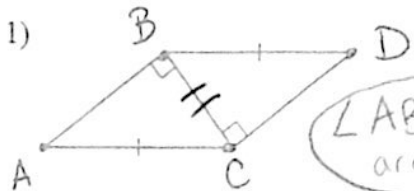


Triangle Congruence Flow Chart Practice C Level

Date _____ Period _____

Prove the two triangles are congruent using a flow chart proof.

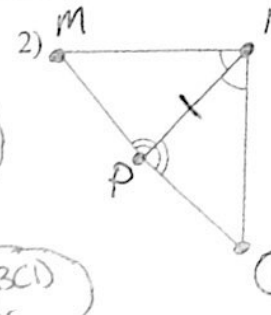
1) 

$\angle ABC$ and $\angle DCB$ are right angles
Given

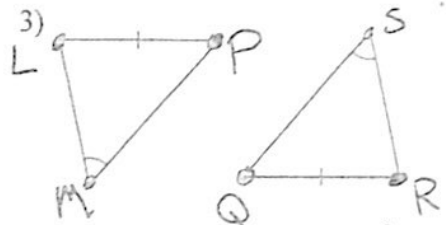
$\overline{AC} \cong \overline{BD}$ Given
 $\overline{BC} \cong \overline{BC}$ Reflexive Prop.

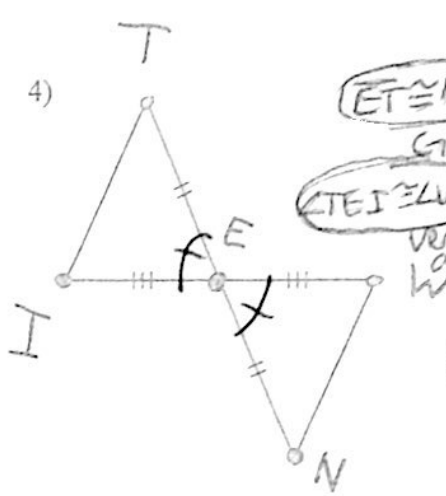
$\triangle ABC$ and $\triangle DCB$ are right \triangle s
Def. of right \triangle

$\triangle ABC \cong \triangle DCB$ HL \cong

2) 

Statement	Reason
$\angle MNP \cong \angle QNP$	Given
$\angle MPN \cong \angle QPN$	Given
$\overline{NP} \cong \overline{NP}$	Reflexive Prop
$\triangle MNP \cong \triangle QNP$	ASA \cong

3) 

4) 


$\overline{TE} \cong \overline{NE}$ Given
 $\overline{IG} \cong \overline{WE}$ Given

$\angle TEF \cong \angle NFE$ Vertical Angles

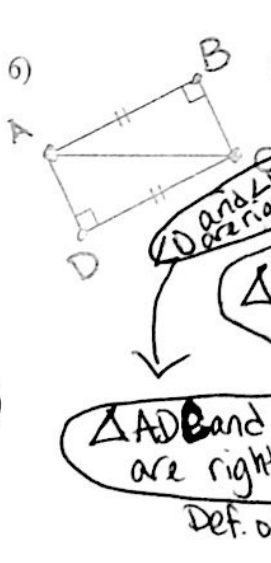
$\triangle TEF \cong \triangle NFE$ SAS \cong

Not enough info. Statements: $\overline{LP} \cong \overline{QR}$, $\angle M \cong \angle S$
Reasons: Given, Given

Not enough info. AS is not a congruence conjecture

5) 

Statement	Reasons
$\overline{EL} \cong \overline{CZ}$	Given
$\angle ELS \cong \angle CZS$	Given
$\angle LES \cong \angle CSZ$	Vertical angles
$\triangle SLE \cong \triangle SZC$	AAS \cong (or SAA \cong)

6) 

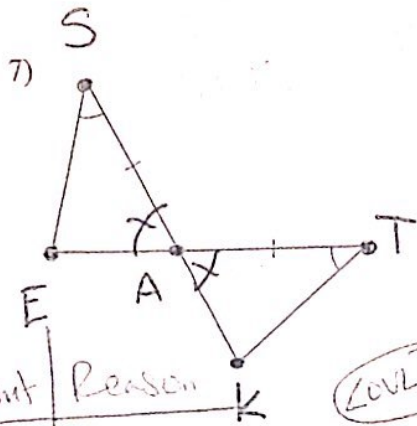
$\overline{AB} \cong \overline{DC}$ Given
 $\overline{AC} \cong \overline{CA}$ Reflexive Prop.

$\angle D$ and $\angle B$ are right angles
Given

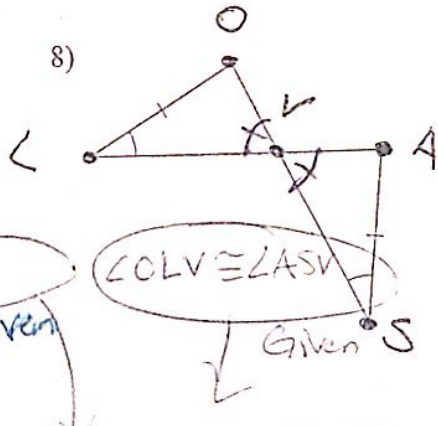
$\triangle ABC \cong \triangle CDA$

$\triangle ADB$ and $\triangle CBA$ are right \triangle s
Def. of right \triangle

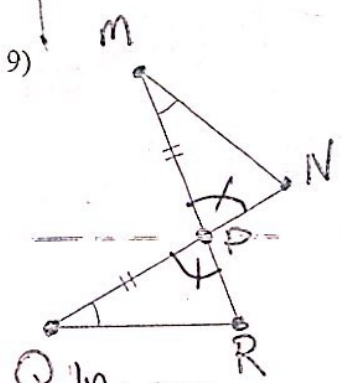
HL \cong



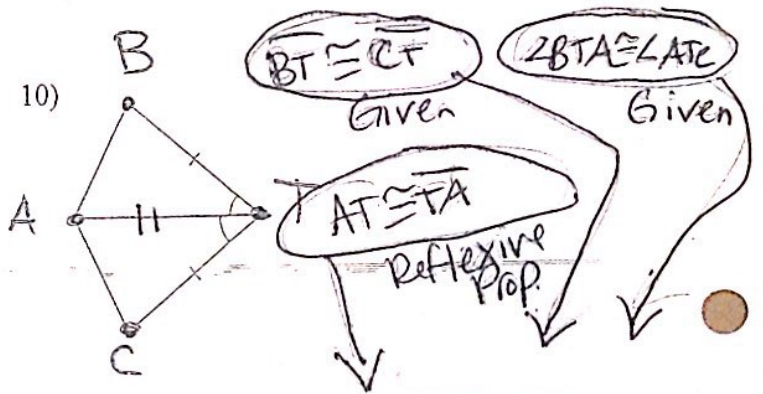
Statement	Reason
$SA \cong EA$	Given
$TA \cong KA$	Given
$\angle SAE \cong \angle TAK$	Vertical \angle s
$\triangle SAE \cong \triangle TAK$	ASA \cong



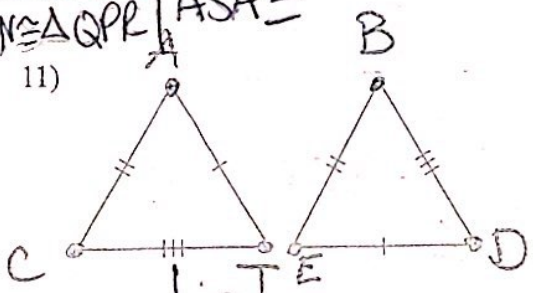
$\angle LOV \cong \angle VOS$ Given
 $\angle LOV \cong \angle SVS$ Vert. \angle s
 $\angle OSV \cong \angle ASV$ Given
 $\triangle LOV \cong \triangle SVA$ AAS \cong (or SAA \cong)



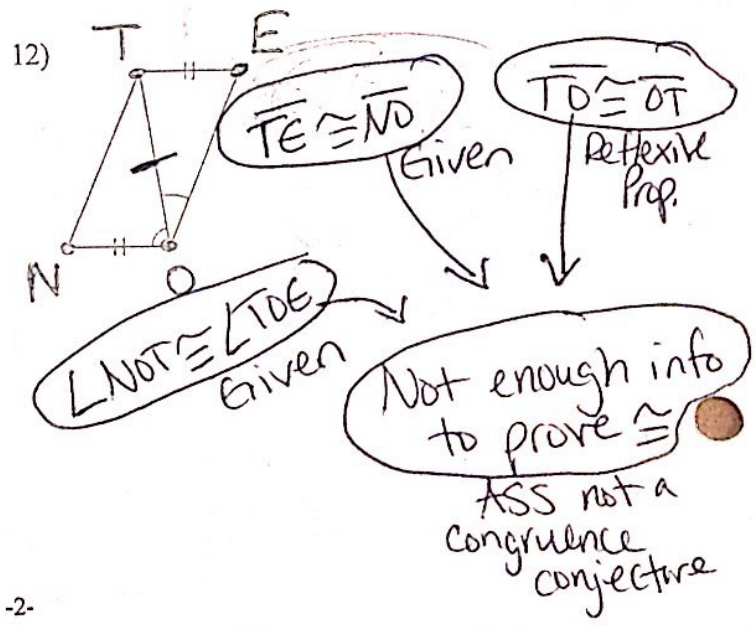
Statement	Reasons
$\angle M \cong \angle N$	Given
$MP \cong NP$	Given
$\angle MPN \cong \angle QPR$	Vert. \angle s
$\triangle MPN \cong \triangle QPR$	ASA \cong



$\overline{BH} \cong \overline{HT}$ Given
 $\angle BHT \cong \angle AHC$ Given
 $\overline{AH} \cong \overline{HC}$ Reflexive Prop.
 $\triangle CAT \cong \triangle BAT$ SAS \cong



Statement	Reason
$CT \cong BT$	Given
$AT \cong TD$	Given
$\overline{CT} \cong \overline{BD}$	Given
$\triangle CAT \cong \triangle BED$	SSS \cong



$\overline{TE} \cong \overline{NO}$ Given
 $\overline{TO} \cong \overline{OT}$ Reflexive Prop.
 $\angle NOT \cong \angle TOE$ Given
 Not enough info to prove \cong
 ASS not a congruence conjecture