

Angle sum of a quadrilateral

MODULE 7 · 2D SHAPE, 3D SHAPE AND ANGLES SHAPE & SPACE

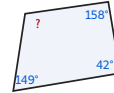
HOW TO ANSWER TODAY

- **Quadrilateral angles.** Quadrilateral angles add to 360° . Add the three you know, then subtract from 360° .

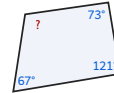
$$70^\circ + 80^\circ + 90^\circ = 240^\circ. 360^\circ - 240^\circ = 120^\circ$$

STRETCH PROBLEMS

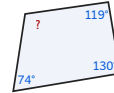
- 1 For Engineers Week, Tadhg cuts a four-sided wooden plaque in 5th class. He measures three of the corners and gets 149° , 42° and 158° . What is the size of the fourth corner?



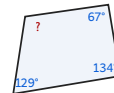
- 2 5th class are sketching the four-sided base of the new school polytunnel on graph paper. Three of the corner angles measure 67° , 121° and 73° . What is the size of the fourth corner angle?



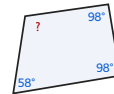
- 3 Saoirse is cutting four-sided tiles for the corridor tessellation display. On one tile she measures three of the angles as 74° , 130° and 119° . What is the size of the fourth angle?



- 4 Tadhg is designing a four-sided crest for his class Gaelic football jersey. Three of the angles in the crest measure 129° , 134° and 67° . What size is the fourth angle?



- 5 Saoirse is painting a four-sided kite shape onto the yard beside the giant chess board. She measures three of its corners as 58° , 98° and 98° . What is the size of the fourth corner?



INVESTIGATE

Angle sums of polygons

Split a pentagon, then a hexagon, into triangles from one corner. Use the triangles to find each shape's angle sum. Can you predict the angle sum of a shape with **10** sides?



SHAPE & SPACE