The Steps to Solve using Elimination/Combinations:

1. <u>Arrange</u> the equations so like terms are in columns.

one or more equations so coefficients are opposites for at least one variable. (May not always need to do this - if they are already poposites)

3. <u>Add</u> the equations and <u>solve</u> for one of the variables.

4. <u>Substitute</u> your solution into either original equation to <u>solve</u> for the other variable.

5. <u>Check</u> the solutions in the original equations.

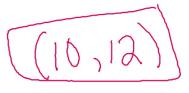
Example

7x - 5y = 10+ -4x + 5y = 20

$$\frac{3x}{3} = \frac{30}{3}$$

Checklist:

- 1. Are Like Terms in Columns? 🔽
- are opposites? wither X of the control of the contr
- 3. Solve for one variable (
- 4. Use substitution to solve for the other variable
- 5. Check you solution



2 y= 12

- 1. Are Like Terms in Columns? 🖊
- 2. Do I have coefficients that
- are opposites? (X)

 3. Solve for one variable combo
- 4. Use substitution to solve for the other variable
- 5. Check you solution

$$2x + 4y = 14$$

$$-2x + 3y = 21$$

$$7y = 35$$

$$7$$

$$9 = 9$$

2x+4(5)=14 -20-20 -2x=-6

(-3,5)

7/3

$$-2x + 10y = 60$$

$$-2x + 7y = 25$$

$$-\frac{17y = 85}{-17}$$

$$-17$$

$$-17$$

$$-17$$

$$-17$$

$$-17$$

$$-2x + 35 = 25$$

$$-35 - 35$$

$$-35 - 35$$

$$-35 - 35$$

$$-35 - 35$$

$$-35 - 35$$

$$-35 - 35$$