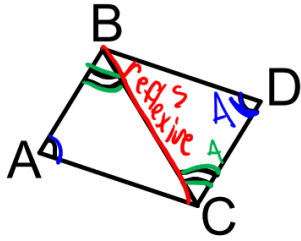


## Warm Up

Prove the following triangles are congruent

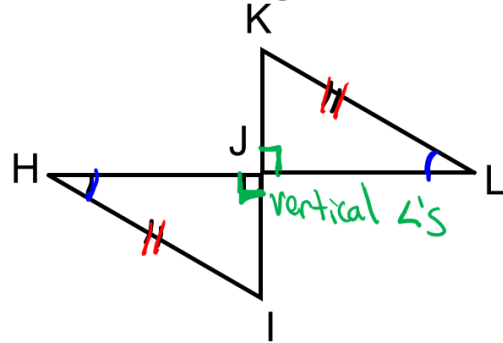
Prove  $\triangle ABC$  is congruent to  $\triangle DCB$ .



Statement	Reason
-----------	--------

$\angle CAB \cong \angle BDC$	Given
$\angle ABC \cong \angle DCB$	Given
$\overline{BC} \cong \overline{CB}$	Reflexive Prop.
$\triangle ABC \cong \triangle DCB$	AAS

Prove  $\triangle HIJ$  is congruent to  $\triangle LKJ$ .

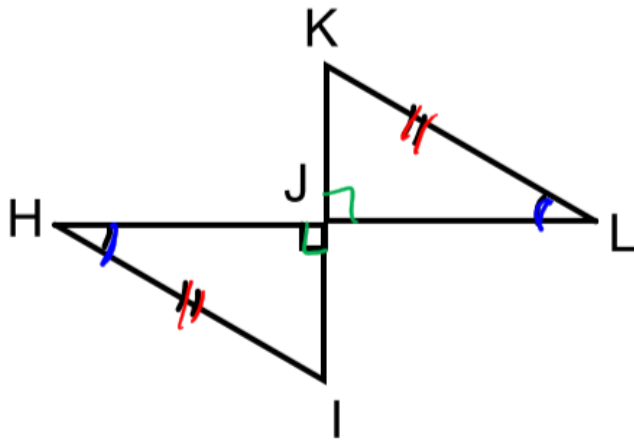


Statement	Reason
-----------	--------

$\overline{IJ} \cong \overline{KJ}$	Given
$\angle I H J \cong \angle K L J$	Given
$\angle K J L \cong \angle I J L$	Vertical $\angle\prime s$ thm.
$\triangle H I J \cong \triangle L K J$	AAS

## Today's Goals

- Talk About Quizlet
- Understand what CPCTC is.
- Review for Test



Now that we know the triangles are congruent?  
 What else can we determine about the unknown sides and angles?

If two triangles are congruent then all of their corresponding parts are congruent.

C P C T C

Corresponding

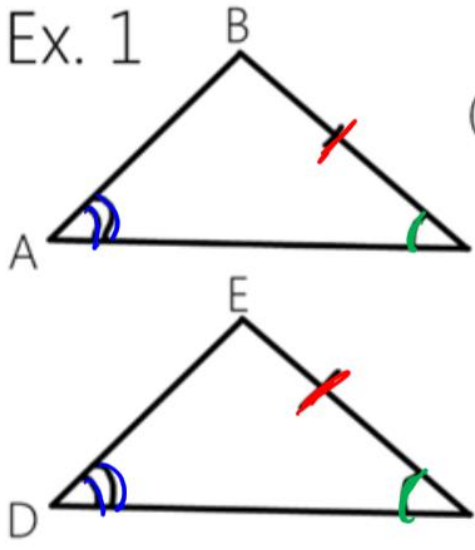
Parts of

Congruent

Triangles are

Congruent

Ex. 1

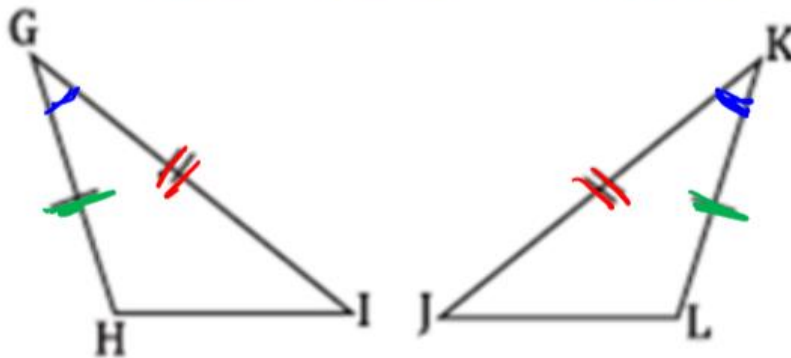


Prove that  $\overline{AB} \cong \overline{DE}$

(What we know) Statement	(How we know) Reason
$\angle CAB \cong \angle FDE$	Given
$\angle BCA \cong \angle EFD$	Given
$\overline{BC} \cong \overline{EF}$	Given
$\triangle ABC \cong \triangle DEF$	AAS
$\overline{AB} \cong \overline{DE}$	CPCTC

Ex. 2

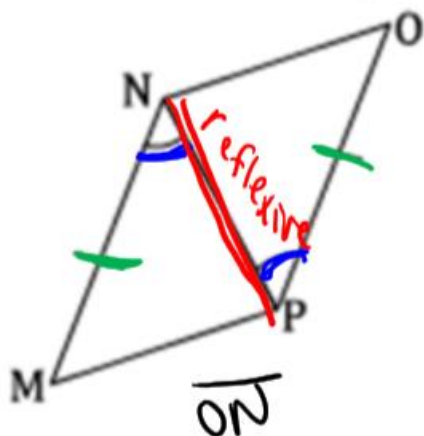
Given:  $\overline{GH} \cong \overline{KL}$ ,  $\angle G \cong \angle K$ , and  $\overline{GI} \cong \overline{KJ}$



Prove:  $\overline{HI} \cong \overline{LJ}$

Statements	Reasons
1. $\overline{GH} \cong \overline{KL}$	1. Given
2. $\angle G \cong \angle K$	2. Given
3. $\overline{GI} \cong \overline{KJ}$	3. Given
4. $\triangle GHI \cong \triangle KJL$	4. SAS
5. $\overline{HI} \cong \overline{LJ}$	5. CPCTC

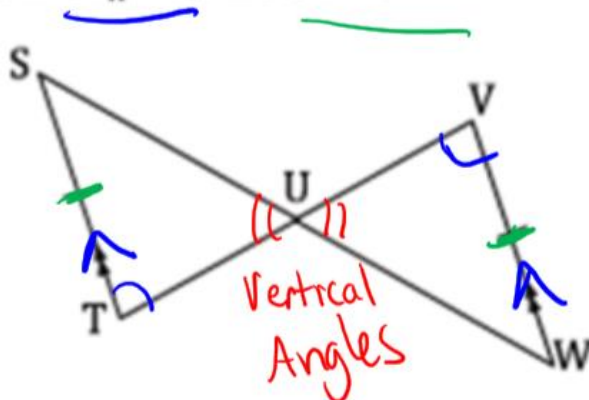
Ex. 3 Given:  $\angle MNP \cong \angle OPN$ , and  $\overline{MN} \cong \overline{OP}$



Prove:  $\overline{MP} \cong \overline{ON}$

Statements	Reasons
1. $\angle MNP \cong \angle OPN$	1. Given
2. $\overline{MN} \cong \overline{OP}$	2. Given
3. $\overline{NP} \cong \overline{NP}$	3. Reflexive Prop
4. $\triangle MNP \cong \triangle OPN$	4. SAS
5. $\overline{MP} \cong \overline{ON}$	5. CPCTC

Ex. 4 .Given:  $\overline{ST} \parallel \overline{WV}$ , and  $\overline{ST} \cong \overline{VW}$



Prove:  $\overline{SU} \cong \overline{WU}$

Statements	Reasons
1. $\overline{ST} \parallel \overline{WV}$	1. Given
2. $\overline{ST} \cong \overline{VW}$	2. Given
3. $\angle STU \cong \angle WVU$	3. Alternate Interior
4. $\angle SUT \cong \angle WUV$	4. Vertical $\angle$ 's theorem
5. $\triangle SUT \cong \triangle WUV$	5. AAS
6. $\overline{SU} \cong \overline{WU}$	6. CPCTC