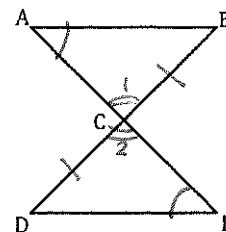


1. Given: $\angle A \cong \angle E$, C is the midpoint of $\overline{BD}$.

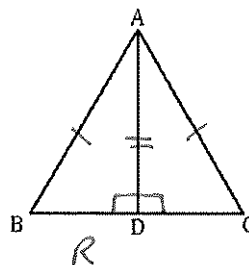
Prove: $\triangle ABC \cong \triangle EDC$



- | | |
|--|--|
| S | R |
| <p>1. "</p> <p>2. $\overline{BC} \cong \overline{EC}$</p> <p>3. $\angle 1 \cong \angle 2$</p> <p>4. $\triangle ABC \cong \triangle EDC$</p> | <p>1. Given</p> <p>2. If m.p. then 2 = seg</p> <p>3. If vert $\angle$'s, then $\cong$.</p> <p>4. AAS (1, 3, 2)</p> |

2. Given: $\overline{AD} \perp \overline{BC}$, $\overline{AB} \cong \overline{AC}$

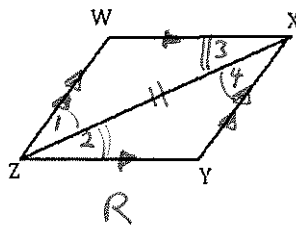
Prove: $\overline{BD} \cong \overline{CD}$



- | | |
|---|---|
| S | R |
| <p>1. "</p> <p>2. $\overline{AD} \cong \overline{AD}$</p> <p>3. $\angle ADB$ and $\angle ADC$ are rt $\angle$'s</p> <p>4. $\triangle ADB \cong \triangle ADC$</p> <p>5. $\overline{BD} \cong \overline{CD}$</p> | <p>1. Given</p> <p>2. Reflexive</p> <p>3. If $\perp$, then 4 rt $\angle$'s</p> <p>4. HL (3, 1, 2)</p> <p>5. CPCTC</p> |

3. Given: $\overline{WX} \parallel \overline{ZY}$, $\overline{ZW} \parallel \overline{XY}$

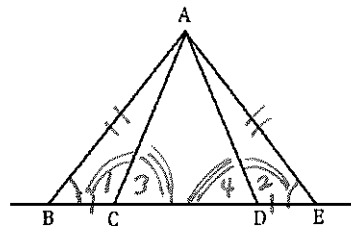
Prove: $\overline{WZ} \cong \overline{YX}$



- | | |
|---|---|
| S | R |
| <p>1. "</p> <p>2. $\angle 1 \cong \angle 4$, $\angle 2 \cong \angle 3$</p> <p>3. $\overline{WZ} \cong \overline{YX}$</p> <p>4. $\triangle WXZ \cong \triangle YZX$</p> <p>5. $\overline{WZ} \cong \overline{YX}$</p> | <p>1. Given</p> <p>2. If $\parallel$ lines, then alt int $\angle$'s $\cong$.</p> <p>3. Reflexive</p> <p>4. ASA (2, 3, 2)</p> <p>5. CPCTC</p> |

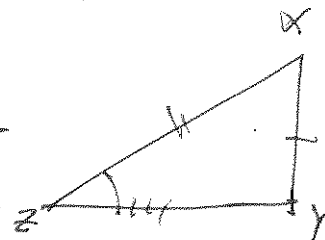
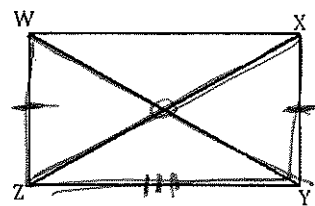
* 4. Given: $\angle B \cong \angle E$, $\overline{BC} \cong \overline{ED}$

Prove: $\triangle ABD \cong \triangle AEC$



1. "
2. $\overline{AB} \cong \overline{AE}$
3. $\triangle ABC \cong \triangle AED$
4. $\angle 1 \cong \angle 2$
5. $\angle 3$ supp $\angle 1$, $\angle 4$ supp $\angle 2$
6. $\angle 3 \cong \angle 4$
7. $\triangle ABD \cong \triangle AEC$
5. Given: $\overline{WZ} \cong \overline{XY}$, $\overline{WY} \cong \overline{XZ}$ w

Prove: $\angle WYZ \cong \angle XZY$

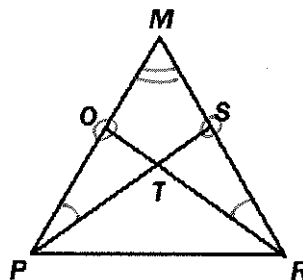
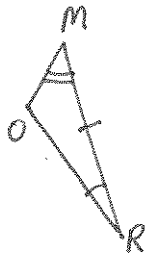
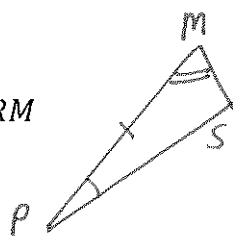


1. "
2. $\overline{ZY} \cong \overline{ZY}$
3. $\triangle WZY \cong \triangle XZY$
4. $\angle WYZ \cong \angle XZY$

1. Given
2. Reflexive
3. SSS (1, 1, 2)
4. CPCTC

- 6) Given: $\overline{PM} \cong \overline{RM}$,
 $\angle SPM \cong \angle ORM$

Prove: $\overline{PS} \cong \overline{OR}$



statements

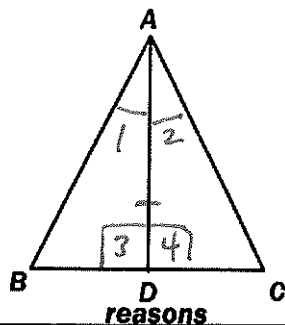
reasons

1. "
2. $\angle M \cong \angle M$
3. $\triangle MPS \cong \triangle MRO$
4. $\overline{PS} \cong \overline{OR}$

1. Given
2. Reflexive
3. ASA (1, 1, 2)
4. CPCTC

- 7) **Given:** $\overline{AD}$ bisects $\angle BAC$,
 $\overline{AD} \perp \overline{BC}$

Prove: $\triangle ABD \cong \triangle ACD$



statements

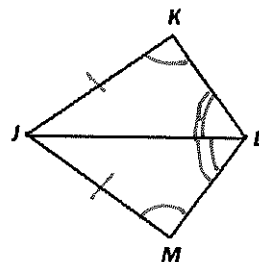
reasons

1. "
2. $\angle 1 \cong \angle 2$
3. $\overline{AD} \cong \overline{AD}$
4. $\angle 3$ and $\angle 4$ are rt $\angle$'s
5. $\angle 3 \cong \angle 4$
6. $\triangle ABD \cong \triangle ACD$

1. Given
2. If $\angle$ bis., then $2 \cong \angle$'s
3. Reflexive
4. If $\perp$ then 4 rt $\angle$'s
5. If rt $\angle$'s, then $\cong$.
6. ASA (2, 3, 5)

- 8) **Given:** $\angle K \cong \angle M$, $\overline{JK} \cong \overline{JM}$
 $\overline{JL}$ bisects $\angle KLM$

Prove: $\overline{KL} \cong \overline{ML}$



statements

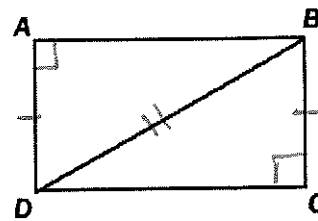
reasons

1. "
2. $\angle K \cong \angle M$
3. $\triangle KJL \cong \triangle MJL$
4. $\overline{KL} \cong \overline{ML}$

1. Given
2. If $\angle$ bis., then $2 \cong \angle$'s
3. AAS (1, 2, 1)
4. CPCTC

- 9) **Given:** $\overline{AD} \perp \overline{AB}, \overline{CB} \perp \overline{CD}$
 $\overline{AD} \cong \overline{CB}$

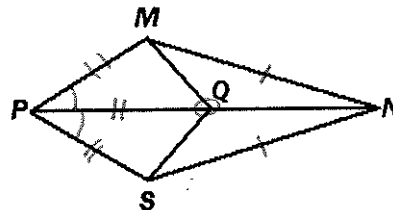
Prove: $\triangle DAB \cong \triangle BCD$



statements	reasons
1. "	1. Given
2. $\angle A$ and $\angle C$ are rt $\angle$'s	2. If $\perp$, then $\angle$ rt $\angle$'s
3. $\overline{DB} \cong \overline{DB}$	3. Reflexive
4. $\triangle DAB \cong \triangle BCD$	4. HL (2, 3, 1)

- 10) **Given:** $\overline{MN} \cong \overline{NS}$,
 $\overline{MP} \cong \overline{PS}$

Prove: $\angle MQP \cong \angle SQP$



statements	reasons
1. "	1. Given
2. $\overline{PQ} \cong \overline{PQ}$, $\overline{PN} \cong \overline{PN}$	2. Reflexive
3. $\triangle MPN \cong \triangle SPN$	3. SSS (1, 1, 2)
4. $\angle MPQ \cong \angle SPQ$	4. CPCTC
5. $\triangle MPQ \cong \triangle SPQ$	5. SAS (1, 4, 2)
6. $\angle MQP \cong \angle SQP$	6. CPCTC