Interpreting scale maps and distances

MODULE 8 · LOCATION, TRANSFORMATIONS AND SCALE REVIEW

A **map scale** tells you what a distance on the map means in real life. Multiply the map distance by the scale to get the real one.

→ Scale 1 : 1000 → 1 cm on the map = 1000 cm = **10 m** real.

ON A 1 : 1000 MAP, TWO POINTS ARE 7 CM APART. FIND THE REAL DISTANCE.

1. 1 cm on the map = 1000 cm real.
2. 7 cm → 7 × 1000 = 7000 cm = **70 m**.

HOW TO ANSWER TODAY

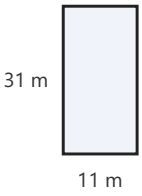
- **Convert units.** To a SMALLER unit → multiply. To a BIGGER unit → divide. Common factors: cm↔mm ×10, m↔cm ×100, km↔m ×1,000, kg↔g ×1,000, l↔ml ×1,000.
  250 cm → m: ÷ 100 = 2.5 m · 3.5 kg → g: × 1,000 = 3,500 g
- **Perimeter.** Perimeter is the distance ALL the way round. Rectangle: (length + width) × 2.
  12 m by 8 m → (12 + 8) × 2 = 40 m
- **Area.** Area = length × width. Write the answer in square units (cm^2, m^2).
  5 m × 3 m → 15 m^2

WARM-UP

a. Convert 18 m to cm. ☐ **b.** Convert 15 m to cm. ☐ **c.** Convert 7 l to ml. ☐ **d.** Convert 7 cm to mm. ☐

PRACTICE

1.



5th class are fencing off a rectangular plot in the school orchard to grow apple trees. The plot measures **11 m** by **31 m**. What length of fencing do they need to go all the way around it?

2.

5th class are marking out a rectangular training area on the GAA pitch before their Gaelic football session. The training area measures **21 m** by **9 m**. What is its area?