

As with substitution, this method of solving a system of linear equations involves eliminating one variable and creating a new equation with a single variable. Remember that we are actually trying to find the point of intersection without graphing.

Here is the method of elimination:

- Write both equations in the same form: Probably $Ax+By=C$.**
- Make the coefficients of one variable become the same number or the same number with opposite sign by operating algebraically on both sides of the equations as required.**
- Write the equations over top of one another as shown below and either add or subtract vertically to eliminate one of the variables.**

$$Ax + By = C$$

$$\underline{Ax + Dy = E}$$

Ex. 1. Solve.

a)

$$x + y = 6$$

$$x + 3y = 7$$

b)

$$2x - y = 3$$

$$3x + y = 6$$

Ex. 2. Solve the following systems.

a) $2x - 4y = 10$
 $8x + 3y = 5$

b) $2x - 3y = 5$
 $3x + 2y = 4$