Solving Systems of Equations: Substitution Method- VIDEO LESSON

Video Links:

How to Solve Systems of Linear Equations by Substitution (Sir Tyler Tarver)
https://www.youtube.com/watch?v=8SFk17Ea5wo
Time:8:14

Solving Linear Systems Substitution Method
https://www.youtube.com/watch?v=mDw2F2zvThs
Time: 7:58

Sir Tyler Tarver Video #1 (Ms. D loves him!)
Step 1: Get any of the x's or y's by themselves. (HAVE TO DO THIS FIRST!)

Example 1:
$y = 2x$
$y = x + 5$

Example 2:
$x = 2y - 4$
$x + 8y = 16$

Example 3:
$4y - 5x = 9$
$x - 4y = 11$

(mathonpoint) Video #2:
This is another example but it is a little more complicated.
Example 1:
$x + 3y = 12$
$2x + y = 6$

General Steps for Solving Using Substitution:

Step 1: Solve one of the equations for one of the variables.

Step 2: Replace for the variable we solved for in the other equation, the result is a linear equation in one variable.

Step 3: Solve the equation from step 2.

Step 4: Substitute the solution from step 3 into any of the original equations.

Step 5: Check the solution in all of the original equations.

Classwork:

1. $y = x + 5$
   $y = 2x - 7$

2. $y = 8 - x$
   $4x - 3y = -3$

After you complete #1-2 bring them to Mrs. William's to get them checked.

3. $x = 8y$
   $x - 4y = 12$

4. $x - 2y = 0$
   $2x - 5y = -4$

After you complete #3-4 bring them to Mrs. William's to get them checked.

5. $-3x - y = -13$
   $x + 2y = 6$

6. $4x - y = 7$
   $5x - 8y = 2$

After you complete #5-6 bring them to Mrs. William's to get them checked.

Next you need to start the substitution homework worksheet. You may write on the worksheet but you need to show ALL WORK AND STEPS on a separate sheet of paper.