

Using the Slope-Intercept Form to Graph a Line

1. Use $y=mx+b$ (slope-intercept form) to find the *y-intercept*, b , and *slope*, m .
2. Plot the *y-intercept* on your graph by finding the *y-intercept*, b , on the y -axis.
3. Use the *slope*, m , to find and plot the rise over run on the graph.

EX 1: If $m=3/4$, start at the point of the y -intercept and move up 3 (rise). Because the slope is positive you move up the y -axis. Then move to the right 4 (run). Plot your 2nd point at that spot. The slope, $m=3/4$ so the rise is 3 and the run is 4.

EX 2: If $m=-2$, start at the point of the y -intercept and move down 2 (rise). Because the slope is negative you move down the y -axis. Then move to the right 1 (run). Plot your 2nd point at that spot. The slope, $m=-2 = -2/1$ so the rise is -2 and the run is 1.

4. Use a straightedge to line up both the points and draw a line with arrows on both ends.