Student: _____ Date: _____	**Instructor:** Ray Brown **Course:** M055 Sum17 CAI 10054 G41	**Assignment:** ch11rev HW

1. Click the link below to watch a video reviewing concepts in this chapter. You are encouraged to watch the video and work problems with the instructor to help ensure your understanding of the material.

   <u>Chapter 11 Review</u>[1]

   ○   True - I understand the concept.
   ○   False - I am not understanding the concept and intend to seek assistance.

   1: http://www.screencast.com/t/hgbyEYKpQx0

   Answer: True - I understand the concept.

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2. Determine whether each ordered pair is a solution of the system of linear equations.

$$\begin{cases} 3y = 9x + 12 \\ 3x - y = -4 \end{cases}$$

   a. $(-3, 5)$
   b. $(0, 4)$

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   a. Is $(-3, 5)$ a solution?

   ○   Yes
   ○   No

   b. Is $(0, 4)$ a solution?

   ○   Yes
   ○   No

   Answers   No

           Yes

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3. Determine which ordered pair is a solution to the system of equations.

$(4,0), (-4, -8)$

$$\begin{cases} -3x + 3y = -12 \\ 5x + 6y = 20 \end{cases}$$

Is the ordered pair (4,0) a solution?

○ No
○ Yes

Is the ordered pair $(-4, -8)$ a solution?
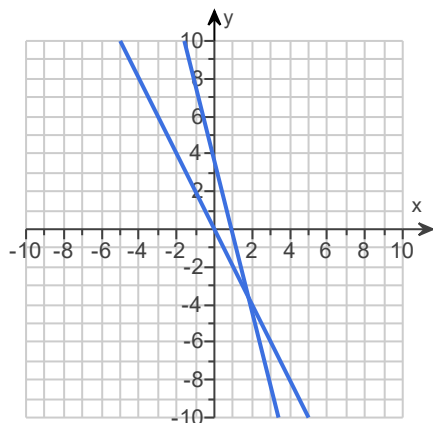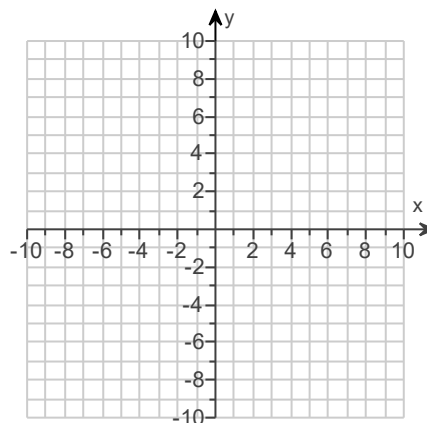
○ No
○ Yes

Answers Yes
        No

4. Solve the system of linear equations by graphing.

$$\begin{cases} y = -2x \\ 4x + y = 4 \end{cases}$$

Use the graphing tool to graph the system.

What is the solution of the system of equations? Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** _____ (Type an ordered pair.)
○ **B.** There are infinitely many solutions.
○ **C.** There is no solution.

Answers
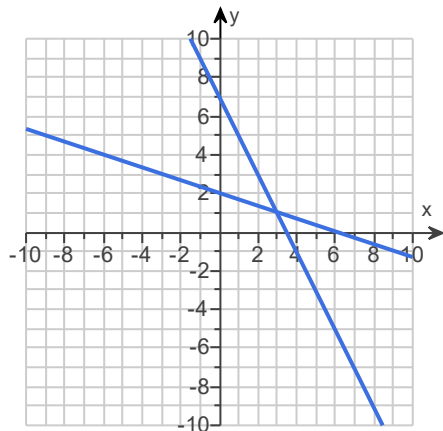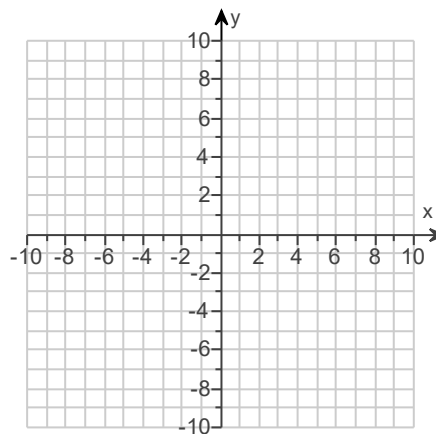
A. ___**(2, − 4)**___ (Type an ordered pair.)

5. Solve the system of equations by graphing.

$$\begin{cases} 2x + y = 7 \\ x + 3y = 6 \end{cases}$$

Use the graphing tool to graph the lines.

What is the solution of the system of equations? Select the correct choice below and fill in any answer boxes in your choice.

○ **A.** The solution is _____ . (Type an ordered pair.)

○ **B.** There are infinitely many solutions.

○ **C.** There is no solution.

Answers

A. The solution is _____**(3,1)**_____ . (Type an ordered pair.)

6. Use the method of substitution to solve the system of linear equations.

$$8x + y = -13$$
$$y = x + 5$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** The solution is _____ . (Simplify your answer. Type an ordered pair.)

○ **B.** There are infinitely many solutions.

○ **C.** There is no solution.

Answer: A. The solution is _____**(−2,3)**_____ . (Simplify your answer. Type an ordered pair.)

7. Solve the system of equations by your choice of method, substitution or addition.

$$\begin{cases} 2x + 3y = 5 \\ 4x + 6y = 0 \end{cases}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** The solution is _____ .
         (Simplify your answer. Type an ordered pair.)
○ **B.** There are infinitely many solutions.
○ **C.** There is no solution.

Answer: C. There is no solution.

8. Solve the system of equations by your choice of method, substitution or addition.

$$\begin{cases} -9(x-3) = 8y \\ 3x - 3y = -8 \end{cases}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** The solution is _____ . (Simplify your answer. Type an ordered pair.)
○ **B.** There are infinitely many solutions.
○ **C.** There is no solution.

Answer: A. The solution is $\left(\dfrac{1}{3}, 3\right)$. (Simplify your answer. Type an ordered pair.)

9. Use the elimination method to solve the system of equations.

$x + y = 1$
$x - y = 7$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** The solution is _____ . (Type an ordered pair.)
○ **B.** There are infinitely many solutions.
○ **C.** There is no solution.

Answer: A. The solution is $(4, -3)$. (Type an ordered pair.)

10. Use the elimination method to solve the system of equations.

$$-x + y = 5$$
$$x + y = 13$$

The solution to the system is _____ .
(Type an ordered pair.)

   Answer: (4,9)

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11. Use the elimination method to solve the system of equations.

$$\begin{cases} 5x - 3y = -1 \\ 2x + 4y = 10 \end{cases}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** The solution is _____ . (Type an ordered pair.)
○ **B.** There are infinitely many solutions.
○ **C.** There is no solution.

   Answer: A. The solution is ___**(1,2)**___ . (Type an ordered pair.)

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12. Use the given conditions to write a system of equations. Solve the system and find the numbers.

The sum of two numbers is 13. If one number is subtracted from the other, the result is -3. Find the numbers.

List the two numbers.

_____

(Use a comma to separate answers.)

   Answer: 5,8

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13. Two angles are supplementary. One is $20°$ more than four times the other. Find the measures of the angles.

What is the measure of the smaller angle?

_____ °

What is the measure of the other angle?

_____ °

   Answers 32

          148

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*14. Kevin and Randy Muise have a jar containing 93 coins, all of which are either quarters or nickels. The total value of the coins in the jar is $13.25. How many of each type of coin do they have?

The jar contains _____ quarters.

The jar contains _____ nickels.

Answers 43

50

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15. Determine whether the test point is a solution to the linear inequality.

$(-1, 0), y \geq 4$

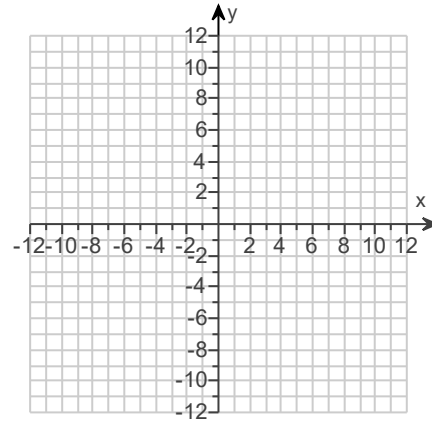
Is the point $(-1, 0)$ a solution to the linear inequality?

○ No
○ Yes

Answer: No

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16. Determine whether the test point is a solution to the linear inequality.

$(4, 0), y < x - 2$

Is the point $(4, 0)$ a solution to the linear inequality?
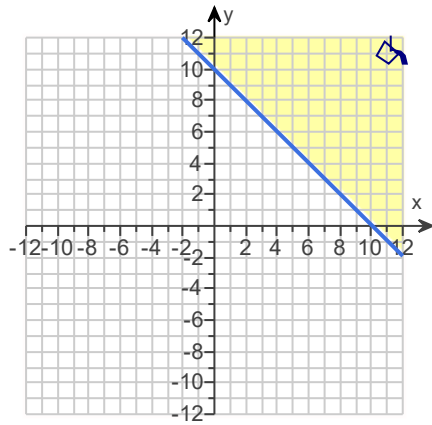
○ Yes
○ No

Answer: Yes

17. Shade the solution set to the inequality.

$x + y \geq 10$

Use the graphing tool to graph the inequality.

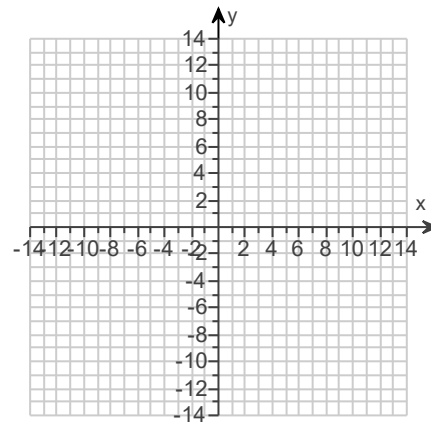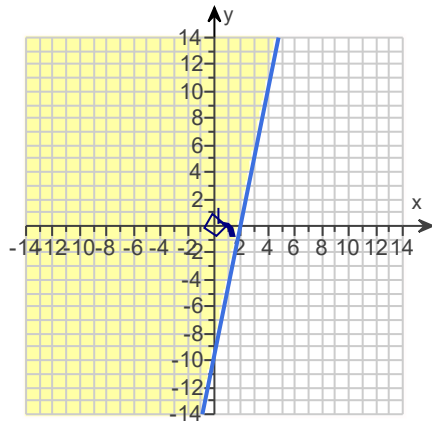Answer:

18. Graph the following inequality.

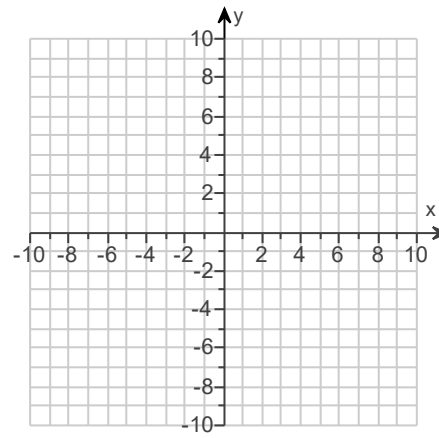$5x - y \leq 10$

Use the graphing tool to graph the inequality.

Answer:

19.   Graph the inequality.

        x < 8

Use the graphing tool to graph the inequality.

Answer: