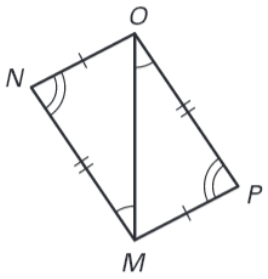
Honor's Keystone Geometry
4.2 Congruent Figures Proof Practice

Name _____
Date _____

Proof Complete the proof.

GIVEN: $\angle MNO \cong \angle OPM, \angle NMO \cong \angle POM, \overline{NO} \cong \overline{MP}, \overline{NM} \cong \overline{OP}$

PROVE: $\triangle NMO \cong \triangle POM$

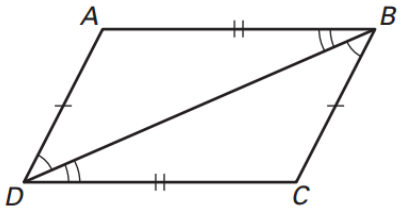


Statements	Reasons
1. $\angle MNO \cong \angle OPM, \angle NMO \cong \angle POM, \overline{NO} \cong \overline{MP}, \overline{NM} \cong \overline{OP}$	1. Given
2. $\overline{MO} \cong \overline{MO}$	2. ?
3. $\angle NOM \cong \angle PMO$	3. ?
4. $\triangle NMO \cong \triangle POM$	4. ?

Proof Complete the proof.

GIVEN: $\angle ABD \cong \angle CDB, \angle ADB \cong \angle CBD, \overline{AD} \cong \overline{BC}, \overline{AB} \cong \overline{DC}$

PROVE: $\triangle ABD \cong \triangle CDB$

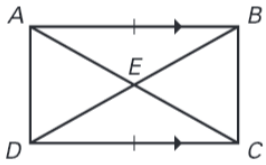


Statements	Reasons
1. $\angle ABD \cong \angle CDB, \angle ADB \cong \angle CBD, \overline{AD} \cong \overline{BC}, \overline{AB} \cong \overline{DC}$	1. Given
2. $\overline{BD} \cong \overline{BD}$	2. ?
3. ?	3. Third Angles Theorem
4. $\triangle ABD \cong \triangle CDB$	4. ?

Proof Complete the proof.

GIVEN: $\overline{AB} \parallel \overline{DC}$, $\overline{AB} \cong \overline{DC}$,
E is the midpoint of $\overline{AC}$ and $\overline{BD}$.

PROVE: $\triangle AEB \cong \triangle CED$



Statements	Reasons
1. $\overline{AB} \parallel \overline{DC}$, $\overline{AB} \cong \overline{DC}$, E is the midpoint of $\overline{AC}$ and $\overline{BD}$.	**1.** Given
2.	**2.** ?
3.	**3.** ?
4.	**4.** ?
5.	**5.** ?