Name _____ Date _____

Extension
Lesson 4

# Constructing Similar Triangles

**If you double, or triple, or quadruple the lengths of the sides of a figure, how many of the originals will fit inside the enlargement?**

**Here's a way to explore this question.**

1. Use tiles or graph paper to make squares of various sizes. How many of one size fit inside a square that has **twice** the side length? Does your answer depend on how large the smaller square is (as long as the larger has twice the side length)?

2. What if the larger square's sides are **triple** the lengths of the smaller one's sides? How many of the smaller fit inside the larger? Does your answer depend on how large the smaller square is?

3. What if the larger square's sides are **four times** the length of the smaller one's sides? How many of the smaller fit inside the larger? _____

4. Can you predict the results for five times the side lengths? **10 times** the side lengths? ***n*** times the side lengths?

5. Try to find a way to check tripling the lengths of the sides for rectangles or triangles. Does it work?