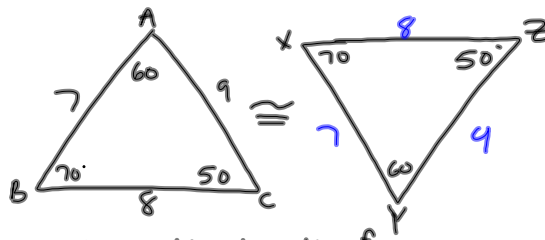


10-29-13
5th Geo

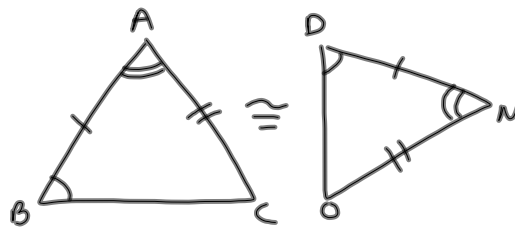


Tell me the length of

① $\overline{XY} = 7$

② $\overline{YZ} = 9$ $\triangle ABC \cong \triangle YXZ$

③ $\overline{XZ} = 8$



$\triangle ABC \cong \triangle \underline{NDO}$

$\triangle ABC \cong \triangle XYZ$ with

$AB = 10$

$BC = 12$

$AC = 11$

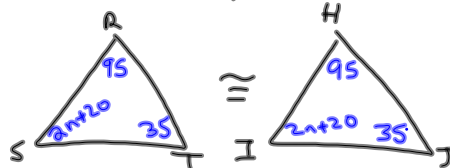
If $\overline{ZX} = 2n - 1$, what is n ?

\downarrow
 AC
 \downarrow
 $11 = 2n - 1$
 $n = 6$

If $\triangle RST \cong \triangle HIJ$,

with $\angle R = 95$, $\angle J = 35$, and

$\angle S = 2n + 20$, what is n ?

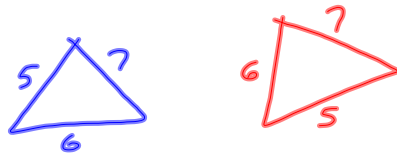


$2n + 20 + 35 + 95 = 180$

$2n + 150 = 180$

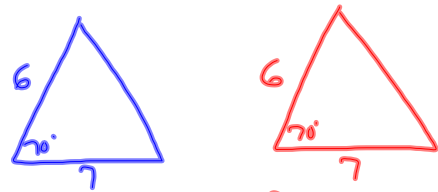
$2n = 30$

$n = 15$

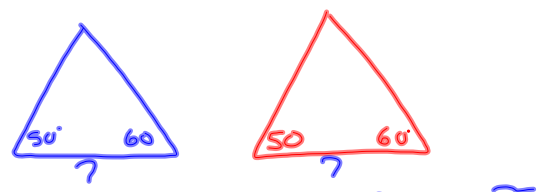


If all 3 sides match up,
the Δ 's must be \cong .

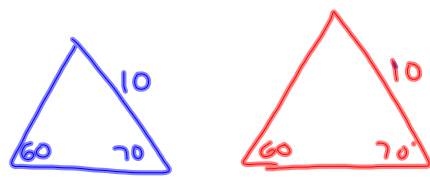
Side-Side-Side
SSS



These will be \cong .
Side-Angle-Side
SAS.



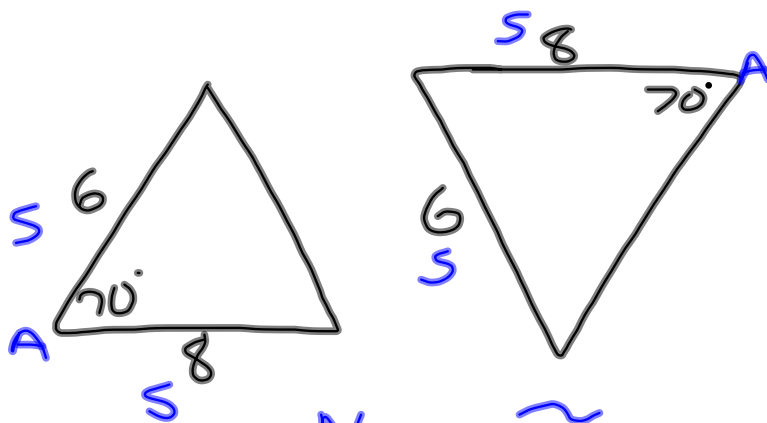
Angle-Side-Angle Proves \cong
ASA



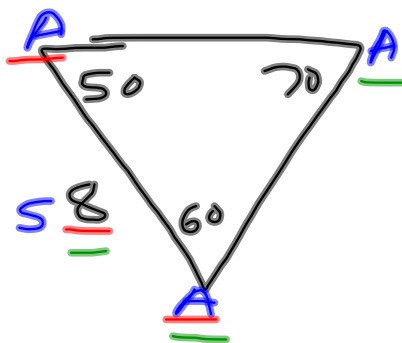
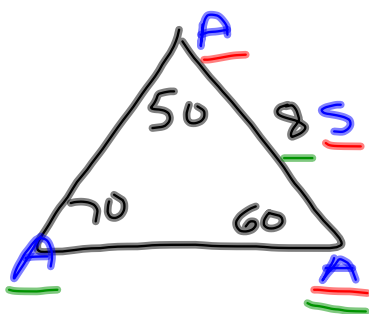
Angle-Angle-Side
AAS

<u>Proves Congruency</u>	<u>Doesn't Prove \cong</u>
SSS	AAA
SAS	ASS (SSA)
ASA	
AAS (SAA)	

Are they \cong



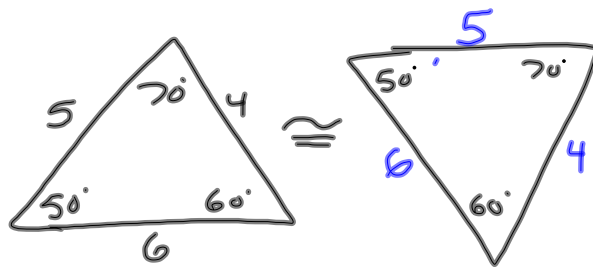
Not \cong



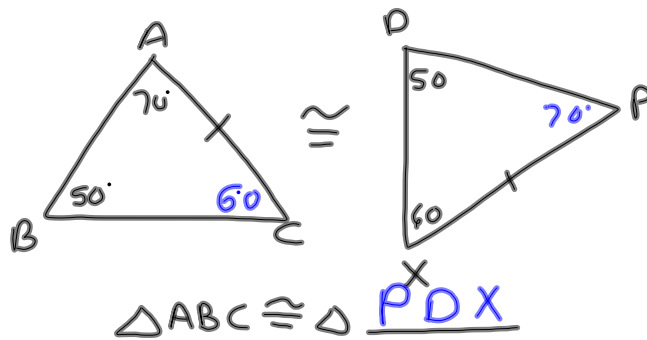
ASA

AAS

10-29-13
6th Geo



Fill in other Δ 's sides.



$$\triangle ABC \cong \triangle XYZ$$

In $\triangle ABC$, $AB = 12$, $BC = 10$, $AC = 15$

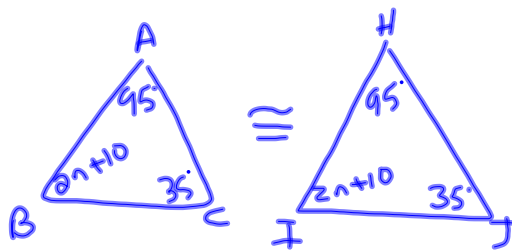
If $XZ = 2n + 1$, what is n ?

$$\begin{array}{c} \downarrow \\ AC \\ \downarrow \\ 15 = 2n + 1 \\ n = 7 \end{array}$$

If $\triangle ABC \cong \triangle HIJ$ with

$\angle A = 95^\circ$, $\angle J = 35^\circ$, and $\angle B = 2n + 10$,

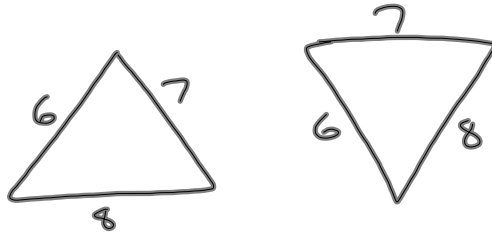
what is n ?



$$2n + 10 + 35 + 95 = 180$$

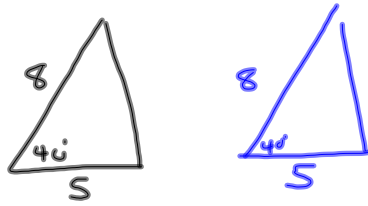
$$2n + 140 = 180$$

$$n = 20$$

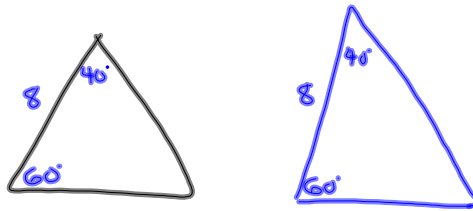


If all 3 sides match,
the Δ 's must be \cong .

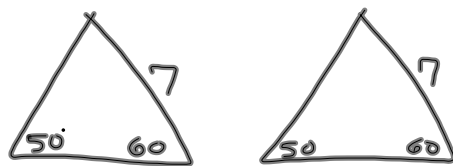
Side-Side-Side
SSS



Side-Angle-Side
SAS



Angle-Side-Angle
ASA



Angle-Angle-Side
AAS (SAA)

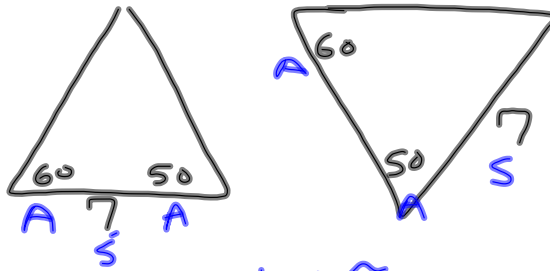
Proves Congruency

SSS
SAS
ASA
AAS (SAA)

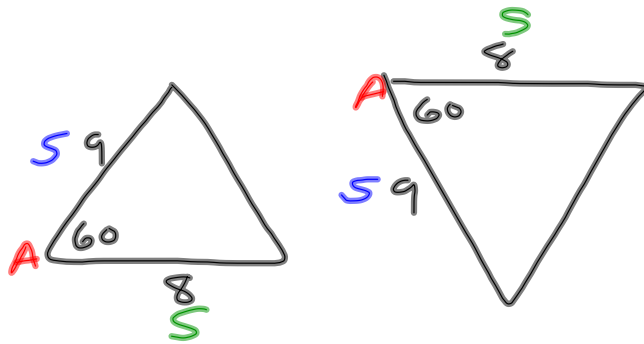
Doesn't Prove \cong

AAA
ASS (SSA)

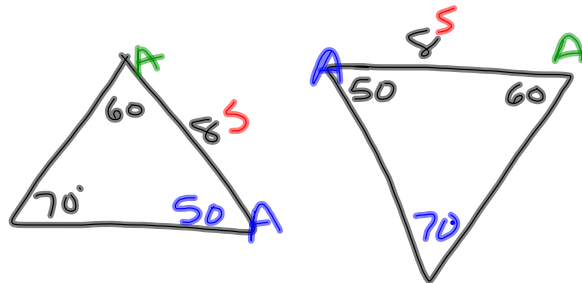
Decide if Δ s are \cong .



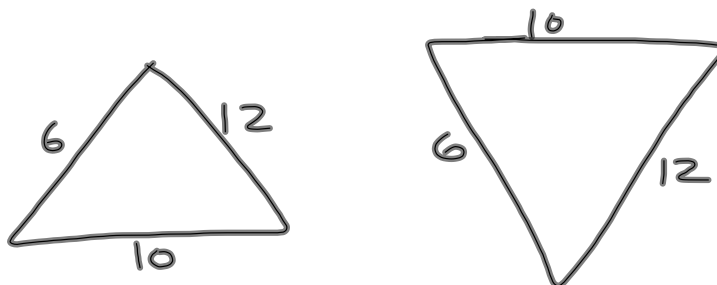
Not \cong



SAS proves \cong .



ASA



SSS