

# 4 Chapter Test

Check It Out  
Test Practice  
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Find the slope and the y-intercept of the graph of the linear equation.

1.  $y = 6x - 5$

2.  $y = 20x + 15$

3.  $y = -5x - 16$

4.  $y - 1 = 3x + 8.4$

5.  $y + 4.3 = 0.1x$

6.  $-\frac{1}{2}x + 2y = 7$

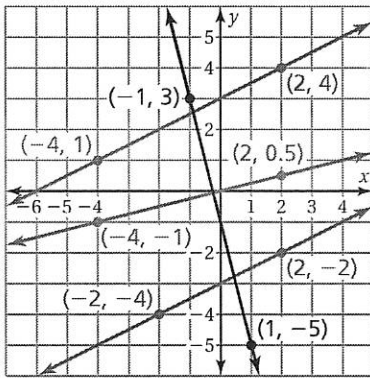
Graph the linear equation.

7.  $y = 2x + 4$

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

9.  $-3x + 6y = 12$

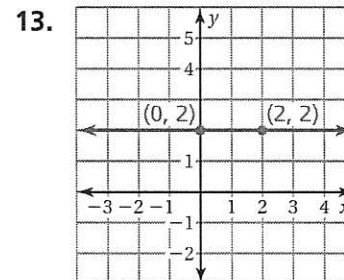
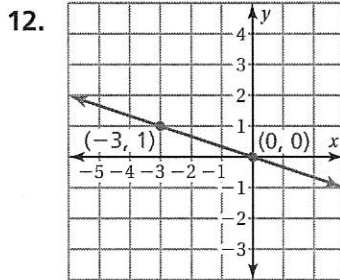
10. Which lines are parallel? Which lines are perpendicular? Explain.



11. The points in the table lie on a line. Find the slope of the line.

x	y
-1	-4
0	-1
1	2
2	5

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



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

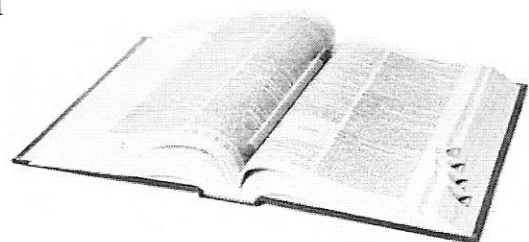
14.  $(-1, 5), (3, -3)$

15.  $(-4, 1), (4, 3)$

16.  $(-2, 5), (-1, 1)$

17. **VOCABULARY** The number  $y$  of new vocabulary words that you learn after  $x$  weeks is represented by the equation  $y = 15x$ .

- Graph the equation and interpret the slope.
- How many new vocabulary words do you learn after 5 weeks?
- How many more vocabulary words do you learn after 6 weeks than after 4 weeks?





## Puzzle Time

### What Do You Call A Ghost Cheerleader?

Write the letter of each answer in the box containing the exercise number.

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

- 1.  $(1, 5); m = 2$
- 2.  $(-2, 4); m = -3$
- 3.  $(4, 2); m = 3$
- 4.  $(-1, 5); m = -2$
- 5.  $(2, -4); m = -3$
- 6.  $(-5, 1); m = 2$

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

- 7.  $(-5, -5), (5, -7)$
- 8.  $(-3, -4), (3, 0)$
- 9.  $(-2, -7), (2, -1)$
- 10.  $(-6, -4), (6, 4)$

- 11. You go to an arcade and purchase a card with game credits. After playing 5 games, you have 33 credits left. You play 4 more games and have 21 credits left. Write an equation that represents the number of credits  $y$  on the card after  $x$  games.
- 12. You go to a school dance. There is an entrance fee, and there are slices of pizza for sale. After having 1 slice of pizza, you have spent a total of \$6. After having 2 more slices of pizza, you have spent a total of \$10. Write an equation that represents the total cost  $y$  after buying  $x$  slices of pizza at the dance.
- 13. You make 2 headbands and have 6 feet of ribbon left. You make 1 more headband and have 4 feet of ribbon left. Write an equation that represents the amount of ribbon  $y$  you have left after making  $x$  headbands.

**Answers**

R.  $y - 4 = -3(x + 2)$

M.  $y = \frac{2}{3}x$

E.  $y = 2x + 4$

I.  $y + 4 = -3(x - 2)$

P.  $y = -2x + 10$

I.  $y = -3x + 48$

A.  $y - 2 = 3(x - 4)$

T.  $y = \frac{2}{3}x - 2$

E.  $y - 5 = 2(x - 1)$

T.  $y - 1 = 2(x + 5)$

S.  $y = \frac{3}{2}x - 4$

T.  $y - 5 = -2(x + 1)$

H.  $y = -\frac{1}{5}x - 6$

4	7	1		6	12	3	10		9	13	5	2	11	8
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# 4.4–4.7 Quiz



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

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

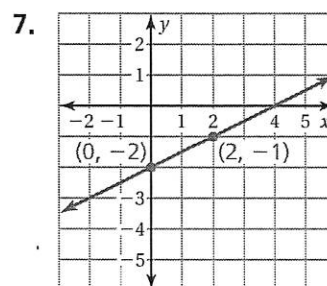
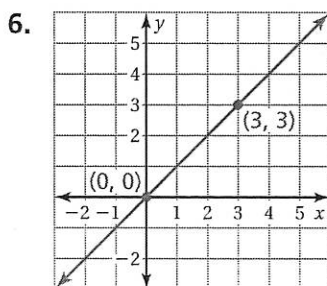
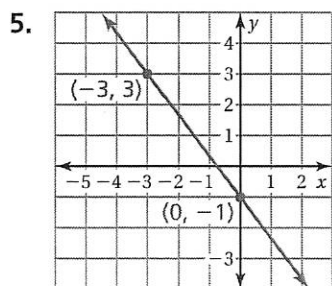
2.  $y = -x + 3$

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)

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

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

- a. 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.
- b. 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)

