Linear Functions

GF2

Linear function -

- a function whose graph creates a straight line
- as x changes at a constant rate, y changes at a constant rate
- the domain does not repeat in a function
- domain - x-values, input, independent variable
- range - y-values, output, dependent variable
- in the form of $Ax + By = C$ if $B \neq 0$

Linear Equation -

Standard Form: $Ax + By = C$

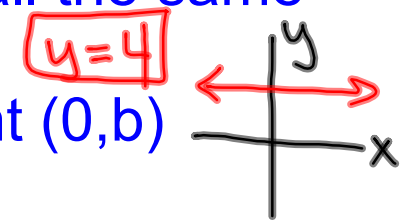
A & B are both nonzero real numbers

x & y both have an exponent of one

x & y are not multiplied together

x & y do not appear in denominators, exponents, radical signs, or within absolute-value symbols

Horizontal Line: the y-values are all the same
equation in the form of y=b
the line passes through the point (0,b)



Vertical Line: the x-values are all the same
equation in the form of x=a
the line passes through the point (a,0)