

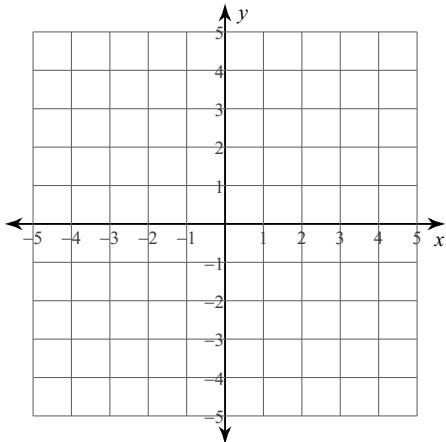
## 5.2 Homework

Date \_\_\_\_\_ Algebra \_\_\_\_\_

Solve each system by graphing. Be sure to **LABEL** both lines AND THE SOLUTION!

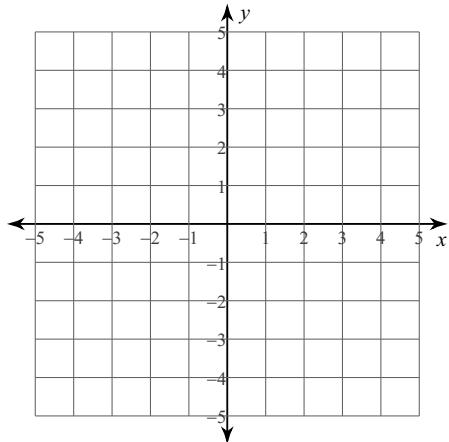
1)  $y = -\frac{1}{2}x - 1$

$y = x - 4$



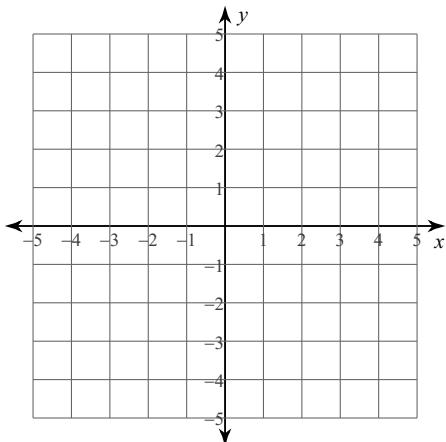
2)  $y = -\frac{1}{2}x - 3$

$x = 2$



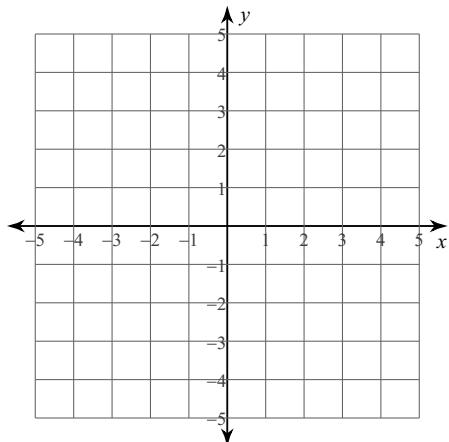
3)  $2x + y = -4$

$2x - 3y = -12$



4)  $-x = y + 2$

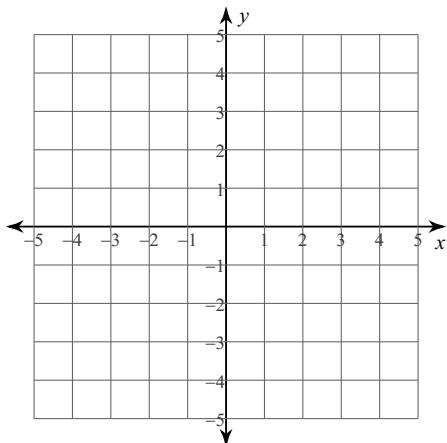
$y = -x - 4$



**Sketch the solution to each system of inequalities. Label both lines and the solution!**

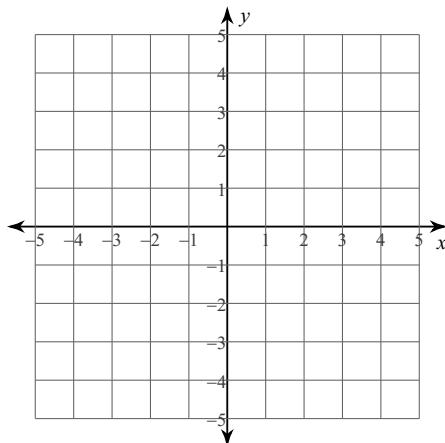
5)  $y \leq -\frac{5}{3}x - 3$

$$y < -\frac{1}{3}x + 1$$

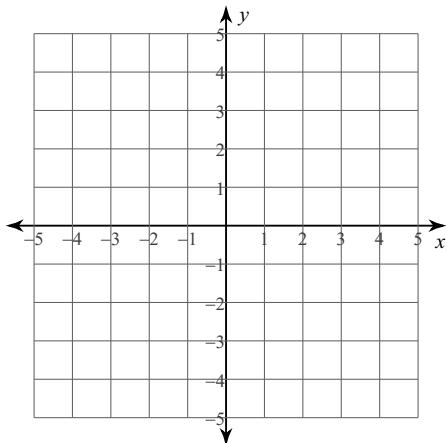


6)  $y > \frac{1}{3}x + 1$

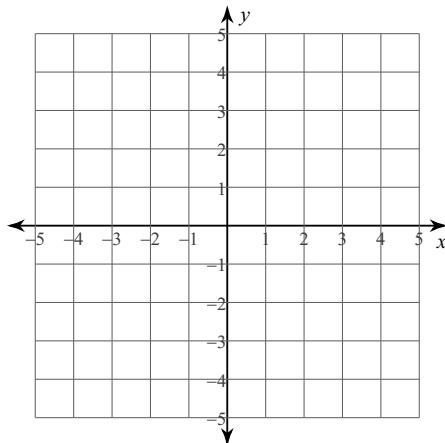
$$y > \frac{1}{3}x - 2$$



7)  $4x + 3y \geq -6$   
 $4x + 3y < -9$



8)  $x + 2y > 6$   
 $5x - 2y < 6$



9) Describe the difference between the solution to a linear system of equation and a linear system of inequalities: (write at least 2 full sentences)