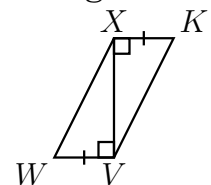


Quiz 3.3: Triangle Congruence

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

- Which triangle congruence postulate states that if the three sides of one triangle are congruent to the corresponding sides of another triangle, then the two triangles are congruent?
A. ASA Congruence Postulate C. SSS Congruence Postulate
B. SAS Congruence Postulate D. AAS Congruence Postulate
- Which property of congruence states that any triangle is congruent to itself?
A. Additive Property B. Reflexive Property C. Symmetric Property D. Transitive Property
- The angle between two sides of a triangle is called:
A. Congruent \angle B. Corresponding \angle C. Included \angle D. Paired \angle
- The side common to two angles of a triangle is called:
A. Congruent side B. Corresponding side C. Included side D. Paired side
- How do we determine if two triangles are congruent?
A. Corresponding sides must be congruent.
B. Corresponding angles must be congruent.
C. Corresponding sides and angles must be congruent.
D. Included sides and angles must be congruent.
- "If $\triangle ABC \cong \triangle XYZ$, then $\triangle XYZ \cong \triangle ABC$." This is stated in:
A. Additive Property B. Reflexive Property C. Symmetric Property D. Transitive Property
- Which of the following is NOT a property of congruence?
A. Additive Property B. Reflexive Property C. Symmetric Property D. Transitive Property
- Which property of congruence states that if a triangle is congruent to another triangle, and the second triangle is congruent to another triangle, then the first triangle is congruent to the third triangle?
A. Additive Property B. Reflexive Property C. Symmetric Property D. Transitive Property
- To which side does \overline{BC} correspond if $\triangle ABC \cong \triangle HIJ$?
A. \overline{HI} B. \overline{IJ} C. \overline{HJ} D. \overline{IH}
- Which of the following statements is FALSE if $\triangle DAR \cong \triangle WIN$?
A. $\triangle DRA \cong \triangle WNI$ B. $\triangle RAD \cong \triangle NIW$ C. $\triangle ADR \cong \triangle IWN$ D. $\triangle ARD \cong \triangle NWI$
- What is the included angle between \overline{EF} and \overline{FG} in $\triangle EFG$?
A. $\angle E$ B. $\angle F$ C. $\angle G$ D. $\angle GEF$
- Given $\triangle ABC$, determine the included side between $\angle B$ and $\angle C$.
A. \overline{AB} B. \overline{AC} C. \overline{BC} D. \overline{BA}
- Which parts must be congruent if $\triangle XVW \cong \triangle V XK$ using the SSS congruence postulate?

- A. $\overline{WV} \cong \overline{KX}$ B. $\overline{XV} \cong \overline{VX}$ C. $\overline{VW} \cong \overline{XK}$ D. $\overline{WX} \cong \overline{KV}$



Answer Key

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

Solution:

- A. ASA Congruence Postulate C. **SSS Congruence Postulate**
B. SAS Congruence Postulate D. AAS Congruence Postulate

2. Which property of congruence states that any triangle is congruent to itself?

Solution:

- A. Additive Property B. **Reflexive Property** C. Symmetric Property D. Transitive Property

3. The angle between two sides of a triangle is called:

Solution:

- A. Congruent \angle B. Corresponding \angle C. **Included \angle** D. Paired \angle

4. The side common to two angles of a triangle is called:

Solution:

- A. Congruent side B. Corresponding side C. **Included side** D. Paired side

5. How do we determine if two triangles are congruent?

Solution:

- A. Corresponding sides must be congruent.
B. Corresponding angles must be congruent.
C. **Corresponding sides and angles must be congruent.**
D. Included sides and angles must be congruent.

6. "If $\triangle ABC \cong \triangle XYZ$, then $\triangle XYZ \cong \triangle ABC$." This is stated in:

Solution:

- A. Additive Property B. Reflexive Property C. **Symmetric Property** D. Transitive Property

7. Which of the following is NOT a property of congruence?

Solution:

- A. **Additive Property** B. Reflexive Property C. Symmetric Property D. Transitive Property

8. Which property of congruence states that if a triangle is congruent to another triangle, and the second triangle is congruent to another triangle, then the first triangle is congruent to the third triangle?

Solution:

- A. Additive Property B. Reflexive Property C. Symmetric Property D. **Transitive Property**

9. To which side does \overline{BC} correspond if $\triangle ABC \cong \triangle HIJ$?

Solution:

- A. \overline{HI} B. \overline{IJ} C. \overline{HJ} D. \overline{IH}

10. Which of the following statements is FALSE if $\triangle DAR \cong \triangle WIN$?

Solution:

- A. $\triangle DRA \cong \triangle WNI$ B. $\triangle RAD \cong \triangle NIW$ C. $\triangle ADR \cong \triangle IWN$ D. **$\triangle ARD \cong \triangle NWI$**

11. What is the included angle between \overline{EF} and \overline{FG} in $\triangle EFG$?

Solution:

- A. $\angle E$ B. $\angle F$ C. $\angle G$ D. $\angle GEF$

12. Given $\triangle ABC$, determine the included side between $\angle B$ and $\angle C$.

Solution:

A. \overline{AB}

B. \overline{AC}

C. \overline{BC}

D. \overline{BA}

13. Which parts must be congruent if $\triangle XVW \cong \triangle V XK$ using the SSS congruence postulate?

Solution:

A. $\overline{WV} \cong \overline{KX}$

B. $\overline{XV} \cong \overline{VX}$

C. $\overline{VW} \cong \overline{XK}$

D. $\overline{WX} \cong \overline{KV}$