

Tuesday 9th June 2020

IX VI MMXX

Hello my amazing mathematicians!

We are going to begin with the challenge mat. Remember that it is optional.

You may wish to try 2 or 3 questions before going on to the main task or you might want to move straight on to the main task. The choice is yours.

Challenge mat 1

Section 1

In the number 576 213, which digit represents the number of ten thousands?

In the number 923 648, what place value does the digit '3' represent?

Section 2

Calculate the following in your head:

$56 + 67 =$

$48 + 36 =$

$72 - 26 =$

$91 - 67 =$

Section 3

Calculate:

$4.3 \times 100 =$

$5.61 \times 100 =$

$912 + 100 =$

$6002 + 100 =$

Section 4

Use the $<$ or $>$ signs to compare these fractions:

$\frac{2}{3}$		$\frac{4}{6}$
$\frac{1}{4}$		$\frac{3}{16}$
$\frac{17}{20}$		$\frac{4}{5}$

Section 5

In order from smallest to largest, write the following numbers in digits:

four point seven two

four point seven

forty point six nine

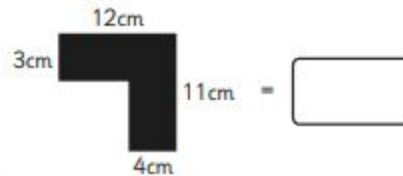
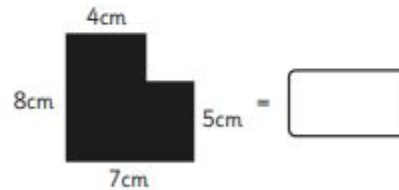
<input type="text"/>	<input type="text"/>	<input type="text"/>
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smallest

largest

Section 6

Calculate the perimeter of these composite rectilinear shapes.



Section 7

Explain why this shape is regular.



.....

Explain why this shape is irregular.



.....

.....

Section 8

Here is a table showing the number of boys and girls in each year group.

	Y3	Y4	Y5	Y6	Total
Boys			45		179
Girls	47	37		39	
Total		89	89	87	

Complete the table.

For the main task we are going to continue to work from the White Rose site. We are going to understand thousandths. Please follow the link carefully.

Please let the video guide you when tackling the activity.

1. Copy or click on the link (press Ctrl then click) <https://whiterosemaths.com/homelearning/>

Then click Year 5

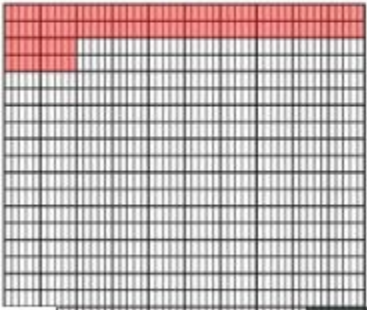
The screenshot shows the White Rose Maths Home Learning interface. At the top, there is a 'Summer Term Plans' banner with a 'Click here for more details' button. Below this is a 'Hello there, Parents and Carers!' section with introductory text. The main content area is a grid of buttons for different year groups: Early Years, Year 1, Year 2, Year 3, Year 4, Year 5, Year 6, Year 7, Year 8, Year 9, Year 10, and By Topic. A blue arrow points to the 'Year 5' button. To the right of the grid is a vertical sidebar menu with a 'Home Learning' header and a list of options: Summer Term, Easter Fun, Home Learning - Early Years, Home Learning - Year 1, Home Learning - Year 2, Home Learning - Year 3, Home Learning - Year 4, Home Learning - Year 5, Home Learning - Year 6, Home Learning - Year 7, Home Learning - Year 8, Home Learning - Year 9, and Home Learning - Year 10.

First, watch the video to support your learning and use it to work on the activity sheets below.

Lesson 2 - Understand thousandths

What fraction of the square has been shaded?
Write this fraction as a decimal.

$\frac{120}{1000} = 0.12$



Looking for the worksheet? check if they have a subscription. Alternatively, [read more](#) from [BBC Bitesize](#).

Already covered
Click here to find an alternative

10:36 08:54


Understand thousandths



1 Tommy is using base 10 to represent decimals.

He uses  to represent 1 whole.

He uses  to represent $\frac{1}{10}$ or 0.1

He uses  to represent $\frac{1}{100}$ or 0.01

He uses  to represent $\frac{1}{1000}$ or 0.001

What decimals are represented?

a) 

b) 

c) 

2 a) Represent each number using base 10

0.512

1.352

2.003

b) Use your representations to help you complete the statements.

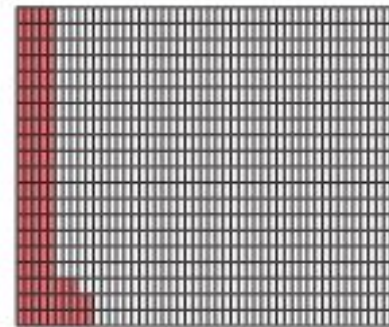
$$0.512 = 0.5 + 0.01 + \boxed{}$$

$$1.352 = 1 + \boxed{} + \boxed{} + \boxed{}$$

$$2.003 = \underline{\hspace{2cm}}$$

3 Here is a thousand square.

Part of the square has been coloured.



a) Why do you think it is called a thousand square?

b) What fraction of the square has been coloured?

$\frac{\boxed{}}{1000}$

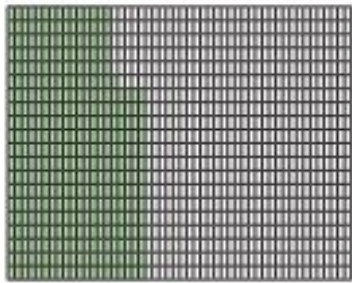
c) Write the fraction as a decimal.

Skip question 5 please

- 4 What fraction of each square has been shaded?

Write each number as a fraction and as a decimal.

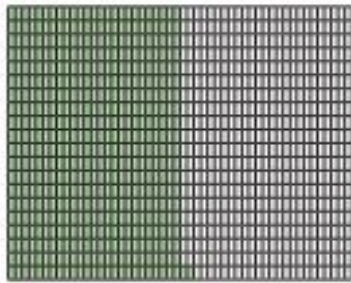
a)



fraction =

decimal =

b)

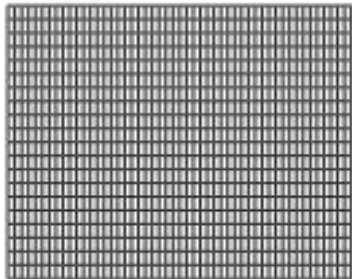


fraction =

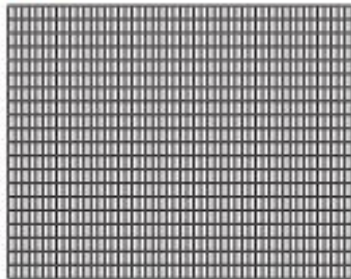
decimal =

- 5 Colour the grids to represent the fraction and decimal.

a) $\frac{73}{1000}$



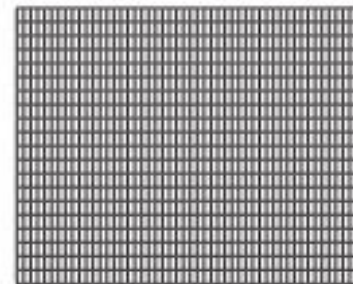
b) 0.302



- 6 Represent these numbers on a place value chart.

a) 1.372 b) 0.091 c) 3.542

- 7 Show that $\frac{400}{1000}$ is the same as 0.4



- 8 Write the numbers represented by the place value charts.

a)

Ones	Tenths	Hundredths	Thousandths
<div style="display: flex; justify-content: space-around;"> 1 1 1 </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> 1 </div>	<div style="display: flex; justify-content: space-around;"> 0.1 0.1 </div>	<div style="display: grid; grid-template-columns: repeat(4, 1fr); gap: 2px;"> 0.01 0.01 0.01 0.01 0.01 0.01 0.01 </div>	<div style="display: grid; grid-template-columns: repeat(3, 1fr); gap: 2px;"> 0.001 0.001 0.001 0.001 0.001 0.001 </div>

b)

Ones	Tenths	Hundredths	Thousandths
	<div style="display: flex; justify-content: space-around;"> 0.1 0.1 0.1 </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> 0.1 0.1 </div>		<div style="display: grid; grid-template-columns: repeat(2, 1fr); gap: 2px;"> 0.001 0.001 0.001 0.001 </div>


Answers

1 Tommy is using base 10 to represent decimals.


He uses  to represent 1 whole.

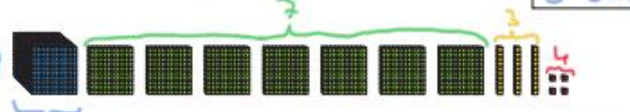
He uses  to represent $\frac{1}{10}$ or 0.1

He uses  to represent $\frac{1}{100}$ or 0.01

He uses  to represent $\frac{1}{1000}$ or 0.001

What decimals are represented?

a)  5.321

b)  1.734

c)  0.357



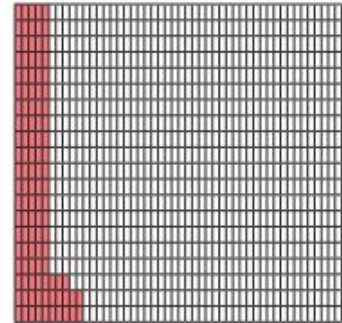
$$0.512 = 0.5 + 0.01 + \boxed{0.002}$$

$$1.352 = 1 + \boxed{0.3} + \boxed{0.05} + \boxed{0.002}$$

$$2.003 = \underline{2 + 0.003}$$

3 Here is a thousand square.

Part of the square has been coloured.



a) Why do you think it is called a thousand square?

It is split into one thousand equal parts.

b) What fraction of the square has been coloured?

$$\frac{13}{1000}$$

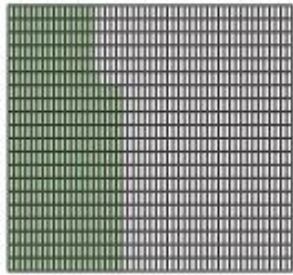
c) Write the fraction as a decimal.

$$\boxed{0.113}$$

- 4 What fraction of each square has been shaded?

Write each number as a fraction and as a decimal.

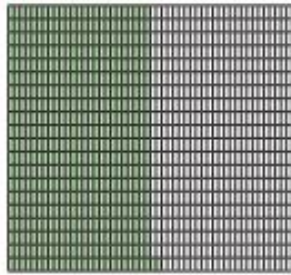
a)



fraction = $\frac{371}{1000}$

decimal = 0.371

b)

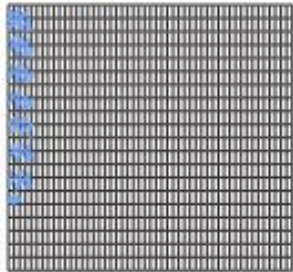


fraction = $\frac{502}{1000}$

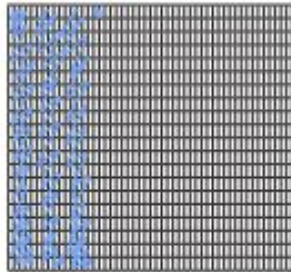
decimal = 0.502

- 5 Colour the grids to represent the fraction and decimal.

a) $\frac{73}{1000}$



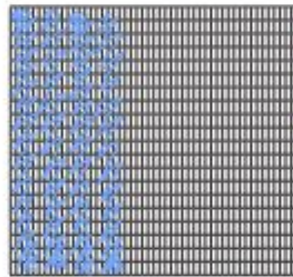
b) 0.302



- 6 Represent these numbers on a place value chart.

a) 1.372 b) 0.091 c) 3.542

- 7 Show that $\frac{400}{1000}$ is the same as 0.4



400 out of 1,000
equal parts = $\frac{400}{1000}$

4 out of 10 equal
columns = $\frac{4}{10} = 0.4$

- 8 Write the numbers represented by the place value charts.

a)

Ones	Tenths	Hundredths	Thousandths
1, 1, 1, 1	0.1, 0.1	0.01, 0.01, 0.01, 0.01, 0.01, 0.01	0.001, 0.001, 0.001, 0.001, 0.001, 0.001

4.276

b)

Ones	Tenths	Hundredths	Thousandths
	0.3, 0.1, 0.1, 0.1, 0.1		0.001, 0.001, 0.001, 0.001

0.504

Challenge mat answers 1-

Section 1

In the number 576 213, which digit represents the number of ten thousands?

7

In the number 923 648, what place value does the digit '3' represent?

thousands, 3 thousands or 3000

Section 2

Calculate the following in your head:

$56 + 67 = 123$

$48 + 36 = 84$

$72 - 26 = 46$

$91 - 67 = 24$

Section 3

Calculate:

$4.3 \times 100 = 430$

$5.61 \times 100 = 561$

$912 + 100 = 9.12$

$6002 + 100 = 60.02$

Section 4

Use the < or > signs to compare these fractions:

$\frac{2}{3}$	=	$\frac{4}{6}$
$\frac{1}{4}$	>	$\frac{3}{16}$
$\frac{17}{20}$	>	$\frac{4}{5}$

Section 5

In order from smallest to largest, write the following numbers in digits:

four point seven two

four point seven

forty point six nine

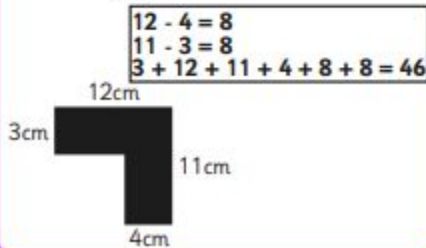
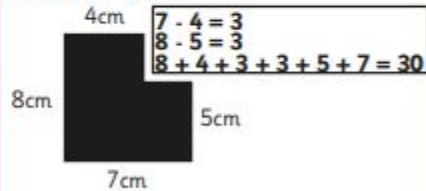
4.7	4.72	40.69
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smallest

largest

Section 6

Calculate the perimeter of these composite rectilinear shapes.



Section 7

Explain why this shape is regular.



All sides are of equal length and the internal angles are equal.....

Explain why this shape is irregular.



Either of or both the length of the sides and internal angles are not equal.....

Section 8

Here is a table showing the number of boys and girls in each year group.

	Y3	Y4	Y5	Y6	Total
Boys	34	52	45	48	179
Girls	47	37	44	39	167
Total	81	89	89	87	346

Complete the table.