

Investigation

Martian numbers

Imagine that there are Martians! They have only one hand... and it has three fingers.

- Write the first thirty numbers first as Arabic numbers (normal numbers!) then as Roman numerals.
- Now we are going to write each of these as Martian numbers!

Martians only have 3 fingers so they count like this.

0	1	2
10	11	12
20	21	22
100	101	102
110	111	112
120	121	122
200	201	<i>and so on</i>

So the Martian way of writing four is 11.
The Martian way of writing ten is 101.
The Martian way of writing sixteen is 121.

- Try to write the next ten numbers. Remember you cannot write any digit above 2!
- What will happen when we get to the number after 222?

Arabic numbers	Roman numerals	Martian numbers
0		0
1	I	1
2	II	2
3	III	10
4	IV	11
...		

Compare the Arabic numbers, the Martian numbers and the Roman numerals.

What digits are missing from the Martian numbers?
What very important digit is missing from the Roman numerals?

Can you write the following numbers as Arabic numbers, as Roman numbers and as Martian numbers?

The day and month of your birthday.

James Bond's number

The number of children in your class

Think of some more special numbers to write in three different ways.

Challenge

Can you perform a Martian addition?

$$\begin{array}{r} 121 \\ + 122 \\ \hline \end{array}$$