

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.

- 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.

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