

National curriculum objectives:

- read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit
- count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000
- interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero, **including application to temperature**
- round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000

Key Vocabulary

number, numeral
 zero, none
 equal to, equivalent to, is the same as
 more, less
 most, least
 tally
 many
 odd, even
 multiple of, factor of, factor pair
 sequence, continue, predict, pattern
 pair, rule
 relationship
 next, consecutive
 > greater than
 < less than
 ≥ greater than or equal to
 ≤ less than or equal to
 Roman numerals
 integer, positive, negative
 above/below zero, minus
 negative numbers
 formula
 divisibility
 square number
 prime number
 ascending/descending order
 place, place value
 stands for, represents
 exchange
 the same number as, as many as
 more, larger, bigger, greater
 fewer, smaller, less
 fewest, smallest, least
 most, biggest, largest, greatest

Possible assessment questions:

Using all of the digits from 0 to 9, write down a 10-digit number.

What is the largest number you can write?

What is the smallest number you can write?

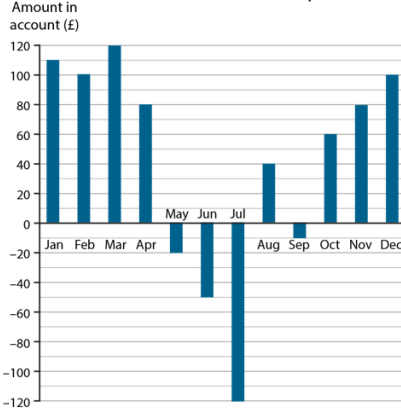
Write down the number that is one less than the largest number.

Write down the number that is one more than the smallest number.

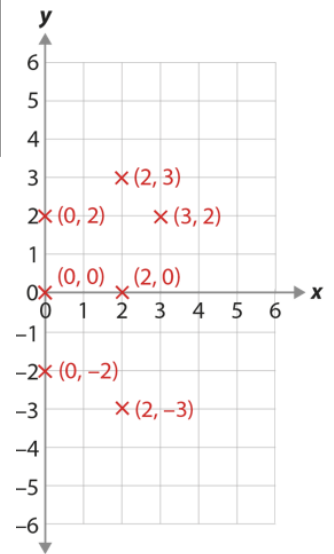
What could the missing values be?

Date	Paid in	Paid out	Amount in account
31 December			£150
5 January		£30	£120
10 January		£50	£70
11 January		£100	-£30
12 January	£10		-£20
16 January	£20	£130	-£130

Find the difference between the money saved in different months:



Plotting negative numbers as co-ordinates:



The temperature at 6 a.m. was recorded each day for one week.

Day	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Temp (°C)	1	-1	0	3	2	-2	-3

What was the coldest morning?

What was the warmest morning?

What is the difference in temperature between Monday and Tuesday?

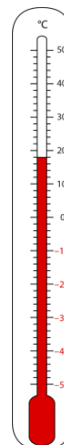
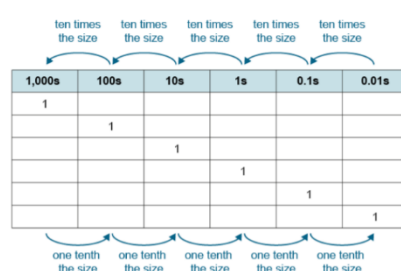
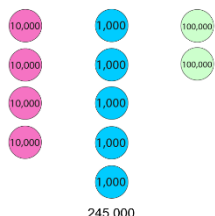
Place the recorded temperatures in order from smallest to largest.

Key representations:

1,000,000	2,000,000	3,000,000	4,000,000	5,000,000	6,000,000	7,000,000	8,000,000	9,000,000
100,000	200,000	300,000	400,000	500,000	600,000	700,000	800,000	900,000
10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000
1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000
100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9

Gattego chart

400 + 80 + 5 = 485



Millions			Thousands			Ones		
100 s	10s	1s	100 s	10s	1s	100 s	10s	1s
								1
							1	0
							1	0
					1	0	0	0
				1	0	0	0	0
			1	0	0	0	0	0
			1	0	0	0	0	0

