

Name: _____

Aim#37: 4.6 How can we use our knowledge of congruent triangles to prove their corresponding parts are congruent?

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NHS-Geometry
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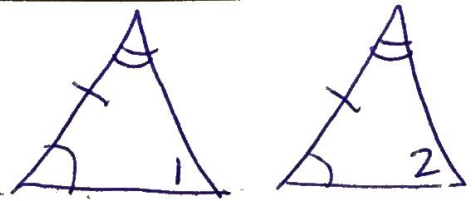


Guiding Questions

Notes/Diagrams/Illustrations

What does CPCTC stand for?

C: Corresponding
P: Parts
C: Congruent
T: Triangles
C: Congruent



if ASA then $\angle 1 \cong \angle 2$
and other 2 sides \cong

When do I use CPCTC?

When I'm proving more than $\triangle \cong \triangle$

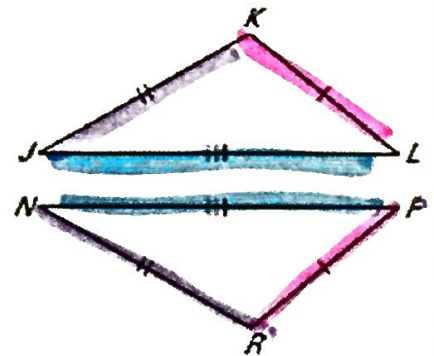
Step 1: Given

Step 2: Prove $\triangle \cong \triangle$ (SSS, SAS, AAS, ASA, HL)

Step 3: Prove $\angle \cong \angle$ or SIDE \cong SIDE (CPCTC)

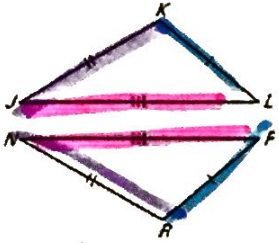
What is different about the following question?

1. Given: $\overline{KL} \cong \overline{RP}$, $\overline{KJ} \cong \overline{RN}$, $\overline{LJ} \cong \overline{PN}$
Prove: $\angle L \cong \angle P$



Statements	Reasons
1. $\overline{KL} \cong \overline{RP}$, $\overline{KJ} \cong \overline{RN}$ $\overline{LJ} \cong \overline{PN}$	1. Given
2. $\triangle JKL \cong \triangle NRP$	2. SSS
3. $\angle L \cong \angle P$	3. CPCTC

Predict how the proof will change.



2. Given: $\overline{KL} \cong \overline{RP}$, $\overline{KJ} \cong \overline{RN}$, $\overline{LJ} \cong \overline{PN}$

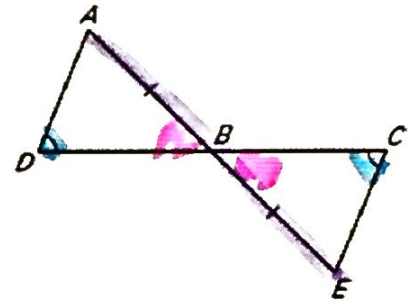
Prove: $\angle L \cong \angle P$

Statements	Reasons
1. $\overline{KL} \cong \overline{RP}$, $\overline{KJ} \cong \overline{RN}$ $\overline{LJ} \cong \overline{PN}$	1. Given
2. $\triangle JKL \cong \triangle NRP$	2. SSS
3. $\angle L \cong \angle P$	3. CPCTC

How do we know if this is this a CPCTC proof?

3. Given: $\overline{AB} \cong \overline{BE}$, $\angle D \cong \angle C$

Prove: $\overline{DB} \cong \overline{CB}$



Statements	Reasons
1. $\overline{AB} \cong \overline{BE}$ $\angle D \cong \angle C$	1. Given
2. $\angle ABD \cong \angle EBC$	2. vertical
3. $\triangle ABD \cong \triangle EBC$	3. AAS
4. $\overline{DB} \cong \overline{CB}$	4. CPCTC

Summary: What is one thing you learned today?