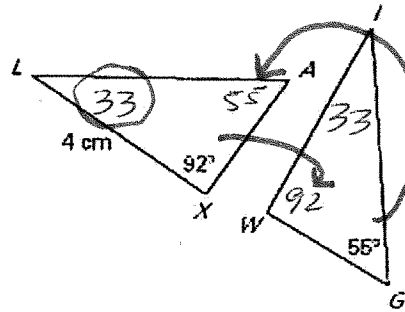


In the diagram,  $\triangle ALX \cong \triangle GIW$ . Complete the statement.

1.  $\overline{LX} \cong ? \overline{IW}$
2.  $\angle L \cong ? \angle I$
3.  $\angle A \cong ? \angle G$
4.  $m\angle I = ? 33^\circ$
5.  $IW = ? 4$
6.  $\triangle ALX \cong ? \triangle GIW$



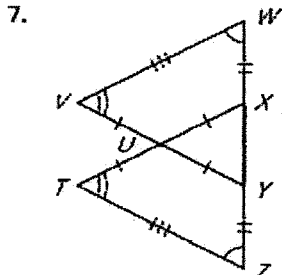
$$92 + 55 + m\angle I = 180$$

$$147 + m\angle I = 180$$

$$-147 \quad -147$$

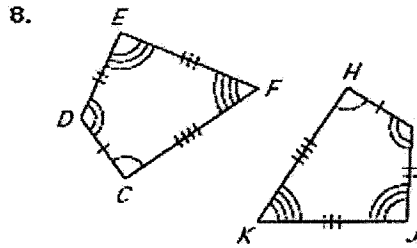
$$m\angle I = 33$$

Write a congruence statement for any figures that can be proved congruent. Explain your reasoning.



$\triangle WVU \cong \triangle ZXT$

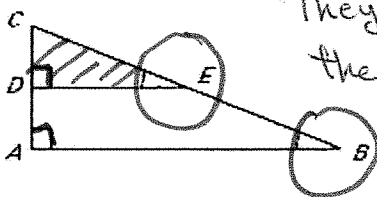
All corresponding parts are congruent.



$CDEF \cong HIKJ$

All corresponding parts are congruent

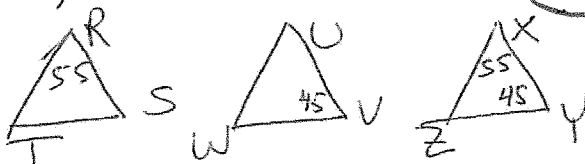
9) Error Analysis A fellow student says that  $\triangle ABC \cong \triangle DEC$  because the corresponding angles of the triangles are congruent. Describe the error in this statement.



They are not congruent. The corresponding angles are congruent but the corresponding sides are not.

10)

Suppose  $\triangle RST \cong \triangle UVW \cong \triangle XYZ$ .  $m\angle R = 55^\circ$  and  $m\angle U = 45^\circ$ . What is  $m\angle Z$ ?



$$55 + 45 + m\angle Z = 180$$

$$m\angle Z = 80$$

angle sum Theorem