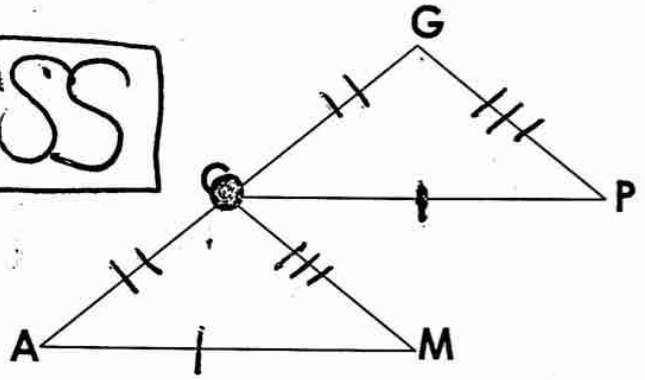
PROOF #1

Given: $\overline{AM} \cong \overline{CP}$, C is the midpoint of $\overline{AG}$, ~~AM ≅ CP~~ $\overline{CM} \cong \overline{GP}$

prove: $\Delta ACM \cong \Delta CGP$

SSS



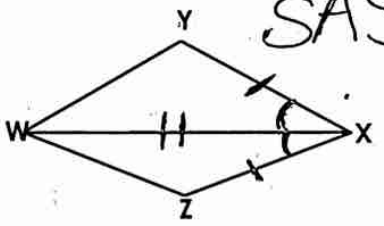
Statements	Reasons
$AM \cong CP$	given
C is the midpt of AG	given
$AC \cong GC$	defn. of midpoint
$CM \cong GP$	given
$\Delta ACM \cong CGP$	SSS

PROOF #2

Given: $\overline{YX} \cong \overline{XZ}$, $\overline{WX}$ bisects $\angle YXZ$

prove: $\Delta WYX \cong \Delta WZX$

SAS



Statements	Reasons
$\overline{YX} \cong \overline{XZ}$	given
$\overline{WX}$ bisects $\angle YXZ$	given
$\angle YXW \cong \angle ZXY$	defn. of bisects
$WX \cong WX$	reflexive property

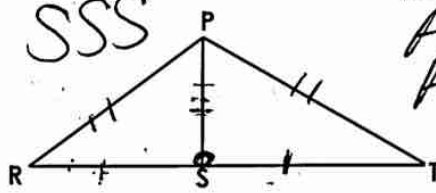
PROOF #3

Given: S is the midpoint of $\overline{RT}$, $\overline{PR} \cong \overline{PT}$

prove: $\Delta PRS \cong \Delta PTS$

SSS
SAS
AAS
ASA
HL

SSS



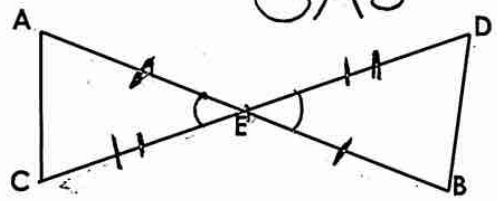
Statements	Reasons
S is midpt RT	given
$PR \cong PT$	given
$RS \cong TS$	defn. of midpoint
$PS \cong PS$	Reflexive
$\Delta PRS \cong \Delta PTS$	SSS

PROOF #4

Given: E is the midpoint of $\overline{AB}$, E is the midpoint of $\overline{CD}$

prove: $\Delta AEC \cong \Delta BED$

SAS



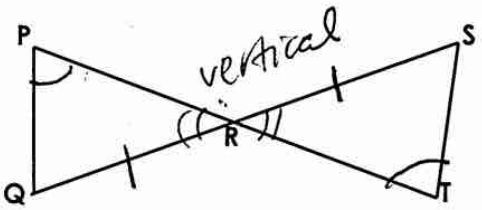
Statements	Reasons
E is midpt of AB	given
$AE \cong BE$	defn. of midpoint
E is midpt of CD	given
$CE \cong DE$	defn. of midpoint
$\angle AEC \cong \angle BED$	vertical
$\Delta AEC \cong \Delta BED$	SAS

PROOF #5

Given: R is the midpoint of $\overline{QS}$, $\angle RPQ \cong \angle RTS$

prove: $\Delta PQR \cong \Delta TSR$

AAS



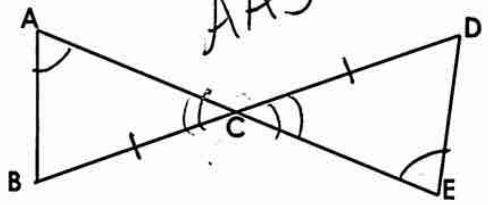
Statements	Reasons
R is midpt of QS	given
$QR \cong SR$	defn. of midpt.
$\angle RPQ \cong \angle RTS$	given
$\angle PRQ \cong \angle TRS$	vertical
$\Delta PQR \cong \Delta TSR$	AAS

PROOF #6

Given: $\angle A \cong \angle E$, $\overline{BC} \cong \overline{DC}$

prove: $\Delta ABC \cong \Delta DEC$

AAS

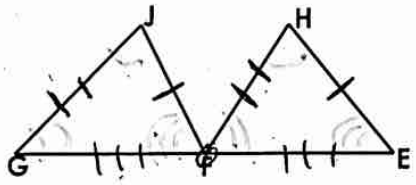


Statements	Reasons
$\angle A \cong \angle E$	given
$BC \cong DC$	given
$\angle ACB \cong \angle ECD$	vertical angles
$\Delta ABC \cong \Delta DEC$	AAS

PROOF #7

Given: $\overline{EH} \cong \overline{FJ}$, $\overline{HF} \cong \overline{JG}$, F is the midpoint of $\overline{EG}$

prove: $\angle EFH \cong \angle FGJ$ SSS

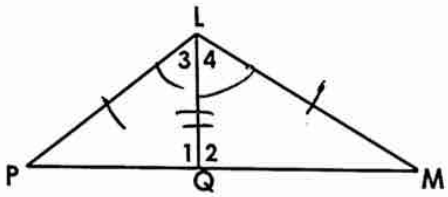


Statements	Reasons
$EH \cong FJ$	given
$HF \cong JG$	given
F is midpt $\overline{EG}$	given
$GF \cong EF$	defn. of midpt
$\Delta JGF \cong \Delta HFE$	SSS
$\angle EFH \cong \angle FGJ$	CPCTC

PROOF #8

Given: $\overline{PL} \cong \overline{LM}$, QL bisects ∠PLM

prove: ∠1 ≅ ∠2

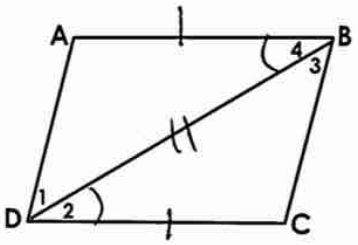


Statements	Reasons
PL=LM	given
QL bisects ∠PLM	given
∠3≅∠4	defn. of bisects
LQ≅LQ	reflexive
ΔPLQ≅ΔMLQ	SAS
∠1≅∠2	CPCTC

PROOF #9

Given: $\overline{AB} \cong \overline{DC}$, ∠2 ≅ ∠4

prove: ∠A ≅ ∠C

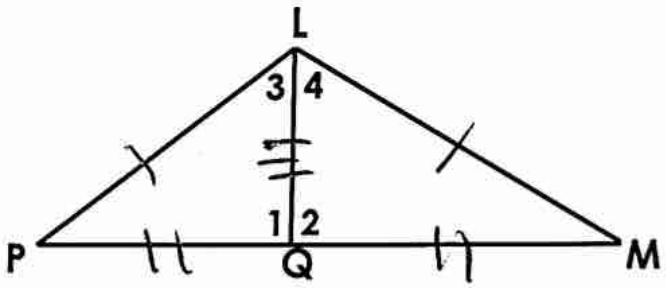


Statements	Reasons
AB=DC	given
∠2≅∠4	given
DB≅DB	reflexive
ΔABD≅ΔCDB	SAS
∠A≅∠C	CPCTC

PROOF #10

Given: $\overline{PL} \cong \overline{ML}$, Q is the midpoint of $\overline{PM}$

prove: $\angle 3 \cong \angle 4$



Statements	Reasons
$PL \cong ML$	given
Q is midpt PM	given
$PQ \cong MQ$	defn. of midpt
$LQ \cong LQ$	reflexive
$\triangle PLQ \cong \triangle MLQ$	SSS
$\angle 3 \cong \angle 4$	CPCTC