1. **Find the coordinates for the image with the given vertices A(-2,-1), B(0,2), C(0,0), D(1,-1) after the translation (*x*, *y*)** → **(*x* - 3, *y* +2). Draw the images.**
2. **Reflect the figure with the given vertices across the given line, *y = x*. *A*(-5,2), *B*(4,1), *C*(-1,-2)**

**Draw the result of the composition of Transformations.**

1. **a. ∆*KLM* has vertices *K*(-2,1 ), *L*(2,-1 ), and *M*(-1,-3 ). Rotate ∆*KLM* 270ᵒ Counter Clockwise about the origin and then reflect it across the *x*-axis.**



**b. Write a generic coordinate for the above transformations**

1. □***PQRS* has vertices *P*(1,1), *Q*(3,1 ), *R*(4,-1 ), and S(2,-2). Rotate** □***PQRS* 180ᵒ about the origin and then translate it right 5 units and down 3 units.**

**b. Write a generic coordinate for the above transformations.**

1. **∆STR has verticies (0,-1), (2, 3), (-3, 4). On graph a) Reflect the figure over line y = 2. On graph b) reflect the figure over x = 1.**
2.  **b)**

1. **∆JKL has vertices (2, 4), (3, -1), (-2, 2). Rotate the figure 270CCW around the center point (1,2).**
2. What rotations about its center would a regular pentagon map onto itself from 0 to 360 degrees?
3. Identify or draw three regular polygons that would map onto themselves if rotated 240o.
4. How many lines of symmetry does a decagon have? How many does a parallelogram have?
5. Draw the lines of symmetry for the following figure