

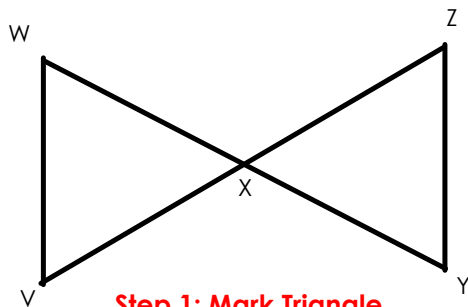
2.5 Proving Triangles are Congruent

Writing Proofs

Given: $\angle W \cong \angle Y$

X is the midpoint of WY

Prove: $\triangle WXV \cong \triangle ZYX$



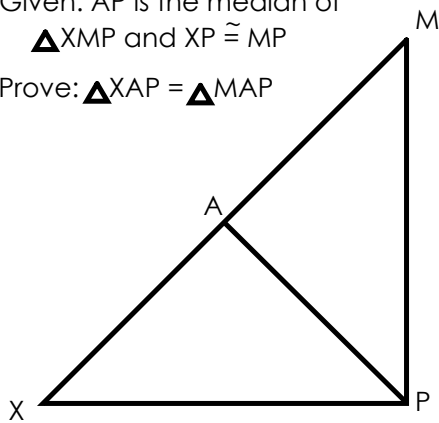
Step 1: Mark Triangle

Step 2: Draw T-Chart

Statement	Reason

Given: AP is the median of $\triangle XMP$ and $XP \cong MP$

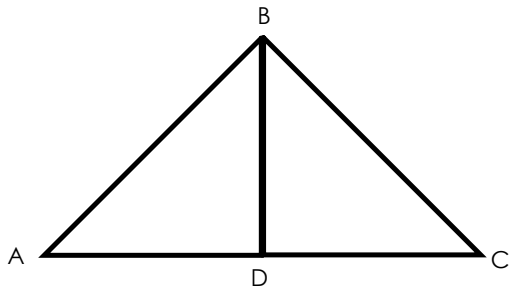
Prove: $\triangle XAP \cong \triangle MAP$



Given: $\overline{AC} \perp \overline{BD}$

BD is the bisects of \overline{AC}

Prove: $\triangle ABD \cong \triangle CBD$



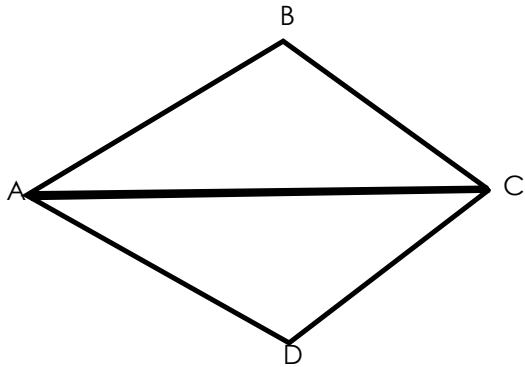
Writing Proofs

Given: $\angle B \cong \angle D$

\overline{AC} bisects $\angle A$

Prove: $\triangle ABC \cong \triangle ADC$

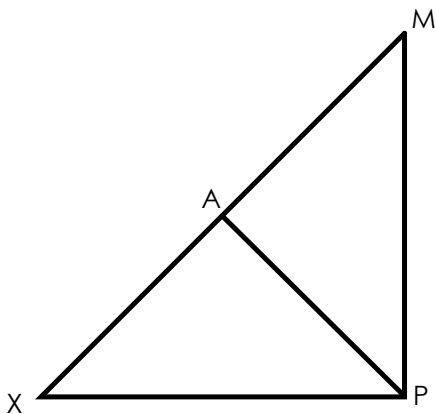
Step 2: Draw T-Chart



Step 1: Mark Triangle

Given: \overline{AP} is the altitude of $\triangle XMP$ and \overline{AP} bisects \overline{XM}

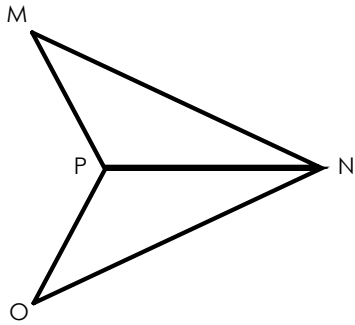
Prove: $\triangle XAP \cong \triangle MAP$



Independent Practice

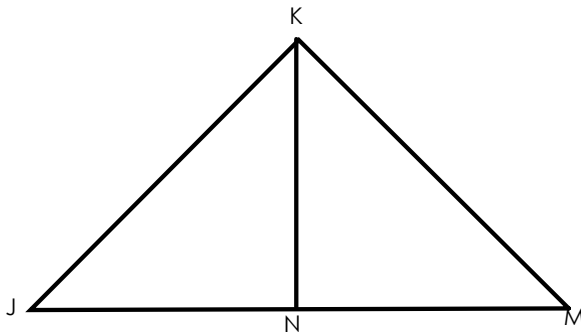
Given: $\overline{MN} \cong \overline{NP}$ and \overline{NP}
bisects $\angle ONM$

Prove: $\triangle MNP \cong \triangle ONP$



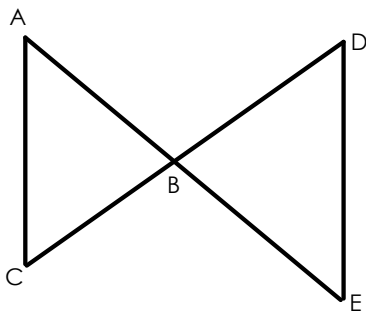
Given: $\angle J \cong \angle M$ and $\overline{KN} \perp \overline{JM}$

Prove: $\triangle JKN \cong \triangle MKN$



Given: B is the midpoint
of \overline{DC} and \overline{AE}

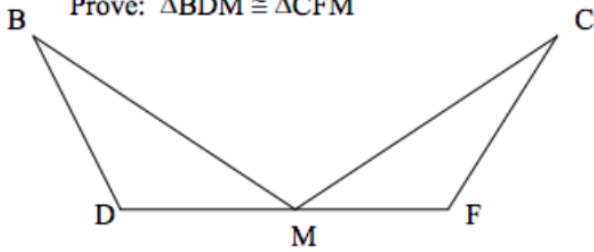
Prove: $\triangle ABC \cong \triangle DBE$



Writing Proofs

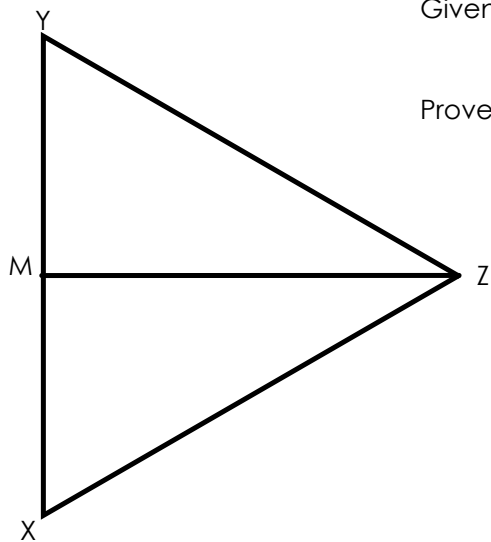
2. Given: $\angle DBM \cong \angle FCM$, $\angle BDM \cong \angle CFM$
M is the midpoint of \overline{DF}

Prove: $\triangle BDM \cong \triangle CFM$



Step 2: Draw T-Chart

Step 1: Mark Triangle



Given: \overline{ZM} is the median of \overline{YX}

\overline{XM} is the altitude of $\triangle XYZ$

Prove: $\triangle YZM \cong \triangle XZM$