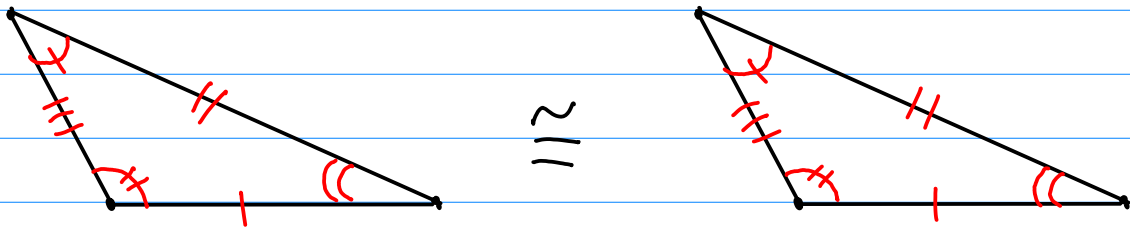


§4.4: $\cong \Delta$'s #1

• What makes 2 Δ 's \cong ?

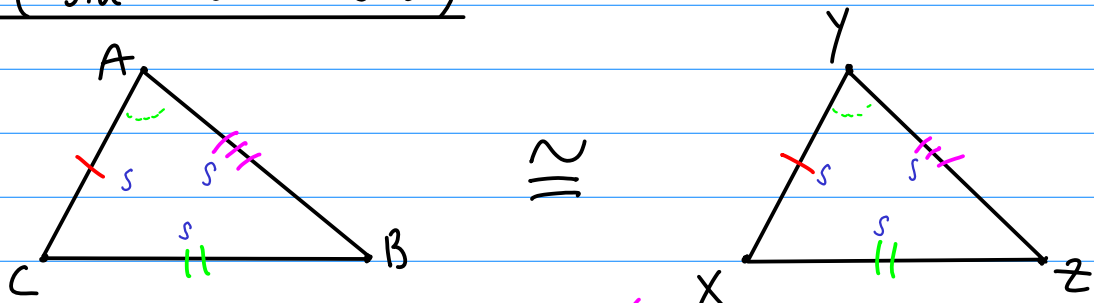


All corresponding parts are \cong .

x's sides

• Do you need to show all corr. parts are \cong to prove that 2 Δ 's are \cong ? **No** — there are 4 shortcuts.

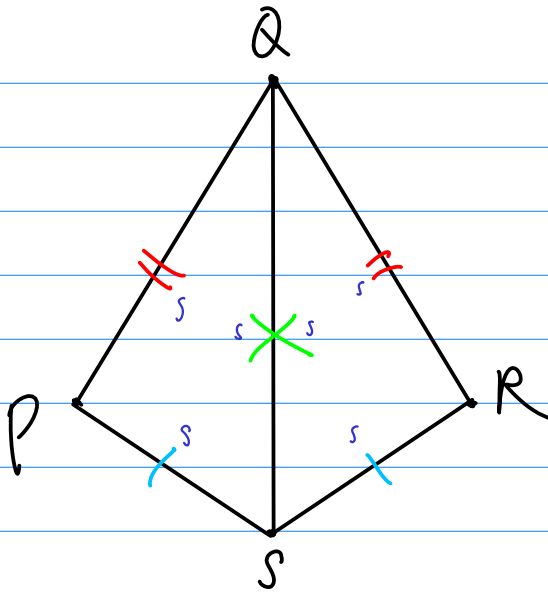
* SSS ("side - side - side"):



Given: $\overline{AC} \cong \overline{XY}$; $\overline{BC} \cong \overline{XZ}$; $\overline{AB} \cong \overline{YZ}$

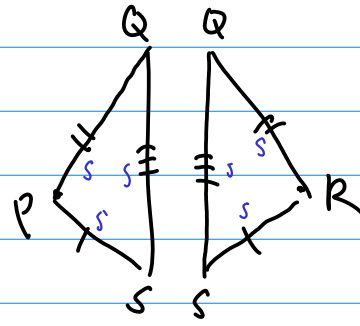
$\therefore \Delta ABC \cong \Delta YZX$ by SSS.

Ex:



Given: $PQ = RQ$; $PS = RS$

Are the 2 Δ 's \cong ? YES, by SSS

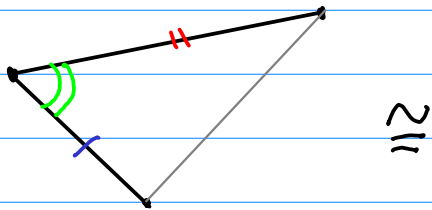


$QS = QS$

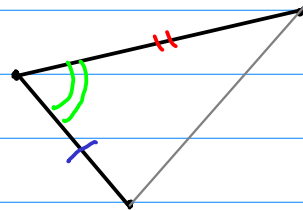
REFLEXIVE PROPERTY

$\Delta PQS \cong \Delta RQS$ by SSS.

* SAS ("side-angle-side")

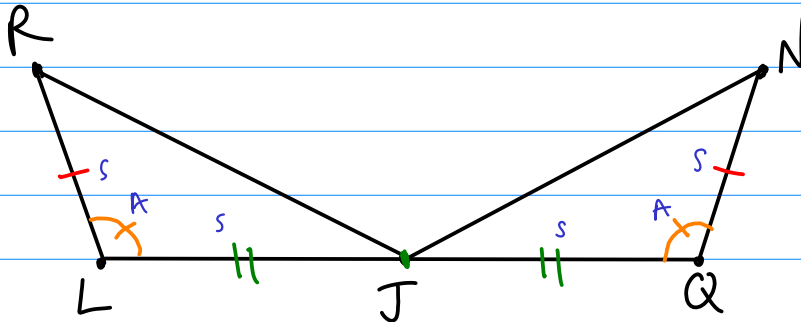


\cong



by SAS

Ex:



Given:

$\checkmark \overline{RL} \cong \overline{NQ}$

$\checkmark \angle R \cong \angle N$

$\checkmark J$ is midpt of \overline{QL}

$\Delta RLJ \cong \Delta NQJ$
by SAS.