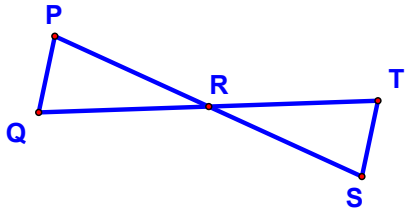
Two Proof-Oriented Triangle Theorems - Lesson 7-2

Here's the warmup!

Given: $\overline{PR} \cong \overline{RT}$
$\angle Q \cong \angle S$

Prove: $\overline{PQ} \cong \overline{TS}$



Statements	Reasons

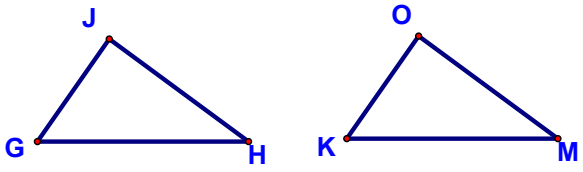
Today, with the knowledge we garnered yesterday and something called the No Choice Theorem, we can easily show that AAS can be used to prove triangles congruent...this'll make things easier!!

Theorem 52: **If two ∠s of one Δ are ≅ to two ∠s of a second Δ, then the third ∠s are ≅ (No Choice Theorem).**

Theorem 53: **If there exists a correspondence between the vertices of two triangles such that two angles and a nonincluded side of one are congruent to the corresponding parts of the other, then the triangles are congruent (AAS).**

Given: $\overline{JH} \cong \overline{OM}$
$\angle G \cong \angle K$
$\angle H \cong \angle M$

Prove: $\Delta GHJ \cong \Delta KMO$



Statements	Reasons