FdM1 – Unit 4 Solving Systems of Equations Project **DUE DATE:**

Materials – You will need the following:

- Chart Sheet
- 3 Sheets of Puzzle Pieces
- glue stick
- scissors

Directions – You must do the following:

1.) Cut OUT the following puzzle pieces FIRST: SYSTEM , METHOD , and SOLUTION pieces

2.) Glue each System Piece into the System column, follow the numbering.

3.) Glue the method that BEST solves each system into the Method Column for that particular system.
For example: Graphing – BOTH EQUATIONS need to be solved for "y"
Substitution – ONE EQUATION needs to be solved for "y"
Elimination – NEITHER EQUATON is solved for "y" (they are both in standard form)

4.) Don't CUT OUT the WORK pieces until you've worked all the problems out!
The work pieces are "started" for you, you will need to complete or finish the work!
Once you've worked all the problems, then cut out the work pieces and glue them in the Work column.
NOTE: When GRAPHING – graph each equation in a DIFFERENT COLOR!

5.) Glue the solution that goes with each system in the Solution column.

* The "method" pieces, "work" pieces, and "solution" pieces in each row should match one system piece.

* Do NOT glue anything until you are ABSOLUTELY POSITIVE it is the correct!

CUT ON THIS LINE AND STAPLE THIS BOTTOM PORTION TO THE **FRONT** OF YOUR PROJECT (Make sure to include your name)

Name: _____

FdM1: Unit 4 System of Equations Project RUBRIC

1.) System pieces are placed in the right column..... _____ out of 16 pts

2.) Method pieces are placed in the right column with the correct system..... _____ out of 16 pts

3.) Work pieces are placed in the right column with the correct system..... _____ out of 16 pts

4.) Work pieces are completed/finished with the appropriate work..... _____ out of 32 pts

5.) Solution pieces are placed in the right column with the correct system..... _____ out of 16 pts

6.) Name is on the TOP LEFT CORNER of project..... _____ out of 1 pt

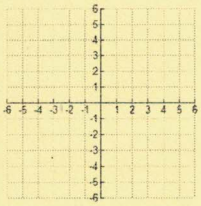
7.) Project is TURNED in by DEADLINE and RUBRIC is attached to project..... _____ out of 3 pts

TOTAL..... _____ out of 100 pts

This a PROJECT GRADE which counts 20% of your GRADE!
If you don't show work, your grade will automatically be a "F"!

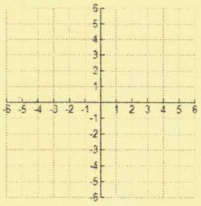
System Pieces		Method Pieces	
$\begin{cases} y = -\frac{5}{3}x - 4 \\ y = x + 4 \end{cases}$ 1	$\begin{cases} y = -5x + 3 \\ 4x + 2y = -6 \end{cases}$ 2	**Graphing**	**Elimination**
$\begin{cases} 3x + 2y = 1 \\ y = 2x + 11 \end{cases}$ 3	$\begin{cases} 18x - 3y = -54 \\ y = 6x + 18 \end{cases}$ 4	**Elimination**	**Substitution**
$\begin{cases} 3x - 5y = 6 \\ 4x + 4y = -24 \end{cases}$ 5	$\begin{cases} y = 2x - 3 \\ y = 2x + 3 \end{cases}$ 6	**Graphing**	**Elimination**
$\begin{cases} y = \frac{4}{3}x + 2 \\ y = -\frac{1}{3}x - 3 \end{cases}$ 7	$\begin{cases} 2x + 4y = -18 \\ 2x - 8y = 30 \end{cases}$ 8	**Substitution**	**Graphing**
$\begin{cases} 12x - 8y = 8 \\ 2x - 3y = -7 \end{cases}$ 9	$\begin{cases} y = 7x - 2 \\ 6x + 2y = 16 \end{cases}$ 10	**Substitution**	**Elimination**
$\begin{cases} 9x + 12y = 27 \\ 8x + 3y = -22 \end{cases}$ 11	$\begin{cases} y = 4x - 2 \\ y = -2x + 4 \end{cases}$ 12	**Graphing**	**Graphing**
$\begin{cases} y = -4x - 5 \\ 3x - 4y = -18 \end{cases}$ 13	$\begin{cases} y = \frac{1}{2}x - 1 \\ y = 2x + 2 \end{cases}$ 14	**Elimination**	**Substitution**
$\begin{cases} y = x - 4 \\ y = -\frac{3}{2}x + 1 \end{cases}$ 15	$\begin{cases} 4x + 2y = 8 \\ 10x - 2y = 20 \end{cases}$ 16	**Graphing**	**Substitution**

Work Pieces



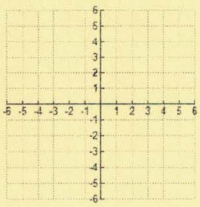
$m = \frac{1}{2}$ and y-int = (0 , – 1)

m = 2 and y-int = (0 , 2)



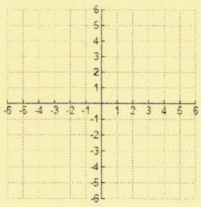
$m = -\frac{5}{3}$ and y-int = (0 , – 4)

m = 1 and y-int = (0 , 4)



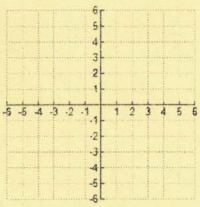
m = 2 and y-int = (0 , – 3)

m = 2 and y-int = (0 , 3)



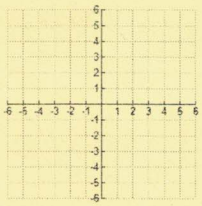
$m = \frac{4}{3}$ and y-int = (0 , 2)

$m = -\frac{1}{3}$ and y-int = (0 , – 3)



m = 4 and y-int = (0 , – 2)

m = – 2 and y-int = (0 , 4)



m = 1 and y-int = (0 , – 4)

$m = -\frac{3}{2}$ and y-int = (0 , 1)

$\begin{cases} 4x + 2y = 8 \\ 10x - 2y = 20 \end{cases}$

4 (____) + 2y = 8

x = _____

18x – 3(6x + 18) = – 54

_____

_____ → _____

$\begin{cases} 2x + 4y = -18 \\ -1(2x - 8y = 30) \end{cases}$

2x + 4 (____) = – 18

y = ____

6x + 2 (7x – 2) = 16

_____ y = 7 (____) – 2

_____

_____

$\begin{cases} 4(3x - 5y = 6) \\ 5(4x + 4y = -24) \end{cases}$

3 (____) – 5y = 6

x = _____

3x – 4 (– 4x – 5) = – 18

_____ y = – 4 (____) – 5

_____

_____

$\begin{cases} 12x - 8y = 8 \\ -6(2x - 3y = -7) \end{cases}$

12x – 8 (____) = 8

y = _____

4x + 2 (– 5x + 3) = – 6

_____ y = – 5 (____) + 3

_____

_____

$\begin{cases} 9x + 12y = 27 \\ -4(8x + 3y = -22) \end{cases}$

9 (____) + 12y = 27

x = _____

3x + 2 (2x + 11) = 1

_____ y = 2 (____) + 11

_____

_____

Solution Pieces

$(-3, 1)$	$(1, 2)$
$(-3, -2)$	No Solution $\emptyset$
$(-2, -2)$	$(2, -2)$
$(2, -7)$	Infinitely Many Solutions
$(-3, -3)$	$(2, 0)$
$(-5, 6)$	$(1, 5)$
$(-2, 3)$	$(-1, -4)$
$(4, 5)$	$(-3, 5)$

System	Method	Work	Solution
1			
2			
3			
4			
5			
6			
7			
8			

System	Method	Work	Solution
9			
10			
11			
12			
13			
14			
15			
16			