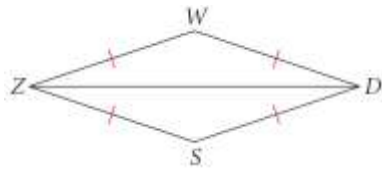


△ Congruence Practice: SSS & SAS

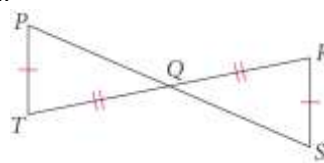
For each diagram below,

- List the parts of the triangles that you know are congruent and state why they are congruent (if the parts are marked congruent, then state that they are “given”), and
- If possible write a congruence statement stating which postulate (SSS or SAS) you used.

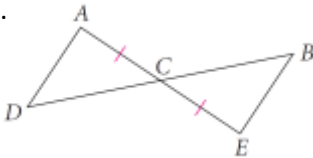
1.



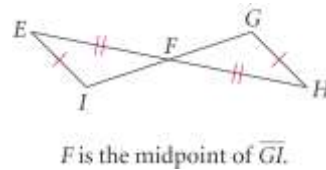
2.



3.

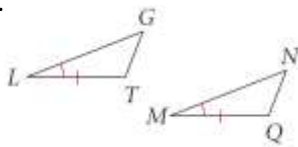


4.

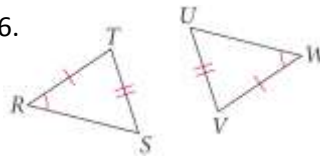


In 5-8, there *may not be* enough information to say that the triangles are congruent. What other information, if any, do you need to prove the two triangles congruent by SSS or SAS?

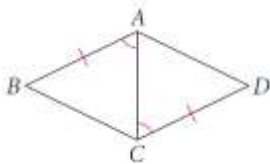
5.



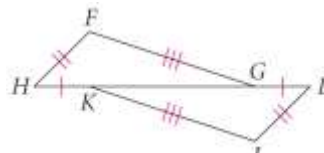
6.



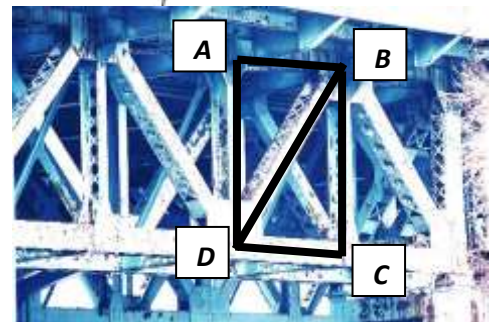
7.



8.



- Triangles are important part of bridge supports called trusses. In the picture to the right, if beams $\overline{AB} \cong \overline{CD}$ and beams $\overline{AD} \cong \overline{BC}$, how does this prove that $\triangle ABD \cong \triangle CDB$.



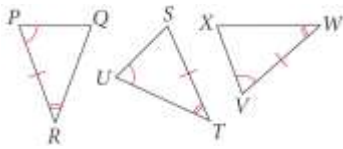
△ Congruence Practice: ASA & AAS

ASA Congruence Theorem: If two angles and an included side of one triangle are congruent to two angles and an included side of another triangle, then the triangles are congruent.

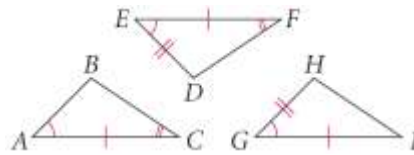
AAS Congruence Theorem: If two angles and a *non-included side* of one triangle are congruent to two angles and a *non-included side* of another triangle, then the triangles are congruent.

Name two triangles that are congruent by the ASA Postulate.

1.

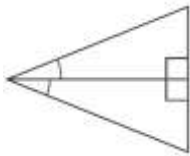


2.



Tell whether the AAS Theorem or the ASA Postulate can be applied directly to prove the triangles congruent. If not, write not possible. Explain your answer.

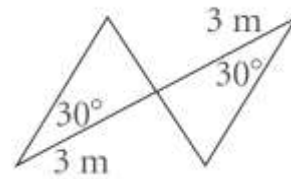
3.



4.



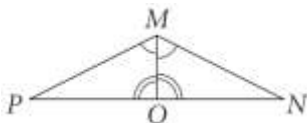
5.



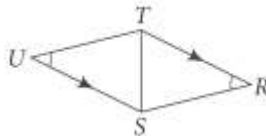
For each diagram below,

- List the parts of the triangles that you know are congruent and state why they are congruent (if the parts are marked congruent, then state that they are “given”), and
- If possible write a congruence statement stating which postulate (ASA or AAS) you used.

6.



7.



8.

