Shape and angle construction review

MODULE 7 · 2D SHAPE, 3D SHAPE AND ANGLES REVIEW

Bring shape and angle skills together: **classify, construct and calculate** with accurate ruler-and-protractor work.

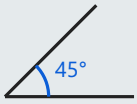
→ Measure twice; a 1° slip shows up across a whole construction.

HOW TO ANSWER TODAY

- **Classify an angle.** Acute < 90° · right = 90° · obtuse 90°–180° · straight = 180° · reflex > 180°.
  75° → acute · 120° → obtuse · 220° → reflex
- **Triangle angles.** Triangle angles add to 180°. Add the two you know, then subtract from 180°.
  45° + 60° = 105°. 180° − 105° = 75°
- **Triangle facts.** Equilateral = all 3 sides equal. Isosceles = 2 equal. Scalene = all different. A triangle works only if the two shorter sides ADD UP TO MORE than the longest.
  5, 5, 7 → isosceles · 2, 3, 9 → impossible (2 + 3 = 5 < 9)

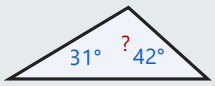
WARM-UP

1



For Engineers Week, 5th class are cutting timber brackets in the woodwork room. Tadhg marks an angle of **45°** on his bracket before cutting. Is this angle acute, right, obtuse, straight or reflex?

2



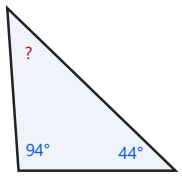
Tadhg is planning a triangular flowerbed for the school garden. He has measured two of the corners as **31°** and **42°**. What is the size of the third corner?

PRACTICE

1 Cian is drawing a treasure hunt map of the school yard and marks a corner with an angle of **78°** between two paths. He bisects the angle to draw a new path exactly down the middle. What is the size of each half angle?

> An angle of 78° is bisected (split exactly in half). What is each half angle?

2



Oisín and Cara build a triangular den frame in the school orchard using three sticks lashed together. They measure two of the corners and get **94°** and **44°**. What is the size of the third corner?