**Lesson 6.2- Point Slope Form**

Point Slope Form Equation:

$$y-y\_{1}=m(x-x\_{1})$$

**Example 1:** **Example 2:**

Slope is 3.5, and (-3, 2) is on the line. Slope is 2, and (-2, -1) is on the line

**Example 3:**

Paul wants to place an ad in a newspaper. The newspaper charges $10 for the first 2 lines of text and $3 for each additional line of text. Paul’s ad is 8 lines long. How much will the ad cost?

 Let x represent the number of lines of text. Let y represent the cost in dollars of the ad. Because 2 lines of text cost $10, the point (2, 10) is on the line. The rate of change in the cost is $3 per line, so the slope is 3. Write an equation in point-slope form.

To find the cost of 8 lines, substitute 8 for x and solve for y.

**Example 4:**

Paul would like to shop for the best price to place the ad. A different newspaper has a base cost of $15 for 3 lines and $2 for every extra line. How much will an 8-line ad cost in this paper?

**Example 5:** **Example 6:**

(2, 1) and (3, 4) are on the line. (1, 3) and (2, 3) are on the line