

Triangles and Their Properties

Chapter 15: Triangles and Their Properties · Topic 1

Key Concept

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

Triangles can also be classified by angles: acute (all angles less than 90°), right (one 90° angle), and obtuse (one angle over 90°).

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

Understanding triangle properties helps us solve geometric problems and recognise triangles in everyday structures and designs.

Quick Revision Notes

- Classified by sides: equilateral, isosceles, scalene.
- Equilateral: all sides equal.
- Isosceles: two sides equal.
- Scalene: no sides equal.
- Classified by angles: acute, right, obtuse.
- Angle sum in a triangle = 180° .
- This is a fundamental triangle property.
- It helps solve triangle problems.

Practice Questions

- 1 Draw an equilateral, isosceles, and scalene triangle.
- 2 Draw an acute, right, and obtuse triangle.
- 3 Verify that a triangle's angles sum to 180° .
- 4 Find triangles in objects around you.
- 5 Solve for a missing angle given two angles of a triangle.
- 6 Classify a given triangle by sides and angles.