

Name: _____
Mrs. Roubos

Date: _____
8R Period _____

#76

Solving Systems of Equations Algebraically (Day III) using the Elimination Method

* The goal is to eliminate one of the variables

- I. Steps: 1) Decide which variable will be easier to eliminate. In order to eliminate a variable, the coefficients must be additive inverses of one another.
2) If the coefficients are not additive inverses you must make them into opposites.
3) Add the like terms
4) Solve the remaining equation.
5) Plug your answer into either original equation to get the second missing variable.
6) Do two checks by substituting both answers into both original equations.

II. Examples: Solve the following system of linear equations algebraically and check your solution.

1) $4x + 8y = 20$
 $-4x + 2y = -30$

2) $3a + 4b = 2$
 $4a - 4b = 12$

3) $5x - y = -6$
 $-x + y = 2$

4) $4x + 3y = -1$
 $5x + 4y = 1$

5) $4x - y = 10$
 $2x + 3y = 12$

6) $3x - 2y = 22$
 $-2x - 5y = -2$