

Measuring angles accurately with a protractor

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

HOW TO ANSWER TODAY

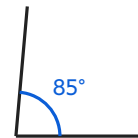
- **Read a protractor.** Protractors have two scales. Pick the one that reads 0° on the side the angle's first arm sits on.
First arm on outer $0^\circ \rightarrow$ use the outer scale to read the second arm
- **Classify an angle.** Acute $< 90^\circ$ · right $= 90^\circ$ · obtuse $90^\circ - 180^\circ$ · straight $= 180^\circ$ · reflex $> 180^\circ$.
 $75^\circ \rightarrow$ acute · $120^\circ \rightarrow$ obtuse · $220^\circ \rightarrow$ reflex

STRETCH PROBLEMS

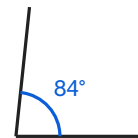
- 1 Saoirse is measuring an angle on her kite frame at the after-school crafts club. The angle looks acute, but on her protractor one scale reads 84° and the other reads 96° . Which reading is the correct one?

- 2 Tadhg is measuring an angle on his model bridge frame for STEM week in 5th class. When he lines up his protractor, one scale reads 98° and the other scale reads 82° . The angle clearly looks obtuse. Which reading is the correct one?

- 3 Saoirse is painting a triangular pattern on a papier-mâché mask for the 5th class school play. One of the corners on her pattern measures 85° . Is this angle acute, right, obtuse, straight or reflex?



- 4 Cian is marking out a mini athletics track in the yard for sports day. The two boundary lines at the start meet at an angle of 84° . Is this angle acute, right, obtuse, straight or reflex?



- 5 Cian is making a kite at the after-school crafts club and uses a protractor to check one of the corner angles. One scale reads 84° and the other reads 96° , but the angle clearly looks acute. Which reading is the correct one?

