
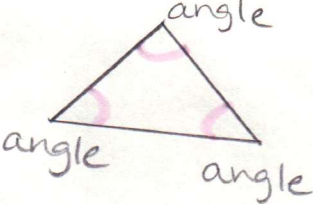
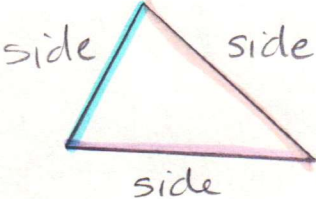
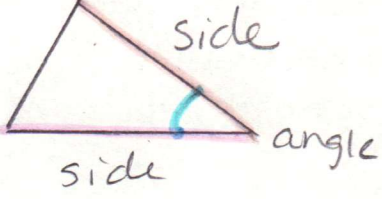


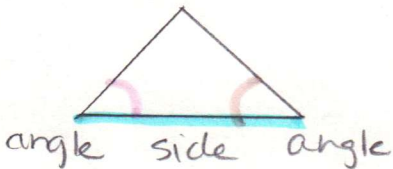
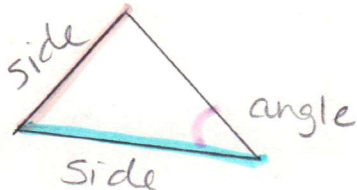
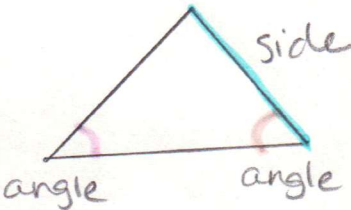
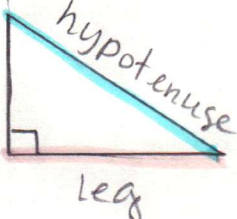
Notes 8.4 Geometry Constructions & Congruence

Congruence

We can prove that certain triangles are congruent. Today you will be trying to determine which relationships prove that triangles are congruent. We will be using the counterexample approach to disprove congruence. Some you will be able to disprove and others you will not. You are going to use the construction techniques you have learned to construct triangles that share these relationships but are different triangles.

Vocabulary

Word	Meaning/Notation	Example
Counterexample	a single example that proves a statement false	All 4 sided shapes are squares. 
AAA does not prove congruence	Angle-Angle-Angle All three angle measures are equal	
SSS	Side-Side-Side All three side lengths are congruent	
SAS	Side-Angle-Side Two sides and the angle between them are the same	

Word	Meaning/Notation	Example
ASA	<p>Angle-Side-Angle</p> <p>Two angles and the side that connects them are the same</p>	 <p>angle side angle</p>
SSA does not prove congruence	<p>Side-Side-Angle</p> <p>Two sides and an angle on either side are the same</p>	 <p>side angle side</p>
AAS	<p>Angle-Angle-Side</p> <p>Two angles and a side not between them are the same</p>	 <p>angle angle side</p>
HL	<p>Hypotenuse-Leg</p> <p>The hypotenuse & one leg of a right triangle are congruent</p>	 <p>hypotenuse leg</p>

Congruent means identical!!

Using the provided triangles, use the sides or angles as indicated by the relationship to try to construct a triangle that shares those measures but creates a different triangle! Make all pertinent congruence marks.

To check if the triangles are the same, trace the original onto Patty Paper and then use that to compare if they are the same.