

LESSON
5-7

Practice B
Slope-Intercept Form

Write the equation that describes each line in slope-intercept form.

1. slope = 4; y-intercept = -3

y = _____

2. slope = -2; y-intercept = 0

y = _____

3. slope = $-\frac{1}{3}$; y-intercept = 6

y = _____

4. slope = $\frac{2}{5}$, (10, 3) is on the line.

Find the y-intercept $y = mx + b$

_____ = (_____) _____ + b

_____ = _____ + b

_____ = b

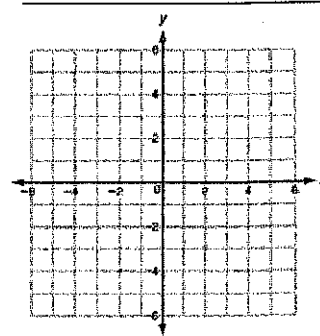
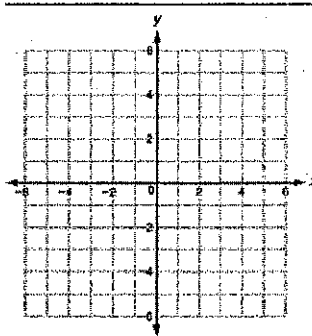
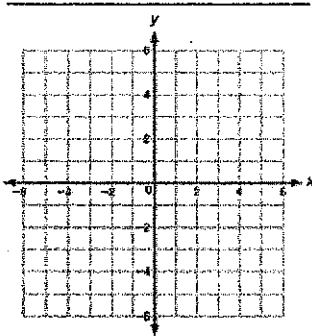
Write the equation: $y =$ _____

Write each equation in slope-intercept form. Then graph the line described by the equation.

5. $y + x = 3$

6. $y + 4 = \frac{4}{3}x$

7. $5x - 2y = 10$

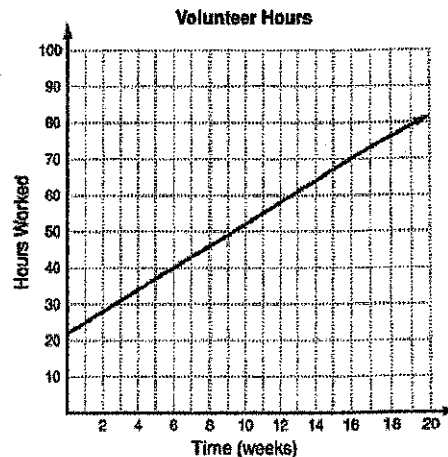


8. Daniel works as a volunteer in a homeless shelter. So far, he has worked 22 hours, and he plans to continue working 3 hours per week. His hours worked as a function of time is shown in the graph.

a. Write an equation that represents the hours Daniel will work as a function of time. _____

b. Identify the slope and y-intercept and describe their meanings. _____

c. Find the number of hours worked after 16 weeks. _____



LESSON
5-7

Practice C
Slope-Intercept Form

Write the equation that describes each line in slope-intercept form.

1. slope = $-\frac{3}{2}$; y-intercept = 1

2. slope = -3, (-3, 4) is on the line.

3. slope = 0; y-intercept = -8

4. slope = $-\frac{4}{7}$; (7, -8) is on the line.

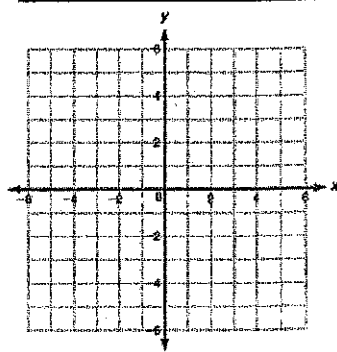
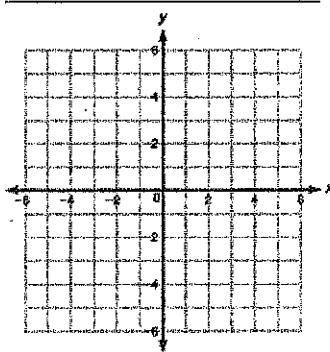
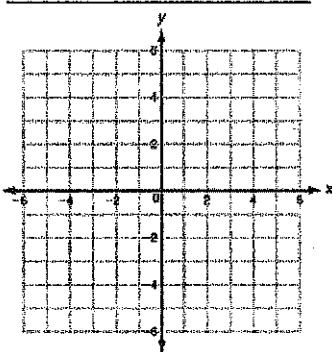
5. The line that passes through (1, 5) and (4, -4). (Hint: Find the slope first.) _____

Write each equation in slope-intercept form. Then graph the line described by the equation.

6. $y - 2 = -3x$

7. $x - y = 2$

8. $-2y = 3x - 4$



9. The Johnsons are putting new carpet in their home. Installation is \$300 and the carpeting costs \$4 per square foot. The total price of the job as a function of area is shown in the graph.

- Write an equation that represents the total price as a function of area. _____
- Identify the slope and y-intercept and describe their meanings. _____
- Find the total cost if the area is 375 square feet. _____

