

Triangles (Congruency in Triangles)

Chapter 9: Triangles (Congruency in Triangles) · Topic 1

Key Concept

SSS (Side-Side-Side) proves congruency when all three sides of one triangle equal all three sides of another.

SAS (Side-Angle-Side) proves congruency when two sides and the included angle match between triangles.

ASA (Angle-Side-Angle) proves congruency when two angles and the included side match between triangles.

RHS (Right angle-Hypotenuse-Side) is a special rule for right triangles, proving congruency when the hypotenuse and one side match.

Quick Revision Notes

- SSS: all three sides equal proves congruency.
- SAS: two sides and included angle equal.
- ASA: two angles and included side equal.
- RHS: right angle-hypotenuse-side for right triangles.
- These rules prove triangles are identical.
- Congruent triangles have equal corresponding parts.
- This is used to prove geometric relationships.
- Congruency rules are fundamental to geometry proofs.

Practice Questions

- 1 Check if two triangles with sides 5,6,7 and 5,6,7 are congruent (SSS).
- 2 Discuss the SAS rule with an example.
- 3 Discuss the ASA rule with an example.
- 4 Explain when RHS applies.
- 5 Draw two congruent triangles using a chosen rule.
- 6 Discuss why congruency rules matter in geometry proofs.