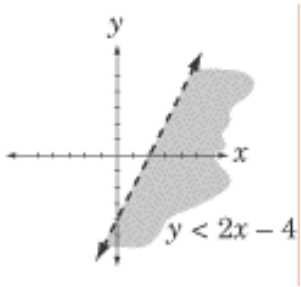
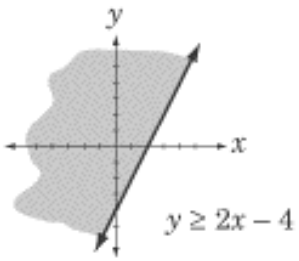
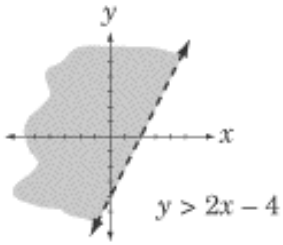
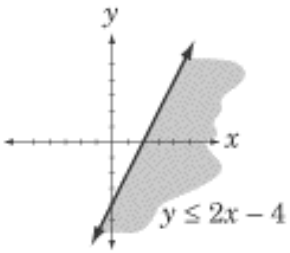
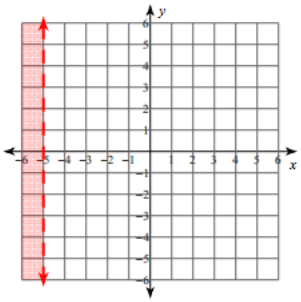
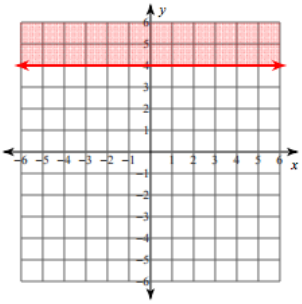
Unit 3 Study Sheet

Graphing Inequalities

$<$	$\leq$	$>$	$\geq$
			
Points on the line are NOT solutions	Points on the line are solutions	Points on the line are NOT solutions	Points on the line are solutions
Special Lines			
$x < \#$		$y \geq \#$	
			

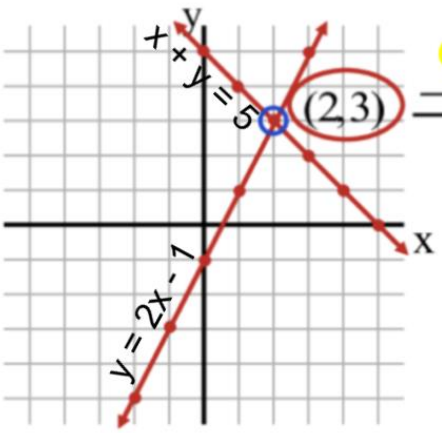
Solving Systems of Equations Graphically

1.) Graph the 1st linear equation
(in the form $y = mx + b$)

2.) Graph the 2nd linear equation
(in the form $y = mx + b$)

3.) Identify the point of intersection
(where the two lines cross)

$$\begin{cases} y = 2x - 1 \\ x + y = 5 \end{cases}$$



$$\begin{array}{r} x + y = 5 \\ -x \quad -x \\ \hline y = -x + 5 \end{array}$$

Solving Systems of Equations by Elimination

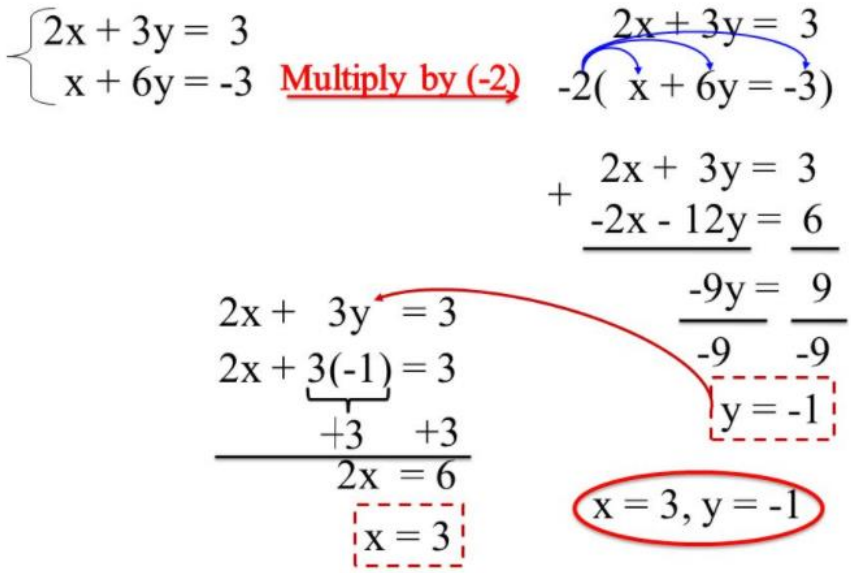
1. Does the system contain opposites? If so, cancel the terms and solve. If not, MULTIPLY to get opposites. (It may have to be done to ONE or BOTH of the equations.)

2. ADD equations to eliminate one of the variables.

3. Solve.

4. PLUG IN the answer into one of the original equations to find the other variable.

5. Write the solution as a coordinate pair.



Solving Systems of Equations by Substitution

1. Solve one of the equations for either x or y. If one equation has x or y alone, step 1 is complete.

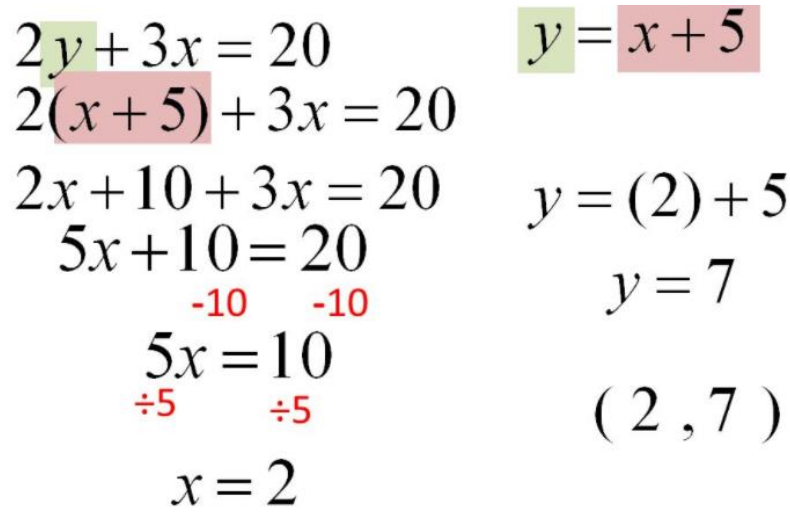
2. Substitute the solution from step 1 into the other equation. (Example: If you solved for y, plug whatever is on the other side of the equal side in for y in the other equation.)

3. Solve the new equation.

4. PLUG IN the answer into one of the original equations to find the second variable.

5. Write the solution as a coordinate pair.

If both equations equal x or y, set them equal to each other and start from step 3.



Want Extra Practice?

Directions: Scan the QR codes below use the QR Scanner App. There will be practice problems available for you to work on followed by an answer key. *You will need graph paper!*

Graphing Inequalities	**Solving Systems of Equations by Elimination**
Solving Systems of Equations Graphically	**Solving Systems of Equations by Substitution**