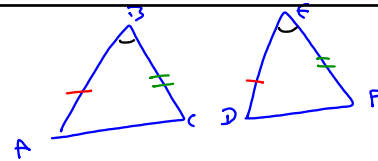


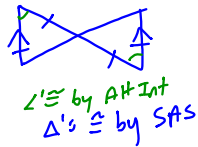
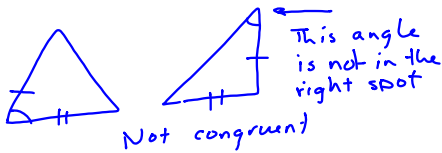
8.5 Proving Triangles Congruent using SAS, SSS

Yesterday
ASA, AAS
Today we look at
side relationships



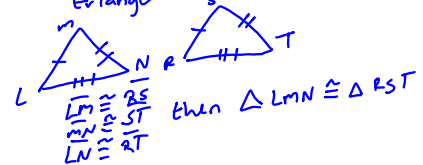
S $\overline{AB} \cong \overline{DE}$
A $\angle B \cong \angle E$
S $\overline{BC} \cong \overline{EF}$ $\rightarrow \triangle ABC \cong \triangle DEF$

Important: The angles that are congruent have to be between the two congruent sides



SSS (side-side-side)

If all sides of one triangle are congruent to all sides of another triangle then the triangles are \cong

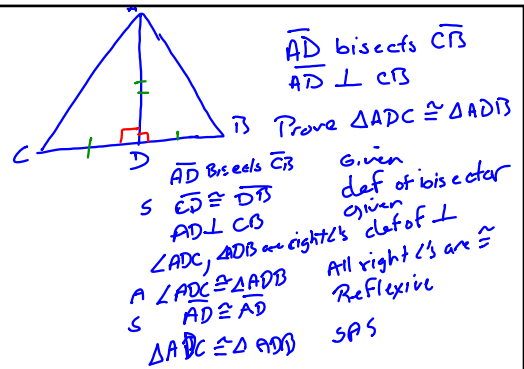
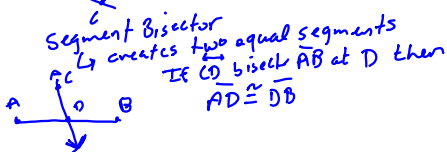


Bisector

↳ to create two equal parts

Angle Bisector

↳ creates two equal angles
If \overline{BD} is the \angle bisector of $\angle ABC$, then $\angle ABD \cong \angle DBC$



Given
def of bisector
Given
def of \perp
All right \angle 's are \cong
Reflexive
SAS

\overline{AD} bisects \overline{CB}
 $\overline{AD} \perp \overline{CB}$
Prove $\triangle ADC \cong \triangle ADB$
S $\overline{CD} \cong \overline{DB}$
 $\overline{AD} \perp \overline{CB}$
 $\angle ADC, \angle ADB$ are right \angle 's
A $\angle ADC \cong \angle ADB$
S $\overline{AD} \cong \overline{AD}$
 $\triangle ADC \cong \triangle ADB$

