

# HW19: Graphing Systems

**Define the following on a separate sheet of paper.**

1) system of equations.

2) solution to a system of equations.

**Determine whether the point (4, -2) is a solution to the systems below. Use a separate sheet of paper.**

3)  $y = 3x - 7$

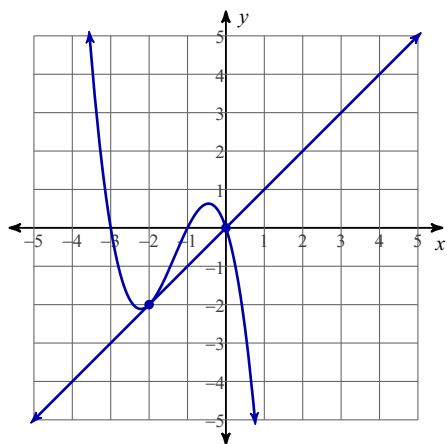
$$y = -\frac{1}{2}x$$

4)  $y = x - 6$

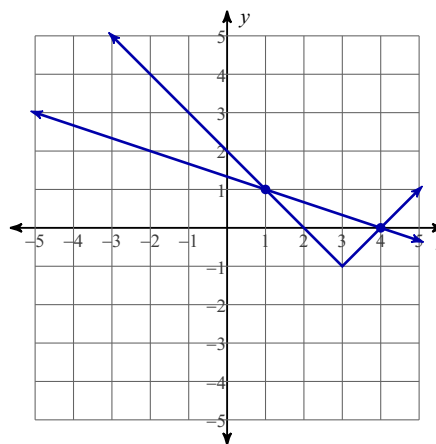
$$y = -\frac{1}{4}x - 1$$

**Determine the solution(s) to the systems given the graphs.**

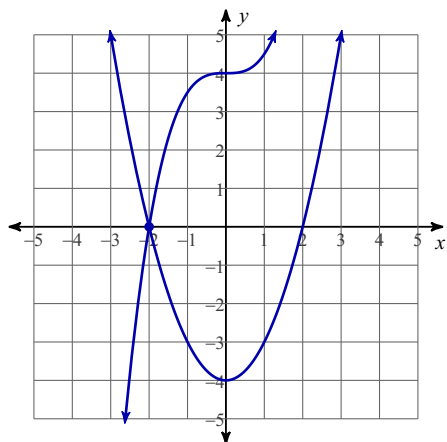
5)



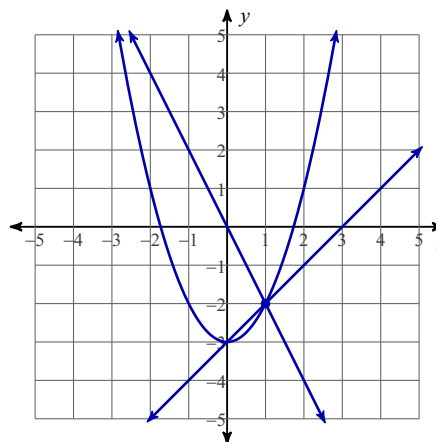
6)



7)



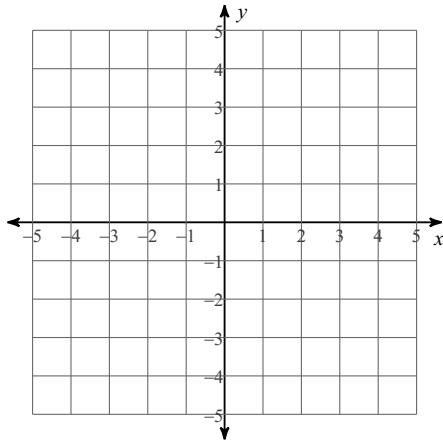
8)



Solve each system by graphing. You may do so on this paper.

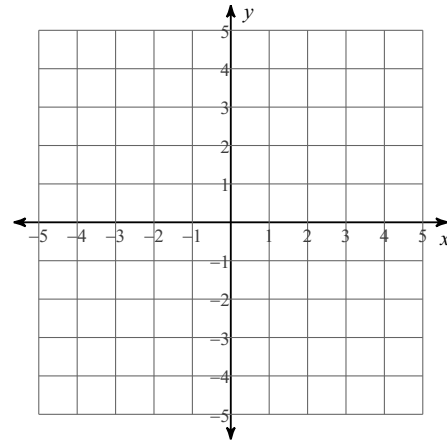
9)  $y = \frac{7}{2}x - 4$

$y = -\frac{1}{2}x + 4$



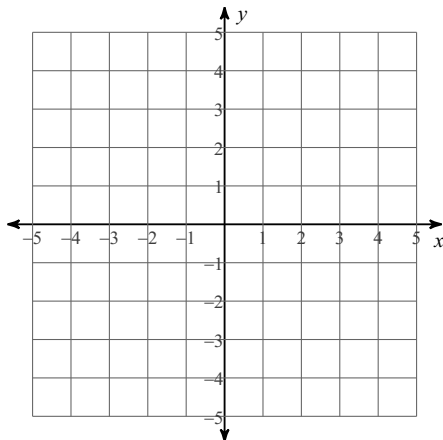
10)  $y = -\frac{7}{3}x + 3$

$y = -\frac{7}{3}x - 1$



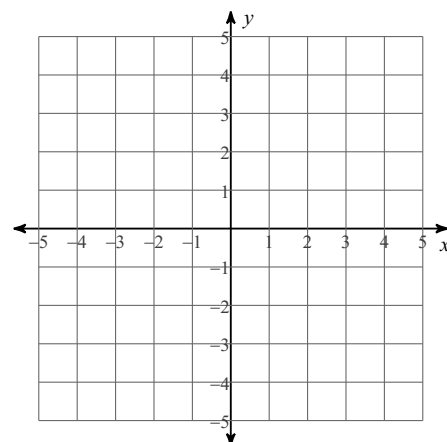
11)  $y = x + 3$

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

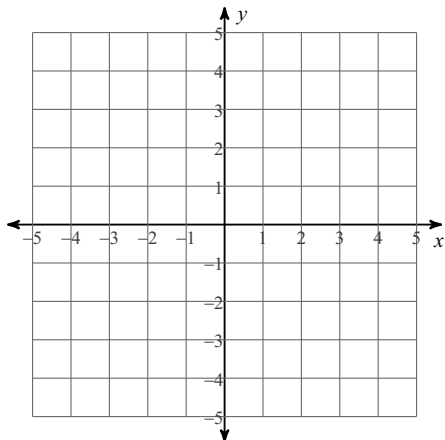


12)  $y = -\frac{3}{4}x + 2$

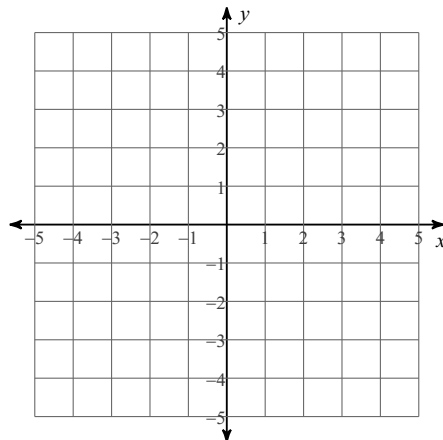
$y = \frac{3}{4}x - 4$



$$13) \begin{aligned} y &= x + 4 \\ y &= -2x + 1 \end{aligned}$$

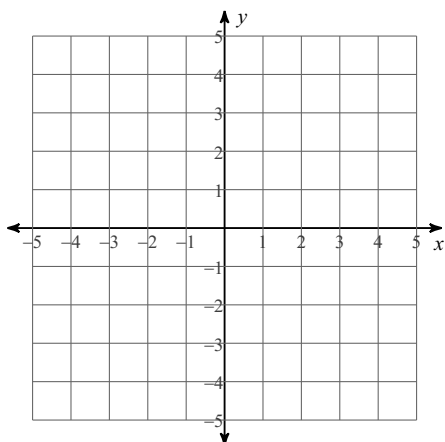


$$14) \begin{aligned} y &= x - 2 \\ y &= -3x + 2 \end{aligned}$$

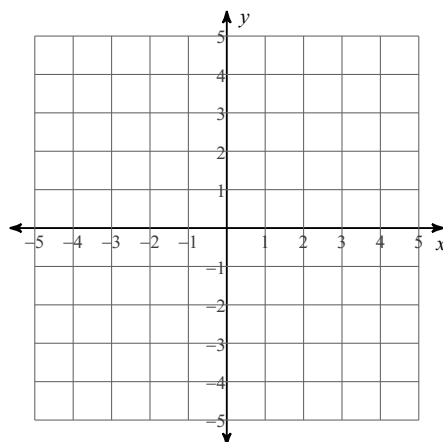


**Sketch the solution to each system of inequalities. You may do so on this paper. Do not indicate the point of intersection.**

$$15) \begin{aligned} y &> \frac{5}{3}x - 2 \\ y &< \frac{5}{3}x - 3 \end{aligned}$$

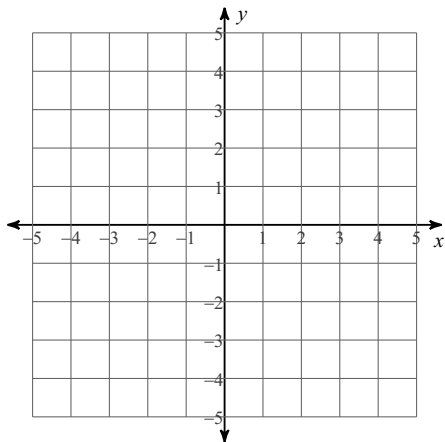


$$16) \begin{aligned} y &< -\frac{1}{3}x - 3 \\ y &> \frac{4}{3}x + 2 \end{aligned}$$



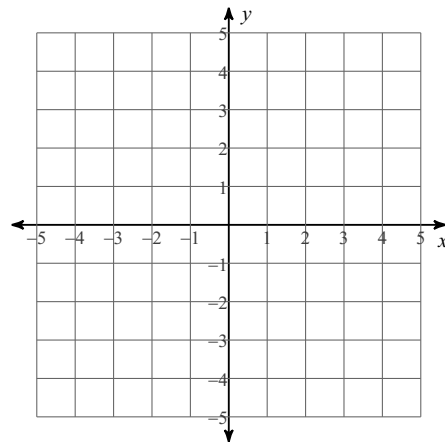
$$17) y \leq -x - 2$$

$$y < \frac{1}{3}x + 2$$



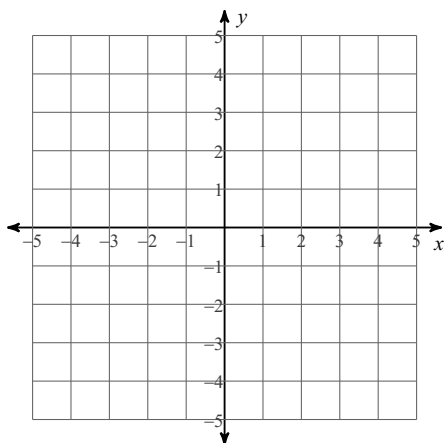
$$18) y \geq -\frac{1}{2}x + 2$$

$$y > -3x - 3$$



$$19) y < -3x + 1$$

$$y > -2$$



$$20) y < x + 2$$

$$y \leq 4x - 1$$

