Simultaneous Equations:

Steps:

1. Choose a variable to eliminate e.g. 'y'
2. Multiply one or both equations to make no. in front of y the same
3. Multiply the 2nd equation by -1, if necessary, to make signs in front of 'y' different.
4. Add the two equations to eliminate 'y' and solve for 'x'.
5. Put x back into one of the equations to find y.

Example: Solve the equations below:

A: $2x - 3y = 7$
B: $3x + 2y = 4$

$Ax2$: $4x - 6y = 14$ (mult by 2 to get 6 in front of y)
$Bx3$: $9x + 6y = 12$ (mult by 3 to get 6 in front of y)

$13x = 26$ (adding both equations together)
$\Rightarrow x = \frac{26}{13}$ (dividing both sides by 13)
$\Rightarrow x = 2$

Putting x into A:

A: $2x - 3y = 7$
$\Rightarrow 2(2) - 3y = 7$
$\Rightarrow 4 - 3y = 7$
$\Rightarrow -3y = 7 - 4$
$\Rightarrow -3y = 3$
$\Rightarrow y = \frac{3}{-3}$ (dividing both sides by -3)
$\Rightarrow y = -1$