

Problem Set

1. Sketch the graphs of the linear system on a coordinate plane: $\begin{cases} y = \frac{1}{3}x + 1 \\ y = -3x + 11 \end{cases}$.
 - a. Name the ordered pair where the graphs of the two linear equations intersect.
 - b. Verify that the ordered pair named in part (a) is a solution to $y = \frac{1}{3}x + 1$.
 - c. Verify that the ordered pair named in part (a) is a solution to $y = -3x + 11$.
2. Sketch the graphs of the linear system on a coordinate plane: $\begin{cases} y = \frac{1}{2}x + 4 \\ x + 4y = 4 \end{cases}$.
 - a. Name the ordered pair where the graphs of the two linear equations intersect.
 - b. Verify that the ordered pair named in part (a) is a solution to $y = \frac{1}{2}x + 4$.
 - c. Verify that the ordered pair named in part (a) is a solution to $x + 4y = 4$.
3. Sketch the graphs of the linear system on a coordinate plane: $\begin{cases} y = 2 \\ x + 2y = 10 \end{cases}$.
 - a. Name the ordered pair where the graphs of the two linear equations intersect.
 - b. Verify that the ordered pair named in part (a) is a solution to $y = 2$.
 - c. Verify that the ordered pair named in part (a) is a solution to $x + 2y = 10$.
4. Sketch the graphs of the linear system on a coordinate plane: $\begin{cases} -2x + 3y = 18 \\ 2x + 3y = 6 \end{cases}$.
 - a. Name the ordered pair where the graphs of the two linear equations intersect.
 - b. Verify that the ordered pair named in part (a) is a solution to $-2x + 3y = 18$.
 - c. Verify that the ordered pair named in part (a) is a solution to $2x + 3y = 6$.
5. Sketch the graphs of the linear system on a coordinate plane: $\begin{cases} x + 2y = 2 \\ y = \frac{2}{3}x - 6 \end{cases}$.
 - a. Name the ordered pair where the graphs of the two linear equations intersect.
 - b. Verify that the ordered pair named in part (a) is a solution to $x + 2y = 2$.
 - c. Verify that the ordered pair named in part (a) is a solution to $y = \frac{2}{3}x - 6$.
6. Without sketching the graph, name the ordered pair where the graphs of the two linear equations intersect.
$$\begin{cases} x = 2 \\ y = -3 \end{cases}$$