Rotation of shapes about a point

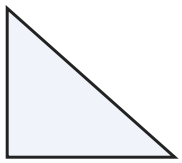
MODULE 8 · LOCATION, TRANSFORMATIONS AND SCALE SHAPE & SPACE

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

STRETCH PROBLEMS

1. Aoife is cutting a right-angled scalene triangle from card to decorate her papier-mâché mask for the school play. How many lines of symmetry does a right-angled scalene triangle have?

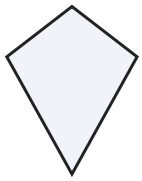


2. In art class, 6th class are making a scale drawing of the school yard. Saoirse slides a shape on her drawing **5** units to the right with no flip and no turn. Name the transformation: translation, reflection or rotation?

3. Méabh is decorating a homemade board game with paper shapes for 6th class. She moves one shape so that the shape flips across the vertical line through its centre. Name the transformation: translation, reflection or rotation?

4. Róisín is designing a mosaic for the school library wall. She moves one tile so the shape slides **3** units up the page. Name the transformation: translation, reflection or rotation?

5. Cian is cutting a kite shape from card for the 6th class art display on Irish weather. He wants both halves of the kite to match when he folds it. How many lines of symmetry does a kite have?



SHAPE & SPACE