Instructions	Example
1. Carefully read the problem, note what numerical data is given, and what is being asked for.	Find **two** numbers whose **sum is 60** and whose **difference is 14.**
2. Make a sketch, drawing, or picture of the described situation, and put all the given data from the problem on the drawing. Look for what the problem's question is. In other words, what do they want to know? In this example, they want to know what the two numbers are. Let x = one of the numbers, and let y = the other number.	*Sum means **add**:*  *Difference means **subtract**:* 
Write down any numerical relationships that the problem gives you. In this case, you need the sum and difference equations.	**X + Y = 60** **X – Y = 14**

3. Look for other information (numbers, formula, etc.) that you can use to relate all the items. In this case, note that we have two equations and two unknowns, which may be solved by the substitution method.	• Take one equation and solve for y to get an expression containing x. • Next, substitute that expression for y in place of y in the other equation. • Then, you'll have one equation with a single unknown, x, in it. • Now you can solve for x.
4. Do the substitution method.	$X + Y = 60$ Solving for Y, $X + Y - X = 60 - X$ $Y = 60 - X$ Substituting for Y in other equation, $X - Y = 14$ $X - (60 - X) = 14$ $X - 60 + X = 14$ $2X - 60 + 60 = 14 + 60$ $2X = 74$ $X = 37$
5. Solve for y: Go back to the first equation, and substitute for x to solve for y.	$Y = 60 - X$ We just found X to be 37 so, $Y = 60 - 37$ $Y = 23$
Check answers: 37 and 23. **Is their sum 60?**	**37 + 23 = 60** √
Is their difference 14?	**37 – 23 = 14** √