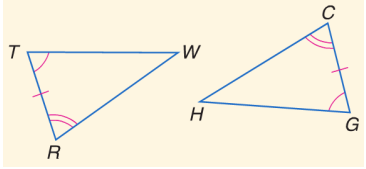
4 - 5
ASA and AAS

ASA
Angle, Side(Included), Angle

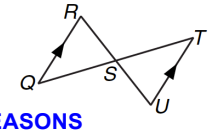
If two angles and the included side of one triangle are congruent to two angles and its included side of another triangle, then the two triangles are congruent by ASA.



PROOF - SAMPLE(ASA)

Given: S is the midpoint of $\overline{QT}$.
$\overline{QR} \parallel \overline{TU}$

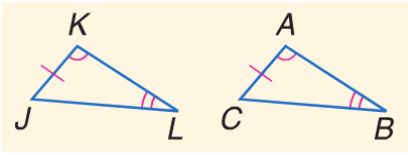
Prove: $\triangle QSR \cong \triangle TSU$



STATEMENTS	REASONS
1) S is the midpoint of QT; QR || TU	1) Given
2) QS ≅ ST	2) Def. of Midpoint
3) ∠Q ≅ ∠T	3) Alt. Int. Angles
4) ∠RSQ ≅ ∠UST	4) Vertical Angle
5) ΔQSR ≅ ΔTSU	5) ASA

AAS (SAA)
Angle, Angle, Side (Non-Included)

If two angles and the non-included side of one triangle are congruent to two angles and its non-included side of another triangle, then the two triangles are congruent by AAS (SAA).

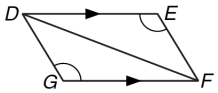


PROOF - SAMPLE(AAS)

Given: $\overline{DE} \parallel \overline{FG}$

$\angle E \cong \angle G$

Prove: $\triangle DFG \cong \triangle FDE$



STATEMENTS	REASONS
1) DE || FG $\angle E \cong \angle G$	1) Given
2) $\angle EDF \cong \angle GFD$	2) Alt. Int. Angles
3) $DF \cong DF$	3) Reflexive Prop.
4) $\triangle DFG \cong \triangle FDE$	4) AAS