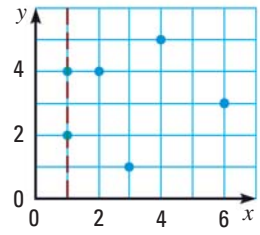
EXAMPLE 2 Use the vertical line test

Determine whether the graph represents a function.

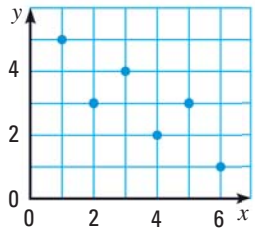
a.



You can draw a vertical line through the points (1, 2) and (1, 4). The graph does *not* represent a function.

Animated Algebra at classzone.com

b.



No vertical line can be drawn through more than one point. The graph represents a function.

PRACTICE

EXAMPLE 1 on p. 49 for Exs. 1–3

IDENTIFYING FUNCTIONS **Determine whether the relation is a function.**

1.

Input	Output
0	1
2	6
5	12
7	5
8	4

2.

Input	Output
3	7
4	8
4	9
5	10
6	11

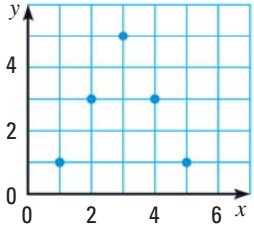
3.

Input	Output
0.7	1.9
1.2	2.4
3.5	4.7
7.5	8.7
7.5	9.7

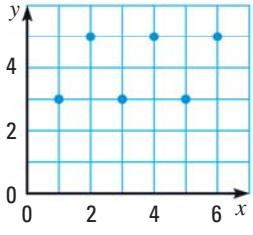
EXAMPLE 2 on p. 50 for Exs. 4–6

IDENTIFYING FUNCTIONS **Determine whether the graph represents a function.**

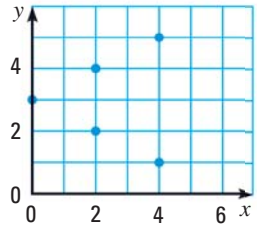
4.



5.



6.



REASONING **Tell whether the pairing of x-values and y-values is necessarily a function. *Explain* your reasoning.**

7. A teacher makes a table that lists the number x of letters in the first name and the number y of letters in the last name of each student in the class.

8. Your doctor records your height x (in inches) and your weight y (in pounds) each time you have a medical exam.

9. You have a record of your age x (in years) and your height y (in inches) on each of your birthdays since you were born.