Place value knowledge organiser

Maths

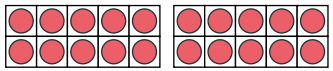
Hundreds

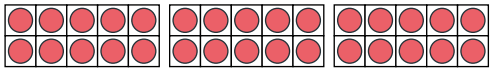
There are 100 ones in a hundred.

There are 10 tens in a hundred.

There are 10 hundreds in a thousand.

20 tens = 200



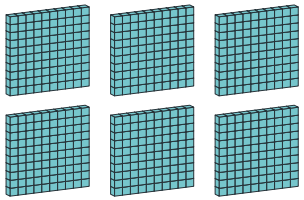


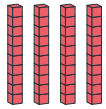
30 tens = 300

100	200	300	400	500	600	700	800	900	1,000

Represent 3-digit numbers

Hundreds	Tens	Ones
100 100 100 100 100 100	10 10 10 10	1 1 1 1 1 1 1



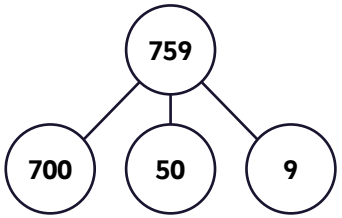


There are 6 hundreds, 4 tens and 7 ones.

The number is 647 or six hundred and forty-seven.

Partition numbers

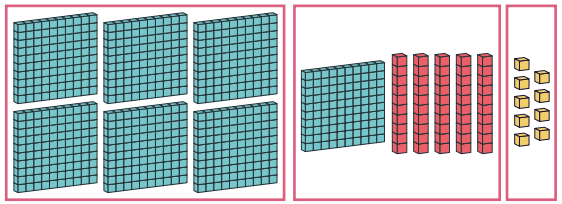
3-digit numbers can be partitioned into hundreds, tens and ones.



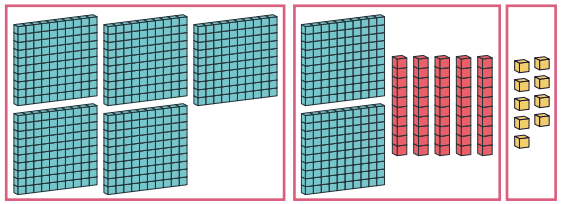
759 is equal to 7 hundreds, 5 tens and 9 ones.

759 = 700 + 50 + 9

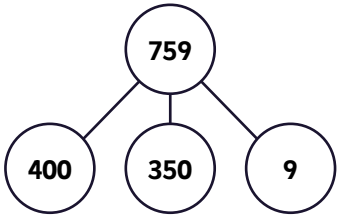
3-digit numbers can also be flexibly partitioned in many different ways.



759 = 600 + 150 + 9



759 = 500 + 250 + 9



1, 10 or 100 more or less

When finding 1, 10, 100 or 1,000 more or less than a number you can add or remove 1 place value counter in the correct column.

Less

1 less is **218**

10 less is **209**

100 less is **119**

Hundreds	Tens	Ones
100 100	10	1 1 1 1 1 1 1 1 1

More

1 more is **220**

10 more is **229**

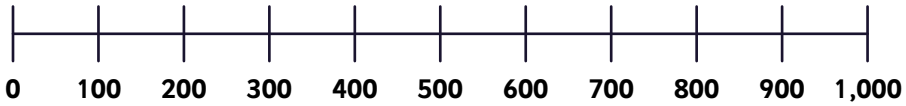
100 more is **319**

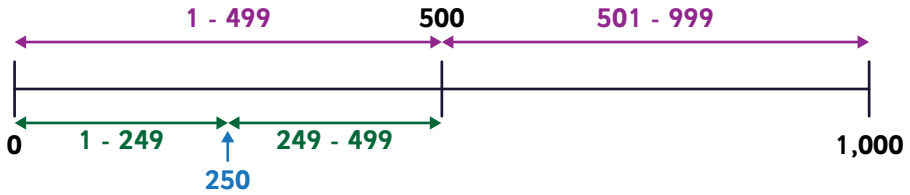
When there is 1 counter in the place value column and you are finding 1 less, you will need to use 0 as a place value holder.

When there are 9 counters in the place value column and you are finding 1 more, you will need to use 0 as a place value holder and add 1 more counter to the next column.

Number lines to 1,000

To find the value of each **interval** you need to find the **difference** between the **start and end value** and then **divide** that number by the number of intervals.
E.g., 1,000 ÷ 10 = 100 so each interval is worth 100.



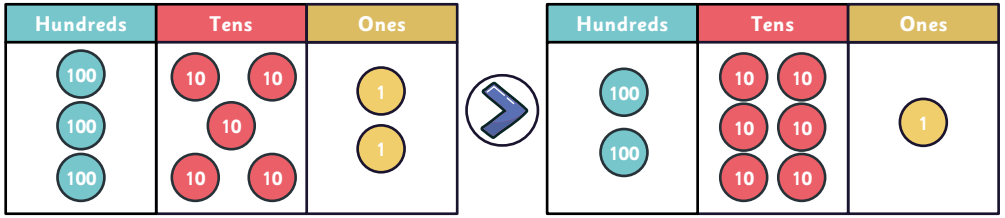


Finding halfway points between intervals can help to estimate points on a number line.

Compare and order numbers

less than | equal to | greater than

When comparing and ordering numbers, you must compare the number in the greatest place value column first and if they are equal, you then compare the numbers in the next place value column.



ascending order (low to high)

48 | 121 | 126 | 307 | 480

descending order (high to low)

480 | 307 | 126 | 121 | 48

Count in 50s

When counting in 50s you can use your knowledge of the 5 times-table to help you!

5	10	15	20	25	30	35	40	45	50
1	2	3	4	5	6	7	8	9	10
50	100	150	200	250	300	350	400	450	500

0	50	100	150	200	250	300	350	400	450	500

500	550	600	650	700	750	800	850	900	950	1,000