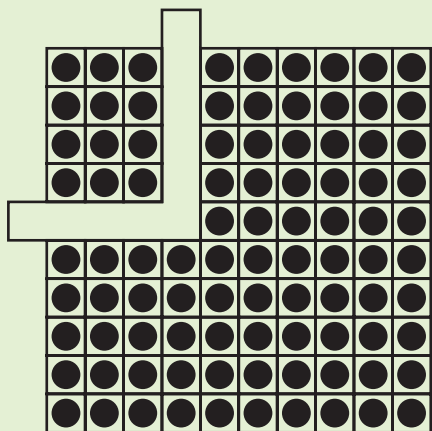


Elementary Mathematics

Class Two



National Curriculum and Textbook Board, Bangladesh

Prescribed by the National Curriculum and Textbook Board
as a textbook for class two from the academic year 2024

Elementary Mathematics

CLASS TWO

(Experimental edition)

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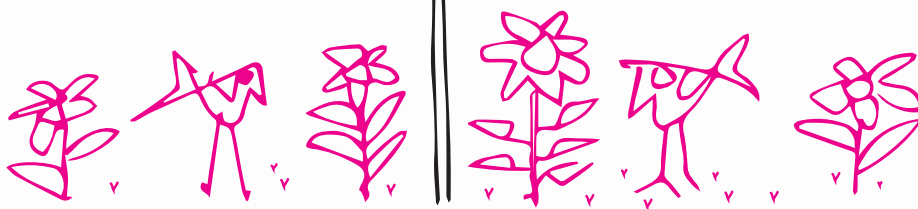
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Preface

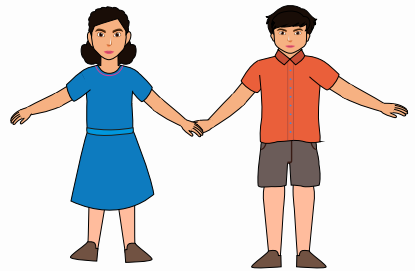
The development and modification of curriculum is a regular activity of the National Curriculum and Textbook Board (NCTB). A common structured competency based curriculum has been developed in the light of the directions of Honourable Prime Minister of the People's Republic of Bangladesh. This curriculum aims at creating a generation able to take Bangladesh to the status of a safe, developed and innovative country. The dreamed country will be able to keep pace with the changing world by achieving the targets of being a developed country by 2041 in the global socio-economic context and addressing the challenges of the 4th Industrial Revolution. This textbook has been developed in order to make teaching-learning more active and experience based in the light of the National Curriculum guidelines 2021 (Primary Level).

Elementary Mathematics is a compulsory subject. Textbooks for the learners of class one to class five have been developed on this subject. To present the contents in an easy and simple way required explanations, examples and pictures have been used. To create interest among learners and make learning easier the “Let us do ourselves” has been incorporated along with examples. Moreover, the contents of the textbook have been rearranged following the order “easy to hard”. There are scopes for enough practice on these textbooks.

The book has been developed with active supervision of the Primary Curriculum Wing of National Curriculum and Textbook Board. At the different stages of the process of writing, rational evaluation and finalization of the textbook class teachers, teacher-trainers, curriculum specialists and subject-specialists have contributed by playing their respective roles. I would like to express my special thanks and gratitude to all those people involved in the whole process. Though the best efforts have been ensured to make the try-out edition flawless and error-free, it is not unlikely that the book may still have some unexpected mistakes and print errors. Well-through opinions and positive advice from all corners, especially teachers are cordially invited and expected to make the final edition free from any mistakes.

It is expected that this textbook will be beneficial to the soft-hearted learners for whom it has been developed.

Professor Md. Farhadul Islam
Chairman
National Curriculum and Textbook Board, Bangladesh



Explanation of symbol for characters

1. Characters: In the textbook two young learners Tuli and Rafi are making conversation with each other. Through their discussions and opinions the concept of Mathematics has been made clear.



2. In the lessons a few symbols are used to show the steps.



Key question: Let us solve the problem together.



Activity: Let us discuss with friends and teachers and solve the problem.



Exercise: Let us think logically and solve. If needed, let us discuss with friends and take help from the teacher.

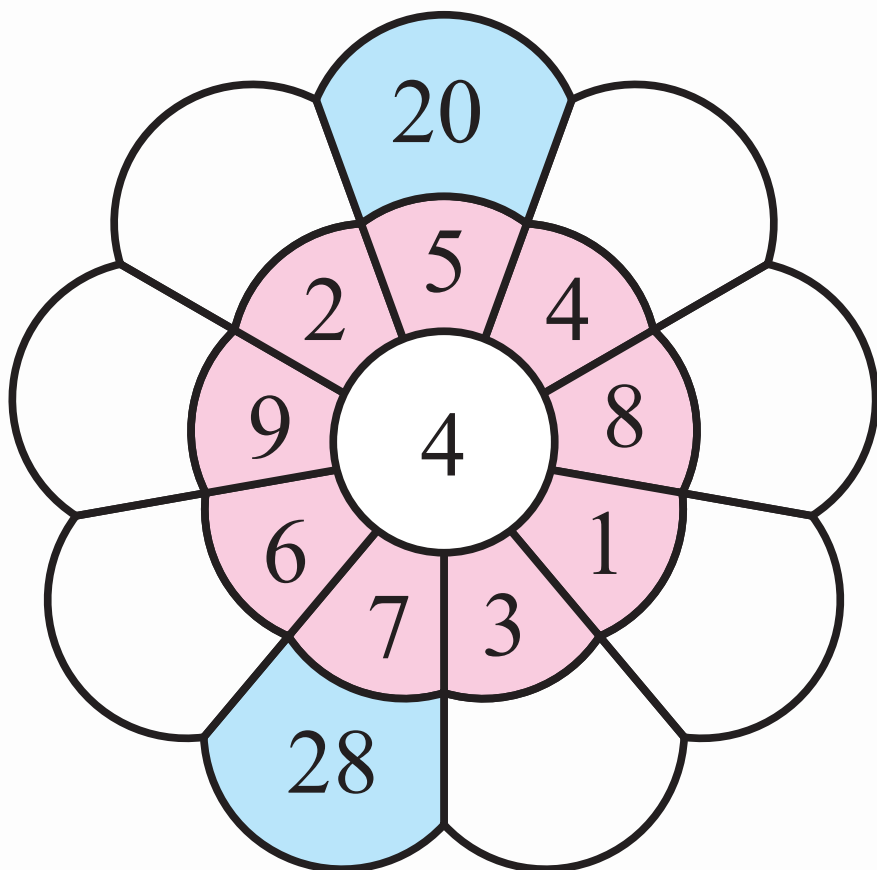


Let us do: Let us solve it by ourselves.



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Chapter One

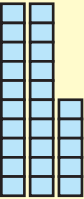
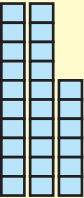

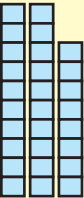
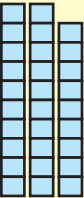
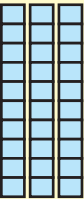
Numbers and Place Values

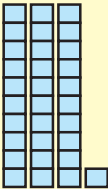
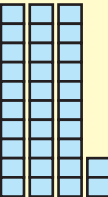

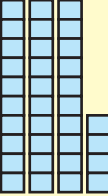

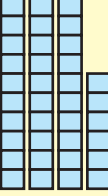
Read numbers and write in words (21 to 100)

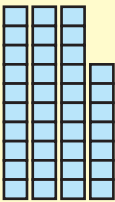
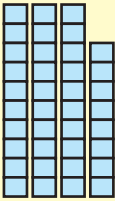
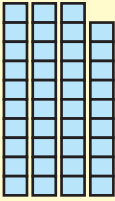
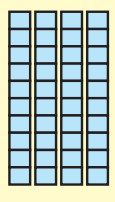
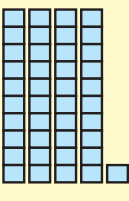
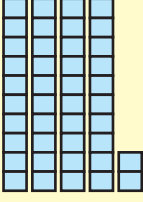


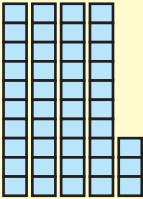
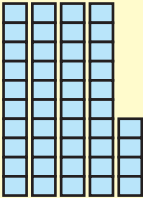
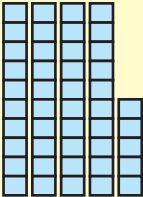
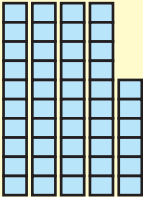
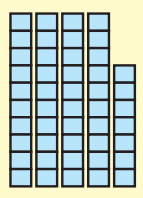
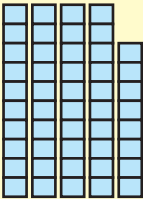
Let us count the blocks and read the number and write them in words.

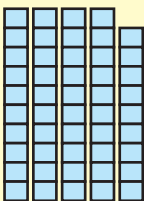
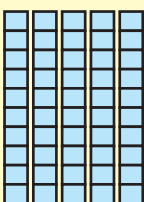
Let's count	Let's read (in numbers)	Let's read (in words)	Let's write in words
	21	Twenty one	Twenty one
	22	Twenty two	
	23	Twenty three	
	24	Twenty four	

Let's count	Let's read (in numbers)	Let's read (in words)	Let's write in words
	25	Twenty five	
	26	Twenty six	
	27	Twenty seven	
	28	Twenty eight	
	29	Twenty nine	
	30	Thirty	

Let's count	Let's read (in numbers)	Let's read (in words)	Let's write in words
	31	Thirty one	
	32	Thirty two	
	33	Thirty three	
	34	Thirty four	
	35	Thirty five	
	36	Thirty six	

Let's count	Let's read (in numbers)	Let's read (in words)	Let's write in words
	37	Thirty seven	
	38	Thirty eight	
	39	Thirty nine	
	40	Forty	
	41	Forty one	
	42	Forty two	

Let's count	Let's read (in numbers)	Let's read (in words)	Let's write in words
	43	Forty three	
	44	Forty four	
	45	Forty five	
	46	Forty six	
	47	Forty seven	
	48	forty eight	

Let's count	Let's read (in numbers)	Let's read (in words)	Let's write in words
	49	Forty nine	
	50	Fifty	

Read the numbers from 51 to 100 and write them in words.

51	Fifty one	61	Sixty one	71	Seventy one	81	Eighty one	91	Ninety one
52	Fifty two	62	Sixty two	72	Seventy two	82	Eighty two	92	Ninety two
53	Fifty three	63	Sixty three	73	Seventy three	83	Eighty three	93	Ninety three
54	Fifty four	64	Sixty four	74	Seventy four	84	Eighty four	94	Ninety four
55	Fifty five	65	Sixty five	75	Seventy five	85	Eighty five	95	Ninety five
56	Fifty six	66	Sixty six	76	Seventy six	86	Eighty six	96	Ninety six
57	Fifty seven	67	Sixty seven	77	Seventy seven	87	Eighty seven	97	Ninety seven
58	Fifty eight	68	Sixty eight	78	Seventy eight	88	Eighty eight	98	Ninety eight
59	Fifty nine	69	Sixty nine	79	Seventy nine	89	Eighty nine	99	Ninety nine
60	Sixty	70	Seventy	80	Eighty	90	Ninety	100	One hundred

● **Let us do**

1. Let us read and write the following numbers in words
24, 47, 32, 59, 87, 75, 93, 89, 86, 99, 100
2. Let us write the number of members of 5 joint families in a village numerically in the table below

Family-1	Family-2	Family-3	Family-4	Family-5
16

3. Let us count the number of different types of fruit trees in a house and write the numbers in the table below

Mango tree	Jackfruit Tree	Guava tree	Coconut tree	Black-berry tree	Betel nut Tree
...

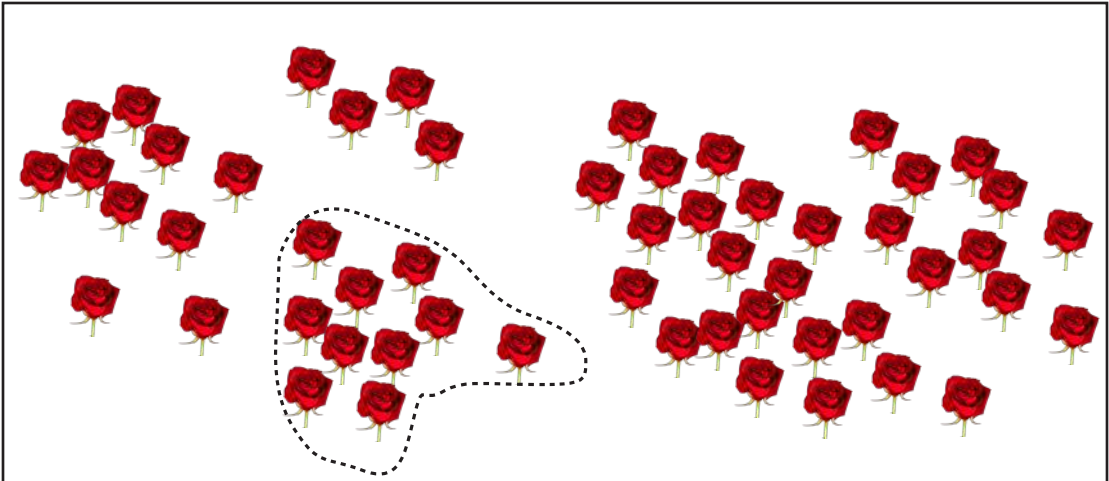
4. Let us count the number of boys and girls classwise in a school from class one to class five and write in words in the following table.

Class	Boys	Girls
One
Two
Three
Four
Five

Count



How many flowers are there in the picture?



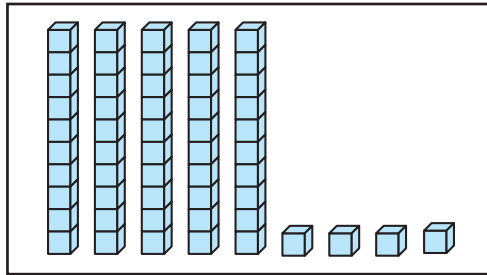
How can you easily count so many flowers?

Do you remember how we formed groups of 10 and counted in the 1st grade?

Let us form groups of 10 and count.



Let us count using blocks instead of flowers

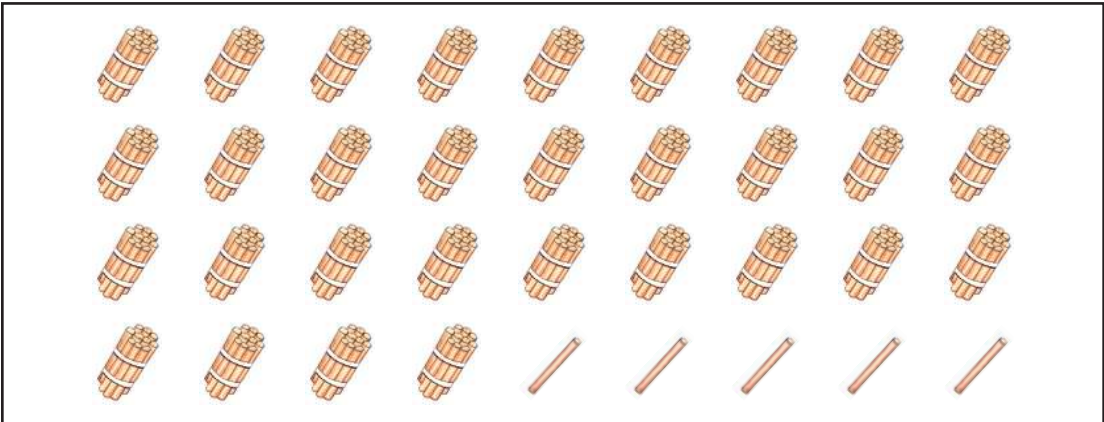


There are 5 blocks of 10 and 4 blocks of 1.

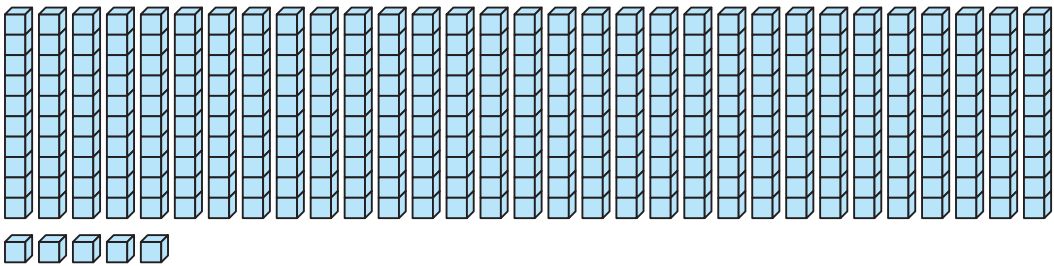
The number is fifty-four and we can write 54 in digits.



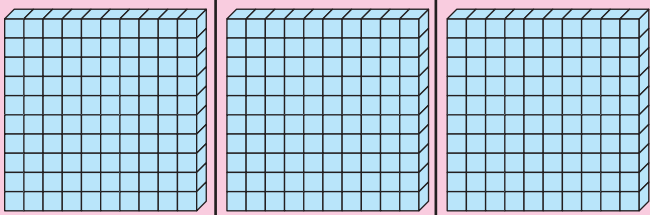
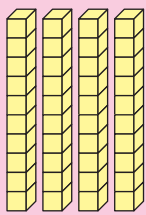

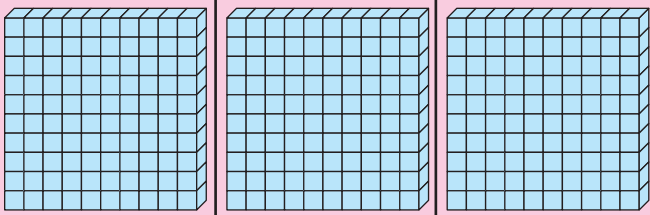
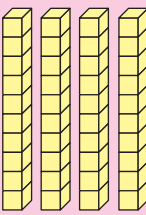

How many sticks are there in the box below?



Let us count with blocks instead of sticks.



Let us count by creating blocks of 100 and 10.

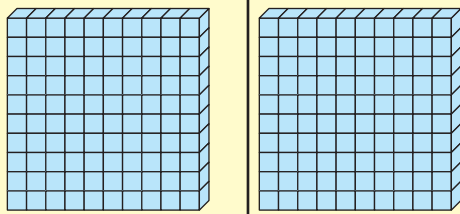
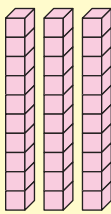

		
Three blocks of hundred. three hundred	Four blocks of tens. Forty	Five blocks of each 1 Five
		
Hundred	Ten	One
3	4	5

The number is three hundred and forty five

The number is 345 in digits.

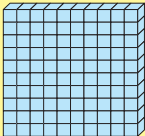
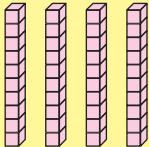

Let us write the total number of sticks in numbers: 345

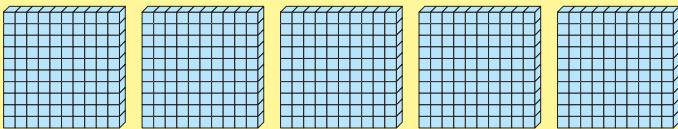

● Let us count the number of blocks and write them in numbers




		
hundred	ten	one
The number is: _____		

● Let us do

Let us count the number of blocks and write in numbers.

1.			
	Hundred	Ten	One
	The number is: _____		

2.			
	Hundred	Ten	One
	The number is: _____		

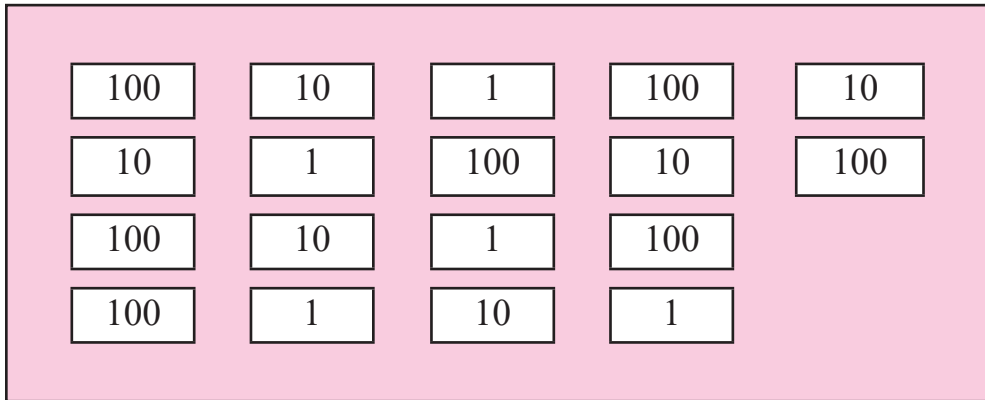
3.			
	Hundred	Ten	One
	The number is: _____		

What is the number?

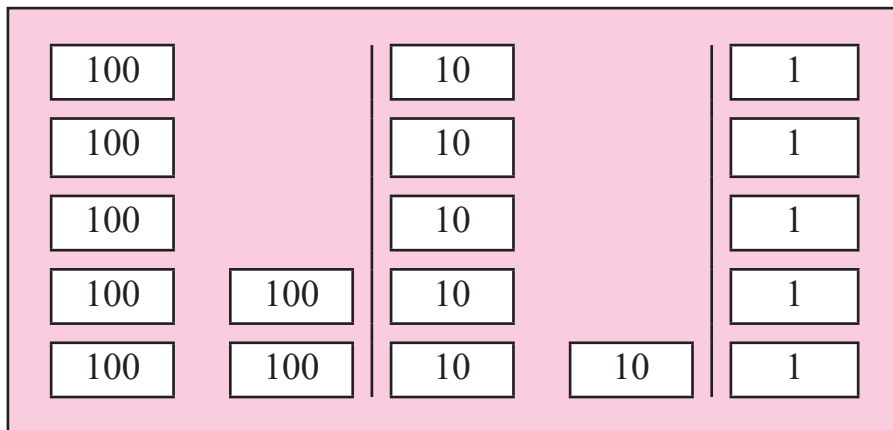
how many (hundred)	how many (ten)	how many (one)
100	10	1
100	10	1
100	10	1
100	10	1
100	10	1
100		
Hundred	Ten	one
The number is: _____		

● Let us do

1. Let us count the number of cards of 100, 10 and 1 in the following box.



Let us sort the number cards and write in numbers.



2. Let us write in numbers:



Let us write the total amount in number =

Let us read the following numbers and write the numbers from 101 to 500 and from 501 to 1000 separately.

112, 898, 304, 505, 712, 925, 134, 198, 1000, 444, 382, 750, 600, 333, 101, 590

Numbers from 101 to 500:

Numbers from 101 to 500:

Let us read and write in numbers.

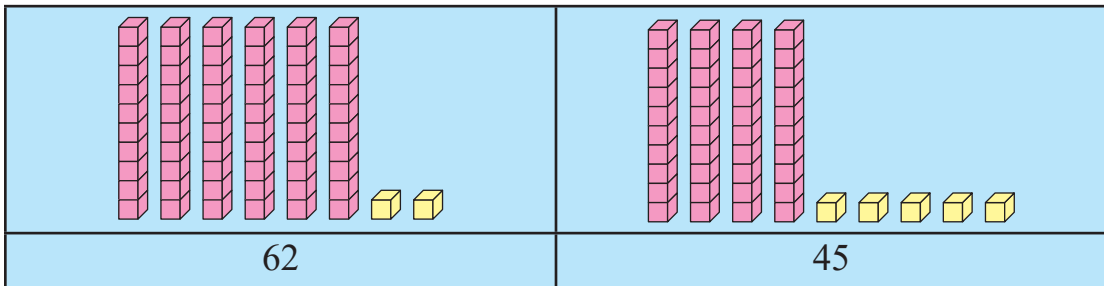
Read	Write in digit
(1) One hundred and ten	
(2) Three hundred and fifty nine	
(3) Five hundred and eighty five	
(4) Six hundred and seventy two	
(5) Eight hundred and fifty	
(6) Nine hundred and eight	

Comparison of Numbers



Which number is greater between 62 and 45?

Let us sort the two numbers in blocks of tens and one



Let us first compare the blocks of ten.

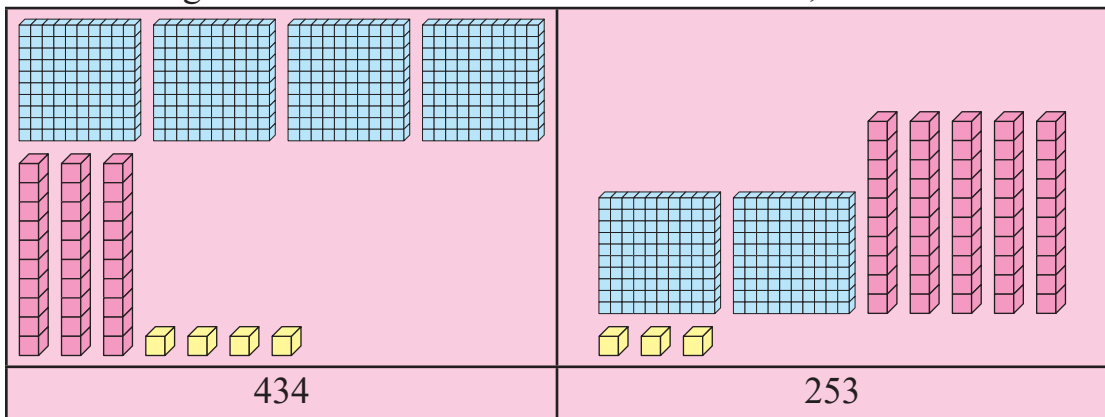
In 62 there are 6 blocks of tens and in 45 there are 4 blocks of tens. Hence, 62 is greater.





Which number is smaller between 434 and 253?

Let us arrange the two numbers in blocks of hundreds, tens and ones.



Let us first compare the blocks of hundreds.

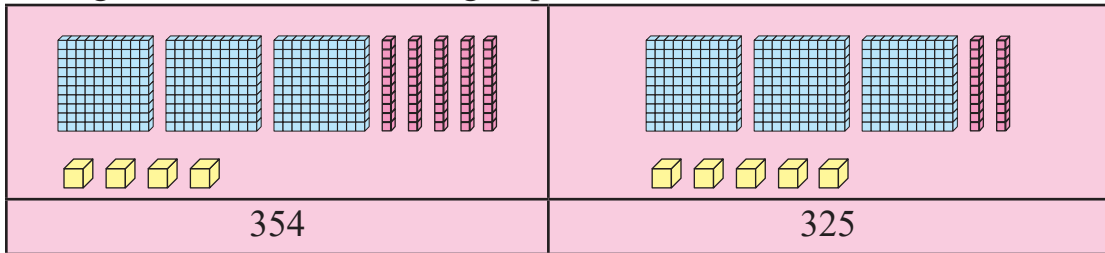
There are 4 blocks of hundreds in 434 and 2 blocks of hundreds in 253. Hence, 253 is smaller.





Let us explain which number is larger between 354 and 325.

Arrange the two numbers into groups of hundreds, tens and ones.



If the of blocks of hundreds are the same, let us compare the blocks of tens.

Again if the blocks of tens are the same, let us compare the blocks of ones.



Since the blocks of hundreds are the same, let us compare the blocks of ten. Between 354 and 325 there are 3 blocks of tens more in 325.

So the larger number is 354.



Exercise

1. Let us circle the larger number in the box.

85	57
----	----

524	348
-----	-----

634	670
-----	-----

423	428
-----	-----

823	540
-----	-----

901	972
-----	-----

2. Let us circle the small number in the box.

75	65
----	----

423	337
-----	-----

557	642
-----	-----

876	706
-----	-----

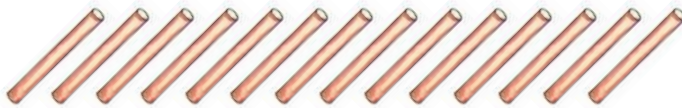
678	948
-----	-----

785	639
-----	-----

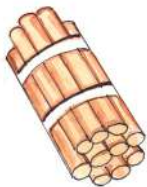
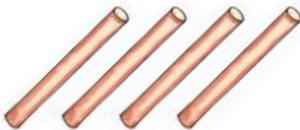
Place Value



How many sticks are there in the picture?

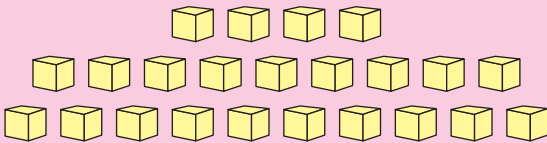
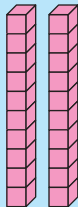



Let's count 10 sticks and make a bundle.

 <p>bundle</p>	 <p>open stick</p>
<p>1 ten</p>	<p>4 ones</p>

Let us write in place value 1 ten and 4 ones

How many blocks are there in the picture?

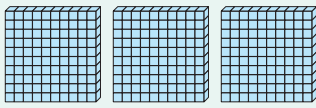
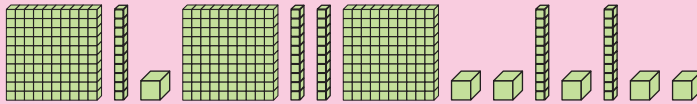
	
	
<p>2 tens</p>	<p>3 one</p>

2 tens 3

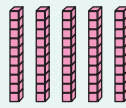
Let us write in place value 2 tens and 3 ones



How many blocks of hundreds, tens and ones are there in the picture?



3 blocks of hundred = 300



5 blocks of ten = 50



6 blocks of one = 6

The number is: 3 hundreds 5 tens and 6 ones.

= Three hundred and fifty-six

= 356

▲ How many thousands, hundreds, tens and ones are there below?

1000

100

100

1000

100

100

10

10

1

1

10

10

thousand

hundred

ten

one

The number is



Let's explain the place value of each digit of 2442.

<p>Place value</p> <p>2 4 4 2</p> <p>2 thousands 4 hundreds 4 tens 2 ones</p> <p>2 thousands 4 hundreds 4 tens and 2 ones = 2 thousand 4 hundred and 42</p>	<p>Place value</p> <p>2 4 4 2</p> <p>2 thousands 4 hundreds 4 tens 2 ones</p> <p>2 thousands 4 hundreds 4 tens and 2 ones = 2 thousand 4 hundred and 42</p>
---	---

1 2. Let us write the place value from the picture.

3 tens	5 ones
place value 30	place value 5

.....tens ones
place value	place value

2 Let us write the place value in digits and numbers from the picture.

.... tensones
the number	

.... tensones
the number	

.... tensones
the number	

- 3 Let us write the place value of each digit of the numbers 47, 352 and 1000

<div> <div>47</div> <div> <div>Place Value</div> <div>7 ones = 7</div> <div>4 tens = 40</div> </div> </div>	<div> <div>47</div> <div> <div>Place Value</div> <div>4 tens = 40</div> <div>7 ones = 7</div> </div> </div>
<div> <div>352</div> <div> <div>Place Value</div> <div>2 ones = 2</div> <div>5 tens = 50</div> <div>3 hundreds = 300</div> </div> </div>	<div> <div>352</div> <div> <div>Place Value</div> <div>3 hundreds = 300</div> <div>5 tens = 50</div> <div>2 ones = 2</div> </div> </div>
<div> <div>1000</div> <div> <div>place value</div> <div>0 one = 0</div> <div>0 ten = 00</div> <div>0 hundred = 000</div> <div>1 thousand = 1000</div> </div> </div>	<div> <div>1000</div> <div> <div>Place Value</div> <div>1 thousand = 1000</div> <div>0 hundred = 000</div> <div>0 ten = 00</div> <div>0 one = 0</div> </div> </div>

Let us do

- 1 Fill in the blanks.

- (1) $\boxed{56} = \boxed{5}$ tens $\boxed{6}$ ones
- (2) $\boxed{83} = \boxed{}$ tens $\boxed{}$ ones
- (3) $\boxed{120} = \boxed{}$ hundreds $\boxed{}$ tens $\boxed{}$ ones
- (4) $\boxed{467} = \boxed{}$ hundreds $\boxed{}$ tens $\boxed{}$ ones
- (5) $\boxed{976} = \boxed{}$ hundreds $\boxed{}$ tens $\boxed{}$ ones
- (6) $\boxed{1000} = \boxed{}$ thousands $\boxed{}$ hundreds $\boxed{}$ tens $\boxed{}$ ones

2 Let us fill in the blanks.

(1) 2 tens 8 ones = 28

(2) 7 tens 4 ones =

(3) 1 hundred 8 ones =

(4) 2 hundreds 3 tens =

(5) 7 hundreds 8 tens 2 ones =

(6) 1 thousand =

3. Let us write the place value of each digit of the following numbers.

24, 56, 73, 98, 105, 328, 639, 840, 957, 1000

Comparison of Numbers (Using Place Values)

Comparison of Two Numbers



Which one is larger, 460 or 630?



How do we compare?

Earlier we have learnt to compare numbers using blocks of hundreds or tens. Now, we will compare using place value.



In this case, we will compare the place value of hundreds in two numbers.

1 Let us compare the following numbers 460 and 630

In this case, 6 is larger than 4 in the position of hundred. So, 630 is larger than 460.



So 460 is smaller and 630 is larger.

Let us compare the following two numbers 562 and 548



Here we will first compare the place values of the digit in hundreds, tens, and ones respectively.

Here the digits in hundreds of the number two are the same (562 and 548).





Let us compare the digits in tens.
6 is larger than 4.

So, 562 is larger than 548.



So 562 is larger and 548 is smaller.

● Let us do

1. Let's compare the numbers below.

- (1) 128, 235
- (2) 248, 226
- (3) 496, 469
- (4) 692, 594
- (5) 872, 858
- (6) 1000, 998

2. Let us compare the following numbers and sort them in ascending and descending order.

	Number	Ascending order	Descending order
(1)	430, 428		
(2)	678, 675		
(3)	827, 948		
(4)	985, 950		
(5)	744, 722		

- ▲ Let us arrange the following numbers in ascending order
232, 223, 239

Let us compare the digits in the hundreds place. The digits in hundreds place are equal. Now let us compare the digits in the tens place.

The digits of the tens place of 232 and 239 are the same.

The place value of tens in 223 is 2. Therefore 223 is smaller than the other two numbers 232, 239.

Now, let us compare 232 and 239.

Here 9 is in the ones place of 239. 2 is in the ones place of 232. Since 9 is greater than 2, 239 is the greater number. So, 239 is the largest number.

So, 239 is the largest number.

Then from smallest to largest: 223, 232, 239.

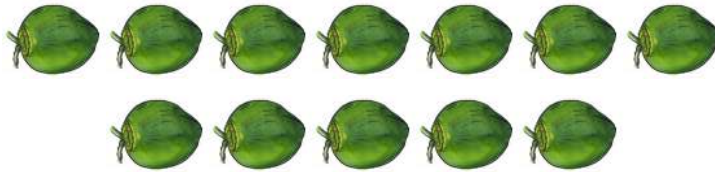
- Let us compare the following numbers and arrange them in ascending and descending order.

Number		Ascending order	Descending order
(1)	432, 328, 540		
(2)	529, 517, 549		
(3)	407, 603, 330		
(4)	729, 720, 726		
(5)	1000, 780, 949		

Even-odd Numbers and Number Patterns



Let us take 2 items at a time and circle them.

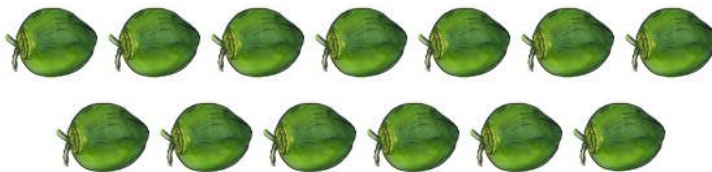


What is the team called made of 2?





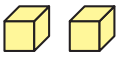
I think it can be called a group of 2.





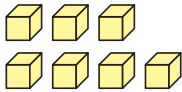


▲ Let us take 2 items at a time and circle them in the following picture.


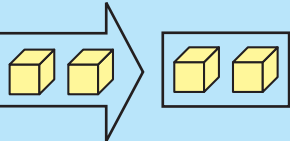
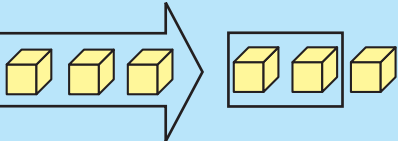
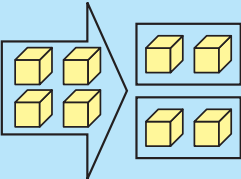
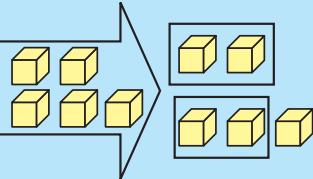
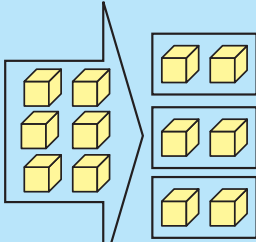


Concept of Even and Odd Number

picture	how much	
 2 earrings	1 pair of earrings	even
 2 pigeons	1 pair of pigeons	even
 2 coconuts	1 pair of coconuts	even
 2 socks	1 pair of socks	even
 2 blocks	1 pair of blocks	even

picture	how much	
 3 earrings	1 pair and 1 earrings	odd
 4 pigeons	2 pairs of pigeons	even
 5 coconuts	2 pairs and 1 coconuts	odd
 6 socks	6 socks	even
 7 blocks	3 pairs and 1 blocks	odd

▲ Let us identify even and odd numbers

		
1	2	3
		
4	5	6

I have seen up to 6. Pairs can be formed with 2, 4 and 6. But 1, 3 and 5 cannot be paired.



In this way which other numbers can be formed?

■ Which other numbers can be formed using like the pairs as above and which numbers cannot be formed? Let us write in the following table.

Numbers that form pairs	2, 4, 6, 8,
Numbers that do not form pairs	1, 3, 5, 7,

In the table above 2, 4, 6, 8..... are even numbers and this is the pattern of even numbers and 1, 3, 5, 7 are odd numbers and this is the pattern of odd numbers.

Let us identify even and odd numbers from 1 to 50.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50



Circled numbers in the table above are the even numbers

So, the uncircled numbers will be odd numbers.



So, what about even and odd numbers?



Even numbers end with 2, 4, 6, 8 or 0.

And odd numbers have 1, 3, 5, 7 or 9 at the end.



Therefore, we can say,

	If any number ends with 2, 4, 6, 8 or 0 is an even number or even number pattern.
	If any number ends with 1, 3, 5, 7 or 9 is an odd number or odd number in pattern.

Exercise

- Let us write even and odd numbers from the following numbers.
8, 13, 20, 11, 24, 9, 18, 7, 21, 16

Even numbers	:	
Odd numbers	:	

- Let us write even and odd numbers from the following numbers.
6, 15, 12, 25, 23, 32, 39, 43, 48, 50

Even numbers	:	
Odd numbers	:	

- Let us write the even numbers larger than 20 and smaller than 40.

--

- Let us write the odd numbers larger than 25 and smaller than 50.

--



Number pattern

● What will be the next numbers?

(1) 2, 4, 6, 8, —, —, —



Here the number starts with 2 and increases by 2 in each case.

Here the difference of two consecutive numbers is always 2.



2, $\xrightarrow{2}$ 4, $\xrightarrow{2}$ 6, $\xrightarrow{2}$ 8, 10, 12, 14, —

Here, the number pattern is: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, —

(2) 15, 20, 25, —, —, —



Here the number starts with 15 and increases by 5 in each case.

Here the difference of two consecutive numbers is always 5.



15, $\xrightarrow{5}$ 20, $\xrightarrow{5}$ 25, $\xrightarrow{5}$ 30, 35, 40, —

Here the number pattern is: 15, 20, 25, 30, 35, 40, 45, 50, 55, —

(3) 21, 19, 17, 15, —, —, —



Here the number starts with 21 and decreases by 2 in each case.

Here the difference of two consecutive numbers is always 2. Here the number pattern is:



21, $\xrightarrow{2}$ 19, $\xrightarrow{2}$ 17, $\xrightarrow{2}$ 15, 13, 11, 9, —

Here is the number pattern: 21, 19, 17, 15, 13, 11, 9, —

(4) What is the pattern of the following numbers? Let us write the next numbers.

(1) 1, 3, 5, 7,



Here the number starts with 1 and increases by 2 in each case.

1, $\xrightarrow{2}$ 3, $\xrightarrow{2}$ 5, $\xrightarrow{2}$ 7, 9, 11, 13,

This is an odd number pattern.



(2) 4, 6, 8, 10,



Here the number starts with 4 and increases by 2 each time.

4, $\xrightarrow{2}$ 6, $\xrightarrow{2}$ 8, $\xrightarrow{2}$ 10, 12, 14,

This is an even number pattern.



(5) Let us create a pattern of odd numbers starting with 3 and increasing by 4 in each case.



Here the number starts with 3 and let us add 4 in each case.

3, 7, 11, 15, 19, , , ,

- (6) Let us write the next three digits of the following number pattern and explain the rules of the pattern.

0, 5, 10, 15, 20, ..., ..., ...



Here the pattern starts with 0 and increases by 5 in each case.

Then 5 has been added in each case.



0, 5, 10, 15, 20, 25, 30, 35, ———

The number pattern is: 0, 5, 10, 15, 20, 25, 30, 35

- (7) Let us find the pattern of the following numbers and circle them.

- From 5 to 10 increasing by 1
- From 48 to 38 decreasing by 2
- From 9 to 24 increasing by 3
- From 50 to 40 decreasing by 5

86	87	9	12	15	18	21	24	45	46
16	18	20	24	65	60	55	50	45	40
36	38	40	42	44	46	48	50	52	54
5	10	48	46	44	42	40	38	20	40
45	50	60	30	35	40	45	50	55	95
10	20	30	5	6	7	8	9	10	12
45	50	12	14	16	18	20	22	80	90
4	25	31	37	40	49	55	10	20	30

Exercise

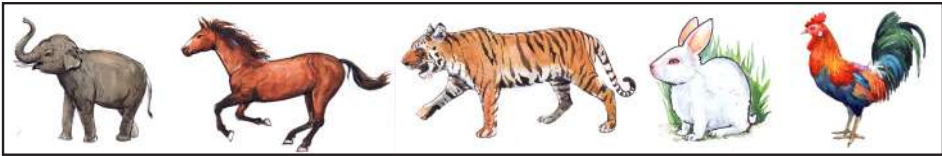
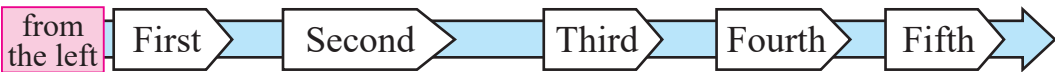
1. What will be the next numbers?
 - (1) 1, 3, 5, 7, —, —, —
 - (2) 2, 3, 5, 8, 12, —, —, —
 - (3) 40, 42, —, 46, —, 50, —
2. Identify the even-odd pattern of the following numbers and write the next numbers.
 - (i) 16, 18, 20,
 - (ii) 37, 39, 41,
3. Create a pattern of odd numbers starting with 47 and decreasing by 2 in each case.
4. Create a pattern of even numbers starting with 24 and increasing by 4 in each case.
5. Write the next three digits of the following number pattern and explain the rules of the pattern
 - (1) 3, 6, 9,,,
 - (2) 15, 13, 11,,,

Ordinal Number

Ordinal Numbers (1st-5th)

How can the position of the following animals be expressed?
 Numbers 1, 2, 3 etc. are used to convey the idea of groups of objects.
 But ordinal numbers are used to indicate relative positions of objects.

Number	1	2	3	4	5
Ordinal Number	First	Second	Third	Fourth	Fifth



Let us find the position of the animals using ordinal number.

- ▲ • Which is the second from the left?
- Which is the first from the right?
- Which is the fifth from the right?
- Which is the fourth from the left?
- Which is the third from the right?



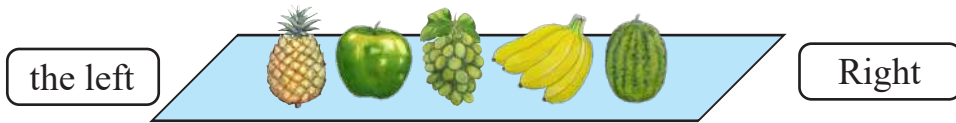
Tuli, where do you sit on the bench in the classroom?

I sit on the 2nd position from the left of the 3rd bench from the front.



■ Now tell, where do you sit on the bench in the classroom?

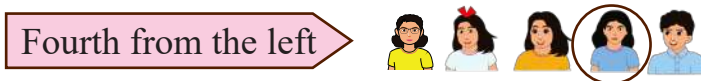
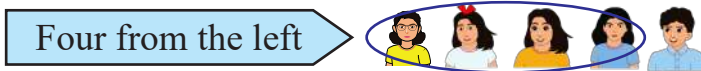
2 Let us say the position of each fruit from the left and from the right.



▲ Five students are holding their hands.



- (1) Circle four students from the left.
- (2) Circle the fourth person from the left.



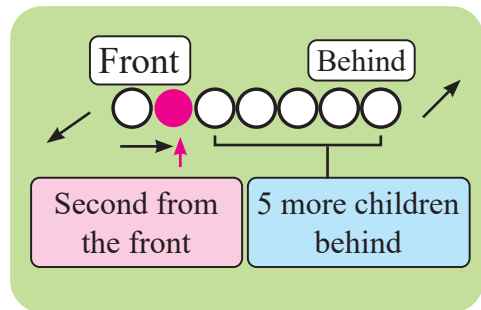
3 You have to find Ali from the following 5 children. His friend said, Ali is at the second seat. Another friend said, 3 children are seated to his right.



- Some children are standing in a line. Savita is second from the front and there are 5 more children behind her. How many children are there in the line?



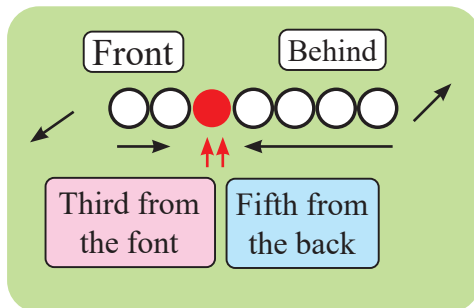
We can solve this easily by drawing a picture.



How do you calculate the number of children?

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

- Some children are standing in a line. Raju is third from the front and fifth from the back. How many children are there in the line?



How do you calculate the number of children?

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

- 4 Tamim is the third youngest and fourth oldest member in his family. How many members are there in the family?

Ordinal Number (1st-10th)

Number	1	2	3	4	5
Ordinal Number	First	Second	Third	Fourth	Fifth
Short Form	1st	2nd	3rd	4th	5th

Number	6	7	8	9	10
Ordinal Number	Sixth	Seventh	Eighth	Ninth	Tenth
Short Form	6th	7th	8th	9th	10th



Ten children are standing in a line. Nasima is at the front and Shanti is at the end. Let us say the positions of these children using ordinal numbers.

Let us say the position of the children using ordinal numbers.

- Who is sixth from the front?
- Who is seventh from the end?
- Who is ninth from the front?
- What is the position of Aleya?


From the front

From the end.....




Each child's position can be expressed in two ways. What is the position of Devid?


Behind




Shanti




Raton




Aleya




Karim




Rahim




Tamim



Devid




Sabita



Ali

Front



Nasima

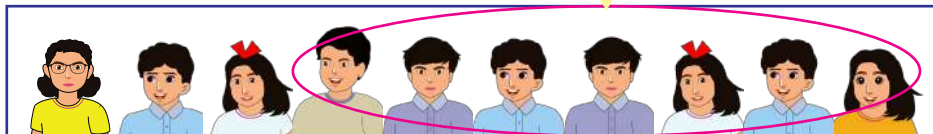


Place seven people from the right in a circle.
Place the seventh person from the right in a circle.

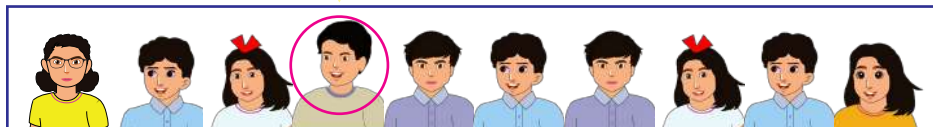


Remember, seven persons and the seventh person are different.

Seven from the right

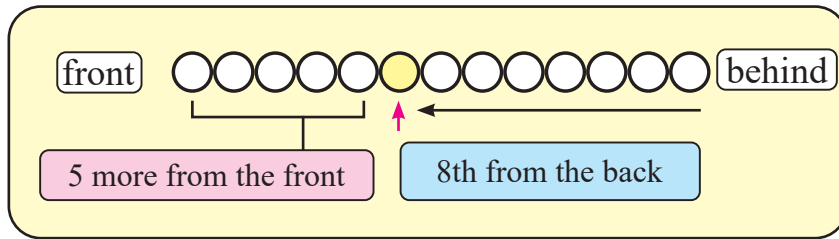


Seventh from the right





In a line Shanti is eighth from the back and 5 more students are in front of Shanti. How many students are there in the line?



Number of students: + =

3

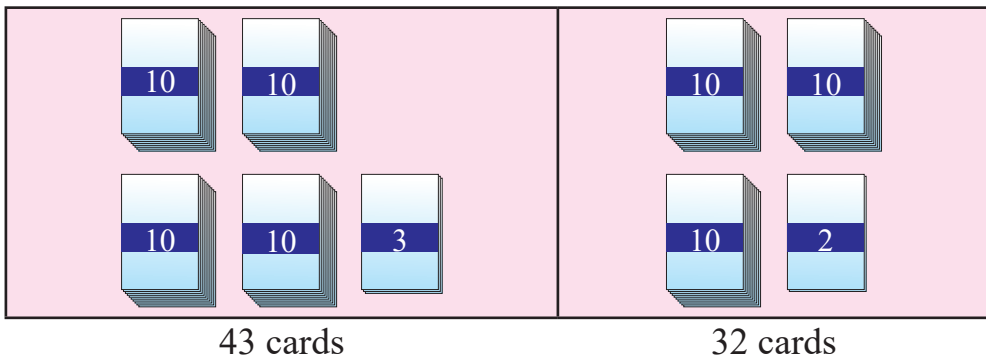
In a line Raju is sixth from the front and third from the back. How many children are there?



Chapter Two

Addition and Subtraction (Without carry)**Addition (1)**

Rafi has 43 cards. Tuli has 32 cards. If they put their cards together, how many cards are there in total?



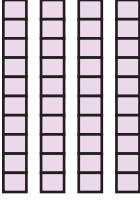

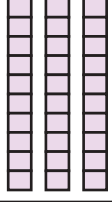

Let us think about how to put them together. If we put the cards together, can the total number of them be more?

How do we write the calculation of the total number of cards in a mathematical statement?

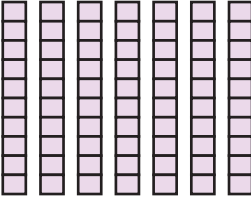



The mathematical statement is

$$43 + 32 = \boxed{}$$

Tens	Ones
	
	



	
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The mathematical sentence of the sum of the digits in the ones place is $3+2=5$.

The mathematical sentence of the sum of the digits in the tens place is $4+3=7$

Tens	Ones
4	3
+	3
7	5

□ Addition starts from the ones place.



How do we add $32+16$?



Have you arranged the numbers according to their place value?

3	2
+	1
4	8

Have you added the digits in the ones place first?



▲ Let us add

$$\begin{array}{r}
 \text{1.} \quad (1) \quad \begin{array}{r} 32 \\ + 30 \\ \hline \end{array} \quad (2) \quad \begin{array}{r} 51 \\ + 14 \\ \hline \end{array} \quad (3) \quad \begin{array}{r} 32 \\ + 22 \\ \hline \end{array} \\
 \\
 (4) \quad \begin{array}{r} 50 \\ + 20 \\ \hline \end{array} \quad (5) \quad \begin{array}{r} 65 \\ + 13 \\ \hline \end{array}
 \end{array}$$

2 Let us do the following additions.

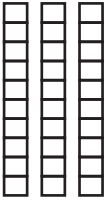



$$\begin{array}{lll}
 (1) 22 + 36 & (2) 72 + 15 & (3) 71 + 5 \\
 (1) 8 + 60 & (5) 35 + 10 &
 \end{array}$$



Raju has a bundle of 38 colourful cards. Mina has a bundle of 24 colourful cards. How many colourful cards do they have in total?



- How can we calculate the total number of cards?
- The mathematical statement of the calculation is $38 + 24 = \square$
Let us arrange the bundles of cards using blocks.


Tens	Ones
	
	

Let us arrange the two numbers according to their place values.

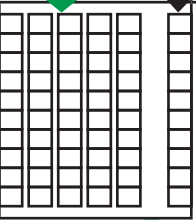



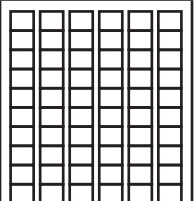

3	8
+ 2	4

The mathematical statement of the sum of the two digits in the ones place is $8 + 4 = 12$. 12 means 1 ten and 2 ones. Let us write 2 in the ones place and add 1 with the numbers in the tens place. Let us write $3 + 2 + 1 = 6$ in the tens place.

Move to the place of tens.	

3	8
+ 2	4

	
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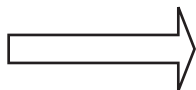
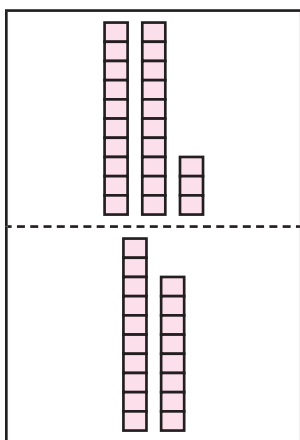
	
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+1	
3	8
+ 2	4
6	2

$$38 + 24 = 62$$



1 How do we add $23 + 18$?



	2	3
+	1	8
<hr/>		

1 Let us add.

1)
$$\begin{array}{r} 23 \\ + 18 \\ \hline \end{array}$$

2)
$$\begin{array}{r} 45 \\ + 27 \\ \hline \end{array}$$

3)
$$\begin{array}{r} 52 \\ + 38 \\ \hline \end{array}$$

4)
$$\begin{array}{r} 78 \\ + 08 \\ \hline \end{array}$$

5)
$$\begin{array}{r} 26 \\ + 37 \\ \hline \end{array}$$

6) $37 + 53$

7) $45 + 45$

8) $47 + 18$

9) $65 + 5$

10) $42 + 29$

2 $38 + 52 = \boxed{}$



How can we do the addition?

Is this addition different from others?

3	8
5	2
<hr/>	



3 How can we do the following addition?

$$35 + 6$$

$$\begin{array}{r} 3 \mid 5 \\ + \mid 6 \\ \hline \end{array}$$

$$7 + 36$$

$$\begin{array}{r} \mid 7 \\ + 3 \mid 6 \\ \hline \end{array}$$

2 Let us do the following addition

$$\begin{array}{r} 1) \quad 26 \\ + 37 \\ \hline \end{array}$$

$$\begin{array}{r} 2) \quad 38 \\ + 22 \\ \hline \end{array}$$

$$\begin{array}{r} 3) \quad 56 \\ + 14 \\ \hline \end{array}$$

$$\begin{array}{r} 4) \quad 36 \\ + 17 \\ \hline \end{array}$$

$$\begin{array}{r} 5) \quad 75 \\ + 15 \\ \hline \end{array}$$

$$6) \quad 42 + 28$$

$$7) \quad 78 + 13$$

$$8) \quad 62 + 28$$

$$9) \quad 6 + 57$$

$$10) \quad 72 + 9$$

3 Dilip bought fish for Tk.45 and vegetables for Tk.38 from the market. How much did he spend in total?

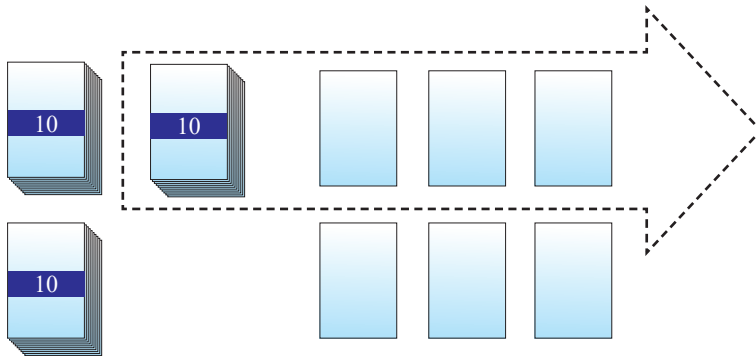
4 Mahdi and his friends went to the Probhat ferry on February 21 in two groups. In one group, there are 35 people and in the other group, there are 27 people. How many people were there in total in the two groups?

5 Manha's family library has 54 storybooks and 38 books on other subjects. In total, how many books are there in the library?

Subtraction (1)



Mina had 36 sheets of paper. She gave Raju 13 sheets of paper. How many sheets of paper does Mina have now?



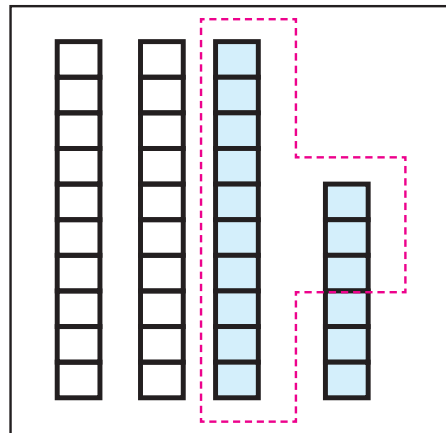
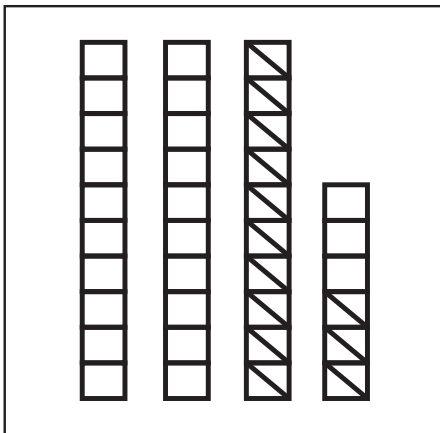
Mathematical statement:

▲ Let us think about how to calculate.

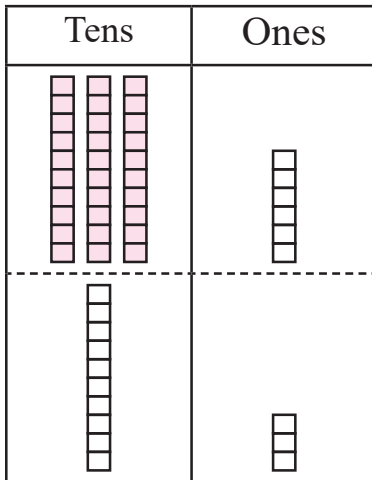


Let us count and remove 13 sheets of paper one by one.

13 means 1 ten and 3 ones. Let us take away 1 ten and 3 ones from 3 tens and 6 ones.

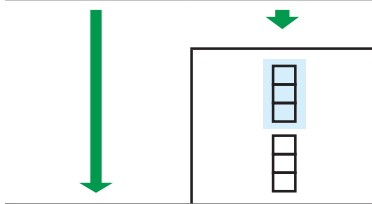


How do we subtract 13 from 36 by using their place value?



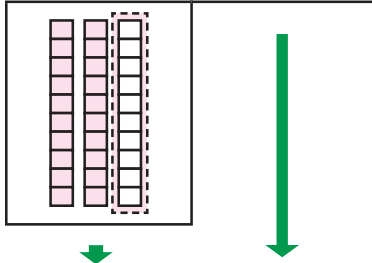
3	6
- 1	3

Let us arrange the numbers according to their place value.



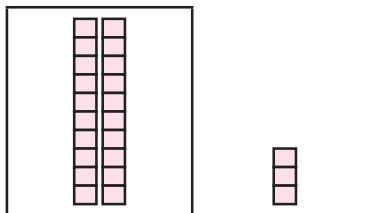
3	6
- 1	3
	3

At the ones place, $6 - 3 = 3$



3	6
- 1	3
2	3

At the tens place, $3 - 1 = 2$



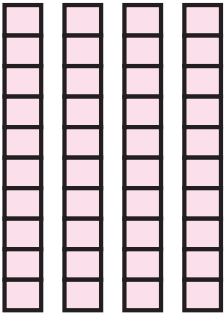

3	6
- 1	3
2	3

$36 - 13 = 23$

1 Let us subtract.

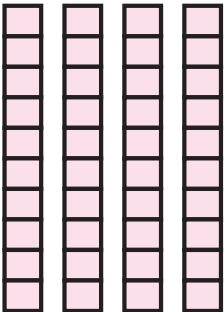

- 1) $45 - 23$ 2) $56 - 12$ 3) $86 - 31$ 4) $75 - 23$

2 Let us think about how to subtract 10 from 47.

Tens	Ones
	

4	7
– 1	0

3 Let us think about how to subtract 25 from 45.

Blocks of tens	Five blocks of one
	

4	5
– 2	5

4 Let us subtract.

$$\begin{array}{r}
 1) \quad 45 \\
 - 23 \\
 \hline
 \end{array}
 \quad
 \begin{array}{r}
 2) \quad 32 \\
 - 11 \\
 \hline
 \end{array}
 \quad
 \begin{array}{r}
 3) \quad 68 \\
 - 12 \\
 \hline
 \end{array}
 \quad
 \begin{array}{r}
 4) \quad 79 \\
 - 50 \\
 \hline
 \end{array}
 \quad
 \begin{array}{r}
 5) \quad 98 \\
 - 67 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 6) \quad 49 \\
 - 10 \\
 \hline
 \end{array}
 \quad
 \begin{array}{r}
 7) \quad 66 \\
 - 40 \\
 \hline
 \end{array}
 \quad
 \begin{array}{r}
 8) \quad 58 \\
 - 18 \\
 \hline
 \end{array}
 \quad
 \begin{array}{r}
 9) \quad 70 \\
 - 30 \\
 \hline
 \end{array}
 \quad
 \begin{array}{r}
 10) \quad 38 \\
 - 34 \\
 \hline
 \end{array}$$



How do we subtract 5 from 39?

Tens	Ones

3	9
-	5
<hr/>	

1 How do we subtract 9 from 39?

Tens	Ones

3	9
-	9
<hr/>	

1 Let us subtract.

$$\begin{array}{r}
 1) \quad 64 \\
 - \quad 3 \\
 \hline
 \end{array}
 \quad
 2) \quad 78 \\
 - \quad 5 \\
 \hline
 \quad
 3) \quad 94 \\
 - \quad 2 \\
 \hline
 \quad
 4) \quad 76 \\
 - \quad 6 \\
 \hline
 \quad
 5) \quad 57 \\
 - \quad 7 \\
 \hline$$

2 Let us subtract.

$$\begin{array}{llll}
 1) 85 - 13 & 2) 79 - 44 & 3) 61 - 50 & 4) 75 - 25 \\
 5) 90 - 50 & 6) 49 - 42 & 7) 97 - 5 & 8) 53 - 3
 \end{array}$$



Raju had 45 colour pencils. He gave 18 colour pencils to Tuli. How many colour pencils are left with Raju?

The mathematical statement of the calculation is $45 - 18 = \boxed{}$

How will you give me 18 colour pencils?



Tens	Ones

4	5
- 1	8
<hr/>	

	5 ¹⁰
- 1	8
<hr/>	
	7

	5 ¹⁰
- 1	8
<hr/>	
2	7

	5 ¹⁰
- 1	8
<hr/>	
2	7

Let us arrange the numbers according to their place value.

As the digit 5 in the ones place is less than 8, we cannot subtract 8 from 5. So, we can take 1 ten from the tens place and move it to the ones place. Adding this 1 ten to the digits of the ones place, we get $10 + 5 = 15$

At the ones place, $15 - 8 = 7$

At the tens place, $3 - 1 = 2$

$$45 - 18 = 27$$

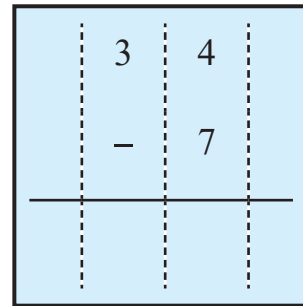
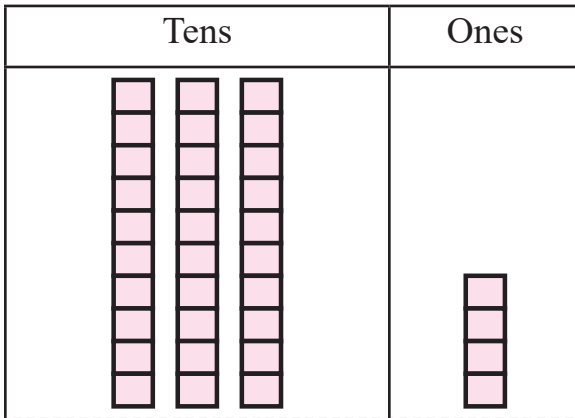
1 Let us subtract.

$$\begin{array}{r} 1) \quad 97 \\ - 59 \\ \hline \end{array} \quad \begin{array}{r} 2) \quad 71 \\ - 44 \\ \hline \end{array} \quad \begin{array}{r} 3) \quad 75 \\ - 47 \\ \hline \end{array} \quad \begin{array}{r} 4) \quad 60 \\ - 53 \\ \hline \end{array} \quad \begin{array}{r} 5) \quad 70 \\ - 22 \\ \hline \end{array}$$

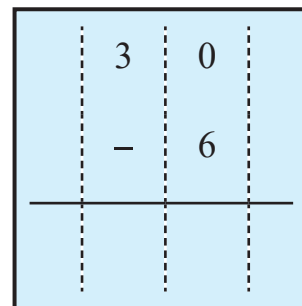
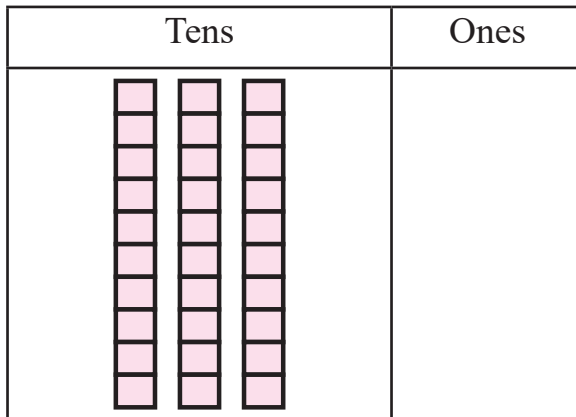
2 Let us subtract.

$$1) \quad 32 - 15 \quad 2) \quad 85 - 47 \quad 3) \quad 64 - 27 \quad 4) \quad 92 - 23$$

1 How do we subtract 7 from 34?



2 How do we subtract 6 from 30?



3 Let us subtract.

$$\begin{array}{r} 1) \quad 25 \\ - \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} 2) \quad 43 \\ - \quad 5 \\ \hline \end{array}$$

$$\begin{array}{r} 3) \quad 30 \\ - \quad 7 \\ \hline \end{array}$$

$$\begin{array}{r} 4) \quad 60 \\ - \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 5) \quad 80 \\ - \quad 9 \\ \hline \end{array}$$

4 Let us subtract.

$$1) 82 - 13$$

$$2) 71 - 44$$

$$3) 97 - 59$$

$$4) 60 - 35$$

$$5) 74 - 68$$

$$6) 40 - 34$$

$$7) 93 - 5$$

$$8) 50 - 3$$

5 Problems related to subtraction

1. Rumi has 75 marbles, and Raju has 49 marbles. How many more or fewer marbles does Raju have than Rumi?
2. The sum of the ages of mother and daughter is 70. The daughter is 22 years old. How old is the mother?
3. Jhumu is 8 years older than Rumi. Jhumu is 24 years old. How old is Rumi?

Mathematical Relation (Addition and subtraction)



There were some mangoes in a bag. 5 mangoes were sold. Now, there are 6 mangoes in the bag. How many mangoes were there in the bag at first?

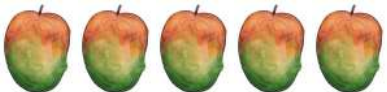



After selling 5 mangoes were decreased in the bag.

We need to exclude five mangoes.



Let us draw a picture of the above problem below.

<p>The number of mangoes we had at first. <input type="text"/></p>	<p>5 mangoes were sold.</p> 
	

Now, there are 6 mangoes in the bag.

How do we find the number of mangoes we had at first?



There were 6 mangoes after selling 5 mangoes. In the picture, we can see there were 11 mangoes in the bag. In a mathematical statement:

$$\square - 5 = 6 \longrightarrow 6 + 5 = \square \text{ mangoes were there}$$



The first number of subtraction is the sum of other two numbers.

$$\begin{array}{r} 11 \\ - 5 \\ \hline 6 \end{array} \quad \begin{array}{r} 6 \\ + 5 \\ \hline 11 \end{array}$$

1 Let us fill in the blanks.

$$1) \quad 9 + \square = 16 \quad 2) \quad 39 - \square = 31$$

9	?
16	

39	
?	31

$$3) \quad \square + 23 = 34 \quad 4) \quad \square + 19 = 45$$

$$5) \quad 14 + \square = 35 \quad 6) \quad 29 - \square = 17$$

$$7) \quad \square + 27 = 75 \quad 8) \quad \square - 39 = 45$$

$$9) \quad 12 + 9 - \square = 13 \quad 10) \quad 22 + 8 - \square = 23$$

2 Bijoy was going to the market to sell mangoes. His uncle gave him 15 more mangoes to sell. After selling 33 mangoes, he had 12 mangoes left. How many mangoes did he have at first?

3 Mr. Jalil bought 100 lichis from the market. After coming home, he gave 25 lichis to his daughter and 23 lichis to his son. How many lichis are left with him?

4 There were 25 chocolates in a box. From those, some chocolates were given to Mitu. 17 chocolates were left in the box. How many chocolates were given to Mitu?

What will be the mathematical statement?

Addition (2)



Tuli had 70 storybooks. She bought another 50 storybooks from the book fair. How many storybooks does Tuli have now?



Mathematical statement:



How do we write a mathematical statement?

$$70 + 50 = 120$$



Let us do the additions below.

1) $80 + 50$

2) $60 + 60$

3) $50 + 90$

4) $80 + 70$

5) $100 + 300$

6) $500 + 200$

7) $140 + 20$

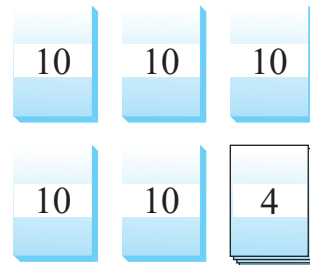
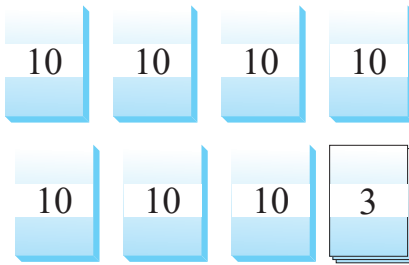
8) $30 + 130$

9) $160 + 30$

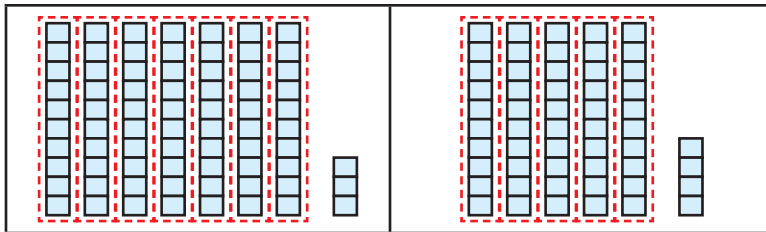
10) $50 + 220$



Dilip has 73 sheets of paper. His sister, Deepa, gave him 54 sheets of paper. How many sheets of paper does he have now?



Let us think about how to calculate.



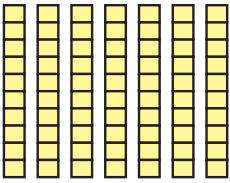

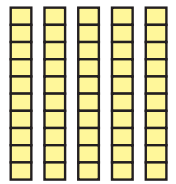

Here, the blocks of tens are more than 10.

The answer seems to be more than 100.



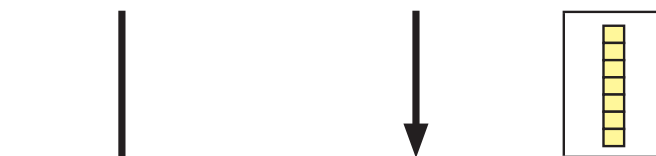
How do we add $74+54$?

Mathematical sentence

Hundreds	Tens	Ones
		
		

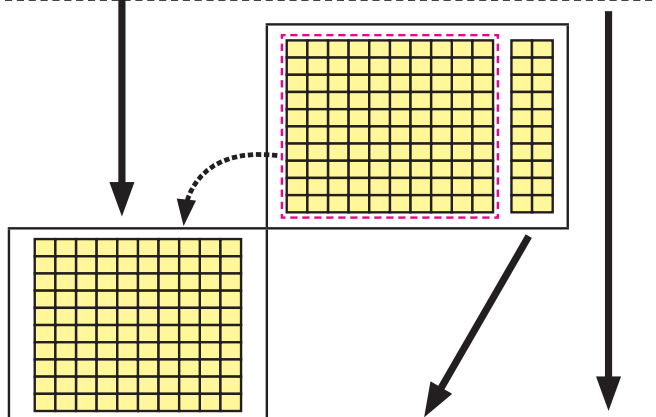
$$\begin{array}{r} 73 \\ + 54 \\ \hline \end{array}$$

Let us arrange these two numbers according to their place values.



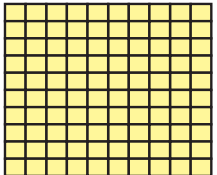
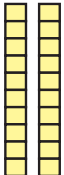

$$\begin{array}{r} 73 \\ + 54 \\ \hline 7 \end{array}$$

The sum of digits in the ones place is $3 + 4 = 7$



$$\begin{array}{r} 73 \\ + 54 \\ \hline 127 \end{array}$$

The sum of digits in the tens place is $7 + 5 = 12$ tens. 12 tens mean 1 hundred and 2 tens. Write 2 in the tens place and 1 in the hundreds place.

		
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$$\begin{array}{r} 73 \\ + 54 \\ \hline 127 \end{array}$$

$$73 + 54 = 127$$

Let us add.

- 1) $86 + 43$ 2) $68 + 35$ 3) $74 + 65$ 4) $55 + 45$ 5) $93 + 9$



$216 + 142 = \boxed{}$ How do we do the addition?



Using their place values, we can add them in mathematical statement.

Hundreds	Tens	Ones
2	1	6

+

H	T	O
1	4	2

=

H	T	O
		8

Sum of the digits in the ones place is $6 + 2 = 8$.

Hundreds	Tens	Ones
2	1	6

+

H	T	O
1	4	2

=

H	T	O
	5	8

Sum of the digits in the tens place is $1 + 4 = 5$.

Hundreds	Tens	Ones
2	1	6

+

H	T	O
1	4	2

=

H	T	O
3	5	8

Sum of the digits in the hundreds place is $2 + 1 = 3$.



To decorate the classroom, Raju made 134 paper flowers, and Meena made 145 flowers. How many flowers did they make in total?

How can we calculate the total number of paper flowers?



$134 + 145 = \boxed{}$

We can calculate by using place values.

H	T	O
1	3	4
<hr/>		
+	1	4
		5

1	3	4
<hr/>		
+	1	4
		5
		9

The sum of the digits in the ones place is $4 + 5 = 9$.

1	3	4
<hr/>		
+	1	4
		5
	7	9

The sum of the digits in the tens place is $3 + 4 = 7$.

1	3	4
<hr/>		
+	1	4
		5
2	7	9

The sum of the digits in the hundreds place is $1 + 1 = 2$.

1 Let us do the following additions.

(1) $526 + 253 = \square$

(2) $552 + 436 = \square$

(3) $523 + 614 = \square$

(4) $872 + 127 = \square$

(5) $672 + 326 = \square$

(6) $438 + 31 = \square$

2 Let us do the following additions.

1)
$$\begin{array}{r} 462 \\ + \quad 3 \\ \hline \end{array}$$

2)
$$\begin{array}{r} 953 \\ + \quad 46 \\ \hline \end{array}$$

3)
$$\begin{array}{r} 620 \\ + 370 \\ \hline \end{array}$$

4)
$$\begin{array}{r} 233 \\ + 355 \\ \hline \end{array}$$

5)
$$\begin{array}{r} 438 \\ + 521 \\ \hline \end{array}$$

6)
$$\begin{array}{r} 232 \\ + 354 \\ \hline \end{array}$$

7)
$$\begin{array}{r} 423 \\ + 241 \\ \hline \end{array}$$

8)
$$\begin{array}{r} 555 \\ + 324 \\ \hline \end{array}$$

1 On a certain Eid day, Rafi received Eid salami of Tk. 250 from his father and Tk.120 from his mother. How much money has he got in total?

3 Let us find the missing digits.

1. $4 \square 5 + 21 \square = 639$

2. $51 \square + 3 \square 5 = 876$

3.

6	6	6
21	27	33
39	50	\square

4.

1	6	11	16	$\square ?$
5	5	5	5	

5.

	3	
7	17	2
	5	

	3	
2	15	4
	6	

	3	
7	?	5
	4	

Let us find the missing digits.

$$3 \square 5 + 12 \square = 457$$

3	\square	5
+	1	2
\square	\square	\square
4	5	7

At the place of ones, $5 + 2 = 7$.

At the place of tens, $3 + 2 = 5$.

At the place of hundreds, $3 + 1 = 4$.



How do we add?

$$468 + 394 = \boxed{}$$

H	T	O		H	T	O		H	T	O
4 ⁺¹	6 ⁺¹	8	+	3	9 ⁺¹	4	=	8	6	2

$$468 + 394 = 862$$

The sum of digits in the ones place is $8 + 4 = 12$. 12 means 1 ten and 2 ones. Let us write 2 in the ones place and add 1 with the digits in the tens place.

The sum of the digits in the tens place is $6 + 9 + 1 = 16$. 16 means 1 hundred and 6 tens. Let us write 6 in the tens place and add 1 with the digits in the hundreds place.

In the hundreds place, let us write $4 + 3 + 1 = 8$.

1

An exercise book of Raju has 267 pages. Another exercise book has 145 pages. How many pages are there in the two exercise books? The mathematical statement of the calculation is:

$$267 + 145 = \boxed{}$$



How do we add?

	2	6 ⁺¹	7
+	1	4	5
<hr/>			
			2

The sum of the digits in the ones place is $7 + 5 = 12$. 12 means 1 ten and 2 ones. Let us write 2 in the ones place and add 1 with the digits of tens place.

$$\begin{array}{r|c|c|c}
 & 2^{+1} & 6^{+1} & 7 \\
 + & 1 & 4 & 5 \\
 \hline
 & & 1 & 2
 \end{array}$$

The sum of the digits in the tens place is $6 + 4 + 1 = 11$. 11 tens means 1 hundred and 1 ten. Let us write 1 in the tens place and add 1 with the digits in the hundreds place.

$$\begin{array}{r|c|c|c}
 & 2^{+1} & 6^{+1} & 7 \\
 + & 1 & 4 & 5 \\
 \hline
 & 4 & 1 & 2
 \end{array}$$

The sum of digits in the hundreds place, is $2+1+1=4$.

$$\begin{array}{r|c|c|c}
 & 2 & 6 & 7 \\
 + & 1 & 4 & 5 \\
 \hline
 & 4 & 1 & 2
 \end{array}$$

412 pages of paper

- 1 Each pair of students will write two numbers with at most three digits, and pass them to another pair of students. They will add the numbers. The pair that successfully adds the numbers first will be the winner.

2 Let us add.

1. (1) $596 + 312 =$ (2) $649 + 161 =$

(3) $427 + 185 =$ (4) $381 + 269 =$

(5)
$$\begin{array}{r}
 284 \\
 + 581 \\
 \hline
 \end{array}$$

(6)
$$\begin{array}{r}
 294 \\
 + 647 \\
 \hline
 \end{array}$$

(7)
$$\begin{array}{r}
 568 \\
 + 432 \\
 \hline
 \end{array}$$

(8)
$$\begin{array}{r}
 409 \\
 + 384 \\
 \hline
 \end{array}$$

3 Let us add

Problems related to addition

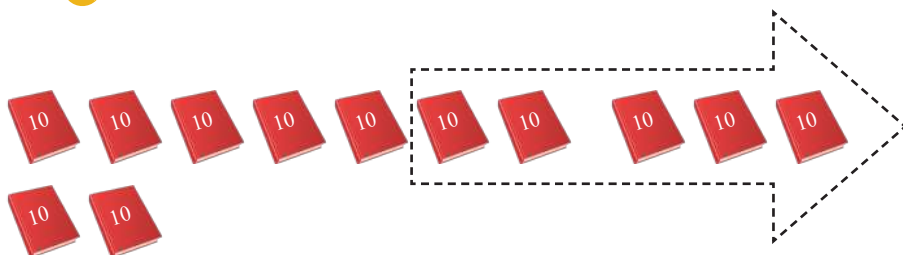
1. Shimu reads 154 pages of a storybook in a month. In the next month, she reads 275 pages. How many pages did she read in total in two months?
2. In a school, there are 136 boys and 120 girls in class two. How many students are there in class two?
3. 123 books were distributed among the students in Section A of class two. In Section B, 131 books were distributed. How many books were distributed in total?
4. There are 120 rose plants and 127 marigold plants in a nursery. How many flower plants are there in total in that nursery?
5. In a pond, 125 catfish and 250 walking catfish fries were released. How many fish fries were released in total in that pond?
6. A fruit seller sold mangoes for Tk. 360 on the first day. On the second day, he sold mangoes for Tk. 475. How much money did he get from his selling in two days?
7. In a cricket match, the Bangladesh National Team scored 415 runs in the first innings. They scored 327 runs in the second innings. How many runs did the Bangladesh team score in that match of two innings?
8. 400 people live in a village and 320 live in another village. How many people live in the two villages altogether?
9. Make a story for ' $975 + 325$ '.



Subtraction (2)



How can we subtract 50 from 120?



Let us write in a mathematical statement.

$$120 - 50 = 70$$

Let us do the following subtractions.

1) $170 - 40$

2) $180 - 20$

3) $160 - 40$

4) $190 - 20$

5) $500 - 200$

6) $700 - 500$

7) $900 - 220$

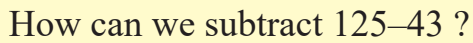
8) $380 - 30$

9) $390 - 70$

10) $460 - 60$

11) $520 - 30$

12) $220 - 50$


$$\begin{array}{r} 125 \\ - 43 \\ \hline \end{array}$$

The diagram shows a three-phase power system. On the left, three horizontal lines represent the three phases. Two of these lines have downward-pointing arrows, indicating a fault or load. On the right, a vertical line represents the neutral or ground connection. A fault is indicated by a lightning bolt symbol pointing to the ground connection. A dashed rectangle encloses the fault area, and a solid rectangle encloses the entire system.

$$\begin{array}{r} 12^{10}5 \\ - \quad 43 \\ \hline 82 \end{array}$$
$$\begin{array}{r} 12^{10}5 \\ - \quad 43 \\ \hline \quad 82 \end{array}$$

$$\boxed{125 - 43 = 82}$$

1 Let us subtract

- 1) $325 - 13$ 2) $527 - 28$ 3) $735 - 48$
 4) $474 - 81$ 5) $829 - 75$ 6) $930 - 40$

2 Let us subtract

$$\begin{array}{r} 1) \quad 509 \\ - \quad 25 \\ \hline \end{array} \quad \begin{array}{r} 2) \quad 729 \\ - \quad 56 \\ \hline \end{array} \quad \begin{array}{r} 3) \quad 845 \\ - \quad 58 \\ \hline \end{array}$$



Let us subtract $785 - 421$

7	8	5
4	2	1
<hr/>		
		4

7	8	5
4	2	1
<hr/>		
	6	4

7	8	5
4	2	1
<hr/>		
3	6	4

At the ones place
 $5 - 1 = 4$

At the tens place
 $8 - 2 = 6$

At the hundreds place
 $7 - 4 = 3$



Mina has Tk.241 and Raju has Tk.115 . How much more money does Mina have than Raju?



How can we calculate?

241

-115

$241 - 115 =$

$$\begin{array}{r} 241 \\ -115 \\ \hline \end{array} \rightarrow \begin{array}{r} 311 \\ 2\cancel{4}\cancel{1} \\ 115 \\ \hline \end{array}$$

The digit 5 in the ones place is greater than 1. So, we cannot subtract 5 from 1. Now, move 1 ten from the tens place to the ones place, and add this 1 ten to the number in the ones place.

$10 + 1 = 11$

Let us write in the ones place $11 - 5 = 6$.

$$\begin{array}{r} 3 \\ 2\cancel{4}1 \\ 115 \\ \hline 26 \end{array}$$

Let us write in the tens place $3 - 1 = 2$.

$$\begin{array}{r} 241 \\ 115 \\ \hline 126 \end{array}$$

Let us write in the hundreds place $2 - 1 = 1$.

Let us do

$241 - 115 = 126$

① Let us subtract

(1) $231 - 48 =$

(2) $230 - 90 =$

(3) $320 - 280 =$

(4) $437 - 273 =$

(5) $452 - 378 =$

(6) $663 - 267 =$

$$\begin{array}{r} (7) \quad 4 \ 9 \ 0 \\ - \ 8 \ 4 \\ \hline \end{array}$$

$$\begin{array}{r} (8) \quad 3 \ 2 \ 1 \\ - \ 2 \ 7 \ 9 \\ \hline \end{array}$$

$$\begin{array}{r} (9) \quad 9 \ 4 \ 1 \\ - \ 6 \ 0 \ 8 \\ \hline \end{array}$$

$$\begin{array}{r} (10) \quad 7 \ 9 \ 2 \\ - \ 4 \ 8 \ 6 \\ \hline \end{array}$$

$$\begin{array}{r} (11) \quad 3 \ 4 \ 1 \\ - \ 1 \ 2 \ 6 \\ \hline \end{array}$$

$$\begin{array}{r} (12) \quad 5 \ 4 \ 0 \\ - \ 2 \ 8 \ 0 \\ \hline \end{array}$$

- 2 Shyamol went to the market with Tk. 385. He spent Tk. 253. How much money is left with him?
- 3 In a cricket match, Bangladesh team scored 358 runs and Sri Lankan team scored 312 runs. Which team scored more and how many runs more?
- 4 There are 542 students in a school and 290 of them are girls. How many boys are there in that school?
- 5 There are 334 children in Kolyandi village. Of them, 315 children go to school. How many children do not go to school?
- 6 There are 212 mango trees in a garden. 195 of them have grown mangoes. How many trees did not grow mangoes?
- 7 Rita had 255 marbles. From those, she gave her younger brother 150 marbles. How many marbles does Rita have now?
- 8 A nursery has 146 mahogany saplings and 120 neem saplings. How many more mahogany saplings are there in the nursery?
- 9 Which number is to be subtracted from 355 to get 245?
- 10 There were 200 tilapia fish in a pond. 165 of them were sold. How many tilapia fish were left in the pond?
- 11 Tuhin has Tk. 342, and Shakil has Tk. 315. Who has less money, and how much less?
- 12 Shakib had three one-hundred-taka notes, from which he gave Mina Tk. 225. How much money does Shakib have now?

Problems Related to Addition and Subtraction.

There are 673 people in a village.

105 people left the village.

117 new people came to the Village

a) What is total number of people in the village now?



Let us think how to solve the problem.

There were 673 people

117 new people came

As new people came in, the total number of people will be more.

Total people will be

$$673 + 117 = 790$$



(b) What is the number of people after some of them left the village.

105 people left the village

As some people left the village, the total number of people will be less

$$\text{Total people will be } 790 - 105 = 685$$

In a mathematical statement, the problem will be :

$$673 + 117 - 105$$



(c) Let us solve the problem.

$$673 + 117 - 105$$

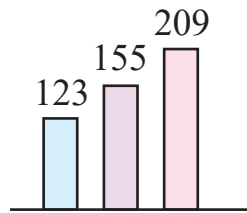
$$= 790 - 105$$

$$= 685$$

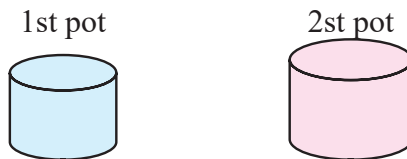
Number of people 685.



1. There were 625 students in the Safarmali School. At the beginning of the year, 275 new students were admitted and 35 student left the schools. How many Students were left in the school? Solve the problem in mathematical statement.
2. Jhuma has TK. 250. Her father gave her Tk.150 more. She bought a book for Tk. 230. How much money is left with her?
3. Sum of two numbers is 840. If one of them is 527, what is the other?
4. In a week a shopkeeper earns Tk.920 and spends Tk. 675. How much money does he save at the end of the week?
5. A school had 327 students. The following diagram describes the past three years admission of that school.



- (a) In which year the admission was the highest?
 - (b) How many more students were admitted in the third year compared to the first year.
 - (c) What is the number of students in the school now?
6. The Difference of two numbers is 87. If the greater number is 369, what is the smaller number?
 - 7.

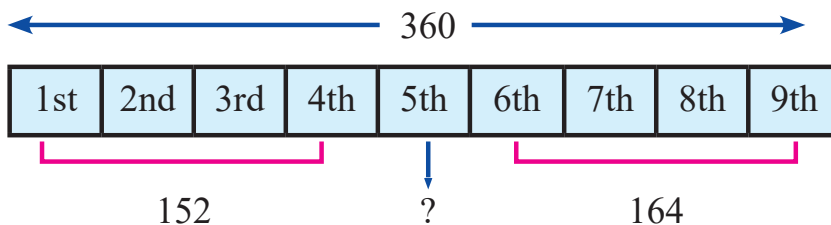


235 glasses of water 265 glasses of water

Two water pots are shown in the picture above.

- (a) Which pot contains more water?
- (b) How many glasses of water are more in the Second pot?
- (c) What is the total number of glasses of water in two pots ?

8. There are 425 mangoes in one basket, and 345 mangoes are in another basket. 175 mangoes are sold from the total. How many mangoes are left?
- (a) What is the total number of mangoes in the two Baskets?
- (b) In how many steps, the problem can be solved?
- (c) Express the problem in a mathematical statement.
- (d) Solve the problem.
9. The sum of 9 numbers is 360. The sum of the first 4 numbers is 152. The sum of the 6th to 9th numbers is 164. What is the 5th number?



10. Nahid has Tk. 450. Sumon has Tk. 115 less than that of Nahid. If their money is put together, it becomes the same as Arif's money. How much money does Arif have?
11. The age of the two sons together is 37 years and the age of their father is 63 years. After 10 years, what will be the total age of three of them?
12. Sujon got Tk. 1000 as a stipend. He bought a dress for Tk. 350 and a school bag for Tk. 475. How much money is left with him?
13. To buy a cricket bat and a ball Tk. 750 is needed. All the members gave a total of Tk. 330. The club gave them Tk. 250 as a grant. How much money do they need more?

14.

Sohag's fruit basket Geeta's fruit basket Tuli's fruit basket



150



248



475

- How many fruits are there in Sohag's fruit basket?
- How many more fruits does Tuli have than Geeta?
- How many fruits do Sohag and Tuli have in total?

15. The price list of a fruit shop.

Fruit	Mango	Apple	Orange
Price (Per Kg)	Tk. 100	Tk. 220	Tk. 160

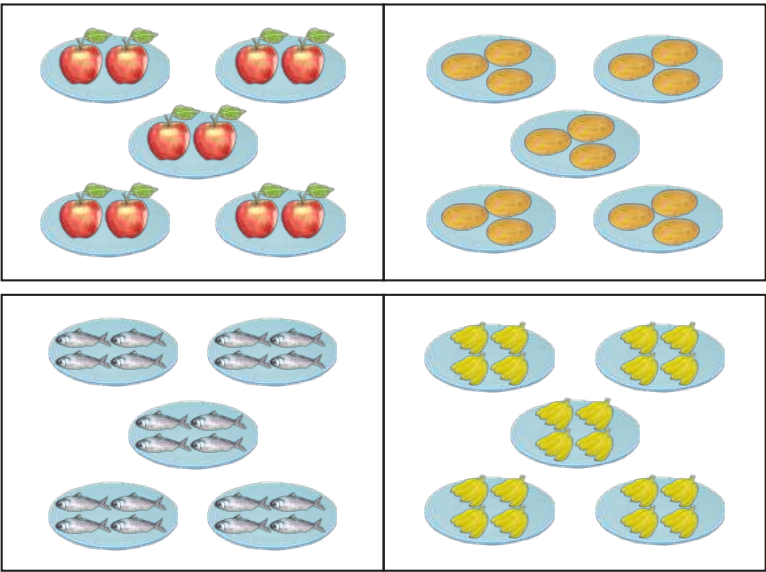
- How much more is the cost of apples than that of mangoes?
 - Express the total price of the fruits in a mathematical statement.
 - What is the total price of the fruits.
- A farmer got 326 bags of rice from his own land and 125 bags by cultivating other people's land. Calculate the total number of bags of rice he got and express it in mathematical statement.
 - Bikash Borua went to the book fair with Tk. 1000. After buying some books, he was left with Tk. 200. How much money did he spend for buying books?
 - Mr. Nizam went to the market with Tk. 970. He bought beef for Tk. 550 and a hen for Tk. 370.
 - What is the price of beef?
 - In which methods can the problem be solved?
 - How much money is left with Mr. Nizam?

Chapter -3

Multiplication

Concept of Multiplication

In the picture below apples, potatoes, fishes and bananas are arranged in some plates.



How many fishes and potatoes are there in each plate?



There are 5 plates of 4 fishes.

There are 5 plates of 3 potatoes.



fishes $4+4+4+4+4=$ <input type="text"/>	potatoes $3+3+3+3+3=$ <input type="text"/>
<input type="text"/> fishes	<input type="text"/> potatoes

This is a mathematical sentence.

This is a mathematical sentence.

▲ How many apples and bananas are there?



There are 2 apples in each of the above 5 plates. How many apples are there?



There are 4 bunches of bananas. There are 4 bananas in each bunch. How many bananas are there?

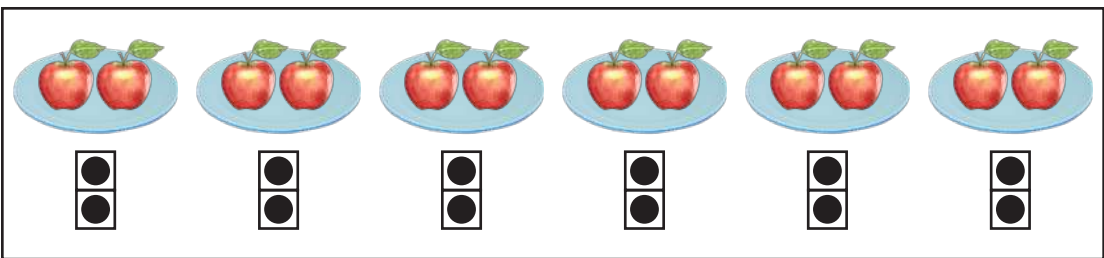
Let us write a mathematical sentence for counting apples.

apples

Let us write a mathematical sentence for counting bananas.

bananas

2 How many apples will be there if we add one more plate?

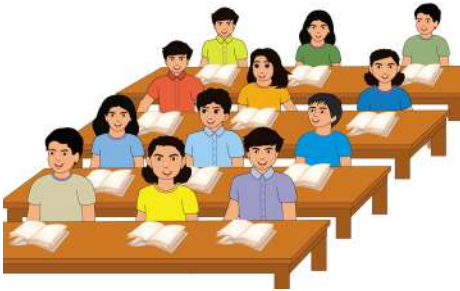


Mathematical sentence

apples



There are 4 benches in a class. 3 students sit in each bench.
How many students are there in the class?



There are 3 students
in each of the 4 rows.
The mathematical
sentence for the
number of students is



The number of students is: $3+3+3+3=12$

So, there are 12 students in the class.

Here we add 3 for 4 times. We can also express/write this problem in the following mathematical sentence.

$$3 \times 4 = 12$$

How to read?

Three multiplied by four equals twelve.

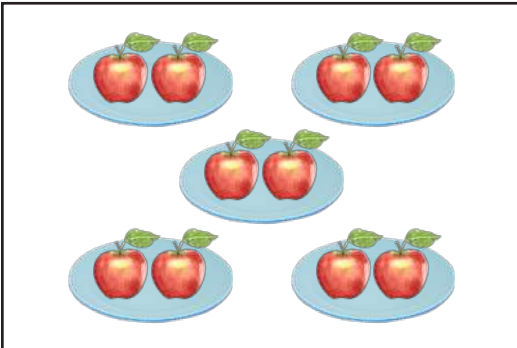
This type of calculation is called multiplication and the symbol \times is called multiplication sign.

3	\times	4	=	12
↓		↓		↓
Number of objects in each group		Number of groups		Total number of objects

(\times) is called the multiplication sign
and (+) is called the addition sign.

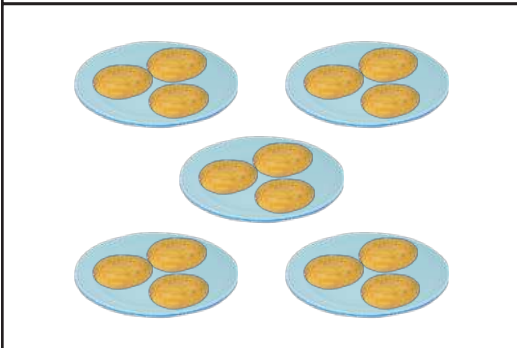


1 Let us calculate by using the multiplication sign.



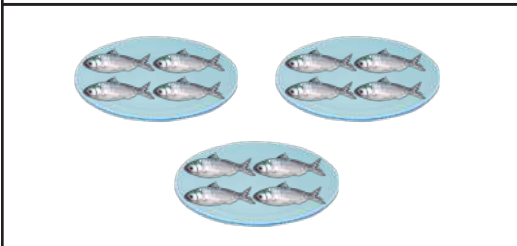
$$2 \times 5 = 10$$

10 apples



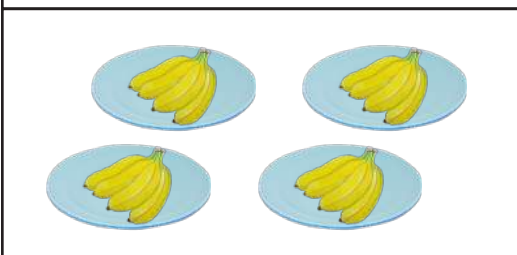
$$3 \times \text{---} = \text{---}$$

potatoes



$$\text{---} \times \text{---} = \text{---}$$

fishes



$$\text{---} \times \text{---} = \text{---}$$

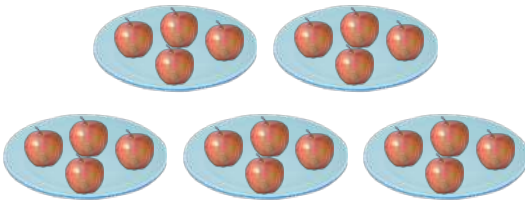
bananas

- 2 Let us write a mathematical statement of multiplication for each of the pictures below and write the answer.

1.



2.



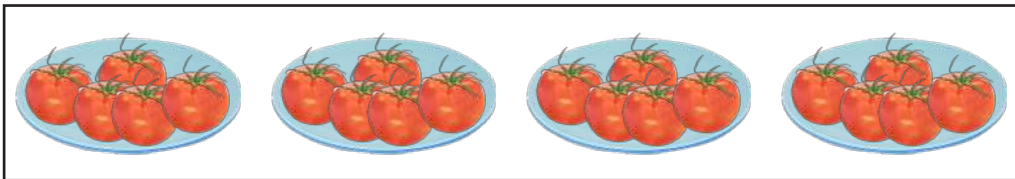
3.



Multiplication of 5.



There are 5 tomatoes in each of the 4 plates in the pictures.
How many tomatoes are there together?



- 1 Let us find how many tomatoes are there on 3 or 4 plates according to the picture below. 2 solutions are given.



$$5 \times 1 = 5$$



$$5 \times 2 = 10$$



$$5 \times 3 = \boxed{}$$



$$5 \times 4 = \boxed{}$$

- 2 According to the above picture how many tomatoes are there in any 5 plates?



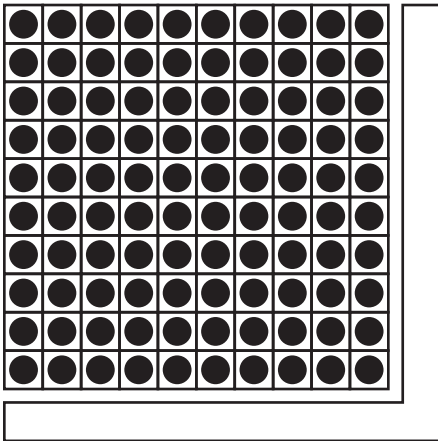
When the number of plates increase, how do the number of tomatoes increase?

I think there is a relation between the number of plates and the number of tomatoes.



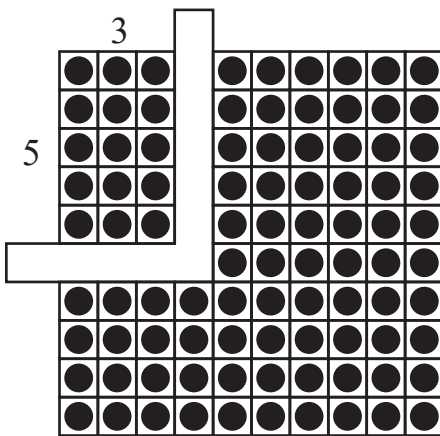
Let us learn the multiplication table of 5.

- 3 Let's use an L-shaped paper with 100 dots table and see how to express the multiplication?

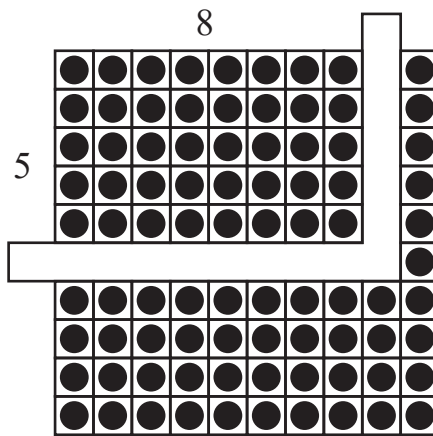


Multiplication table of 5

$$\begin{aligned} 5 \times 1 &= 5 \\ 5 \times 2 &= 10 \\ 5 \times 3 &= 15 \\ 5 \times 4 &= 20 \\ 5 \times 5 &= 25 \\ 5 \times 6 &= 30 \\ 5 \times 7 &= 35 \\ 5 \times 8 &= 40 \\ 5 \times 9 &= 45 \\ 5 \times 10 &= 50 \end{aligned}$$



$$3 \times 5 = 15$$



$$5 \times 8 = 40$$

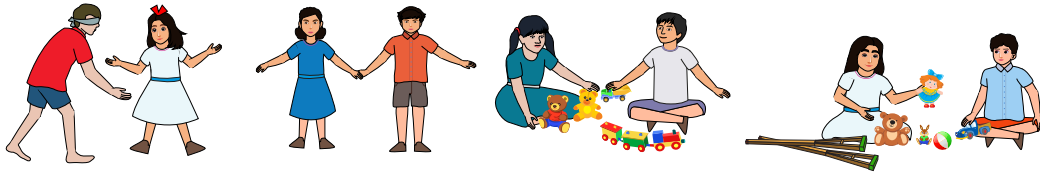


There are 5 lychees on each of the 6 plates. How many lychees are there together?

Multiplication of 2



Four pairs of children are playing. How many children are playing in total?



According to the pictures below, let's find out how many children are there?



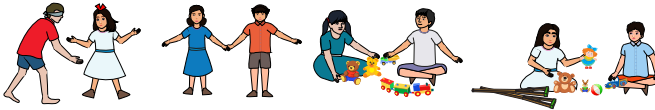
$$2 \times 1 = 2$$



$$2 \times 2 = 4$$



$$2 \times 3 = \boxed{}$$



$$2 \times 4 = \boxed{}$$

1

Similarly, how many children are there in 5, 6, 7, 8, 9 and 10 pairs?

$$2 \times 5 =$$

$$2 \times 8 =$$

$$2 \times 6 =$$

$$2 \times 9 =$$

$$2 \times 7 =$$

$$2 \times 10 =$$



Rafi: "If the number of pairs increases, how does the number of children increase?"

2

Let's play with the multiplication card.

Let's make a multiplication card as below.

Example,

Multiplication at the front ➡

$$2 \times 4$$

$$5 \times 3$$

Answer at the back ➡

8

15

Let's play ourselves.

Game-1: At first, mix the sets of multiplication cards of 5 well. The multiplications remain on one side and the answers remain on opposite side of the cards. Let's pick up one from the multiplication side. Let us find out the answer without seeing the answer given at the back. Now let us match the answer given at the back. The game will continue in this way.

Game-2: Let's play the same game by picking the answer first, then the multiplication.

Let us play in pairs/ with friends

Game-3: One player will pick up a card and show the multiplication to the other player. Another player will answer by doing multiplication. In the same way one will show the answer and the another one will say the multiplication.

Game-4: Let's place the cards on the desk, keeping the multiplication side down. Ask the multiplication to your friend showing the answer.



It's a game of multiplication of 2. How does this result come?

18

It is 2×9 . Isn't it?

 2×9

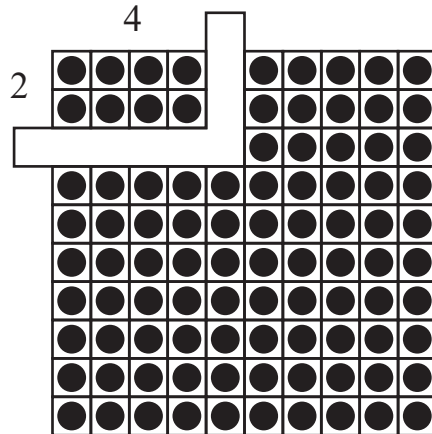

2024

Let us learn the multiplication table of 2.



Let us use an L-shaped paper with 100 dots table and see how to express the multiplication.

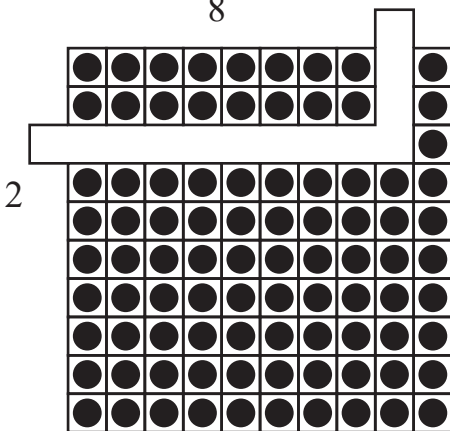
$$2 \times 4 = 8$$



Multiplication Table of 2

$2 \times 1 = 2$
$2 \times 2 = 4$
$2 \times 3 = 6$
$2 \times 4 = 8$
$2 \times 5 = 10$
$2 \times 6 = 12$
$2 \times 7 = 14$
$2 \times 8 = 16$
$2 \times 9 = 18$
$2 \times 10 = 20$

8



$$2 \times 8 = 16$$



1

Meena reads 2 pages of a book in a day. How many pages will she read in 7 days?

2

A chocolate costs 2 taka. Raju bought 6 chocolates.

1. How much taka do the chocolates cost?

2. If he buys 7 more chocolates, how much taka will it cost?

Multiplication of 3



Let us make the multiplication table of 3.

- 1 According to the picture below, let us find how many balls are there.



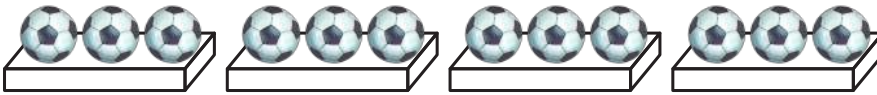
$$3 \times 1 = 3$$



$$3 \times 2 = 6$$



$$3 \times 3 = \square$$



$$3 \times 4 = \square$$

- 2 If the number by which we multiply is increased by 1, how much does the product increase?

- 3 How many balls are there in 5, 6, 7, 8, 9 and 10 trays?

$$3 \times 5 = \square$$

$$3 \times 6 = \square$$

$$3 \times 7 = \square$$

$$3 \times 8 = \square$$

$$3 \times 9 = \square$$

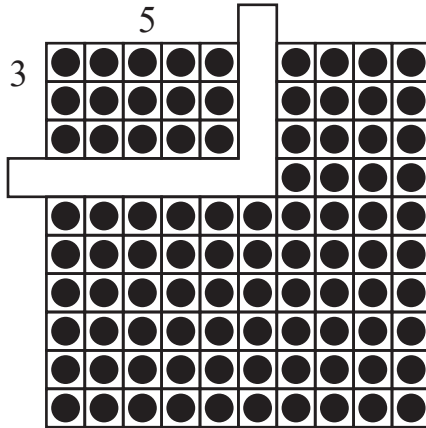
$$3 \times 10 = \square$$

Let us learn the multiplication table of 3



Let's use an L-shaped paper with 100 dots table and find out the multiplication.

$$3 \times 5 = 15$$



Multiplication Table of 3

$$3 \times 1 = 3$$

$$3 \times 2 = 6$$

$$3 \times 3 = 9$$

$$3 \times 4 = 12$$

$$3 \times 5 = 15$$

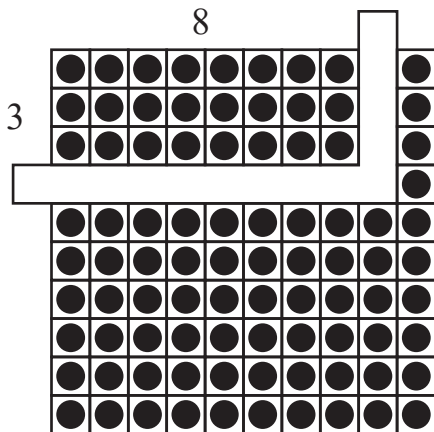
$$3 \times 6 = 18$$

$$3 \times 7 = 21$$

$$3 \times 8 = 24$$

$$3 \times 9 = 27$$

$$3 \times 10 = 30$$



$$3 \times 8 = 24$$



1

There are 3 wheels in a rickshaw. How many wheels are there together in 4 rickshaws?

2

3 guavas can be arranged on a plate. How many guavas are needed to arrange 7 plates?

3

There are 3 members in a family. How many members will be there in such 9 families?

Multiplication of 4



Let us make multiplication of 4

- 1 Let us find how many apples there are according to the pictures below.



$$4 \times 1 = 4$$



$$4 \times 2 = 8$$



$$4 \times 3 = \boxed{}$$



$$4 \times 4 = \boxed{}$$

- 2 How does the product increase if the multiplying number increases by 1?

- 3 How many balls are there in 5, 6, 7, 8, 9 and 10 trays?

$$4 \times (5) = \boxed{}$$

$$4 \times (6) = \boxed{}$$

$$4 \times (7) = \boxed{}$$

$$4 \times (8) = \boxed{}$$

$$4 \times (9) = \boxed{}$$

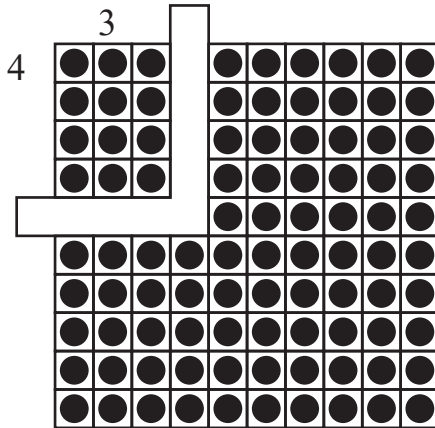
$$4 \times (10) = \boxed{}$$

Multiplication of 4



We use an L shaped paper on the pattern of 100 dots and find out the product.

$$4 \times 3 = 12$$



Multiplication Table of 4

$$4 \times 1 = 4$$

$$4 \times 2 = 8$$

$$4 \times 3 = 12$$

$$4 \times 4 = 16$$

$$4 \times 5 = 20$$

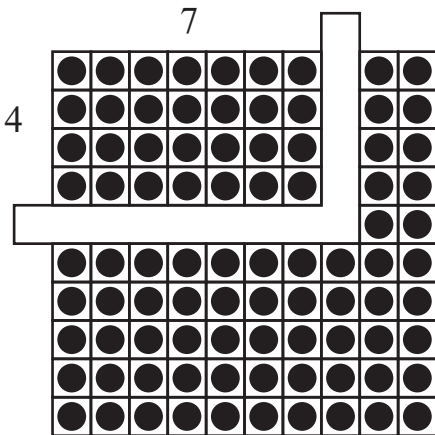
$$4 \times 6 = 24$$

$$4 \times 7 = 28$$

$$4 \times 8 = 32$$

$$4 \times 9 = 36$$

$$4 \times 10 = 40$$



$$4 \times 7 = 28$$



- 1 A cat has four legs. Then how many legs do 8 cats have?
- 2 A chair has 4 legs. Then how many legs do 6 chairs have?
- 3 If each sheep has 4 lambs, how many lambs do 9 sheep have?

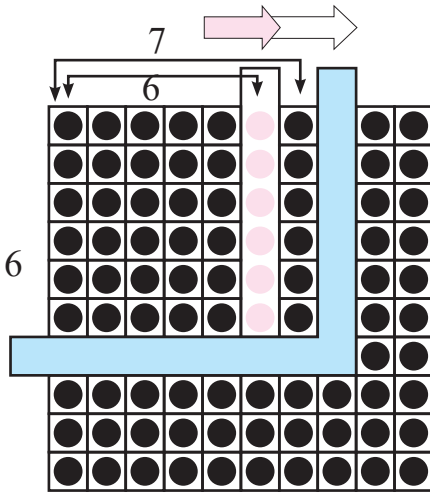
Multiplication of 6



Let us learn the multiplication table of 6 based on what we have learnt so far.

1

If we place an L- shaped paper on the pattern of 100 dots, what will we get?



Multiplication Table of 6

$$6 \times 1 = 6$$

$$6 \times 2 = 12$$

$$6 \times 3 = \boxed{}$$

$$6 \times 4 = \boxed{}$$

$$6 \times 5 = \boxed{}$$

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

$$6 \times 7 = \boxed{}$$

$$6 \times 8 = \boxed{}$$

$$6 \times 9 = \boxed{}$$

$$6 \times 10 = \boxed{}$$



My idea is

$$6 \times 1 = 6$$

$$6 \times 2 = 6 + 6 = 12$$

$$6 \times 3 = 6 + 6 + 6 = 18$$

$$6 \times 4 = 6 + 6 + 6 + 6 = 24$$

$$6 \times 5 = 6 + 6 + 6 + 6 + 6 = 30$$



My idea is

$$6 \times 1 = 6$$

$$6 \times 2 = 6 + 6 = 12$$

$$6 \times 3 = 12 + 6 = 18$$

$$6 \times 4 = 18 + 6 = 24$$

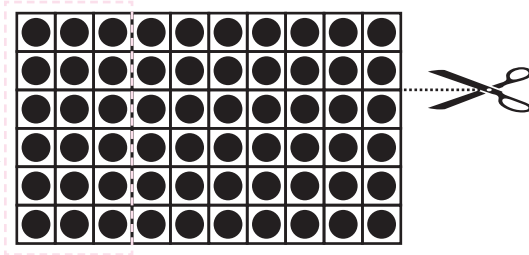
$$6 \times 5 = 24 + 6 = 30$$

What method do you follow to calculate the multiplication table of 6?

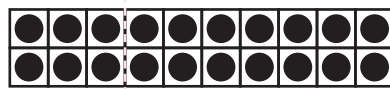
2 Let us learn the multiplication table of 6.

3 Let us again see the multiplication of 6 attentively.

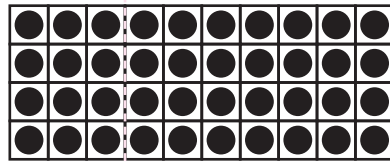
Multiplication
of 6



Multiplication
of 2



Multiplication
of 4



Multiplication Table of 6

$$6 \times 1 = 6$$

$$6 \times 2 = 12$$

$$6 \times 3 = 18$$

$$6 \times 4 = 24$$

$$6 \times 5 = 30$$

$$6 \times 6 = 36$$

$$6 \times 7 = 42$$

$$6 \times 8 = 48$$

$$6 \times 9 = 54$$

$$6 \times 10 = 60$$



We can arrange the product of 6 as the product of 2 and 4. Is it correct?

It is interesting.

We know $6 \times 3 = 18$

Again, $2 \times 3 = 6$ and $4 \times 3 = 12$

Their sum is $6 + 12 = 18$



Using the above picture, let us think $6 \times 5 = 30$ which is the sum of the product of 2 and the product of 4.

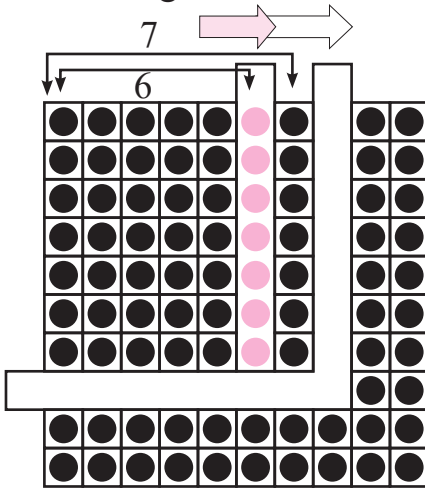
- 1 Badal's father works 5 days a week. How many days does he work in 6 weeks?

Multiplication of 7



Let us make the multiplication of 7 based on what we have learnt so far.

- 1 If we place an L-shaped paper on the pattern of 100 dots, what will we get?



My idea is
 $7 \times 1 = 7$, $7 \times 2 = 7 + 7$
 $7 \times 3 = 7 + 7 + 7 = 21$
 $7 \times 4 = 7 + 7 + 7 + 7 = 28$
 $7 \times 5 = 7 + 7 + 7 + 7 + 7 = 35$
 $7 \times 6 = \dots\dots\dots$



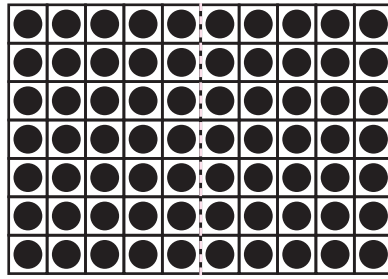
My idea is
 $7 \times 1 = 7$, $7 \times 2 = 7 + 7 = 14$
 $7 \times 3 = 14 + 7 = 21$, $7 \times 4 = 21 + 7 = 28$
 $7 \times 5 = 28 + 7 = 35$
 How would you calculate the multiplication of 7?

$7 \times 1 =$	<input type="text" value="7"/>
$7 \times 2 =$	<input type="text" value="14"/>
$7 \times 3 =$	<input type="text"/>
$7 \times 4 =$	<input type="text"/>
$7 \times 5 =$	<input type="text"/>
$7 \times 6 =$	<input type="text"/>
$7 \times 7 =$	<input type="text"/>
$7 \times 8 =$	<input type="text"/>
$7 \times 9 =$	<input type="text"/>
$7 \times 10 =$	<input type="text"/>

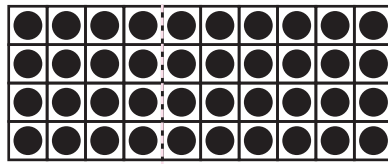
2 Let us learn the multiplication table of 7.

3 Let us observe the multiplication for 7 again with attention.

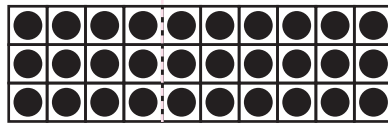
Multiplication
of 7



Multiplication
of 4



Multiplication
of 3



Multiplication Table of 7

$$7 \times 1 = 7$$

$$7 \times 2 = 14$$

$$7 \times 3 = 21$$

$$7 \times 4 = 28$$

$$7 \times 5 = 35$$

$$7 \times 6 = 42$$

$$7 \times 7 = 49$$

$$7 \times 8 = 56$$

$$7 \times 9 = 63$$

$$7 \times 10 = 70$$

$7 \times 5 = 35$, can you show breaking it into the multiplication of 4 and 3 ?



Multiplication of 7 can be expressed as multiplication of 4 and 3. It is shown below:

$$4 \times 5 = 20$$

$$3 \times 5 = 15$$

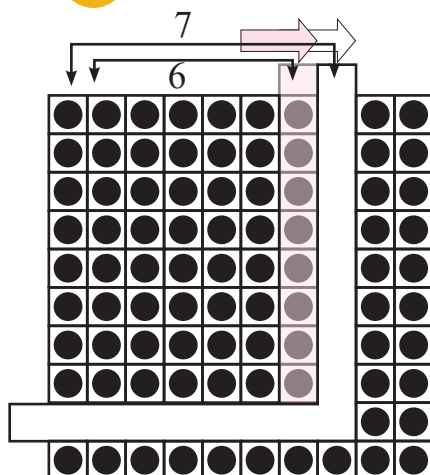
$$\hline 35$$

1 7 days make a week. How many days are there in 8 weeks?

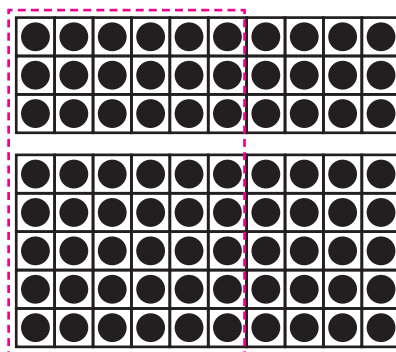
Multiplication Table of 8



Let us make the multiplication table of 8 based on what we have learnt so far.



What are the possible expression of the product $48 = 8 \times 6$? It has been broken down into the multiplier of 3 and 5 : $3 \times 6 + 5 \times 6 = 18 + 30 = 48$



Multiplication Table of 8

$$8 \times 1 = 8$$

$$8 \times 2 = 16$$

$$8 \times 3 = 24$$

$$8 \times 4 = 32$$

$$8 \times 5 = 40$$

$$8 \times 6 = 48$$

$$8 \times 7 = 56$$

$$8 \times 8 = 64$$

$$8 \times 9 = 72$$

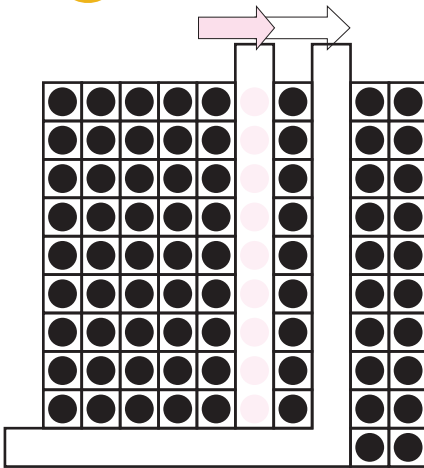
$$8 \times 10 = 80$$

- 1 There are 8 chocolates in 5 boxes. How many chocolates are there?
- 2 There are 8 students in each group in a class. How many students will there be in such 9 groups?

Multiplication Table of 9



Let us make the multiplication table of 9 based on what we have learnt so far.



Multiplication Table of 9

$$9 \times 1 = 9$$

$$9 \times 2 = 18$$

$$9 \times 3 = 27$$

$$9 \times 4 = 36$$

$$9 \times 5 = 45$$

$$9 \times 6 = 54$$

$$9 \times 7 = 63$$

$$9 \times 8 = 72$$

$$9 \times 9 = 81$$

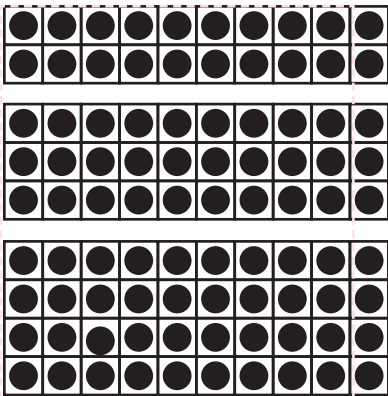
$$9 \times 10 = 90$$

2

2. $9 \times 9 = 81$ This multiplication has been expressed on a product of 2, 3 and 4.

3

3. $9 \times 2 = 18$, $9 \times 3 = 27$ and $9 \times 4 = 36$
Here, $18 + 27 + 36 = 81$



1

Each basket contains 9 breads. How many breads do 7 baskets contain?

2

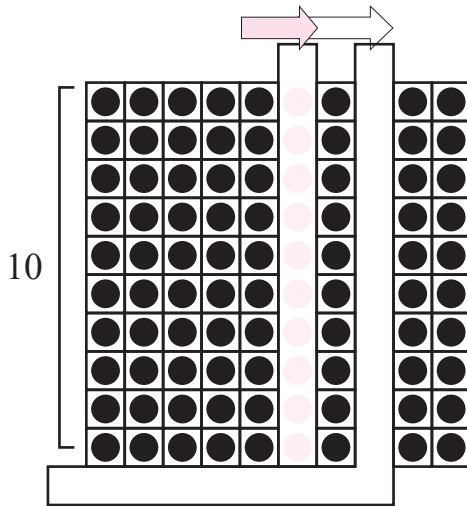
Rafiq reads 9 pages in a day. How many pages does he read in 8 days?

Multiplication Table of 10



Let us make the multiplication Table of 10, based on what we have learnt so far.

- 1 Let us make the multiplication table of 10, based on what we have learnt so far.



Multiplication Table of 10

$$10 \times 1 = 10$$

$$10 \times 2 = 20$$

$$10 \times 3 = 30$$

$$10 \times 4 = 40$$

$$10 \times 5 = 50$$

$$10 \times 6 = 60$$

$$10 \times 7 = 70$$

$$10 \times 8 = 80$$

$$10 \times 9 = 90$$

$$10 \times 10 = 100$$

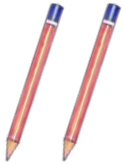
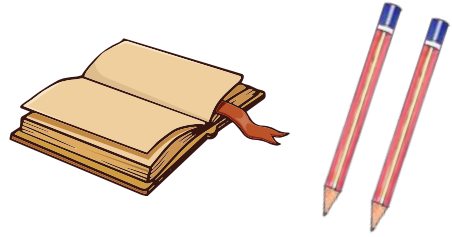
- 2 What are the possible alternatives to express multiplication of 10?

- 1 There is a total of 10 fingers in the two hands of a person. How many fingers are there in the hands of 7 persons?
- 2 How many books will be required if you give 5 books to each of 3 male students and 7 books to each of 4 female students?
- 3 How much money do you need if you buy 7 lychees at a price of Tk. 4, 8 Hog plums at Tk.6 and 5 bananas at Tk. 9 each respectively?

Multiplication of 1



Each first student of each class in the annual examination will get 2 pencils and 1 Notebook as a gift. How many gifts will be needed for 5 classes?



$$2 \times \square = \text{_____} \text{ 2 pencils}$$



$$\square \times \square = \text{___} \text{ Notebook}$$

1

What can we find here?



I got the sum of 1×3 and 1×7 ,
as 1×10



Multiplication of 1

$$1 \times 1 = 1$$

$$1 \times 2 = 2$$

$$1 \times 3 = 3$$

$$1 \times 4 = 4$$

$$1 \times 5 = 5$$

$$1 \times 6 = 6$$

$$1 \times 7 = 7$$

$$1 \times 8 = 8$$

$$1 \times 9 = 9$$

$$1 \times 10 = 10$$

1

If we save Tk.1 everyday, how much will we save in 8 days?





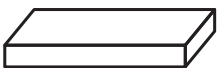
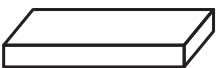
2

There are 5 students in the first bench, 6 students in the second bench and 8 students in the third bench in a class. If you pay Tk.1 to each student, how much money will you need?

Multiplication of 0







We have two trays. If we keep 0 ball in each tray, how many balls will be there?

	Ball	Tray	
2 balls			$\boxed{2} \times \boxed{2} = \boxed{}$
1 balls			$\boxed{1} \times \boxed{2} = \boxed{}$
0 balls			$\boxed{0} \times \boxed{2} = \boxed{}$



You can keep 3 balls in a tray. If there is no tray, how many balls can be there?

	Tray	Ball	
2 Trays			$\boxed{2} \times \boxed{3} = \boxed{}$
1 Trays			$\boxed{1} \times \boxed{3} = \boxed{}$
0 Trays			$\boxed{0} \times \boxed{3} = \boxed{}$



The result of multiplication by 0 will always be 0. Isn't it?

Then, what is the result of the multiplication 0×0 ?



When a number is multiplied by 0, the result will also be 0. Again, if we multiply 0 by any number, the result will also be 0.

Multiplication Table



Multiplication Table

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100



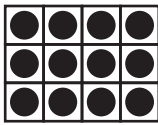
I have got a rule according to the order of multiplication.

I have got some rules for the place of ones

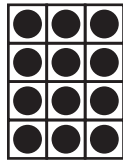


Let us find different types of patterns from the above table.

Interchange in Multiplication

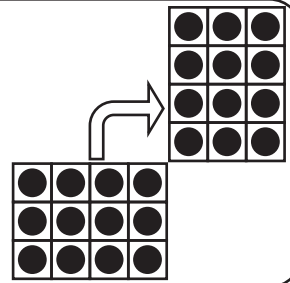


$$3 \times 4 = 12$$



$$4 \times 3 = 12$$

There are 4 marbles in 3 rows and 3 marbles in 4 rows. The total number of the marbles are the same.



1

What are the factors of the following numbers.

a. 16 b. 24 c. 36 d. 63 e. 72



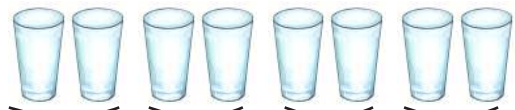
Let us find another multiplication like this.

2

Let us fill in the blanks according to the picture below.



$$\square \times \square = \square$$



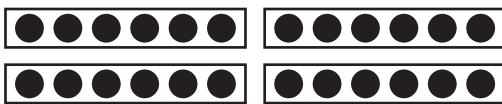
$$\square \times \square = \square$$



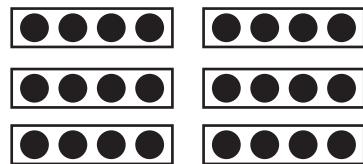
$$\square \times \square = \square$$



$$\square \times \square = \square$$



$$\square \times \square = \square$$



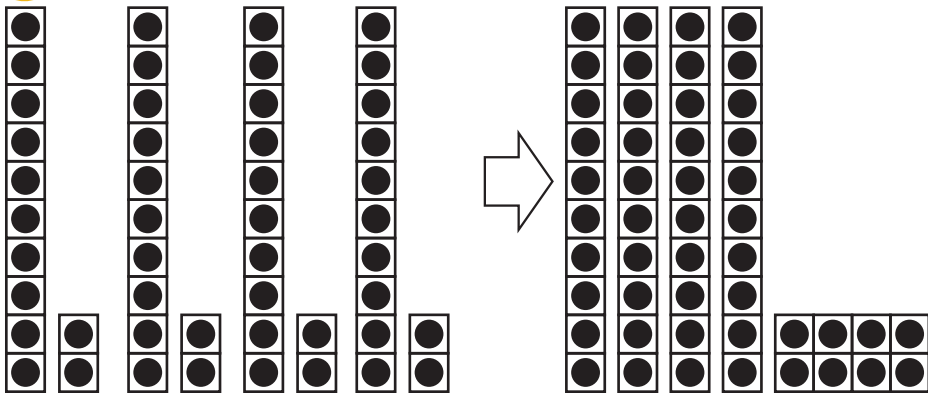
$$\square \times \square = \square$$

What do we see in all the cases above? The result of the multiplication does not change even if we interchange the numbers.

Multiplication



Mina can read 12 pages in a day. How many days can she read in 4 days of the book?



12

$$12 \times \square = \square$$



We multiply the digit at ones place of the 4 and later, multiply the digit at tens place.

$$\begin{array}{r} 12 \\ \times 4 \\ \hline 48 \end{array}$$

$$12 \times 4 = 48$$

48 Pages

1

Let us multiply

a. 14×2 b. 23×3 c. 11×7 d. 32×3 e. 34×2 f. 21×4

2

Raju's father works 8 hours in a day. If he works 3 days, then how many hours will he work?

3

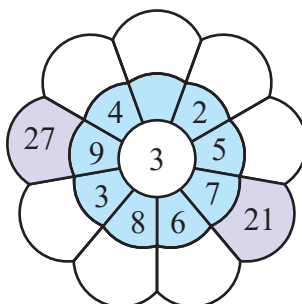
Karim wants to buy 3 storybooks. The price of each book is Tk.30. How much money will he need to buy the books?

Let us do.

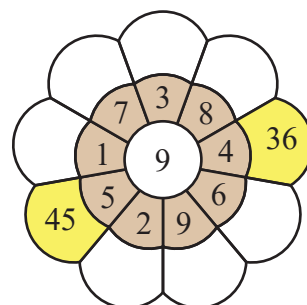
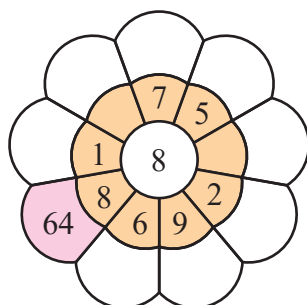
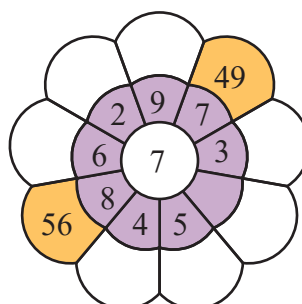
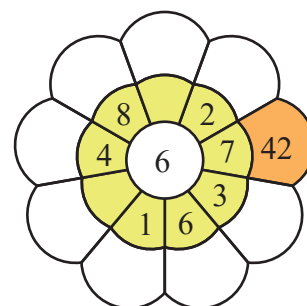
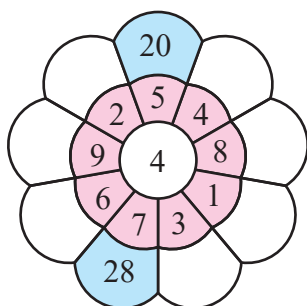
- 1 Let us fill in the blanks using multiplication table.



$$3 \times 9 = 27$$



$$3 \times 7 = 21$$



- 2 There are two chocolates in a packet. How many chocolates are there in 8 packets?

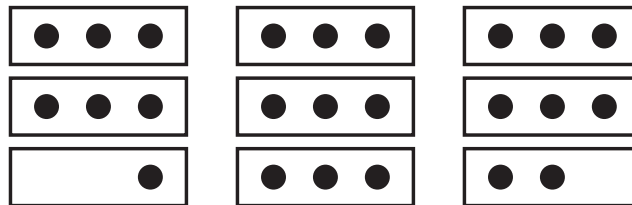
- 3 There are 10 benches in a classroom. 4 students can sit on each bench. How many students can sit in the classroom?
- 4 Your father walks 4 hours every day. How many hours does he walk in 7 days?
- 5 Ujjal wants to buy 4 books. Each book costs Tk. 22. How much money will he need to buy the books?
- 6 Multiply the numbers of the top row with the numbers of the left most column and fill in the blanks with the results:

Let us multiply: $4 \times 5 = 20$, let us write 20 in the blank.

Let us multiply
 $4 \times 5 = 20$
Let us write 20 in
the blank

\times	3	5	2	7	4	1	8	10	9	6
1										
4		20								
7										
6										
8										
5										
2										
9										
3										
10										




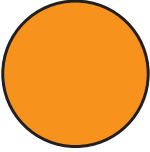
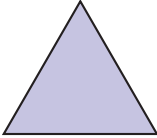

- 7 The picture below is the seating arrangement of the students in a class. One dot (●) indicates one student. How many students are there in the classroom? Calculate the result in different methods.



Chapter- Four

Geometric Shapes and Patterns**Geometric Shapes**

Geometric Shapes that we see around us.

		
 Round shape	 Triangular shape	 Quadrangular shape



Rafi and Tuli collected the following items. Together with them, let us identify the geometric shapes and arrange them separately.


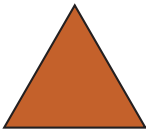


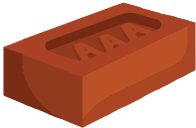
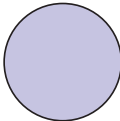


A one-taka coin is round-shaped.

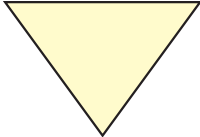
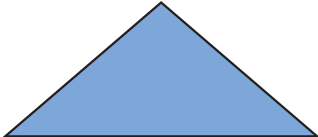
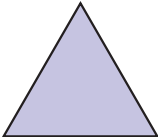
The surface of a matchbox is quadrangular shape.






1 Let us match the shapes with the objects by drawing lines.

	Ring	
	Samucha	
	Brick	


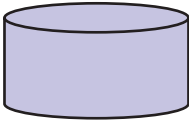
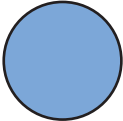
Triangular shape — Triangle



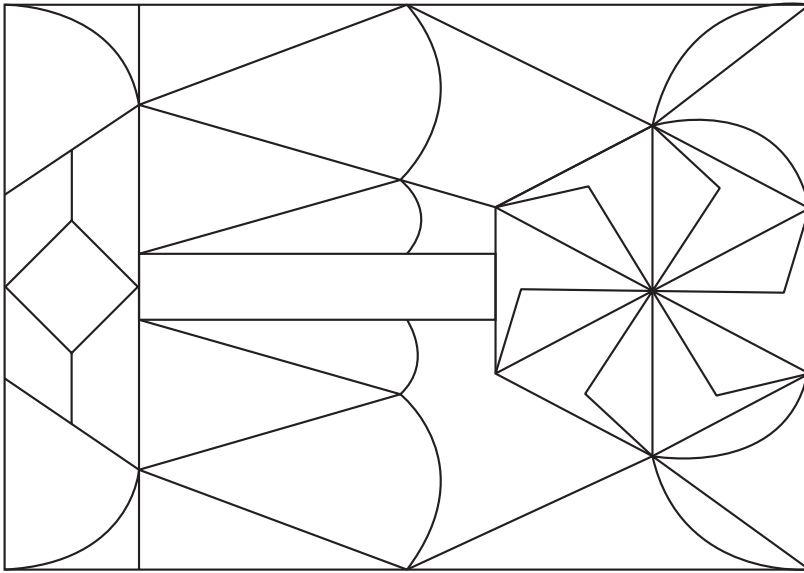
Quadrangular shape — Quadrangle/rectangle/square



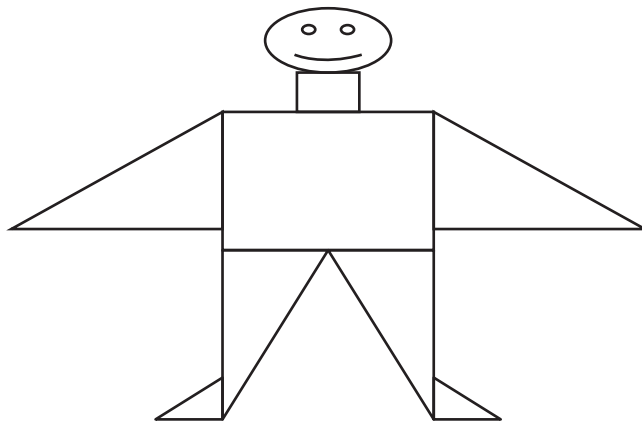
Round shape — Circular/Sphere/Cylinder



- 1 Let us say the geometric shapes of the following delicious foods:
a) Samucha b) Bread c) Roshogolla d) Biscuits e) Moa f) Sanar wandesh
- 2 Let us use different colours to shade the triangular and quadrangular shapes.



- 2 A cartoon has been drawn using geometric shapes like quadrangles, triangles, and circles. How many triangles, quadrangles, and circles are there in it?



Pattern



On the road, I saw a 'zebra crossing'. It has a pattern. We use the zebra crossing to cross the roads.



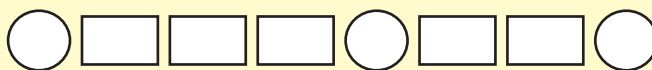
A zebra's body has such a black and white pattern.



- 1 Let us find more patterns around us.



I have created a pattern using circular and quadrilateral shapes.



I have created a pattern using triangular and quadrangular shapes.



- 1 Let us permute the following pictures into any pattern as we like.



Chapter- 5 Measurement

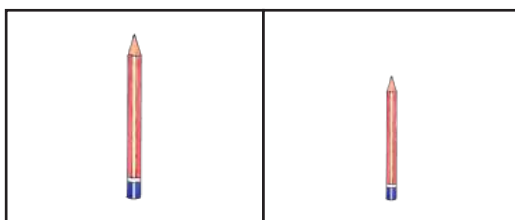
Measurement of Length



How do we measure the length of an object?



Let us compare the length of your pencil and my pencil. Which one is shorter and which one is longer?



Yes! your pencil is longer.
My pencil is shorter.



- 1 Measure with pencil and compare. Measure the lengths of your mathematic book and your geometry box.



Measurement of length

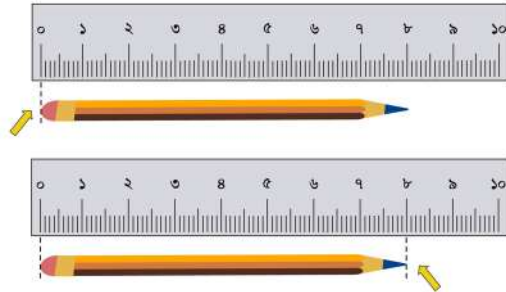
We use metre or centimetre for measuring length. We use metre to measure the long objects and centimetre to measure the short object.

100 centimetres equals to 1 metre.

Measuring tape or scales are used to measure the length of an object.

Unit of length is metre.

1 metre = 100 centimetres.

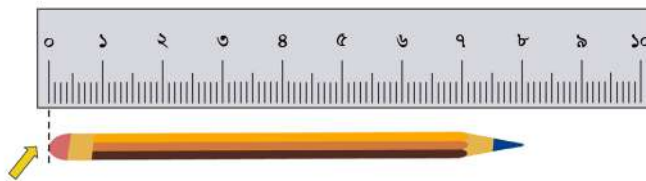


How do we use scale in measurement?



How is the length of a pencil measured using a scale?

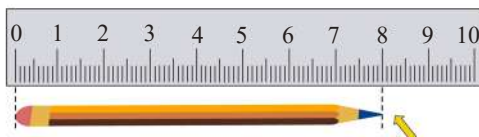
Place the ruler's zero marked end along any end of the object.



Place right at the zero mark.



Let us note the ruler's reading that marks the end of the object's other side.

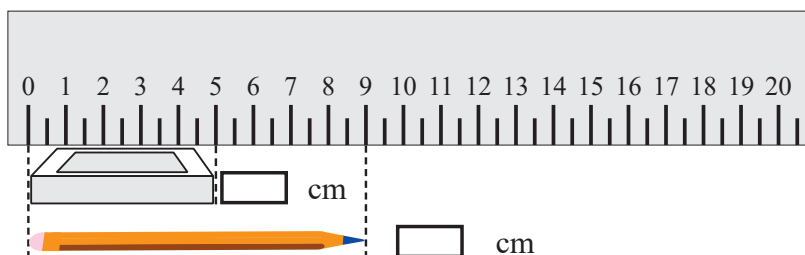
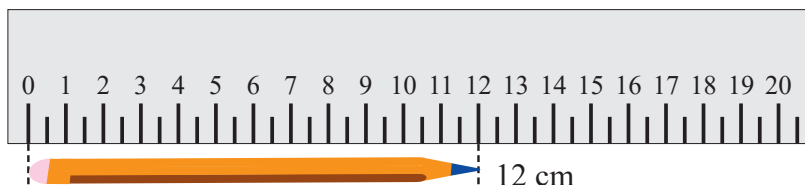


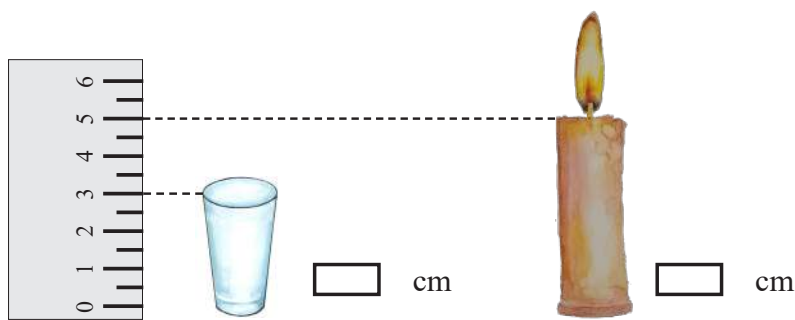
8 centimetre

Therefore, the length of the pencil is 8 centimetres.

1. Any end of an object is placed at the zero end of the scale.
2. Let us note the ruler's reading that marks the end of the object's other side.

Fill in the blanks





1 Let us use scale or measuring tape to measure the length and breadth of pen, pencil, note book, book, geometry box, blackboard, bench etc. and say to each other.

Length	Breadth
Note Book	Note Book
Elementary Mathematics Textbook	Elementary Mathematics Textbook
Geometry Box	Geometry Box
Blackboard	Blackboard
Bench	Bench

Measurement of Weight



Which object is heavier? A duster or a pen?



Let us compare the weight of a pen with that of a duster.

Let us take a duster in one hand and a pen in the other to compare their weight. I think the duster is heavier.



I also think so. It seems that a pen is heavier than a balloon. We may measure their weights on a balance/scale.

The unit of measuring mass is kilogram or kg. Gram, a smaller unit of mass, is used to measure objects of less weight. A balance or a scale or digital balance is used to measure the weight of an object.

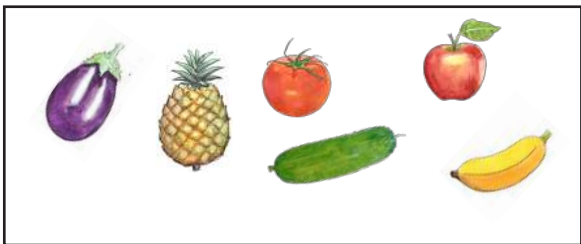
Unit of weight



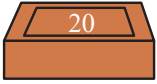




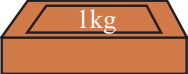
Kilogram or Kg
 $1 \text{ Kg} = 1000 \text{ gram(gm)}$


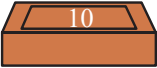
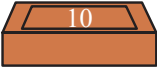

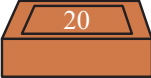







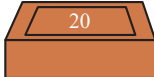
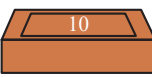
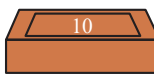
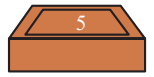
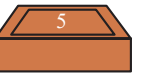
1

Let us compare the weights of the following objects. Which one is the heaviest? How are they compared?



 5 gm	 10 gm	 20 gm	 50 gm	 100 gm
 200 gm	 500 gm	 1000 gm/ 1 Kg		

 25 gm Weight/ Batkharā	 10 gm	 10 gm	 5 gm
	 20 gm	 5 gm	

 50 gm	 20 gm			 20 gm	 10 gm
	 20 gm	 10 gm	 10 gm	 5 gm	 5 gm

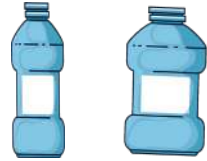
<div><div>100gm</div><div>100 gm</div><div>Weight/ Batkhara</div></div>	<div><div>50</div><div>50 gm</div></div>	<div><div>50</div><div>50 gm</div></div>	
	<div><div>50</div><div>50 gm</div></div>	<div><div>20</div><div>20 gm</div></div>	<div><div>20</div><div>20 gm</div></div>

- 2 Let us measure the weights of 3 or 4 objects on a balance and on a digital balance to see if they give the same readings.

Measurement of the Volume of Liquid



Which bottle contains more water?
How can we compare the volumes of water in these bottles?

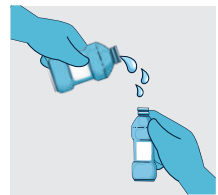


1. Reza's method



Which bottle contains more water? How do you understand?

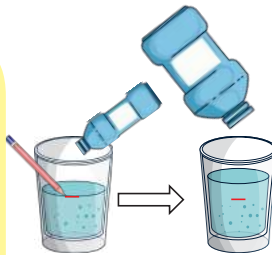
I have poured water from the first bottle to the second one.



2. Tuli's method



How will you understand which bottle contains more water?



I marked the water level on the pot.



3. Rafi's method:



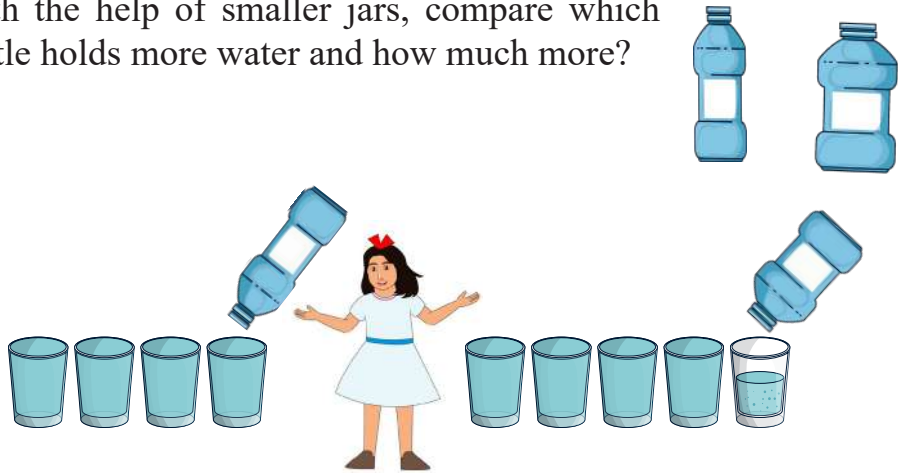
In which bottle have you got more water and why?



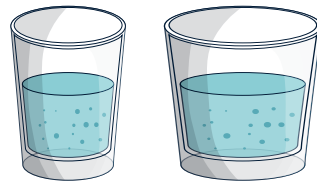
I have used two pots of the same shape.



- 1 With the help of smaller jars, compare which bottle holds more water and how much more?



- 2 Which one has more water and why?



- 3 Which container holds the most water and which one contains the least?





Let us determine the volume of water the bucket can hold.



For measuring the volume of liquid, we use the international unit Litre . English capital 'L' or small 'l' is used to mean litre.

1 Litre



(1) The bucket has been filled with ____ bottles of 1 litre of water. So, the bucket holds ____ litres of water.

2 How much water do the following containers hold?

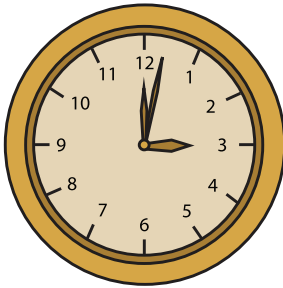


1 Fill different containers using 1 litre water bottles and measure the water.

Measurement of Time



What time is it on the following clock?



Minute's
hand

Second's
hand

Hour's
hand

Unit of time

Second, minute, hour

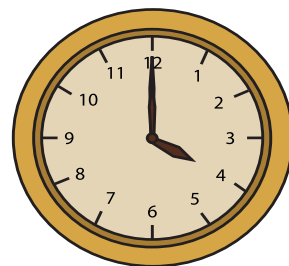
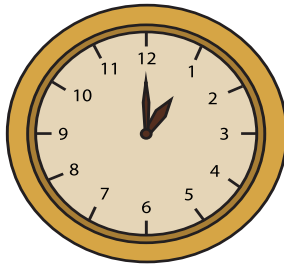
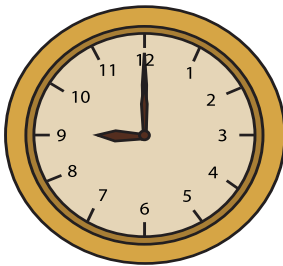


The Hour's hand points at 3.

The Minute's hand points at 12



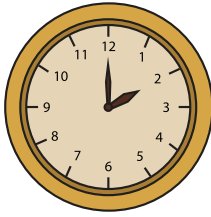
1 What time is it now?



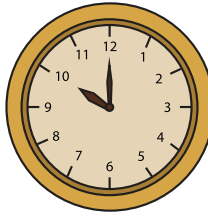
- 2 Set the clock according to the given time.



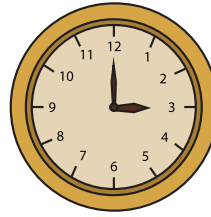
8 O'clock



2 O'clock



10 O'clock



3 O'clock

- 3 Digital watch: On a digital watch or mobile phone, the two digits on the left means hours and the two digits on the right means minutes.

It is 15 minutes past 11 O'clock.

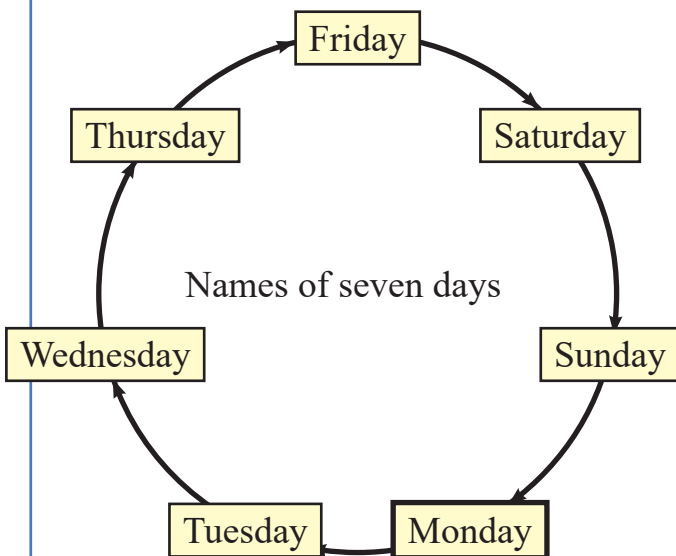


What time it is?



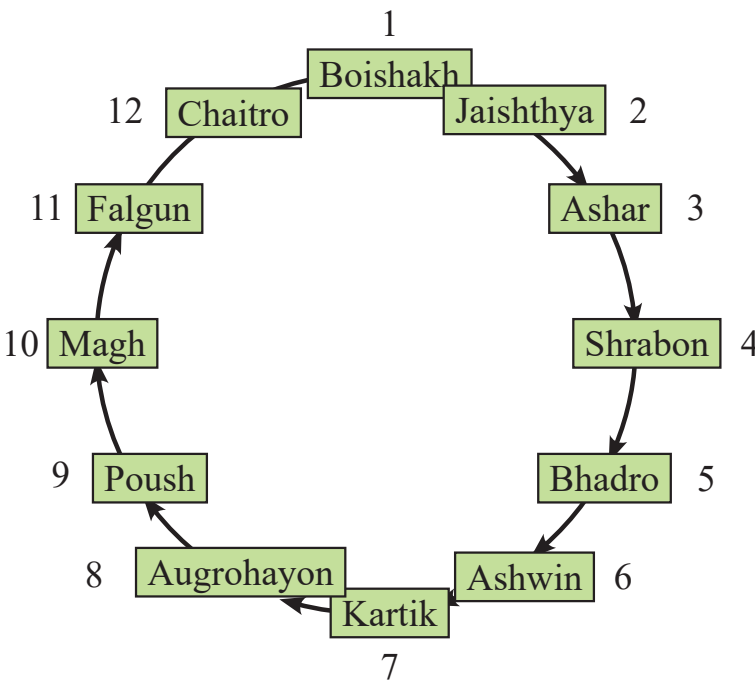
Day, Week and Month

1 week=7 days



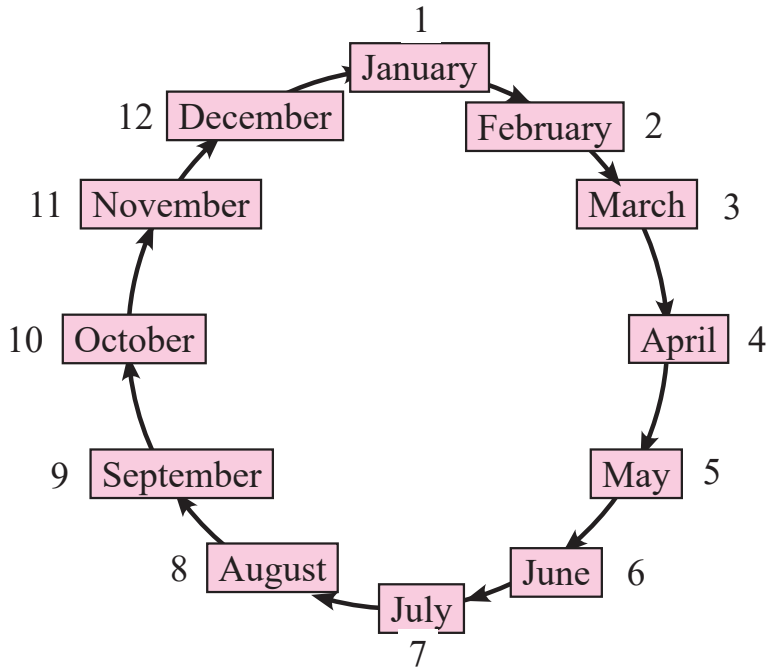
Names of seven days

1
The day before Monday _____
The day after Wednesday _____
School off day _____



2
The month after the month of Jaishthya _____
The month before the month of Magh _____
The month after the month of Falgun _____

The Names of the Months in the English Calander



- 3 The month after March _____
 The month before August _____
 Month of your birth _____

- 1 Which month is before November?
- 2 What is the name of the month after two months of June?
- 3 What is the name of the month after five months of October?

Chapter-6

Currency

Bangladeshi currency







The name of the currency of Bangladesh is Taka (Tk) and its symbol is ‘ট’.

There are two types of Bangladeshi currency: (a) Coin (b) Bill/ Paper note







Coin/ Metal currency

One side of the coins	Taka	Other side of coins
	1	
	2	
	5	

Bill / paper note

One side of the notes	Taka	The other side of the notes
	200	
	500	
	1000	

Exchange of Notes

	↔	 2 Tk. 100 notes
	↔	 5 Tk. 100 notes
	↔	 2 Tk. 500 notes



Let us try a different exchange.

We can exchange a note of Tk 200 with a Tk 100 bill and two Tk 50 bills.



Besides, we can exchange Tk 200 in different ways. For example, two Tk. 50 notes and 5 Tk. 20 notes can be exchanged for a Tk. 200 note.

Similarly, we may exchange bills of Tk. 500 and Tk. 1000 in different ways.





Miraj bought a pen for Tk. 30. In how many different ways can Miraj pay using one taka, two taka, five taka and ten taka notes?







The cost may be paid in one of the following ways. Using two Tk. 1, four Tk. 2, two Tk.5 and one Tk.10 bills.

It can be paid in other combinations too.








Fill in the blanks

Taka				
	1 count=TK.1	2 count=TK.4	1 count=TK.5	1 count=TK.10
	2 count = ____	4 count = ____	2 count = ____	__ count = ____
	10 count = ____	5 count = ____	__ count = ____	0 count = ____
	10 count = ____	__ count = ____	0 count = ____	1 count = ____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____

- How can we exchange a 50 taka bill using one taka, two taka, five taka, ten taka and twenty taka bills?

▲ The prices of the fruits are given below. Let us pay the price using different notes and fill in the blanks.

 188 Taka	100 Taka	50 Taka	20 Taka	10 Taka	5 Taka	2 Taka	1 Taka
 60 Taka	—	50 Taka	—	10 Taka	—	—	—
 120 Taka							
 550 Taka							
 250 Taka							

- 2 Eva bought 4 eggs for 40 taka and a packet of biscuits for 65 taka. How much money did she spend?
- 3 The price of a note book and a pen is 105 taka in total. If the price of a pen is 15 taka, what is the price of a note book?
- 4 Meherul had 100 taka. His father gave him 50 taka. He bought a geometry box for 120 taka. How much money is left with him now?

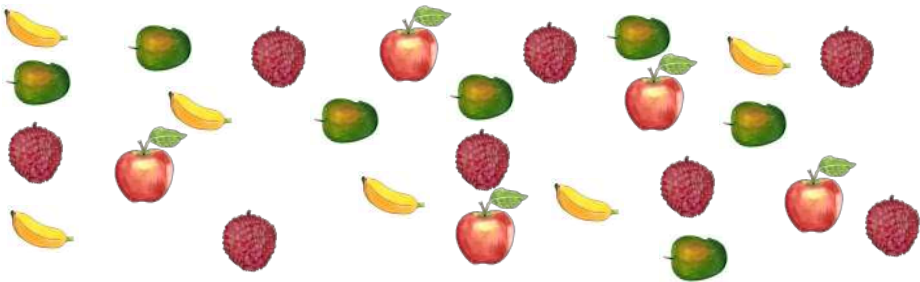
Chapter-7

Data

Data Collection and Sorting



Let us think how to find the number of fruits in the picture below.

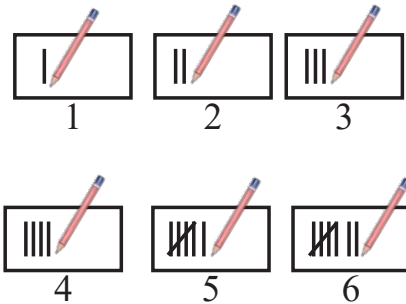


We can easily find the numbers of fruits by making a list.

Tally marks can also help us to find the number of fruits.



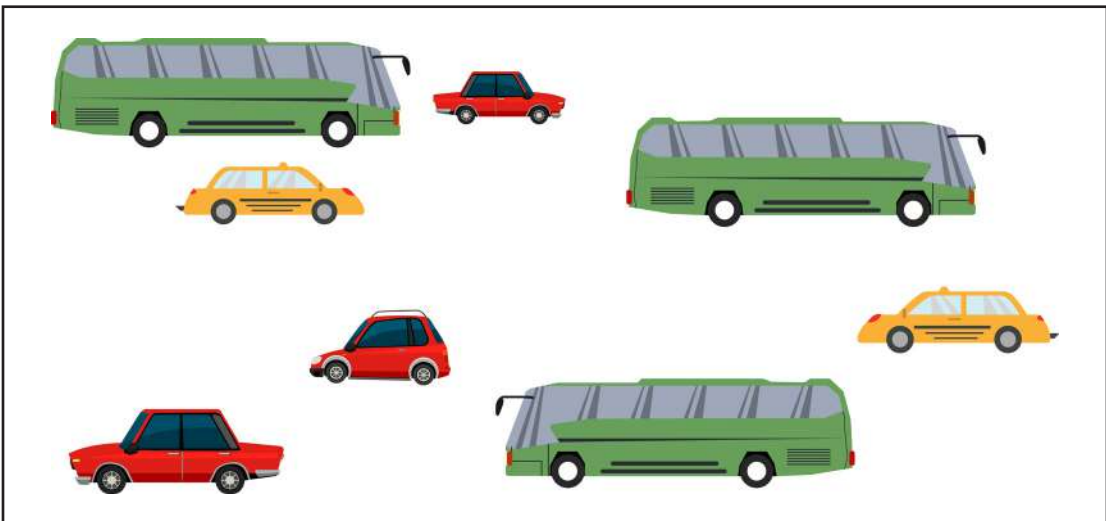
Let us draw a vertical line/segment/stroke for each fruit of each kind. In this way draw 4 strokes side by side. The fifth stroke is drawn diagonally across four strokes giving a bundle of five. In this way the number of each fruit can easily be counted. These marks are called tally marks.



Counts of fruits are shown using tally marks

Name	Tally	Counts
Mango		7
Banana		6
Lichi		8
Apple		5

- 1 The picture below shows the vehicles that run along a street in a day. Let us write their names and make a list of the vehicles. Let us make a tally sheet next to each vehicle and count the number of each vehicle. Next, let us create a tally by writing the symbols as numbers.



- 2 The teacher will demonstrate pictures of domestic animals on board. By watching carefully, students count the number of each animal drawn, using the tally sheet.

3 The Class representative will ask each student:

- a) Which of these three subjects among Bangla, English and Mathematics do you like most?
- b) Which of the 4 birds among Crow, Cuckoo, Pigeon and Martin is your favorite?
- c) Which color among red, blue, green and purple do you like most?

For each of the above cases, record the numbers using tally marks and make a table.

4 Hands On:

With the help of your teacher, collect leaves of 3/4 kinds and put them in a box in the classroom. Later, pull out one leaf at a time from the box and record the number, putting tally mark on table. Count the tally marks to find the counts of leaves in each kind and complete the table, using numbers.

– The End –



Academic Year 2024, Mathematics-2



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Call **109** (Toll free, 24 hours) National Help Centre to redress and prevent violence against women and children



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