

Name \_\_\_\_\_

**Identify the number as prime, composite, or neither.**

1) 150

2) 41

**Write the fraction in lowest terms.**

3)  $\frac{105}{217}$

4)  $\frac{14}{28}$

**Perform the operation. Write the answer as a fraction in lowest terms.**

5)  $\frac{11}{24} \cdot \frac{30}{22}$

6)  $9 \cdot 1\frac{9}{14}$

7)  $\frac{4}{11} \div \frac{3}{5}$

8)  $3\frac{7}{12} + 6\frac{5}{9}$

9)  $4\frac{3}{7} + 13\frac{2}{5}$

10)  $\frac{7}{8} + \frac{5}{12}$

11)  $\frac{19}{20} - \frac{9}{10}$

12)  $3\frac{1}{4} - 3\frac{1}{7}$

**Solve the equation.**

13)  $-\frac{9}{10}x = -81$

14)  $-2p + 7 = 5 - (5p + 2)$

15)  $3 - (x - 5) = -5x + 4(x + 9)$

16)  $12(x + 4) = 4(3x + 3) + 36$

17)  $\frac{12}{13}x + \frac{1}{3} = \frac{2}{5} - \frac{1}{13}x + \frac{2}{5}$

**Solve the problem.**

18) A minor league baseball team plays 82 games in a season. If the team won 16 more than twice as many as they lost, how many wins and losses did the team have?

19) Find the measure of an angle, if its complement measures  $30^\circ$  less than four times the angle.

20) Find the measure of an angle, if its supplement measures  $35^\circ$  more than six times the angle.

21) An electrician cuts a 14 ft piece of wire into two pieces. One piece is 2 ft longer than the other. How long are the pieces?

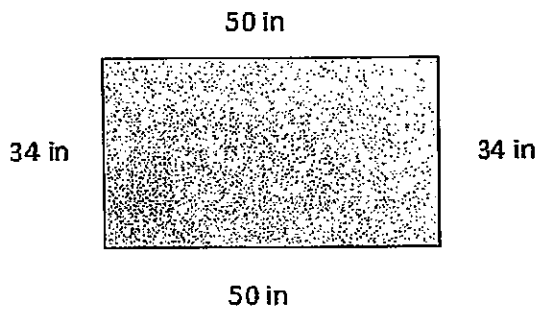
22) At work one day, Erica Franz received 36 packages. Speedy Delivery delivered three times as many as Ralph's Express, while Ralph's Express delivered four more than SendQuick Package Service. How many packages did each service deliver to Erica?

23) A Special Olympics event has 12 more boys than girls competing. The total number of participants is 1000. How many boys competed and how many girls competed?

24) How much pure acid is in 250mL of a 14% acid solution?

25) If 8 US dollars can be exchanged for 84.3 Mexican pesos, how many pesos can be obtained for \$65? (Round your answer to the nearest tenth)

26) The newspaper, The Constellation, printed in 1859, had width 34 in and length 50 in. What was the perimeter? What was the area?



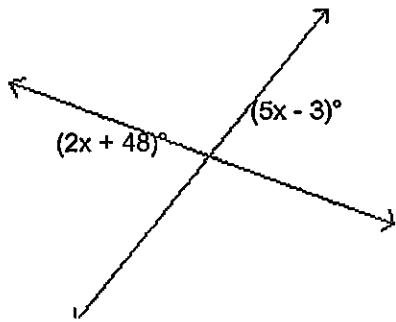
Solve the proportion.

27)  $\frac{x}{7} = \frac{24}{28}$

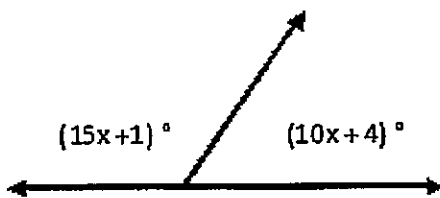
28)  $\frac{x+6}{3} = \frac{x+8}{6}$

Solve the problem.

29) Find the measure of each marked angle.

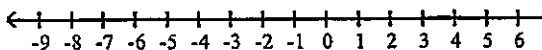


30) Find the measure of each marked angle.

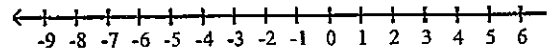


Solve the inequality and graph the solution set.

31)  $-10x + 4(x - 2) \geq 2x - (5 + 5x) - 12$



32)  $4 < 2t - 4 \leq 12$



Decide whether or not the ordered pair is a solution to the equation.

33)  $13x + 6y = -44$ ;  $(-2, -3)$

34)  $y = 5x$ ;  $(-2, -10)$

35)  $x - y = 9$ ;  $(3, 6)$

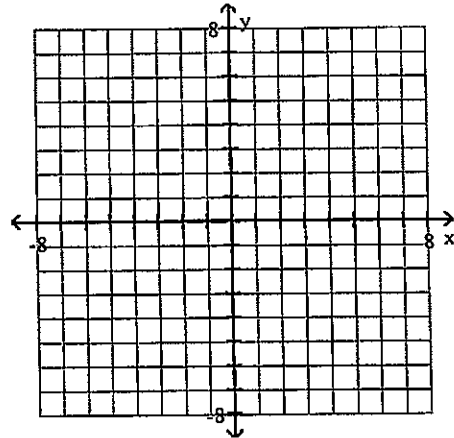
Complete the ordered pair for the given equation.

36)  $y = -4x - 18$   $(-6, \quad)$

37)  $4x + y = -19$   $(\quad, -19)$

Plot the ordered pairs on the rectangular coordinate system provided.

38)  $A(3, 3)$ ,  $B(-4, 2)$



Complete the table of values for the given equation.

39)  $y = -x + 5$

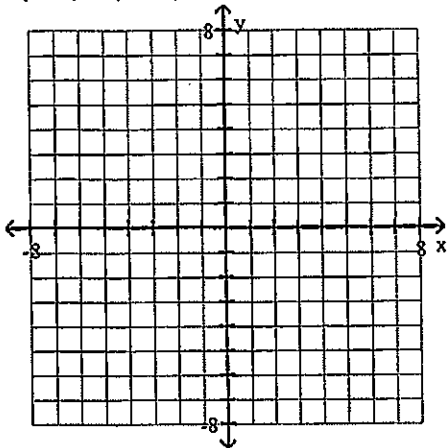
x	0	2	5
y			

40)  $4x - 2y = -8$

x			
y	4	0	8

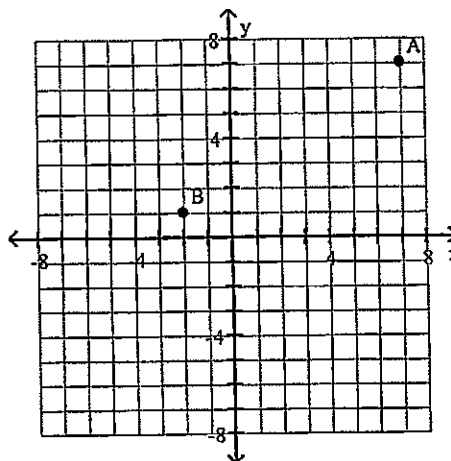
Plot the ordered pairs on the rectangular coordinate system provided.

41) A(5, 2), B(2, -5)



Give the ordered pairs for the points labeled on the graph.

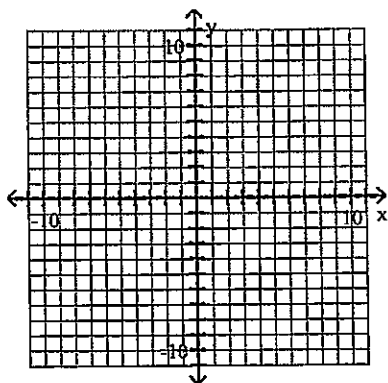
44)



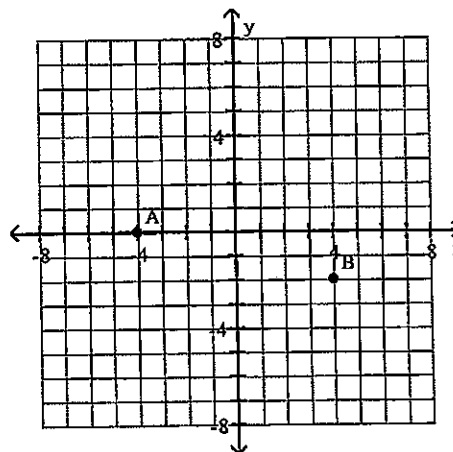
For the given equation, complete the table of values and plot the resulting ordered pairs.

42)  $x + 1 = 0$

x	y
0	
2	
-2	
4	

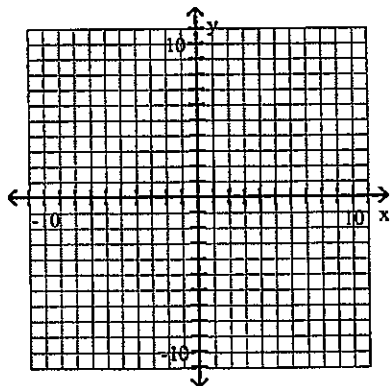


45)



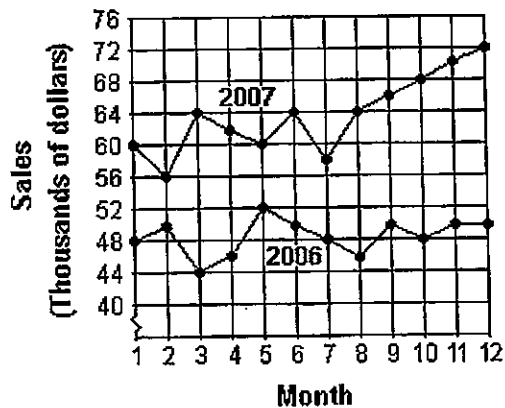
43)  $y + 2 = 0$

x	y
0	
2	
-2	
4	



Use the graph to answer the question.

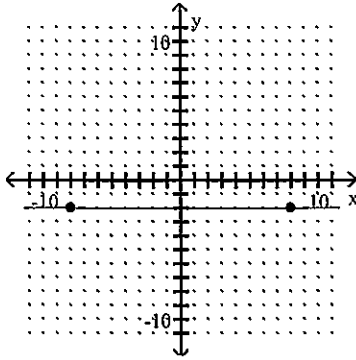
Big "D" Sales (2006 - 2007)



46) Which month in 2006 had the lowest sales?

Decide whether the slope is positive, negative, zero, or undefined.

47,



Determine whether the graphs of the equations are parallel lines, perpendicular lines, or neither.

48.  $12x + 4y = 16$   
 $y = -3x + 5$

Evaluate the function.

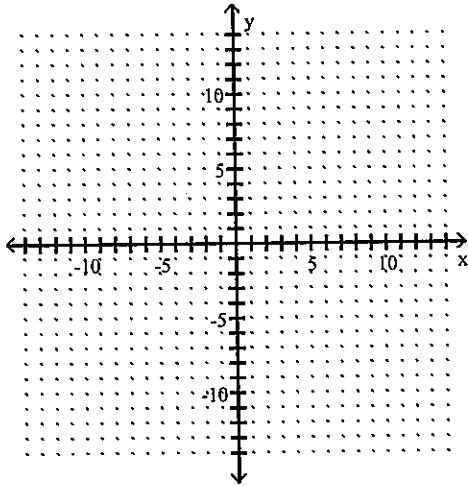
49. Given  $f(x) = 6x^2 + 6x - 1$ , find  $f(-5)$ .

Find the slope and y intercept of the line.

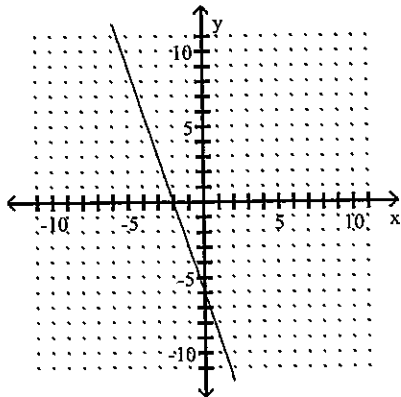
50)  $3x - 5y = 30$

Graph the linear equation.

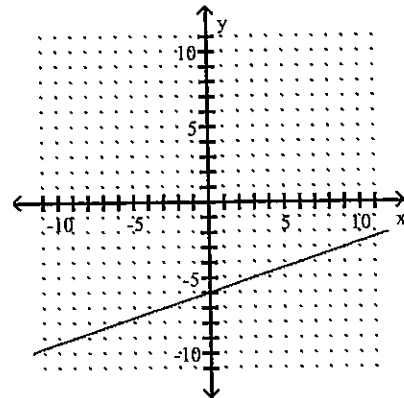
51,  $y = 3x - 6$



A)

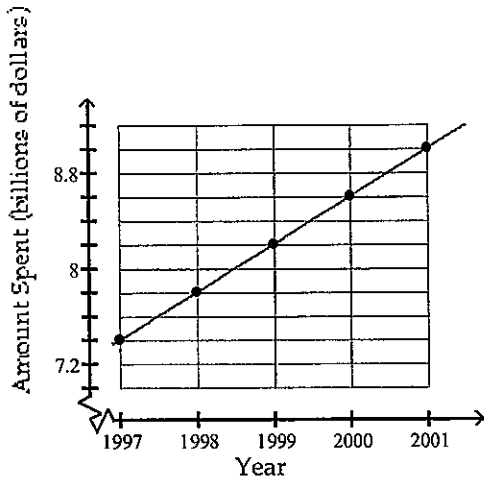


B)



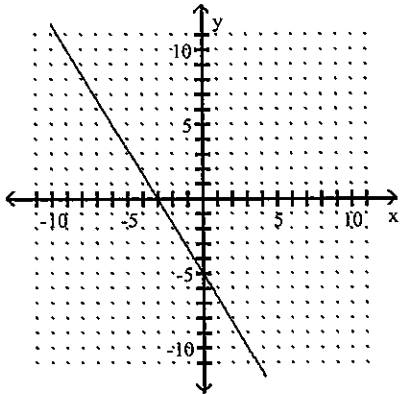
Solve the problem.

52) Data regarding the amount spent by a government department is represented in the following graph. Find the slope of the line by using any two of the points shown on the line. Is the slope equal to the yearly change in amount spent?

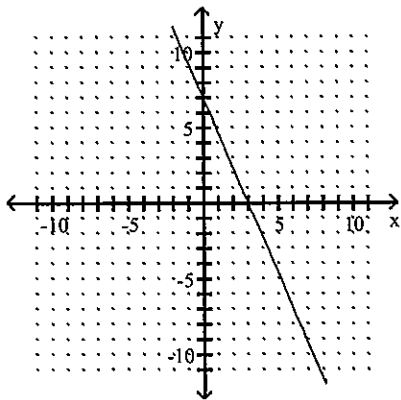


Use the geometric interpretation of slope (rise divided by run) to find the slope of the line. Then, by identifying the y-intercept from the graph, write the slope-intercept form of the equation of the line.

53



54



Write an equation of the line through the given point with the given slope. Write the equation in slope-intercept form.

55)  $(3, 2); m = -6$

Decide whether or not the ordered pair is a solution of the system.

56)  $(-3, 2)$   
 $4x = -10 - y$   
 $3x = -1 - 4y$

Decide whether the ordered pair is a solution of the given system.

57)  $x + y = -4$   
 $x - y = 6; (-1, -5)$

Solve the problem.

58) State your variables. Show your equations and work. Ron and Kathy were ticket-sellers at their class play, Ron handled student tickets that sell for \$2.00 each and Kathy sold adult tickets for \$6 each. If their total income for 33 tickets was \$150, how many did Ron sell?

59) Emilia doesn't trust banks, so her savings are hidden under her mattress. Alla has her savings in an investment at simple interest. In approximately what year did they have the same amount?



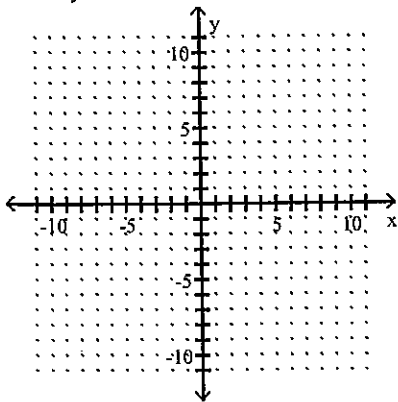
Solve the system by elimination.

60)  $-5x - 4y = -3$   
 $-10x - 8y = 6$

61)  $8x + 3y = 32$   
 $-5x + 3y = 19$

Solve the system by graphing.

62)  $3x - 2y = 11$   
 $2x + 3y = 16$



A)  $\{(5, 2)\}$

B)  $\{(3, 10)\}$

C)  $\{(2, 5)\}$

D)  $\emptyset$

Solve the system by substitution. If the system is inconsistent or has dependent equations, say so.

63)  $x = -28 - 7y$   
 $7x + 6y = 19$