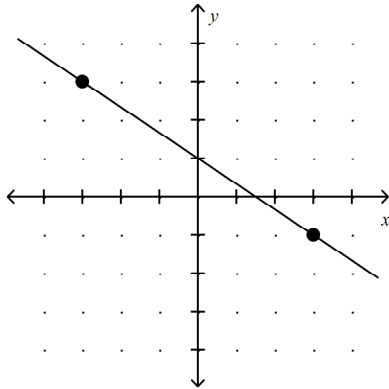


Algebra I: Chapter 5 Review

Short Answer

1. State the slope of the line shown in the graph below.



2. Find the slope of the line that passes through the pair of points.

$$(-3, -2), (-1, 3)$$

3. State the slope of the equation of the line.

$$y = \frac{5}{6}x - 7$$

4. What are the slope and y-intercept of the graph of the given equation?

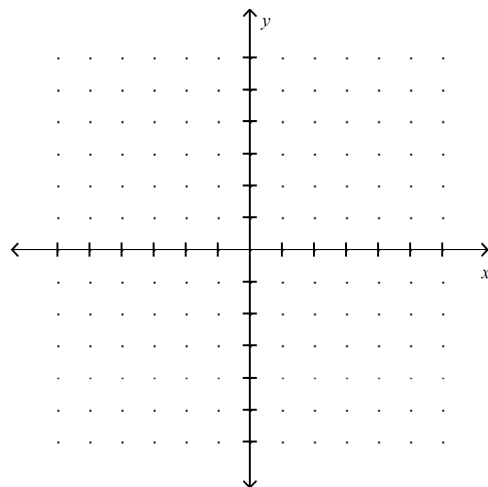
$$y = 9x + 2$$

5. Write an equation of a line, in slope-intercept form, with the given slope and y-intercept.

$$m = 5, b = 3$$

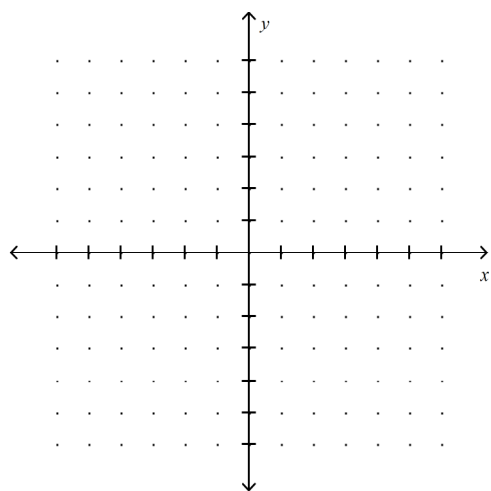
6. Graph the equation.

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



7. Solve for y , then graph the equation.

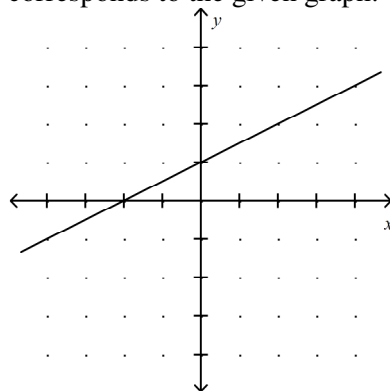
$$x + 3y = 6$$



8. Write the equation in slope-intercept form.

$$5x + 10y = 30$$

9. Write an equation in slope-intercept form that corresponds to the given graph.



10. Write an equation in slope-intercept form for the line that passes through the given points.

$$(2, 3), (1, 7)$$

11. Write an equation in slope-intercept form for the line that has the given slope and passes through the given point.

$$m = \frac{2}{5}, (-10, 3)$$

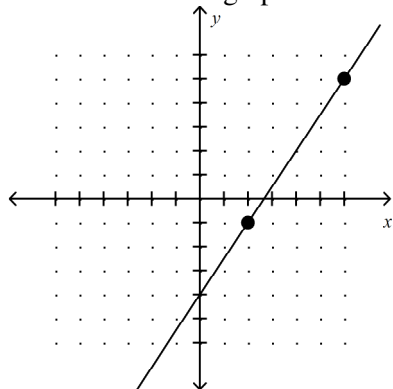
12. Write an equation in point-slope form for the line that has the given slope m and that passes through the given point.

$$m = \frac{1}{6}; (5, -3)$$

13. Write an equation in point-slope for the line that passes through the point $(3, -1)$ and has a slope of -2 .

14. Write an equation in point-slope form of the line that passes through the points $(2, -6)$ and $(3, -2)$.

15. Write the point-slope form of the equation of the line shown on the graph.



16. State the slope and point from the equation of a line.

$$y - 5 = -3(x + 2)$$

17. Write the equation in slope-intercept form.

$$y + 3 = \frac{4}{7}(x - 5)$$

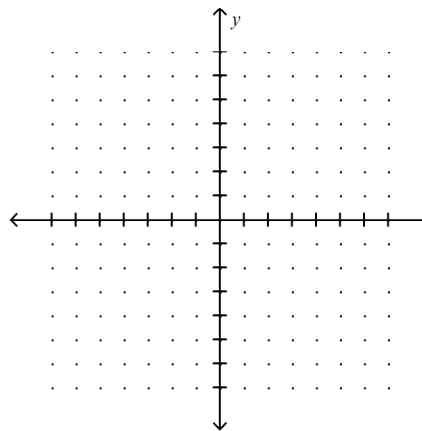
18. State the x- and y-intercepts of the graph of the equation.

$$4x - 5y = 20$$

19. Draw a line with the given intercepts.

x-intercept: -2

y-intercept: 4



20. Tell whether the equation represents a vertical or horizontal line.

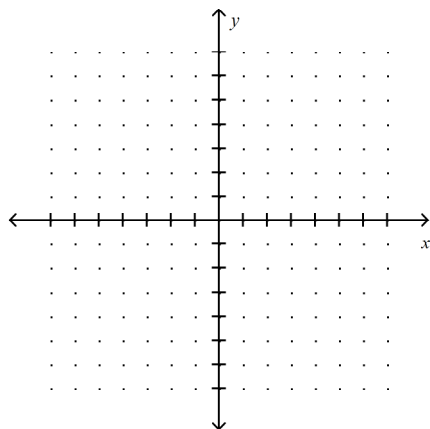
$$y = -4$$

21. Tell whether the equation represents a vertical or horizontal line.

$$x = 5$$

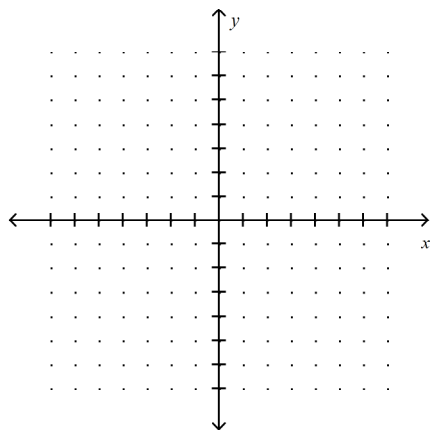
22. Graph the equation.

$$y = 3$$



23. Graph the equation.

$$x = -4$$



24. Write the equation in standard form using integers.

$$y = \frac{3}{5}x - 1$$

25. Write the equation in standard form using integers.

$$y + 1 = \frac{-5}{3}(x + 8)$$

26. Solve for b:

$$R = \frac{1}{4}ab$$

27. Solve for c:

$$m = \frac{c - d}{n}$$

28. Solve for n:

$$an + bn = y$$

29. Solve for n:

$$A = 5\pi n^2$$

30. In 1980, the population of a small town was 6500. By 2010 the town's population had grown to 8900. Let $x = 0$ represent 1980.
- Write an equation in point-slope form that represents the population of the town.

b. Use the equation found in part a to write the equation in slope-intercept form.