

max maths primary

A SINGAPORE APPROACH

Student Book
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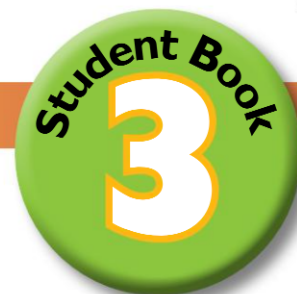
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Preface

max maths Primary – A Singapore Approach is a mathematics course specially designed to meet the needs of learners following the **Cambridge Primary** curriculum framework in Stages 1 to 6.

The **Max Maths Primary** student books guide learners through key mathematical concepts, addressing the learning objectives in the **Cambridge Primary** curriculum framework. Each topic begins with an engaging introduction followed by scaffolded activities that ensure learners have grasped the necessary concepts, skills and knowledge. A variety of exercises, games and cooperative learning activities are included in each chapter to reinforce problem-solving skills and provide the opportunity for learners to develop their content knowledge.

Student book features



Chapter openers

Each chapter is introduced with clearly defined learning objectives and provides a real-world context for teachers to facilitate discussion with the class.

The Max Maths team



Samir



Jade



Toby



Padma



Han



Tya

Engaging photographs and illustrations

Colourful illustrations and photographs help to engage learners and encourage an enthusiastic approach to learning mathematics.

Reflective symmetry in the environment

Let's Learn Together

We can see reflective symmetry in nature too. Have a look at these pictures. Note where the line of reflection is.



2D shapes with reflective symmetry

Let's Learn Together

Han and Jade have been playing a game. First Han draws part of a shape. Then he passes it to Jade, who completes the shape using the line of symmetry.

Here are some shapes that Han and Jade have completed.



Let's Try It

Here are some part shapes that Han has drawn. Complete the shape, thinking about the line of symmetry.



Review of measuring mass in grams and in kilograms

Let's Learn Together

1 We can use weighing scales to measure the mass of objects in grams and kilograms.

(a) The weighing scale measures the mass of objects in grams. The apple weighs 150g.



75% of the mass of the scale is 100g. Its actual mass is 150g.

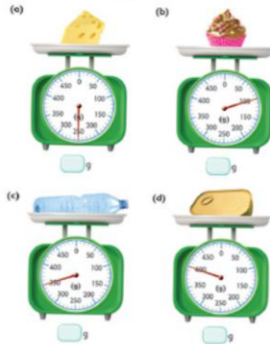
(b) This weighing scale measures the mass of objects in kilograms and grams. The pineapple weighs 4kg 500g.



75% of the mass of the pineapple is 5kg. Its actual mass is 4kg 500g.

Let's Try It

1 Write the masses of the objects.



Scaffolded learning

Each mathematics topic provides scaffolding for learners ensuring they have a solid grasp of each topic before practising and applying concepts learnt.

Cooperative learning

Games, activities and challenging problem-solving questions encourage cooperative learning and make learning mathematics fun and exciting.

Game TIME

Form 2 lines at the front of the classroom.

Your teacher will say a number between 1 and 50 to the pair of learners at the front of the line.

The first learner to double the number moves to the back of the line. The other learner must sit down.

Continue until there is only 1 learner left standing. This learner is the Doubling Champion!

You can also play this game by halving the numbers.



1 Complete the table.

Name	Example	Number of sides	Number of vertices
Pentagon		5	
Triangle			
Square			
Octagon			
Rectangle			4
Hexagon			

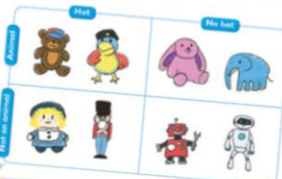
Sorting according to two criteria using Carroll diagrams

Let's Learn Together

Padma has some toys she is sorting out. She has made up some labels on her shelves where the toys will be stored.



Jade tells Padma it is possible to represent what she has done with her toys as a Carroll diagram.



Cambridge Primary curriculum framework

In the spirit of the Cambridge Primary curriculum framework, practical activities that encourage conceptual understanding and problem-solving are included.

Workbook links

Workbook links provide guidance to teachers and learners by directing them to the corresponding activities in the workbook.

1

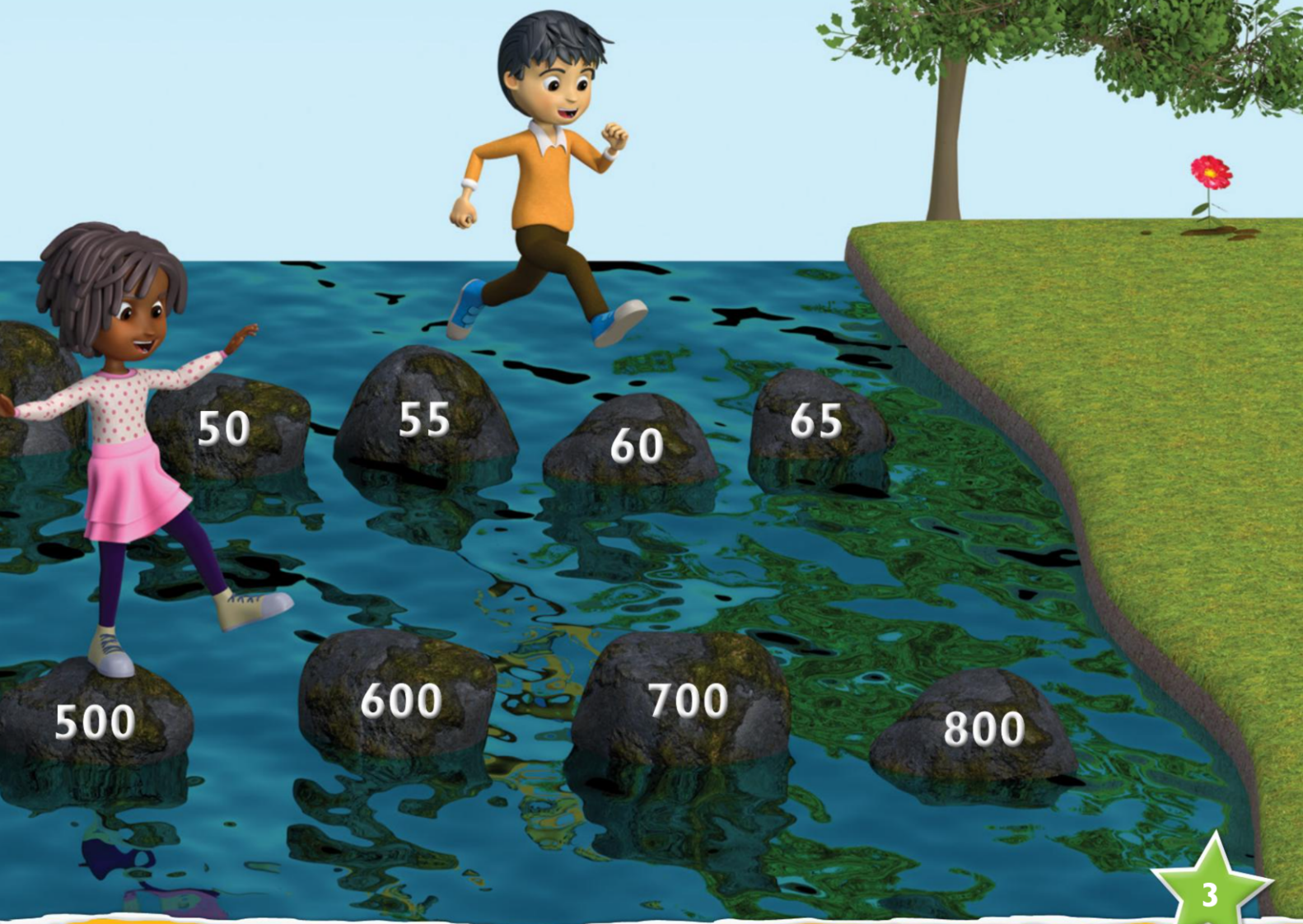
Numbers up to 1 000



2

You will learn to ...

- count, read and write numbers up to 1 000
- recognise place values of 3-digit numbers
- compare and order numbers within 1 000
- count forwards and backwards in steps of 1
- count forward in steps of 2, 5 and 10
- count in steps of 50 and 100 up to 1 000.



Counting up to 1 000

Let's Learn Together



1 Recall that 10 ones make 1 ten.

I can show how 10 ones make 1 ten using blocks.

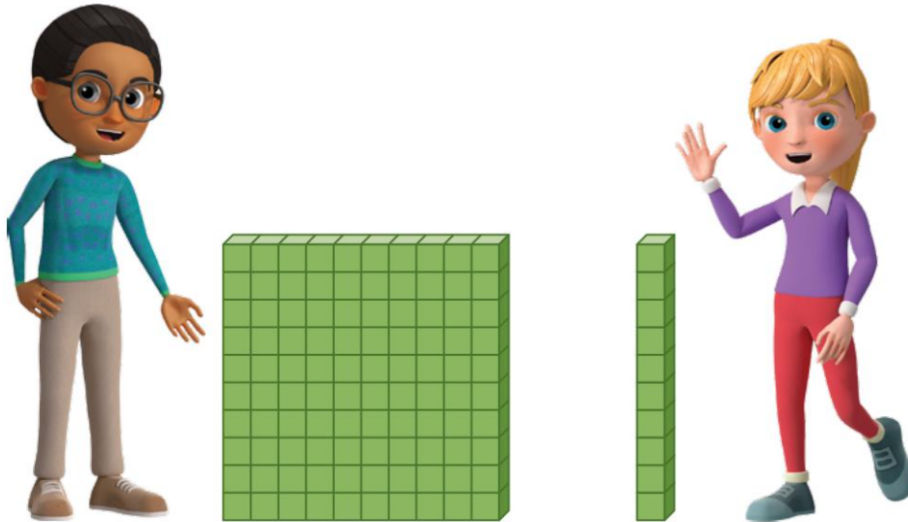
I can show how 10 ones make 1 ten using beads.

Also recall that 10 tens make 1 hundred.

I can show how 10 tens make 1 hundred using blocks.

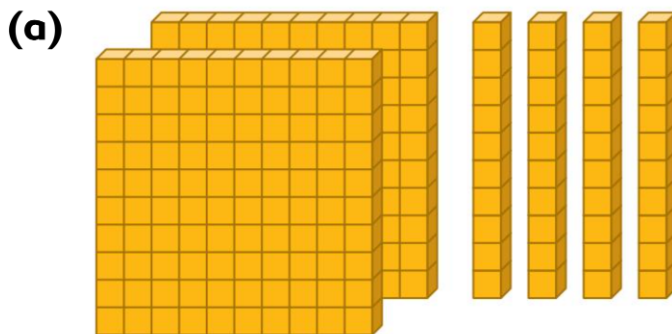
I can show how 10 tens make 1 hundred using beads.

- 2 Samir has 100 blocks. Jade has 10 blocks. What number do they make with these blocks altogether?

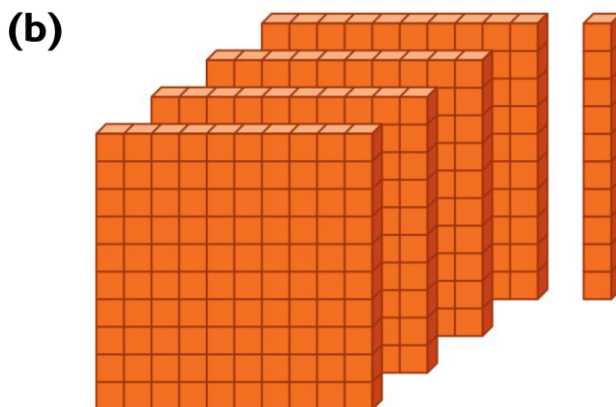


100 and 10 make 110. They make 110 with these blocks. We say this number as 'one hundred and ten'.

- 3 Look at the blocks below. Can you write and say the numbers?

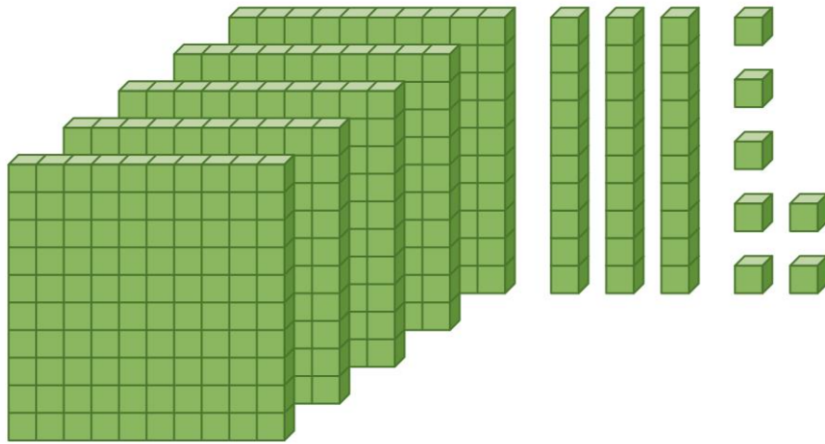


There are 2 hundreds blocks and 4 tens blocks. That makes 240.



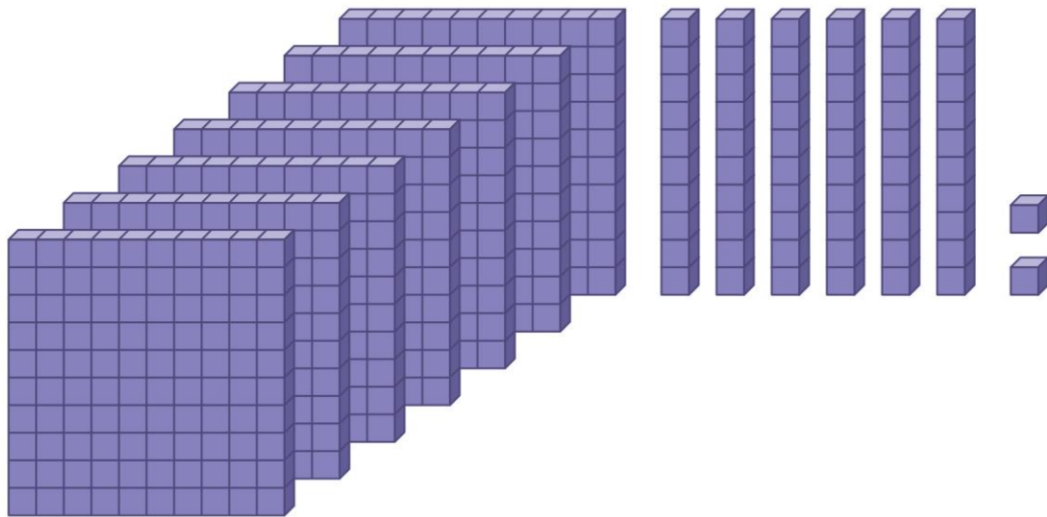
There are 4 hundreds blocks and 1 ten block. That makes 410.

(c)



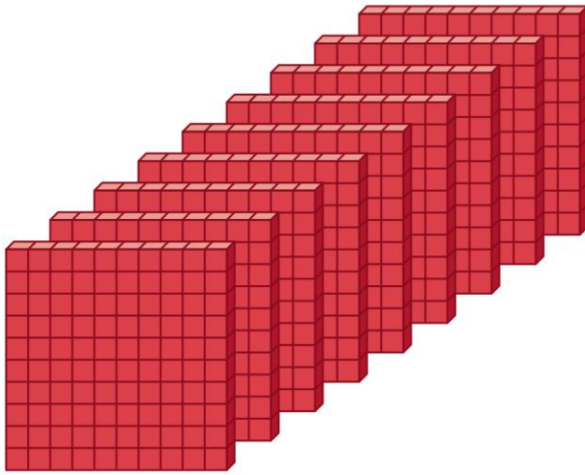
There are 5 hundreds, 3 tens and 7 ones. That makes 537.
We say this number as 'five hundred and thirty-seven'.

(d)



There are 7 hundreds, 6 tens and 2 ones. That makes 762.
We say this number as 'seven hundred and sixty-two'.

4 Tya makes a number with counting blocks.



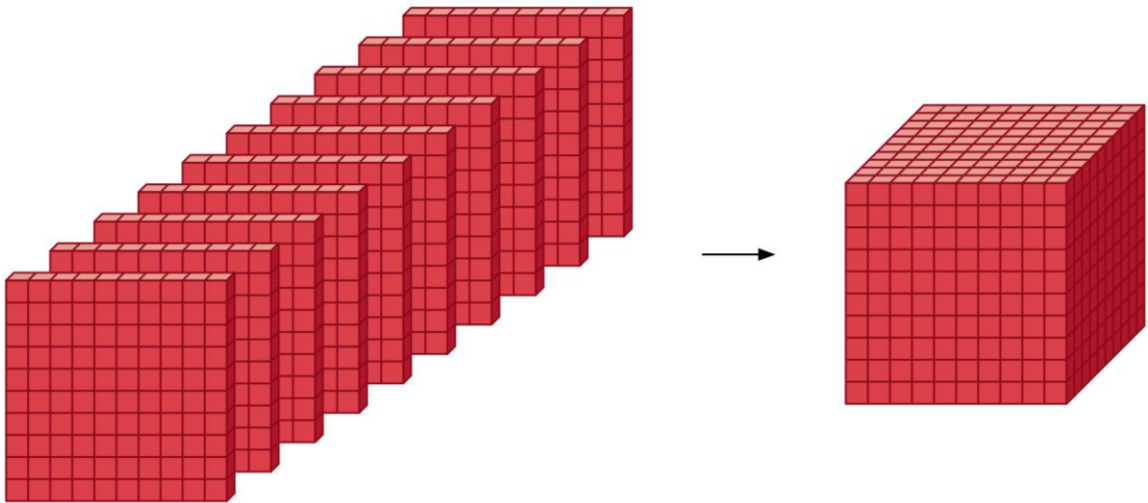
1, 2, 3, 4, 5, 6, 7, 8, 9.
There are 9 hundreds blocks.
I have the number 900!



Tya makes the number 900.

Jade adds 1 more hundred block to Tya's counting blocks.

How many blocks are there now?

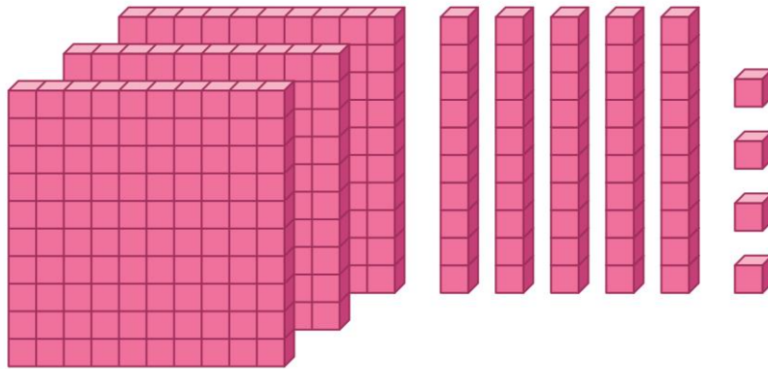


There are 1 000 blocks now. We say this as 'one thousand'.

Let's Try It

1 Complete the following.

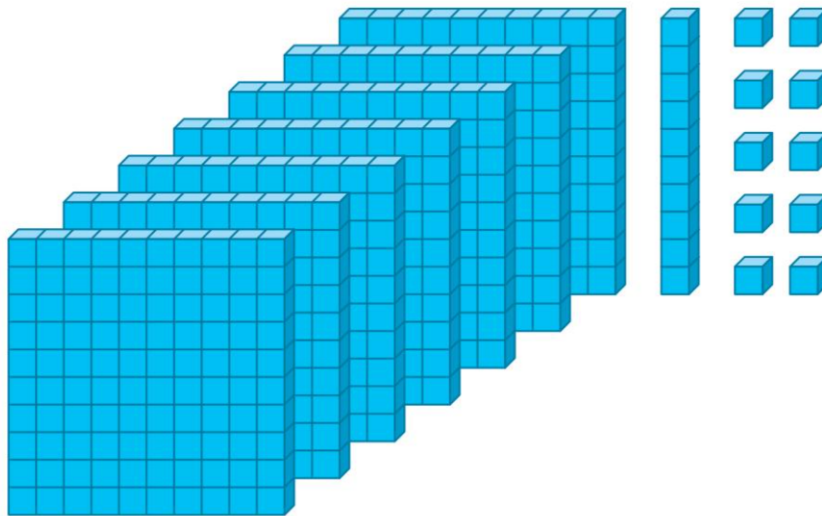
(a)



There are hundreds, tens and ones.

There are blocks altogether.

(b)



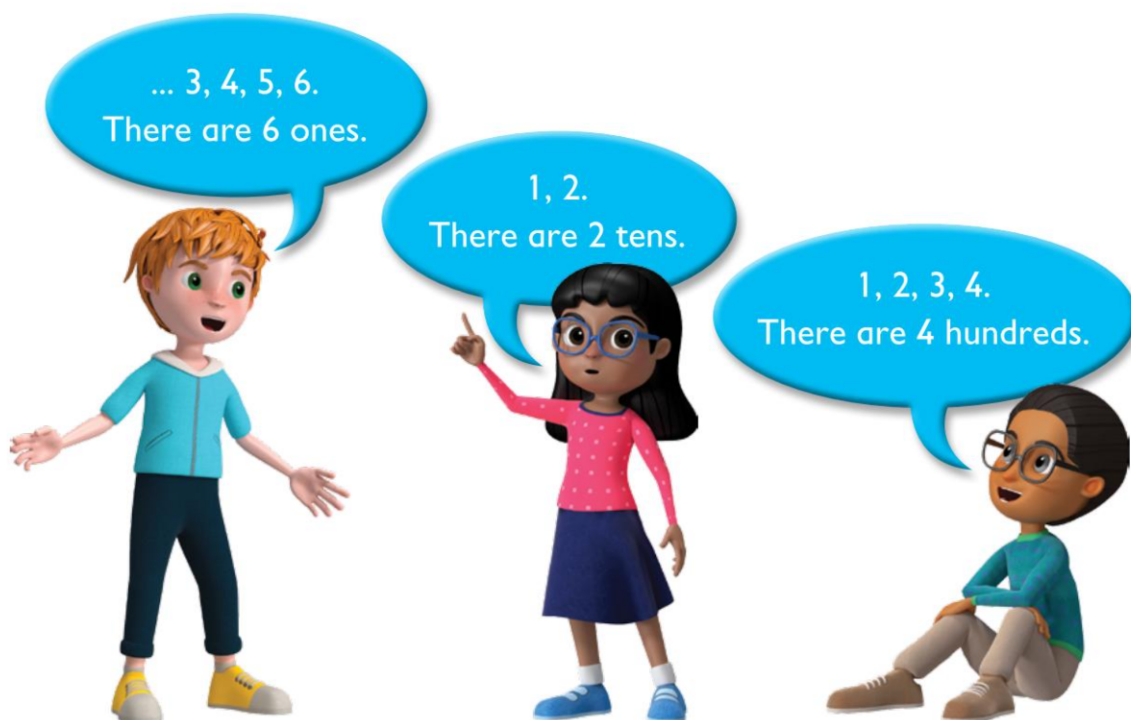
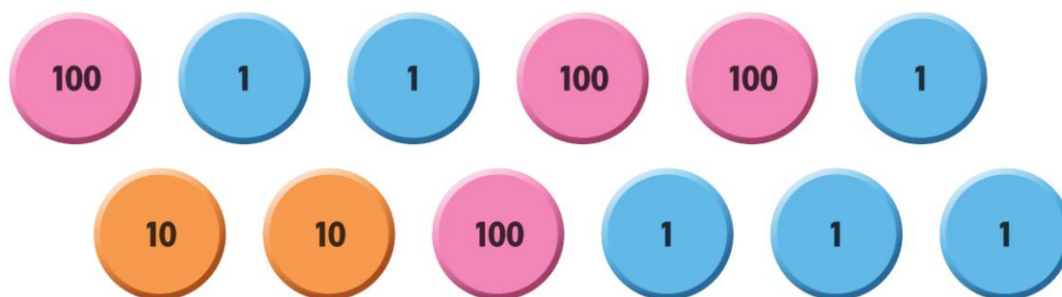
There are hundreds, tens and ones.

There are blocks altogether.

Place value

Let's Learn Together

- 1 Look at the numbers on the counters. What number do they represent?



Let's show the number in a place-value chart.

Hundreds	Tens	Ones
4	2	6

$$\begin{array}{r} 400 \\ 20 \\ 6 \\ \hline 426 \end{array}$$

- 2 Look at the number in the place-value chart.
Find the value of each digit.

(a)

Hundreds	Tens	Ones
1	9	5

1	0	0
	9	0
		5
1	9	5

(b)

Hundreds	Tens	Ones
5	7	1

5	0	0
	7	0
		1
5	7	1

(c)

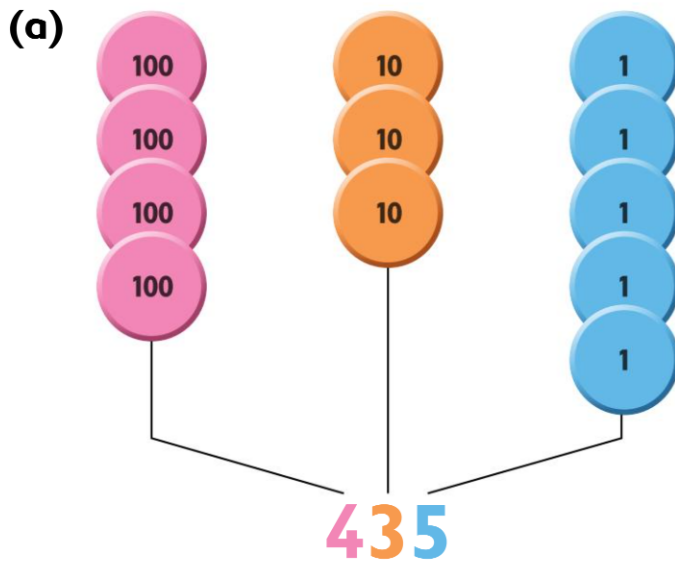
Hundreds	Tens	Ones
9	8	4

9	0	0
	8	0
		4
9	8	4

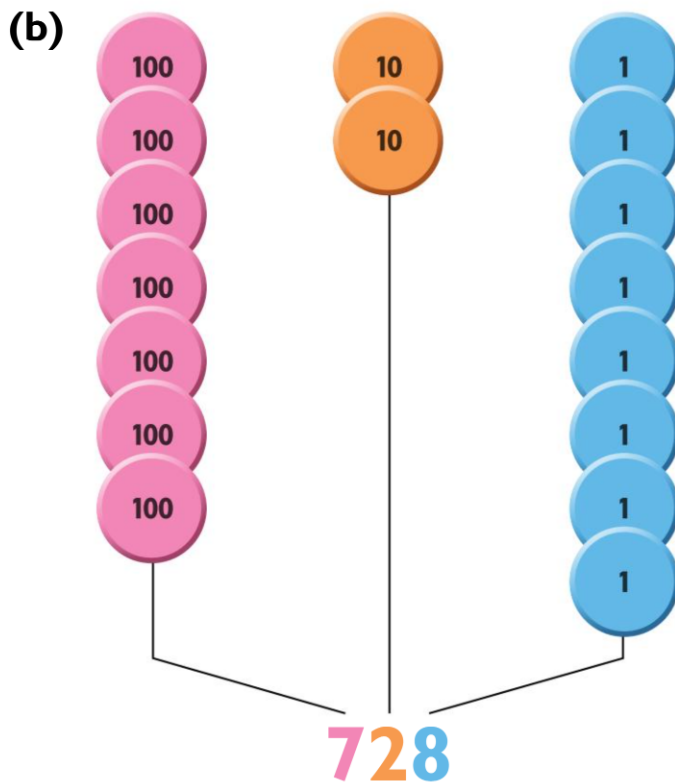


The digit 9 is in the hundreds place and it represents 900.

3 Look at how the numbers on the counters represent the numbers.



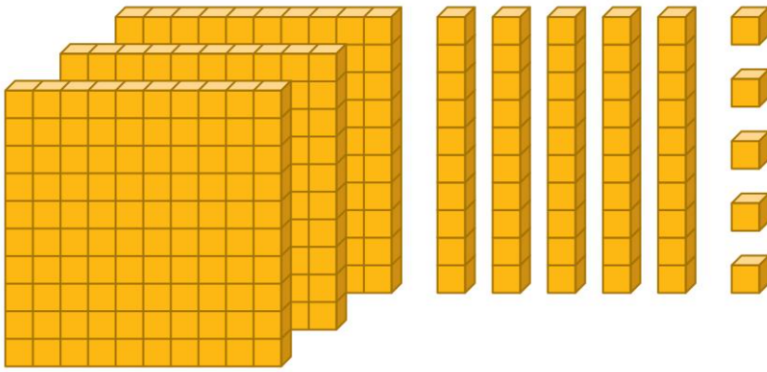
Four hundred and thirty-five



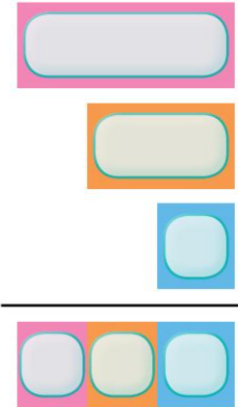
Seven hundred and twenty-eight

Let's Try It

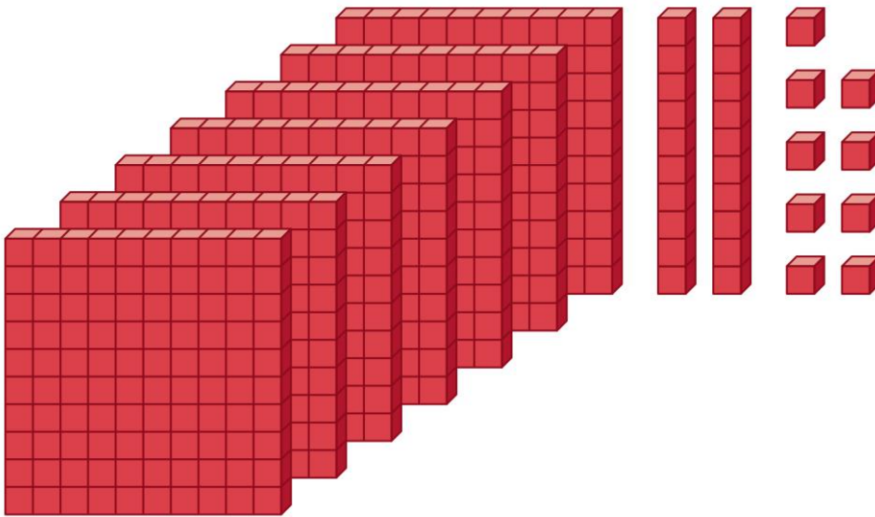
(a)



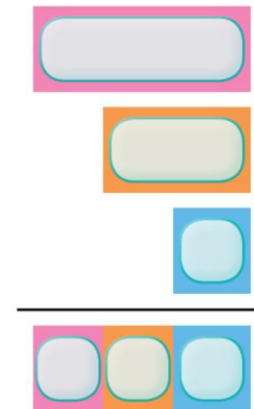
Hundreds	Tens	Ones
○	○	○



(b)



Hundreds	Tens	Ones
○	○	○



Let's Practise

Fill in the blanks.



(a) 729

The digit **7** is in the **Hundreds** place and it represents

The digit **2** is in the **Tens** place and it represents

The digit **9** is in the **Ones** place and it represents

(b) 105

The digit **1** is in the **Hundreds** place and it represents

The digit **0** is in the **Tens** place and it represents

The digit **5** is in the **Ones** place and it represents

(c) 481

The digit **4** is in the **Hundreds** place and it represents

The digit **8** is in the **Tens** place and it represents

The digit **1** is in the **Ones** place and it represents

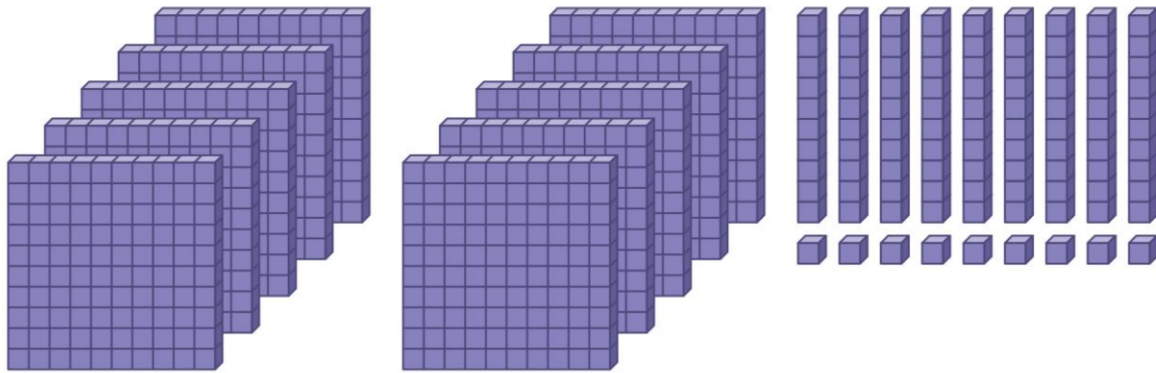
(d) 536

The digit **5** is in the **Hundreds** place and it represents

The digit **3** is in the **Tens** place and it represents

The digit **6** is in the **Ones** place and it represents

Your teacher will give you a set of counting blocks like the ones shown below.



Your teacher will then call out a number between 100 and 1 000. As quickly as you can, show the number using blocks. Put up your hand when you have finished making the number.

The first group to show the number correctly gets 1 point.

The first group to reach 10 points is the winner.



Comparing and ordering numbers up to 1 000

Let's Learn Together

- 1 Padma and Toby bought some seeds from the market. Padma bought sunflower seeds and Toby bought pumpkin seeds.



They each counted their seeds. Padma had 159 sunflower seeds and Toby had 204 pumpkin seeds. Who has more seeds?



Let's write the numbers in a place-value chart and compare them.

Hundreds	Tens	Ones
1	5	9
2	0	4

First, compare the hundreds.

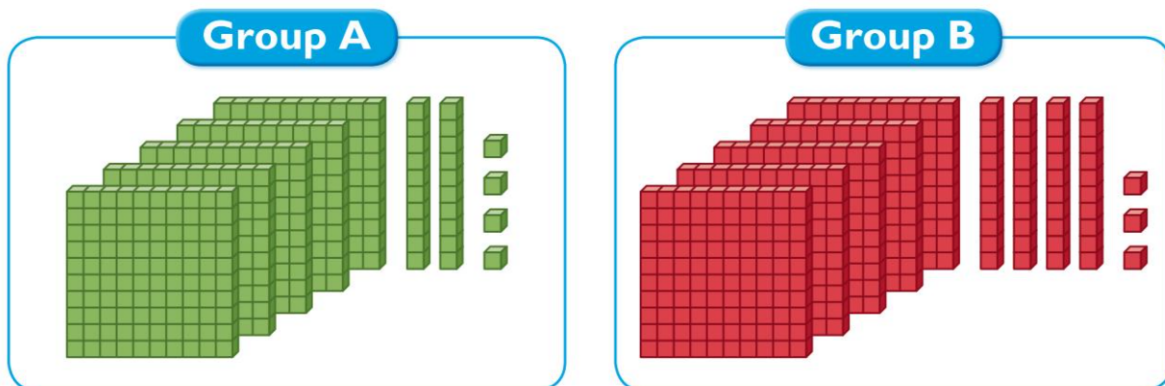
2 hundreds are greater than 1 hundred. So, 204 is greater than 159.



Toby has more seeds than Padma.



- 2 Find the number of blocks in each group. Then find the greater number.



There are 524 blocks in Group A. There are 543 blocks in Group B. Let's compare the hundreds.

Group A and Group B each have 5 hundreds.

We must move on to compare the tens.

Group A has 2 tens. Group B has 4 tens.

Group B has more tens than Group A.

So, the number in Group B is greater than that in Group A.



3 Find the greater number.

(a) 231 and 132

2 hundreds is greater than 1 hundred.

231 is greater than 132.

(b) 479 and 480

Both numbers have 4 hundreds. So, we compare the tens.

8 tens is greater than 7 tens.

480 is greater than 479.

(c) 760 and 765

Both numbers have 7 hundreds. So, we compare the tens.

Both numbers have 6 tens. So, we compare the ones.

5 ones is greater than 0 ones.

765 is greater than 760.

4 Find the smaller number.

(a) 600 and 499

4 hundreds is less than 6 hundreds.

499 is smaller than 600.

(b) 972 and 982

Both numbers have 9 hundreds. So, we compare the tens.

7 tens is less than 8 tens.

972 is smaller than 982.

