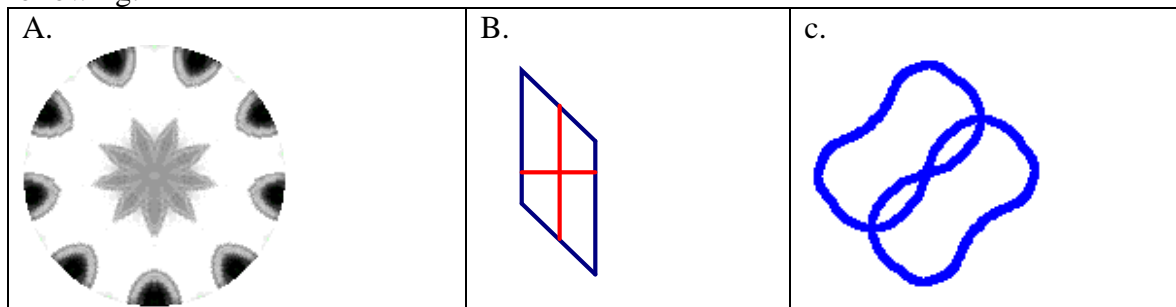
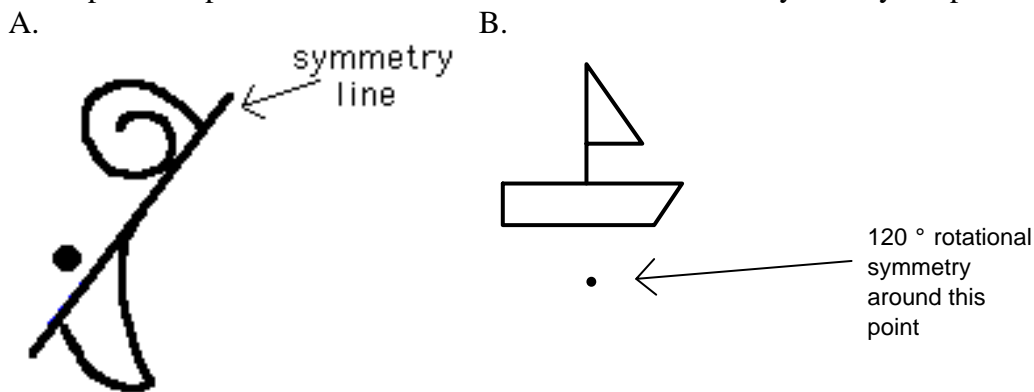


Math 246 Geometry practice problems:

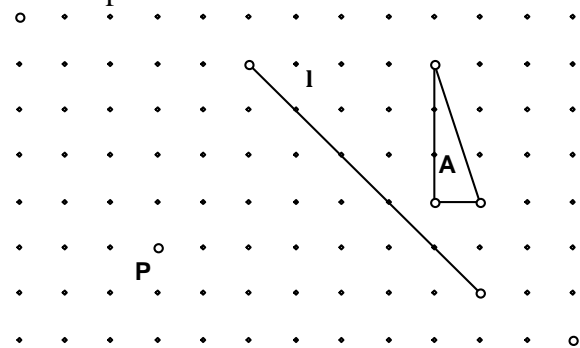
1. Draw in all of the symmetry lines, and find and show the angle of rotation symmetry for each of the following:



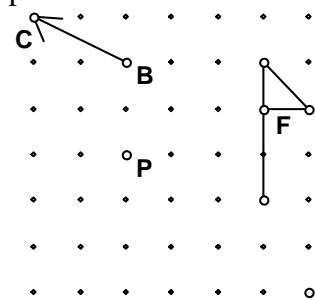
3. Complete the pattern so that it has reflection or rotational symmetry as specified:



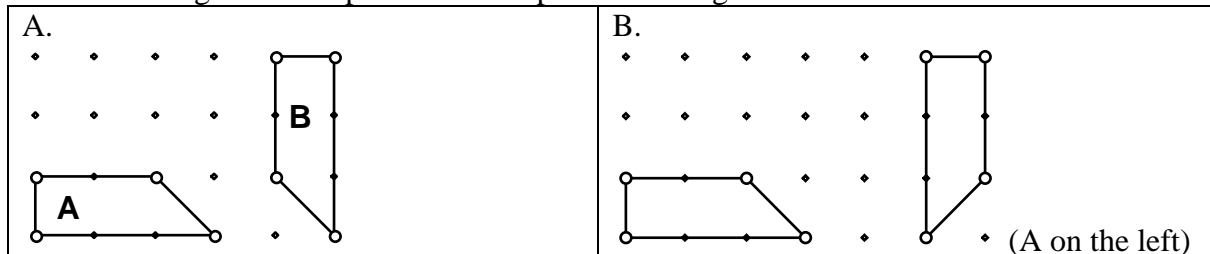
4. Show with a dotted line, the image of triangle A after reflection in line l , and then show with a solid line, where the reflected triangle would be after being rotated by 90° counterclockwise around point P:



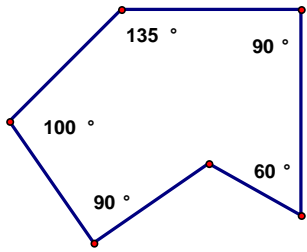
5. Show with a dotted line, the image of flag F after translating along the vector from B to C and then show with a solid line, where the translated flag would be after being rotated by 180° around point P:



5. Tell how to get from trapezoid A to trapezoid B using 3 or fewer transformations:



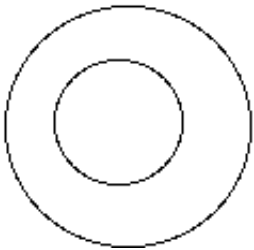
6. Find the missing angle measure in the polygon below:



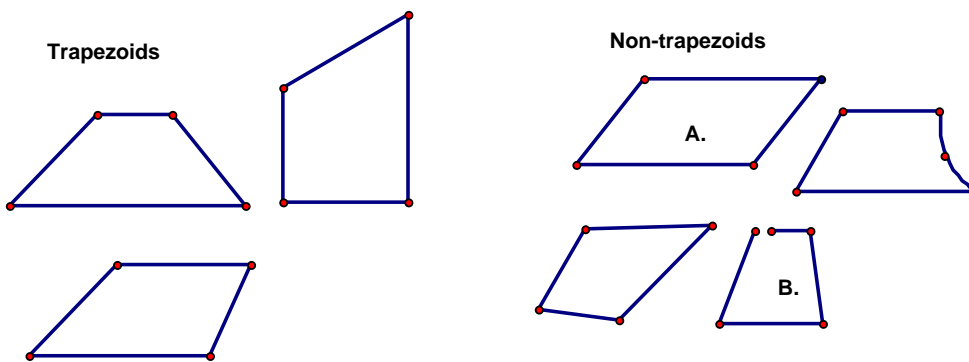
9. Draw a Venn diagram showing the relationship between a rectangles, rhombuses, and squares. Draw a picture of something that belongs in each non-empty region.

10. A. Circle the types of quadrilateral on the list whose diagonals bisect each other: square; rectangle; parallelogram; rhombus; kite; trapezoid

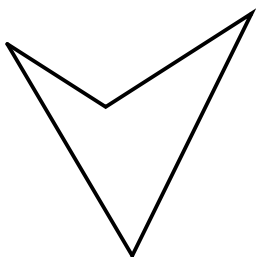
11. Choose two of the types that you have chosen in the list above that have a set-subset relationship, and label them on the Venn Diagram below:



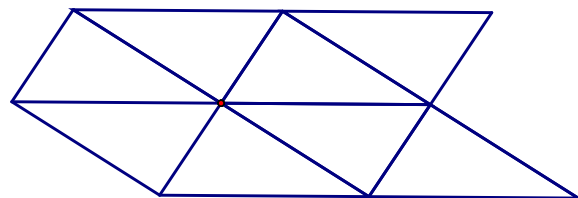
12. Here are some examples of trapezoids and non-trapezoids. For non-examples A and B, tell what concept is being clarified by having them as non-examples.



13. Sketch the tessellation pattern for the quadrilateral:



14. Explain, using angle measurements, how you know that the triangles in the tessellation pattern below fit together perfectly at a vertex in the center:



15. Show how to find the measure of an interior angle of a regular octagon.

16. Explain, using angle measurements, how you know that you can't make a tessellation using only regular heptagons (7-sided)