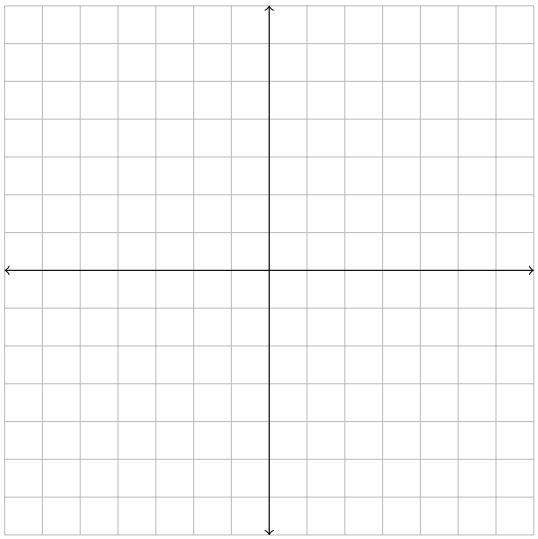
Names: _____ _____ _____

College Algebra Activity #1: Lines and Circles

1. Find an equation for the line passing through the point $(-5, -2)$ and having slope $2/5$.

2. Find the slope between the points $(3, -2)$ and $(-6, 6)$.

3. Plot the graph of the linear equation $y = \frac{-4}{5}x + 2$ on the plane below.



4. Solve the following system of equations.

$$\begin{cases} 4y - 4x &= 10 \\ 5y - 3x &= 3 \end{cases}$$

5. Solve the following system of equations.

$$\begin{cases} \frac{2}{3}y + \frac{1}{3}x &= 2 \\ \frac{2}{5}y + \frac{1}{5}x &= 1 \end{cases}$$

6. Find an equation for the circle centered at $(7, -4)$ and having radius 5.

7. Find an equation for the circle centered at $(4, 7)$ and passing through $(-3, 4)$.