



Mr. Calix

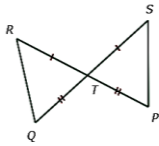
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Student's Name: \_\_\_\_\_

**Instructions:** Read carefully each statements and then prove every single proof (in your notebook ), remember follow the steps and justify every single step. And then send to my e-mail

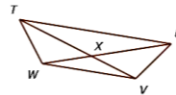
**1. Complete the following proof.**

Complete the proof that  $\triangle QRT \cong \triangle PST$ .



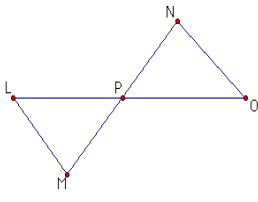
Statement	Reason
1 $\overline{RT} \cong \overline{ST}$	Given
2 $\overline{QT} \cong \overline{PT}$	Given
3 $\angle PTS \cong \angle QTR$	Vertical Angle Theorem
4 $\triangle QRT \cong \triangle PST$	

$\triangle UVW \cong \triangle TWV$ . Complete the proof that  $\triangle TUV \cong \triangle TWV$ .



Statement	Reason
1 $\triangle UVW \cong \triangle TWV$	Given
2 $\overline{TV} \cong \overline{UV}$	
3 $\overline{VW} \cong \overline{WV}$	CPCTC
4 $\overline{TU} \cong \overline{TU}$	Reflexive Property of Congruence
5 $\triangle TUV \cong \triangle TWV$	SSS

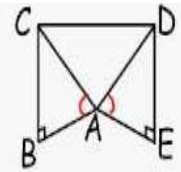
**2. Prove the following proof.**



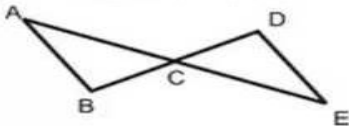
Given:  
P is the midpoint of  $\overline{LO}$  and  $\overline{MN}$ .  
Show that  $LM \parallel NO$ .

Given:  $\angle CAB \cong \angle DAE$ ,  $AB \cong AE$ ,  
 $\angle ABC$  and  $\angle AED$  are rt  $\angle$ 's

Prove:  $\triangle ABC \cong \triangle AED$



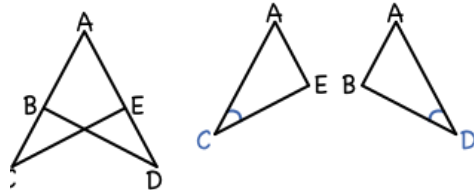
Given:  $\overline{AB} \cong \overline{DE}$



C is the midpoint of  $\overline{AE}$  and  $\overline{DB}$

Prove:  $\triangle ACB \cong \triangle ECD$

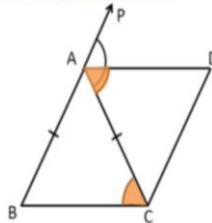
Given:  $\angle C \cong \angle D$ ,  $\overline{AC} \cong \overline{AD}$   
Prove:  $\triangle ACE \cong \triangle ADB$



ABC is an isosceles triangle in which  $AB = AC$ . AD bisects exterior angle PAC and  $CD \parallel AB$ . Show that  
(i)  $\angle DAC = \angle BCA$  and

Given:  $\triangle ABC$  where  $AB = AC$   
AD bisects  $\angle PAC$ ,  
&  $CD \parallel AB$

To prove:  $\angle DAC = \angle BCA$



**3. Exemplify three theorems about triangles.**

**4. Practice triangle in the following page:**

<https://www.ixl.com/math/geometry/proving-triangles-congruent-by-sss-sas-asa-and-aas>