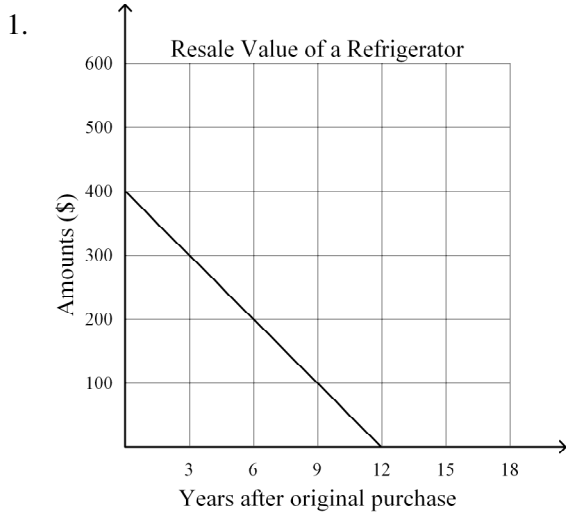


**Algebra Chapter 5 Review 2011-2012**

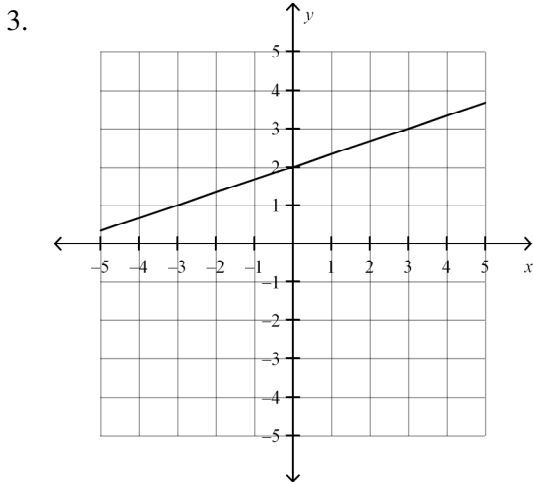
The rate of change is constant in the graph. Find the rate of change. Explain what the rate of change means for the situation.



Write the equation of a line that is perpendicular to the given line and that passes through the given point.

2.  $4x - 12y = 2$ ;  $(10, -1)$

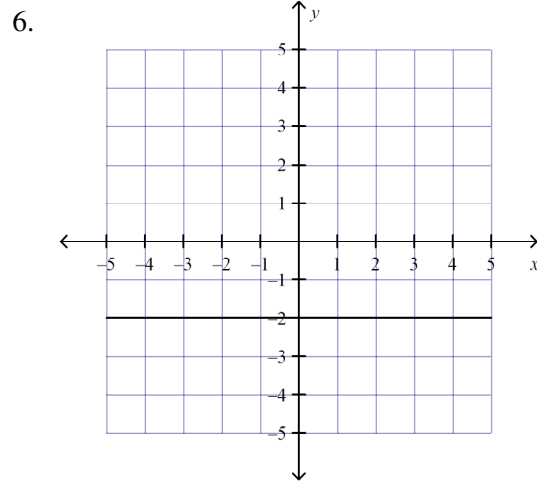
Find the slope of the line.



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

4.  $(1, 7), (10, 1)$
5. A student finds the slope of the line between  $(14, 1)$  and  $(18, 17)$ . She writes  $\frac{1 - 17}{18 - 14}$ . What mistake did she make?

State whether the slope is 0 or undefined.



Find the slope and y-intercept of the line.

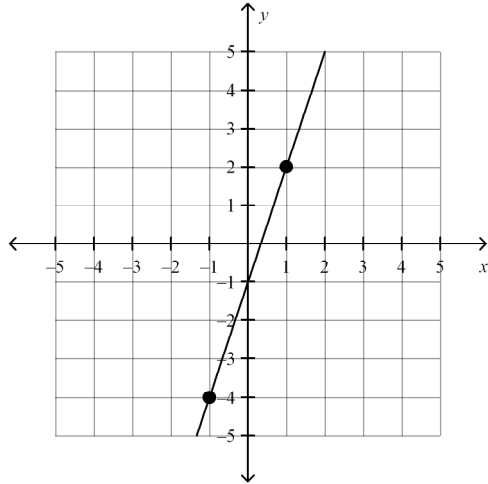
7.  $y = \frac{4}{3}x - 3$
8.  $14x + 4y = 24$

Write an equation of a line with the given slope and y-intercept.

9.  $m = 1, b = 4$

Write the slope-intercept form of the equation for the line.

10.



11. Use the slope and y-intercept to graph the equation.

$$y = \frac{3}{4}x - 3$$

Find the x- and y-intercept of the line.

12.  $-3x + 9y = 18$

13. Write  $y = \frac{2}{3}x + 7$  in standard form using integers.

14. Write an equation of a line that has the same slope as  $2x - 5y = 12$  and the same y-intercept as  $4y + 24 = 5x$ .

Graph the equation.

15.  $y - 3 = -(x + 5)$

16.  $x = -4$

Write an equation in point-slope form for the line through the given point with the given slope.

17.  $(10, -9); m = -2$

18. A line passes through  $(2, -1)$  and  $(8, 4)$ .
- Write an equation for the line in point-slope form.
  - Rewrite the equation in standard form using integers.

Is the relationship shown by the data linear? If so, model the data with an equation.

19.

x	y
-9	-2
-5	-7
-1	-12
3	-17

Are the graphs of the lines in the pair parallel? Explain.

20.  $y = \frac{1}{6}x + 8$

$$-2x + 12y = -11$$

Write an equation for the line that is parallel to the given line and that passes through the given point.

21.  $y = \frac{3}{4}x - 9; (-8, -18)$

Write in standard form an equation of the line passing through the given point with the given slope.

22. slope =  $-8; (-2, -2)$

Find an equation for the line:

23. through  $(-7, -4)$  and vertical.

Name: \_\_\_\_\_

ID: A

**Determine whether  $y$  varies directly with  $x$ . If so, find the constant of variation  $k$  and write the equation.**

24.

$x$	$y$
6	7.2
11	13.2
16	19.2
21	25.2

25. Graph the equation  $-3x - y = 6$ .