

3.4 Practice B

In Exercises 1–3, graph the linear equation.

1. $y = 1$

2. $x = -2$

3. $y = 0$

In Exercises 4–7, find the x - and y -intercepts of the graph of the linear equation.

4. $-5x + 7y = -35$

5. $-6x - 9y = 54$

6. $4x - 3y = 1$

7. $x - 5y = 2$

In Exercises 8–13, use intercepts to graph the linear equation. Label the points corresponding to the intercepts.

8. $-6x + 3y = -18$

9. $-3x + 8y = -24$

10. $-x + 4y = 9$

11. $2x - y = 3$

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

13. $-\frac{3}{2}x + y = 15$

14. Your club is ordering enrollment gifts engraved with your club logo. Key chains cost \$5 each. Wristbands cost \$2 each. You have a budget of \$150 for the gifts. The equation $5x + 2y = 150$ models the total cost, where x is the number of key chains and y is the number of wristbands.

- Graph the equation. Interpret the intercepts.
- Your club decides to order 18 key chains. How many wristbands can you order?

15. Describe and correct the error in finding the intercepts of the graph of the equation.

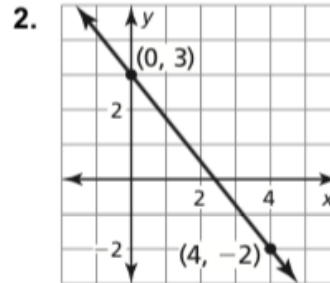
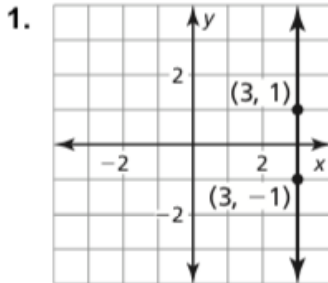
X	$6x + 9y = 18$	$6x + 9y = 18$
	$6x + 9(0) = 18$	$6(0) + 9y = 18$
	$6x = 18$	$9y = 18$
	$x = 3$	$y = 2$

The x -intercept is at $(0, 3)$, and the y -intercept is at $(2, 0)$.

16. Write an equation in standard form of a line whose x -intercept is an integer and y -intercept is a fraction. Explain how you know that the x -intercept is an integer and the y -intercept is a fraction.

3.5 Practice B

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



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