Algebra 1 Test 5 Review
Systems Equations/Inequalities

Name _____

Date _____

1   Which ordered pair is the solution to
     the given system of equations?
     $y = 2x$
     $x + y = 12$

     A   (6, 6)
     B   (4, 8)
     C   (9, 3)
     D   (3, 6)

5   What is the solution to the following
     pair of equations?
     $3x + 7y = 2$
     $2x + 3y = 3$

     A   (-1, 3)
     B   (3, -1)
     C   (-1, ⅔)
     D   (-3, 3)

2   Solve the system of equations given
     below.
     $y = x - 1$
     $3x + 4y = 17$

     A   (3, 4)
     B   (4, 8)
     C   (9, 3)
     D   (3, 2)

6   What is the solution to the following
     pair of equations?
     $5x = 2y + 8$
     $3x - 5y = 1$

     A   (2, -1)
     B   (2, 9)
     C   (2, 1)
     D   (5, 2)

3   Solve the system of equations given
     below.
     $2x - y = -1$
     $3x + y = -4$

     A   (4, 1)
     B   (-1, -1)
     C   (4, -3)
     D   (4, 3)

7   What is the solution to the following
     pair of equations?
     $3x + 2y = 8$
     $2x - y = 3$

     A   (2, 1)
     B   (1, 2)
     C   (3, 2)
     D   (2, 2)

4   Solve the system of equations given
     below.
     $y - x = 1$
     $2x - 3y = -5$

     A   (2, 3)
     B   (4, 8)
     C   (4, 3)
     D   (6, 7)

8   What is the solution to the following
     pair of equations?
     $2x + y = 4$
     $5x - y = 10$

     A   (2, 0)
     B   (0, 2)
     C   (0, 4)
     D   (2, 1)

9   Solve the following system of equations.
$y = 2x - 1$
$y = x + 4$

10   Solve the following system of equations.
$x + y = 6$
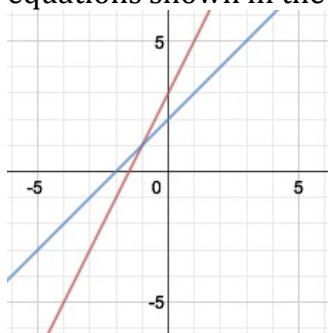$x - y = 4$

11   Solve the following system of linear equations
$4y = x + 12$
$x - 4y = 2$

A   (0, -0.5)
B   (-2, 0)
C   No solution
D   Many solutions

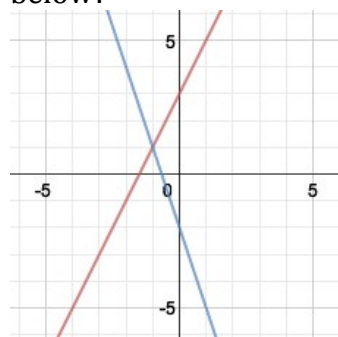12   Solve the following system of linear equations
$3y = 2x - 9$
$-4x + 6y = -18$

A   No Solution
B   (3, -4)
C   Infinitely Many Solutions
D   (-2, 6)

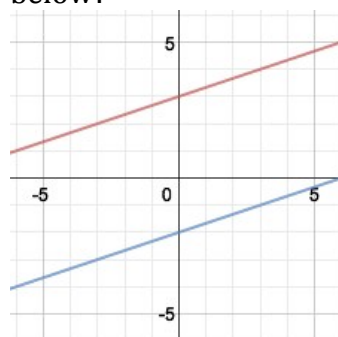13   What is the solution to the system of equations shown in the graph below?

A   (1, 1)   C   (-1, 1)
B   (1, -1)   D   (-1, -1)

14   How many solutions exist to each the following system of equations graphed below?

A   One Solution
B   No Solution
C   Infinitely Many Solutions
D   None of the above

15   How many solutions exist to each the following system of equations graphed below?

A   One Solution
B   No Solution
C   Infinitely Many Solutions
D   None of the above

16   Which system has (3, 5) as a solution?

A $\begin{cases} y = 2x + 9 \\ y = -5x - 8 \end{cases}$ B $\begin{cases} 2y = 3x + 1 \\ 2x - 4y = -14 \end{cases}$

C $\begin{cases} 7x - y = 10 \\ 3y = 6x - 12 \end{cases}$ D $\begin{cases} x - y = -2 \\ y = x - 2 \end{cases}$

17   Which system has only one solution?

A $\begin{cases} y = -4x + 5 \\ y = -4x - 9 \end{cases}$ B $\begin{cases} y = 3x + 8 \\ y = \frac{1}{3}x - 4 \end{cases}$

C $\begin{cases} y = 3x - 6 \\ 2y = 6x - 12 \end{cases}$

D   None of the above

18   Cody purchased 20 Snickers Bars and 30 Blow Pops for $27.30. Jay purchased 25 Snickers Bars and 15 Blow Pops for $28.50. Which system can be used to determine the price of each?

A $\begin{cases} s + b = 27.3 \\ 25s + 15b = 28.5 \end{cases}$

B $\begin{cases} 20s + 30b = 27.3 \\ s + b = 28.5 \end{cases}$

C $\begin{cases} 30s + 20b = 27.3 \\ 15s + 25b = 28.5 \end{cases}$

D $\begin{cases} 20s + 30b = 27.3 \\ 25s + 15b = 28.5 \end{cases}$

19   Using the correct system in #18, what is the price of a snickers bar and what is the price of a blow pop?

A $0.25 for a snickers
$0.99 for a blow pop
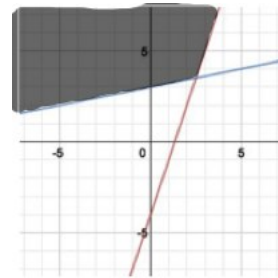
B $0.99 for a snickers
$0.25 for a blow pop

C $0.89 for a snickers
$0.50 for a blow pop

D $0.99 for a snickers
$0.30 for a blow pop

20   Match the correct graph with the system of inequalities below.

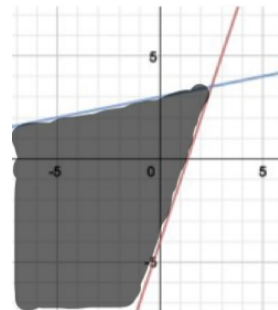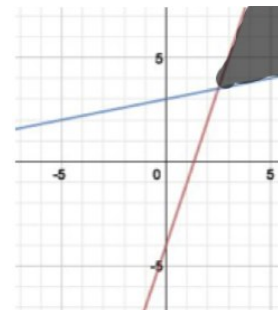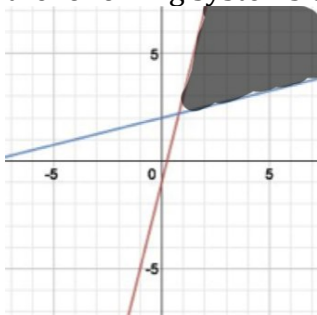$$\begin{cases} 9x - 3y \le 12 \\ y \ge \frac{1}{5}x + 3 \end{cases}$$

A

B

C

D

21 The graph below represents which of the following systems of inequalities?
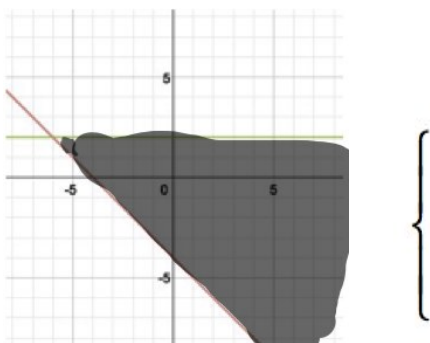

A $\begin{cases} y \geq 4x - 1 \\ y \geq \frac{1}{4}x + 2 \end{cases}$

B $\begin{cases} y \leq 4x - 1 \\ y \leq \frac{1}{4}x + 2 \end{cases}$

C $\begin{cases} y \leq 4x - 1 \\ y \geq \frac{1}{4}x + 2 \end{cases}$

D $\begin{cases} y \geq 4x - 1 \\ y \leq \frac{1}{4}x + 2 \end{cases}$

22 Using the inequalities shown, create a system of two inequalities that could be represented by this graph.

A $y \geq -x - 4$
B $2y \leq -2x - 8$
C $y \leq 2$
D $y \leq x + 2$

E $y \leq -x - 4$
F $y \geq x - 4$
G $y \geq 2$
H $y \geq x - 2$

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Cumulative Review

23 Josh went to the Isle of Wight County Fair. Admission to the fair was $5.00 and ride tickets are $1.25 each. If he spent a total of $20.00, how many ride tickets did he buy?

24 What is the solution to the following equation?   8x – 9 = 5x + 3

25 What is the slope of 4x – 2y = 10?

26 Find the equation of the line with a slope of 4 and passing through (0, 6).

27 Is (-2, -11) a solution to y = 5x – 1?