

**ALGEBRA 1 MIDTERM EXAM REVIEW SEMESTER 1 CHAPTERS 1-5****Multiple Choice**

Identify the choice that best completes the statement or answers the question.

\_\_\_\_\_ **1** Solve  $p - 6 = 16$ .

A.  $p = 22$   
B.  $p = -22$

C.  $p = 10$   
D.  $p = -10$

\_\_\_\_\_ **2** Solve  $-14 + s = 32$ .

A.  $s = -18$   
B.  $s = 46$

C.  $s = -46$   
D.  $s = 18$

\_\_\_\_\_ **3** A toy company's total payment for salaries for the first two months of 2005 is \$21,894. Write and solve an equation to find the salaries for the second month if the first month's salaries are \$10,205.

- A.  $10,205 + x = 21,894$   
The salaries for the second month are \$32,099.  
B.  $10,205 + x = 21,894$   
The salaries for the second month are \$10,947.  
C.  $10,205 + x = 21,894$   
The salaries for the second month are \$11,689.  
D.  $10,205 + x = 21,894$   
The salaries for the second month are \$21,894.

\_\_\_\_\_ **4** Solve  $\frac{m}{7} = 48$ .

A.  $m = 6\frac{6}{7}$   
B.  $m = 336$

C.  $m = 55$   
D.  $m = 41$

\_\_\_\_\_ **5** Solve  $\frac{3}{9}b = 59$ .

A.  $b = 59\frac{3}{9}$   
B.  $b = 20$

C.  $b = 7$   
D.  $b = 177$

\_\_\_\_\_ **6** If  $4x = 32$ , find the value of  $35 - 5x$ .

A. 5  
B. -3

C. 3  
D. -5

\_\_\_\_\_ **7** Solve  $44 = 14 - 2a$ .

A.  $a = 15$   
B.  $a = 29$

C.  $a = -15$   
D.  $a = -29$



- \_\_\_\_\_ **17** Solve  $|6x - 9| + 5 = 2$ .
- A. No solution  
B.  $x = \frac{11}{6}$   
C.  $x = \frac{8}{3}$   
D.  $x = 1$
- \_\_\_\_\_ **18** The fuel for a chain saw is a mix of oil and gasoline. The ratio of ounces of oil to gallons of gasoline is 8:10. There are 50 gallons of gasoline. How many ounces of oil are there?
- A. 62.5 ounces  
B. 1.6 ounces  
C. 40 ounces  
D. 46 ounces
- \_\_\_\_\_ **19** Ramon drives his car 150 miles in 3 hours. Find the unit rate.
- A. Ramon drives 30 miles per hour.  
B. Ramon drives 50 miles per hour.  
C. Ramon drives 1 mile per 50 hours.  
D. Ramon drives 150 miles per 3 hours.
- \_\_\_\_\_ **20** Alicia runs for exercise. If Alicia runs 30 miles in six days, how many feet does she run per day?
- A. 26,400 ft  
B. 8,800 ft  
C. 158,400 ft  
D. 22,629 ft
- \_\_\_\_\_ **21** When Amy roller-skates, she moves 110 yards per minute. What is her speed in miles per hour? Round your answer to the nearest hundredth.
- A. 1.25 mi/hr  
B. 3.75 mi/hr  
C. 0.42 mi/hr  
D. 3226.67 mi/hr
- \_\_\_\_\_ **22** Evan's car gets approximately 20 miles per gallon. How many feet can he drive with 1 pint of gas?
- A. 4,400 ft  
B. 13,150 ft  
C. 26,400 ft  
D. 13,200 ft
- \_\_\_\_\_ **23** Giovanni can read 250 words per minute. If there are approximately 400 words on a page, about how many pages can he read in 2 hours?
- A. 833 pages  
B. 38 pages  
C. 75 pages  
D. 150 pages
- \_\_\_\_\_ **24** Derek's Great Dane puppy is growing quickly. He gains an average of 40 ounces per week. At this rate, about how many pounds will he gain in 1 year?
- A. 173 lb  
B. 240 lb  
C. 130 lb  
D. 120 lb

\_\_\_\_\_ **25** Solve the proportion  $\frac{5}{6} = \frac{x}{42}$ .

- A.  $x = 36$   
B.  $x = 50.4$

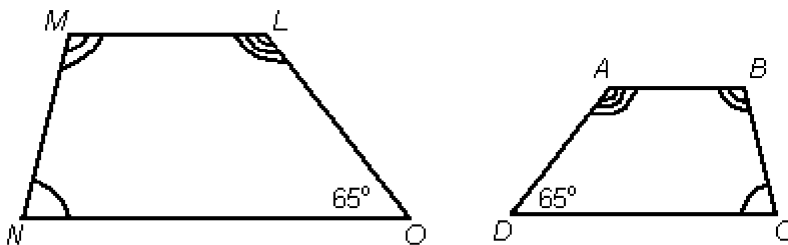
- C.  $x = 35$   
D.  $x = 0.02$

\_\_\_\_\_ **26** Solve the proportion  $\frac{3}{9} = \frac{x+9}{45}$ .

- A.  $x = 15$   
B.  $x = 33.8$

- C.  $x = 126$   
D.  $x = 14$

\_\_\_\_\_ **27** Find the value of  $MN$  if  $AB = 21$  cm,  $BC = 16.8$  cm, and  $LM = 28$  cm.  
 $ABCD \sim LMNO$



- A. 23.8 cm  
B. 22.4 cm

- C. 12.6 cm  
D. 22.8 cm

\_\_\_\_\_ **28** On a sunny day, a 5-foot red kangaroo casts a shadow that is 7 feet long. The shadow of a nearby eucalyptus tree is 35 feet long. Write and solve a proportion to find the height of the tree.

- A.  $\frac{\text{tree's shadow}}{\text{tree's height}} = \frac{\text{kangaroo's shadow}}{\text{kangaroo's height}}$ ; 25 feet  
B.  $\frac{\text{tree's shadow}}{\text{tree's height}} = \frac{\text{kangaroo's shadow}}{\text{kangaroo's height}}$ ; 175 feet  
C.  $\frac{\text{kangaroo's height}}{\text{kangaroo's shadow}} = \frac{\text{kangaroo's shadow}}{\text{kangaroo's height}}$ ; 245 feet  
D.  $\frac{\text{tree's shadow}}{\text{tree's height}} = \frac{\text{tree's shadow}}{\text{tree's height}}$ ; 49 feet

\_\_\_\_\_ **29** Find 55% of 125.

- A. 70.25  
B. 227.27

- C. 68.75  
D. 6875

\_\_\_\_\_ **30** What percent of 74 is 481? If necessary, round your answer to the nearest tenth of a percent.

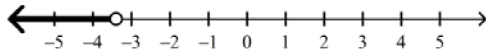
- A. 6.5%  
B. 15.38%

- C. 650%  
D. 550%

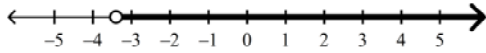


\_\_\_\_\_ **37** Graph the inequality  $m < -3.4$ .

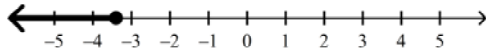
A.



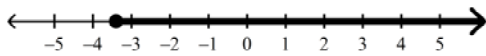
B.



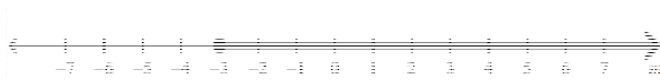
C.



D.



\_\_\_\_\_ **38** Write the inequality shown by the graph.



A.  $m > -3$

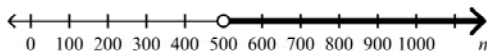
C.  $m \geq -3$

B.  $m < -3$

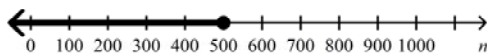
D.  $m \leq -3$

\_\_\_\_\_ **39** To join the school swim team, swimmers must be able to swim at least 500 yards without stopping. Let  $n$  represent the number of yards a swimmer can swim without stopping. Write an inequality describing which values of  $n$  will result in a swimmer making the team. Graph the solution.

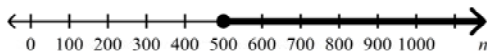
A.  $n > 500$



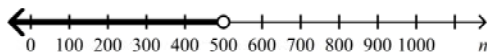
B.  $n \leq 500$



C.  $n \geq 500$

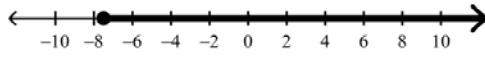


D.  $n < 500$

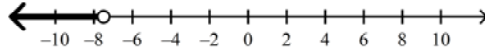


\_\_\_\_\_ **40** Solve the inequality  $n + 6 < -1.5$  and graph the solutions.

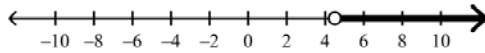
A.  $n < -7.5$



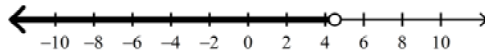
B.  $n < -7.5$



C.  $n < 4.5$

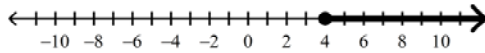


D.  $n < 4.5$

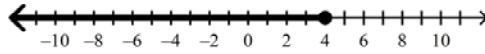


\_\_\_\_\_ **41** Solve the inequality  $2f \geq -8$  and graph the solutions.

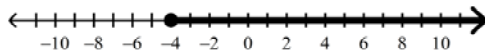
A.  $f \geq 4$



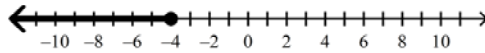
B.  $f \leq 4$



C.  $f \geq -4$



D.  $f \leq -4$



\_\_\_\_\_ **42** Marco's Drama class is performing a play. He wants to buy as many tickets as he can afford. If tickets cost \$2.50 each and he has \$14.75 to spend, how many tickets can he buy?

A. 4 tickets

C. 5 tickets

B. 6 tickets

D. 0 tickets

\_\_\_\_\_ **43** What is the greatest possible integer solution of the inequality  $2.847x < 15.168$ ?

A. 5.33

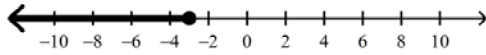
C. 5

B. 6

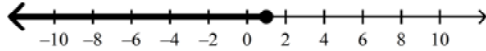
D. 4

\_\_\_\_\_ **44** Solve the inequality  $z + 8 + 3z \leq -4$  and graph the solutions.

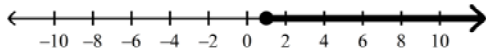
A.  $z \leq -3$



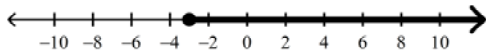
B.  $z \leq 1$



C.  $z \geq 1$



D.  $z \geq -3$



\_\_\_\_\_ **45** Mrs. Williams is deciding between two field trips for her class. The Science Center charges \$135 plus \$3 per student. The Dino Discovery Museum simply charges \$6 per student. For how many students will the Science Center charge less than the Dino Discovery Museum?

- A. More than 45 students  
B. Fewer than 45 students

- C. 132 or more students  
D. 132 or fewer students

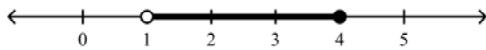
\_\_\_\_\_ **46** Solve the inequality  $-8(z + 6) \leq -8z - 7$ .

- A. no solutions  
B.  $z \leq -2\frac{9}{16}$

- C. {all real numbers}  
D.  $z \leq 3\frac{7}{16}$

\_\_\_\_\_ **47** Solve and graph the solutions of the compound inequality  $1 < 3x - 2 \leq 10$ .

A.  $1 < x$  AND  $x \leq 4$



B.  $1 \leq x$  AND  $x \leq 4$



C.  $1 < x$  AND  $x < 4$



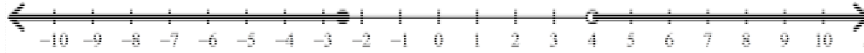
D.  $1 > x$  AND  $x \geq 4$





- \_\_\_\_\_ **48** Solve and graph the compound inequality.  
 $s + 4 < 1.5$  OR  $3 + s \geq 7$

A.  $s < -2.5$  OR  $s \geq 4$



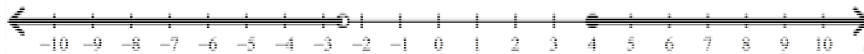
B.  $s < -2.5$  OR  $s < 4$



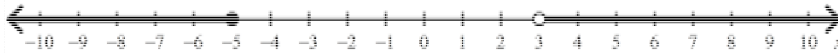
C.  $s < -2.5$  OR  $s < 4$



D.  $s < -2.5$  OR  $s \geq 4$



- \_\_\_\_\_ **49** Write the compound inequality shown by the graph.

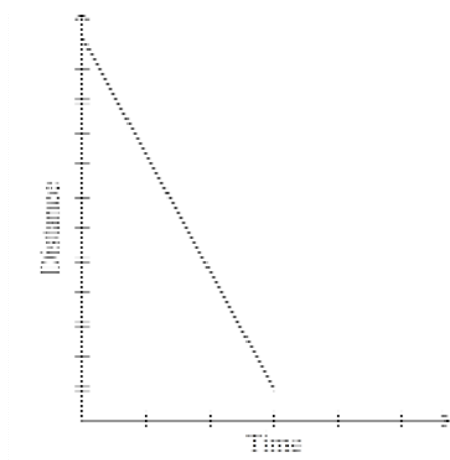


A.  $x \leq 3$  AND  $x > -5$   
 B.  $x \leq -5$  AND  $x > 3$

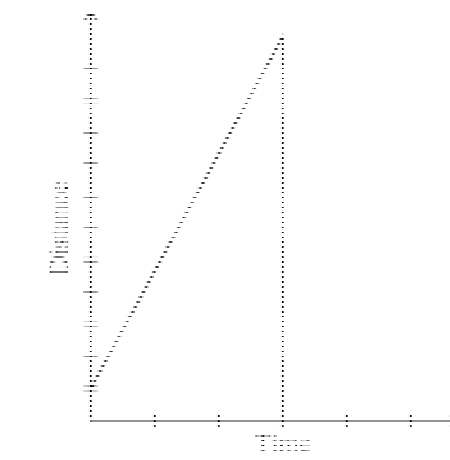
C.  $x \leq -5$  OR  $x > 3$   
 D.  $x < -5$  OR  $x > 3$

\_\_\_\_\_ **50** Jamie throws a ball up into the air. Sketch a graph for the situation that describes the distance of the ball from the ground at every second since it was thrown up. Tell whether the graph is continuous or discrete.

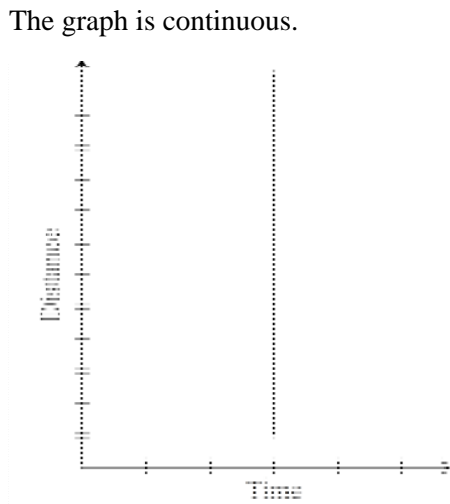
A.



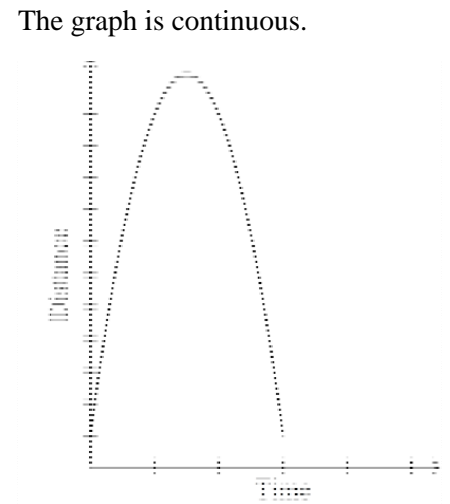
C.



B.



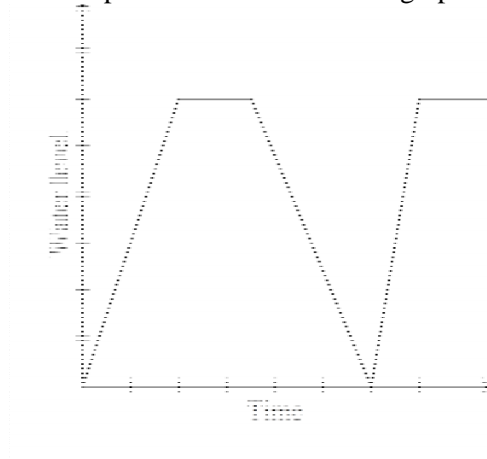
D.



The graph is continuous.

The graph is continuous.

- 51 Write a possible situation for the graph.



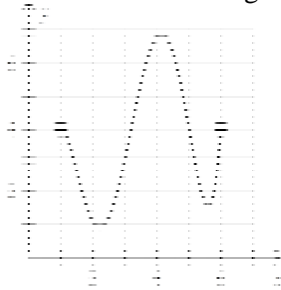
- A. A pool is filled with water, and people are having fun swimming and jumping in and out of the pool.
- B. A pool is filled with water using one valve. Then, immediately after the pool is filled to its capacity, the pool needs to be emptied because of some problems. The pool is refilled right after it is completely empty, using two valves this time.
- C. A pool is filled with water. A little time after the pool is filled to its capacity, the pool needs to be emptied because of some problems. Then, the pool is refilled immediately at the same rate as before.
- D. A pool is filled with water using one valve. A little time after the pool is filled to its capacity, the pool needs to be emptied because of some problems. Then, the pool is refilled immediately, using two valves this time.

- 52 Give the domain and range of the relation.

$x$	$y$
4	9
6	13
0	0
-5	-9

- A. D:  $\{-5, 4, 6\}$ ; R:  $\{-9, 9, 13\}$
- B. D:  $\{-5, 0, 4, 6\}$ ; R:  $\{-9, 0, 9, 13\}$
- C. D:  $\{4, 6, -5, 9, 13, -9\}$ ; R:  $\{0\}$
- D. D:  $\{-9, 0, 9, 13\}$ ; R:  $\{-5, 0, 4, 6\}$

\_\_\_\_\_ **53** Give the domain and range of the relation.



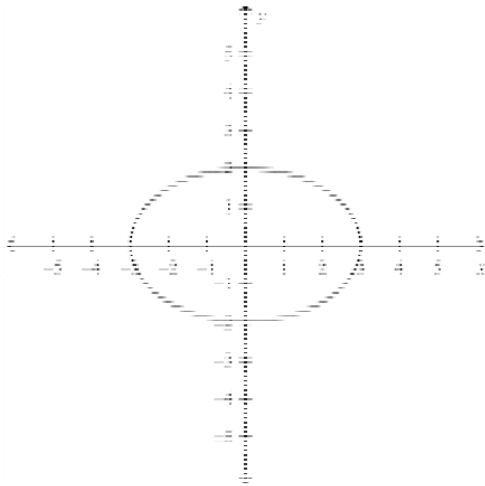
A.  $D: 2 \leq x \leq 6; R: 4 \leq y \leq 7$

B.  $D: 1 \leq x \leq 6; R: 1 \leq y \leq 7$

C.  $D: 1 \leq x \leq 7; R: 1 \leq y \leq 6$

D.  $D: 0 \leq x \leq 7; R: 1 \leq y \leq 7$

\_\_\_\_\_ **54** Give the domain and range of the relation. Tell whether the relation is a function.



A.  $D: -3 \leq x \leq 3; R: -2 \leq y \leq 2$

The relation is not a function.

B.  $D: -3 \leq x \leq 3; R: -2 \leq y \leq 2$

The relation is a function.

C.  $D: -2 \leq x \leq 2; R: -3 \leq y \leq 3$

The relation is not a function.

D.  $D: -2 \leq x \leq 2; R: -3 \leq y \leq 3$

The relation is a function.

\_\_\_\_\_ **55** Identify the independent and dependent variables in the situation.

**The amount of electricity used for air conditioning in homes increases as the temperature increases.**

A. Independent: amount of electricity used; Dependent: temperature

B. Independent: temperature; Dependent: amount of electricity used

\_\_\_\_\_ **56** Identify the independent and dependent variables in the situation.

**As Kyoko works more hours, her total pay increases.**

A. Independent: hours worked; Dependent: total pay

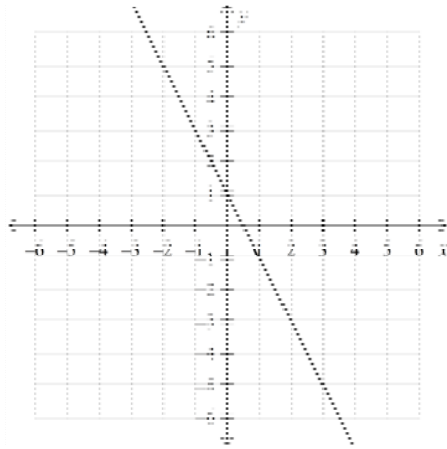
B. Independent: total pay; Dependent: hours worked

\_\_\_\_\_ **57** For  $f(x) = 8x + 11$ , find  $f(x)$  when  $x = 4$ .

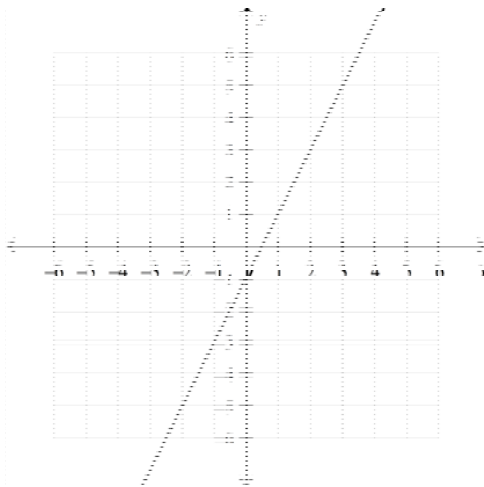
- A. 120
- B. 43
- C. 51
- D. -21

\_\_\_\_\_ **58** Graph the function  $y = 2x - 1$ .

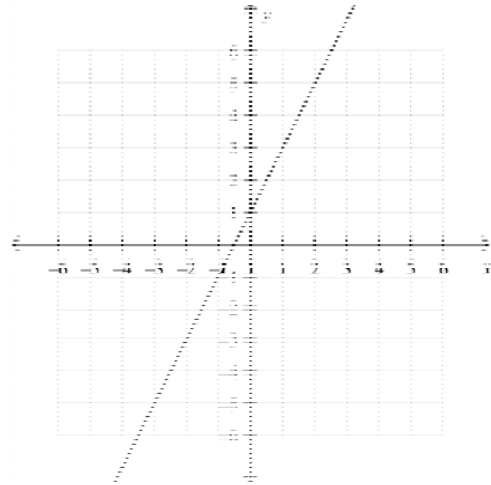
A.



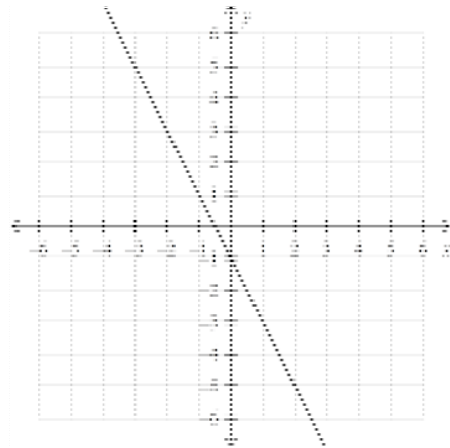
B.



C.

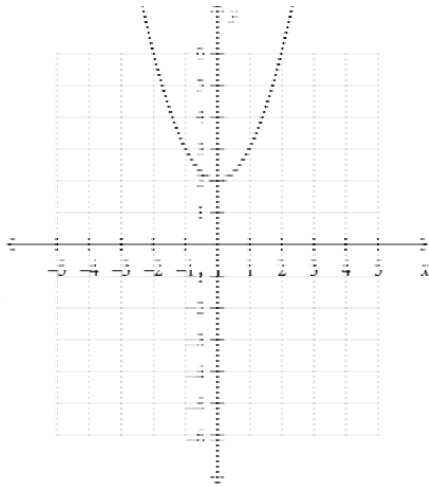


D.

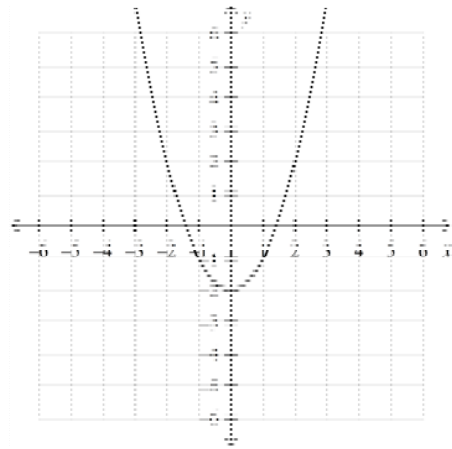


\_\_\_\_\_ **59** Graph the function  $y = -x^2 - 2$ .

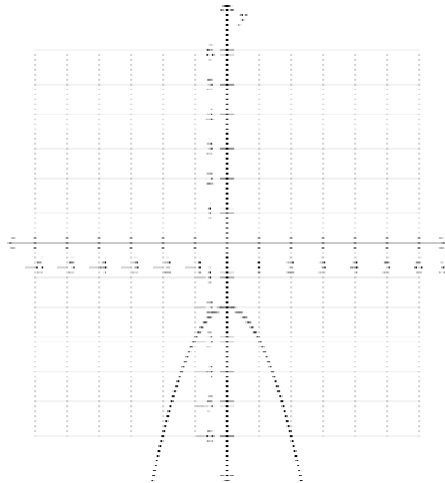
A.



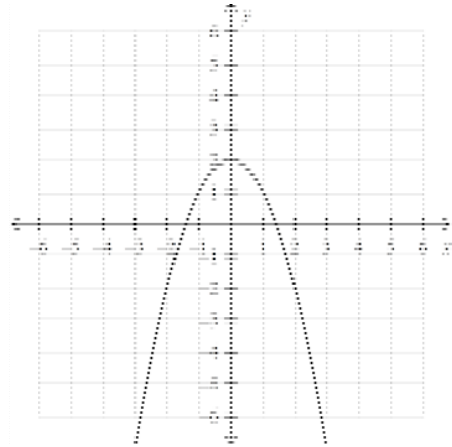
C.



B.

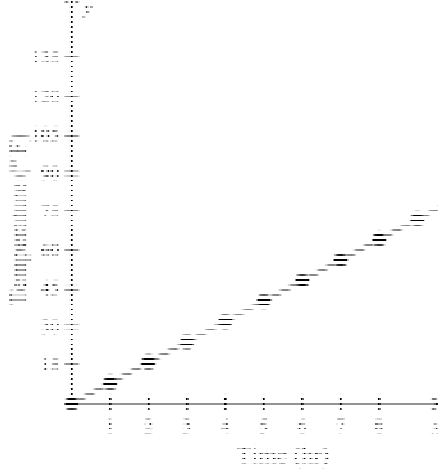


D.

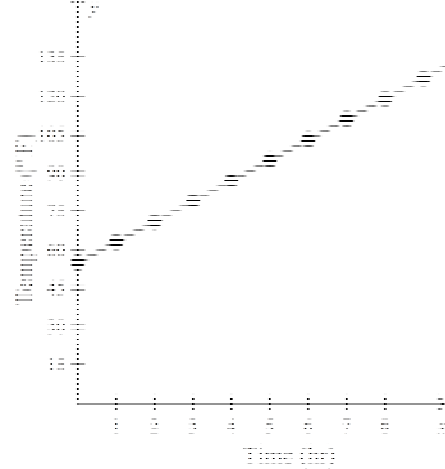


60 The temperature of air in a room that began at 55° F is increasing by 8° F per hour. Write a function that describes the temperature of the air over time. Graph the function to show the temperatures over the first 10 hours.

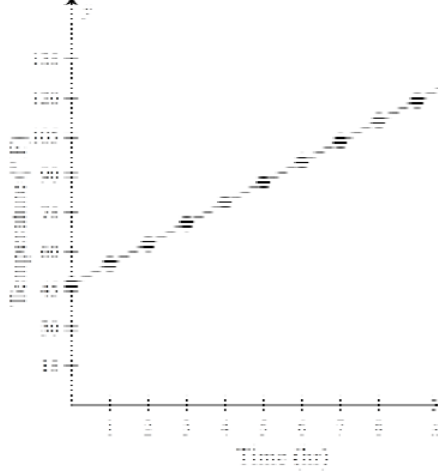
A.  $y = 8x$



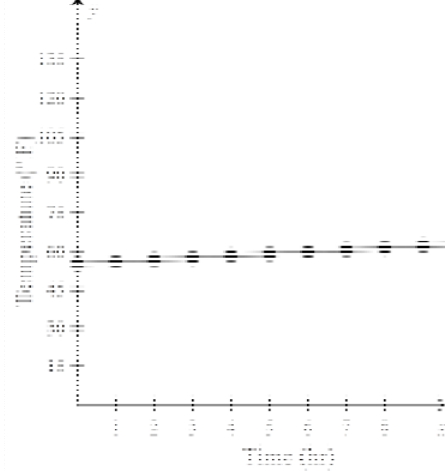
C.  $y = 8x + 55$



B.  $y = 8x + 47$



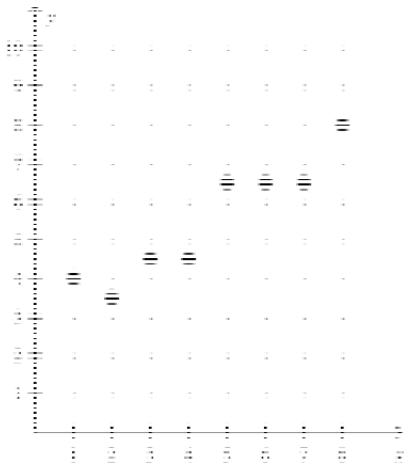
D.  $y = 0.8x + 55$



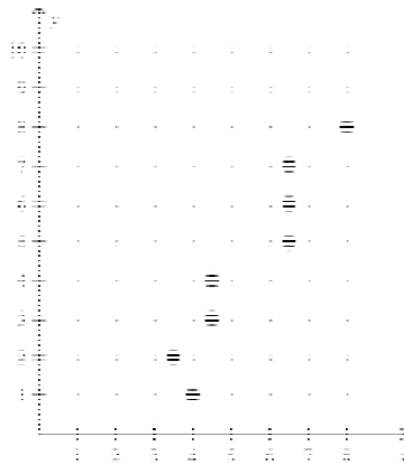
61 Graph a scatter plot using the given data.

$x$	3	6	5	2	7	4	8	1
$y$	4.5	6.5	6.5	3.5	6.5	4.5	8	4

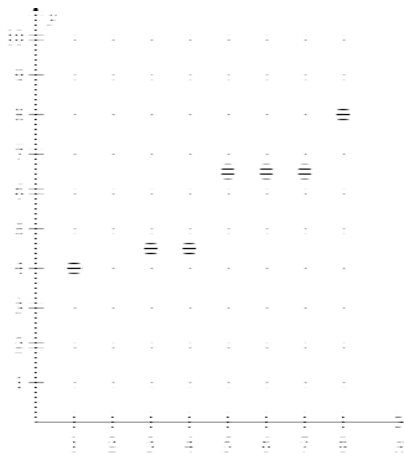
A.



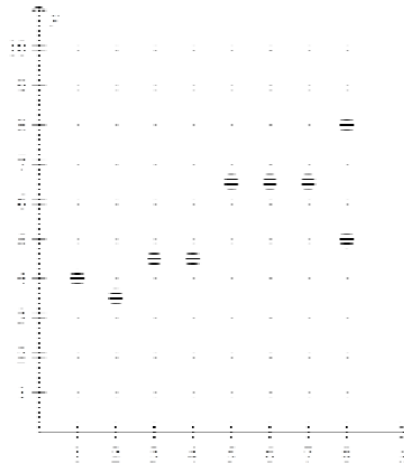
C.



B.



D.



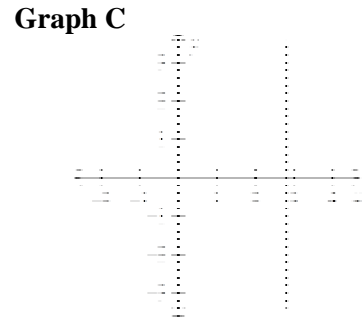
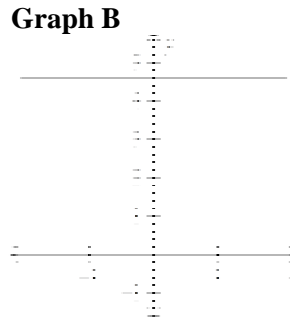
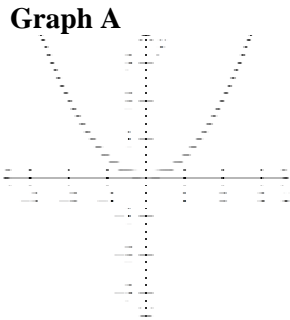
62 Find the 20th term in the arithmetic sequence  $-4, 1, 6, 11, 16, \dots$

- A. 96
- B. 91

- C. 95
- D. 72



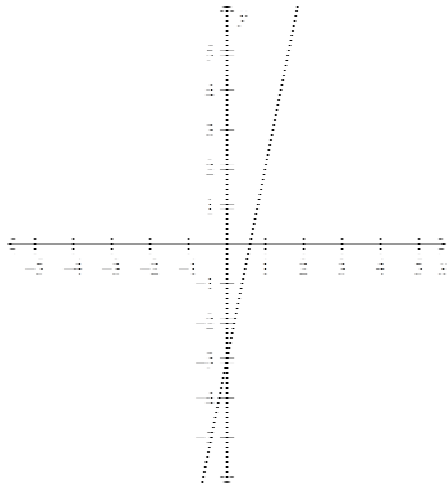
\_\_\_\_\_ **63** Identify each graph as being a non-linear function, linear function, or not a function.



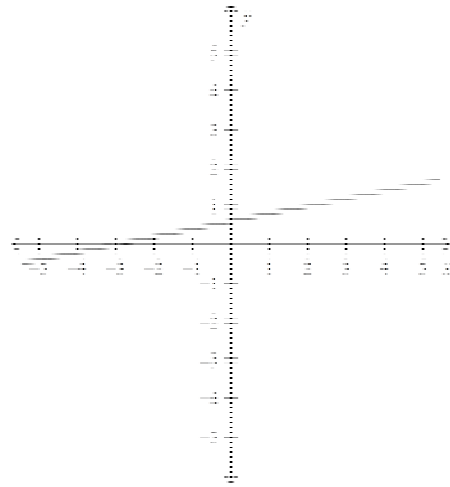
- A. Graph A: non-linear function  
Graph B: not a function  
Graph C: not a function
- B. Graph A: non-linear function  
Graph B: linear function  
Graph C: not a function
- C. Graph A: non-linear function  
Graph B: linear function  
Graph C: linear function
- D. Graph A: not a function  
Graph B: not a function  
Graph C: linear function

\_\_\_\_\_ **64** Tell whether the function  $y = 5x - 3$  is linear. If so, graph the function.

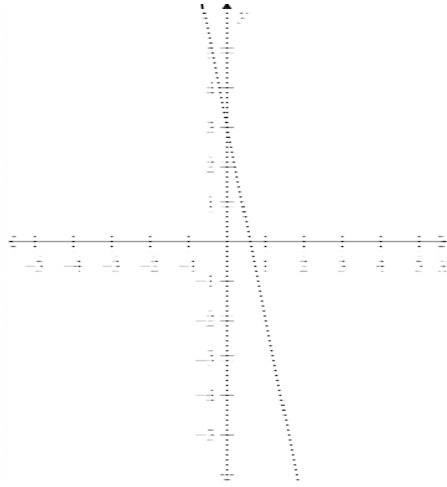
A.



C.

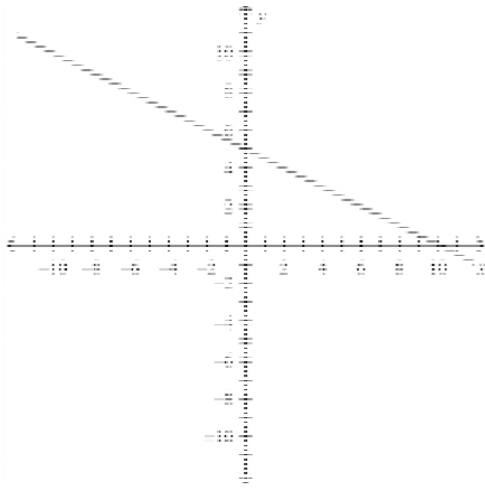


B.



D. Not a linear function.

\_\_\_\_\_ **65** Find the  $x$ - and  $y$ -intercepts.



- A.  $x$ -intercept: 5,  $y$ -intercept: 10
- B.  $x$ -intercept: 10,  $y$ -intercept: 5

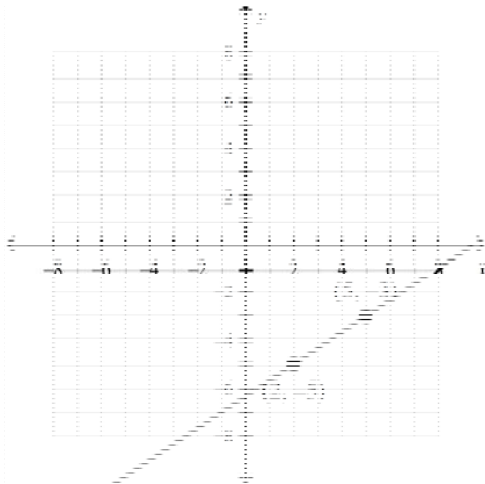
- C.  $x$ -intercept:  $-10$ ,  $y$ -intercept: 5
- D.  $x$ -intercept: 10,  $y$ -intercept:  $-5$

\_\_\_\_\_ **66** Find the  $x$ - and  $y$ -intercepts of  $-x + 2y = 8$ .

- A.  $x$ -intercept:  $-11$ ,  $y$ -intercept: 3
- B.  $x$ -intercept:  $-8$ ,  $y$ -intercept: 4

- C.  $x$ -intercept:  $-8$ ,  $y$ -intercept: 3
- D.  $x$ -intercept:  $-11$ ,  $y$ -intercept: 4

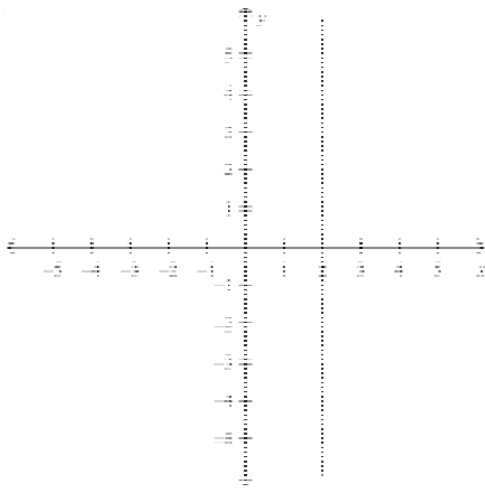
\_\_\_\_\_ **67** Find the slope of the line.



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

- C.  $-\frac{3}{5}$
- D.  $\frac{3}{2}$

\_\_\_\_\_ **68** Tell whether the slope of the line is positive, negative, zero, or undefined.



- A. undefined  
B. positive  
C. zero  
D. negative

\_\_\_\_\_ **69** Find the slope of the line described by  $x - 3y = -6$ .

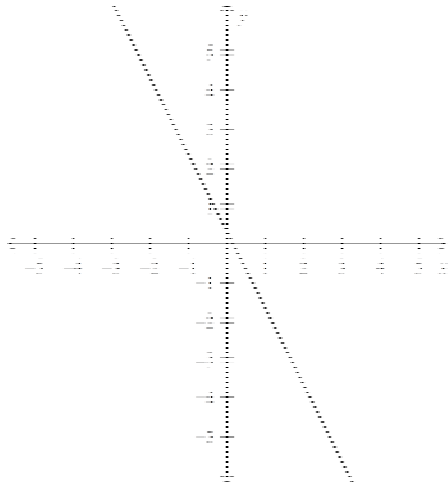
- A.  $-3$   
B.  $3$   
C.  $-\frac{1}{3}$   
D.  $\frac{1}{3}$

\_\_\_\_\_ **70** Tell whether the equation  $-x + 4y = -2$  represents a direct variation. If so, identify the constant of variation.

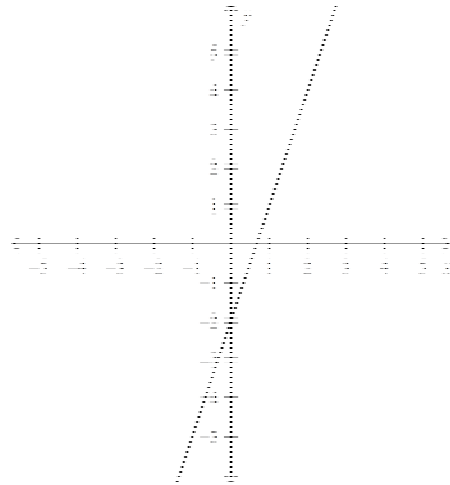
- A. Direct variation,  $k = 4$   
B. Direct variation;  $k = \frac{1}{4}$   
C. Direct variation,  $k = -2$   
D. Not a direct variation.

\_\_\_\_\_ **71** Graph the line with the slope  $\frac{1}{3}$  and y-intercept  $-2$ .

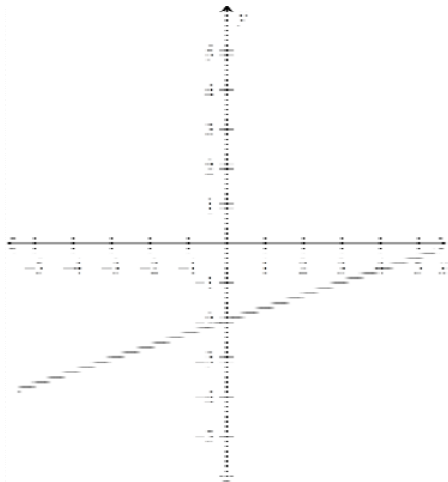
A.



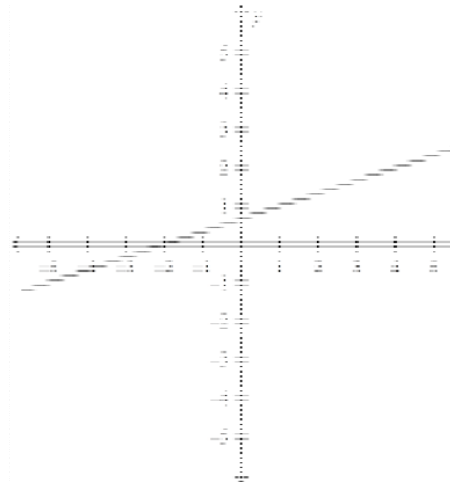
C.



B.



D.



\_\_\_\_\_ **72** Write the equation that describes the line with slope = 2 and y-intercept =  $\frac{3}{2}$  in slope-intercept form.

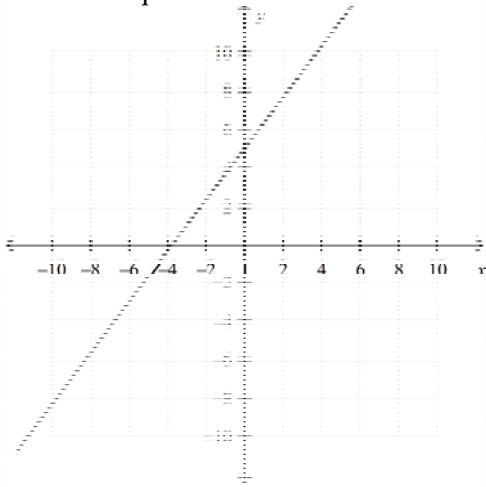
A.  $x = 2y + \frac{3}{2}$

C.  $y = \frac{3}{2}x + 2$

B.  $y = 2x + \frac{3}{2}$

D.  $2x + y = \frac{3}{2}$

- \_\_\_\_\_ **73** Write the equation that describes the line in slope-intercept form.



- A.  $y = \frac{4}{3}x + 5$                       C.  $x = \frac{4}{3}y + 5$   
 B.  $y = 5x + \frac{4}{3}$                       D.  $\frac{4}{3}x + y = 5$

- \_\_\_\_\_ **74** Write the equation that describes the line in slope-intercept form.  
 slope = 4, point (3, -2) is on the line

- A.  $y = 4x - 14$                       C.  $y = 4x + 14$   
 B.  $y = 4x - 2$                       D.  $y = 4x + 10$

- \_\_\_\_\_ **75** Write an equation in point-slope form for the line that has a slope of 6 and contains the point (-8, -7).

- A.  $y + 8 = 6(x + 7)$                       C.  $y - 7 = 6(x - 8)$   
 B.  $x - 8 = 6(y - 7)$                       D.  $y + 7 = 6(x + 8)$

- \_\_\_\_\_ **76** Write an equation in slope-intercept form of the line with slope -8 that contains the point (1, 2).

- A.  $y = -8x + 8$                       C.  $y = -8x + 10$   
 B.  $y = -8x + 2$                       D.  $y = -8x + 1$

- \_\_\_\_\_ **77** Write an equation in slope-intercept form for the line that passes through (3, 7) and (7, 4).

- A.  $y = -\frac{3}{4}x + \frac{4}{37}$                       C.  $y = -\frac{4}{3}x + \frac{37}{4}$   
 B.  $y = \frac{3}{4}x + \frac{37}{4}$                       D.  $y = -\frac{3}{4}x + \frac{37}{4}$

- \_\_\_\_\_ **78** The points (1, 6) and (-1, 10) are on a line. Find the  $x$ - and  $y$ -intercepts.

- A.  $x$ -intercept:  $\frac{13}{4}$ ,  $y$ -intercept: 8                      C.  $x$ -intercept: 4,  $y$ -intercept: 8  
 B.  $x$ -intercept: 4,  $y$ -intercept: 9                      D.  $x$ -intercept:  $\frac{13}{4}$ ,  $y$ -intercept: 9

\_\_\_\_\_ **79** The equations of four lines are given. Identify which lines are parallel.

Line 1:  $y = -7x + 6$

Line 2:  $x + \frac{1}{5}y = -6$

Line 3:  $y = -5x - 8$

Line 4:  $y + 7 = -\frac{1}{7}(x + 4)$

A. All four lines are parallel.

B. Lines 1 and 2 are parallel.

C. Lines 1 and 4 are parallel.

D. Lines 2 and 3 are parallel.

\_\_\_\_\_ **80** Identify the lines that are perpendicular:

$y = -2$ ;  $y = \frac{1}{5}x + 3$ ;  $x = -2$ ;  $y + 3 = -5(x + 2)$

A.  $y = -2$  and  $x = -2$  are perpendicular;  $y = \frac{1}{5}x + 3$  and  $y + 3 = -5(x + 2)$  are perpendicular.

B.  $y = \frac{1}{5}x + 3$  and  $y + 3 = -5(x + 2)$  are perpendicular.

C. None of the lines are perpendicular.

D.  $y = -2$  and  $x = -2$  are perpendicular.

\_\_\_\_\_ **81** Write an equation in slope-intercept form for the line parallel to  $y = 5x - 2$  that passes through the point (8, -2).

A.  $y = -\frac{1}{5}x - 2$

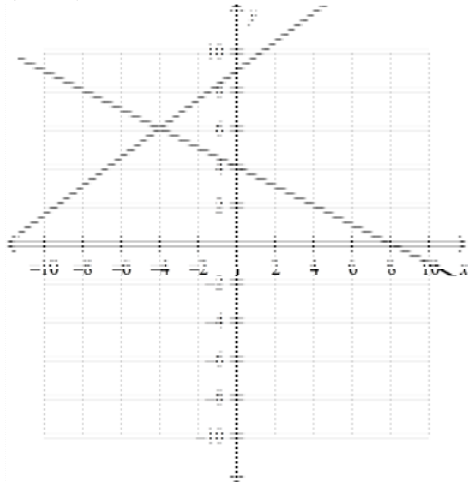
C.  $y = 5x + 32$

B.  $y = -\frac{1}{5}x - \frac{2}{5}$

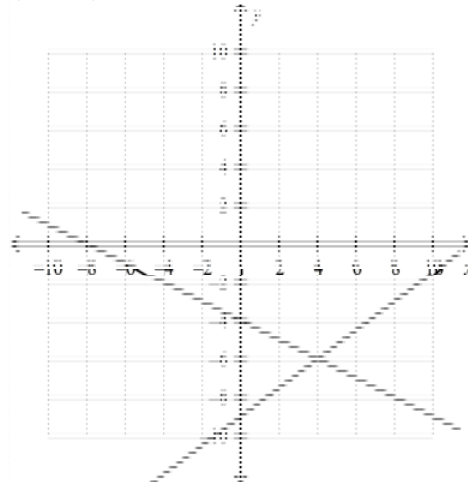
D.  $y = 5x - 42$

\_\_\_\_\_ **82** Solve the system  $\begin{cases} 3x + 4y = -36 \\ -2x + 4y = -16 \end{cases}$  by graphing.

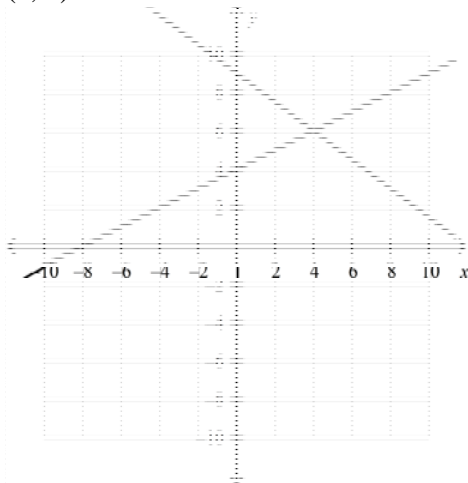
A.  $(-4, 6)$



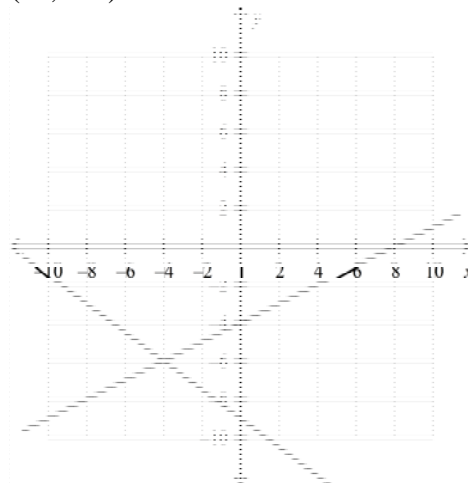
C.  $(4, -6)$



B.  $(4, 6)$



D.  $(-4, -6)$



\_\_\_\_\_ **83** Solve  $\begin{cases} 3x + y = -3 \\ y = x + 5 \end{cases}$  by using substitution. Express your answer as an ordered pair.

A.  $(-\frac{8}{3}, -3)$

C.  $(-2, 3)$

B.  $(-\frac{4}{3}, 1)$

D.  $(3, -2)$

\_\_\_\_\_ **84** Solve  $\begin{cases} 4x - 4y = -16 \\ x - 2y = -12 \end{cases}$  by using substitution. Express your answer as an ordered pair.

A.  $(-2, 4)$

C.  $(4, 8)$

B.  $(4, -8)$

D.  $(8, -4)$



\_\_\_\_\_ **85** Janice is going on vacation and needs to leave her dog at a kennel. Nguyen's Kennel charges \$15 per day plus \$20 for a processing fee. The Pup Palace Kennel charges \$12 per day, and has a \$35 processing fee. After how many days is the Pup Palace Kennel cheaper than Nguyen's Kennel?

- A. The Pup Palace Kennel is never cheaper than Nguyen's Kennel.
- B. The Pup Palace Kennel is cheaper than Nguyen's Kennel after 5 days.
- C. The Pup Palace Kennel is cheaper than Nguyen's Kennel after 15 days.
- D. The Pup Palace Kennel is always cheaper than Nguyen's Kennel.

\_\_\_\_\_ **86** Solve  $\begin{cases} 3x - 6y = 12 \\ 2x + 6y = -12 \end{cases}$  by using elimination. Express your answer as an ordered pair.

- A.  $(-2, 0)$
- B.  $(-8, -6)$
- C.  $(0, -2)$
- D.  $(-2, -3)$

\_\_\_\_\_ **87** Solve  $\begin{cases} 3x - 2y = 15 \\ x - 2y = 5 \end{cases}$  by using elimination. Express your answer as an ordered pair.

- A.  $(5, 0)$
- B.  $(5, 22.5)$
- C.  $(5, 17.5)$
- D.  $(5, 0)$

\_\_\_\_\_ **88** Solve  $\begin{cases} 2x - 5y = -7 \\ 5x - 3y = 11 \end{cases}$  by using elimination. Express your answer as an ordered pair.

- A.  $(4, 3)$
- B.  $(3, 4)$
- C.  $(3, 2)$
- D.  $(\frac{4}{7}, \frac{8}{5})$

\_\_\_\_\_ **89** Solve  $\begin{cases} y = -x + 8 \\ x + y = 7 \end{cases}$ .

- A. This system has no solutions.
- B.  $(-\frac{1}{2}, \frac{17}{2})$
- C.  $(\frac{1}{2}, \frac{15}{2})$
- D. This system has infinitely many solutions.

\_\_\_\_\_ **90** Solve  $\begin{cases} y = 2x - 1 \\ 2x - y - 1 = 0 \end{cases}$ .

- A. This system has no solution.
- B. This system has exactly one solution.
- C. This system has infinitely many solutions.
- D.  $(1, 1)$  and  $(0, 0)$

\_\_\_\_\_ **91** Classify  $\begin{cases} x - 8y = 6 \\ 2x - 16y = 12 \end{cases}$ . Give the number of solutions.

- A. This system is consistent. It has one solution.
- B. This system is inconsistent. It has infinitely many solutions.
- C. This system is inconsistent. It has no solutions.
- D. This system is consistent. It has infinitely many solutions.

\_\_\_\_\_ **92** Tell whether  $(8, 5)$  is a solution of  $y > x + 7$ .

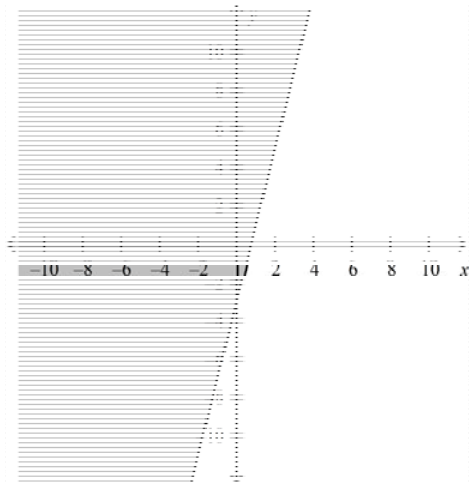
- A. No,  $(8, 5)$  is not a solution of  $y > x + 7$ .
- B. Yes,  $(8, 5)$  is a solution of  $y > x + 7$ .

\_\_\_\_\_ **93** Tell whether  $(5, 6)$  is a solution of  $y < 5x + 8$ .

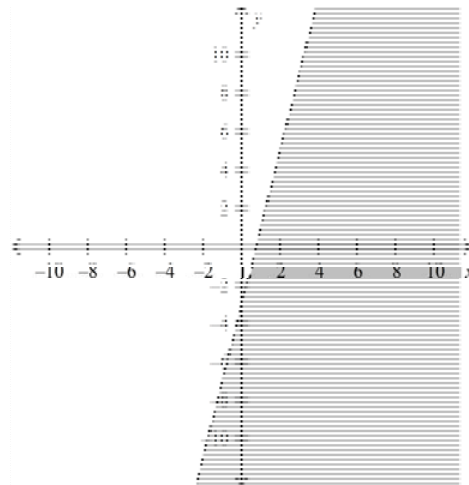
- A. No,  $(5, 6)$  is not a solution of  $y < 5x + 8$ .
- B. Yes,  $(5, 6)$  is a solution of  $y < 5x + 8$ .

\_\_\_\_\_ **94** Graph the solutions of the linear inequality  $-8x + 2y > -6$ .

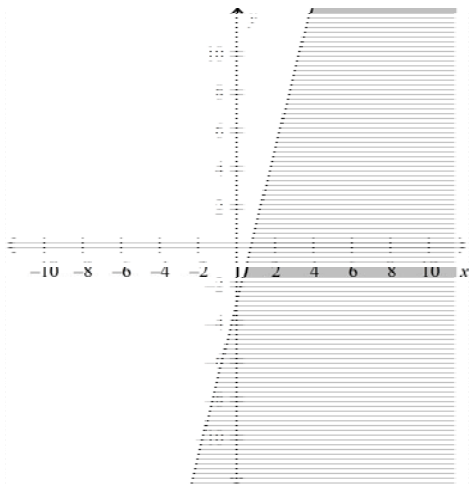
A.



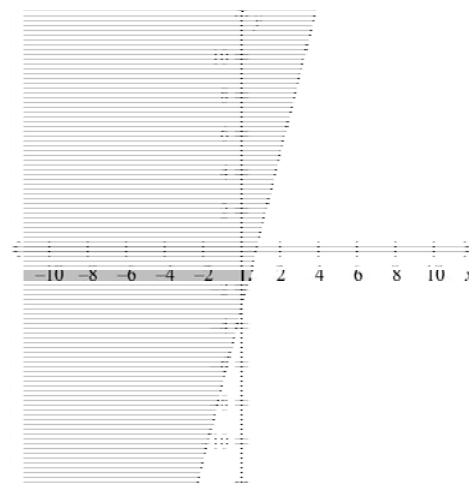
C.



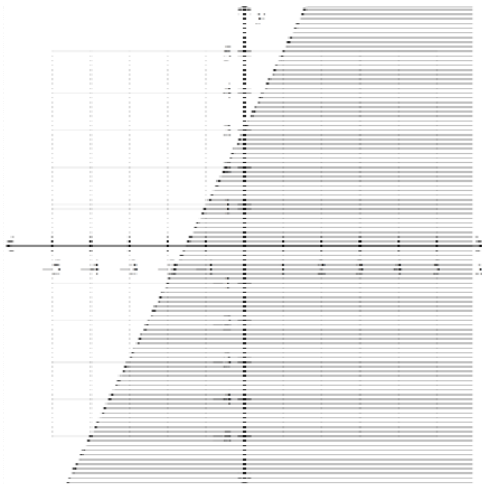
B.



D.



\_\_\_\_\_ **95** Write an inequality to represent the graph.



- A.  $y < 2x + 3$
- B.  $y < 3x + 2$

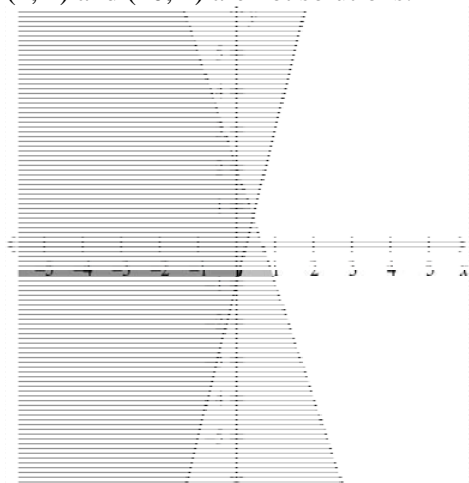
- C.  $y \leq 2x + 3$
- D.  $y > 2x + 3$

\_\_\_\_\_ **96** Tell whether  $(2, 7)$  is a solution of  $\begin{cases} y \geq 4x \\ y < x + 2 \end{cases}$ .

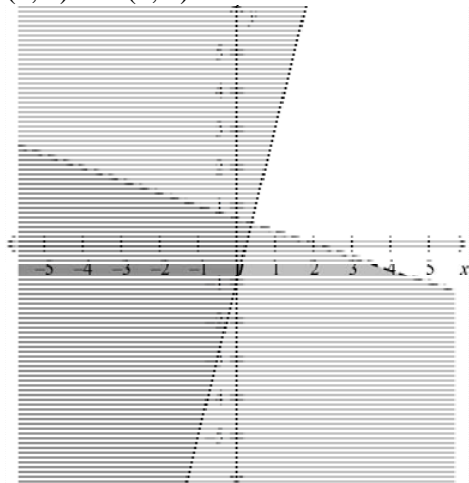
- A. No,  $(2, 7)$  is not a solution of the system.
- B. Yes,  $(2, 7)$  is a solution of the system.

\_\_\_\_\_ **97** Graph the system of linear inequalities  $\begin{cases} y < -3x + 2 \\ y \geq 4x - 1 \end{cases}$ . Give two ordered pairs that are solutions and two that are not solutions.

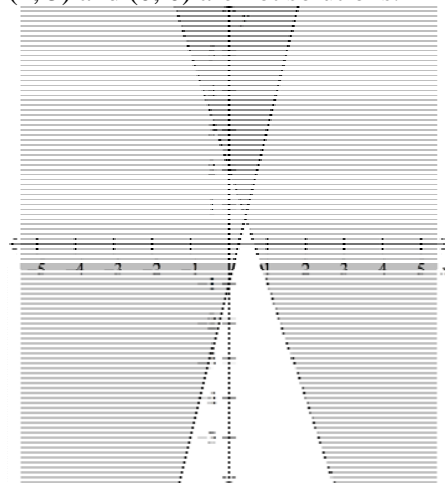
- A. (0, 0) and (-4, -5) are solutions.  
 (2, 2) and (10, 1) are not solutions.



- B. (5, -6) and (0, 0) are solutions.  
 (1, 1) and (2, 0) are not solutions.



- C. (1, -2) and (-6, 0) are solutions.  
 (1, 5) and (0, 0) are not solutions.



- D. (2, 2) and (0, 10) are solutions.  
 (0, 0) and (-5, -1) are not solutions.

