

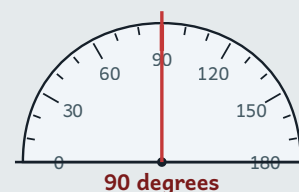
Angle sum of a quadrilateral

MODULE 7 · 2D SHAPE, 3D SHAPE AND ANGLES REVIEW

A **quadrilateral**'s angles add to 360° . Splitting any polygon into triangles gives its angle sum (each triangle adds 180°).

→ A quadrilateral = 2 triangles → $2 \times 180^\circ = 360^\circ$.

→ A pentagon = 3 triangles → 540° .



THREE ANGLES OF A QUADRILATERAL ARE 90° , 100° AND 85° . FIND THE FOURTH.

- 1 A quadrilateral's angles add to 360° .
- 2 $90 + 100 + 85 = 275$.
- 3 $360 - 275 = 85^\circ$.

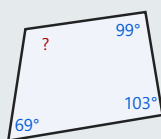
HOW TO ANSWER TODAY

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

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

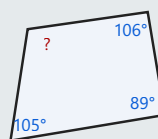
WARM-UP

1



Cian and Aoife build a four-sided den frame in the school orchard using four wooden poles. Three of the corner angles measure 69° , 103° and 99° . What is the size of the fourth corner angle?

2



For her art lesson, Saoirse draws a four-sided plan of the school yard. She measures three of the corners as 105° , 89° and 106° . What is the size of the fourth corner?