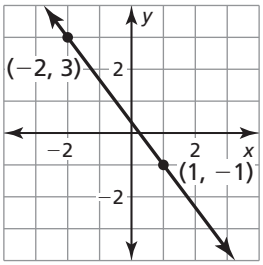
Name _____ Date _____

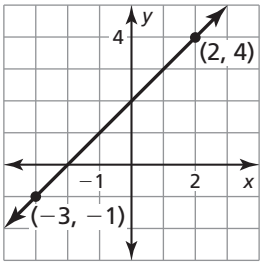
3.5 Practice A

In Exercises 1 and 2, describe the slope of the line. Then find the slope.

1.



2.



In Exercises 3 and 4, the points represented by the table lie on a line. Find the slope of the line.

3.

x	−2	1	4	7
y	0	1	2	3

4.

x	0	2	5	7
y	3	3	3	3

In Exercises 5–8, find the slope and the *y*-intercept of the graph of the linear equation.

5. $y = -6x + 2$

6. $y = 7x$

7. $y = -3$

8. $x - y = 9$

In Exercises 9–12, graph the linear equation. Identify the *x*-intercept.

9. $y = x + 4$

10. $y = \frac{1}{3}x - 1$

11. $y = -2x$

12. $4x + y = 3$

In Exercises 13 and 14, graph the function with the given description. Identify the slope, *y*-intercept, and *x*-intercept of the graph.

13. A linear function f models a relationship in which the dependent variable decreases 3 units for every 2 units the independent variable increases. The value of the function at 0 is 5.

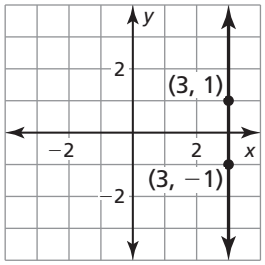
14. A linear function g models a relationship in which the dependent variable increases 2 units for every 7 units the independent variable increases. The value of the function at 0 is −1.

Name_____ Date _____

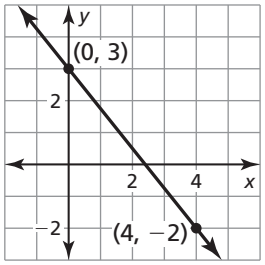
3.5 Practice B

In Exercises 1 and 2, describe the slope of the line. Then find the slope.

1.



2.



In Exercises 3 and 4, the points represented by the table lie on a line. Find the slope of the line.

3.

x	4	4	4	4
y	−2	1	4	7

4.

x	3	1	−1	−3
y	−4	1	6	11

In Exercises 5–8, find the slope and the *y*-intercept of the graph of the linear equation.

5. $y = 12$

6. $-3x + y = 7$

7. $-4x = 9 - 2y$

8. $0 = 2 - 3y + 12x$

In Exercises 9–12, graph the linear equation. Identify the *x*-intercept.

9. $y = x$

10. $x + 3y = 9$

11. $-y + 2x = 0$

12. $3x - y + 1 = 0$

13. A linear function g models the growth of your hair. On average, the length of a hair strand increases 1.25 centimeters every month.

a. Graph g when $g(0) = 10$.

b. Identify the slope and interpret the y-intercept of the graph.

c. By how much, in inches, does the length of a hair strand increase each month?

In Exercises 14 and 15, find the value of *k* so that the graph of the equation has the given slope or *y*-intercept.

14. $y = 6kx - 2; m = \frac{2}{3}$

15. $y = -\frac{1}{2}x + \frac{4}{3}k; b = -8$