



### GUIDED PRACTICE

**Vocabulary** Apply the vocabulary from this lesson to answer each question.

- Use a mapping diagram to show a relation that is not a *function*.
- The set of  $x$ -values for a relation is also called the    ?   . (*domain* or *range*)

**SEE EXAMPLE 1** Express each relation as a table, as a graph, and as a mapping diagram.

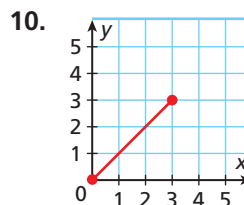
- $\{(1, 1), (1, 2)\}$
- $\{(-1, 1), (-2, \frac{1}{2}), (-3, \frac{1}{3}), (-4, \frac{1}{4})\}$
- $\{(-1, 1), (-3, 3), (5, -5), (-7, 7)\}$
- $\{(0, 0), (2, -4), (2, -2)\}$

**SEE EXAMPLE 2** Give the domain and range of each relation.

- $\{(-5, 7), (0, 0), (2, -8), (5, -20)\}$
- $\{(1, 2), (2, 4), (3, 6), (4, 8), (5, 10)\}$

9.

$x$	3	5	2	8	6
$y$	9	25	4	81	36

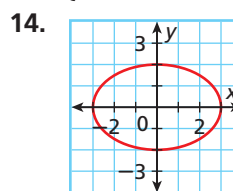


**SEE EXAMPLE 3** **Multi-Step** Give the domain and range of each relation. Tell whether the relation is a function. Explain.

- $\{(1, 3), (1, 0), (1, -2), (1, 8)\}$
- $\{(-2, 1), (-1, 2), (0, 3), (1, 4)\}$

13.

$x$	-2	-1	0	1	2
$y$	1	1	1	1	1



### PRACTICE AND PROBLEM SOLVING

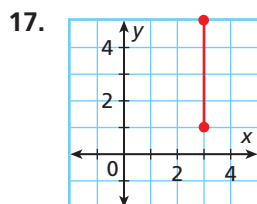
#### Independent Practice

For Exercises	See Example
15–16	1
17–18	2
19–20	3

Express each relation as a table, as a graph, and as a mapping diagram.

- $\{(-2, -4), (-1, -1), (0, 0), (1, -1), (2, -4)\}$
- $\{(2, 1), (2, \frac{1}{2}), (2, 2), (2, 2\frac{1}{2})\}$

Give the domain and range of each relation.



18.

$x$	$y$
4	4
5	5
6	6
7	7
8	8

