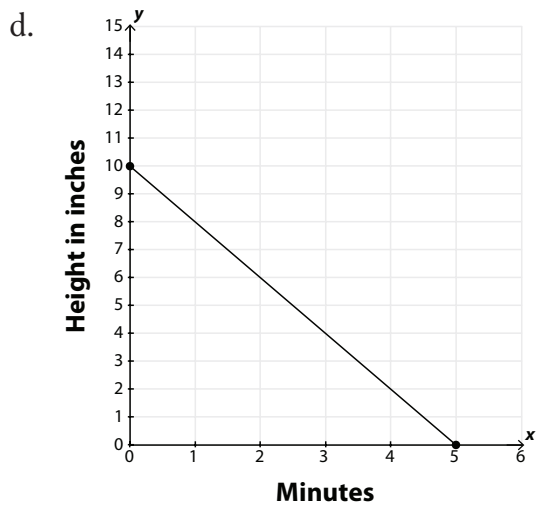
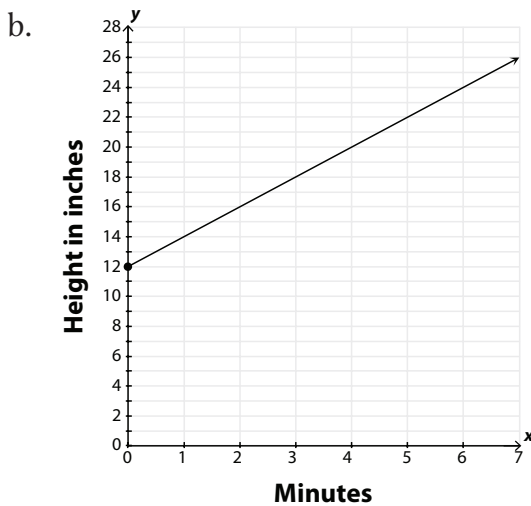
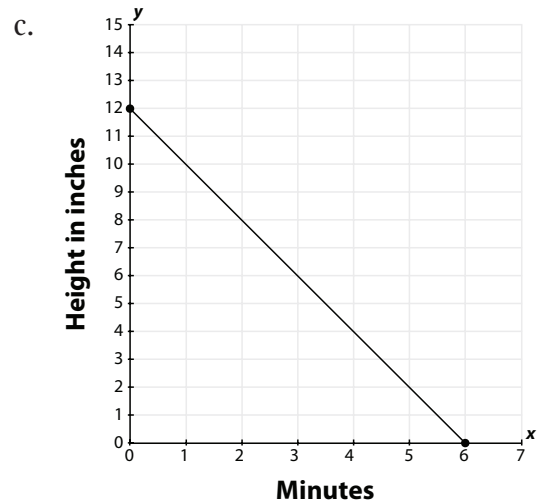
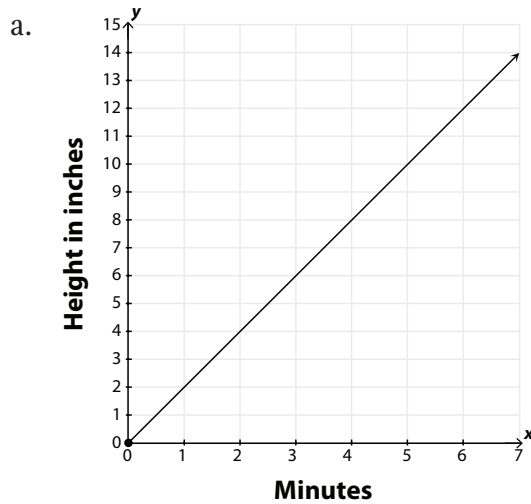




6. A 12-inch candle burns at a rate of 2 inches per hour. What is the graph of the equation that models the height of the candle over time?



7. Given the inequality  $y \leq -3x + 6$ , which point is NOT a solution?

- |            |             |
|------------|-------------|
| a. (1, -3) | c. (-1, -9) |
| b. (0, -2) | d. (2, 3)   |

8. Your cell phone company charges \$29.99 a month plus \$0.25 for each text message sent. You have budgeted no more than \$35.00 for cell phone service each month. Given this situation, determine the minimum and maximum number of texts you can send without going over budget. Let  $x$  represent the number of texts.

- |                                  |                               |
|----------------------------------|-------------------------------|
| a. $x < 20.04$                   | c. $x > 0$ and $x < 20$       |
| b. $x \geq 0$ and $x \leq 20.04$ | d. $x \geq 0$ and $x \leq 20$ |

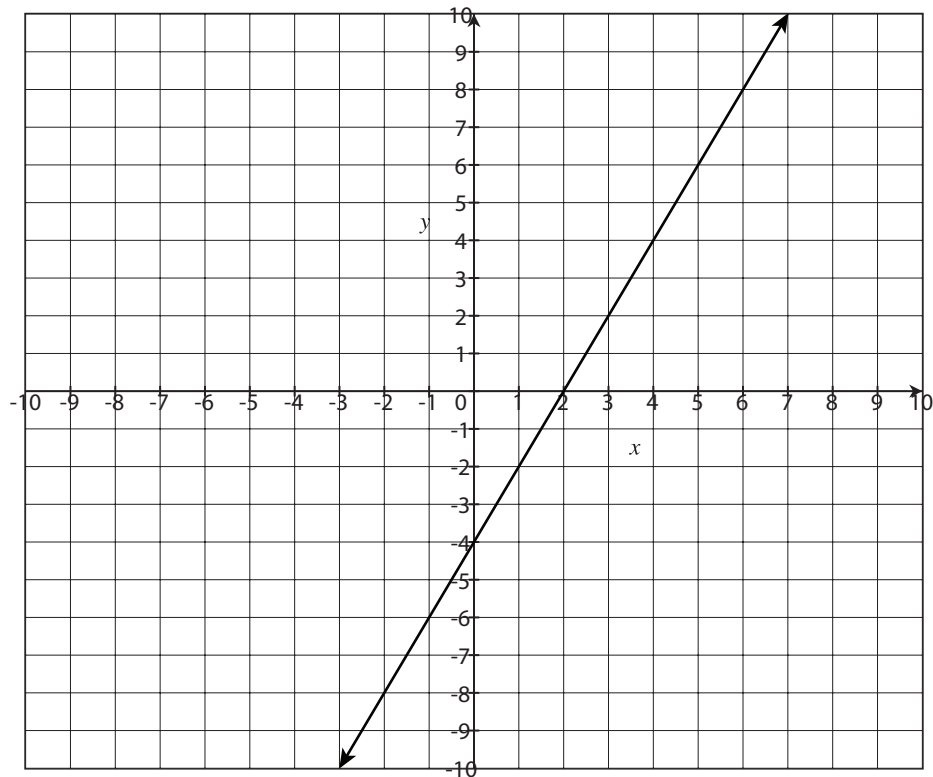


14. What is the solution to the system  $\begin{cases} 4x - 6y = 42 \\ x + 6y = 48 \end{cases}$ ?
- a. (5, 18)
  - b. (18, 5)
  - c. There are infinitely many solutions to this system of equations.
  - d. There are no solutions to this system of equations.

15. Which of the following is true at the intersection of  $y = f(x)$  and  $y = g(x)$ ?
- a.  $f(x) = g(x)$
  - b.  $x = 0$
  - c.  $f(x) = 0$
  - d.  $g(x) < f(x)$

16. If  $f(x) = 3x - 5$  and the domain of  $f$  is  $\{2, 4, 6\}$ , what is the range of  $f(x)$ ?
- a.  $\{11, 17, 20\}$
  - b.  $\{-6, -4, -2\}$
  - c.  $\{2, 4, 6\}$
  - d.  $\{1, 7, 13\}$

17. Given the graph below, what is  $f(6)$ ?



- a.  $f(6) = 5$
- b.  $f(6) = 8$
- c.  $f(6) = -4$
- d.  $f(6) = 0$

18. How does increasing the slope in a linear function change the graph of the line?
- a. The line rises more steeply.
  - b. The line is less steep.
  - c. The  $y$ -intercept increases.
  - d. The  $y$ -intercept decreases.
19. Your car broke down, and the final bill was \$261.50. The part that was replaced cost \$99, and the charge for the mechanic's labor is \$65 per hour. Write an equation to model this situation, then solve the equation for the number of hours the mechanic worked on your car.
20. A photographer sells large photos for a \$27 profit and small photos for an \$11 profit. This past year, she sold 126 photos and made a profit of \$2,250. How many of each size photo did she sell?