**2.3 – Linear Functions and Slope-Intercept Form**

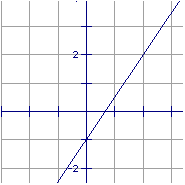
**Slope – Intercept Form:** **y = mx + b**

m = slope

b = y-intercept (the point where the line crosses the y-axis)

*Examples:*

*Write an equation of the line shown:*

*m=3/2*

*b=-1*

*Write an equation of the line with the given slope and y-intercept.*

a) m = 3, b = 2

y=3x+2

b) m = -1/2, b = - 4

y=-1/2x-4

c) m = 0, b = 5

y=5

**Graphing Equations in Slope-Intercept Form; (ggb)**

1. Write the equation in slope-intercept form by solving for y
2. Find and plot the y-intercept (0, b)
3. Find the slope (m) and use it to plot a second point
4. Draw a line through the two points

*Examples:*

*Find the slope and y-intercept of the line*

*y = -2x – 7 2x – 3y = 18*

*m=-2 and y=-7 y=(-2x+18)/-3*

*m=2/3 and y=-18/3*

*Graph the following linear equations:*

y = 2x + 3 y = 7

**HMWK: pg 78 #1-6, 11-21 (odd), 31-37 (odd), 56**