Name:_____ Period:_____ SCORE:_____/_____=_____%=_____

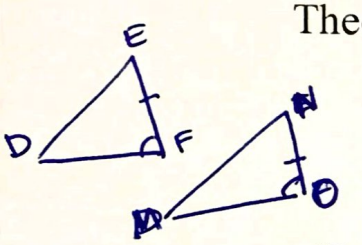
8-6 HW Honors – ASA, AAS and HL Triangle Congruence

State the third postulate that must be given to prove that $\triangle DEF \cong \triangle MNO$ using the indicated postulate or theorem.

1. Given: $\overline{FE} \cong \overline{ON}$

$\angle F \cong \angle O$

Method: AAS Congruence Theorem



$\angle E \cong \angle N$

2. Given: $\overline{DF} \cong \overline{MO}$

$\angle F \cong \angle O$

3. Given: $\angle D \cong \angle M$

$\angle E \cong \angle N$

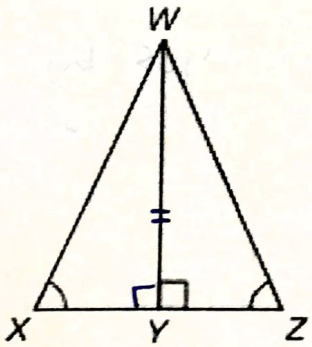
Method: AAS Congruence Theorem

$\overline{EF} \cong \overline{NO}$

OR $\overline{DF} \cong \overline{MO}$

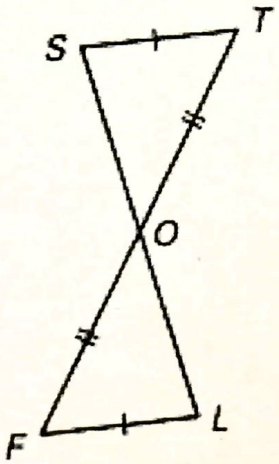
Is it possible to prove that the triangles are congruent? If so, state the postulate or theorem you would use. Explain your reasoning.

5.



Yes. By AAS

6.



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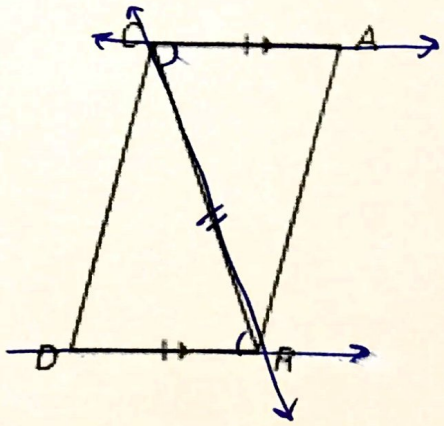
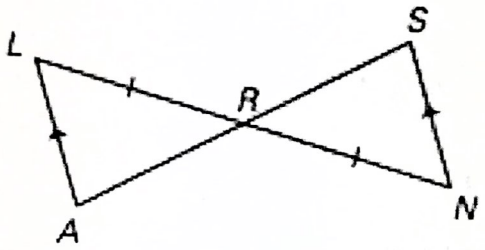


Yes by SAS

Is it possible to prove that the triangles are congruent? If so, state the postulate or theorem you would use. Explain your reasoning.

8.



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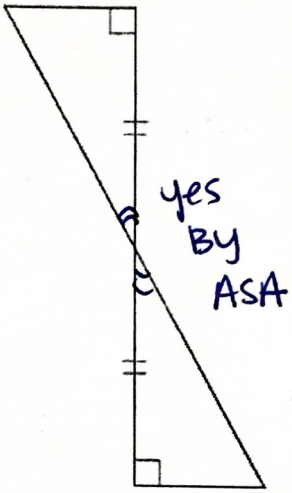
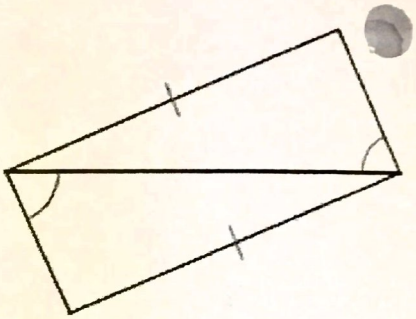
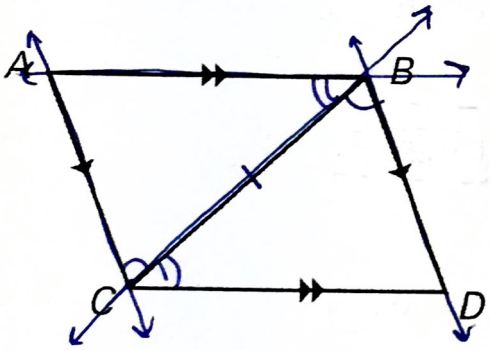


yes
By
ASA

10.

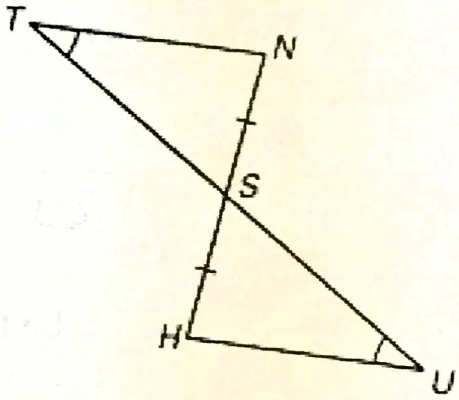


11.

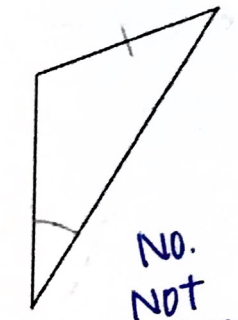


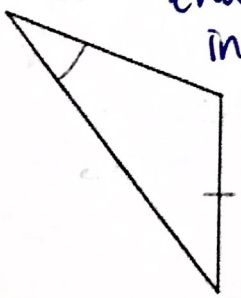
Yes
By
ASA

12.



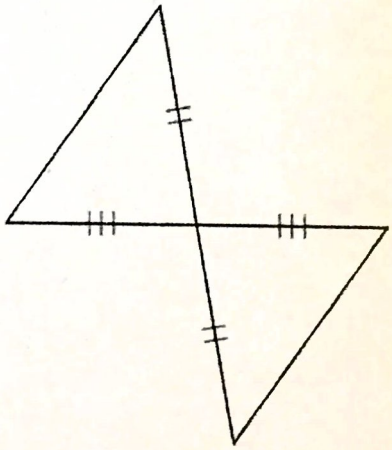
13.



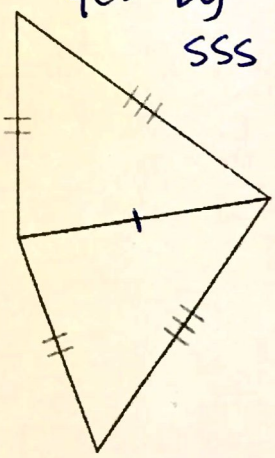


No.
Not
enough
information.

14.



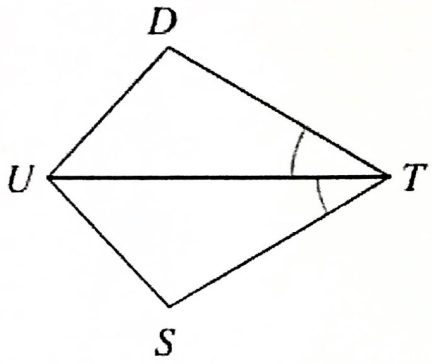
15.



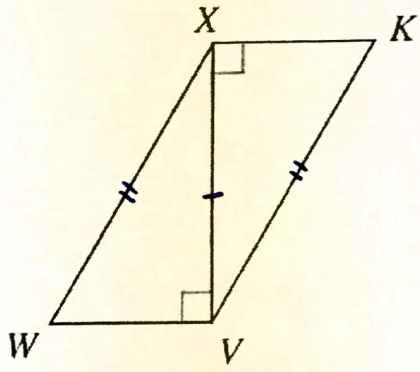
Yes by
SSS

In each of the following pairs of triangles, add only the required markings in order to know that the triangles are congruent by the given postulate or theorem.

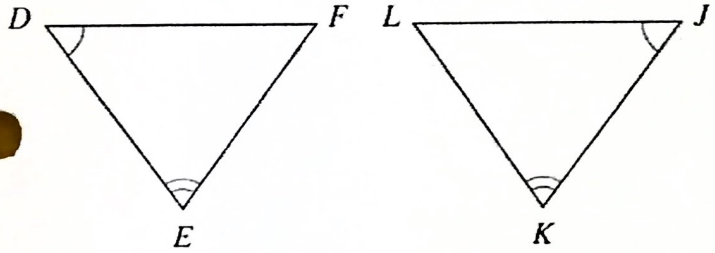
16. ASA



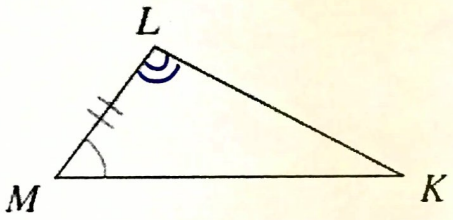
17. HL

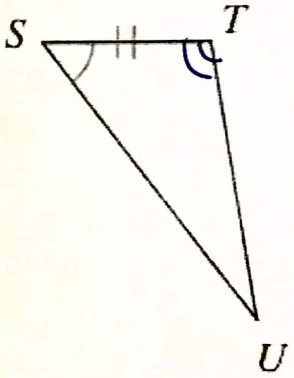


18. AAS

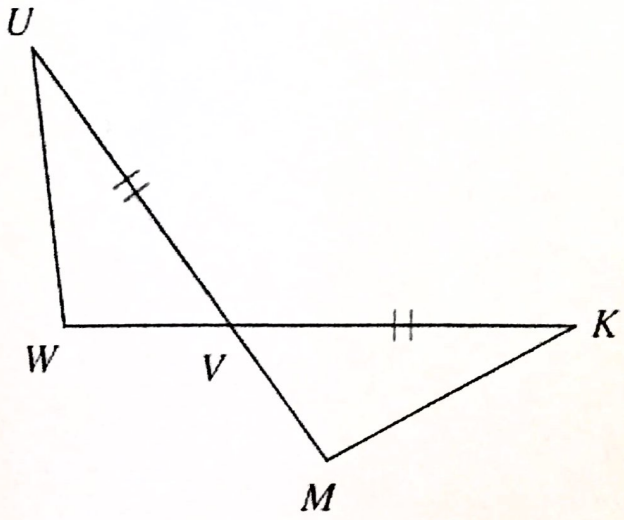


19. ASA





20. SAS



21. SSS