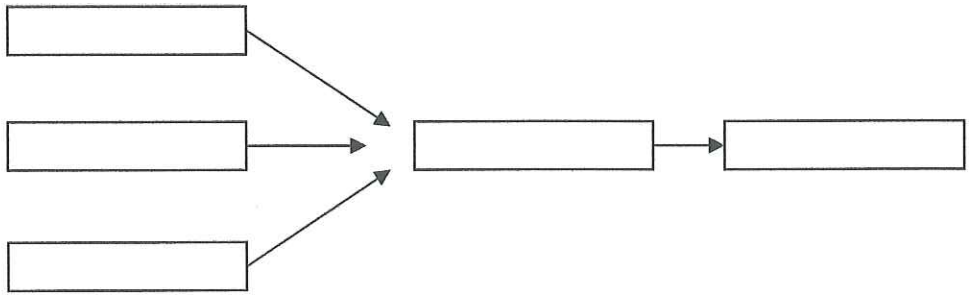
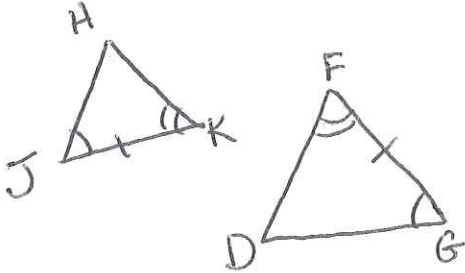


# ASA TRIANGLE CONGRUENCE THEOREM

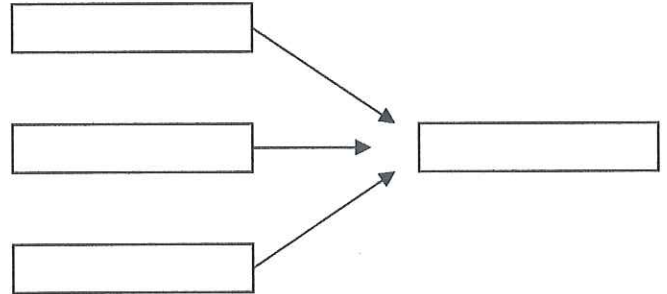
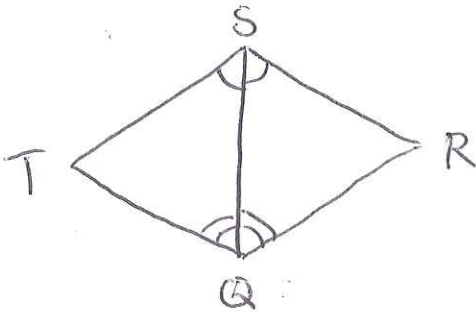
Name: \_\_\_\_\_

Complete the following flowcharts

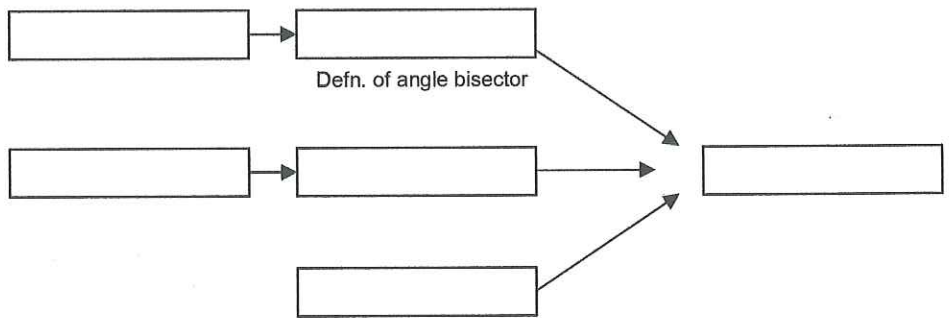
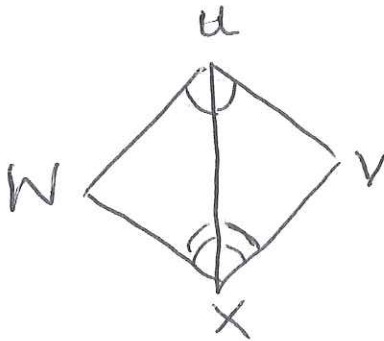
1. Given: The picture below.  
 Prove:  $KH \cong FD$



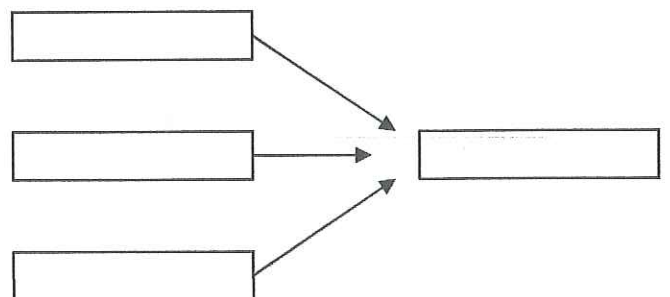
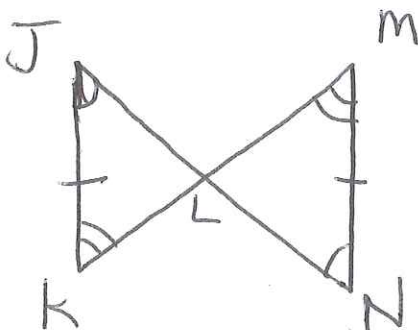
2. Given: The picture below.  
 Prove:  $\triangle QRS \cong \triangle QTS$



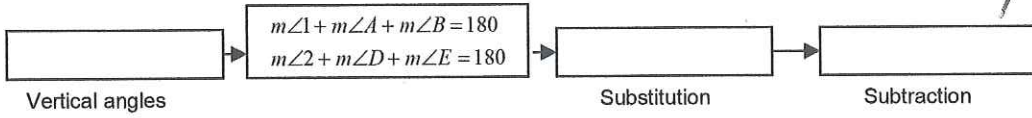
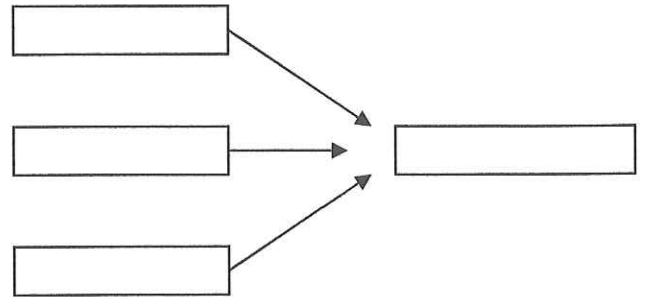
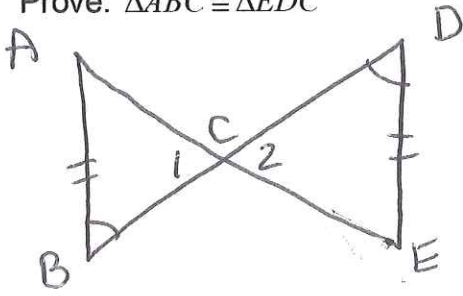
3. Given:  $\overline{UX}$  bisects  $\angle WUV$  and  $\overline{UX}$  bisects  $\angle WXV$ .  
 Prove:  $\triangle WXU \cong \triangle VXU$



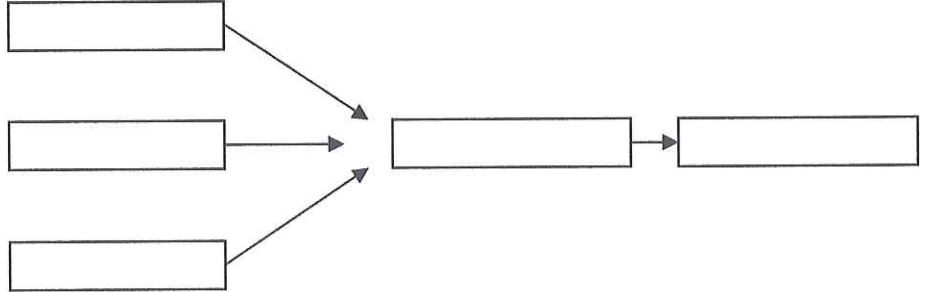
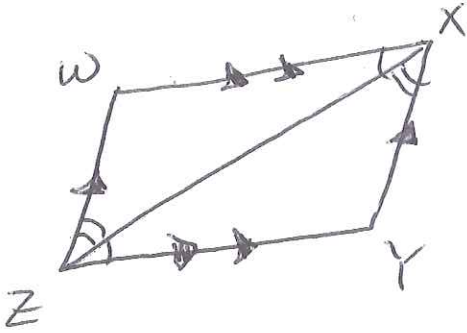
4. Given: The picture below.  
 Prove:  $\triangle LJK \cong \triangle LNM$



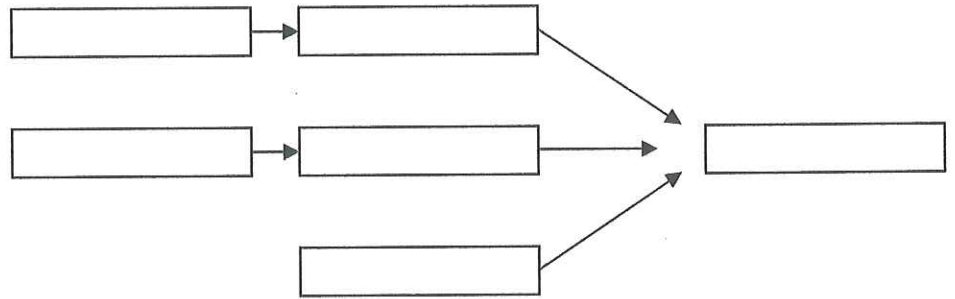
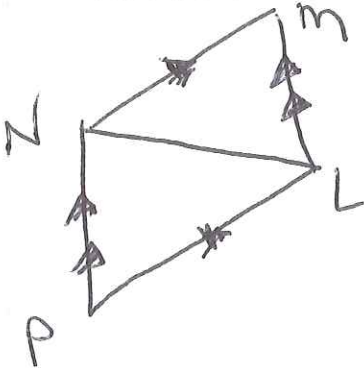
5. Given: The picture below.  
 Prove:  $\triangle ABC \cong \triangle EDC$



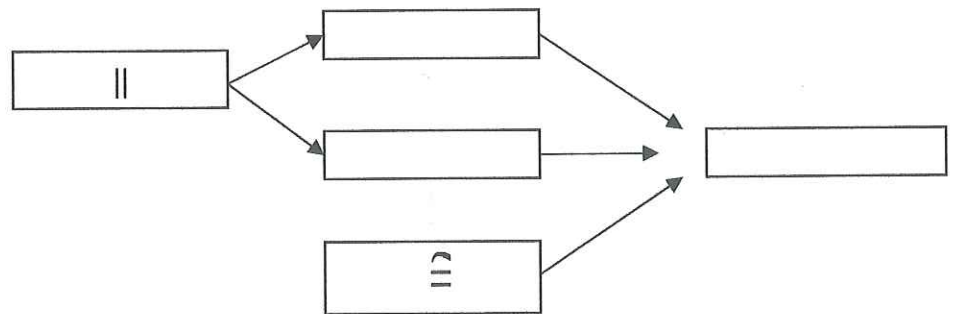
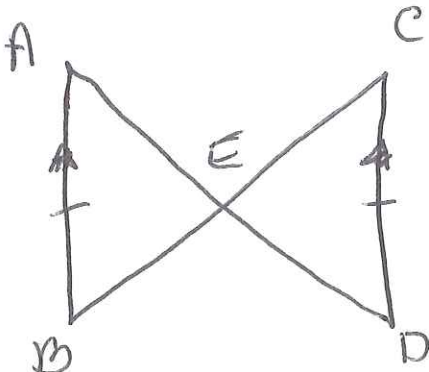
6. Given: The picture below.  
 Prove:  $\angle W \cong \angle Y$



7. Given:  $\overline{MN} \parallel \overline{LP}$  and  $\overline{NP} \parallel \overline{ML}$ .  
 Prove:  $\triangle NLP \cong \triangle LNM$



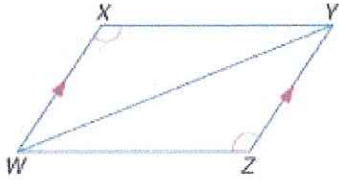
8. Given:  $\overline{AB} \cong \overline{CD}$  and  $\overline{AB} \parallel \overline{CD}$ .  
 Prove:  $\triangle ABE \cong \triangle DCE$



Complete the following flowchart proofs. Each problem uses AAS.

#1

Given:  $\overline{XW} \parallel \overline{YZ}$ ,  $\angle X \cong \angle Z$   
 Prove:  $\triangle WXY \cong \triangle YZW$

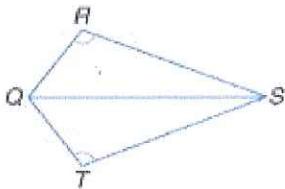


Flowchart for problem #1:

- Step 1: [ ] → [ ]
- Step 2: [ ] → [ ]
- Step 3: [ ] → [ ]

#2

Given:  $\overline{QS}$  bisects  $\angle RST$ ;  $\angle R \cong \angle T$   
 Prove:  $\triangle QRS \cong \triangle QTS$

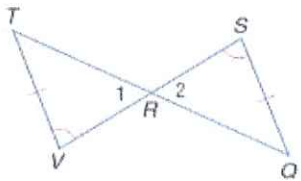


Flowchart for problem #2:

- Step 1: [ ] → [ ]
- Step 2: [ ] → [ ]
- Step 3: [ ] → [ ]

#3

Given:  $\angle V \cong \angle S$ ,  $\overline{TV} \cong \overline{QS}$   
 Prove:  $\overline{VR} \cong \overline{SR}$

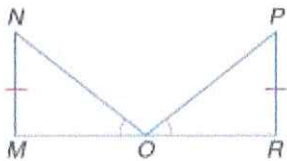


Flowchart for problem #3:

- Step 1: [ ] → [ ]
- Step 2: [ ] → [ ]
- Step 3: [ ] → [ ]

#4

Given:  $\angle NOM \cong \angle POR$ ,  
 $\overline{NM} \perp \overline{MR}$   
 $\overline{PR} \perp \overline{MR}$ ,  $\overline{NM} \cong \overline{PR}$   
 Prove:  $\overline{MO} \cong \overline{OR}$



Flowchart for problem #4:

- Step 1: [ ] → [ ]
- Step 2: [ ] → [ ]
- Step 3: [ ] → [ ]
- Step 4: [ ] → [ ]
- Step 5: [ ] → [ ]
- Step 6: [ ] → [ ]
- Step 7: [ ] → [ ]

Labels: Def of  $\perp$  (under Step 2 and Step 6)