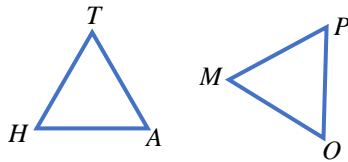


1. Given  $\triangle HAT \cong \triangle MOP$  complete each congruence statement. Mark all congruent parts on  $\triangle$ 's

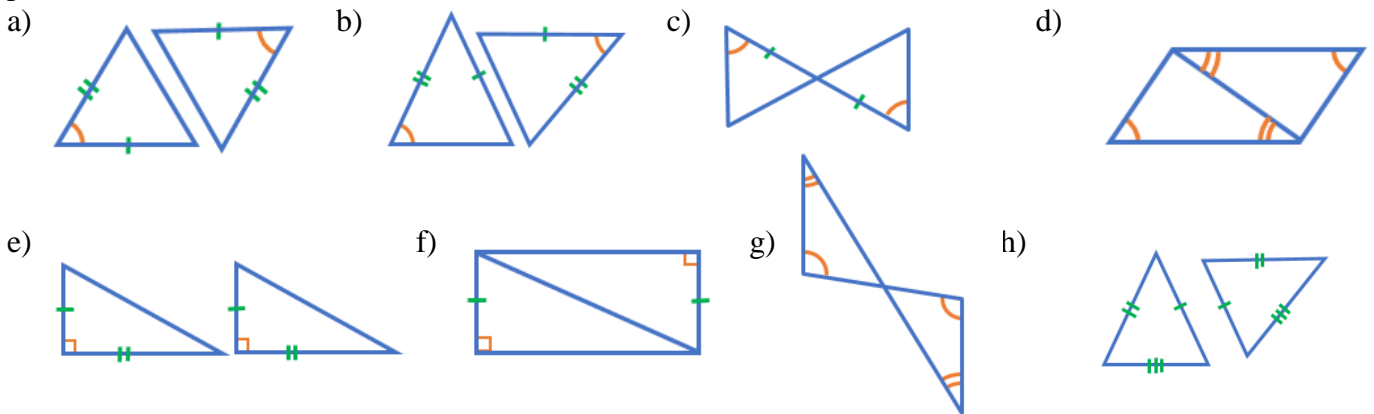
- a)  $\angle A \cong$  \_\_\_\_\_  
 b)  $\overline{AT} \cong$  \_\_\_\_\_  
 c)  $\overline{PM} \cong$  \_\_\_\_\_



2. Circle the abbreviations that can be used to prove that two triangles are congruent.

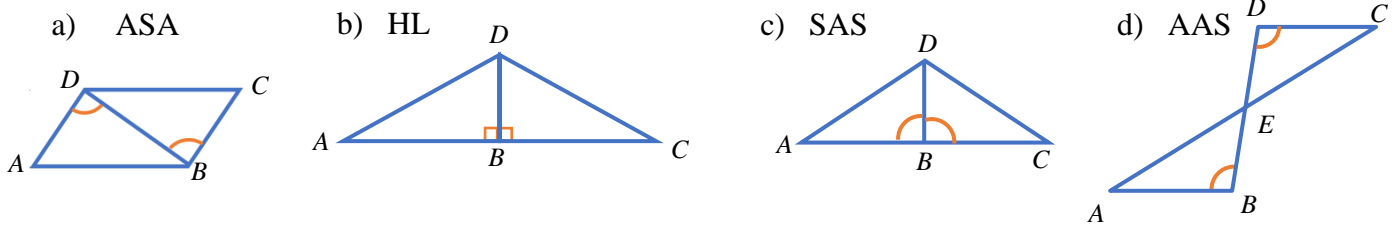
- SSS    AAA    SSA    SSS  
 HL    AAS    ASA

3. Mark any sides congruent by the Reflexive Property of Congruence. Mark any angles congruent by the Vertical Angle Theorem. State whether these pairs of triangles must be congruent and if so by which property.

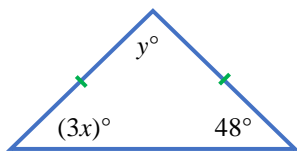


4. For each pair of triangles:

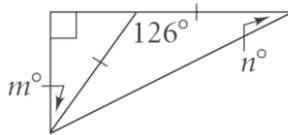
- a) Mark any sides congruent by the Reflexive Property of Congruence.  
 b) Mark any angles congruent by the Vertical Angle Theorem  
 c) Name one other pair of corresponding parts that must be congruent if the triangles are congruent by the given property.



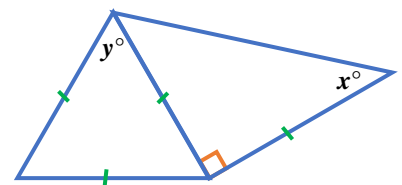
5. Find the value of  $x$  and  $y$ .



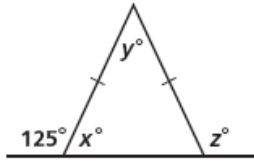
6. Find the value of  $m$  and  $n$ .



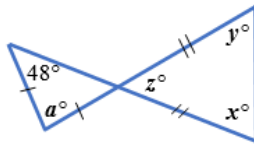
7. Find the value of  $x$  and  $y$ .



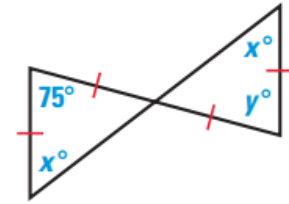
8. Find the value of  $x$  and  $y$ .



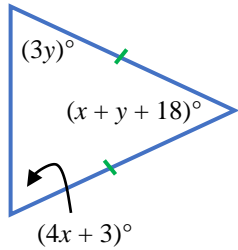
9. Find the value of the variables.



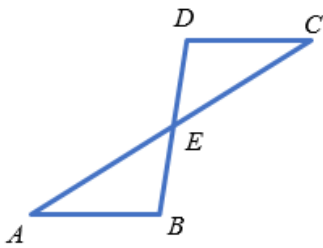
10. Find the value of  $x$  and  $y$ .



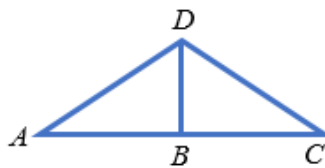
11. Use the Triangle Sum Theorem (the angles in a  $\triangle$  add up to  $180^\circ$ ) and the Isosceles Triangle Theorem to write and solve a system of equations to find  $x$  and  $y$ .



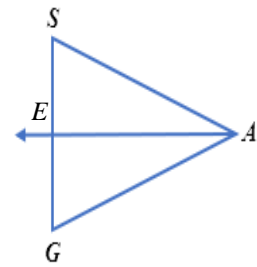
12. In the figure  $\triangle ABE \cong \triangle CDE$ . Mark all the corresponding parts congruent. Describe how you know that  $\overline{DC} \parallel \overline{AB}$ .



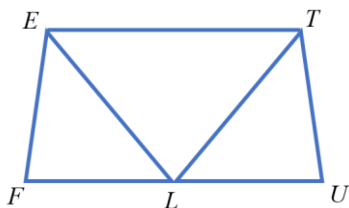
13. In the figure  $\triangle ABD \cong \triangle CDB$ . Mark all the corresponding parts congruent. Describe how you know that  $\triangle ADC$  is isosceles.



14. In the figure  $\triangle SAE \cong \triangle GAE$ . Mark all the corresponding parts congruent. Describe how you know that  $E$  is the midpoint of  $\overline{SG}$ .



15. **Given:**  $\angle LET \cong \angle LTE$  ;  
 $L$  is the midpoint of  $\overline{UF}$  ;  
 $\angle ELF \cong \angle ULT$   
**Prove:**  $\triangle FEL \cong \triangle UTL$



Statements

Reasons