

Name: _____

Lesson Guide

This lesson guide accompanies the following video lesson:



Triangle Congruence Theorems Explained

Key Questions:

- What does congruence mean? \cong
- What are the 5 triangle congruence postulates?
- Why do these postulates prove congruence?
- How do you know which triangle congruence postulate to use?



Two triangles are _____ if their corresponding sides and angles have the same/equal measure.

This is true even when the triangles do not have the same _____.

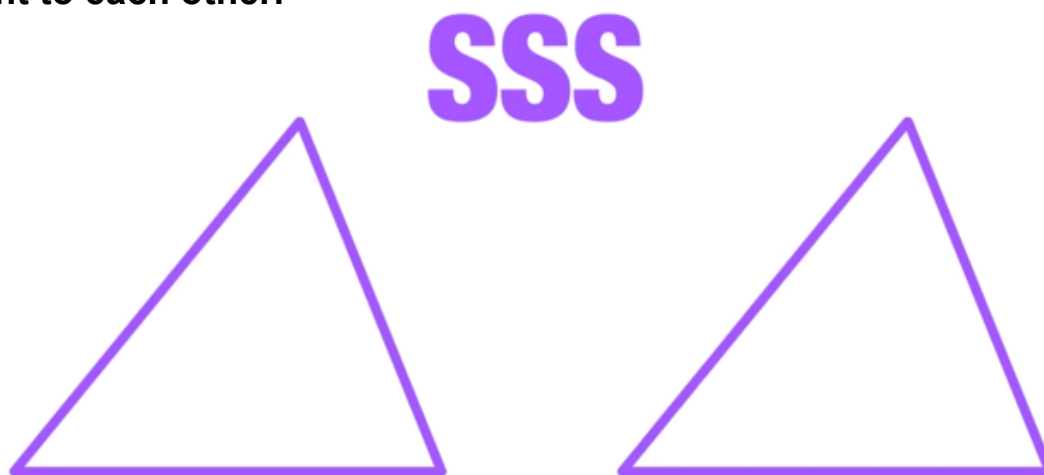
The Triangle Congruence Theorems:

Side-Side-Side	Side-Angle-Side
SSS	SAS
Angle-Side-Angle	Angle-Angle-Side
ASA	AAS
Hypotenuse-Leg	
HL	



SSS stands for _____

The SSS theorem applies when there are three pairs of corresponding sides that are congruent to each other.



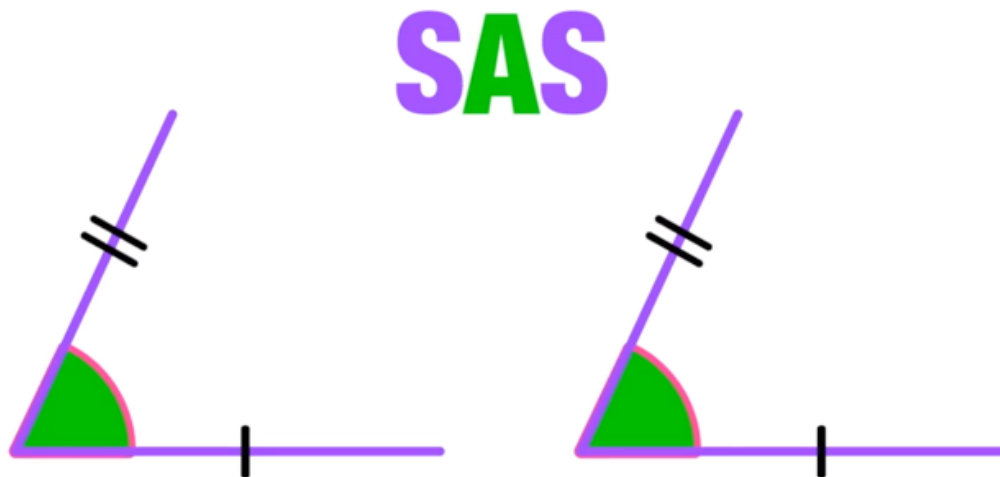
In this case, we can use the SSS triangle congruence theorem to conclude that the triangles are _____ and that the corresponding sides and corresponding angles have the same _____.

In your own words, describe the SSS theorem:

SAS

SAS stands for _____

The SAS theorem applies when there are two sets of corresponding sides that are congruent to each other with a corresponding congruent angle in between.



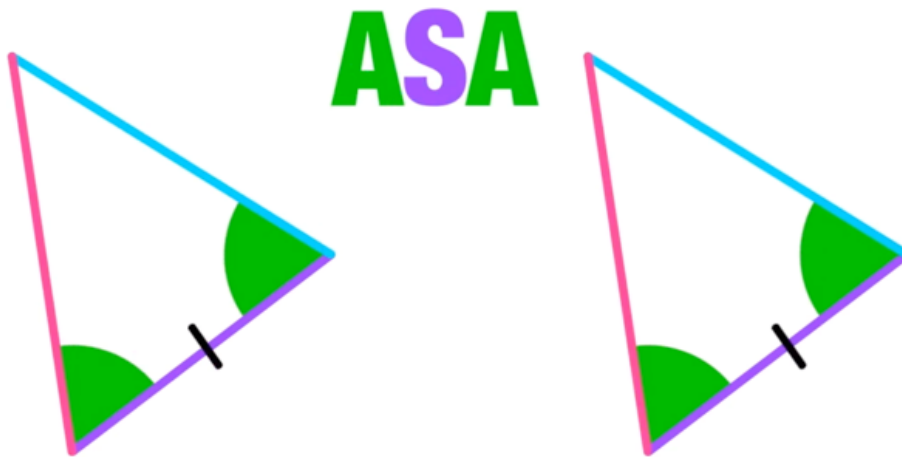
In this case, we can use the SAS triangle congruence theorem to conclude that the triangles are _____ and that the corresponding sides and corresponding angles have the same _____.

In your own words, describe the SAS theorem:

ASA

ASA stands for _____

The ASA theorem applies when there are two sets of corresponding angles that are congruent to each other with a corresponding congruent side in between.



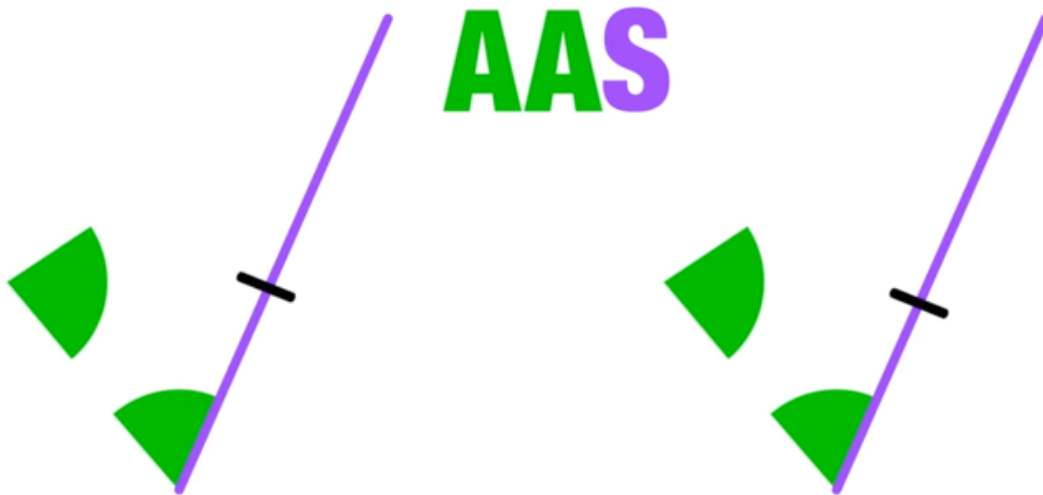
In this case, we can use the ASA triangle congruence theorem to conclude that the triangles are _____ and that the corresponding sides and corresponding angles have the same _____.

In your own words, describe the ASA theorem:

AAS

AAS stands for _____

The AAS theorem applies when there are two sets of consecutive corresponding angles that are congruent to each other with a corresponding congruent side next to the angles..



In this case, we can use the AAS triangle congruence theorem to conclude that the triangles are _____ and that the corresponding sides and corresponding angles have the same _____.

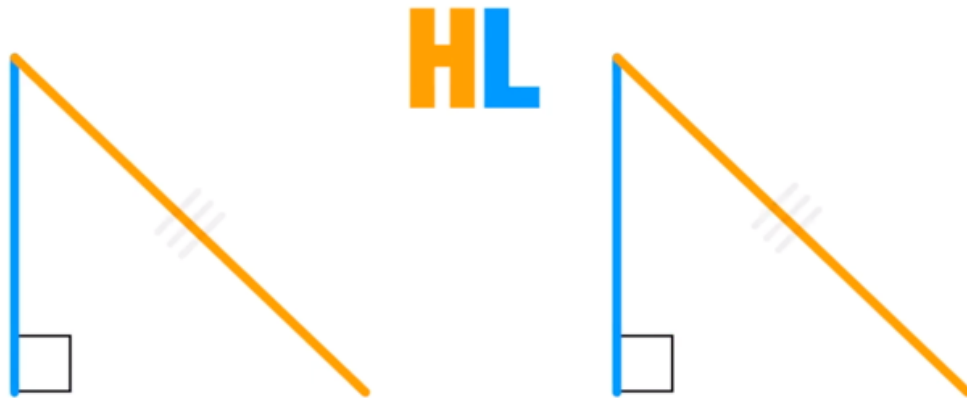
In your own words, describe the AAS theorem:



* HL only applies to _____ triangles.

HL stands for _____

The AAS theorem applies when there are two sets of consecutive corresponding angles that are congruent to each other with a corresponding congruent side next to the angles..



In this case, we can use the HL triangle congruence theorem to conclude that the triangles are _____ and that the corresponding sides and corresponding angles have the same _____.

In your own words, describe the HL theorem:

What about Angle-Side-Side?

Angle-Side-Side or Side-Side-Angle does NOT prove triangle congruence!

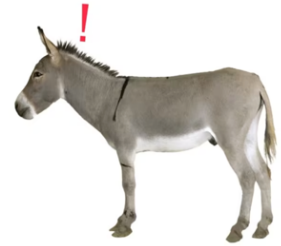
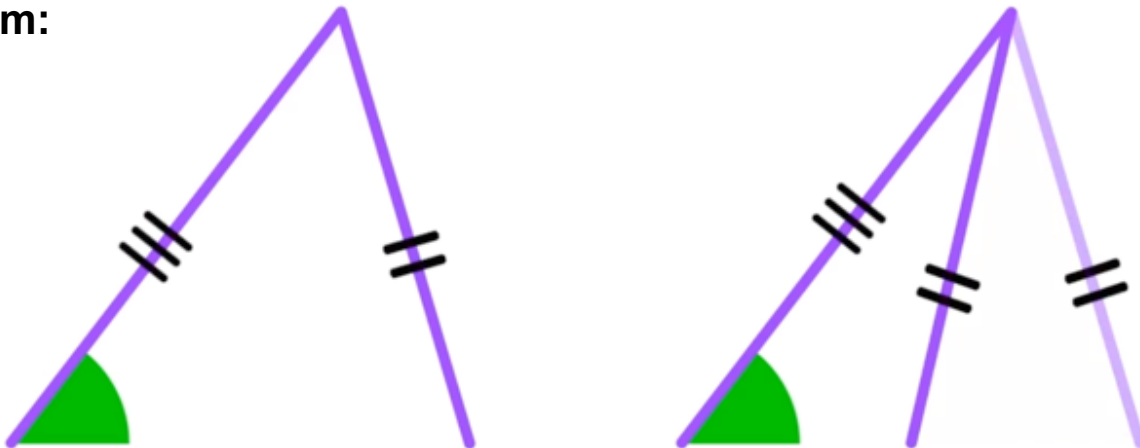


Diagram:



Since we don't know the measure of the angle between the two congruent sides, we can not be sure of its location.

In your own words, describe why Angle-Side-Side does not prove congruence: