

Decimal and fractional measures in problems

MODULE 5 · MEASURES — LENGTH, AREA, VOLUME, MASS AND CAPACITY

MEASURES

HOW TO ANSWER TODAY

- **Read a ruler.** Each big mark = 1 cm = 10 mm. Each little mark = 1 mm.
 $3\text{ cm} + 7\text{ mm} = 37\text{ mm} = 3.7\text{ cm}$
- **Convert units.** To a SMALLER unit → multiply. To a BIGGER unit → divide. Common factors:
 $\text{cm} \leftrightarrow \text{mm} \times 10$, $\text{m} \leftrightarrow \text{cm} \times 100$, $\text{km} \leftrightarrow \text{m} \times 1,000$, $\text{kg} \leftrightarrow \text{g} \times 1,000$, $\text{l} \leftrightarrow \text{ml} \times 1,000$.
 $250\text{ cm} \rightarrow \text{m}: \div 100 = 2.5\text{ m}$ · $3.5\text{ kg} \rightarrow \text{g}: \times 1,000 = 3,500\text{ g}$

STRETCH PROBLEMS

- 1 Róisín measures a bookmark for the school-bag rota. The ruler reading sits **12 cm** and **1 mm** from the start of the ruler. What is the reading in cm?
- 2 During hurling practice at the local pitch, Cian lines up a short mark on his hurley against a ruler. The reading sits **11 cm** and **4 mm** from the start of the ruler. What is the reading in cm?
- 3 6th class are taping out a giant Snakes and Ladders track in the school yard, with the full snaking path measuring **5969 cm** from start to finish. For their maths display, they need to record the path length in kilometres. How many kilometres long is the track?
- 4 6th class at St Brigid's measured the total length of ribbon left on the spools in the classroom craft store and got **7628 cm** in total. The teacher wants the answer written in kilometres for the stocktake sheet. How many kilometres is **7628 cm**?
- 5 Tadhg is planning a row of marigolds in the school garden flowerbed. He measures the length he needs with a ruler, and the reading sits **28 cm** and **4 mm** from the start of the ruler. What is the reading in cm?