

Converting units of mass and capacity

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

Mass and capacity convert by **×1000**: 1 kg = 1000 g and 1 litre = 1000 ml. Multiply to go smaller, divide to go bigger.

→ 3.5 kg = **3500 g**; 1750 ml = **1.75 litres**.

CONVERT 3.5 KG TO G, AND 1750 ML TO LITRES

- ① kg → g: $\times 1000 \rightarrow 3.5 \times 1000 = \mathbf{3500\text{ g}}$.
- ② ml → litres: $\div 1000 \rightarrow 1750 \div 1000 = \mathbf{1.75\text{ litres}}$.

HOW TO ANSWER TODAY

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

WARM-UP

- ① At granny's farm, Tadhg measures the length of a calf's ear tag. The tag is **7 cm** long. How long is the ear tag in millimetres?
 | Convert 7 cm to mm.
- ② Cian draws a parallelogram-shaped pitch plan in his copybook for the lunchtime soccer match in the schoolyard. The plan has a base of **4 cm** and a perpendicular height of **8 cm**. What is the area of the parallelogram?
 | A parallelogram has a base of 4 cm and a perpendicular height of 8 cm. What is its area?

PRACTICE

- ① The art teacher mixes **892 ml** of green paint to use for the new class crest going on the 5th class Gaelic football jersey. She wants to record the amount in litres on her supplies list. How many litres of paint has she mixed?
 | Convert 892 ml to l.
- ② While lining up at the door for yard, Cian measures the length of his new pencil against his ruler. The tip of the pencil reaches **7 cm** and **8 mm** from the start of the ruler. What is the reading in cm?

CHALLENGE

- ① 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.
- ② 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.