

Constructing angles with a protractor

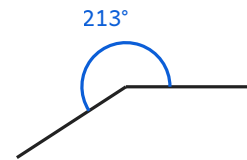
MODULE 7 · 2D SHAPE, 3D SHAPE AND ANGLES SHAPE & SPACE

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 Cian is designing a class crest for the Gaelic football jersey in art. He places a protractor on one angle of the crest and sees 82° on one scale and 98° on the other. Which reading is correct if the angle looks acute?
- 2 Cian is making a scale drawing of the school yard for his art lesson in 6th class. He places his protractor on one corner and sees 80° on one scale and 100° on the other. The angle looks acute. Which reading is correct?
- 3 Aoife is designing a mosaic for the school library wall. She places her protractor on one of the tile angles. One scale reads 93° and the other scale reads 87° . The angle looks obtuse. Which reading is correct?
- 4 Cara is making a scale drawing of the school yard for art class. One corner on her plan measures 213° . Is this angle acute, right, obtuse, straight or reflex?



- 5 Aoife is designing a mosaic tile pattern for the school library wall. She places her protractor on one of the tile angles. One scale reads 92° and the other scale reads 88° . Which reading is correct if the angle looks obtuse?

