**Transformation Mix Group Mini Project**

**With your group, complete each problem. You will be transforming a figure multiple times in one problem. When you are done with step 5 in each problem, graph the final image on the graph paper supplied. USE THE RULES GIVEN TO YOU IN YOUR NOTES!!!!!**

**Problem 1:**

1. Sketch the following figure: C (2, 5), A (-1, -5), T (0, 4)
2. Rotate the figure 270o CW, to the figure made in step 1
3. Apply the following rule (x’, y’)→ (x-2, y+1) to the figure made in step 2
4. Apply the dilation factor of 2, to the figure made in step 3
5. Reflect the figure over the line y= -x, to the figure made in step 4.

**Problem 2:**

1. Sketch the following figure: M(-3, 6), A(4, 0), P(2, -5)
2. Apply the following rule (x’, y’)→ (x-3, y-2) , to the figure made in step 1
3. Rotate the figure 270o CCW, to the figure made in step 2
4. Apply the dilation factor of 2, to the figure made in step 3
5. Reflect the figure over the y-axis , to the figure made in step 4

**Problem 3:**

1. Sketch the following figure: F(2, 4), R(8, -6), O(-10, 2), G(-6, -6)
2. Apply the dilation factor of ½, , to the figure made in step 1
3. Apply the following rule (x’, y’)→ (x+4, y+5) , to the figure made in step 2
4. Rotate the figure 180o CCW, to the figure made in step 3
5. Reflect the figure over the origin, to the figure made in step 4

**Problem 4:**

1. Sketch the following figure: Z(4,0), E(-5, 2), S(2, 6), T(-1, 5)
2. Reflect the figure over the x-axis, to the figure made in step 1
3. Rotate the figure 90o CW, to the figure made in step 2
4. Apply the dilation factor of 2, to the figure made in step 3
5. Apply the following rule (x’, y’)→ (x, y-3) , to the figure made in step 4