



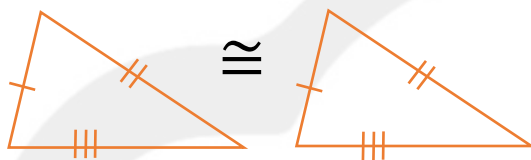
Triangle Congruency

Rules for Congruency

Congruent triangles are equal in shape and size. We use the congruency rules to test and see if two triangles are congruent.

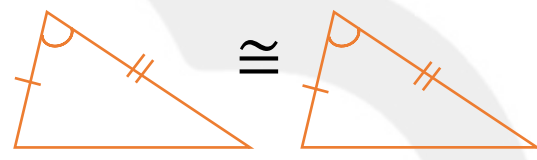
NOTE: The "SSA" (side-side-angle) rule is not sufficient to prove that triangles are congruent as it cannot guarantee that triangles will always be the same. It might make two different triangles.

SSS (Side–Side–Side)



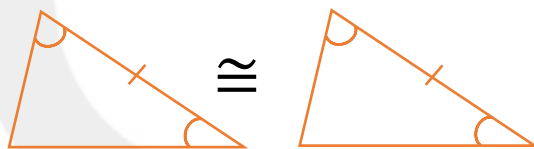
3 equal sides

SAS (Side–Angle–Side)



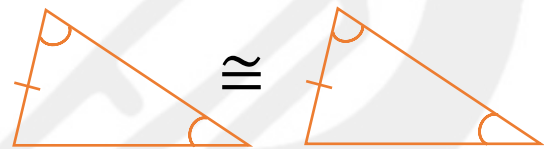
2 equal sides and 1 equal angle

ASA (Angle–Side–Angle)



1 equal side and 2 equal angles

AAS / SAA (Angle–Angle–Side)



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RHS (Right Angle–Hypotenuse–Side)

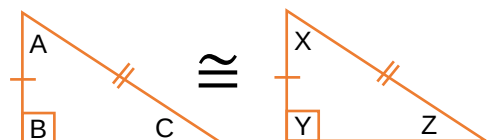
1 equal side, an equal hypotenuse and a right angle



How to Write Congruence Statements

Congruence statements need to be written in the correct order.

If $\triangle ABC \cong \triangle XYZ$,
 $\overline{AB} \cong \overline{XY}$, $\overline{BC} \cong \overline{YZ}$ and $\overline{AC} \cong \overline{XZ}$

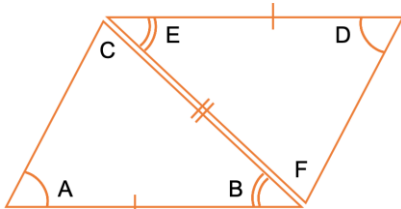




Instructions: Provide a congruence statement for the questions below.

1

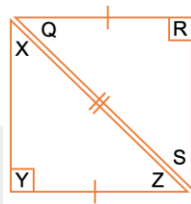
Congruence Statement



$\Delta \underline{\hspace{1cm}} \cong \Delta \underline{\hspace{1cm}}$ by:

2

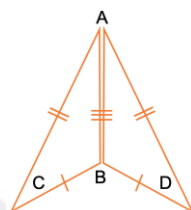
Congruence Statement



$\Delta \underline{\hspace{1cm}} \cong \Delta \underline{\hspace{1cm}}$ by:

3

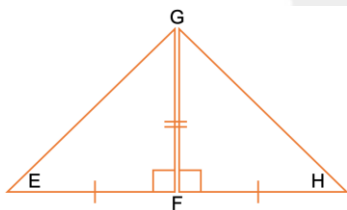
Congruence Statement



$\Delta \underline{\hspace{1cm}} \cong \Delta \underline{\hspace{1cm}}$ by:

4

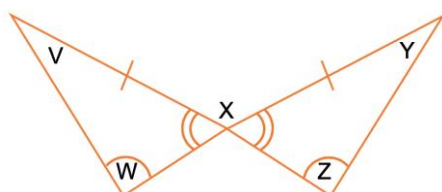
Congruence Statement



$\Delta \underline{\hspace{1cm}} \cong \Delta \underline{\hspace{1cm}}$ by:

5

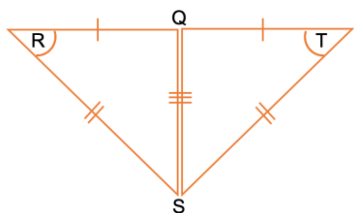
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6

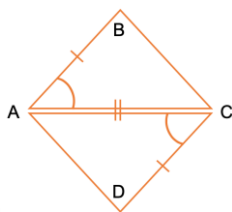
Congruence Statement



Δ _____ $\cong$ Δ _____ by:

7

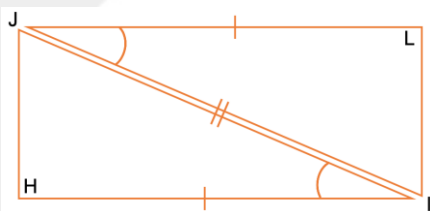
Congruence Statement



Δ _____ $\cong$ Δ _____ by:

8

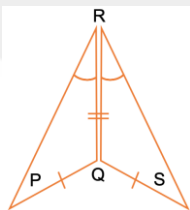
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Δ _____ $\cong$ Δ _____ by:

9

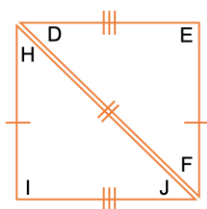
Congruence Statement



Δ _____ $\cong$ Δ _____ by:

10

Congruence Statement



Δ _____ $\cong$ Δ _____ by:



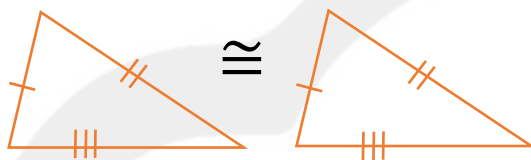
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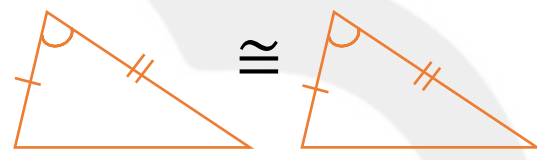
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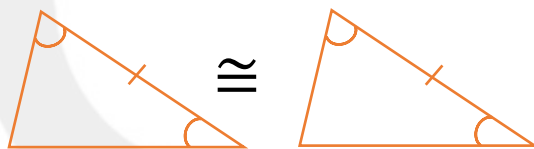
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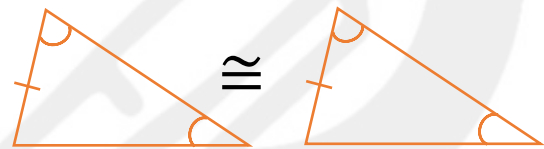
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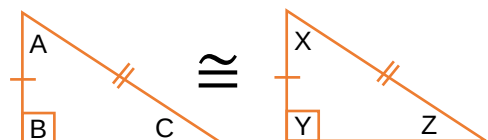
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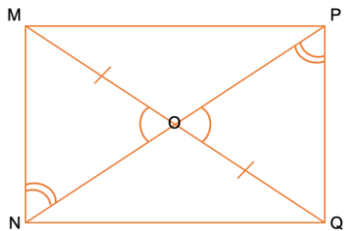




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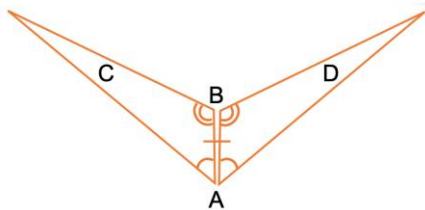
Congruence Statement



$\Delta \underline{\hspace{1cm}} \cong \Delta \underline{\hspace{1cm}}$ by:

2

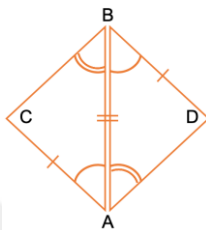
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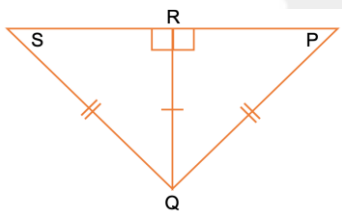
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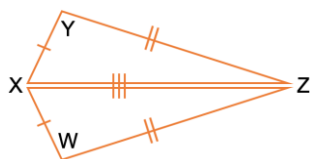
Congruence Statement



$\Delta \underline{\hspace{1cm}} \cong \Delta \underline{\hspace{1cm}}$ by:

5

Congruence Statement

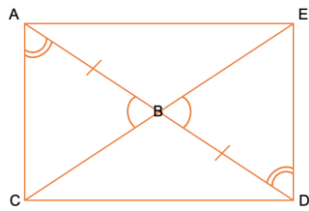


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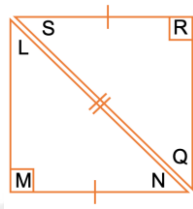
Congruence Statement



Δ _____ $\cong$ Δ _____ by:

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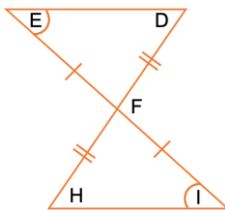
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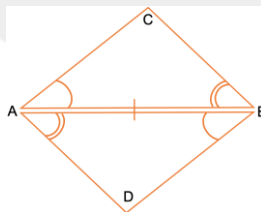
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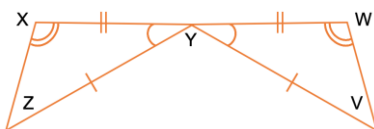
Congruence Statement



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