

3.4 Practice A

In Exercises 1–3, graph the linear equation.

1. $x = 4$

2. $y = 3$

3. $x = -3$

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

4. $2x - 5y = 10$

5. $3x + 4y = 12$

6. $-3x + 5y = -30$

7. $-6x - 4y = 24$

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

8. $2x + 4y = 8$

9. $3x + 2y = 12$

10. $-5x + 2y = 20$

11. $-4x + 4y = 20$

12. $-3x + 4y = 16$

13. $-2x + 6y = 24$

14. A dance team has two competitions on the same day. The coaches decide to split the 96-member team, sending some to each competition. Competition A requires four-member dance teams per event, and Competition B requires six-member dance teams per event. The equation $4x + 6y = 96$ models this situation, where x is the number of four-member teams and y is the number of six-member teams.

- Graph the equation. Interpret the intercepts.
- Find four possible solutions in the context of the problem.

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

\times	$4x - 9y = 36$	$4x - 9y = 36$
	$4x - 9(0) = 36$	$4(0) - 9y = 36$
	$4x = 36$	$-9y = 36$
	$x = 9$	$y = -4$
	The intercept is at $(9, -4)$.	

16. Write an equation in standard form of a line whose intercepts are fractions. Explain how you know the intercepts are fractions.

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.

a. Graph the equation. Interpret the intercepts.

b. 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.

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

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.