Practice 4-2

Relations and Functions

Find the domain and range of each relation. Is each relation a function?

1.

x	y
6	3
9	−7
6	−2
−1	−5

2.

x	y
−30	−30
20	20
−10	−10
0	0

3.

x	y
100	7
50	7
−50	0
25	0

4.

x	y
8	2
8	4
8	−5
8	−2

Find the domain and range of each relation. Use a mapping diagram to determine whether each relation is a function.

5. $\{(4, 2), (9, 11), (4, -5), (10, -1)\}$

6. $\{(7, 0), (-3, -2), (6, -5), (-4, 0)\}$

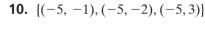**7.** $\{(-3, -7), (-1, -3), (0, -1), (2, 3), (4, 7)\}$

8. $\{(-5, -4), (-4, 2), (0, 2), (1, 3), (2, 4)\}$

Find the domain and range of each relation. Use the vertical-line test to determine whether each relation is a function.

9. $\{(14, 18), (18, 14), (22, 12), (12, 22)\}$

10. $\{(-5, -1), (-5, -2), (-5, 3)\}$

11. $\left\{(-4, -3), (-2, -2), (0, -1), \left(1, -\frac{1}{2}\right)\right\}$

12. $\{(0, 0), (1, 1), (4, 2), (1, -1)\}$

13.

14.

15.

16.