Topic: Proving Congruent Triangles **Date**: _____

Learning Objective(s)_____:

_____

_____

Main Ideas/ Questions

Steps to Prove Two Triangles are Congruent

Notes

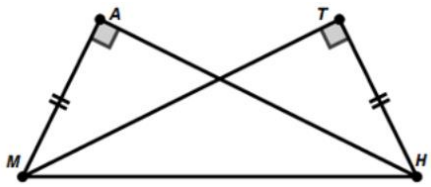
To prove two triangles are congruent, we use a _____ - column proof.

1. BUILD after each _____ separately.
2. _____ the diagram (if it is not already) as you move through the proof
3. Remember, you are looking for _____ pieces of information to be able to prove the two triangles are congruent!

Examples

Given: $\angle MAH \cong \angle HTM$ and $\overline{MA} \cong \overline{TH}$

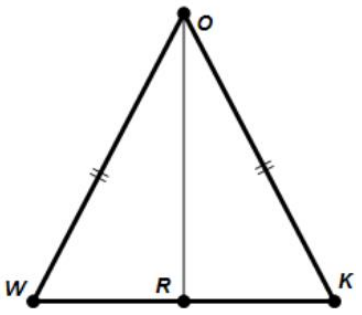
Prove: $\Delta MAH \cong \Delta HTM$



Statements	Reasons
1. $\angle MAH \cong \angle HTM$	1.
2. $\overline{MA} \cong \overline{TH}$	2.
3. $\overline{MH} \cong \overline{MH}$	3.
4. $\Delta MAH \cong \Delta HTM$	4.

Given: $\angle WOR \cong \angle KOR$ and $\overline{WO} \cong \overline{OR}$

Prove: $\Delta WRO \cong \Delta KRO$



Statements	Reasons
1.	1. Given
2.	2. Given
3.	3. Reflexive Property
4.	4.

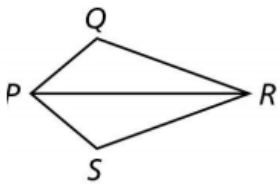
Topic: Proving Congruent Triangles **Date**: _____

Main Ideas/ Questions

Notes

Given: $\angle QPR \cong \angle SPR$ and $\angle Q \cong \angle S$

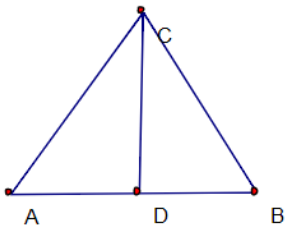
Prove: $\Delta PSR \cong \Delta PQR$



Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.

Given: $\overline{AC} \cong \overline{CB}$; Point D bisects $\overline{AB}$

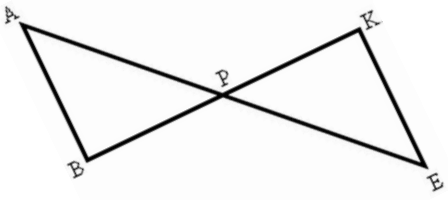
Prove: $\Delta ADC \cong \Delta BDC$



Statements	Reasons
1.	1. Given
2.	2. Given
3. $\overline{AD} \cong \overline{DB}$	3.
4. $\overline{CD} \cong \overline{CD}$	4.
5.	5.

Given: Point P bisects $\overline{AE}$ and $\angle A \cong \angle E$

Prove: $\Delta ADC \cong \Delta BDC$



Statements	Reasons
1.	1. Given
2.	2. Given
3.	3.
4.	4.
5.	5.