

Pentominoe Tessellation Project

Tessellating = the process of covering a surface with only one shape repeated over and over.

The single shape that is used must be carefully designed so that it fits around itself without leaving gaps. The easiest way to think of the tessellating process is to think about floor tiles. The common square floor tile tessellates well and is easy to work with. Squares, though they are easy to work with are also a little boring. Many different shapes will tessellate.

The 12 shapes on the back of this sheet are called pentominoes.

PENTA means 5 and each of these shapes are made out of 5 connected squares.

One of the interesting things about the 12 pentominoes is that **all 12 of the shapes will tessellate.**

Procedure:

1. Cut out each of the 12 shapes.
2. Use **one** shape to cover a ½ sheet of paper. Trace the shape over and over until the paper is covered.--
DO NOT LEAVE GAPS BETWEEN THEM.
3. Attach the traced piece to the paper you traced it on--glue, tape, staples, what ever.
4. Trace the next shape on a new sheet--cover the entire sheet is covered.
5. Attach this piece to this sheet of paper.

Repeat this procedure for all 12 of the pentominoes.

Things to turn in:

- the 12 pieces that you traced around
- the 12 pages that you tessellated

When I grade the project,:

- you will lose points if you leave gaps between the pieces
- you will lose points if you do not cover the surface

When I grade the project:

- you will not lose points for the pieces that 'fall off the edges of your paper
- you will not lose points for small imperfections in your tracing



