Name:______________________________ Foundations Weekly #23

****DUE BY 4/20/18****
THIS WEEKLY HAS A BACK!!!
****TURN IN BY 4/17/18 FOR EXTRA CREDIT!!****

1. What is the value of *x* in the equation: $\frac{3}{4}x + 2 = \frac{5}{4}x - 6$? **(Notes #7-9)**

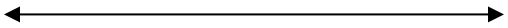
2. What is the slope of the line represented by the equation $4x + 3y = 12$? **(Notes #31-32)**

3. The length of a rectangle is 15 and its width is *w*. The perimeter of the rectangle is, ***at most***, 50. Which inequality can be used to find the longest possible width? **(Notes #24-24.5)**

   1) $30 + 2w < 50$
   2) $30 + 2w \leq 50$
   3) $30 + 2w > 50$
   4) $30 + 2w \geq 50$

4. Solve the inequality, graph the solution on the number line, and DESCRIBE the solution set.

$8(3x + 1) < 32$ **(Notes #12)**



5. Solve the following system of inequalities graphically on the set of axes below. **(Notes #49-50)**

$$3x + y < 7$$
$$y \geq \frac{2}{3}x - 4$$

State the coordinates of a point in the solution set.