

Indicate in which quadrant the point lies.

1) (9, 2)

1) _____

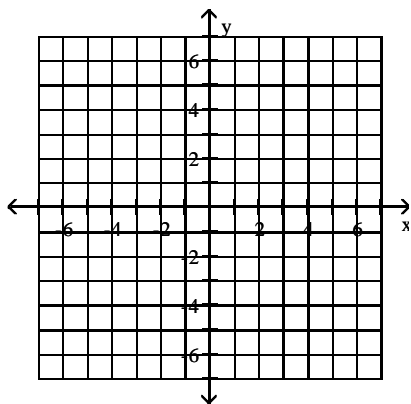
2) (4, -8)

2) _____

Plot the given point in a rectangular coordinate system.

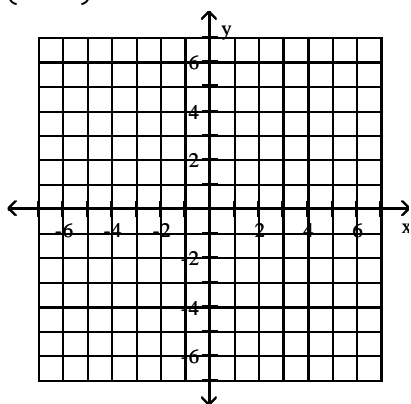
3) (-3, 1)

3) _____



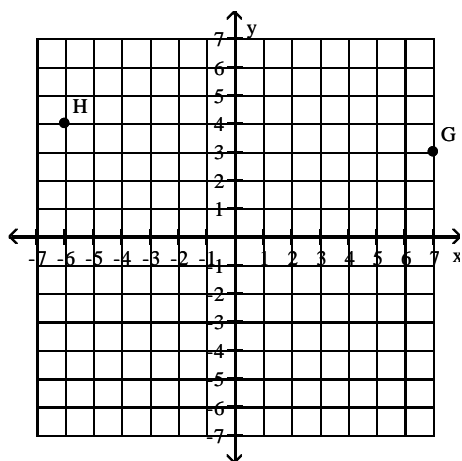
4) $\left(-\frac{7}{2}, 0\right)$

4) _____



Give the ordered pairs that correspond to the points labeled in the figure.

5)



5) _____

Determine whether the ordered pair is a solution of the given equation.

6) $(-3, 1)$

$$y = x + 4$$

6) _____

7) $(-5, 4)$

$$x - y = 1$$

7) _____

Find a solution to the equation using the value given for x .

8) $y = 7x$; $x = -2$.

8) _____

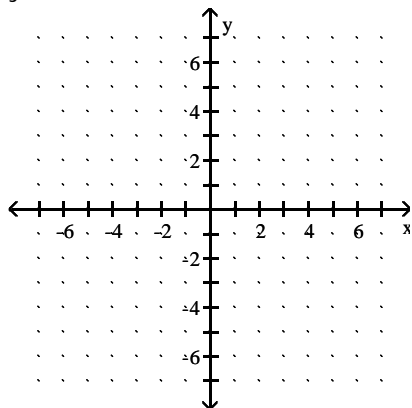
9) $y = -3x + 7$; $x = 6$

9) _____

Graph the linear equation in two variables.

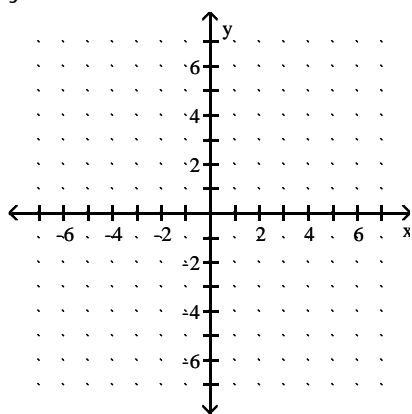
10) $y = 6x$

10) _____



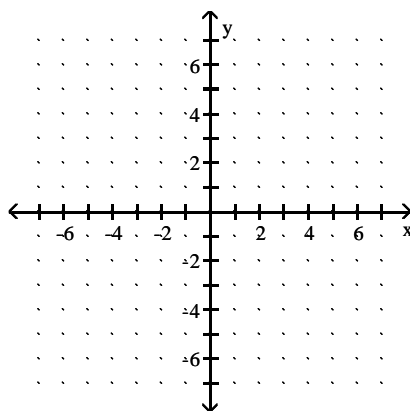
11) $y = 3x + 2$

11) _____



12) $y = \frac{1}{6}x - 5$

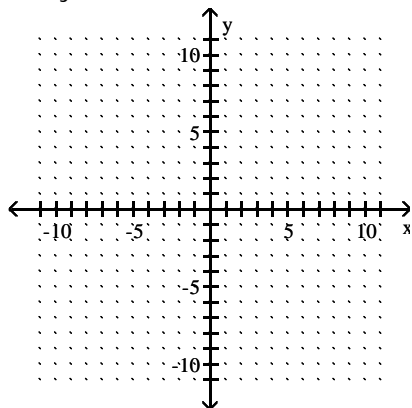
12) _____



Write the sentence as a linear equation in two variables. Then graph the equation.

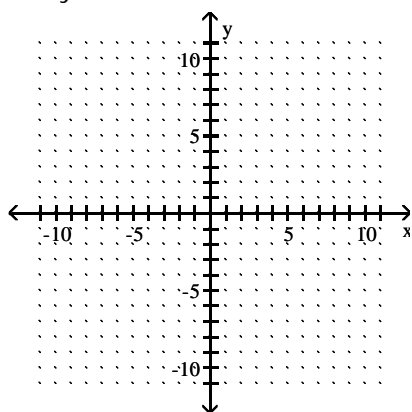
- 13) The y-variable is 4 less than the x-variable.

13) _____



- 14) The y-variable is 5 less than 9 times the x-variable.

14) _____



Solve the problem.

- 15) The linear equation in two variables $y = 3x + 85$ models the total cost, y , in dollars, for towing a car x miles. The equation indicates that the towing company charges a fixed amount of \$85 to send a truck to pick up the car plus a cost of \$3 for each mile the car is towed. Find a solution of $y = 3x + 85$ using 4 for x .

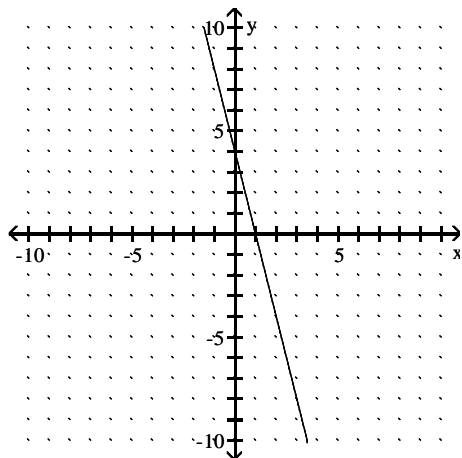
15) _____

- 16) The linear equation in two variables $y = 500x + 3404$ models the altitude above sea level, y , in feet, of an airplane x minutes after taking off from a high plateau. The equation indicates that the airplane's altitude is initially 3404 feet above sea level and increases 500 feet each minute. Find a solution of $y = 500x + 3404$ using 7 for x .

16) _____

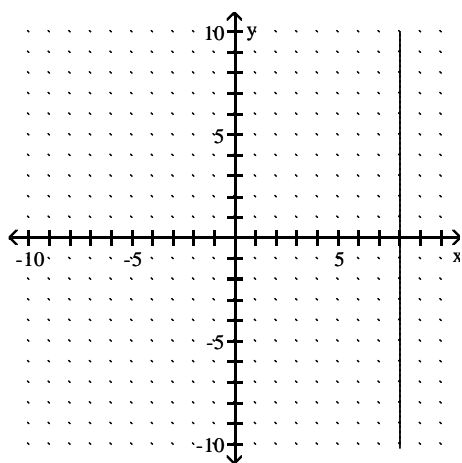
Use the graph to identify the x- and y- intercepts or state that there is no x- or y-intercept.

17)



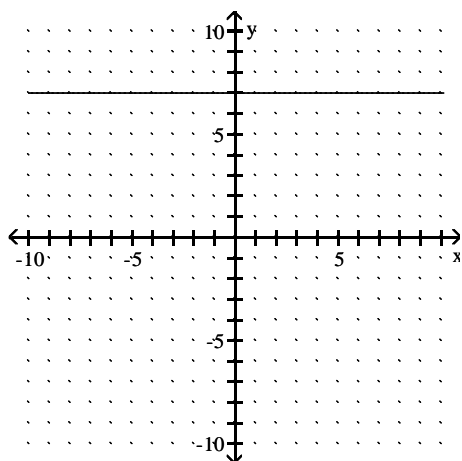
17) _____

18)



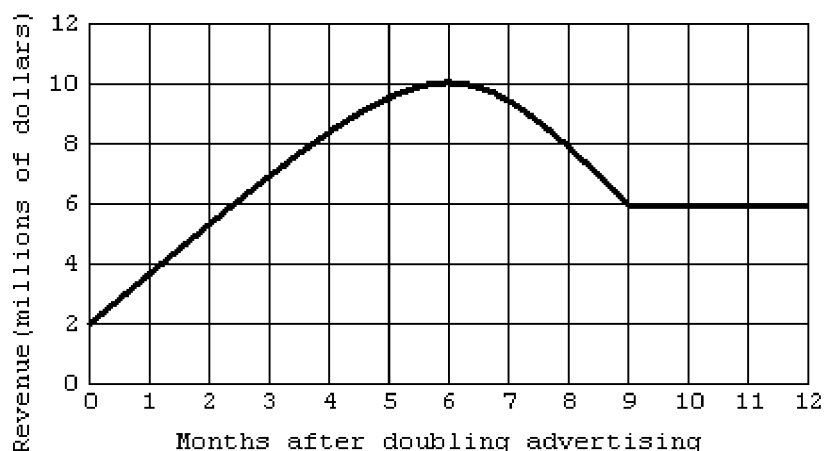
18) _____

19)



19) _____

The graph shows the monthly revenue in millions of dollars of a growing company after the company doubled its advertising. Use the graph to solve the problem.



20) During what period of time is the company's monthly revenue increasing? 20) _____

21) Estimate the minimum revenue during the period of time plotted on the graph. 21) _____

22) How many months after the company doubled its advertising did the maximum monthly revenue occur. 22) _____

23) From 9 months after the advertising was doubled to 12 months after the advertising was doubled, the revenue is graphed as a horizontal line. Write the equation of the line. 23) _____

Find the x-intercept and the y-intercept of the graph of the equation. Do not graph the equation.

24) $x + y = 6$ 24) _____

25) $2x + y = 4$ 25) _____

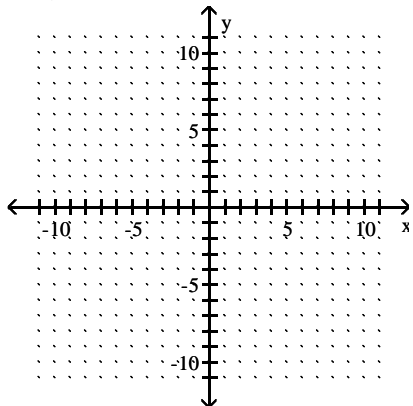
26) $8x - 2y = -6$ 26) _____

27) $2x - 4y = 9$ 27) _____

Find the y- and x-intercepts for the equation. Then graph the equation.

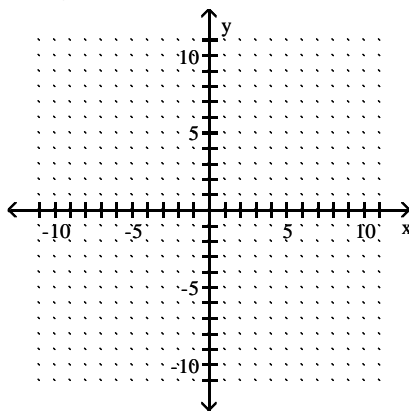
28) $x + y = -4$

28) _____



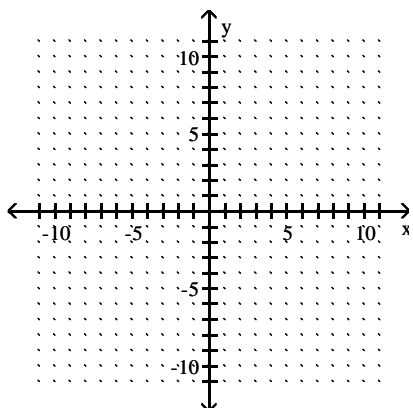
29) $4x - y = 5$

29) _____



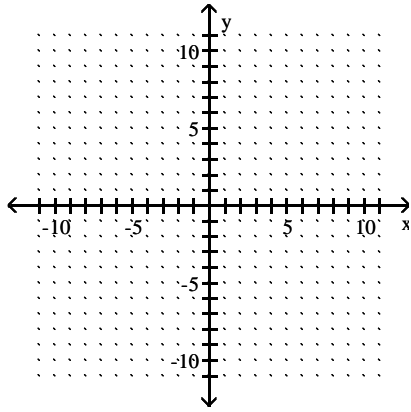
30) $-6x - 12y = 36$

30) _____



31) $3y - x = 0$

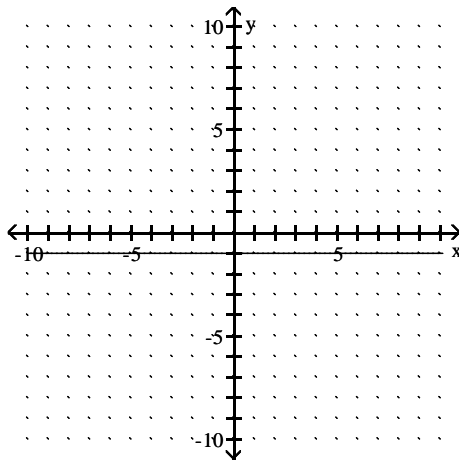
31) _____



Write an equation for the graph.

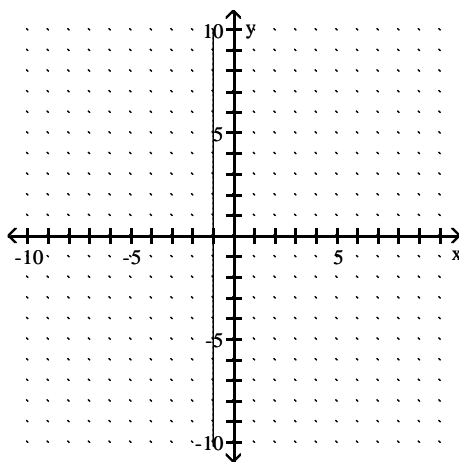
32)

32) _____



33)

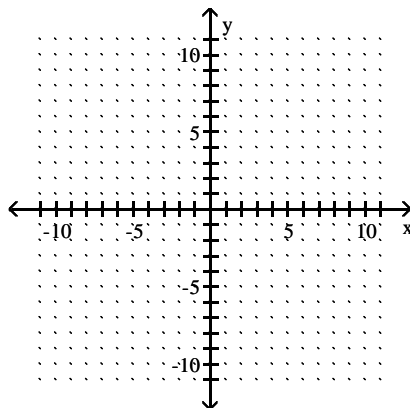
33) _____



Graph the equation.

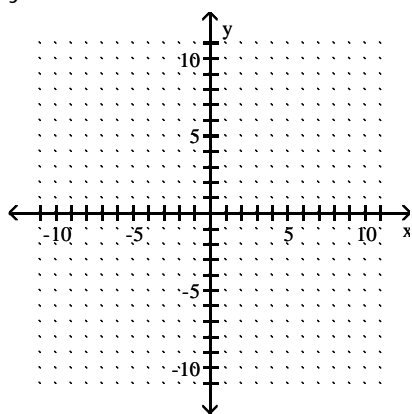
34) $x = 8$

34) _____



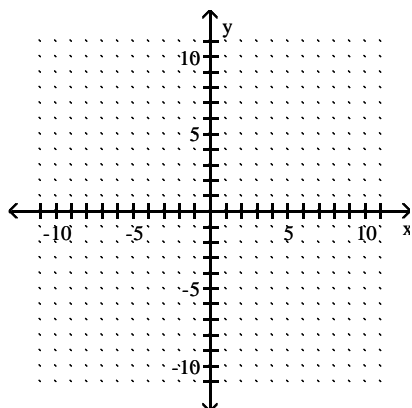
35) $y + 3 = 0$

35) _____



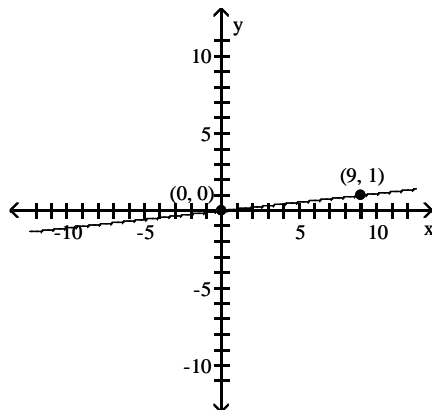
36) $-64 - 16x = 0$

36) _____



Find the slope of the line through the points and interpret the slope.

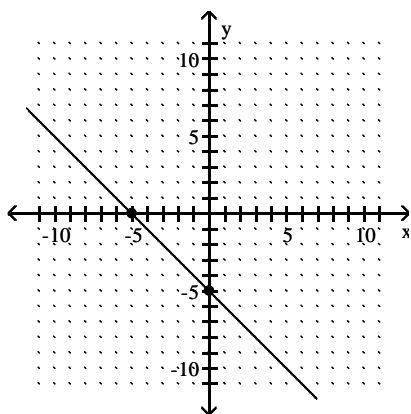
37)



37) _____

Find the slope of the line.

38)



38) _____

Find the slope of the line containing the two points.

39) $(4, -5)$; $(-2, 6)$

39) _____

40) $\left(\frac{1}{4}, -\frac{1}{2}\right)$ and $\left(\frac{2}{3}, \frac{5}{3}\right)$

40) _____

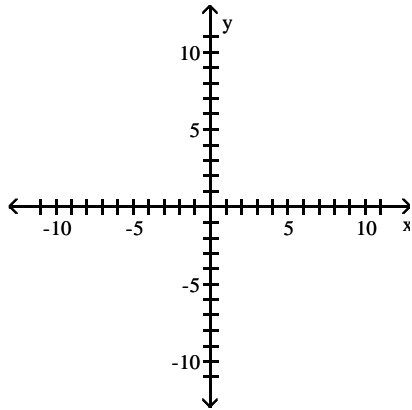
41) $(19p, -7p)$ and $(-17p, 12p)$

41) _____

Find any two ordered pairs on the line. Graph the line and determine its slope.

42) $y = -2x - 5$

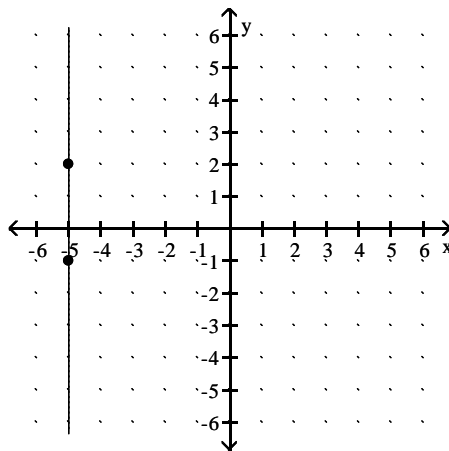
42) _____



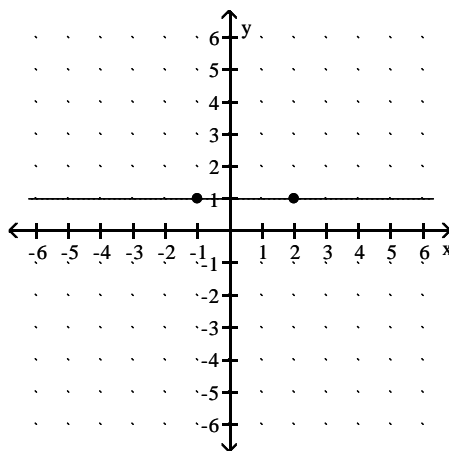
Find the slope of the line.

43)

43) _____



44)



44) _____

Find the slope of the line containing the two points.

45) $(-5, -7); (7, -7)$

45) _____

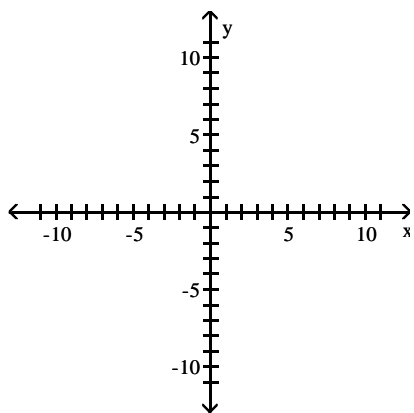
46) $(-1, -3), (-1, -8)$

46) _____

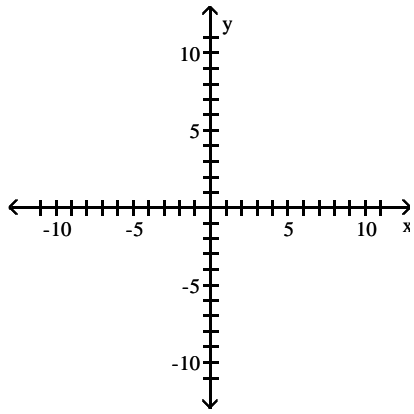
Graph the line containing the given point and having slope m .

47) $(3, -5); m = 4$

47) _____

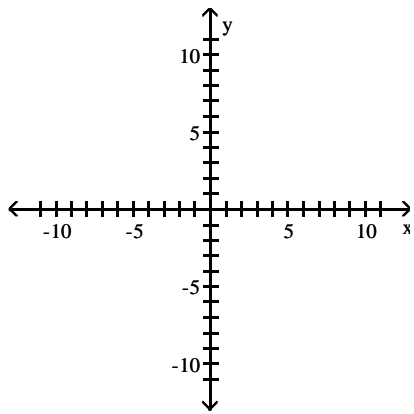


48) $(-6, -6); m = -2$



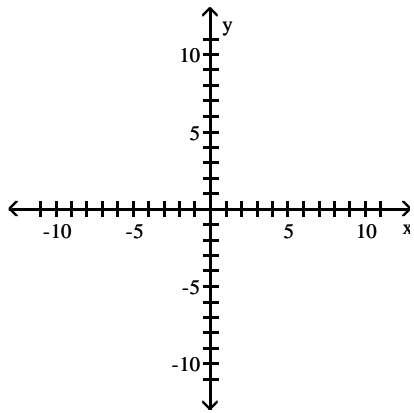
48) _____

49) $(0, 4); m = \frac{1}{2}$



49) _____

50) $(2, 9); m = 0$

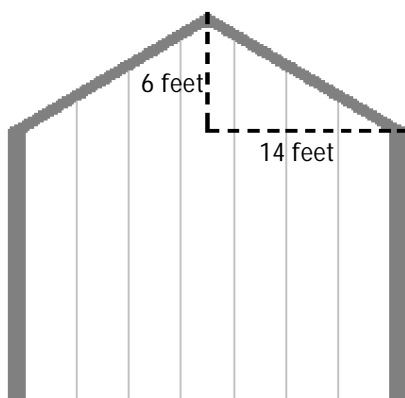


50) _____

Solve the problem.

51) The pitch of a roof is its slope. Find the pitch of the roof shown.

51) _____



52) The approach ramp used by a daredevil motorcyclist for flying over a collection of flaming barrels of oil has a rise of 6.5 feet for every 10 feet in horizontal distance. Find the grade of the ramp. Round to the nearest whole percent.

52) _____

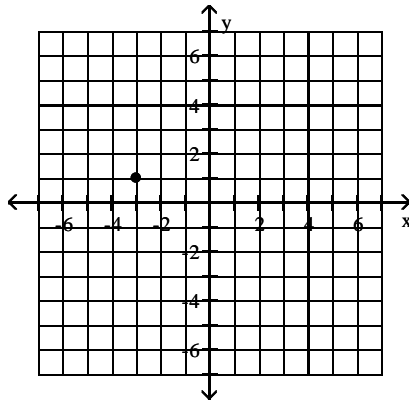
Answer Key

Testname: M30_3.1-3.3_FA13

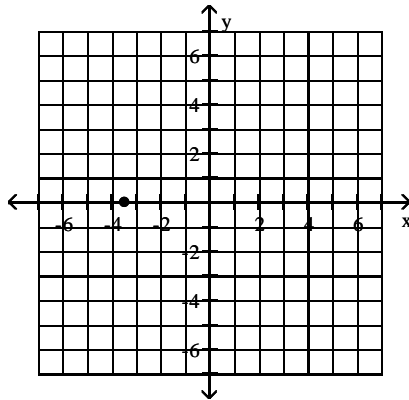
1) I

2) IV

3)



4)



5) $G = (7, 3)$, $H = (-6, 4)$

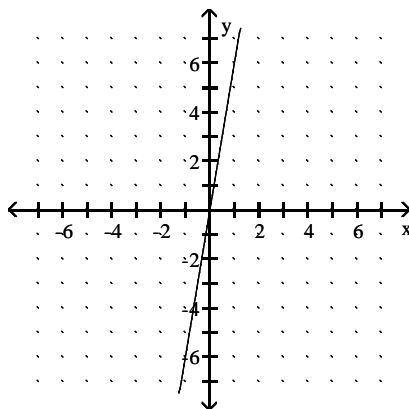
6) Yes

7) No

8) $(-2, -14)$

9) $(6, -11)$

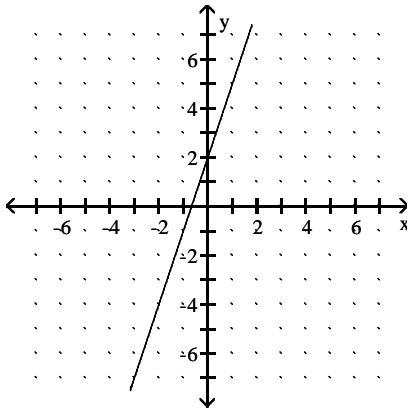
10)



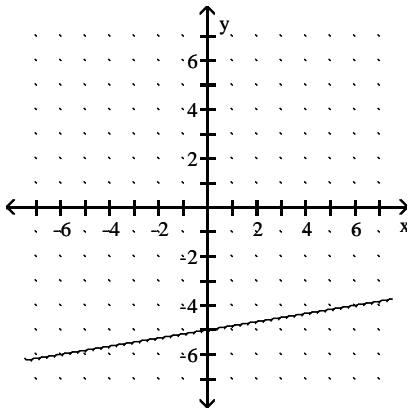
Answer Key

Testname: M30_3.1-3.3_FA13

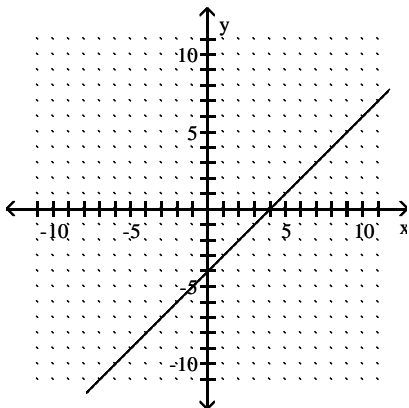
11)



12)



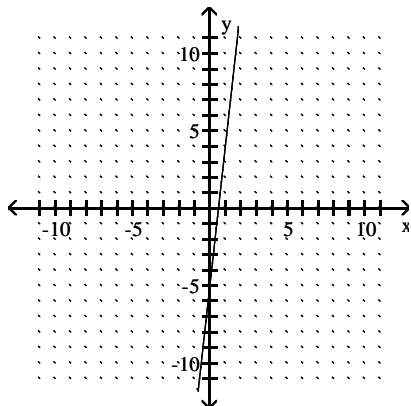
13) $y = x - 4$



Answer Key

Testname: M30_3.1-3.3_FA13

14) $y = 9x - 5$



15) $(4, 97)$

16) $(7, 6904)$

17) x-intercept = 1; y-intercept = 4

18) x-intercept = 8; no y-intercept

19) no x-intercept; y-intercept = 7

20) From the time that the advertising was doubled until the 6th month

21) \$2 million

22) 6 months

23) $y = 6$

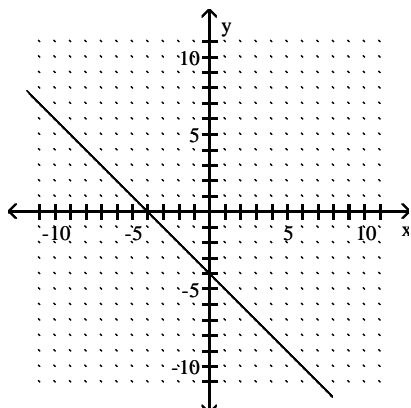
24) x-intercept = 6; y-intercept = 6

25) x-intercept = 2; y-intercept = 4

26) x-intercept = $-\frac{3}{4}$; y-intercept = 3

27) x-intercept = $\frac{9}{2}$; y-intercept = $-\frac{9}{4}$

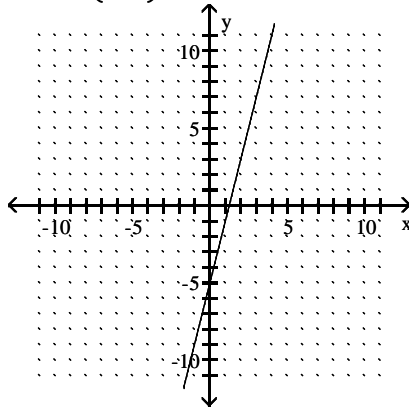
28) $(0, -4), (-4, 0)$



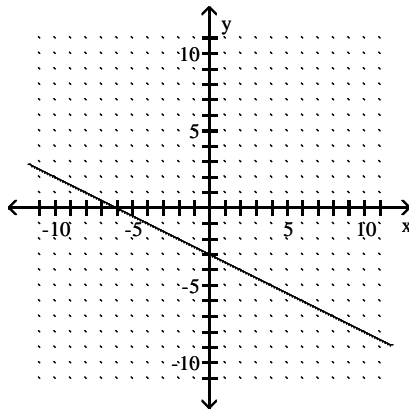
Answer Key

Testname: M30_3.1-3.3_FA13

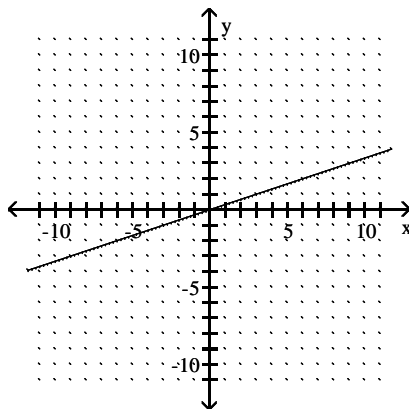
29) $(0, -5); \left(\frac{5}{4}, 0\right)$



30) $(0, -3); (-6, 0)$



31) $(0, 0), (0, 0)$



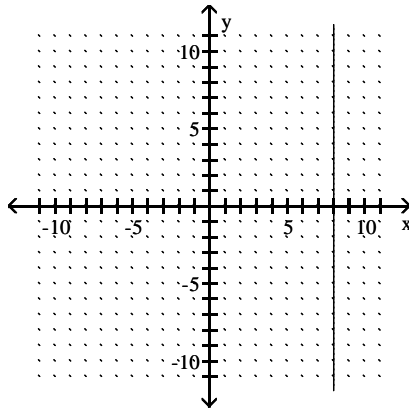
32) $y = -1$

33) $x = -1$

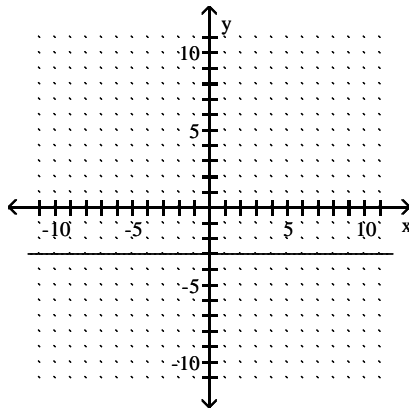
Answer Key

Testname: M30_3.1-3.3_FA13

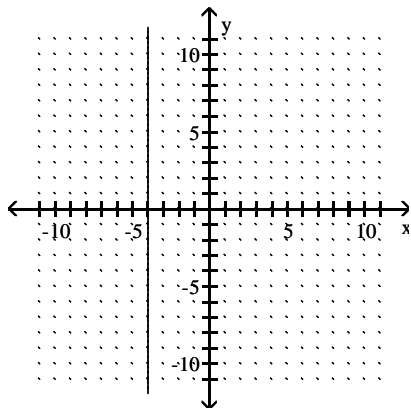
34)



35)



36)



37) $\frac{1}{9}$; for every 9-unit increase in x, y will increase by 1 unit

38) -1

39) $-\frac{11}{6}$

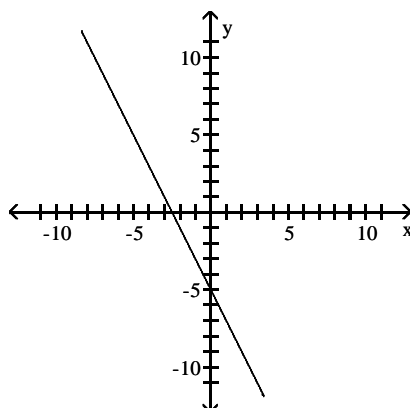
40) $\frac{26}{5}$

41) $-\frac{19}{36}$

Answer Key

Testname: M30_3.1-3.3_FA13

42) $m = -2$



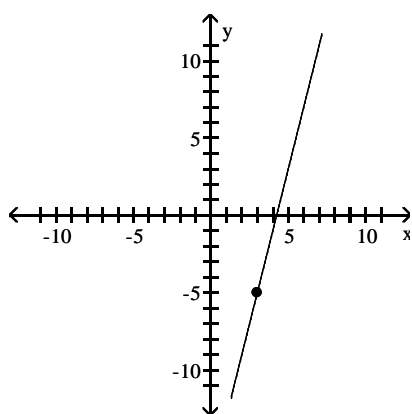
43) undefined slope

44) 0

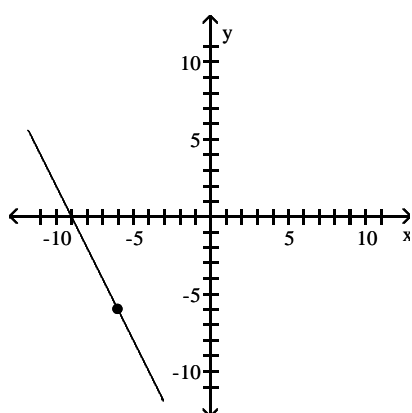
45) 0

46) undefined slope

47)



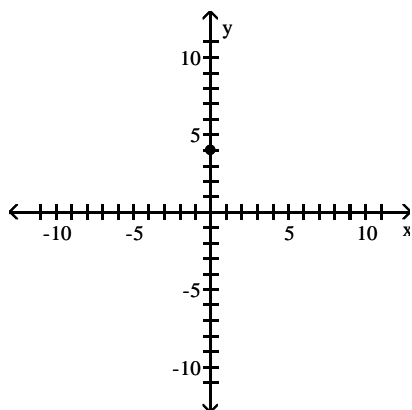
48)



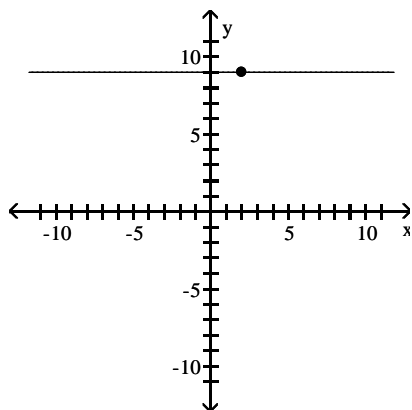
Answer Key

Testname: M30_3.1-3.3_FA13

49)



50)



51) $\frac{3}{7}$

52) 65%