**Part 1: Given the description, graph the pre-image and image on the graph below. Use with A(2,-2), B(3,1), and C(1,2).**

1. is rotated 180˚ then dilated 2. is reflected over y = -x and moved up 2

 by a factor of two about the origin.

3. is reflected over the y-axis then 4. Translate 4 units left and 2 units down, dilated by a factor two about the origin. and then reflect the triangle over the x-axis.

5. Tranlate according to (x,y)→(x – 1, y + 2) and 6. Dilate the figure by a scale factor of 3 and

then rotate 90 degrees counter clockwise translate 2 units right

**Describe the transformations on the graph verbally and by writing an algebraic rule.**

**B’**



**A’**

1. 2.

**B**

**A**

**B**

**C’A**

**CA**

**A**

**C’A**

**CA**

**B’**

**A’**

Description: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Description: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Algebraic Rule: \_\_\_\_\_\_\_\_\_\_\_\_ Algebraic Rule: \_\_\_\_\_\_\_\_\_\_\_\_