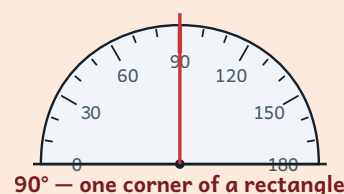


Angle sums in triangles and quadrilaterals – 180° and 360°

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

The four angles inside any quadrilateral always add up to **360°**. If you know three of them, subtract from 360° to find the fourth.

- A rectangle has four right angles: $90^\circ + 90^\circ + 90^\circ + 90^\circ = 360^\circ$.
- Quadrilateral with angles 70°, 110°, 90°: fourth = $360^\circ - 70^\circ - 110^\circ - 90^\circ = 90^\circ$.



FIND THE MISSING ANGLE. TWO ANGLES ARE 60° AND 80°.

- Angles in a triangle add up to **180°**.
- Add the two known angles: $60^\circ + 80^\circ = 140^\circ$.
- Subtract from 180°: $180^\circ - 140^\circ = 40^\circ$.

HOW TO ANSWER TODAY

- **Triangle angles.** Triangle angles add to 180°. Add the two you know, then subtract from 180°. $45^\circ + 60^\circ = 105^\circ$. $180^\circ - 105^\circ = 75^\circ$
- **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

The first row is done. Find each remaining missing angle. Angles in a quadrilateral add to 360°.

Missing angle	
a. 90°, 90°, 90°	90°
b. 100°, 80°, 100°	
c. 60°, 60°, 120°	
d. 110°, 95°, 70°	
e. 140°, 40°, 90°	
f. 75°, 105°, 75°	