

base of an isosceles triangle (p. 228)  
 base angles of an isosceles triangle  
 (p. 228)  
 congruent polygons (p. 198)  
 corollary (p. 229)

CPCTC (corresponding parts of  
 congruent triangles are congruent)  
 (p. 221)  
 hypotenuse (p. 235)  
 legs of a right triangle (p. 235)

legs of an isosceles triangle (p. 228)  
 vertex angle of an isosceles triangle  
 (p. 228)

**Choose the correct term to complete each sentence.**

- The two congruent sides of an isosceles triangle are the   ?  .
- The two congruent sides of an isosceles triangle form the   ?  .
- If you know that two triangles are congruent, then the corresponding sides and angles of the triangles are congruent because   ?  .
- The side opposite the right angle of a right triangle is the   ?  .
- The angles of an isosceles triangle that are not the vertex angle are called the   ?  .
- A   ?   to a theorem is a statement that follows immediately from the theorem.
- The   ?   are the two sides of a right triangle that are not the hypotenuse.
- ?   have congruent corresponding parts.
- The side of an isosceles triangle that is not a leg is called the   ?  .

**$RSTUV \cong KLMNO$ . Complete the congruence statements.**

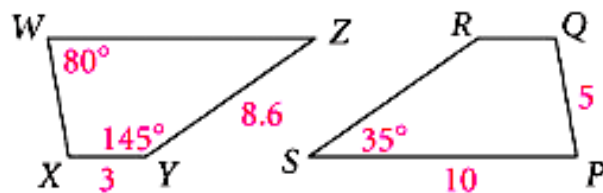
10.  $\overline{TS} \cong$    ?  

11.  $\angle N \cong$    ?  

12.  $\overline{LM} \cong$    ?  

13.  $VUTSR \cong$    ?  

**$WXYZ \cong PQRS$ . Find the measure of the angle or the length of the side.**



14.  $\angle P$

15.  $\overline{QR}$

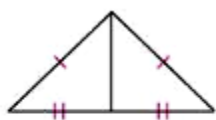
16.  $\overline{WX}$

17.  $\angle Z$

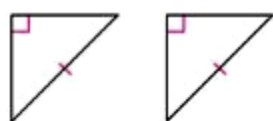
18.  $\angle X$

Write a congruence statement for each pair of triangles. Name the postulate or theorem that justifies your statement. If the triangles *cannot* be proven congruent, write *not possible*.

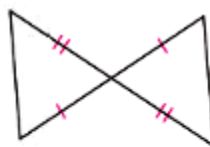
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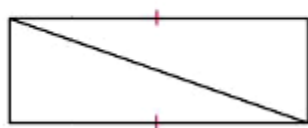
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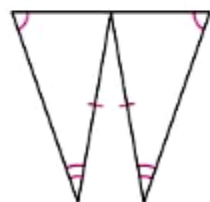
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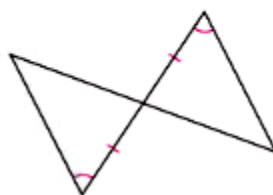
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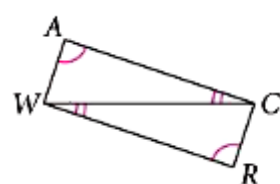
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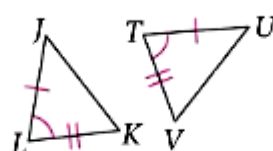
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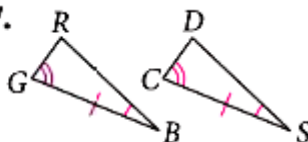
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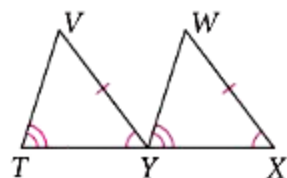


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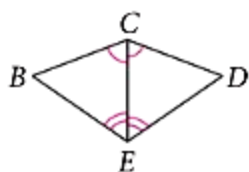


Explain how you can use SSS, SAS, ASA, or AAS with CPCTC to prove the statement true.

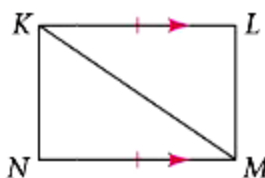
28.  $\overline{TV} \cong \overline{YW}$



29.  $\overline{BE} \cong \overline{DE}$



30.  $\overline{KN} \cong \overline{ML}$

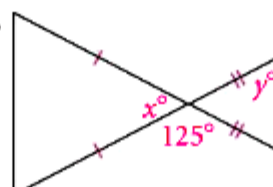


Find the values of  $x$  and  $y$ .

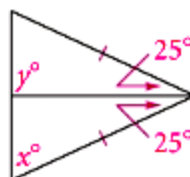
31.



32.



33.



Write a proof for each of the following.

34. **Given:**  $\overline{PS} \perp \overline{SQ}$ ,  $\overline{RQ} \perp \overline{QS}$ ,  $\overline{PQ} \cong \overline{RS}$

**Prove:**  $\triangle PSQ \cong \triangle RQS$

