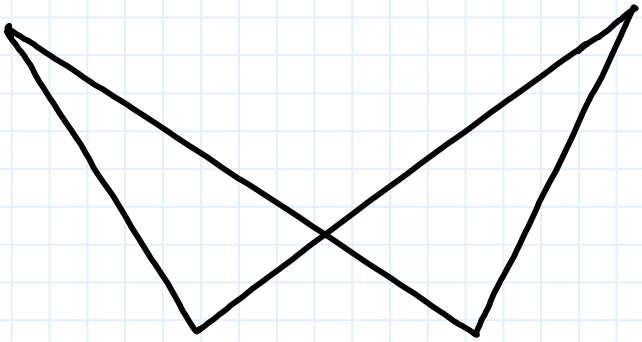
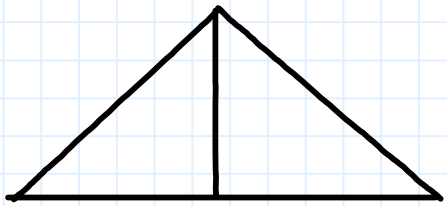
Proving Triangles Congruent: HL Theorem

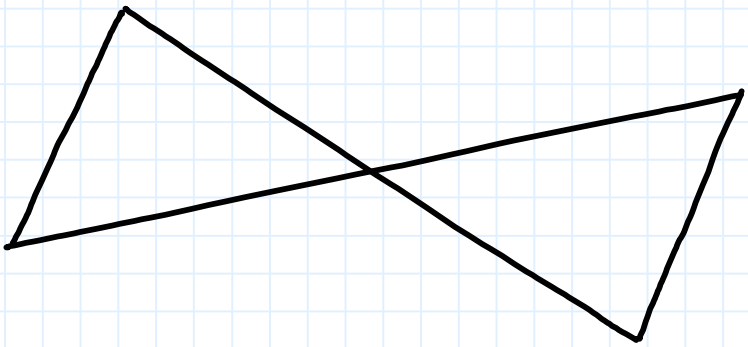
Overview of problems

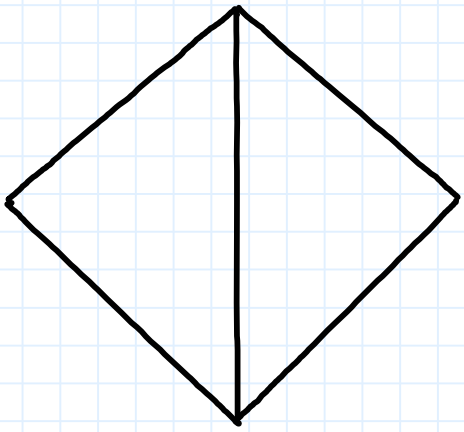
Example Set: A

Add more information to the figures so that one could prove the triangles are congruent using the HL Theorem

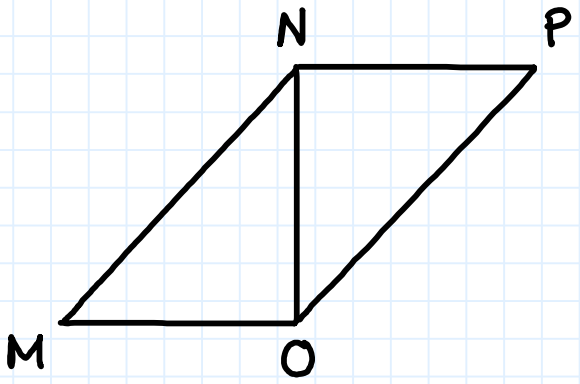








Example Set: B



Given: $NP \perp NO$, $MO \perp NO$

$MN \cong OP$

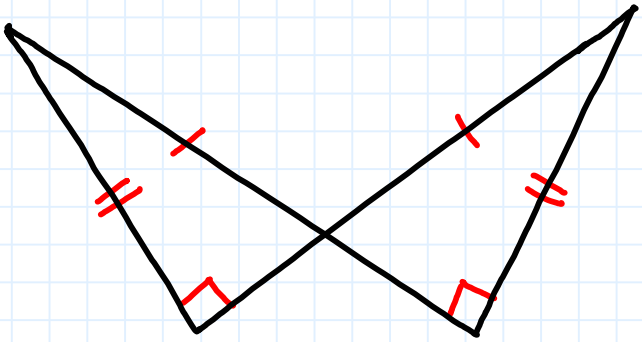
Prove: $\angle M \cong \angle P$

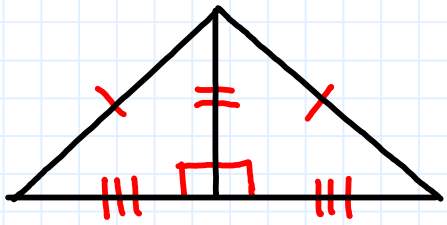
Proving Triangles Congruent: HL Theorem

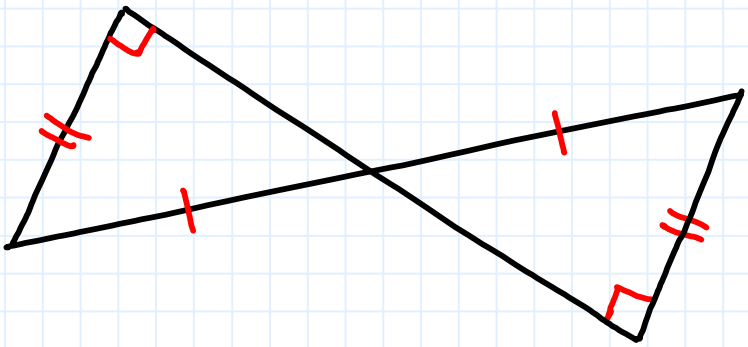
Overview of problems- KEY

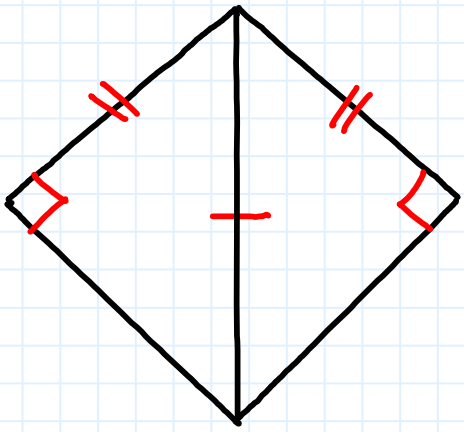
Example Set: A

Add more information to the figures so that one could prove the triangles are congruent using the HL Theorem









Example Set: B

Given: $NP \perp NO$, $MO \perp NO$

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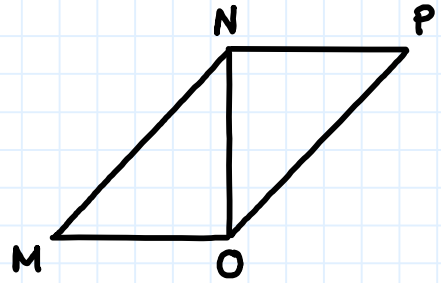

Statement	reason
$NP \perp NO$, $MO \perp NO$	Given
$\angle MON$, $\angle PNO$ are rt. $\angle$'s	Def. of $\perp$ lines
$\triangle MON$, $\triangle PNO$ are rt. $\triangle$	Def. of rt. $\triangle$'s
$MN \cong OP$	Given
$NO \cong NO$	Ref. Prop.
$\triangle MON \cong \triangle PNO$	HL Thm.
$\angle M \cong \angle P$	CPCT are $\cong$