

# 4.4–4.7 Quiz



Find the slope and the  $y$ -intercept of the graph of the linear equation. (Section 4.4)

1.  $y = \frac{1}{4}x - 8$

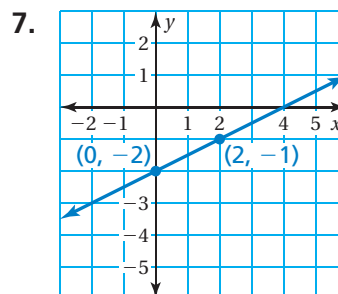
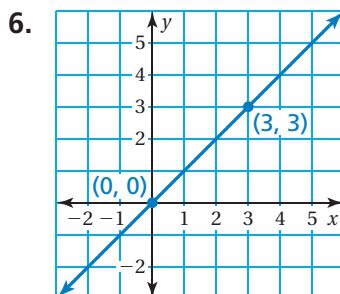
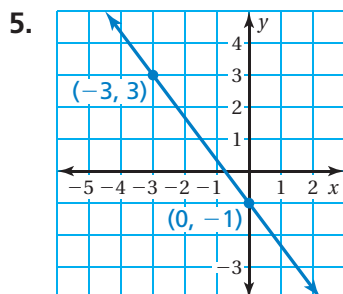
2.  $y = -x + 3$

Find the  $x$ - and  $y$ -intercepts of the graph of the equation. (Section 4.5)

3.  $3x - 2y = 12$

4.  $x + 5y = 15$

Write an equation of the line in slope-intercept form. (Section 4.6)



Write in point-slope form an equation of the line that passes through the given point and has the given slope. (Section 4.7)

8.  $(1, 3)$ ;  $m = 2$

9.  $(-3, -2)$ ;  $m = \frac{1}{3}$

10.  $(-1, 4)$ ;  $m = -1$

11.  $(8, -5)$ ;  $m = -\frac{1}{8}$

Write in slope-intercept form an equation of the line that passes through the given points. (Section 4.7)

12.  $\left(0, -\frac{2}{3}\right)$ ,  $\left(-3, -\frac{2}{3}\right)$

13.  $(4, 0)$ ,  $(0, 4)$

14. **STATE FAIR** The cost  $y$  (in dollars) of one person buying admission to a fair and going on  $x$  rides is  $y = x + 12$ . (Section 4.4)

- Graph the equation.
- Interpret the  $y$ -intercept and the slope.

15. **PAINTING** You used \$90 worth of paint for a school float. (Section 4.5)

- Graph the equation  $18x + 15y = 90$ , where  $x$  is the number of gallons of blue paint and  $y$  is the number of gallons of white paint.
- Interpret the intercepts.

16. **CONSTRUCTION** A construction crew is extending a highway sound barrier that is 13 miles long. The crew builds  $\frac{1}{2}$  of a mile per week. Write an equation that represents the length  $y$  (in miles) of the barrier after  $x$  weeks. (Section 4.6)

