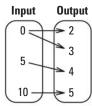**EXAMPLE 2**   **Identify a function**

Tell whether the pairing is a function.

a.

Input   Output

0 → 2
    3
5
    4
10 → 5

The pairing is *not* a function because the input 0 is paired with both 2 and 3.

b.

Input	Output
0	0
1	2
4	8
6	12

The pairing is a function because each input is paired with exactly one output.

✔ **GUIDED PRACTICE**   for Example 2

Tell whether the pairing is a function.

2.
Input	3	6	9	12
Output	1	2	2	1

3.
Input	2	2	4	7
Output	0	1	2	3

FUNCTION RULES A function may be represented using a rule that relates one variable to another. The input variable is called the **independent variable.** The output variable is called the **dependent variable** because its value depends on the value of the input variable.

KEY CONCEPT   *For Your Notebook*

Functions

Verbal Rule   **Equation**   **Table**

The output is 3 more than the input. $y = x + 3$

Input, x	0	1	2	3	4
Output, y	3	4	5	6	7

EXAMPLE 3   **Make a table for a function**

The domain of the function $y = 2x$ is 0, 2, 5, 7, and 8. Make a table for the function, then identify the range of the function.

Solution

x	0	2	5	7	8
$y = 2x$	$2(0) = 0$	$2(2) = 4$	$2(5) = 10$	$2(7) = 14$	$2(8) = 16$

The range of the function is 0, 4, 10, 14, and 16.