



MATH NOTES

METHODS AND MEANINGS

Linear Equations

A **linear equation** is an equation that forms a line when it is graphed. This type of equation may be written in several different forms. Although these forms look different, they are equivalent; that is, their graphs are all the same line.

Standard Form: An equation in $ax + by = c$ form, such as $6x - 3y = 18$.

Slope-Intercept Form: An equation in $y = mx + b$ form, such as $y = 2x - 6$.

You can find the **slope** (also known as the rate of change) and the **y-intercept** of a line in $y = mx + b$ form quickly. For the equation $y = 2x - 6$, the slope is 2, while the y-intercept is $(0, -6)$.

$$y = 2x - 6$$

Annotations:
 - An arrow points to the coefficient 2, labeled "slope".
 - An arrow points to the constant term -6, labeled "y-intercept".

