Tessellate a quilt block

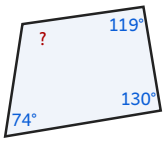
MODULE 6 · 2D AND 3D SHAPE, ANGLES, SYMMETRY SHAPE & SPACE

HOW TO ANSWER TODAY

- **Quadrilateral angles.** Quadrilateral angles add to 360°. Add the three you know, then subtract from 360°.
  70° + 80° + 90° = 240°. 360° − 240° = 120°
- **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

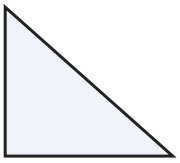
STRETCH PROBLEMS

1. Saoirse is cutting four-sided tiles for the corridor tessellation display. On one tile she measures three of the angles as **74°**, **130°** and **119°**. What is the size of the fourth angle?

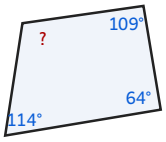


2. Saoirse is painting letters onto papier-mâché masks for the 5th class school play. She paints a letter d on a clear plastic sheet, then flips the sheet over to print it on a mask, and now the letter d looks like a letter b after the move. Is the transformation a translation, a reflection or a rotation?

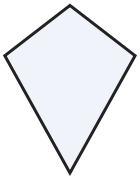
3. Cian chalks out a right-angled scalene triangle on the yard as a marker for the mini athletics track. The PE teacher asks the class to check the shape for symmetry. How many lines of symmetry does a right-angled scalene triangle have?



4. Oisín is cutting out a four-sided panel for his model bridge during STEM week in 5th class. Three of the corner angles measure **114°**, **64°** and **109°**. What size is the fourth angle?



5. 5th class are designing a class crest for their new Gaelic football jersey. The art teacher sketches the crest in the shape of a kite. How many lines of symmetry does the kite-shaped crest have?



SHAPE & SPACE