

Angle-related problem-solving

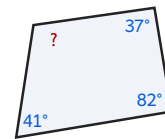
MODULE 7 · 2D SHAPE, 3D SHAPE AND ANGLES SHAPE & SPACE

HOW TO ANSWER TODAY

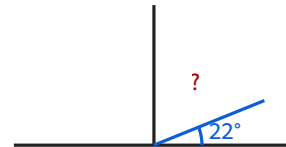
- **Quadrilateral angles.** Quadrilateral angles add to 360° . Add the three you know, then subtract from 360° .
 $70^\circ + 80^\circ + 90^\circ = 240^\circ$. $360^\circ - 240^\circ = 120^\circ$
- **Pairs of angles.** Complementary $\rightarrow$ add to 90° . Supplementary $\rightarrow$ add to 180° . Around a point $\rightarrow$ add to 360° .
 Supplementary, one is $55^\circ \rightarrow$ other is $180^\circ - 55^\circ = 125^\circ$
- **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 During art, 6th class are designing a class quilt. One fabric patch is a quadrilateral with angles of 41° , 82° and 37° . What is the fourth angle?



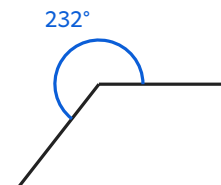
- 2 Saoirse draws a scale plan of the classroom on grid paper. One angle on her plan measures 22° and the two angles are complementary, so they sum to 90° . What is the other angle?



- 3 Cian and Saoirse are building a triangular frame for the entrance to their den in the school orchard. Two of the angles measure 25° and 89° . What is the third angle?



- 4 Tadhg is testing his robot during the 6th class electronics build and measures one of its turns as 232° . Classify the angle: acute, right, obtuse, straight or reflex?



- 5 Tadhg helps 6th class lay out the mini athletics track in the yard. One turning mark on the track measures 21° . Classify the angle as acute, right, obtuse, straight or reflex?

