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

Slope Intercept Form: An equation of the form $\mathrm{y}=\mathrm{mx}+\mathrm{b}$. Where $\mathrm{m}=$ slope and $\mathrm{b}=\mathrm{y}$ intercept.
There are no parentheses
Usually there are two variables $\quad y=2 x+3$
The exponents of the variables are one.
" $Y$ is a function of $x$ " ( $y$ is all by itself)
Standard form of a linear equation: An equation of the form: $A x+B y=C . \quad$ Example: $3 x+4 y=12$

## Constant value is all by itself There are two variables

 There are no parentheses The exponents of the variables are one.Y-intercept: The $y$-coordinate of a point where the graph intersects the $y$-axis. The $x$-coordinate of the $y$-intercept will always equal zero. ( $0, \mathrm{y}$ )
$x$-intercept: The $x$-coordinate of a point where the graph intersects the $x$-axis. The $y$-coordinate of the $x$-intercept will always equal zero. ( $x, 0$ )

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

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

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

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

