

Good afternoon: attach warm up to notebooks, then complete the proof

GIVEN: $\overline{AB} \cong \overline{CB}$, \overline{BD} bisects $\angle ABC$

PROVE: $\angle A \cong \angle C$

Statements

Reasons

$\overline{AB} = \overline{CB}$, \overline{BD} bisects $\angle ABC$

Given

$\angle ABD \cong \angle CBD$

Def'n of bisect

$\overline{BD} \cong \overline{BD}$

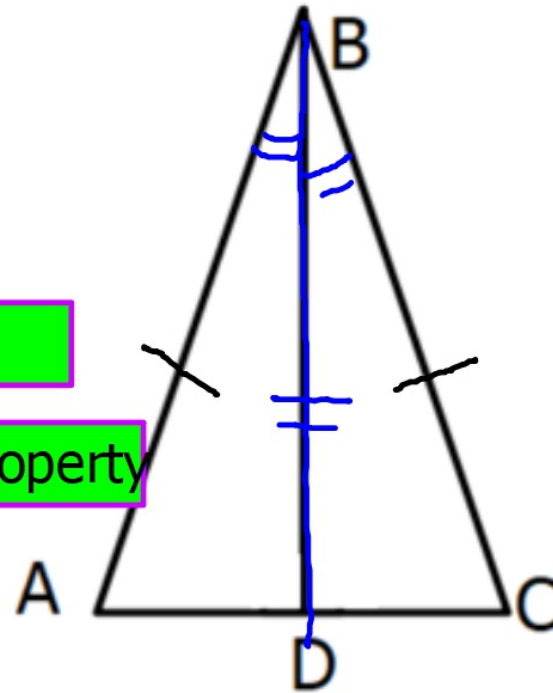
Reflexive Property

$\triangle ADB \cong \triangle CDB$

SAS

$\angle A \cong \angle C$

CPCTC



Assessments are being passed back

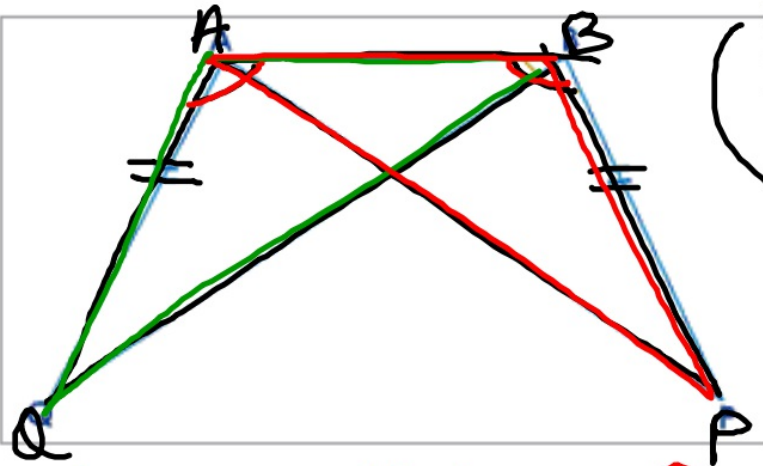
look over them with your partners, ask and answer questions you still have

Next assessment: Tuesday 11/21

(will include both CO-B7a and CO-B8a for those who didnt take it yesterday)

Proving Triangles Congruent

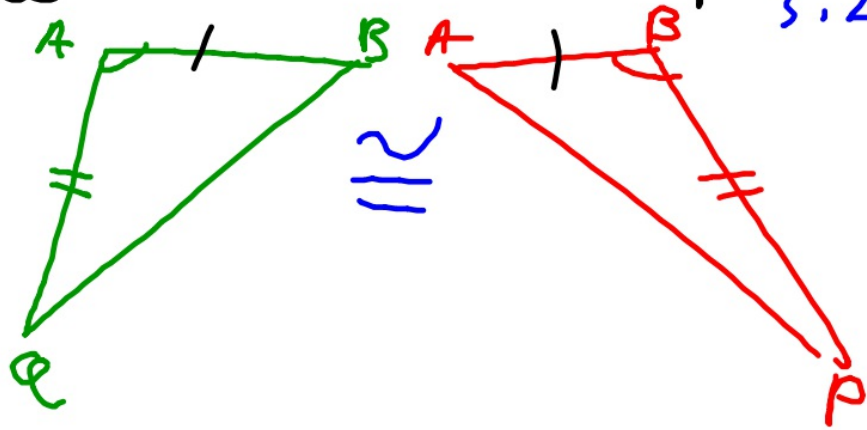
NOTES



Given: $\overline{QA} = \overline{PB}$ $\angle QAB = \angle PBA$
 Prove: $\triangle ABQ \cong \triangle BAP$

1. $\overline{AB} \cong \overline{AB}$
 2. $\overline{AB} \cong \overline{AB}$
 3. $\triangle ABQ \cong \triangle BAP$

1. Given
 2. Reflexive Property
 3. SAS

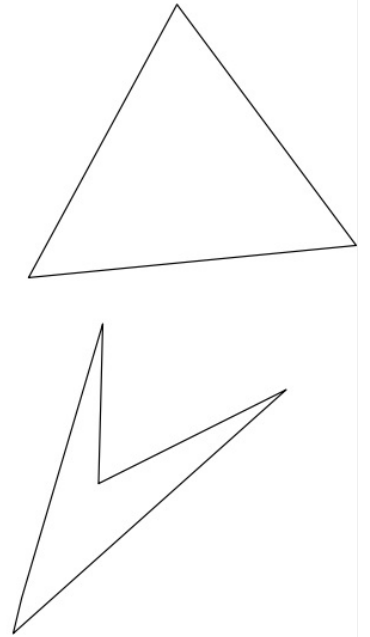
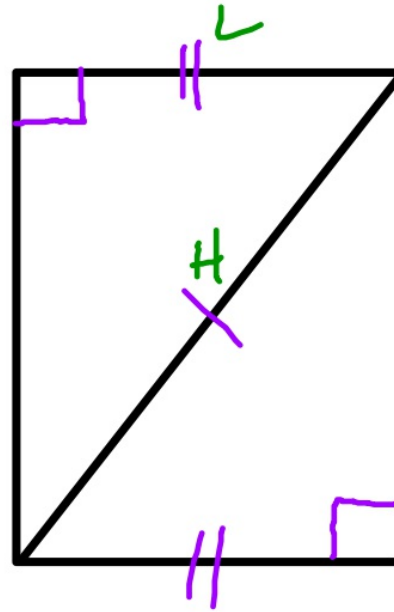


A fifth congruence criteria

H: Hypotenuse

L: leg

(only in right Δ 's)



CPCTC



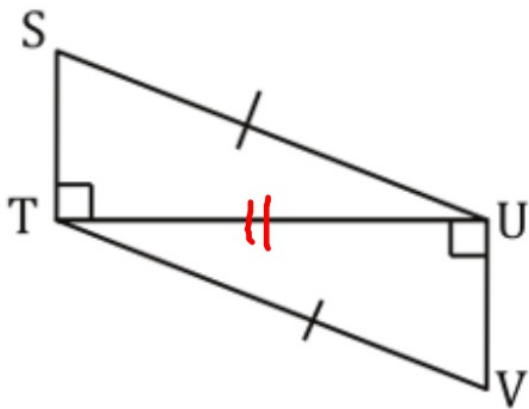
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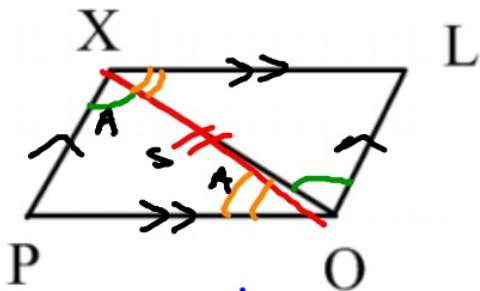
If the objects/shapes are congruent,
then so are the corresponding pieces that
make up the objects/shapes.

Given: $\angle STU = 90^\circ$, $\angle VUT = 90^\circ$, $\overline{SU} \cong \overline{VT}$

Prove: $\overline{ST} \cong \overline{VU}$



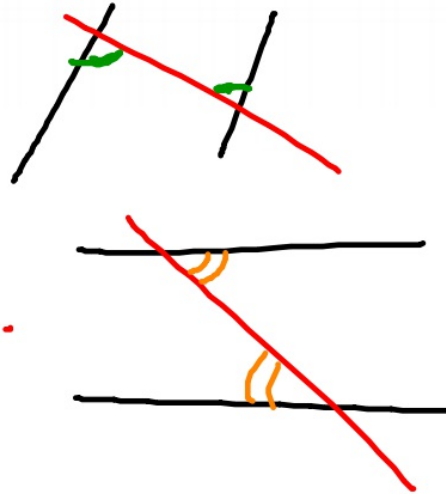
S	R
1. <u> </u>	1. Given
2. $\overline{TU} \cong \overline{TU}$	2. Reflexive
3. $\triangle STU \cong \triangle VUT$	3. HL
4. $\overline{ST} \cong \overline{VU}$	4. <u>C.P.C.T.C</u>



Given: $\overline{XL} \parallel \overline{PO}$, $\overline{PX} \parallel \overline{LO}$
 Prove: $\overline{PX} \cong \overline{LO}$

HW

p. 159 #8-12



S	R.
1. \sim	1. Given
2. $\overline{XS} \cong \overline{OS}$	2. Reflexive Prop.
3. $\angle PXO \cong \angle LOX$	3. Alt. Int Angles
4. $\angle LXO \cong \angle POX$	4. " "
5. $\triangle XOP \cong \triangle XLO$	5. ASA
6. $\overline{PX} \cong \overline{LO}$	6. CPCTC

HW

p. 159 #8-12