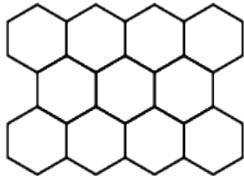


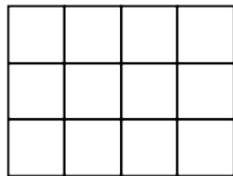
A _____ is a tiling pattern that covers an area of a plane without _____ or _____.

We often refer to the process of creating a tessellation as _____. This is done by using repeated _____ to cover an area without _____ or _____.

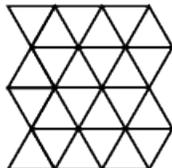
Here are three simple examples of tessellations:



{6, 3}



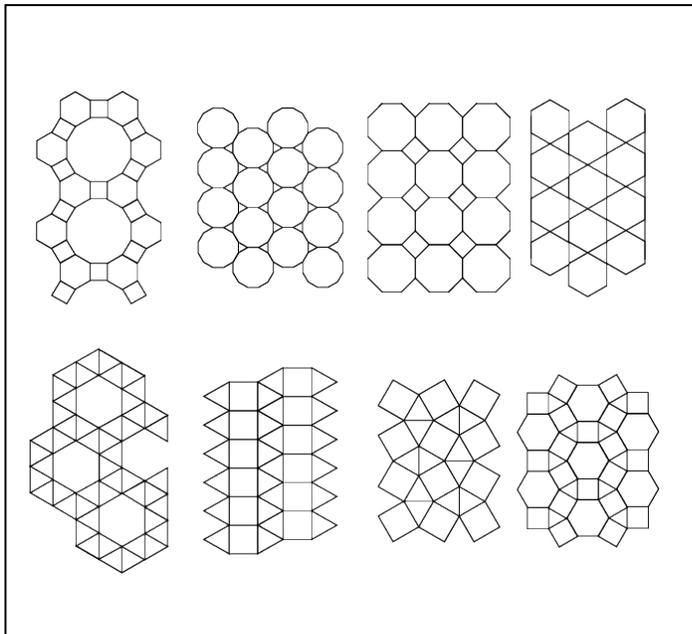
{4, 4}



{3, 6}

These are the only tessellations made up of the same repeating regular polygon (regular polygon means all the side lengths are identical).

Here are some examples of slightly more complicated tessellations:



These tessellations are made up of at least two different shapes.

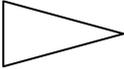
Notice that they all follow a regular pattern.

Tessellations are found in many mosaic patterns and in tile work.

You can create a tessellation by using:

1. _____ - the shape is _____ in a straight line
2. _____ - the shape is _____ over an axis
3. _____ - the shape is _____ at a fixed point

Complete the table:

Shape	Translation	Reflection	Rotation
			
			

Escher-Style Tessellations

MC Escher was an artist that made creative & detailed tessellations into works of art!



To the left is an example of an Escher style print.

The lizards have been rotated and translated into their new positions. No reflections have occurred.

Review the five steps on pages 461-462 of your Math Links 8 textbook on how to make an Escher-style drawing.

Your assignment: Using a standard sized piece of paper (8.5 x 11 inches) create a detailed, interesting, unique tessellation. You can use geometric shapes, or you can make an Escher-style design.

- All sketching done in pencil
- All straight lines drawn with rulers
- No white space left when you are done
- You have two classes to complete this assignment. Due at the end of next class.