Line and rotational symmetry

Learn and practise | Free preview

A sample from this topic. The complete topic collection contains three different resources and worked solutions.

Show your thinking using words, working or a labelled drawing. Use the explanations and example first.

What you will practise

• Line and rotational symmetry

• Explain and check an answer with an appropriate representation.

Useful starting skills: Use objects, drawings or a number line to explain a simple idea.

A line of symmetry divides a shape into reflected halves that match exactly. Rotational symmetry describes matching positions as a shape turns about a centre.

Test the whole shape, not just a pair of corners. For rotational order, count the distinct matching orientations in a full turn, including the return once.

Worked example

Find a non-square rectangle’s rotational order.

A quarter-turn does not match because length and width differ.

A half-turn and the full-turn return both match.

Answer: Order 2

Try it yourself

Name: _____ Date: _____

1. How many lines of symmetry does a square have?

2. How many lines of symmetry does a non-square rectangle have?

Answers and explanations

Check the method as well as the final answer. An alternative correct method is also valid.

1. 4

Two pass through opposite side midpoints; two are diagonals.

2. 2

Its horizontal and vertical midlines work; diagonals do not.

Curriculum reference: VC2M4SP04

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