

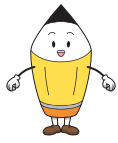
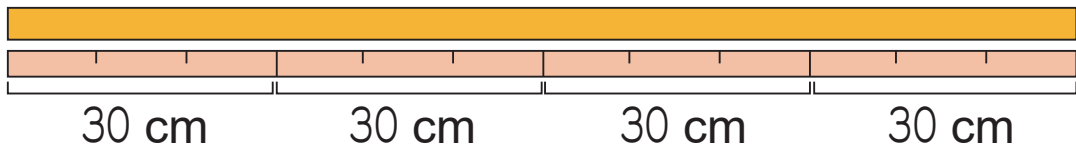
12-1

Length of Long Objects

Units of Length

Instruction

A girl's arm span is exactly 4 ruler lengths long using a 30 cm ruler. How long is her arm span?



Arm span



120

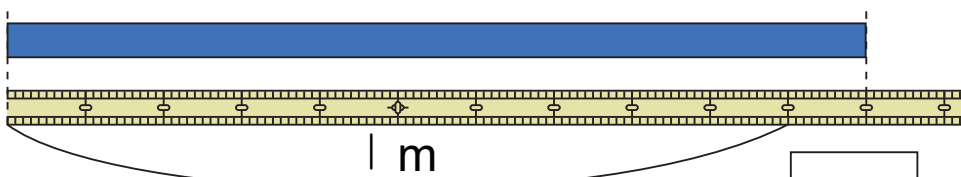
cm

A **metre** is another unit of length. $1 \text{ m} = 100 \text{ cm}$
120 cm is 1 m 20 cm.



Example

How long is the piece of tape in meters and centimeters?



1

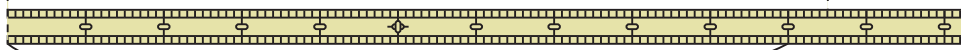
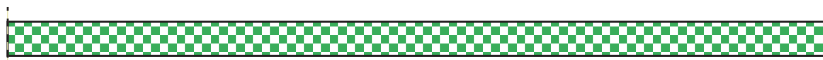
m

10

cm

How long is the piece of tape in meters and centimeters?

1

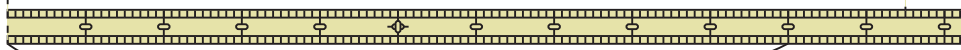


1 m

m

cm

2



1 m

m

cm

12-2

Length of Long Objects

Addition of Lengths

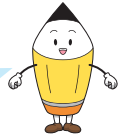
Example 1 Fill in the blanks.

1 $1 \text{ m} = \boxed{100} \text{ cm}$ 2 $150 \text{ cm} = \boxed{1} \text{ m } \boxed{50} \text{ cm}$

Example 2 Calculate the following lengths in meters and centimeters.

1 $2 \text{ m } 50 \text{ cm} + 1 \text{ m } 10 \text{ cm}$ $\boxed{3} \text{ m } \boxed{60} \text{ cm}$

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



Calculate the meters and the centimeters separately.

2 $60 \text{ cm} + 70 \text{ cm}$ $\boxed{1} \text{ m } \boxed{30} \text{ cm}$

1 Fill in the blanks.

1 $400 \text{ cm} = \boxed{} \text{ m}$ 2 $7 \text{ m} = \boxed{} \text{ cm}$

3 $350 \text{ cm} = \boxed{} \text{ m } \boxed{} \text{ cm}$

4 $105 \text{ cm} = \boxed{} \text{ m } \boxed{} \text{ cm}$

2 Calculate the following lengths in meters and centimeters.

1 $3 \text{ m} + 2 \text{ m} = \boxed{} \text{ m}$

2 $2 \text{ m } 30 \text{ cm} + 1 \text{ m} = \boxed{} \text{ m } \boxed{} \text{ cm}$

3 $4 \text{ m } 10 \text{ cm} + 50 \text{ cm} = \boxed{} \text{ m } \boxed{} \text{ cm}$

4 $1 \text{ m } 20 \text{ cm} + 2 \text{ m } 50 \text{ cm} = \boxed{} \text{ m } \boxed{} \text{ cm}$

5 $1 \text{ m } 30 \text{ cm} + 90 \text{ cm} = \boxed{} \text{ m } \boxed{} \text{ cm}$

12-3

Length of Long Objects

Subtraction of Lengths

Example Calculate the following lengths in meters and centimeters.

① $3\text{ m} - 1\text{ m} = \boxed{2}\text{ m}$

② $4\text{ m } 20\text{ cm} - 1\text{ m } 10\text{ cm} = \boxed{3}\text{ m } \boxed{10}\text{ cm}$

③ $2\text{ m} - 50\text{ cm} = \boxed{1}\text{ m } \boxed{50}\text{ cm}$

Calculate the following lengths in meters and centimeters.

① $5\text{ m} - 2\text{ m} = \boxed{}\text{ m}$

② $3\text{ m } 30\text{ cm} - 1\text{ m} = \boxed{}\text{ m } \boxed{}\text{ cm}$

③ $4\text{ m } 70\text{ cm} - 20\text{ cm} = \boxed{}\text{ m } \boxed{}\text{ cm}$

④ $1\text{ m } 20\text{ cm} - 15\text{ cm} = \boxed{}\text{ m } \boxed{}\text{ cm}$

⑤ $5\text{ m } 50\text{ cm} - 2\text{ m } 10\text{ cm} = \boxed{}\text{ m } \boxed{}\text{ cm}$

⑥ $2\text{ m } 45\text{ cm} - 1\text{ m } 15\text{ cm} = \boxed{}\text{ m } \boxed{}\text{ cm}$

⑦ $2\text{ m } 40\text{ cm} - 1\text{ m } 25\text{ cm} = \boxed{}\text{ m } \boxed{}\text{ cm}$

⑧ $10\text{ m } 50\text{ cm} - 2\text{ m } 10\text{ cm} = \boxed{}\text{ m } \boxed{}\text{ cm}$

⑨ $5\text{ m } 20\text{ cm} - 2\text{ m } 50\text{ cm} = \boxed{}\text{ m } \boxed{}\text{ cm}$

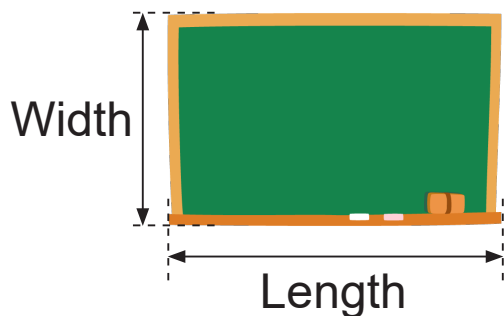
⑩ $7\text{ m } 30\text{ cm} - 1\text{ m } 35\text{ cm} = \boxed{}\text{ m } \boxed{}\text{ cm}$

12-4

Length of Long Objects

Calculation of Lengths (1)

Example Calculate the dimensions of a blackboard.



- 1 The length of the blackboard is 20 cm longer than 3 m.

m cm

- 2 The width of the blackboard is 6 cm longer than 2 m.

m cm

Calculate the dimensions of a container.

- 1 The length of the container is 10 cm longer than 2 m.

m cm

- 2 The width of the container is 15 cm longer than 1 m.

m cm

- 3 The height of the container is 3 cm longer than 1 m.

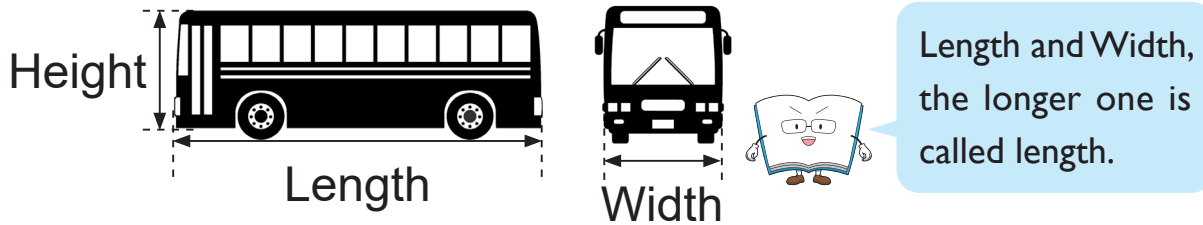
m cm

12-5

Length of Long Objects

Calculation of Lengths (2)

Example Calculate the dimensions of a bus.



1 The length of the bus is 20 cm shorter than 7 m.

m cm

2 The width of the bus is 25 cm shorter than 2 m.

m cm

3 The height of the bus is 6 cm shorter than 3 m.

m cm

Calculate the dimensions of a desk.

1 The length of the desk is 10 cm shorter than 3 m.

m cm

2 The width of the desk is 15 cm shorter than 2 m.

m cm

3 The height of the desk is 3 cm shorter than 1 m.

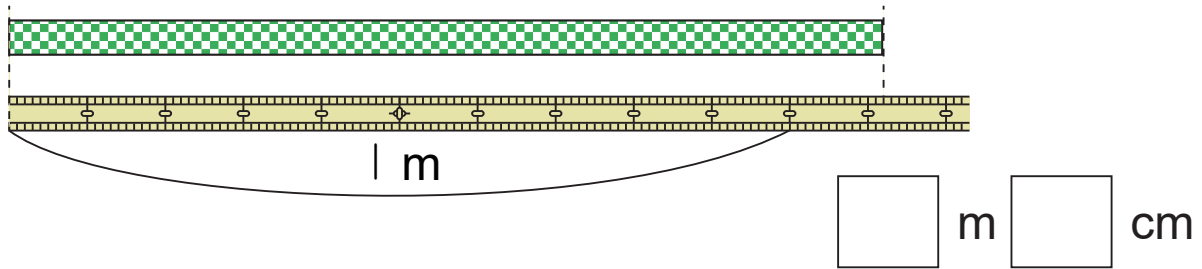
cm

12-6

Length of Long Objects

Review

1 How long is the piece of tape in meters and centimeters?



2 Fill in the blanks.

1 $200 \text{ cm} = \square \text{ m}$ 2 $6 \text{ m} = \square \text{ cm}$

3 $450 \text{ cm} = \square \text{ m } \square \text{ cm}$

4 $107 \text{ cm} = \square \text{ m } \square \text{ cm}$

3 Calculate the following lengths in meters and centimeters.

1 $1 \text{ m} + 3 \text{ m} = \square \text{ m}$

2 $6 \text{ m } 10 \text{ cm} + 7 \text{ m} = \square \text{ m } \square \text{ cm}$

3 $4 \text{ m } 80 \text{ cm} + 1 \text{ m } 50 \text{ cm} = \square \text{ m } \square \text{ cm}$

4 Calculate the following lengths in meters and centimeters.

1 $7 \text{ m} - 3 \text{ m} = \square \text{ m}$

2 $2 \text{ m } 30 \text{ cm} - 20 \text{ cm} = \square \text{ m } \square \text{ cm}$

3 $4 \text{ m } 60 \text{ cm} - 1 \text{ m } 20 \text{ cm} = \square \text{ m } \square \text{ cm}$

4 $2 \text{ m } 20 \text{ cm} - 40 \text{ cm} = \square \text{ m } \square \text{ cm}$

5 $3 \text{ m } 20 \text{ cm} - 85 \text{ cm} = \square \text{ m } \square \text{ cm}$