

Properties of Polygons

Chapter 7: Shapes and Patterns · Topic 2

Key Concept

A triangle has 3 sides, a quadrilateral has 4, a pentagon has 5, a hexagon has 6, and so on - the name tells us the number of sides.

The sum of interior angles differs by polygon - a triangle's angles always sum to 180 degrees, while a quadrilateral's angles sum to 360 degrees.

Regular polygons have equal sides and equal angles, while irregular polygons have sides and/or angles of different sizes.

Understanding polygon properties helps us classify and compare shapes more precisely, which is a foundational skill in geometry.

Quick Revision Notes

- A triangle has 3 sides; a quadrilateral has 4.
- A pentagon has 5 sides; a hexagon has 6.
- A triangle's angles sum to 180 degrees.
- A quadrilateral's angles sum to 360 degrees.
- Regular polygons have equal sides and angles.
- Irregular polygons have unequal sides or angles.
- Polygon names indicate their number of sides.
- Understanding properties helps classify shapes.

Practice Questions

- 1 Count the sides of five different polygons.
- 2 Measure the angles of a triangle and add them up.
- 3 Check if a shape you draw is regular or irregular.
- 4 Create a chart naming polygons by their number of sides.
- 5 Draw a regular and an irregular pentagon.
- 6 Explain why a triangle's angles always sum to 180 degrees.