

CHAPTER
10.3
Practice B
For use with page 423

Match the equation with the description of its graph.

- | | |
|----------------|---|
| 1. $x = -3$ | A. Vertical line |
| 2. $y = 8$ | B. Horizontal line |
| 3. $y = x - 4$ | C. Neither horizontal nor vertical line |

Tell whether the ordered pair is a solution of the equation.

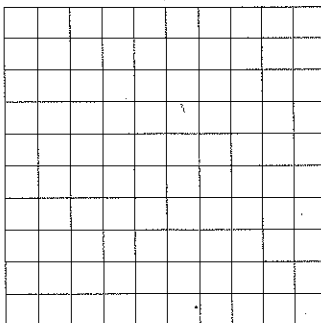
- | | | |
|---|---|---|
| 4. Equation: $x = -29$
Ordered pair: $(15, -29)$ | 5. Equation: $y = -13$
Ordered pair: $(12, -13)$ | 6. Equation: $y = -2.5$
Ordered pair: $(9, -16)$ |
|---|---|---|

Write three ordered pairs that are solutions of the given equation.

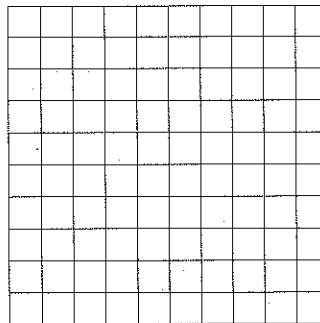
- | | | |
|----------------|----------------|---------------|
| 7. $x = -32$ | 8. $y = 85$ | 9. $y = -56$ |
| 10. $x = -2.5$ | 11. $x = -0.2$ | 12. $y = -11$ |
| 13. $y = 0$ | 14. $x = 15$ | |

Graph the equation on a coordinate plane.

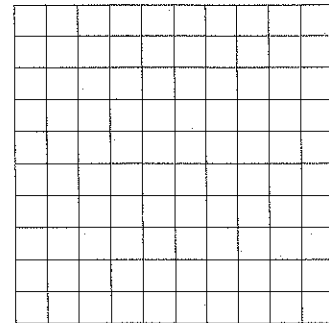
15. $x = -4$



16. $y = 6$



17. $y = 12$

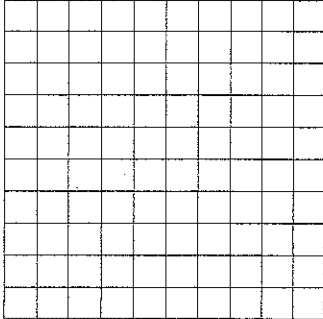


Name _____

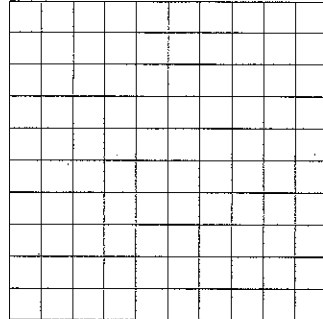
Date _____

CHAPTER 10.3 **Practice B** *continued*
For use with page 423

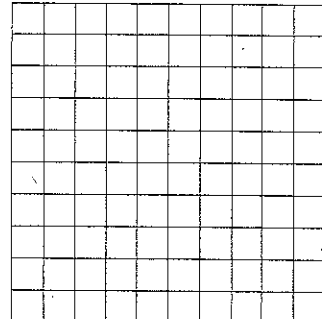
18. $y = -9$



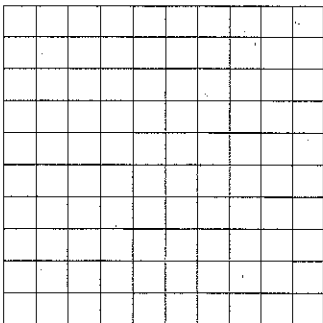
19. $x = -11$



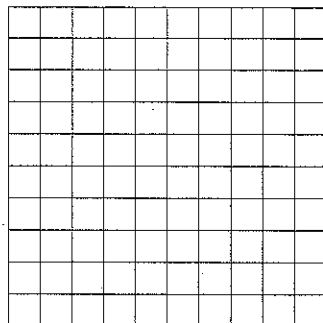
20. $x = 16$



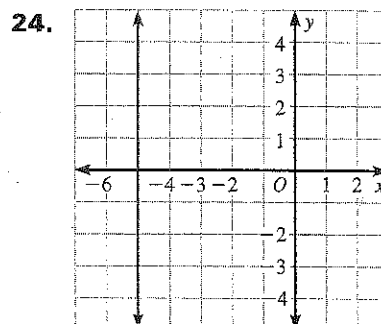
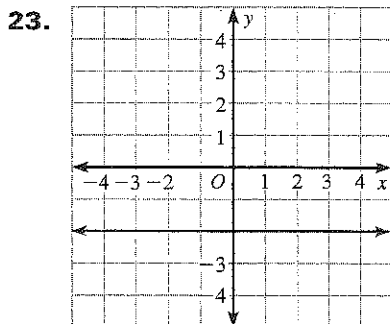
21. $x = 6$



22. $y = 3$



In Exercises 23 and 24, write an equation of the line.

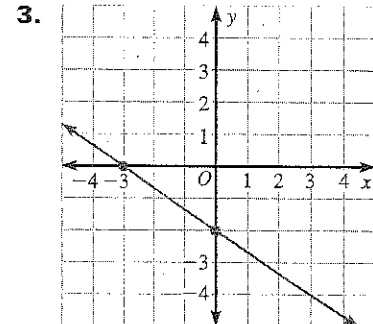
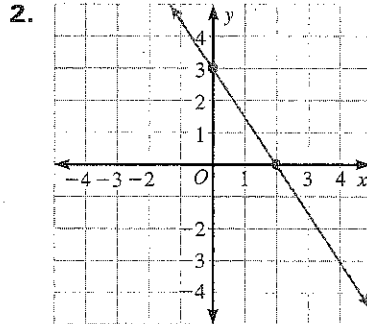
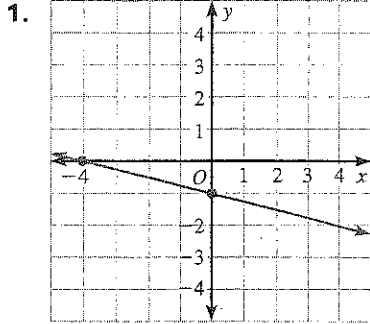


Practice B *continued**For use with page 423*

- 25. REASONING** Graph the equations $x = 5$ and $y = -2$ in the same coordinate plane. Then write the coordinates of the point where the lines intersect. *Explain* how you can find the coordinates of this point without graphing. Then tell at what point the graphs of $x = -7$ and $y = -6$ would intersect.
- 26.** A mason is laying a brick patio. The boundaries of the patio can be modeled by the graphs of $x = 10$, $y = 30$, $x = 20$, and $y = 10$, where all the distances are in feet. What is the area of the patio?
- 27.** A homeowner is putting ceramic tiles on a tabletop. The tabletop can be modeled by the graphs of $x = 15$, $y = 5$, $x = 35$, and $y = 30$, where all the distances are in inches. What is the area of the tabletop?

CHAPTER
10.4**Practice A**

For use with page 430

Identify the x -intercept and y -intercept of the graph.Find the x -intercept and y -intercept of the graph of the equation.

4. $x - y = 4$

5. $2x + 3y = 12$

6. $3y - 7x = 42$

7. $12x - 4y = 24$

8. $-8x + 4y = 64$

9. $3x - 5y = 15$

FIND THE ERROR *Describe* and correct the error in finding the y -intercept of the graph of the equation.

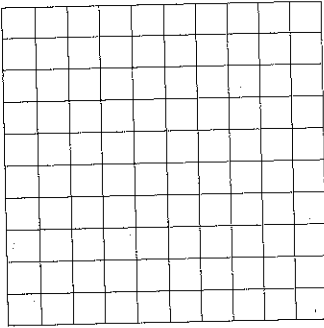
10.
$$\begin{aligned} 3x + 5y &= 30 \\ 3x + 5(0) &= 30 \\ 3x &= 30 \\ x &= 10 \end{aligned}$$

11.
$$\begin{aligned} 2y - 3x &= 12 \\ 2y - 3(0) &= 12 \cdot 0 \\ 2y &= 0 \\ y &= 0 \end{aligned}$$

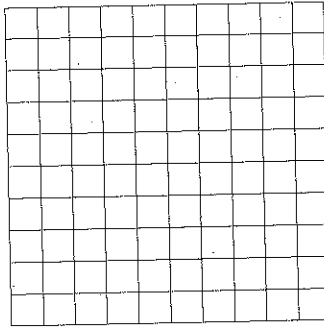
CHAPTER 10.4 **Practice A** *continued*
 For use with page 430

Draw the line with the given intercepts.

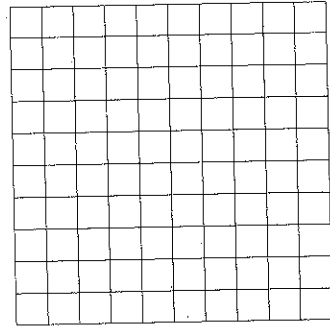
12. x -intercept: 2
 y -intercept: 1



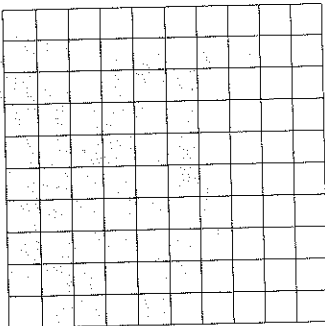
13. x -intercept: -4
 y -intercept: 3



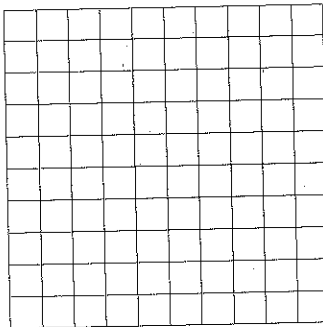
14. x -intercept: 3
 y -intercept: -5



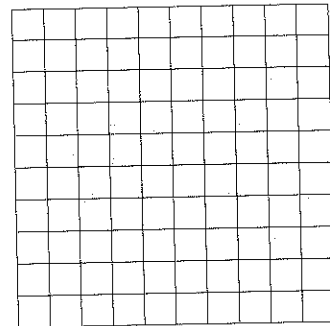
15. x -intercept: -3
 y -intercept: 2



16. x -intercept: -1
 y -intercept: -2

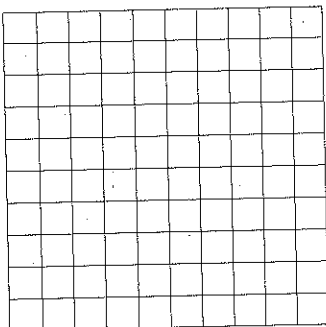


17. x -intercept: 4
 y -intercept: 4

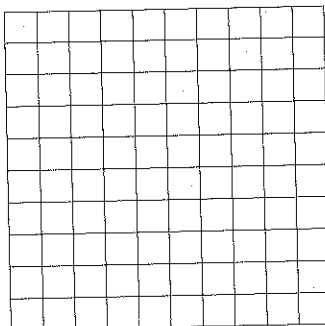


Graph the equation. Label the points where the graph crosses the axes.

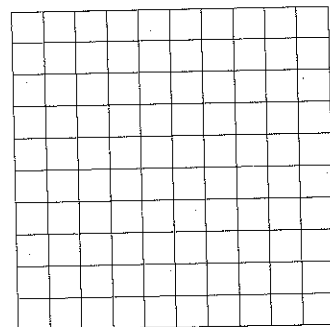
18. $x - y = -6$



19. $2x - 3y = 6$

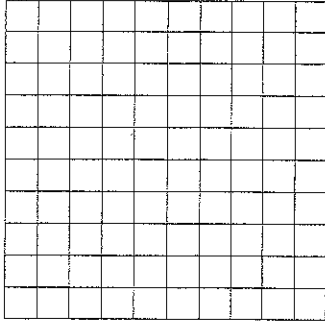


20. $2x - y = -8$

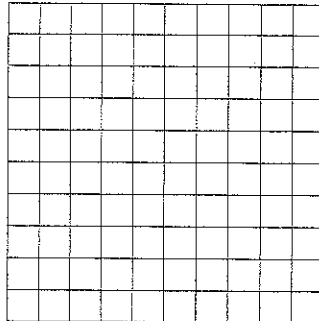


CHAPTER 10.4 **Practice A** *continued*
 For use with page 430

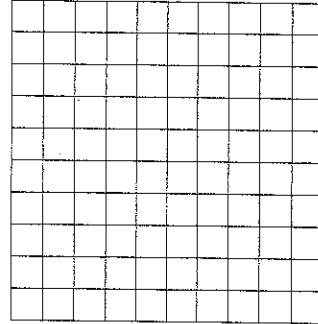
21. $x - 4y = -4$



22. $-3x - y = -3$

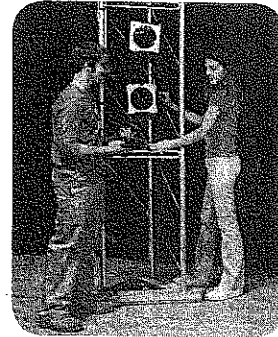
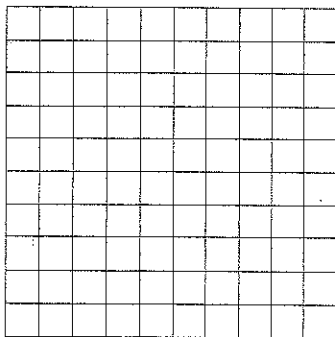


23. $x - y = 5$



24. **REASONING** Can the graph of a nonhorizontal line have two x -intercepts? *Explain.*

25. The drama club has \$240 to spend on wigs for a play. Long-hair wigs cost \$40 and short-hair wigs cost \$30. This situation can be modeled by the equation $40x + 30y = 240$ where x is the number of long-hair wigs and y is the number of short-hair wigs. Graph the equation and find three possible combinations of wigs the club can buy for exactly \$240.



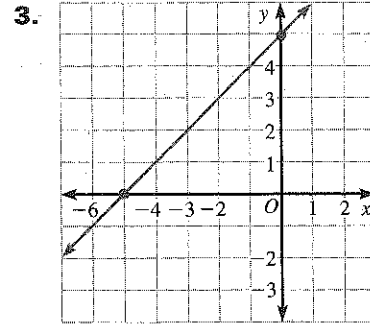
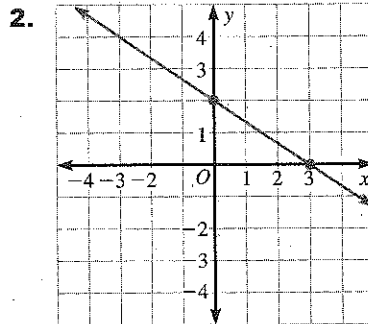
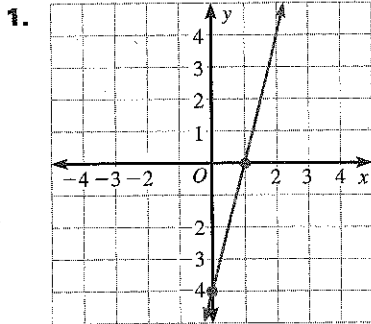
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CHAPTER
10.4

Practice B

For use with page 431

Identify the x-intercept and y-intercept of the graph.



Find the x-intercept and y-intercept of the graph of the equation.

4. $x - y = -5$

5. $2x - y = -1$

6. $x + 2y = 6$

FIND THE ERROR Describe and correct the error in finding the x-intercept of the graph of the equation.

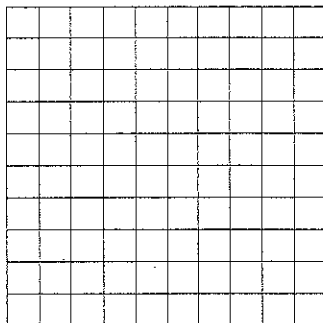
7.
$$\begin{aligned} 4x + 5y &= 20 \\ 4(0) + 5y &= 20 \\ 5y &= 20 \\ y &= 4 \end{aligned}$$

8.
$$\begin{aligned} -2x + 5y &= 10 \\ -2x + 5(0) &= 10 \\ -2x &= 10 \\ x &= 5 \end{aligned}$$

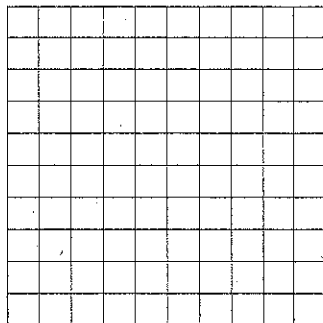
CHAPTER
10.4**Practice B** *continued*
For use with page 431

Draw the line with the given intercepts.

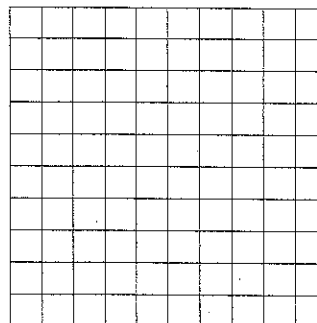
9. x -intercept: 4
 y -intercept: 5



10. x -intercept: -1
 y -intercept: 6

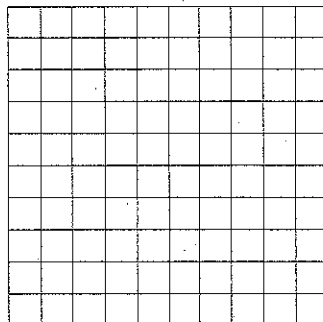


11. x -intercept: 2
 y -intercept: -3

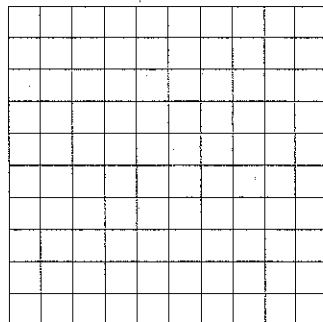


Graph the equation. Label the points where the graph crosses the axes.

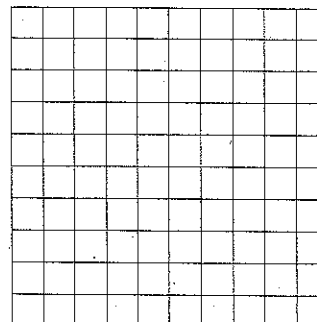
12. $2x - 3y = -12$



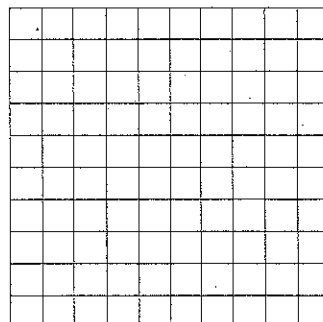
13. $x - y = 6$



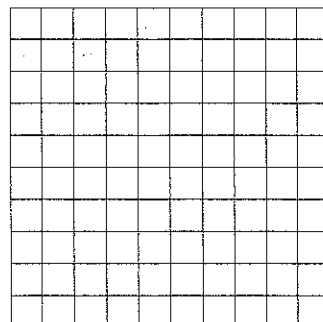
14. $-2x - 3y = 6$



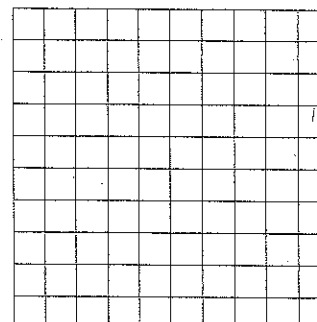
15. $x - 5y = -5$



16. $-4x - y = 4$

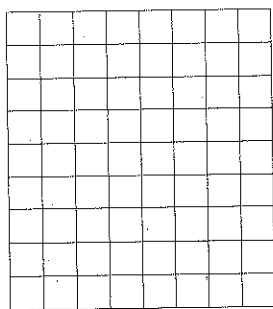


17. $2x - y = 6$



CHAPTER
10.4**Practice B** *continued**For use with page 431*

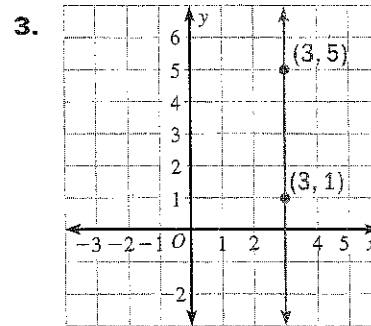
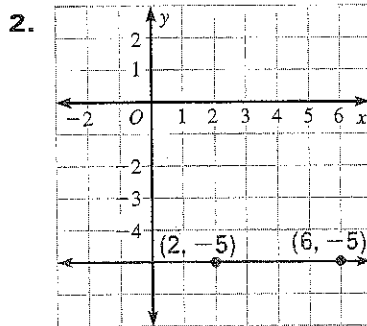
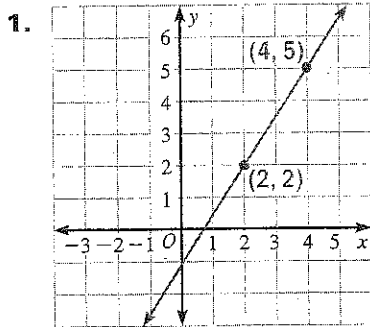
18. Jim burns 10 calories per minute while mountain biking and 7.5 calories per minute while in-line skating. His goal is to burn 420 calories daily by biking and in-line skating. This situation can be modeled by $10x + 7.5y = 420$ where x is the number of minutes spent mountain biking and y is the number of minutes spent in-line skating. Draw a graph and find three possible combinations of times spent mountain biking and in-line skating that burn 420 calories.



19. **REASONING** If you know that the x -intercept of a nonvertical line is 0, what can you say about the y -intercept? *Explain.*

CHAPTER 10.5 **Practice A**
For use with page 436

Tell whether the slope of the line is *positive, negative, zero, or undefined*. Then find the slope.



4. **FIND THE ERROR** Describe and correct the error in finding the slope of the line through the points $(-3, -4)$ and $(15, 16)$.

$$m = \frac{15 - (-3)}{16 - (-4)} = \frac{18}{20} = \frac{9}{10}$$

~~X~~

Find the slope of the line through the given points.

5. $(9, 6), (21, 14)$

6. $(8, 0), (10, 10)$

7. $(3, 9), (16, 9)$

8. $(6, 1), (7, -2)$

9. $(-9, -2), (-7, -3)$

10. $(-5, -4), (-5, -7)$

11. $(-4, -8), (-6, -11)$

12. $(-2, -3), (10, 15)$

13. $(7, 6), (12, -14)$

14. $(-13, 6), (8, -17)$

15. $(20, -18), (1, -2)$

16. $(7, -13), (-33, 19)$