**2.4 – More About Linear Equations**

[**Point-Slope Form**](http://www.geogebra.org/en/upload/files/english/Athena_Matherly/Point_Slope_Form/point_slope_form_WS.html): given **slope = m** and **point (x1, y1)**:

1) Substitute x1 and y1 into the slope equation:

 OR y – y1 = m(x – x1)

2) Rewrite the equation into slope-intercept form:

y = mx + b

*Example*: *Write the equation for the line that passes through the given point and has the given slope.*

(2,3), m =  (5, 2), m = 3

*Write and equation of the line that passes through (4, 6) and is parallel to the line that passes through (6, -6) and (10, -4)*

*Write an equation of the line that passes through (1, -6) and is perpendicular to the line y = 3x + 7.*

m=

(Opposite reciprocal)

**Two Points**: given two points **(x1, y1) and (x2, y2)**:

1) Find slope between 2 points: 

2) Use the Point-Slope Form (y – y1 = m(x – x1)) using the slope and either of the given points.

*Example*: *Write the equation for the line that passes through the given points.*

(-2, -1) and (3, 4)

(0, 2) and (-5, 0)

**HMWK: pg 86 #1-5, 11-23 (odd), 52**