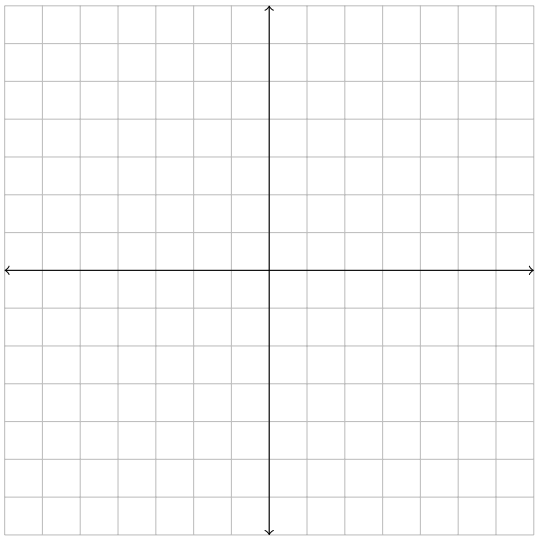
Names: _____ _____ _____

College Algebra Activity #1: Lines and Circles

1. Find an equation for the line passing through the point $(1, 3)$ and having slope -2/3.

2. Find the slope between the points $(7, -7)$ and $(-2, 1)$.

3. Plot the graph of the linear equation $y = \frac{1}{2}x - 3$ on the plane below.



4. Solve the following system of equations.

$$\begin{cases} -6y - x &= 5 \\ -3y - 4x &= 6 \end{cases}$$

5. Solve the following system of equations.

$$\begin{cases} \frac{1}{3}y + \frac{3}{5}x &= 1 \\ \frac{1}{5}y + \frac{3}{5}x &= 7 \end{cases}$$

6. Find an equation for the circle centered at $(2, -4)$ and having radius 7.

7. Find an equation for the circle centered at $(7, -2)$ and passing through $(-1, 2)$.