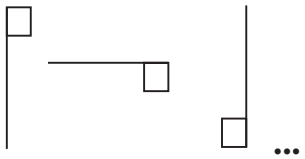
NAME_____

Module 11 **Transformation of Shapes**
Lesson 5 **Tessellations**

Challenge Problems 11.5

Set 1

1. Find a rule for the pattern. Then, draw the fourth term.



2. Draw the next Sierpinski triangle.

3. Write a rule for the number of shaded triangles in the *n*th Sierpinski triangle.

4. A self-similar pattern is found in the Koch snowflake as shown. Identify the rule for the next snowflake. Then, draw the fourth Koch snowflake.

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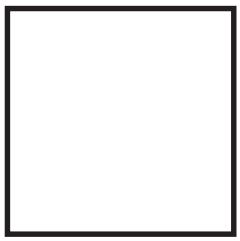
Set 2

1. Create a tessellation by modifying two of the square's sides.



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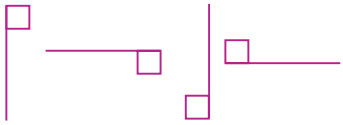
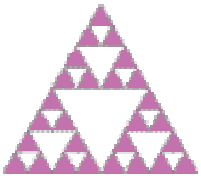
Possible Answers

Set 1

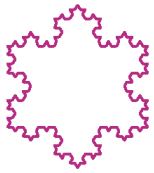
1. To get the next term in the pattern, rotate the figure 90° clockwise.



2. 

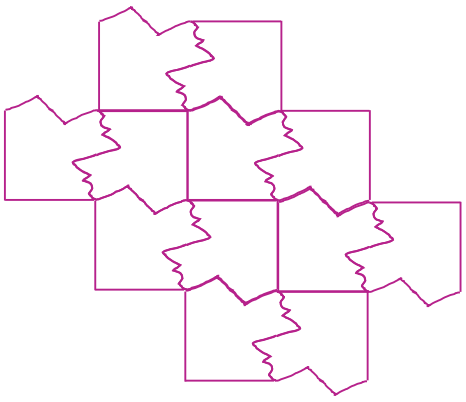
3. There are 3^{n-1} shaded triangles in the *n*th Sierpinski triangle.

4. Replace the middle third of each side with two pieces of equal length.



Set 2

1. Possible answer:



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