1. Using your compass and straight edge, reflect the pre-image over the given line of reflection.

2. Using your compass and straight edge, rotate the pre-image 240° about point G.
3. Translate the image one unit down and three units right.

4. Using the rules we discussed, rotate the pre-image $270^\circ$ about the origin.

$270^\circ$ Rotation rule: 
$(x, y) \rightarrow (y, -x)$
5.

Using the rules we discussed, reflect the pre-image over the given line of reflection.

Rule for reflection across the line $y = x$:

$$(x, y) \rightarrow (y, x)$$

6.

Which of these cards have rotational symmetry? Which have reflectional symmetry?

The 4 of hearts and 6 of diamonds have 180° rotational symmetry.

None have reflectional symmetry!
Which of these objects have relectional symmetry (or approximate reflectional symmetry)?
If the object has reflectional symmetry, how many lines of symmetry are there?

A, B, C, and F have reflectional symmetry.
A has 4 lines of symmetry, B has 5, C has 1, and F has 1.

A, B, D, and E have rotational symmetry.
A has 90°, B has 72°, D has 45° (if you ignore the center), and E has $\frac{360}{7}$° (if you ignore the colors).