Unit 1, Lesson 1

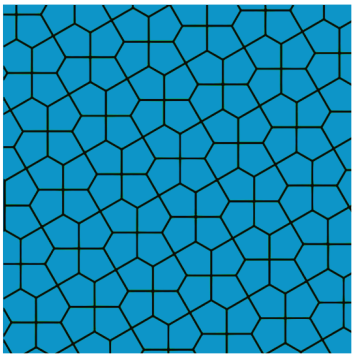
Tiling the Plane

Let's look at tiling patterns and think about area.

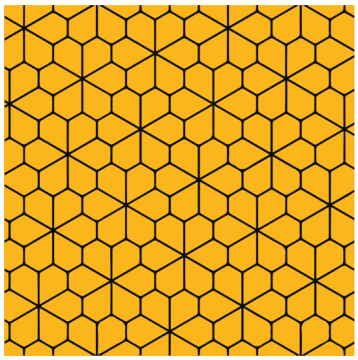
1.1 Which Three Go Together: Tilings

Which three go together? Why do they go together?

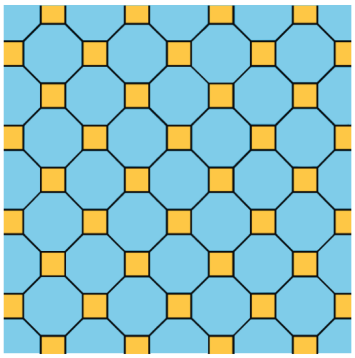
A



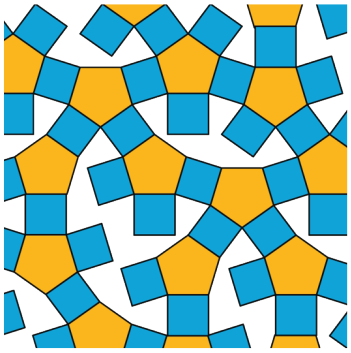
B



C



D



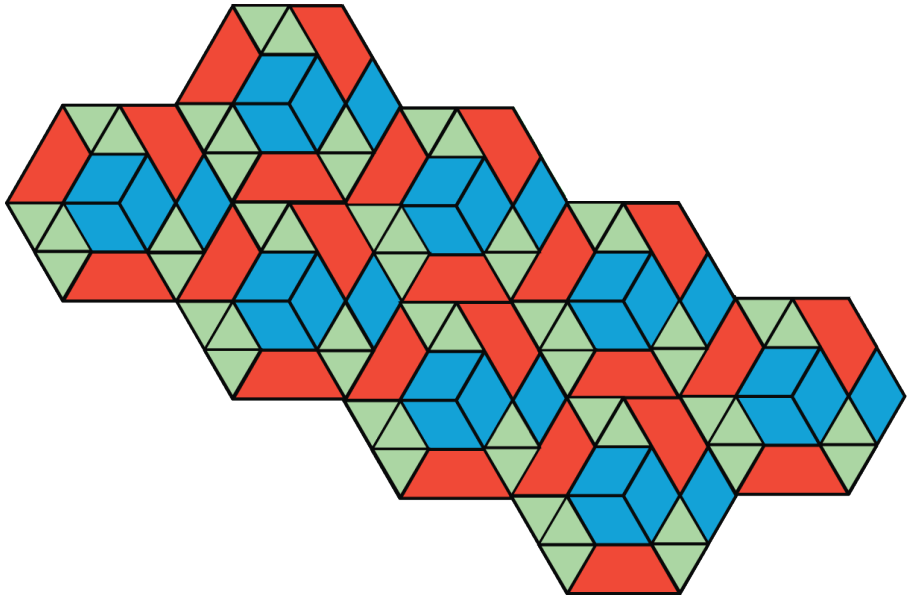
CC BY NC Illustrative Mathematics, based on IM 6–8 Math, CC BY Open Up Resources.

1.2 More Red, Green, or Blue?

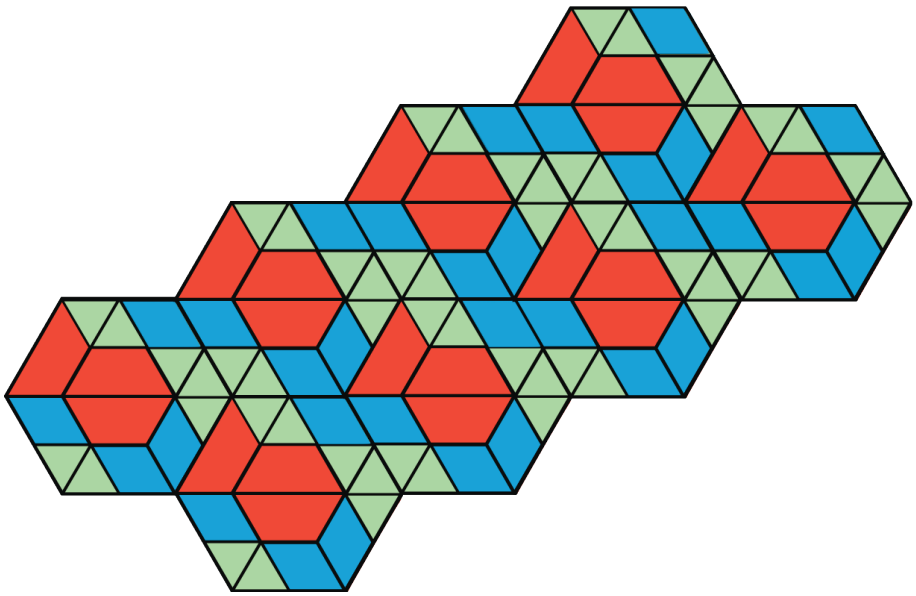
Your teacher will assign you to look at Pattern A or Pattern B.

In your pattern, which shape covers more of the plane: blue rhombuses, red trapezoids, or green triangles? Explain how you know.

Pattern A



Pattern B



CC BY NC Illustrative Mathematics, based on IM 6–8 Math, CC BY Open Up Resources.

Are you ready for more?

On graph paper, create a tiling pattern so that:

- The pattern has at least two different shapes.
- The same amount of the plane is covered by each type of shape.

Lesson 1 Summary

In this lesson, we learned about *tiling* the plane, which means "covering a two-dimensional **region** with copies of the same shape or shapes such that there are no gaps or overlaps."

Then we compared tiling patterns and the shapes in them. In thinking about which patterns and shapes cover more of the plane, we have started to reason about area.

In future lessons, we will continue with this reasoning, and we will continue learning how to use mathematical tools strategically to help us do mathematics.