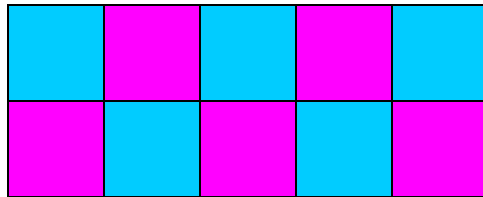


## Look Alikes



The pattern above represents a tiling of the plane using squares that are congruent. These squares “look alike” because they have the same shape and size. This tiling with squares can be described as a regular tessellation because congruent regular polygons (squares) were used. There are many patterns and designs that involve congruent figures.

Two polygons are congruent if and only if their corresponding sides and corresponding angles are congruent. However, the SSS, SAS, and ASA congruence postulates only involve three corresponding parts of two triangles.

You will be exploring these congruence postulates using a TI-83+ graphing calculator with Cabri Junior™ software.

Construct triangle DEF congruent to triangle ABC using:

1. Three sides of one triangle congruent to three sides of the second triangle.
2. Two sides and the included angle of one triangle congruent to two sides and the included angle of the second triangle.
3. Two angles and the included side of one triangle congruent to two angles and the included side of the second triangle.

Validate your constructions using definitions, properties, and/or other postulates or theorems.