

Reflection in the axes and lines of symmetry

MODULE 8 · LOCATION, TRANSFORMATIONS AND SCALE REVIEW

HOW TO ANSWER TODAY

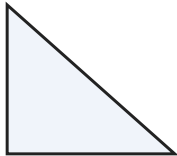
- **Transformations.** Slide without turning → translation. Flip (mirror) → reflection. Turn → rotation.
Triangle slid left → translation · Letter flipped → reflection
- **Lines of symmetry.** A line of symmetry folds the shape so both halves match. Count every direction that works.
Square → 4 lines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

★ STRETCH PROBLEMS

- 1 In art class, 5th class are making a scale drawing of the school yard. Saoirse draws a shape and its image so that they meet along a fold line and match exactly when the page is folded together. Is the transformation a translation, a reflection or a rotation?

Name the transformation described: a shape and its image meet along a fold line and match exactly when folded together. (Choose translation, reflection or rotation.)

2

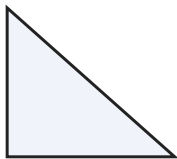


5th class are painting a triangular banner for the GAA finals day. The banner is shaped like a right-angled scalene triangle, with three sides of different lengths. How many lines of symmetry does the banner have?

- 3 Saoirse is painting letters on papier-mâché masks for the school play. She paints a letter d on one mask, but when she looks at it in the dressing-room mirror, the letter d looks like a letter b after the move. Is this a translation, a reflection or a rotation?

Name the transformation described: the letter d looks like a letter b after the move. (Choose translation, reflection or rotation.)

4



Cian chalks out a right-angled scalene triangle on the yard as a marker for the mini athletics track. The PE teacher asks the class to check the shape for symmetry. How many lines of symmetry does a right-angled scalene triangle have?

- 5 Saoirse is designing a mosaic for the school library wall. She draws a tile pattern, then flips the shape across the vertical line through its centre to make the next tile. Is this transformation a translation, a reflection or a rotation?

Name the transformation described: the shape flips across the vertical line through its centre. (Choose translation, reflection or rotation.)