

5.5 Using Congruent Triangles

Objective: Show corresponding parts of congruent triangles are congruent.

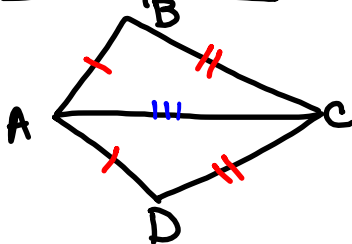
If you know that two triangles are congruent, you can use the definition of congruent triangles from lesson 5.1 to conclude that the corresponding parts are congruent.

<u>what we know</u>	<u>what we will know</u>
SSS	3 As
SAS	1 S 2 As
AAS	2 Ss 1 A
ASA	2 Ss 1 A
HL	1 S 2 As

rt. \angle \rightarrow A
 H \rightarrow S
 L \rightarrow S

Corresponding Parts of Congruent Triangles are Congruent

Example 1:



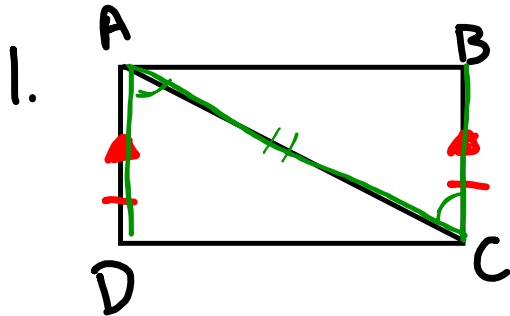
SSS
CPCTC

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

$\overline{BC} \cong \overline{DC}$

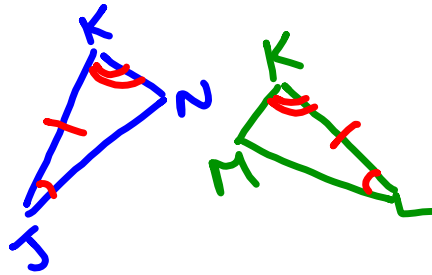
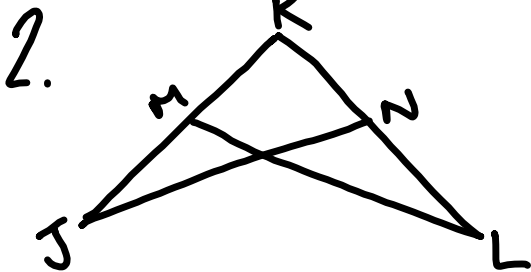
Prove: ~~$\triangle ABC \cong \triangle ADC$~~
 $\angle B \cong \angle D$

Checkpoint at the bottom of page 267.



SAS

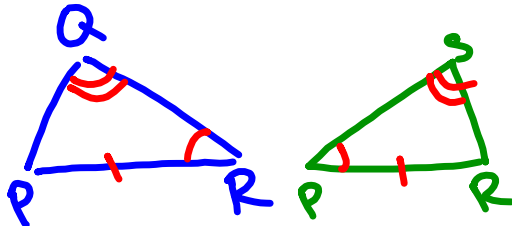
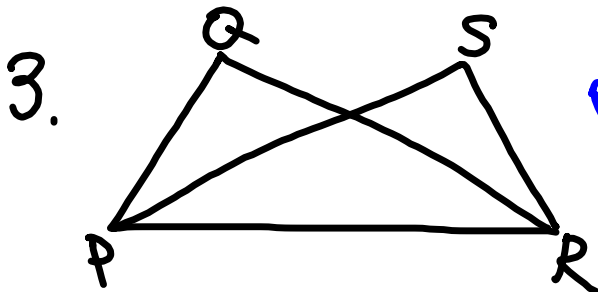
$\overline{AB} \cong \overline{CD}$
CPCTC



ASA
CPCTC

Given: $\overline{KJ} \cong \overline{KL}$
 $\angle J \cong \angle L$

Show $\overline{NJ} \cong \overline{NL}$



AAS

Given: $\angle SPR \cong \angle QRP$
 $\angle Q \cong \angle S$

Show $\triangle PQR \cong \triangle SRP$

Name

5.5

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