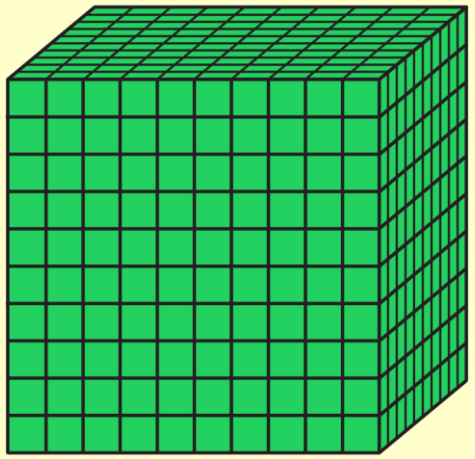
- This week, the children are going to be revisiting learning from the Autumn term to develop their fluency, reasoning and problem solving skills. Some of the learning objectives covered may be familiar to the children.
- Revisiting learning is beneficial as it deepens the children's understanding and increases their confidence. In addition, it means they are able to continue practicing essential mathematical skills.
- Similarly to previous weeks, the children may choose to work though all of the slides, select specific slides or just complete the independent activities.

Place Value

Day 1

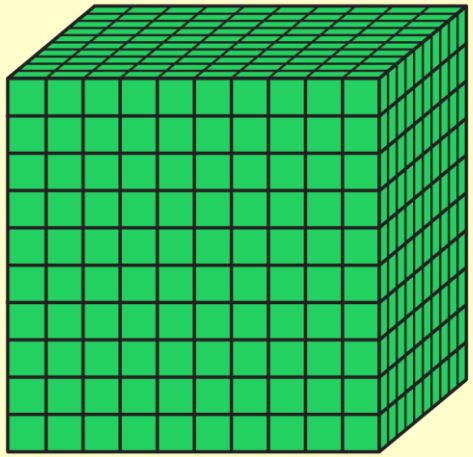
Starter

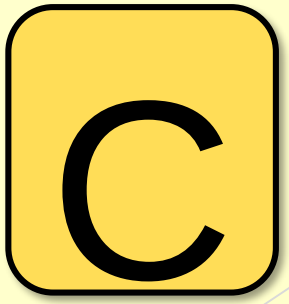
Which one doesn't belong?



Starter - ANSWERS

The Base 10 cube does not belong as it has a value of 1,000, whereas the place value counter is worth 100, C is the Roman Numeral for 100 and £1 = 100p.





Date: Day 1

LO: To explore numbers up to 10,000.

Key Vocabulary

Date: Day 1

LO: To explore numbers up to 10,000.

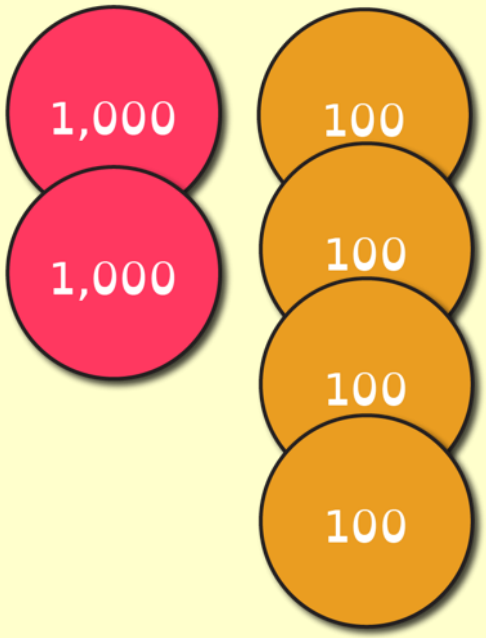
Success Criteria

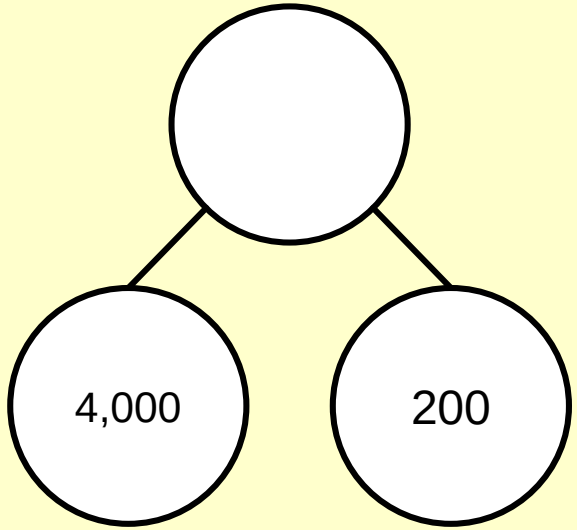
I can use concrete and pictorial representations for numbers up to 10,000.

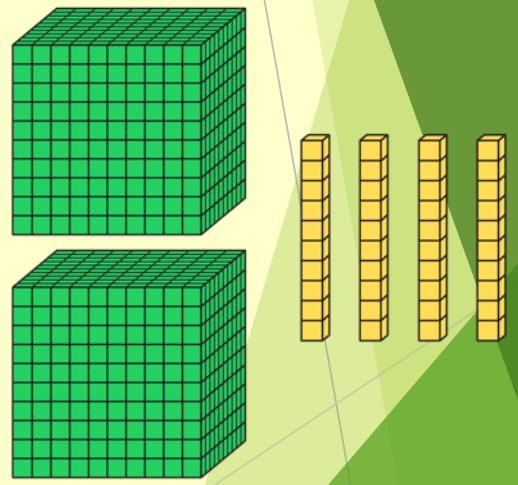
I can use reasoning to explain my responses when performing addition and subtraction of 10s, 100s and 1000s with numbers of values up to 10,000.

Descriptive Doing

Match the representation to the correct number.





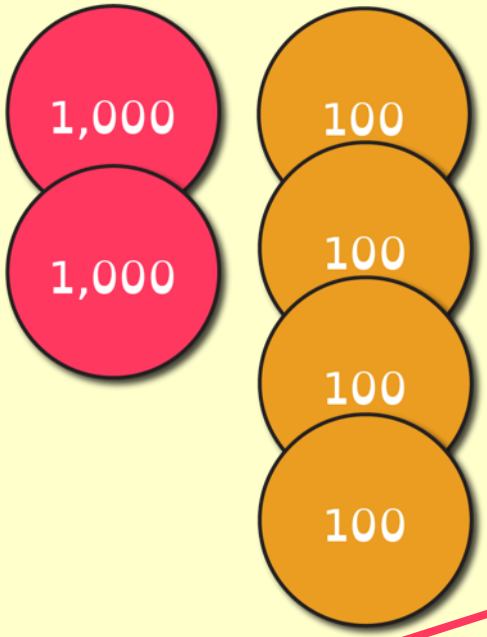


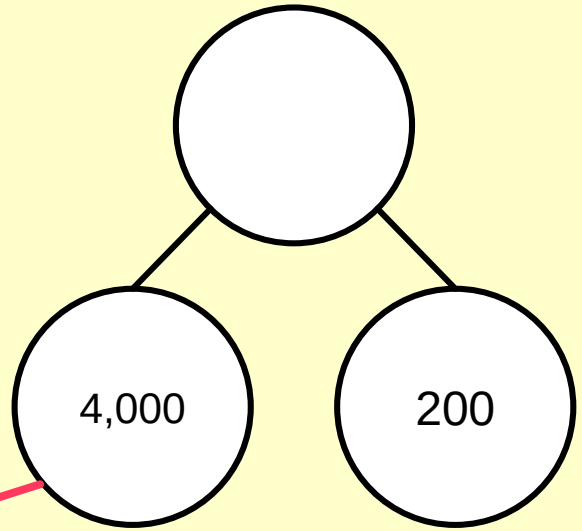
4,200

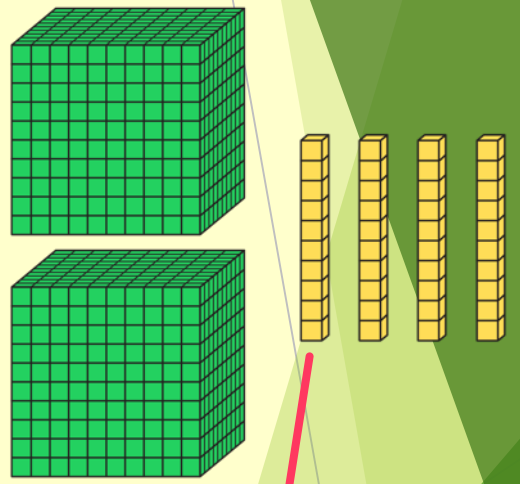
2,400

2,040

Descriptive Doing - ANSWERS







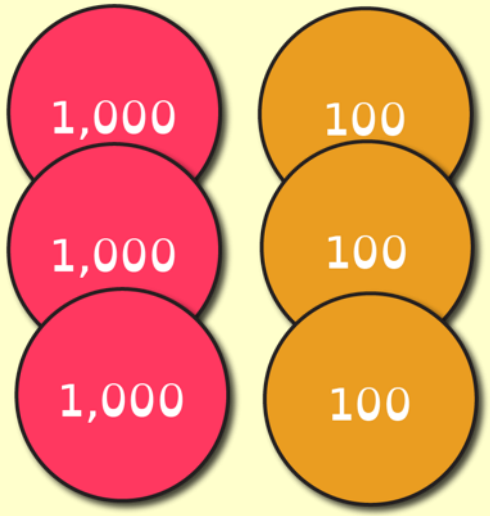
4,200

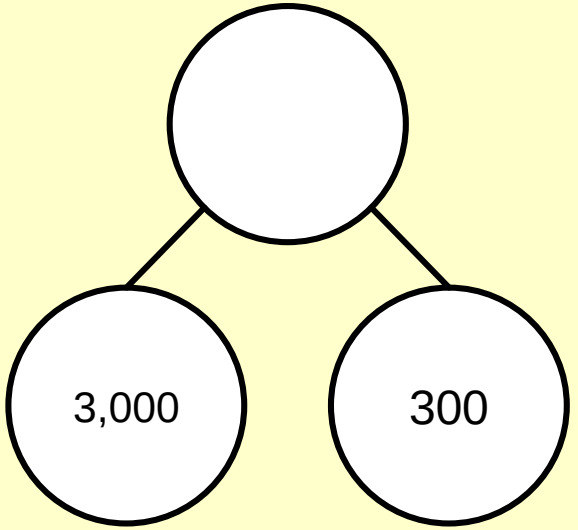
2,400

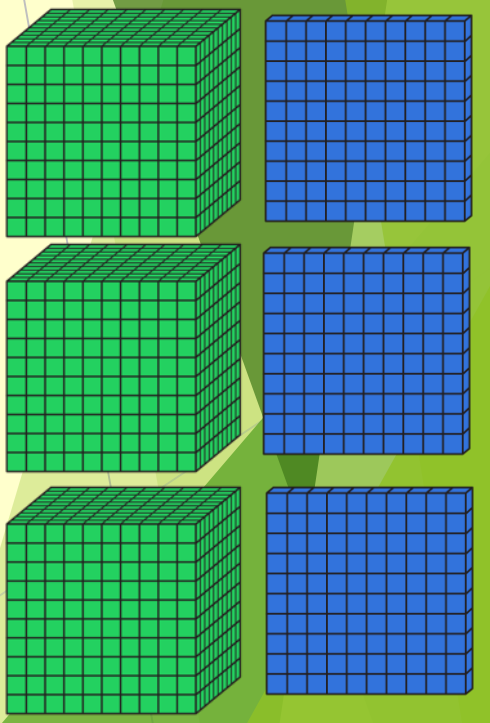
2,040

Descriptive Doing

Which one doesn't belong? Explain your answer.

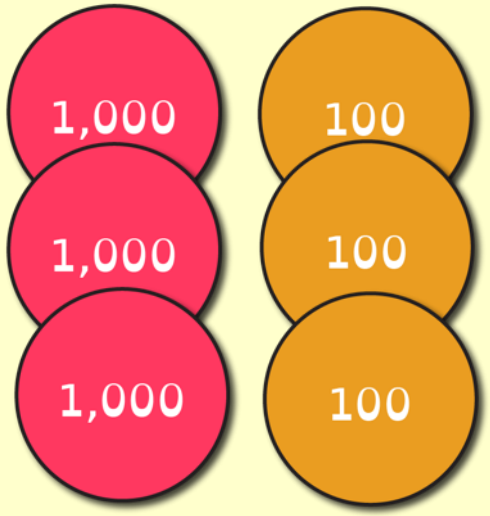


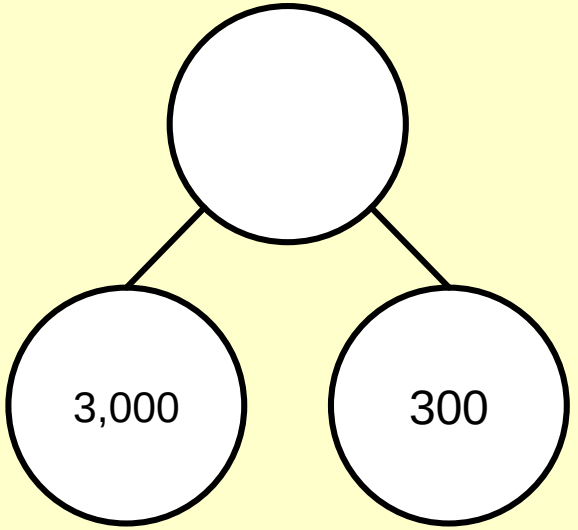


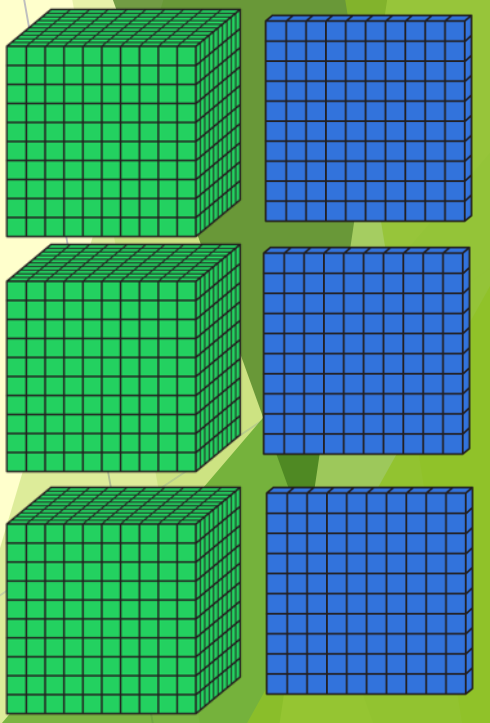


Descriptive Doing - ANSWERS

The number line doesn't belong.
It shows a number greater than 3,300.







Descriptive Doing

Complete the tables in your book.

	+ 10	+ 100	+ 1,000
1,001	1,011		
1,100			2,100
		1,211	

	- 10	- 100	- 1,000
9,009			8,009
9,900		9,800	
			8,999

Descriptive Doing - ANSWERS

	+ 10	+ 100	+ 1,000
1,001	1,011	1,101	2,001
1,100	1,110	1,200	2,100
1,111	1,121	1,211	2,111

	- 10	- 100	- 1,000
9,009	8,999	8,909	8,009
9,900	9,890	9,800	8,900
9,999	9,989	9,899	8,999

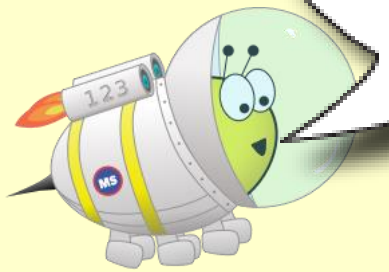
Reflective Doing

Haroon has made five numbers.
Each number is made up of the digits 6, 7, 8 and 9.

He has changed each number into a letter.
Figure out each number.

a) ww,xyz
b) xw,zyz
c) zy,www
d) yy,yyy
e) wy,wzx

1. The first number is the largest number.
2. The fourth number has a digital total of 35.
3. The third number is the smallest number.



Reflective Doing - ANSWERS

a) 99,876
b) 89,676
c) 67,999
d) 77,777
e) 97,968

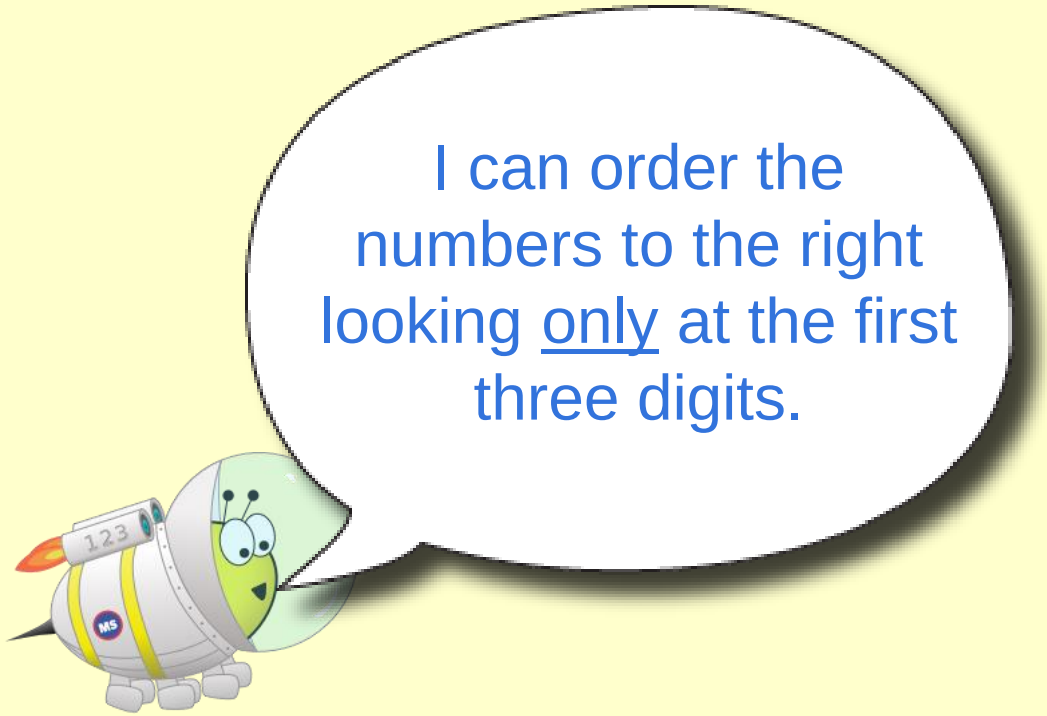
Choose your challenge

Challenges can be found on the document named ‘Maths Challenges Day 1’.

Choose an appropriate challenge OR work through green, orange and red.

Answers can be found at the bottom of the document.

Reflection Time



11,411

14,114

41,111

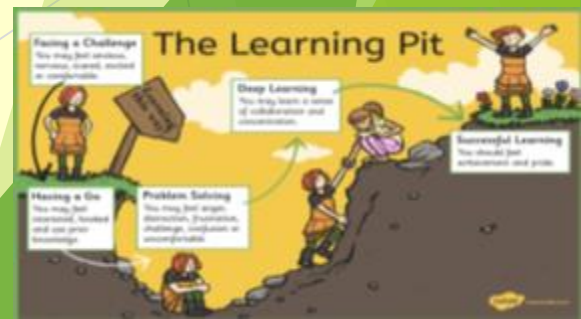
11,414

Do you agree with Astrobee's statement?

Explain your answer.

Reflection Time - ANSWERS

Although it helps to start ordering the numbers by looking at the first three digits, we have two numbers that share the same first three digits: 11,411 and 11,414. So, we need to look at all five digits to order these numbers!

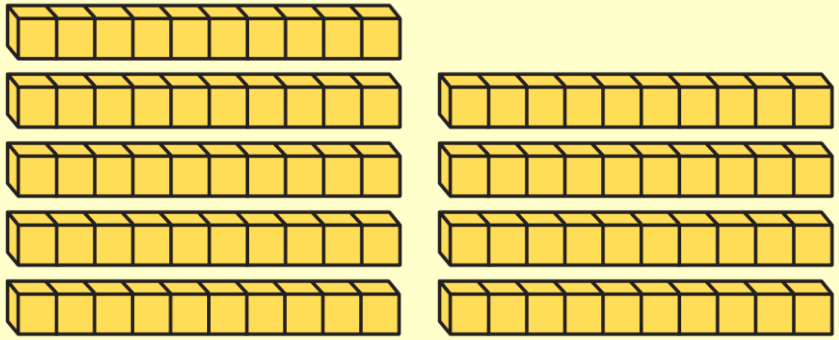


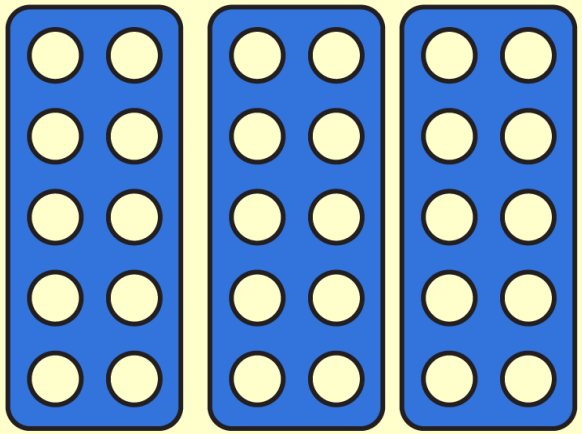
Place Value

Day 2

Starter

Which one doesn't belong?





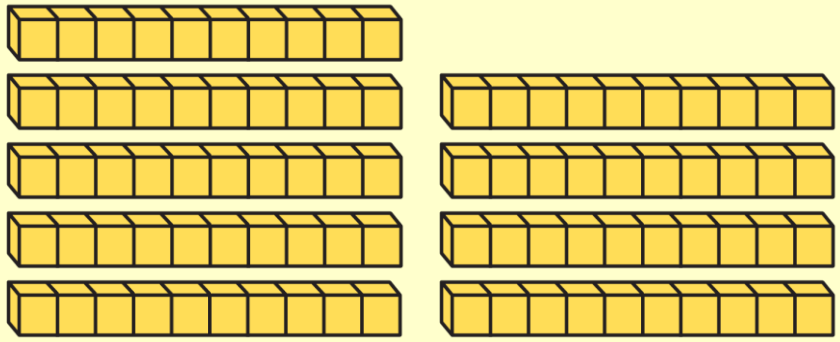
CXI

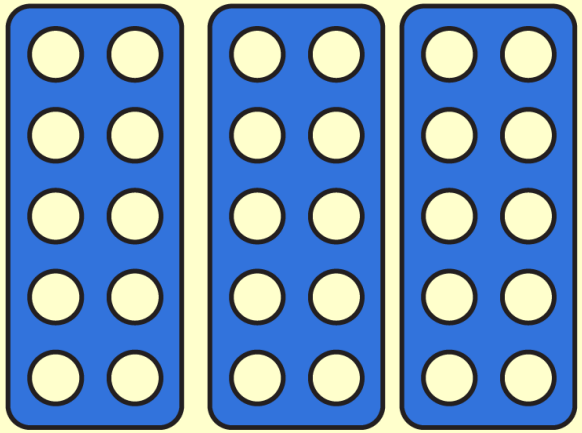
100

1

Starter - ANSWERS

The Numicon Shape doesn't belong as shows 30.
The other representations all round to 100 to the nearest 100.





CXI

100

1

Date: Day 2

LO: To round to the nearest 10, 100 and 1000.

Key Vocabulary

Date: Day 2

LO: To round to the nearest 10, 100 and 1000.

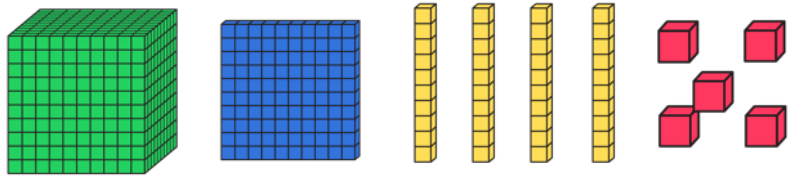
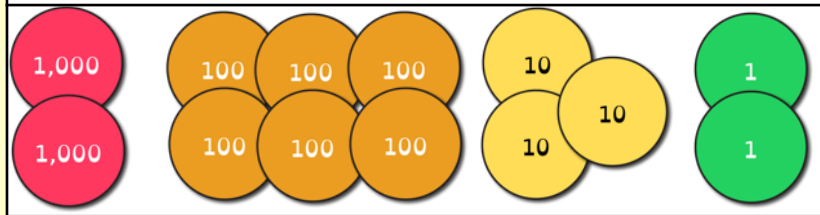
Success Criteria

I can use my knowledge of rounding to the nearest 10 and 100 to round four-digit numbers to the nearest 1000.

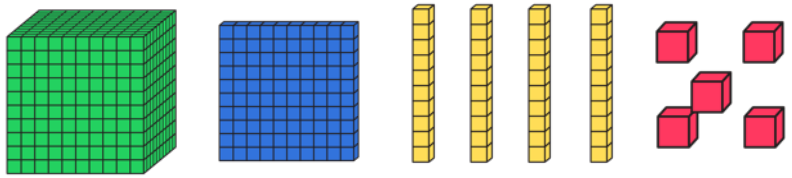
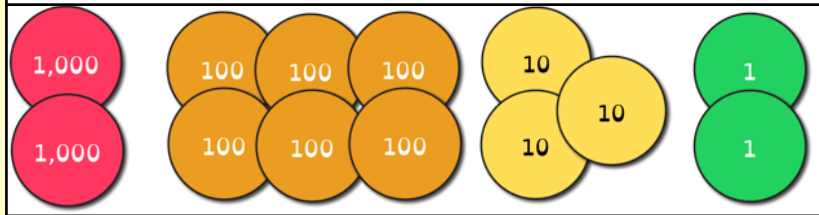
I can explain my reasoning.

Descriptive Doing

Complete the table in your book.

starting number	nearest 10	nearest 100	nearest 1,000
			
			
four thousands, nine hundreds, one ten and five ones			

Descriptive Doing - ANSWERS

starting number	nearest 10	nearest 100	nearest 1,000
	1,150	1,100	1,000
	2,630	2,600	3,000
four thousands, nine hundreds, one ten and five ones	4,920	4,900	5,000

Descriptive Doing

Can you think of 5 numbers that round to the numbers below to the nearest 100.

200	8,500	9,000

Descriptive Doing - ANSWERS

- 200: Possibilities include all numbers (inclusive) between 150 to 249.
- 8,500: Possibilities include all numbers (inclusive) between 8,450 to 8,549.
- 9,000: Possibilities include all numbers (inclusive) between 8,950 to 9,049.

Descriptive Teaching

Complete the table in your book.

starting number	nearest 10	nearest 100	nearest 1,000
CDLXXXVI			
8,945			
9,456			

Descriptive Teaching - ANSWERS

starting number	nearest 10	nearest 100	nearest 1,000
CDLXXXVI	490	500	0
8,945	8,950	8,900	9,000
9,456	9,460	9,500	9,000

Reflective Doing

Use the clues below to find the mystery number.

- Rounded to the nearest 10, the number is 7,450.
- Rounded to the nearest 100, the number is 7,400.
- Rounded to the nearest 1,000, the number is 7,000.

Is there more than one possible mystery number? Explain your answer.

Reflective Doing – ANSWERS

Numbers that round to 7,450 to the nearest ten include (inclusive) 7,445 to 7,454; however, to round to 7,400 to the nearest hundred the number must be below 7,450 (a similar rule applies if it is to round down to 7,000 too).
So the mystery number could be 7,445, 7,446, 7,447, 7,448 or 7,449.

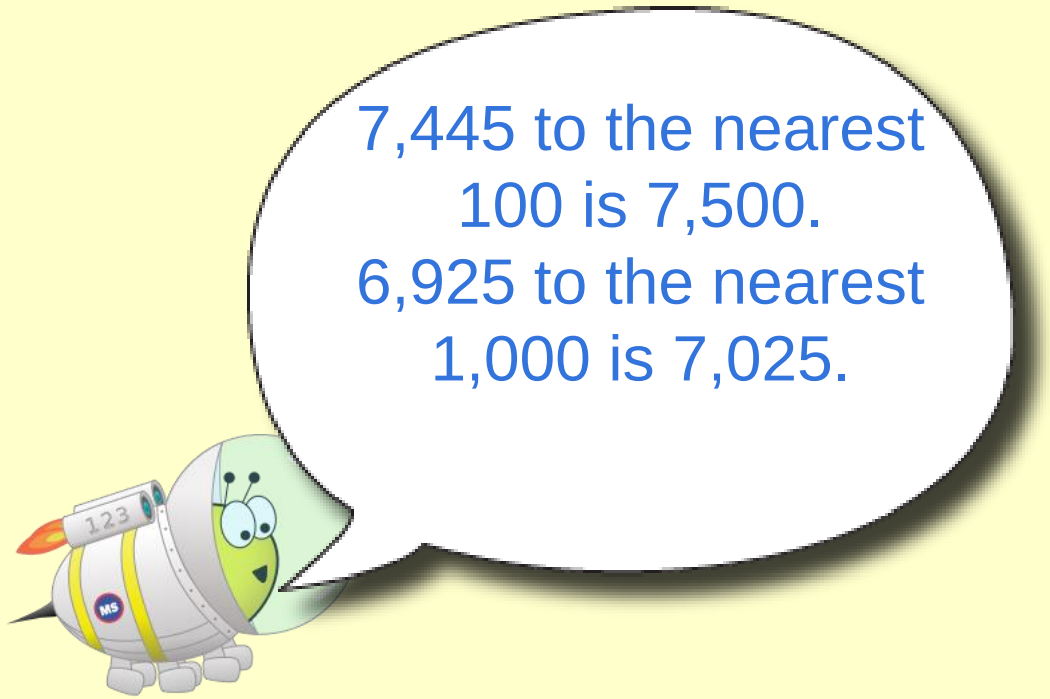
Choose your challenge

Challenges can be found on the document named ‘Maths Challenges Day 2’.

Choose an appropriate challenge OR work through green, orange and red.

Answers can be found at the bottom of the document.

Reflection Time



Can you spot Astrobee's mistakes?

What would you do to correct the mistakes?

Reflection Time - ANSWERS

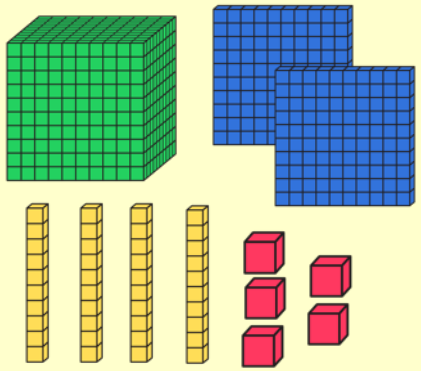
7,445 should round down to 7,400 as the digit is less than 5 in the 10s place.
6,925 should round up to the nearest 1,000, but it should be expressed as 7,000.

Place Value

Day 3

Starter

Which one doesn't belong?

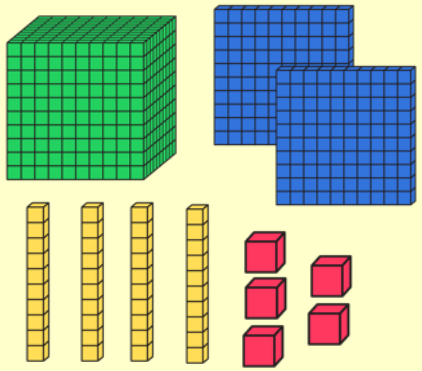


one thousand,
two hundred and forty-five

MCCXXXIV

Starter - ANSWERS

The Roman Numerals representation doesn't belong as it represents 1,234, whereas the Base 10 pieces, place value counters and worded form all display the number 1,245. To belong, the Roman Numerals should be MCCXLV.



one thousand,
two hundred and forty-five

MCCXXXIV

Date: Day 3

LO: To read, represent and write numbers up to 100,000.

Key Vocabulary

Date: Day 3

LO: To read, represent and write numbers up to 100,000.

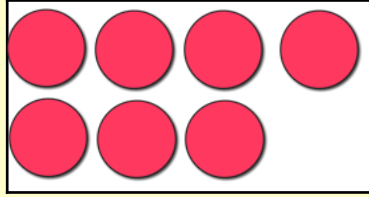
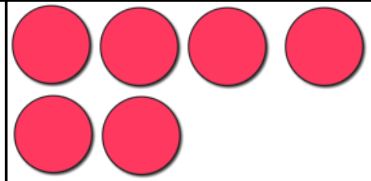
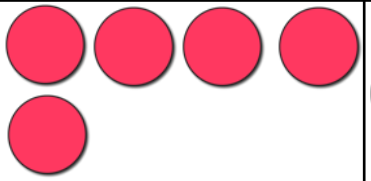
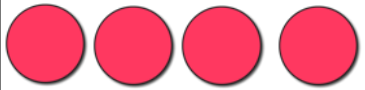
Success Criteria

I can read, represent and write numbers up to 100,000, including representations on number lines.

I can explain my reasoning.

Descriptive Doing

A number is represented in the place value chart below.

10,000s	1,000s	100s	10s	1s
				

Writing in numerals and words…

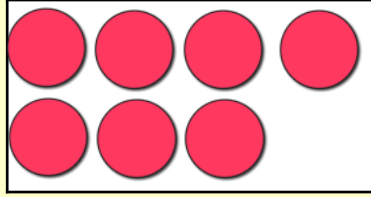
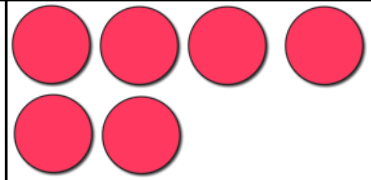
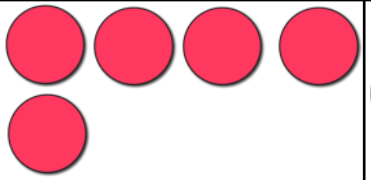
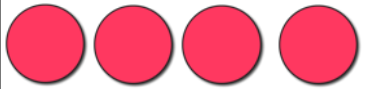
What is the number +1?

What is the number -10?

What is the number +1,000?

What is the number -10,000?

Descriptive Doing - ANSWERS

10,000s	1,000s	100s	10s	1s
				

What is the number +1? 76,544 – seventy-six thousand, five hundred and forty-four

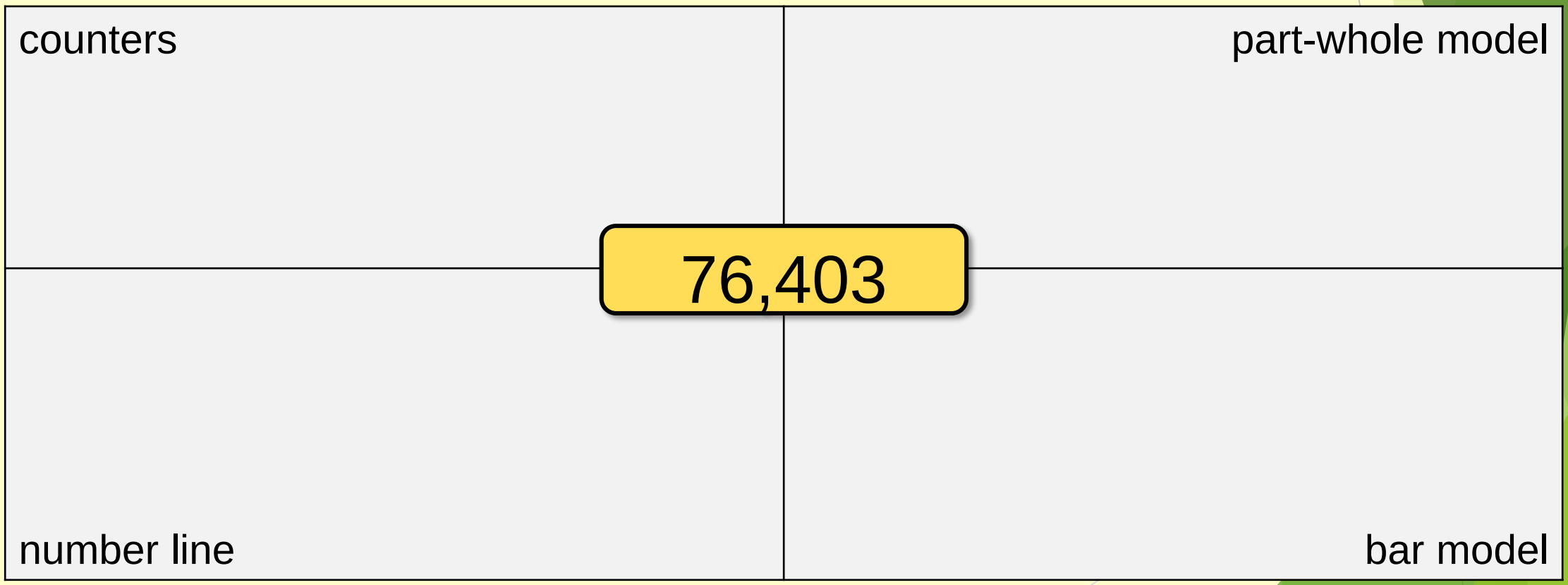
What is the number -10? 76,533 – seventy-six thousand, five hundred and thirty-three

What is the number +1,000? 77,543 - seventy-seven thousand, five hundred and forty-three

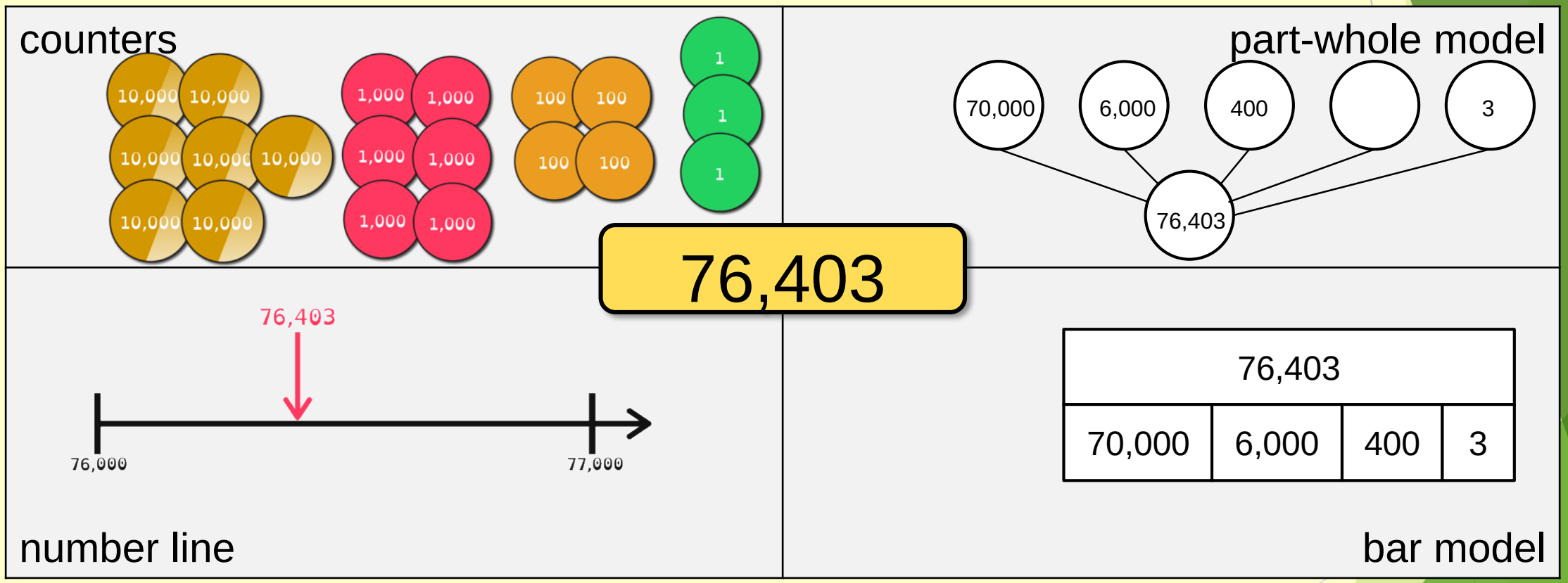
What is the number -10,000? 66,543- sixty-six thousand, five hundred and forty-three

Descriptive Doing

Complete the grid in your book.



Descriptive Doing - ANSWERS



Descriptive Doing

45,000 = 40,000 + ☐

☐ = 20,000 + 1,500 + 250

64,370 = ☐ + 2,200 + ☐

Descriptive Doing - ANSWERS

45,000 = 40,000 + 5,000

31,750 = 30,000 + 1,500 + 250

64,370 = 62,000 + 2,200 + 170

Reflective Doing

I have been counting backward and forwards from 0 in 25s.
Underline the numbers I would say out loud.

75	-2,775	-125
777	22,250	55
-4,040	1,225	5,750

Explain why I wouldn't say the non-underlined numbers.

Reflective Doing - ANSWERS

75	-2,775	-125
777	22,250	55
-4,040	1,225	5,750

Multiples of 25 have the digit combinations of 00, 25, 50 or 75 in the tens and ones places. The red numbers above have other digit combinations.

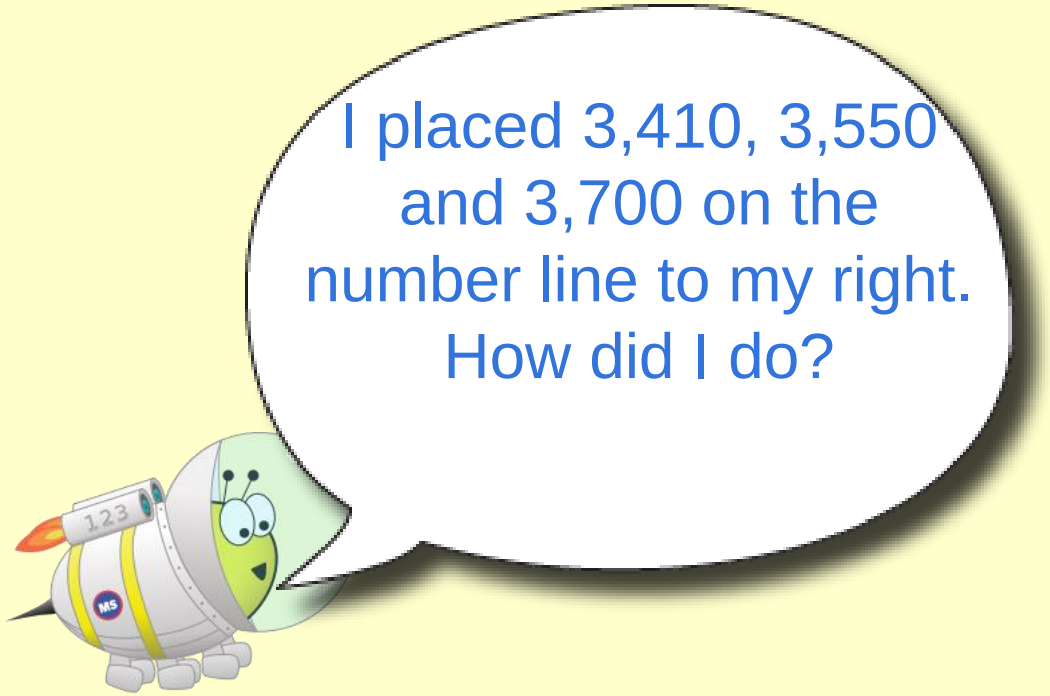
Choose your challenge

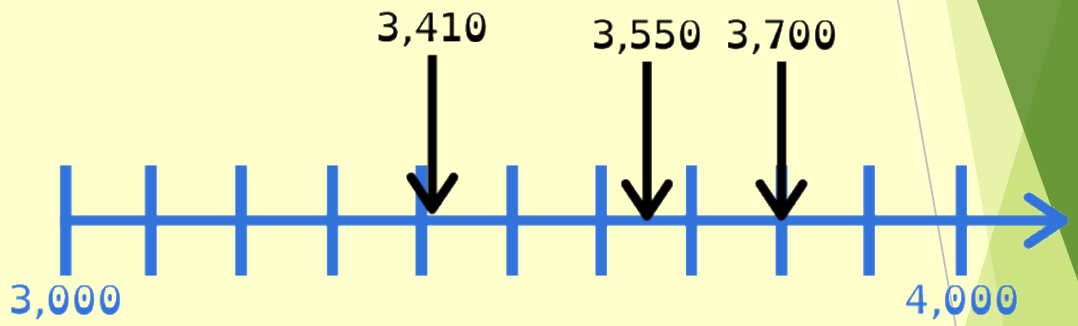
Challenges can be found on the document named ‘Maths Challenges Day 3’.

Choose an appropriate challenge OR work through green, orange and red.

Answers can be found at the bottom of the document.

Reflection Time

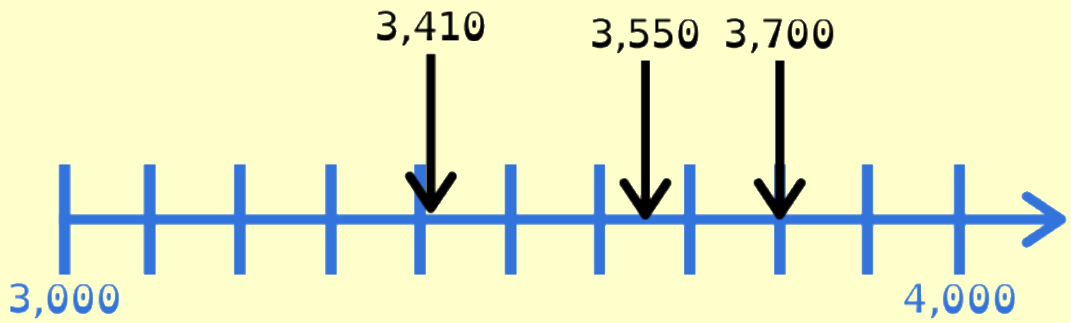




Can you spot Astrobee's mistakes?

What would you do to correct the mistakes?

Reflection Time - ANSWERS



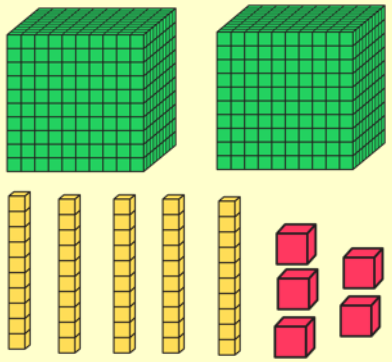
Astrobee has placed 3,550 at the point where 3,650 would be, couting on another 150 to place what is thought to be 3,700 but is in truth 3,800. 3,410 is correct.

Place Value

Day 4

Starter

Which one doesn't belong?

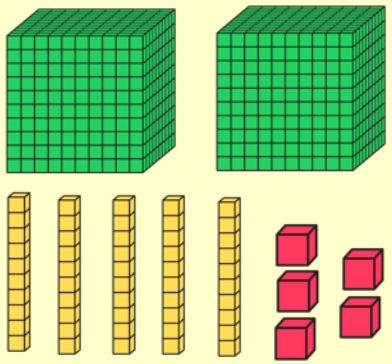


ten thousand,
two hundred and forty-five

CCLII

Starter - ANSWERS

The Base 10 pieces don't belong as all the other representations round to a multiple of 50 to the nearest 10, but the Base 10 shows 2,055 which rounds to 2,060.



ten thousand,
two hundred and forty-five

CCLII

Date: Day 4

LO: To round numbers within 100,000 to the nearest 10, 100, 1000 and 10,000.

Key Vocabulary

Date: Day 4

LO: To round numbers within 100,000 to the nearest 10, 100, 1000 and 10,000.

Success Criteria

I can round numbers up to 100,000 to the nearest 10, 100, 1000 and 10,000.

I can explain my reasoning.

Descriptive Doing

Round the following numbers.

23,456

nearest 10:
nearest 100:
nearest 1,000:
nearest 10,000:

65,432

nearest 10:
nearest 100:
nearest 1,000:
nearest 10,000:

56,342

nearest 10:
nearest 100:
nearest 1,000:
nearest 10,000:

Descriptive Doing - ANSWERS

23,456

nearest 10: 23,460
nearest 100: 23,500
nearest 1,000: 23,000
nearest 10,000: 20,000

65,432

nearest 10: 65,430
nearest 100: 65,400
nearest 1,000: 65,000
nearest 10,000: 70,000

56,342

nearest 10: 56,340
nearest 100: 56,300
nearest 1,000: 56,000
nearest 10,000: 60,000

Descriptive Doing

Complete the table in your book.

nearest 100	starting number	nearest 1,000
	76,543	
	34,567	
	87,654	
	45,678	
	58,467	
	37,645	

Descriptive Doing - ANSWERS

nearest 100	starting number	nearest 1,000
76,500	76,543	77,000
34,600	34,567	35,000
87,700	87,654	88,000
45,700	45,678	46,000
58,500	58,467	58,000
37,600	37,645	38,000

Reflective Doing

Round 19,998 to the nearest 10,000

Round 19,998 to the nearest 10.

What do you notice?

Can you think of other numbers that would have the same result?

Reflective Doing - ANSWERS

19,998 rounds to 20,000 to the nearest 10 and to the nearest 10,000 too.
Other numbers that do the same include 29,995, 39,999, 49,996…
It also works for rounding down. For example, 20,002 rounds down to 20,000 to the nearest 10 and to the nearest 10,000.

Reflective Doing

One five-digit number has a value of 5 more than another five-digit number.

When rounded to the nearest 10,000 the numbers have a difference of 10,000.

What might the two numbers be?
Can you think of multiple possibilities?

Reflective Doing - ANSWERS

Examples include: 24,999 and 25,004; or 34,995 and 35,000…

Any set of two numbers that have a difference of five with the first having the digit combination _4,99_ and the other having the digit combination _5,00_.

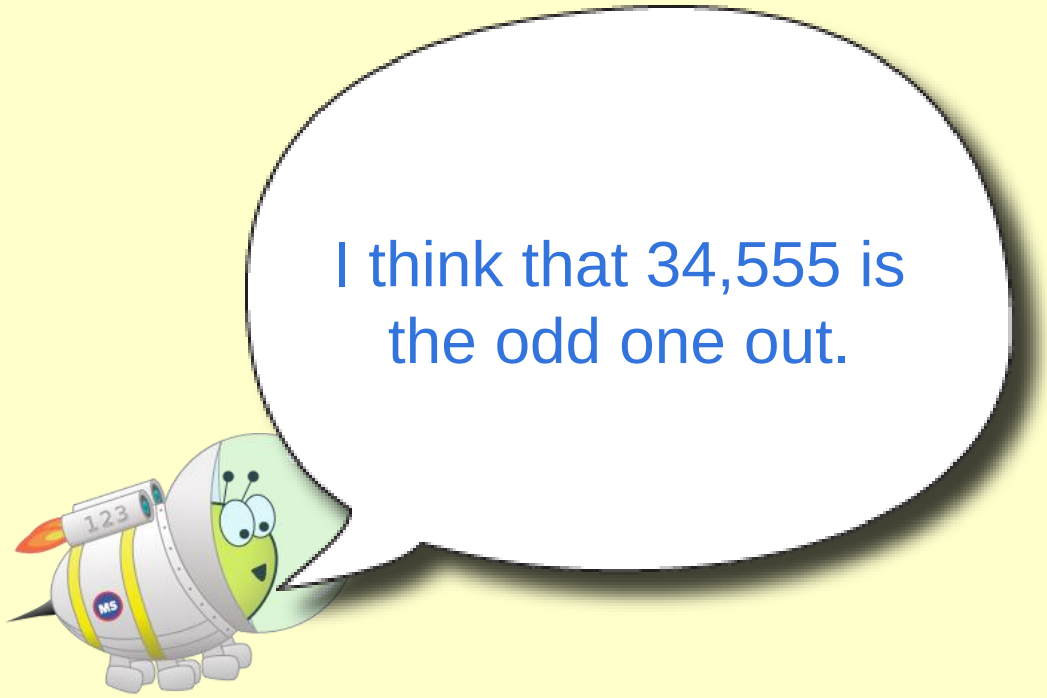
Choose your challenge

Challenges can be found on the document named ‘Maths Challenges Day 4’.

Choose an appropriate challenge OR work through green, orange and red.

Answers can be found at the bottom of the document.

Reflection Time



79,997

34,555

40,004

99,999

Astrobee is correct.

Explain why.

Reflection Time - ANSWERS

34,555 is the odd one out as it is the only number that doesn't round to the same 10, 100, 1,000 and 10,000 when it is rounded. For example, it rounds to 34,560 to the nearest 10, 34,600 to the nearest 100 and 30,000 to the nearest 10,000.

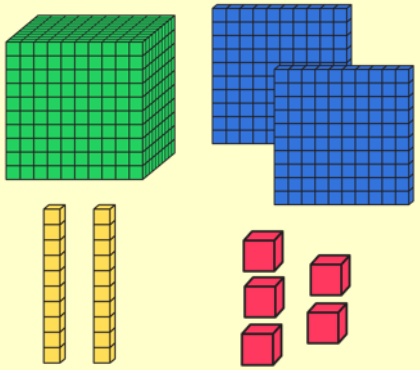
Place Value

Day 5

Starter

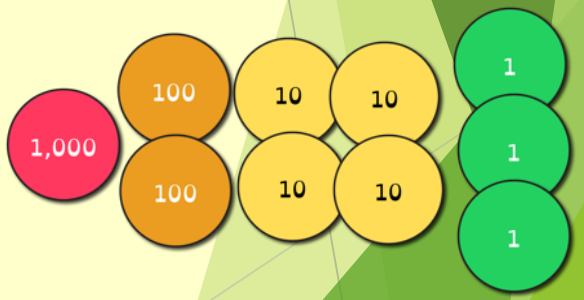
Which one doesn't belong?

Can you think of more than one possible response?



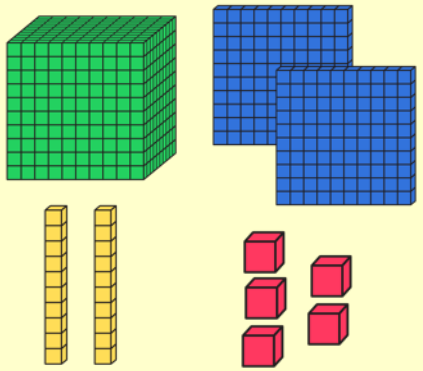
five hundred and fifty-five thousand, five hundred and fifty-five

CMXCV



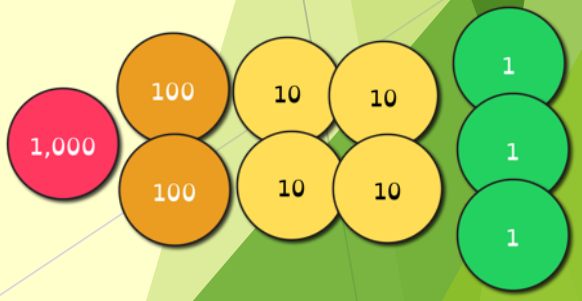
Starter - ANSWERS

The place value counters don't belong as there is a 3 in the ones place, whereas the other representation all have five in the ones place. Alternatively, the Roman Numerals are the odd one out as it is the only number that doesn't have 1,000s.



five hundred and fifty-five thousand, five hundred and fifty-five

CMXCV



Date: Day 5

LO: To read, represent and write numbers up to 1,000,000.

Key Vocabulary

Date: Day 5

LO: To read, represent and write numbers up to 1,000,000.

Success Criteria

I can read, represent and write numbers up to 1,000,000, including representations on place value charts.

I can explain my reasoning.

Descriptive Doing

Copy the place value chart in your book and draw counters to represent the numbers.

a) 120,879

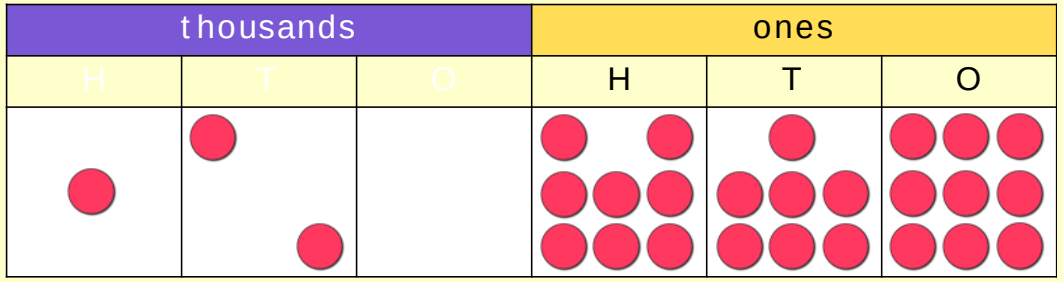
b) 753,042

c) 908,716

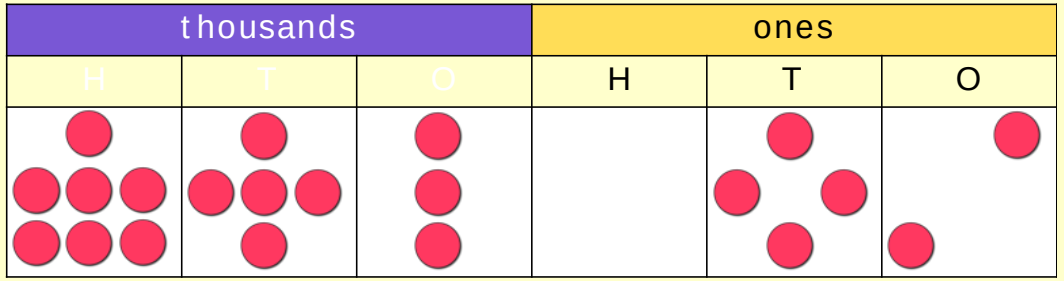
thousands			ones		
H	T	O	H	T	O

Descriptive Doing - ANSWERS

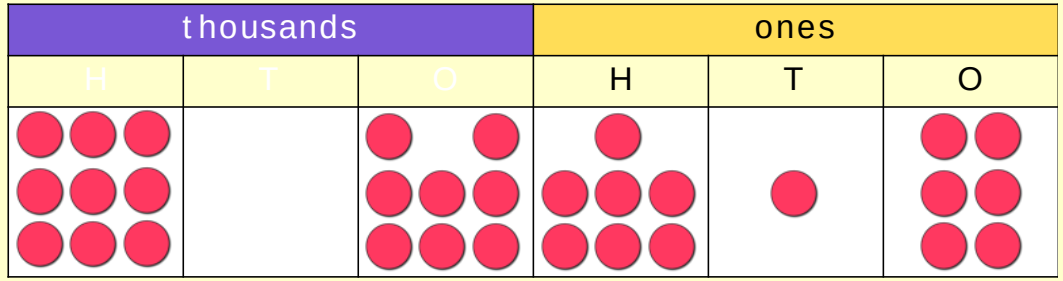
a)



b)

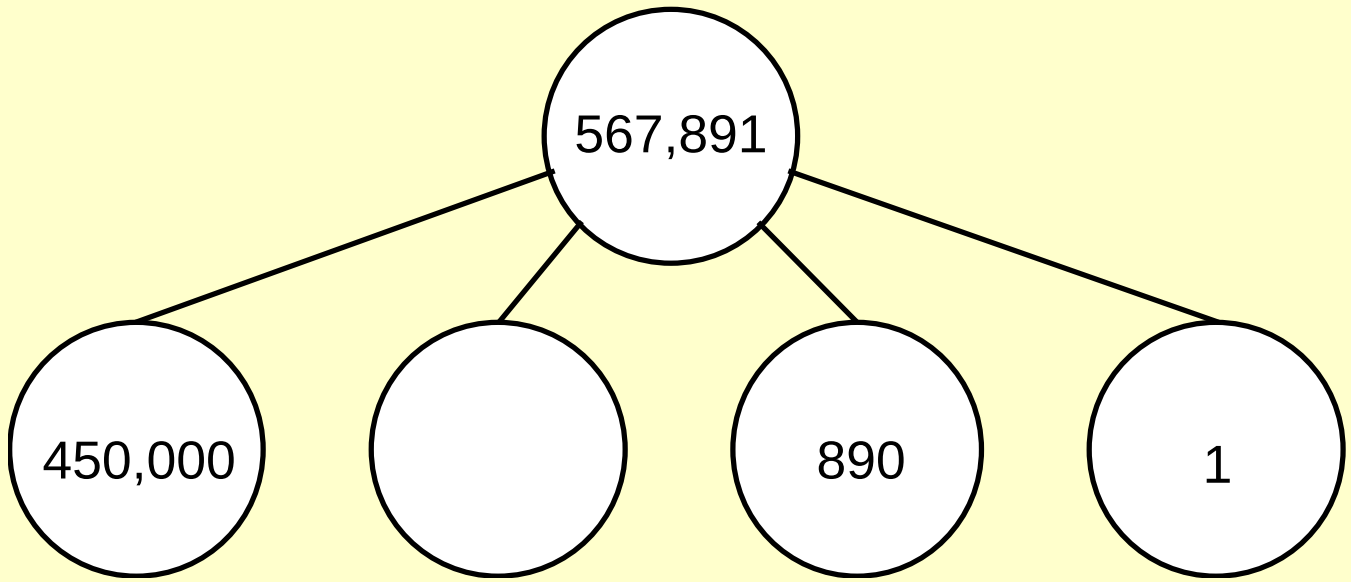


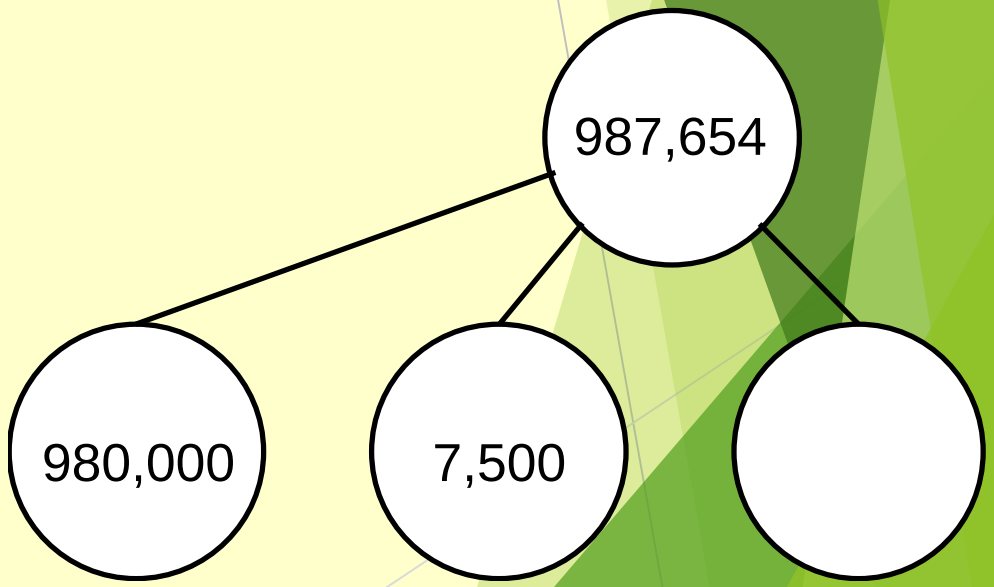
c)



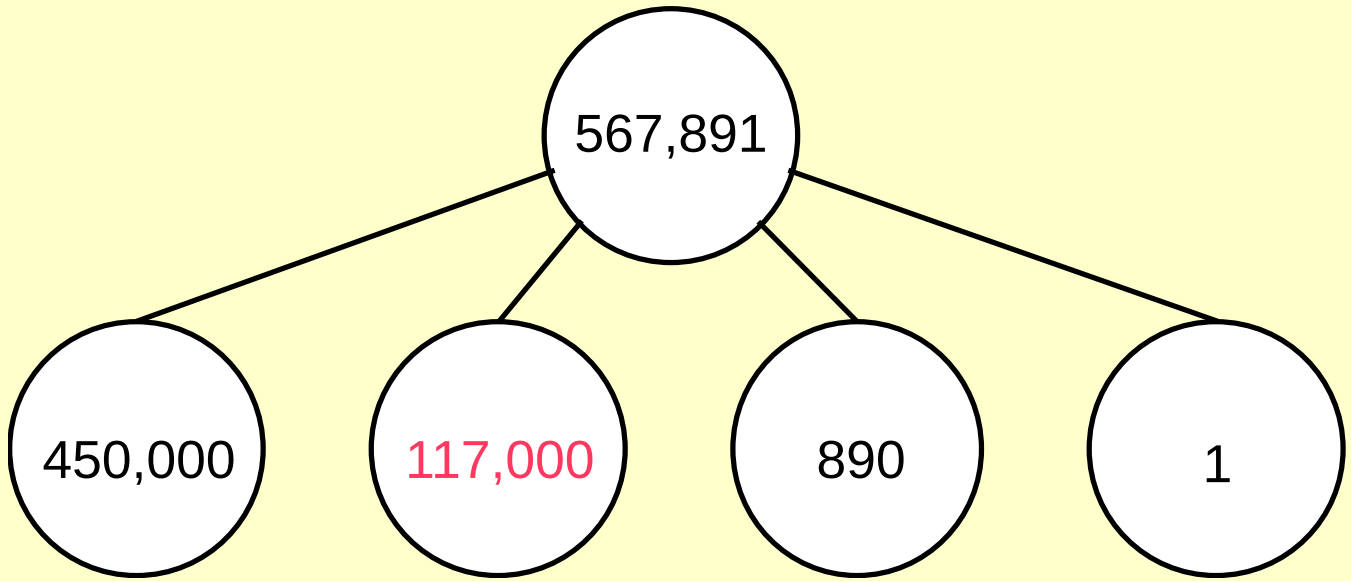
Descriptive Doing

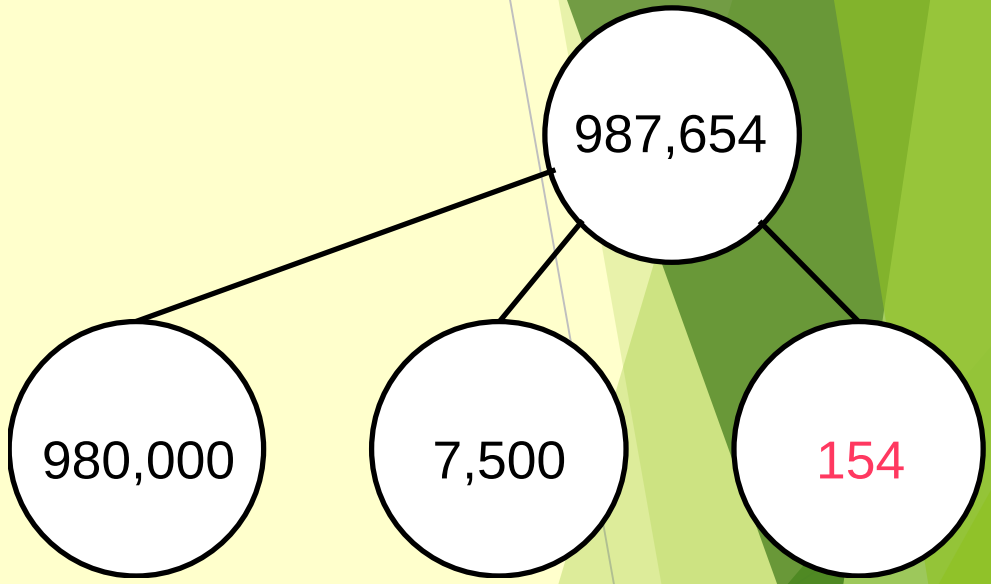
Complete the part-whole diagrams in your book.





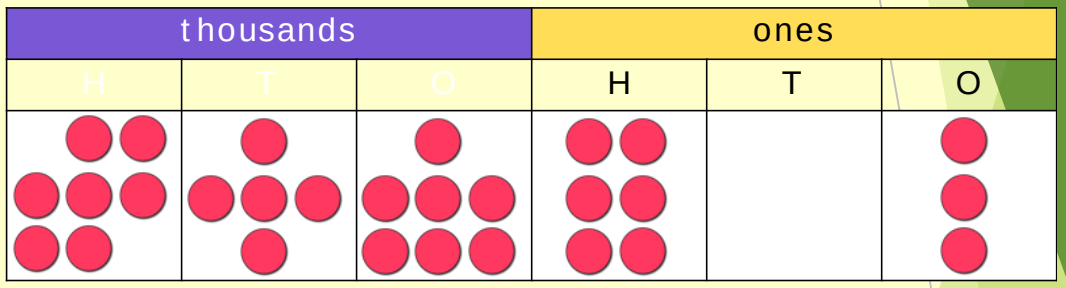
Descriptive Doing - ANSWERS



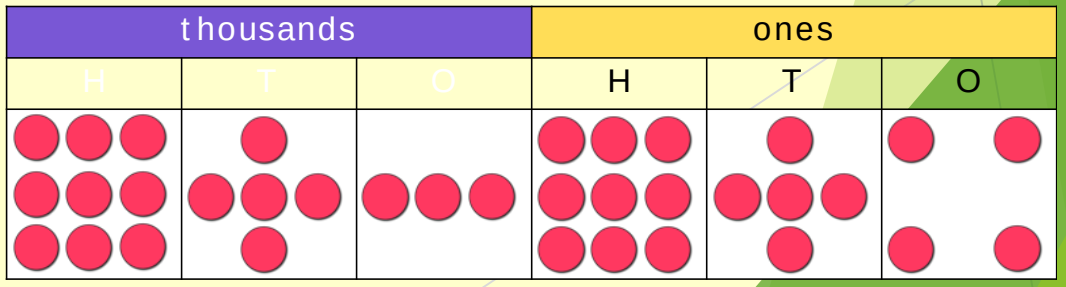


Reflective Doing

a) If I were to add three more counters to the thousands column, what would my number be?



b) If I were to take five counters away from the ten thousands column, what would my number be?



Reflective Doing - ANSWERS

a) 750,603

b) 903,954

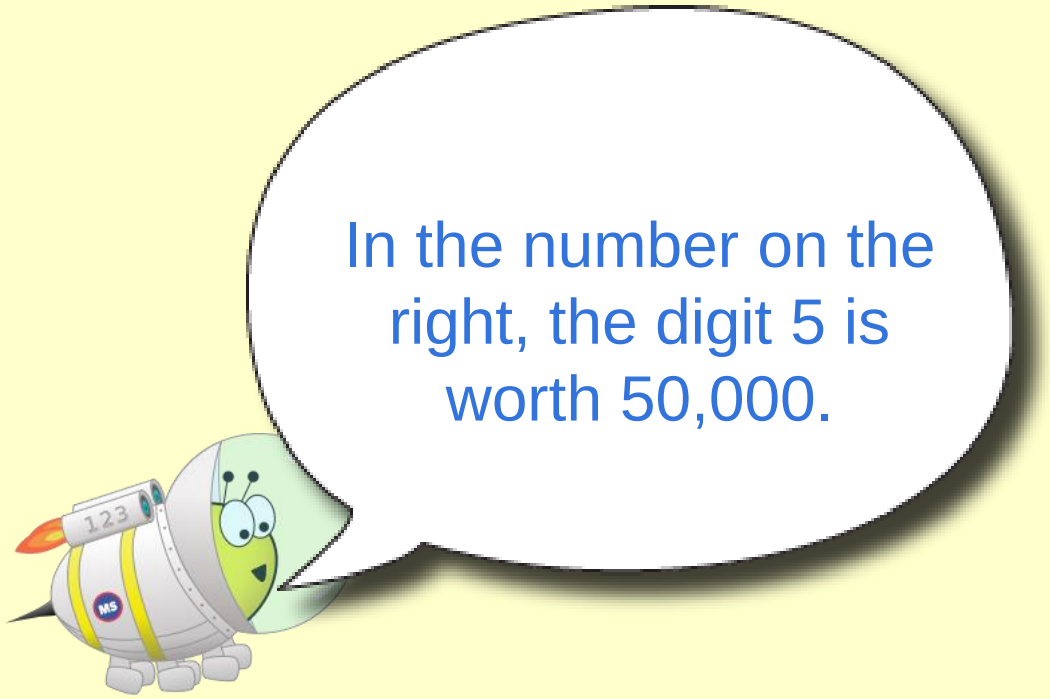
Choose your challenge

Challenges can be found on the document named ‘Maths Challenges Day 5’.

Choose an appropriate challenge OR work through green, orange and red.

Answers can be found at the bottom of the document.

Reflection Time



1,543,278

Do you agree with Astrobee?

Explain your answer.

Reflection Time - ANSWERS

Astrobee is incorrect – the digit 5 is in the hundred thousands place and is therefore worth 500,000.