

The Addition Method (for Solving a Linear System in Two Variables)

Use this method when both equations are in the same form and it is easy to eliminate a variable by multiplying and adding.

1. Write both equations in the same form (usually $Ax + By = C$).
2. If necessary, multiply one or both of the equations by the appropriate integer(s) to obtain opposite coefficients on one of the variables.
3. Add the equation to (eliminate one variable and) get an equation in one variable.
4. Solve the equation in one variable.
5. Substitute the value obtained for one variable into one of the original equations to obtain the value of the other variable.
6. Check the two values in both of the original equations.