

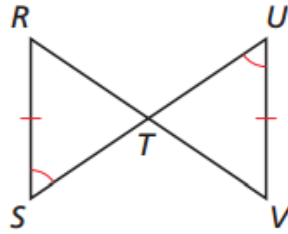
Proofs for Example #4

Write a two-column proof.

Given: the diagram

Prove: $\triangle RST \cong \triangle VUT$

****USE ASA $\cong$!!!!!!****



PROOF #1:

Statements	Reasons
$\overline{RS} \cong \overline{VU}$ $\angle S \cong \angle U$	Given
$\angle RTS \cong \angle VTU$	Vertical angles are congruent
$\angle R \cong \angle V$	Third Angles Theorem
$\triangle RST \cong \triangle VUT$	ASA $\cong$

PROOF #2:

Statements	Reasons
$\overline{RS} \cong \overline{VU}$ $\angle S \cong \angle U$	Given
$\overline{RS} \parallel \overline{VU}$	If alt. int. angles are $\cong \rightarrow \parallel$
$\angle R \cong \angle V$	If $\parallel \rightarrow$ alt. int. angles are $\cong$
$\triangle RST \cong \triangle VUT$	ASA $\cong$