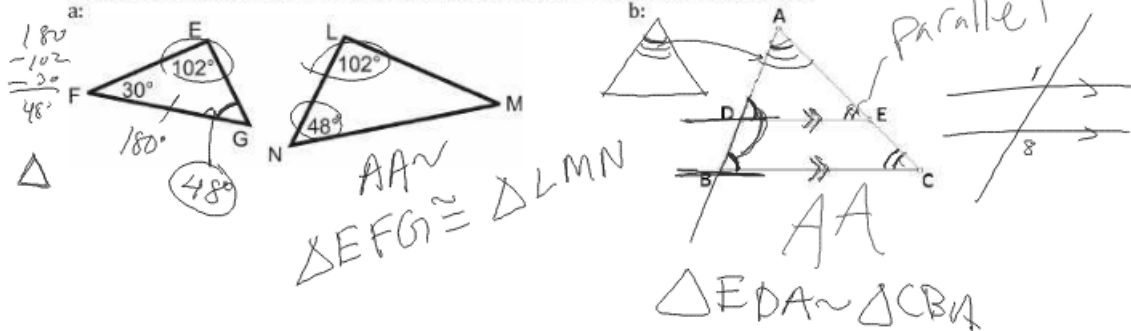


The Three Triangle Similarity Shortcuts

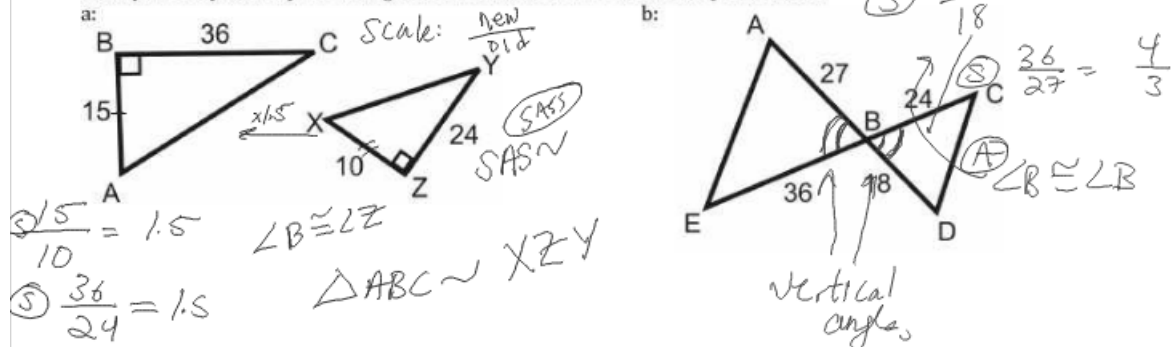
AA~: If two angles in one triangle are congruent to two angles in another triangle, then the two triangles are similar.

Example 1: Explain why the triangles are similar and write a similarity statement.



SAS~: If two sides of one triangle are in the same proportion of two sides of another triangle and their included angles are congruent, then the two triangles are similar.

Example 2: Explain why the triangles are similar and write a similarity statement.



SSS~: If all three sides of one triangle are proportional to all three sides of another triangle, then the two triangles are similar.

Strategy: Use an extended proportion. Match the shortest side of one triangle to the shortest of the other.

Example 3: Show that the triangles are similar. Write a similarity statement. Then, show that $\angle C$ is $\cong \angle D$.

