

Name _____

Date _____

Recall: CPCTC stands for Corresponding Parts of Congruent Triangles are Congruent. State what you know is congruent if you are given that $\triangle ABC \cong \triangle DEF$

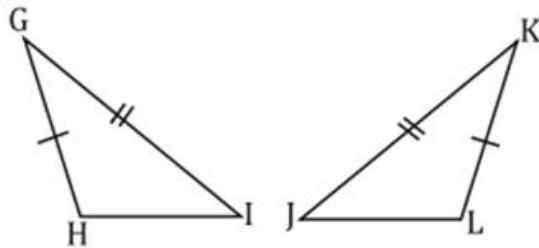
Angles: $\angle _ \cong \angle _$ $\angle _ \cong \angle _$ $\angle _ \cong \angle _$

Sides: $_ \cong _$ $_ \cong _$ $_ \cong _$

Before you use CPCTC in your proof, you MUST prove that the triangles in question are congruent first.

Note: number of statement is merely a guide. You may require more or less statements to complete your proof depending on your approach.

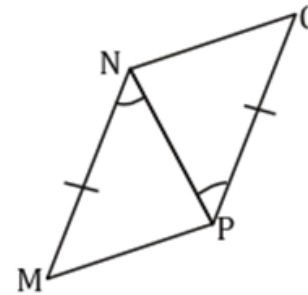
Given: $\overline{GH} \cong \overline{KL}$, $\angle G \cong \angle K$, and $\overline{GI} \cong \overline{KJ}$



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

Statements	Reasons
1. $\overline{GH} \cong \overline{KL}$	1. Given
2.	2. Given
3. $\overline{GI} \cong \overline{KJ}$	3.
4.	4. SAS
5. $\overline{HI} \cong \overline{LJ}$	5.

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

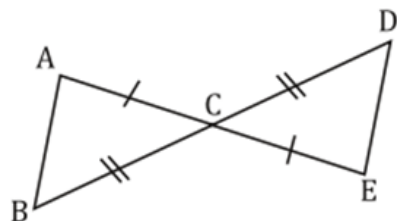


Prove: $\overline{MP} \cong \overline{ON}$

Statements	Reasons
1.	1. Given
2. $\overline{MN} \cong \overline{OP}$	2.
3. $\overline{NP} \cong \overline{NP}$	3.
4. $\triangle MNP \cong \triangle OPN$	4.
5.	5. CPCTC

Given: $\overline{AC} \cong \overline{CE}$, $\overline{DC} \cong \overline{BC}$

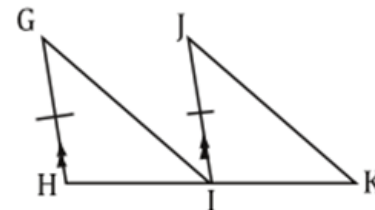
Prove: $\angle B \cong \angle D$



Statements	Reasons
1.	1.
2.	2. Given
3. $\angle ACB \cong \angle ECD$	3.
4. $\triangle ABC \cong \triangle EDC$	4.
5. $\angle B \cong \angle D$	5.

Given: $\overline{GH} \parallel \overline{JI}$, I is the midpoint of \overline{HK} and $\overline{GH} \cong \overline{JI}$

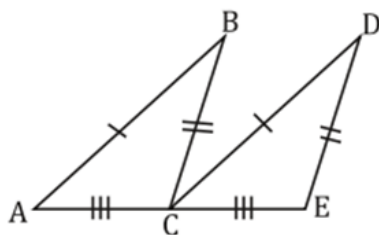
Prove: $\angle G \cong \angle J$



Statements	Reasons
1. $\overline{GH} \parallel \overline{JI}$	1.
2. I is the midpoint of \overline{HK}	2.
3.	3. Given
4. $\overline{HI} \cong \overline{IK}$	4.
5.	5. Corresponding Angles
6.	6. SAS
7. $\angle G \cong \angle J$	7.

Given: $\overline{AB} \cong \overline{CD}$, $\overline{BC} \cong \overline{DE}$, and $\overline{AC} \cong \overline{CE}$

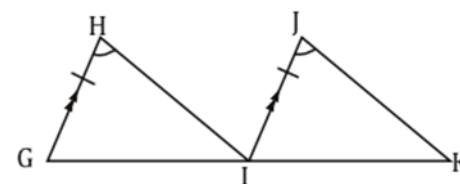
Prove: $\angle A \cong \angle DCE$



Statements	Reasons
1. $\overline{AB} \cong \overline{CD}$	1.
2. $\overline{BC} \cong \overline{DE}$	2.
3.	3. Given
4.	4.
5.	5.

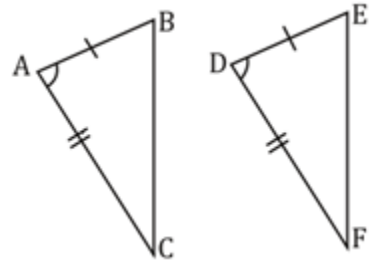
Given: $\overline{GH} \parallel \overline{IJ}$, $\angle H \cong \angle J$ and $\overline{GH} \cong \overline{IJ}$

Prove: $\angle GIH \cong \angle IKJ$



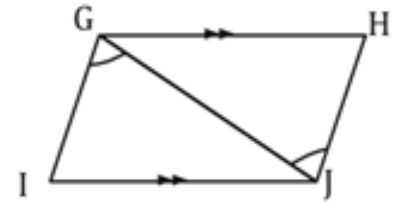
Statements	Reasons
1.	1. Given
2. $\angle H \cong \angle J$	2.
3.	3.
4.	4.
5.	5.
6.	6. CPCTC

Given: $\overline{AB} \cong \overline{DE}$, $\angle A \cong \angle D$, and $\overline{AC} \cong \overline{DF}$
 Prove: $\angle C \cong \angle F$



Statements	Reasons
1)	1)
2)	2)
3)	3)
4)	4)
5)	5)

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

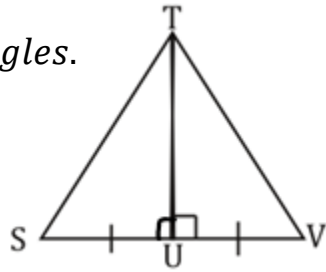


Statements	Reasons
1)	1)
2)	2)
3)	3)
4)	4)
5)	5)
6)	6)

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

and $\angle TUS$ and $\angle TUV$ are right angles.

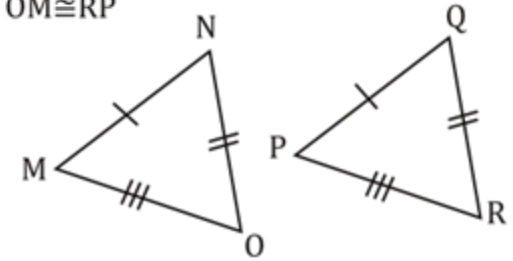
Prove: $\overline{ST} \cong \overline{VT}$



Statements	Reasons
1)	1)
2)	2)
3)	3)
4)	4)
5)	5)
6)	6)

Given: $\overline{MN} \cong \overline{PQ}$, $\overline{NO} \cong \overline{QR}$, and $\overline{OM} \cong \overline{RP}$

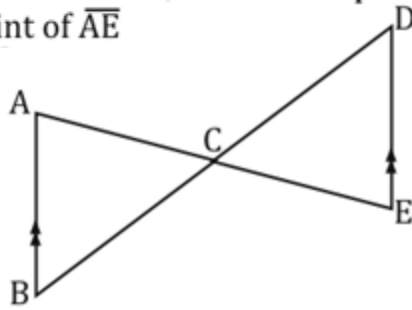
Prove: $\angle M \cong \angle P$



Statements	Reasons
1)	1)
2)	2)
3)	3)
4)	4)
5)	5)

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

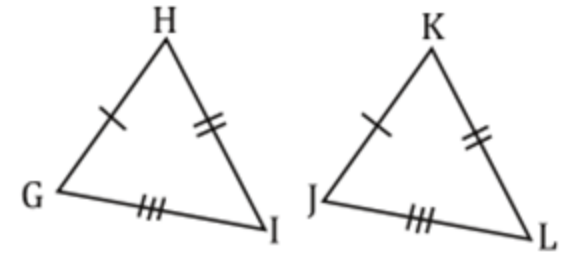
Prove: $\overline{BC} \cong \overline{DC}$



Statements	Reasons
1)	1)
2)	2)
3)	3)
4)	4)
5)	5)
6)	6)
7)	7)

Given: $\overline{GH} \cong \overline{JK}$, $\overline{HI} \cong \overline{KL}$, and $\overline{IG} \cong \overline{LJ}$

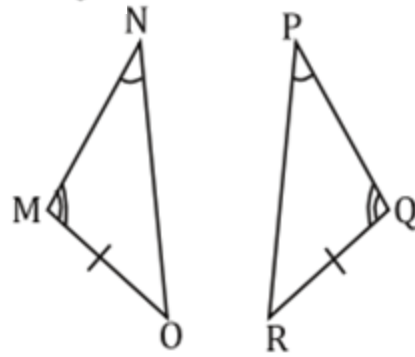
Prove: $\angle I \cong \angle L$



Statements	Reasons

Given: $\angle N \cong \angle P$, $\angle M \cong \angle Q$, and $\overline{MO} \cong \overline{QR}$

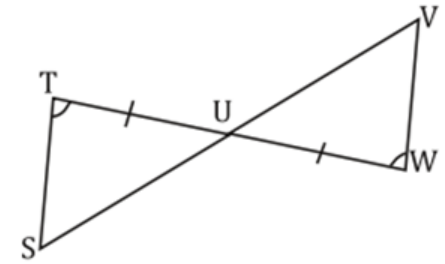
Prove: $\angle O \cong \angle R$



Statements	Reasons

Given: $\overline{TU} \cong \overline{WU}$, $\angle T \cong \angle W$

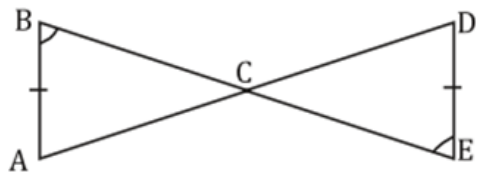
Prove: $\overline{TS} \cong \overline{WV}$



Statements	Reasons

Given: $\overline{AB} \cong \overline{DE}$, $\angle B \cong \angle E$

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

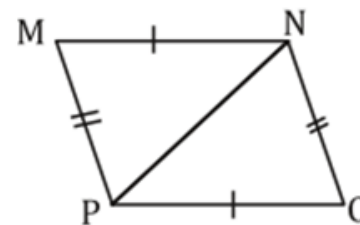


Statements	Reasons
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Vertical line extending downwards from the table.

Given: $\overline{MN} \cong \overline{PO}$, $\overline{MP} \cong \overline{NO}$

Prove: $\angle M \cong \angle O$



Statements	Reasons
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Vertical line extending downwards from the table.