

Renaming length units (m ↔ cm, cm ↔ mm)

MODULE 4 · MEASURES — LENGTH, WEIGHT AND CAPACITY MEASURES

HOW TO ANSWER TODAY

- **Convert units.** To a SMALLER unit → multiply. To a BIGGER unit → divide. Common factors:
 $cm \leftrightarrow mm \times 10$, $m \leftrightarrow cm \times 100$, $km \leftrightarrow m \times 1,000$, $kg \leftrightarrow g \times 1,000$, $l \leftrightarrow ml \times 1,000$.

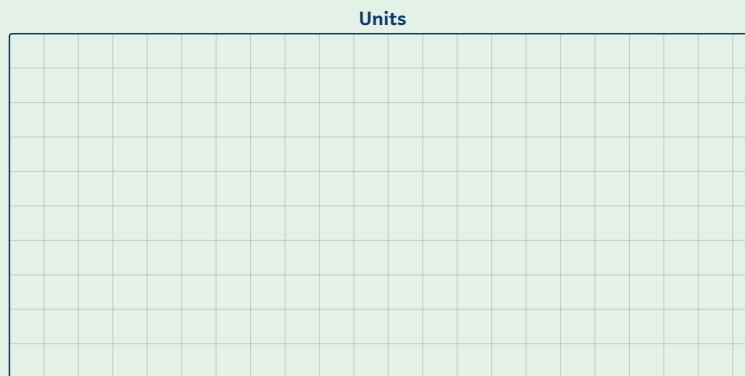
$250\text{ cm} \rightarrow m: \div 100 = 2.5\text{ m}$ · $3.5\text{ kg} \rightarrow g: \times 1,000 = 3,500\text{ g}$

- **Read a ruler.** Each big mark = 1 cm = 10 mm. Each little mark = 1 mm.

$3\text{ cm} + 7\text{ mm} = 37\text{ mm} = 3.7\text{ cm}$

TRY IT ON THE LINE

Rename each measure using equivalent units.



1. Rewrite each measure in the smaller unit (e.g. m to cm).
2. Rewrite it back in the larger unit.
3. Put a set of measures in order once they are in the same unit.

PRACTICE

- 1 Oisín cycles one lap of the school sponsored cycle path, which measures **31 m**. How long is one lap in centimetres?

Convert 31 m to cm.

- 2 Cian is making a robot from cereal boxes for his junk-modelling project. He measures one of the cardboard strips with his ruler and the end of the strip sits at **12 cm** and **4 mm**. What is the length of the strip in cm?

A ruler reading sits 12 cm and 4 mm from the start of the ruler. What is the reading in cm?

CHALLENGE

- 1 Cian's family drove **60 km** from Cork to visit his cousins in Waterford. He wants to write the distance in centimetres for his maths copy. How many cm is **60 km**?

Convert 60 km to cm.

- 2 Oisín is building a kite at the after-school crafts club. He measures the tail of his kite along a ruler and the end of the tail sits **14 cm** and **6 mm** from the start. What is the length of the tail in cm?