Name _____ Date _____

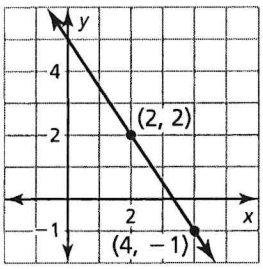
4.2 Practice A

In Exercises 1–3, write an equation in point-slope form of the line that passes through the given point and has the given slope.

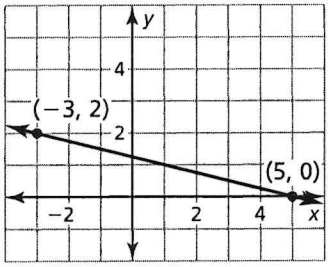
1. $(3, 1)$; $m = 4$
2. $(2, 7)$; $m = -3$
3. $(4, -3)$; $m = -5$

In Exercises 4 and 5, write an equation in slope-intercept form of the line shown.

4.



5.



In Exercises 6–8, write an equation in slope-intercept form of the line that passes through the given points.

6. $(6, 3)$, $(3, 10)$
7. $(5, -4)$, $(15, 2)$
8. $(4, -3)$, $(2, -9)$

In Exercises 9–11, write a linear function f with the given values.

9. $f(1) = 3, f(3) = 4$
10. $f(6) = 9, f(-5) = 0$
11. $f(-3) = 5, f(3) = 5$

In Exercises 12 and 13, tell whether the data in the table can be modeled by a linear equation. Explain. If possible, write a linear equation that represents y as a function of x.

12.

x	1	3	5	7	9
y	−2	4	7	14	22

13.

x	−2	0	2	4	6
y	−3	0	3	6	9

14. You are renting a paddle board. The company charges a $50 fee and $20 per half-day.

    a. Write an equation that represents the total cost (in dollars) of renting a paddle board as a function of the number of half-days.

    b. Find the total cost of renting a paddle board for 7 half-days.

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4.3 Puzzle Time

What Do Snowmen Wear On Their Heads?

Write the letter of each answer in the box containing the exercise number.

Determine whether the lines are *parallel*, *perpendicular*, or *neither*.

1. Line a passes through $(-2, -5)$ and $(0, -1)$; Line b passes through $(3, 1)$ and $(1, -3)$.

   A. parallel **B.** perpendicular **C.** neither

2. Line a passes through $(1, 4)$ and $(3, 6)$; Line b passes through $(-3, -6)$ and $(-1, -3)$.

   A. parallel **B.** perpendicular **C.** neither

3. Line a passes through $(-4, 5)$ and $(-2, 8)$; Line b passes through $(-6, 7)$ and $(-3, 5)$.

   R. parallel **S.** perpendicular **T.** neither

4. Line a: $5y - 2x = 9$; line b: $2y + 5x = -6$

   D. parallel **E.** perpendicular **F.** neither

5. Line a: $4y = 8x + 12$; line b: $6y - 12x = 24$

   I. parallel **J.** perpendicular **K.** neither

6. Write an equation of the line that passes through $(-4, -6)$ and is parallel to $y = 3x - 8$.

   A. $y = 3x - 18$ **B.** $y = 3x - 6$ **C.** $y = 3x + 6$

7. Write an equation of the line that passes through $(2, 5)$ and is perpendicular to $y = \frac{1}{4}x - 12$.

   O. $y = -4x + 3$ **P.** $y = -4x + 13$ **Q.** $y = -4x - 13$

5	2	4		6	1	7	3