## **Practice 6-5**

## **Point-Slope Form and Writing Linear Equations**

Write an equation in point-slope form for the line through the given points or through the given point with the given slope.

**1.** 
$$(5,7), (6,8)$$
 **2.**  $(-2,3); m = -1$  **3.**  $(1,2), (3,8)$ 

**4.** 
$$(-2,3)$$
;  $m=4$ 

**5.** 
$$(4,7); m = \frac{3}{5}$$

**5.** 
$$(4,7); m = \frac{3}{2}$$
 **6.**  $(6,-2); m = -\frac{4}{3}$  **7.**  $(0,5), (-3,2)$  **8.**  $(8,11), (6,16)$ 

7. 
$$(0,5), (-3,2)$$

**9.** 
$$(4,2), (-4,-2)$$

**9.** 
$$(4,2), (-4,-2)$$
 **10.**  $(15,16), (13,10)$  **11.**  $(0,-7); m=-4$ 

**13.** 
$$(1,2)$$
;  $m$  undefined **14.**  $(-6,7)$ ;  $m=-\frac{1}{2}$  **15.**  $(21,-2),(27,2)$ 

**16.** 
$$(7,5); m=0$$

**19.** 
$$(-5, 13), (-10, 9)$$
 **20.**  $(6, 2); m = \frac{3}{4}$ 

**21.** 
$$(5, -3)$$
:  $m = -3$ 

**22.** 
$$(4,3.5)$$
:  $m=0.5$ 

**23.** 
$$(-6,2)$$
;  $m=\frac{5}{2}$ 

**27.** 
$$(2,7); m = \frac{5}{2}$$

**21.** 
$$(5, -3); m = -2$$
 **22.**  $(4, 3.5); m = 0.5$  **23.**  $(-6, 2); m = \frac{5}{3}$  **24.**  $(100, 90), (80, 120)$  **25.**  $(-3, 6), (3, -6)$  **26.**  $(11, 7), (9, 3)$  **27.**  $(2, 7); m = \frac{5}{2}$  **28.**  $(-9, 8); m = -\frac{5}{3}$ 

Is the relationship shown by the data linear? If it is, model the data with an equation.

29.

У
3
7
11
15

30.

Х	у
-3	4
-1	6
1	7
3	10

31.

х	у
-4	12
-1	8
5	-4
10	-8

32.

Х	У
-2	5
3	-5
7	-13
11	-21

33.

Х	у
-6	-5
-2	1
0	4
8	16

34.

Х	У
-6	11
-3	9
6	3
15	-3

35.

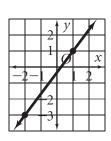
x	У
-7	-3
-5	0
-1	3
3	7

36.

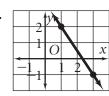
X	У
-4	1
2	4
6	6
14	10

Write an equation of each line in point-slope form.

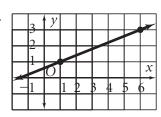
37.



38.



39.



353