

Geometry

What about SSA?

Goals

I can explain when SSA can be used to prove two triangles congruent.

I can use SSA to prove two triangles congruent.

- After watching the demonstration, do you think that SSA could ever be used to show that two triangles are the same size and the same shape (congruent)? Explain.

- Consider the pairs of triangles below. Which pairs of triangles (below) do you think have to be the same size and same shape (congruent) based on the information given?

<p>a.</p>	<p>b.</p>	<p>c.</p>
<p>d.</p>	<p>e.</p>	<p>f.</p>
<p>g.</p>		

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3. Now prove that you were right about which triangles from problem 2 are really congruent. Make sure to make a drawing, state the given information, and what is to be proved for each! Use extra paper as needed.

4. Extra Challenge: Construct a circle with center O . Draw a line through the center of the circle. Label the points of intersection of the line and circle O , A and B . Now place another point on the circumference of circle O somewhere between points A and B . Label it C . Now draw a line which passes through point C and the center of the circle. Label the point of intersection of this line and the circle, D . What's always going to be true about $\triangle ACB$ and $\triangle ADB$? What's always going to be true about quadrilateral $ABCD$? Can you prove your conjectures?