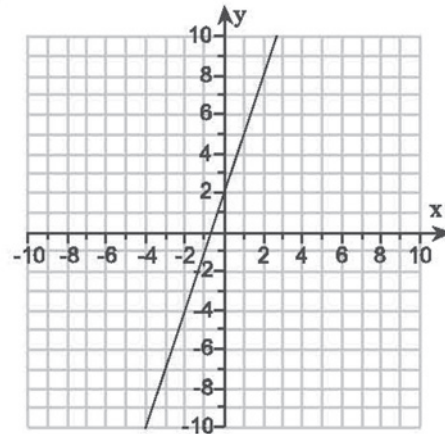


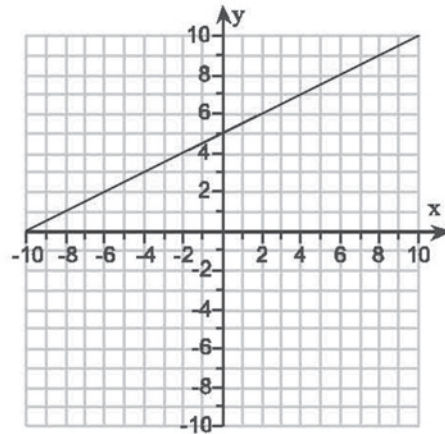
Practice 5-6

Linear Equations $y = mx + b$

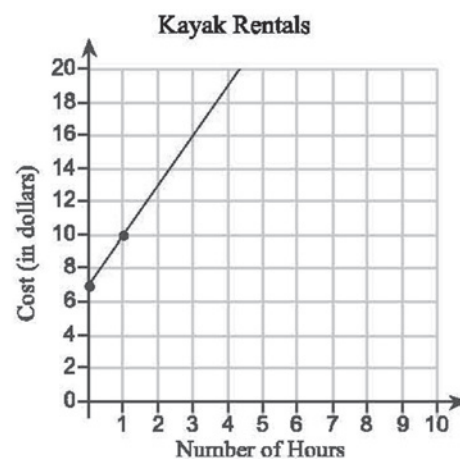
- Write an equation for the line in slope-intercept form. Use integers or fractions for any numbers in the equation.



- Write an equation for the line in slope-intercept form. Use integers or fractions for any numbers in the equation.



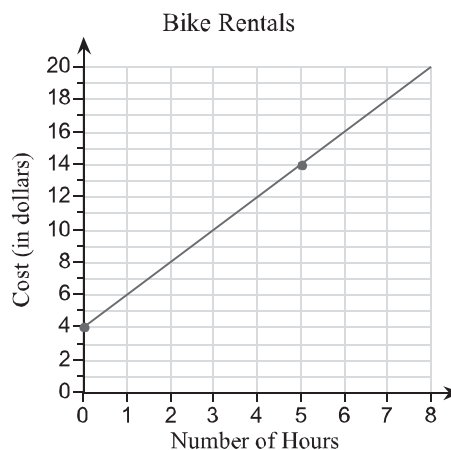
- The line models the cost of renting a kayak. It costs \$3 per hour plus a \$7 deposit. Write an equation in slope-intercept form for the line, where x is the number of hours the kayak is rented and y is the total cost of renting the kayak. Use integers or fractions for any numbers in the equation.



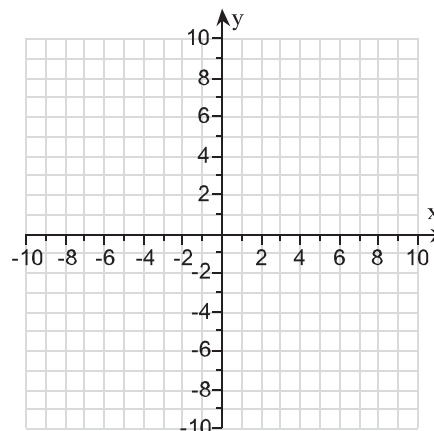
4. The line models the cost of renting a bike. It costs \$2 per hour plus a \$4 deposit.

a) Write an equation in slope-intercept form for the line, where x is the number of hours a bike is rented and y is the total cost of renting a bike. Use integers or fractions for any numbers in the equation.

b) How much does it cost to rent a bike for 3 hours?

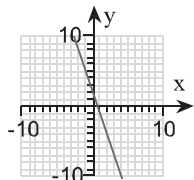


5. Graph the equation $y = 2x + 4$. Use the slope and y-intercept when drawing the line.

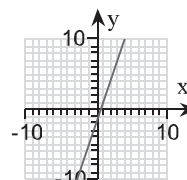


6. What is the graph of the equation $y = 3x + 2$?

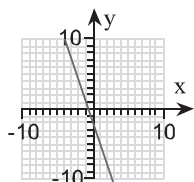
☐ A.



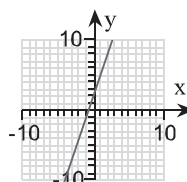
☐ C.



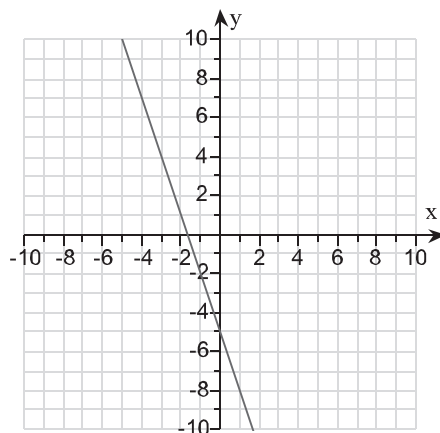
☐ B.



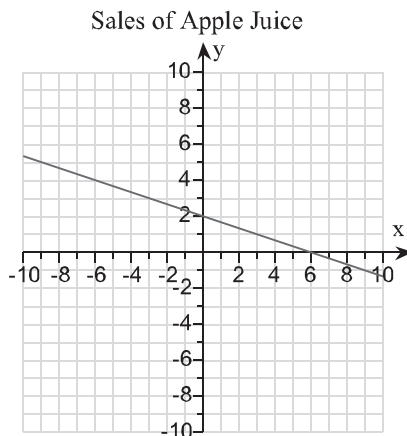
☐ D.



7. a) **Open-Ended** Write an equation for the line in slope-intercept form.
- b) Which part of writing the equation is the most difficult? The easiest? Explain.

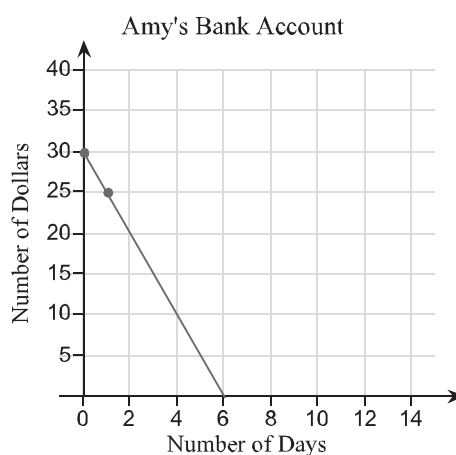


8. **Juice Sales** The graph represents the decrease of the sales of apple juice.
- a) Write an equation for the line in slope-intercept form to represent this situation.
- b) Explain how you know the sales of apple juice are decreasing.



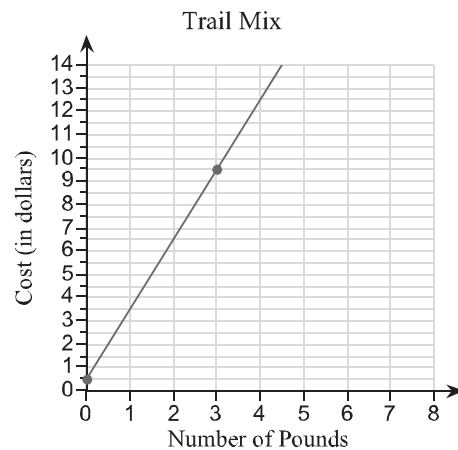
9. **Error Analysis** Amy began with \$30 in her bank account and spent \$5 each day. The line models the amount of money in her bank account. She incorrectly wrote an equation for the line in slope-intercept form as $y = -5x + 6$.

- a) What is the correct equation for the line in slope-intercept form?
- b) What mistake might Amy have made?
- ☐ A. She found a positive y-intercept, but the y-intercept is negative.
 - ☐ B. She found a negative slope, but the slope is positive.
 - ☐ C. She did not use slope-intercept form.
 - ☐ D. She used the x-intercept instead of the y-intercept.



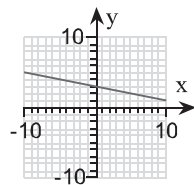
10. Writing The line models the cost of trail mix. It costs \$3 per pound plus 50¢ for the storage container.

- Write an equation in slope-intercept form for the line, where x is the number of pounds and y is the total cost. Use integers or decimals for any numbers in the equation.
- How much does it cost for 1 pound of trail mix?
- Describe another situation that uses the same equation.

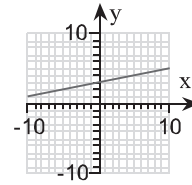


11. a) Reasoning What is the graph of the equation $y = \frac{1}{5}x - 3$?

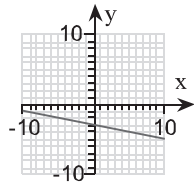
☐ A.



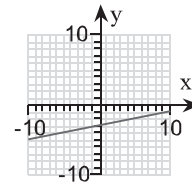
☐ C.



☐ B.

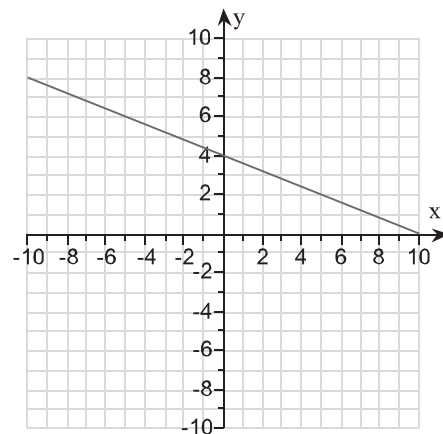


☐ D.

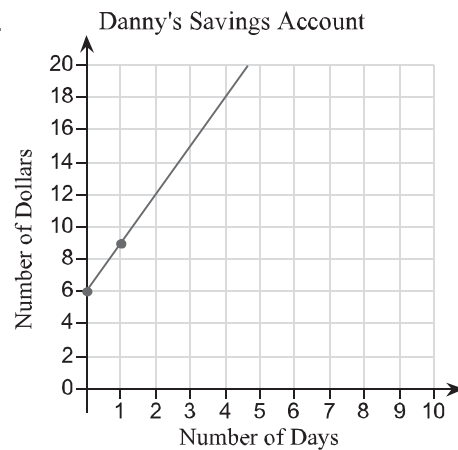


- Is it possible to find the value for y when x equals 6 without substituting 6 in the same equation? Explain.

12. Write an equation for the line in slope-intercept form.

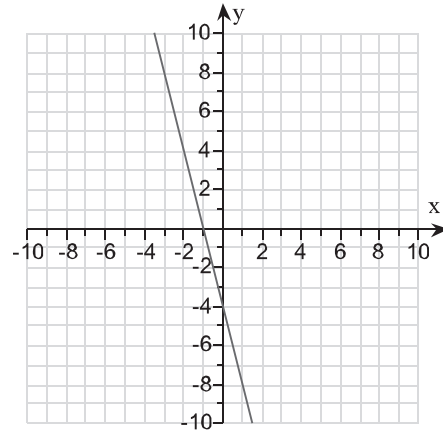


13. The line models Danny's savings account. He started with \$6 in his account. He saves \$3 each day. Write an equation for the line in slope-intercept form where x is the number of days he saves and y is the total amount in his account.



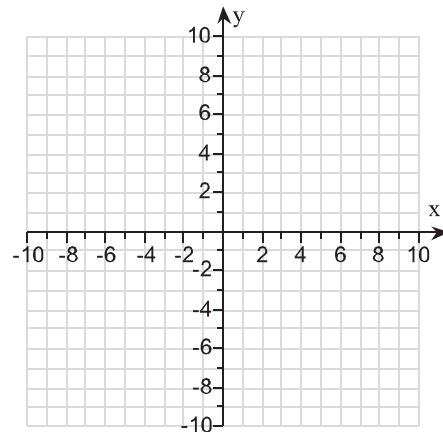
14. Think About the Process

- Find the y-intercept of the line.
- Write an equation for the line in slope-intercept form.



15. Think About the Process

- What should you do first to graph the equation $y = \frac{3}{4}x + 2$?
 - ☐ A. Plot a point at the slope.
 - ☐ B. Plot a point at the y-intercept.
 - ☐ C. Plot the point (0,0).
 - ☐ D. Plot a point at the x-intercept.
- Graph the equation $y = \frac{3}{4}x + 2$.



1. $y = 3x + 2$

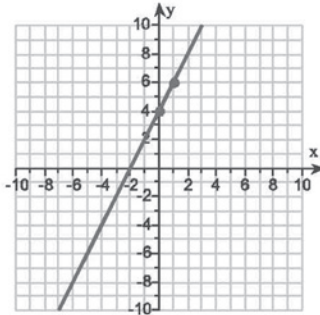
2. $y = \frac{1}{2}x + 5$

3. $y = 3x + 7$

4. a) $y = 2x + 4$

b) \$10

5.



6. D

7. a) $y = -3x - 5$

b) Answers will vary

8. a) $y = -\frac{1}{3}x + 2$

b) Answers will vary

9. a) $y = -5x + 30$

b) D

10. a) $y = 3x + 0.50$

b) \$3.50

c) Answers will vary

11. a) D

b) Answers will vary

12. $y = -\frac{2}{5}x + 4$

13. $y = 3x + 6$

14. a) -4

b) $y = -4x - 4$

15. a) B

b)

