

**Wednesday 8<sup>th</sup> July**

**Year 5: Metric Units**

## Introduction

**Multiply or divide the following numbers.**

	Thousands	Hundreds	Tens	Ones
<b>x 10</b>				<b>7</b>
<b>x 100</b>				<b>5</b>
<b>x 1000</b>				<b>4</b>

	Thousands	Hundreds	Tens	Ones
<b>÷ 10</b>			<b>2</b>	<b>0</b>
<b>÷ 100</b>		<b>6</b>	<b>0</b>	<b>0</b>
<b>÷ 1000</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>

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<b>÷ 1000</b>				<b>3</b>

## Varied Fluency 1

**Convert the height of the flower to millimetres.**

**37cm**





## Varied Fluency 1

Convert the height of the flower to millimetres.

$$37\text{cm} \times 10 = 370\text{mm}$$



## Varied Fluency 2

**True or false:**

$$72\text{m} = 720\text{cm}$$

Y5

## Varied Fluency 2

**True or false:**

$$72\text{m} = 720\text{cm}$$

**False:**

$$72\text{m} > 720\text{cm}$$

Y5

### Varied Fluency 3

Fill in the missing symbol to make the statement correct.

$7\frac{1}{2}$  km



7,500m



### Varied Fluency 3

Fill in the missing symbol to make the statement correct.

$$7\frac{1}{2} \text{ km} \quad \boxed{=} \quad 7,500\text{m}$$

### Varied Fluency 4

Find the difference between the longest line and the shortest line.

**A**  **150cm**

**B**  **1400mm**

**C**  **3m**

Give your answer in centimetres.

### Varied Fluency 4

Find the difference between the longest line and the shortest line.

A  150cm

B  1400mm

C  3m

Give your answer in centimetres.

$$3\text{m (300cm)} - 1400\text{mm (140cm)} = 160\text{cm}$$

### Problem Solving 1

**Kaleb needs to fit seven 6cm cereal boxes in his cupboard.**



**0.5m**

**Will the cereal boxes fit?  
How many cm are spare/needed?**



### Problem Solving 1

**Kaleb needs to fit seven 6cm cereal boxes in his cupboard.**



**0.5m**

**Will the cereal boxes fit?**

**How many cm are spare/needed?**

**Yes they will fit, as seven cereal boxes will be 42cm. The cupboard measures 50cm so there will be 8cm spare.**

Y5

## Reasoning 1

Clay is converting millimetres to metres using the table.

mm	cm	m
250	25	2.5
1,560	156	1.56
3,140	31.4	3.14

Explain and correct his mistakes.

## Reasoning 1

Clay is converting millimetres to metres using the table.

mm	cm	m
250	25	0.25
1,560	156	1.56
3,140	314	3.14

Divided by 10 instead of 100.

Divided by 100 instead of 10.

Explain and correct his mistakes.

Y5

## Reasoning 2

Francis and Ariel are converting millimetres to centimetres.



Francis

1,260 millimetres is the same as 126 metres.

1,260 millimetres is the same as 1.26 metres.



Ariel

Who is correct? Why?



## Reasoning 2

Francis and Ariel are converting millimetres to centimetres.



Francis

1,260 millimetres is the same as 126 metres.

1,260 millimetres is the same as 1.26 metres.



Ariel

Who is correct? Why?  
Ariel is correct because...

## Reasoning 2

Francis and Ariel are converting millimetres to centimetres.



Francis

1,260 millimetres is the same as 126 metres.

1,260 millimetres is the same as 1.26 metres.



Ariel

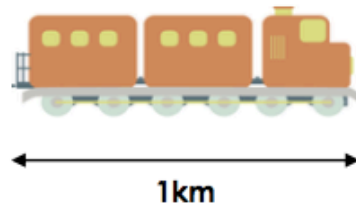
Who is correct? Why?

**Ariel is correct because you have to divide by 1,000 to convert from millimetres to metres.**

$$1,260\text{mm} \div 1,000 = 1.26\text{m}$$

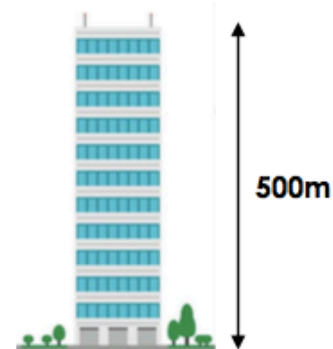
# Year 5 Developing

1a. Convert the length of the train to metres.



5 VF

1b. Convert the height of the building to kilometres.



5 VF

2a. True or false?

$$40\text{cm} < 4\text{mm}$$



5 VF

2b. True or false?

$$200\text{cm} = 2\text{m}$$



5 VF

3a. Fill in the missing symbol to make the statement correct.

3m



200cm

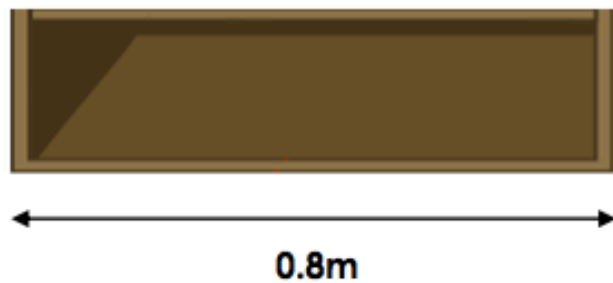
3b. Fill in the missing symbol to make the statement correct.

1,000mm



1m

1a. Finn needs to fit seven 10cm books into his bookcase.

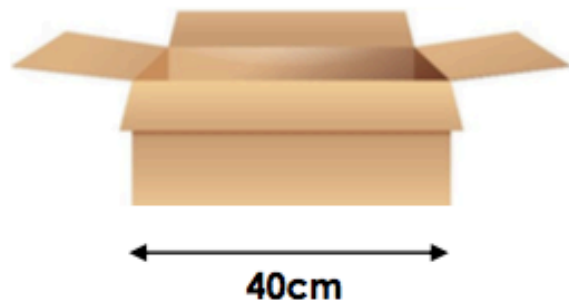


Will the books fit?  
How many cm are spare/needed?



5 PS

1b. Cecilia needs to fit nine 5cm packages into her storage box.



Will the packages fit?  
How many cm are spare/needed?



5 PS

2a. Sufya is converting cm to m in the table below.

cm	m
50	0.5
110	11
360	3.6

Explain and correct her mistakes.



2b. Jensen is converting cm to mm in the table below.

cm	mm
120	12
210	2,100
950	9,500

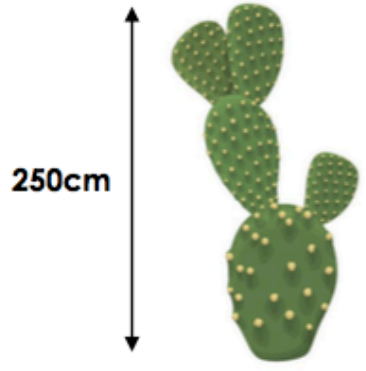
Explain and correct his mistakes.





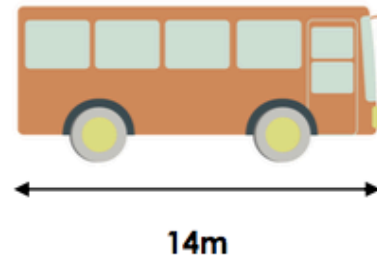
# Year 5 Expected

5a. Convert the height of the cactus to metres.



5 VF

5b. Convert the length of the bus to centimetres.



5 VF

6a. True or false?

$$46\text{km} = 4,600\text{m}$$



5 VF

6b. True or false?

$$1,050\text{mm} < 1.5\text{m}$$



5 VF

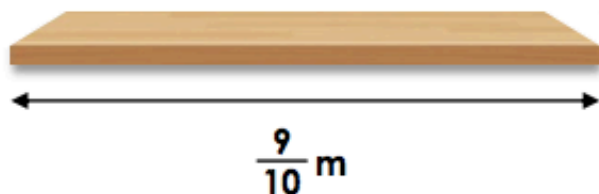
7a. Fill in the missing symbol to make the statement correct.

$$4\frac{1}{2}\text{ m} \quad \square \quad 500\text{cm}$$

7b. Fill in the missing symbol to make the statement correct.

$$1\frac{2}{5}\text{ km} \quad \square \quad 125\text{m}$$

4a. Holly needs to fit seven 12cm boxes on this shelf.



Will the boxes fit?  
How many cm are spare/needed?



5 PS

4b. Johnny wants to hang eight picture frames on his 2.1m wall.



Will the picture frames fit?  
How many m are spare/needed?



5 PS

5a. Amelia is converting millimetres to centimetres and metres using the table below.

mm	cm	m
700	70	7
4,600	460	4.6
8,100	81	8.1

Explain and correct her mistakes.



5 R

5b. Ricardo is converting metres to centimetres and millimetres using the table below.

m	cm	mm
0.9	9	900
1.3	130	13,000
5.08	50.8	5,080

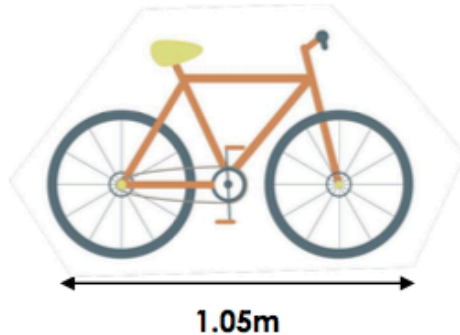
Explain and correct his mistakes.



5 R

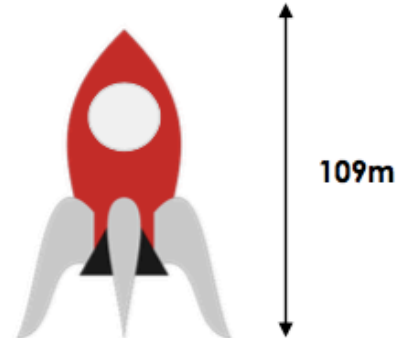
# Year 5 Greater Depth

9a. Convert the length of the bike to millimetres.



5 VF

9b. Convert the height of the rocket to kilometres.



5 VF

10a. True or false?

$$0.45\text{km} = 450,000\text{m}$$



5 VF

10b. True or false?

$$142,050\text{mm} > 143\text{m}$$



5 VF

11a. Fill in the missing symbol to make the statement correct.

$$2\frac{1}{2}\text{ cm} \quad \square \quad 30\text{mm} \quad \square \quad 0.04\text{m}$$

11b. Fill in the missing symbol to make the statement correct.

$$\frac{1}{10}\text{ km} \quad \square \quad 9\text{m} \quad \square \quad 901\text{cm}$$

7a. Mason wants to fit eight 3.2cm books and six 0.9cm magazines on his windowsill.

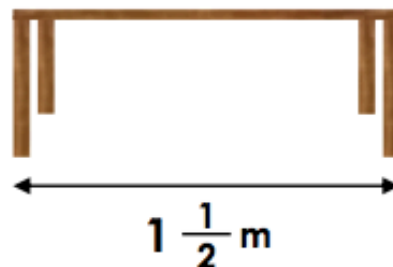


Will the books and magazines fit?  
How many cm are spare/needed?



5 PS

7b. Moira wants to fit four 31.5cm placemats and three 7.5cm coasters in a row on her table.



Will the placemats and coasters fit?  
How many cm are spare/needed?



5 PS

8a. Garrett is converting millimetres to centimetres and metres using the table below.

mm	cm	m
506	5.06	0.506
901	90.1	9.01
1,060	106	10.6
5,034	503.4	5.034
9,010	901	90.1

Explain and correct his mistakes.



8b. Karla is converting metres to centimetres and millimetres using the table below.

m	cm	mm
10	10,000	10,000
8.02	802	8,020
6.04	60.4	6,040
0.21	21	2,100
0.01	1	100

Explain and correct her mistakes.

