

4-3

Practice

Form G

Triangle Congruence by ASA and AAS

3. Developing Proof Complete the proof by filling in the blanks.

Given: $\angle HIJ \cong \angle KIJ$

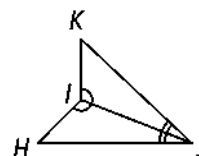
$$\angle IJH \cong \angle IJK$$

Prove: $\triangle HIJ \cong \triangle KIJ$

Proof: $\angle HIJ \cong \angle KIJ$ and $\angle IJH \cong \angle IJK$ are given.

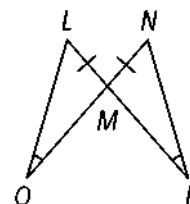
$\overline{IJ} \cong \overline{IJ}$ by ?.

So, $\triangle HIJ \cong \triangle KIJ$ by ?.



4. Given: $\angle LOM \cong \angle NPM$, $\overline{LM} \cong \overline{NM}$

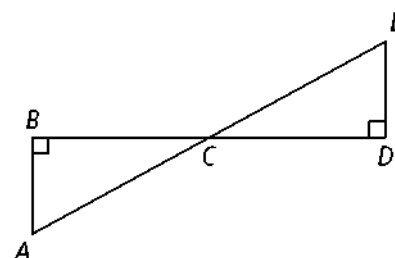
Prove: $\triangle LOM \cong \triangle NPM$



5. Given: $\angle B$ and $\angle D$ are right angles.

\overline{AE} bisects \overline{BD}

Prove: $\triangle ABC \cong \triangle EDC$



4-3

Practice (continued)

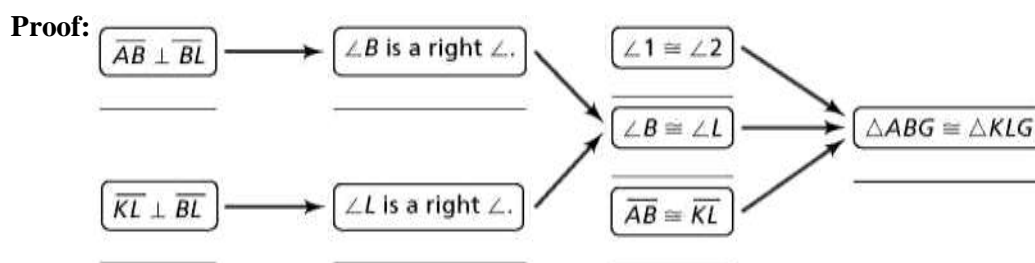
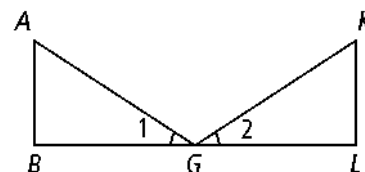
Form G

Triangle Congruence by ASA and AAS

6. Developing Proof Complete the proof.

Given: $\angle 1 \cong \angle 2$, $\overline{AB} \perp \overline{BL}$, $\overline{KL} \perp \overline{BL}$, $\overline{AB} \cong \overline{KL}$

Prove: $\triangle ABG \cong \triangle KLG$

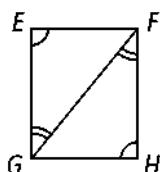


7. Write a flow proof.

Given: $\angle E \cong \angle H$

$\angle HFG \cong \angle EGF$

Prove: $\triangle EGF \cong \triangle HFG$

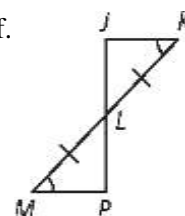


8. Write a two-column proof.

Given: $\angle K \cong \angle M$

$\overline{KL} \cong \overline{ML}$

Prove: $\triangle JKL \cong \triangle PML$

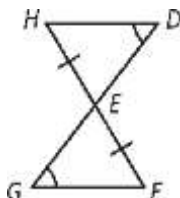


For Exercises 9 and 10, write a paragraph proof.

9. Given: $\angle D \cong \angle G$

$\overline{HE} \cong \overline{FE}$

Prove: $\triangle EFG \cong \triangle EHD$



10. Given: \overline{JM} bisects $\angle J$.

$\overline{JM} \perp \overline{KL}$

Prove: $\triangle JMK \cong \triangle JML$

