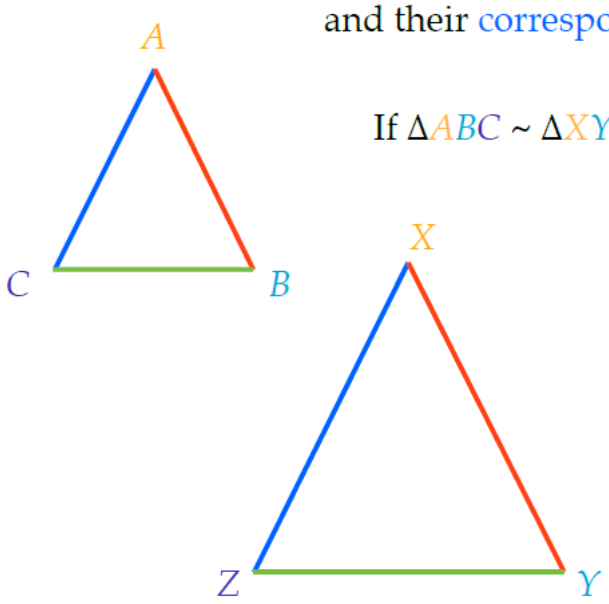
TOPIC 7-5: MORE TRIANGLE SIMILARITIES (AA, SSS, SAS)

ANGLE-ANGLE SIMILARITY

Two triangles are similar if and only if their corresponding angles are congruent and their corresponding sides are proportional.

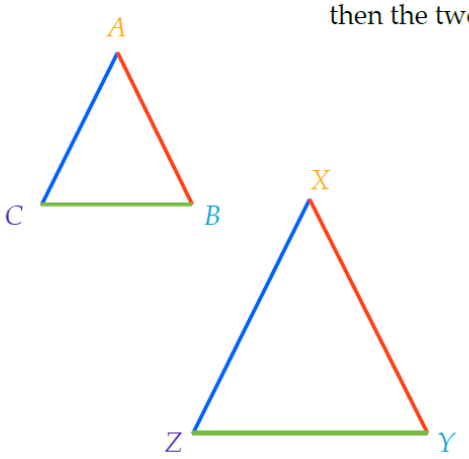


If $\Delta ABC \sim \Delta XYZ$...

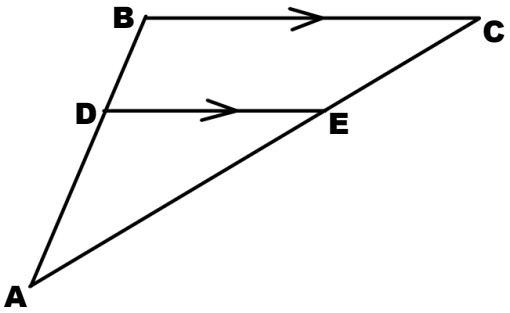
Congruent Angles

Proportional Sides

If two angles of one triangle are congruent to two angles of another triangle, then the two triangles are similar.



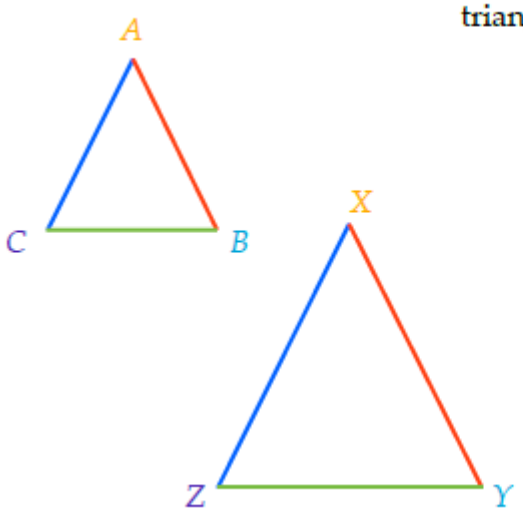
Determine if the following triangles are similar by AA. If so, write the similarity statement.



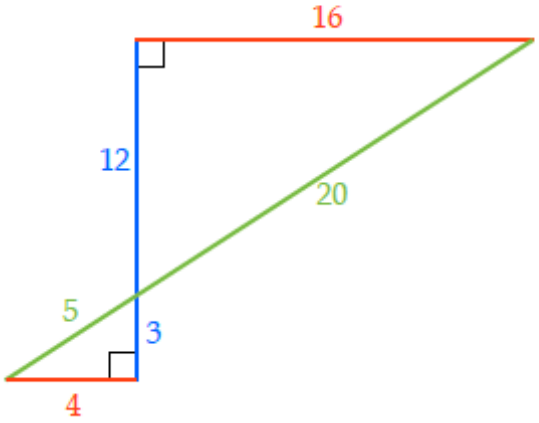
$\triangle ADE \sim$ _____

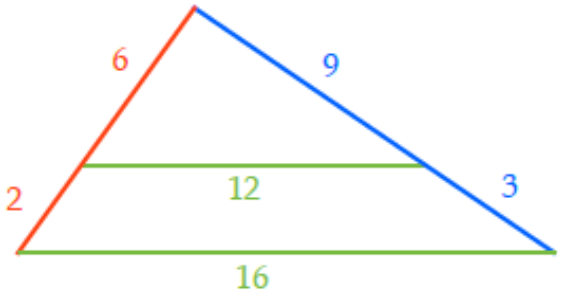
SIDE-SIDE-SIDE SIMILARITY

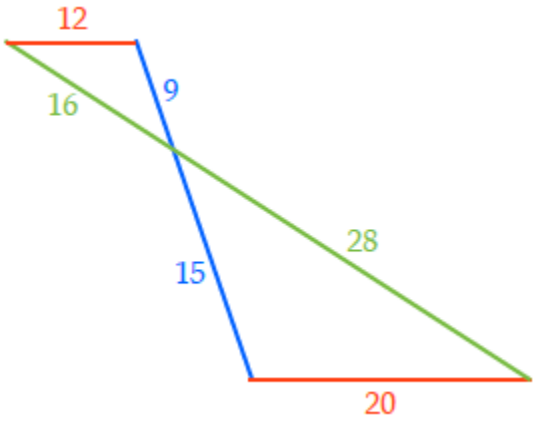
If the corresponding sides of two triangles are proportional, then the two triangles are similar.



Determine if the following triangles are similar

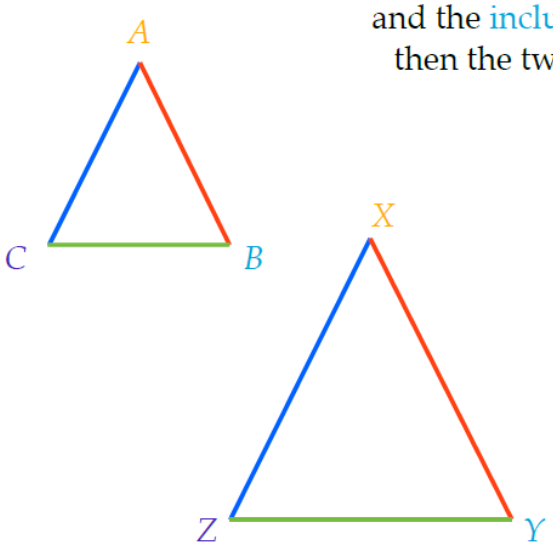




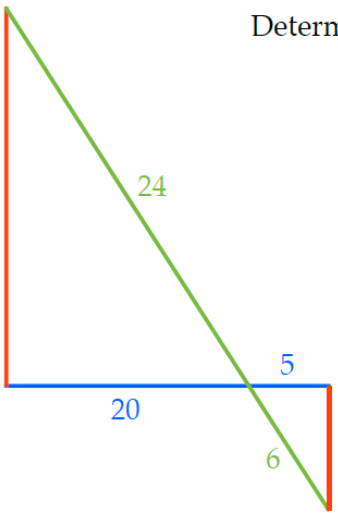


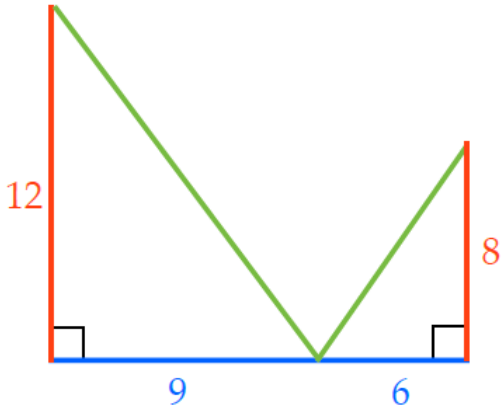
SIDE-ANGLE-SIDE SIMILARITY

If two sides of one triangle are proportional to two sides of another triangle,
and the included angle is congruent,
then the two triangles are similar.



Determine if the two triangles are similar





Determine the value of x to make the two triangles similar