

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.

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|------------------------------|---------------------------------|--------------------------------|---------------------------------|
| 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.

