

Metric measures

- 1 Sort the metric units into the correct categories.

ml	mm	g	kg	tonne	l	km
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Mass	Length	Capacity

- 2 Match the measure to its definition.

length	how much an object weighs
volume	the amount of space enclosed by a container
mass	how much of a solid, liquid or gas an object can hold
capacity	the measurement of something from end to end

- 3 Circle the most appropriate unit for each item.

- a) the mass of an elephant

g kg l tonnes

- b) the length of a classroom

cl cm m km

- c) the capacity of a water bottle

cm³ m³ ml l

- d) the length of a fly

mm cm m mg

- 4 Circle the best estimate for each item.

- a) the capacity of a glass

2 ml 20 ml 200 ml 2,000 ml

- b) the length of a rounders bat

50 mm 50 cm 50 m 50 km

- c) the mass of a car

1.5 g 1.5 kg 1.5 tonnes 15 kg

- d) the length of a football pitch

100 cm 100 m 100 km 100 mm

- 5 Estimate the length of your classroom. Give units with your answer.

Compare answers with a partner.



Convert metric measures

- 1 How many centimetre cubes can you fit along a metre stick?



What does this tell you?

- 2 Complete the sentences.

a) There are grams in 1 kilogram.

There are kilograms in one tonne.

b) There are millilitres in 1 litre.

c) There are millimetres in 1 centimetre

There are centimetres in 1 metre.

There are metres in 1 kilometre.



- 3 Complete the bar models.

a)

1 km	1 km	1 km	1 km
1,000 m	1,000 m		

There are m in 4 km.

b)

1 kg	1 kg	1 kg	1 kg	1 kg	1 kg	$\frac{1}{2}$ kg
1,000 g	1,000 g	1,000 g				

There are g in $6\frac{1}{2}$ kg.

- 4 Complete the conversions.

a) 2 kg = g

b) 1 l = ml

5 kg = g

5 l = ml

10 kg = g

11 l = ml

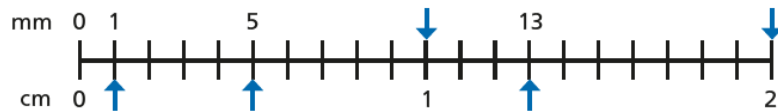
12 kg = g

- 5 A bag of dog food weighs 2.5 kg.

Write this weight in grams.



- 6 What measurements are the arrows pointing to?
Label them on the number line.



- 7 Complete the conversions.

a) $10 \text{ mm} = \boxed{} \text{ cm}$ $\boxed{} \text{ mm} = 1.1 \text{ cm}$

$11 \text{ mm} = \boxed{} \text{ cm}$ $\boxed{} \text{ mm} = 10.1 \text{ cm}$

$\boxed{} \text{ mm} = 11 \text{ cm}$

b) $2.1 \text{ km} = \boxed{} \text{ m}$ $2.01 \text{ km} = \boxed{} \text{ m}$

$2.001 \text{ km} = \boxed{} \text{ m}$ $2.011 \text{ km} = \boxed{} \text{ m}$

- 8 Write $>$, $<$ or $=$ to complete the statements.

a) $100 \text{ m} \bigcirc 1 \text{ km}$ b) $5.1 \text{ l} \bigcirc 5,100 \text{ ml}$

$10 \text{ m} \bigcirc 10 \text{ cm}$ $607 \text{ l} \bigcirc 0.607 \text{ ml}$

$10.1 \text{ mm} \bigcirc 101 \text{ cm}$ $0.05 \text{ l} \bigcirc 5 \text{ ml}$

- 9 Dora and Amir are trying to convert 1.05 metres into millimetres.



Dora

You can multiply 1.05 by 100 to convert it into centimetres, then multiply the product by 10 to convert it into millimetres.

Amir



You can just multiply 1.05 by 1,000!

Who do you agree with? _____

Explain your thinking.

- 10 What is the mass of one of the boxes?

Give your answer in grams.



- 11 There are 1,000 kg in one tonne.

a) How many grams are there in one tonne?

b) A car weighs 1.3 tonnes.

Write the weight of the car in grams.