

Isosceles Triangles

Chapter 10: Isosceles Triangles · Topic 1

Key Concept

In an isosceles triangle, the two equal sides are called legs, and the angle between them is called the vertex angle.

The base angles (opposite the equal sides) are always equal, a fundamental theorem in isosceles triangle geometry.

The converse is also true - if two angles of a triangle are equal, then the sides opposite those angles are also equal.

Understanding isosceles triangle properties helps solve geometry problems involving symmetry and angle calculations.

Quick Revision Notes

- An isosceles triangle has two equal sides.
- These are called legs.
- The angle between legs is the vertex angle.
- Base angles (opposite equal sides) are equal.
- This is a fundamental isosceles triangle theorem.
- The converse is also true.
- Equal angles mean equal opposite sides.
- These properties help solve geometry problems.

Practice Questions

- 1 Draw an isosceles triangle and label its parts.
- 2 Verify the base angle theorem with a triangle you draw.
- 3 Discuss the converse of the isosceles triangle theorem.
- 4 Find an example of an isosceles triangle shape around you.
- 5 Solve a problem finding an angle in an isosceles triangle.
- 6 Explain the difference between isosceles and equilateral triangles.