

Exercises

Vocabulary and Concept Check

- VOCABULARY** What type of graph represents the solutions of the equation $y = 2x + 4$?
- WHICH ONE DOESN'T BELONG?** Which equation does *not* belong with the other three? Explain your reasoning.

$$y = 0.5x - 0.2 \quad 4x + 3 = y \quad y = x^2 + 6 \quad \frac{3}{4}x + \frac{1}{3} = y$$

Practice and Problem Solving

PRECISION Copy and complete the table. Plot the two solution points and draw a line *exactly* through the two points. Find a different solution point on the line.

3.

x		
$y = 3x - 1$		

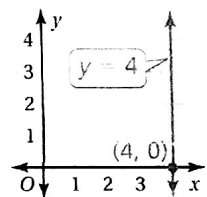
4.

x		
$y = \frac{1}{3}x + 2$		

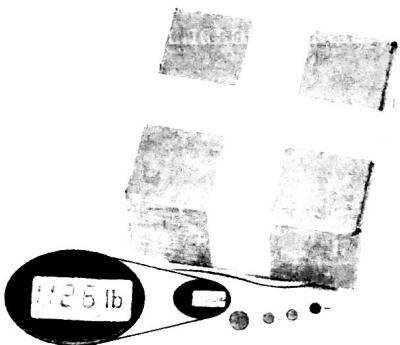
Graph the linear equation. Use a graphing calculator to check your graph, if possible.

- | | | | | | |
|---|---|------------------------|-----------------------|----------------------------|--------------------------------------|
| 1 | 2 | 5. $y = -5x$ | 6. $y = \frac{1}{4}x$ | 7. $y = 5$ | 8. $x = -6$ |
| | | 9. $y = x - 3$ | 10. $y = -7x - 1$ | 11. $y = -\frac{x}{3} + 4$ | 12. $y = \frac{3}{4}x - \frac{1}{2}$ |
| | | 13. $y = -\frac{2}{3}$ | 14. $y = 6.75$ | 15. $x = -0.5$ | 16. $x = \frac{1}{4}$ |

17. **ERROR ANALYSIS** Describe and correct the error in graphing the equation.



18. **MESSAGING** You sign up for an unlimited text-messaging plan for your cell phone. The equation $y = 20$ represents the cost y (in dollars) for sending x text messages. Graph the equation. What does the graph tell you?



19. **MAIL** The equation $y = 2x + 3$ represents the cost y (in dollars) of mailing a package that weighs x pounds.
- Graph the equation.
 - Use the graph to estimate how much it costs to mail the package.
 - Use the equation to find exactly how much it costs to mail the package.