

## **Tangram: Did you get the message?**

Problem: Create one of the given four figures using all the tangrams and, investigate the area and perimeter.

Grade Level: 8, 9, 10

Content covered: Calculating area of various shapes  
Calculating perimeter of various shapes  
Applying the Pythagorean theorem  
Impact of unit selection

### Activity

The students are left to determine what the unit length will.

After everyone has completed and investigated the area and perimeter, have each group rearrange their figure into a square. Have each group share so that everyone can see each shape can be rearrange into congruent squares.

### Issues/Questions for the teacher to address

How does being able to reassemble each shape into congruent squares impact your results for area and perimeter?

At some point, the group will have to resolve the issue of different unit lengths. Areas should be equal since we started with the same shapes of equal sizes.