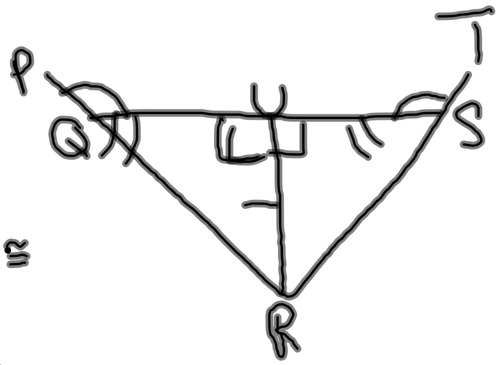
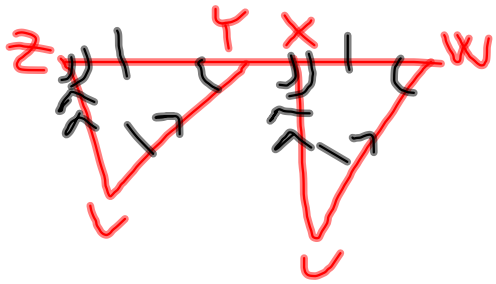
Statem.	Reason
1. ∠QUR + ∠SUR = 90°	1. Given
2. ∠QUR ≅ ∠SUR	2. Rt. ∠ ≅ thm.
3. $\overline{UR} \cong \overline{UR}$	3. Reflexive prop. ≅
4. ∠RQU ≅ ∠TSU → m = m	4. Given
5. m∠RQU + m∠UQP = 180° m∠TSU + m∠RSU = 180°	5. Def. supp. ∠'s
6. m∠RQU + m∠RSU = 180° m∠TSU + m∠UQR = 180°	6. subst. prop. =
7. ∠RSU ≅ UQR	7. ≅ supp. thm.
8. △RUQ ≅ △RUS	8. AAS



5. Given: $\overline{WV} \parallel \overline{YV}$, $\overline{XV} \parallel \overline{ZV}$

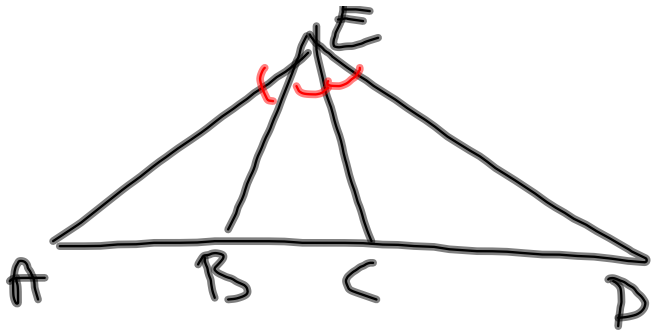
$\overline{WX} \cong \overline{YZ}$

Prove: $\triangle WXV \cong \triangle YZV$



Statement	Reason
1. $\overline{WV} \parallel \overline{YV}$	1. Given
2. $\angle ZYV \cong \angle WXV$	2. Corr. $\angle$ post.
3. $\overline{WX} \cong \overline{YZ}$	3. Given
4. $\overline{XV} \parallel \overline{ZV}$	4. Given
5. $\angle YZV \cong \angle WXV$	5. Corr. $\angle$'s post.
6. $\triangle WXV \cong \triangle YZV$	6. ASA

6.



1. Given
2. Def. of ∠ bisector
3. Given
4. Defn. of ∠ bisector
5. subs.
6. Defn. of linear pair
7. Defn. of lin. pair
8. subs.
9. Given
10. subst.
11. Given
12. ASA

0-3 ✓
4-6 ✓
7 ✓

4.6 CPCTC

Congruent Parts of congruent triangles are congruent.

- Used after the triangles are proved congruent.

Ex: Given: $\overline{YW}$ bisects $\overline{XZ}$

$\overline{XY} \cong \overline{YZ}$

Prove: $\angle XYW \cong \angle ZYW$

Statement	Reason
1. $\overline{YW}$ bisects $\overline{XZ}$	1. Given.
2. $\overline{ZW} \cong \overline{XW}$	2. def'n of seg. bis.
3. $\overline{XY} \cong \overline{YZ}$	3. Given
4. $\overline{YW} \cong \overline{WY}$	4. Ref'l. prop.
5. $\triangle XYW \cong \triangle ZYW$	5. SSS
6. $\angle XYW \cong \angle ZYW$	6. CPCTC

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3-22 skip 12, 13