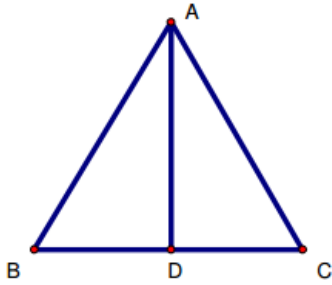
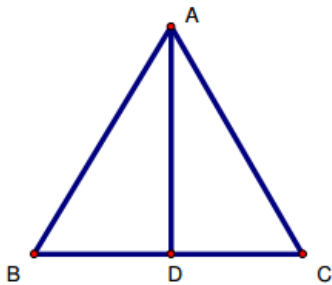


- A. Given: \overline{AD} bisects $\angle CAB$
 Prove: $\angle CAD \cong \angle BAD$



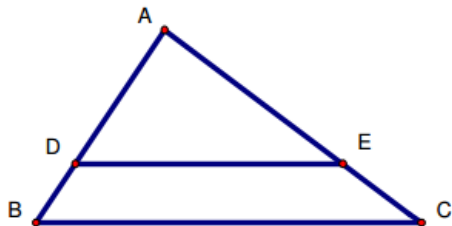
Statement	Reason

- B. Given: $\overline{AD} \perp \overline{BC}$
 Prove: $\angle ADB \cong \angle ADC$



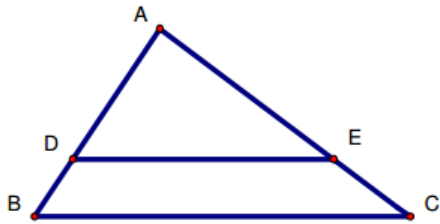
Statement	Reason

- C. Given: $\overline{DE} \parallel \overline{BC}$
 Prove: $\angle ADE \cong \angle ABC$



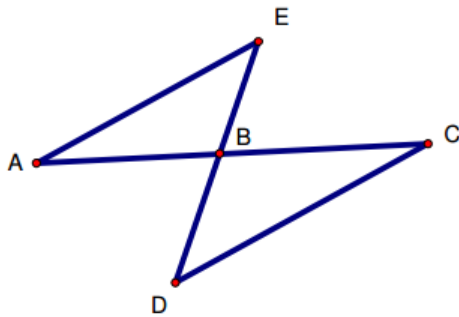
Statement	Reason

D. Given:
 Prove: $\angle A \cong \angle A$



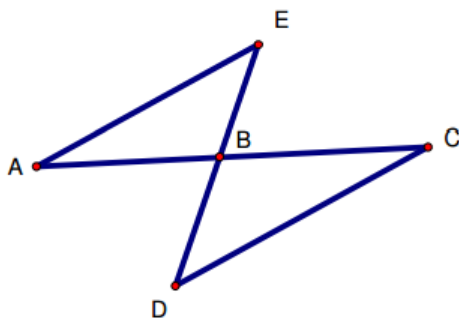
Statement	Reason

E. Given:
 Prove: $\angle ABE \cong \angle CBD$



Statement	Reason

F. Given: $\overline{AE} \parallel \overline{CD}$
 Prove: $\angle E \cong \angle D$

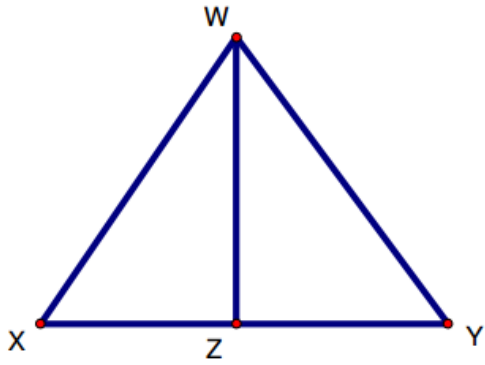


Statement	Reason

Name _____

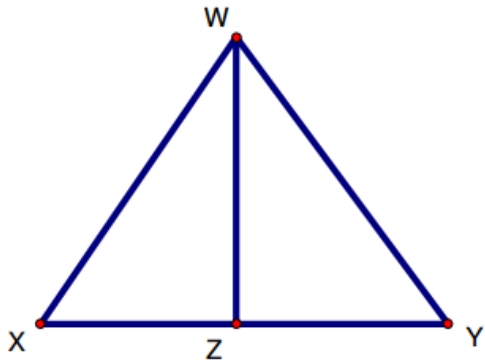
Date _____

- A. Given: \overline{ZW} bisects $\angle XWY$
Prove: $\angle XWZ \cong \angle YWZ$



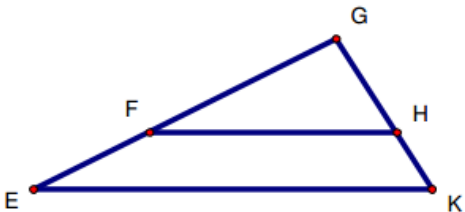
Statement	Reason

- B. Given: $\overline{WZ} \perp \overline{XY}$
Prove: $\angle XZW \cong \angle YZW$



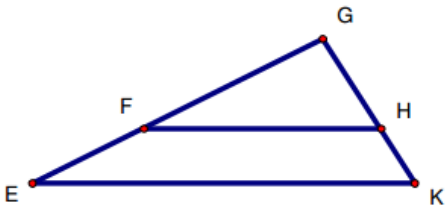
Statement	Reason

- C. Given: $\overline{FH} \parallel \overline{EK}$
Prove: $\angle GHF \cong \angle GKE$



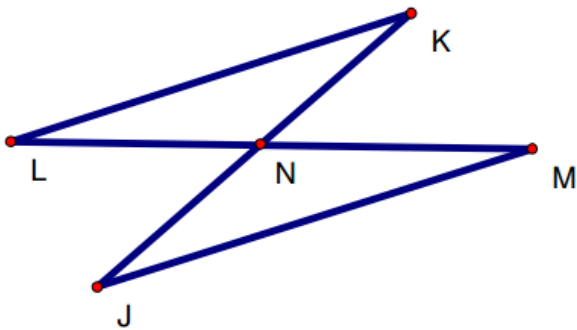
Statement	Reason

D. Given:
 Prove: $\angle G \cong \angle G$



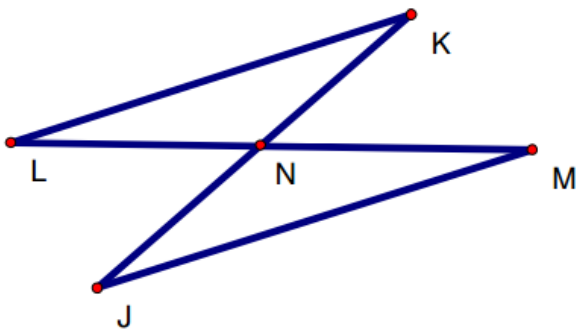
Statement	Reason

E. Given:
 Prove: $\angle LNK \cong \angle MNJ$



Statement	Reason

F. Given: $\overline{LK} \parallel \overline{JM}$
 Prove: $\angle K \cong \angle J$

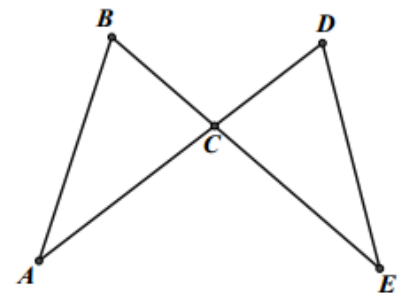


Statement	Reason

For each problem, do the following:

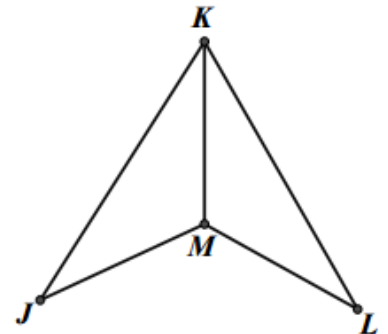
- Show the given information in the diagram (using tick marks to show congruent sides and arcs to show congruent angles)
- Show any other congruent parts you notice (from vertical angles, sides shared in common, or alternate interior angles with parallel lines)
- Give the postulate or theorem that proves the triangles congruent (SSS, SAS, ASA, AAS, HL)
- Finally, fill in the blanks to complete the proof.

1. Given: $\overline{BC} \cong \overline{DC}$; $\overline{AC} \cong \overline{EC}$
 Prove: $\triangle BCA \cong \triangle DCE$



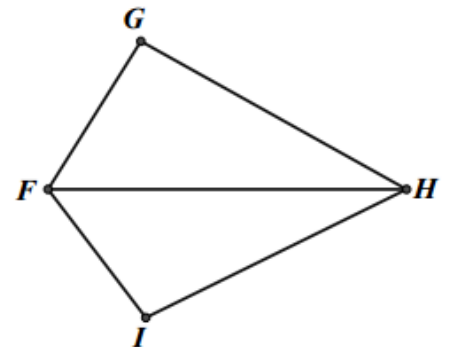
Statements	Reasons
1.	1. Given
2.	2. Vertical \angle s Theorem
3. $\triangle BCA \cong \triangle DCE$	3.

2. Given: $\overline{JK} \cong \overline{LK}$; $\overline{JM} \cong \overline{LM}$
 Prove: $\triangle KJM \cong \triangle KLM$



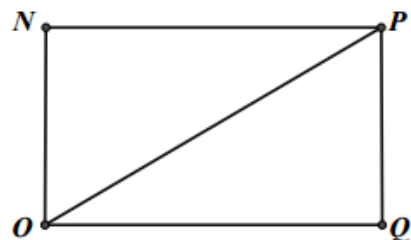
Statements	Reasons
1.	1.
2.	2. Reflexive Prop.
3.	3.

3. Given: $\angle G \cong \angle I$; \overline{FH} bisects $\angle GFI$
 Prove: $\triangle GFH \cong \triangle IFH$



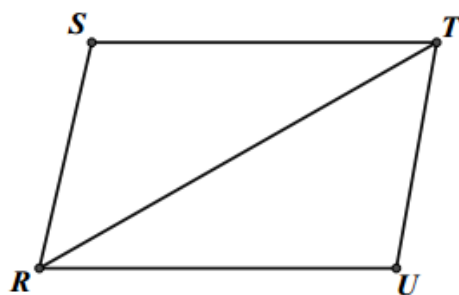
Statements	Reasons
1. $\angle G \cong \angle I$; \overline{FH} bisects $\angle GFI$	1.
2. $\angle GFH \cong \angle IFH$	2. Def. of _____
3.	3. Reflexive Prop.
4.	4.

4. Given: $\angle N$ and $\angle Q$ are right angles; $\overline{NO} \cong \overline{PQ}$
 Prove: $\triangle ONP \cong \triangle PQQ$



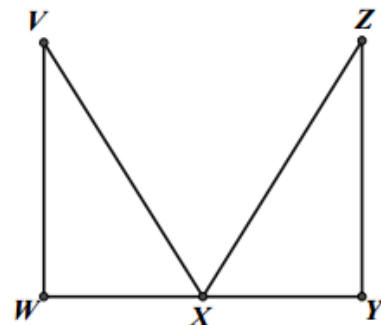
Statements	Reasons
1. $\angle N$ and $\angle Q$ are right angles	1.
2. $\triangle ONP$ and $\triangle PQQ$ are _____ triangles	2. Def. of right triangle
3.	3. Reflexive Prop.
4. $\overline{NO} \cong \overline{PQ}$	4.
5.	5.

5. Given: $\overline{ST} \parallel \overline{RU}$; $\overline{SR} \parallel \overline{TU}$
 Prove: $\triangle SRT \cong \triangle UTR$



Statements	Reasons
1. $\overline{ST} \parallel \overline{RU}$	1.
2.	2. If lines \parallel , alt. int. \angle s \cong
3. $\overline{SR} \parallel \overline{TU}$	3.
4. $\angle SRT \cong \angle UTR$	4.
5.	5.
6.	6.

6. Given: $\angle W$ and $\angle Y$ are right angles; $\overline{VX} \cong \overline{ZX}$; X is the midpoint of \overline{WY}
 Prove: $\triangle VWX \cong \triangle ZYX$



Statements	Reasons
1. $\angle W$ and $\angle Y$ are right angles	1.
2.	2. Def. of right triangle
3. $\overline{VX} \cong \overline{ZX}$; X is the midpoint of \overline{WY}	3.
4.	4. Def. of midpoint
5.	5.