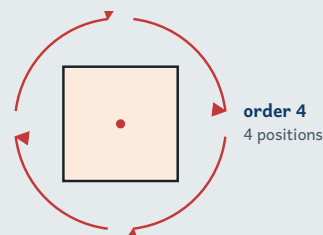


Rotation of shapes about a point

MODULE 8 · LOCATION, TRANSFORMATIONS AND SCALE REVIEW

A **rotation** turns a shape about a fixed point by an angle (often 90° or 180°), in a given direction.

→ A quarter turn is 90° ; a half turn is 180° .

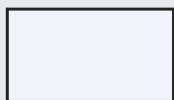


HOW TO ANSWER TODAY

- **Lines of symmetry.** A line of symmetry folds the shape so both halves match. Count every direction that works.
Square → 4 lines (2 middles + 2 diagonals) · Equilateral triangle → 3
- **Transformations.** Slide without turning → translation. Flip (mirror) → reflection. Turn → rotation.
Triangle slid left → translation · Letter flipped → reflection

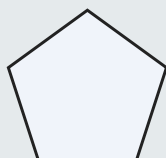
WARM-UP

1



Mr Ó Briain is showing 5th class the plan for the new school polytunnel, which is shaped like a rectangle. He asks the pupils to work out how many lines of symmetry the rectangle has. How many lines of symmetry does a rectangle have?

2



Oisín cuts a regular pentagon shape from a cereal box for his junk-modelling project in 5th class. He wants to mark every line of symmetry on the pentagon before he folds it. How many lines of symmetry does a regular pentagon have?

- 3 For Engineers Week, Tadhg's 5th class are making wooden windmill models. He pins a paper sail at its centre and shows the class how the shape turns around a fixed point as the wind catches it. Which transformation is Tadhg showing: translation, reflection or rotation?

Name the transformation described: the shape turns around a fixed point. (Choose translation, reflection or rotation.)

- 4 Aoife is decorating the 5th class door for Seachtain na Gaeilge. She pins a paper shamrock in the centre of the door, then turns it around the pin to find the best angle. The shape turns around a fixed point. Is this transformation a translation, a reflection or a rotation?

Name the transformation described: the shape turns around a fixed point. (Choose translation, reflection or rotation.)