





Steps to Success

Lockdown

Date	
Subject/s	<u>Maths</u>
Learning Objective 	To convert units between units of measurement

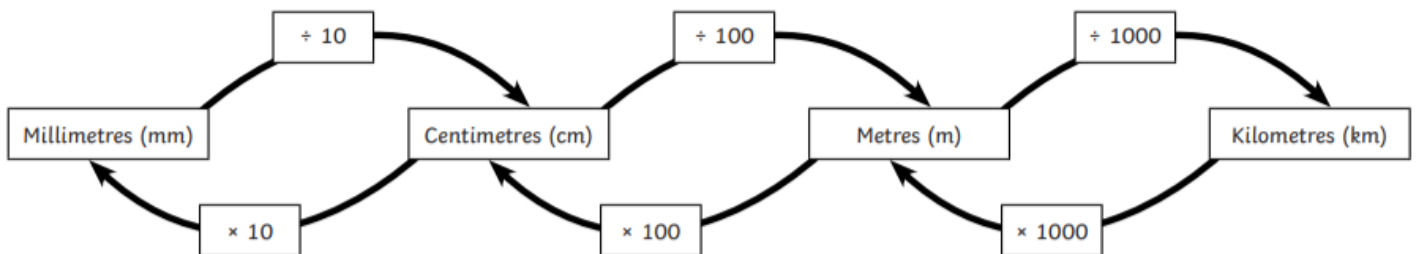
		SA 	TA 
Success Criteria 	I know 10mm = 1cm 100cm = 1m 1000m = 1km		
	I know 1000g = 1kg		
	I know 1000ml = 1l		
	I can multiply and divide by 10, 100 and 1000 using or visualising a place value grid		
Support	Independent      Adult Support ( )      Group Work		

Pre-task:

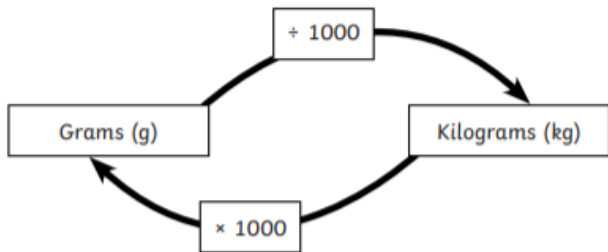
< > =

- 2 l  1,500 ml      60 l  6,000 ml      5 kg  4,500 g      12 kg  12,000 g  
 2.8 m  280 mm      3,700 m  3.7 mm      3.7 km  370 m      37,000 m  3.7 km

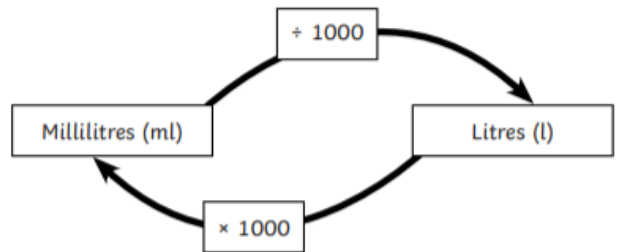
**Length**



**Mass**



**Capacity**



## Decimal Place Value Chart

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	●	tenths	hundredths	thousandths	ten thousandths	hundred thousandths	millionths
M	HTh	TTh	Th	H	T	O	●	t	h	th	tth	hth	m
							●						
							●						

CONVERTING METRIC UNITS – LENGTH SHEET 2



- |                      |                      |
|----------------------|----------------------|
| 1) _____ mm = 1 cm   | 2) 1 km = _____ m    |
| 3) 1 m = _____ cm    | 4) 3 cm = _____ mm   |
| 5) 4 km = _____ m    | 6) _____ mm = 5 cm   |
| 7) _____ cm = 2 m    | 8) _____ km = 2000 m |
| 9) 6 m = _____ cm    | 10) _____ mm = 8 cm  |
| 11) _____ m = 800 cm | 12) 7 m = _____ cm   |

Which is the most? Circle the largest amount in each box.

1 m 1 km 1 cm	1 km 2000 m 3000 cm	2 m 400 cm 700 mm	5 km 6000 cm 4000 m
---------------------	---------------------------	-------------------------	---------------------------

Use greater than (>), less than (<) or equals (=) to compare the amounts.

- |          |   |        |           |  |        |
|----------|---|--------|-----------|--|--------|
| 1) 3 km  | > | 2000 m | 2) 1000 m |  | 1 km   |
| 3) 5 cm  |   | 50 mm  | 4) 300 m  |  | 3 km   |
| 5) 7 m   |   | 500 cm | 6) 6 cm   |  | 80 mm  |
| 7) 30 mm |   | 3 cm   | 8) 800 cm |  | 7 m    |
| 9) 40 cm |   | 4 m    | 10) 5 km  |  | 4900 m |

## CONVERTING METRIC UNITS – WEIGHT & VOLUME 3



- |                                |                                |
|--------------------------------|--------------------------------|
| 1) 7,000 g = _____ kg          | 2) 4 L = _____ mL              |
| 3) 12 kg = _____ g             | 4) 8,000 mL = _____ L          |
| 5) $\frac{1}{2}$ L = _____ mL  | 6) $2\frac{1}{2}$ kg = _____ g |
| 7) _____ L = 14,000 mL         | 8) $6\frac{1}{2}$ kg = _____ g |
| 9) $8\frac{1}{2}$ L = _____ mL | 10) _____ kg = 22,000 g        |
| 11) 18,000 mL = _____ L        | 12) $\frac{1}{4}$ kg = _____ g |

Which is the most? Circle the largest amount in each box.

1 kg	$3\frac{1}{2}$ L	12 kg	7,505 mL
100 g	3,200 mL	12,050 g	$7\frac{1}{2}$ L
500 g	3,090 mL	12,500 g	7,280 mL

Use greater than (>), less than (<) or equals (=) to compare the amounts.

- |                      |   |                   |             |   |                  |
|----------------------|---|-------------------|-------------|---|------------------|
| 1) $2\frac{1}{2}$ kg | > | 2,100 g           | 2) 3 L      | □ | 2,890 mL         |
| 3) 8 kg              | □ | 7,960 g           | 4) 2,500 mL | □ | $2\frac{1}{2}$ L |
| 5) $7\frac{1}{2}$ L  | □ | 7,250 mL          | 6) 12,500 g | □ | 13 kg            |
| 7) 3,500 g           | □ | $3\frac{1}{2}$ kg | 8) 6 L      | □ | 900 mL           |
| 9) $7\frac{1}{2}$ L  | □ | 7,960 mL          | 10) 500 g   | □ | $\frac{1}{2}$ kg |

## Answers

### CONVERTING METRIC UNITS – LENGTH SHEET 2 ANSWERS



- |                         |                         |
|-------------------------|-------------------------|
| 1) <u>10</u> mm = 1 cm  | 2) 1 km = <u>1000</u> m |
| 3) 1 m = <u>100</u> cm  | 4) 3 cm = <u>30</u> mm  |
| 5) 4 km = <u>4000</u> m | 6) <u>50</u> mm = 5 cm  |
| 7) <u>200</u> cm = 2 m  | 8) <u>2</u> km = 2000 m |
| 9) 6 m = <u>600</u> cm  | 10) <u>80</u> mm = 8 cm |
| 11) <u>8</u> m = 800 cm | 12) 7 m = <u>700</u> cm |

Which is the most? Circle the largest amount in each box.

1 m <input type="radio"/> 1 km 1 cm	1 km <input checked="" type="radio"/> 2000 m 3000 cm	2 m <input checked="" type="radio"/> 400 cm 700 mm	<input checked="" type="radio"/> 5 km 6000 cm 4000 m
---	--	--	--

Use greater than (>), less than (<) or equals (=) to compare the amounts.

- |          |   |        |           |   |        |
|----------|---|--------|-----------|---|--------|
| 1) 3 km  | > | 2000 m | 2) 1000 m | = | 1 km   |
| 3) 5 cm  | = | 50 mm  | 4) 300 m  | < | 3 km   |
| 5) 7 m   | > | 500 cm | 6) 6 cm   | < | 80 mm  |
| 7) 30 mm | = | 3 cm   | 8) 800 cm | > | 7 m    |
| 9) 40 cm | < | 4 m    | 10) 5 km  | > | 4900 m |

### CONVERTING METRIC UNITS – WEIGHT & VOLUME SHEET 3 ANSWERS



- |                                      |                                      |
|--------------------------------------|--------------------------------------|
| 1) 7,000 g = <u>7</u> kg             | 2) 4 L = <u>4,000</u> mL             |
| 3) 12 kg = <u>12,000</u> g           | 4) 8,000 mL = <u>8</u> L             |
| 5) $\frac{1}{2}$ L = <u>500</u> mL   | 6) $2\frac{1}{2}$ kg = <u>2500</u> g |
| 7) <u>14</u> L = 14,000 mL           | 8) $6\frac{1}{2}$ kg = <u>6500</u> g |
| 9) $8\frac{1}{2}$ L = <u>8500</u> mL | 10) <u>22</u> kg = 22,000 g          |
| 11) 18,000 mL = <u>18</u> L          | 12) $\frac{1}{4}$ kg = <u>250</u> g  |

Which is the most? Circle the largest amount in each box.

<input checked="" type="radio"/> 1 kg 100 g 500 g	<input checked="" type="radio"/> $3\frac{1}{2}$ L 3,200 mL 3,090 mL	12 kg 12,050 g <input checked="" type="radio"/> 12,500 g	7,505 mL $7\frac{1}{2}$ L <input checked="" type="radio"/> 7,280 mL
---	---	--	---

Use greater than (>), less than (<) or equals (=) to compare the amounts.

- |                      |   |                   |             |   |                  |
|----------------------|---|-------------------|-------------|---|------------------|
| 1) $2\frac{1}{2}$ kg | > | 2,100 g           | 2) 3 L      | > | 2,890 mL         |
| 3) 8 kg              | > | 7,960 g           | 4) 2,500 mL | = | $2\frac{1}{2}$ L |
| 5) $7\frac{1}{2}$ L  | > | 7,250 mL          | 6) 12,500 g | < | 13 kg            |
| 7) 3,500 g           | = | $3\frac{1}{2}$ kg | 8) 6 L      | > | 900 mL           |
| 9) $7\frac{1}{2}$ L  | < | 7,960 mL          | 10) 500 g   | = | $\frac{1}{2}$ kg |

## Problem Solving and Reasoning

# Maths Mastery

Convert Between Different  
Units of Measure



### Capacity - Litres



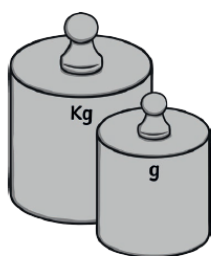
Complete this table:

Millilitres (ml)	Centilitres (cl)	Litres (l)
450		
	370	
		6.93

Which is larger?

- a) 340ml or 3.4 litres
- b) 560cl or 0.56 litres

### Mass - Grams



Complete these:

$$\frac{1}{2} \text{ kg} = \text{ --- } \text{ g}$$

$$\frac{3}{4} \text{ kg} = \text{ --- } \text{ g}$$

Which is greater?

$$\frac{1}{3} \text{ kg or } \frac{1}{4} \text{ kg}$$

Explain why.

### Distance and Length - Metres

Match these measurements:

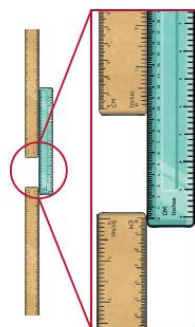
40cm	0.4cm
4000mm	0.4m
4mm	400cm
4m	40,000m
40km	4km
4000m	4m

### Conversion Word Problem

A teacher makes a mixed fruit juice drink, pouring three 750ml cartons of juice into a large jug. What is the volume of the mixed juice drink in litres?



### Conversion Word Problem



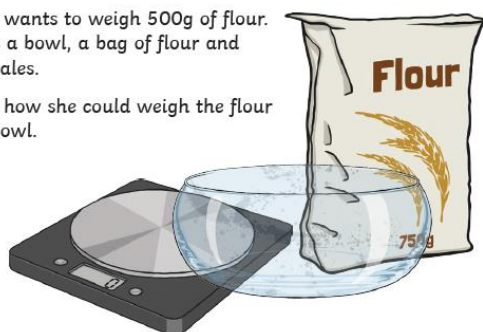
Natalia and Christian measure the height of a classroom using two metre sticks and a ruler. One metre stick reaches the ceiling and one is touching the floor. The cm ruler measures the gap between the metre sticks.

What is the height of the classroom in metres?

### Conversion Word Problem

Natalia wants to weigh 500g of flour. She has a bowl, a bag of flour and some scales.

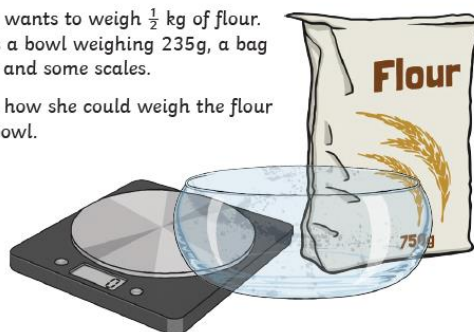
Explain how she could weigh the flour in the bowl.



### Conversion Word Problem

Natalia wants to weigh  $\frac{1}{2}$  kg of flour. She has a bowl weighing 235g, a bag of flour and some scales.

Explain how she could weigh the flour in the bowl.



# Answers

Answers

## Maths Mastery

Convert Between Different Units of Measure



Capacity - Litres - Answer



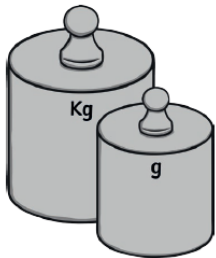
Complete this table:

Millilitres (ml)	Centilitres (cl)	Litres (l)
450	45	0.45
3700	370	3.7
6930	693	6.93

Which is larger?

- a) 340ml or 3.4 litres  
b) 560cl or 0.56 litres

Mass - Grams - Answer



Complete these:

$$\frac{1}{2} \text{ kg} = \underline{500} \text{ g}$$

$$\frac{3}{4} \text{ kg} = \underline{750} \text{ g}$$

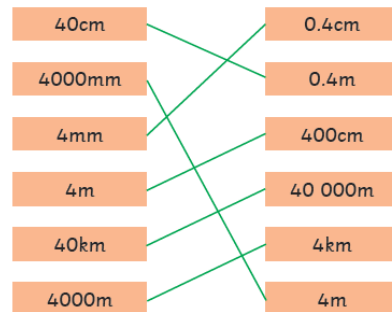
Which is greater?

$$\frac{1}{3} \text{ kg} \text{ or } \frac{1}{4} \text{ kg}$$

Explain why.

Distance and Length - Metres - Answer

Match these measurements:



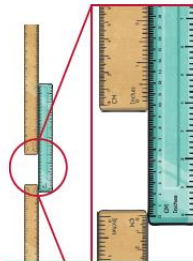
Conversion Word Problem Answer

A teacher makes a mixed fruit juice drink, pouring three 750ml cartons of juice into a large jug. What is the volume of the mixed juice drink in litres?



$$3 \times 750\text{ml} = 2250\text{ml} = 2.25\text{l}$$

Conversion Word Problem Answer



Natalia and Christian measure the height of a classroom using two metre sticks and a ruler. One metre stick reaches the ceiling and one is touching the floor. The cm ruler measures the gap between the metre sticks.

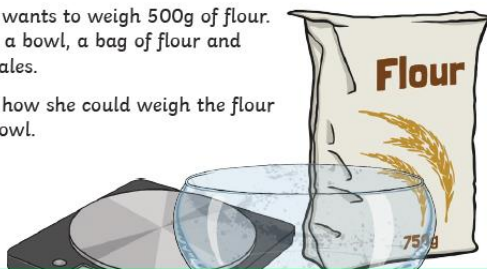
What is the height of the classroom in metres?

2.1 metres. The gap between the rulers measures 10cm so  $2\text{m} + 0.1\text{m} = 2.1\text{m}$

Conversion Word Problem Answer

Natalia wants to weigh 500g of flour. She has a bowl, a bag of flour and some scales.

Explain how she could weigh the flour in the bowl.

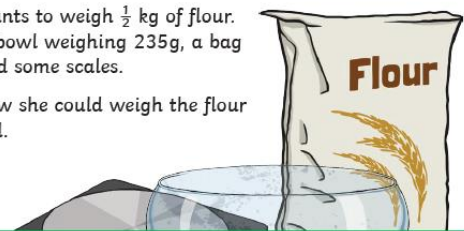


Put the bowl on the scales. Make a note of the weight. Add 500g to this and pour in the flour to the required weight.

Conversion Word Problem Answer

Natalia wants to weigh  $\frac{1}{2}$  kg of flour. She has a bowl weighing 235g, a bag of flour and some scales.

Explain how she could weigh the flour in the bowl.



Add the weight of the bowl to the required weight of flour:  $235\text{g} + \frac{1}{2} \text{ kg} = 235\text{g} + 500\text{g} = 735\text{g}$ . Place the bowl on the scales and pour in the flour to 735g.

## Further Challenge

### Order, Order!

Have a look at the sets of four quantities below. Can you rank them in order from smallest to largest?

To help you decide, you may need to find extra information or carry out some experiments.

Can you **convince** us that your order is right?

#### Time



Taken to travel to school

For mustard and cress to grow from seeds

Taken to eat a biscuit

Between your 6th and 7th birthdays

#### Distance



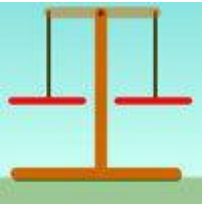
You could jump up in the air

You can kick a football

You can run in half a minute

Length of a bug

#### Mass



Of a blown-up balloon

Of a bar of chocolate

Of a loaf of bread

Of your teacher