Review for MA098
Graphing andFunctions

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Solve.

1) The following table shows the number of cans of soda sold at a campus stand on five different days, according to the high temperature on the day sold. Plot points that represent this data on a rectangular coordinate system. 1) _____

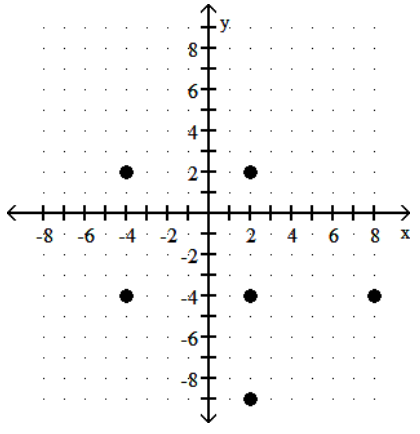
High Temperature (in degrees Fahrenheit)	Number of Cans Sold
70	325
75	350
80	440
85	470
90	575

2) The following table shows the number of cookies sold at a bake sale, according to their diameter in inches. Plot points that represent this data on a rectangular coordinate system. 2) _____

Diameter of Cookie (inches)	Number Sold
1	150
1.5	300
2	450
2.5	250
3	350

Six points are plotted in the figure. List all the ordered pairs needed to represent the points.

3) 3) _____



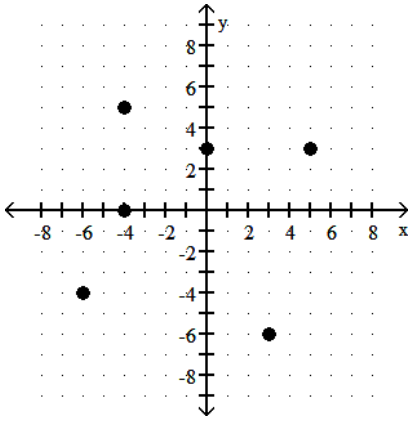
Solve.

4) The following table shows the hourly wage for an employee (in dollars) from 2007 to 2012. Plot points that represent this data on a rectangular coordinate system. 4) _____

Year	Hourly Wage (dollars)
2007	10.54
2008	10.62
2009	11.16
2010	11.94
2011	12.05
2012	13.71

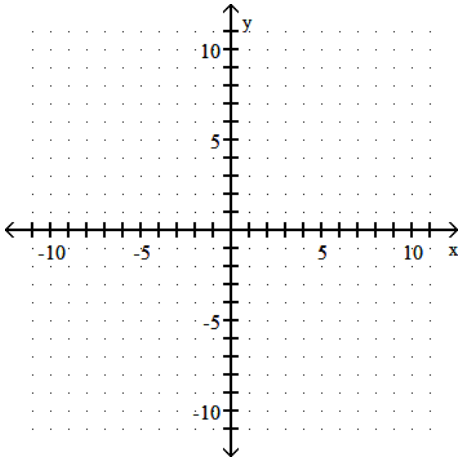
Six points are plotted in the figure. List all the ordered pairs needed to represent the points.

5) 5) _____



Graph.

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



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

7) $m = -\frac{2}{3}$, y-intercept $\left(0, \frac{16}{3}\right)$ 7) _____

8) $m = -6$, y-intercept $(0, 5)$ 8) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Find the equation of the line that has the given slope and passes through the given point.

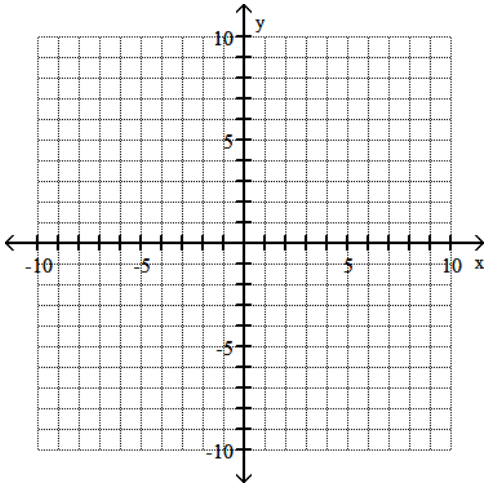
9) m = 3, (5, 5) 9) _____

A) y = 3x - 10 B) y = 3x + 10 C) x = 3y + 10 D) x = 3y - 10

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Graph the equation.

10) 2y - 7 = -23 10) _____



Find an equation of the line that fits the description.

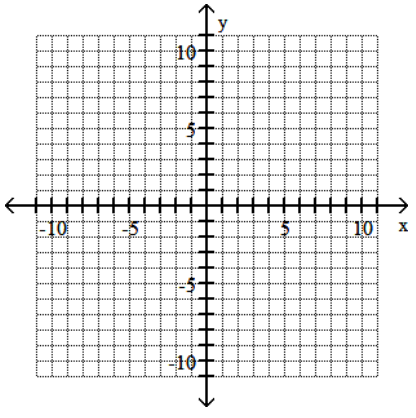
11) Passes through (8, 3) and is perpendicular to y = 4x + 11 11) _____

Find the domain and range of the relation.

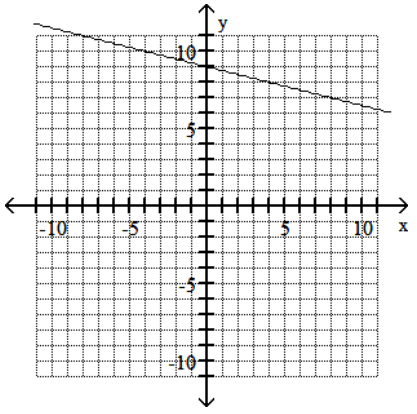
12) {(2, 3), (1, 8), (-7, 5), (-7, -8)} 12) _____

Graph the region described by the inequality.

13) y ≤ -6 13) _____



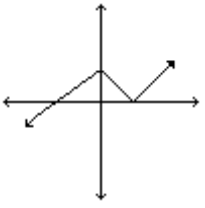
Write an equation of the line.

14) 

14) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Determine whether the relation is a function.

15) 

15) _____

A) Not a function

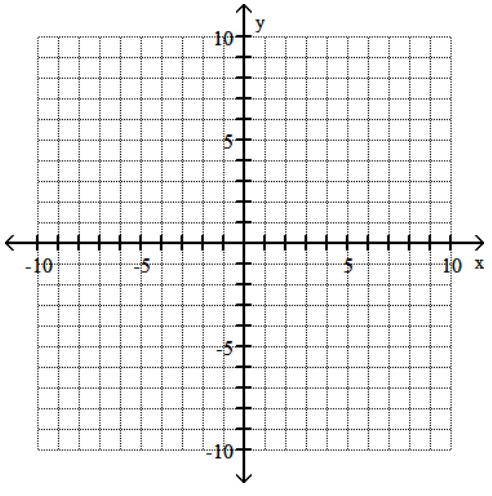
B) Function

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Graph the equation by plotting the intercepts.

16) $y = \frac{1}{2}x + 3$

16) _____



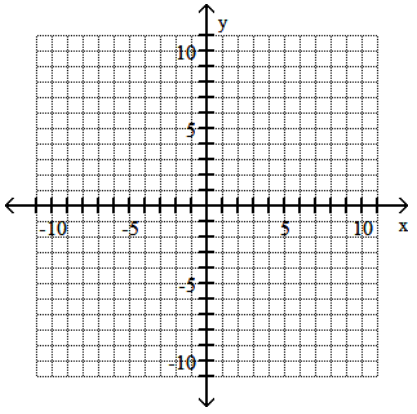
Find the slope and the y-intercept.

17) $y = -4x + 6$

17) _____

Graph the region described by the inequality.

18) $4x \geq -5y$ 18) _____

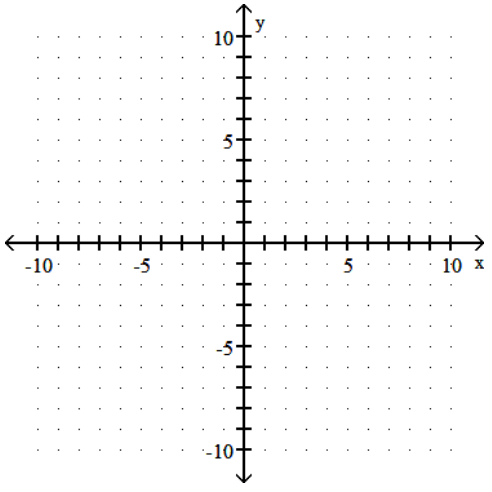


Provide an appropriate response.

19) Complete (a) and (b) for the equation $x - 2y = -6$ 19) _____

(a) State the x- and y-intercepts.

(b) Use the intercept method to graph.



Find the equation of the line that has the given slope and passes through the given point.

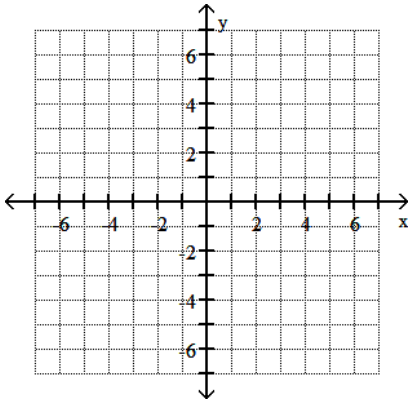
20) $m = 3, (-4, 4)$ 20) _____

Provide an appropriate response.

21) What is the slope and y-intercept of the line $9x - 7y - 10 = 0$? 21) _____

Plot the point.

22) (3, -1) 22) _____



Determine whether the relation is a function.

23) {(-8, 7), (-3, -3), (-1, -5), (3, 6)} 23) _____

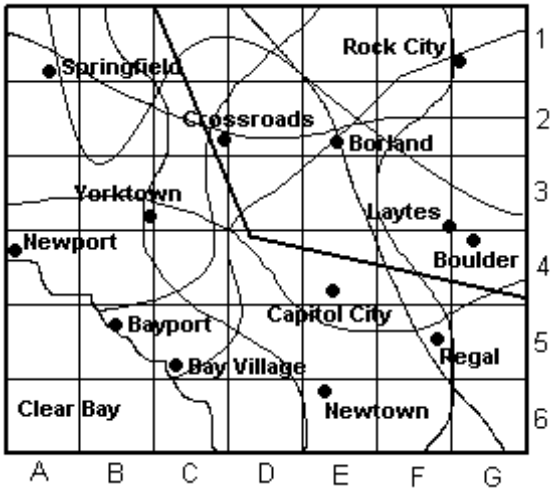
Provide an appropriate response.

24) Find an equation for the line passing through (4, -4) and (-3, 7). 24) _____

Find the slope and the y-intercept.

25) x + y = -8 25) _____

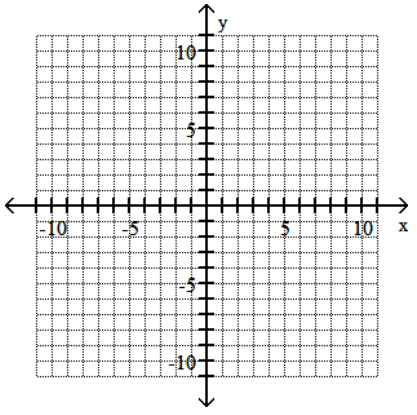
The map below has horizontal and vertical grid markers for ease of use. For example, Newport is located in grid A4. Use the grid labels to indicate the location of the given city.



26) Capitol City 26) _____

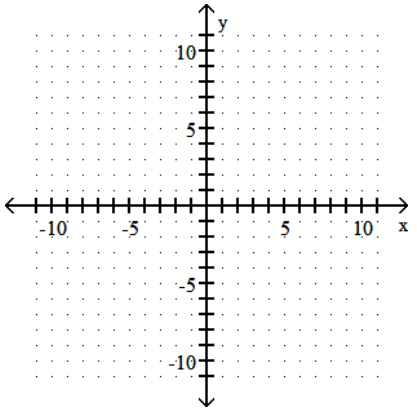
Graph the line y = mx + b for the given values.

27) m = $-\frac{1}{3}$, b = 4 27) _____



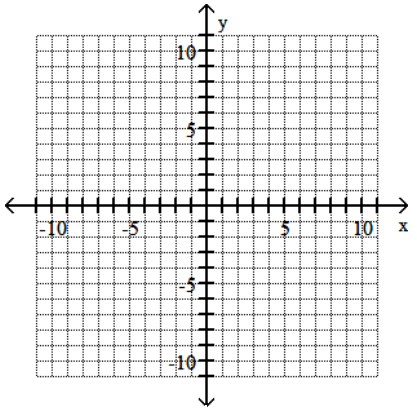
Graph the region described by the inequality.

28) -3x - 5y > 15 28) _____

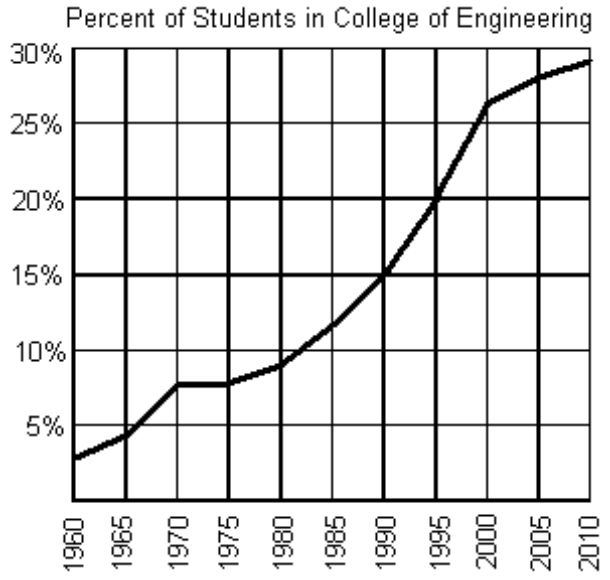


Graph the line.

29) y = 4x 29) _____

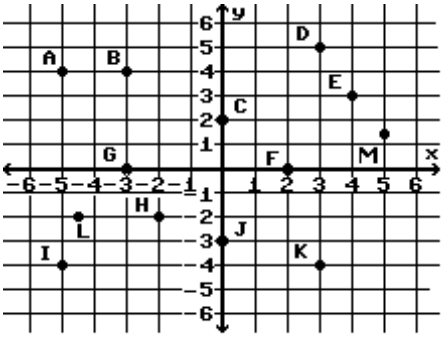


The graph below shows the percentage of students enrolled in the College of Engineering at State University. Use the graph to answer the question.



30) Find f(2010). 30) _____

Consider the points plotted in the graph below.



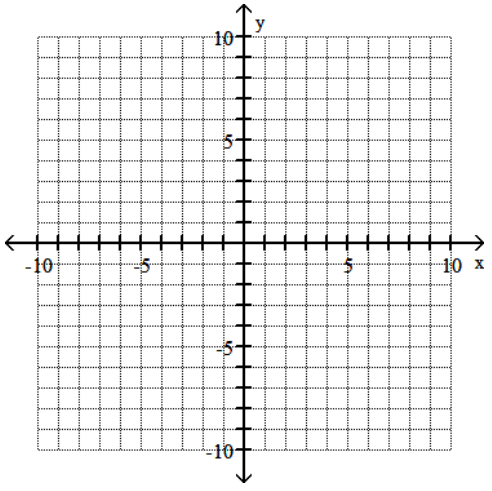
31) Give the coordinates for points E and F. 31) _____

Given the function, find the indicated value.

32) $f(x) = x^2 - 4x - 7$; $f(-2)$ 32) _____

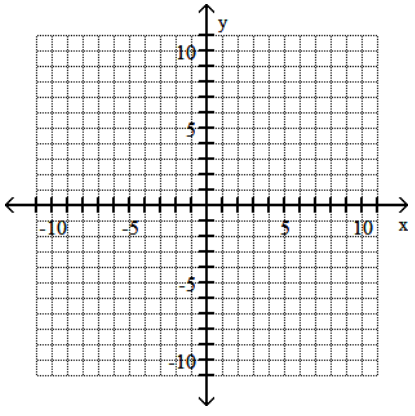
Graph the equation.

33) $-7y - 4 = -6y$ 33) _____



Graph the line.

34) $y = \frac{3}{4}x + 2$ 34) _____



Find the equation of the line that has the given slope and passes through the given point.

35) $m = 4, \left(-\frac{2}{3}, 1\right)$ 35) _____

Find an equation of the line that fits the description.

36) Passes through (7, 9) and has undefined slope 36) _____

Determine whether the relation is a function.

37) {(-3, 7), (-2, -9), (3, 4), (8, -6)} 37) _____

Write an equation of the line passing through the given points.

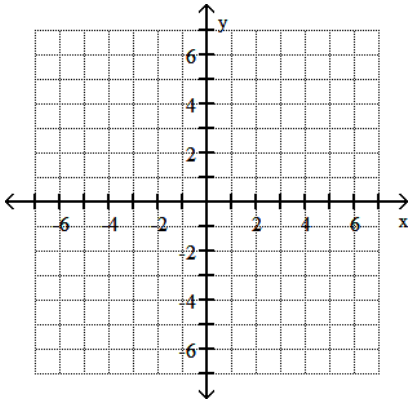
38) (3, -21) and (-7, 19) 38) _____

Given the function, find the indicated value.

39) $f(x) = x^2 + 4x + 3; f(0)$ 39) _____

Plot the point.

40) (-5, 4) 40) _____

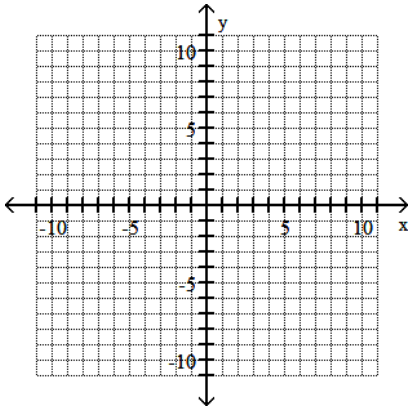


Write an equation of the line passing through the given points.

41) (7, 38) and (1, 8) 41) _____

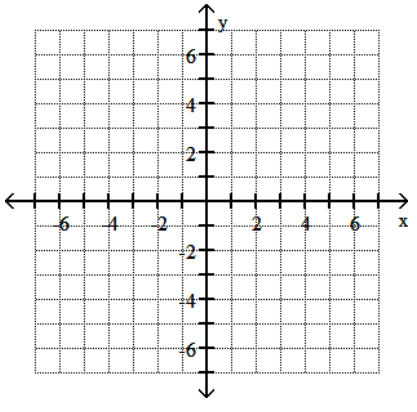
Graph the region described by the inequality.

42) $-2x - 5y \leq 10$ 42) _____



Plot the point.

43) (4.5, -5.5) 43) _____



Find the equation of the line that has the given slope and passes through the given point.

44) $m = \frac{2}{3}$, (0, 4) 44) _____

Find an equation of the line that fits the description.

45) Passes through (-2, 3) and is parallel to $y = 3x + 8$ 45) _____

Provide an appropriate response.

46) For $f(x) = x^2 + 2x + 7$: 46) _____

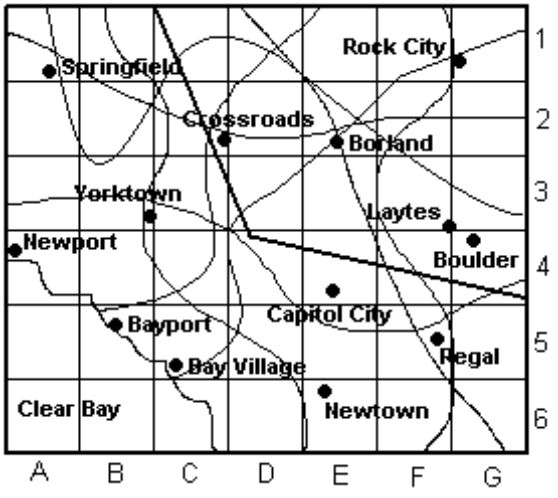
(a) Find f(0).

(b) Find f(-3).

Write an equation of the line passing through the given points.

47) (0, 0) and $\left(8, \frac{8}{7}\right)$ 47) _____

The map below has horizontal and vertical grid markers for ease of use. For example, Newport is located in grid A4. Use the grid labels to indicate the location of the given city.



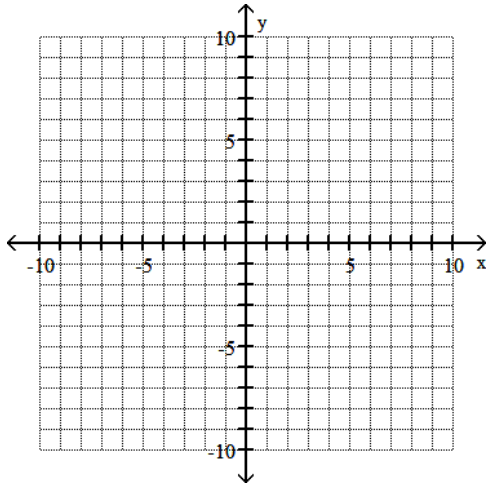
48) Bay Village 48) _____

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

49) $m = -\frac{3}{5}$, y-intercept (0, 6) 49) _____

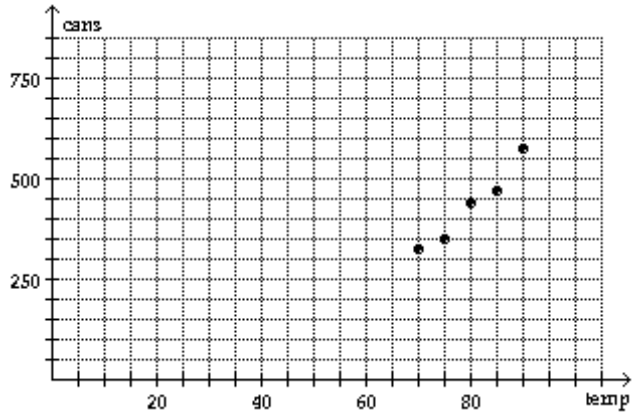
Graph the equation by plotting three points and connecting them.

50) $7x + 9y = 0$ 50) _____

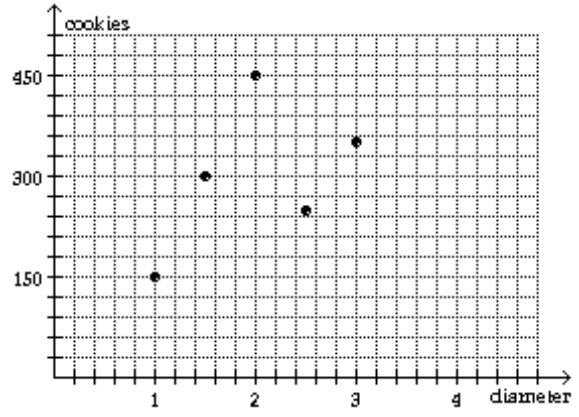


Answer Key
Testname: GRAPHING AND FUNCTION

1)

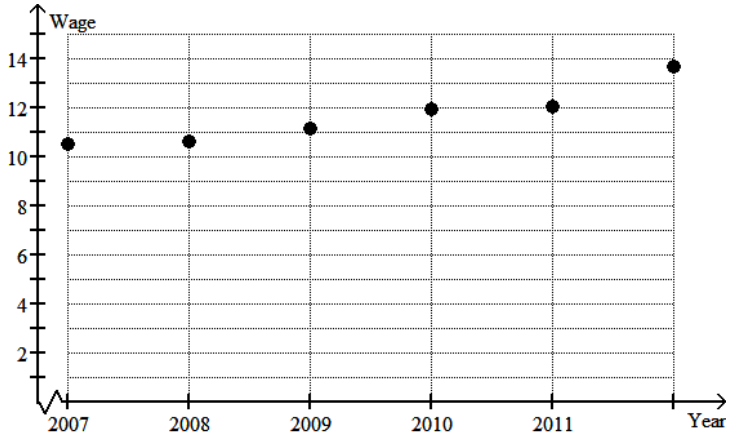


2)



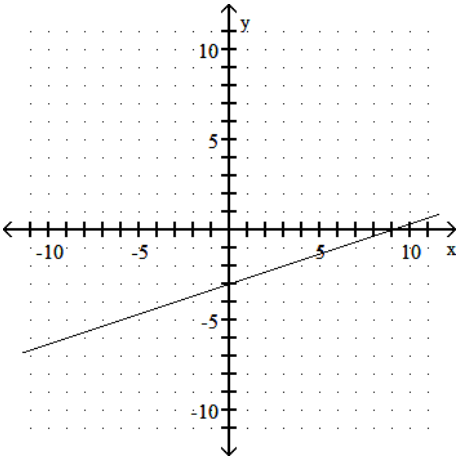
3) (-4, 2), (-4, -4), (2, 2), (2, -4), (2, -9), (8, -4)

4)



5) (-4, 5), (-4, 0), (-6, -4), (0, 3), (5, 3), (3, -6)

6)

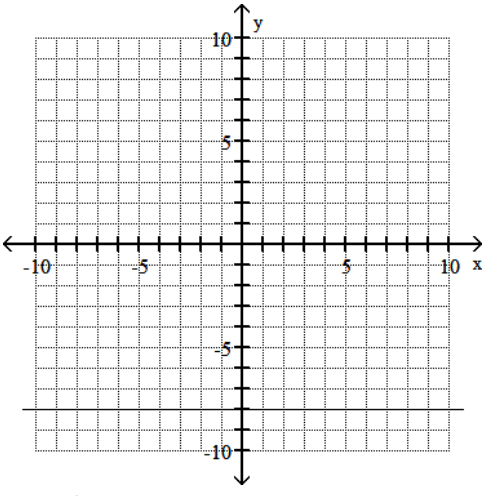


7) $y = -\frac{2}{3}x + \frac{16}{3}$

8) $y = -6x + 5$

9) A

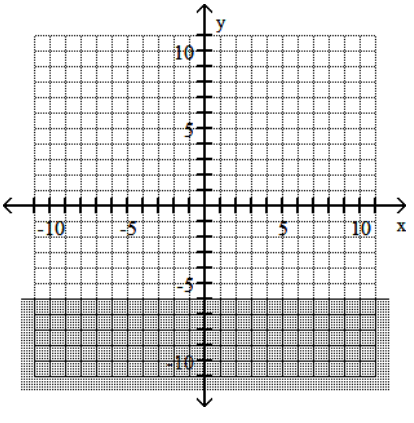
10)



11) $y = -\frac{1}{4}x + 5$

12) Domain = {-7, 2, 1}; range = {5, 3, 8, -8}

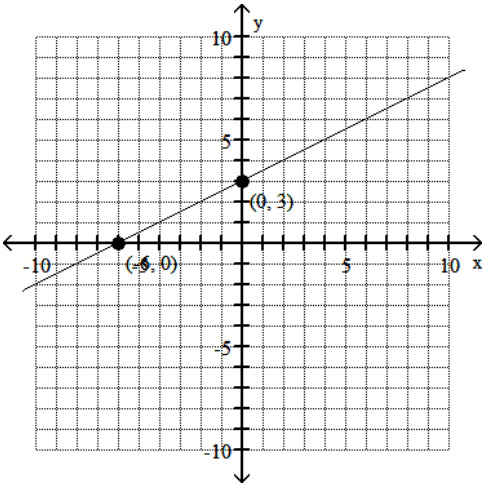
13)



14) $y = -\frac{1}{4}x + 9$

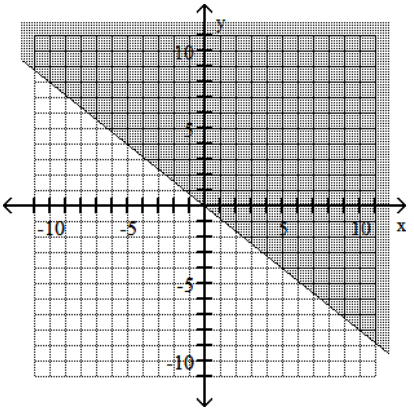
15) B

16)

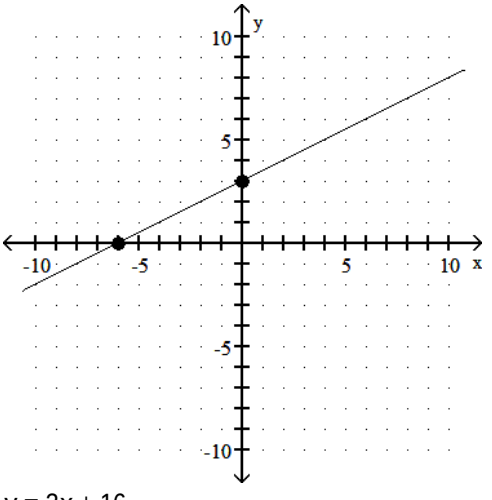


17) m = -4; (0, 6)

18)



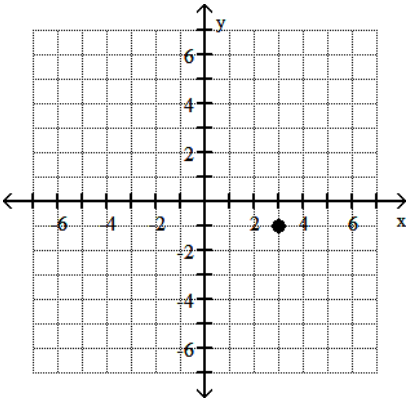
19) x-intercept: (-6, 0)
y-intercept: (0, 3)



20) y = 3x + 16

21) $m = \frac{9}{7}; \left(0, -\frac{10}{7}\right)$

22)



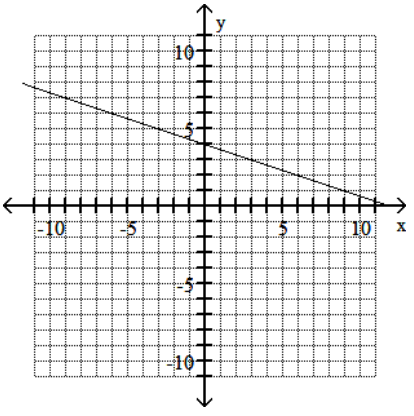
23) Function

24) $y = -\frac{11}{7}x + \frac{16}{7}$

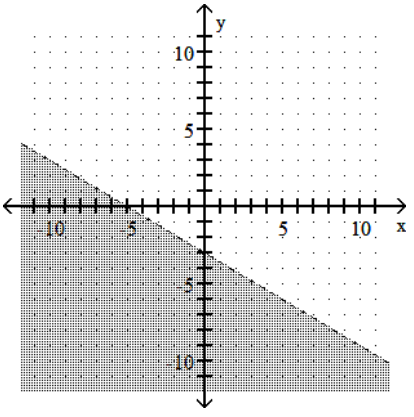
25) m = -1; (0, -8)

26) E4

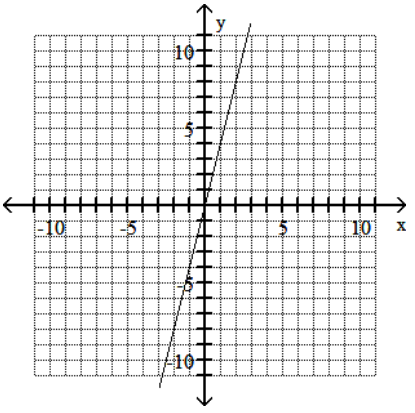
27)



28)



29)

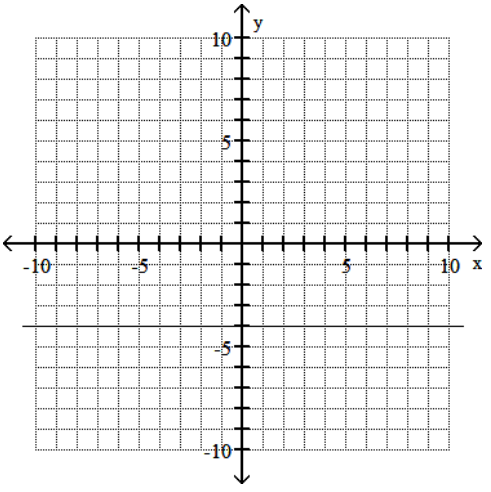


30) 29%

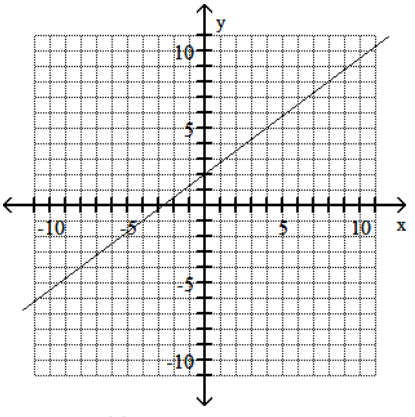
31) E: (4, 3), F: (2, 0)

32) 5

33)



34)



35) $y = 4x + \frac{11}{3}$

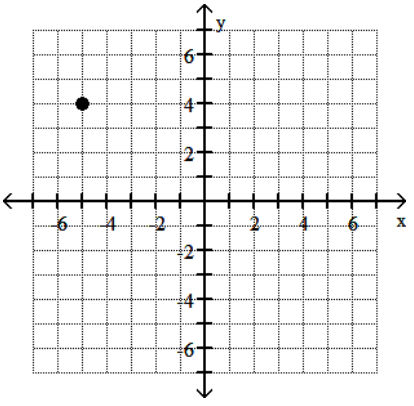
36) x = 7

37) Function

38) y = -4x - 9

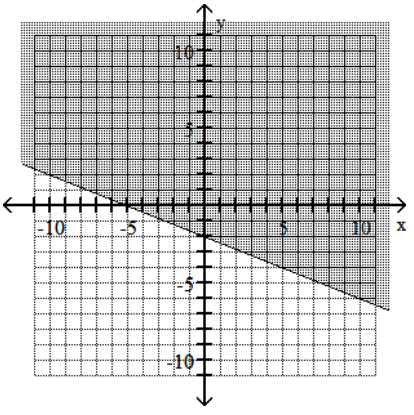
39) 3

40)

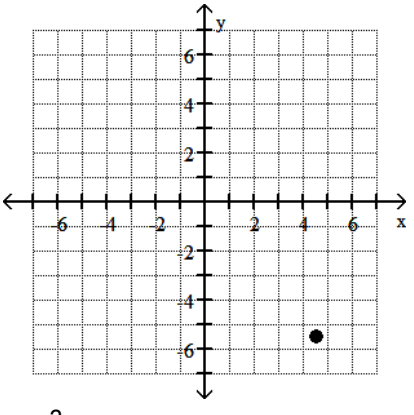


41) y = 5x + 3

42)



43)



44) $y = \frac{2}{3}x + 4$

45) y = 3x + 9

46) (a) 7;
(b) 10

47) $y = \frac{1}{7}x$

48) C5

49) $y = -\frac{3}{5}x + 6$

50)