

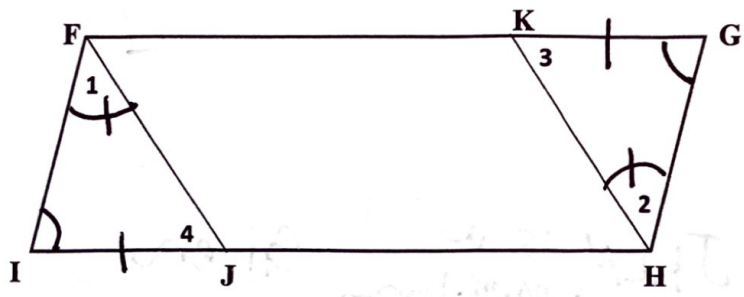
Math 3: Unit 6B
Parallelogram Flow Proofs

Name: McG Key

Example 1:

Given: $\angle I \cong \angle G$ $\angle 1 \cong \angle 2$ $\overline{JI} \cong \overline{KG}$

Prove: $\angle 3 \cong \angle 4$



$\angle I \cong \angle G$
Given

$\angle 1 \cong \angle 2$
Given

$\overline{JI} \cong \overline{KG}$
Given

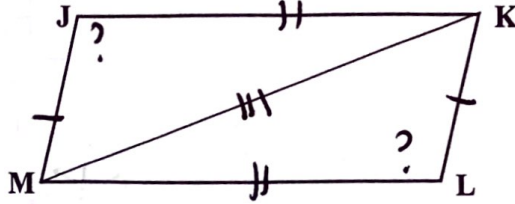
$\triangle JIF \cong \triangle KGH$ AAS

$\angle 3 \cong \angle 4$ CPCTC

Example 2:

Given: JKLM is a parallelogram

Prove: $\angle J \cong \angle L$



JKLM is a parallelogram — Given

$\overline{JK} \cong \overline{LM}$
 $\overline{JM} \cong \overline{LK}$

opposite sides of $\square \cong$

$\overline{MK} \cong \overline{MK}$

Reflexive Prop.

$\triangle JKM \cong \triangle LMK$ — SSS

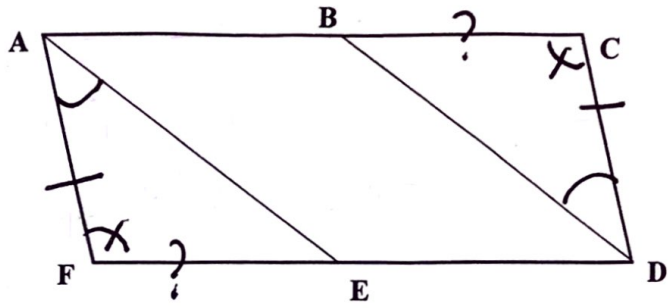
$\angle J \cong \angle L$ — CPCTC

Example 3:

Given: $ACDF$ is a parallelogram

$$\angle CDB \cong \angle FAE$$

Prove: $\overline{BC} \cong \overline{EF}$



$ACDF$ is a parallelogram
Given

$\angle CDB \cong \angle FAE$
Given

$\angle F \cong \angle C$

opposite \angle s of $\square \cong$

$\overline{AF} \cong \overline{DC}$

opposite sides of $\square \cong$

$\triangle AFE \cong \triangle DCB$

ASA

$\overline{BC} \cong \overline{EF}$

CPCTC