## Algebra: Equations, Inequalities, Graphs

As you are going through the sections in Chapters 6 & 7, you will notice that we are working with functions.

- 1. Please explain to the class what it means to:
  - Plot an ordered pair (x, y)
  - $\circ$   $\;$  Check if an ordered pair is a solution of an equation
  - Have a slope of "0" and an undefined slope
- 2. Please provide examples of your answers.

An ordered pair is a pair of numbers written in a particular order, for example (2,4). These numbers have to be placed in a coordinate plain which has a horizontal axis (x-axis) and the vertical axis (y-axis). For our example, the 2 is the x coordinate and the 4 is the y coordinate. For our x coordinate, we need to count up on the x axis 2 times, on that same spot, we now need to count up on the y axis 4 times. Plot where you landed by adding a dot and congrats! You just plotted an ordered pair.

To check if an ordered pair is a solution to an equation, find the x-value in the order depair and enter it into the equation. If the y-value you get from simplifying is the same as the y-value obtained from the ordered pair, then the ordered pair is a solution to the equation.

Having a slope of 0 means that there is a constant relationship between y and x. It ends up looking like a horizontal line. An undefined lope is vertical and happens when both of the x coordinates are in the same place.