

Diving into Mastery



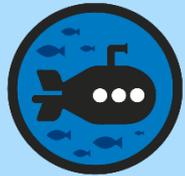
# Numbers to Ten Million

# Diving into Mastery Guidance for Educators

Each activity sheet is split into three sections, diving, deeper and deepest, which are represented by the following icons:



**Diving**



**Deeper**



**Deepest**

These carefully designed activities take your children through a learning journey, initially ensuring they are fluent with the key concept being taught; then applying this to a range of reasoning and problem-solving activities.

These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.

# Aim

- Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.



Find the missing values in these partitioned numbers.

$$600\ 000 + \boxed{80\ 000} + 5000 + 400 + \boxed{20} + 3 = 685\ 423$$

$$\boxed{1\ 000\ 000} + 500\ 000 + \boxed{70\ 000} + 200 + \boxed{60} + 9 = 1\ 570\ 269$$

$$8\ 000\ 000 + \boxed{600\ 000} + 200 + \boxed{4} = 8\ 600\ 204$$

$$4\ 000\ 000 + 100\ 000 + 900 + 1 = \boxed{4\ 100\ 901}$$

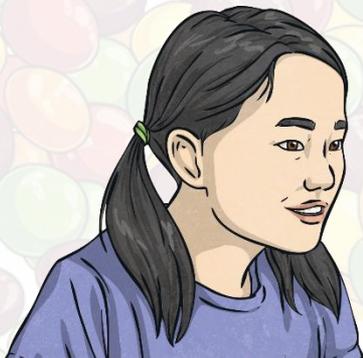
# Numbers to Ten Million

## Diving



Complete the table.

		Digits	Words
7 8 000 000 200	400 000 6000	<b>8 406 207</b>	<b>eight million, four hundred and six thousand, two hundred and seven</b>
<b>M HTh TTh Th H T O</b> ●●            ●●    ● ●●●    ●● ●●            ●●    ●●●●    ●● ●●            ●●    ●●●●    ●●		<b>6 042 730</b>	<b>six million, forty-two thousand, seven hundred and thirty</b>
300 000 2000 10	4 000 000 50 000 7	<b>4 352 017</b>	<b>four million, three hundred and fifty-two thousand and seventeen</b>
<b>M HTh TTh Th H T O</b> ●    ●●            ●●●●            ●● ●● ●    ●●            ●●●●            ●● ●●		<b>2 306 024</b>	<b>two million, three hundred and six thousand and twenty-four</b>



I have written five million, three hundred and seventy-five thousand and seven.

5 375 07

Can you explain the mistake Maya has made?

The number Maya has actually written is five hundred and thirty-seven thousand, five hundred and seven. This is because she has written the second 5 digit in the hundreds column, when it should actually be in the thousands column.

M	HTh	TTh	Th	H	T	O
	5	3	7	5	0	7

The second 5 digit should be in the thousand column with zeros in the hundreds and tens positions. The correct number would be:

M	HTh	TTh	Th	H	T	O
5	3	7	5	0	0	7

## Numbers to Ten Million

## Deeper



I have written the number 6 005 107.

*six hundred and five thousand,  
one hundred and seven*

Can you explain the mistake Benji has made?

Benji has read the six million as six hundred thousand.

The correct number is six million, five thousand, one hundred and seven.

M	HTh	TTh	Th	H	T	O
6	0	0	5	1	0	7



Explain how you can use place value to calculate the difference between each number. The first one has been done for you.

604 508	to	304 408	subtract 300 000 and 100 (300 100)
913 910	to	903 890	
3 167 295	to	2 967 275	
8 917 112	to	8 007 082	
7 345 606	to	6 945 005	



I'm thinking of a number.

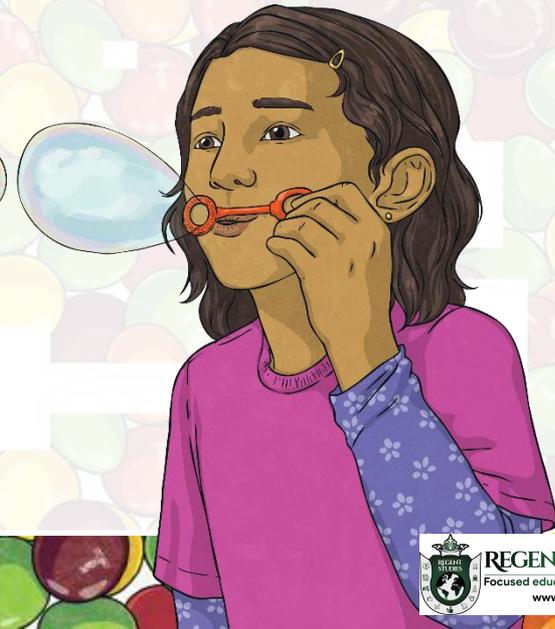
- The millions digit is the same as the ones digit.
- The hundreds digit is a multiple of four.
- The thousands digit is half of the hundreds digit.
- The thousands digit is half of the millions digit.
- The tens digit is  $1^2$ .
- The ones digit is  $2^3$ .
- The hundred thousands digit is half of the ten thousands digit.
- The hundred thousands digit is an odd number that is greater than one.

What number am I thinking of?

**8 364 818**

Can you say this number in words?

**eight million, three hundred and sixty-four thousand, eight hundred and eighteen**





Find as many different numbers as you can that fit all the following statements. The number is a six-digit number.

- The digit sum is 23.
- It has six thousands.
- The hundred thousands digit is odd.
- It has eight tens.
- It is an even number.

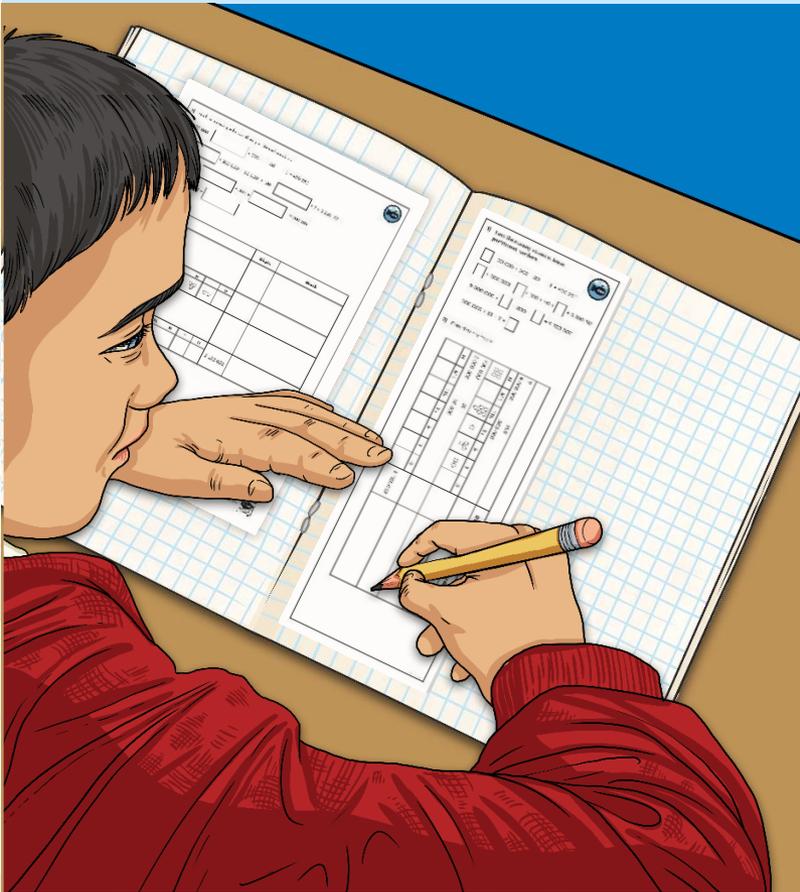
What are the largest and smallest answers you can find?

**The smallest number possible is 106 088.**

**The greatest number is 906 080.**

# Numbers to Ten Million

Dive in by completing your own activity!



1) a) **3 427 15**

Freya has written the number in expanded form.  
Can you explain the mistake?

\_\_\_\_\_

b) **nine million, six hundred and thirty two**

Jamil has written the number in expanded form.

\_\_\_\_\_

Jamil has written the number in expanded form.  
Explain how you can use place value for you.

722 407	to	702 300
503 810	to	503 700
2 567 305	to	1 967 000
9 017 112	to	8 987 000
5 345 808	to	4 705 000

1) Find the missing values in these partitioned numbers.

$$400\,000 + \boxed{\phantom{000}} + 200 + 80 + 1 = 430\,281$$

$$\boxed{\phantom{000000}} + 300\,000 + 60\,000 + 100 + \boxed{\phantom{000}} + 7 = 5\,360\,147$$

$$9\,000\,000 + \boxed{\phantom{000000}} + 800 + \boxed{\phantom{000000}} = 9\,700\,807$$

$$300\,000 + 10 + 7 = \boxed{\phantom{000000}}$$

2) Complete the table.

		Digits	Words
9			
500			
9 000 000			
300 000			
M	HTh	TTh	Ts
H	T	O	
700 000			
50			
2 000 000			
60 000			
M	HTh	TTh	Ts
H	T	O	
			1 108 052



# Need Planning to Complement this Resource?

## National Curriculum Aim

Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.

**Number Puzzles**  
Look at this number:  
4 227 160

- Which digit is in the millions place?
- If the number was divided by 10, which digit would be in the thousands place?
- If you added 10 000 to the original number, what would the new number be?
- If the original number was multiplied by 10, which digit would be in the millions place?

**Naming Numbers**

**Numbers Up to Ten Million**

**Number and Place Value: Naming Numbers**

**Football Transfers**

**Identifying Digits**  
Which of the underlined digits is bigger?  
82 810    943 274

**Place Value Puzzles**

**Place Value**  
5 937 164

**Number and Place Value: Place Value Puzzles**

**Place Value Number Guess**

