

## Converting Units of Measure - Worksheet

### Skill

#### Group A - Metric lengths

Convert the following metric units:

- |                |               |               |
|----------------|---------------|---------------|
| 1) 300cm to m  | 2) 30cm to m  | 3) 300mm to m |
| 4) 30mm to m   | 5) 4.5m to mm | 6) 4.5m to cm |
| 7) 0.45m to cm | 8) 15km to m  | 9) 0.1km to m |

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#### Group B - Metric weight and capacity

Convert the following metric units:

- |                     |                    |               |
|---------------------|--------------------|---------------|
| 1) 9000ml to litres | 2) 90ml to litres  | 3) 0.9l to ml |
| 4) 90l to ml        | 5) 8000g to kg     | 6) 80g to kg  |
| 7) 80 tonnes to g   | 8) 80 tonnes to kg | 9) 0.8kg to g |

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#### Group C - Units of area and volume

Convert the following units of area:

- |   |   |   |
|---|---|---|
| 1) 90000cm <sup>2</sup> to m <sup>2</sup> | 2) 900cm <sup>2</sup> to m <sup>2</sup> | 3) 90000mm <sup>2</sup> to m <sup>2</sup> |
| 4) 90m <sup>2</sup> to cm <sup>2</sup>    | 5) 9m <sup>2</sup> to cm <sup>2</sup>   | 6) 2cm <sup>3</sup> to mm <sup>3</sup>    |
| 7) 20mm <sup>3</sup> to cm <sup>3</sup>   | 8) 2m <sup>3</sup> to cm <sup>3</sup>   | 9) 2km <sup>3</sup> to m <sup>3</sup>     |

## Converting Units of Measure - Worksheet

### Applied

- 1) (a) Write these measurements in order of size, smallest first.

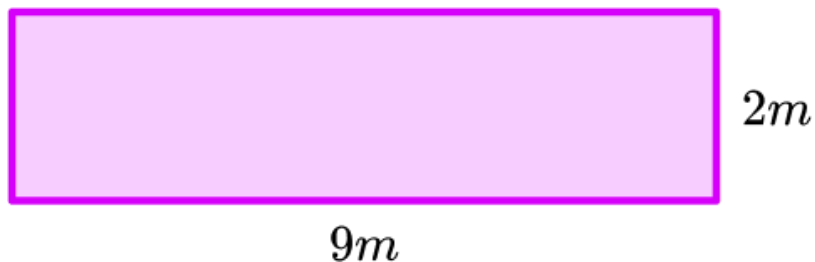
$400\text{cm}$ ,  $2\text{m}$ ,  $0.003\text{km}$

- (b) Convert the largest of the measurements in part (a) to metres.

- 2) (a) The weight of a  $5\text{p}$  coin is  $7\text{g}$ .  
Find the weight of  $\text{£}7$  worth of  $5\text{p}$  coins.  
Give your answer in grams.

- (b) Convert your answer in part (a) to kilograms.

- 3) (a) Shown below is a rectangle.



Find the area of the rectangle in  $\text{m}^2$ .

- (b) Find the area of the rectangle in  $\text{cm}^2$ .

## Converting Units of Measure - Exam Questions

- 1) (a) Change 5240 grams to kilograms.

.....  
(1)

- (b) Change 58cm to mm.

.....  
(1)

- (c) Change 530 millilitres to litres.

.....  
(1)

- (d) Change 0.76 kilograms to grams.

.....  
(1)  
(4 marks)

- 
- 2) (a) Circle the measurement that is the lightest.

100 000mg      500g       $\frac{1}{4}kg$

.....  
(1)

- (b) Circle the longest distance shown below.

1002m      10 000mm      1.1km      50 000cm

.....  
(1)  
(2 marks)

## Converting Units of Measure - Exam Questions

- 3) Kelly is  $1.68m$  tall. Louise is  $6cm$  taller than Kelly.

How tall is Louise?

.....  
(2 marks)

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- 4) (a) Write  $35cm^3$  in  $mm^3$

.....  
(1)

- (b) Write  $4.5m^2$  in  $cm^2$

.....  
(1)

- (c) Write  $90mm^2$  in  $cm^2$

.....  
(1)  
(3 marks)

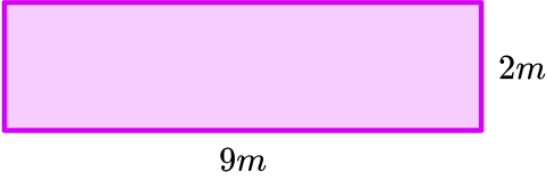
## Converting Units of Measure - Answers

	Question	Answer
	Skill Questions	
Group A	Convert the following metric units: <b>1)</b> $300\text{cm}$ to $m$ <b>2)</b> $30\text{cm}$ to $m$ <b>3)</b> $300\text{mm}$ to $m$ <b>4)</b> $30\text{mm}$ to $m$ <b>5)</b> $4.5\text{m}$ to $\text{mm}$ <b>6)</b> $4.5\text{m}$ to $\text{cm}$ <b>7)</b> $0.45\text{m}$ to $\text{cm}$ <b>8)</b> $15\text{km}$ to $m$ <b>9)</b> $0.1\text{km}$ to $m$	<b>1)</b> $3\text{m}$ <b>2)</b> $0.3\text{m}$ <b>3)</b> $0.3\text{m}$ <b>4)</b> $0.03\text{m}$ <b>5)</b> $4500\text{mm}$ <b>6)</b> $450\text{cm}$ <b>7)</b> $45\text{cm}$ <b>8)</b> $15000\text{m}$ <b>9)</b> $100\text{m}$
Group B	Convert the following metric units: <b>1)</b> $9000\text{ml}$ to litres <b>2)</b> $90\text{ml}$ to litres <b>3)</b> $0.9\text{l}$ to $\text{ml}$ <b>4)</b> $90\text{l}$ to $\text{ml}$ <b>5)</b> $8000\text{g}$ to $\text{kg}$ <b>6)</b> $80\text{g}$ to $\text{kg}$ <b>7)</b> $80$ tonnes to $\text{g}$ <b>8)</b> $80$ tonnes to $\text{kg}$ <b>9)</b> $0.8\text{kg}$ to $\text{g}$	<b>1)</b> $9$ litres <b>2)</b> $0.09$ litres <b>3)</b> $900\text{ml}$ <b>4)</b> $90\,000\text{ml}$ <b>5)</b> $8\text{kg}$ <b>6)</b> $0.08\text{kg}$ <b>7)</b> $80\,000\,000\text{g}$ <b>8)</b> $80\,000\text{kg}$ <b>9)</b> $800\text{g}$

## Converting Units of Measure - Answers

Group C	Convert the following units of area: <b>1)</b> $90000\text{cm}^2$ to $\text{m}^2$ <b>2)</b> $900\text{cm}^2$ to $\text{m}^2$ <b>3)</b> $90000\text{mm}^2$ to $\text{m}^2$ <b>4)</b> $90\text{m}^2$ to $\text{cm}^2$ <b>5)</b> $9\text{m}^2$ to $\text{cm}^2$ <b>6)</b> $2\text{cm}^3$ to $\text{mm}^3$ <b>7)</b> $20\text{mm}^3$ to $\text{cm}^3$ <b>8)</b> $2\text{m}^3$ to $\text{cm}^3$ <b>9)</b> $2\text{km}^3$ to $\text{m}^3$	<b>1)</b> $9\text{m}^2$ <b>2)</b> $0.09\text{m}^2$ <b>3)</b> $0.09\text{m}^2$ <b>4)</b> $900\,000\text{m}^2$ <b>5)</b> $90\,000\text{m}^2$ <b>6)</b> $2000\text{mm}^3$ <b>7)</b> $0.02\text{cm}^3$ <b>8)</b> $2\,000\,000\text{cm}^3$ <b>9)</b> $2\,000\,000\,000\text{m}^3$
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## Converting Units of Measure - Answers

	Question	Answer
	Applied Questions	
1)	<p><b>a)</b> Write these measurements in order of size, smallest first.</p> <p style="text-align: center;"><math>400cm, 2m, 0.003km</math></p> <p><b>b)</b> Convert the largest of the measurements in part (b) to metres.</p>	<p><b>a)</b> <math>400cm, 0.003km, 2m</math></p> <p><b>b)</b> <math>4m</math></p>
2)	<p><b>a)</b> The weight of a 5p coin is 7g. Find the weight of £7 worth of 5p coins. Give your answer in grams.</p> <p><b>b)</b> Convert your answer in part (a) to kilograms.</p>	<p><b>a)</b> <math>700 \div 5 = 140</math> <math>140 \times 7 = 980</math> <math>980g</math></p> <p><b>b)</b> <math>980 \div 1000 = 0.98</math> <math>0.98kg</math></p>
3)	<p><b>a)</b> Shown below is a rectangle.</p> <div style="text-align: center;">  </div> <p>Find the area of the rectangle in <math>m^2</math>.</p> <p><b>b)</b> Find the area of the rectangle in <math>cm^2</math>.</p>	<p><b>a)</b> <math>2 \times 9 = 18m^2</math></p> <p><b>b)</b> <math>18 \times 100^2 = 180\,000cm^2</math></p>

## Converting Units of Measure - Mark Scheme

	Question	Answer	
	Exam Questions		
1) (a)	Change 5240 grams to kilograms.	(a) 5.24kg	(1)
(b)	Change 58cm to mm.	(b) 580mm	(1)
(c)	Change 530 millilitres to litres.	(c) 0.53 litres	(1)
(d)	Change 0.76 kilograms to grams.	(d) 760g	(1)
2) (a)	Circle the measurement that is the lightest.  100 000mg    500g $\frac{1}{4}kg$	(a) 100 000 mg	(1)
(b)	Circle the longest distance shown below.  1002m    10 000mm    1.1km    50 000cm	(b) 1.1km	(1)
3)	Kelly is 1.68m tall. Louise is 6cm taller than Kelly. How tall is Louise?	174cm or 1.74m	(1)
4) (a)	Write $35cm^3$ in $mm^3$	(a) 35000mm <sup>3</sup>	(1)
(b)	Write $4.5m^2$ in $cm^2$	(b) 45 000cm <sup>2</sup>	(1)
(c)	Write $90mm^2$ in $cm^2$	(c) 0.9cm <sup>2</sup>	(1)

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