

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. $(4, 7); m = \frac{3}{2}$
6. $(6, -2); m = -\frac{4}{3}$
7. $(0, 5), (-3, 2)$
8. $(8, 11), (6, 16)$
9. $(4, 2), (-4, -2)$
10. $(15, 16), (13, 10)$
11. $(0, -7); m = -4$
12. $(-3, 4), (1, 6)$
13. $(1, 2); m$ undefined
14. $(-6, 7); m = -\frac{1}{2}$
15. $(21, -2), (27, 2)$
16. $(7, 5); m = 0$
17. $(8, -2), (14, 1)$
18. $(4, 8), (2, 12)$
19. $(-5, 13), (-10, 9)$
20. $(6, 2); m = \frac{3}{4}$
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.

x	y
2	3
3	7
4	11
5	15

30.

x	y
-3	4
-1	6
1	7
3	10

31.

x	y
-4	12
-1	8
5	-4
10	-8

32.

x	y
-2	5
3	-5
7	-13
11	-21

33.

x	y
-6	-5
-2	1
0	4
8	16

34.

x	y
-6	11
-3	9
6	3
15	-3

35.

x	y
-7	-3
-5	0
-1	3
3	7

36.

x	y
-4	1
2	4
6	6
14	10

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

