## Math-2: VOCAB 3-1 (Equations of Lines)

<u>Slope Intercept Form</u>: An equation of the form y = mx + b. Where m = slope and b = y intercept.

There are <u>no parentheses</u>

Usually there are two variables y = 2x + 3

The exponents of the variables are <u>one</u>.

"Y is a function of x" (y is <u>all by itself</u>)

<u>Standard form of a linear equation</u>: An equation of the form: Ax + By = C. <u>Example</u>: 3x + 4y = 12

Constant value is all by itselfThere are two variablesThere are no parenthesesThe exponents of the variables are one.

<u>Y-intercept</u>: The <u>y-coordinate</u> of a point where the graph intersects the y-axis. The x-coordinate of the y-intercept will <u>always</u> equal zero. (0, y)

<u>x-intercept</u>: The <u>x-coordinate</u> of a point where the graph intersects the x-axis. The y-coordinate of the x-intercept will <u>always</u> equal zero. (x, 0)

Parallel lines: do not intersect. The slopes of parallel lines are the same.

 $y = 2x + 2 \qquad \qquad y = 2x + 5$ 

Perpendicular lines: intersect at "right" angles. The slopes of perpendicular lines are <u>negative reciprocals</u> of each other.

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