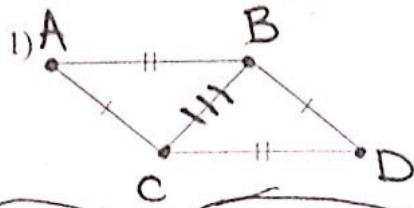
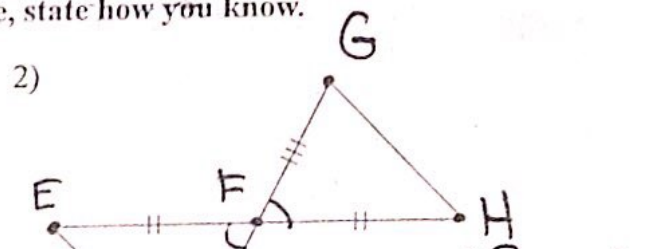


G5: Extra Triangle Proof Practice

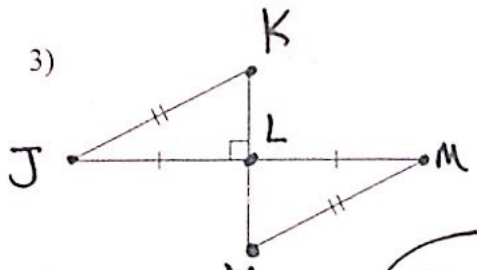
State if the two triangles are congruent. If they are, state how you know.



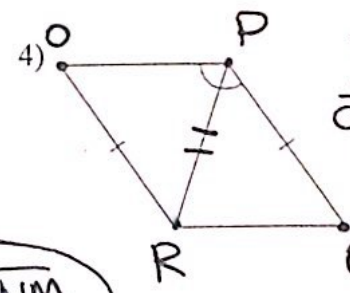
$\overline{AC} \cong \overline{BD}$  (Given)  
 $\overline{AB} \cong \overline{CD}$  (Given)  
 $\overline{BC} \cong \overline{CB}$  (Reflexive)  
 $\triangle ABC \cong \triangle DCB$  (SSS)



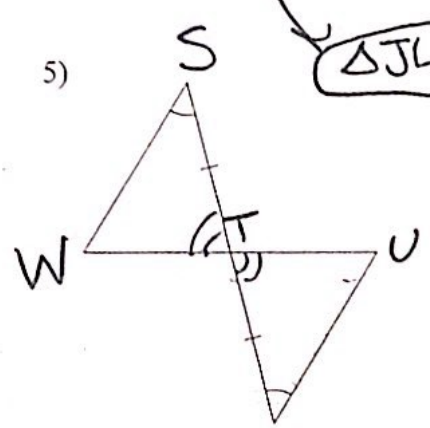
Statements	Reasons
$\overline{EF} \cong \overline{FH}$	Given
$\overline{FI} \cong \overline{FG}$	Given
$\angle EFI \cong \angle HFG$	Vertical angles
$\triangle EFI \cong \triangle HFG$	SAS



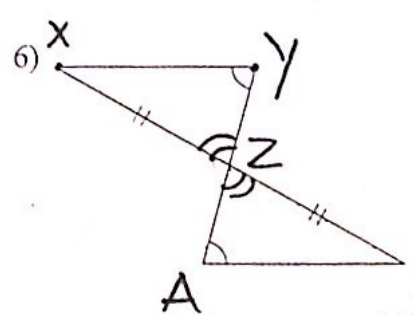
$\overline{JL} \cong \overline{LM}$  (Given)  
 $\overline{JN} \cong \overline{MN}$  (Given)  
 $\triangle JLN, \triangle MLN$  right triangles  
 rt. triangle has 90 degree angle  
 $\triangle JLN \cong \triangle MLN$  (HL)



Statements	Reasons
$\overline{OR} \cong \overline{PQ}$	Given
$\overline{RP} \cong \overline{RP}$	Reflexive Prop.
$\angle ORP \cong \angle PQR$	Given
Not enough info to prove congruence	



$\angle S \cong \angle V$  (Given)  
 $\overline{ST} \cong \overline{VT}$  (Given)  
 $\angle WTS \cong \angle UTV$  (Vert. Angles)  
 $\triangle STW \cong \triangle VTU$  (ASA)



Statements	Reasons
$\angle Y \cong \angle A$	Given
$\angle YZX \cong \angle AZB$	Vertical angles
$\overline{XZ} \cong \overline{ZB}$	Given
$\triangle XYZ \cong \triangle BAZ$	AAS