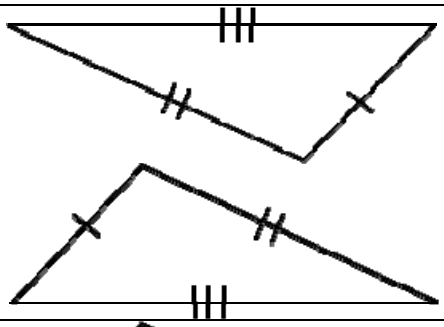
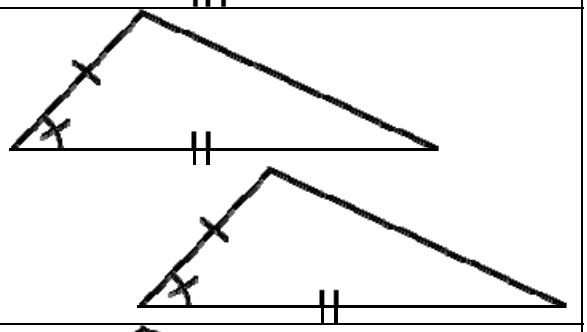
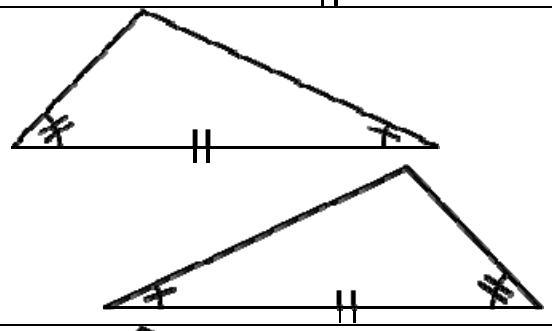
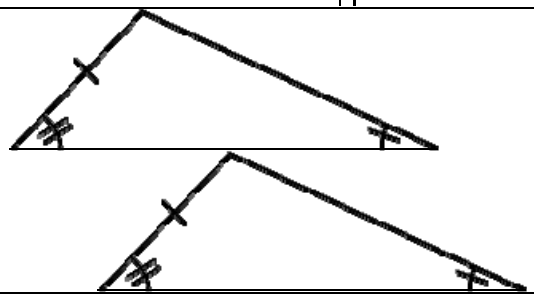
Triangle Congruence and Similarity Overview

There are four triangle congruency theorems. They are listed below. Each has a picture of two triangles to help explain the corresponding pieces. The second triangle may be rotated or reflected to show that orientation does not matter.

SSS (side-side-side): If the three sides of one triangle are congruent, respectively, to the three sides of another triangle, then the triangles are congruent.	
SAS (side-angle-side): If two sides and the included angle of one triangle are congruent to two sides and the included angle of another triangle, respectively, then the two triangles are congruent.	
ASA (angle-side-angle): If two angles and the included side of one triangle are congruent to two angles and the included side of another triangle, respectively, then the two triangles are congruent.	
AAA (angle-angle-side): If two angles and a corresponding side of one triangle are congruent to two angles and a corresponding side of another triangle, respectively, then the two triangles are congruent.	

Triangle Similarity Theorem

AAA (angle-angle-angle): If the three angles of one triangle are congruent to the three angles of another triangle, respectively, then the two triangles are **similar**. See the two triangles below for an example. Notice these two triangles are not necessarily congruent, but are similar.