Combining transformations

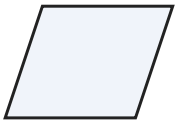
MODULE 8 · LOCATION, TRANSFORMATIONS AND SCALE SHAPE & SPACE

HOW TO ANSWER TODAY

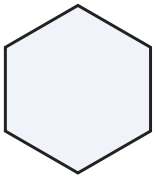
- **Lines of symmetry.** A line of symmetry folds the shape so both halves match. Count every direction that works.
  Square → 4 lines (2 middles + 2 diagonals) Equilateral triangle → 3
- **Transformations.** Slide without turning → translation. Flip (mirror) → reflection. Turn → rotation.
  Triangle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

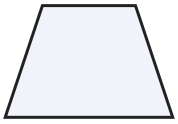


2. Saoirse is chalking a new hopscotch game on the yard and draws a regular hexagon as one of the landing shapes. How many lines of symmetry does a regular hexagon have?



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