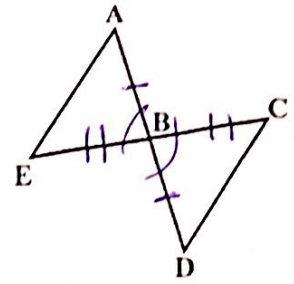


Proof Practice

key

1. Write a proof for the problem below:

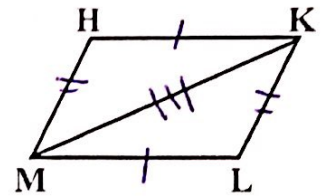
Given: B is the midpoint of \overline{AD} and \overline{EC}
 Prove: $\triangle ABE \cong \triangle DBC$



S	R
1. Bis Midpt of $\overline{AD} + \overline{EC}$	1. Given
2. $\overline{AB} \cong \overline{BD}, \overline{EB} \cong \overline{BC}$	2. Def of Midpt
3. $\angle ABE \cong \angle DBC$	3. Vertical \angle s Thm
4. $\triangle ABE \cong \triangle DBC$	4. SAS

2. Write a proof for the problem below:

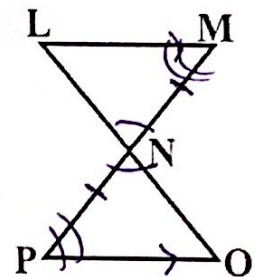
Given: $\overline{HK} \cong \overline{LM}, \overline{HM} \cong \overline{LK}$
 Prove: $\triangle HKM \cong \triangle LMK$



S	R
1. $\overline{HK} \cong \overline{LM}, \overline{HM} \cong \overline{LK}$	1. Given
2. $\overline{MK} \cong \overline{MK}$	2. Reflexive Prop.
3. $\triangle HKM \cong \triangle LMK$	3. SSS

3. Write a proof for the problem below:

Given: $\overline{MN} \cong \overline{NP}$
 $\overline{LM} \parallel \overline{OP}$
 Prove: $\triangle LMN \cong \triangle OPN$



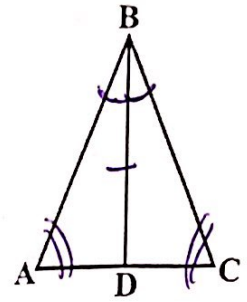
S	R
1. $\overline{MN} \cong \overline{NP}, \overline{LM} \parallel \overline{OP}$	1. Given
2. $\angle LMN \cong \angle PNO$	2. Vertical \angle s Thm
3. $\angle M \cong \angle P$	3. Alt. Int \angle s Thm
4. $\triangle LMN \cong \triangle OPN$	4. ASA

4. Write a proof for the problem below:

Given: \overline{BD} bisects $\angle ABC$

$\angle A \cong \angle C$

Prove: $\triangle ABD \cong \triangle CBD$



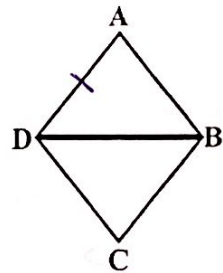
S	R
1. \overline{BD} bisects $\angle ABC$, $\angle A \cong \angle C$	1. Given
2. $\overline{BD} \cong \overline{BD}$	2. Reflexive Prop.
3. $\angle ABD \cong \angle CBD$	3. Def of bisector
4. $\triangle ABD \cong \triangle CBD$	4. AAS

5. Write a proof for the problem below:

Given: $\overline{AD} \cong \overline{CB}$

$\overline{AB} \cong \overline{CD}$

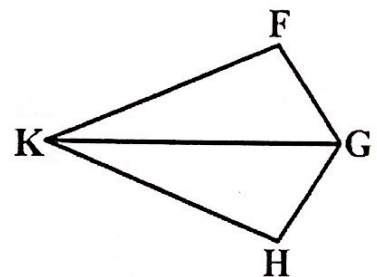
Prove: $\angle A \cong \angle C$



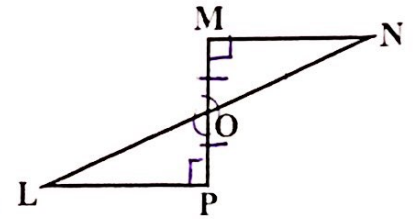
6. Write a proof for the problem below:

Given: \overline{GK} bisects $\angle FGH$ and $\angle FKH$

Prove: $\overline{FK} \cong \overline{HK}$



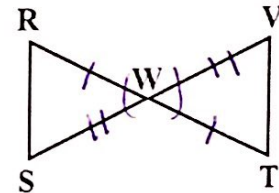
7. Write a proof for the problem below:
 Given: $\angle M$ and $\angle P$ are right angles
 O is the midpoint of \overline{MP}
 Prove: $\angle L \cong \angle N$



S	R
1. $\angle M$ & $\angle P$ are rt \angle 's, O is midpt of \overline{MP}	1. Given
2. $\overline{MO} \cong \overline{OP}$	2. Def. of Midpt
3. $\angle M \cong \angle P$	3. All rt \angle 's are \cong
4. $\angle LOP \cong \angle NOM$	4. Vertical \angle 's Thm
5. $\triangle LOP \cong \triangle NOM$	5. ASA

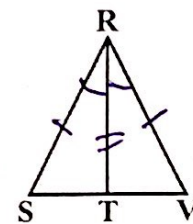
6. $\angle L \cong \angle N$
 6. CPCTC

8. Write a proof for the problem below:
 Given: W is the midpoint of \overline{RT} and \overline{SV}
 Prove: $\triangle RWS \cong \triangle TVW$



S	R
1. W is midpt \overline{RT} & \overline{SV}	1. Given
2. $\overline{RW} \cong \overline{TW}$ $\overline{SW} \cong \overline{VW}$	2. Def of Midpt
3. $\angle RWS \cong \angle TVW$	3. Vertical \angle 's Thm
4. $\triangle RWS \cong \triangle TVW$	4. SAS

9. Write a proof for the problem below:
 Given: $\triangle RSV$ is an equilateral triangle
 \overline{RT} bisects $\angle SRV$
 Prove: $\triangle RTS \cong \triangle RTV$



S	R
1. $\triangle RSV$ is equil. \overline{RT} bisects $\angle SRV$	1. Given
2. $\angle SRT \cong \angle VRT$	2. Def of bisector
3. $\overline{RS} \cong \overline{RV}$	3. Def of Equilateral \triangle
4. $\overline{RT} \cong \overline{RT}$	4. reflexive Prop
5. $\triangle RTS \cong \triangle RTV$	5. SAS