

Geometry  
Review for Quiz - Congruent Triangles & Triangle Angles

Name Key  
Date \_\_\_\_\_

1. Define congruent triangles: 3 congruent sides and 3 congruent angles

Given that  $\triangle PRT \cong \triangle XQJ$ , complete questions 2 - 6.

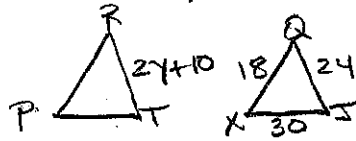
2.  $\overline{RT} \cong \underline{\overline{QJ}}$

3.  $\angle J \cong \underline{\angle T}$

4.  $\triangle XJQ \cong \underline{\triangle PTR}$

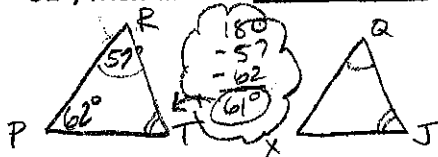
5. If  $JQ = 24$ ,  $QX = 18$ ,  $JX = 30$ , and  $RT = 2y + 10$ , then  $y = \underline{7}$

Draw a picture!



$$\begin{aligned} 2y + 10 &= 24 \\ 2y &= 14 \\ y &= 7 \end{aligned}$$

6. If  $m\angle R = 57^\circ$ ,  $m\angle P = 62^\circ$ , then  $m\angle X = \underline{61^\circ}$  and  $m\angle J = \underline{61^\circ}$

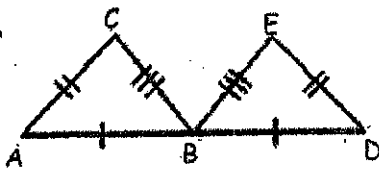


7. What are the five ways used to prove that two triangles are congruent?

SSS, SAS, ASA, AAS, HL

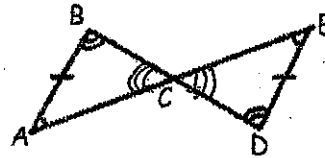
(No Bad words!)

8. Name the congruent triangles.



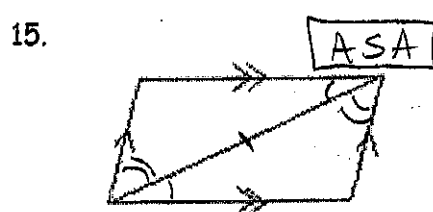
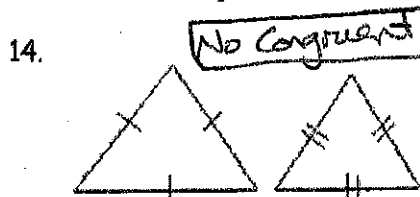
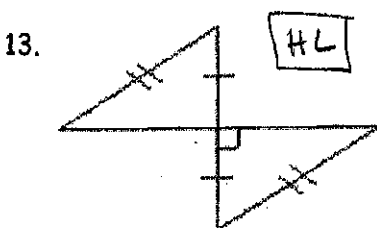
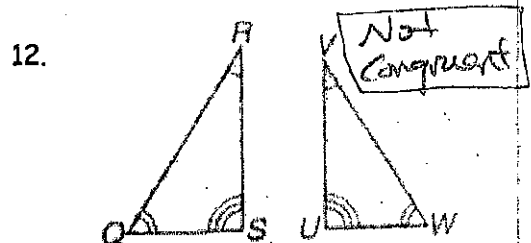
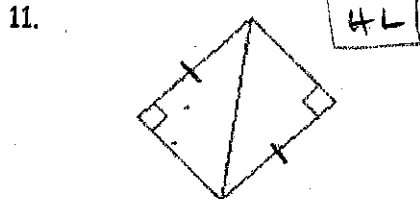
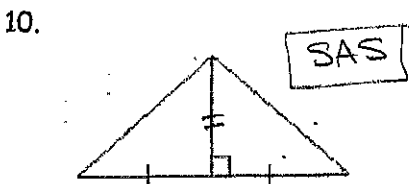
$\triangle ABC \cong \triangle DBE$  by SSS

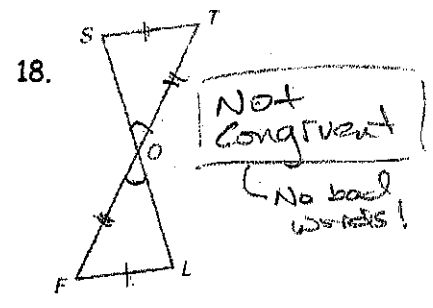
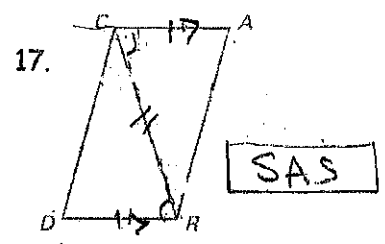
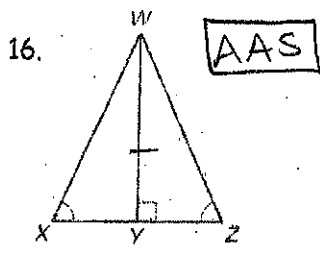
9. Name the congruent triangles.



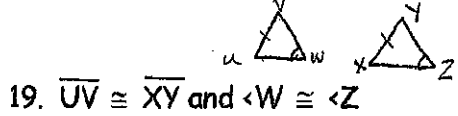
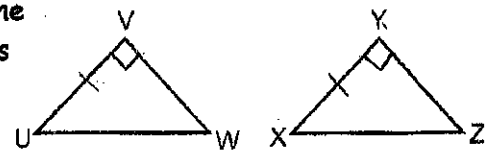
$\triangle ABC \cong \triangle EDC$  by ASA or AAS

For questions 10 - 18, determine if the triangles are congruent. If they are congruent, then list the method used. If they are not congruent, write NC.





Use  $\triangle UVW$  and  $\triangle XYZ$  with the given information. List the missing corresponding parts needed to prove the triangles congruent by the given method.



19.  $\overline{UV} \cong \overline{XY}$  and  $\angle V \cong \angle Z$

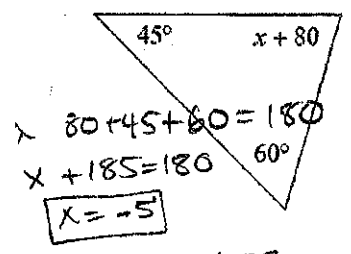
20.  $\overline{UV} \cong \overline{XY}$  and  $\angle V$  and  $\angle Y$  are right angles

AAS  $\angle V \cong \angle Y$  or  $\angle u \cong \angle x$

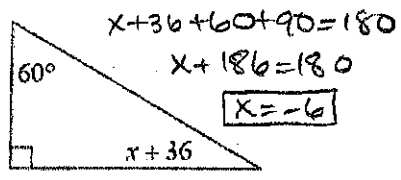
HL  $\overline{UW} \cong \overline{XZ}$

Solve for the missing value.

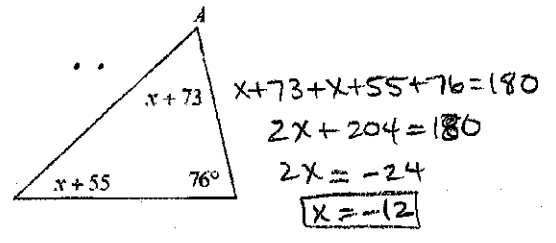
21.  $x = -5$



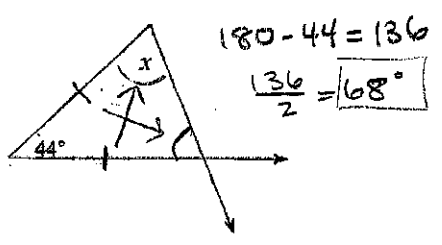
22.  $x = -6$



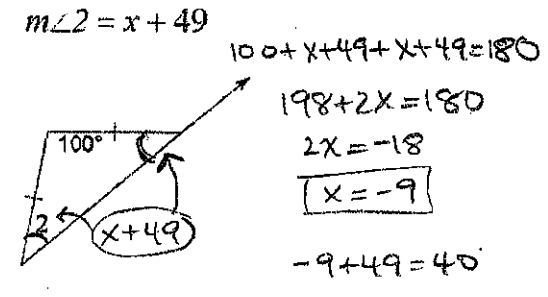
23.  $x = -12$   $m\angle A = 61^\circ$



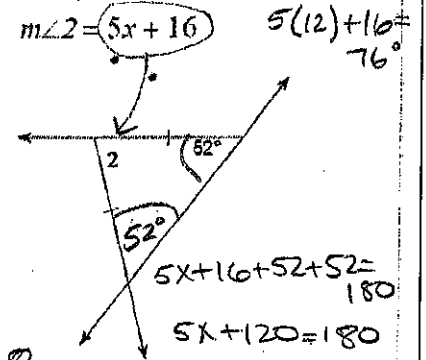
24.  $x = 68^\circ$



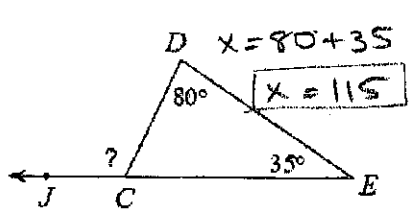
25.  $x = -9$   $m\angle 2 = 40^\circ$



26.  $x = 12$   $m\angle 2 = 76^\circ$

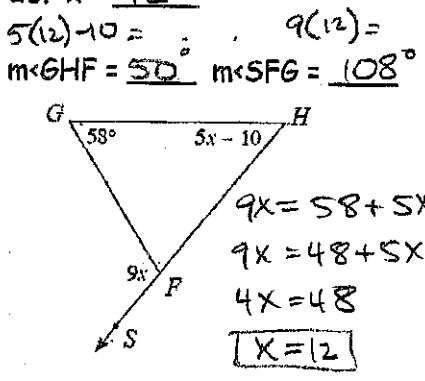


27.  $? = 115^\circ$



Exterior angle = the sum of the 2 remote interior angles.

28.  $x = 12$



29.  $x = 8$

