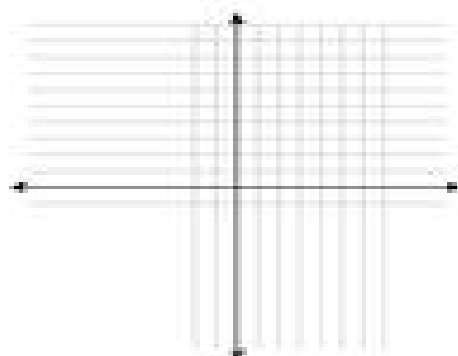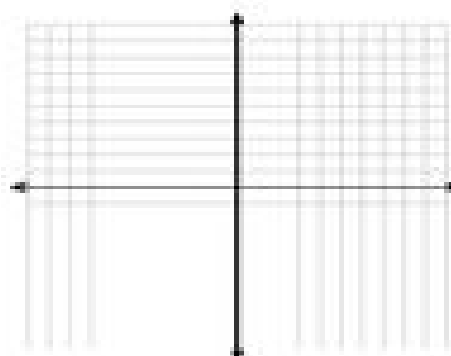# Graphing Horizontal and Vertical Lines

All linear equations can be written in the form Ax+By=C. When A = 0 the equation reduces to By = C and the graph is a horizontal line. When B = 0 the equation reduces to Ax = 0 and the graph is a vertical line.

In the coordinate plane, the graph of y = b is a horizontal line.

In the coordinate plane, the graph of x = a is a vertical line.

Graphing y = b

1. Graph the equation y = 2.
    * The equation does not have x as a variable. The y-value is always 2, regardless of the value of x. For instance, here are some points that are solutions
    (-3, 2), (0, 2), (3, 2)
    * The graph of the equations is a horizontal line 2 units above the x-axis