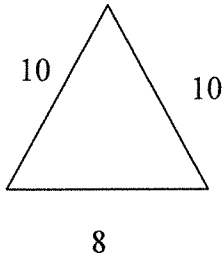


Name: \_\_\_\_\_

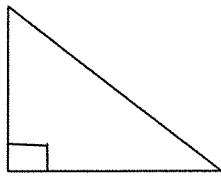
## Triangles Review

1- Classify the below triangle.



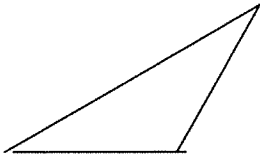
- a. Equilateral
- b. Isosceles
- c. Scalene
- d. Right triangle

2. Classify the below triangle.



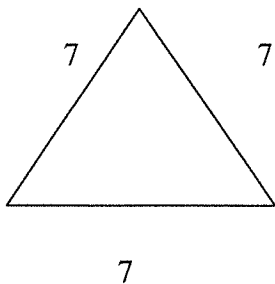
- a. Equilateral
- b. Isosceles
- c. Scalene
- d. Right triangle

3. Classify the below triangle.



- a. Acute
- b. Obtuse
- c. Right
- d. Isosceles

4. Classify the below triangle.



- a. Obtuse
- b. Right
- c. Isosceles
- e. Equilateral

5. Which of the terms below can be used to describe a triangle with two  $45^\circ$  interior angles?

A) Acute

B) Right

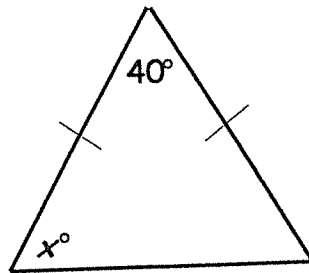
C) Scalene

D) Obtuse

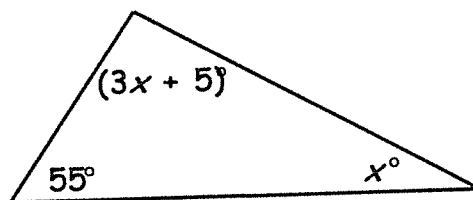
E) Equilateral

6. What is the sum of interior angles of a triangle? \_\_\_\_\_

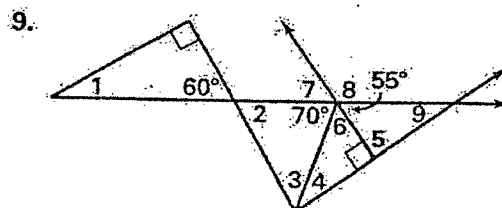
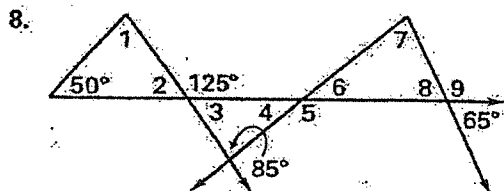
7. Find the value of  $x$ .



8. Find the value of  $x$ .

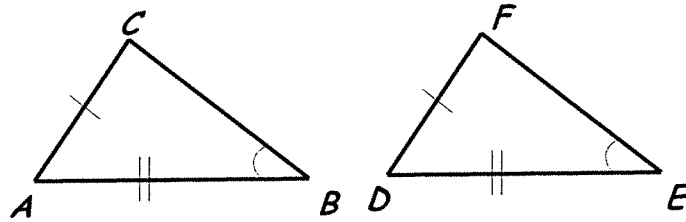


Find the measure of the numbered angle.



10. Name 5 ways of proving triangles congruent: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,  
 \_\_\_\_\_, \_\_\_\_\_

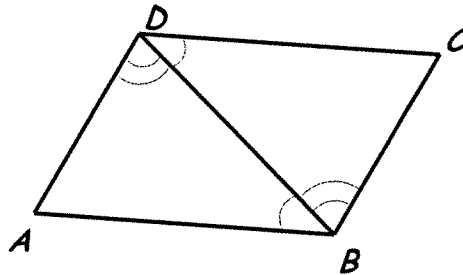
11. Which, if any, congruence postulate would prove the triangles are congruent?



Write a congruence statement if possible:

\_\_\_\_\_

12. Which, if any, congruence theorem or postulate would prove the triangles are congruent?

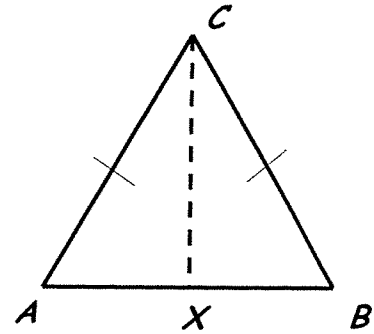


Write a congruence statement if possible:

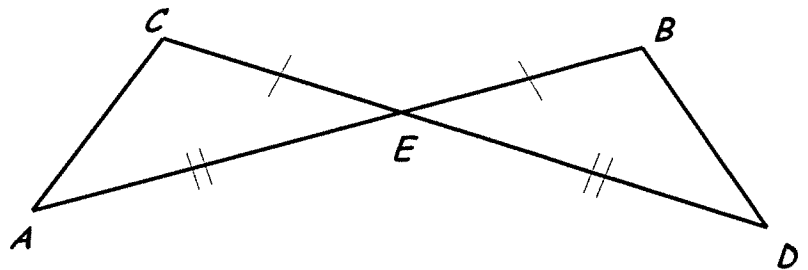
\_\_\_\_\_

13. Given that  $\triangle DEF \cong \triangle LMN$ ,  $m\angle D = (2x + 15)^\circ$ ,  $m\angle L = (3x - 6)^\circ$ , and  $DF = (4x - 68)$ , find  $LN$ . HINT - Draw & label the picture!

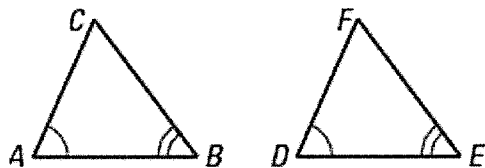
14. Given:  $\triangle ABC$  is isosceles  
 Prove:  $\triangle AXC \cong \triangle BXC$



15. Given:  $\overline{CE} \cong \overline{BE}$  and  $\overline{AE} \cong \overline{DE}$   
 Prove:  $\triangle AEC \cong \triangle DEB$



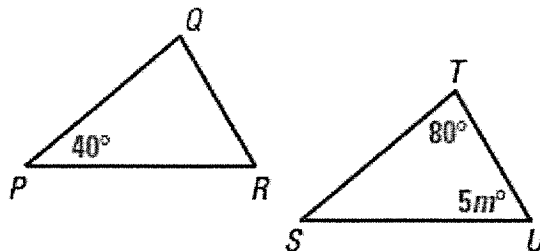
17. State the third congruence that must be given to prove that  $\triangle ABC \cong \triangle DEF$  using the indicated postulate or theorem.



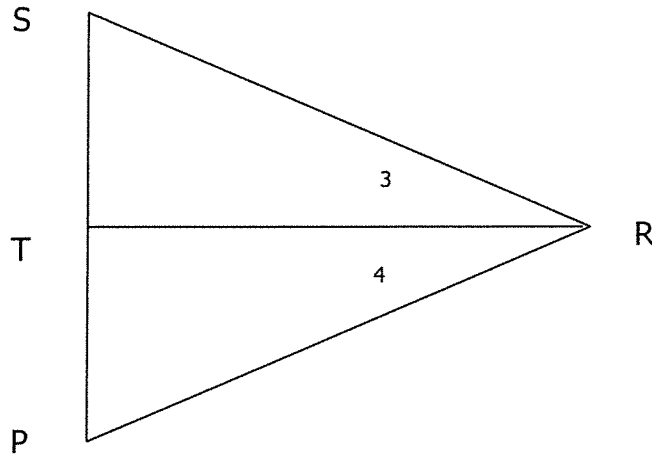
ASA Congruence Postulate

Write a congruence statement for the triangles above:  $\triangle \underline{\hspace{1cm}} \cong \triangle \underline{\hspace{1cm}}$

18. Given  $\angle P \cong \angle S$  and  $\angle Q \cong \angle T$ , find the value of  $m$ .

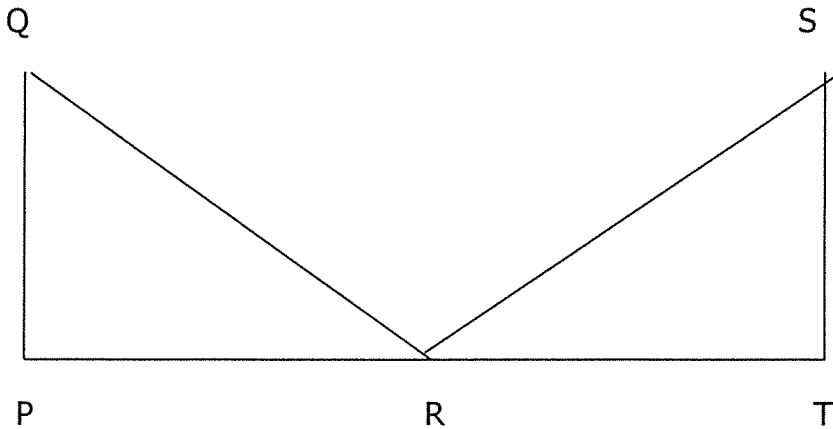


19. Given:  $TR \perp SP$ ,  $ST \cong TP$ ; prove that two triangles are congruent

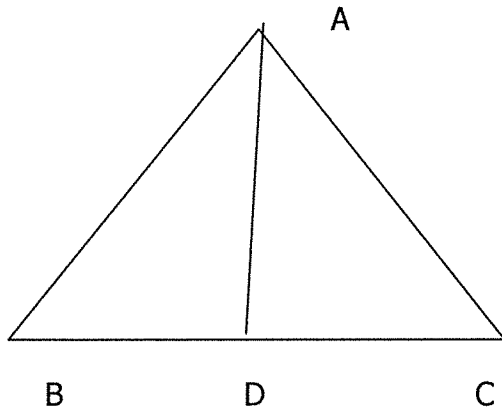


20. Given:  $QP$  is congruent to  $ST$   
angle  $P$  and angle  $T$  are right angles  
 $R$  is the midpoint of  $PT$

Prove that the two triangles are congruent:



21. Given:  $AB$  is congruent to  $AC$   
D is the midpoint of  $BC$   
Prove:  $\triangle ABD \cong \triangle ACD$



22. In isosceles triangle RST, angle R is the vertex angle. If  $m\angle S = 7x - 17$  and  $m\angle T = 3x + 35$ , find the measure of each angle of the triangle.