

Drawing angles with a protractor

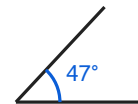
MODULE 6 · 2D AND 3D SHAPE, ANGLES, SYMMETRY SHAPE & SPACE

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 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 Cian is building a paper kite at the after-school crafts club and uses a protractor to check one of the corner angles. One scale on the protractor reads 57° and the other scale reads 123° . The angle clearly looks acute. Which reading is correct?
- 3 Saoirse is building a kite in the after-school crafts club and measures one of its corner angles with a protractor. The angle looks obtuse, and the protractor shows 136° on one scale and 44° on the other scale. Which reading is the correct one for her kite's corner?
- 4 Saoirse is using a protractor to mark an angle on her scale drawing of the school yard for art class. One scale on the protractor reads 69° and the other reads 111° . If the angle looks acute, which reading is the correct one?
- 5 Aoife is designing a tile pattern for the new mosaic on the school library wall. One of the tiles in her sketch has a pointed corner measuring 47° . Is this angle acute, right, obtuse, straight or reflex?





SHAPE & SPACE