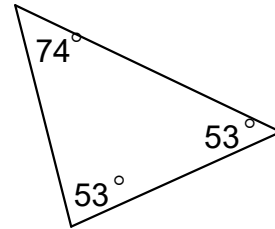
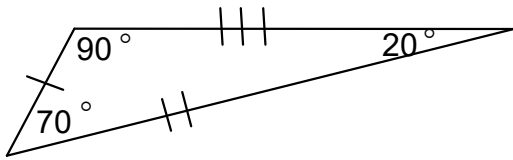


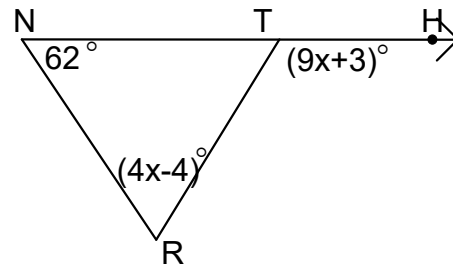
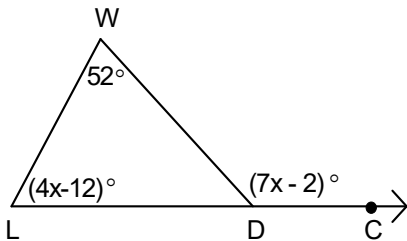
1. Classify each of the following triangles by sides and by angles.



Answer: _____

Answer: _____

2. For each triangle, find the measure of the external angle.

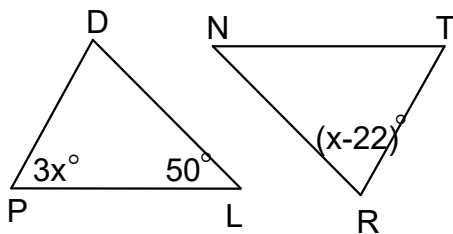


$m\angle WDC =$ _____

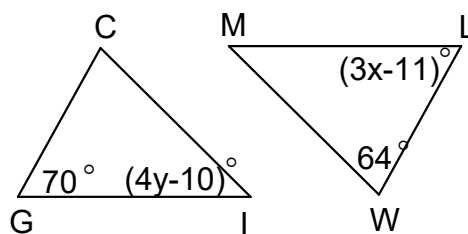
$m\angle RTH =$ _____

3. For each pair of triangles, solve for the given variables.

Given: $\triangle DPL \cong \triangle RTN$



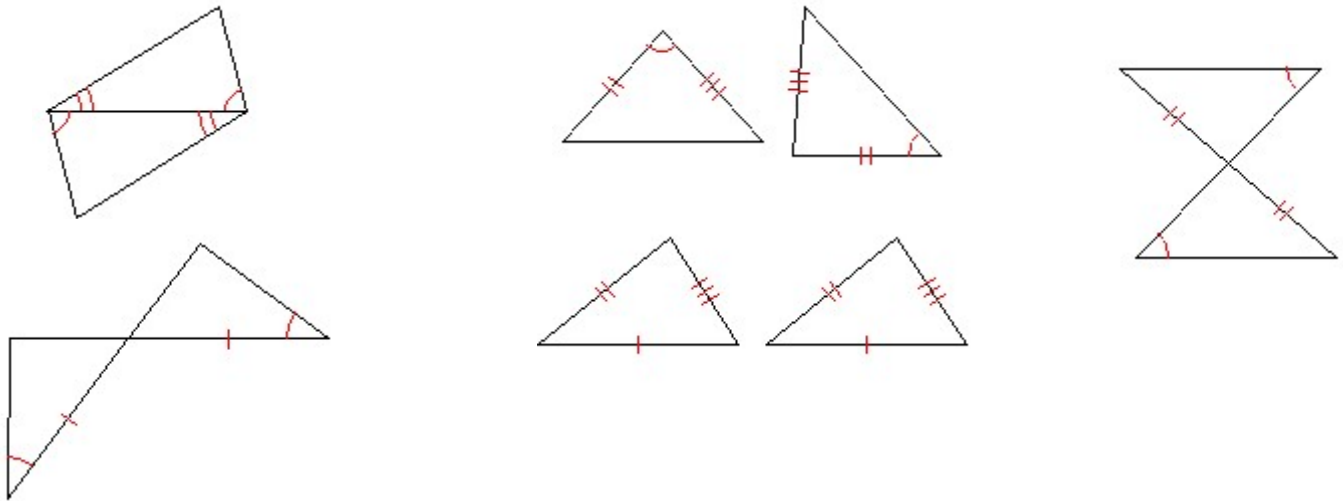
Given: $\triangle GCI \cong \triangle LWM$



$x =$ _____

$x =$ _____ $y =$ _____

4. Write the postulate or theorem that makes the triangles congruent (SSS, SAS, ASA, AAS, or HL). If the triangles are not congruent, write not congruent.



5. If the perimeter of $\triangle ABC = 20$, $AB = x + 3$, $AC = 3x + 2$, and $BC = 2x + 3$, classify triangle $\triangle ABC$ based on its sides.

$\triangle ABC$ is a _____ triangle

6. The measures of the angles of a triangle are: $m\angle A = 9x + 20$, $m\angle B = 3x - 5$, and $m\angle C = 6x + 3$. Find the measure of each \angle .

$m\angle A =$ _____ $m\angle B =$ _____ $m\angle C =$ _____

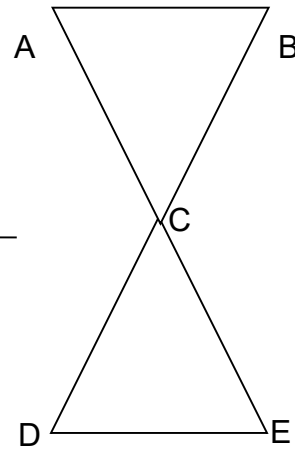
7. $\triangle JKL \cong \triangle MNP$, $KL = 21x - 2$, $NP = 20x$ and $LJ = 13x + 4$. Find LJ.

8. $\triangle QRS \cong \triangle STQ$, $RS = x^2 + 6$, $TQ = 2x^2 + 5$, $QR = x^2 + 2$. Find ST .

9.

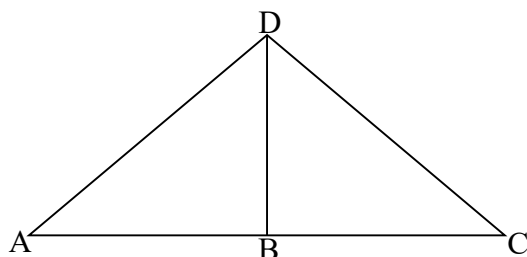
Given: $\angle A \cong \angle E$
C is the midpoint of \overline{AE}

Prove: $\triangle ABC \cong \triangle EDC$



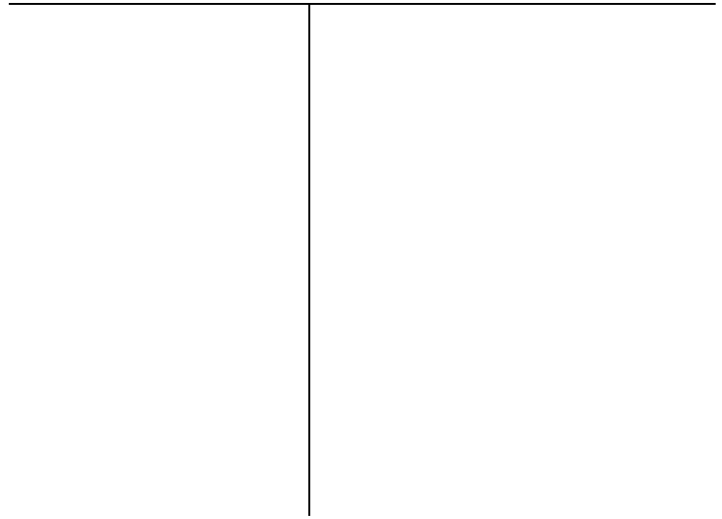
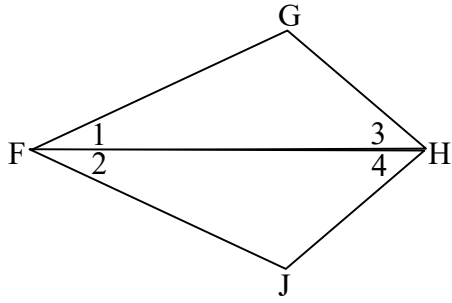
10. Given: $\overline{AD} \cong \overline{CD}$
B is the midpoint of \overline{AC}

Prove: $\triangle ABD \cong \triangle CBD$



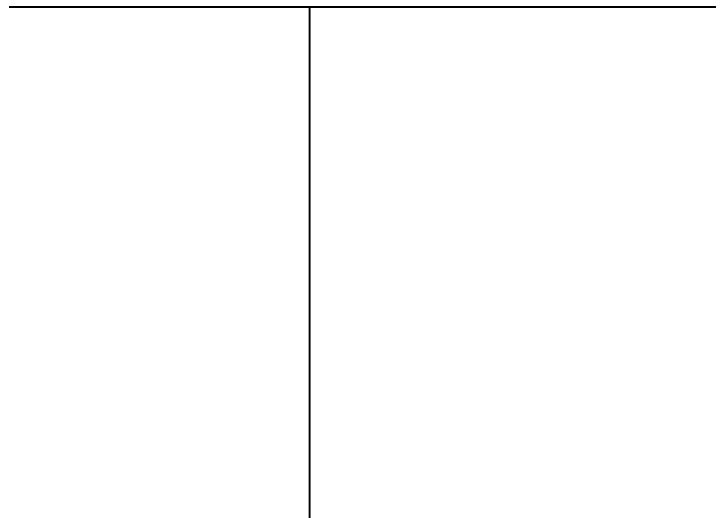
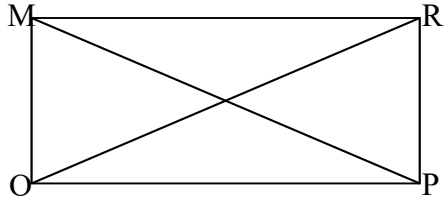
11. Given: \overleftrightarrow{FH} bisects $\angle GFJ$ and $\angle GHJ$

Prove: $\triangle GFH \cong \triangle JFH$



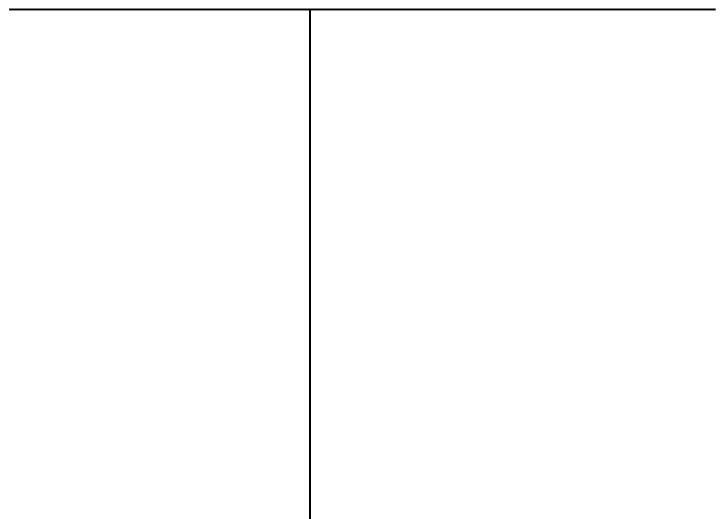
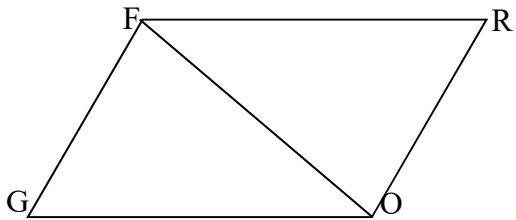
12. Given: $\overline{MO} \perp \overline{OP}$; $\overline{RP} \perp \overline{OP}$
 $\angle ROP \cong \angle MPO$

Prove: $\triangle MOP \cong \triangle RPO$



13. Given: $\angle G \cong \angle R$
 $\angle GFO \cong \angle ROF$

Prove: $\triangle FRO \cong \triangle OGF$



14. Given $\triangle HJK \cong \triangle TRS$, find a and b .

