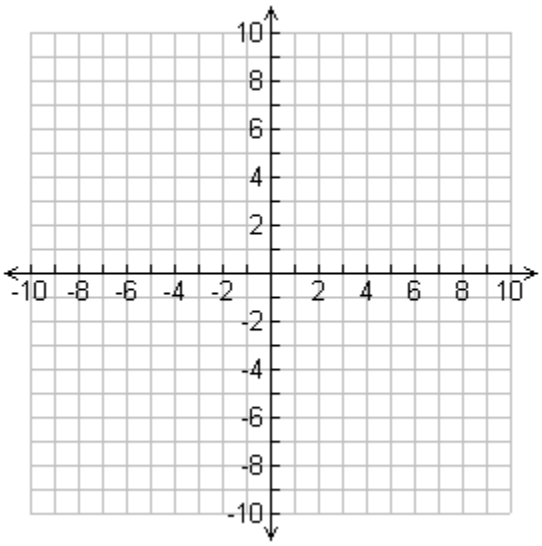
Linear Inequality Systems

Name_____

Directions: Show your work!

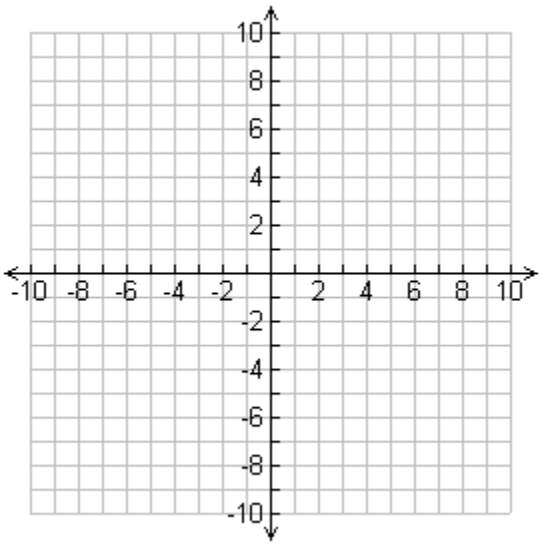
1. Solve this system: $x + y < 2$

$y \geq 2x - 5$



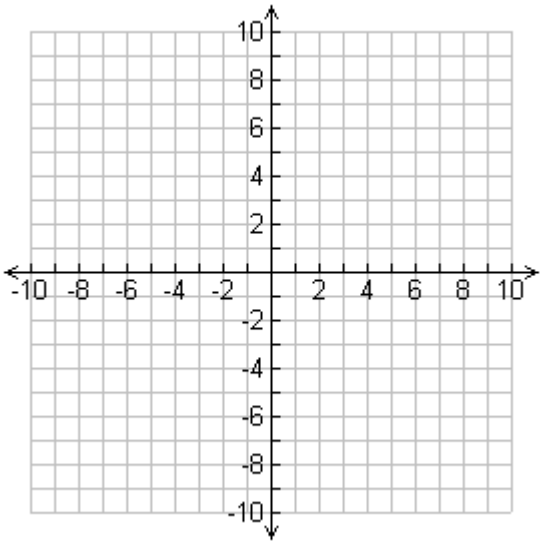
2. Solve this system: $2x + 3y - 9 \geq 0$

$x + y - 6 \leq 0$



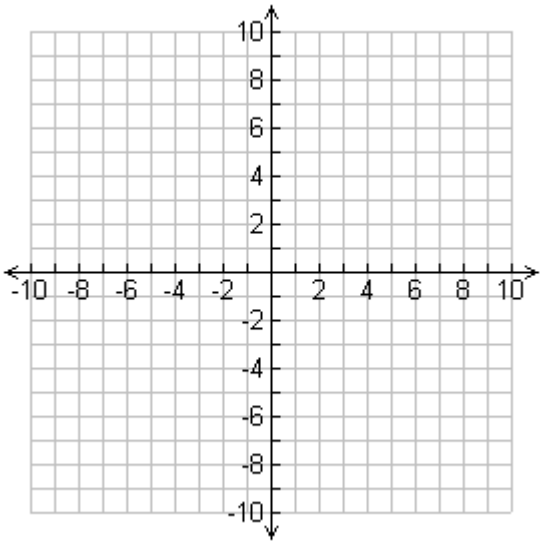
3. Solve this system: $-x + y \leq 3$

$2x + y < 0$



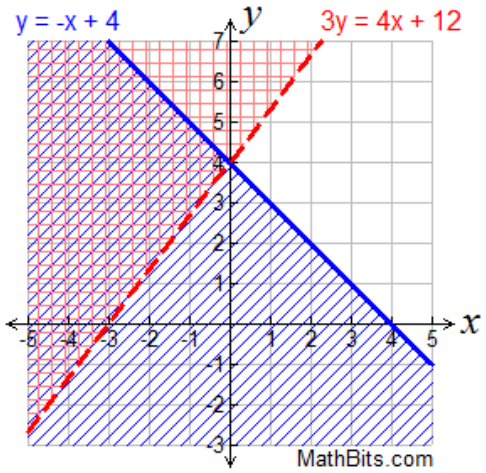
4. Solve this system: $2x + y < 1$

$y > -2x + 4$



5. Which point is in the solution set of the system of inequalities shown in the graph at the right?

1) (3,-1)
2) (2,3)
3) (0,4)
4) (-4,1)



6. Which ordered pair is in the solution set of the following system of inequalities?

$y < x - 1$ and $y \leq 3x + 1$

1) (-1,2) *2)* (1,2) *3)* (2,-1) *4)* (-1,-2)

7. Given the system $x + y > 5$ and $3x - 2y > 4$. Which ordered pair is in the solution set of $x + y > 5$, but is **not** in the solution set of $3x - 2y > 4$?

1) (2.-5) *2)* (-5,2) *3)* (2,5) *4)* (5,2)

8. Which choice is in the solution set to the system of inequalities: $y \geq x + 2$ and $y \leq x - 4$?

1) (-3,2) *2)* (4,-2) *3)* (2,1) *4)* $\varnothing$ (no solutions)

9. Which ordered pair is in the solution set to the system: $y \geq \frac{1}{3}x - 3$ and $y > 3$?

1) (2,1) *2)* (-4,3) *3)* (0,-4) *4)* (5,4)