Metric units 3

Discover

1 a) Is Isla tall enough to go on the roller coaster?

b) How many millilitres of fizzy pop is Aki buying altogether?

Share

a) Isla needs to convert 140 cm into metres.

140 cm ⟶ ? m

Smaller unit ⟶ larger unit, so we need to divide.

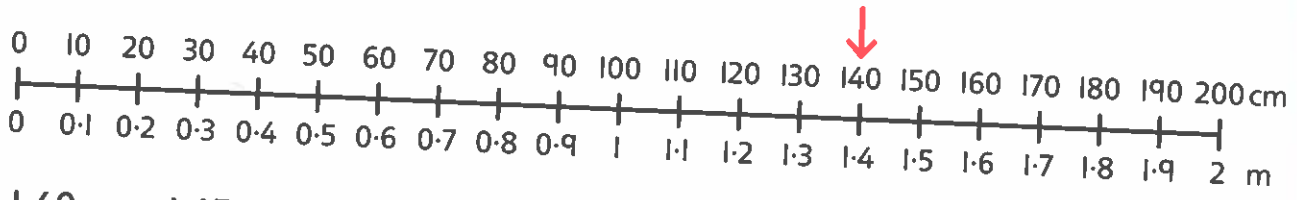
Divide by 100 as there are 100 cm in 1 m.

H	T	O	•	Tth	Hth
1	4	0	•		
		1	•	4	0

The number line helps you convert between cm (along the top) and m (along the bottom).

140 ÷ 100 = 1·40

140 cm = 1·40 m = 1·4 m



1·40 m < 1·45 m so Isla is not tall enough to go on the roller coaster.

b) Aki buys one 0·25 l bottle and one 500 ml bottle.

Larger unit ⟶ smaller unit, so we need to multiply.

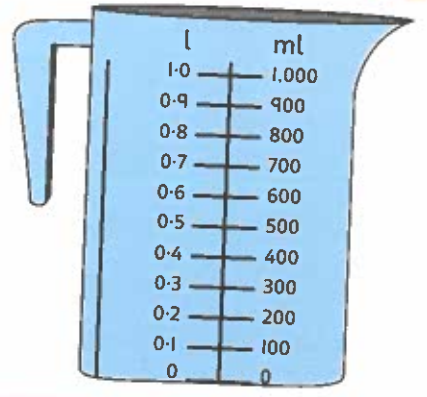
Multiply by 1,000 as there are 1,000 ml in 1 l.

0·25 × 1,000 = 250, so 0·25 l = 250 ml

250 ml + 500 ml = 750 ml

Aki is buying 750 ml of fizzy pop altogether.

The question asks for the answer to be given in millilitres. One of the amounts is in litres, so I am going to convert it first.



Think together

1 What should Ambika's total guess be?

The larger cake looks like it might weigh about 0·9 kg.

The smaller cake looks like it might weigh about 0·3 kg.

Ambika

Guess the total mass of the cakes!

Answers in grams please!

$0·9 \times 1{,}000 =$ ☐

$0·3 \times 1{,}000 =$ ☐

H	T	O	•	Tth
		0	•	9
			•	

H	T	O	•	Tth
		0	•	3
			•	

$0·9$ kg = ☐ g $0·3$ kg = ☐ g

$0·9$ kg + $0·3$ kg = ☐ g + ☐ g = ☐ g

Ambika should guess a total of ☐ g.

2 How long is the roller coaster now?

Give your answer in metres.

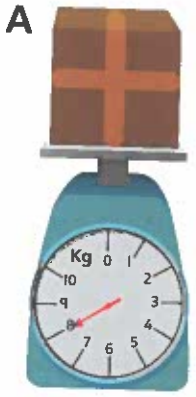
The roller coaster is now ☐ m long.

Please note: Due to a broken track, our 600 m roller coaster is now 300 cm shorter!

CHALLENGE

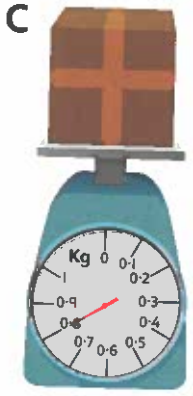
3 Here are the masses of five parcels.

A



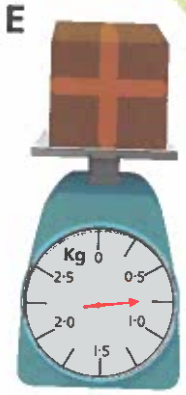
B

C



D

E



a) Put the masses in order from heaviest to lightest.

I think you can just look at the position of the dial. The further around it is, the heavier it will be.

I am going to convert the masses of the parcels into the same unit.

b) If you converted the masses to a different unit, would you get the same order?

Explain your answer.

→ Practice book 5C p117