Solving Linear Systems Using the Elimination Method

Example 1:

Step 1: Add the equations together vertically. (Be careful that like terms line up!)

Step 2: If you did Step 1 correctly, one of the variables cancelled out. Solve the resulting equation that only contains one variable.

Step 3: Plug the answer you got in Step 2 into one of the original equations and solve for the other variable.

Step 4: Write your solution as an ordered pair.

**SOLUTION:**

Example 2: Sometimes we need to multiply one of the equations by a constant before you can add them together.

If we just add these two equations together, unfortunately nothing cancels out. If we look closely though, we notice the -15 and +5 are opposite signs and if multiply the second equation by “3” we will get opposite values.

Now, proceed as before:

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Solve the following systems by using the elimination method.