

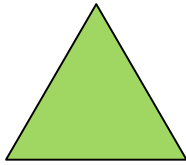


Regular shapes and tessellations

You probably have a **tiling pattern** on a wall or floor of your home, usually in the kitchen or bathroom. Patterns made from pieces that fit together without leaving any gaps are called **tessellations**. The simplest ones are made from **regular** shapes.

A regular shape has **straight sides all the same length** and **all its angles equal**. Refer to Angles if you need more information on angles.

There are three regular shapes that can tessellate:



Equilateral triangle

Each angle is 60°

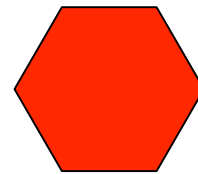
(6 fit round a point)



Square

Each angle is 90°

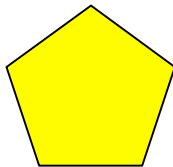
(4 fit around a point)



Regular hexagon

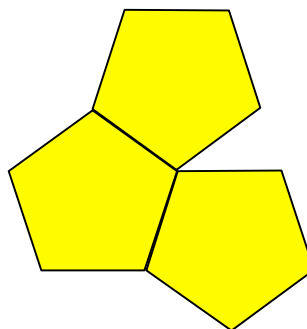
Each angle is 120°

(3 fit round a point)



Regular pentagon

Each angle is 108°



$108^\circ \times 3 = 324^\circ$ is less than 360°

$108^\circ \times 4 = 432^\circ$ is more than 360° so this shape cannot tessellate on its own