

Congruence

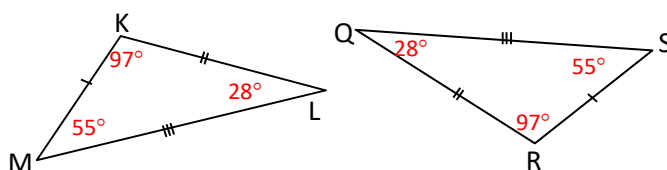
Geometric figures are congruent if they are the same size and same shape.

Corresponding angles and **corresponding sides** are in the same position in polygons with an equal number of sides. Two polygons are **congruent polygons** if and only if their corresponding angles and sides are congruent. Thus triangles that are the same size and shape are congruent.

If the polygons are congruent, all of their corresponding sides and angles are congruent.

In a congruence statement, the vertices in the second polygon are written in order of correspondence with the first polygon.

Write a congruence statement for each pair of polygons.



The first triangle can be named triangle KLM. To complete the congruence statement, the vertices in the second triangle have to be written in order of correspondence.

- $\angle K \cong \angle R$, so $\angle K$ corresponds to $\angle R$.
- $\angle L \cong \angle Q$, so $\angle L$ corresponds to $\angle Q$.
- $\angle M \cong \angle S$, so $\angle M$ corresponds to $\angle S$.

The congruence statement is $\triangle KLM \cong \triangle RQS$