3.1

Algebra 1 Agenda

				Stamp
Monday	11/9/2015	**Objective:**	Solving by Substitution Day 2	
		Assignment:	Practice #1-8	
Tuesday	11/10/2015	**Objective:**	Solving by Elimination	
		Assignment:	Practice #1-11 ODDS	
Wednesday	11/11/2015	**Objective:**	Elimination Day 2	
		Assignment:	Practice #1-11	
Thursday	11/12/2015	**Objective:**	Solving by Graphing	
		Assignment:	Practice #1-9	
Friday	11/13/2015	**Objective:**	Quiz!	
		Assignment:	HW 3.1 Due!	

BEllwork

Week of _____ - _____

Monday

thursday

Tuesday

Friday

Wednesday

CHALLENGE

Practice – Solving Systems by Substitution Day 2

Name _____ Date _____ Period _____

"WHAT DISNEY MOVIE IS ABOUT A STUPID BOYFRIEND?"

Solve the systems of equation using the substitution method. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $2x + 3y = 10$
   $y = -x + 2$

2. $x = 4y - 7$
   $3x = 2y - 1$

3. $6x - y = -4$
   $2x + 2y = 15$

4. $5y - 6 = x$
   $y = -x$

5. $x - 2y = 1$
   $y = x + 2$

6. $x - y = 3$
   $6x + 4y = 13$

7. $6x - 2y = 7$
   $y - 3x = -6$

8. $x - 7y = 19$
   $5x = -2y - 16$

U. (1, 2)

O. (-5, 0)

B. $(\frac{1}{2}, 7)$

W. (0, 0)

D. (-2, -3)

A. (-1, 1)

Y. (-1, 4)

E. (-4, 6)

M. (-5, -3)

I. (7, 3)

U. No Solution

N. (-4, 5)

S. (-3, 2)

V. All real number on the line: $y = -\frac{1}{2}x + 3$

B. $(\frac{5}{2}, -\frac{1}{2})$

F. (-3, 13)

_____ _____ _____ _____   _____ _____ _____ _____
  8   2   5   6   3   1   4   7

Practice – Solving Systems by Elimination Day 1

Name _____ Date _____ Period_____

Solve each system of equation using elimination.

1. $x + y = 5$
   $3x - y = 7$

2. $3x + 5y = 0$
   $-2x + 5y = 25$

3. $2x + y = 3$
   $-2x + 5y = -9$

4. $-4x + 6y = -4$
   $4x - 9y = 5$

5. $3x + 8y = -1$
   $-3x + y = -17$

6. $2x + y = 5$
   $-2x - y = 8$

7. $3x + y = -6$
   $5x + y = -10$

8. $\frac{1}{2}x - 5y = 30$
   $\frac{1}{2}x + 7y = 6$

Solve each system of equation using elimination.

9. $4x + 7y = -12$
   $4x + y = 12$, find x-y

10. $x + 2y = 15$
    $5x - 2y = 3$, find xy

11. Naomi took a 40-question history exam. The exam only had multiple-choice questions and short-answer questions. Each multiple-choice question was worth one point; each short-answer question was worth five points; the whole exam was worth 100 points.

    A. Which system of equation could be used to solve for m, the number of multiple-choice questions, and s, the number of short-answer questions?

       A $5m + s = 40$
          $m + s = 100$

       C $s + m = 40$
          $5s + m = 100$

       B $m + s = 40$
          $5m + s = 100$

       D $5s + m = 40$
          $s + m = 100$

    B. Solve the system that you selected in part A.

Practice – Solving Systems by Elimination Day 2

Name _____ Date_____ Period _____

Solve each system by elimination.

1. $5x - 2y = 4$
   $3x + y = 9$

2. $3x - 5y = 7$
   $5x - 2y = -1$, then x + y = ?

3. $3x - 5y = 13$
   $x - 2y = 5$

4. $4x + 3y = 9$
   $3x + 4y = 12$, then xy = ?

5. $3x - 2y = -1$
   $3x - 4y = 9$

6. $4x + 6y = 0$
   $6x + 8y = 2$, then x − y = ?

7. Karrie and Amy were shoulder partners. They both worked the same problem, but got two different answers. Who is incorrect and explain the error they made?

Karrie:
$x + y = -3$ ⟶ $x + y = -3$
$3x + y = 3$ ⟶ $-(3x + y = 3)$
_____
$-2x = 0$
$x = 0$

When she solved for x, Karrie got $x = 0$

Amy:
$x + y = -3$ ⟶ $x + y = -3$
$3x + y = 3$ ⟶ $-(3x + y = 3)$
_____
$-2x = -6$
$x = 3$

When she solved for x, Amy got x= 3

Set up the system, state the best method to use and use that method to solve.

8. The perimeter of a rectangular volleyball court is 180 feet. The court's width, w, is half its length, l. Determine the dimensions, in feet, of the volleyball court.

9. At Candy's Sweet Shop, Sarah made c pounds of chocolate-covered raisins, which sell for $1.50 a pound, and y pounds of yogurt-covered raisins, which sell for $1.20 a pound. Sarah wants to make 40 pounds of a mixture of the two kinds of raisins that sells for $1.35 a pound. How many pounds of each kind of raisin is needed to produce the mixture?

10. Three hundred fifty-eight tickets were sold to the school basketball game on Friday. Student tickets were $1.50 and non-student tickets were $3.25. The school made $752.25. How many student and non-student tickets were sold?

11. Carl bought 19 apples of 2 different varieties to make a pie. The total cost of the apples was $5.10. Granny Smith apples cost $0.25 each and Gala apples cost $0.30 each. How many of each type of apple did Carl buy?

Practice - Solving Systems by Graphing

Name _____Date_____Period_____

Solve each system of equations below. You must solve for y to use your calculator!

1. $y = \dfrac{2}{3}x - 1$

   $y = -x - 4$

2. $y = -2x + 1$

   $y = x - 5$

3. $y = \dfrac{5}{4}x - \dfrac{1}{2}$

   $\dfrac{3}{4}x + y = 2$

4. $y = 6.9x + 12.4$

   $3.2x + y = 52.8$

5. $x + y = 0$

   $3x + y = -4$

6. $2x - y = -1$

   $y - \dfrac{1}{3}x = -3$

7. Shelby solved the following system of equations and reported that $x = 4$ and $y = 6$. Solve the system of equations by graphing. Is she correct? Why or why not. Use the table to justify your answer.

$y - x = 2$

$4y = 8x - 8$

x	y_1	y_2

8. Coach Sureshot needs to hire an electrician to do some repair work at his new home. A-1 Electricians charge $30 for a service call plus $45 per hour while Excellent Electricians charge $40 per hour plus a $55 service call.

   A) What equation could represent the cost for hiring A-1 Electricians? _____
   B) What equation could represent the cost for hiring Excellent Electricians? _____

   If the electricians only work for 2 hours, how much will each company charge him?
   C) A-1 Electricians will charge _____
   D) Excellent Electricians will charge _____

   If the electricians have to work for 8 hours, how much will each company charge Coach Sureshot?
   E) A-1 Electricians will charge _____
   F) Excellent Electricians will charge _____

   When will both companies charge the same amount?
   G) For _____ hours, both companies would charge _____.

9. Which graph best represents a solution to this system of equations?

$$2x - 3y = 0$$
$$x + 2y = -7$$

A   B   C   D