Substitution Method

1. Choose one equation and solve for one unknown in terms the other unknown. (e.g. x in terms of y or y in terms of x.)
2. Substitute the *expression* found in step 1 into the other equation and solve for the remaining unknown.
3. Substitute the *value* found in step 2 back into the other equation or expression from step 1.
4. Write the solution and check.

EX

$$\begin{aligned} 3x &+ 3y = 6 \\ x &- 3y = 4 \end{aligned}$$

Elimination Method

1. Multiply one or both equations by a number so that the coefficient in front of one unknown is the same in both equations, except one has '+' and the other has '−'. Remember: Multiply both sides of equation(s) and distribute.

2. Write down the new system.

3. Add the two equations together to eliminate one of the unknowns.

4. Solve for the remaining unknown.

5. Substitute this value back into one of the original equations and solve for the other unknown.

6. Write the solution and check.

EX
$$\begin{aligned} x &- 3y = 4 \\ 2x &+ y = 1 \end{aligned}$$