

Measuring angles with a protractor

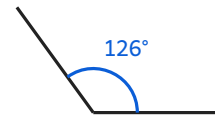
MODULE 6 · 2D AND 3D SHAPE, ANGLES, SYMMETRY SHAPE & SPACE

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 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?
- 2 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?
- 3 For Engineers Week, Tadhg's 5th class are marking angles on timber pieces for a woodwork project. When Tadhg lines up his protractor on a corner, one scale reads 57° and the other scale reads 123° . The angle clearly looks acute. Which reading is correct?
- 4 Saoirse is making a scale drawing of the school yard for art class. One of the corners between the wall and the fence measures 126° on her protractor. Is this angle acute, right, obtuse, straight or reflex?



- 5 Saoirse helps paint a new hopscotch design on the school yard. Two of the chalk lines meet at an angle of 158° . Is this angle acute, right, obtuse, straight or reflex?

