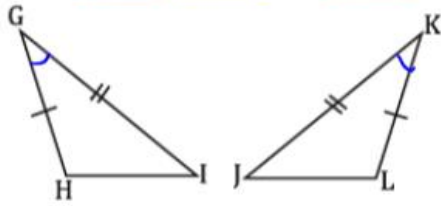


Complete the following proofs.

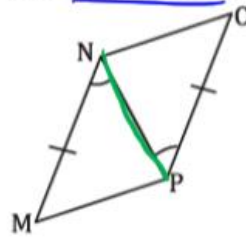
1. Given: $\overline{GH} \cong \overline{KL}$, $\angle G \cong \angle K$, and $\overline{GI} \cong \overline{KJ}$



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

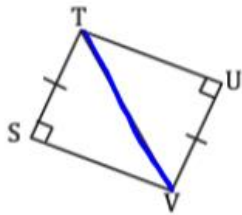
2. Given: $\angle MNP \cong \angle OPN$, and $\overline{MN} \cong \overline{OP}$



Prove: $\overline{MP} \cong \overline{NO}$

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 Property
4. $\triangle MNP \cong \triangle OPN$	4. SAS
5. $\overline{MP} \cong \overline{NO}$	5. CPCTC

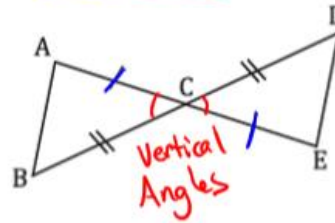
3. Given: $\overline{ST} \cong \overline{UV}$ and $\overline{TV} \cong \overline{VT}$



Prove: $\angle SVT \cong \angle UTV$

Statements	Reasons
1. $\overline{ST} \cong \overline{UV}$	1. Given
2. $\overline{TV} \cong \overline{VT}$	2. Reflexive Property
3. $\triangle STV \cong \triangle UTV$	3. HL
4. $\angle SVT \cong \angle UTV$	4. CPCTC

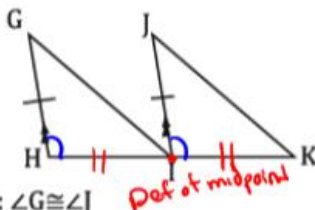
4. Given: $\overline{AC} \cong \overline{EC}$ and $\overline{DC} \cong \overline{BC}$



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

Statements	Reasons
1. $\overline{AC} \cong \overline{EC}$	1. Given
2. $\overline{DC} \cong \overline{BC}$	2. Given
3. $\angle ACB \cong \angle DCE$	3. Vertical Angles
4. $\triangle ABC \cong \triangle EDC$	4. SAS
5. $\angle B \cong \angle D$	5. CPCTC

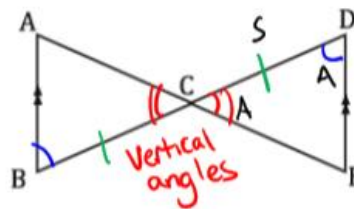
5. Given: $\overline{GH} \parallel \overline{JI}$, I is the midpoint of \overline{HK} and $\overline{GH} \cong \overline{JI}$



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

Statements	Reasons
1. $\overline{GH} \parallel \overline{JI}$	1. Given
2. I is the midpoint of \overline{HK}	2. Given
3. $\overline{GI} \cong \overline{JI}$	3. Given
4. $\overline{HI} \cong \overline{IK}$	4. Def. of midpoint
5. $\angle GHI \cong \angle JIK$	5. Corresponding \angle 's Post.
6. $\triangle GHI \cong \triangle JIK$	6. SAS
7. $\angle G \cong \angle J$	7. CPCTC

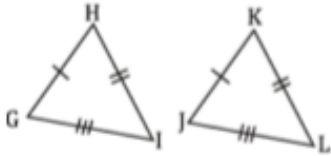
6. Given: $\overline{AB} \parallel \overline{DE}$, \overline{AE} bisects \overline{BD}



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

Statements	Reasons
1. $\overline{AB} \parallel \overline{DE}$	1. Given
2. \overline{AE} bisects \overline{BD}	2. Given
3. $\angle ABC \cong \angle EDC$	3. Alt. Int. \angle 's Thm.
4. $\angle ACB \cong \angle DCE$	4. Vertical \angle 's Thm
5. $m\angle B = m\angle D$	5. Def of Bisect 5b. $\overline{BC} \cong \overline{DC}$
6. $\triangle ABC \cong \triangle EDC$	6. ASA
7. $\overline{AC} \cong \overline{EC}$	7. CPCTC

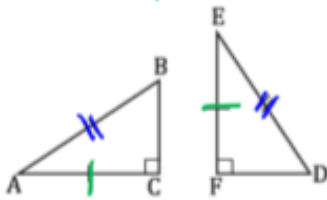
7. Given: $\overline{GH} \cong \overline{JK}$, $\overline{HI} \cong \overline{KL}$, and $\overline{IG} \cong \overline{LJ}$



Prove: $\angle I \cong \angle J$

Statement	Reason
$\overline{GH} \cong \overline{JK}$	Given
$\overline{HI} \cong \overline{KL}$	Given
$\overline{IG} \cong \overline{LJ}$	Given
$\triangle GHI \cong \triangle DJKL$	SSS
$\angle I \cong \angle J$	CPCTC

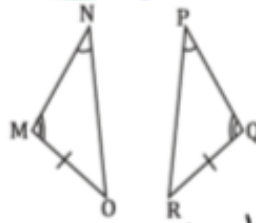
9. Given: $\overline{AC} \cong \overline{EF}$, and $\overline{AB} \cong \overline{ED}$



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

Statement	Reason
$\overline{AC} \cong \overline{EF}$	Given
$\overline{AB} \cong \overline{ED}$	Given
$\triangle ABC \cong \triangle EDF$	HL
$\overline{BC} \cong \overline{FD}$	CPCTC

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



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

Statement	Reason
$\angle N \cong \angle P$	Given
$\angle M \cong \angle Q$	Given
$\overline{MO} \cong \overline{QR}$	Given
$\triangle MNO \cong \triangle PQR$	AAS
$\angle O \cong \angle R$	CPCTC

10. Given: $\overline{GH} \cong \overline{JI}$, $\angle GHJ \cong \angle IJH$



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

Statement	Reason
$\overline{GH} \cong \overline{JI}$	Given
$\angle GHJ \cong \angle IJH$	Given
$\overline{HJ} \cong \overline{JH}$	Reflexive Prop.
$\triangle GHJ \cong \triangle IJH$	SAS
$\overline{GJ} \cong \overline{HI}$	CPCTC

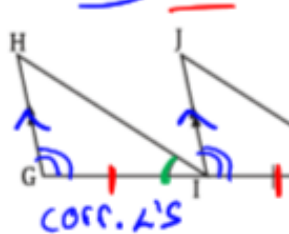
11. Given: $\overline{TS} \parallel \overline{VW}$, $\overline{TU} \cong \overline{WU}$



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

Statement	Reason
$\overline{TS} \parallel \overline{VW}$	Given
$\overline{TU} \cong \overline{WU}$	Given
$\angle STU \cong \angle VWU$	Alt. Int. \angle 's
$\angle TUS \cong \angle WUV$	Vertical \angle 's
$\triangle TSU \cong \triangle WUV$	ASA
$\overline{TS} \cong \overline{WV}$	CPCTC

12. Given: $\overline{HG} \parallel \overline{JI}$, $\overline{GI} \cong \overline{IK}$, and $\angle HIG \cong \angle JKI$



Prove: $\angle H \cong \angle J$

Statement	Reason
$\overline{HG} \parallel \overline{JI}$	Given
$\overline{GI} \cong \overline{IK}$	Given
$\angle HIG \cong \angle JKI$	Given
$\angle IGH \cong \angle KIJ$	corr. \angle 's Post.
$\triangle HIG \cong \triangle JKI$	ASA
$\angle H \cong \angle J$	CPCTC