Systems of Equations by Substitution

Again, the strategy is to transform two equations and two unknowns into one equation and one unknown so we can write an equation in $ax + b = c$ format.

To accomplish that, I can solve one of the equations for one variable and substitute that expression into the other equation. That will result in one equation in one variable.

Algorithm for Substitution

1. Solve one of the equations for one of the variables.
2. Substitute that expression in the OTHER equation.
3. Solve the resulting equation.
4. Substitute that value into either of the original equations to find the value of other variable.
5. Write the answer as an ordered pair