Metric Length Conversions

Grade 4 – 5 math · measurement

Name: Date: Score: / 26

Why metric is the easy one

In the metric system every step between units is a jump of ten, a hundred or a thousand. That means converting is never really arithmetic — it is moving a decimal point.

There are only three facts to know for length: **1 km = 1000 m**, **1 m = 100 cm** and **1 cm = 10 mm**. Everything else is built from those.

The part worth thinking about is **which way**. Going to a smaller unit, you need more of them, so the number gets bigger and you multiply. Going to a bigger unit, you need fewer, so the number gets smaller and you divide. If an answer comes out the wrong size — 3 m turning into 0.03 cm — the direction was wrong.

The rules

- **1 km = 1000 m**, **1 m = 100 cm**, **1 cm = 10 mm**.
- Going to a **smaller** unit, the number gets **bigger**, so multiply.
- Going to a **bigger** unit, the number gets **smaller**, so divide.
- Check yourself: 3 m should be 300 cm, not 0.03 cm. If the answer looks the wrong size, you went the wrong way.
- Always write the **unit** next to the number. Half the lost marks on conversions are missing labels.

Part A — Convert (12 marks)

5 km → _____ **m**	**300 cm** → _____ **m**
4 m → _____ **cm**	**70 mm** → _____ **cm**
2.5 km → _____ **m**	**8 cm** → _____ **mm**
1500 m → _____ **km**	**25 mm** → _____ **cm**
0.6 m → _____ **cm**	**450 cm** → _____ **m**
12 m → _____ **mm**	**3200 m** → _____ **km**

Part B — Compare write <, > or = between each pair (6 marks)

Left	<, > or =	Right
3 m		250 cm
40 mm		4 cm
0.5 km		600 m

150 cm		1.5 m
2000 mm		3 m
0.8 m		75 cm

Part C — Word problems show your working (8 marks)

1. A hallway is 12 m long. How many centimetres is that?

2. A pencil is 175 mm long. How many centimetres is that?

3. Maya runs 2.4 km. Her brother runs 1800 m. Who runs further, and by how many metres?

4. A ribbon is 3 m long. How many 25 cm pieces can be cut from it?

Metric Length Conversions — Answer Key

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Part A — Convert

1. 5 km → **5000 m**
2. 300 cm → **3 m**
3. 4 m → **400 cm**
4. 70 mm → **7 cm**
5. 2.5 km → **2500 m**
6. 8 cm → **80 mm**
7. 1500 m → **1.5 km**
8. 25 mm → **2.5 cm**
9. 0.6 m → **60 cm**
10. 450 cm → **4.5 m**
11. 12 m → **12 000 mm**
12. 3200 m → **3.2 km**

Part B — Compare

1. 3 m **>** 250 cm
2. 40 mm **=** 4 cm
3. 0.5 km **<** 600 m
4. 150 cm **=** 1.5 m
5. 2000 mm **<** 3 m
6. 0.8 m **>** 75 cm

Part C — Word problems

1. **1200 cm**
   12 × 100 = 1200. Metres to centimetres is a smaller unit, so multiply.
2. **17.5 cm**
   175 ÷ 10 = 17.5. Millimetres to centimetres is a bigger unit, so divide.
3. **Maya, by 600 m**
   2.4 km = 2400 m. 2400 − 1800 = 600 m. Convert first, then compare.
4. **12 pieces**
   3 m = 300 cm. 300 ÷ 25 = 12. Both lengths must be in the same unit before dividing.