

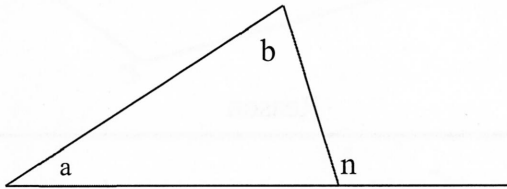
1-4) Write the letter of the answer from the word bank that best completes each sentence.

**Word Bank:**

- a.) 1 angle greater than  $90^\circ$ . (obtuse)
- b.) all angles equal. (equiangular)
- c.) 3 congruent sides. (equilateral)
- d.) no congruent sides. (scalene)
- e.) all angles less than  $90^\circ$ . (acute)
- f.) at least 2 congruent sides. (isosceles)
- g.) 1 angle equal to  $90^\circ$ . (right)

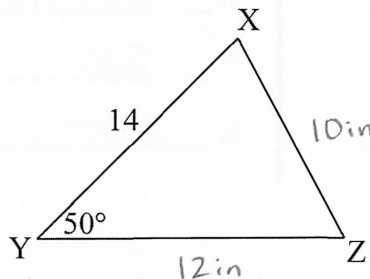
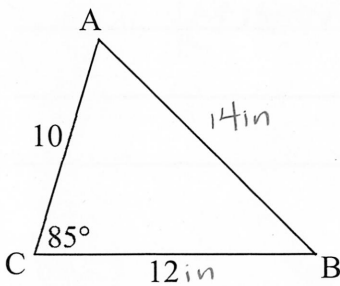
- 1.) A scalene triangle has d.)
- 2.) An obtuse triangle has a.)
- 3.) An isosceles triangle has f.)
- 4.) An acute triangle has e.)

5.) Determine the value of  $n$ .



5.)  $m\angle n = m\angle a + m\angle b$

6.) Given  $\triangle ABC \cong \triangle XYZ$ . Determine the following measures



$m\angle A =$   $45^\circ$

$m\angle X =$   $45^\circ$

$m\angle B =$   $50^\circ$

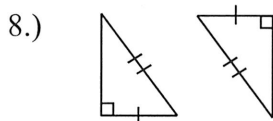
$m\angle Z =$   $85^\circ$

$AB =$   $14\text{ in}$

$YZ =$   $12\text{ in}$

$XZ =$   $10\text{ in}$

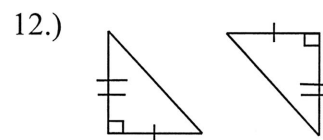
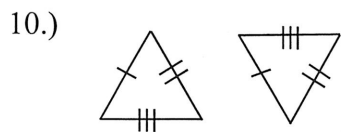
Which postulate or theorem proves that each pair of triangles below is congruent?



7.) SAS

8.) HL

9.) AAS



10.) SSS

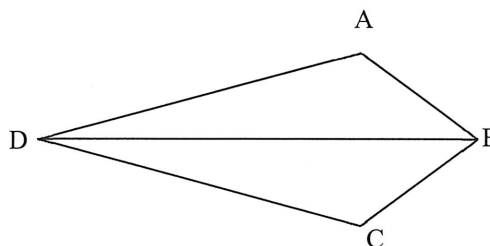
11.) ASA

12.) SAS

13.) Fill in the blanks to complete the proof.

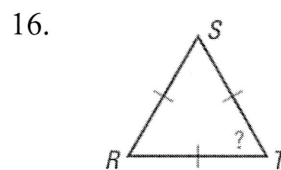
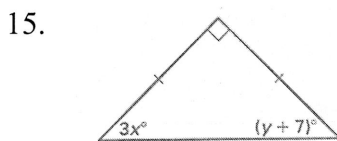
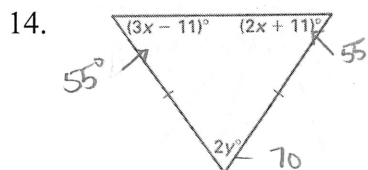
**Given:**  $\overline{BD}$  bisects  $\angle ABC$  and  $\overline{AB} \cong \overline{CB}$

**Prove:**  $\angle A \cong \angle C$



Statement	Reason
1. $\overline{BD}$ bisects $\angle ABC$ .	1. Given
2. $\angle ABD \cong \angle CBD$	2. Def <sup>n</sup> of an Angle Bisector
3. $\overline{AB} \cong \overline{CB}$	3. Given
4. $\overline{BD} \cong \overline{BD}$	4. Reflexive Property
5. $\triangle ABD \cong \triangle CBD$	5. SAS
6. $\angle A \cong \angle C$	6. CPCTC

Find the missing values (x, y and ?).



$$\begin{aligned}
 3x - 11 &= 2x + 11 \\
 -2x & \quad -2x \\
 x - 11 &= 11 \\
 +11 & \quad +11 \\
 x &= 22
 \end{aligned}$$

$$\begin{aligned}
 70 &= 2y \\
 \frac{70}{2} & \quad \frac{2y}{2} \\
 35 &= y
 \end{aligned}$$

$$\begin{aligned}
 45 &= 3x & 45 &= y + 7 \\
 \frac{45}{3} & \quad \frac{45}{3} & -1 & \quad -7 \\
 15 &= x & y &= 38
 \end{aligned}$$

$$? = 60^\circ$$