

Combining transformations

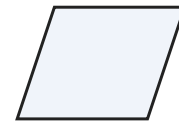
MODULE 8 · LOCATION, TRANSFORMATIONS AND SCALE SHAPE & SPACE

HOW TO ANSWER TODAY

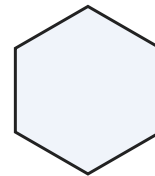
- **Lines of symmetry.** A line of symmetry folds the shape so both halves match. Count every direction that works.
Square → 4 lines (2 middles + 2 diagonals) · Equilateral triangle → 3
- **Transformations.** Slide without turning → translation. Flip (mirror) → reflection. Turn → rotation.
Triangle slid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

STRETCH PROBLEMS

- 1 Aoife is cutting paper shapes to decorate the class door for Seachtain na Gaeilge. One of the shapes is a parallelogram. How many lines of symmetry does a parallelogram have?

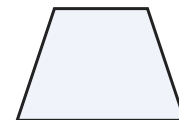


- 2 Saoirse is chalking a new hopscotch game on the yard and draws a regular hexagon as one of the landing shapes. How many lines of symmetry does a regular hexagon have?



- 3 On the giant chess board painted on the school yard, Tadhg turns a shape **90 degrees** clockwise around its corner. Name the transformation: translation, reflection or rotation?

- 4 Cian is measuring out spaces on a homemade Snakes and Ladders board for a rainy-day game in 6th class. One of the special spaces is shaped as an isosceles trapezium. How many lines of symmetry does an isosceles trapezium have?



- 5 6th class are chalking out a mini athletics track in the school yard. On their plan, one shape flips across the horizontal line of symmetry. Name the transformation: is it a translation, a reflection or a rotation?



SHAPE & SPACE