Disclaimer/s

We hope you find the information on our website and resources useful.

Animations

This resource has been designed with animations to make it as fun and engaging as possible. To view the content in the correct formatting, please view the PowerPoint in 'slide show mode'. This takes you from desktop to presentation mode. If you view the slides out of 'slide show mode', you may find that some of the text and images overlap each other and/or are difficult to read.

To enter slide show mode, go to the **slide show menu tab** and select either **from beginning or from current slide**.

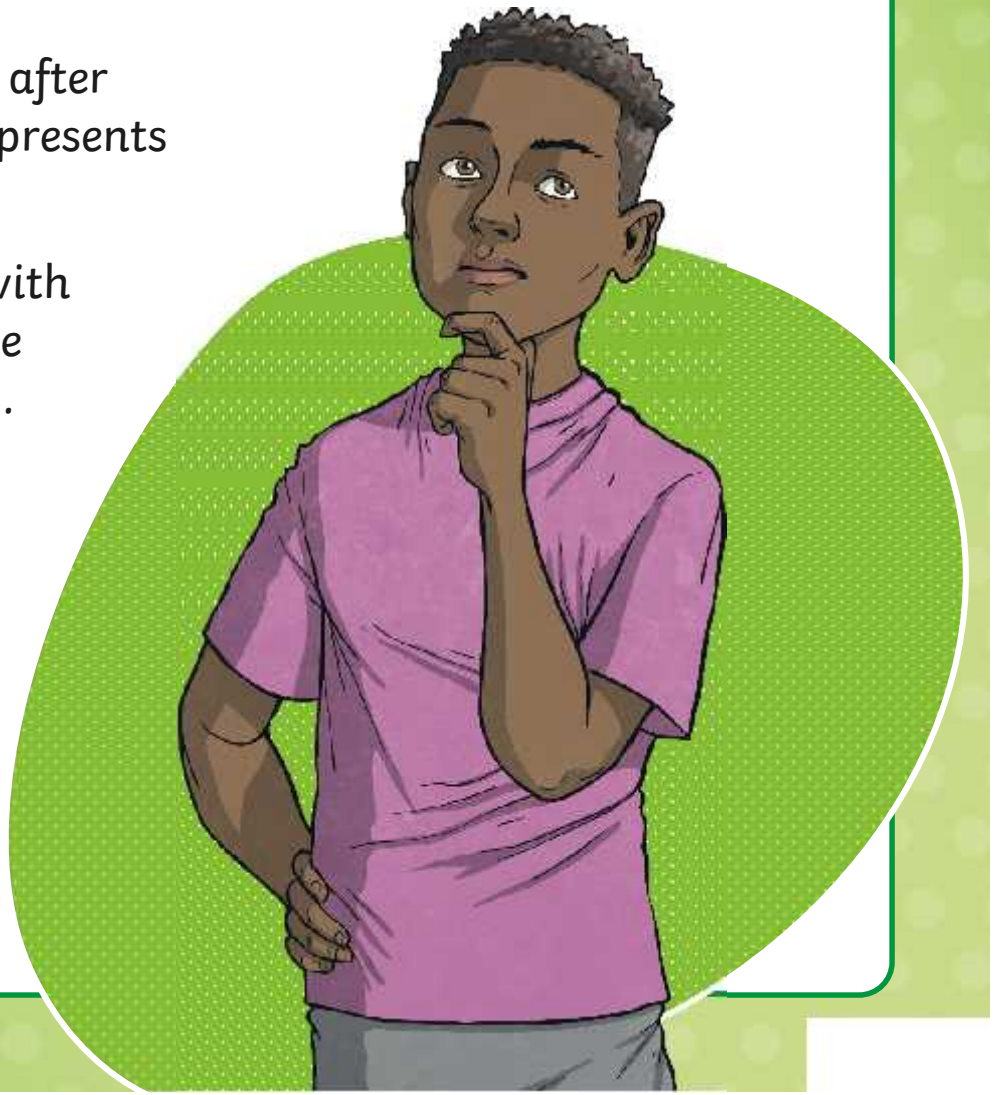
You may wish to delete this slide before beginning the presentation.

Reading Decimals to Three Places

What Is a Decimal?

A decimal is the number that comes after the decimal point in a number. It represents part of a whole number.

Decimals have a close relationship with fractions and percentages and can be converted between them quite easily.



Decimal Value Place 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

You might be familiar with the place value house. Decimals are a part of this too. You can find them on the right of the decimal point.

The decimal point is always a part of a number but often when a whole number is expressed, eg. 100, we don't use a decimal point as we assume it would be 100.00

Whole Numbers and Decimal Numbers

When we look at a decimal number it will have two parts to it:

- The whole number
- The decimal (part of a whole)

For example:

12.5 is made up of 12 wholes and .5

What Is a Decimal Made up Of?

A decimal can be made up of:

Tenths

Hundredths

Thousandths

Ten thousandths

Hundred thousandths

Millionths

What do you notice about the name of these compared to those on the other side of the place value house?

What Is a Tenth?

A tenth is the largest part of a decimal.

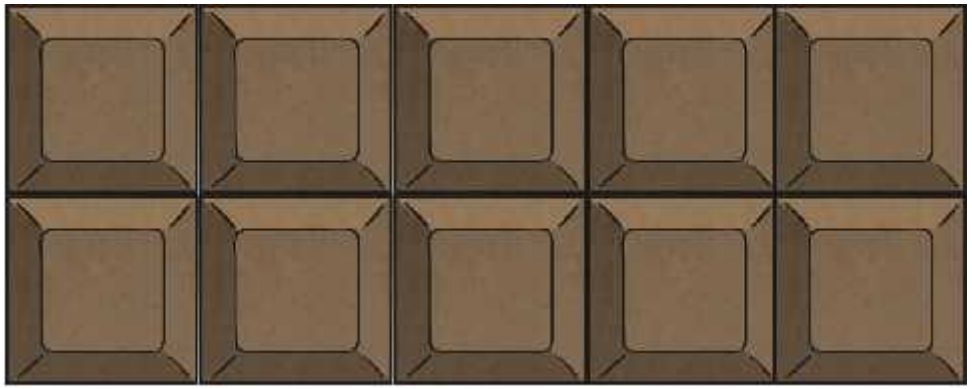
Ten tenths make up 1 whole or ten parts of something will make a whole.

A tenth can look like:

0.1 **1/10** **10%**

What things can you think of that would represent 0.1?

1 piece of chocolate out of 10 pieces in total = 0.10 or 1/10 or 10%

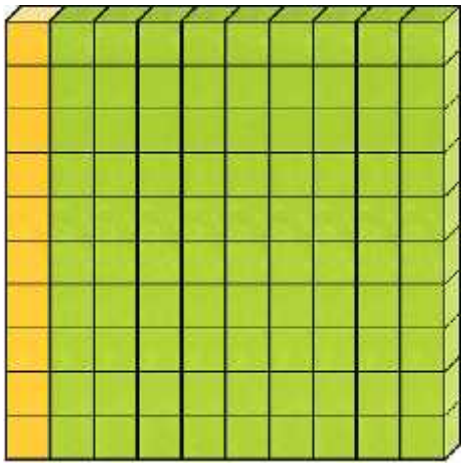


What Is a Tenth?

10c coin: 10 x 10c coins = $1

10c is 1/10 of a dollar or 0.1 or 10%

10 squares on a hundreds board = 0.1 or 1/10 or 10%



What Is a Hundredth?

A hundredth is the next largest part of a decimal after a tenth.

A hundred hundredths make up 1 whole or one hundred parts of something will make a whole.

A hundredth can look like:

0.01 **1/100** **1%**

What things can you think of that would represent 0.01?

$1 out of $100 = 0.01 or 1/100 or 1%

What Is a Thousandth?

A thousandth is starting to get into smaller pieces of a decimal number.

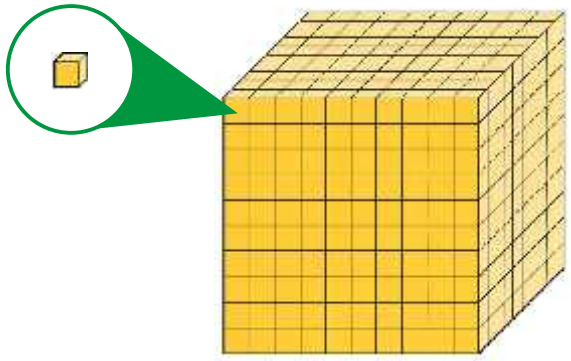
One thousand thousandths make up 1 whole or a thousand parts of something will make a whole.

A thousandth can look like:

0.001 **1/1000** **0.1%**

What things can you think of that would represent 0.001?

Not many things come in thousandths because the pieces are so tiny!

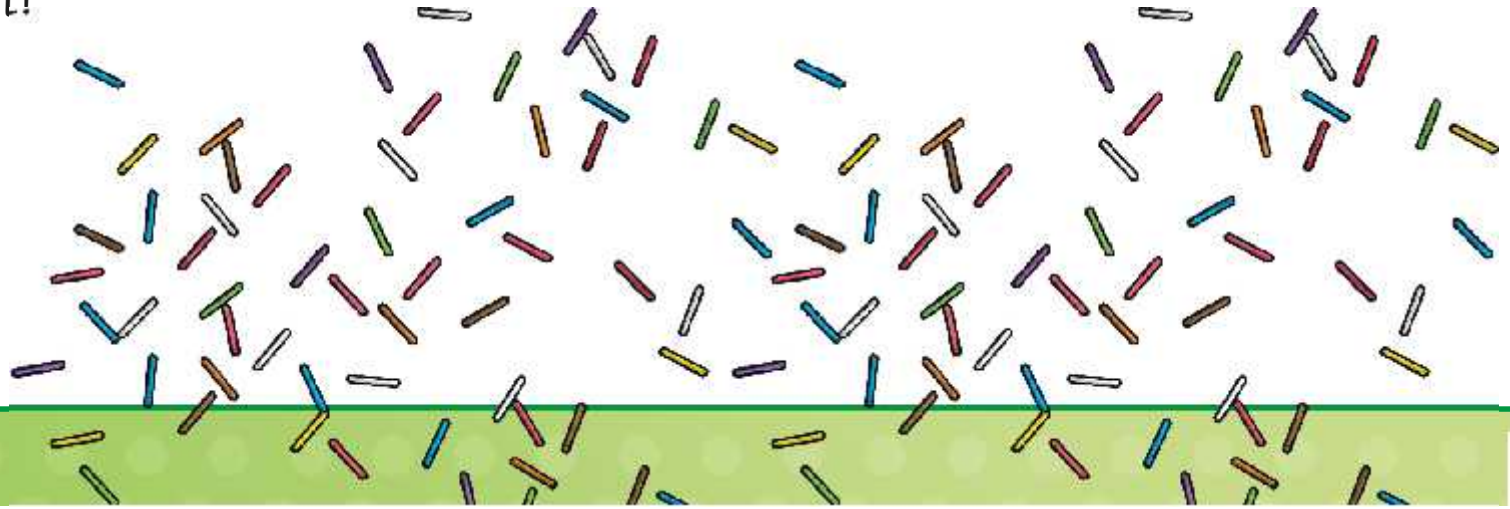


What about Hundreds of Thousandths and Millionths?

Although we might come across decimal numbers this long, it won't happen all that often.

How many pieces do you think would be in hundreds of thousandths and millionths?

You guessed it! In hundreds of thousandths there is literally a hundred thousand and in millionths there are a million pieces to make one whole part!



So What Does It Mean to Read Numbers to 3 Decimal Places?

To have the ability to read and understand a number to three decimal places means that you can say and understand:

- How many wholes are in the number
- What parts of the number there are to three places after the decimal point (eg. tenths, hundredths and thousandths)

3.14

7.7

62.348

0.62

8.88

0.3

How Do You Say Decimal Numbers?

When we say decimal numbers, we do it in two different ways.

Take this number for example:

45.768

We would say 'forty five' for the whole number but after the decimal point we say them as single numbers 'seven, six, eight'.

The exception to this rule is if the decimal is a price and then we say the number together.

Take this example:

$87.68

We would say 'eighty seven dollars, sixty eight'.

Try These Examples Yourself

How would you say these numbers:

246.879

$587.50

72.18

99.405

467.289