

Angle sums in triangles and quadrilaterals: 180° and 360°

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°.

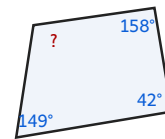
$$70^\circ + 80^\circ + 90^\circ = 240^\circ. 360^\circ - 240^\circ = 120^\circ$$

- **Triangle angles.** Triangle angles add to 180°. Add the two you know, then subtract from 180°.

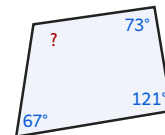
$$45^\circ + 60^\circ = 105^\circ. 180^\circ - 105^\circ = 75^\circ$$

STRETCH PROBLEMS

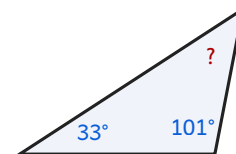
- 1 For Engineers Week, Tadhg cuts a four-sided wooden plaque in 5th class. He measures three of the corners and gets **149°**, **42°** and **158°**. What is the size of the fourth corner?



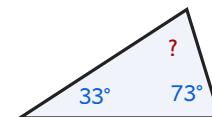
- 2 5th class are sketching the four-sided base of the new school polytunnel on graph paper. Three of the corner angles measure **67°**, **121°** and **73°**. What is the size of the fourth corner angle?



- 3 Oisín is designing a triangle tile for the corridor tessellation display in 5th class. Two of the angles in his triangle measure **33°** and **101°**. What is the size of the third angle?



- 4 Saoirse is cutting triangle shapes from a cereal box for a junk-modelling project. She measures two corners of one triangle as **33°** and **73°**. What size is the third corner?



- 5 Tadhg is painting a triangular bunting flag for the GAA finals day banner. He measures two of its corners as **39°** and **84°**. What is the size of the third corner?

