Math 1 **3.2 Solving Systems by Substitution** Unit 3 day 2

*SWBAT solve a system of equations by using substitution.*

* + - 1. Pick one equation and solve for y (or x, but pick one varibale only)

**STEPS:**

* + - 1. Substitute what the “y” is equal to into the second equation.

*\*\*\*When you do this, the second equation should only have one variable now!*

* + - 1. Simplify the equation, and solve for x.
      2. Substitute the value of x into either the first or second equation

*\*\*\*When you do this, you should only have one y in the equation!*

* + - 1. Solve for y, and write your solution as an ordered pair

**Using Substitution**

What is the solution of the system? Use substitution. 

What is the solution of the system? Use substitution. 

**Solving for a Variable and Using Substitution**

What is the solution of the system? Use substitution. 

What is the solution of the system? Use substitution. 

**Systems with Infinitely Many Solutions or No Solution**

How many solutions does each system have? Solve using substitution.

1. 
2. 

**Lesson Check!** Solve each system using substitution. Check your solution.

1. 
2. 

Tell whether the system has one solution, infinitely many solutions, or no solution.

1. 
2. 

**Challenge!** In a talent show of singing and comedy acts, singing acts are 5 minutes long and comedy acts are 3 minutes long. The show has 12 acts and lasts 50 minutes. How many singing acts and how many comedy acts are in the show?