

How to draw a line using Slope intercept form.

$y = mx + b$

← y-intercept (where line cuts y-axis).

Slope or Gradient (rise/run)

positive m negative m

Any x & y pair that is on the line

Steps.

1. Plot y-intercept on Graph.

→ If fraction, change to decimal

Example: $y = \frac{3}{2}x + \frac{5}{2}$

$\frac{5}{2} \rightarrow 2.5 \rightarrow (0, 2.5)$

2. Use m to find rise & run to find second point

Positive m → Go up and right or down and left

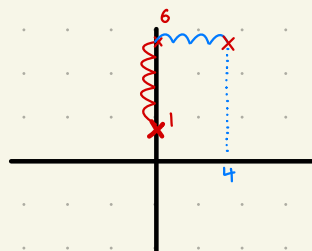
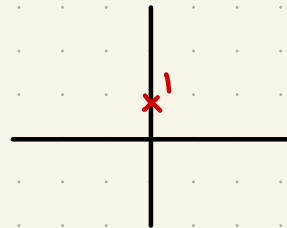
Negative m → Go down and right or up and left.

If m is whole number, change to fraction

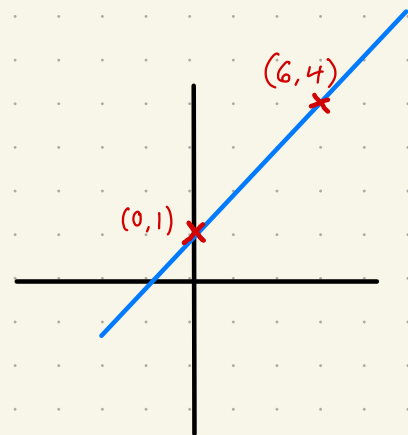
Example: $y = 3x + 2 \rightarrow y = \frac{3}{1}x + 2$

3. Join the points and make sure direction of line matches positive or negative slope.

Example $y = \frac{5}{4}x + 1$



$\frac{5}{4} \rightarrow 5 \text{ up and } 4 \text{ right}$



Note: Only works for $y = mx + b$.

If equation in other form, you have to change and isolate y.