

Triangles (Including Types, Angle Properties and Construction)

Chapter 14: Triangles (Including Types, Angle Properties and Construction) · Topic 1

Key Concept

Triangles can be classified by sides - equilateral (all sides equal), isosceles (two sides equal), or scalene (no sides equal).

Triangles can also be classified by angles - acute (all angles less than 90°), right (one 90° angle), or obtuse (one angle more than 90°).

The sum of all angles in any triangle always equals 180° , a fundamental property used in solving triangle problems.

Triangles can be constructed using given side lengths (SSS), two sides and an angle (SAS), or other combinations of known measurements.

Quick Revision Notes

- Triangles classified by sides: equilateral, isosceles, scalene.
- Equilateral: all sides equal.
- Isosceles: two sides equal.
- Scalene: no sides equal.
- Triangles classified by angles: acute, right, obtuse.
- The angle sum in any triangle is 180° .
- This is a fundamental triangle property.
- Triangles can be constructed using SSS or SAS.

Practice Questions

- 1 Classify a triangle with sides 5cm, 5cm, 5cm.
- 2 Classify a triangle with angles 90° , 45° , 45° .
- 3 Construct a triangle using three given side lengths.
- 4 Verify the angle sum property with a triangle you draw.
- 5 Discuss the difference between isosceles and scalene.
- 6 Find an example of a triangle shape around you.