

1) 124 025

2)

HTh	TTh	Th	H	T	O
● ●		●● ●	●●● ●●	●● ●	
●●● ●●● ●●●	●● ●●			●●● ●●	●



3) Accept any two missing parts that total 2800. For example:

2000 and 800 or 1000 and 1800

4) a) 30 000

b) 300 000

c) 3000

d) 3

e) 30

f) 300

1) No because there should be zero placeholders (and no counters) in the ten thousands and hundreds columns. There should be three counters in the thousands column, four counters in the tens column and one counter in the ones column.



2) Zeke is incorrect. The missing number in the first statement is 8000 but the missing number in the second statement is 80 000.

3)

a)

	hundred thousands digit is odd	hundred thousands digit is even
ten thousands digit is odd	573 602 101 004 795 032	816 502 795 032 870 517
ten thousands digit is even	428 608 701 923 101 004	870 517 288 041 428 608

b) Open-ended question so answers will vary.

1) There are many possible answers. For example:

501 110, 530 000, 222 002, 100 340

2)

a) 970 000, 860 000, 750 000, 640 000, 530 000, 420 000, 310 000, 201 000, 200 100, 200 010, 200 001

3) Open-ended question so answers will vary.



Numbers to 1 000 000



1) What number is represented on the place value chart?

Thousands			Ones		
HTh	TTh	Th	H	T	O
●	● ●	● ● ● ●		● ●	● ● ● ● ●

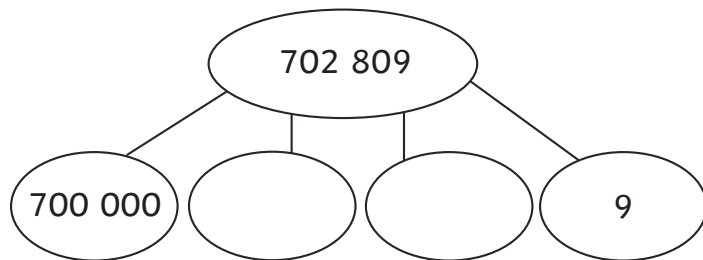
2) Represent these numbers with counters on the place value chart.

a) two hundred and three thousand, five hundred and thirty

HTh	TTh	Th	H	T	O

b) nine hundred and sixty thousand and fifty-one

3) Complete the part-whole model.



4) What is the value of the digit 3 in each of these numbers?

a) 437 902 _____

b) 302 791 _____

c) 803 102 _____

d) 980 123 _____

e) 201 530 _____

f) 400 368 _____

Numbers to 1 000 000



1) Is the number 703 041 represented correctly on the place value chart?
Explain your reasoning.

Thousands			Ones		
HTh	TTh	Th	H	T	O
●●●●●	●●●		●●●●	●	

2) Is Zeke correct? Explain your reasoning.

Zeke



I think the missing number in both statements is 8000.

$$7 + 300 + \underline{\hspace{2cm}} + 20\,000 + 50 + 400\,000 = 428\,357$$

$$500 + 9 + \underline{\hspace{2cm}} + 800\,000 + 3000 = 883\,509$$

3) a) Circle the numbers that have been sorted incorrectly on the Carroll diagram and then write them in the correct places.

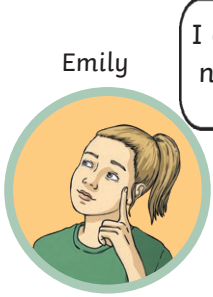
	hundred thousands digit is odd	hundred thousands digit is even
ten thousands digit is odd	573 602 101 004	816 502 795 032
ten thousands digit is even	428 608 701 923	870 517 288 041

b) Choose three of your own 6-digit numbers and write them in the correct place on the Carroll diagram.

Numbers to 1 000 000



1) Find four possible numbers that Emily could be thinking of.



Emily

I am thinking of a 6-digit number. The digit sum is 8.

2) Find all of the numbers that match all of these statements.

The number has six digits.

The difference between the hundred thousands digit and the ten thousands digit is 2.

The hundred thousands digit is the greatest digit.

There are four zeros as placeholders.

3) Four children each think of a 6-digit number and write it on a sticky note.

307 303

809 707

609 505

109 457

Choose one of the numbers and partition it in four different ways using different representations.

Diving into Mastery



100

1 000 000

10 000

1 000 000

100

1 000 000

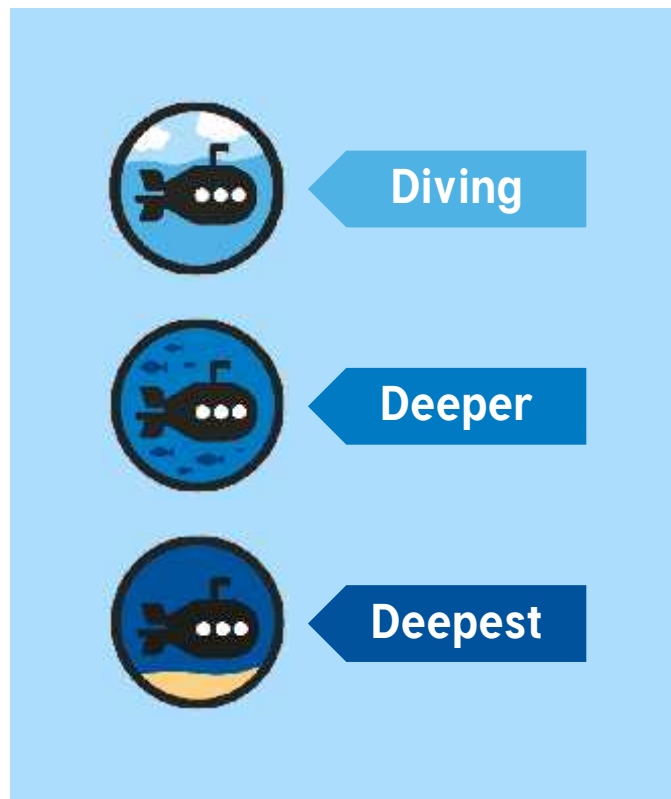
10



Numbers to 1 000 000

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:



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 to at least 1 000 000 and determine the value of each digit.





Write the number represented on each place value chart.

a)

HTh	TTh	Th	H	T	O
1	4		4	1	6

b)

HTh	TTh	Th	H	T	O
3	5	1	1	2	4

c)

HTh	TTh	Th	H	T	O
4	1	3	1		1

d)

HTh	TTh	Th	H	T	O
3	1		4	2	2



What is the value of the bold, underlined digit in each number?

657 902

527 391

806 268

920 705

825 120





Zeke

I think the missing number in both statements is 90 000.

Is Zeke correct? Explain your reasoning.

$$7 + 100 + 6000 + \underline{\hspace{2cm}} + 50 + 400\,000 = 496\,157$$

$$500 + 9 + \underline{\hspace{2cm}} + 6000 = 960\,509$$



Which numbers have been sorted incorrectly on the Carroll diagram? Where should they go?

	hundred thousands digit is odd	hundred thousands digit is even
ten thousands digit is odd	<u>670 517</u> 573 102	816 502 <u>731 923</u>
ten thousands digit is even	<u>422 601</u> 965 032	288 041 <u>901 004</u>



Here are four 6-digit numbers written on sticky notes.

697 391

903 286

400 568

294 050

Choose one of the numbers and partition it in four different ways using different representations.

You could use part-whole models, bar models or place value charts.

Numbers to 1 000 000

Dive in by completing your own activity!



Numbers to 1 000 000

1) What number is represented on the place value chart?

Thousands		
HTk	Tk	Th
●●●	●●●	●●●

2) Represent these numbers:

a) two hundred and three and thirty

b) nine hundred and six

3) Complete the part-whole model:

4) What is the value of:

a) 437 902 _____

b) 312 791 _____

c) 803 102 _____

d) 380 125 _____

e) 201 510 _____

f) 403 168 _____

Numbers to 1 000 000

1) What number is represented on the place value chart?

Thousands				Hundreds		
HTk	Tk	Th	H	T	C	
●●●	●●●	●●●	●●	●●	●●	

2) Represent these numbers with counters on the place value chart:

a) two hundred and three thousand, five hundred and thirty

b) nine hundred and sixty thousand and fifty-one

3) Complete the part-whole model:



4) What is the value of the digit 3 in each of these numbers?

a) 451 902 _____

b) 302 791 _____

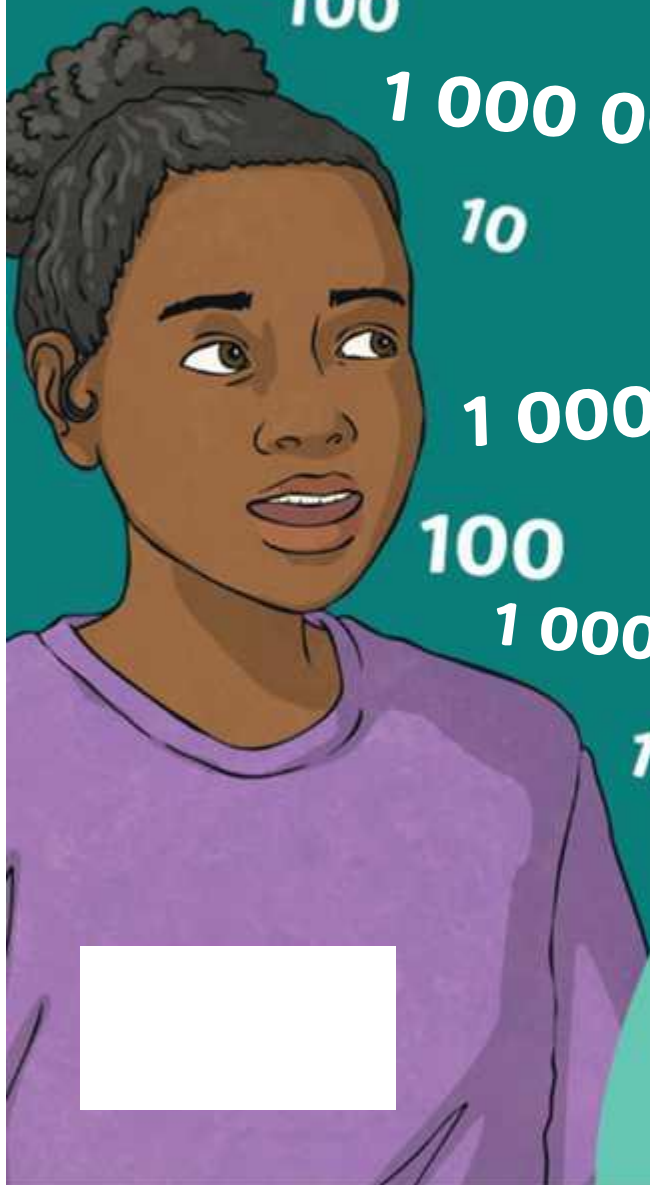
c) 803 102 _____

d) 380 123 _____

e) 201 530 _____

f) 400 374 _____

Diving into Mastery



100

1 000 000

10

1 000 000

100

1 000 000

10



Numbers to 1 000 000



1) What number is represented on the place value chart?

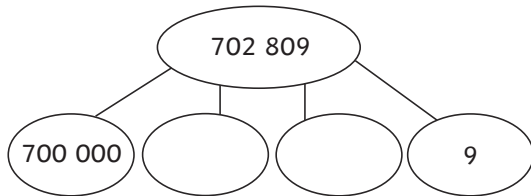
Thousands			Ones		
HTh	TTh	Th	H	T	O
●	● ●	● ● ● ●		● ●	● ● ● ● ●

2) Represent these numbers with counters on the place value chart.

- a) two hundred and three thousand, five hundred and thirty
- b) nine hundred and sixty thousand and fifty-one

HTh	TTh	Th	H	T	O

3) Complete the part-whole model.



4) What is the value of the digit 3 in each of these numbers?

- a) 437 902
- b) 302 791
- c) 803 102
- d) 980 123
- e) 201 530
- f) 400 368

Numbers to 1 000 000



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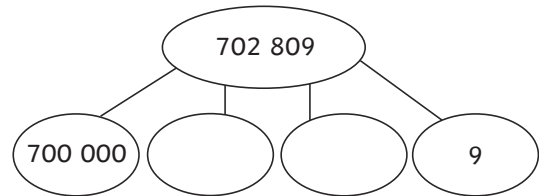
Thousands			Ones		
HTh	TTh	Th	H	T	O
●	● ●	● ● ● ●		● ●	● ● ● ● ●

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Numbers to 1 000 000

- 1) Is the number 703 041 represented correctly on the place value chart? Explain your reasoning.

Thousands			Ones		
HTh	TTh	Th	H	T	O
● ● ● ● ● ● ● ● ● ●	● ● ● ● ● ● ● ● ● ●		● ● ● ● ● ● ● ● ● ●	● ● ● ● ● ● ● ● ● ●	

- 2) Is Zeke correct? Explain your reasoning.

Zeke

I think the missing number in both statements is 8000.



$$7 + 300 + \underline{\quad} + 20\,000 + 50 + 400\,000 = 428\,357$$

$$500 + 9 + \underline{\quad} + 800\,000 + 3000 = 883\,509$$

- 3) a) Circle the numbers that have been sorted incorrectly on the Carroll diagram and then write them in the correct places.

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ten thousands digit is even	428 608 701 923	870 517 288 041

- b) Choose three of your own 6-digit numbers and write them in the correct place on the Carroll diagram.

Numbers to 1 000 000

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Thousands			Ones		
HTh	TTh	Th	H	T	O
● ● ● ● ● ● ● ● ● ●	● ● ● ● ● ● ● ● ● ●		● ● ● ● ● ● ● ● ● ●	● ● ● ● ● ● ● ● ● ●	

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Number Line to 1 000 000



- 1) Find four possible numbers that Emily could be thinking of.

Emily



I am thinking of a 6-digit number. The digit sum is 8.

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The number has six digits.

The hundred thousands digit is the greatest digit.

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There are four zeros as placeholders.

- 3) Four children each think of a 6-digit number and write it on a sticky note.

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Number Line to 1 000 000



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