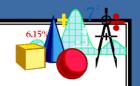Bulletin Board: **<u>Areas of Polygons</u>**

Review formulas for finding areas of polygons.

Draw quadrilaterals with various configurations but always with the same perimeter. Make your drawings on graph paper to facilitate the next step, which is to find the area of each quadrilateral that is drawn. You may have to divide the quadrilateral into two triangles to calculate the area. Measurements in millimeters are suggested to make your calculations easier. Draw at least four quadrilaterals. Look for a pattern between the lengths of the four sides and the maximum area of the quadrilateral. Repeat the procedures for triangles, and then pentagons, with the same perimeter.

Predict what will happen using the same procedures on a hexagon. Test your prediction by following the above procedures for a hexagon.

Mount your drawings on poster paper. Record your results beside the drawings. Include a written statement about the relationship between the lengths of the sides and the maximum area.