Name_____ Date_____

Creating Tessellations

Part A: One-Cut Tessellation

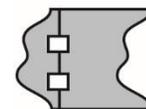1. Cut out a 10-cm × 10-cm square from Master 13.

Start

2. Starting and ending on the same side, draw and cut out a simple shape.
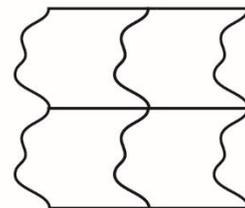

Step 1

3. Translate the cut-out shape across the shape to the opposite side. Tape it to this side.
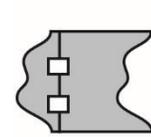

Step 2

4. You now have a tessellating tile. Trace it onto your paper repeatedly to create your tessellation.

Name_____ Date_____

Creating Tessellations (cont'd)
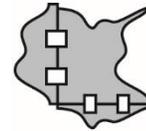
Part B: Two-Cut Tessellation
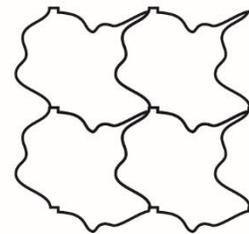
1. Follow steps 1–3 from above.

2. Choose an untouched side of the square and cut-out another shape from this side.

3. Translate the cut out shape across the shape to the opposite side. Tape it to this side.

4. You now have a tessellating tile. Trace it onto your paper repeatedly to create your tessellation.

Mathology 8, *2-D Shapes and 3-D Objects*
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Creating Tessellations (cont'd)

Part C: Rotations in Tessellations

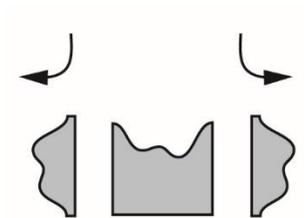1. Cut out a 10-cm ✕ 10-cm square.

Start

2. Cut a simple shape out of the top side
   of the square. Cut from one vertex to
   the other vertex.

3. Explore what happens when you rotate
   this piece and attach it to another side.
   Can you find a way to rotate it so that
   the new shape tessellates?

Creating Tessellations (cont'd)

4. Once you have created a one-cut shape that tessellates, explore cutting a second shape out of another side and rotating it. Can you find a way to do this so that the new shape tessellates?

5. Describe any rotations you found that work.