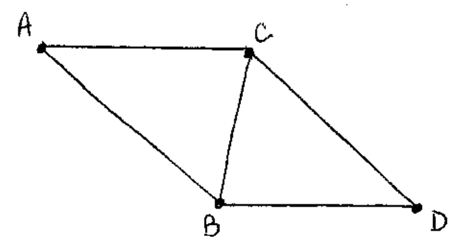
PROOF # 1

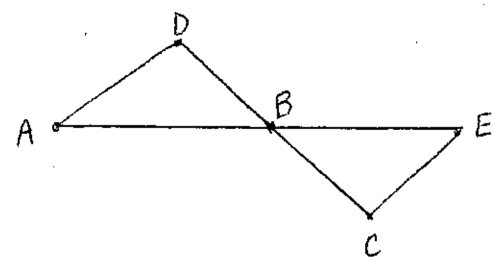


Given: $\overline{AC} \parallel \overline{BD}$ and $\overline{AB} \parallel \overline{CD}$

Prove: $\triangle ABC \cong \triangle DCB$

$\overline{AC} \parallel \overline{BD}$	Given
$\angle ACB \cong \angle DBC$	If 2 lines are $\parallel$, then alt int $\angle$'s are $\cong$
$\overline{AB} \parallel \overline{CD}$	Given
$\angle ABC \cong \angle DCB$	If 2 lines are $\parallel$, then alt int $\angle$'s are $\cong$
$\overline{BC} = \overline{BC}$	Reflexive
$\triangle ABC \cong \triangle DCB$	ASA

PROOF # 2

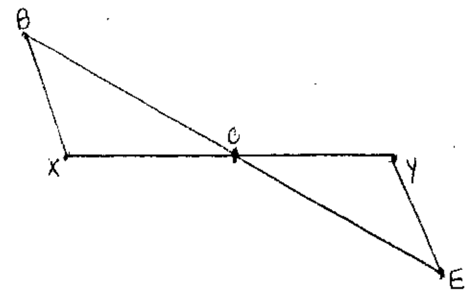


Given: $\angle A \cong \angle E$; $\overline{AE}$ bisects $\overline{DC}$ at B

Prove: $\triangle ABD \cong \triangle EBC$

$\angle A \cong \angle E$	Given
$\overline{AE}$ bisects $\overline{DC}$ at B	Given
$\overline{DB} \cong \overline{CB}$	Definition of Segment Bisector
$\angle ABD \cong \angle EBC$	Vertical Angles are $\cong$
$\triangle ABD \cong \triangle EBC$	AAS

PROOF # 3

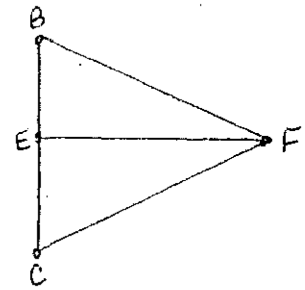


Given: C is the midpoint of $\overline{XY}$ and C is the midpoint of $\overline{BE}$

Prove: $\triangle XCB \cong \triangle YCE$

C is the midpoint of $\overline{XY}$ C is the midpoint of $\overline{BE}$	Given
$\overline{XC} \cong \overline{YC}$ and $\overline{BC} \cong \overline{EC}$	Definition of Midpoint
$\angle XCB \cong \angle YCE$	Vertical angles are $\cong$
$\triangle XCB \cong \triangle YCE$	SAS

PROOF # 4

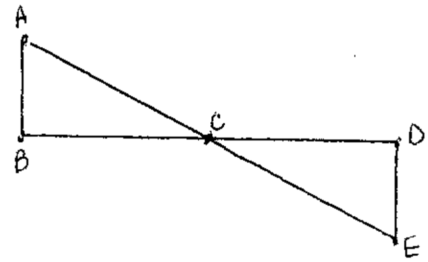


Given: $\overline{EF}$ bisects $\overline{BC}$ at E ; $\overline{BF} \cong \overline{CF}$

Prove: $\triangle BEF \cong \triangle CEF$

$\overline{EF}$ bisects $\overline{BC}$ at E	Given
$\overline{BE} \cong \overline{CE}$	Definition of Segment Bisector
$\overline{BF} \cong \overline{CF}$	Given
$\overline{EF} \cong \overline{EF}$	Reflexive
$\triangle BEF \cong \triangle CEF$	SSS

PROOF # 5



Given: C is the midpoint of $\overline{AE}$; C is the midpoint of $\overline{BD}$

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

Statement	Reason
C is the midpoint of $\overline{AE}$	Given
$\overline{AC} \cong \overline{EC}$	Definition of Midpoint
C is the midpoint of $\overline{BD}$	Given
$\overline{BC} \cong \overline{DC}$	Definition of Midpoint
$\angle$ B and $\angle$ D are right $\angle$'s	Given
$\angle B \cong \angle D$	All right angles are $\cong$
$\triangle ABC \cong \triangle EDC$	HL