

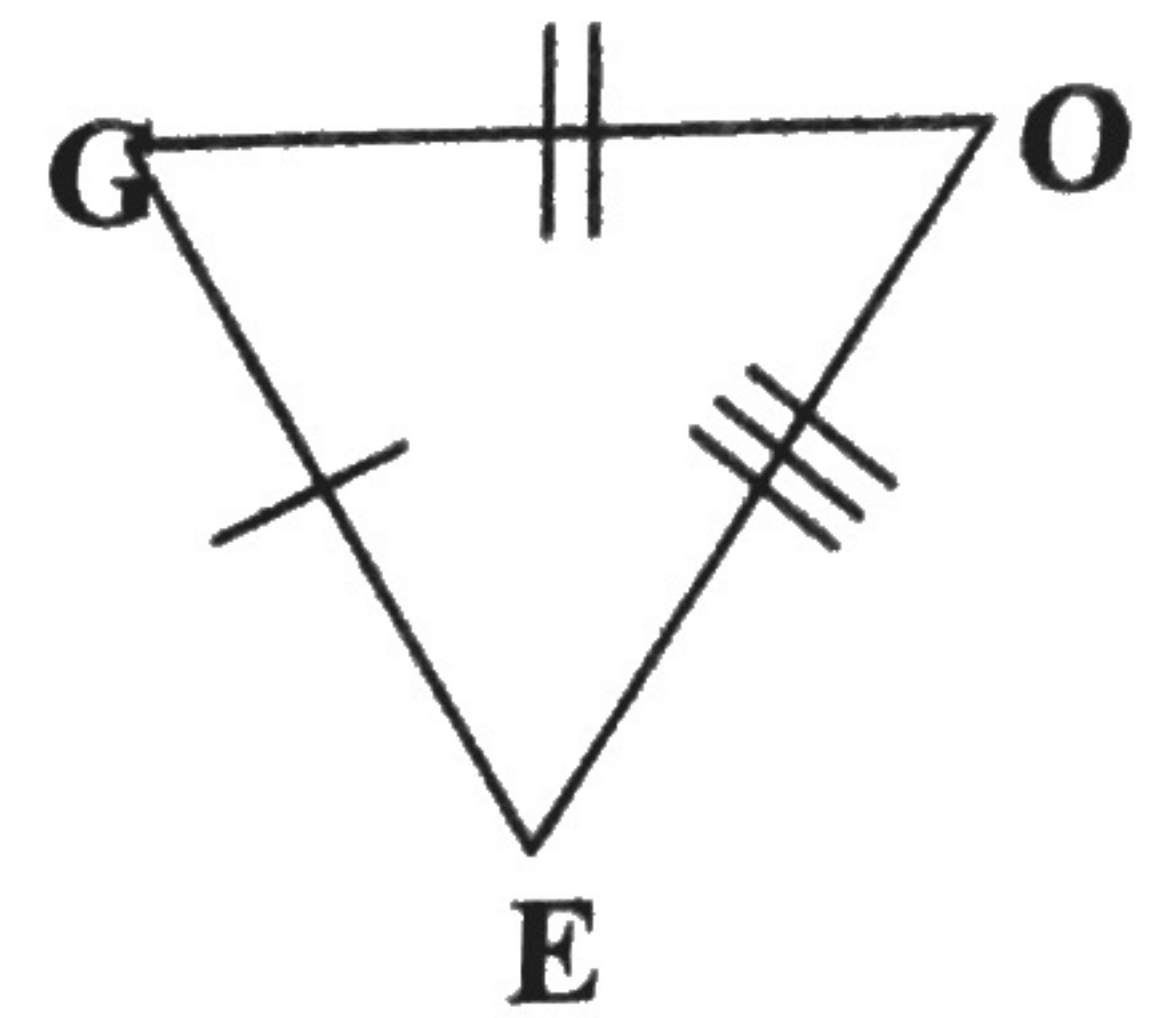
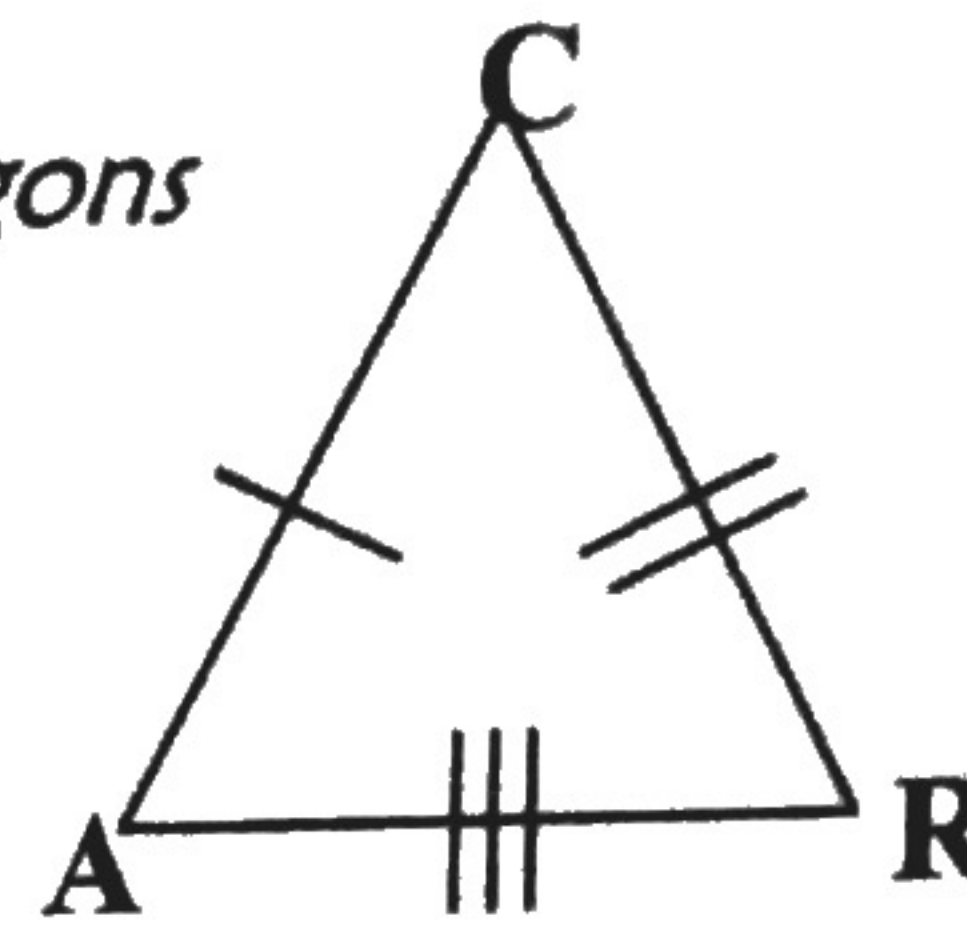
Let's Review: Triangles and Triangle Congruence

Check off if you got the skill correct.

□ I can write a congruency statement representing two congruent polygons

1. Write a congruency statement for the two triangles at right.

$$\boxed{\Delta ACR \cong \Delta EGO}$$



□ I can identify congruent parts of a polygon, given a congruency statement

2. List ALL of the congruent parts if $\Delta EFG \cong \Delta HGF$

angles \rightarrow $\angle GEF \cong \angle FHG$ $\overline{EF} \cong \overline{HG}$
 $\angle EFG \cong \angle HGF$ $\overline{FG} \cong \overline{GF}$ ← sides
 $\angle FGE \cong \angle GFH$ $\overline{EG} \cong \overline{HF}$

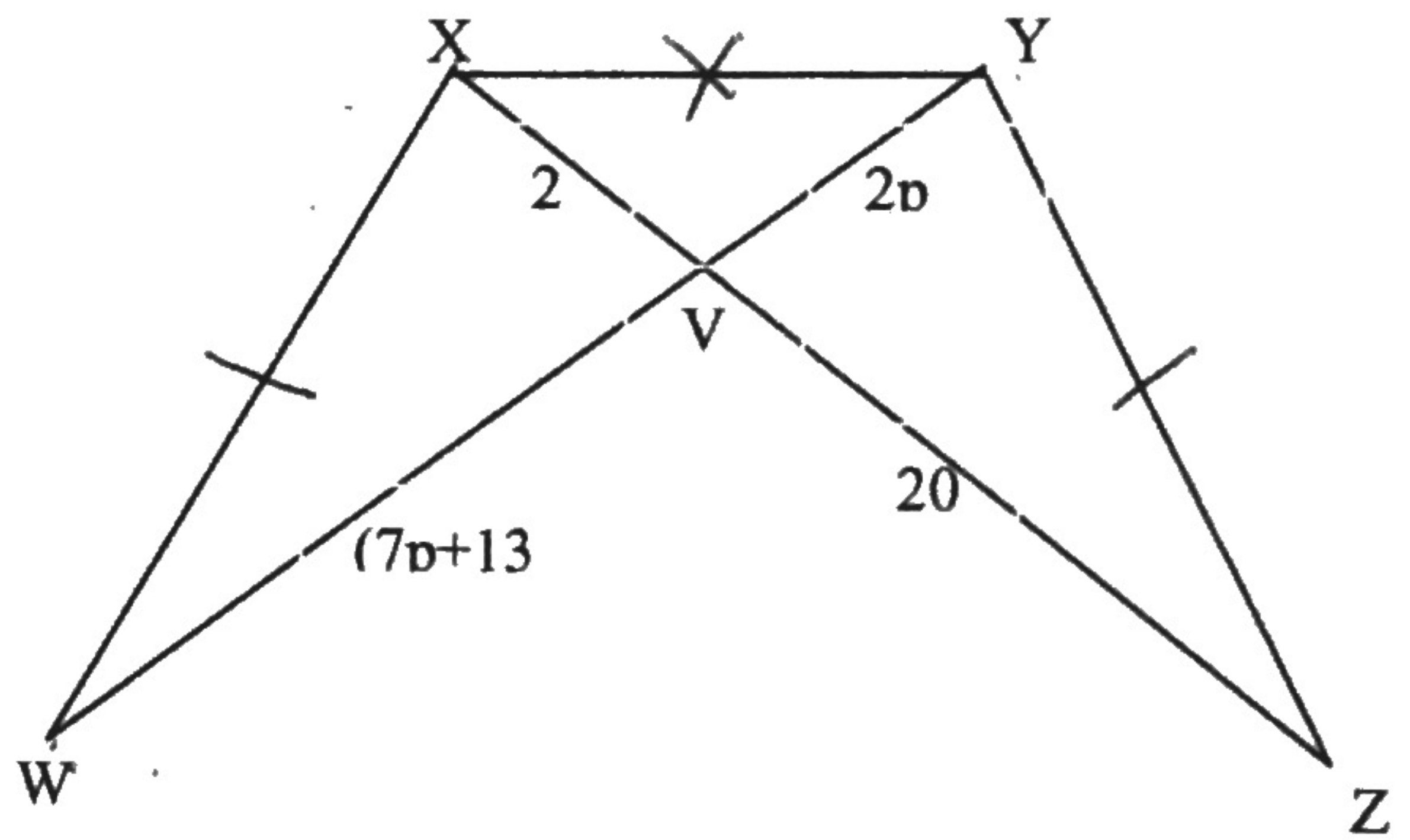
□ I can use algebra to find the side lengths and angle measures of congruent polygons

3. $\Delta WXY \cong \Delta ZYX$. Find p.

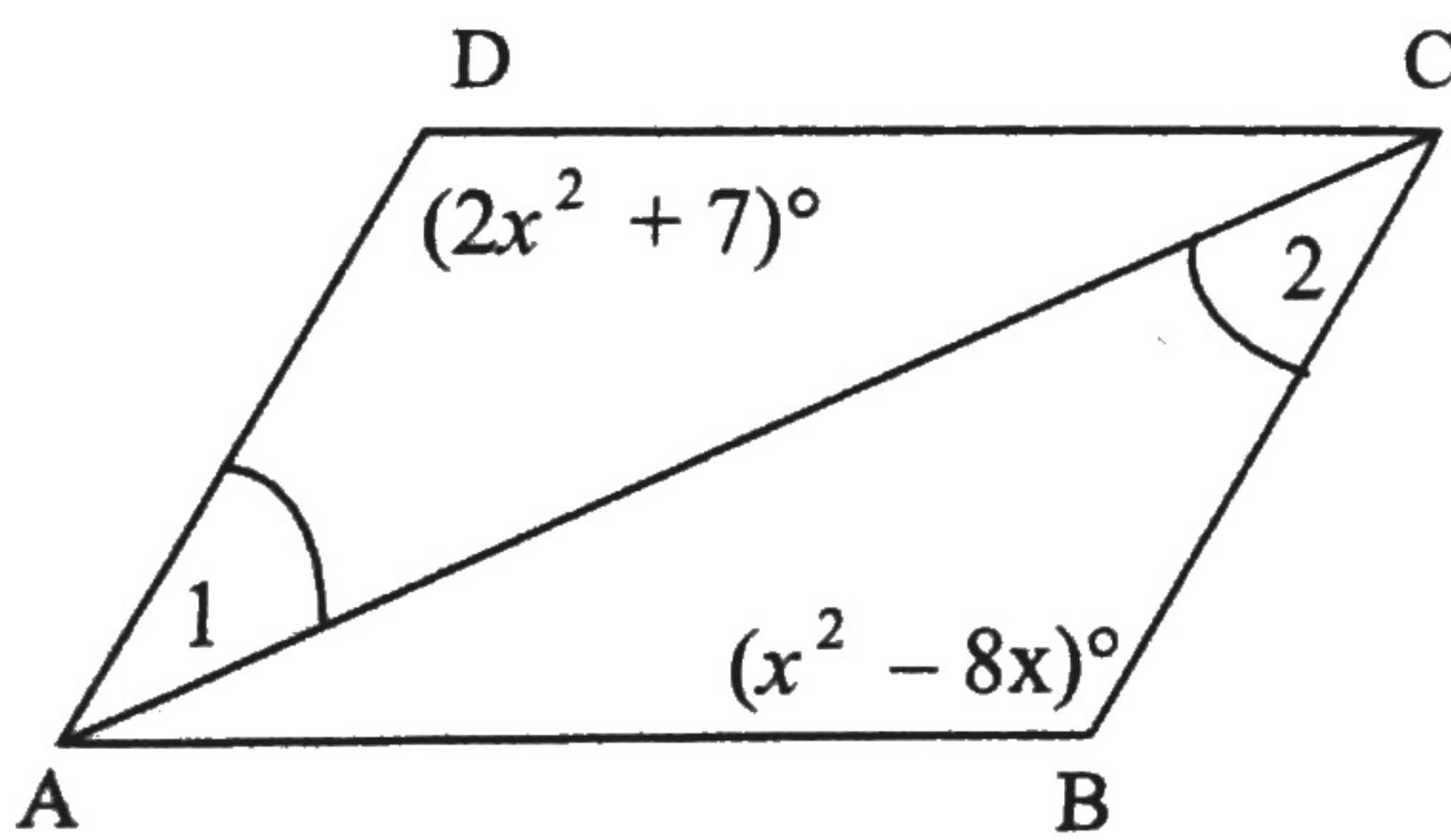
$$7p + 13 = 20$$

$$7p = 7$$

$$\boxed{p = 1}$$



4. $\Delta ADC \cong \Delta CBA$. Find x.



$$2x^2 + 7 = x^2 - 8x$$

$$x^2 + 8x + 7 = 0$$

$$(x + 7)(x + 1) = 0$$

$$\boxed{x = -7, x = -1}$$

They both work

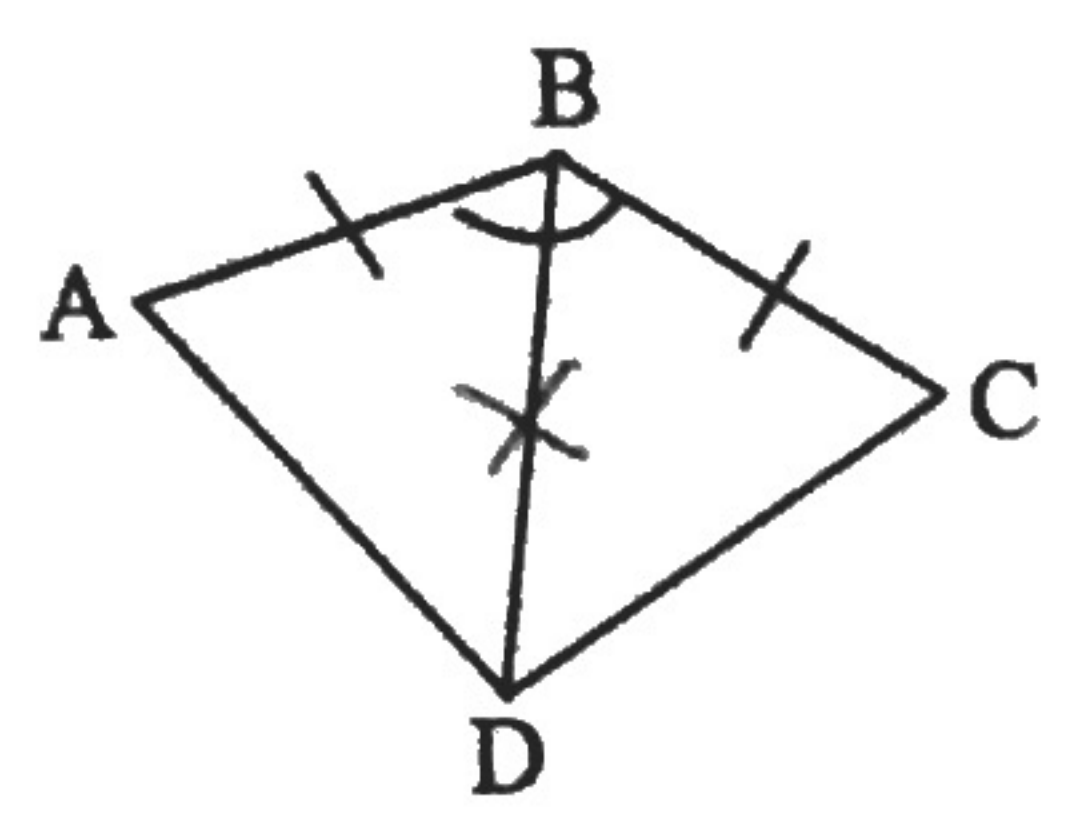
□ I can name the five ways to prove triangles are congruent

5. Name the 5 ways to prove triangles congruent.

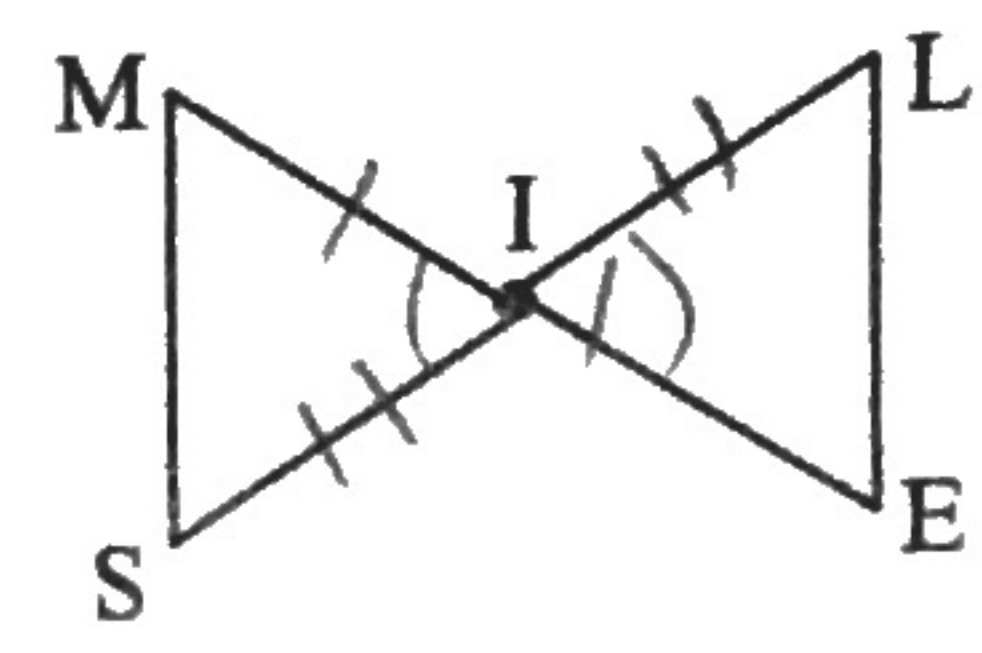
$$\boxed{SSS, SAS, ASA, AAS, HL}$$

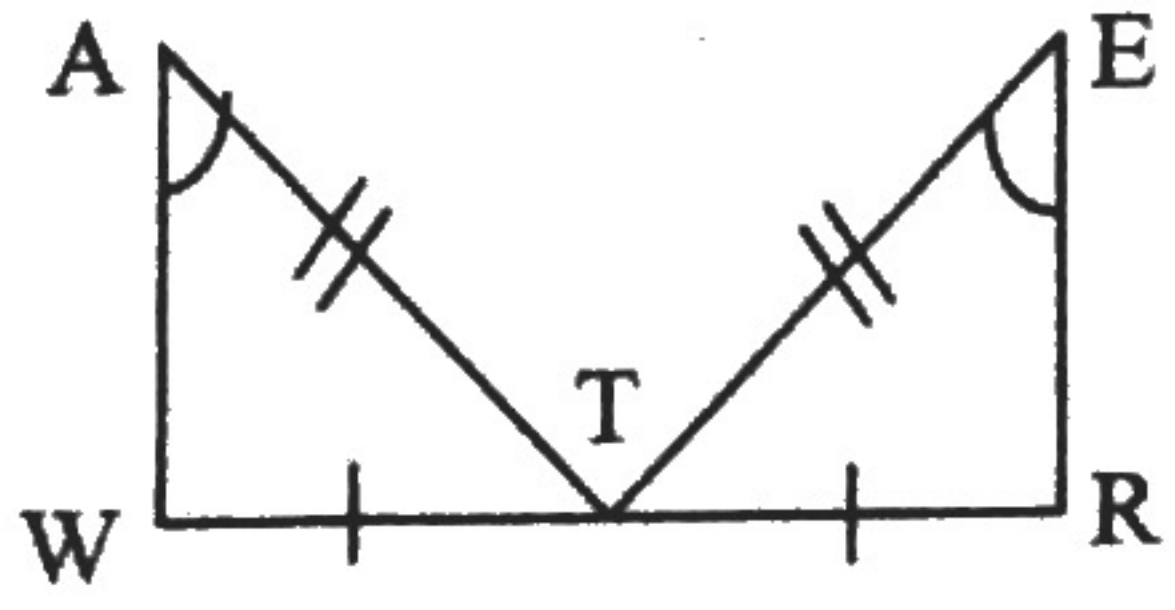
I can prove triangles are congruent using the postulates

For each pair of triangles, tell: (a) Are they congruent (b) Write the triangle congruency statement. (c) Give the postulate that makes them congruent.

6.  Yes, SAS
 $\triangle ABD \cong \triangle CBD$

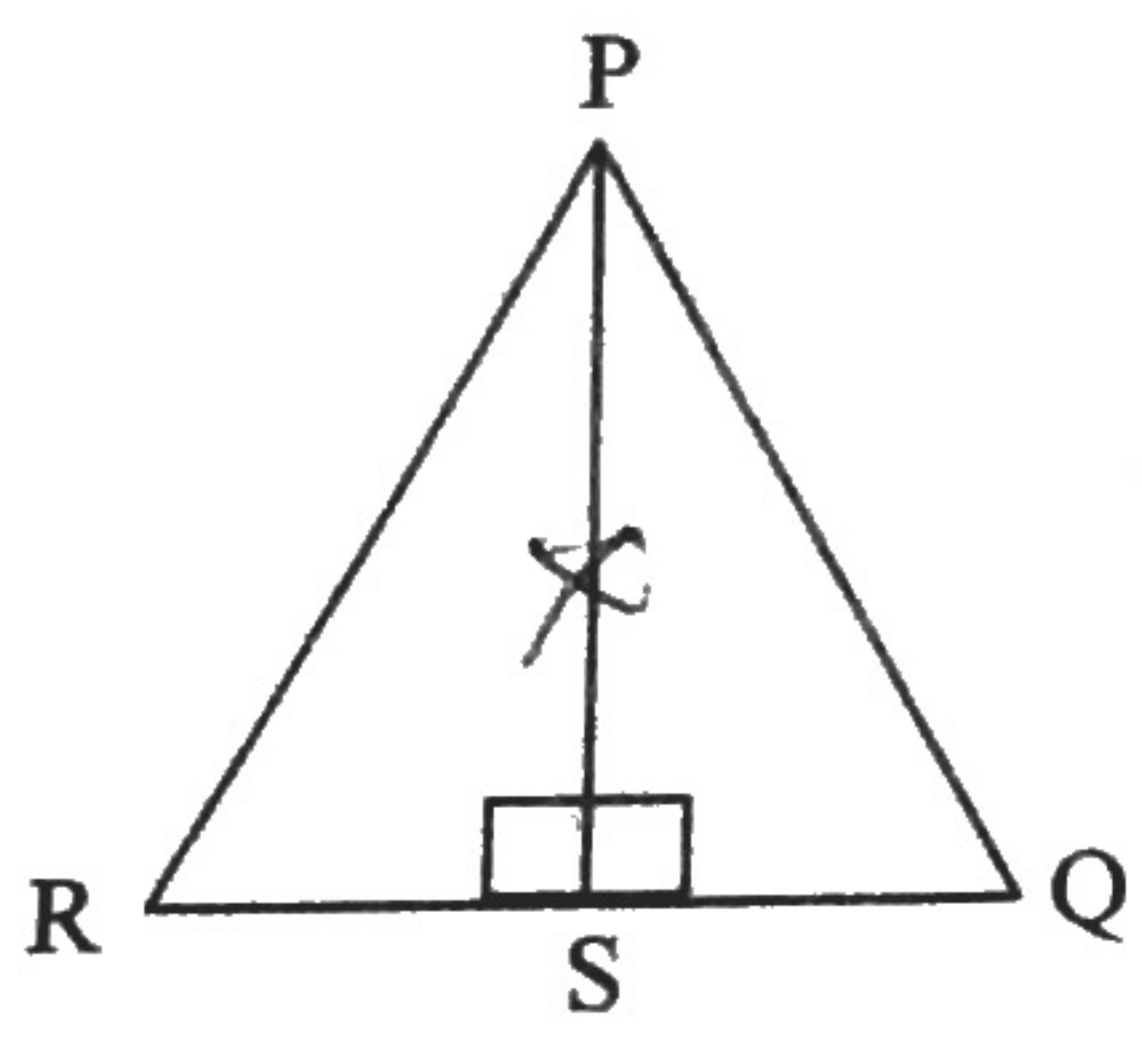
8. Given: I is the midpoint of \overline{ME} and \overline{SL} Yes, SAS
 $\triangle MIS \cong \triangle EIL$



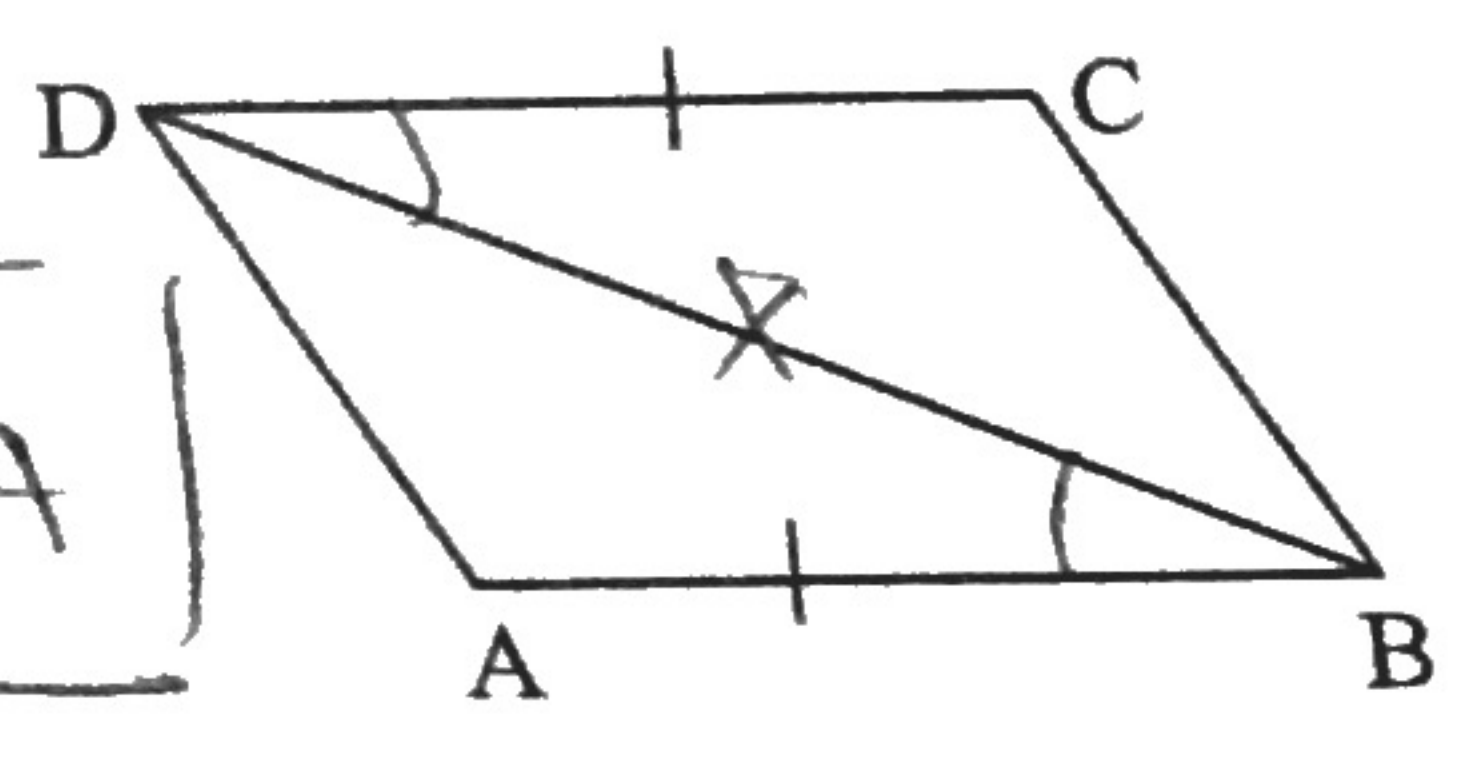
7.  No

I can mark pieces of a triangle congruent given how they are to be proved congruent

9. What information is missing to use HL? $\overline{RP} \cong \overline{QP}$



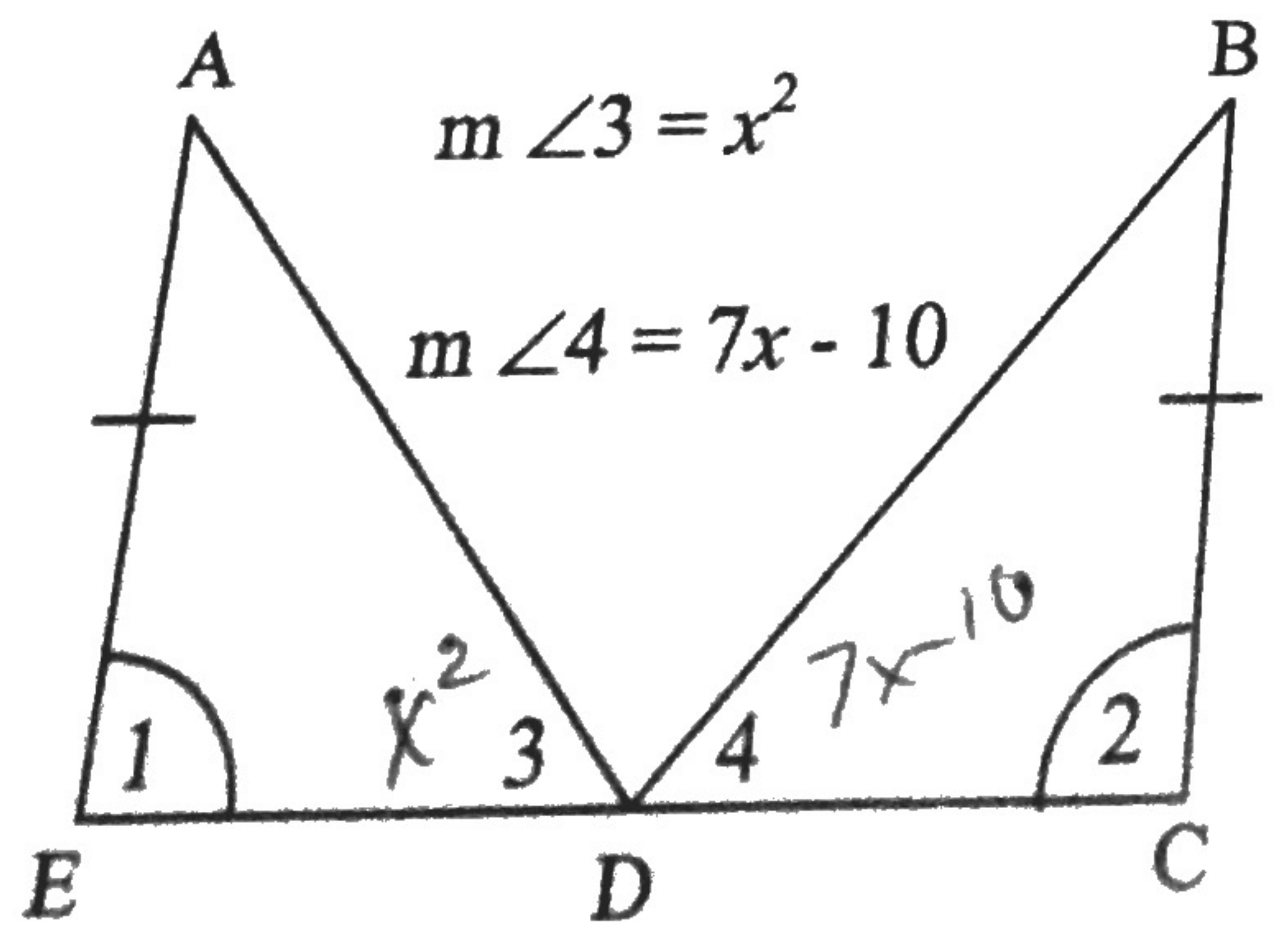
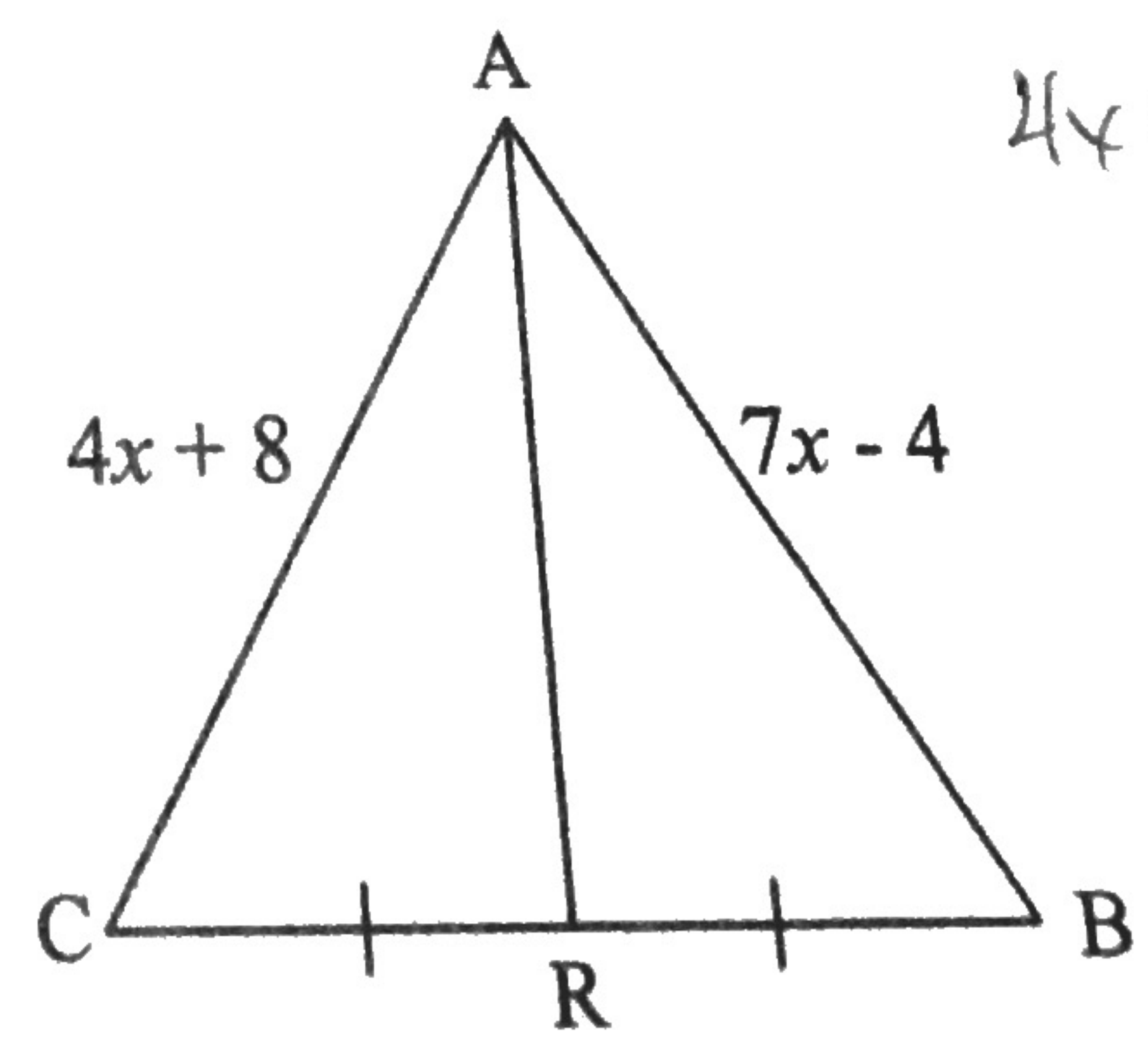
10. What information is missing to use SAS? $\angle CPB \cong \angle DBA$



IV. For which value(s) of x are the triangles congruent?

11. $x = \boxed{5 \text{ or } 2}$ $x^2 = 7x - 10$
 $x^2 - 7x + 10 = 0$
 $(x - 2)(x - 5) = 0$

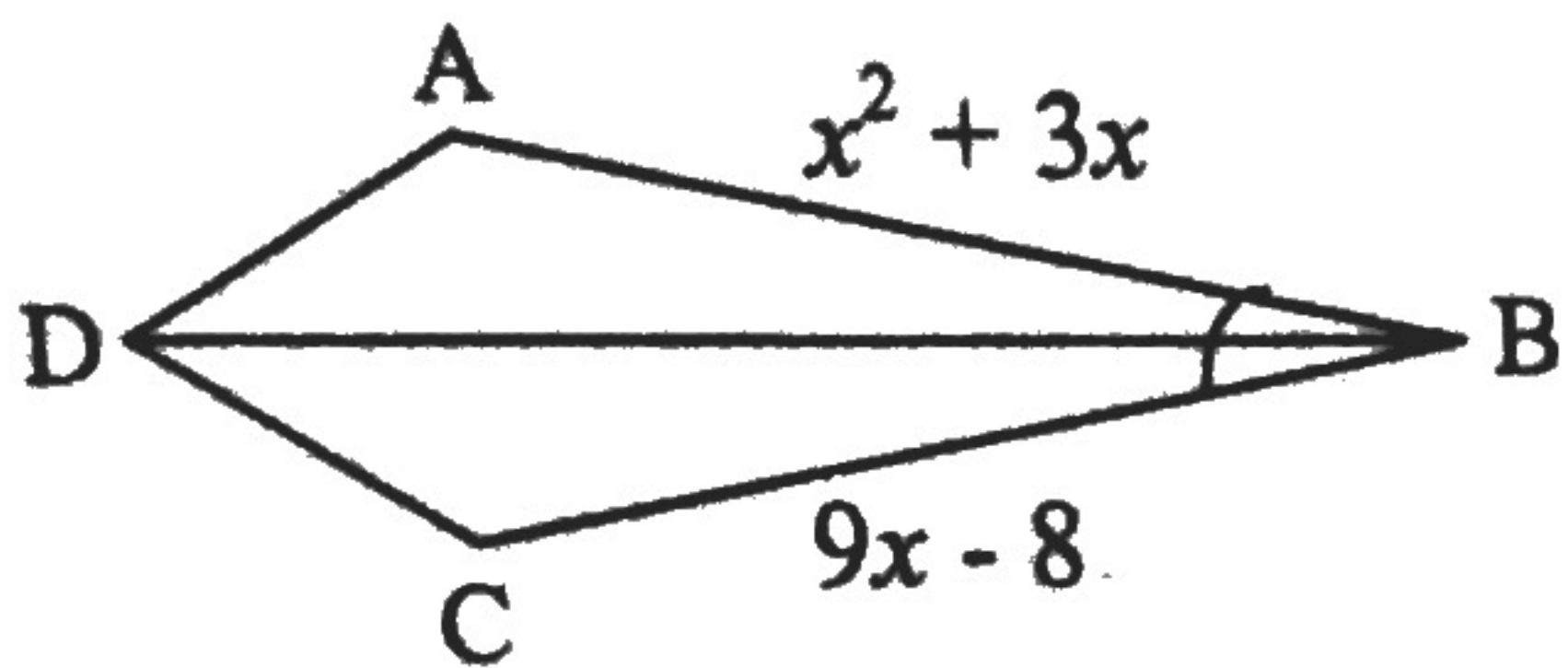
12. $x = \boxed{4}$

$4x + 8 = 7x - 4$
 $12 = 3x$

13. $x = \boxed{4 \text{ or } 2}$

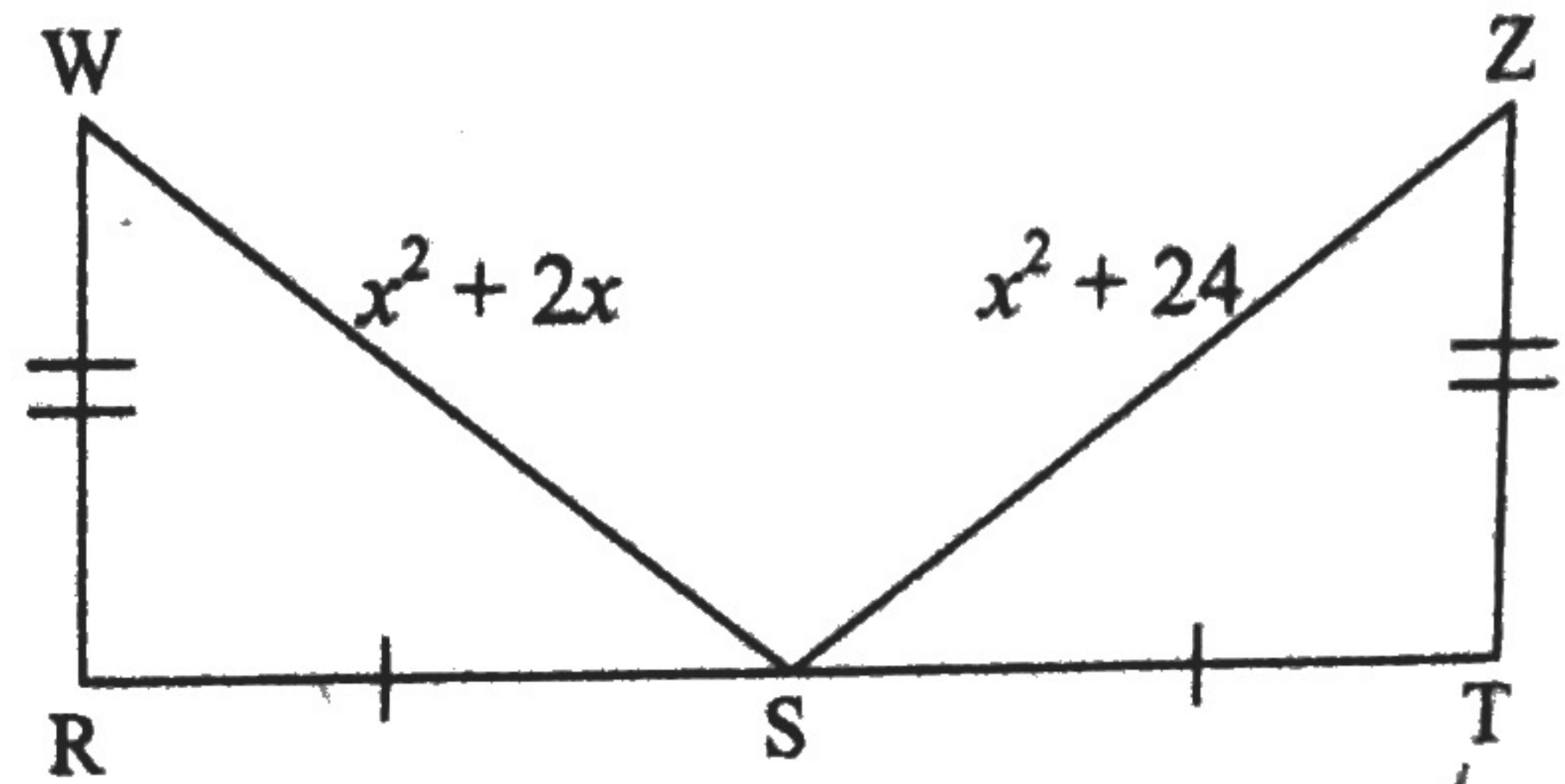
14. $x = \boxed{12}$



$$x^2 + 3x = 9x - 8$$

$$x^2 - 6x + 8$$

$$(x-4)(x-2)$$

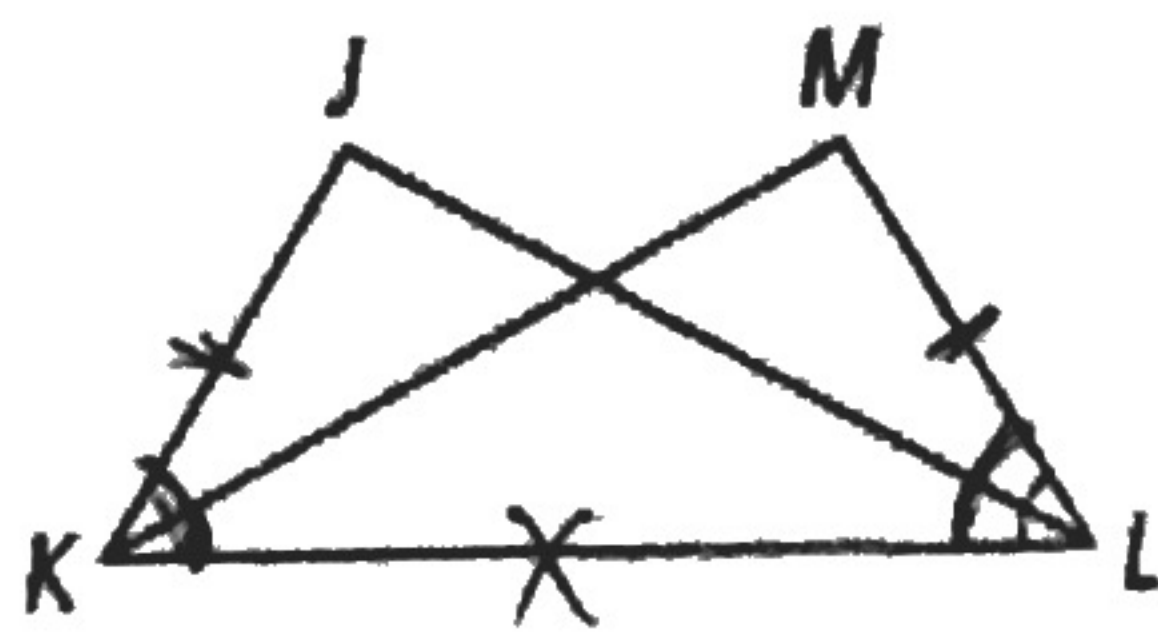


$$x^2 + 2x = x^2 + 24$$

$$x = 12$$

□ I can write proofs:

15. Given: $\overline{JK} \cong \overline{ML}$, $\angle JKL \cong \angle MLK$
 Prove: $\triangle JKL \cong \triangle MLK$



Statement	Reason
1. $\overline{JK} \cong \overline{ML}$ (S)	1. Given
2. $\angle JKL \cong \angle MLK$ (A)	2. Given
3. $\overline{KL} \cong \overline{LK}$ (S)	3. Reflexive Prop
4. $\triangle JKL \cong \triangle MLK$	4. SAS