

Algebra 1, Semester 1 Exam Review**What is an algebraic expression for the word phrase?**

- _____ 1. the sum of n and 9
A. $n - 9$ B. $n + 9$ C. $\frac{n}{9}$ D. $9n$
- _____ 2. the difference of r and 3
A. $\frac{r}{3}$ B. $r + 3$ C. $r - 3$ D. $3r$
- _____ 3. the quotient of j and 8
A. $\frac{j}{8}$ B. $8j$ C. $j - 8$ D. $j + 8$
- _____ 4. 3 times the sum of b and f
A. $3 + b + f$ B. $3bf$ C. $3(b + f)$ D. $3b + f$

What is the simplified form of each expression?

- _____ 5. $5(14 - 2)^2 + 2$
A. 60 B. 30 C. 72 D. 360
- _____ 6. $4(20 + 12) + (4 - 3)$
A. 29 B. 80 C. 128 D. 92
- _____ 7. Evaluate $\frac{u}{z} + xy^2$, for $u = 20$, $x = 4$, $y = 7$, and $z = 10$.
A. 294 B. 198 C. 900 D. 786
- _____ 8. To which subsets of the real numbers does the number 1.68 belong?
A. rational numbers
B. natural numbers, whole numbers, integers, rational numbers
C. rational numbers, irrational numbers
D. none of the above

- ___ 9. To which subsets of the real numbers does the number 22 belong?
A. whole numbers, natural numbers, and integers only
B. rational numbers only
C. whole numbers, integers, and rational numbers only
D. integers, rational numbers, natural numbers, and whole numbers

- ___ 10. To which subsets of the real numbers does the number $\sqrt{42}$ belong?
A. whole numbers, natural numbers, integers
B. irrational numbers
C. rational numbers
D. whole numbers, integers, rational numbers

What is the solution of the equation?

- ___ 11. $3(y - 5) + 2 = 5$
A. 4 B. 7 C. -4 D. 6

- ___ 12. $70 = -7(-2 - 2z)$
A. 4 B. -28 C. -112 D. 784

- ___ 13. $5.8x - 1.4 = 16$
A. 3 B. 2.4 C. 2.5 D. 4

What is the solution of the equation?

- ___ 14. $3p - 1 = 5(p - 1) - 2(7 - 2p)$
A. 3 B. 0 C. -9 D. -10

- ___ 15. $-6p + 7 = 3(2p - 3) - 4(-10 + 4p)$
A. $p = 6$ B. $p = 5$ C. $p = 7$ D. $p = 12$

What is the solution of each equation?

- ___ 16. $2(h - 8) - h = h - 16$
A. 8 C. infinitely many solutions
B. -8 D. no solution

- ___ 17. What equation do you get when you solve $a - q = a + sx$ for x ?
- A. $x = \frac{2a - q}{s}$ C. $x = -\frac{2a + q}{s}$
B. $x = -\frac{s}{q}$ D. $x = -\frac{q}{s}$
- ___ 18. Lenny runs a 100-meter course in 25 seconds. Gary runs a 450-meter course in 112.5 seconds. Bruford runs a 950-meter course in 237.5 seconds. Which athlete is the fastest? Round each speed to one decimal place.
- A. Lenny is the fastest.
B. Gary is the fastest.
C. Bruford is the fastest.
D. They each travel at the same average speed.
- ___ 19. A car is driving at a speed of 45 mi/h. What is the speed of the car in feet per minute?
- A. 3,960 ft/min C. 237,600 ft/min
B. 1,935 ft/min D. 2,700 ft/min

What is the solution of the proportion?

- ___ 20. $\frac{x - 8}{5} = \frac{2}{4}$
- A. $\frac{9}{2}$ B. $\frac{5}{2}$ C. $\frac{21}{2}$ D. 18
- ___ 21. $\frac{w + 14}{4w + 6} = \frac{3}{4}$
- A. $\frac{8}{19}$ B. $\frac{15}{28}$ C. $\frac{19}{4}$ D. $\frac{2}{7}$

What inequality describes the situation?

- ___ 22. Let t = the amount Thomas earned. Thomas earned \$49 or more.
- A. $t \leq 49$ B. $t \geq 49$ C. $t > 49$ D. $t < 49$

What are the solutions of the inequality? Check the solutions.

23. $4x + 6 < -6$
A. $x < -3$ B. $x > -3$ C. $x > -6$ D. $x < +6$

What are the solutions of the inequality?

24. $2(b - 8) > 12$
A. $b > 20$ B. $b > 6$ C. $b > 14$ D. $b < 20$

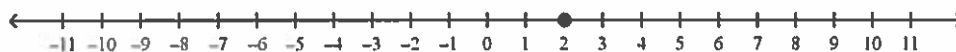
What are the solutions of the inequality?

25. $12 + 10w \geq 8(w + 12)$
A. $w \geq -42$ B. $w \geq 48$ C. $w \geq 42$ D. $w \geq 54$

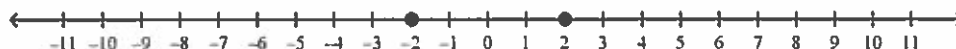
26. $8n - 14 \leq 13n + 6$
A. $n \geq \frac{20}{21}$ B. $n \geq -1\frac{3}{5}$ C. $n \geq -4$ D. $n \geq \frac{8}{21}$

What are the solutions of the equation? Graph and check the solutions.

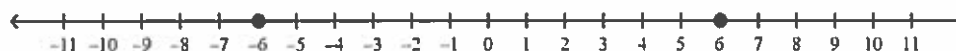
27. $6|n| - 2 = 10$
A. $n = 2$



- B. $n = 2$ or $n = -2$



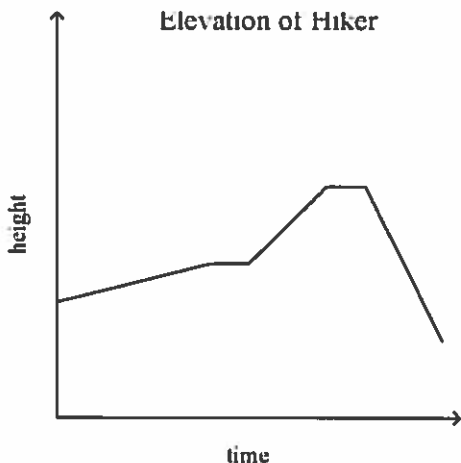
- C. $n = 6$ or $n = -6$



- D. no solution

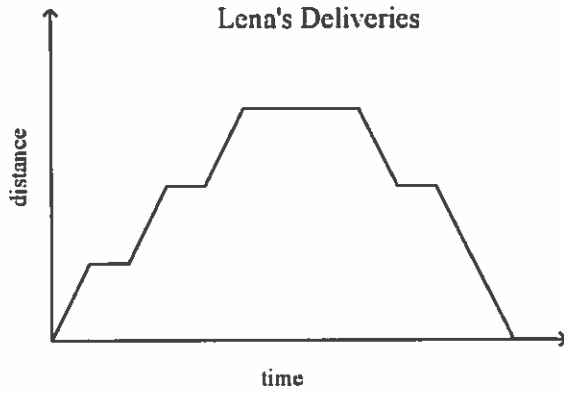
What are the variables in each graph? Describe how the variables are related at various points on the graph.

28. The graph shows the height of a hiker above sea level. The hiker walks at a constant speed for the entire trip. What are the variables? Describe how the variables are related at various points on the graph.

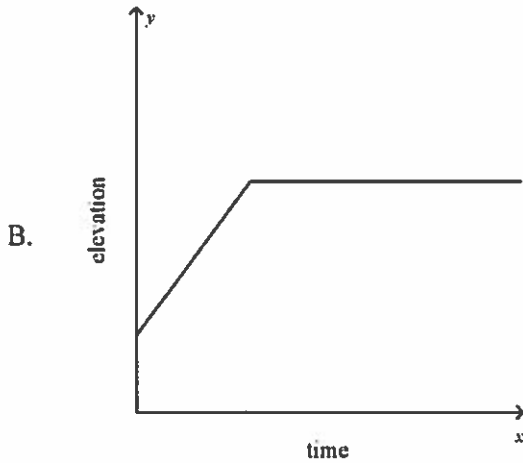
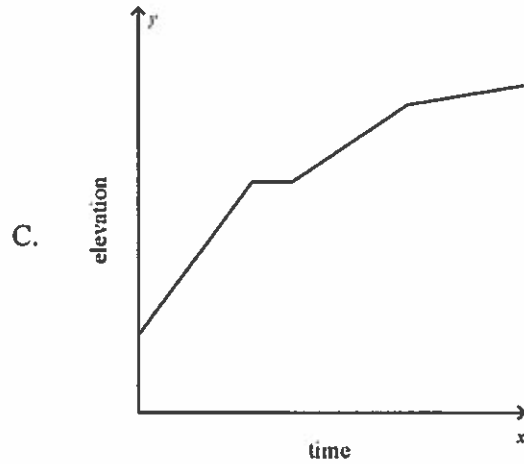
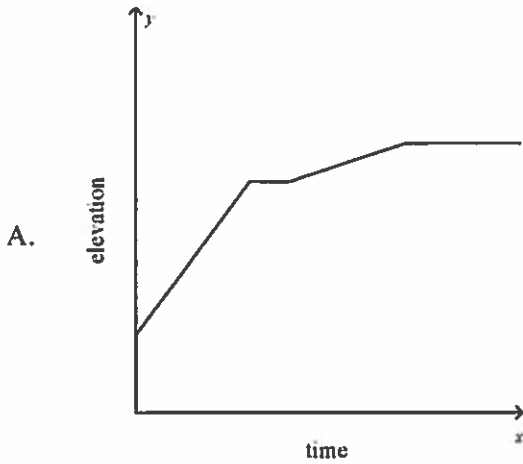


- A. The variables are height and time. For the first part of the graph, the height is increasing slowly, which means the hiker is climbing a steep incline. Flat parts of the graph show where the elevation does not change, which means the hiker stopped to rest. The steep part at the end of the graph shows that the hiker is descending a gentle slope.
- B. The variables are height and time. For the first part of the graph, the height is increasing slowly, which means the hiker is walking up a gentle slope. Flat parts of the graph show where the elevation does not change, which means the trail is flat here. The steep part at the end of the graph shows that the hiker is descending a steep incline.
- C. The variables are height and time. For the first part of the graph, the height is increasing slowly, which means the hiker is climbing a steep incline. Flat parts of the graph show where the elevation does not change, which means the trail is flat here. The steep part at the end of the graph shows that the hiker is descending a steep incline.
- D. All of the above.

29. Lena makes home deliveries of groceries for a supermarket. Her only stops after she leaves the supermarket are at traffic lights and the homes where she makes the deliveries. The graph shows her distance from the store on her first trip for the day. What are the variables? Describe how the variables are related at various points on the graph.



30. A hiker climbs up a steep bank and then rests for a minute. He then walks up a small hill and finally across a flat plateau. What sketch of a graph could represent the elevation of the hiker?



D. Any of the graphs could represent the situation, depending on the hiker's speed.

31. The ordered pairs (1, 1), (2, 4), (3, 9), (4, 16), and (5, 25) represent a function. What is a rule that represents this function?

A. $y = x^2$

C. $y = x + 2$

B. $y = 2^x$

D. $y = 2x$

Write a function for the situation. Is the graph *continuous* or *discrete*?

32. A produce stand sells roasted peanuts for \$1.90 per pound. What is the cost, C , of p pounds of peanuts?

A. $C = 1.90p$; continuous

C. $C = 1.90 + p$; continuous

B. $C = 1.90p$; discrete

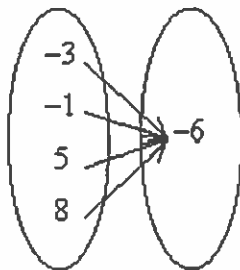
D. $C = 1.90 + p$; discrete

33. Write a function rule that gives the total cost $c(p)$ of p pounds of sugar if each pound costs \$.59.
- A. $c(p) = 59p$ C. $c(p) = p + 0.59$
B. $c(p) = \frac{p}{0.59}$ D. $c(p) = 0.59p$

34. A snail travels at a rate of 2.35 feet per minute.
- Write a rule to describe the function.
 - How far will the snail travel in 5 minutes?
- A. $d(t) = 5t$; 11.75 ft C. $d(t) = \frac{t}{2.35}$; 2.13 ft
B. $d(t) = t + 2.35$; 7.35 ft D. $d(t) = 2.35t$; 11.75 ft

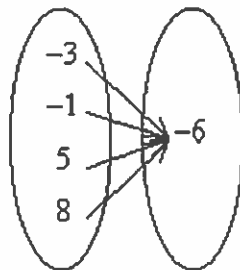
35. Identify the mapping diagram that represents the relation and determine whether the relation is a function.
- $\{(-3, -6), (-1, -6), (5, -6), (8, -6)\}$

A.



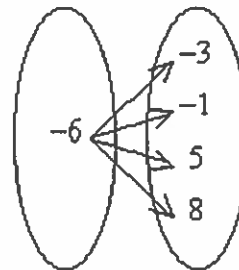
The relation is not a function.

B.



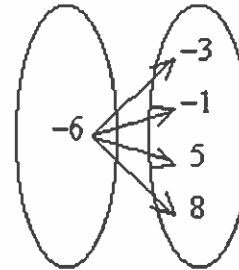
The relation is a function.

C.



The relation is a function.

D.

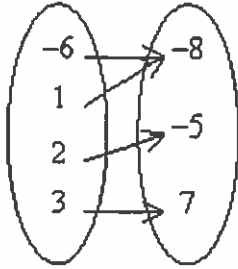


The relation is not a function.

36. Identify the mapping diagram that represents the relation and determine whether the relation is a function.

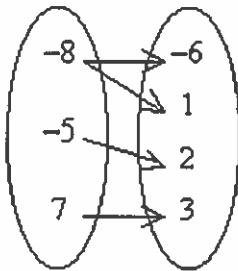
$$\{(-8, -6), (-5, 2), (-8, 1), (7, 3)\}$$

A.



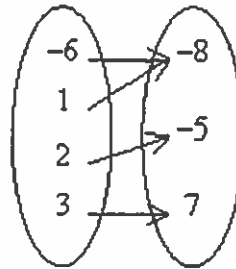
The relation is a function.

B.



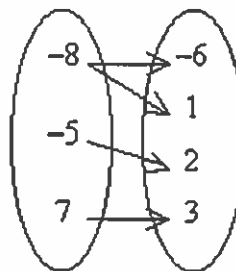
The relation is a function.

C.



The relation is not a function

D.



The relation is not a function.

37. The function $j(x) = 39x$ represents the number of jumping jacks $j(x)$ you can do in x minutes. How many jumping jacks can you do in 5 minutes?

A. 195 jumping jacks

C. 144 jumping jacks

B. 7 jumping jacks

D. 234 jumping jacks

38. The function $b(n) = 6n$ represents the number of light bulbs $b(n)$ that are needed for n chandeliers. How many light bulbs are needed for 15 chandeliers?

A. 90 light bulbs

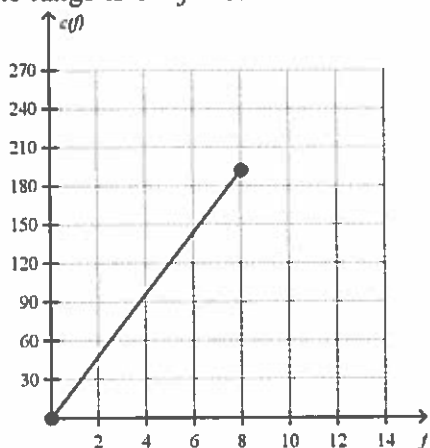
C. 96 light bulbs

B. 2 light bulbs

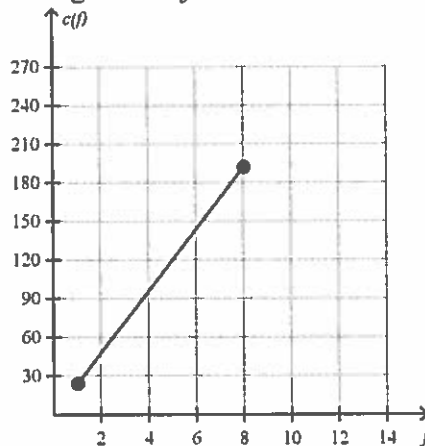
D. 80 light bulbs

39. You have 8 cups of flour. It takes 1 cup of flour to make 24 cookies. The function $c(f) = 24f$ represents the number of cookies, c , that can be made with f cups of flour. What domain and range are reasonable for the function? What is the graph of the function?

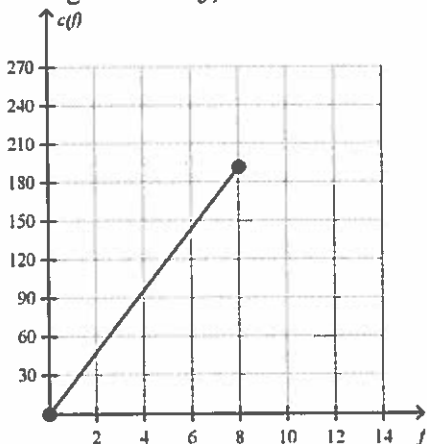
A. The domain is $0 \leq c(f) \leq 192$.
The range is $0 \leq f \leq 8$.



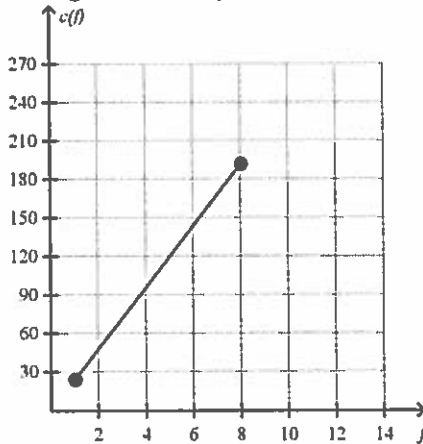
C. The domain is $24 \leq c(f) \leq 192$.
The range is $1 \leq f \leq 8$.



B. The domain is $0 \leq f \leq 8$.
The range is $0 \leq c(f) \leq 192$.



D. The domain is $1 \leq f \leq 8$.
The range is $24 \leq c(f) \leq 192$.



The rate of change is constant in each table. Find the rate of change. Explain what the rate of change means for the situation.

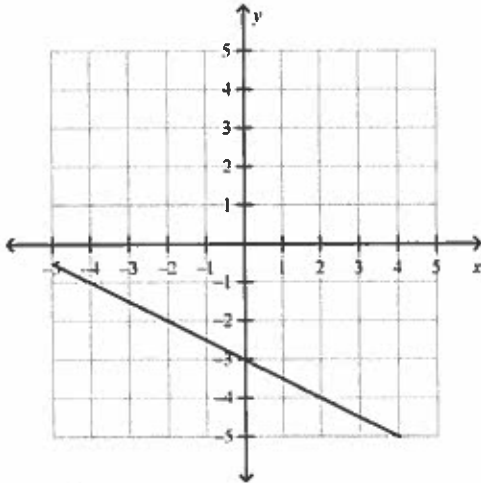
40. The table shows the number of miles driven over time.

Time (hours)	Distance (miles)
4	204
6	306
8	408
10	510

- A. $\frac{51}{1}$; Your car travels 51 miles every 1 hour.
- B. 204; Your car travels 204 miles.
- C. $\frac{1}{51}$; Your car travels 51 miles every 1 hour.
- D. 10; Your car travels for 10 hours.

Find the slope of the line.

41.



- A. $\frac{1}{2}$
- B. $-\frac{1}{2}$
- C. -2
- D. 2

What is the slope of the line that passes through the pair of points?

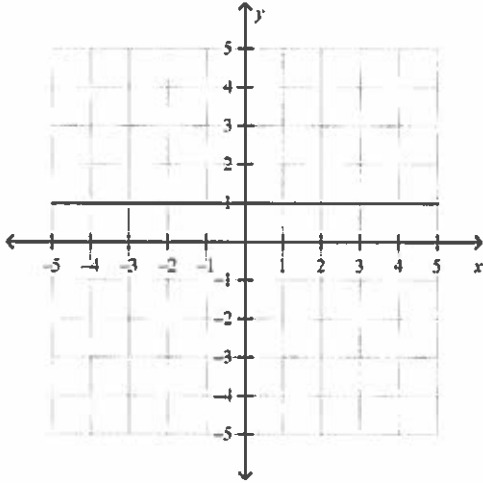
42. (1, 7), (10, 1)

- A. $\frac{3}{2}$
- B. $-\frac{2}{3}$
- C. $-\frac{3}{2}$
- D. $\frac{2}{3}$

43. $(-5.5, 6.1), (-2.5, 3.1)$
A. -1 B. 1 C. -1 D. 1

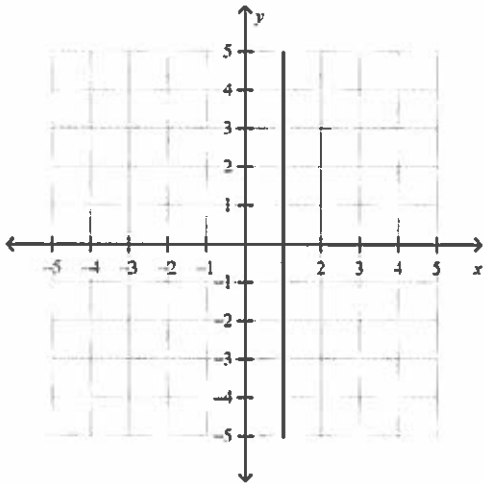
What is the slope of the line?

44.



- A. undefined B. 0

45.



- A. 0 B. undefined

What are the slope and y -intercept of the graph of the given equation?

46. $y = -4x + 2$
A. The slope is -2 and the y -intercept is -4 .
B. The slope is 2 and the y -intercept is -4 .
C. The slope is 4 and the y -intercept is -2 .
D. The slope is -4 and the y -intercept is 2 .

47. $y = 1.9x + 2.5$
- A. The slope is 1.9 and the y -intercept is 2.5.
 - B. The slope is 2.5 and the y -intercept is 1.9.
 - C. The slope is -1.9 and the y -intercept is -2.5 .
 - D. The slope is -2.5 and the y -intercept is 1.9.

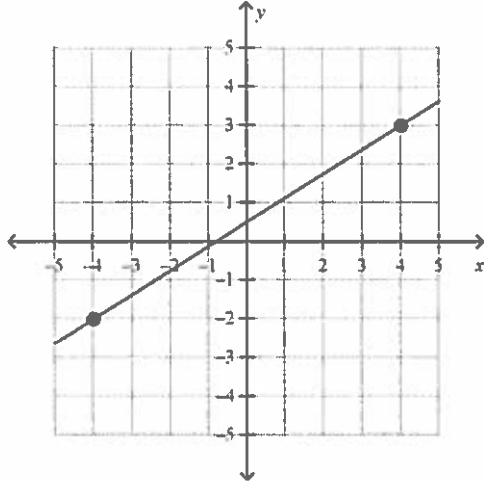
Write an equation of a line with the given slope and y -intercept.

48. $m = \frac{3}{5}, b = \frac{1}{3}$
- A. $y = \frac{1}{3}x + \frac{3}{5}$
 - B. $y = \frac{3}{5}x - \frac{1}{3}$
 - C. $y = \frac{5}{3}x + \frac{1}{3}$
 - D. $y = \frac{3}{5}x + \frac{1}{3}$

49. $m = -4.4, b = 6.8$
- A. $y = -4.4x - 6.8$
 - B. $y = 4.4x + 6.8$
 - C. $y = 6.8x - 4.4$
 - D. $y = -4.4x + 6.8$

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

50.



- A. $y = -\frac{5}{8}x + \frac{1}{2}$
- B. $y = \frac{8}{5}x - \frac{1}{2}$
- C. $y = \frac{5}{8}x + \frac{1}{2}$
- D. $y = \frac{8}{5}x + \frac{1}{2}$

What equation in slope intercept form represents the line that passes through the two points?

51. (2, 5), (9, 2)

A. $y = \frac{3}{7}x - \frac{41}{7}$

B. $y = -\frac{7}{3}x - \frac{41}{7}$

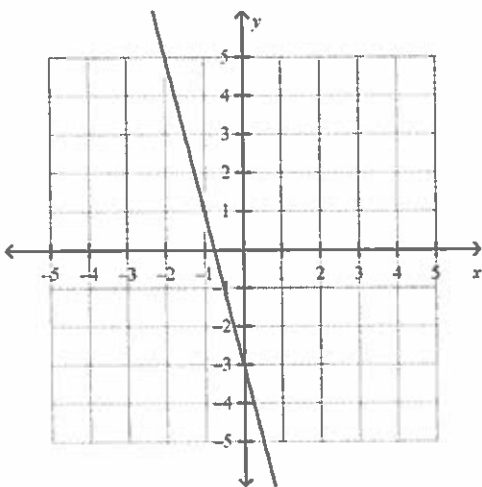
C. $y = \frac{7}{3}x + \frac{41}{7}$

D. $y = -\frac{3}{7}x + \frac{41}{7}$

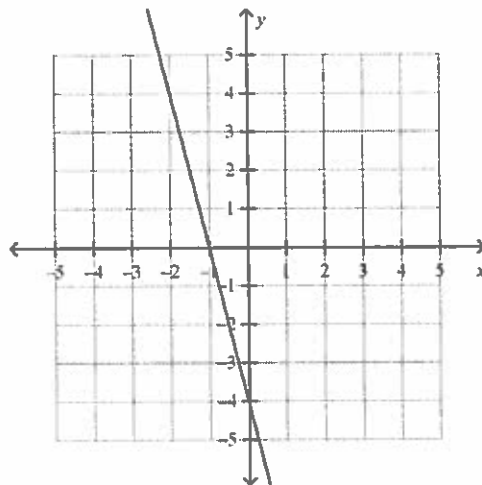
Graph the equation.

52. $y = 4x - 3$

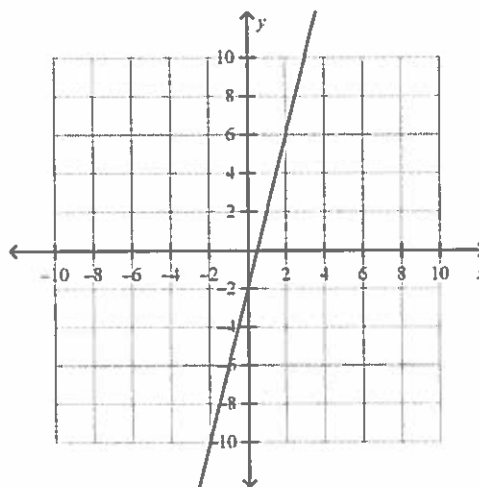
A.



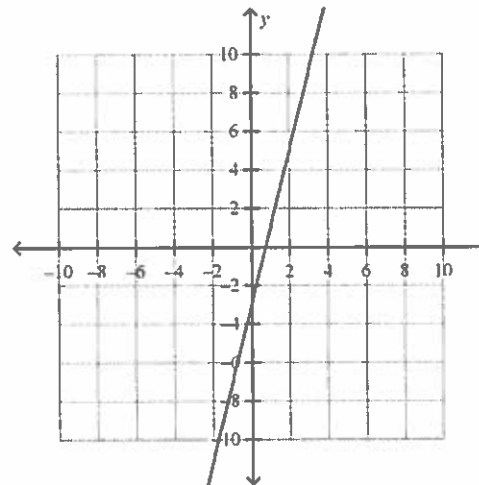
B.



C.



D.



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

53. $(8, 3); m = 6$

A. $y + 3 = 6(x - 8)$

B. $y - 3 = 6(x - 8)$

C. $y - 3 = 6(x + 8)$

D. $y + 3 = 6x + 8$

54. $(3, -10); m = -0.83$

A. $y - 10 = -0.83(x + 3)$

B. $y - 10 = -0.83(x - 3)$

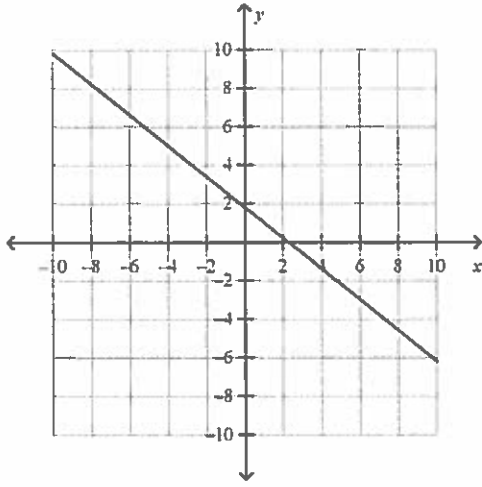
C. $y - 3 = -0.83(x + 10)$

D. $y + 10 = -0.83(x - 3)$

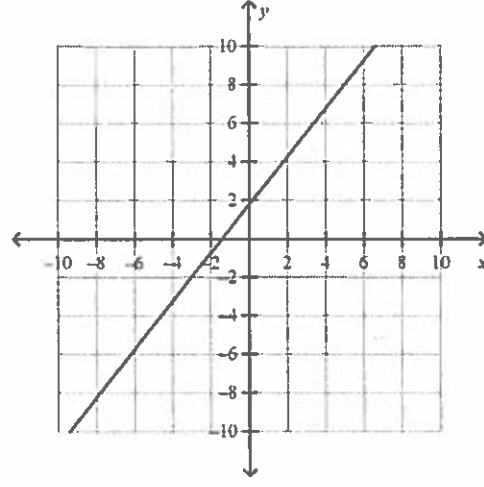
Graph the equation.

55. $y - 1 = \frac{4}{5}(x + 1)$

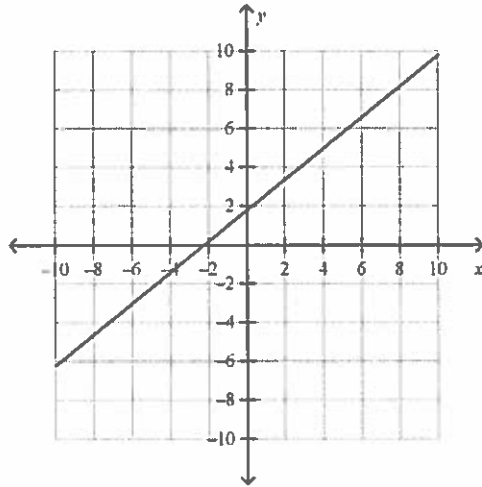
A.



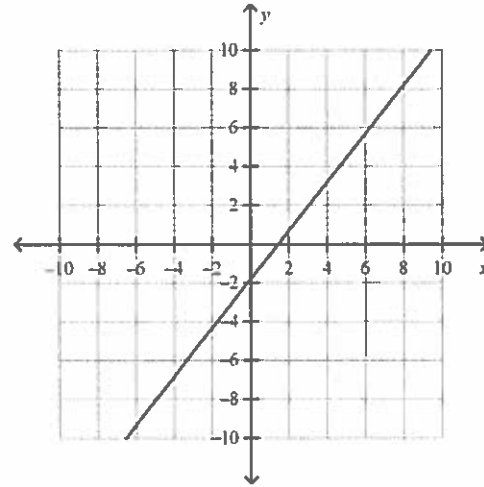
C.



B.

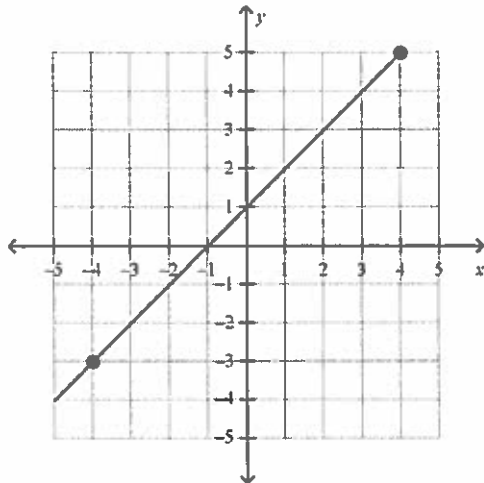


D.



What is an equation of the line?

56.



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

- C. $y + 3 = -(x - 4)$
D. $y + 5 = 2(x + 4)$

57. The table shows the height of a plant as it grows. What equation in point-slope form gives the plant's height at any time? Let y stand for the height of the plant in cm and let x stand for the time in months.

Time (months)	Plant Height (cm)
3	15
5	25
7	35
9	45

- A. $y - 15 = \frac{5}{2}(x - 3)$
B. $y - 15 = 5(x - 3)$

- C. $y - 3 = \frac{5}{2}(x - 15)$
D. The relationship cannot be modeled.

58. The table shows the height above the ground of a helicopter taking off from the top of a building. What equation in point-slope form gives the helicopter's height at any time? Let y stand for the height of the helicopter in m and let x stand for the time in seconds.

Time (s)	Height (m)
3	24
5	40
7	56
9	72

- A. $y - 24 = 8(x - 3)$
B. $y - 3 = 4(x - 24)$
C. $y - 24 = 4(x - 3)$
D. The relationship cannot be modeled.

Find the x - and y -intercept of the line.

59. $-4x + 2y = 24$

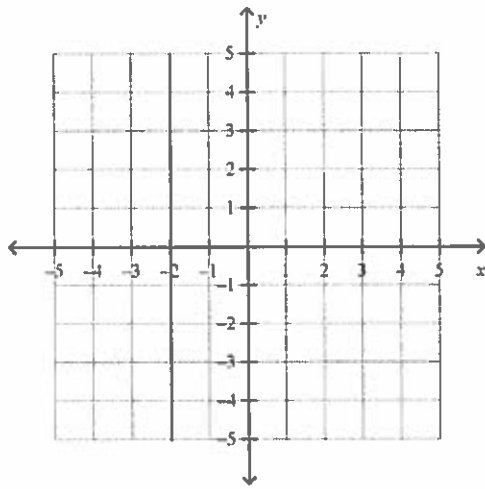
- A. x -intercept is -6 ; y -intercept is 12
B. x -intercept is 12 ; y -intercept is -6
C. x -intercept is -4 ; y -intercept is 2
D. x -intercept is 2 ; y -intercept is -4

60. $-2.9x + 5.4y = 140.94$

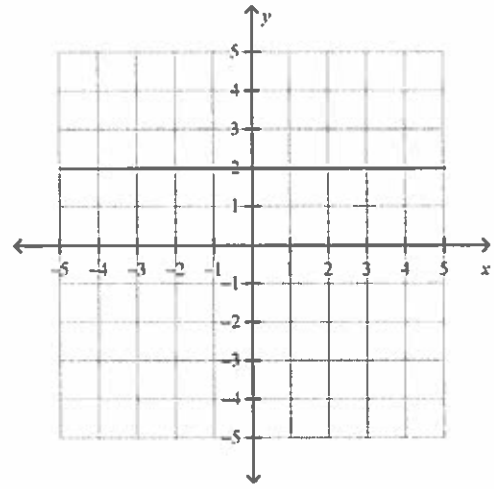
- A. x -intercept is 26.1 ; y -intercept is -48.6
B. x -intercept is -48.6 ; y -intercept is 26.1
C. x -intercept is -2.9 ; y -intercept is 5.4
D. x -intercept is 5.4 ; y -intercept is -2.9

What is the graph of the equation?

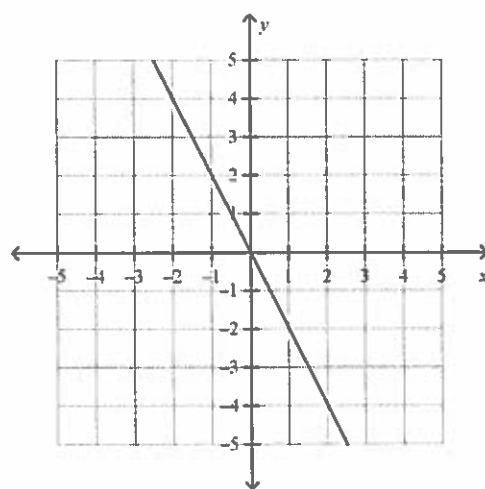
61. $y = -2$
A.



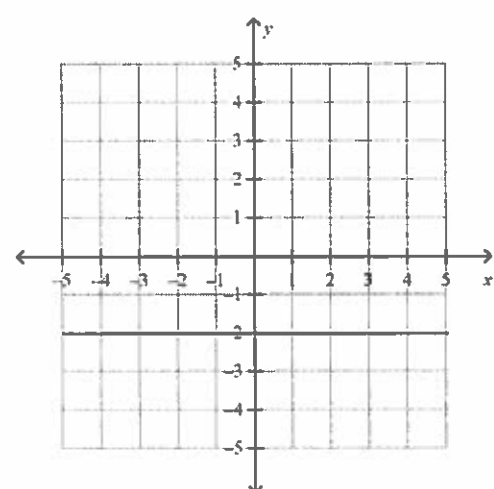
C.



B.

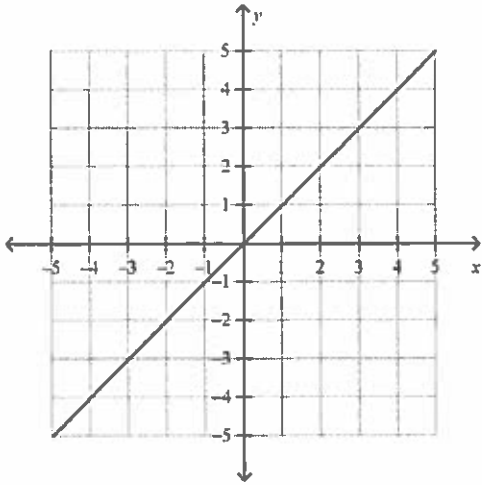


D.

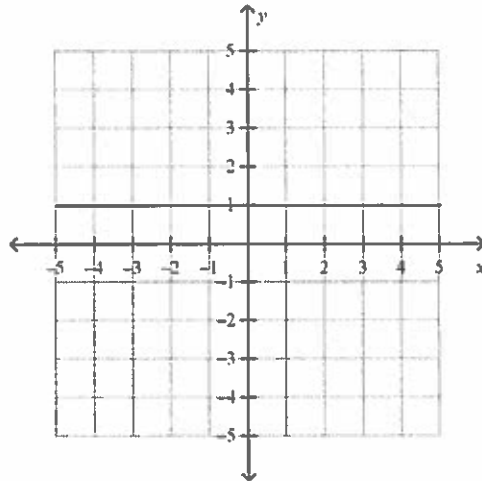


62. $x = 1$

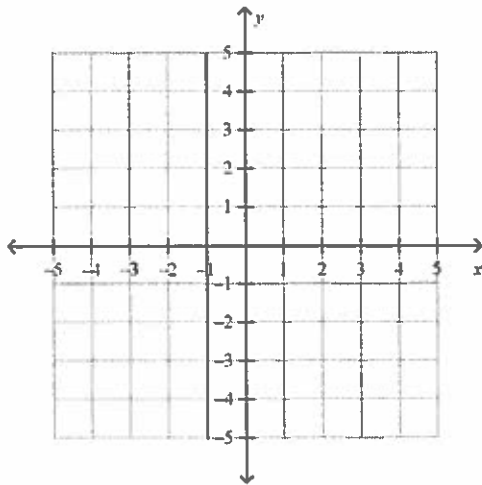
A.



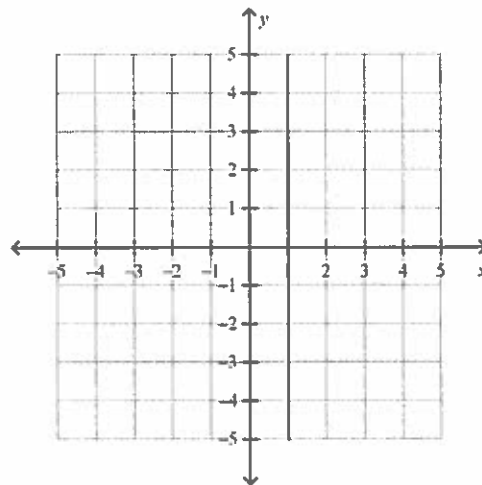
C.



B.



D.



63. Write $y = \frac{1}{6}x + 5$ in standard form using integers.

A. $-x - 6y = 30$

C. $-x + 6y = 30$

B. $6x - y = 30$

D. $-x + 6y = 5$

64. A paint store sells exterior paint for \$35.75 a gallon and paint rollers for \$6.00 each. Write an equation in standard form for the number of gallons p of paint and rollers r that a customer could buy with \$190.

A. $35.75 + 6 = p$

C. $35.75r + 6p = 190$

B. $35.75p + 6r = 190$

D. $35.75p = 6r + 190$

- _____ 65. The video store rents DVDs for \$3.75 each and video games for \$4.00 each. Write an equation in standard form for the number of DVDs d and video games g that a customer could rent with \$18.
- A. $3.75g + 4d = 18$ C. $3.75d = 4g + 18$
B. $3.75 + 4 = d$ D. $3.75d + 4g = 18$

Write an equation for the line that is parallel to the given line and passes through the given point.

- _____ 66. $y = 5x + 8$; $(2, 16)$
- A. $y = 5x - 78$ C. $y = -\frac{1}{5}x - 6$
B. $y = 5x + 6$ D. $y = \frac{1}{5}x + 6$

Tell whether the lines for each pair of equations are *parallel*, *perpendicular*, or *neither*.

- _____ 67. $y = -\frac{1}{6}x - 5$
 $24x - 4y = 12$
- A. parallel B. perpendicular C. neither

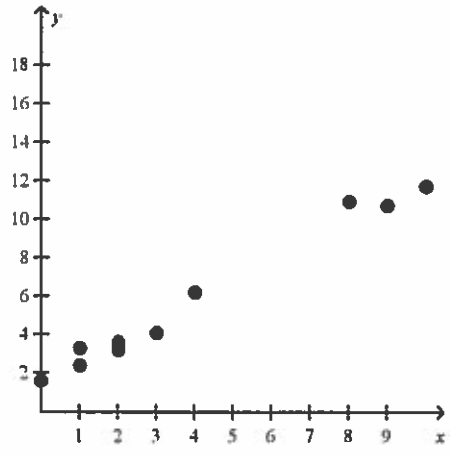
- _____ 68. $y = \frac{5}{3}x + 3$
 $20x + 12y = 12$
- A. parallel B. perpendicular C. neither

Write the equation of a line that is perpendicular to the given line and that passes through the given point.

- _____ 69. $y = \frac{7}{8}x - \frac{3}{2}$; $(-4, 2)$
- A. $y = -\frac{8}{7}x - \frac{3}{2}$ C. $y = \frac{8}{7}x - \frac{3}{2}$
B. $y = -\frac{8}{7}x - \frac{18}{7}$ D. $y = \frac{8}{7}x - \frac{18}{7}$

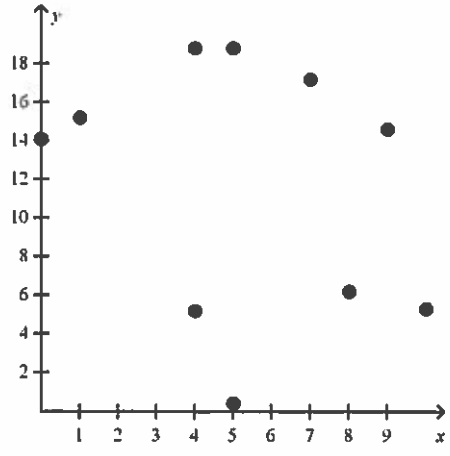
What type of relationship does the scatter plot show?

70.



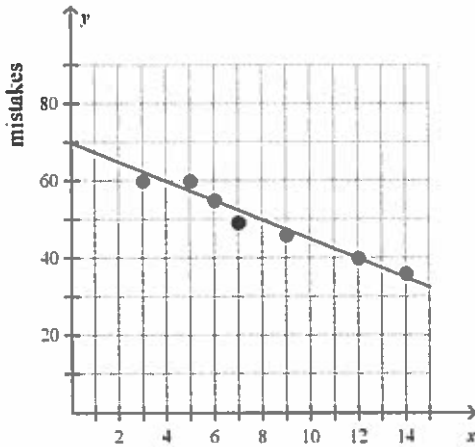
- A. positive correlation
- B. negative correlation
- C. no correlation

71.



- A. positive correlation
- B. negative correlation
- C. no correlation

72. The scatter plot shows the number of mistakes a piano student makes during a recital versus the amount of time the student practiced for the recital. How many mistakes do you expect the student to make at the recital after 6 hours of practicing?



- A. 55 mistakes
 B. 37 mistakes
 C. 63 mistakes
 D. 45 mistakes

Use a graphing calculator to find the equation of the line of best fit for the data. Find the value of the correlation coefficient r . Predict the missing value in the table.

73. John's Best Discus Throws

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009
Distance (meters)	69.08	69.18	69.80	70.24	70.86	71.16	71.86	72.08	?

- A. $y = 0.465x - 862.515$, $r = 0.994$; 71.67
 B. $y = 2.086x + 1857.375$, $r = 0.994$; 73.09
 C. $y = 0.465x + 862.515$, $r = 0.994$; 74.09
 D. $y = -0.465x + 862.515$, $r = 0.994$; 72.05

- 74.

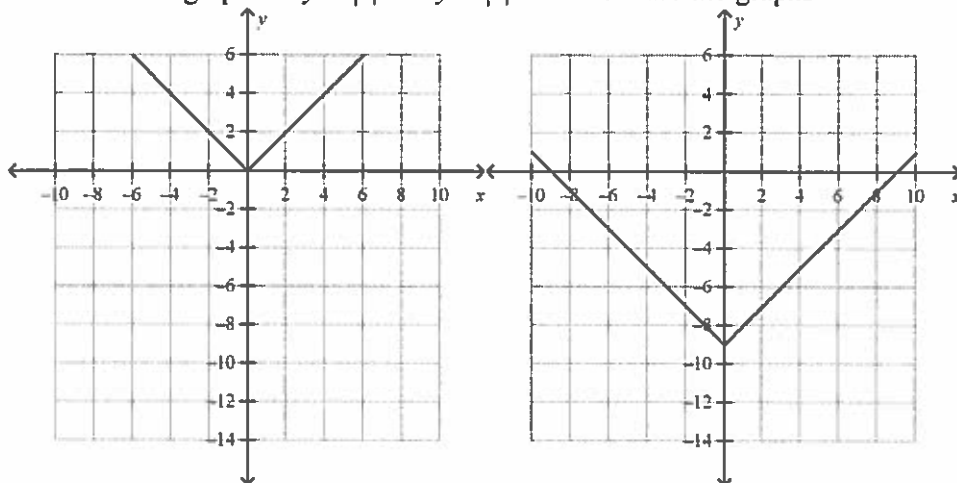
Hours Studying	1	2	3	4	5	6	7	8	9
Exam Mark (%)	65	67	73	74	77	80	84	85	?

- A. $y = 62.286x + 2.964$, $r = 0.991$; about 95%
 B. $y = 3x + 65$, $r = 0.951$; about 92%
 C. $y = 2.964x + 62.286$, $r = 0.991$; about 89%
 D. $y = 2.964x + 62.286$, $r = 0.991$; about 99%

In the following situations, is there likely to be a correlation? If so does the correlation reflect a causal relationship? Explain.

- _____ 75. the average daily winter temperature and your heating bill
- There is a positive correlation. The higher the average daily winter temperature the higher your heating bill.
 - There is a negative correlation and a causal correlation. The higher the average daily winter temperature the lower your heating bill.
 - There is no correlation.

- _____ 76. Below are the graphs of $y = |x|$ and $y = |x| - 9$. How are the graphs related?



- The graphs have the same shape. The y -intercept of $y = |x|$ is 0 and the x -intercept of the second graph is -9 .
- The graphs have the same y -intercept. The second graph is steeper than $y = |x|$.
- The two graphs are the same.
- The graphs have the same shape. The y -intercept of $y = |x|$ is 0 and the y -intercept of the second graph is -9 .

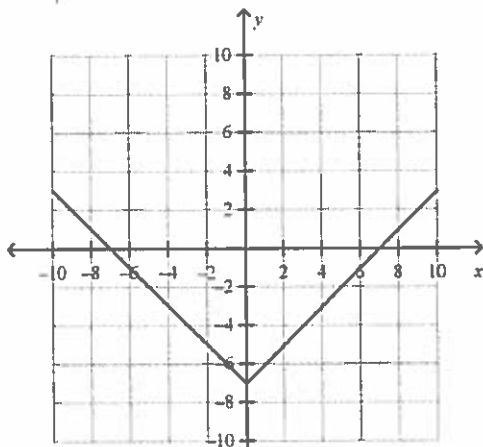
Write an equation for each translation of $y = |x|$.

- _____ 77. 2 units down
- $y = |x| + 2$
 - $y = |x| - 2$
 - $y = |x - 2|$
 - $y = |-2x|$

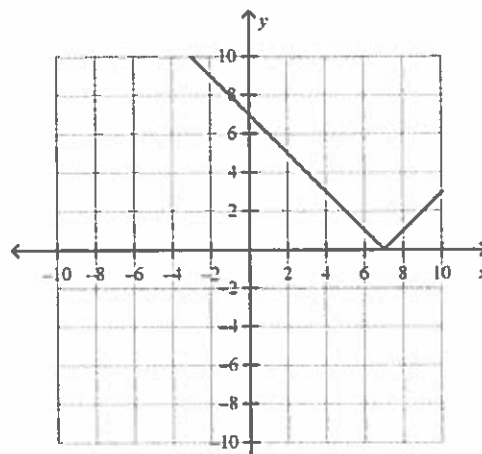
Graph each equation by translating $y = |x|$.

78. $y = |x + 7|$

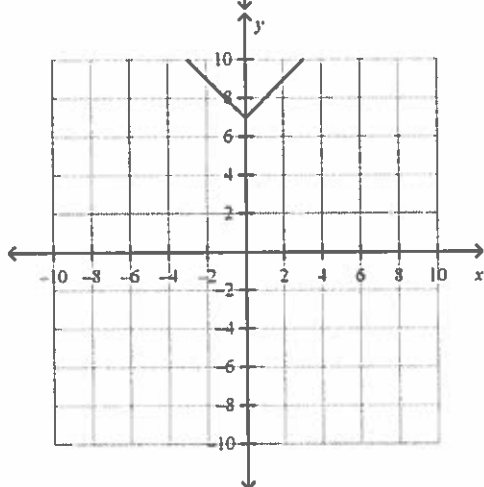
A.



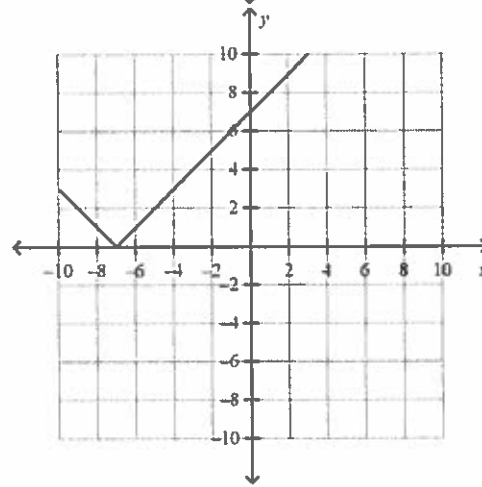
C.



B.



D.



Write an equation for each translation of $y = |x|$.

79. 16.5 units right

A. $y = |x - 16.5|$

B. $y = |x| + 16.5$

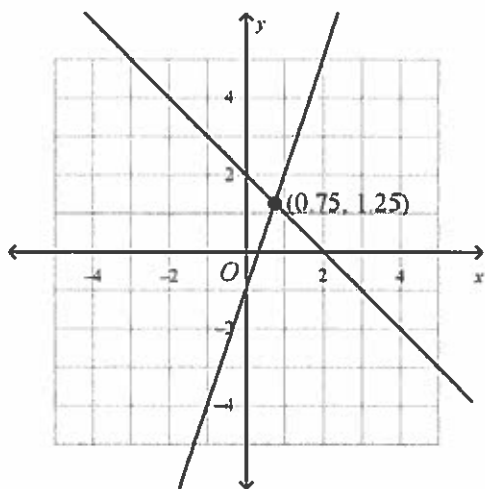
C. $y = |x| - 16.5$

D. $y = |x + 16.5|$

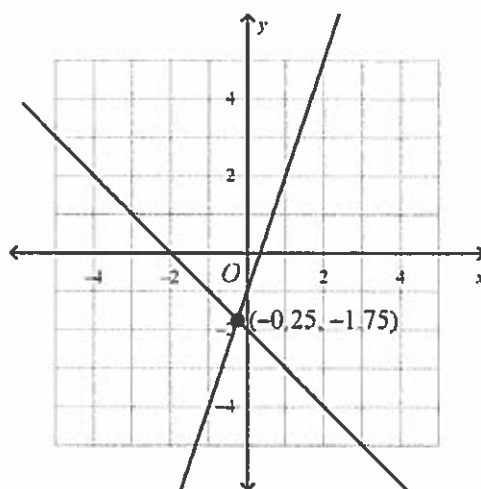
What is the solution of the system? Use a graph.

80. $y = -x + 2$
 $y = 3x - 1$

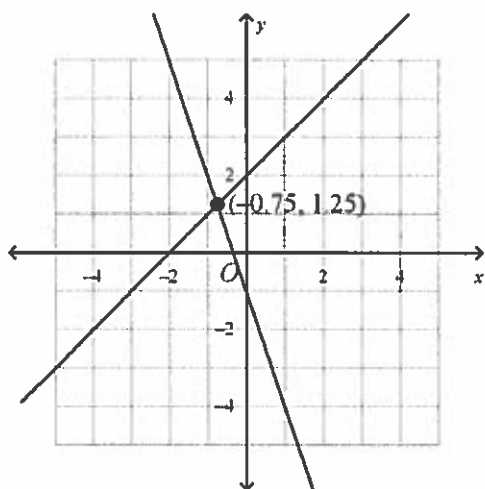
A.



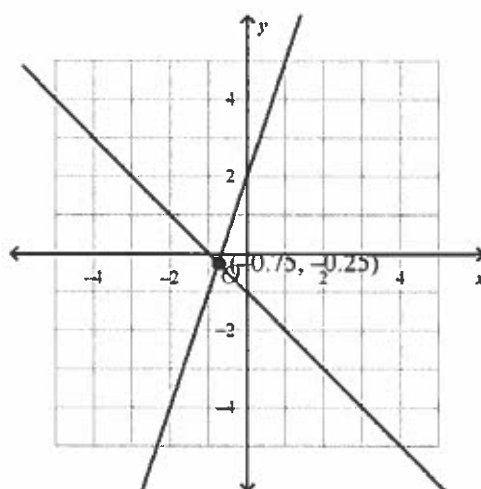
C.



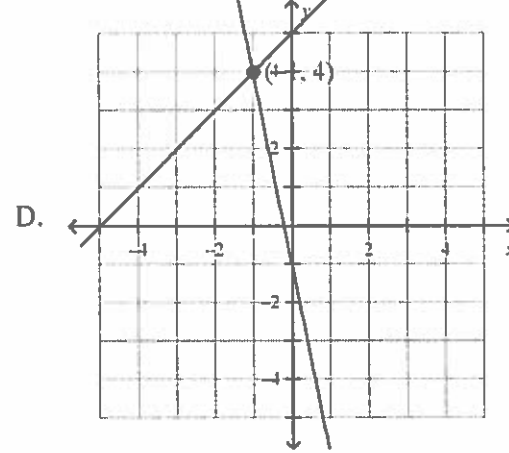
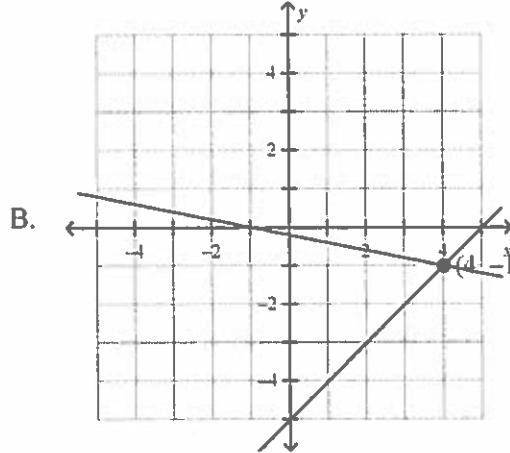
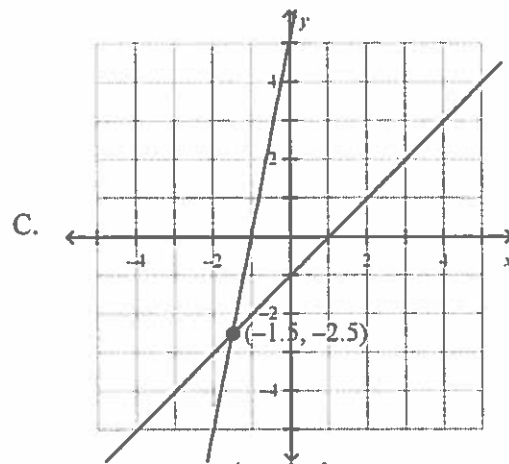
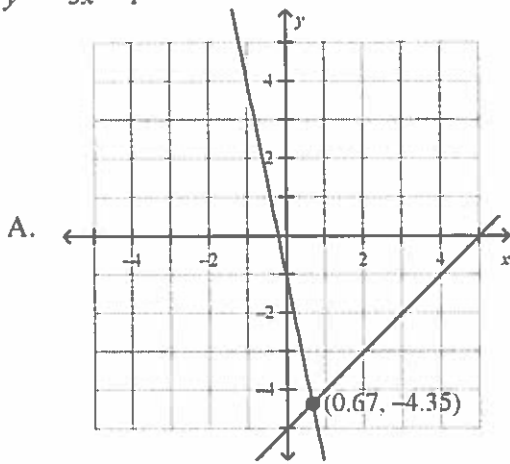
B.



D.



81. $y = x + 5$
 $y = -5x - 1$



82. Tom has a collection of 30 CDs and Nita has a collection of 18 CDs. Tom is adding 1 CD a month to his collection while Nita is adding 5 CDs a month to her collection. Find the number of months after which they will have the same number of CDs.

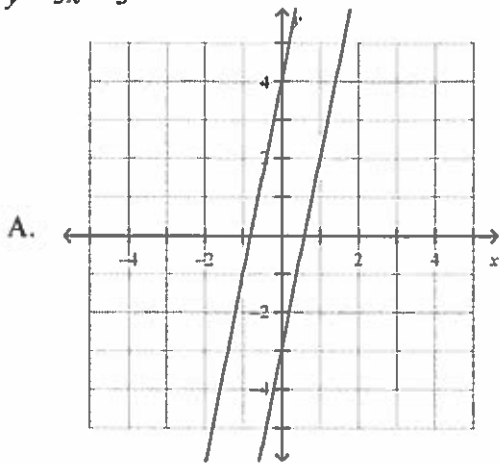
- A. 1 month
- B. 3 months
- C. 2 months
- D. 33 months

83. Kendra owns a restaurant. She charges \$3.00 for 2 eggs and one piece of toast, and \$1.80 for one egg and one piece of toast. How much does Kendra charge for an egg? A piece of toast?

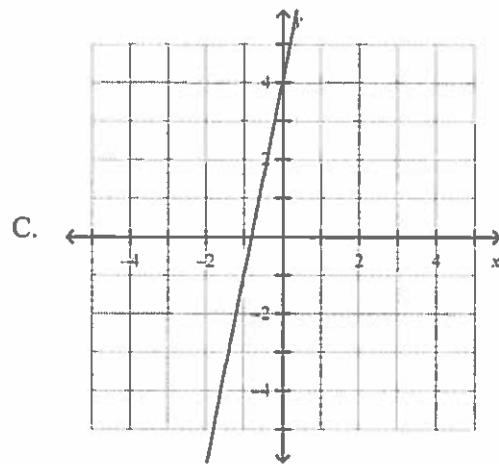
- A. \$1.20 per egg; \$.60 for toast
- B. \$.60 per egg; \$1.20 for toast
- C. \$.60 per egg; \$.60 for toast
- D. \$1.20 per egg; \$1.20 for toast

What is the solution of the system? Use a graph.

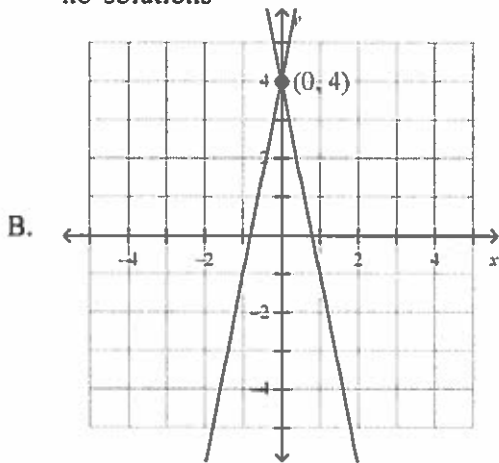
84. $y = 5x + 4$
 $y = 5x - 3$



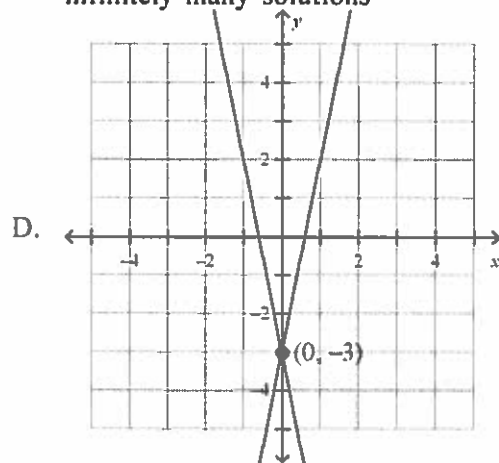
no solutions



infinitely many solutions



(0, 4)



(0, -3)

What is the solution of the system? Use substitution.

85. $y = x + 6$
 $y = 2x$

A. (6, 12)

B. (-12, -6)

C. (-6, -12)

D. (2, 4)

86. $3x + 2y = 7$
 $y = -3x + 11$

A. (6, -3)

B. (6, -7)

C. $\left(-4, \frac{19}{2}\right)$

D. (5, -4)

87. $x = -3y - 4$
 $-3y = 2x - 7$
 $z = -6x + y$
- A. $x = -5, y = 11, z = -71$ C. $x = -71, y = -5, z = 11$
 B. $x = 11, y = -71, z = -5$ D. $x = 11, y = -5, z = -71$
88. A corner store sells two kinds of baked goods: cakes and pies. A cake costs \$5 and a pie costs \$7. In one day, the store sold 15 baked goods for a total of \$91. How many cakes did they sell?
- A. 7 cakes C. 8 cakes
 B. 4 cakes D. 5 cakes

What is the solution of the system? Use elimination.

89. $2x - 2y = -8$
 $x + 2y = -1$
- A. $(-14, 1)$ B. $(1, 5)$ C. $(-3, 1)$ D. $(0, 4)$
90. $5x + 4y = -2$
 $x - 4y = 14$
- A. $(3, -4.3)$ B. $(-3, 2)$ C. $(2, -3)$ D. $(4, 1)$
91. $3x - 4y = 9$
 $-3x + 2y = 9$
- A. $(3, 9)$ B. $(-27, -9)$ C. $(-3, -6)$ D. $(-9, -9)$
92. Sharon has some one-dollar bills and some five-dollar bills. She has 14 bills. The value of the bills is \$30. Solve a system of equations using elimination to find how many of each kind of bill she has.
- A. 4 five-dollar bills, 10 one-dollar bills C. 5 five-dollar bills, 5 one-dollar bills
 B. 3 five-dollar bills, 15 one-dollar bills D. 5 five-dollar bills, 9 one-dollar bills

What is the solution of the system? Use elimination.

93. $5x + 8y = -29$
 $7x - 2y = -67$
- A. $(-7, 9)$ B. $\left(-10, \frac{21}{8}\right)$ C. $(-1, -3)$ D. $(-9, 2)$

- _____ 94. $x + 2y = -6$
 $3x + 8y = -20$
A. $(-1, -4)$ B. $(-4, 4)$ C. $(-4, -1)$ D. $(3, 1)$

What is the solution of the system? Use elimination.

- _____ 95. $5x + 7y = 32$
 $8x + 6y = 46$
A. $(8, 5)$ B. $(1, 5)$ C. $(7, 0)$ D. $(5, 1)$

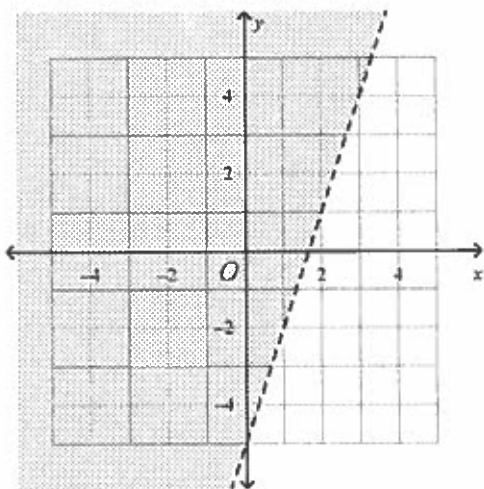
How many solutions does the system have?

- _____ 96. $x - 2y = 6$
 $3x - 6y = 18$
A. one solution C. infinitely many solutions
B. two solutions D. no solution

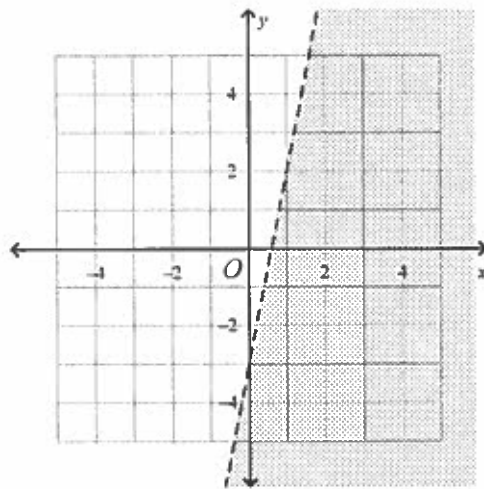
Graph the inequality.

97. $y < 3x - 5$

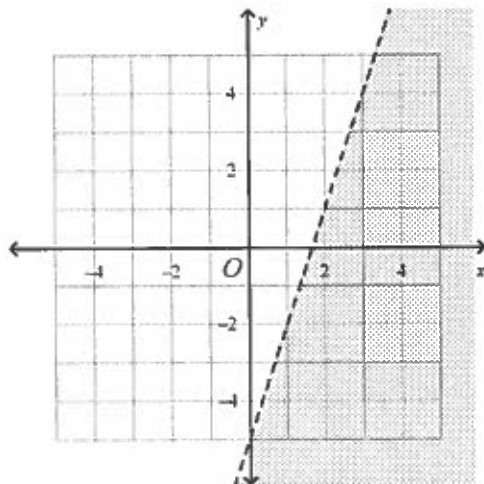
A.



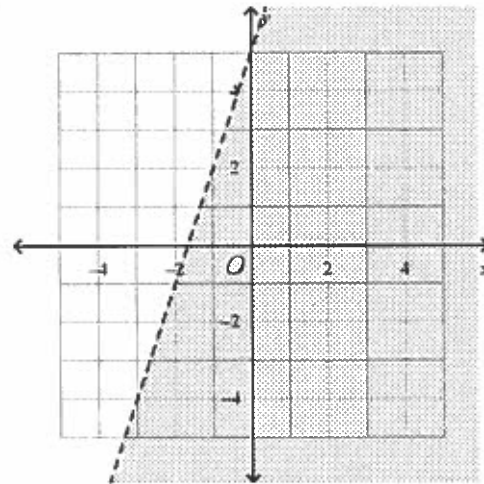
C.



B.

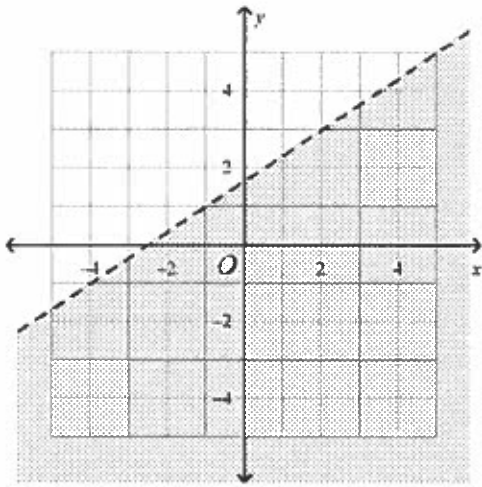


D.

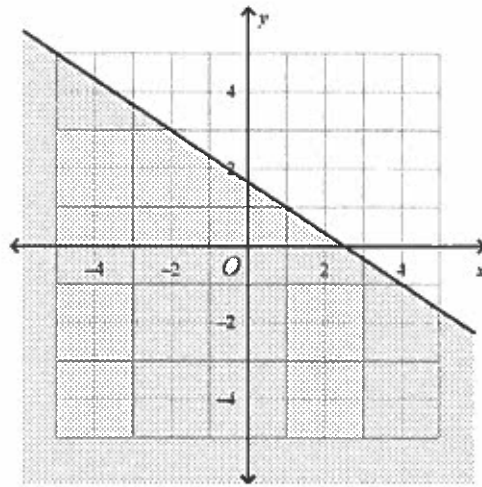


98. $4x + 6y \geq 10$

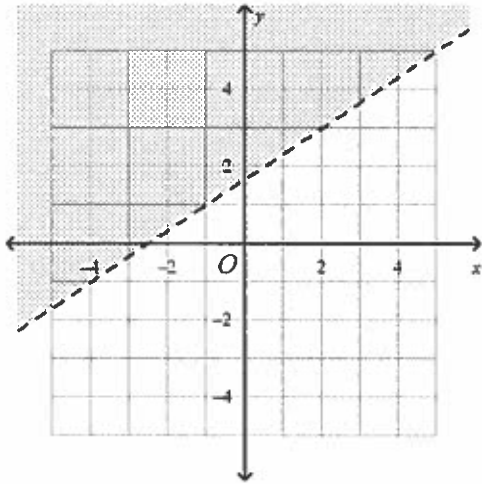
A.



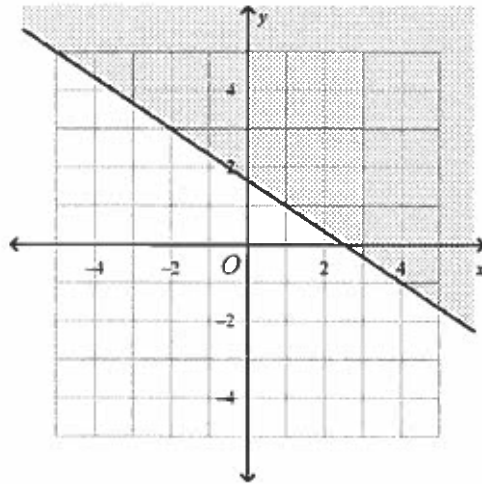
C.



B.

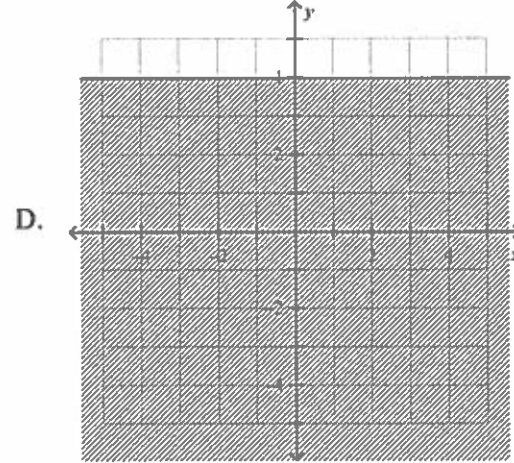
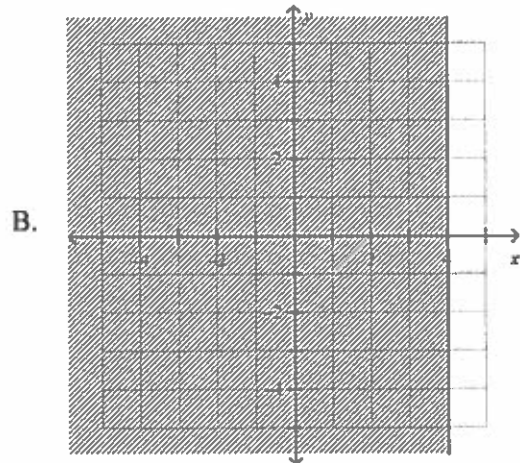
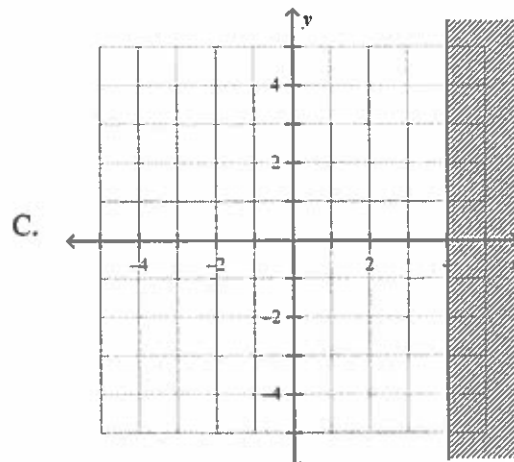
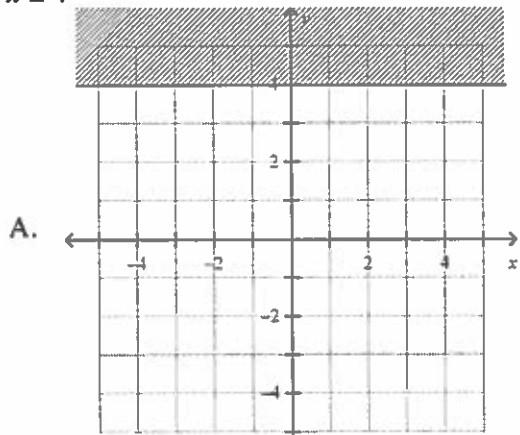


D.



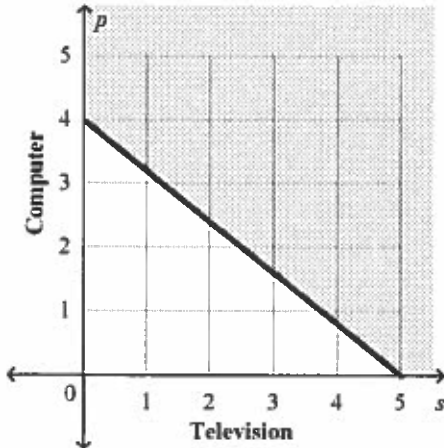
What is the graph of the inequality in the coordinate plane?

99. $x \geq 4$



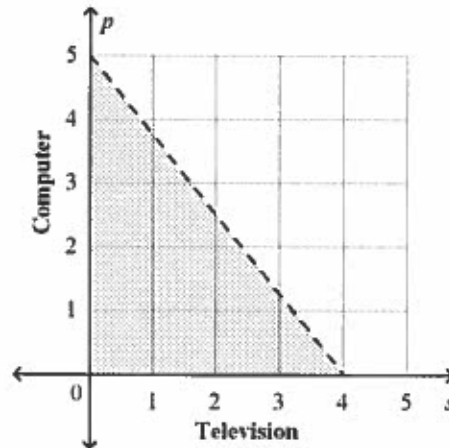
100. An electronics store makes a profit of \$72 for every television sold and \$90 for every computer sold. The manager's target is to make at least \$360 a day on sales from televisions and computers. Write a linear inequality and graph the solutions. What are three possible solutions to the problem?

A. $72s + 90p \geq 360$



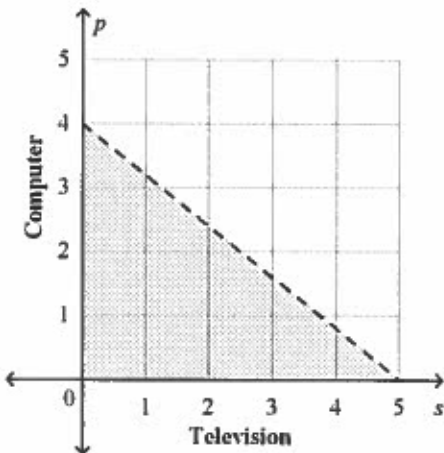
(5, 2), (3, 3), and (1, 4) are three possible solutions.

C. $90s + 72p \leq 360$



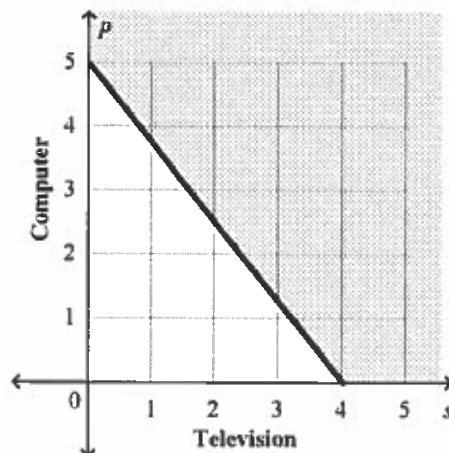
(3, 1), (2, 2), and (1, 0) are three possible solutions.

B. $72s + 90p \leq 360$



(4, 0), (2, 2), and (1, 1) are three possible solutions.

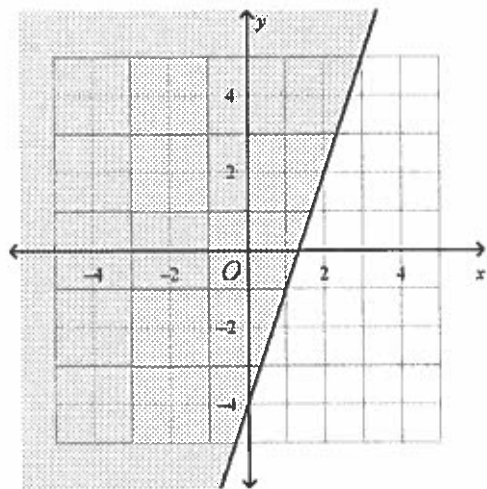
D. $90s + 72p \geq 360$



(4, 0), (3, 3), and (1, 4) are three possible solutions.

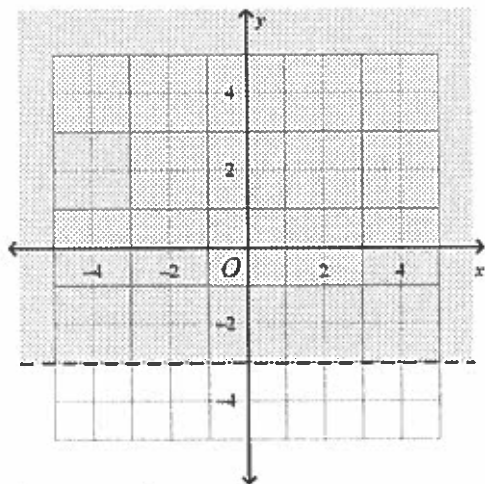
Which inequality represents the graph?

___101.



- A. $y \leq 3x + 4$ B. $y \leq 3x - 4$ C. $y \geq 3x - 4$ D. $y \geq 3x + 4$

___102.



- A. $x > -3$ B. $x \geq -3$ C. $y > -3$ D. $y \geq -3$