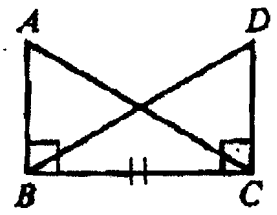
Geometry **HW #_____** **Name_____**

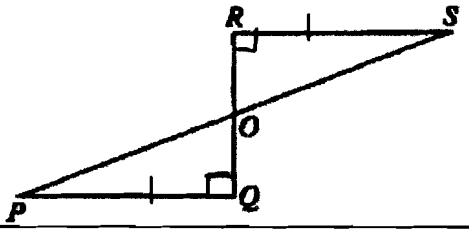
Ch 4 Review B

Period_____Col._____

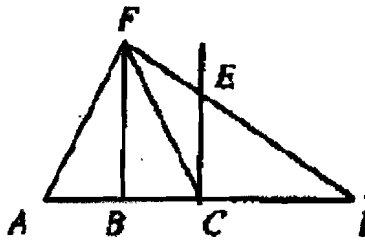
What other parts must be congruent to prove triangles congruent by the stated method?

1. $\Delta ABC \cong \Delta DCB$ **by AAS**$\cong$ **2.** $\Delta RSO \cong \Delta QPO$ **by HL** $\cong$





3. Use the figure below.



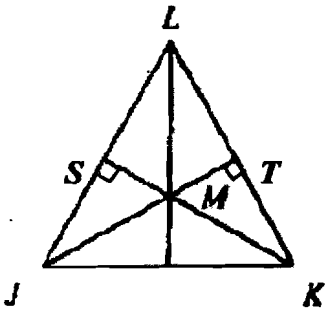
a. If $\overline{EC}$ **is the perpendicular bisector of** $\overline{AD}$**, then** $\overline{EC} \perp$ _____ **and** _____$\cong$_____.

b. If $\overline{FC}$ **is a median of** ΔFAD**, then** _____$\cong$_____.

c. If $\overline{FB}$ **is an altitude of** ΔAFC**, then** _____$\perp$_____.

d. If $\angle A \cong \angle FCB$**, name two congruent segments.**

4. Use the figure below.



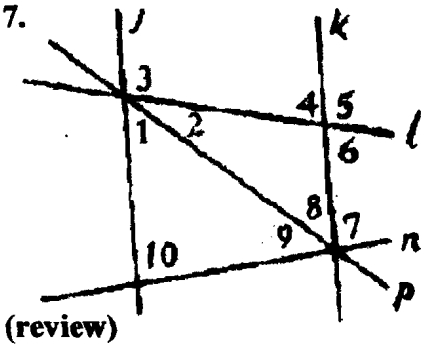
a. If M **is on the perpendicular bisector of** $\overline{JK}$**, then** M **is equidistant from** _____ **and** _____ **and** $MJ =$ _____.

b. If M **is on the angle bisector of** $\angle JLK$**, then** $MS =$ _____.

5. Given: $\Delta DEF \cong \Delta PQR$; $DE = 17$, $EF = 24$, $DF = 38$, $QR = 10x - 3y$ **and** $PR = 8x + 7y$. **Find** x **and** y.

6. Given: Isosceles ΔUSA**, with** $SU = SA$, $m\angle S = 11x - 1$, $m\angle U = 6x - 13$, **and** $m\angle A = 2x + 23$. **Find** $m\angle S$.

7. (review)



Name the lines, if any, that must be parallel based on each given statement. If no lines are parallel, write "none".

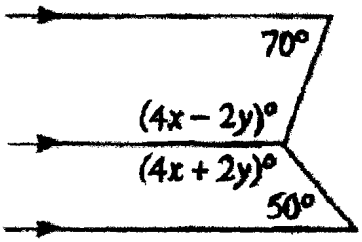
a. $\angle 1 \cong \angle 8$

b. $\angle 10 \cong \angle 7$

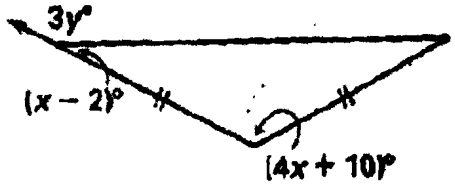
c. $m\angle 1 + m\angle 2 + m\angle 10 = 180$

d. $\angle 6 \cong \angle 7$

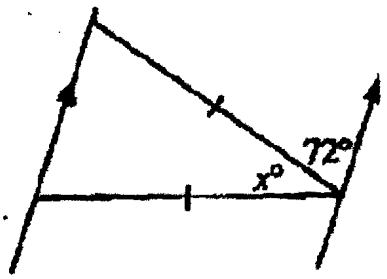
8. (review) Find x and y.



9. Solve for x and y.



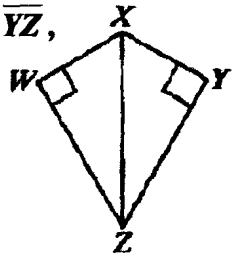
10. Find x.



11. Copy given, prove, and figure onto your own paper and do a complete proof.

Given: $\overline{XW} \perp \overline{WZ}$, $\overline{XY} \perp \overline{YZ}$, $\overline{WX} \cong \overline{YX}$

Prove: $\overline{WZ} \cong \overline{YZ}$



12. Copy given, prove, and figure onto your own paper and do a complete proof.

Given: $\angle W \cong \angle Z$, $\overline{XO} \cong \overline{YO}$

Prove: $\angle X \cong \angle Y$