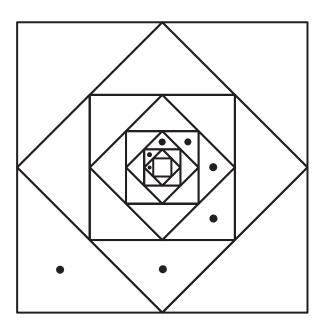




Use the square pattern shown. Ignore the dots until Exercise 3.



- **1.** Identify 9 nested squares in the pattern. How does the area of one square compare to the area of the next smaller square?
- **2.** Identify 32 similar triangles in the pattern. How many different sizes are there? How many are there of each size? What are the angle measures of each triangle? How does a leg of one triangle compare to the hypotenuse of the next smaller triangle?
- **3.** Color the pattern so that four spirals result. (*Hint:* Use one color for all the triangles that contain a dot. This is one spiral.)
- **4.** Create this pattern on graph paper. First draw a square with sides 32 units long. Find the midpoints of the sides and connect them to draw the next square. Continue until you reach the center. Color your pattern in any way that is different from Exercise 3.

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