force that one surface exerts on another when two surfaces rub against each other |
| 7. ____ fluid friction   | d. the type of friction that occurs when you rub sandpaper against wood                  |
| 8. ____ static friction  | e. the type of friction that occurs when a wheel turns on a surface                      |
| 9. ____ weight           | f. a measure of the force of gravity on an object  |
| 10. ____ gravity         | g. the type of friction that occurs between objects that aren't moving                   |

## Review and Reinforce

# Newton's Laws of Motion Read pp. 44-51

### Understanding Main Ideas

Answer the following questions in the spaces provided. Use a separate sheet of paper if you need more room.

1. Newton's second law of motion describes the relationship among force, mass, and acceleration. Write the equation.

\_\_\_\_\_

2. How does the diagram at the right illustrate Newton's third law of motion?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



If the statement is true, write *true*. If the statement is false, change the underlined word or words to make the statement true.

3. \_\_\_\_\_ If you increase the force on an object, its acceleration increases.
4. \_\_\_\_\_ If you increase the mass of an object, its acceleration decreases.
5. \_\_\_\_\_ To accelerate a 3 kg skateboard at  $9 \text{ m/s}^2$ , a force of 3 newtons is needed.
6. \_\_\_\_\_ The amount of inertia an object has depends on its speed.

### Building Vocabulary

Write a definition for the term on the lines below.

7. inertia

\_\_\_\_\_  
\_\_\_\_\_