A theorem is a statement or proposition that can be shown to be true.

When identifying if polygons are congruent or not, stating that they look the same is not enough. Proving that they are congruent is necessary, and for triangles, this can be done using 4 different congruence theorems.

_Angle-Side-Angle (ASA) Congruence_

If two angles and a side between those angles are congruent to those of another triangle, then the two triangles are congruent.

State if each triangle pair is congruent by ASA congruence. If they are, mark them as ASA and mark the congruent angles and sides with matching colors, if they aren’t then mark them as not congruent.
**Angle-Angle-Side (AAS) Congruence**

If two angles and a side of one triangle are congruent to two angles and a side of another triangle, the two triangles are congruent.

State if each triangle pair is congruent by ASA congruence. If they are, mark them as ASA and mark the congruent angles and sides with matching colors, if they aren’t then mark them as not congruent.