

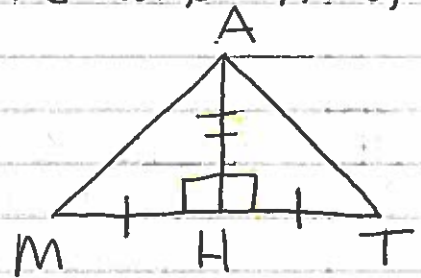
## 2 Column PROOFS

1st: Mark picture with the given info.

2nd: Mark any vertical  $\angle$ 's  $\cong$ , alternate interior  $\angle$ 's  $\cong$  if lines are  $\parallel$ , any shared sides  $\cong$  by reflexive property

\* Last statement is what you are trying to prove  
If proving  $\Delta$ 's  $\cong$ , last reason will be ASA, SAS, AAS, SSS or HL

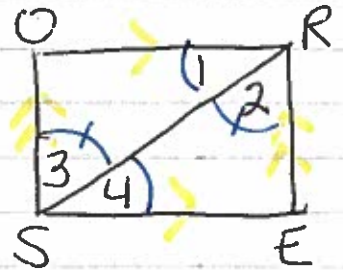
① Given:  
AH is the  $\perp$  bisector



Prove:  
 $\Delta MAH \cong \Delta TAH$

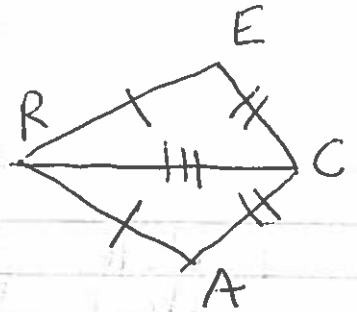
Statements	Reasons
1. $\overline{AH}$ is $\perp$ bisector	Given
2. $\angle MHA + \angle THA$ are $90^\circ$	Def. of $\perp$ bisector
3. $\angle MHA \cong \angle THA$	all right $\angle$ 's are $\cong$
4. $\overline{MH} \cong \overline{TH}$	Def. of $\perp$ bisector
5. $\overline{AH} \cong \overline{AH}$	Reflexive
6. $\Delta MAH \cong \Delta TAH$	SAS

② Given:  $\overline{RO} \parallel \overline{ES}$   
 $\overline{RE} \parallel \overline{OS}$   
Prove:  $\Delta RES \cong \Delta SOR$



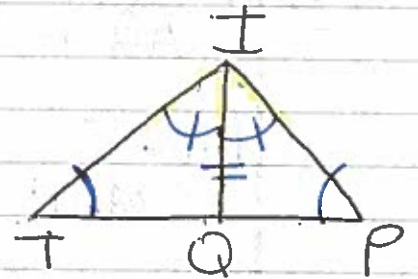
Statements	Reasons
1. $\overline{RO} \parallel \overline{ES}$	Given
2. $\angle 1 \cong \angle 4$	Alt. Int. $\angle$ Thm
3. $\overline{RE} \parallel \overline{OS}$	Given
4. $\angle 2 \cong \angle 3$	Alt. Int. $\angle$ Thm
5. $\overline{RS} \cong \overline{RS}$	Reflexive
6. $\Delta RES \cong \Delta SOR$	ASA

③ Given:  $\overline{AR} \cong \overline{ER}$   
 $\overline{EC} \cong \overline{AC}$   
 Prove:  $\triangle ECR \cong \triangle ACR$



	Statements	Reasons
1.	$\overline{AR} \cong \overline{ER}$	Given
2.	$\overline{EC} \cong \overline{AC}$	Given
3.	$\overline{RC} \cong \overline{RC}$	Reflexive
4.	$\triangle ECR \cong \triangle ACR$	SSS

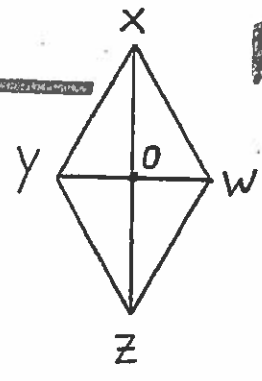
④ Given:  $\angle T \cong \angle P$   
 $\overline{IQ}$  is an angle bisector



Prove:  $\triangle IQT \cong \triangle IQP$

	Statements	Reasons
1.	$\angle T \cong \angle P$	given
2.	$\overline{IQ}$ is an $\angle$ bisector	given
3.	$\angle TIQ \cong \angle PIQ$	def. of $\angle$ bisector
4.	$\overline{IQ} \cong \overline{IQ}$	Reflexive
5.	$\triangle IQT \cong \triangle IQP$	AAS or SAA

1. Given:  $\overline{YX} \cong \overline{WX}$  NAME: \_\_\_\_\_  
 $\overline{ZX}$  bisects  $\angle YXW$

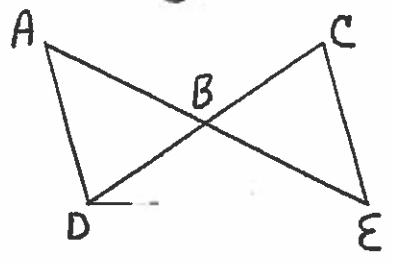


Prove:  $\triangle YXZ \cong \triangle WXZ$

Statements	Reasons
1. $\overline{YX} \cong \overline{WX}$	1.
2. $\overline{ZX}$ bisects $\angle YXW$	2.
3. $\angle YXZ \cong \angle WXZ$	3.
4. $\overline{XZ} \cong \overline{XZ}$	4.
5. $\triangle YXZ \cong \triangle WXZ$	5.

MARK PICTURES !! 😊

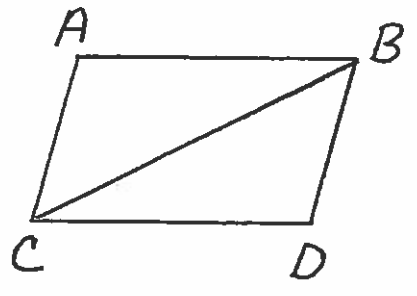
2. Given:  $\angle A \cong \angle E$   
 $\overline{AE}$  bisects  $\overline{DC}$



Prove:  $\triangle ABD \cong \triangle EBC$

Statements	Reasons
1. $\angle A \cong \angle E$	1.
2. $\overline{AE}$ bisects $\overline{DC}$	2.
3. $\overline{DB} \cong \overline{BC}$	3.
4. $\angle ABD \cong \angle EBC$	4.
5. $\triangle ABD \cong \triangle EBC$	5.

3. Given:  $\overline{AB} \parallel \overline{CD}$   
 $\overline{AC} \parallel \overline{BD}$

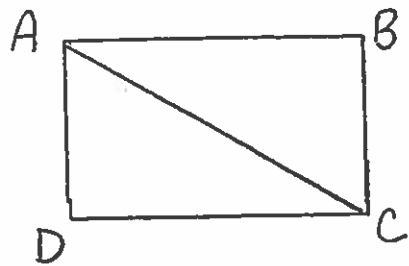


Prove:  $\triangle ABC \cong \triangle DCB$

Statements	Reasons
1. $\overline{AB} \parallel \overline{CD}$	1.
2. $\angle ABC \cong \angle DCB$	2.
3. $\overline{AC} \parallel \overline{BD}$	3.
4. $\angle ACB \cong \angle DBC$	4.
5. $\overline{CB} \cong \overline{CB}$	5.
6. $\triangle ABC \cong \triangle DCB$	6.

4. Given :  $\overline{AD} \cong \overline{BC}$   
 $\overline{AD} \parallel \overline{BC}$

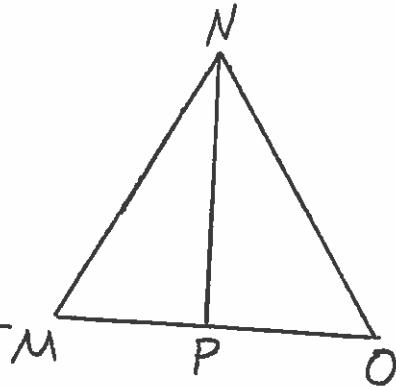
Prove:  $\triangle ABC \cong \triangle CDA$



Statements	Reasons
1.	1.
2. $\overline{AD} \parallel \overline{BC}$	2.
3.	3.
4.	4.
5. $\triangle ABC \cong \triangle CDA$	5.

5. Given :  $\overline{PN}$  bisects  $\angle MNO$   
 $\overline{MN} \cong \overline{NO}$

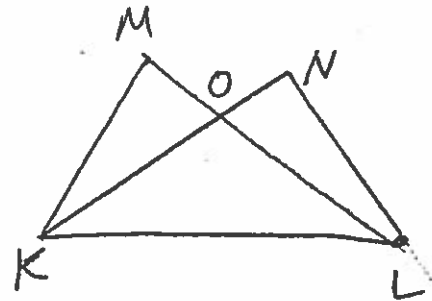
Prove:  $\triangle MNP \cong \triangle ONP$



Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

6. Given :  $\angle M \cong \angle N$   
 $\angle NKL \cong \angle MLK$

Prove:  $\triangle MLK \cong \triangle NKL$



Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.