FPC-10

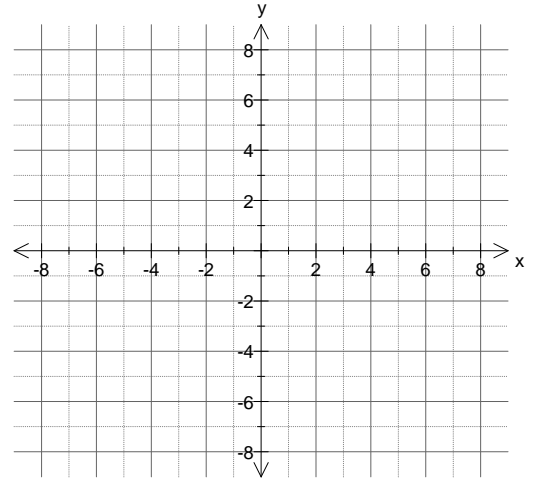**5.3 – *Point-Slope Form* of Equation of a Line**
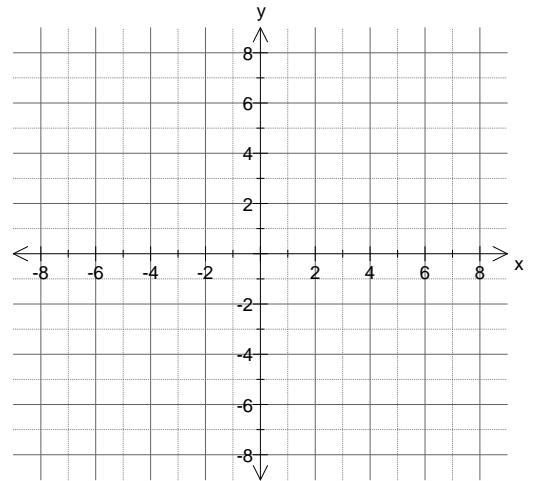
The equation of a line is, $2y - 6 = 4x - 12$.

What two pieces of information does the equation provide us with to help us sketch the graph?

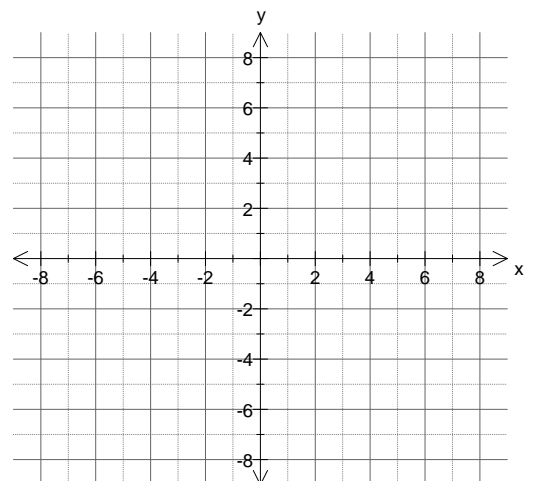Use the information from the equation to sketch its graph.

Sketch the graphs of the following equations:

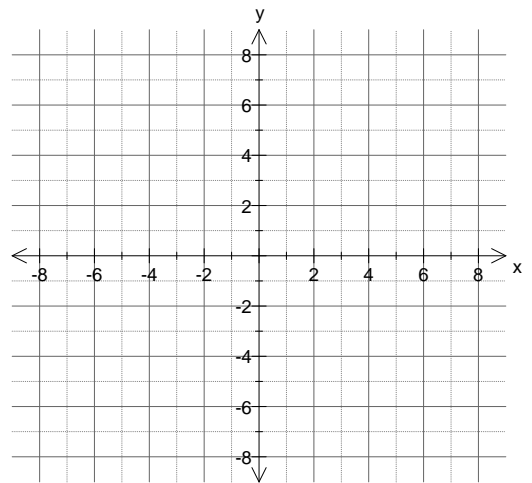$$y = -\frac{2}{3}(x - 3) + 1$$

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

Do you see any connections between the numbers in each equation and the corresponding graphs?
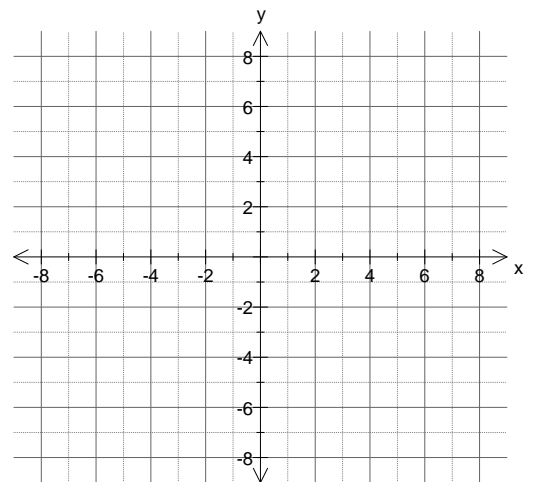
$$y = -\frac{2}{3}(x-3)+1$$

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

How can we sketch the graph of the following equation **without converting it into Slope-Intercept Form**?

$$y = -\frac{1}{3}(x-3)-4$$

Determine the equation of the line that passes through the points: $A(3,4),\ B(6, 6)$. Express your equation in **Slope-Point Form** and **Slope-Intercept Form**.

Determine the equation of the line that passes through the points: $A(-3, 4)$, $B(1, -2)$. Express your equation in **Slope-Point Form** and **Slope-Intercept Form**.
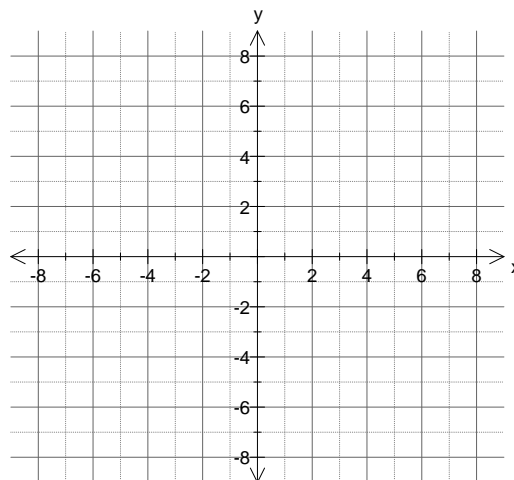
Determine the equations of the graphs shown below. Express your equation in **Slope-Point Form** and **Slope-Intercept Form**.