Name: _____ Date:_____ Period: _____ **Unit CA**

Unit 3 Corrective Assignment – Systems of Equations

Circle all the ordered pairs (x, y) that are solutions to the given equation OR inequality. BE CAREFUL!

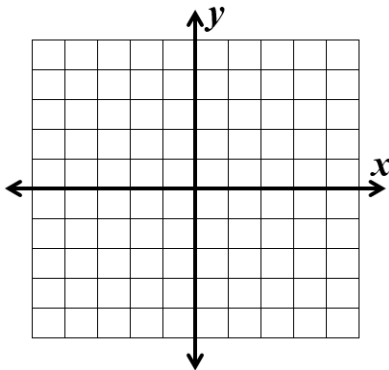| 1. $x + 8y = 15$	2. $9x - y = -2$
$(-10, 4)$ $(-9, 3)$ $(0,2)$ $(-1, 2)$ $(6, 1)$	$(0, 2)$ $(1, 11)$ $(2, 20)$ $(3, 29)$ $(-3, -25)$
3. $x + y > 0$	4. $2x - 5y \leq 3$
$(0, 0)$ $(-3, 1)$ $(4, -3)$ $(-1, -4)$ $(1, 1)$	$(4, 1)$ $(2, 0)$ $(1, -1)$ $(-1, -2)$ $(0, 1)$

5. Mr. Kelly has 50 coins, all of which are either nickels or dimes. They have a
   value of $3.85. Set up a system of equations to find out how many of each coin
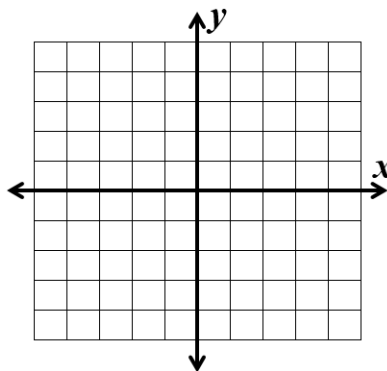   Mr. Kelly has.

   # of dimes: _____

   # of nickels: _____

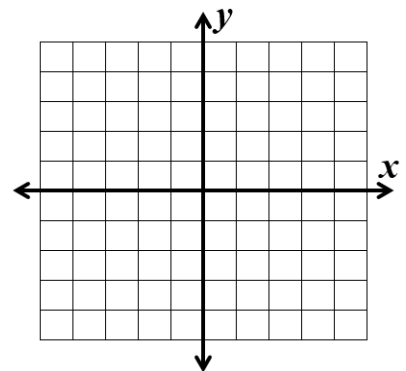**Graph each of the following. If it is a system of equations, include the intersection point with your answer.**

6. $y > -\frac{1}{2}x + 4$

7. $\begin{array}{l} x + 2y < -2 \\ 2x + y \geq 2 \end{array}$
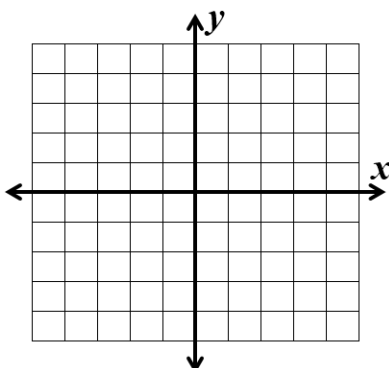

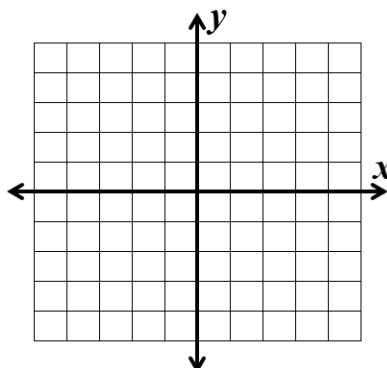8. $\begin{array}{l} 2x + y = 3 \\ 12x + 6y = 12 \end{array}$

Answer: _____

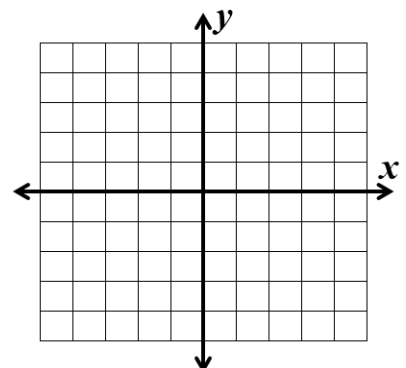9. $\begin{array}{l} y = \frac{1}{4}x - 1 \\ y = \frac{5}{4}x + 3 \end{array}$

Answer: _____

10. $\begin{array}{l} 2x + 4y = 4 \\ -x - 2y = -2 \end{array}$

Answer: _____

11. $\begin{array}{l} x - 3y = -9 \\ 2x + y = -4 \end{array}$

Answer: _____

Solve each system algebraically with substitution or elimination. You must show your work.

12.
$$4x + 2y = 12$$
$$x - 3y = -4$$

13.
$$4x = 2y$$
$$-2x + y = -3$$

14.
$$3x - 6y = -9$$
$$x - 2y = -3$$

Write or circle your answer below.

$x =$ _____

$y =$ _____

Inf. Solutions
or
No Solution

Write or circle your answer below.

$x =$ _____

$y =$ _____

Inf. Solutions
or
No Solution

Write or circle your answer below.

$x =$ _____

$y =$ _____

Inf. Solutions
or
No Solution

15.
$$-2x + 2y = -4$$
$$4x + y = -2$$

16.
$$x + 3y = -18$$
$$5x + 2y = -12$$

Write or circle your answer below.

$x =$ _____

$y =$ _____

Inf. Solutions
or
No Solution

Write or circle your answer below.

$x =$ _____

$y =$ _____

Inf. Solutions
or
No Solution

17.
$$2y = 4 + 6x$$
$$2x = y - 3$$

18.
$$-6x + 3y = -6$$
$$4x + 5y = 18$$

Write or circle your answer below.

$x =$ _____

$y =$ _____

Inf. Solutions
or
No Solution

Write or circle your answer below.

$x =$ _____

$y =$ _____

Inf. Solutions
or
No Solution

19. At Kit's Kitchen, the Big Deal costs $3.50 for two hamburgers and one order of fries. The Family Pack costs $12 for six hamburgers and 6 orders of fries. Set up a system of equations and solve it to find out the cost of one hamburger.

Price of Hamburger:

_____

Solve each system by graphing with a graphing calculator. Round to 2 decimal places.

20.
$$y = \frac{8}{3}x + 6$$
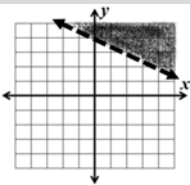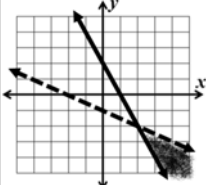$$y = -\frac{2}{5}x - 4$$

$x = $ _____

$y = $ _____

21.
$$4x - 3y = -27$$
$$x + 9y = -18$$

$x = $ _____

$y = $ _____

Answers to Unit 3 Corrective Assignment

1. $(-9,3), (-1,2)$	2. All five!	3. $(4,-3), (1,1)$	4. $(4,1), (0,1)$	5. $n + d = 50$ $0.05n + 0.1d = 3.85$ # of Dimes: 27 # of Nickels: 23
6.	7.	8. No Solution	9. $(-4,-2)$	10. Infinite Solutions
11. $(-3,2)$	12. $x = 2, y = 2$	13. No solution		14. Infinite solutions
15. $x = 0, y = -2$	16. $x = 0, y = -6$	17. $x = 1, y = 5$	18. $x = 2, y = 2$	19. $2h + f = 3.5$ $6h + 6f = 12$ Hamburger Price: $1.50
20. $(-3.26, -2.70)$	21. $(-7.62, -1.15)$			