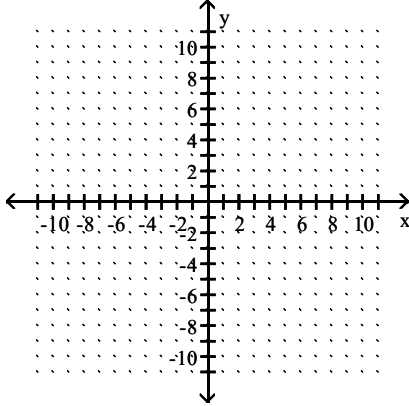


Show all work neatly and systematically for full credit. Total points: 102 (6 points each).

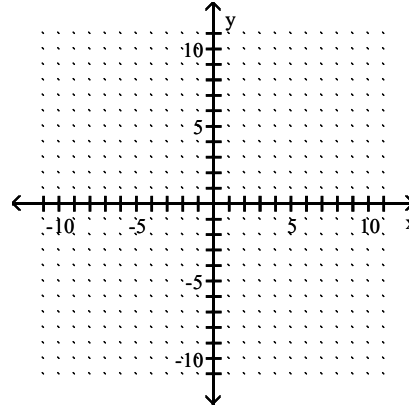
(6) Solve the system graphically. (note, this is not a good problem since the answer contain fractions).

1) $x + 2y = 4$
 $5x - 4y = -4$

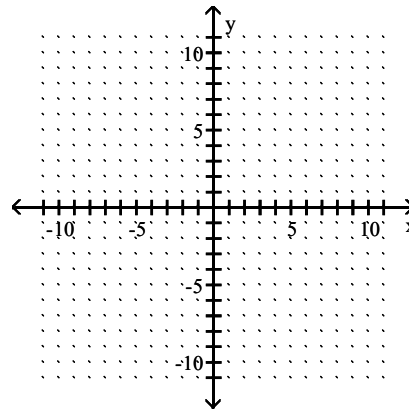


(6) Draw lines.

3) a. Draw a line that has Slope $\frac{1}{5}$; and y-intercept (0, 6)



b. Draw a line that has slope -2 and passes through the pint (-1, 3).



(6) Solve.

2) The perimeter of a rectangular building is 212 feet. The width is 48 feet shorter than the length. What are the dimensions? (Let W represent the width and L represent the length.)

(6) Solve .

4) $7x + 2y = -24$
 $5x + 4y = -12$

(6) Solve .

5) $7x + y = -13$
 $-8x + y = 17$

(6) Find the slopes.

7) a. A line passing through the points $(-6, 8)$ and $(5, 3)$. Find the slope.

b. A vertical line passing through $(-2, 3)$. Find the slope.

c. A horizontal line passing through $(-1, 7)$. Find the slope.

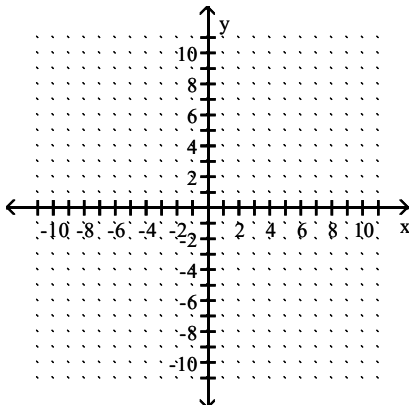
(6) Find the intercepts for the equation.

6) $-2x - 5y = -4$

a. x-intercept: _____

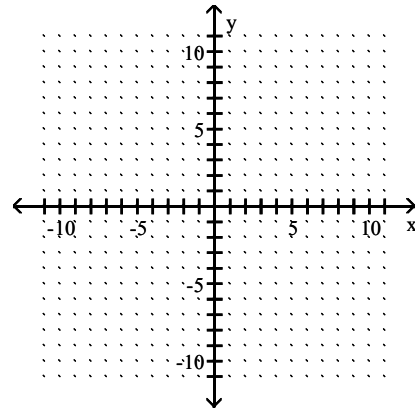
b. y-intercept: _____

c. Graph the equation.

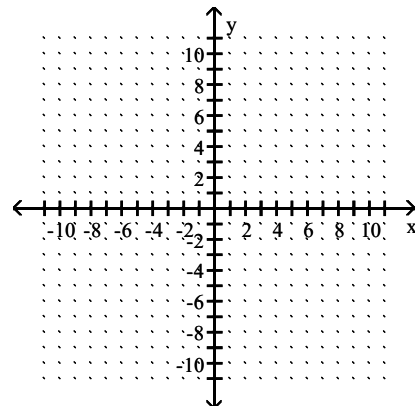


(6) Graph the equations.

8) a. $8x = -40$



b. $y - 3 = 0$



9) (5) **Equation of a line.**

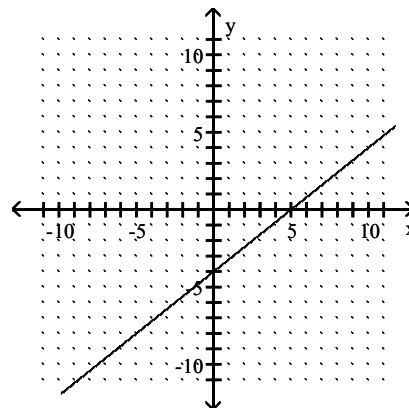
Find an equation of the line having the slope

$m = -\frac{3}{4}$, and containing the indicated point

$(7, -3)$. Write your answer in slope-intercept form.

(4) **Given a graph.**

11)



a. Find the coordinates of the y-intercept

b. Find the coordinates of x-intercept.

c. Find the slope of the line.

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

(6) **Solve .**

10) $\frac{1}{3}x - \frac{1}{4}y = 1$

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

12) (5) **Equation of a line.**

Write an equation of the line containing the point $(3, -9)$, and perpendicular to the line $-2x - 9y = -87$. Write the equation in slope intercept form.

(6) Find rate of change.

13) a. If a student drove 325 miles in 5 hours, find his average rate in miles per hour.

b. If it took Ethan 14 minutes to read 7 pages, find his average rate in minutes per page.

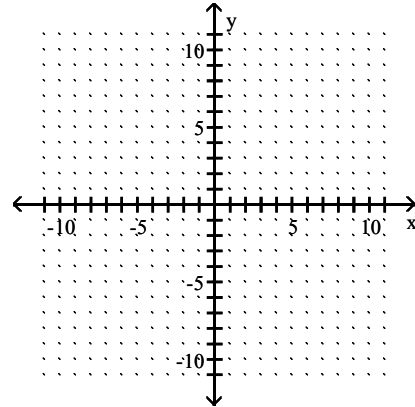
c. If Allen made 8 scones using 28 tablespoons of butter, find his average rate in tablespoons of butter per scone.

14) (5) Equation of a line.

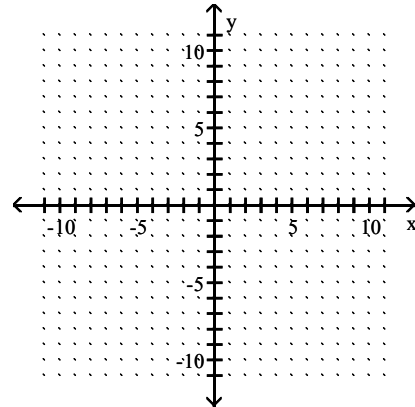
A line passing through $(4, -4)$ and $(9, -6)$. Find the equation of the line in slope intercept form.

(6) Graph the linear equations.

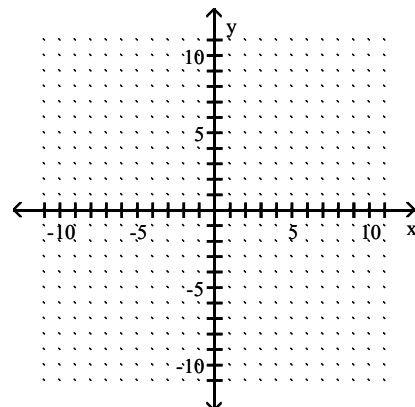
15) a. $y = \frac{1}{2}x + 6$



b. $4x - y = 7$

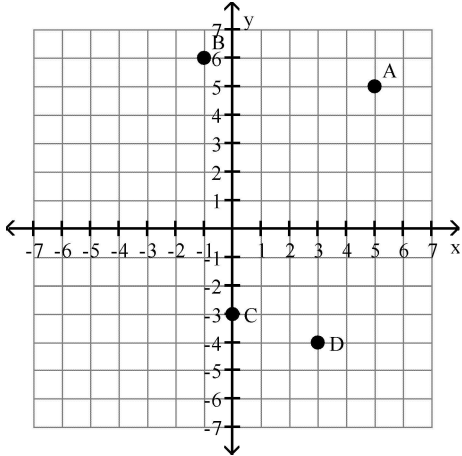


c. $2x = 5y$



(4) Find the coordinates of the labeled points.

16)



A: _____

B: _____

C: _____

D: _____

18) Ron and Kathy are ticket sellers for their class play. Ron sells student tickets for \$2.00 each, and Kathy sells adult tickets for \$4.50 each. If their total revenue for 364 tickets is \$1175.50, then how many tickets did Ron sell?

(6) Solve the problem.

17) How many liters of a 60%–alcohol solution must be mixed with 70 liters of a solution that is 90% alcohol to get a solution that is 80% alcohol?