

Unit 8 Day 1 Triangle Congruence Assignment # 1

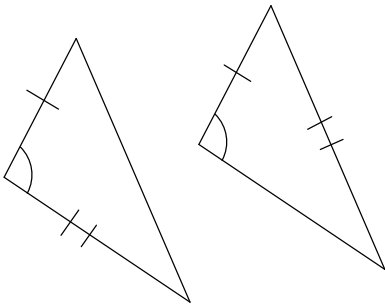
Our growth depends not on how many experiences we devour, but on how many we digest. Ralph W. Sockman

Determine if the following triangles **MUST** be congruent based on the markings only. If the triangles are congruent, tell which congruence statement makes them congruent (your choices are SSS, SAS, ASA, AAS, SSA, AAA.) If not congruent, explain why they wouldn't be.

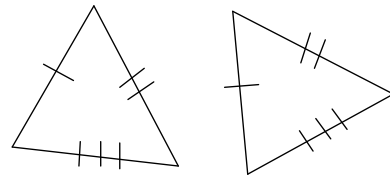
Note: The triangles are not drawn to scale.



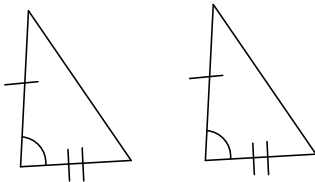
1.



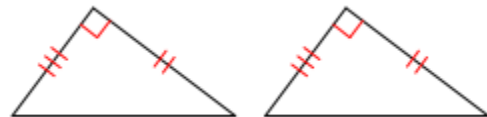
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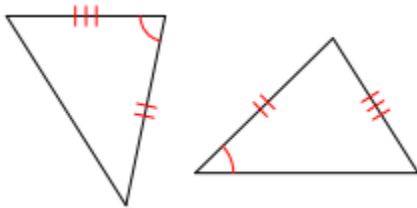
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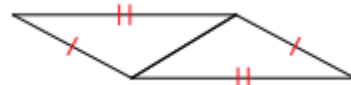
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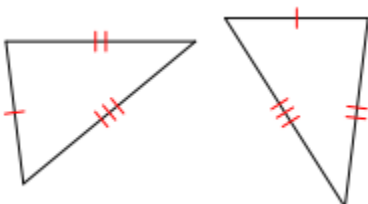
5.



6.



7.



8.



If two people were given the following measurements, would their triangles have to be congruent?

- a) Make a rough sketch of the triangle. [1 point each]
- b) Name the 3-letter rule that guarantees them congruent.
- c) If the triangles won't necessarily be congruent, explain why not. [1 point each explanation]

9. $m\angle A = 33^\circ$, $AB = 6$ cm, and $BC = 5$ cm.

10. $CA = 5$ cm, $AT = 3$ cm, and $TC = 6$ cm.

11. $m\angle D = 45^\circ$, $ED = 12$ cm, and $DF = 8$ cm.

12. $MP = 12$ cm, $m\angle M = 45^\circ$, $AP = 8$ cm.

13. $AC = 132$ cm, and $BC = 87$ cm, $m\angle C = 150^\circ$

14. Use your compass to construct a triangle congruent to this one:

