Using Congruent Triangles (CPCTC)

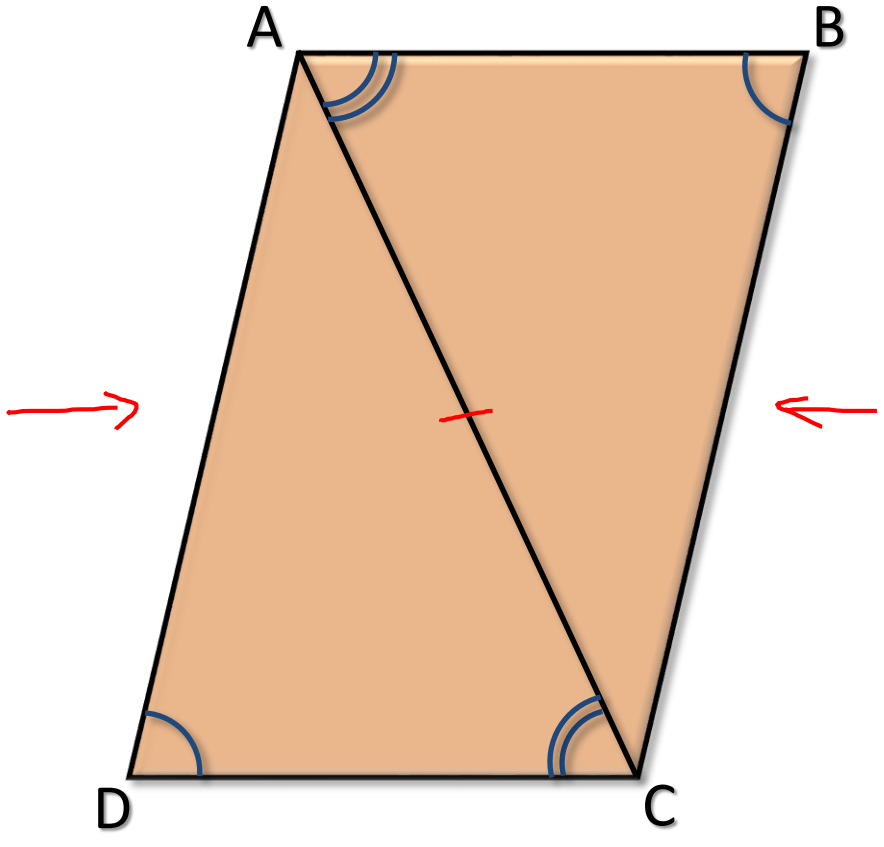
Section 5.7

CPCTC

- Two triangles are congruent iff their corresponding parts are congruent.

Corresponding Parts of Congruent Triangles are Congruent.

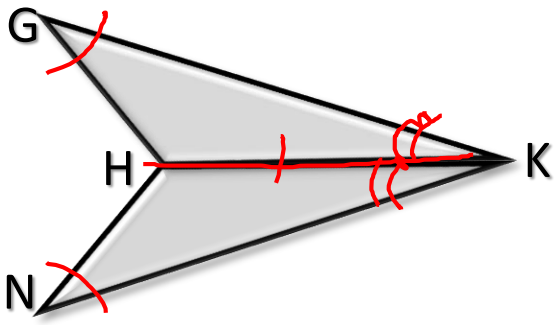
Can we say $\overline{AD} \cong \overline{BC}$? If so, how?



$\triangle ADC \cong \triangle CBA$
by AAS
$\overline{AD} \cong \overline{BC}$
CPCTC

Given: $\overline{HK}$ bisects $\angle GKN$, and $\angle G \cong \angle N$

Prove: $\overline{GK} \cong \overline{NK}$

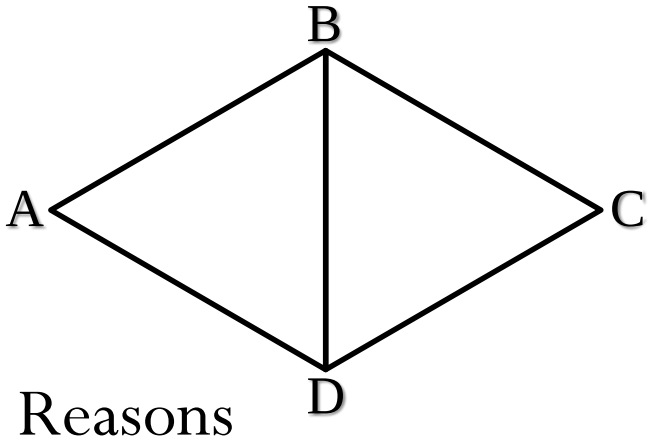


Statements	Reasons
1) $\overline{HK}$ bisects $\angle GKN$ $\angle G \cong \angle N$	1) given
2) $\angle GKH \cong \angle NKH$	2) def of bisector
3) $\overline{HK} \cong \overline{HK}$	3) reflexive
4) $\triangle KGH \cong \triangle KNH$	4) AAS
5) $\overline{GK} \cong \overline{NK}$	5) CPCTC

Given: $\angle ABD \cong \angle CBD$,

$\angle BDA \cong \angle BDC$

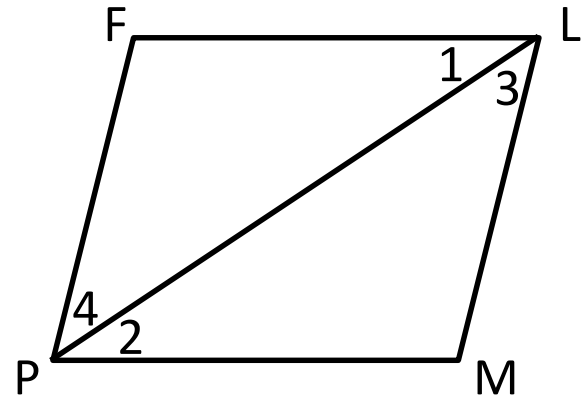
Prove: $\overline{AB} \cong \overline{CB}$



Statements	Reasons

Given: $\angle F \cong \angle M, \quad \angle 1 \cong \angle 2$

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



Statements	Reasons

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