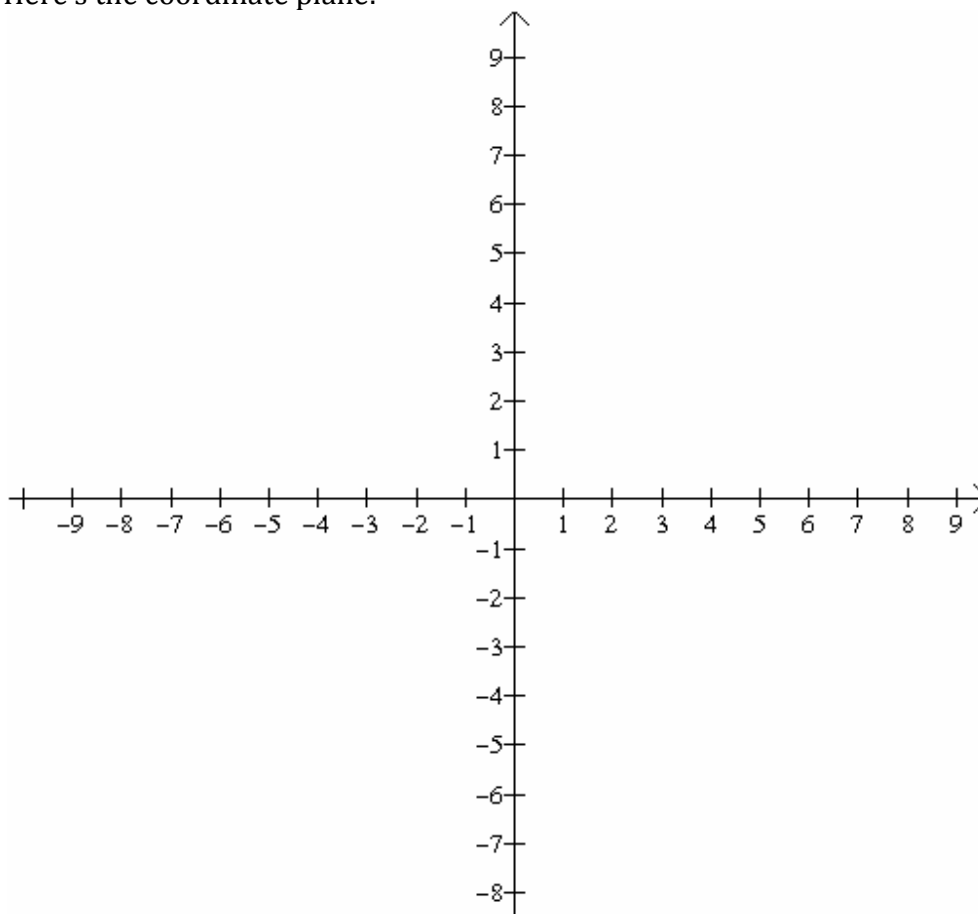


Section 2.1: The Coordinate Plane

Here's the coordinate plane:

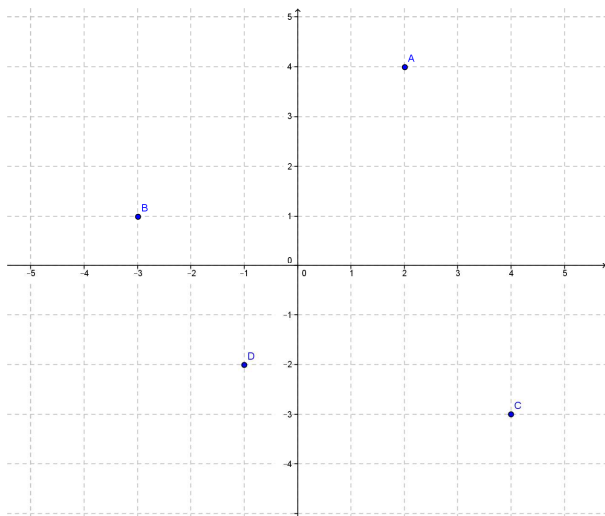


As we see the plane consists of two perpendicular lines, the **x-axis** and the **y-axis**.

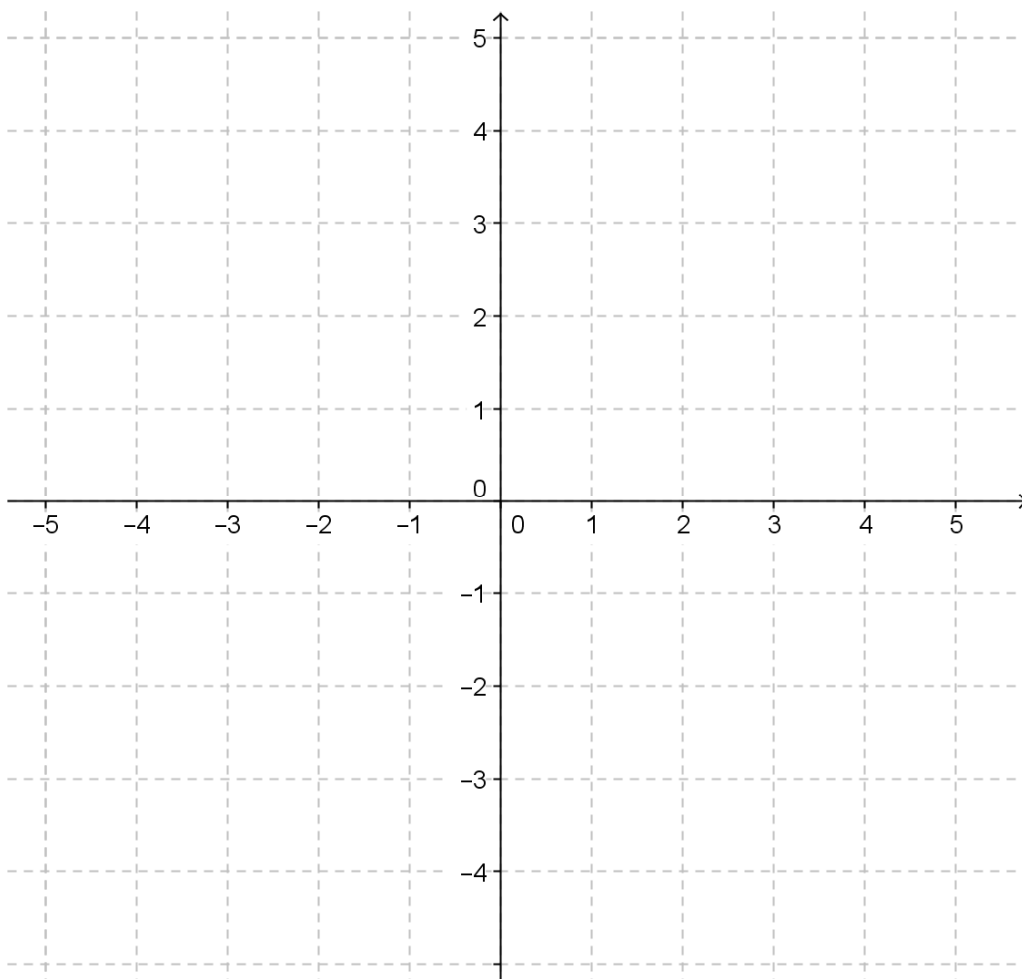
These two lines separate them into four regions, or **quadrants**.

The pair, (x, y) , is called an **ordered pair**. The first number is called the **x coordinate**, and the second number is called the **y coordinate**. The ordered pair $(0, 0)$ is referred to as the **origin**. The **x coordinate** tells us the horizontal distance a point is from the origin. The **y coordinate** tells us the vertical distance a point is from the origin. You'll move right or up for positive coordinates and left or down for negative coordinates.

Example 1: Identify the following points.

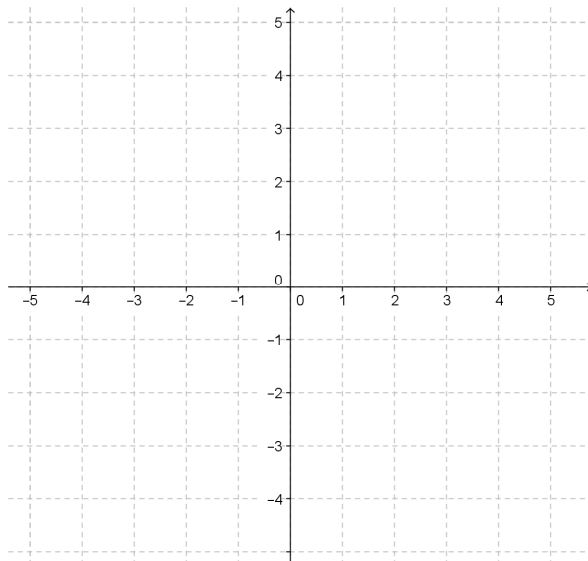


Example 2: Plot the points $(-3, 1)$, $(4, -3.5)$, $(-2, -4)$ and $(2, 5)$

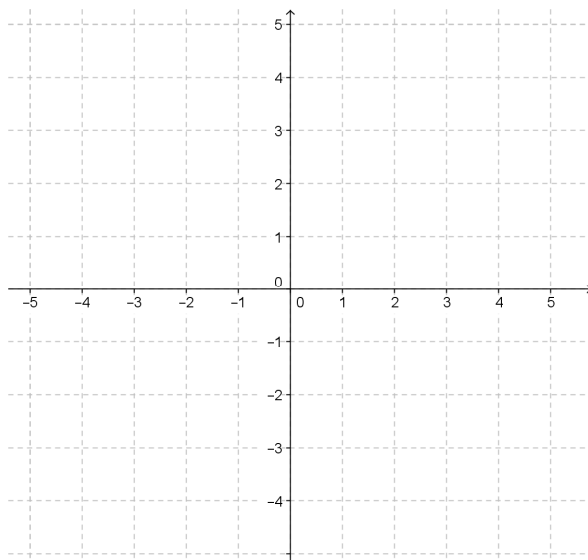


Graphing Horizontal and Vertical Lines

Example 3: Graph the lines $y = 3$ and $y = 0$.



Example 4: Graph the lines $x = -3$ and $x = 1$.



Example 5: What are the equations of the given lines?

