Side-Angle-Side Similarity with Triangles
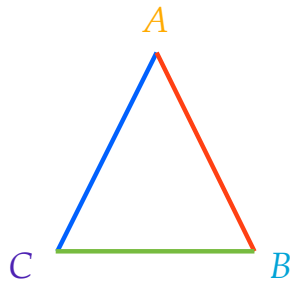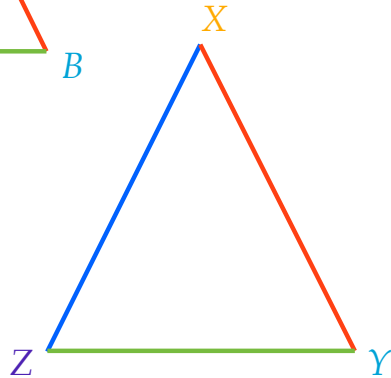
Name _____

Date _____ Period _____

Two triangles are similar if and only if their corresponding angles are congruent and their corresponding sides are proportional.
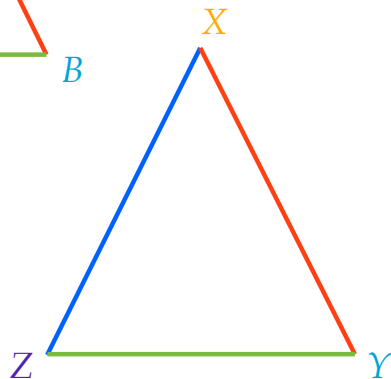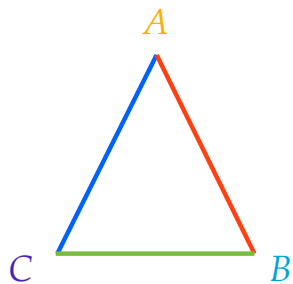
If $\Delta ABC \sim \Delta XYZ$...

Congruent Angles
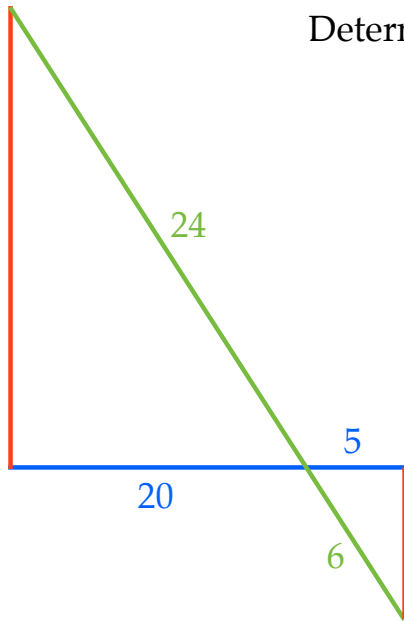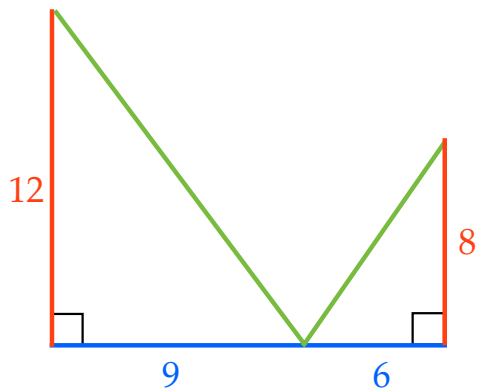
Proportional Sides

If two 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

24

5

20

6

Determine if the two triangles are similar

12

8

9

6

Determine the value of x to make the two triangles similar

6   9

2   x

Determine the value of x to make the two triangles similar

90

x

24

20

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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.
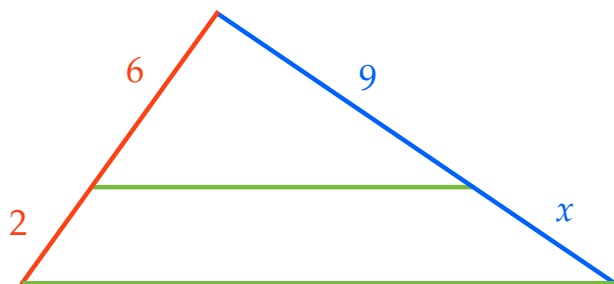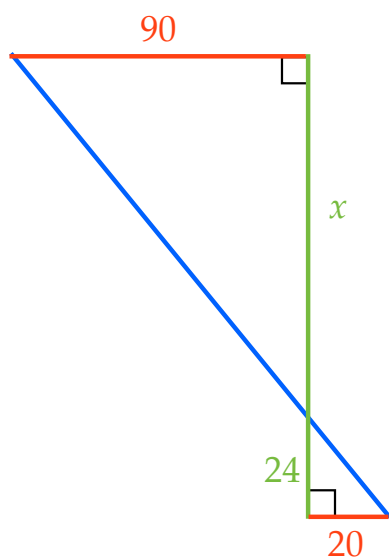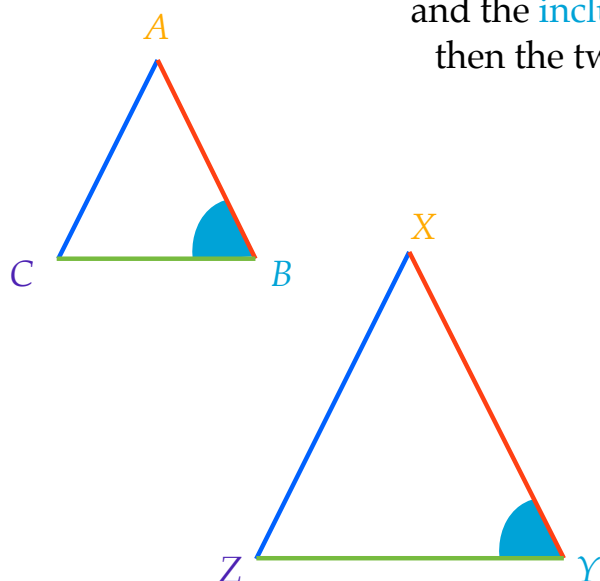
If $\dfrac{AB}{XY} = \dfrac{BC}{YZ}$ and $\angle B \cong \angle Y$

then $\triangle ABC \sim \triangle XYZ$

by Side-Angle-Side Similarity