Graphing Inequalities
x - 2y < 6

A linear inequality is similar to a linear equation.
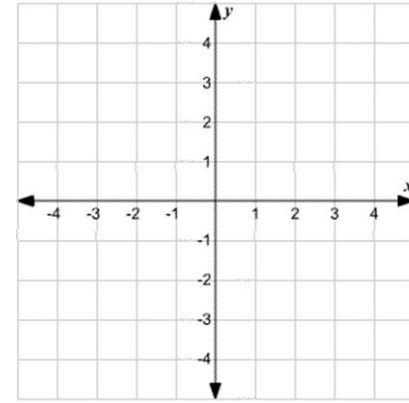
x - 2y < 6

1. Graph the line	Solve for y: x - 2y < 6	
	Plot points using slope and y-intercept	
2. Solid or Dotted?	Solid if ≥ or ≤ Dotted if > or <	Since > draw dotted Since > shade above
3. Shade above or below?	≥ or > shade above ≤ or < shade below	Test a point - solution should be shaded Test (0,0) x - 2y < 6

Solving a System of Inequalities

$2x + y < 4$

$x - 3y \leq 9$

1. Solve each inequality for y:

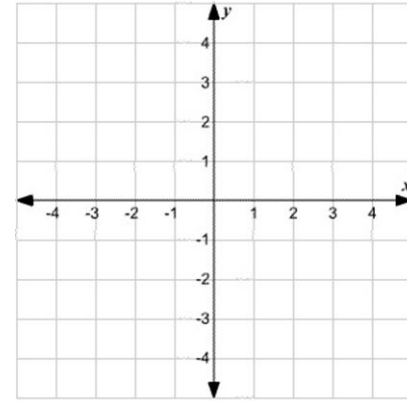2. Graph each, shading lightly. The overlap area is the solution to the system of inequalities.

Glue here

Glue here

Glue here

Glue here

$y < -2x + 4$

$y \geq 1/3x - 3$

Ex. of no solution:

$y > x + 2$

$y < x - 1$