

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Block: \_\_\_\_\_

Algebra 1- Week 12 Homework

**Monday-**

Solve the systems below using elimination:

1.  $7x - 9y = 5$   
 $4x + 9y = 17$

2.  $-8x + 2y = -2$   
 $-6x + 2y = 0$

**Tuesday-**

Solve the systems below using elimination:

1.  $3x - 4y = 2$   
 $2x - 4y = -4$   
Solution: ( , )

2.  $4x + 6y = 20$   
 $-2x + 4y = 4$   
Solution: ( , )

**Wednesday-** No class! No homework! Catch up on previous work.

**Thursday-**

Solve the systems below using elimination:

1.  $16x - 10y = 10$   
 $-8x - 6y = 6$   
Solution: ( , )

2.  $5x - 10y = -10$   
 $4x + 8y = 24$   
Solution: ( , )

**Friday-**

Finish partner activity handout if didn't during class!

**\*\*\*Test next week!!! -**

Test review! Study for test!!! Topics on test:

1. **Graphing Linear Systems of Equations:** Graph both equations in  $y = mx + b$  format ( $m$ =slope, rise/run;  $b$ = $y$ -intercept, start value). One solution- where they intersect; no solutions- parallel lines, will never intersect; infinite solutions- same exact line.
2. **Solving Linear Systems of Equations with Substitution:** Take one equation in the system and replace a variable in the other equation with itself. (Ex:  $y = 2x + 1$  and  $2x + 4y = 14$  --->  $2x + 4(2x + 1) = 14$ )
3. **Solving Linear Systems of Equations with Elimination:** Eliminate a variable ( $x$  or  $y$ ). In order to do so, the coefficient MUST form a zero pair when the equations are added or subtracted. You may need to multiply the entire equation by a constant in order to make a zero pair. (Ex:  $x + y = 14$  and  $2x - y = 2$ , add them together  $(x + y = 14) + (2x - y = 2)$  --->  $(x + 2x) + (y - y) = (14 + 2)$  --->  $3x = 16$  --->  $x = \frac{16}{3}$ )
4. **Systems of Equations: Real World Applications:** Write two equations from a scenario either in slope -intercept form ( $y = mx + b$ , where  $m$  = slope / constant rate of change / "per", and  $b$  = start value) or in standard form ( $Ax + By = C$ , where  $C$  = total, and  $A$  and  $B$  = the values being added). Then using one of our methods to solve a system of equations (graphing, substitution, or elimination).

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