

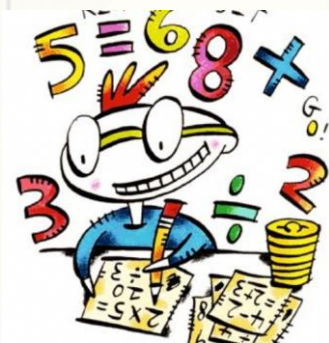
LO: To read and write numbers to 1,000, 000

LO: To find powers of 10

LO: To add/ subtract 1,10,100,1000, 10 000 , 100 000 to any number

LO: To partition numbers to 1,000,000

Maths Three Repeating Golden Threads



Mastery

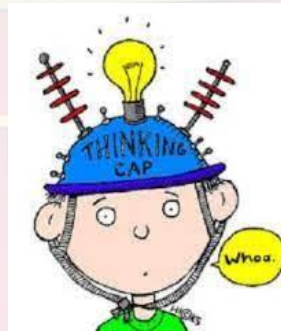
Pupils acquire a deep, long-term, secure adaptable understanding

Fluency

Quick and. efficient recall of facts and procedures

Application

The use of maths everyday in the real world, outside the classroom.



LO: To read and write numbers to 1,000, 000

DO NOW...stick in books!

1) Draw counters to represent 131,002

HTh	TTh	Th	H	T	O

2) How many thousands are there in 68,282?

3) What is the value of the digit 3 in 452,392?

4) Write one million in numerals.

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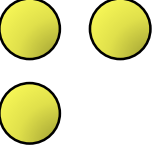
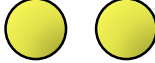
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1) Draw counters to represent 131,002

HTh	TTh	Th	H	T	O
					

2) How many thousands are there in 68,282?

Sixty-eight / 68

3) What is the value of the digit 3 in 452,392?

3 hundred / 300

4) Write one million in numerals. 1,000,000

Crucial Vocab...

one million
thousand
Ten thousand
place value

one million
thousand
Ten thousand
place value

one million
thousand
Ten thousand
place value

one million
thousand
Ten thousand
place value

one million
thousand
Ten thousand
place value

one million
thousand
Ten thousand
place value

one million
thousand
Ten thousand
place value

Mon

Block Place Value

Key vocabulary

Roman Numerals, number system, place holder, one, ten, hundred, thousand, ten thousand, hundred thousand, millions, compare, order, rounding

	WT	EX	S
Roman numerals to 1000			
Numbers to 10,000			
Numbers to 100,000			
Numbers to 1,000,000			
Read and write numbers to 1,000,000			
Powers of 10			
10/100/1000/10,000/100,000 more or less			
Partition numbers to 1,000,000			
Number line to 1,000,000			
Compare and order numbers to 100,000			
Compare and orders numbers to 1,000,000			
Round to the nearest 10, 100 or 1000			
Round within 100,000			
Round within 1,000,000			

Stem sentences

- The letter — represents the number —
- I know is greater than because ...
- The value of the — in — is
- The column before/after the — column is the — column.
- 10 — can be exchanged for 1 —
- 1 — can be exchanged for —
- The number before/after the comma is — This part of the number is said/written as —
- The whole of the number is said/written as —

Write the number represented in numerals.

125,344

Thousands			Ones		
H	T	O	H	T	O
●	● ●	● ● ● ● ●		● ● ●	● ● ● ●

Write the number represented in words.

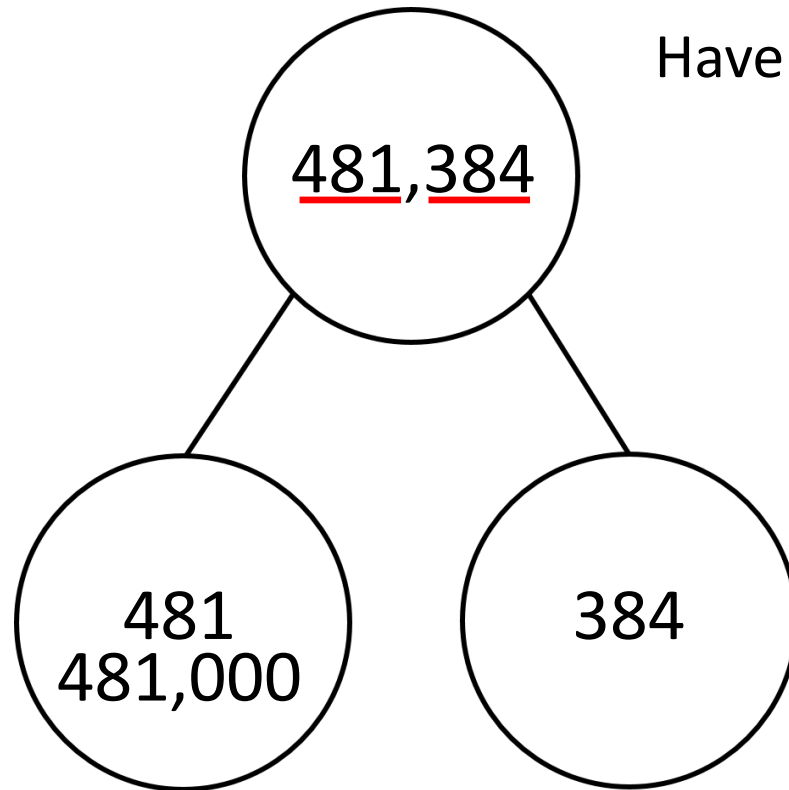
One hundred and twenty-five thousand
and thirty-four.

Have a think



Complete the part-whole model and write the number in words.

Have a think



How does the part-whole model help you to write the number?



Four hundred and eighty-one thousand,
three hundred and eighty-four.

Write these numbers in words.

Have a think

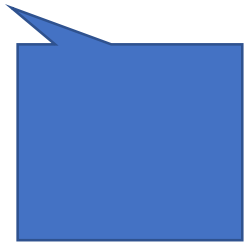


426,281

Four hundred and twenty-six thousand,
two hundred and eighty-one.

506,101

Five hundred and six thousand,
one hundred and one.



Explain how using a comma as a
separator helps you to write numbers.



Your turn



1 What number is represented?

Thousands			Ones		
H	T	O	H	T	O
●● ●	●● ●● ●	●●	●	●● ●●	●● ●● ●●

Write your answer in numerals.

Write your answer in words.

2 What number is represented?

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

Write your answer in numerals.

Write your answer in words.

1) Use counters to show the numbers on a place value chart .

2 Read each number out loud.

3)Take a photo of each number you create on the place value chart.



1) 4, 564

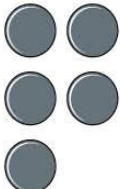
2) 6,789

3) 11, 233

4) 23, 456

Read and write numbers to 1,000,000

1 What number is represented?

Thousands			Ones		
H	T	O	H	T	O
					

Write your answer in numerals.

Write your answer in words.

Think about the comma!

HTh	TTh	Th	H	T	O
					

HTh	TTh	Th	H	T	O
					

HTh	TTh	Th	H	T	O
					

HTh	TTh	Th	H	T	O
					

HTh	TTh	Th	H	T	O
					

HTh	TTh	Th	H	T	O
					

HTh	TTh	Th	H	T	O
					

HTh	TTh	Th	H	T	O
					

Mon

2

What number is represented?

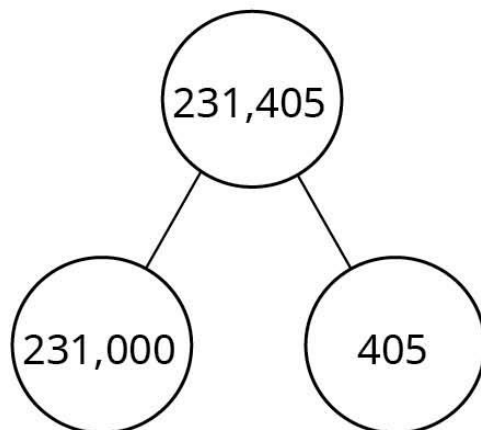
HTh	TTh	Th	H	T	O
● ●	● ● ●	● ●	● ● ● ● ●	● ●	● ● ● ●

Write your answer in numerals.

Write your answer in words.



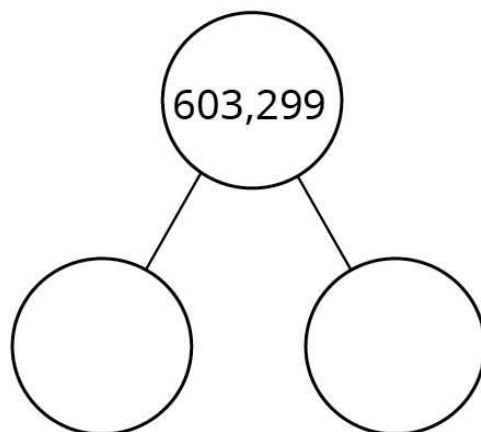
- 3 a) Eva has written the number 231,405 in words.



two hundred and
thirty-one thousand,
four hundred and five

How does the part-whole model help Eva?

- b) Complete the part-whole model and write the number in words.



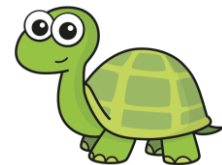


Thousands			Ones		
H	T	O	H	T	O
5	7	0	1	1	0

Five hundred and seventeen thousand, one hundred and ten.

510,110

What mistakes has Tiny made?



Thousands			Ones		
H	T	O	H	T	O

Five hundred and seventeen thousand, one hundred and ten.

570,110

What mistakes has Tiny made?



Mon

Thousands			Ones		
H	T	O	H	T	O

Five hundred and seventeen thousand, one hundred and ten.

570,110

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Thousands			Ones		
H	T	O	H	T	O

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Five hundred and seventeen thousand, one hundred and ten.

570,110

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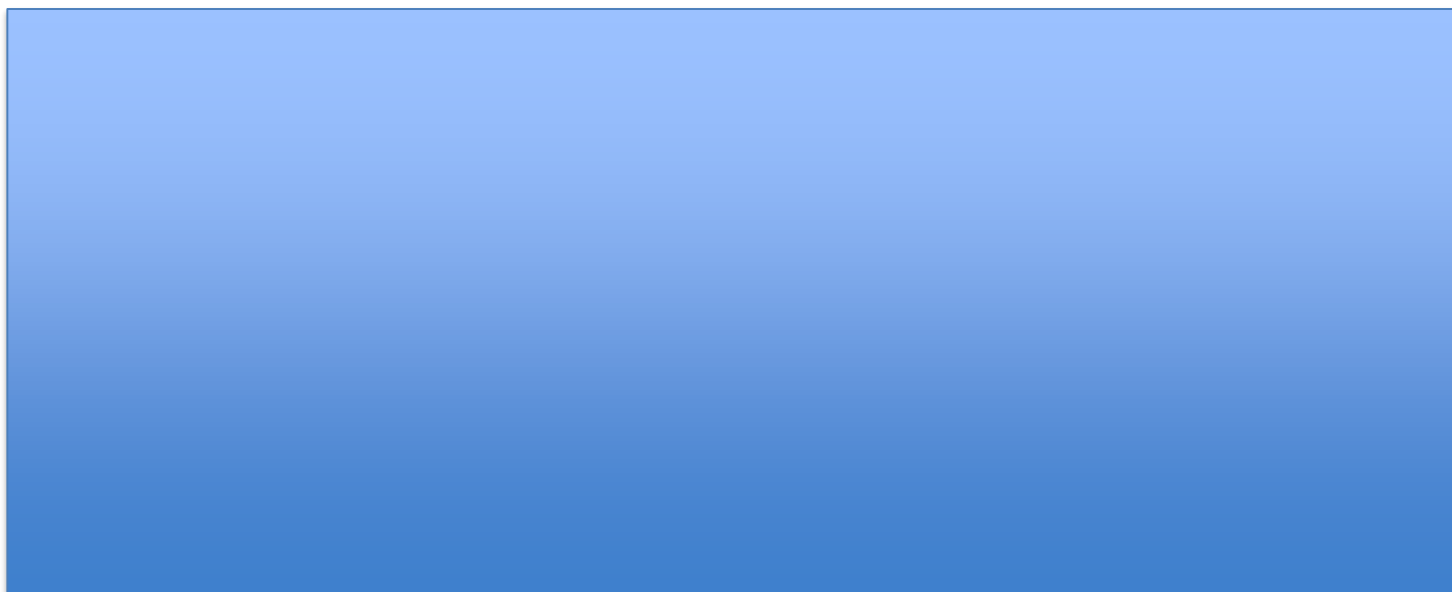


5

Write the numbers in words.

a) 436,634 _____

b) 463,643 _____



6

Write the numbers in numerals.

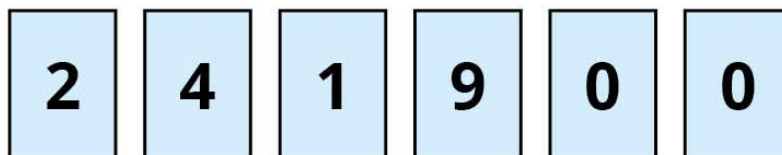
a) one hundred and twenty-four thousand,
three hundred and sixty-one

b) four hundred and five thousand,
nine hundred and eighty-four





7

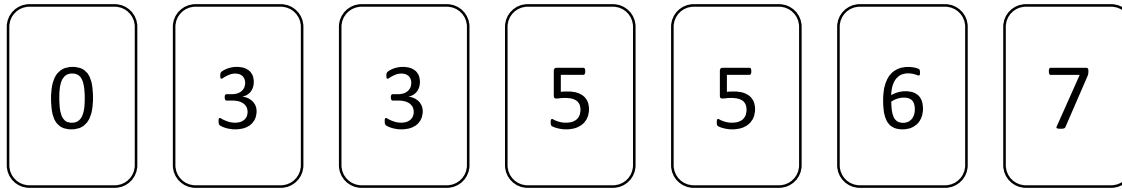


HTh	TTh	Th	H	T	O

Use the digit cards and the place value chart to make different 6-digit numbers.

Write your numbers in numerals and words.

Use some of the digit cards and the clues to work out the number.



The ten-thousands and hundreds columns have the same digit.

The hundred-thousands digit is double the tens digit.

The number has six digits.

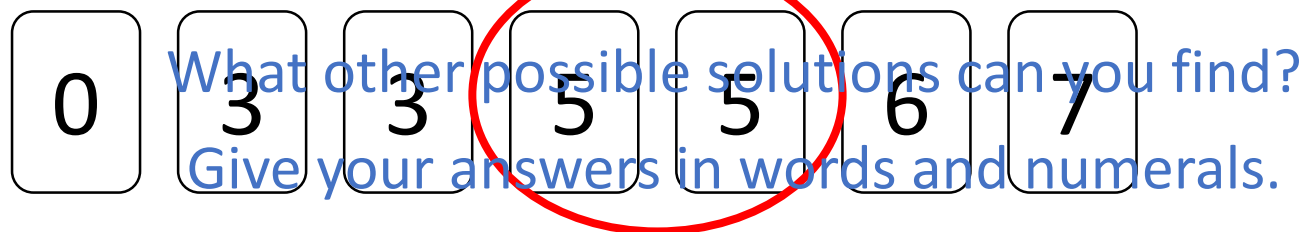
The number is less than six hundred and fifty-five thousand.

What could the number be?

Have a think



Use some of the digit cards and the clues to work out the number.



The ten-thousands and hundreds columns have the same digit.

The hundred-thousands digit is double the tens digit.

The number has six digits.

The number is less than six hundred and fifty-five thousand.

HTh	TTh	Th	H	T	O
What could the number be? Which clue did you use first?					

LO: To find powers of 10

DO NOW...whiteboards! Prove it!

True or False ?

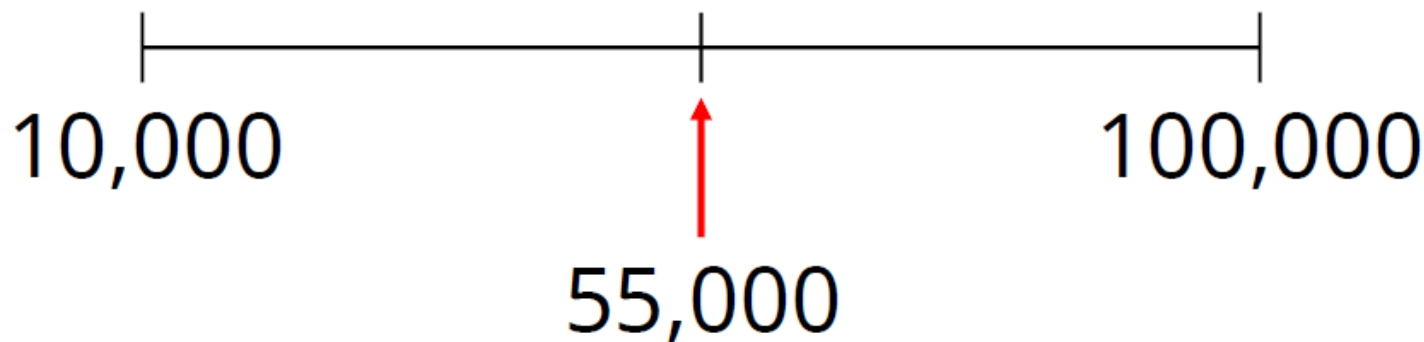
Numbers to 100,000

The arrow is pointing to 50,000



False

The midpoint between 10,000 and 100,000 is 55,000



Block Place Value

Key vocabulary

Roman Numerals, number system, place holder, one, ten, hundred, thousand, ten thousand, hundred thousand, millions, compare, order, rounding

	WT	EX	S
Roman numerals to 1000			
Numbers to 10,000			
Numbers to 100,000			
Numbers to 1,000,000			
Read and write numbers to 1,000,000			
Powers of 10			
10/100/1000/10,000/100,000 more or less			
Partition numbers to 1,000,000			
Number line to 1,000,000			
Compare and order numbers to 100,000			
Compare and orders numbers to 1,000,000			
Round to the nearest 10, 100 or 1000			
Round within 100,000			
Round within 1,000,000			

Stem sentences

- The letter — represents the number —
- I know is greater than because ...
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- The column before/after the — column is the — column.
- 10 — can be exchanged for 1 —
- 1 — can be exchanged for —
- The number before/after the comma is — This part of the number is said/written as —
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Crucial Vocab...

*place value
powers of 10*

Tues

place value
powers of 10

place value
powers of 10

place value
powers of 10

place value
powers of 10

place value
powers of 10

1) Represent the number 513 on the chart.

HTh	TTh	Th	H	T	O

2) Represent the number 5,130 on the chart.

HTh	TTh	Th	H	T	O

3) Represent the number 51,300 on the chart.

HTh	TTh	Th	H	T	O

4) What do you notice?



1) Represent the number 513 on the chart.

HTh	TTh	Th	H	T	O

2) Represent the number 5,130 on the chart.

HTh	TTh	Th	H	T	O

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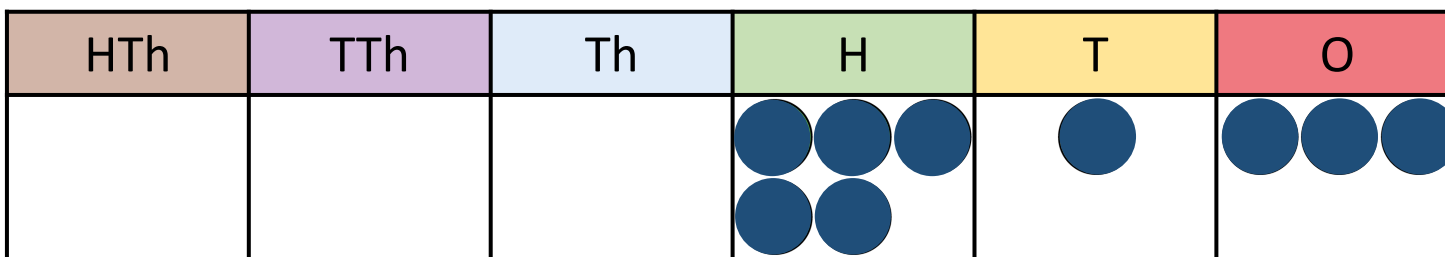
HTh	TTh	Th	H	T	O

3) Represent the number 51,300 on the chart.

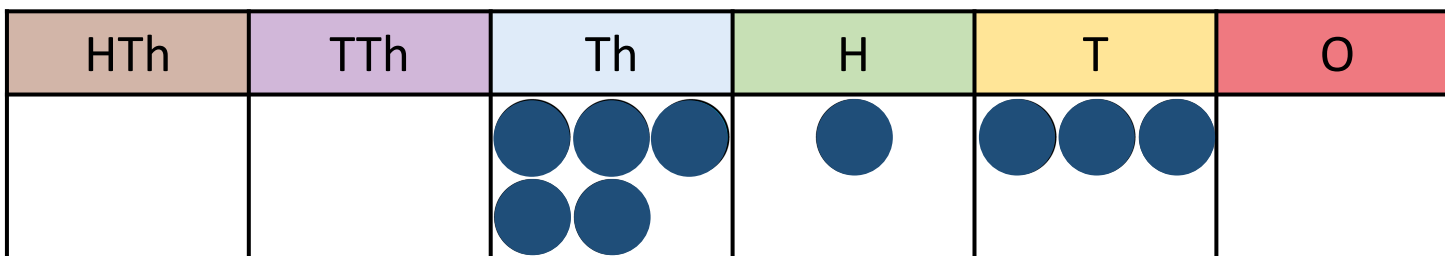
HTh	TTh	Th	H	T	O

4) What do you notice?

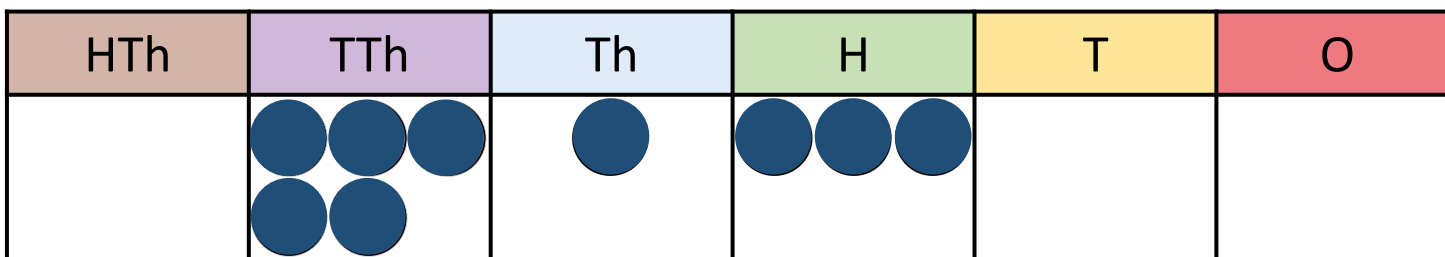
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2) Represent the number 5,130 on the chart.

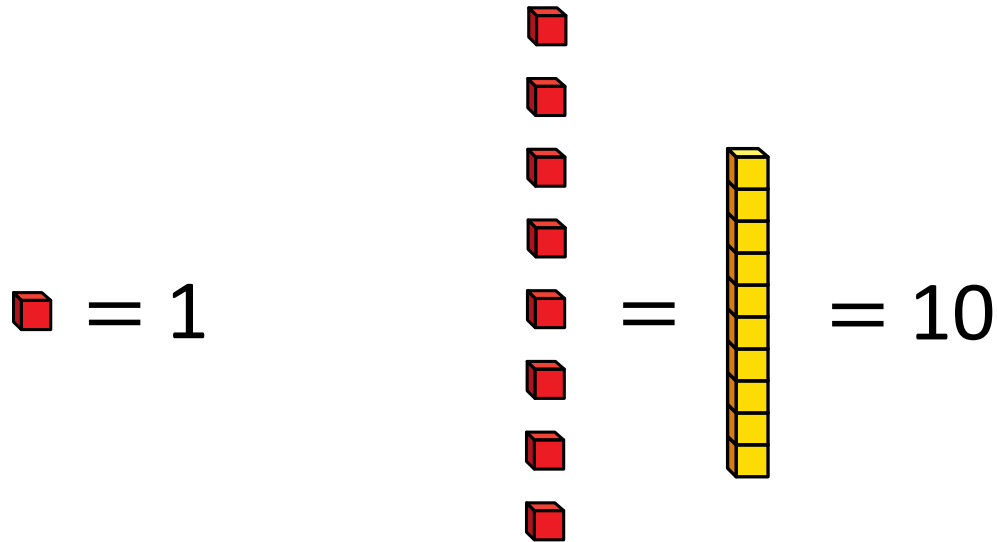


3) Represent the number 51,300 on the chart.



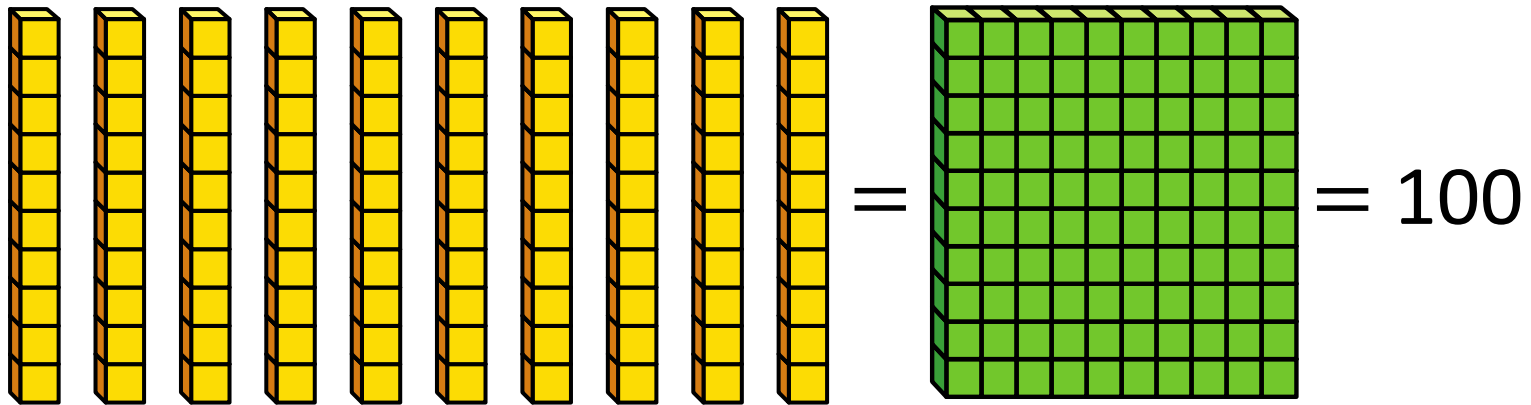
4) What do you notice? Same number of counters
Moved 1 column to the left

How many ones are there in 10?



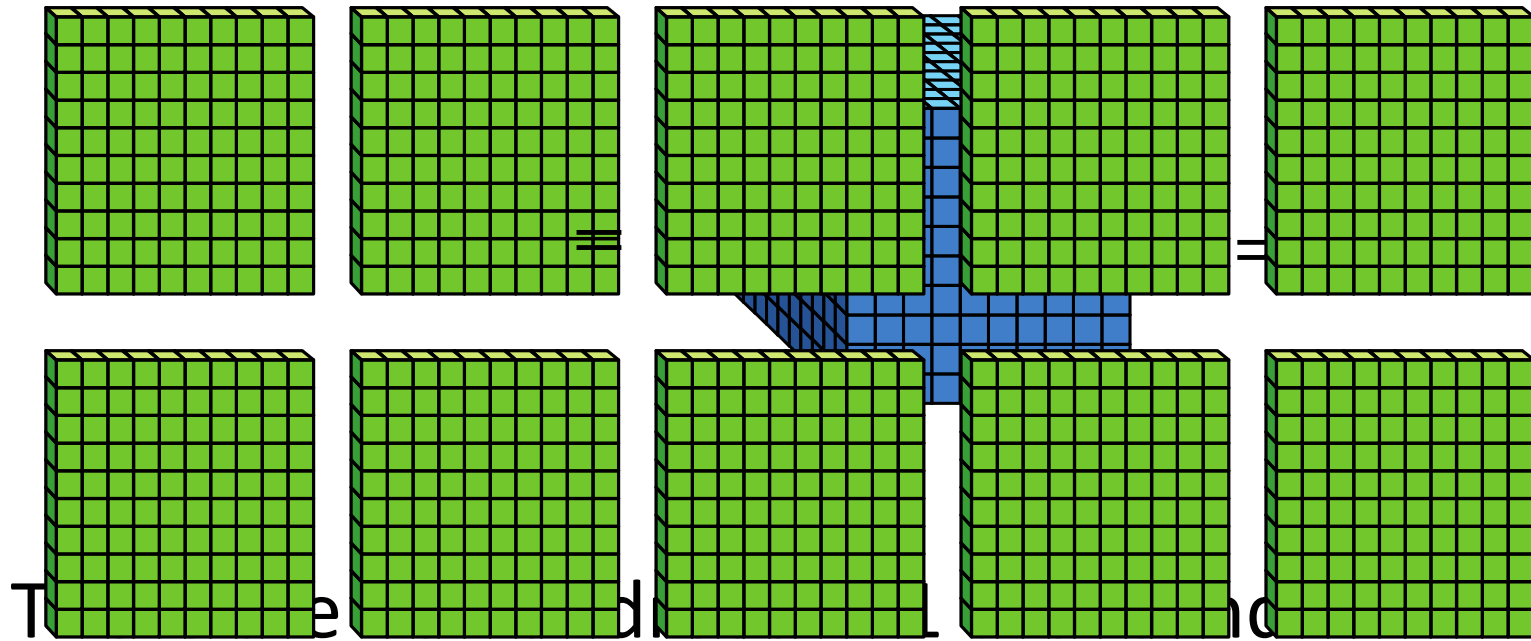
There are 10 ones in 1 ten.

How many tens are there in 100?



There are 10 tens in 1 hundred.

How many hundreds are there in 1,000?



There are 10 ones in 1 ten.

There are 10 tens in 1 hundred.

There are 10 hundreds in 1 thousand.

HTh	TTh	Th	H	T	O

What many units are there in 1 hundred-thousand?

10

Have a think

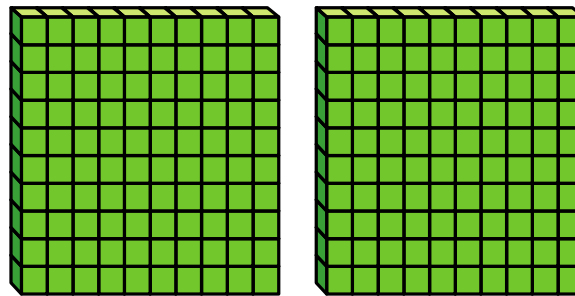


There are 10 ones in 1 ten.

There are 10 tens in 1 hundred.

There are 10 hundreds in 1 thousand.

How many tens are there in 200? 20



10 tens

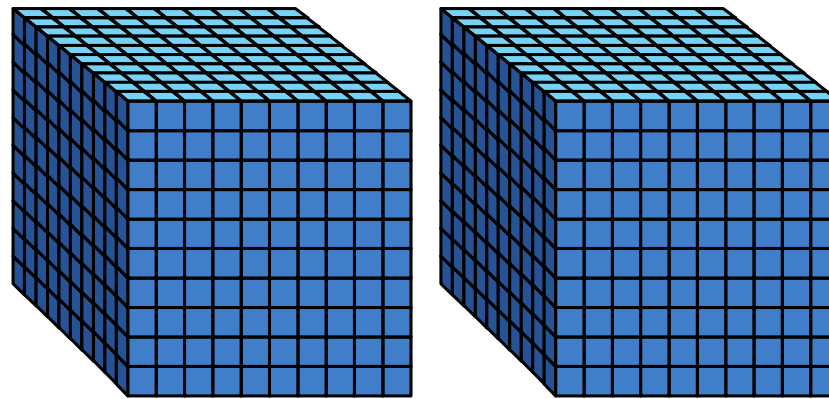
10 tens

There are 10 ones in 1 ten.

There are 10 tens in 1 hundred.

There are 10 hundreds in 1 thousand.

How many hundreds are there in 2,000? 20



10 hundreds

10 hundreds

Have a think

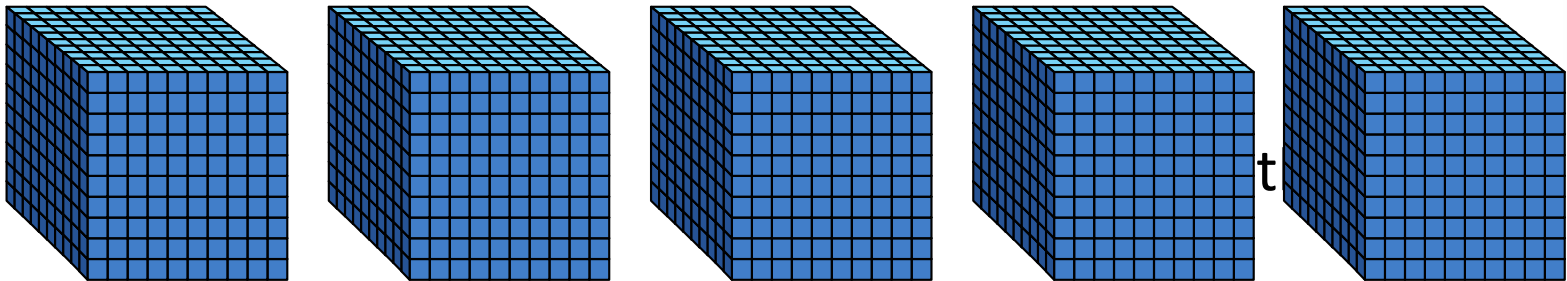


There are 10 ones in 1 ten.

There are 10 tens in 1 hundred.

There are 10 hundreds in 1 thousand.

How many hundreds are there in 5,000?



There are 10 hundreds in 1,000 and 5 thousands in 5,000

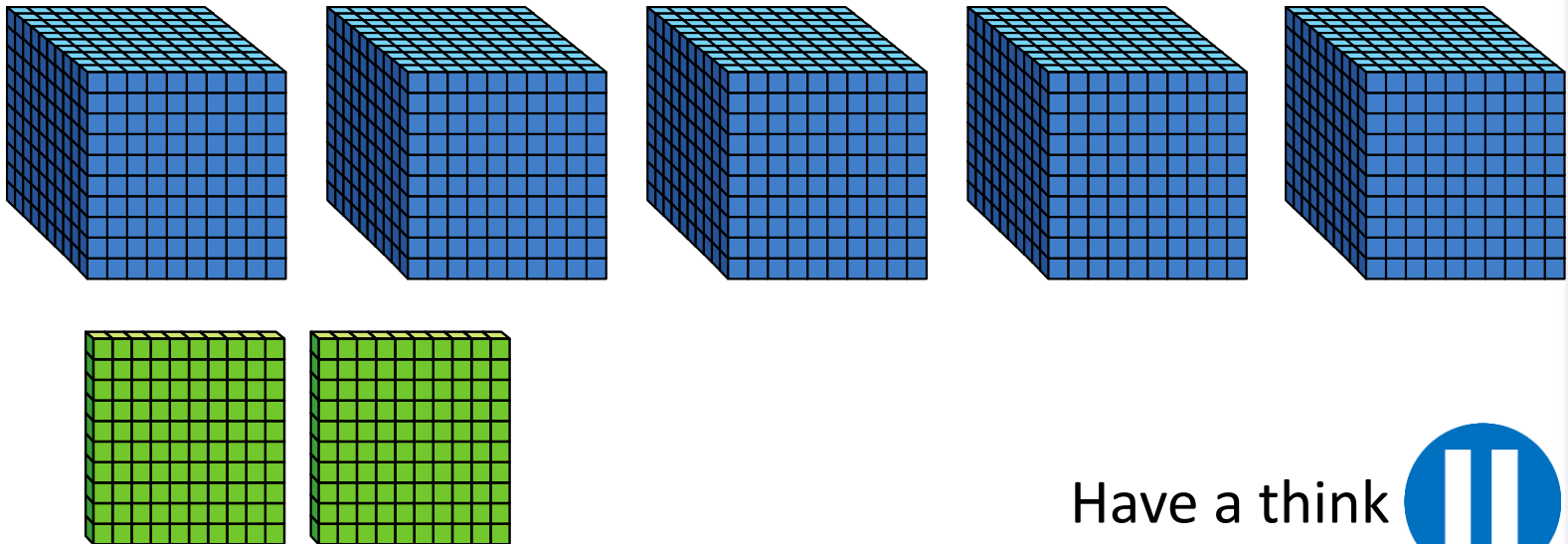
This means there are 50 hundreds in 5,000

There are 10 ones in 1 ten.

There are 10 tens in 1 hundred.

There are 10 hundreds in 1 thousand.

How many hundreds are there in 5,200? 52



Have a think



- 1 a) Draw counters to show 342 on the place value chart.

HTh	TTh	Th	H	T	O

- b) Draw counters to show 3,420 on the place value chart.

HTh	TTh	Th	H	T	O

- c) Draw counters to show 34,200 on the place value chart.

HTh	TTh	Th	H	T	O

What is the same? What is different?

- 2 a) How many ones are there in 10?

- b) How many tens are there in 100?

- c) How many hundreds are there in 1,000?

- d) How many thousands are there in 10,000?

What do you notice?

- 1 a) Draw counters to show 342 on the place value chart.

HTh	TTh	Th	H	T	O

- b) Draw counters to show 3,420 on the place value chart.

HTh	TTh	Th	H	T	O

- c) Draw counters to show 34,200 on the place value chart.

HTh	TTh	Th	H	T	O

What is the same? What is different?

- 2 a) How many ones are there in 10?

- b) How many tens are there in 100?

- c) How many hundreds are there in 1,000?

- d) How many thousands are there in 10,000?

What do you notice?

2 a) How many ones are there in 10?

b) How many tens are there in 100?

c) How many hundreds are there in 1,000?

d) How many thousands are there in 10,000?

What do you notice?

Tues

2 a) How many ones are there in 10?

b) How many tens are there in 100?

c) How many hundreds are there in 1,000?

d) How many thousands are there in 10,000?

What do you notice?

3 a) How many hundreds are there in 2,000?

b) How many hundreds are there in 4,000?

c) How many hundreds are there in 4,300?

d) How many hundreds are there in 4,700?

3 a) How many hundreds are there in 2,000?

b) How many hundreds are there in 4,000?

c) How many hundreds are there in 4,300?

d) How many hundreds are there in 4,700?



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

What number is 10 times the size of 3?

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

What number is 10 times the size of 6?

What do you notice?

Have a think



If the counter moves up 1 row then the number is 10 times the size.

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

What number is 100 times the size of 6?

What do you notice?

Have a think



If the counter moves up 2 rows then the number is 100 times the size.

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

To find the number 1,000 times the size,
the counter will move 3 rows up.

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

Diagram illustrating the relationship between place values in a 100,000 grid. The grid shows values from 100,000 down to 1. Blue arrows and text boxes indicate the scaling factors:

- From 100,000 to 10,000: 10 times the size
- From 10,000 to 1,000: 10 times the size
- From 1,000 to 100: 10 times the size
- From 100 to 10: 10 times the size
- From 10 to 1: 10 times the size
- From 100,000 to 100: 100 times the size
- From 10,000 to 10: 100 times the size
- From 1,000 to 1: 100 times the size

$$10 \times 10 = 100$$

So

$$\times 10 \times 10 = \times 100$$

4 The Gattegno chart shows the numbers 58,000 and 5,800

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

a) Show 580 on the Gattegno chart.



4

b) Complete the sentences.

58,000 is 10 times the size of

5,800 is times the size of 580

is 10 times the size of 58

5,800 is one-tenth the size of

58,000 is one-tenth the size of



4 The Gattegno chart shows the numbers 58,000 and 5,800

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

a) Show 580 on the Gattegno chart.

b) Complete the sentences.

58,000 is 10 times the size of

5,800 is times the size of 580

is 10 times the size of 58

5,800 is one-tenth the size of

58,000 is one-tenth the size of

4 The Gattegno chart shows the numbers 58,000 and 5,800

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

a) Show 580 on the Gattegno chart.

b) Complete the sentences.

58,000 is 10 times the size of

5,800 is times the size of 580

is 10 times the size of 58

5,800 is one-tenth the size of

58,000 is one-tenth the size of

6 1 metre is 100 times the size of 1 centimetre.

There are 100 cm in 1 m.

1 m	1 m	1 m	1 m
100 cm	100 cm	100 cm	100 cm

a) How many centimetres are there in 4 m?

 cm

b) How many centimetres are there in 400 m?

 cm

c) How many centimetres are there in 4,000 m?

 cm

d) How many centimetres are there in 4,400 m?

 cm

6 1 metre is 100 times the size of 1 centimetre.

There are 100 cm in 1 m.

1 m	1 m	1 m	1 m
100 cm	100 cm	100 cm	100 cm

a) How many centimetres are there in 4 m? cm

b) How many centimetres are there in 400 m? cm

c) How many centimetres are there in 4,000 m? cm

d) How many centimetres are there in 4,400 m? cm

6 1 metre is 100 times the size of 1 centimetre.

There are 100 cm in 1 m.

1 m	1 m	1 m	1 m
100 cm	100 cm	100 cm	100 cm

a) How many centimetres are there in 4 m? cm

b) How many centimetres are there in 400 m? cm

c) How many centimetres are there in 4,000 m? cm

d) How many centimetres are there in 4,400 m? cm

Tues

6 1 metre is 100 times the size of 1 centimetre.

There are 100 cm in 1 m.

1 m	1 m	1 m	1 m
100 cm	100 cm	100 cm	100 cm

a) How many centimetres are there in 4 m? cm

b) How many centimetres are there in 400 m? cm

c) How many centimetres are there in 4,000 m? cm

d) How many centimetres are there in 4,400 m? cm

6 1 metre is 100 times the size of 1 centimetre.

There are 100 cm in 1 m.

1 m	1 m	1 m	1 m
100 cm	100 cm	100 cm	100 cm

a) How many centimetres are there in 4 m? cm

b) How many centimetres are there in 400 m? cm

c) How many centimetres are there in 4,000 m? cm

d) How many centimetres are there in 4,400 m? cm



8

The children choose one of these number cards each.

29,000

290

2,900

290,000



Tommy

My number is
ten times the size
of Annie's.



Annie

My number
has two hundreds.



Whitney

Dexter's number
is one-tenth the size
of my number.



Dexter

My number
is one hundred times
the size of Annie's.

Which number does each child have?

Tommy

Whitney

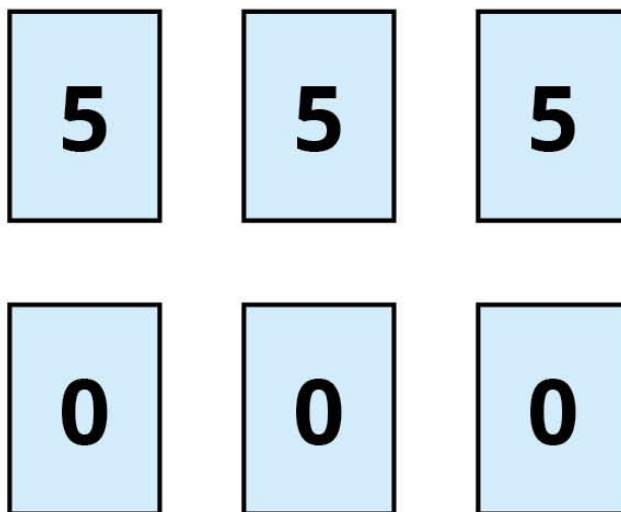
Annie

Dexter

Maths Meeting- Tues Key skills



Use the digit cards to make as many 6-digit numbers as you can.



What is the greatest number you can make?

What is the smallest number you can make?

What is the difference between the greatest and smallest numbers?

I'm thinking of
a 6-digit number. The sum
of the digits is 2



Find all the possible numbers Tiny could be thinking of.

Give your answers in words and numerals.

Investigate with different digit sums.

What do you notice?



LO: To add/ subtract 1, 10, 100, 1000, 10 000, 100 000 to any number

DO NOW...stick in book-prove it!

True or False ?

Read and write numbers to 1,000,000

707,070

This number is seven hundred and seven thousand, and seventy.

707,070

This number is seven hundred and seven thousand, and seventy.

707,070

This number is seven hundred and seven thousand, and seventy.

707,070

This number is seven hundred and seven thousand, and seventy.

707,070

This number is seven hundred and seven thousand, and seventy.

707,070

This number is seven hundred and seven thousand, and seventy.

707,070

This number is seven hundred and seven thousand, and seventy.



Read and write numbers to
1,000,000

True

707,070

There are seven hundred and seven thousands, and seven tens.

Block Place Value

Key vocabulary

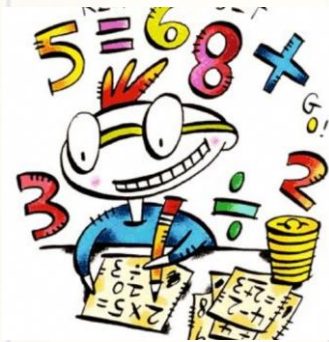
Roman Numerals, number system, place holder, one, ten, hundred, thousand, ten thousand, hundred thousand, millions, compare, order, rounding

	WT	EX	S
Roman numerals to 1000			
Numbers to 10,000			
Numbers to 100,000			
Numbers to 1,000,000			
Read and write numbers to 1,000,000			
Powers of 10			
10/100/1000/10,000/100,000 more or less			
Partition numbers to 1,000,000			
Number line to 1,000,000			
Compare and order numbers to 100,000			
Compare and orders numbers to 1,000,000			
Round to the nearest 10, 100 or 1000			
Round within 100,000			
Round within 1,000,000			

Stem sentences

- The letter — represents the number —
- I know is greater than because ...
- The value of the — in — is
- The column before/after the — column is the — column.
- 10 — can be exchanged for 1 —
- 1 — can be exchanged for —
- The number before/after the comma is — This part of the number is said/written as —
- The whole of the number is said/written as —

Maths Three Repeating Golden Threads



Mastery

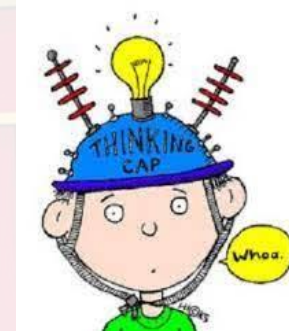
Pupils acquire a deep, long-term, secure adaptable understanding

Fluency

Quick and. efficient recall of facts and procedures

Application

The use of maths everyday in the real world, outside the classroom.



Crucial Vocab...

one ten
hundred
thousand
more less
add subtract

one	ten		one	ten	
hundred		thousand	hundred		thousand
more	less	add	more	less	add
subtract			subtract		

one	ten		one	ten	
hundred		thousand	hundred		thousand
more	less	add	more	less	add
subtract			subtract		

one	ten		one	ten	
hundred		thousand	hundred		thousand
more	less	add	more	less	add
subtract			subtract		

one	ten		one	ten	
hundred		thousand	hundred		thousand
more	less	add	more	less	add
subtract			subtract		

RECAP...

1) What number is represented?

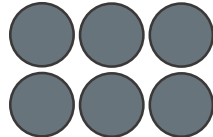
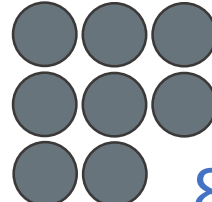
Thousands			Ones		
H	T	O	H	T	O
● ● ●	●	● ●	● ● ●	● ● ● ● ● ●	● ● ● ● ● ● ● ●



2) What number is represented?

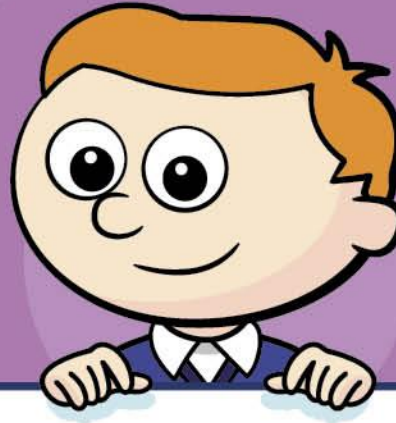
100,000	200,000	300,000	400,000	500,000	600,000	700,000	800,000	900,000
10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000
1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000
100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9

1) What number is represented? 312,368

Thousands			Ones		
H	T	O	H	T	O
					
3	1	2	3	6	8

2) What number is represented? 174,308

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



Let's learn

Get ready for today's
new learning.

Complete the counting sequence.

10 more



430	440	450	460	470	480	490	500
-----	-----	-----	-----	-----	-----	-----	-----

432	442	452	462	472	482	492	502
-----	-----	-----	-----	-----	-----	-----	-----

3,432	3,442	3,452	3,462	3,472	3,482	3,492	3,502
-------	-------	-------	-------	-------	-------	-------	-------

What do you notice?

Have a think



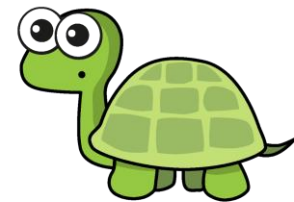
Complete the counting sequence.

100 less

3,740	3,640	3,540	3,440	3,340	3,240	3,140	3,040
-------	-------	-------	-------	-------	-------	-------	-------

2,562	2,462	2,362	2,262	2,162	2,062	1,962	1,862
-------	-------	-------	-------	-------	-------	-------	-------

Do you agree with Tiny?



Have a think



Complete the counting sequence.

100 less



3,740	3,640	3,540	3,440	3,340	3,240	3,140	3,040
-------	-------	-------	-------	-------	-------	-------	-------

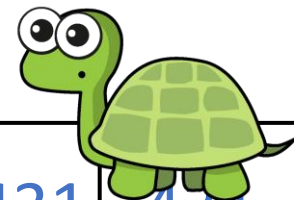
2,562	2,462	2,362	2,262	2,162	2,062	1,962	1,862
-------	-------	-------	-------	-------	-------	-------	-------

1,000 less

Do you agree with Tiny?



7,431	6,431	5,431	4,431	3,431	2,431	1,431	431
-------	-------	-------	-------	-------	-------	-------	-----



Have a think





Your turn

Have a go at questions
1 - 2 on the worksheet



10/100/1,000/10,000/100,000 more or less

1 Complete the number tracks and describe what is happening.

a)

7	17		37	47		67
---	----	--	----	----	--	----

b)

169		149	139			109
-----	--	-----	-----	--	--	-----

2 Tiny has completed a number track.

360	370	380	390	3100	3110
-----	-----	-----	-----	------	------



Explain the mistake Tiny has made.

- 2 Tiny has completed a number track.

360	370	380	390	3100	3110
-----	-----	-----	-----	------	------

Explain the mistake Tiny has made.



- 2 Tiny has completed a number track.

360	370	380	390	3100	3110
-----	-----	-----	-----	------	------

Explain the mistake Tiny has made.



- 2 Tiny has completed a number track.

360	370	380	390	3100	3110
-----	-----	-----	-----	------	------

Explain the mistake Tiny has made.



- 2 Tiny has completed a number track.

360	370	380	390	3100	3110
-----	-----	-----	-----	------	------

Explain the mistake Tiny has made.



2

Tiny has completed a number track.

360	370	380	390	3100	3110
-----	-----	-----	-----	------	------

Explain the mistake Tiny has made.



2

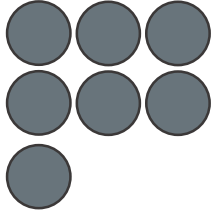
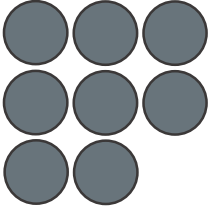
Tiny has completed a number track.

360	370	380	390	3100	3110
-----	-----	-----	-----	------	------

Explain the mistake Tiny has made.



The number 312,368 is shown.

Thousands			Ones		
H	T	O	H	T	O
					
3	1	2	3	7	8

What is 10 more than 312,368?

10 more than 312,368 is 312,378

312,378 is 10 more than 312,368



The number 312,368 is shown.

Thousands			Ones		
H	T	O	H	T	O
● ● ●	●	● ●	● ● ●	● ● ● ● ● ●	● ● ● ● ● ● ● ●
3	1	2	2	6	8

What is 100 less than 312,368?

100 less than 312,368 is 312,268

312,268 is 100 less than 312,368

Have a think



The number 312,368 is shown.

Thousands			Ones		
H	T	O	H	T	O
●●●	●	●●	●●●	●●●●	●●●●●

What is 100 less than 312,368?

___ less than 312,368 is _____

_____ is ___ less than 312,368

The number 312,368 is shown.

Thousands			Ones		
H	T	O	H	T	O
●●●	●	●●	●●●	●●●●	●●●●●

What is 100 less than 312,368?

___ less than 312,368 is _____

_____ is ___ less than 312,368

The number 312,368 is shown.

Thousands			Ones		
H	T	O	H	T	O
●●●	●	●●	●●●	●●●●	●●●●●

What is 100 less than 312,368?

___ less than 312,368 is _____

_____ is ___ less than 312,368

The number 312,368 is shown.

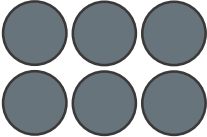
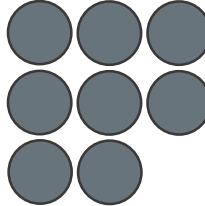
Thousands			Ones		
H	T	O	H	T	O
●●●	●	●●	●●●	●●●●	●●●●●

What is 100 less than 312,368?

___ less than 312,368 is _____

_____ is ___ less than 312,368

The number 312,368 is shown.

Thousands			Ones		
H	T	O	H	T	O
					
3	0	2	3	6	8

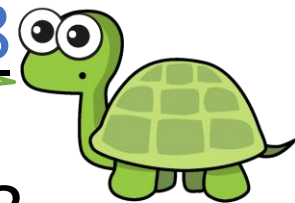
What is 10,000 less than 312,368?

10,000 less than 312,368 is 302,368

302,368 is 10,000 less than 312,368

Do you agree with Tiny?

Have a think



5

Complete the table.

Number	10 more	100 more	1,000 more	10,000 more	100,000 more
25					
250					
2,500					
25,000					
250,000					

Look at your table. What patterns can you see?

Talk about it with a partner.



Complete the table.

Number	10 more	100 more	1,000 more	10,000 more	100,000 more
25					
250					
2,500					
25,000					
250,000					

Look at your table. What patterns can you see?

Complete the table.

Number	10 more	100 more	1,000 more	10,000 more	100,000 more
25					
250					
2,500					
25,000					
250,000					

Look at your table. What patterns can you see?

Complete the table.

Number	10 more	100 more	1,000 more	10,000 more	100,000 more
25					
250					
2,500					
25,000					
250,000					

Look at your table. What patterns can you see?

The number 174,308 is shown.



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

What is 100 more than 174,308?

100 more than 174,308 is 174,408

174,408 is 100 more than 174,308



The number 174,308 is shown.

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

What is 10 more than 174,308?

10 more than 174,308 is 174,318

174,318 is 10 more than 174,308



Have a think



The number 174,308 is shown.

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

What is 10 more than 174,308?

___ more than 174,308 is _____

_____ is ___ more than 174,308

The number 174,308 is shown.

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

What is 10 more than 174,308?

___ more than 174,308 is _____

_____ is ___ more than 174,308

The number 174,308 is shown.

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

What is 10 more than 174,308?

___ more than 174,308 is _____

_____ is ___ more than 174,308

The number 174,308 is shown.

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

What is 10 more than 174,308?

___ more than 174,308 is _____

_____ is ___ more than 174,308

The number 174,308 is shown.



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

What is 100,000 less than 174,308?

100,000 less than 174,308 is 74,318

74,318 is 100,000 less than 174,308



Have a think

The number 174,308 is shown.



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

175,308 is 1,000 more than 174,308

Have a think





6

A number is represented on a place value chart.

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

Brett adds two counters to the place value chart.

What numbers could Brett have made?

What does Brett need to do if he adds two counters to the hundreds column?

Talk about it with a partner.



6

A number is represented on a place value chart.

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

Brett adds two counters to the place value chart.

What numbers could Brett have made?

6

A number is represented on a place value chart.

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

Brett adds two counters to the place value chart.

What numbers could Brett have made?

6

A number is represented on a place value chart.

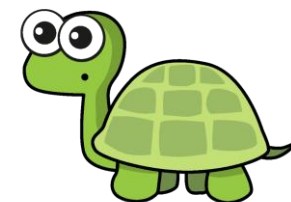
HTh	TTh	Th	H	T	O
●●	●	●●●	●●●●●●	●●●●	

Brett adds two counters to the place value chart.

What numbers could Brett have made?

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

Tiny moves the counter with the greatest value 1 place horizontally.



Tiny moves a different counter 2 places horizontally.

What numbers could Tiny have made?

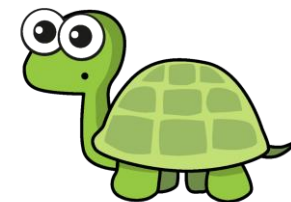
609,020
607,040

Have a think



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

Tiny moves the counter with the greatest value 1 place horizontally.



Tiny moves a different counter 2 places horizontally.

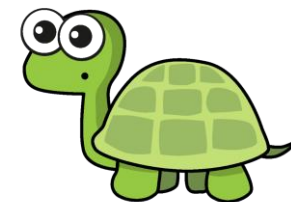
What numbers could Tiny have made?

609,020 605,020

607,040 607,000

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

Tiny moves the counter with the greatest value 1 place horizontally.



Tiny moves a different counter 2 places horizontally.

What numbers could Tiny have made?

609,020 605,020 409,020 405,020
607,040 607,000 407,040 407,000

3 **b)** What is 100 more than 568,241?

c) What is 1 less than 568,241?

d) What is 10 more than 568,241?

Compare methods with a partner.



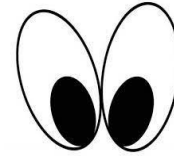
Maths Meeting- Weds Key skills



Times tables

Let's revise the x 6 tables....

<https://www.youtube.com/watch?v=e7rYbk9PNuM>

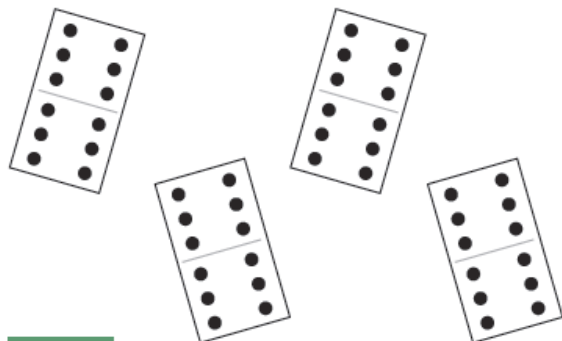


Now write them down as
quickly as you can on your
whiteboards!

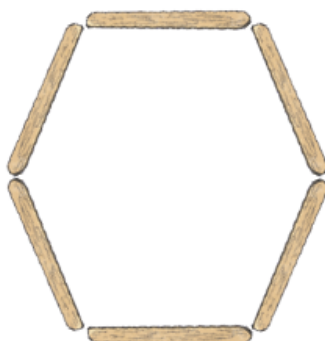
Can you link your x6 tables to division?

6 Times Table Maths Mastery Mat

How many spots are there altogether?



If you need 6 lolly sticks to make one hexagon, how many hexagons can you make with 24 lolly sticks?



hexagons

Create a fact family using 9, 54 and 6.

	×		=	
	×		=	
	÷		=	
	÷		=	

Complete the table.

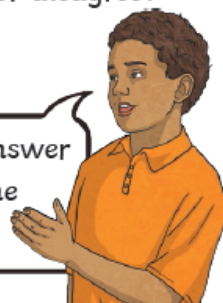
60 minutes = 1 hour

Minutes	Hours
	2
600	
	7

Do you agree or disagree?

Explain your answer.

I can work out the answer to 5×6 if I double the answer for 5×3 .



Draw an array to match this calculation.

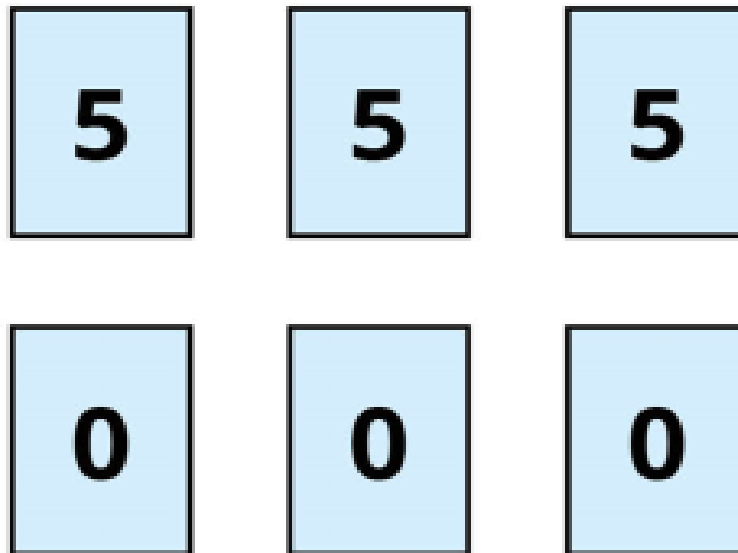
$$6 \times 6 = \boxed{}$$

Thurs 21.9.23

LO: To partition numbers to 1,000, 000

Use the digit cards to make as many 6-digit numbers as you can.

**DO NOW-
whiteboards**

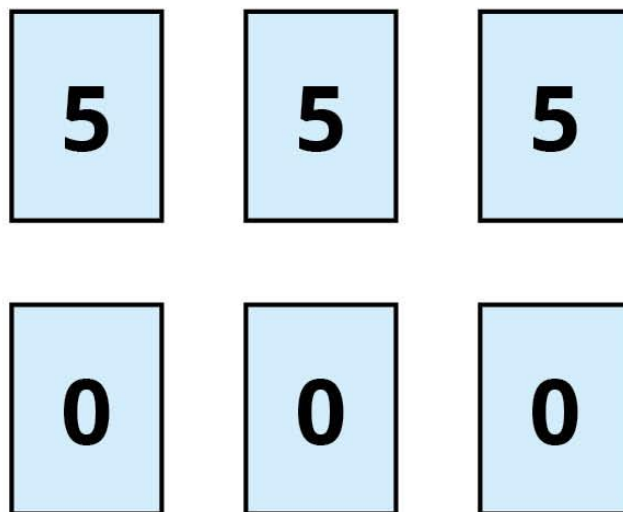


What is the greatest number you can make?

What is the smallest number you can make?

What is the difference between the greatest and smallest numbers?

Use the digit cards to make as many 6-digit numbers as you can.



What is the greatest number you can make?

What is the smallest number you can make?

What is the difference between the greatest and smallest numbers?

Block Place Value

Key vocabulary

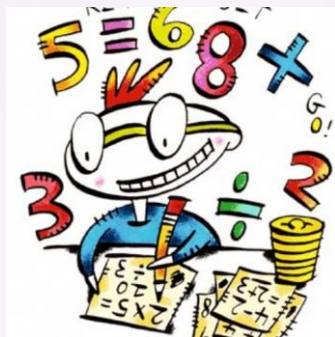
Roman Numerals, number system, place holder, one, ten, hundred, thousand, ten thousand, hundred thousand, millions, compare, order, rounding

	WT	EX	S
Roman numerals to 1000			
Numbers to 10,000			
Numbers to 100,000			
Numbers to 1,000,000			
Read and write numbers to 1,000,000			
Powers of 10			
10/100/1000/10,000/100,000 more or less			
Partition numbers to 1,000,000			
Number line to 1,000,000			
Compare and order numbers to 100,000			
Compare and orders numbers to 1,000,000			
Round to the nearest 10, 100 or 1000			
Round within 100,000			
Round within 1,000,000			

Stem sentences

- The letter — represents the number —
- I know is greater than because ...
- The value of the — in — is
- The column before/after the — column is the — column.
- 10 — can be exchanged for 1 —
- 1 — can be exchanged for —
- The number before/after the comma is — This part of the number is said/written as —
- The whole of the number is said/written as —

Maths Three Repeating Golden Threads



Mastery

Pupils acquire a deep, long-term, secure adaptable understanding

Fluency

Quick and. efficient recall of facts and procedures

Application

The use of maths everyday in the real world, outside the classroom.



White Rose
MATHS

Crucial Vocab...

partition
place value
one million

partition
place value
one million

partition
place value
one million

partition
place value
one million

partition
place value
one million

partition
place value
one million

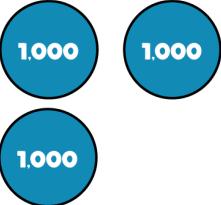
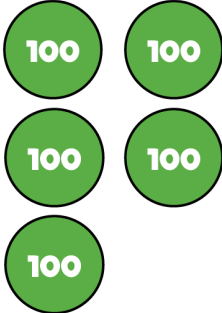
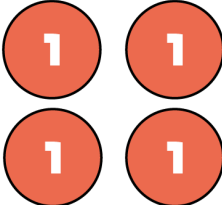
partition
place value
one million

partition
place value
one million

partition
place value
one million

Recap...

1) What number is represented?

Th	H	T	O
			

2) How many tens are there in 100?

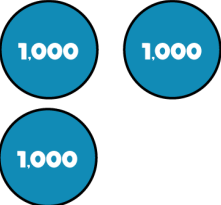
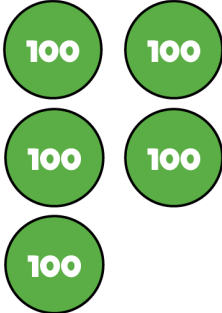
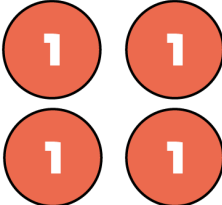
How many tens are there in 200?

How many tens are there in 400?

How many tens are there in 420?

How many hundreds are there in 4,200?

1) What number is represented? 3,524

Th	H	T	O
			

2) How many tens are there in 100? 10

How many tens are there in 200? 20

How many tens are there in 400? 40

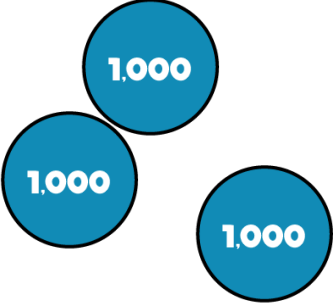
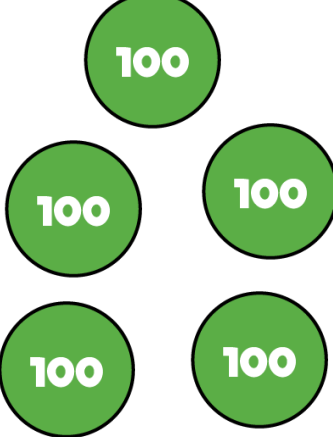
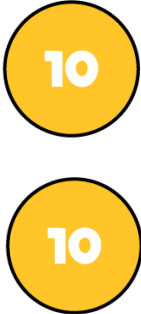
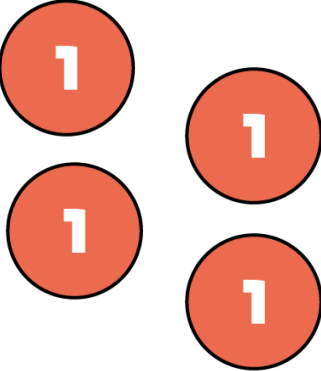
How many tens are there in 420? 42

How many hundreds are there in 4,200? 42



Let's learn

Get ready for today's
new learning.

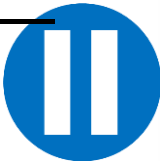
Th	H	T	O
			

3,524 is equal to 3 thousands, 5 hundreds,
2 tens and 4 ones.

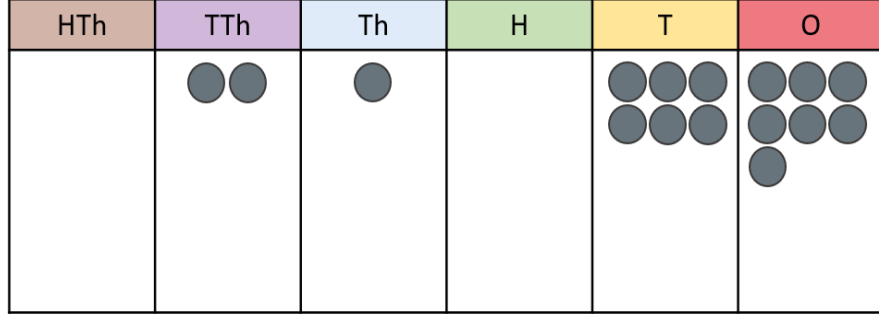
HTh	TTh	Th	H	T	O
	● ●	●		● ● ● ● ● ●	● ● ● ● ● ● ●

21,067 is equal to 2 ten-thousands, 1 thousand, 0 hundreds, 6 tens and 7 ones.

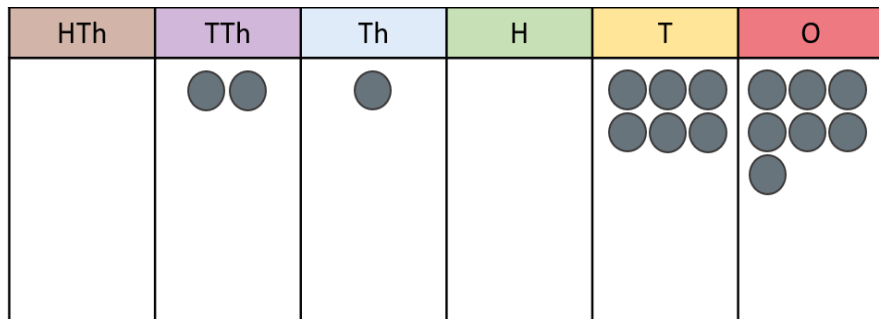
$$21,067 = \underline{20,000} + \underline{1,000} + \underline{60} + \underline{7}$$

Have a think 

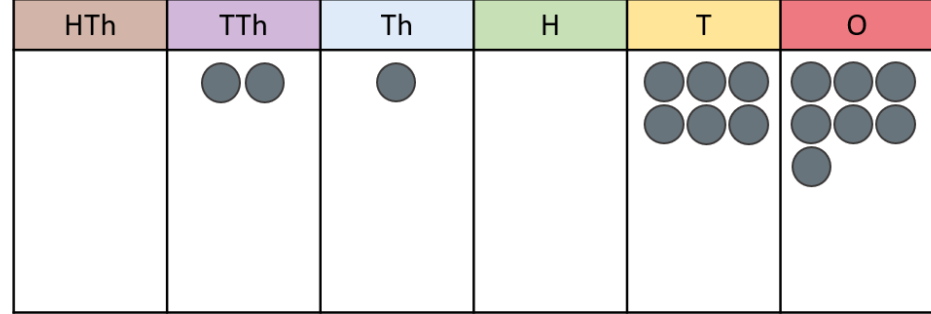




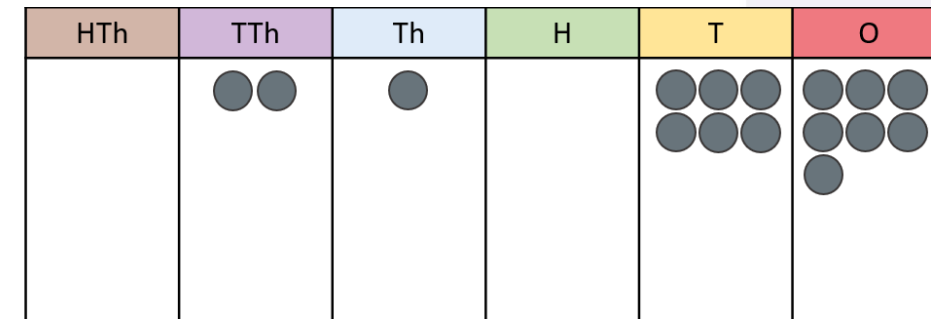
_____ is equal to ____ ten-thousands, ____ thousand,
____ hundreds, ____ tens and ____ ones.



_____ is equal to ____ ten-thousands, ____ thousand,
____ hundreds, ____ tens and ____ ones.



_____ is equal to ____ ten-thousands, ____ thousand,
____ hundreds, ____ tens and ____ ones.



_____ is equal to ____ ten-thousands, ____ thousand,
____ hundreds, ____ tens and ____ ones.

620,913

HTh	TTh	Th	H	T	O

What is the value of the first digit? 600,000

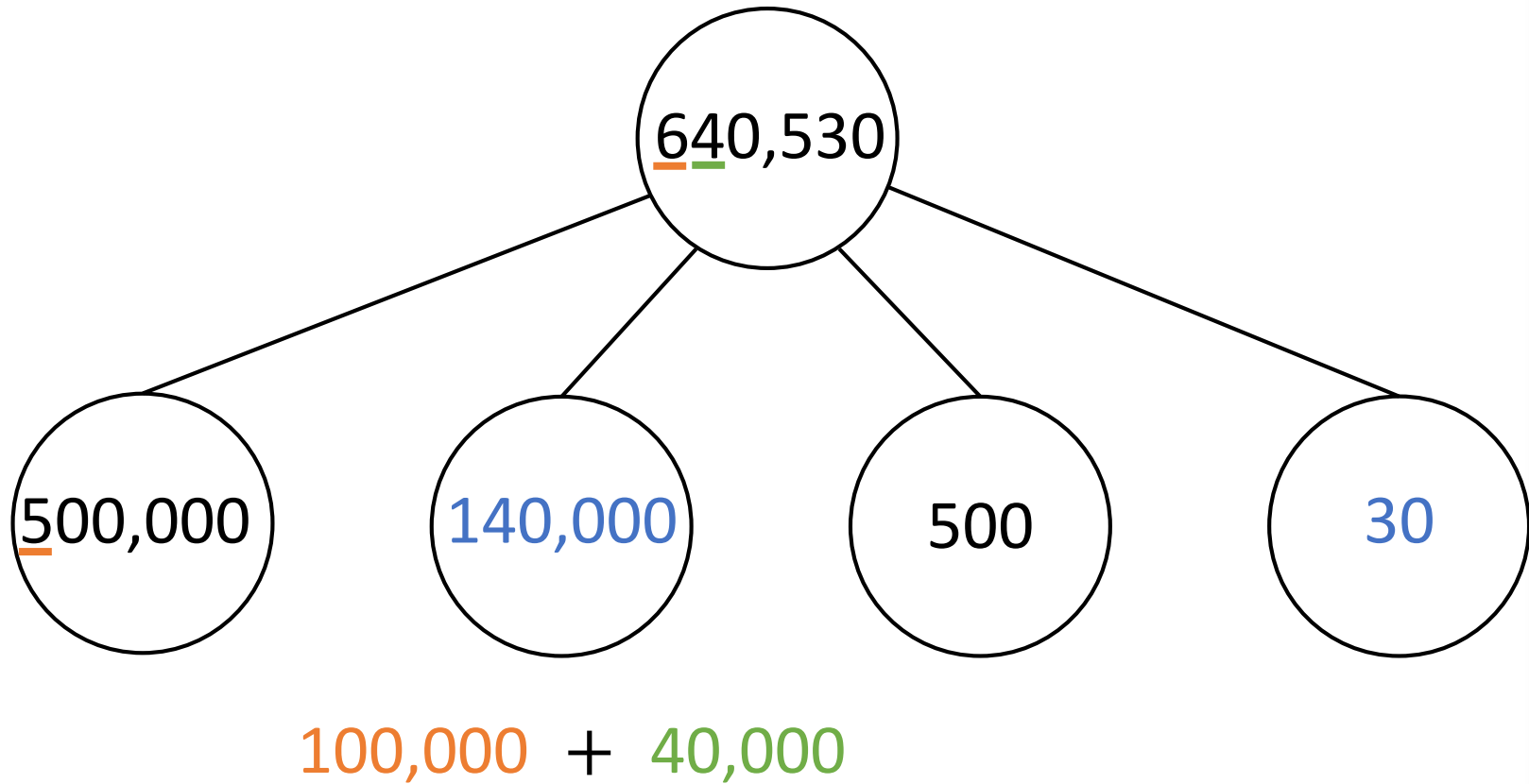
What is the value the digit 9? 900

What is the value of the third digit? 0

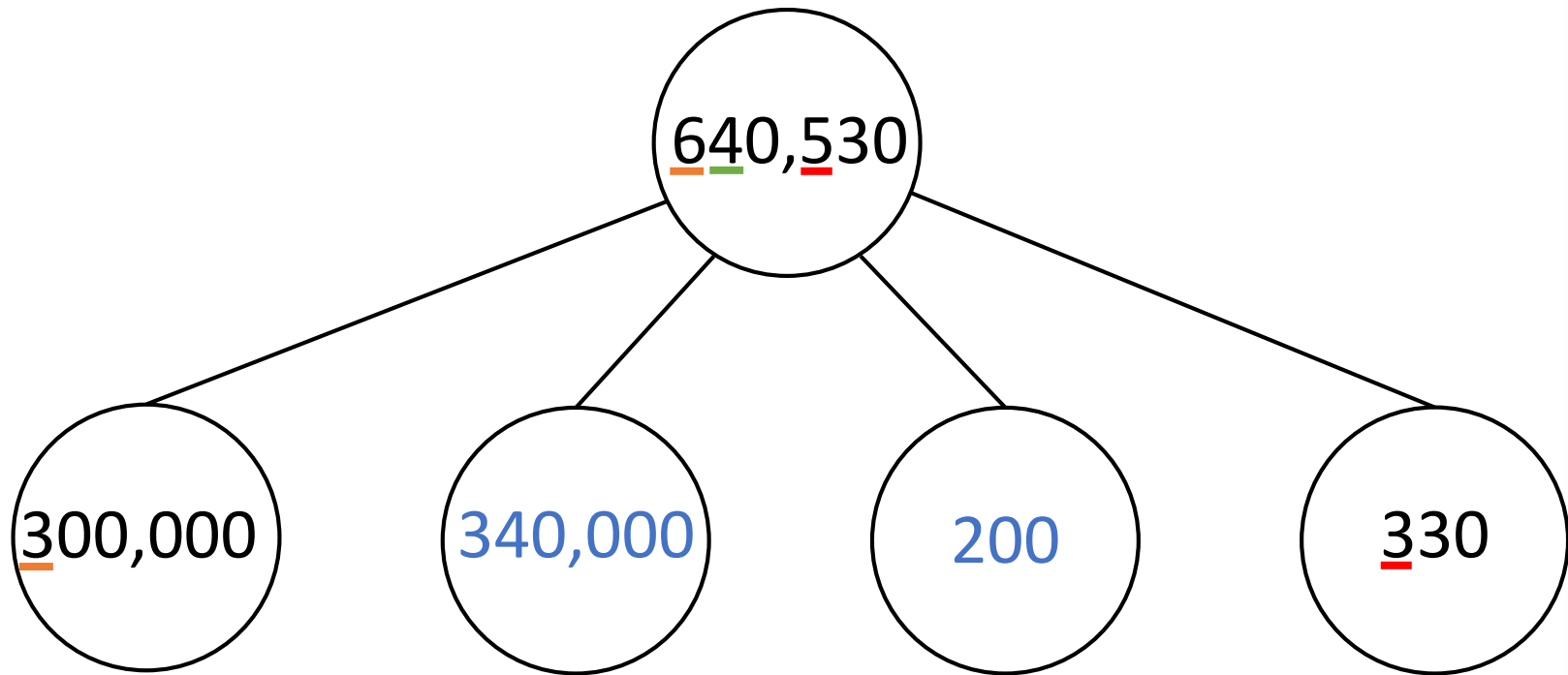
Have a think



Complete the part-whole model.



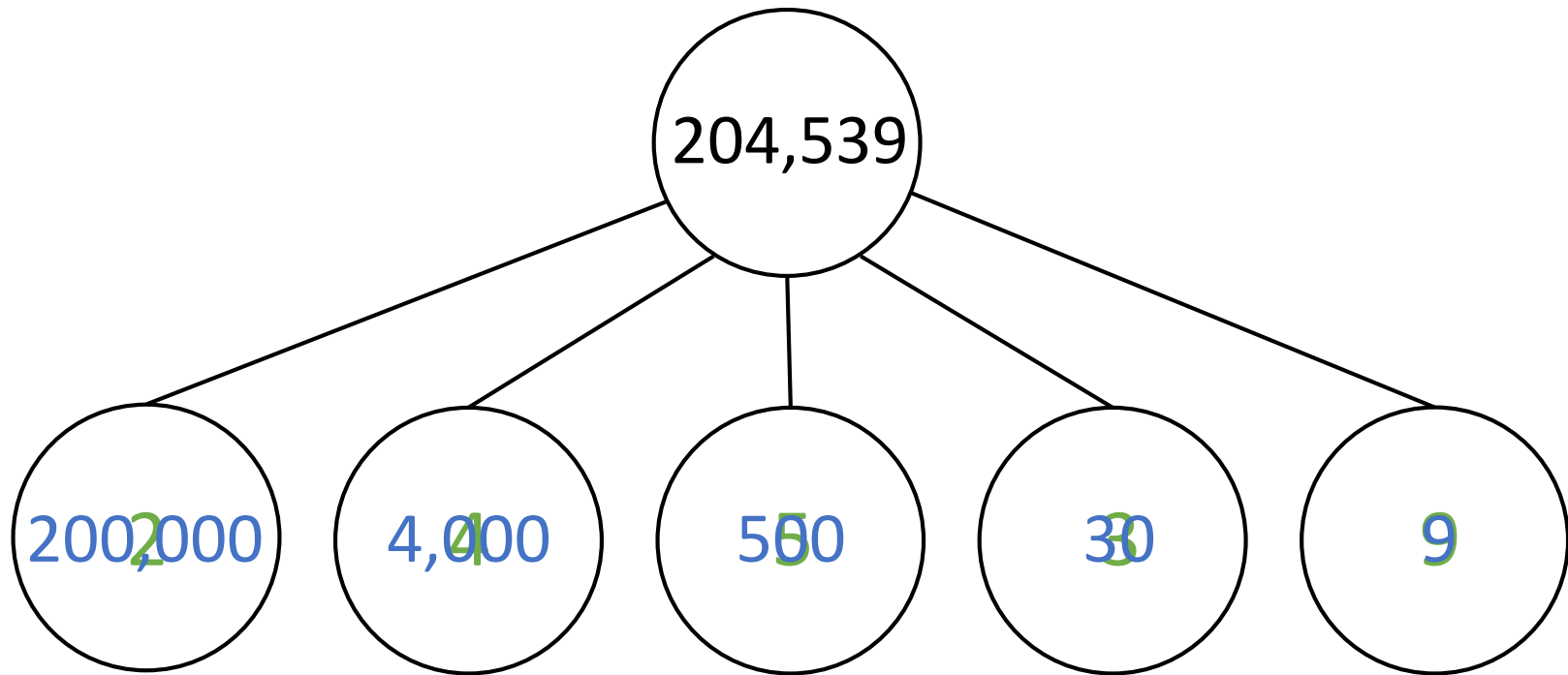
Complete the part-whole model.



$$300,000 + 40,000$$

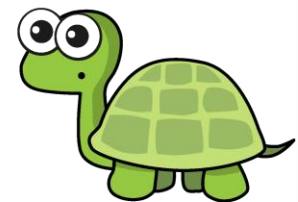
Have a think 

Complete the part-whole model.



Do you agree with Tiny?

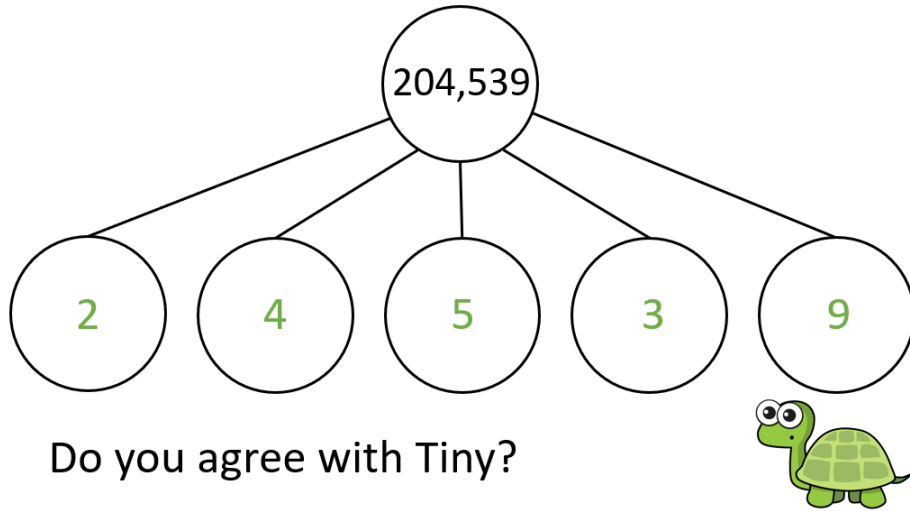
No, Tiny has not considered the place value of each digit.



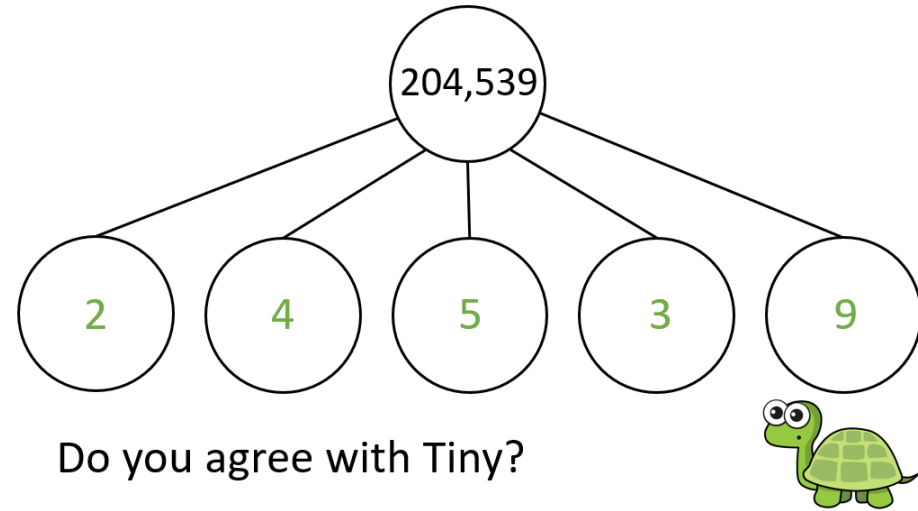
Have a think



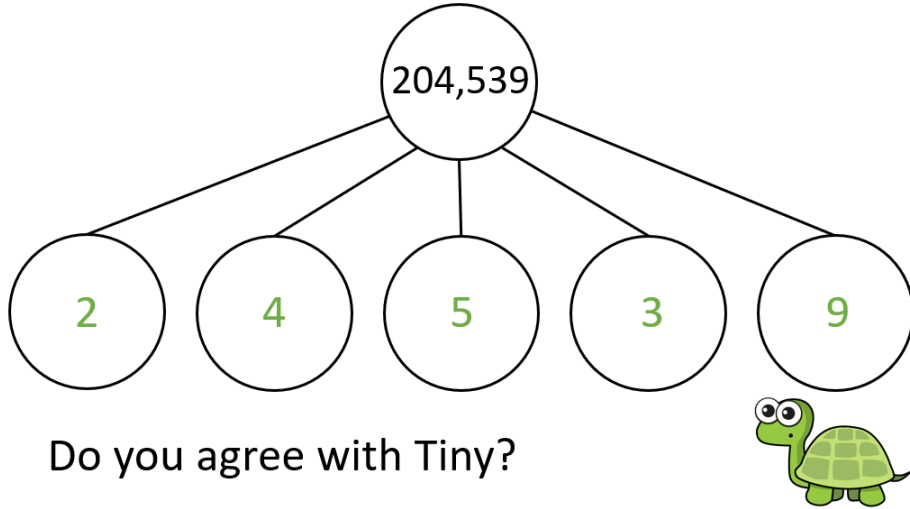
Complete the part-whole model.



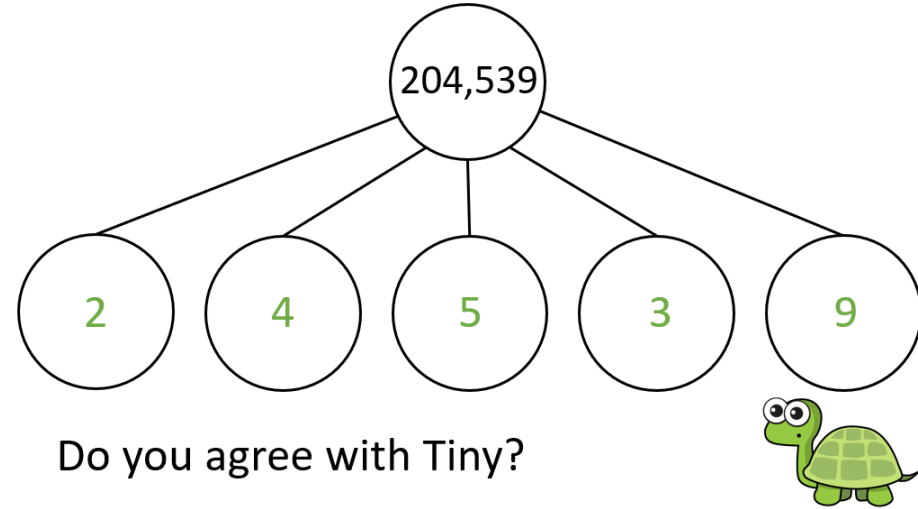
Complete the part-whole model.



Complete the part-whole model.



Complete the part-whole model.



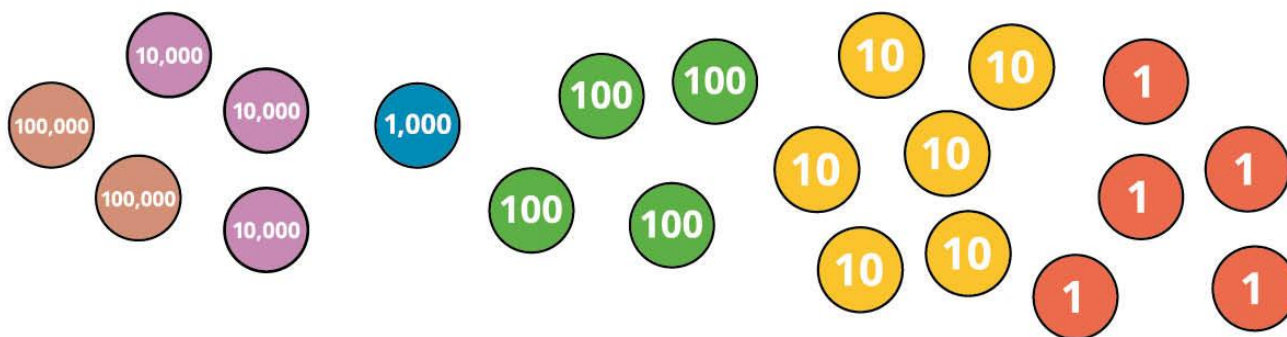


Your turn



Partition numbers to 1,000,000

1 Complete the number sentence to partition the number.



$$231,465 = 200,000 + \boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{}$$



2

Complete the number sentence to partition the number.

HTh	TTh	Th	H	T	O
					

$$\boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{} = \boxed{}$$



- 1 Complete the number sentence to partition the number.



$$231,465 = 200,000 + \boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{}$$

- 2 Complete the number sentence to partition the number.

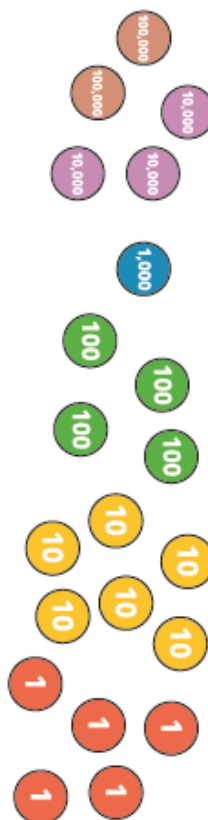
HTh	TTh	Th	H	T	O

$$\boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{} = \boxed{}$$

Thurs

- 1

Complete the number sentence to partition the number.



$$231,465 = 200,000 + \boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{}$$

- 2

Complete the number sentence to partition the number.

HTh	TTh	Th	H	T	O

$$\boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{} = \boxed{}$$

- 1 Complete the number sentence to partition the number.



$$231,465 = 200,000 + \boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{}$$

- 2 Complete the number sentence to partition the number.

HTh	TTh	Th	H	T	O

$$\boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{} = \boxed{}$$

- 4 Partition each number into its parts.

The first one has been done for you.

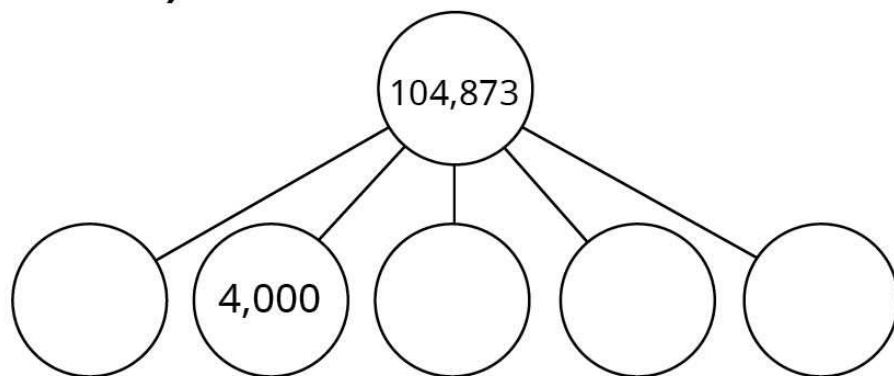
a) $32,607 = \underline{30,000 + 2,000 + 600 + 7}$

b) $2,915 = \underline{\hspace{4cm}}$

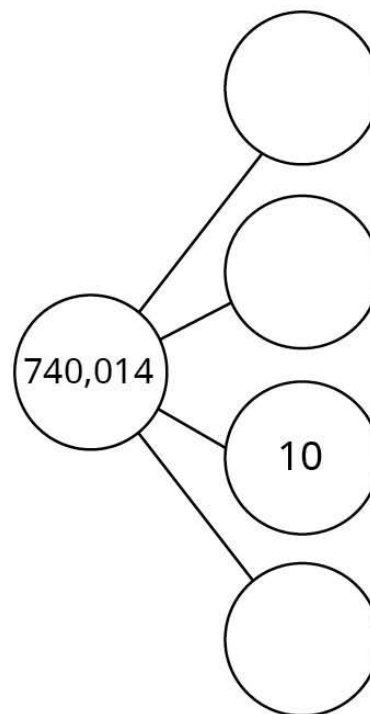
c) $30,316 = \underline{\hspace{4cm}}$

3 Complete the part-whole models.

a)



b)



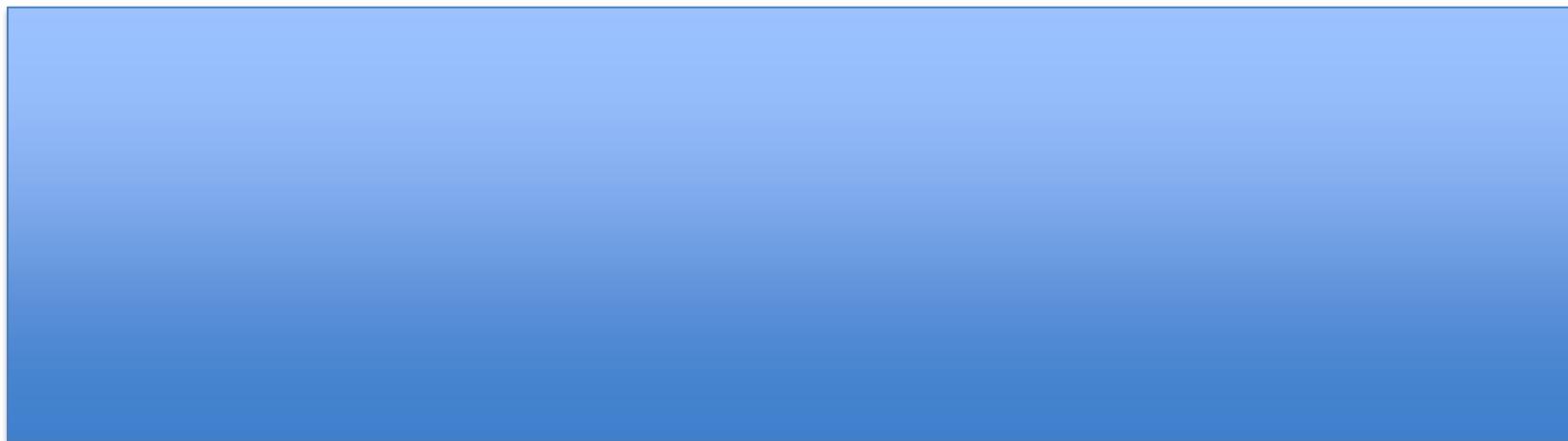
4 Partition each number into its parts.

The first one has been done for you.

a) $32,607 = \underline{30,000 + 2,000 + 600 + 7}$

b) $2,915 = \underline{\hspace{10cm}}$

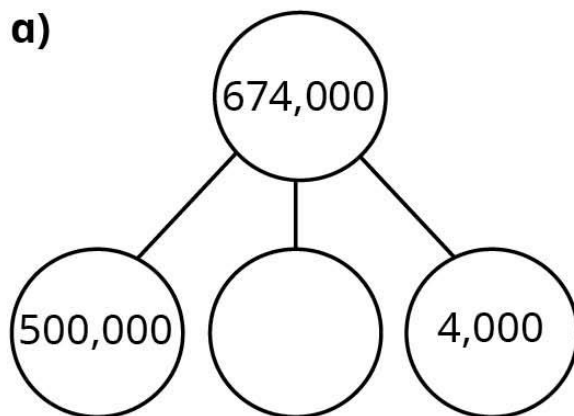
c) $30,316 = \underline{\hspace{10cm}}$



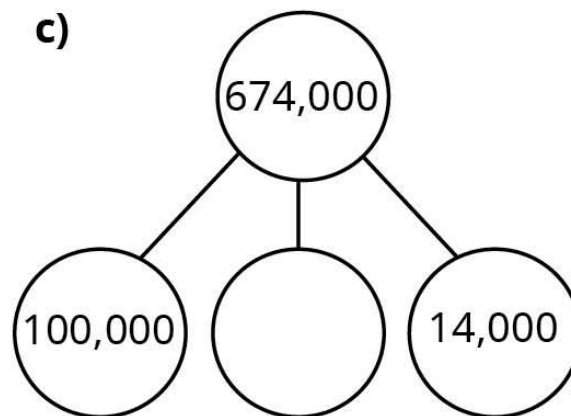
6

Complete the part-whole models showing 674,000 partitioned in different ways.

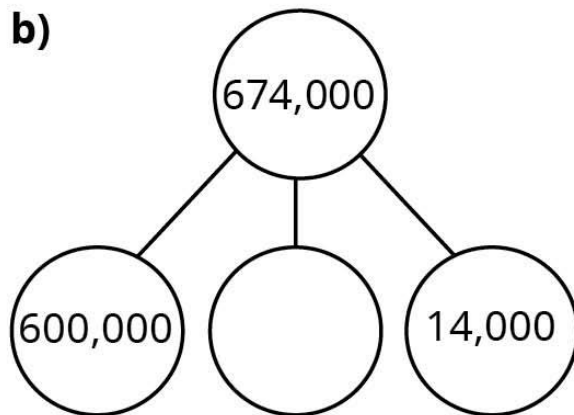
a)



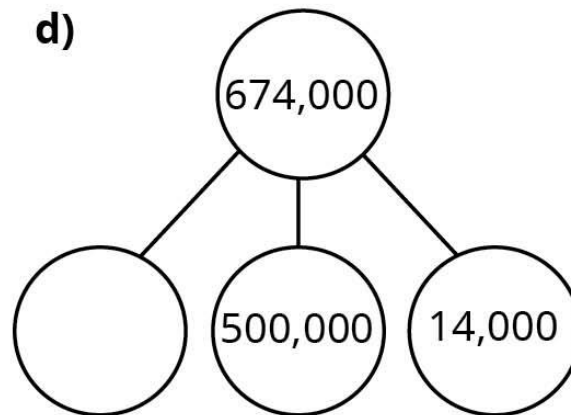
c)



b)



d)



7 Complete the number sentences.

a) $125,684 = 100,000 + 20,000 + 4,000 + \boxed{} + 84$

b) $125,684 = 110,000 + \boxed{} + 600 + \boxed{}$

c) $597,203 = 203 + 400,000 + \boxed{} + \boxed{}$

d) $597,203 = 500,000 + 10,000 + \boxed{} + 200 + \boxed{}$

Is there more than one way of completing each number sentence?





8

Partition 349,251 in three different ways.



Which children are describing the same numbers?



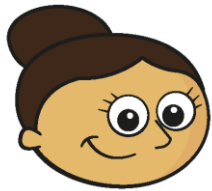
Teddy

My number is equal to
 $2,000 + 2,200 + 70 + 5$



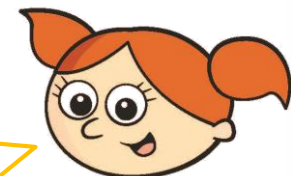
Amir

My number has 2 thousands, 4
hundreds, 7 tens and 5 ones.



Dora

My number is equal to $50 + 25 + 1,000 + 1,400$



Alex

My number is equal to 42
hundreds, 6 tens and 15 ones

Have a think



Which children are describing the same numbers?



Teddy

My number is equal to
2,000 + 2,200 + 70 + 5

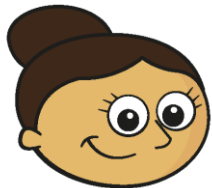
4,275

2,475

My number has 2 thousands, 4
hundreds, 7 tens and 5 ones.



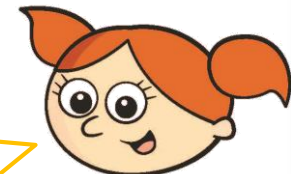
Amir



Dora

My number is equal to 50
+ 25 + 1,000 + 1,400

2,400



Alex

4,200

My number is equal to 42
hundreds, 6 tens and 15 ones

Teddy and Alex

Amir and Dora

Maths Meeting- Thurs Key skills

Addition recap



Calculate the missing numbers using formal written methods:

$$5432 + \boxed{} 3749$$

$$12\,349 + \boxed{} 17\,878$$

$$6217 - \boxed{} 2488$$

$$8962 = \boxed{} 421$$

Show answers

A chocolate factory has 16 480 boxes of chocolates. They send 8361 boxes to a shop to be sold. They then make another 9621 boxes.

How many boxes do they now have altogether?



$$\begin{array}{r}
 \overset{1}{\cancel{1}}6 \ 4 \ \overset{7}{\cancel{8}} \ \overset{1}{\cancel{0}} \\
 - \quad 8 \ 3 \ 6 \ 1 \\
 \hline
 8 \ 1 \ 1 \ 9
 \end{array}$$

$$\begin{array}{r}
 9 \ 6 \ 2 \ 1 \\
 + \quad 8 \ 1 \ 1 \ 9 \\
 \hline
 1 \ 7 \ 7 \ 4 \ 0 \\
 \hline
 1
 \end{array}$$

Show answers