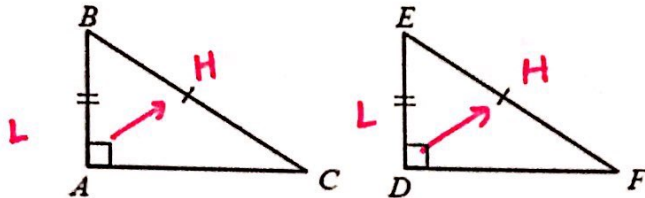


RIGHT TRIANGLE CONGRUENCE: HL

HYPOTENUSE-LEG (HL)

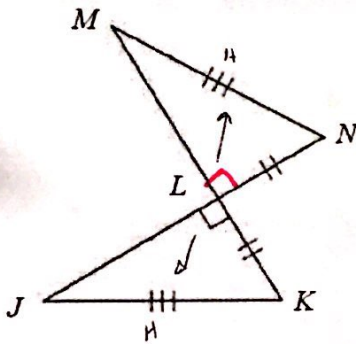
If two angles and the included side of one triangle are congruent to two angles and an included side of another triangle, then the triangles are congruent.



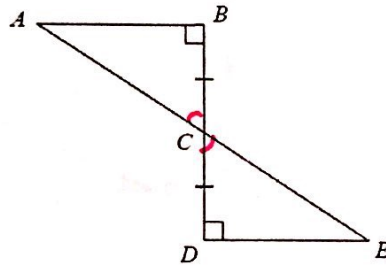
across from right angle
 $\overline{BC} \cong \overline{EF}$ (Hypotenuse)
 $\overline{AB} \cong \overline{DE}$ (leg)

Then, $\triangle ABC \cong \triangle DEF$

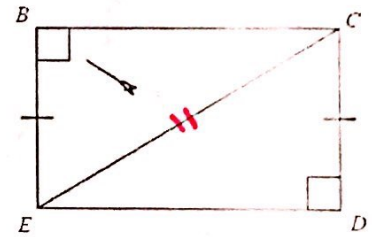
Directions: State whether the triangles could be congruent by HL. If so, write a congruency statement.



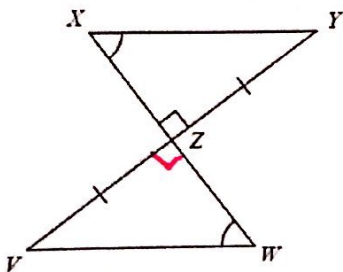
$\triangle MNL \cong \triangle JKL$ by HL



NOT HL *no H

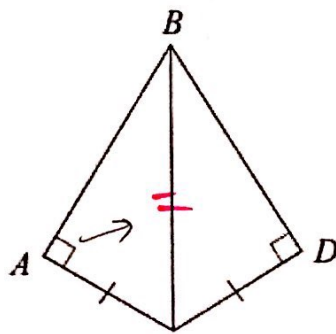


$\triangle BEC \cong \triangle DCE$ by HL



NOT HL

*no H



$\triangle ABC \cong \triangle DBC$ by HL



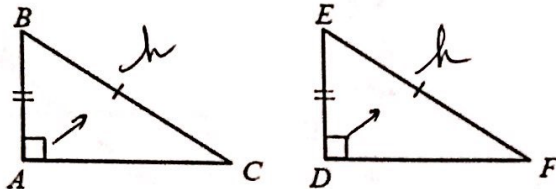
not HL

*no L

RIGHT TRIANGLE CONGRUENCE: HL

HYPOTENUSE-LEG (HL)

If two angles and the included side of one triangle are congruent to two angles and an included side of another triangle, then the triangles are congruent.

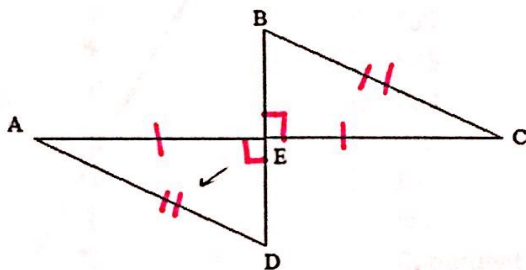


If $\overline{BC} \cong \overline{EF}$ (Hypotenuse)
 $\overline{AB} \cong \overline{DE}$ (leg)

Then, $\triangle ABC \cong \triangle DEF$

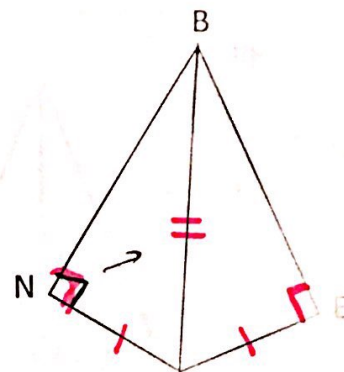
Directions: Label the diagram with the given information. State whether the triangles could be congruent by HL. If so, write a congruency statement.

$\overline{BD} \perp \overline{AC}$; \overline{BD} bisects \overline{AC} ; $\overline{BC} \cong \overline{AD}$



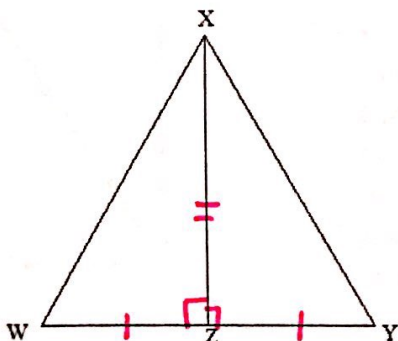
$\triangle AED \cong \triangle CEB$
by HL

$\angle BNA$ and $\angle BEA$ are right angles ; $\overline{BA} \cong \overline{EA}$



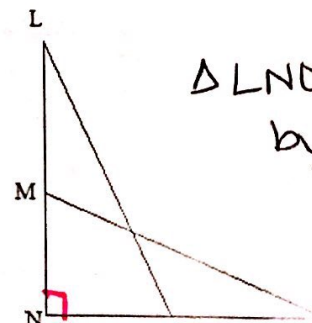
$\triangle NAB \cong \triangle EAB$ by HL

\overline{XZ} is the \perp bisector of \overline{WY}



not HL \neq both legs

$\angle N$ is a right angle ; $\overline{LO} \cong \overline{PM}$; $\overline{LN} \cong \overline{NO}$



$\triangle LNO \cong \triangle PNM$
by HL

