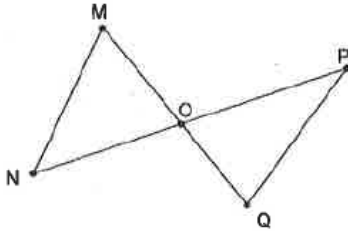


**Complete the following proofs.**

1. **Given:** O is midpoint of  $\overline{MQ}$  and  $\overline{NP}$ .

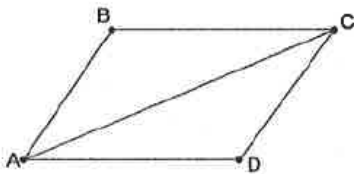
**Prove:**  $\triangle MON \cong \triangle QOP$



Statements	Reasons
1. O is midpoint of $\overline{MQ}$ and $\overline{NP}$	1. Given
2. $\overline{MO} \cong \overline{QO}$	2. Definition of Midpoint
3. $\overline{NO} \cong \overline{PO}$	3. Definition of Midpoint
4. $\angle MON \cong \angle QOP$	4. Vertical Angles Theorem
5. $\triangle MON \cong \triangle QOP$	5. SAS

2. **Given:**  $\overline{AB} \cong \overline{CD}$ ;  $\overline{BC} \cong \overline{DA}$

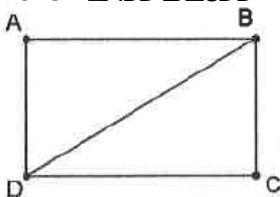
**Prove:**  $\triangle ABC \cong \triangle CDA$



Statements	Reasons
1. $\overline{AB} \cong \overline{CD}$	1. Given
2. $\overline{BC} \cong \overline{DA}$	2. Given
3. $\overline{AC} \cong \overline{AC}$	3. Reflexive Property
4. $\triangle ABC \cong \triangle CDA$	4. SSS

3. **Given:**  $\overline{AD} \cong \overline{CB}$ ;  $\overline{AD} \parallel \overline{CB}$

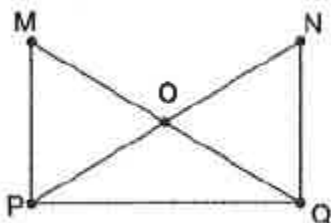
**Prove:**  $\triangle ABD \cong \triangle CDB$



Statements	Reasons
1. $\overline{AD} \cong \overline{CB}$	1. Given
2. $\overline{AD} \parallel \overline{CB}$	2. Given
3. $\angle ADB \cong \angle CBD$	3. Alternate Interior Angles Theorem
4. $\overline{DB} \cong \overline{DB}$	4. Reflexive Property
5. $\triangle ABD \cong \triangle CDB$	5. SAS

4. **Given:**  $\overline{MQ} \cong \overline{NP}$ ;  $\overline{MP} \cong \overline{NQ}$

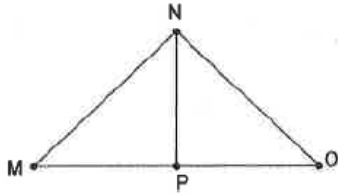
**Prove:**  $\triangle MPQ \cong \triangle NQP$



Statements	Reasons
1. $\overline{MQ} \cong \overline{NP}$	1. Given
2. $\overline{MP} \cong \overline{NQ}$	2. Given
3. $\overline{PQ} \cong \overline{PQ}$	3. Reflexive Property
4. $\triangle MPQ \cong \triangle NQP$	4. SSS

5. **Given:**  $\overline{NP}$  bisects  $\angle MNO$ ,  $\overline{MN} \cong \overline{ON}$

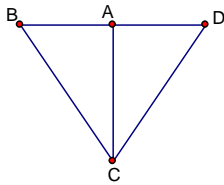
**Prove:**  $\triangle MNP \cong \triangle ONP$



Statements	Reasons
1. $\overline{NP}$ bisects $\angle MNO$	1. <i>Given</i>
2. $\angle MNP \cong \angle ONP$	2. Definition of angle bisector
3. $\overline{MN} \cong \overline{ON}$	3. <i>Given</i>
4. $\overline{PN} \cong \overline{PN}$	4. <i>Reflexive Property</i>
5. $\triangle MNP \cong \triangle ONP$	5. <i>SAS</i>

6. **Given:**  $\overline{AB} \cong \overline{AD}$ ;  $\overline{BC} \cong \overline{CD}$

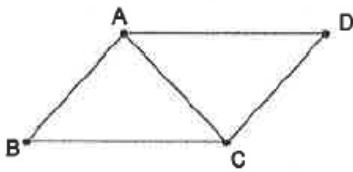
**Prove:**  $\triangle ABC \cong \triangle ADC$



Statements	Reasons
1. $\overline{AB} \cong \overline{AD}$	1. <i>Given</i>
2. $\overline{BC} \cong \overline{CD}$	2. <i>Given</i>
3. $\overline{AC} \cong \overline{AC}$	3. <i>Reflexive Property</i>
4. $\triangle ABC \cong \triangle ADC$	4. <i>SSS</i>

7. **Given:**  $\overline{AD} \cong \overline{CB}$ ;  $\overline{AD} \parallel \overline{CB}$

**Prove:**  $\triangle ABC \cong \triangle CDA$

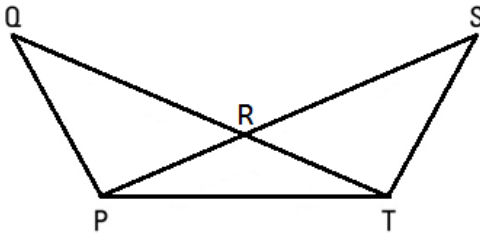


Statements	Reasons
1. $\overline{AD} \cong \overline{CB}$	1. <i>Given</i>
2. $\overline{AD} \parallel \overline{CB}$	2. <i>Given</i>
3. $\angle DAC \cong \angle BCA$	3. Alternate interior angles theorem
4. $\overline{AC} \cong \overline{AC}$	4. <i>Reflexive Property</i>
5. $\triangle ABC \cong \triangle CDA$	5. <i>SAS</i>

8. **Given:**  $\angle RPT \cong \angle RTP$

$\angle PQR \cong \angle TSR$

**Prove:**  $\triangle QPR \cong \triangle STR$

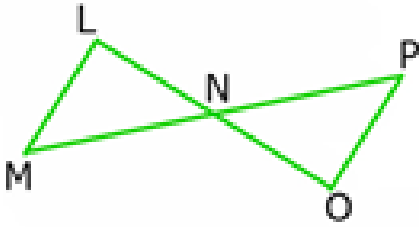


Statements	Reasons
1. $\angle RPT \cong \angle RTP$	1. <i>Given</i>
2. $\overline{RP} \cong \overline{RT}$	2. Base Angles Converse
3. $\angle PQR \cong \angle TSR$	3. <i>Given</i>
4. $\angle QRP \cong \angle SRT$	4. <i>VAT</i>
5. $\triangle QPR \cong \triangle STR$	5. <i>AAS</i>

9. Given: N is the midpoint of  $\overline{LO}$

$$\overline{LM} \parallel \overline{OP}$$

Prove:  $\triangle LNM \cong \triangle ONP$

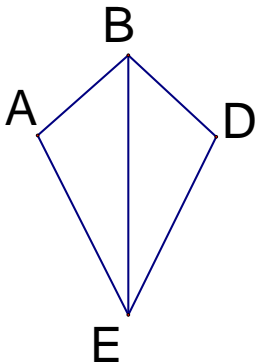


Statements	Reasons
1. N is the midpoint of $\overline{LO}$	1. Given
2. $\overline{LN} \cong \overline{ON}$	2. Definition of Midpoint
3. $\overline{LM} \parallel \overline{OP}$	3. Given
4. $\angle LMN \cong \angle OPN$	4. Alt. Int. Angles Thm.
5. $\angle LNM \cong \angle ONP$	5. VAT
6. $\triangle LNM \cong \triangle ONP$	6. AAS

10. Given:  $\overline{BE}$  bisects  $\angle ABD$

$$\overline{BE}$$
 bisects  $\angle AED$

Prove:  $\triangle ABE \cong \triangle DBE$



Statements	Reasons
1. $\overline{BE}$ bisects $\angle ABD$	1. Given
2. $\angle ABE \cong \angle DBE$	2. Def. of angle bisector
3. $\overline{BE}$ bisects $\angle AED$	3. Given
4. $\angle AEB \cong \angle DEB$	4. Def. of angle bisector
5. $\overline{BE} \cong \overline{BE}$	5. Reflexive Property
6. $\triangle ABE \cong \triangle DBE$	6. ASA