

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

- Oisín measures the length of his pencil case for the 5th class school-bag rota chart. The ruler reading sits at **14 cm** and **8 mm** from the start of the ruler. What is the reading in cm?
- Saoirse cycles from granny's farmhouse to the far field to check on the calves. The lane runs **3290 m** from the gate to the field. How many kilometres is that?
 Convert 3290 m to km.
- 5th 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?
 Convert 5969 cm to km.
- On the 5th class nature walk through the local park, Cian finds a small oak leaf and measures it against his ruler. The tip of the leaf sits **14 cm** and **6 mm** from the start of the ruler. What is the length of the leaf in cm?
- Tadhg is painting a banner for the Cumann na mBunscol GAA finals day. He measures the width of the green stripe along the bottom of the banner, and his ruler shows it stretches **12 cm** and **4 mm** from the edge. What is the reading in cm?