

**MAIN IDEA**

- Complete function tables and find function rules.

**BUILD YOUR VOCABULARY** (pages 2–3)

A **function** is a relation in which each element of the input is paired with  element of the output according to a rule.

A **function table** organizes the input,  and output of a function.

A **function rule** describes the relationship between each  and  of a function.

**EXAMPLE** Complete a Function Table**1** Complete the function table.

The function rule is  $x + 6$ .

Add  to each input.

| Input ( $x$ ) | Output ( $x + 6$ )   |
|---------------|----------------------|
| 0             | <input type="text"/> |
| 1             | <input type="text"/> |
| 2             | <input type="text"/> |



| Input ( $x$ ) | Output ( $x + 6$ )   |
|---------------|----------------------|
| 0             | <input type="text"/> |
| 1             | <input type="text"/> |
| 2             | <input type="text"/> |

**REMEMBER IT**

Parentheses can be used to show multiplication. For example, another way to write  $3 \times 4$  is  $3(4)$ .

**Check Your Progress**

Complete the function table below.

| Input ( $x$ ) | Output ( $x + 2$ )   |
|---------------|----------------------|
| 0             | <input type="text"/> |
| 1             | <input type="text"/> |
| 2             | <input type="text"/> |

**EXAMPLE** Find the Rule for a Function Table**1** Find the rule for the function table.

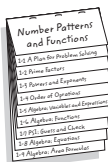
The output is  less  
than the input.

The function rule is .

| Input ( $x$ ) | Output ( $y$ ) |
|---------------|----------------|
| 10            | 7              |
| 8             | 5              |
| 5             | 2              |

**FOLDABLES****ORGANIZE IT**

Under the Foldable tab for Lesson 1–6, record what you learn about functions and function tables. Include an explanation of the terms *input*, *output*, *function*, and *function rule*.

**Check Your Progress** Find the rule for the function table.

| Input ( $x$ ) | Output ( $y$ ) |
|---------------|----------------|
| 9             | 36             |
| 10            | 40             |
| 11            | 44             |

**BUILD YOUR VOCABULARY** (pages 2–3)

When you choose a variable to represent the input, it is called **defining the variable**.

**EXAMPLE****3 MONEY** Nina has a new job. She spends \$2 every day on coffee. Define a variable. Then write a function rule that relates the total amount of money Nina spends on coffee to the number of days at work.**Words**

\$2 for each day

**Variable**Let  $x$  represent the number of days.**Equation**


The function rule is .

**Check Your Progress** **MOVIE RENTAL** A video store rents movies for \$4 each. Define a variable. Then write a function rule that relates the total charge to the number of movies rented.
**HOMEWORK ASSIGNMENT**

Page(s):

Exercises: