

Overview of Linear Functions

A Linear Function is an Algebraic equation of two variables both variables are the First Degree (Highest Exponent One). One variable is called **independent** variable while the other is called the **dependent** variable. The independent is the **Horizontal** variable while the dependent variable is the **Vertical** variable.

The sketches below represent possible categories to these Linear Functions:

(+ Slope, (- Slope, Origin, Vertical, Horizontal

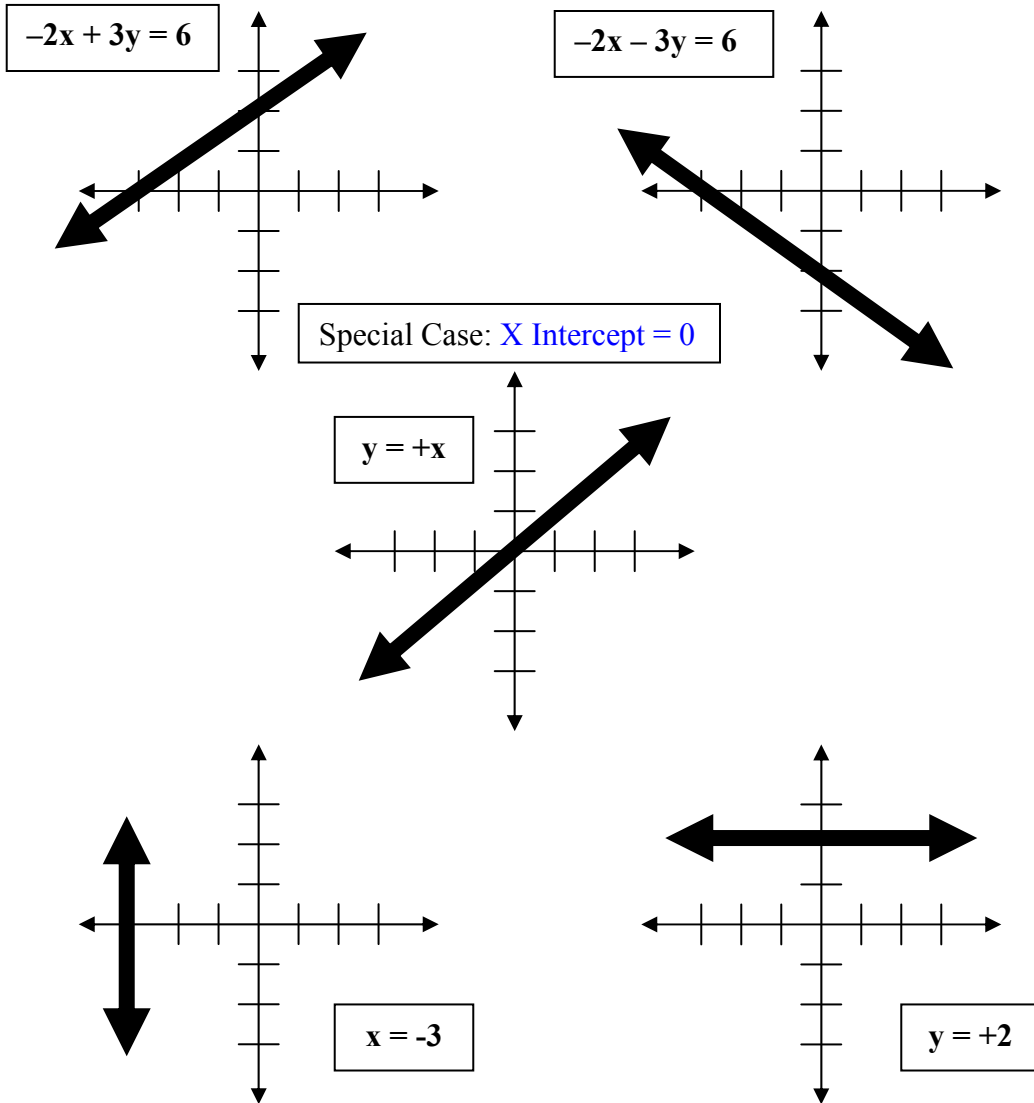
Linear Functions (equations) normally appear in two distinct arrangements:

Standard Form $Ax + By = C$

A,B,C are real numbers.

Slope-Intercept Form $y=mx +b$

m =slope and b= y intercept



Special Case: Slope is Undefined! **Why?**

Special Case: Slope is Zero! **Why?**

Solving a **Standard Form** for Y changes it to **Slope Intercept Form**.

$$-2x + 3y = 6 \quad \rightarrow \quad 3y = +2x + 6 \quad \rightarrow \quad y = +2/3x + 2$$