## Digits

A digit is a single number
There are 10 digits: $0,1,2,3,4,5,6,7,8$ and 9
Every other number is made from combining these digits
1 digit numbers
0
1
2
3
4
5
6
7
8
9

## Digits

Can you think of some Can you think of some Can you think of some 2 digit numbers? 3 digit numbers? 4 digit numbers?

13
26
34
57
89
All the numbers from 10 to 100

467
312
897
692
158
All the numbers
from 100 to 1,000

1,256
7,893
4,674
9,032
5,810
All the numbers from 1,000 to 10,000

## Place Value

Value means what something is worth
The place of a digit decides its value
What is the value of the blue digits in each number?

$$
\begin{array}{ccc}
1 & 3 & 7 \\
10 & 36 & 71 \\
100 & 339 & 768 \\
1,000 & 3,672 & 7,295
\end{array}
$$

## Partitioning 2-digit numbers



So when we partition 2-digit numbers we we split them up in to their tens and units

## Partitioning 2-digit numbers

$$
45=40+5
$$



So when we partition 2-digit numbers we we split them up in to their tens and units

## Partitioning 3-digit numbers



So when we partition 3-digit numbers we we split them up in to their hundreds, tens and units

## Partitioning 3-digit numbers



So when we partition 3-digit numbers we we split them up in to their hundreds, tens and units

## Partitioning 4-digit numbers

We partition 4-digit numbers in to their thousands, hundreds, ten and units

$$
\begin{aligned}
& 4,975=4,000+900+70+5 \\
& 1,256=1,000+200+50+6 \\
& 8,173=8,000+100+70+3
\end{aligned}
$$

## Tenths

Units can be split in to tenths 10 tenths make 1 unit

## Units



## Hundredths

Units can also be split in to hundredths
100 hundredths make 1 unit


## Numbers with decimal places

Numbers with decimal follows the same rules
The further to the left a number is, the more it is worth


## Place Value

## Value means what something is worth

The place of a digit decides its value
What is the value of the blue digits in each number?
1
3
7
0.1
0.3
0.7
0.01
0.03
0.07
0.001
0.003
0.007

## Zeros after the last digit

In numbers with decimal places, zeros after the last number do not change the value of the number

The numbers in the same colours below have the same value as each other, despite the extra zeros on the end

| $r$ | 8.0 |
| ---: | :--- |
| 2 | 2.00 |
| 5.1 | 5.10 |
| 7.35 | 7.350000 |

## Partitioning numbers with decimal places

$$
2.3=2+0.3
$$



So when we partition numbers with decimal places we we split them up in to their units, tenths, hundredths and thousandths

## Partitioning numbers with decimal places

## $0.752=$ <br> 0.7 <br> +0.5 + <br> 0.02



So when we partition numbers with decimal places we split them up in to their units, tenths, hundredths and thousandths

## Partitioning numbers with decimal places

When we partition numbers with decimal places we split them up in to their units, tenths, hundredths and thousandths

$$
\begin{aligned}
& 4.975=4+0.9+0.07+0.005 \\
& 1.256=1+0.2+0.05+0.006 \\
& 8.173=8+0.1+0.07+0.003
\end{aligned}
$$

