

**Using Congruent Triangles**

CPCTC

Corresponding

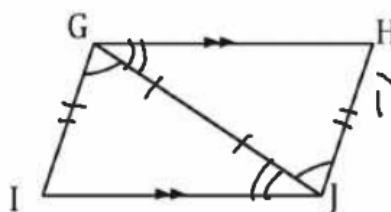
Parts of

Congruent

Triangles are

Congruent

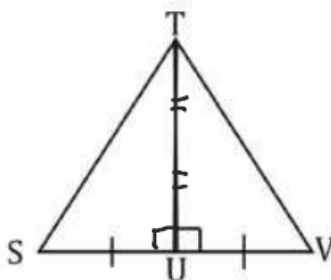
Given:  $\overline{GH} \parallel \overline{IJ}$ ,  $\angle IGJ \cong \angle HJG$



Prove:  $\overline{GI} \cong \overline{HJ}$

Statement	Reason
1) $\overline{GH} \parallel \overline{IJ}$ $\angle IGJ \cong \angle HJG$	1) Given
2) $\overline{GI} \cong \overline{HJ}$	2) Reflexive prop
3) $\angle HGI \cong \angle IJG$	3) Alternate Interior $\angle$ 's $\cong$
4) $\triangle HGI \cong \triangle IJG$	4) ASA
5) $\overline{GI} \cong \overline{HJ}$	5) CPCTC

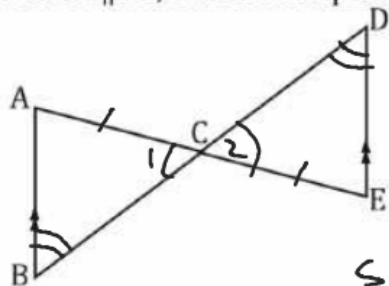
Given:  $\overline{SU} \cong \overline{UV}$



Prove:  $\overline{ST} \cong \overline{VT}$

Statement	Reason
1) $\overline{SU} \cong \overline{UV}$	1) Given
2) $\overline{TU} \cong \overline{TU}$	2) Reflexive prop
3) $\angle SUT \cong \angle VUT$	3) All right $\angle$ 's $\cong$
4) $\triangle SUT \cong \triangle VUT$	4) SAS
5) $\overline{ST} \cong \overline{VT}$	5) CPCTC

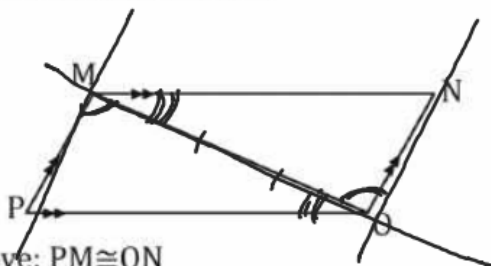
Given:  $\overline{AB} \parallel \overline{DE}$ , C is the midpoint of  $\overline{AE}$



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

Statement	Reason
1) $\overline{AB} \parallel \overline{DE}$ C is midpt of $\overline{AE}$	1) Given
2) $\angle 1 \cong \angle 2$	2) Vertical $\angle$ 's $\cong$ .
3) $\overline{AC} \cong \overline{EC}$	3) Def of midpt
4) $\angle B \cong \angle D$	4) Alternate Interior

Given:  $PM \parallel NO$ ,  $MN \parallel PO$ ,



Prove:  $PM \cong ON$