Quiz 3.4: SAS Triangle Congruence Postulate

Multiple Choice: *Choose the letter that corresponds to the correct answer. Write the answer in your answer sheet.*

1. Which triangle congruence postulate states that if the two sides and an included angle of one triangle are congruent to the corresponding two sides and included angle of another triangle, then the two triangles are congruent?

   A. ASA postulate B. SAS postulate C. SSS postulate D. AAS postulate

2. "If two angles and the included side of one triangle are congruent to the corresponding two angles and included side of another triangle, then the two triangles are congruent." This is stated in:

   A. ASA postulate B. SAS postulate C. SSS postulate D. AAS postulate

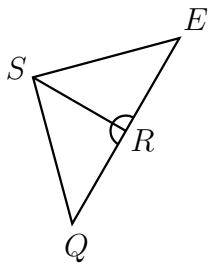
3. If two triangles are congruent by the SAS triangle congruence postulate, then which corresponding parts must be congruent?

   A. All sides
   C. Two sides and the included angle
   B. Two angles and the included side
   D. All angles

4. Which corresponding parts must be congruent if two triangles are congruent by the ASA postulate?

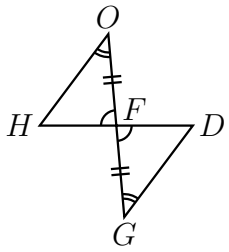
   A. All sides
   C. Two sides and the included angle
   B. Two angles and the included side
   D. All angles

5. The figures are marked with their congruent parts. Determine the other congruent parts using the ASA congruence postulate.



   A. $\overline{SR} \cong \overline{SR}$ B. $\overline{RQ} \cong \overline{RE}$ C. $\angle SRQ \cong \angle SRE$ D. $\angle RSQ \cong \angle RSE$

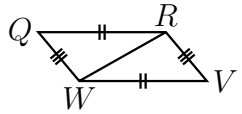
6. Which postulate can be used to conclude that $\triangle HOF \cong \triangle DGF$?



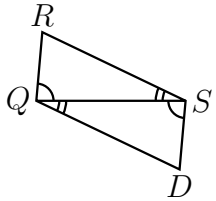
   A. ASA postulate B. SAS postulate C. SSS postulate D. AAS postulate

7. Which of the following pairs of triangles are congruent by the SAS postulate?

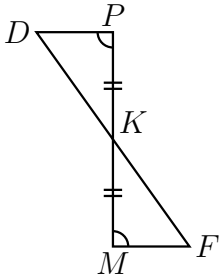
   A.



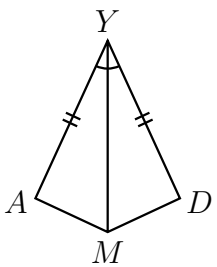
   B.



   C.



   D.



Answer Key

1. Which triangle congruence postulate states that if the two sides and an included angle of one triangle are congruent to the corresponding two sides and included angle of another triangle, then the two triangles are congruent?

   Solution:

   A. ASA postulate B. SAS postulate C. SSS postulate D. AAS postulate

2. "If two angles and the included side of one triangle are congruent to the corresponding two angles and included side of another triangle, then the two triangles are congruent." This is stated in:

   Solution:

   A. ASA postulate B. SAS postulate C. SSS postulate D. AAS postulate

3. If two triangles are congruent by the SAS triangle congruence postulate, then which corresponding parts must be congruent?

   Solution:

   A. All sides C. Two sides and the included angle

   B. Two angles and the included side D. All angles

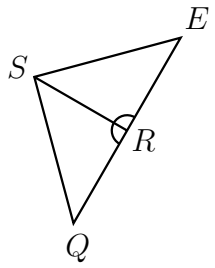
4. Which corresponding parts must be congruent if two triangles are congruent by the ASA postulate?

   Solution:

   A. All sides C. Two sides and the included angle

   B. Two angles and the included side D. All angles

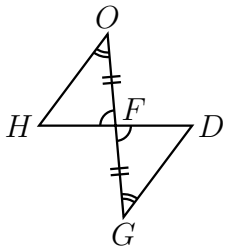
5. The figures are marked with their congruent parts. Determine the other congruent parts using the ASA congruence postulate.



   Solution:

   A. $\overline{SR} \cong \overline{SR}$ B. $\overline{RQ} \cong \overline{RE}$ C. $\angle SRQ \cong \angle SRE$ D. $\angle RSQ \cong \angle RSE$

6. Which postulate can be used to conclude that $\triangle HOF \cong \triangle DGF$?



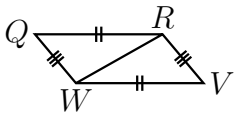
   Solution:

   A. ASA postulate B. SAS postulate C. SSS postulate D. AAS postulate

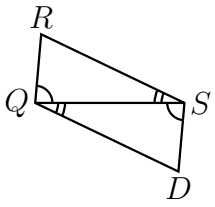
7. Which of the following pairs of triangles are congruent by the SAS postulate?

   Solution:

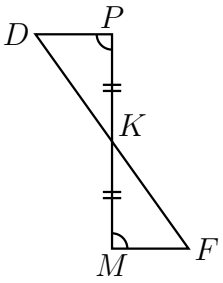
A.



B.



C.



D.