Have a go at these arithmetic calculations.

1. 368 + 70 =

2. 10 000 - 3300 =

3. 8 x 4 x 3 =

4. 3084 ÷ 6 =

Complete as many of these as you can in 3 minutes:

1 5/12 X 3/5 =

1mark

2 128 – 36 ÷ 6 =

1mark

3. Insert the missing numbers.

	X 10	X 100	X 1000
	4	40	
	0.6		60

Lesson 24

Learning Question:

How do I use, read, write and convert between standard units of measurement?

Success Criteria:

- Recognise the different units of measurement.
- Use skills for multiplying and dividing by 10, 100 and 1000 to convert between standard units of measurement.

Personal Target: **What are you going to focus on today?**

Vocabulary

Measure
Weight
Mass
Length
Gram (g)
Kilogram (kg)
Tonne
Kilometre (km)
Metre (m)
Centimetre (cm)
Millimetre (mm)
Convert

Look at the unit of measures.

tonnes

kg

km

litres

cm

mm

ml

g

?

What are they used to measure?

Answers on next page

Answers:

Weight	Length	Volume
tonnes	km	litres
kg	cm	ml
g	mm	

Note: Weight is also known as mass.

Choose the unit of measure that is the most appropriate to measure the items below.

litres | tonnes | cm | kg | ml | mm | g | km

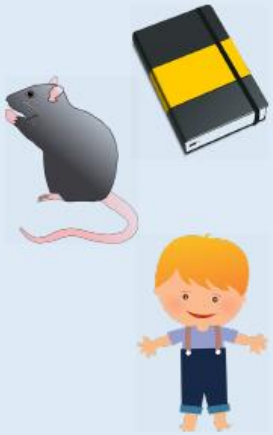
- The weight of a mouse
- The volume of water in a bucket
- The length of a book
- The weight of a child
- The weight of a hippo
- The length of a park

Answers on next page

Answers:

Choose the unit of measure that is the most appropriate to measure the items below.

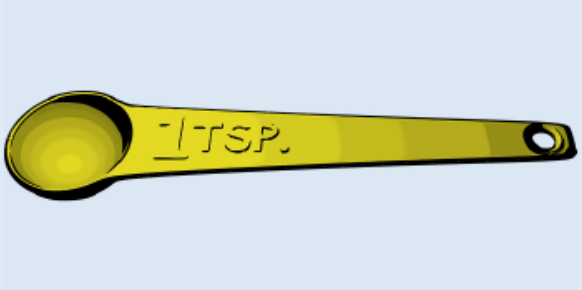
- The weight of a mouse — g
- The volume of water in a bucket — litres
- The length of a book — cm
- The weight of a child — kg
- The weight of a hippo — tonnes
- The length of a park — km



Estimate the measurements of the following:

How much would a large fish tank hold?

100 ml 100 litres 150kg 1 litre



How much would this teaspoon hold?

500 ml 5 ml 5 litres 0.5 ml

What could the height of this trolley be?

200 ml 1 m 100 metres ½ m

How much could a tea cup hold?

1000 cm 600 litres 200 ml ½ litre

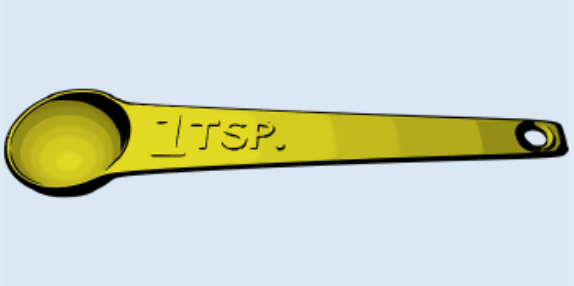
Answers on next page

Answers:

Estimate the measurements of the following:

How much would a large fish tank hold?

100 ml **100 litres** 150kg 1 litre



How much would this teaspoon hold?

500 ml **5 ml** 5 litres 0.5 ml

What could the height of this trolley be?

200 ml **1 m** 100 metres ½ m

How much could a tea cup hold?

1000 cm 600 litres **200 ml** ½ litre

Remember these facts:

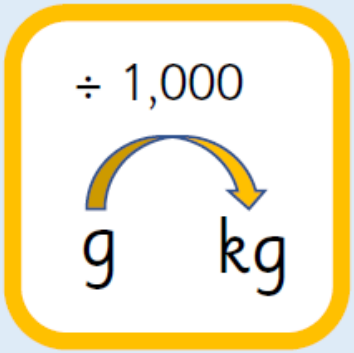
1 kg	=	1,000 g
1,000 kg	=	1 tonne

Convert grams to kilograms.

3,000 g = ___ kg

There are 1,000 g in a kg, so we need to divide 3,000 by 1,000 to convert this into kg.

3,000 ÷ 1,000 = 3



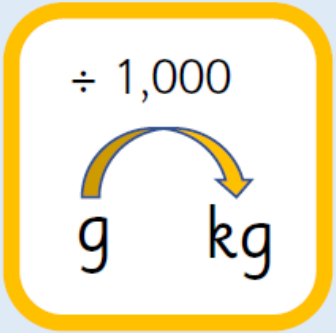
3,000 g = 3 kg

Convert grams to kilograms.

1,500 g = ___ kg

There are 1,000 g in a kg, so we need to divide 1,500 by 1,000 to convert this into kg.

1,500 ÷ 1,000 = 1.5



Answer on next page

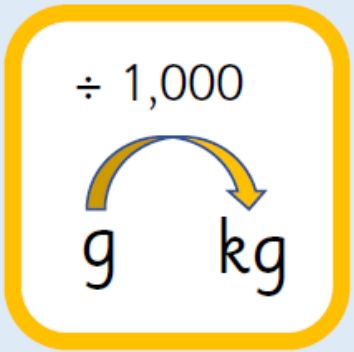
Answer:

Convert grams to kilograms.

1,500 g	=	___ kg

There are 1,000 g in a kg, so we need to divide 1,500 by 1,000 to convert this into kg.

$1{,}500 \div 1{,}000 = 1.5$



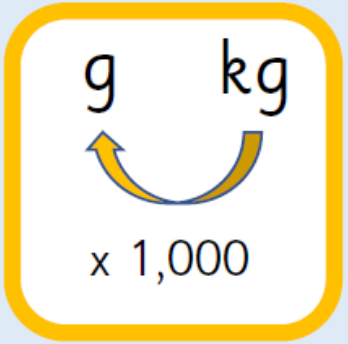
1,500 g	=	1.5 kg

Convert kilograms to grams.

2.05 kg = ___ g

There are 1,000 g in a kg, so we need to multiply 2.05 by 1,000 to convert this into g.

2.05 x 1,000 = 2,050



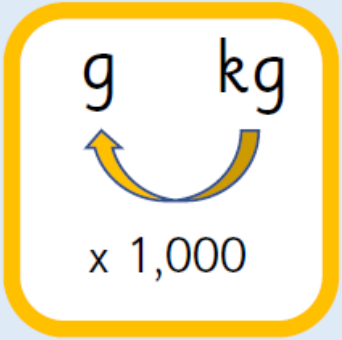
2.05 kg = 2,050 g

Convert kilograms to grams.

20 kg = ___ g

There are 1,000 g in a kg, so we need to multiply 20 by 1,000 to convert this into g.

20 x 1,000 = 20,000



Answer on next page

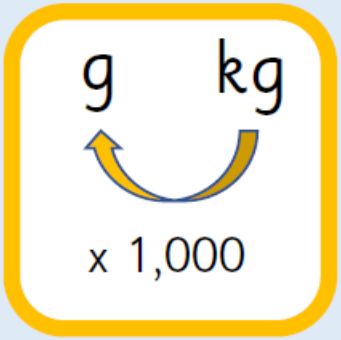
Answer:

Convert kilograms to grams.

20 kg	=	___ g

There are 1,000 g in a kg, so we need to multiply 20 by 1,000 to convert this into g.

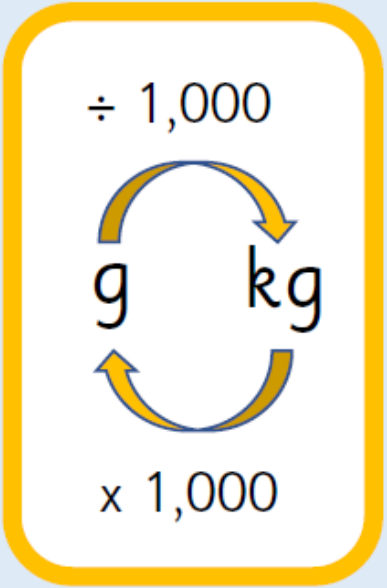
$20 \times 1{,}000 = 20{,}000$



20 kg	=	20,000 g

Complete the table.

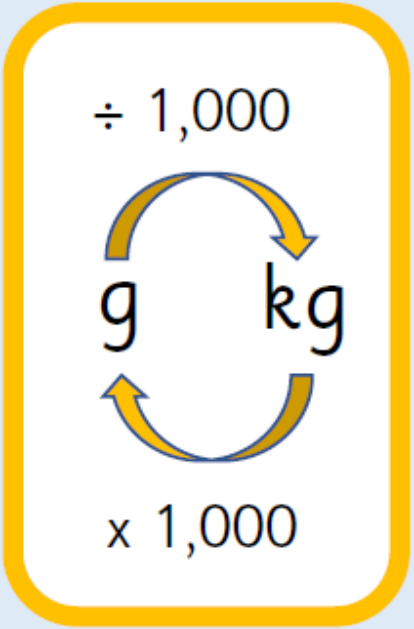
Grams	Kilograms
2,500	
	4.05
2,005	
4,020	
	2.15
6,700	



Answers on next page

Answers:

Grams	Kilograms
2,500	2.5
4,050	4.05
2,005	2.005
4,020	4.02
2,150	2.15
6,700	6.7

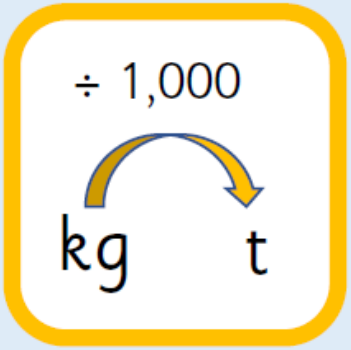


Convert kilograms to tonnes.

7,000 kg = ____ tonnes

There are 1,000 kg in a tonne, so we need to divide 7,000 by 1,000 to convert this into kg.

$7{,}000 \div 1{,}000 = 7$



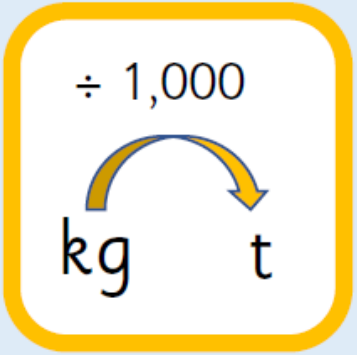
7,000 kg = 7 tonnes

Convert kilograms to tonnes.

1,356 kg = ___ tonnes

There are 1,000 kg in a tonne, so we need to divide 1,356 by 1,000 to convert this into kg.

1,356 ÷ 1,000 = 1.356



Answer on next page

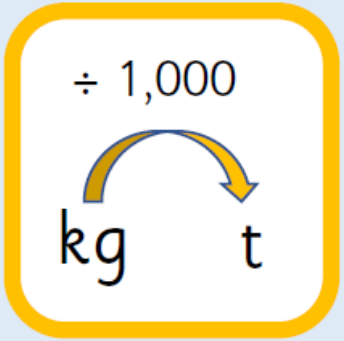
Answer:

Convert kilograms to tonnes.

1,356 kg = ___ tonnes

There are 1,000 kg in a tonne, so we need to divide 1,356 by 1,000 to convert this into kg.

$1{,}356 \div 1{,}000 = 1.356$

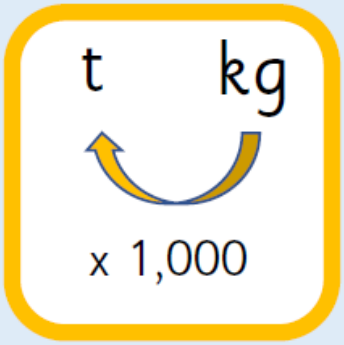


1,356 kg = 1.356 tonnes

Convert tonnes to kilograms.

4.56 tonnes = ___ kg

There are 1,000 kg in a tonne, so we need to multiply 4.56 by 1,000 to convert this into kg.

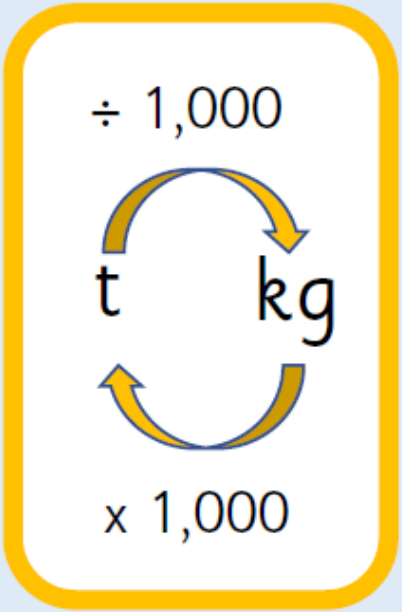


4.56 x 1,000 = 4,560

4.56 tonnes = 4,560 kg

Complete the table.

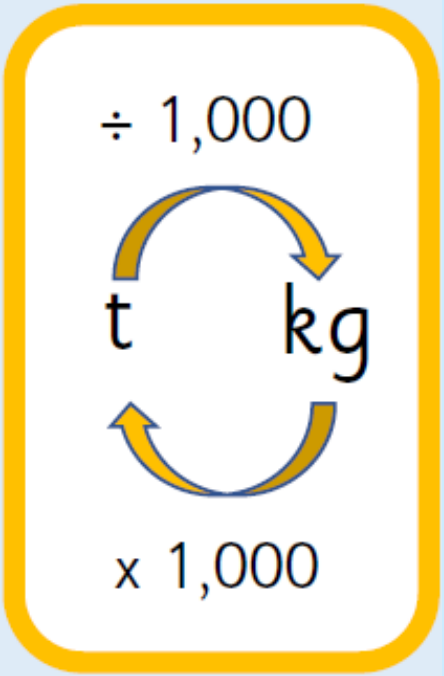
Kilograms	Tonnes
6,000	
	4.009
1,705	
435	
	0.741
126	



Answers on next page

Answers:

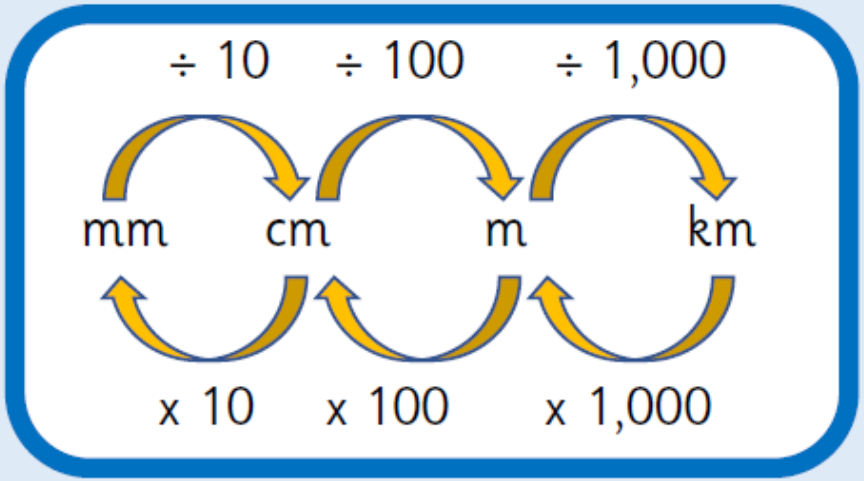
Kilograms	Tonnes
6,000	6
4,009	4.009
1,705	1.705
435	0.435
741	0.741
126	0.126



Remember these facts:

10 mm	=	1 cm
100 cm	=	1 m
1,000 m	=	1 km

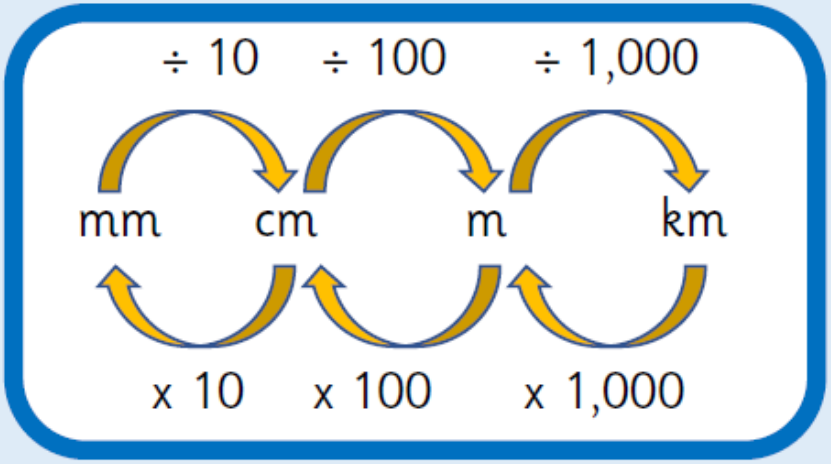
Complete the table.



mm	cm	m	km
87,000			
	2,867		
		19.5	
			6.75

Answers on next page

Answers:



mm	cm	m	km
87,000	8,700	87	0.087
28,670	2,867	28.67	0.02867
19,500	1,950	19.5	0.0195
6,750,000	675,000	6,750	6.75

Your task:

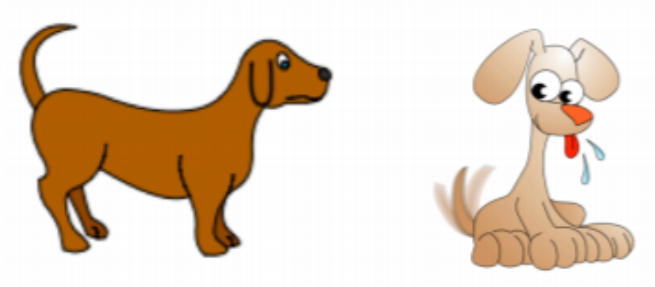
Complete the worksheet converting metric units of mass.

Plenary:

Rebecca has two dogs, Lucky and Pepe

Lucky has a mass of 7.2 kilograms

Pepe is 900 grams lighter than Lucky



How heavy is Pepe?