



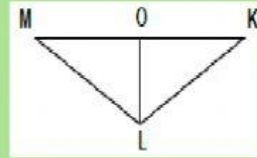
Activity 3.6 – Proving Statements on Triangle Congruence

Name: _____ Section: _____

DIRECTIONS: Complete the proof by choosing your answer from the choices. Write the CAPITAL LETTER of your answer on the box provided.

Activity 1: Complete Me!

1. Given: \overline{LO} bisects \overline{KM} , $\angle KOL \cong \angle MOL$
 Prove: $\angle KLO \cong \angle MLO$



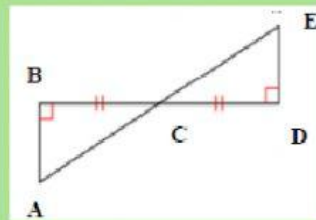
Proof:

Statements	Reasons
1.	1. Given
2. $\overline{KO} \cong \overline{MO}$	2. Definition of Segment Bisector
3.	3. Reflexive Property
4. $\angle KOL \cong \angle MOL$	4.
5. $\Delta KOL \cong \Delta MOL$	5.
6. $\angle KLO \cong \angle MLO$	6.

A. $\overline{LO} \cong \overline{LO}$	C. Given	E. ASA	G. $\angle KOL \cong \angle MOL$
B. $\overline{KO} \cong \overline{MO}$	D. \overline{LO} bisects \overline{KM}	F. CPCTC	H. SAS

Activity 2: Keep Trying!

- Given: $\overline{BC} \cong \overline{BD}$, C is the midpoint of \overline{AE}
 Prove: $\Delta ABC \cong \Delta EDC$



Proof:

Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

A. Given	D. SAS	G. Vertical angle theorem
B. $\angle BCA \cong \angle DCE$	E. $\overline{BC} \cong \overline{BD}$	H. $\Delta ABC \cong \Delta EDC$
C. Definition of midpoint	F. $\overline{AC} \cong \overline{EC}$	I. C is the midpoint of \overline{AE}