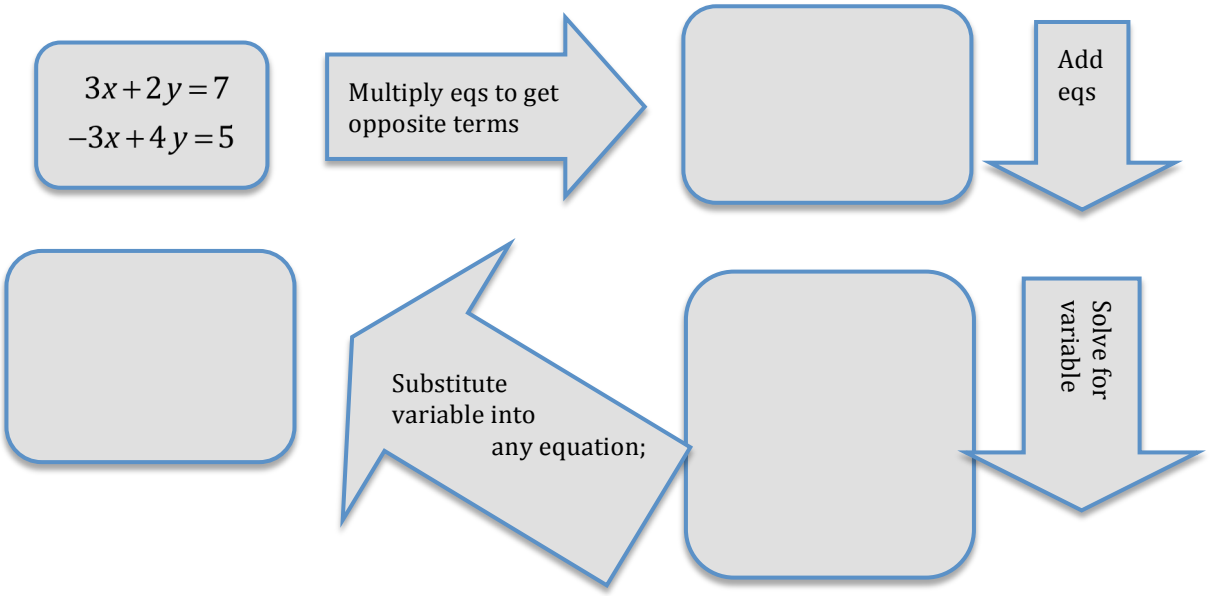
Algebra 1 Name _____
4-3 LinSys Elimination Date _____ **A#5**

Goal:	Steps: 1. **A**lign terms 2. **M**ultiply equations to get opposite terms 3. **A**dd equations together 4. **S**olve for variable 5. **S**ubstitute value into *any* equation; solve 6. Check
Linear combination OR _____	Terms with opposite coefficients:

Example A: Solve the linear system by elimination.



Try It!

$$x+y=4$$
$$-x+y=-10$$

Example B: Solve the linear system by elimination

$$2x-3y=4$$
$$-4x+5y=-8$$

Algebra 1
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Try It!

$-x+8y=-32$
$3x-\ y\ =\ 27$

Example C: Solve the linear system by elimination

$2a+6z=4$
$3a-7z=6$

Try It!

$6x+3y=27$
$-4x+4y=27$

Example D: Solve the linear system by elimination

$2x+5y=-11$
$5y=3x-21$

Try It!

$4x+7y=-9$
$3x=3y+18$

Example E: A florist is making regular bouquets and mini bouquets. The florist has 118 roses and 226 peonies to use in the bouquets. How many of each type of bouquet can the florist make?

Try It! The cost of 2 bottles of water and 4 apples is $5.50. The cost of 3 bottles of water and 5 apples is $7.50. Find the cost of one apple and the cost of one bottle of water.

Which solution method, graphing, substitution, or elimination, is the most appropriate for solving each system of equations? Explain.

7. $\begin{cases} 3x + 8y = -4 \\ 2x - 4y = 16 \end{cases}$

8. $\begin{cases} 6x - y = 16 \\ x = 4y - 5 \end{cases}$

9. $\begin{cases} x + y = 19 \\ 3x - 2y = -3 \end{cases}$