**Tangram Discoveries**

Materials: A seven-piece tangram puzzle

Take the two small triangles and the one medium triangle. Using just these three pieces (all three), make five different (that is, noncongruent) polygons: square, rectangle, triangle, parallelogram, and trapezoid. Draw each figure, and determine which polygon has the largest perimeter, the smallest perimeter, the largest area, and the smallest area. As you work with the tangram pieces, think about how you are using your understanding of conservation, transitivity, units, unit iteration, and estimation to help you answer the questions.

Assume the leg of the smallest isosceles right triangle is 1 inch, and use what you know about the shape and the Pythagorean Theorem to find the missing sides, perimeters, and areas.

