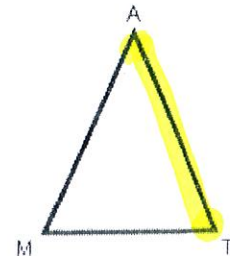
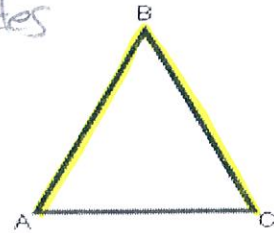


Included Angle the angle between the 2 adjacent sides

Name the angle included between \overline{AB} and \overline{BC} $\angle B$

\overline{BC} and \overline{AC} $\angle C$ \overline{AC} and \overline{AB} $\angle A$



\overline{AT}

\overline{MA}

\overline{MT} or \overline{MA}

Included Side the side between 2 angles

1. In $\triangle MAT$, which side is included between $\angle A$ and $\angle T$?

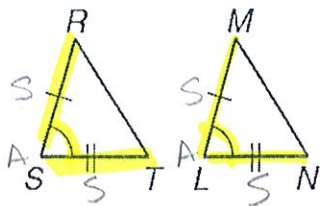
2. In $\triangle MAT$, which side is included between $\angle M$ and $\angle A$?

3. Which side is not included between angles A and T?

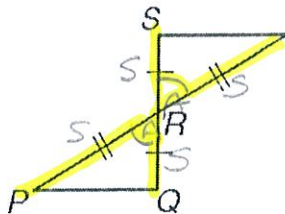
The third, fourth, and fifth congruence theorem:

Side-Angle-Side (SAS)

$\triangle SRT \cong \triangle LMN$



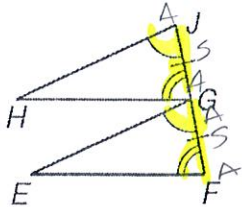
$\triangle SRT \cong \triangle QRP$



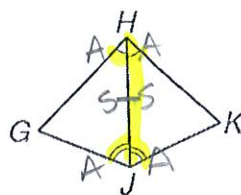
If two sides and the **included angle** of one triangle are congruent to two sides and the **included angle** of a second triangle, then the two triangles are congruent.

Angle-Side-Angle (ASA)

$\triangle GHJ \cong \triangle FEG$



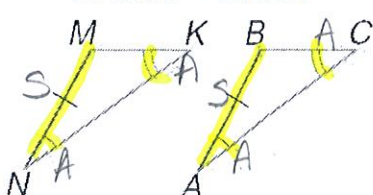
$\triangle GHJ \cong \triangle KHJ$



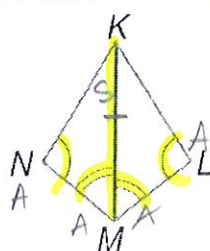
If two angles and the **included side** of one triangle are congruent to two angles and the **included side** of a second triangle, then the two triangles are congruent.

Angle-Angle-Side (AAS)

$\triangle NMK \cong \triangle ABC$



$\triangle NMK \cong \triangle LMK$

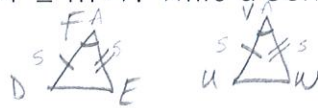


If two angles and a **nonincluded side** of one triangle are congruent to two angles and the **nonincluded side** of a second triangle, then the two triangles are congruent.

The Only Ways To Prove Triangles are Congruent: SSS SAS ASA AAS HL

1. In two triangles, $DF \cong UV$, $FE \cong VW$ and $m\angle F \cong m\angle V$. Write a congruence statement.

$\triangle DFE \cong \triangle UVW$ by SAS



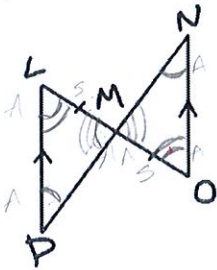
2. If $\angle EDF \cong \angle LNP$, $DE \cong NL$ and $\angle E \cong \angle L$. Write the congruence statement. $\triangle EDF \cong \triangle LNP$ by ASA

Determine whether the triangles are congruent.

If they are, write a congruence statement explaining why they are congruent.

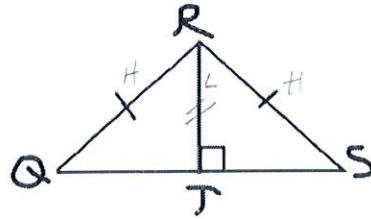


3.



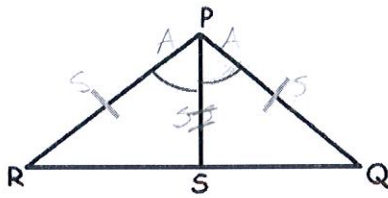
$\triangle PLM \cong \triangle NOM$ by ASA or AAS

4.



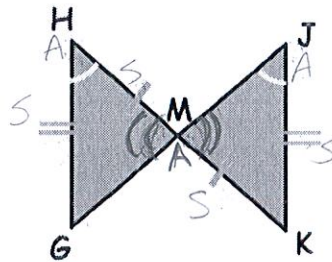
$\triangle QRT \cong \triangle SRT$ by HL

5.



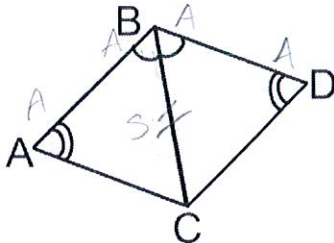
$\triangle RPS \cong \triangle QPS$ by SAS

6.



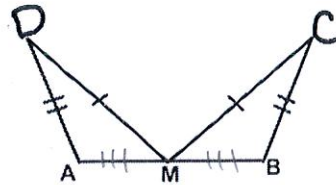
$\triangle HGM \cong \triangle KJM$ by AAS

7.



$\triangle ABC \cong \triangle DCB$ by AAS

8.



Given: M is the midpoint of \overline{AB} .

$\triangle ADM \cong \triangle BCM$ by SSS

9. Use the two triangles on the right to answer the following questions:

A. What other pair of angles needs to be marked so that the two triangles are congruent by ASA? $\angle D \cong \angle L$

B. What other pair of angles needs to be marked so that the two triangles are congruent by AAS? $\angle E \cong \angle N$

