

HOTS question

Tick (✓) the correct answer. To change km into cm, you need to multiply by

1 10 100 1000 10000 100000

Using decimals to express length

Decimals are used to express lengths in higher units.

Rini's father travels a distance of 7 km 500 m from home to office.

7 km 500 m is the same as 7500 m ($7 \times 1000 \text{ m} + 500 \text{ m}$).

Using decimals, 7 km 500 m can be written as 7.500 km.

$$7 \text{ km } 500 \text{ m} = 7.500 \text{ km}$$

$$7 \text{ km} \leftarrow \quad \rightarrow 500 \text{ m}$$

EXAMPLE 1 There was 2.1 cm rainfall on Monday.
How much is that in mm?

$$2.1 \times 10 = 21 \text{ mm}$$

😊 **ANS.** The rainfall on Monday was 21 mm.

EXAMPLE 2 My mother is 153 cm tall.
How much will that be in m?

$$153 \div 100 = \frac{153}{100} = 1.53 \text{ m}$$

😊 **ANS.** My mother is 1.53 m tall.



Think!
cm \rightarrow mm
big \rightarrow small
So, we multiply.



Think!
cm \rightarrow m
small \rightarrow big
So, we divide.



MENTAL MATHS

ENRICHMENT ACTIVITY



Fill in the blanks.

- A pile of 10 notebooks is 10 cm high.
The thickness of 1 notebook is 10 mm.
- A stack of 10 erasers is 5 cm high.
Each eraser is 5 mm thick.
- A stack of 10 bedsheets is 85.5 cm high.
One bedsheet is 85.5 mm thick.
- 100 papads in a packet are 2.5 cm high.
Each papad is 0.25 mm thick.



Change into mm
before finding
the answer.



EXAMPLE 3

The wheel of a bicycle covers a distance of 2 m in 1 revolution. How much distance would it cover in 600 revolutions? Write your answer in km.



Distance covered in 600 revolutions = $2 \times 600 = 1200$ m
 $1200 \text{ m} \div 1000 = \frac{1200}{1000} = 1.2$ km

ANS. The wheel would cover 1.2 km in 600 revolutions.

EXAMPLE 4

To reach an island, John travelled 6.5 km by a ship and 4 km 275 m by a boat. What is the total distance travelled by John?



Distance travelled by ship = 6.5 km = 6.500 km

Distance travelled by boat = 4 km 275 m = 4.275 km

6.500	0
+ 4.275	5
10.775	

ANS. John travelled a total distance of 10.775 km.

GET IT RIGHT!

6.5	6.500	← Change to like decimals before adding.
+ 4.275	+ 4.275	
4.340	10.775	

EXERCISE 8.1

A. Fill in the blanks.

- | | |
|--------------------------------------|---------------------------------------|
| 1. 5.74 m = <u>5</u> m <u>74</u> cm | 2. 7.8 km = <u>7</u> km <u>800</u> m |
| 3. 6.4 cm = <u>6</u> cm <u>40</u> mm | 4. 9.21 km = <u>9</u> km <u>210</u> m |
| 5. 2.675 km = <u>2675</u> m | 6. 450 m = <u>0.45</u> km |
| 7. 3.75 m = <u>375</u> cm | 8. 915 cm = <u>9.15</u> m |
| 9. 16.4 km = <u>16400</u> m | 10. 2005 m = <u>2.005</u> km |



Colour it if you get all your sums right.

B. Use a centimetre scale to measure these pencils in cm and mm.

- | | |
|--|--|
| 1. <u>2</u> cm <u>4</u> mm = <u>2.4</u> cm | 2. <u>4</u> cm <u>5</u> mm = <u>4.5</u> cm |
| 3. <u>4</u> cm <u>2</u> mm = <u>4.2</u> cm | 4. <u>3</u> cm <u>3</u> mm = <u>3.3</u> cm |

C. Complete the table.

	MEASUREMENT	IN BIGGER UNITS	IN SMALLER UNITS
1.	5 m 40 cm	5.40 m	540 cm
2.	35 m 55 cm	35.55 m	3555 cm
3.	4 m 27 cm	4.27 m	427 cm
4.	16 m 5 cm	16.05 m	1605 cm
5.	9 m 5 cm	9.05 m	905 cm