

Constructions of Triangles

Chapter 4: Constructions of Triangles · Topic 1

Key Concept

To construct a triangle given three sides (SSS), we draw one side, then use a compass to mark arcs from each endpoint for the third vertex.

To construct a triangle given two sides and the included angle (SAS), we draw one side, construct the given angle, then mark the second side's length.

To construct a triangle given two angles and the included side (ASA), we draw the side, then construct both angles at its endpoints.

Practising triangle constructions builds precision and reinforces understanding of triangle properties and congruence criteria.

Quick Revision Notes

- SSS construction: draw side, use compass arcs.
- This finds the third vertex.
- SAS construction: draw side, construct angle.
- Then mark second side's length.
- ASA construction: draw side, construct both angles.
- At the side's endpoints.
- Practice builds construction precision.
- It reinforces congruence understanding.

Practice Questions

- 1 Construct a triangle with sides 5cm, 6cm, 7cm (SSS).
- 2 Construct a triangle using SAS with given measurements.
- 3 Construct a triangle using ASA with given measurements.
- 4 Discuss which construction method you find easiest.
- 5 Practice using a compass accurately.
- 6 Explain the SSS construction method in your own words.