Date: _____

**Learning Objective(s)** _____ :

_____

_____

Main Ideas/ Questions	**Notes**
Steps to Prove Two Triangles are Congruent	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**: $\angle MAH$ and $\angle HTM$ are right angles and $\overline{MA} \cong \overline{TH}$ **Prove**: $\Delta MAH \cong \Delta HTM$

Statements	Reasons
1. $\angle MAH$ and $\angle HTM$ are right angles	1. Given
2. $\overline{MA} \cong \overline{TH}$	2. Given
3. $\angle MAH \cong \angle HTM$	3.
4. $\overline{MH} \cong \overline{MH}$	4. Reflexive Property
5.	5.

Given: ΔWOK is an isosceles triangle and point R is the midpoint of $\overline{WK}$

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

Statements	Reasons
1.	1. Given
2. $WO \cong KO$	2.
3.	3. Given
4.	4. Def. of midpoint
5.	5. Reflexive Property
6.	6. SSS

| **Main Ideas/ Questions** | **Notes** |

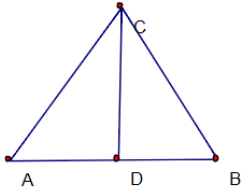**Given**: $\overline{GC} \parallel \overline{PS}$ and $\overline{GS} \parallel \overline{CP}$

Prove: $\Delta GCS \cong \Delta PSC$
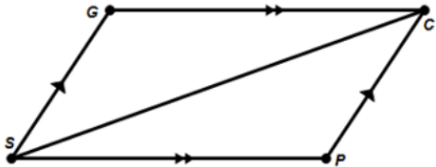
Statements	Reasons
1.	1. Given
2. $\overline{GS} \parallel \overline{CP}$	2.
3.	3. Reflexive Property
4. $\angle GSC \cong \angle PCS$	4.
5.	5. Alt. int. angles are congruent
6. $\Delta GCS \cong \Delta PSC$	6.

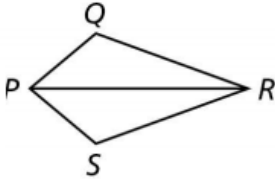**Given**: $\overline{AC} \cong \overline{CB}$; $\overline{CD}$ bisects $\overline{AB}$

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

Statements	Reasons
1.	1. Given
2.	2.
3.	3. Def. of bisector
4.	4.
5.	5.

Given: $\overline{PR}$ bisects $\angle QPS$ and $\angle QRS$

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

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

8

Date:

Main Ideas/ Questions	Notes

Notes

Prove: $\Delta DAB \cong \Delta CBA$
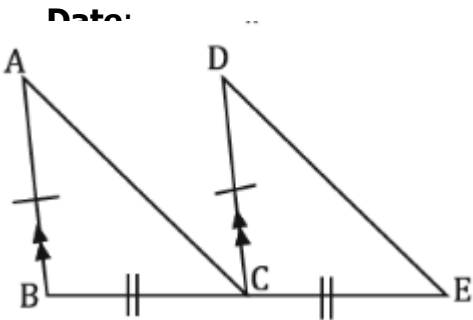
Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

Given: $\overline{DA} \cong \overline{CB}$; $\overline{DA} \perp \overline{AB}$; $\overline{CB} \perp \overline{AB}$

Prove: $\Delta DAB \cong \Delta CBA$
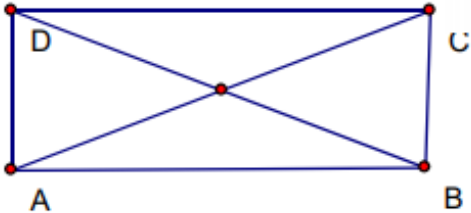
Summary
Summarize the lesson in your own words with the help of the guided questions.

Why is it important to understand two-column proofs to be able to prove two triangles are congruent?