

Name: \_\_\_\_\_

Unit 4

Date: \_\_\_\_\_

### WS # 3 Find the Rule of a line

**INSTRUCTIONS:** USING THE POINTS GIVEN, FIND THE EQUATION OF THE LINE. ONCE YOU HAVE FINISHED, PLOT EACH SET OF POINTS. DRAW A LINE BETWEEN THEM.

10

**EXAMPLE: (0,4) & (3,6)**

Step 1: Find the slope:  $a = \frac{y_2 - y_1}{x_2 - x_1} = \frac{6 - 4}{3 - 0} = \frac{2}{3}$

Step 2: Find b (y-intercept):  $b = y_1 - ax_1 = 4 - (2/3)(0) = 4$

Step 3: Write the equation of the line:  $y = 3x + 4$

Step 4: Plot (0, 4) and (3, 6). Then connect the dots.

1) (3, 6) & (5, 2)

2) (5, 2) & (0, -5)

3) (0, -5) & (-5, 2)

4) (-3, 6) & (-5, 2)

5) (0, 4) & (-3, 6)

