Partition a Square

Materials: geoboards, rubber bands

1. Make the largest square that you can on a geoboard by placing a rubber band around all the outside pins.

2. How many different ways can you partition the square into four parts with equal areas that are congruent (the same size and shape)? Use a ruler to record your different solutions on geoboard paper. Label the area of each part as a unit fraction.

3. Find at least one way to partition the square into four parts with equal areas that do not have the same shape. Record and label your solution. Explain how you know the areas of all the parts are equal.

4. Share your work with a friend. Compare the different ways you divided the square into four parts with equal areas.
I divided this square into 4 parts with equal areas. The unit fraction that names each part of the divided whole is ___.

This square has equal areas that have the same shape. I know the areas of all the parts are equal because ....

I found ___ different ways to partition the square into 4 parts with equal areas that are congruent. The unit fraction that names each part of the divided whole is ___.

This square has equal areas that do not have the same shape. I know the areas of all the parts are equal because ....