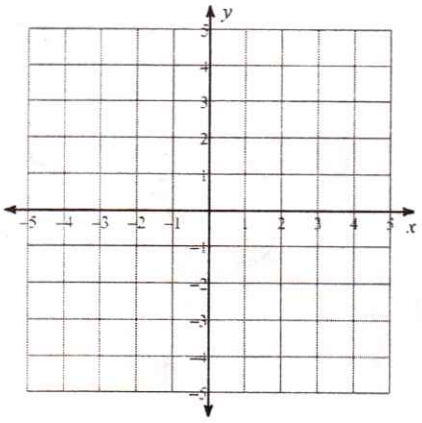
Algebra 1 Name_____ ID: 1

Unit 7 Day 1 Practice

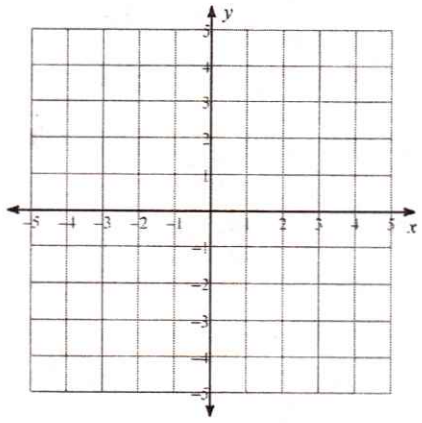
Date_____ Period____

Solve each system by graphing.

1) $y = -x + 4$
$y = 6x - 3$



2) $y = 2x + 3$
$y = 2x - 2$



Solve each system by substitution.

3) $3x - 3y = 9$
$y = x - 3$

4) $8x + 2y = -14$
$y = -8x - 15$

5) $6x + 2y = 3$
$y = -3x - 6$

6) $y = 3x + 20$
$y = x + 6$

Steps for Solving a System by Substitution

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

Step 1: Select the equation that already has a variable isolated.	**Step 2**: Substitute the expression from Step 1 into the other equation for the variable you isolated in step 1 and solve for the other variable.	**Step 3**: Substitute the value from Step 2 into the revised equation from Step 1 and solve for the other variable. Create a point from your solutions.	**Step 4**: Check the solution in each of the original equations.

Example: Solve the system below:

$2x + 2y = 3$

$x = 4y - 1$

Example: Solve the system below:

$y = x + 1$

$y = -2x + 4$

Example: Solve the system below:

$x = 3 - y$
$x + y = 7$

Example: Solve the system below:

$y = -2x + 4$

$4x + 2y = 8$

When the variables drop out and the resulting equation is **FALSE**, the answer is **NO SOLUTIONS.**
When the variables drop out and the resulting equation is **TRUE**, the answer is **INFINITE SOLUTIONS.**

		Number of Solutions		
		1 Solution	Infinitely Many Solutions	No Solution
	Substitution	When using either substitution or elimination, you should get a value for either x or y. You should be able to find the other value by substituting either x or y back into the original equation.	When using either substitution or elimination, you will get an equation that has **no variable** and is **always true.** For example: 2=2 or -5=-5	When using either substitution or elimination, you will get an equation that has **no variable** and is **never true.** For example: 0=6 or -2=4
	Elimination			