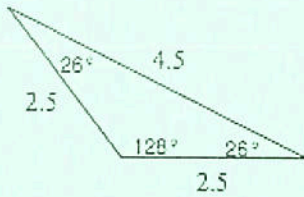


Geometry 4.1-4.5 Review

Name: Key

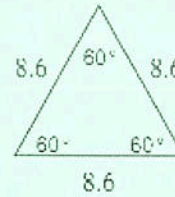
1. Classify each triangle by side length and angle measure.

a.



isosceles obtuse

b.



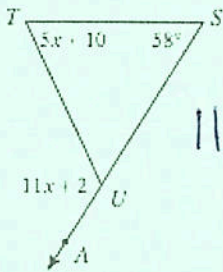
equilateral + equiangular

2. The measure of one of the acute angles in a right triangle is 63° . What is the measure of the other acute angle?

$$\begin{array}{r} 8 \times 10 \\ - 63 \\ \hline 27 \end{array}$$

Answer: 27°

3. Find the $m\angle AUT$.

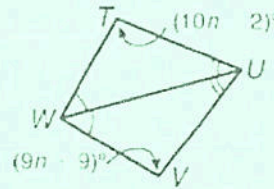


$$\begin{aligned} 11x + 2 &= 5x + 10 + 58 \\ 11x + 2 &= 5x + 68 \\ 6x &= 66 \\ x &= 11 \end{aligned}$$

$$m\angle AUT = \underline{123^\circ}$$

$$11(11) + 2 =$$

4. Find the value of $m\angle V$.



$$\begin{aligned} 10n - 2 &= 9n + 9 \\ n &= 11 \\ 9(11) + 9 &= 99 + 9 \end{aligned}$$

$$m\angle V = \underline{108^\circ}$$

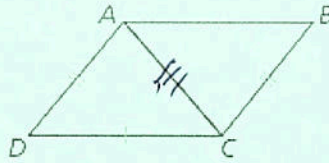
5. $\triangle HOT \cong \triangle DOG$. Identify each congruent corresponding part.

- $\angle T \cong \angle G$
- $\angle D \cong \angle H$
- $\overline{TH} \cong \overline{GD}$
- $\overline{DO} \cong \overline{HO}$

Match each pair of triangles with the postulate that makes the triangles congruent. Complete the congruence statement.

6. SSS

$$\triangle ADC \cong \triangle \underline{\cancel{ABC}} CBA$$



A. HL

7. HL

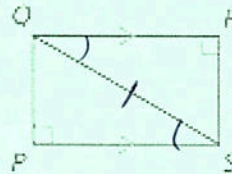
$$\triangle ABC \cong \triangle \underline{CDA}$$



B. AAS

8. AAS

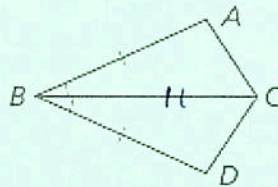
$$\triangle PQS \cong \triangle \underline{RSQ}$$



C. ASA

9. SAS

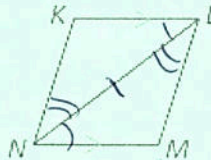
$$\triangle ABC \cong \triangle \underline{DBC}$$



D. SSS

10. ASA

$$\triangle \cancel{MLK} \cong \triangle \underline{KNL}$$



E. SAS

Complete a two-column proof for the following.

11. Given: $\overline{BC} \cong \overline{DC}$, $\overline{AB} \parallel \overline{ED}$
 Prove: $\triangle ABC \cong \triangle EDC$

statements	reasons
① $\overline{BC} \cong \overline{DC}$ $\overline{AB} \parallel \overline{ED}$	① given
② $\angle ACB \cong \angle ECD$	② vertical \angle 's Thm
③ $\angle BAC \cong \angle DEC$	③ alt int \angle 's thm
④ $\triangle ABC \cong \triangle EDC$	④ AAS

