Unit 16 – Length (1)

1 centimetre = 10 millimetres 1 metre = 100 centimetres 1 kilometre = 1000 metres

1 cm = 10 mm 1 m = 100 cm 1 km = 1000 m

> Addition of length measurements

Let us add the quantities in the millimetres column. 5 mm + 8 mm = 13 mm 6 mm + 8 mm = 13 mm 6 mm + 3 mm = 1 cm + 3 mm 6 mm + 3 mm = 1 cm + 3 mmLet us write 3 mm in the millimetres column and carry the 1 cm to the centimetres column.

Then, 1 cm + 5 cm + 2 cm = 8 cm

Let us write 8 cm in the centimetres column.

• Let us simplify 5 m 65 cm + 15 m 70 cm.

• Let us simplify 3 km 30 m + 980 m.

km m 30 m + 980 m = 1010 m 1010 m = 1 km + 10 mLet us write the 10 m in the metres column and carry the 1 km to the kilometres column. 3 km + 1 km = 4 kmLet us write the 4 km in the kilometres column.

Let us add the quantities in the metres column.

> Subtraction of lengths

Example 1

A piece of length 7 cm 5 mm is cut from a ribbon of length 32 cm 3 mm. What is the length of the remaining piece of ribbon?



Let us simplify 32cm 3mm - 7 cm 5 mm.

cm 32	mm 3
7	5
24	8

3 is less than 5. Let us carry over 1 cm from the 32 cm in the centimetres column to the millimetres column. Then there will be 31 cm remaining in the centimetres column.

$$10 \text{ mm} + 3 \text{ mm} = 13 \text{ mm}$$

 $13 \text{ mm} - 5 \text{ mm} = 8 \text{ mm}$

Let us write 8 mm in the millimetres column.

From the remaining 31 cm in the centimetres column, let us subtract 7 cm.

$$31 \text{ cm} - 7 \text{ cm} = 24 \text{ cm}$$

Example 2

Simplify 6 km 50 m - 2 km 700 m.

$$\begin{array}{ccc}
km & m \\
6 & 50 \\
-2 & 700 \\
\hline
3 & 350
\end{array}$$

50 is less than 700. Let us carry over 1 km from the 6 km in the kilometres column to the metres column.

$$1000 \text{ m} + 50 \text{ m} = 1050 \text{ m}$$

 $1050 \text{ m} - 700 \text{ m} = 350 \text{ m}$

Let us write 350 m in the metres column. From the remaining 5 km, in the kilometres column, let us subtract 2 km.

$$5 \text{ km} - 2 \text{ km} = 3 \text{ km}$$

Let us write 3 km in the kilometres column.

> Do all the exercises in your text book 16.1 and 16.2