



Note: The given content need not to be printed.

CHAPTER 11
Measurements

Objective: The students will be able to convert units of length.

Conversion of units of length

Conversion of metres into centimetres: While converting metres into centimetres, we multiply metres by 100.

Example 1 : Convert 3m into centimetres.

Sol: We know that

$$1\text{m} = 100\text{cm}$$

Conversion of metres and centimetres into

centimetres: To convert metres and centimetres into centimetres, first convert metres into centimetres and then add the given centimetres.

Example 1 : Convert 5m 12 cm into centimetres.

Sol: 5m 12cm = 5m + 12cm

$$= 5 \times 100\text{cm} + 12 \text{ cm} \quad [\text{because } 1\text{m} = 100\text{cm}]$$

$$= 500\text{cm} + 12\text{cm} = 512\text{cm}$$

Conversion of centimetres into metres: While converting centimetres into metres, we divide centimetres by 100.

Math Boost

- ✚ Cent means 100. Centimetre is the 100th part of a metre.
- ✚ While converting metres into centimetres just put two zero's after the measure in metres, and write the unit centimetre (cm) after it.

Example 1: Convert **500cm** into metres.

Sol: $500 \text{ cm} = \frac{500}{100} \text{ m} = 5\text{m}$ $[1 \text{ cm} = \frac{1}{100}]$

Measuring long distances: Metres and centimetres are used to measure small lengths. We cannot measure long distances with these units, for this, we use kilometres. Kilometre is written as 'Km'.

1 Kilometre = 1000 metres / (1 km = 1000 m)

Conversion of Kilometres and metres:-

To convert Kilometres into metres, we multiply it by 1000.

To convert Kilometres and metres into metres, we multiply the number of kilometres by 1000 and then add number of metres to it.

Example 1 : Convert **8 Km 423m** into metres.

Sol :- $8 \text{ Km } 423\text{m} = 8\text{Km} + 423\text{m}$

$$= 8 \times 1000\text{m} + 423\text{m}$$

$$= 8000\text{m} + 423\text{m}$$

$$= \mathbf{8,423\text{m}}$$