

Symmetric and Similar Figures

Chapter 9: Geometric Twins · Topic 2

Key Concept

A photograph enlarged to a poster size remains similar to the original (same shape, proportionally larger), demonstrating similarity without necessarily being symmetric. A butterfly's wings, meanwhile, demonstrate symmetry (mirror-image halves) but the two wings, considered together, are not 'similar' to each other in the geometric sense used for shapes of different sizes. Understanding both concepts separately helps avoid confusing these related but distinct geometric ideas.

Quick Revision Notes

- Symmetric figures have matching mirror-image halves across a line of symmetry.
- Similar figures have the same shape but can differ in size, keeping proportions equal.
- A photo enlargement is an example of similarity (same shape, different size).
- A butterfly's wings demonstrate symmetry, not the geometric concept of similarity.

Practice Questions

- 1 Give an example of two similar figures from daily life.
- 2 Explain the difference between symmetric and similar figures with examples.
- 3 Is a small square and a large square similar, congruent, both, or neither? Explain.