

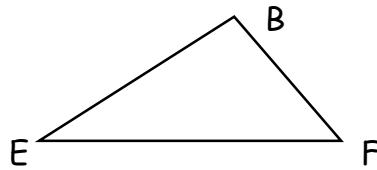
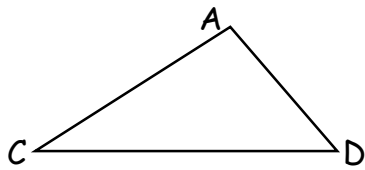
Triangle Congruence Conjectures Tool Kit

Conjecture	Picture	Flowchart proof
<p>SSS \cong</p> <p>If all three side lengths of one triangle are congruent to all three side lengths of another triangle, then the triangles are congruent.</p>		
<p>SAS \cong</p> <p>If two sides of one triangle are congruent to two sides of another triangle and the angles created by the two sides are congruent, then the triangles are congruent.</p>		
<p>ASA \cong</p> <p>If two angles on one triangle are congruent to two angles on another triangle and sides between the angles are congruent, then the triangles are congruent.</p>		
<p>AAS \cong</p> <p>If two consecutive angles and then a side length on one triangle are congruent to two consecutive angles and then a side length on another triangle, then the triangles are congruent.</p>		

$\cong \Delta s \rightarrow \cong \text{ parts}$

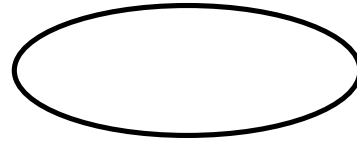
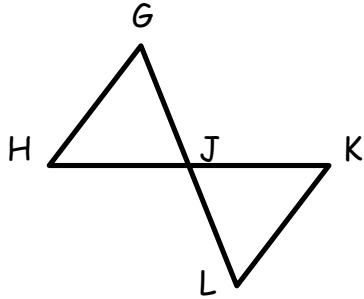
Things to look for to find congruence:

1. Information that is "given" and needs to be marked on the diagram.

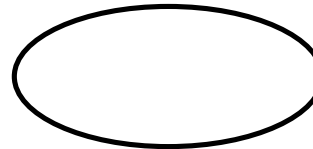
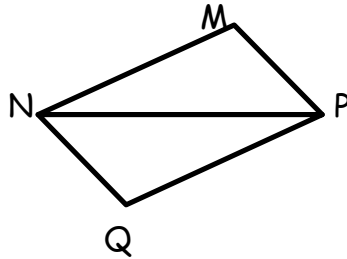


Given: $\overline{AD} \cong \overline{BF}$

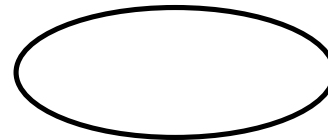
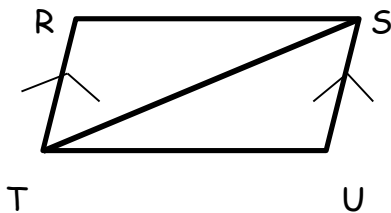
2. _____



3. _____



4. _____



Remember no ASS or ASS backwards (SSA)! BUT...Right triangles are the exception

HL \cong

If the hypotenuse of a right triangle and a leg of right triangle are congruent to the hypotenuse and leg of another right triangle, then the triangles are congruent. This is the **ONLY** time that **ASS** works to prove congruency.

