

Converting length units

HOW TO ANSWER TODAY

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

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

TRY IT ON THE LINE

Each column is ten times the column on its right (km, hm, dam, m, dm, cm, mm). Convert by sliding the digits left ($\times 10$ per column) or right ($\div 10$ per column).

km	hm	dam	m	dm	cm	mm

1. Build **2 m 35 cm**: 2 in **m**, then 35 cm = 3 in **dm**, 5 in **cm**. In cm? ____ In mm? ____
2. Build **1 km 250 m**: 1 in **km**, then 250 m = 2 in **hm**, 5 in **dam**. In m? ____ (km → m is a three-column slide).
3. Build **8 cm 5 mm**: 8 in **cm**, 5 in **mm**. In mm? ____
4. Build **3.4 m**: 3 in **m**, 4 in **dm**. In cm? ____ In mm? ____

PRACTICE

- 1 For STEM week, Oisín weighs the lollipop sticks and glue he is using to build a model bridge. The materials come to **981 g** on the kitchen scales. What is this mass in kilograms?

Convert 981 g to kg.

- 2 5th class are lining up along the corridor wall before heading out to the yard. The line stretches **717 cm** from the classroom door to the noticeboard. How long is the line in metres?

Convert 717 cm to m.

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.