

max maths primary

A SINGAPORE APPROACH

Student Book
2



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Student Book 2

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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.

Symmetry of figures

Let's Learn Together


1 Jade found this leaf while she was walking in the park.



Do you notice anything interesting about this leaf?

She noticed something special about the leaf. She folds the leaf in half. Each half of the leaf matches the other exactly.


The 2 halves match exactly.



Objects that have matching halves are called **symmetrical** objects. The line that we fold to make the halves is called a **line of symmetry**.

Look around your classroom. Can you find any symmetrical objects?

2 Han found these symmetrical objects around his home.



Comparing and ordering numbers to 100

Let's Learn Together

1 Which is the bigger number?


73

58

7 tens is bigger than 5 tens. So, 73 is bigger than 58.



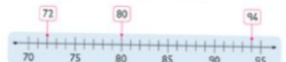
1 Show 67 and 76 on a number line. Which number is bigger?



Numbers that are to the left of the number line are smaller than numbers that are to the right of the number line. Number 76 is to the right of number 67. So, 76 is bigger than 67. We write $76 > 67$.

2 Show the numbers on the number line. Arrange them from the biggest to the smallest.

80, 72, 94



Look at the numbers from right to left. The biggest number is 94, then 80 and finally 72. We can arrange the numbers like this.

$94 > 80 > 72$

biggest smallest

Remember, $<$ means less than and $>$ means more than.

Scaffolded learning

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

Work Together

Jade stands on a bathroom scale to measure her mass. She weighs 28 kg. In small groups, estimate the mass of each member of your group. Arrange the members of the group according to their masses from the lightest to the heaviest.

Your teacher will give you a bathroom scale. Measure the mass of each member in your group. Arrange the members of the group according to their masses from the lightest to the heaviest.


Compare the masses you have estimated with those shown on the scales.




Cooperative learning

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


1 Padma drew an equilateral triangle. She noticed that there was a line of symmetry that ran from the top to the bottom of the triangle.




Samir turned the paper around and noticed there was another line of symmetry.



Jade noticed another line of symmetry when she turned the paper around the other way.




The equilateral triangle has 3 lines of symmetry.




Unit fractions

Let's Learn Together

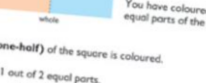
1 Take a square piece of paper and fold it in half as shown below.



When you open up the paper again, you will see 2 equal parts.



Colour one part blue.



You have coloured 1 out of 2 equal parts of the square.

$\frac{1}{2}$ (one-half) of the square is coloured.

$\frac{1}{2}$ is 1 out of 2 equal parts.

$\frac{2}{2}$ or two halves is the same as one whole.

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.



Numbers to 100



You will learn to ...

- count, read and write numbers to 100
- round 2-digit numbers to the nearest 10
- estimate numbers to 100
- compare and order numbers to 100
- recognise ordinal numbers
- recognise odd and even numbers.



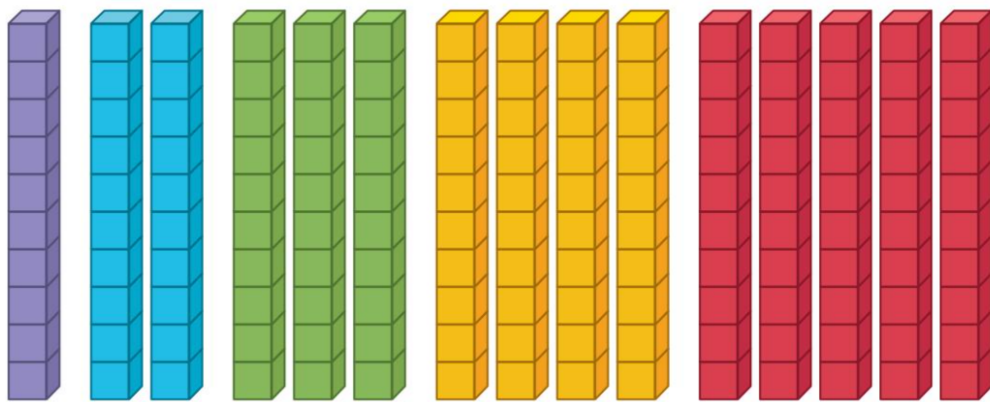
Place value and counting to 100

Let's Learn Together

1

Padma, let's
count by tens.
10, 20, 30, ...

40, 50!

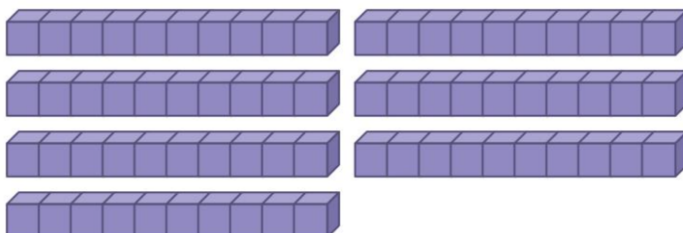


(a) 6 tens make 60.



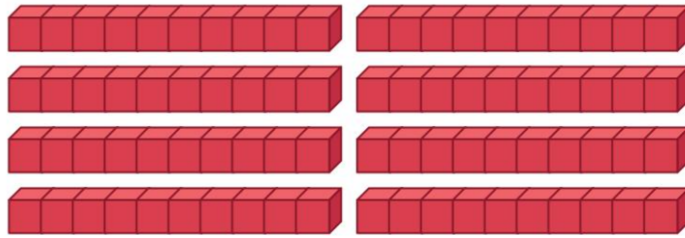
60
sixty

(b) 7 tens make 70.



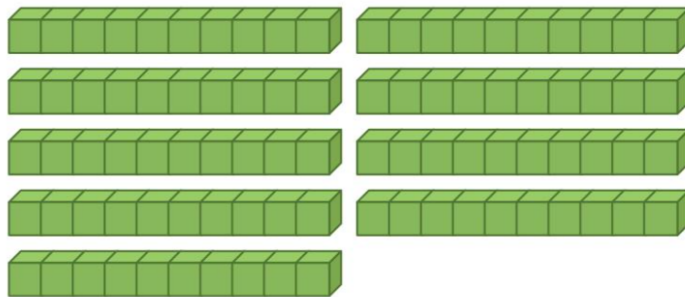
70
seventy

(c) 8 tens make 80.



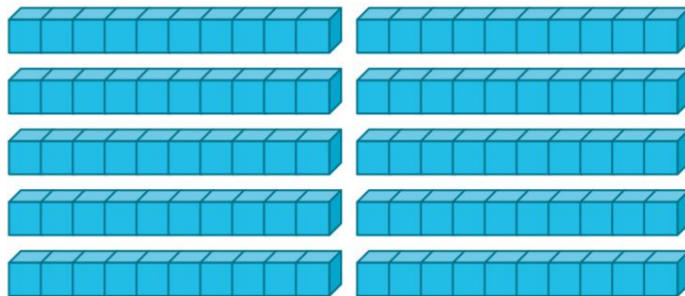
80
eighty

(d) 9 tens make 90.



90
ninety

(e) 10 tens make 100.

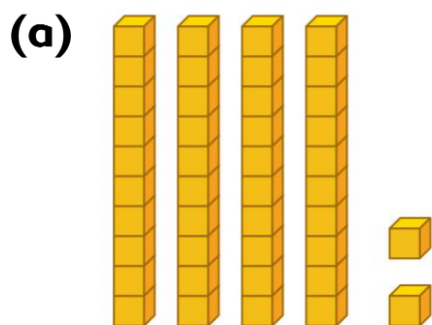


100
one hundred

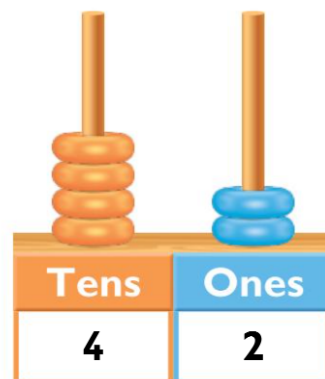
Ten more bread rolls
than 90 bread rolls is
100 bread rolls.



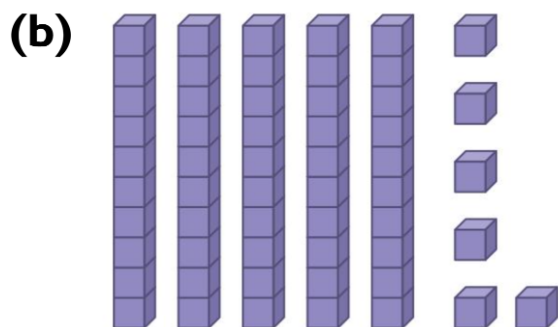
2 Count the tens. Then count the ones.



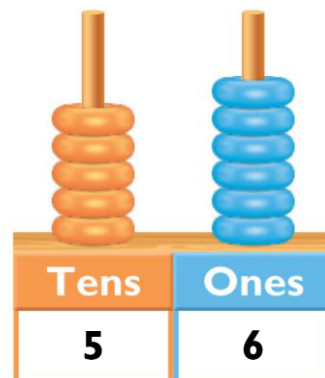
4 tens and 2 ones make 42.



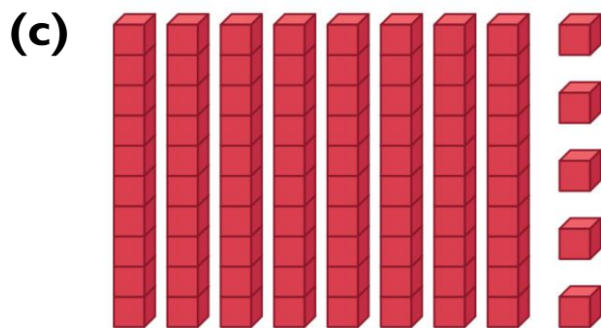
$$40 + 2 = 42$$



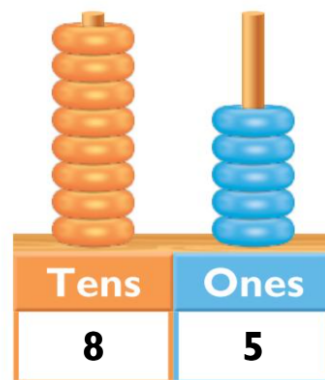
5 tens and 6 ones make 56.



$$50 + 6 = 56$$

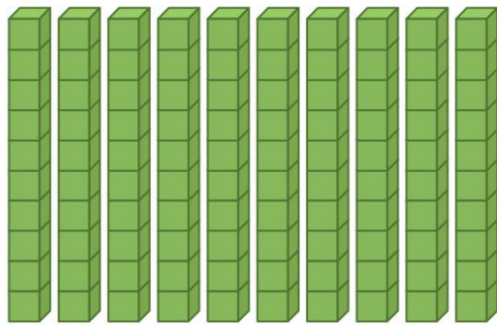


8 tens and 5 ones make 85.



$$80 + 5 = 85$$

(d)



Hundreds	Tens	Ones
1	0	0



10 tens and 0 ones make 100.

$$100 + 0 + 0 = 100$$

Game TIME

- 1 Think of a number between 1 and 100.
- 2 Tell your friends the number of tens and the number of ones that make up your number.
- 3 The first to say the correct number is the winner.



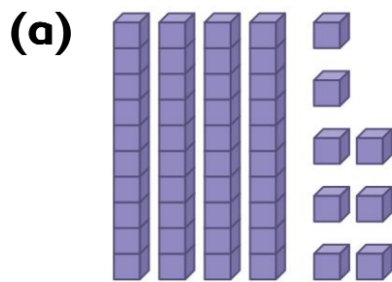
My number has 6 tens and 8 ones.



Your number is 68!

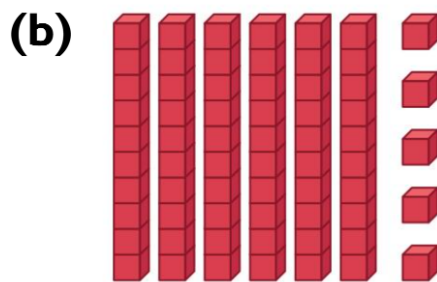
Let's Try It

1 Count the tens. Then count the ones.



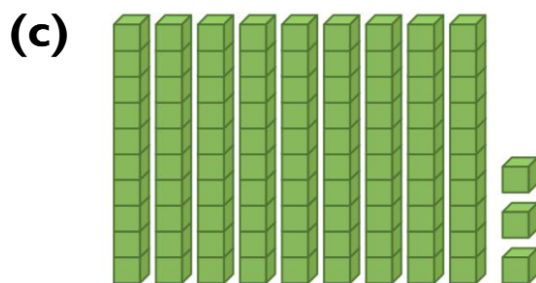
tens and ones is 48.

$$\text{} + \text{} = 48$$



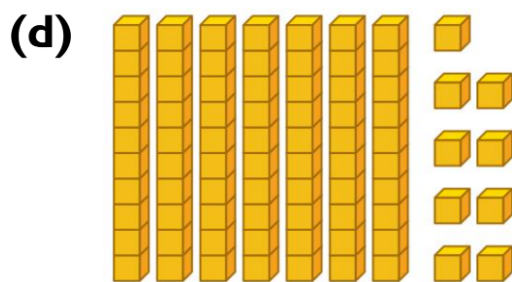
tens and ones is 65.

$$\text{} + \text{} = 65$$



tens and ones is 93.

$$\text{} + \text{} = 93$$



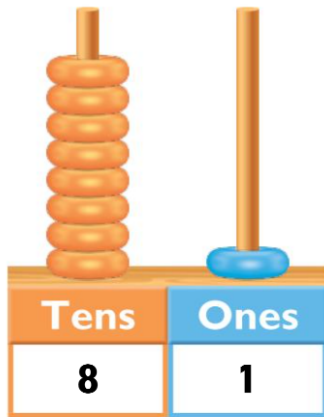
tens and ones is 79.

$$\text{} + \text{} = 79$$

2

Count the tens. Then count the ones.

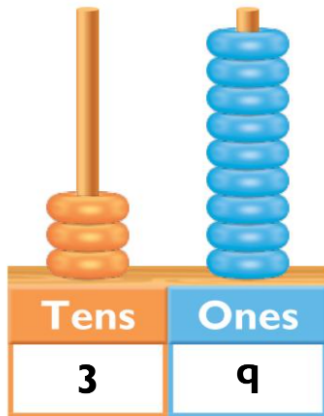
(a)



8 tens and 1 one is .

$$\text{} + \text{} = \text{}$$

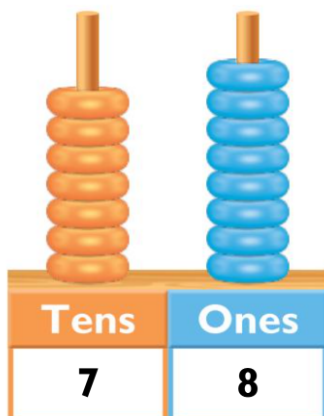
(b)



3 tens and 9 ones is .

$$\text{} + \text{} = \text{}$$

(c)



tens and ones is .

$$\text{} + \text{} = \text{}$$

Let's Practise

1 What are the missing numbers?

(a) $20 + \square = 25$


Tens	Ones

(b) $\square + 4 = 74$

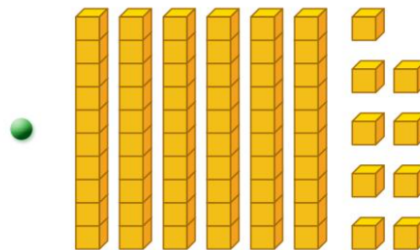
Tens	Ones

(c) $\square + \square = 92$

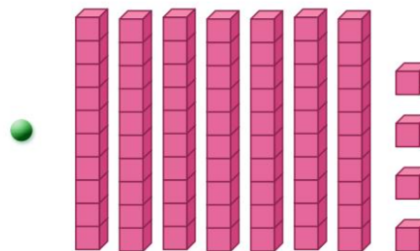
Tens	Ones

2 Match the numbers to the .

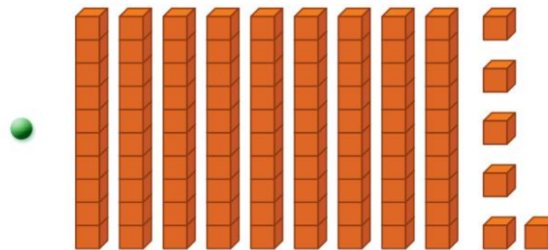
96 •



74 •



69 •



Estimating numbers to 100

Let's Learn Together

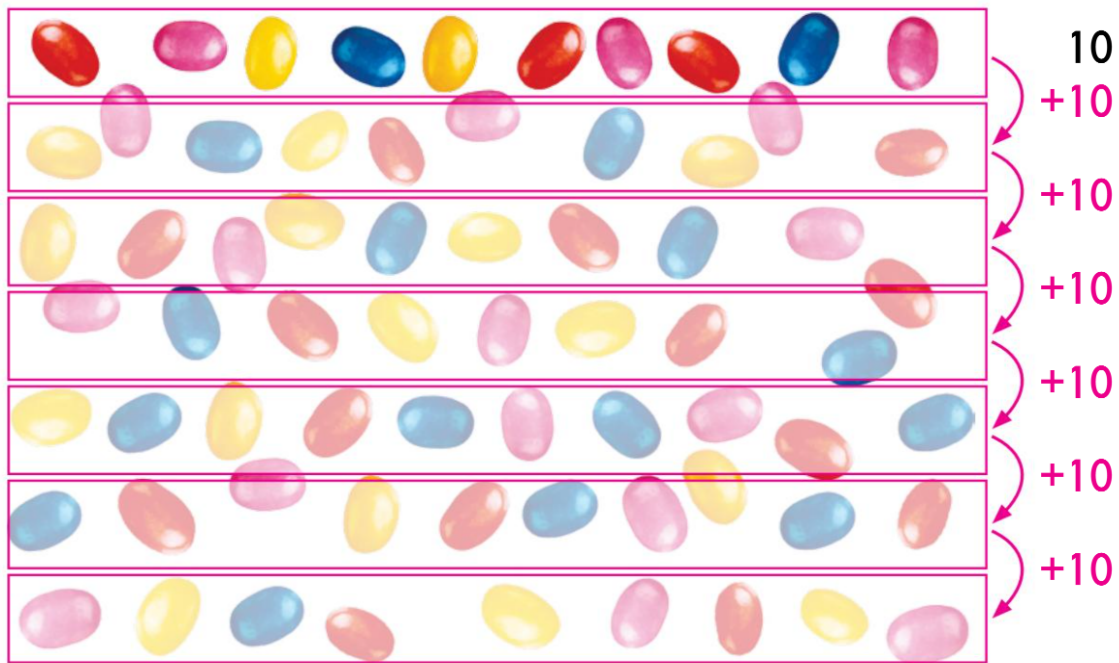
- 1 Padma wants to count the jelly beans. She wants to make an estimate before she counts them one by one. Can you suggest a way she can make an estimate?



I can make an estimate by counting groups of 10 jelly beans. Counting in 10s is easy.

Good idea, Padma. Let's try it!





Padma counts a row of 10 jelly beans. She counts the number of rows. She then counts in 10s down each row to find an estimate. She does not need to check that there are 10 jelly beans in each row because she is only finding an estimate.

$$10 + 10 + 10 + 10 + 10 + 10 + 10 = 70$$



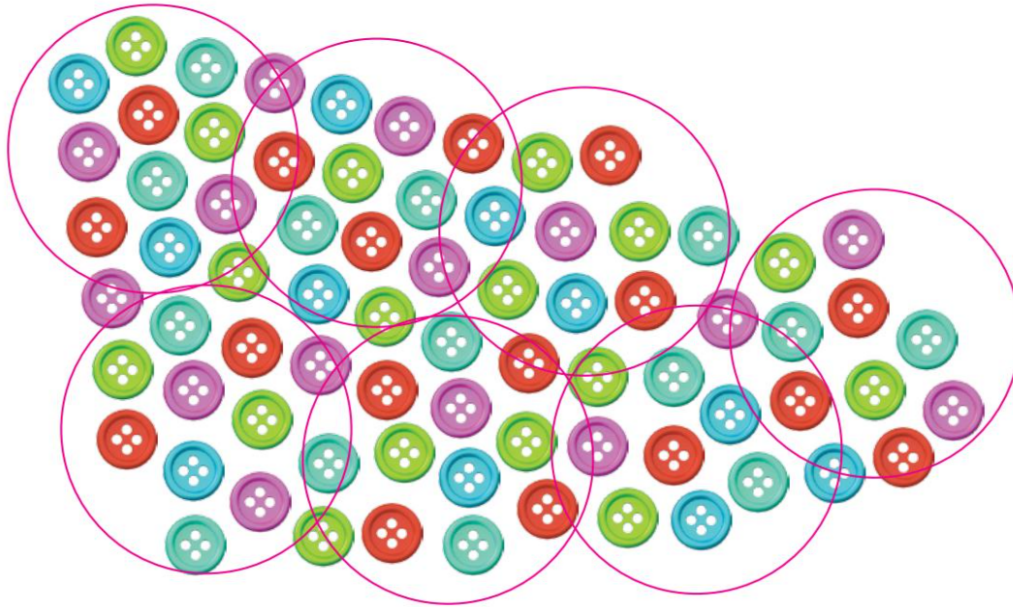
The actual number of jelly beans is 67.

So, the estimate is close to the actual number.



2

Han wants to estimate the number of buttons before he counts them one by one. He uses Padma's method by counting 10 buttons first. He then counts in groups of 10.



I first count 1 group of 10. Then I'll estimate how many groups of 10 can be made with the buttons.



Good idea, Han. Let's try it!

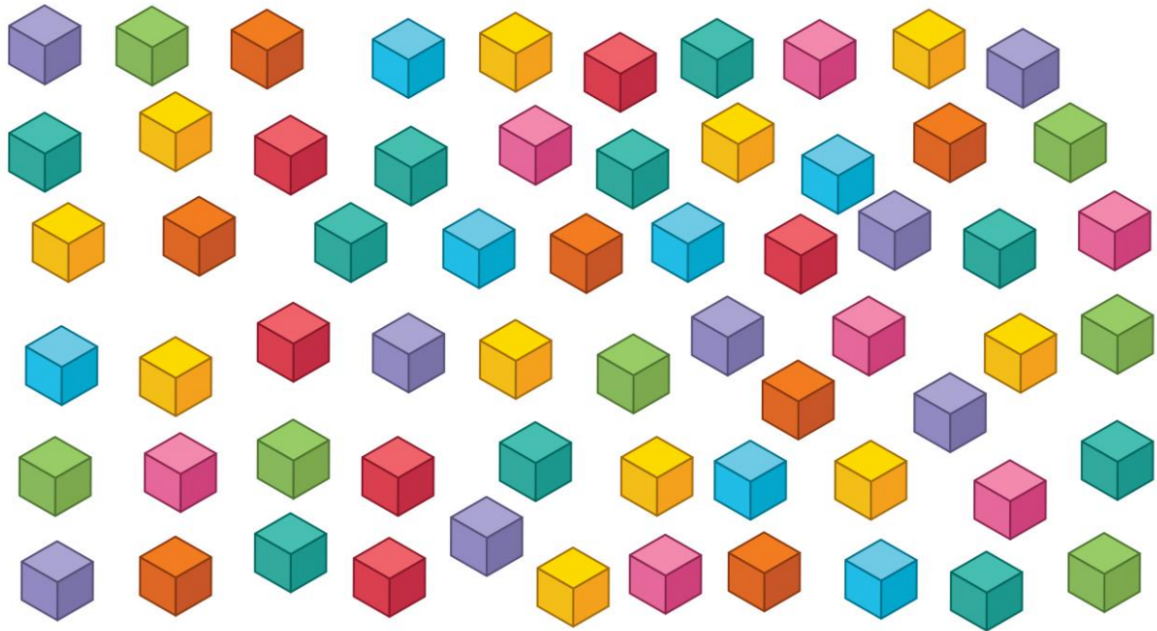
$$10 + 10 + 10 + 10 + 10 + 10 + 10 = 70$$

The actual number of buttons is 74.

So, the estimate is close to the actual number.

Let's Try It

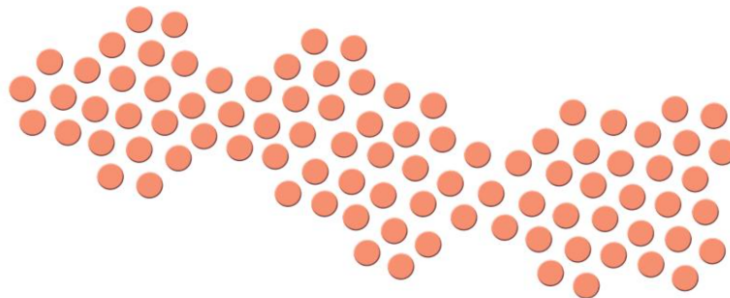
- 1 Find an estimate for the number of counting blocks below. Count the counting blocks one by one and compare the actual number to your estimate.



Estimate

Actual number

- 2 Find an estimate for the number of dots below. Count the dots one by one and compare the actual number to your estimate.



Estimate

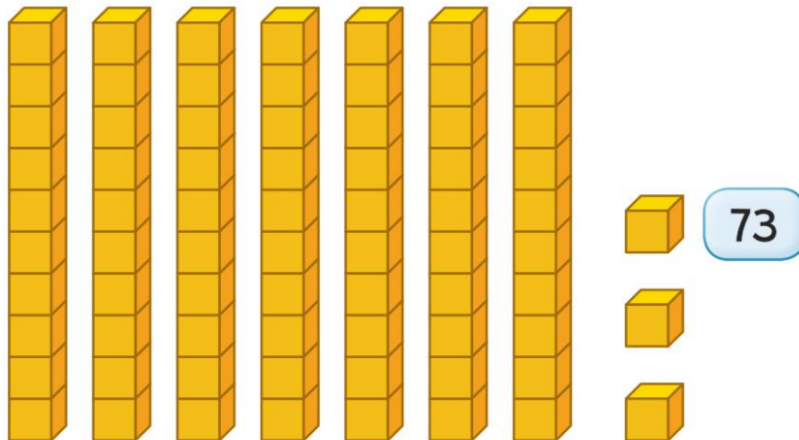
Actual number

Comparing and ordering numbers to 100

Let's Learn Together

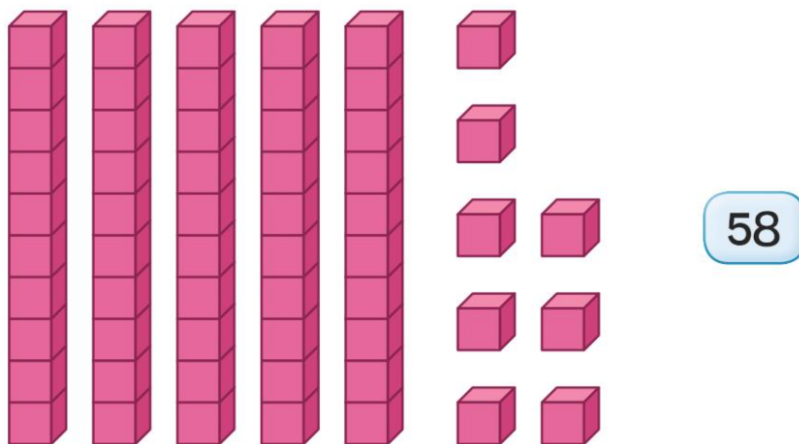


1 Which is the bigger number?



First count the tens.

There are 7 tens here.



There are 5 tens here.



7 tens is bigger than 5 tens.

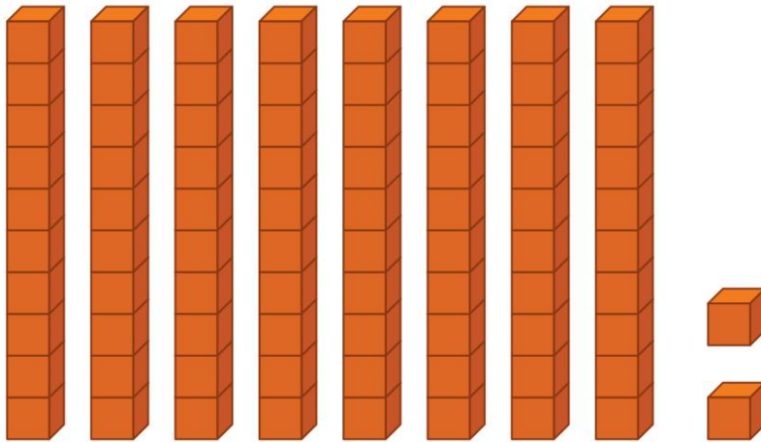
So, 73 is bigger than 58.



2

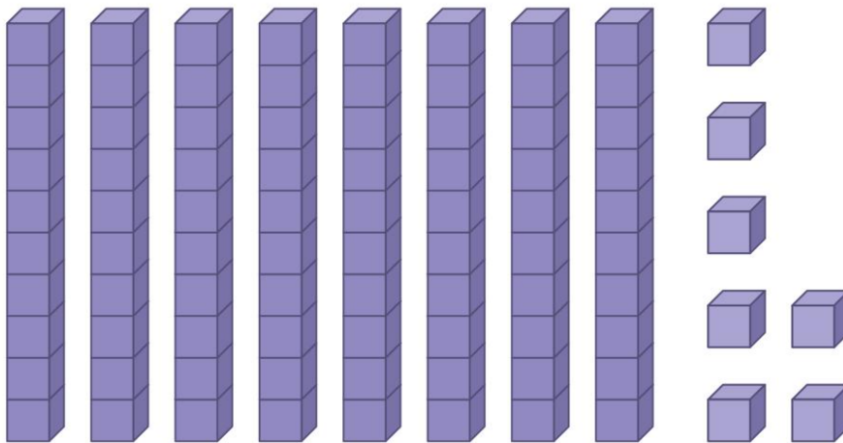
Which is the bigger number?

When the tens are the same, count the ones.



There are 2 ones here.

82



There are 7 ones here.

87

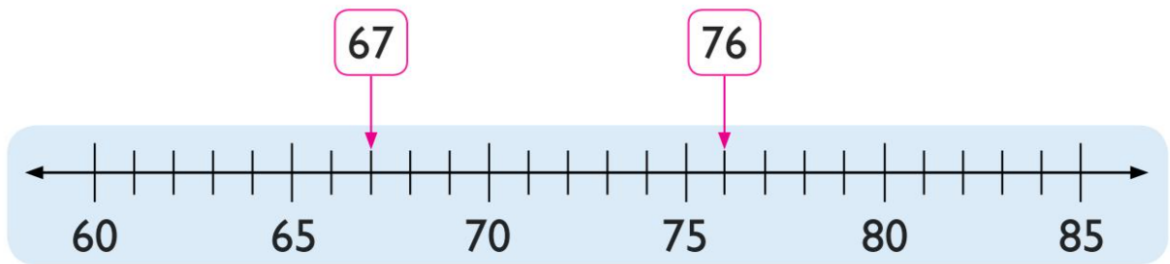


Both numbers have 8 tens.
7 ones is bigger than 2 ones.
So, 87 is the bigger number.



3

Show 67 and 76 on a number line. Which number is bigger?

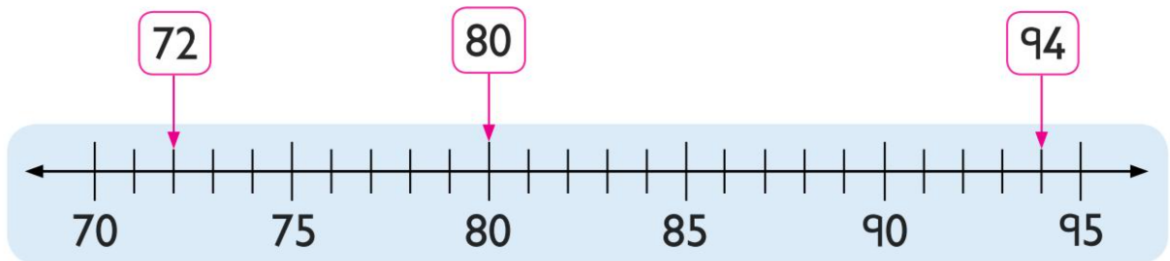


Numbers that are to the left of the number line are smaller than numbers that are to the right of the number line.

Number 76 is to the right of number 67. So, 76 is bigger than 67. We write $76 > 67$.

4

Show the numbers on the number line. Arrange them from the biggest to the smallest.



Look at the numbers from right to left. The biggest number is 94, then 80 and finally 72. We can arrange the numbers like this.

$$\begin{array}{ccc} \boxed{94} & > & \boxed{80} & > & \boxed{72} \\ \text{biggest} & & & & \text{smallest} \end{array}$$



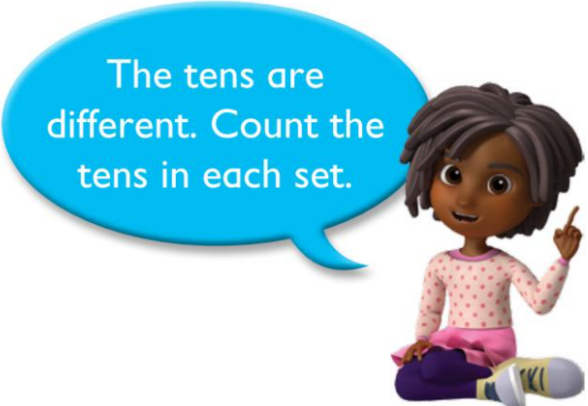
Remember, $<$ means less than and $>$ means more than.

5 Which is the biggest number?

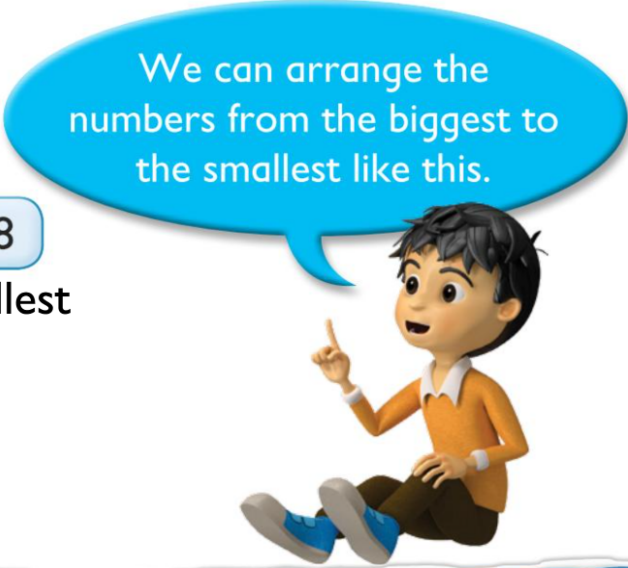
Which is the smallest number?



8 tens is bigger than 4 tens.
8 tens is bigger than 6 tens.
So, 83 is the biggest number.



4 tens is smaller than 8 tens.
4 tens is smaller than 6 tens.
So, 48 is the smallest number.



$$\begin{matrix} 83 & > & 69 & > & 48 \\ \text{biggest} & & & & \text{smallest} \end{matrix}$$