

Standard Form A, B, and C are Integers $Ax + By = C$	Slope-Intercept slope m y-intercept b $y = mx + b$
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Linear Equations </div>	
Point-Slope Form slope m point (x_1, y_1) $y - y_1 = m(x - x_1)$	

Special Conditions:

Parallel lines: have the same slope

Perpendicular lines: have opposite and reciprocal slope

Examples: if an equation has a slope of -3, the parallel M = -3, perpendicular M = 1/3

Special Lines:

Horizontal: m = 0, equation looks like y = y-int (where goes through the y axis) there is no x in equation

Vertical: m = undefined, equation: x = x-int, is no y in equation

Slope equation: $y = \frac{\Delta y}{\Delta x} = \frac{Y_2 - Y_1}{X_2 - X_1}$

To Graph: if in

- a. standard form (Ax + By = C) use the intercept method

Create a table

X	Y
0	
	0

solve to find the y intercept replacing x with 0

Graph both points

Solve to find the x intercept replacing y with 0

- b. Slope intercept form (y = mx + b)

1st use the b (which is the y-intercept) plot point on y axis

2nd move to 2nd point the slope (m) using top number as the up/ down on y, bottom as rt/left on x.