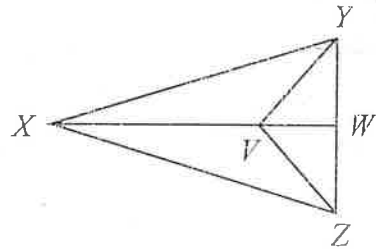


1

Given: \overline{WX} bisects $\angle ZXY$, $\overline{ZX} \cong \overline{YX}$

Prove: $\triangle ZXV \cong \triangle YXV$



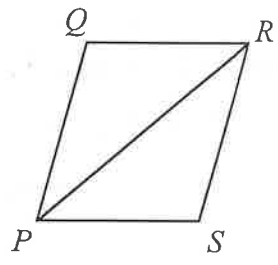
KEY

Statements	Reasons
1. \overline{WX} bisects $\angle ZXY$	1. Given
2. $\angle ZXV \cong \angle YXV$	2. Definition of Angle Bisector
3. $\overline{ZX} \cong \overline{YX}$	3. Given
4. $\overline{XV} \cong \overline{XV}$	4. Reflexive Property
5. $\triangle ZXV \cong \triangle YXV$	5. Side-Angle-Side (SAS)

2

Given: $\overline{PQ} \parallel \overline{RS}$, $\angle PQR \cong \angle RSP$

Prove: $\triangle PQR \cong \triangle RSP$



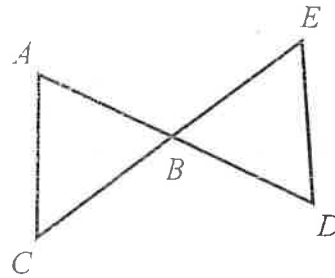
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Statements	Reasons
1. $\overline{PQ} \parallel \overline{RS}$	1. Given
2. $\angle QPR \cong \angle SRP$	2. Alternate Interior Angles
3. $\angle PQR \cong \angle RSP$	3. Given
4. $\overline{PR} \cong \overline{RP}$	4. Reflexive Property
5. $\triangle PQR \cong \triangle RSP$	5. Angle-Angle-Side (AAS)

3

Given: $\overline{AC} \cong \overline{DE}$, B is the midpoint of \overline{AD} and \overline{CE}

Prove: $\triangle ABC \cong \triangle DBE$



KEY

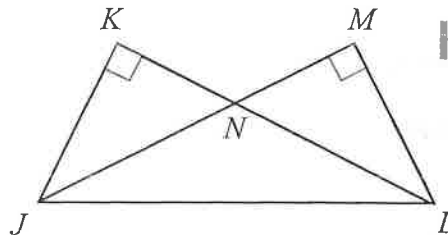
Statements	Reasons
1. $\overline{AC} \cong \overline{DE}$	1. Given
2. B is the midpoint of \overline{AD} and \overline{CE}	2. Given
3. $\overline{AB} \cong \overline{DB}$	3. Definition of Midpoint
4. $\overline{CB} \cong \overline{EB}$	4. Definition of Midpoint
5. $\triangle ABC \cong \triangle DBE$	5. Side-Side-Side (SSS)

4

Given: $\triangle JKL$ and $\triangle LMJ$ are right triangles,

$$\overline{JK} \cong \overline{LM}$$

Prove: $\angle JLK \cong \angle LJM$



KEY

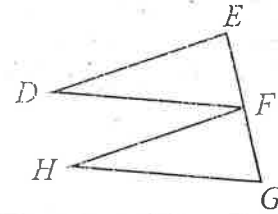
Statements	Reasons
1. $\triangle JKL$ and $\triangle LMJ$ are right triangles	1. Given
2. $\overline{JK} \cong \overline{LM}$	2. Given
3. $\overline{JL} \cong \overline{LJ}$	3. Reflexive Property
4. $\triangle JKL \cong \triangle LMJ$	4. Hypotenuse-Leg (HL)
5. $\angle JLK \cong \angle LJM$	5. CPCTC

5

Given: $\overline{DF} \parallel \overline{HG}$, F is the midpoint of \overline{EG}

$$\overline{DF} \cong \overline{HG}$$

Prove: $\triangle DEF \cong \triangle HFG$



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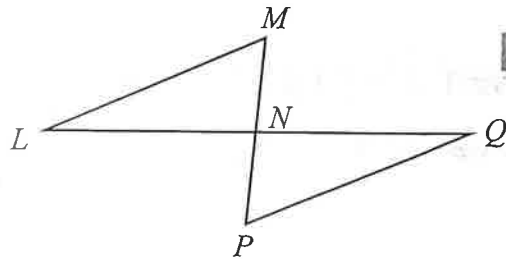
Statements	Reasons
1. $\overline{DF} \parallel \overline{HG}$	1. Given
2. F is the midpoint of \overline{EG}	2. Given
3. $\overline{DF} \cong \overline{HG}$	3. Given
4. $\angle DFE \cong \angle HGF$	4. Corresponding Angles
5. $\overline{EF} \cong \overline{FG}$	5. Definition of Midpoint
6. $\triangle DEF \cong \triangle HFG$	6. Side-Angle-Side (SAS)

6

Given: N is the midpoint of \overline{LQ} ,

$$\angle NLM \cong \angle NQP$$

Prove: $\triangle MNL \cong \triangle PNQ$



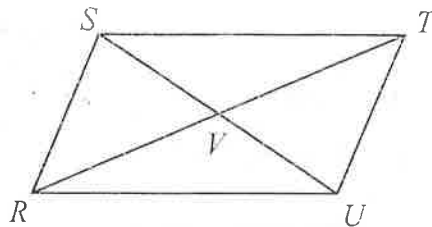
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Statements	Reasons
1. N is the midpoint of \overline{LQ}	1. Given
2. $\overline{LN} \cong \overline{QN}$	2. Definition of Midpoint
3. $\angle LNM \cong \angle QNP$	3. Vertical Angles
4. $\angle NLM \cong \angle NQP$	4. Given
5. $\triangle MNL \cong \triangle PNQ$	5. Angle-Side-Angle (ASA)

7

Given: \overline{SU} and \overline{RT} bisect each other,
 $\overline{ST} \cong \overline{UR}$

Prove: $\angle STV \cong \angle URV$



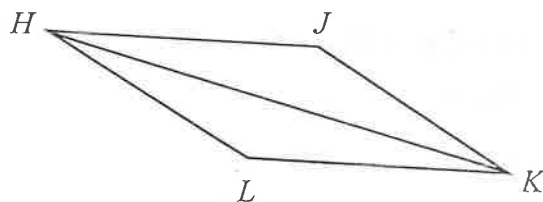
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Statements	Reasons
1. \overline{SU} and \overline{RT} bisect each other	1. Given
2. $\overline{SV} \cong \overline{UV}$; $\overline{RV} \cong \overline{TV}$	2. Definition of Bisector
3. $\overline{ST} \cong \overline{UR}$	3. Given
4. $\triangle SVT \cong \triangle UVR$	4. Side-Side-Side (SSS)
5. $\angle STV \cong \angle URV$	5. CPCTC

8

Given: $\overline{HJ} \parallel \overline{LK}$, $\overline{HL} \parallel \overline{JK}$

Prove: $\triangle HKL \cong \triangle KHL$



KEY

Statements	Reasons
1. $\overline{HJ} \parallel \overline{LK}$, $\overline{HL} \parallel \overline{JK}$	1. Given
2. $\angle JHK \cong \angle LKH$	2. Alternate Interior Angles
3. $\angle JKH \cong \angle LHK$	3. Alternate Interior Angles
4. $\overline{HK} \cong \overline{KH}$	4. Reflexive Property
5. $\triangle HKL \cong \triangle KHL$	5. Angle-Side-Angle (ASA)