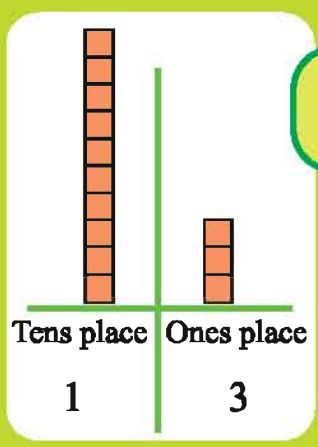
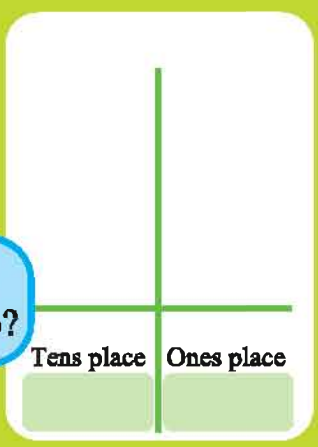
Elementary Mathematics

CLASS TWO





National Curriculum and Textbook Board, Bangladesh

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Elementary Mathematics

Class Two

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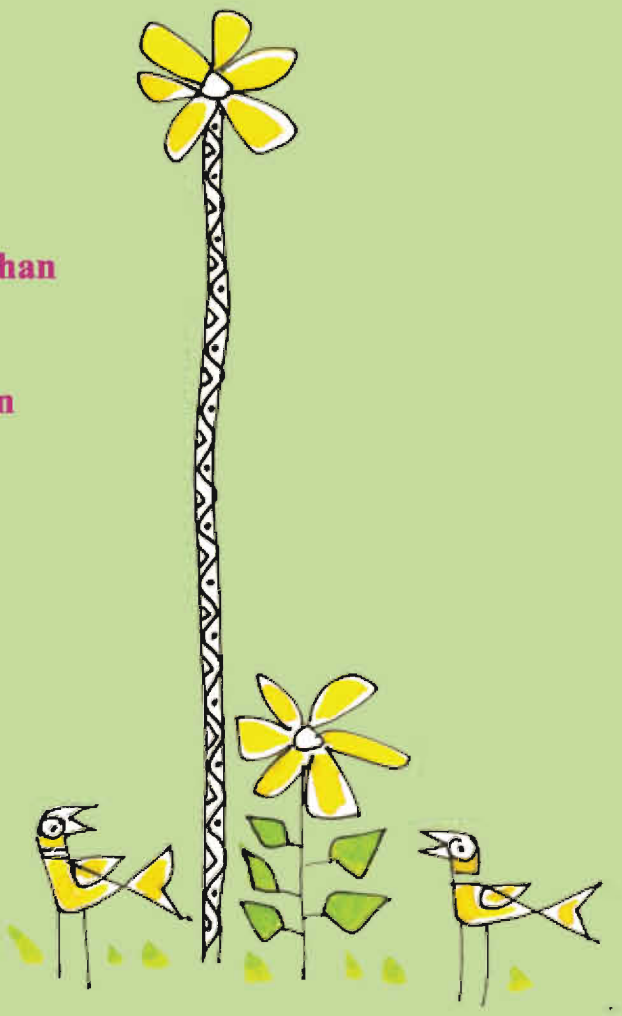

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Preface

A child is a great wonder. There is no end to the thinking about his/her world of wonder. A child is a subject of contemplation for educationists, scientists, philosophers, child specialists and psychologists. The fundamental principles of children education outlined in the National Education Policy 2010 have been defined in the light of these contemplations. The curriculum for primary education has been revised to develop a child on the potentials of his/her innate amazement, unbounded curiosity, endless joy and enthusiasm keeping in view the all-round development of children's potentials. The aims and objectives of primary education were modified in the revised curriculum of 2011.

The subject **Mathematics** is abstract one . For easy presentation of the complex terms, there are so many explanations, pictures and examples have been introduced. To create interest and for easy learning of the students "Do yourself with examples" are incorporated here. To evaluate acquired learning outcomes, sufficient exercises have been incorporated in the textbook . On the other hand, the contents of the textbook have been rearranged by following manner 'Easy to Hard' to keep students enthusiastic in the learning strategy.

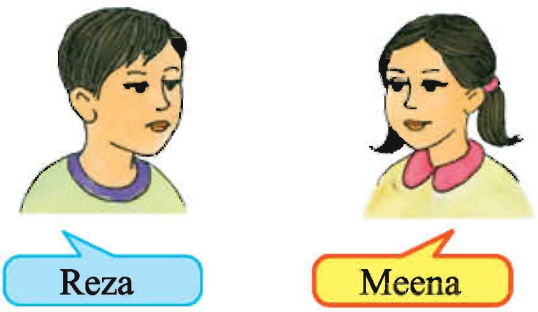
To make the young learners interested, enthusiastic and dedicated, Bangladesh Awami League Government under the dynamic leadership of the Honorable Prime Minister Sheikh Hasina has taken initiatives to change the textbooks into four colors, and make them interesting, sustainable and distributed free of cost since 2009. The textbooks of Pre-primary, Primary, Secondary, Ibtedaie, Dakhil, Dakhil Vocational and SSC Vocational level are being distributed free of cost across the country which is a historical initiative of the present government.

My sincere acknowledgement and thanks to all who had helped in different stages of composition, edition, rational evaluation, printing and publication of the textbook. Though all cares have been taken by those concerned, the book may contain some errors/lapses. Therefore, any constructive and rational suggestions will be highly appreciated for further improvement and enrichment of the book. We will deem all our efforts successful if the young learners for whom it is intended find it useful to them.

Professor Narayan Chandra Saha
Chairman
National Curriculum and Textbook Board, Bangladesh

Explanation of Characters and Symbols:

1) Character: A dialogue between two students names Reza and Meena are shown in the textbook. The mathematical idea of the students would be clear through their discussion and opinion.



2) The steps have been indicated by using some symbols in the lesson.

Key Question: Key concept of the chapter has been expressed through this question.

Activity: To solve a problem students will discuss and think logically with the help of teacher.

Exercise: Students will solve problems. It will be possible for evaluation of the learning development.

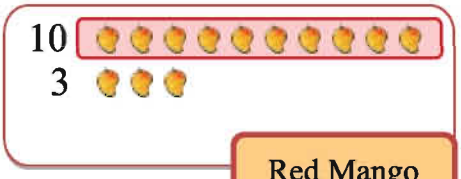
CONTENT

1. Numbers

1.1. Place value

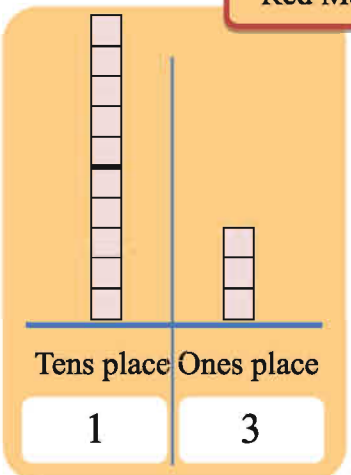
How many red mangoes and green mangoes are there in the picture?

Count the mangoes by 10. How many groups of 10?

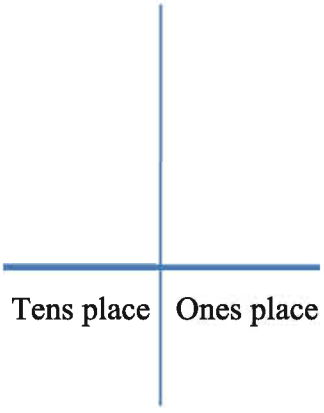


Red Mango

Green Mango



How many green mangoes?



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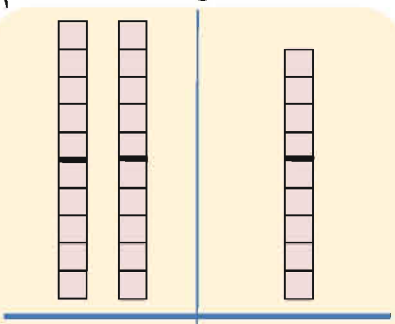
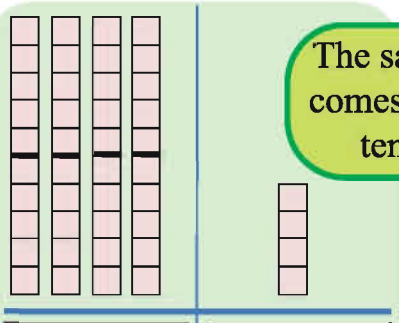
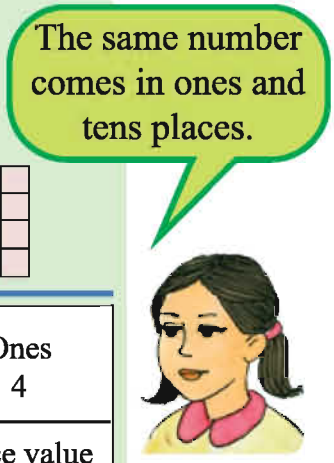
What are the values in the tens place and ones place of the following numbers that the blocks indicate?



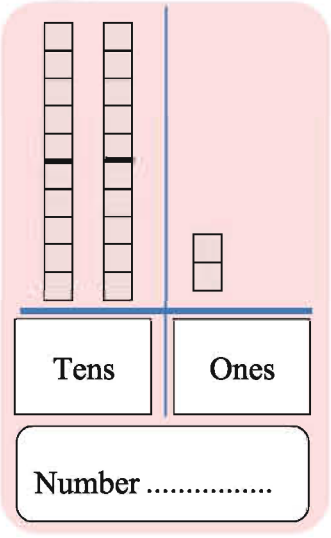
Tens	Ones
2	.....
Place value	Place value
20	.....



Tens	Ones
.....	4
Place value	Place value
.....	4

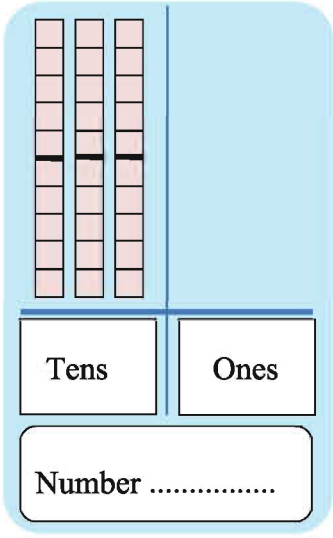


1. Count the blocks, write the values in tens and ones places, and read the numbers.



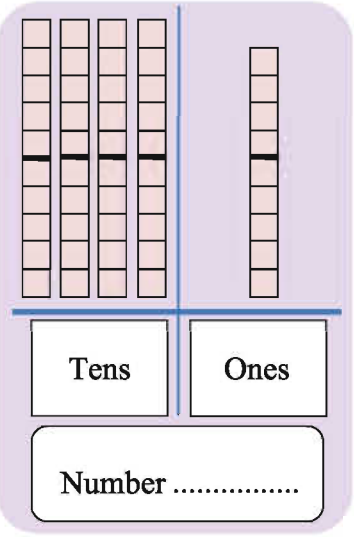
Tens	Ones

Number .....



Tens	Ones

Number .....



Tens	Ones

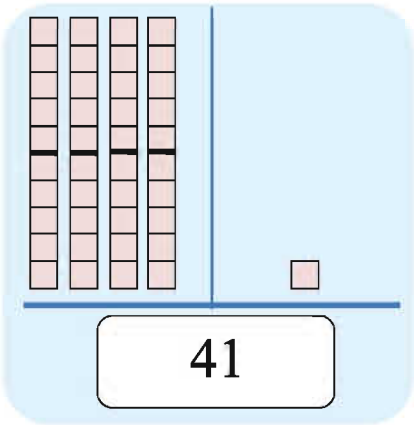
Number .....

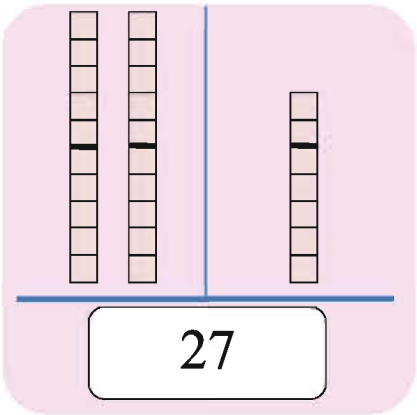
2. Write the digits of tens and ones places and their place values in the following numbers.

28 33 47 19 50

1.2. Comparison of numbers

Which number is greater 41 or 27?

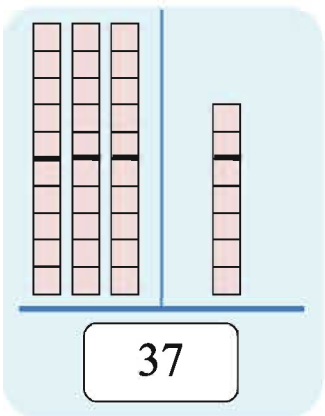


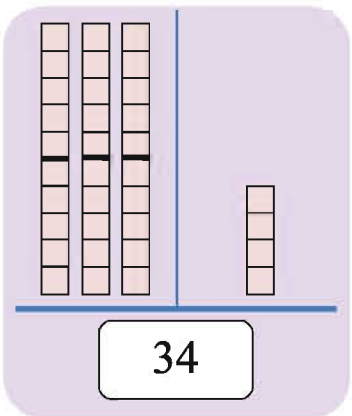


41 is greater!

Let's compare tens place.

Which number is greater? Discuss how to compare.





We compare ones place if the value of tens place is the same.

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1. Circle the greater number in each box.

24 **(47)**	36 50	26 14	43 38
30 40	23 28	44 41	39 36

2. Circle the smaller number in each box.

23 38 **(17)**	10 45 36	25 28 32
19 27 16	36 30 31	50 40 30

3. Arrange the numbers from smaller to greater.

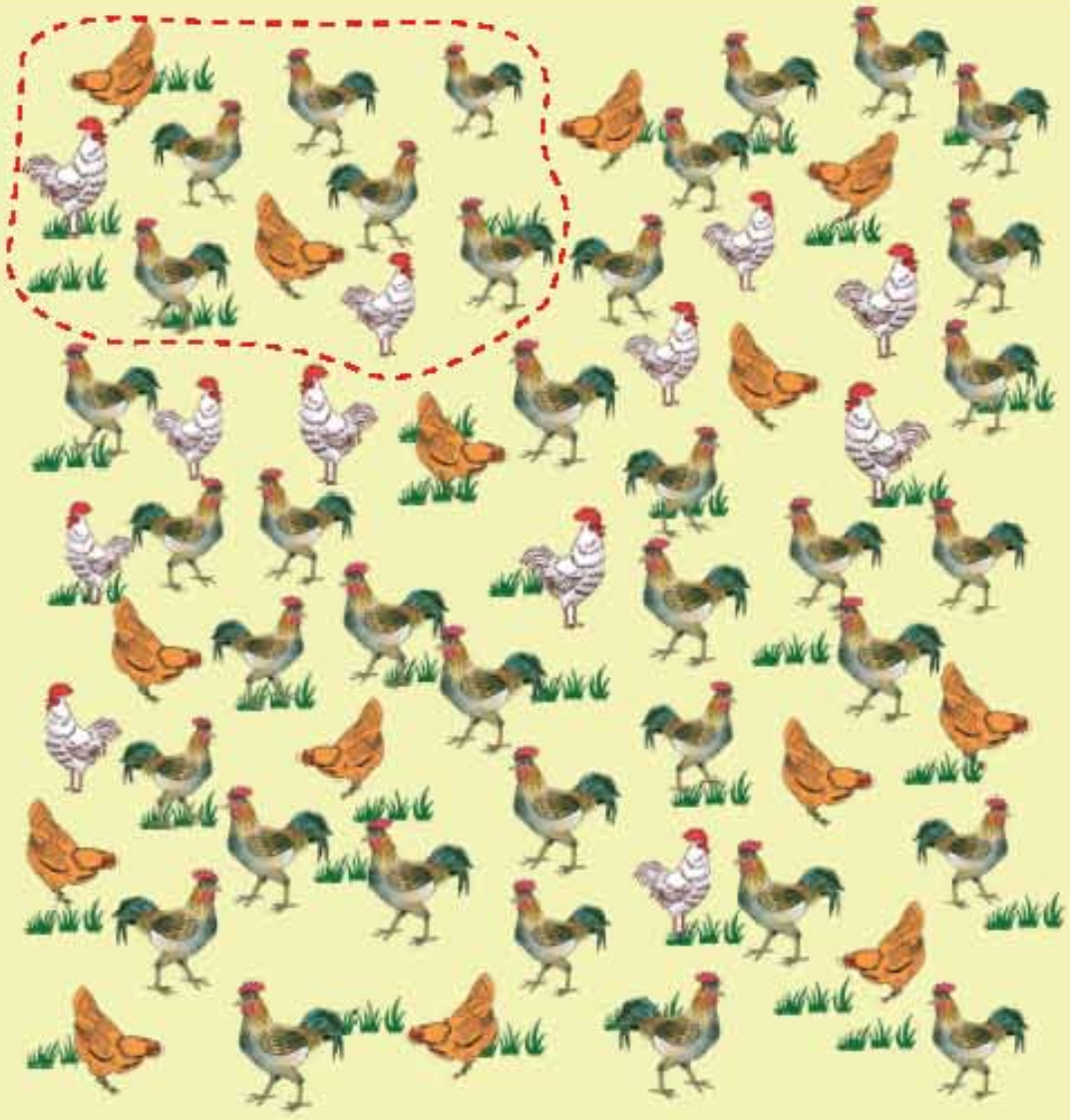
Numbers						Smaller to greater
	37	46	36	24	19	19 24 36 37 46
(1)	32	19	50	45	27	
(2)	11	23	49	38	25	
(3)	28	17	22	34	12	

4. Arrange the numbers from greater to smaller.

Numbers						Greater to smaller
	24	38	12	49	25	49 38 25 24 12
(1)	41	18	20	37	26	
(2)	14	29	41	23	15	
(3)	33	20	36	50	28	

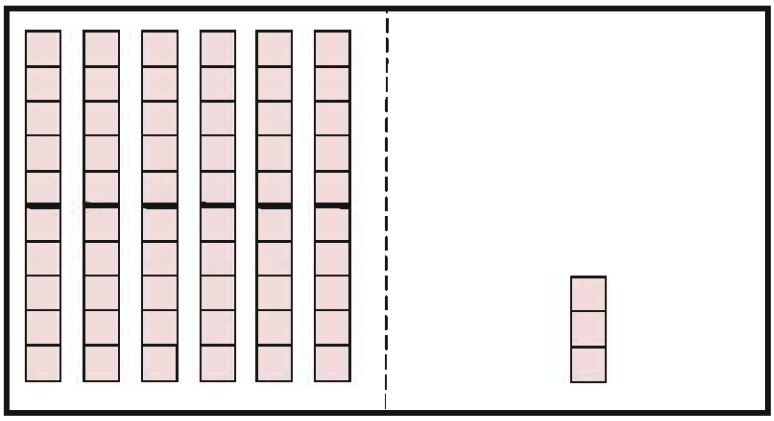
1.3. Numbers (51 to 100)

How many chickens are there?



Let's make groups of 10 and count. How many tens and how many ones?

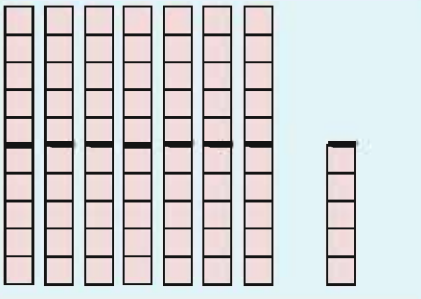
There are 6 groups of ten and 3 ones.



Tens Place	Ones Place
6	3

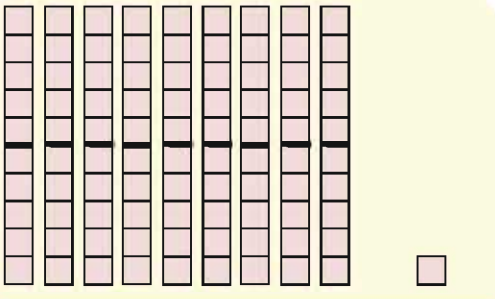
This can be written in number as 63. We read this number sixty three.

Use the chart on the next page to read the following numbers and write them in word.



75

Seventy five



Read and write numbers from 51 to 100

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

How will you memorize the numbers from 51 to 100 after reading ? let's read from left to right, like "51, 61, 71, 81, and 91". Can you find any rules in the reading?

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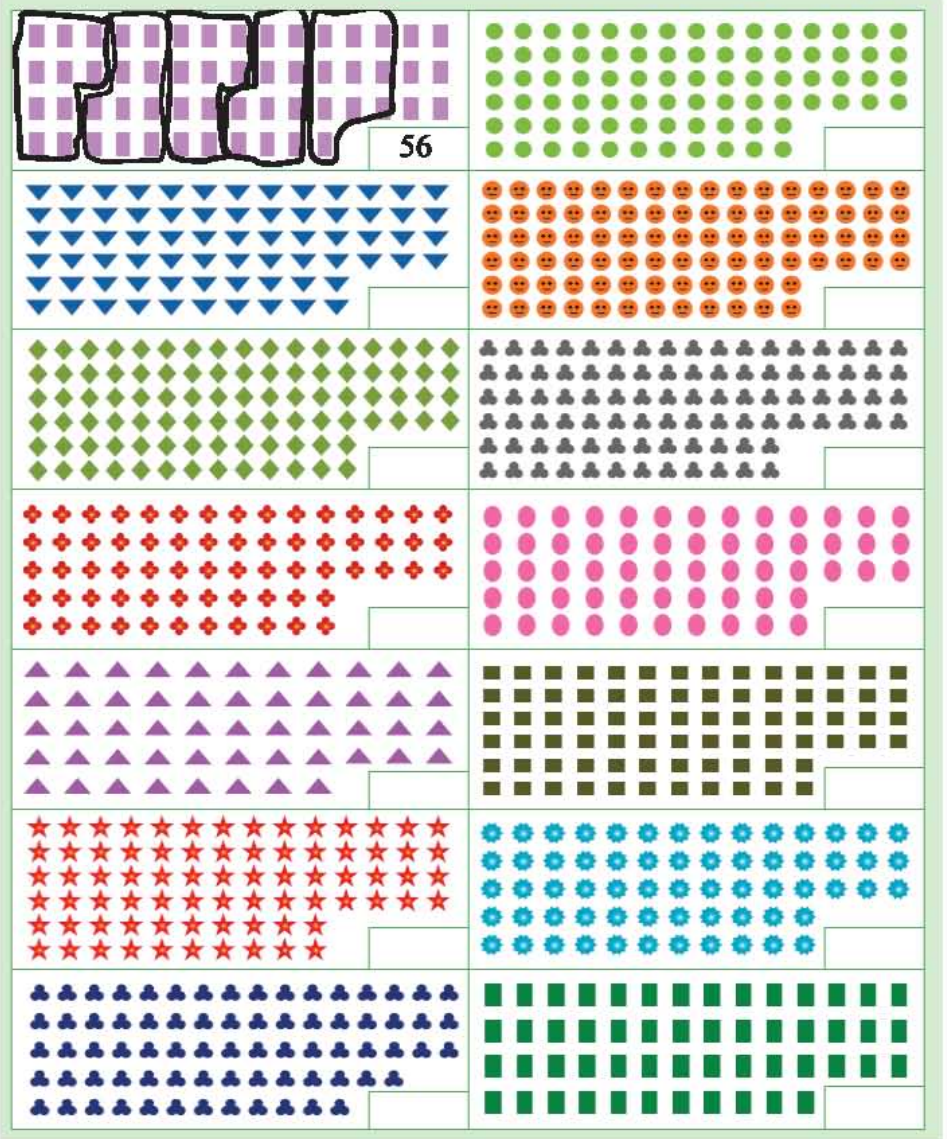
Count the number of objects and write the number in the blank spaces

It would be easy to count, if we group the objects by 10.



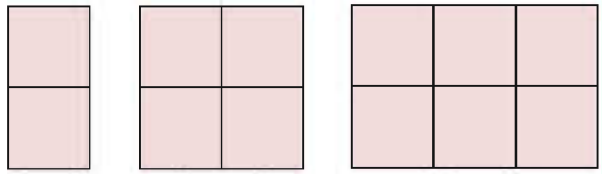
Read the number given below and write in words.
58, 79, 61, 84, 99, 51,68,77, 93, 89 and 100.

1.4. Even and odd numbers

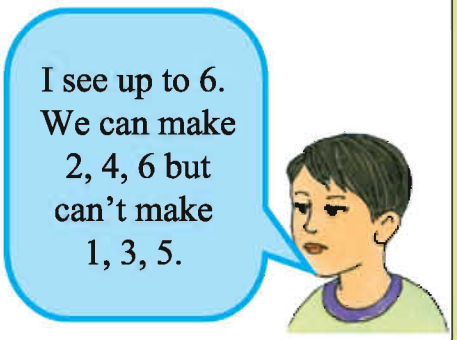
Let's make numbers up to 20 by using groups of two.

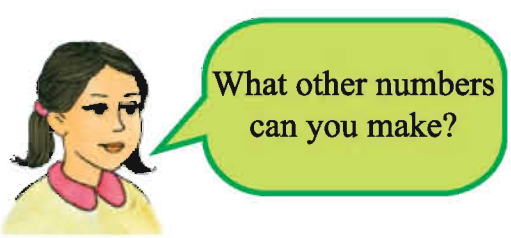
Use a pair of blocks. What numbers can we make?

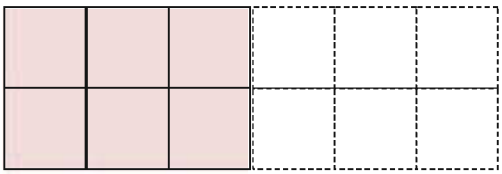
One pair | Two pairs | Three pairs



2 | 4 | 6







What numbers can make and what numbers can't make by using even numbers as mentioned above?

Numbers can be made	2 4 6 ___ ___ ___ ___ ___ ___ ___
Numbers can't be made	1 3 5 ___ ___ ___ ___ ___ ___ ___

The numbers made by some sets of 2 are called even numbers. Other numbers are called odd numbers. In the table above, 2, 4, 6, … are even numbers, and 1, 3, 5, … are odd numbers.

2020

Circle the summation, if it is even.

4 + 2 3 + 5 2 + 3 1 + 6

****

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
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

* Circled numbers are even numbers
* Numbers without circles are odd numbers
* Numbers which end with 2, 4, 6, 8 or 0 are even numbers
* Numbers which end with 1, 3, 5, 7, or 9 are odd numbers

2020

1.5. Counting Numbers in a Variety of Ways

Mark the numbers up to 100 in the following rules.

Counting by 10 from 10 → ○ (10, 20, 30, ...)

Counting by 5 from 5 → □ (5, 10, 15, ...)

Counting by 3 from 3 → △ (3, 6, 9, ...)

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
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Let's count by 4 from 4 also.

2020

1.6. Ordinal numbers

We use ordinal numbers when we say the position of something.

Counting number	One	Two	Three	Four	Five
Ordinal number	First	Second	Third	Fourth	Fifth
Short form	1st	2nd	3rd	4th	5th

Counting number	Six	Seven	Eight	Nine	Ten
Ordinal number	Sixth	Seventh	Eighth	Ninth	Tenth
Short form	6th	7th	8th	9th	10th

Ten students are standing in a line. Nasima is at the begining, and Santi is at the end
Use ordinal numbers to say the position of these students.

- Who is the sixth from the front? _____
- Who is the seventh from the back? _____
- Who is the ninth from the front? _____
- Where is Aleya's position?

_____ from the front

_____ from the back

All students' position can be expressed in 2 ways. How about the position of Akash?

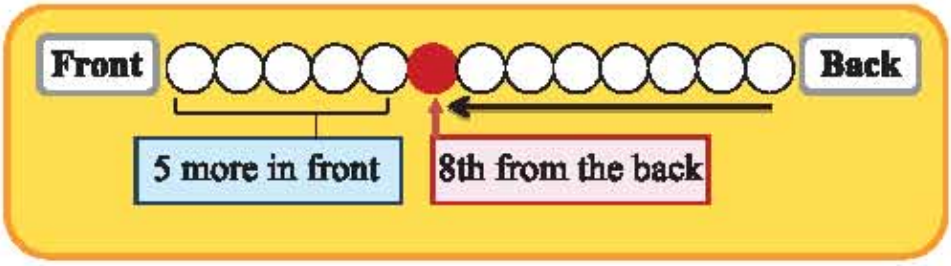
Circle seven persons from right.
Circle the seventh person from right.

Be careful! **Seven persons** and **the seventh person** are different.

Seven persons from right

Seventh person from right

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

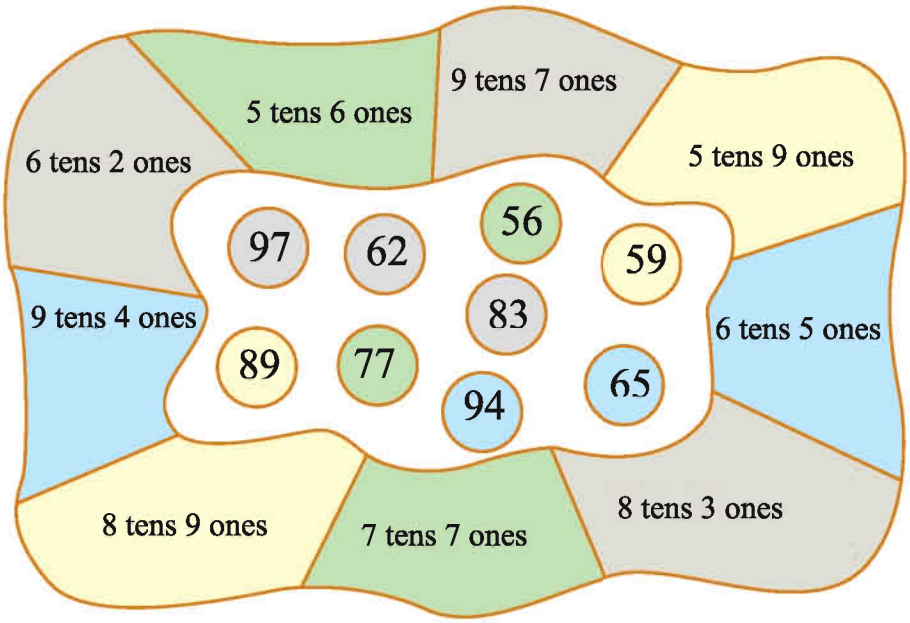


In a line, Raju is sixth from the front, and third from the back. How many students are there?

2020

1.7. Do ourselves

1. Match the numbers with the help of drawing a line and read with tens.



2. **Write in numbers.**

(1) Seventy eight (2) Ninety five (3) Eighty
(4) Sixty nine (5) Eighty seven (6) Seventy seven

3. **Write in words.**

(1) 92 (2) 84 (3) 57 (4) 69
(5) 75 (6) 66 (7) 81 (8) 99

4. **Write the numbers from 56 to 65 in digits.**

5. **Write the numbers from 88 to 100 in words.**

6. Circle the greater number in each box?

59 64 77	80 45 92	75 68 69
39 61 51	96 90 95	80 90 100

7. Fill up the blank spaces with appropriate numbers.

(A) 4, 6, 8, _____, _____, 14, _____, _____, 20

(B) 3, 6, 9, ____, 15, _____, 21, _____, _____, 30

(C) 4, 8, 12, _____, 20, _____, _____, 32, _____, 40

(D) 10, 15, ____, _____, 30, _____, _____, 45, ____, 55

(E) 10, ____, ____, 40, 50, ____, ____, 80, ____, 100

8. Let's add. Make circle if the sum is odd.

5 + 3 4 + 5 2 + 6 1 + 4 7 + 2

9. Let's subtract. Make circle if the remainder is even.

6 – 5 9 – 4 8 – 2 6 – 1 5 – 3

10. In a line of students, Raton is eighth from the tail, and there are 9 more students in front of him. How many students are there in a line?

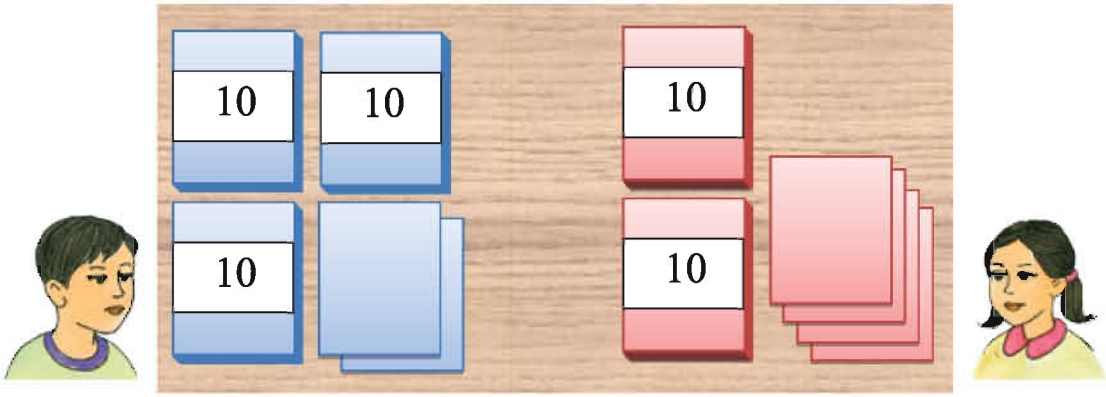
11. Akash is reading a book. He is now reading the 9th page, and there are 7 more pages. How many pages is this book?

2020

2. Addition: 2 digit Numbers

2.1 Addition

Reza had 32 papers. Meena gave him 24 papers that she had. How many papers does Reza have now?

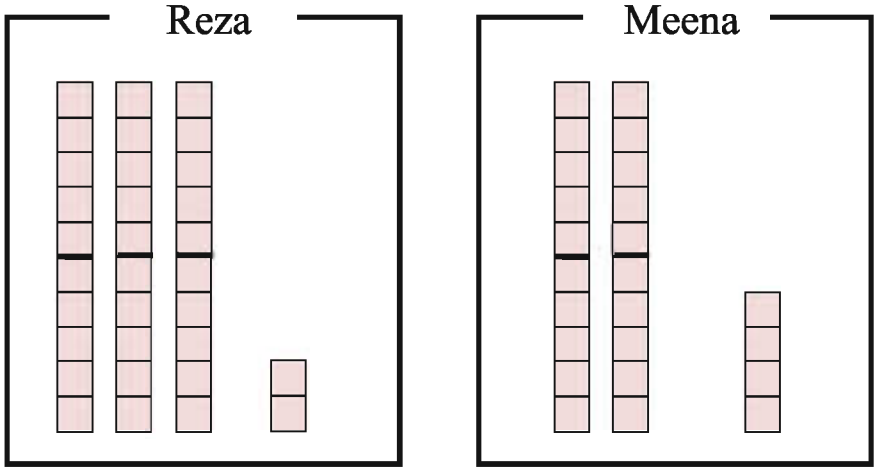


32 papers

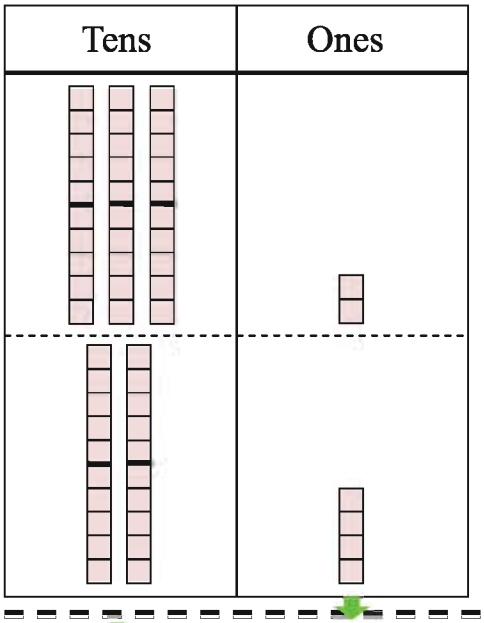
24 papers

- Write a mathematical sentence.

- Let's think about how to calculate it.

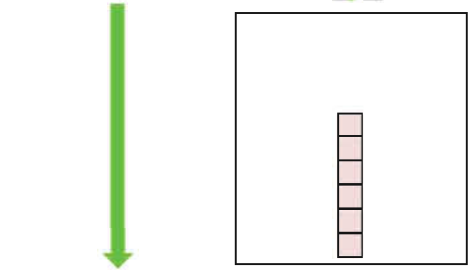


How to calculate 32 + 24?



$$\begin{array}{r} 32 \\ +24 \\ \hline \end{array}$$

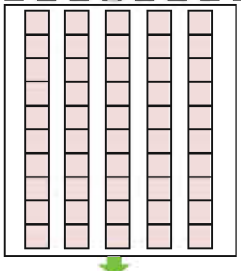
Line up the numbers vertically in each place.



$$\begin{array}{r} 32 \\ +24 \\ \hline 6 \end{array}$$

Calculate the ones place.

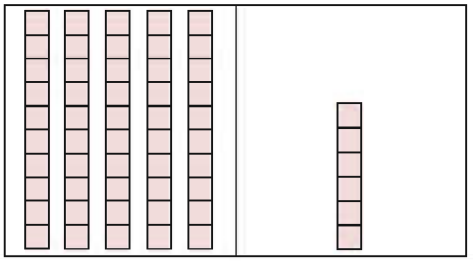
$2 + 4 = 6$



$$\begin{array}{r} 32 \\ +24 \\ \hline 56 \end{array}$$

Calculate the tens place.

$3 + 2 = 5$



$$\begin{array}{r} 32 \\ +24 \\ \hline 56 \end{array}$$

$32 + 24 = 56$

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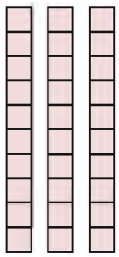
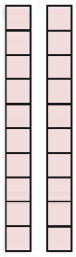
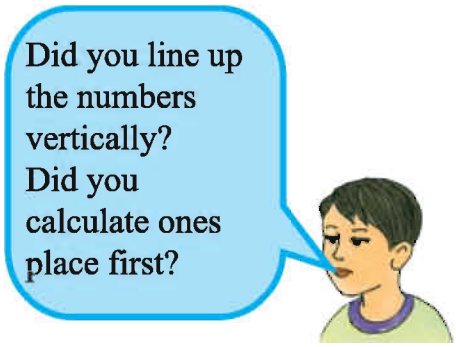
Let's think, how to calculate 30 + 24?

Tens	Ones
	
	

$$\begin{array}{r} 30 \\ +\,24 \\ \hline \end{array}$$



1. Do the following additions.

(1) $\begin{array}{r} 45 \\ +\,23 \\ \hline \end{array}$ (2) $\begin{array}{r} 32 \\ +\,17 \\ \hline \end{array}$ (3) $\begin{array}{r} 14 \\ +\,51 \\ \hline \end{array}$ (4) $\begin{array}{r} 30 \\ +\,39 \\ \hline \end{array}$ (5) $\begin{array}{r} 56 \\ +\,40 \\ \hline \end{array}$

(6) $\begin{array}{r} 70 \\ +\,20 \\ \hline \end{array}$ (7) $\begin{array}{r} 47 \\ +\,2 \\ \hline \end{array}$ (8) $\begin{array}{r} 3 \\ +\,65 \\ \hline \end{array}$ (9) $\begin{array}{r} 90 \\ +\,8 \\ \hline \end{array}$ (10) $\begin{array}{r} 9 \\ +\,20 \\ \hline \end{array}$

2. Do the following additions.

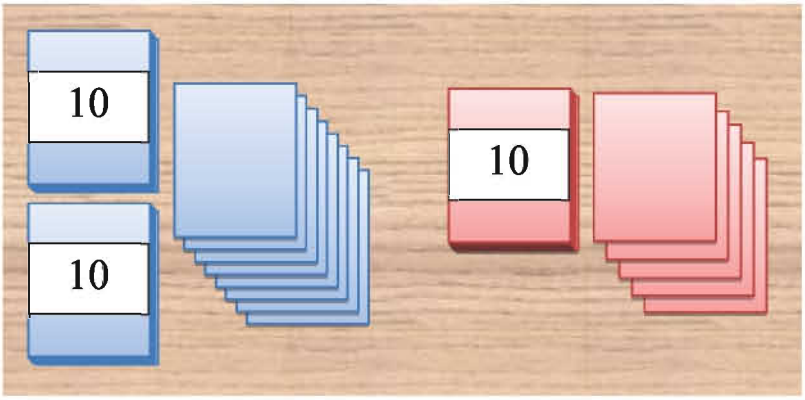
(1) 26 + 31 (2) 35 + 33 (3) 63 + 21 (4) 72 + 15

(5) 44 + 44 (6) 57 + 40 (7) 20 + 36 (8) 10 + 80

(9) 81 + 5 (10) 4 + 92 (11) 50 + 3 (12) 8 + 70

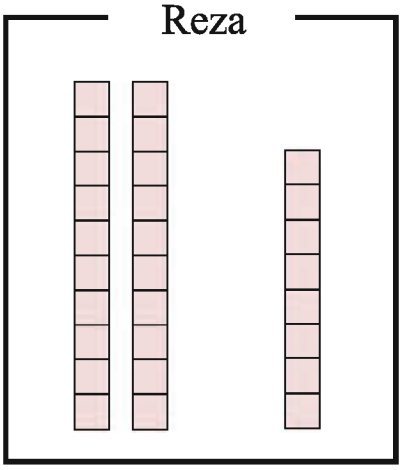
2.2 Addition

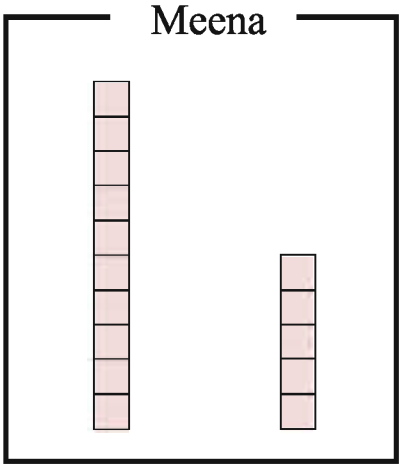
Reza had 28 papers. Meena had 15 papers.
How many papers do they have in total?



- Write a mathematical sentence.

- Let's think, how to calculate it.



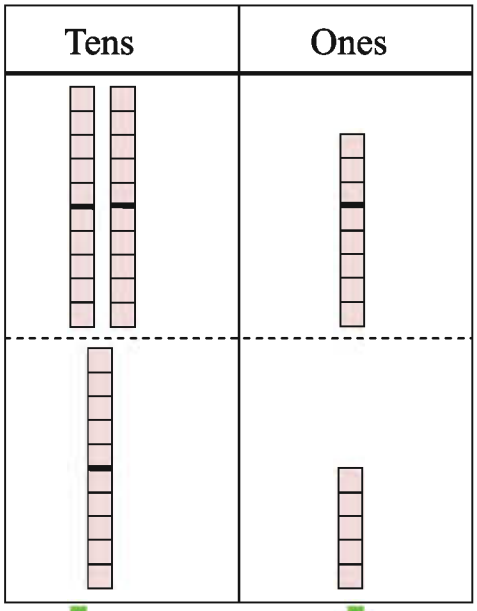


We start by ones place, isn't it?

But this time, it will be 8 + 5 which is more than 10.

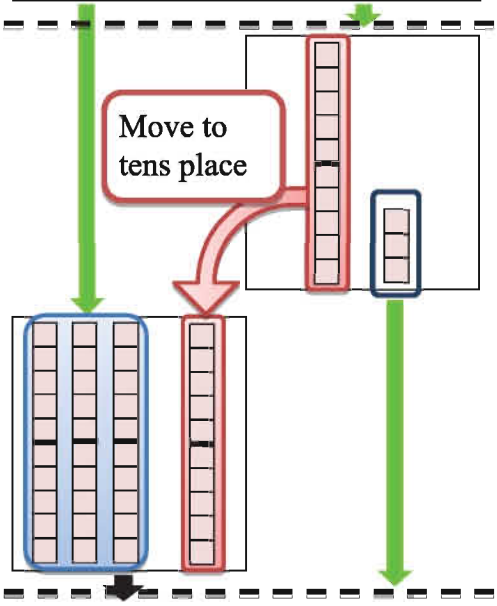
2020

How to calculate 28 + 15 ?



$$\begin{array}{r} 28 \\ +15 \\ \hline \end{array}$$

Line up the numbers vertically in each place.



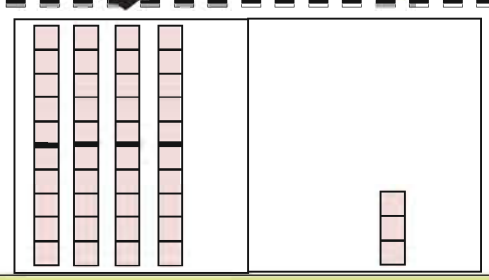
$$\begin{array}{r} 28 \\ +15 \\ \hline 3 \end{array}$$

Calculate the ones place.

$8 + 5 = 13$

$$\begin{array}{r} {\scriptstyle 1}\,28 \\ +15 \\ \hline 3 \end{array}$$

13 means 1 ten and 3 ones. Write this 1 in tens place.



$$\begin{array}{r} {\scriptstyle 1}\,28 \\ +15 \\ \hline 43 \end{array}$$

Calculate the tens place.

$28 + 15 = 43$

2020

1. Do the following additions.

(1)	(2)	(3)	(4)	(5)
19 + 23	36 + 17	18 + 54	47 + 39	56 + 4

(6) 16 + 18 (7) 27 + 67 (8) 38 + 53 (9) 45 + 49

Think how we conduct the following addition.

38 + 52

What is this addition different from the additions above?

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

Think how we conduct the following addition.

37 + 6

$$\begin{array}{r} 37 \\ +\ 6 \\ \hline \end{array}$$

51 + 9

$$\begin{array}{r} 51 \\ +\ 9 \\ \hline \end{array}$$

2. Do the following additions.

(1)	(2)	(3)	(4)	(5)
47 + 23	31 + 19	14 + 56	78 + 9	65 + 5

(6) 16 + 24 (7) 37 + 53 (8) 38 + 22 (9) 45 + 45

(10) 47 + 5 (11) 6 + 36 (12) 82 + 8 (13) 3 + 57

2020

2.3 Do ourselves

1. Do additions.

(1) 29 + 43	(2) 56 + 27	(3) 38 + 34	(4) 19 + 25	(5) 76 + 18
(6) 43 + 37	(7) 18 + 52	(8) 24 + 26	(9) 44 + 9	(10) 76 + 8
(11) 9 + 83	(12) 5 + 57	(13) 31 + 9	(14) 45 + 5	(15) 8 + 82

2. Do additions.

(1) 28 + 37	(2) 49 + 23	(3) 55 + 16	(4) 64 + 27
(5) 47 + 45	(6) 46 + 36	(7) 35 + 29	(8) 13 + 78
(9) 57 + 13	(10) 38 + 22	(11) 45 + 35	(12) 26 + 64
(13) 39 + 3	(14) 45 + 7	(15) 6 + 58	(16) 5 + 68
(17) 47+ 3	(18) 81 + 9	(19) 2 + 48	(20) 6 + 74

3. 18 players of National Cricket team of Srilanka came to play in Bangladesh. There are 18 players in Bangladesh team also. How many players are there in two teams altogether?

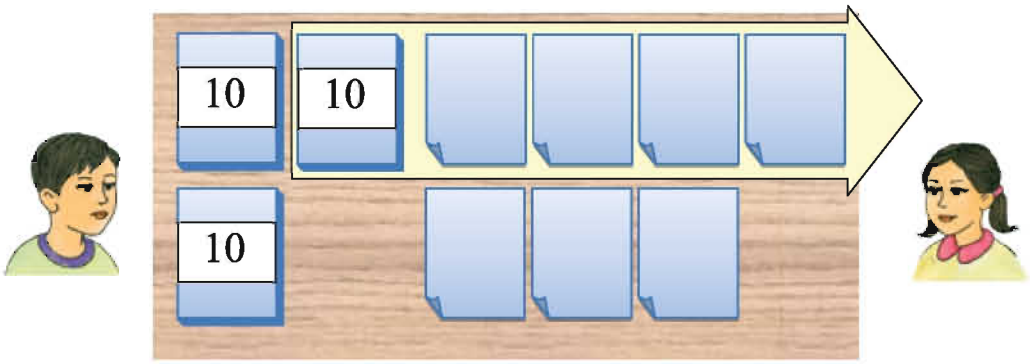
4. In a school there are 26 girls and 25 boys in class two. How many students are there in class two in total?

5. There are 26 rose plants and 35 beli plants in Srishty's garden. How many plants are in the garden?
6. Ali plucked 2 bunches of green coconuts from their tree. There are 19 green coconuts in one bunch and 18 green coconuts in other bunch. How many green coconuts are there altogether?
7. In the family library of Santi, there are 52 storybooks and 38 books of other subjects. In total how many books are there in the library?
8. Raju bought fish for 45 Taka and vegetables for 38 Taka from bazar. How much did he spend altogether?
9. Ani and his friends went to Probhat-ferry of 21st February in two groups. In one group there are 29 persons and in the other are 35 persons. How many persons were in the two groups?
10. Riaz kept 35 catfish and 47 tilapias in his tank. How many fish did he keep in the tank?
11. In the morning, Akash saw 42 cars passed in front of his house and 39 cars in the afternoon. How many cars passed in front of his house on this day?
12. A shopkeeper counts the number of customers to his shop. First day, there were 56 customers. On the next day there were 34 customers. How many customers came to his shop in these 2 days?

3. Subtraction: 2 digit Numbers

3.1 Subtraction

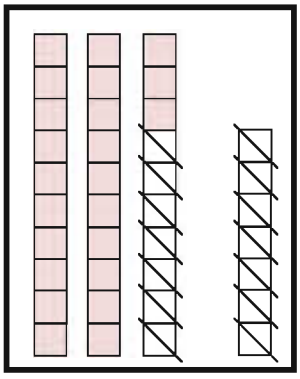
Reza had 37 papers. He gave 14 of them to Meena. How many papers are left with Reza?



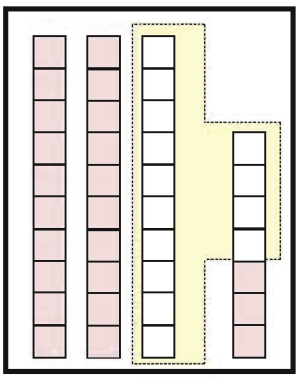
- Write a mathematical sentence.

- Let's think about how to calculate it.

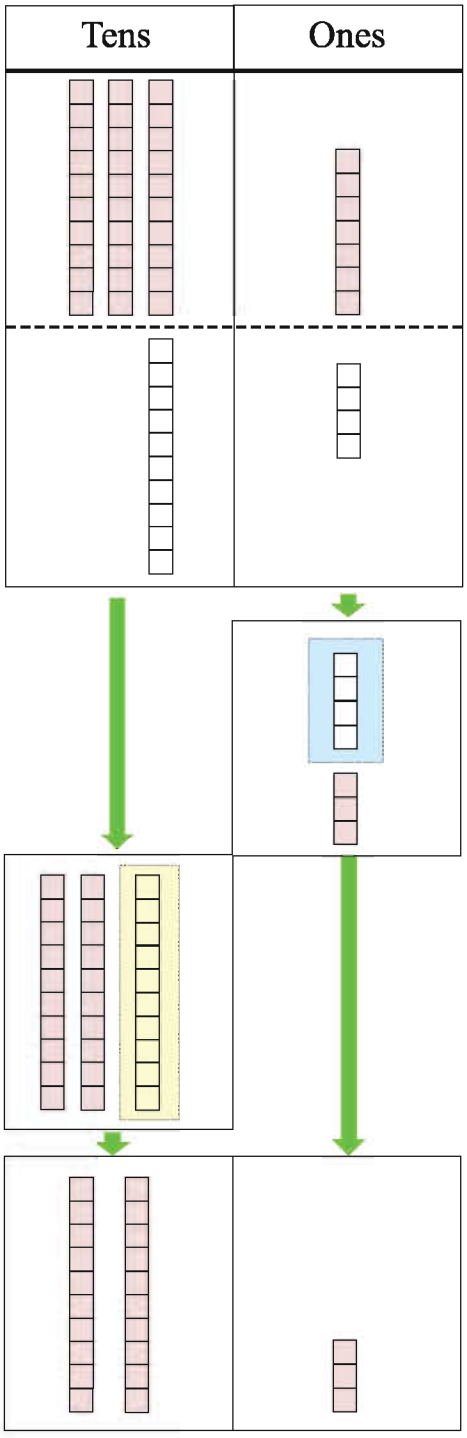
I count and remove one by one 14 from 37.



Because 14 is 1 ten and 4 ones, I remove these from 3 tens and 7 ones.



How to subtract 14 from 37 ?



$$\begin{array}{r} 37 \\ -14 \\ \hline \end{array}$$

Line up the number vertically in each place

$$\begin{array}{r} 37 \\ -14 \\ \hline 3 \end{array}$$

Calculate the ones place.

$7 - 4 = 3$

$$\begin{array}{r} 37 \\ -14 \\ \hline 23 \end{array}$$

Calculate the tens place.

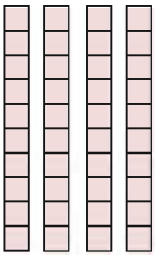
$3 - 1 = 2$

$$\begin{array}{r} 37 \\ -14 \\ \hline 23 \end{array}$$

$37 - 14 = 23$

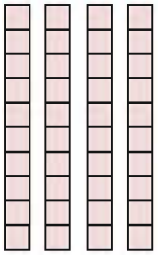
2020

Let's think about how to subtract 10 from 47:

Tens	Ones
	

$$\begin{array}{r} 47 \\ -\,10 \\ \hline \end{array}$$

Let's think about how to subtract 25 from 45:

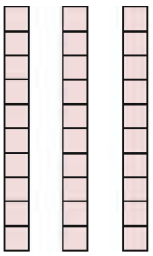
Tens	Ones
	

$$\begin{array}{r} 45 \\ -\,25 \\ \hline \end{array}$$

Do the following subtractions.

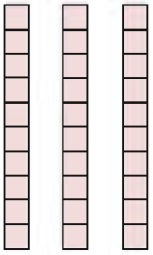
(1) $\begin{array}{r} 45 \\ -\,23 \\ \hline \end{array}$	(2) $\begin{array}{r} 32 \\ -\,11 \\ \hline \end{array}$	(3) $\begin{array}{r} 68 \\ -\,12 \\ \hline \end{array}$	(4) $\begin{array}{r} 79 \\ -\,54 \\ \hline \end{array}$	(5) $\begin{array}{r} 98 \\ -\,67 \\ \hline \end{array}$
(6) $\begin{array}{r} 49 \\ -\,10 \\ \hline \end{array}$	(7) $\begin{array}{r} 66 \\ -\,40 \\ \hline \end{array}$	(8) $\begin{array}{r} 58 \\ -\,18 \\ \hline \end{array}$	(9) $\begin{array}{r} 70 \\ -\,30 \\ \hline \end{array}$	(10) $\begin{array}{r} 38 \\ -\,34 \\ \hline \end{array}$

Let's think about how to subtract 5 from 39:

Tens	Ones
	

$$\begin{array}{r} 39 \\ -\ 5 \\ \hline \end{array}$$

Let's think about how to subtract 9 from 39:

Tens	Ones
	

$$\begin{array}{r} 39 \\ -\ 9 \\ \hline \end{array}$$

1. Do the following subtractions.

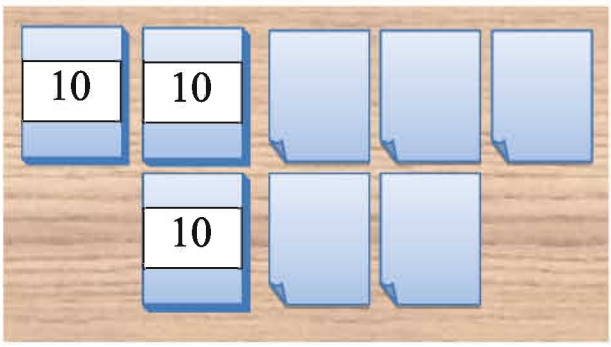
(1)	(2)	(3)	(4)	(5)
64	78	94	76	57
− 3	− 5	− 2	− 6	− 7

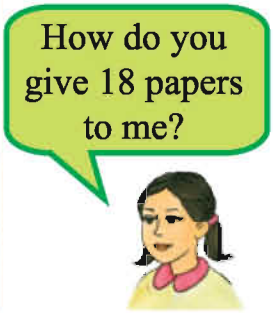
2. Do the following subtractions.

(1) 85 − 13	(2) 79 − 44	(3) 61 − 50	(4) 75 − 25
(5) 90 − 50	(6) 49 − 42	(7) 97 − 5	(8) 53 − 3

3.2 Subtraction

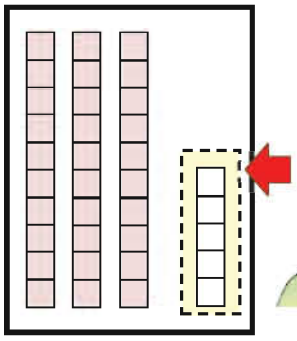
Reza had 35 papers. He gave 18 of them to Meena. How many papers are left with Reza?



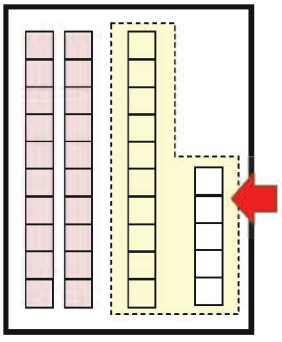


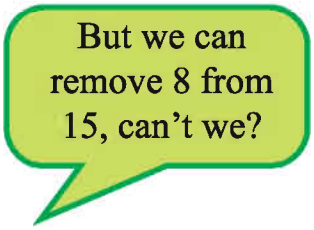
- Write a mathematical sentence.

- Let's think about how to calculate it. How is this subtraction different from the previous one?

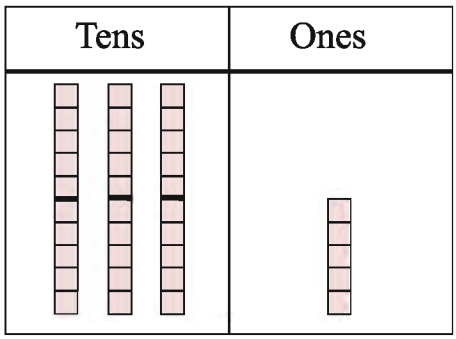


$$\begin{array}{r} 35 \\ -\ 18 \\ \hline \end{array}$$



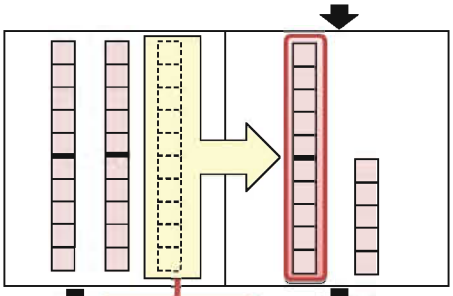


How to subtract 18 from 35?



$$\begin{array}{r} 35 \\ -\,18 \\ \hline \end{array}$$

Line up the numbers vertically in each place.

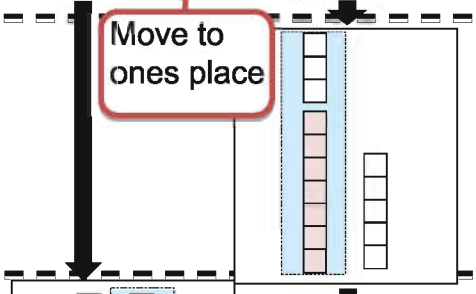


$$\begin{array}{r} {}^{2}\cancel{3}\,{}^{10}\cancel{5} \\ -\,18 \\ \hline \end{array}$$

Calculate the ones place.

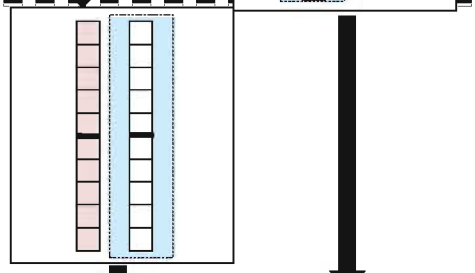
We cannot subtract 8 from 5, so move 1 ten from tens place to ones place.

Move to ones place



$$\begin{array}{r} {}^{2}\cancel{3}\,{}^{10}\cancel{5} \\ -\,18 \\ \hline 7 \end{array}$$

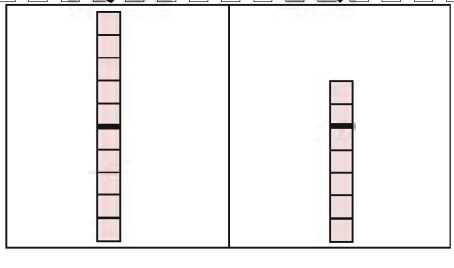
$15 - 8 = 7$



$$\begin{array}{r} {}^{2}\cancel{3}\,{}^{10}\cancel{5} \\ -\,18 \\ \hline 17 \end{array}$$

Calculate the tens place.

$2 - 1 = 1$

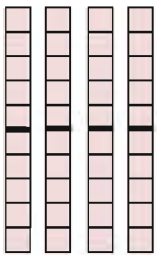


$$\begin{array}{r} {}^{2}\cancel{3}\,{}^{10}\cancel{5} \\ -\,18 \\ \hline 17 \end{array}$$

$35 - 18 = 17$

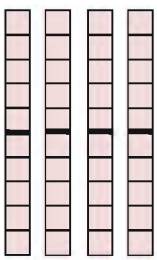
2020

Let's think about how to subtract 17 from 40:

Tens	Ones
	

$$\begin{array}{r} 40 \\ -\,17 \\ \hline \end{array}$$

Let's think about how to subtract 39 from 45:

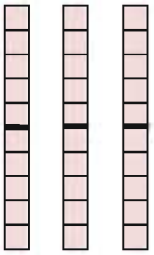
Tens	Ones
	

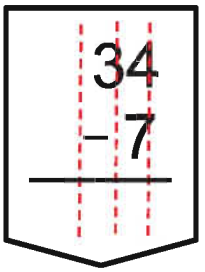
$$\begin{array}{r} 45 \\ -\,39 \\ \hline \end{array}$$

Do the following subtractions.

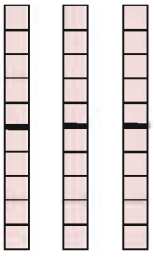
(1) 46	(2) 32	(3) 61	(4) 74	(5) 95
− 18	− 15	− 32	− 49	− 67
(6) 50	**(7) 60**	**(8) 80**	**(9) 43**	**(10) 75**
− 16	− 27	− 18	− 34	− 68

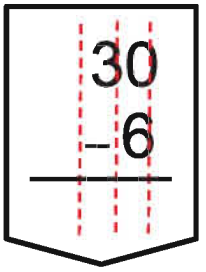
Let's think about how to subtract 7 from 34:

Tens	Ones
	



Let's think about how to subtract 6 from 30:

Tens	Ones
	



1. Do the following subtractions.

(1) 25	(2) 43	(3) 30	(4) 60	(5) 80
– 8	– 5	– 7	– 6	– 9
____	____	____	____	____

2. Do the following subtractions.

(1) 82 – 13 (2) 71 – 44 (3) 97 – 59 (4) 60 – 35

(5) 74 – 68 (6) 40 – 34 (7) 93 – 5 (8) 50 – 3

2020

3.3 Do ourselves

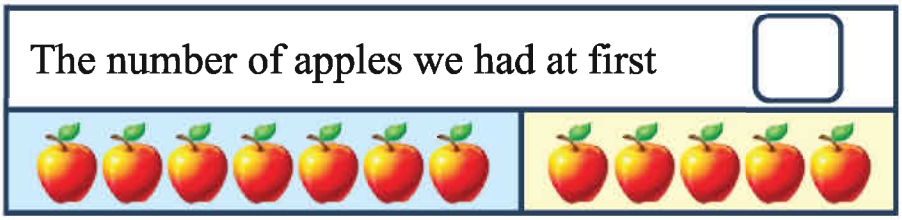
1. Sohag went to market with 85 Taka. He spent 53 Taka. How much money was left with him?
2. There are 48 students in a classroom, and 26 of them are boys. How many girls student are there?
3. There are 45 mango trees in a garden. 29 of them are fruited. How many trees are still unfruited?
4. Shayla had 8 ten taka notes. She gave Moyna 3 ten taka notes. How much taka does Shayla have?
5. Rumi has 75 marbles and Raju has 47 marbles. How many more or less marbles does Raju have than Rumi?
6. Mahir has 23 story books. Apurba has 17 story books. How many more or less books does Apurba have than Mahir?
7. Sum of the age of mother and daughter is 70. The daughter is 22 years old. How old is the mother?
8. Jhumu is 8 years older than Rumu. Jhumu is 24 years old. How old is Rumu?

4. Relation of addition and subtraction

We had some apples. After selling 5 of them, we have 7 apples now. How many apples did we have at first?

If we use ☐ for the apples we had at first, the mathematical sentence for this question will be ☐ – 5 = 7

Let's draw a picture to think about this question.



7 apples were left. 5 apples were sold.

From the picture, the number of apples we had at first is

$$7 + 5 = 12$$

12 apples

The original number in subtraction is the sum of other two numbers!

$$\begin{array}{r} 12 \\ -\ 5 \\ \hline 7 \end{array} \qquad \begin{array}{r} 7 \\ +\ 5 \\ \hline 12 \end{array}$$

12 - 5 = 7 7 + 5 = 12

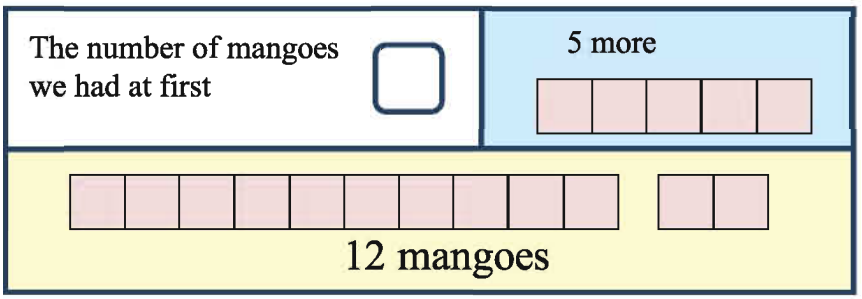
Check if this rule is true for other subtractions :

8 – 5 10 – 6 14 – 9

2020

There were some mangoes in a bag. Then 5 more mangoes put in the bag, now there are 12 mangoes altogether. How many mangoes were in the bag at first?

In a mathematical sentence: ☐ + 5 = 12

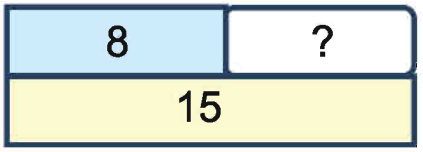


● **How do you find the number of mangoes we originally had?**

☐ + 5 = 12 ➡ 12 – 5 = ☐

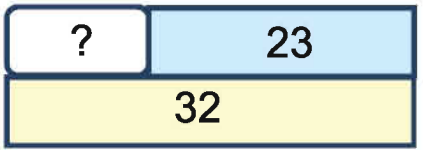
1. Fill in the blank boxes.

(1) 8 + ☐ = 15

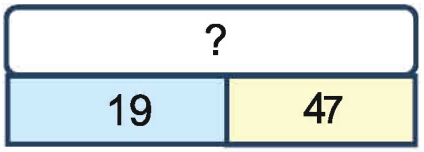


(2) 37 – ☐ = 30

(3) ☐ + 23 = 32



(4) ☐ – 19 = 47



2. Fill in the blank boxes.

(1) 14+ ☐ = 37 (2) 29 – ☐ = 12

(3) 25+ ☐ = 63 (4) 51 – ☐ = 18

(5) ☐ + 15 = 48 (6) ☐ – 13 = 43

(7) ☐ + 28 = 75 (8) ☐ – 36 = 57

3. There were 24 Taka with Akash. His father gave him some Taka, now he has 58 Taka. How much Taka did his father give?

4. There were 30 colored pencils in the house, Bulu took some pencils to the school. Now there are 22 pencils in the house. How many pencils did Bulu take to the school?

5. Some children were playing in the field. Then 38 children came in the field. There are 86 children in the field now. How many children were playing in the field first?

6. Tariq went to the market for selling mangoes. After selling 35 mangoes, there still remained 17 mangoes with him. How many mangoes did he bring to the market?

2020

5. Multiplication

5.1 Concept of multiplication

Reza and Meena went to a market, and found many items

How many items are there in each shop?

In the fish shop there were 3 plates of 4 fishes.

In the potato shop there were 5 plates of 3 potatoes.

Fish:

$4 + 4 + 4 =$ ☐

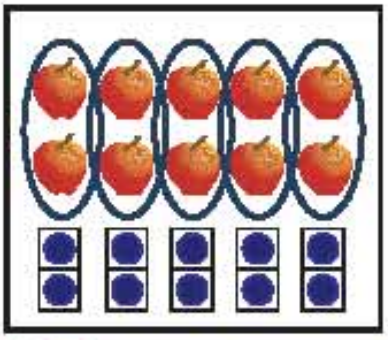
Fishes

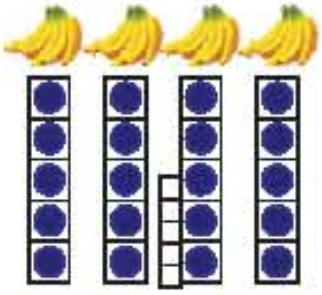
Potatoes:

$3 + 3 + 3 + 3 + 3 =$ ☐

Potatoes

How many apples and bananas are there?





There are 2 apples on each tray, and 5 trays on the table. How many apples are there?

There are 4 bunches of bananas on the table and 5 bananas in each bunch. How many bananas are there?

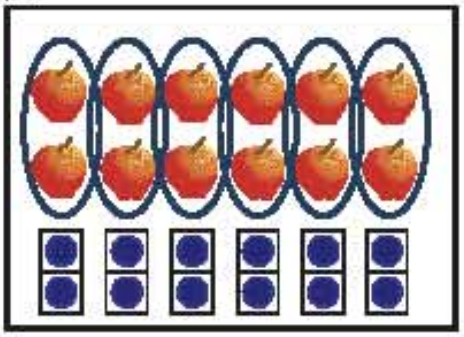
Mathematical sentence for counting apples:

_____ apples

Mathematical sentence for counting bananas:

_____ bananas

How many apples will be there if we add 1 more plate?



Mathematical sentence:

_____ Apples

2020

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

There are 4 rows of 3 students, aren't they? So 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.

In this calculation, we add 3, 4 times. We can also write this calculation in the following mathematical sentence.

$3 \times 4 = 12$

How to read:
Three multiplied by four equals twelve

This kind of calculation is called Multiplication, and the symbol " x " is called the "Multiplication sign".

×

3	×	4	=	12
Number of objects in each group		Number of groups		Total number of objects

Don't confuse the symbol x with +.

Calculate by using multiplication sign.

$2 \times 5 = 10$

10 apples

3×___ = ___

potatoes

___×___ = ___

fishes

___×___ = ___

bananas

Write a multiplication math sentence for each situation below and calculate the answers.

(1)

(2)

3)

2020

5.2 Multiplication of 5 and 2

◆ Multiplication of 5

A shopkeeper puts 5 tomatoes on each of 4 plates. How many tomatoes are there altogether?

According to the pictures below, let's find how many tomatoes there are on 3 or 4 plates.

$5 \times 1 = 5$

$5 \times 2 = 10$

$5 \times 3 = \square$

$5 \times 4 = \square$

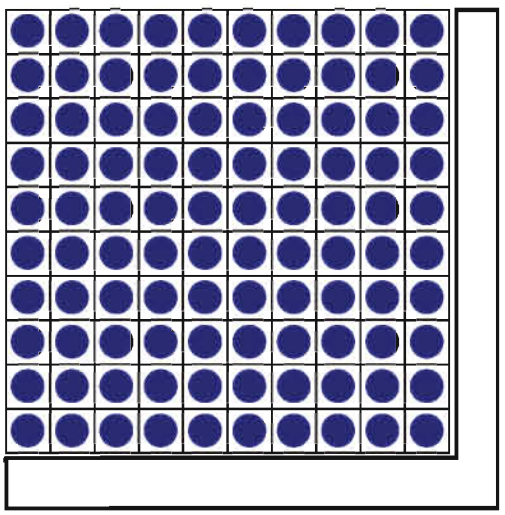
How about the cases that there are 5, 6, 7, 8, 9, or 10 plates when we follow above picture?

When the number of plate increases, how will the number of tomatoes increase?

I wonder if there is a relation between the number of plates and the number of tomatoes

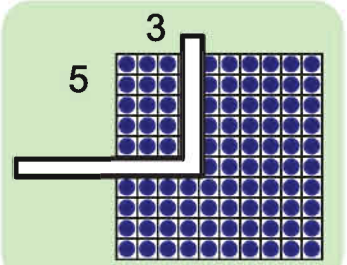
Let's recite the multiplication table for 5 to memorize them.

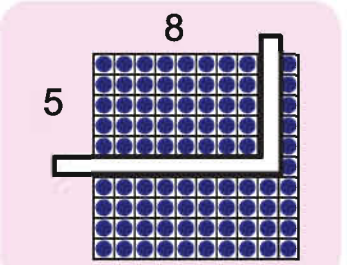
Use the table with 100 dots with the L-shape paper, and see how we express the multiplication visually.



The Multiplication Table for 5

5 ×	1	=	5
5 ×	2	=	10
5 ×	3	=	15
5 ×	4	=	20
5 ×	5	=	25
5 ×	6	=	30
5 ×	7	=	35
5 ×	8	=	40
5 ×	9	=	45
5 ×	10	=	50





5 × 3 = 15

5 × 8 = 40

There are 5 lychees on each of 6 plates. How many lychees do you have altogether?

2020

Multiplication of 2

Four pairs of children are playing. How many children are playing altogether?

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

$2 \times 1 = 2$

$2 \times 2 = 4$

$2 \times 3 = \square$

$2 \times 4 = \square$

How about the cases that there are 5, 6, 7, 8, 9, or 10 pairs of children when we follow above picture?

$2 \times 5 =$

$2 \times 6 =$

$2 \times 7 =$

$2 \times 8 =$

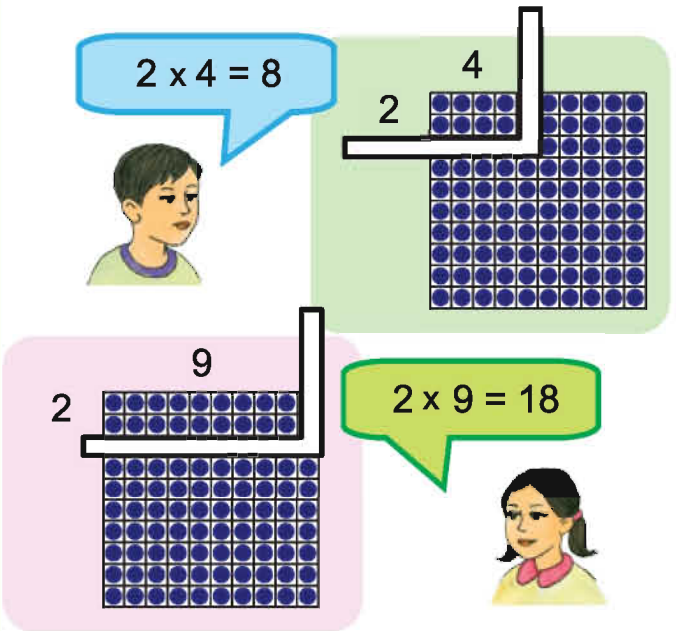
$2 \times 9 =$

$2 \times 10 =$

Can you find the rule about how the number of children increases when the number of pairs increases?

Let's recite the multiplication table for 2 to memorize them.

Use the table with 100 dots with the L-shape paper, and see how we express the multiplication visually.



The Multiplication Table for 2	
2 x 1 =	2
2 x 2 =	4
2 x 3 =	6
2 x 4 =	8
2 x 5 =	10
2 x 6 =	12
2 x 7 =	14
2 x 8 =	16
2 x 9 =	18
2 x 10 =	20

1. **Meena has been reading a book by 2 pages a day. How many pages will she read in 6 days?**

2. **A pack of biscuit costs 2 Taka. Reza bought 7 packs of this biscuit.**
   (1) How much Taka would it cost?
   (2) If he added 3 more packs of biscuits, how much Taka would it be?

2020

Let's play with multiplication cards!

Cut and use the multiplication cards for 2 and 5 in the Appendix 2. Use the cards for 2 or the cards for 5.

Front Multiplication	→	2 x 4	3 x 5
Back Answer	→	8	15

Play by yourself

Game 1

Mix 5 multiplication cards well. Multiplication remains one side and answer remains opposite side. Pickup one from multiplication side. Find the answer without seeing answer given back. Now, match the back answer. The game will run in this way.

Game 2

Same game can play by taking answer first and then by multiplication.

Play with friends/in pair

Game 3

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

Game 4

Place the cards with the multiplication side down on the desk. Showing the answer, you ask your friend the multiplication.

It's a game of multiplication 2.What is this multiplication?

18

It is 2 x 9, isn't it?

2 x 9

2020

Multiplications of 3 and 4

◆ Multiplication of 3

Let's make the multiplication table for 3.

According to the pictures below, let's find how many balls there are.

$3 \times 1 = 3$

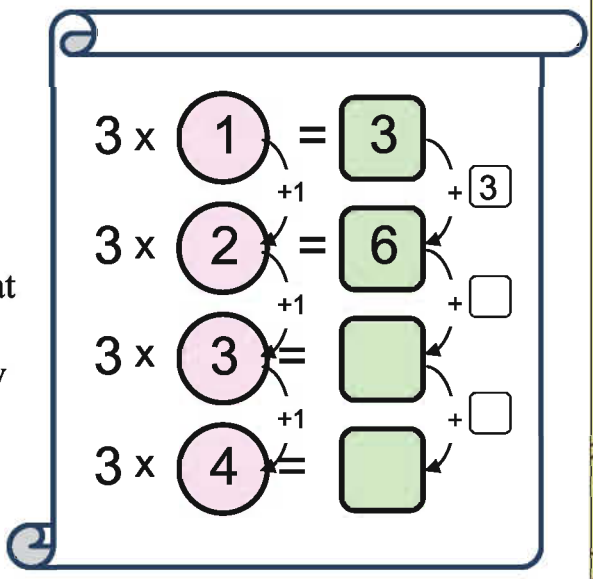
$3 \times 2 = 6$

$3 \times 3 = \square$

$3 \times 4 = \square$

How is the answer increased when the number to multiple increases by 1?

How about the cases that there are 5, 6, 7, 8, 9, or 10 trays when we follow above picture?



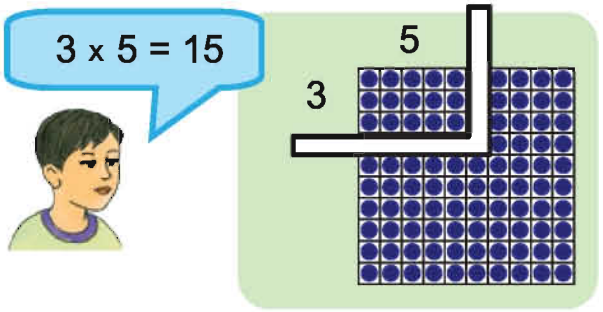
$3 \times 5 =$

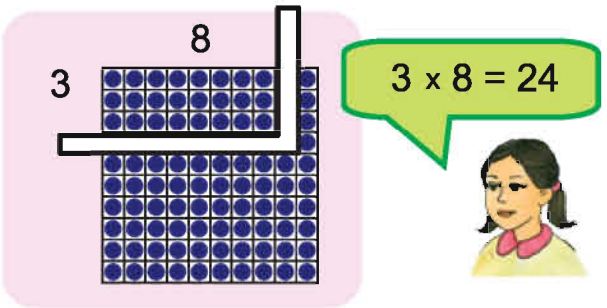
$3 \times 6 =$

$3 \times 7 =$ $3 \times 8 =$ $3 \times 9 =$ $3 \times 10 =$

Let's recite the multiplication table for 3 to memorize them.

Use the table with 100 dots with the L-shape paper, and see how we express the multiplication visually.





The Multiplication Table for 3

3 x 1 =	3
3 x 2 =	6
3 x 3 =	9
3 x 4 =	12
3 x 5 =	15
3 x 6 =	18
3 x 7 =	21
3 x 8 =	24
3 x 9 =	27
3 x 10 =	30

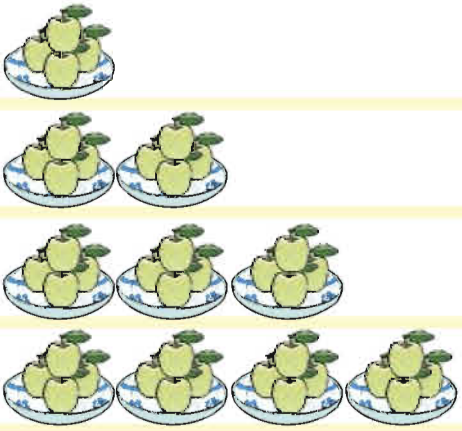
1. **There are 3 wheels of a rickshaw. How many wheels would be for 5 rickshaws?**

2. **3 guavas can arrange on a plate.**
   How many guavas need to arrange 4 plates?

◆ Multiplication of 4

Let's make the multiplication table for 4.

According to the pictures below, let's find how many green apples there are .



$4 \times 1 = 4$

$4 \times 2 = 8$

$4 \times 3 = \square$

$4 \times 4 = \square$

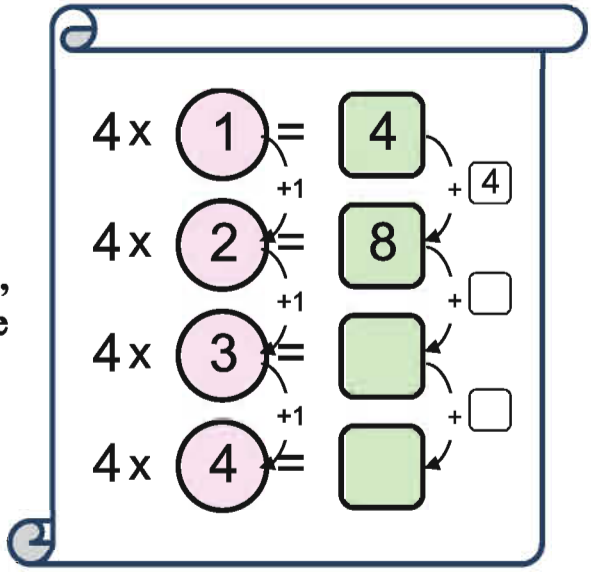
How is the answer increased when the number to multiple increases by 1?

How about the cases that there are 5, 6, 7, 8, 9, or 10 plates when we follow above picture?

$4 \times 5 =$

$4 \times 6 =$

$4 \times 7 =$ $4 \times 8 =$ $4 \times 9 =$ $4 \times 10 =$

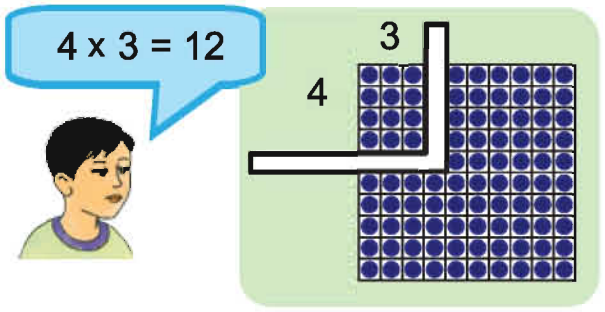


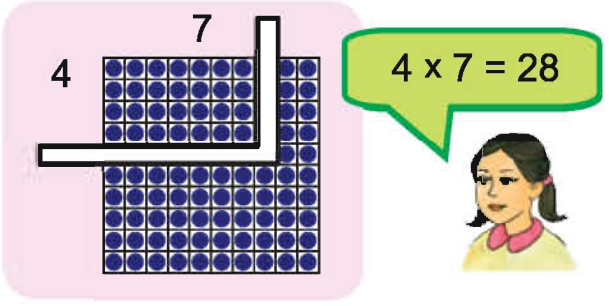
Let's recite the multiplication table for 4 to memorize them.

Use the table with 100 dots with the L-shape paper, and see how we express the multiplication visually.

The Multiplication Table for 4

4 x 1 =	4
4 x 2 =	8
4 x 3 =	12
4 x 4 =	16
4 x 5 =	20
4 x 6 =	24
4 x 7 =	28
4 x 8 =	32
4 x 9 =	36
4 x 10 =	40





1. **How many legs do the cow have? How many legs do 7 cows have altogether?**

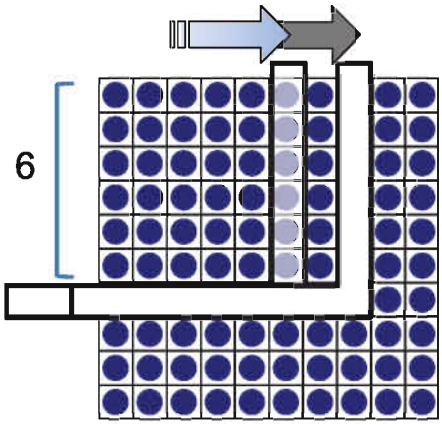
2. **A car has 4 wheels. How many wheels will be needed for 5 cars?**

5.3 Multiplications of 6 and 7

◆ Multiplication of 6

Let's make the multiplication table for 6 based on what we have learnt so far.

If we move the L-shape paper on the table with 100 dots from the left to the right as shown in the picture below, what can we find?



$6 \times 1 = 6$

$6 \times 2 = 12$

$6 \times 3 = \square$

$6 \times 4 = \square$

$6 \times 5 = \square$

$6 \times 6 = \square$

$6 \times 7 = \square$

$6 \times 8 = \square$

$6 \times 9 = \square$

$6 \times 10 = \square$

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:

$6 \times 1 = 6$

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

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

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

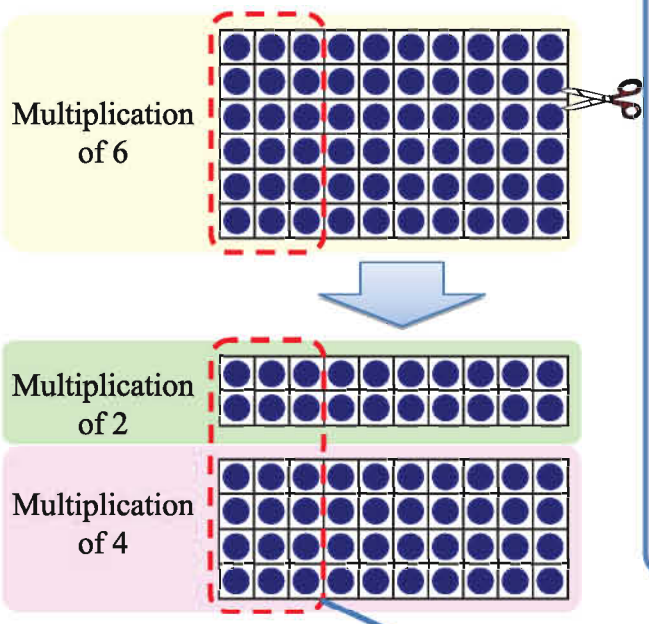
$6 \times 5 = 24 + 6 = 30$

In what way did you calculate the multiplication of 6?

2020

Let's recite the multiplication table for 6 to memorize them.

Find the 6's multiplication giving more attention.



The Multiplication Table for 6

6 x 1 =	6
6 x 2 =	12
6 x 3 =	18
6 x 4 =	24
6 x 5 =	30
6 x 6 =	36
6 x 7 =	42
6 x 8 =	48
6 x 9 =	54
6 x 10 =	60

We can divide 6's multiplication into 2's and 4's multiplications, can't we?

It's interesting! We know 6 x 3 = 18, but 2 x 3 = 6 and 4 x 3 = 12. Their sum is 6 + 12 = 18 too.

Use the above picture to think of 6 x 5 = 30 as the sum of 2's multiplication and 4's multiplication.

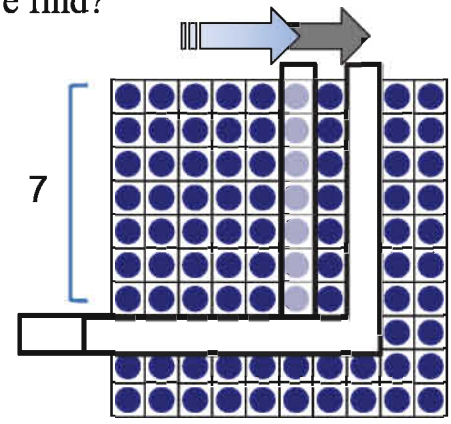
Raju's father works 6 days in a week. How many days will he work in 7 weeks?

2020

◆ Multiplication of 7

Let's make the multiplication table for 7 based on what we have learnt so far.

If we move the L-shape paper on the table with 100 dots from the left to the right as shown in the picture below, what can we find?



7 x 1 = 7

7 x 2 = 14

7 x 3 = ☐

7 x 4 = ☐

7 x 5 = ☐

7 x 6 = ☐

7 x 7 = ☐

7 x 8 = ☐

7 x 9 = ☐

7 x 10 = ☐

My idea is:

7 x 1 = 7
7 x 2 = 7 + 7 = 14
7 x 3 = 7 + 7 + 7 = 21
7 x 4 = 7 + 7 + 7 + 7 = 28
7 x 5 = 7 + 7 + 7 + 7 + 7 = 35
7 x 6 =...

My idea is:

7 x 1 = 7
7 x 2 = 7 + 7 = 14
7 x 3 = 14 + 7 = 21
7 x 4 = 21 + 7 = 28
7 x 5 = 28 + 7 = 35

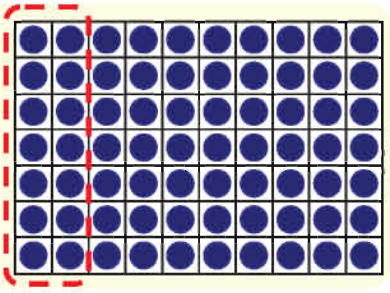
In what way will you calculate the multiplication of 7?

2020

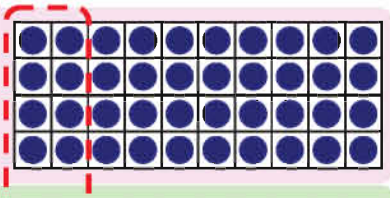
Let's recite the multiplication table for 7 to memorize them.

Find the 7's multiplication giving more attention.

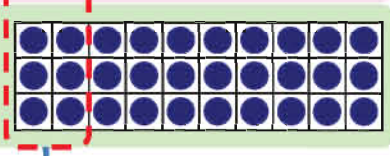
Multiplication of 7



Multiplication of 4



Multiplication of 3



The Multiplication Table for 7

7	x	1	=	7
7	x	2	=	14
7	x	3	=	21
7	x	4	=	28
7	x	5	=	35
7	x	6	=	42
7	x	7	=	49
7	x	8	=	56
7	x	9	=	63
7	x	10	=	70

If we divide 7's multiplication into 4's and 3's multiplications, then 7 x 2 = 14 will be divided into

4 x 2 = 8
3 x 2 = 6
14

7 x 5 = 35
How about 7 x 5 = 35? Can you divide it into 4's multiplication and 3's multiplication?

One week has 7 days. How many days are in 9 weeks?

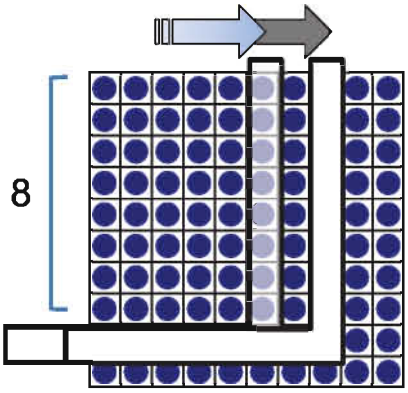
2020

5.4 Multiplications of 8 and 9

◆ Multiplication of 8

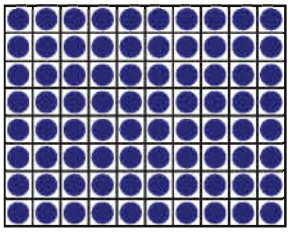
Let's make the multiplication table for 8 based on what we have learnt so far.

Find the multiples of 8 in the way that we have done so far.



Let's recite the multiplication table for 8 to memorize them.

Find the 8's multiplication giving more attention. How can we show the numbers rearranging of 8's multiplication?



The Multiplication Table for 8

8 x 1 =	8
8 x 2 =	16
8 x 3 =	24
8 x 4 =	32
8 x 5 =	40
8 x 6 =	48
8 x 7 =	56
8 x 8 =	64
8 x 9 =	72
8 x10 =	80

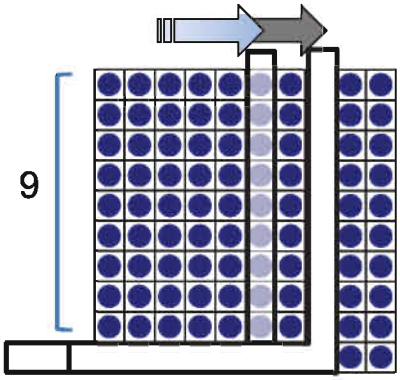
1. There are 8 chocolates in each of 4 boxes. How many chocolates are there?

2. In a classroom, each group has 8 students. If there are 6 groups, how many students are there?

◆ Multiplication of 9

Let's make the multiplication table for 9 based on what we have learnt so far.

Find the multiples of 9 in the way that we have done so far.

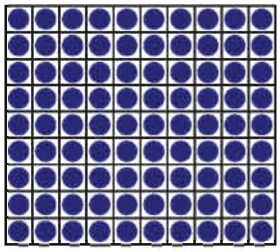


The Multiplication Table for 9

9 x 1 =	9
9 x 2 =	18
9 x 3 =	27
9 x 4 =	36
9 x 5 =	45
9 x 6 =	54
9 x 7 =	63
9 x 8 =	72
9 x 9 =	81
9 x 10 =	90

Let's recite the multiplication table for 9 to memorize them.

Find the 9's multiplication giving more attention. How can we show the numbers rearranging of 9's multiplication?



◆

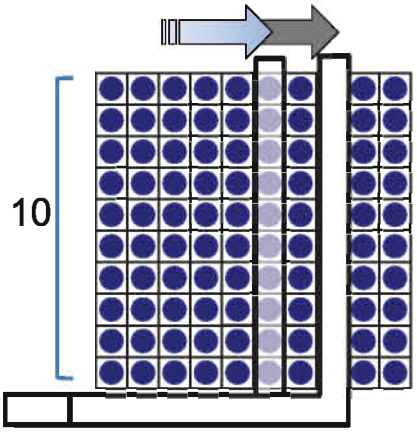
1. **9 rutis can be put in each basket. How many rutis can be put in 4 baskets?**
2. **Rafiq has been reading a book by 9 pages a day. How many pages will he read in 7 days?**

5.5 Multiplications of 1 and 10

◆ Multiplication of 10

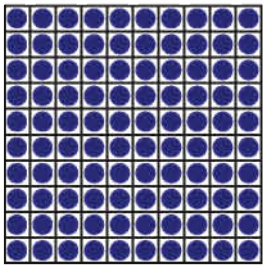
Let's make the multiplication table for 10 based on what we have learnt so far.

Find the multiples of 10 in the way that we have done so far.



Let's recite the multiplication table for 10 to memorize them.

Find the 10's multiplication giving more attention. How can we show the numbers rearranging of 10's multiplication?



The Multiplication Table for 10	
10 x 1 =	10
10 x 2 =	20
10 x 3 =	30
10 x 4 =	40
10 x 5 =	50
10 x 6 =	60
10 x 7 =	70
10 x 8 =	80
10 x 9 =	90
10 x 10 =	100

Two hands of a man have 10 fingers? How many fingers do 8 men have?

Multiplication of 1

The student who placed first in the class in the annual examination, an award will be given to him, which includes 2 pencils and 1 note book. How many pencils and note books will be needed for 5 classes ?

Pencils

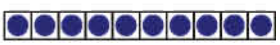
2 x ☐ = ☐ ____ Pencils

Notebooks

☐ x ☐ = ☐ ____ Notebooks

Let's recite the multiplication table for 1 to memorize them.

Find the 1's multiplication giving more attention. What can you find?



I have found that 1 x 10 is the sum of 1 x 3 and 1 x 7.

If we save 1 Taka every day, how much Taka can we save in 7 days?

The Multiplication Table for 1

1 x 1 =	1
1 x 2 =	2
1 x 3 =	3
1 x 4 =	4
1 x 5 =	5
1 x 6 =	6
1 x 7 =	7
1 x 8 =	8
1 x 9 =	9
1 x 10 =	10

5.6 Multiplication of 0

Three balls are put in a tray. How many balls are there if there is no tray?

2 trays		3 × 2 = ☐
1 trays		3 × ☐ = ☐
0 trays		3 × ☐ = ☐

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

2 trays		2 × 2 = ☐
1 trays		1 × ☐ = ☐
0 trays		☐ × ☐ = ☐

Multiplying by 0 always results in 0, isn't it?

How about 0 x 0?

When a number is multiplied by 0, the answer will always be 0. Also, when 0 is multiplied by any number, the answer is always 0.

We put no balls in the trays. How many balls are there if there are no trays?

2020

5.7 Looking into the MultiplicationTable

Look at the multiplication table below, and find the rules of multiplications.

Multiplication Table

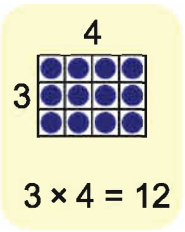
×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40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

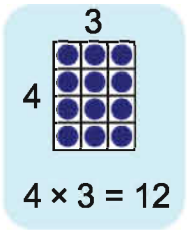
I found a rule about the order of multi-plications!

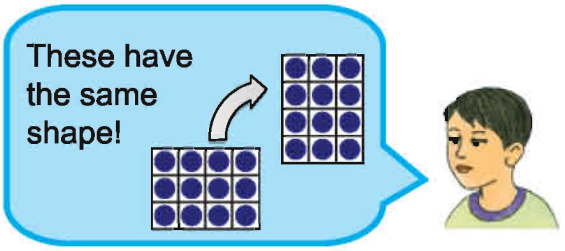
I looked at the ones place, and found some rules!

2020

Compare the multiplications, 3 x 4 and 4 x 3.







1. Which are the numbers, that the multiplication product given below?

(1) 16 (2) 24 (3) 36 (4) 48 (5) 63

Find the same another multiplication.

- **One's place of 2's multiplication:**

2 → 4 → 6 → 8 → 0 → 2 → 4 → 6 → 8 → 0

I found these things!
✓ Only 2, 4, 6, 8, and 0 appear in the one's place.
✓ These numbers repeat in the same order.

- **One's place of 3's multiplication:**

3 → 6 → 9 → 2 → 5 → 8 → 1 → 4 → 7 → 0

I found that
The numbers from 0 to 9 appears only once.

2. What can you find in the multiplications of other numbers?

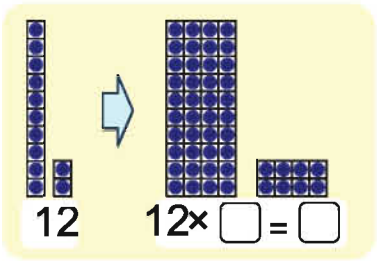
2020

5.8 Looking into the Multiplication Table

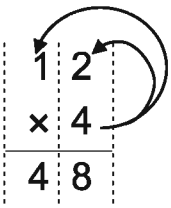
Meena can read a book 12 pages a day. How many pages of this book can she read in 4 days?

- **What is the mathematical sentence for this question?**

- **How do you calculate it?**



First, we can calculate this from ones place then tens place.



12× 4 = 48 48 pages

1. Calculate the following multiplications.

(1) 14× 2 (2) 23× 3 (3) 11× 8

(4) 32× 3 (5) 21× 4 (6) 34× 2

2. Raju's father works 12 hours a day. If he works 3 days then, how many hours will he work?

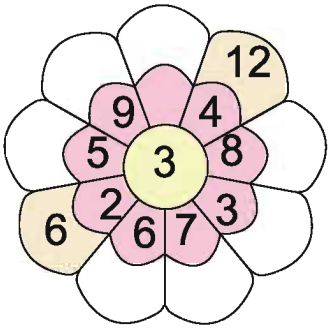
3. Rahim wants to buy 3 copies of a book on fairy-tale whose price is 30 Taka each. How much Taka will he pay?

2020

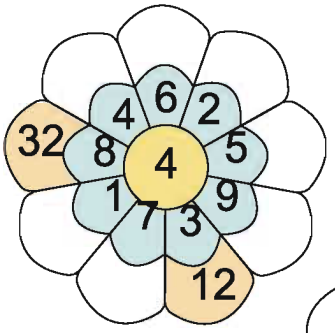
5.9 Do ourselves

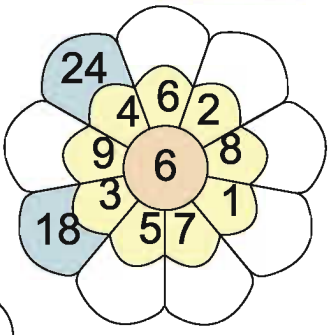
1. Let us fill up the blank spaces with the help of multiplication table.

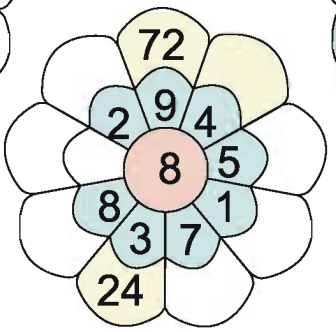
3 × 2 = 6

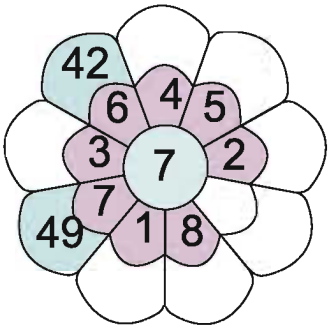


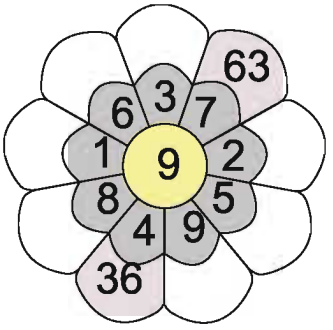
3 × 4 = 12











2. There are 2 lozenges in a packet. How many lozenges are there in 8 packets?

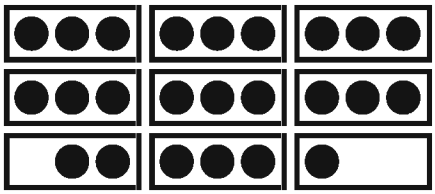
3. **There are 10 benches in a classroom. 5 pupils can sit on a bench. How many pupils can sit in total in the classroom?**
4. **Father walks 4 hours daily. How many hours does he walk in 7 days?**
5. **Ujwal wants to buy 4 books, and each book costs 21 Taka. How much does he pay?**
6. **Multiply the numbers in the left colum by the numbers in the top row, and fill the results in the blank boxes.**

×	2	5	3
1		↓	
4	→	20	
2			

Calculate 4 × 5 = 20.
Write 20 in the box.

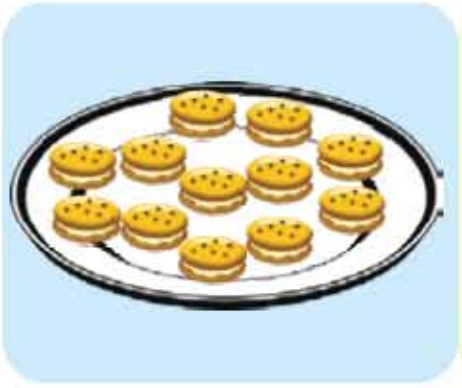
×	2	5	3	7	10	4	8	9	1	6
1										
4		20								
2										
6										
10										
3										
9										
8										
5										
7										

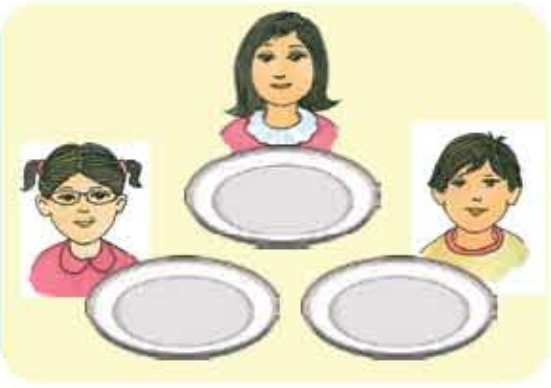
7. **The below picture shows the students sitting in a classroom. A dot (•) indicates a student. How many students are in the classroom? Calculate it in a variety of ways.**



6. Division

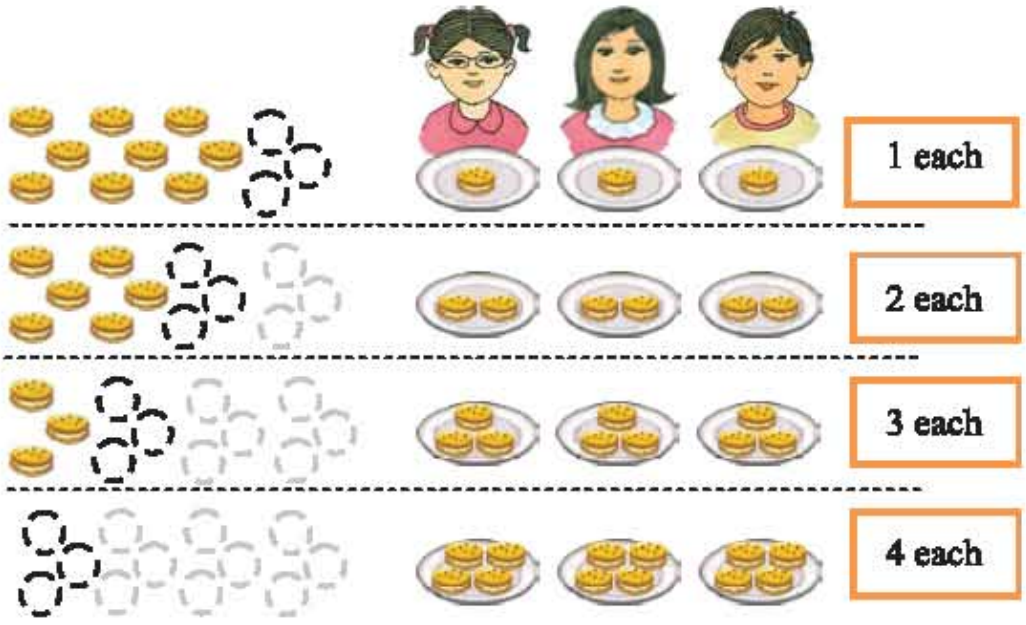
6.1 How many each will get?





There are 12 biscuits. If 3 people divide them equally, how many biscuits will one person get?

Let's consider how to calculate!



When 3 children divide 12 biscuits evenly, each child gets 4 biscuits. We write this calculation in the mathematical sentence below.

$$12 \div 3 = 4$$

Twelve Division Three Equal Four

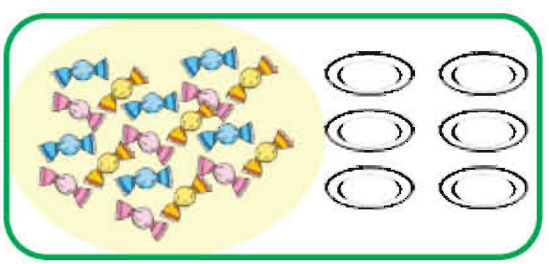
This kind of calculation is called Division, and the symbol " ÷ " is called the "Division sign".

$\frac{\bullet}{\bullet}$

12	÷	3	=	4
object		group		Number of objects in each group

Because 4 × 3 = 12, division is an inverse of multiplication!

There are 18 chocolates. If 6 children share these chocolates equally then how many chocolates will each child get?



- **Write a mathematical sentence and calculate it.**

☐	÷	☐	=	☐
Total number of chocolates		Number of groups		Number of chocolates in each group

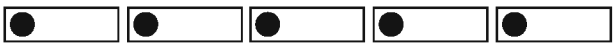
Let's use objects around us, prepare same question and calculate it.

_____ **chocolates**

There are 20 pieces of bananas. If 5 children share them evenly, how many pieces of bananas will each one get?

Let's use multiplication to think and discuss how to find the answer.

[1] When we share 1 banana with 5 children, the total number of banana is:



$1 \times 5 = 5$

[2] When we share 2 bananas, the total number of banana is:

$2 \times 5 = 10$

[3] When we share 3 bananas, the total number of banana is:

$\square \times \square = \square$

[4] When we share 4 bananas, the total number of banana is:

$\square \times \square = \square$

We can find the answer for $20 \div 5$ by using the multiplication table of 5.

$20 \div 5 = \square \times 5 = 20$

4 pieces of bananas

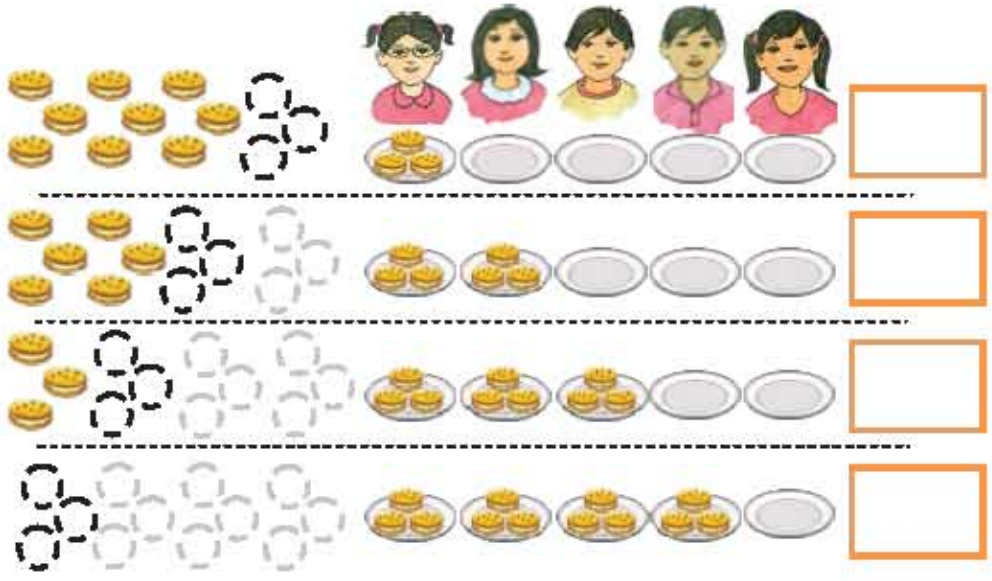
1. How many papers will each child get if 48 papers are divided by 8 children equally ?

2. A father has 63 Taka. He wants to give this money equally to his family of 7 persons. How muchTaka will each person get?

6.2 Calculating for how many people

There are 12 biscuits. If one child gets 3 biscuits, how many children can get biscuits?

Let's consider how to calculate!



Give 3 biscuits to each child from 12 biscuits.1 child will get 3, 2 children will get 2x3=6, 3 children will get 3x3=9 and 4 children will get 4x3=12 biscuits. So that, 12 biscuits can be distributed among 4 children by giving 3 biscuits each.

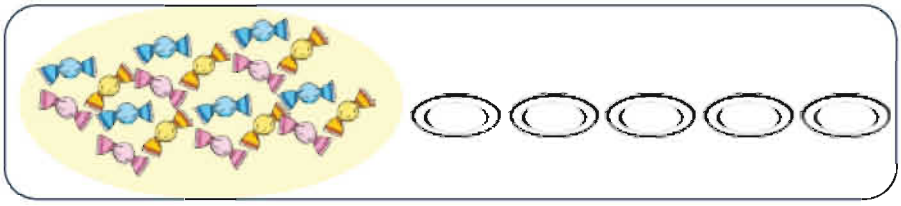
$$12 \div 3 = 4$$

We can find the number of groups in this division, although we have found the number of biscuits in each group in the previous pages.

12	÷	3	=	4
Total number of biscuits (12 biscuits)		Number of biscuits in each group(3)		Number of groups(Total 4 children will get)

Did you find any difference- between this and division before?

There are 18 chocolates. If we give 6 chocolates to each child, how many children can get the chocolates?



- **Write a mathematical sentence and calculate it.**

☐	÷	☐	=	☐
Total number of chocolates		Number of chocolates in each group		Number of groups

Let's circle the chocolates in the picture by 6.

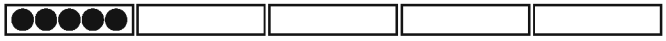
_____ **chocolates**

2020

There are 20 pieces of bananas.If you give 5 bananas to each child, how many children can get bananas?

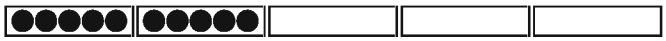
Let's think and discuss how to find the answer by using multiplication.

[1] When we give 5 bananas to 1 child:



$5 \times 1 = 5$

[2] When we give 5 bananas to 2 children:



$5 \times 2 = 10$

[3] When we give 5 bananas to 3 children:

$\square \times \square = \square$

[4] When we give 5 bananas to 4 children:

$\square \times \square = \square$

We can find the answer for $20 \div 5$ by using the multiplication table of 5.

$20 \div 5 = \square$ ⟷ $5 \times \square = 20$

4 children

1. We distributed 32 lychees among a few children.Each child gets 8 lychees. How many children were there?

2. A school has 45 notebooks for an award to students. If the school gives one student 5 notebooks, how many students will get the award?

6.3 Calculation of division

We can calculate division vertically.

Do division 16 ÷ 2.

➔ 2 × ☐ = 16

➔ 2 × 8 = 16

➔ 16 ÷ 2 = 8

2) 16(

16 ÷ 2

2) 16(8

16

2 × 8 = 16

2) 16(8

16

0

Check if the difference is 0

2 × 1 = 2, 2× 2 = 4, 2× 3 = 6,
..... 2× 7 = 14, 2 × 8 = 16

Calculate the divisions.

(1) 36 ÷ 9 (2) 42 ÷ 6 (3) 64 ÷ 8 (4) 50 ÷ 5

9)36(6)42(8)64(5)50(

Prepare word problems for the mathematical sentence 15 ÷ 3 = ?

We have learnt 2 kinds of divisions, haven't we?

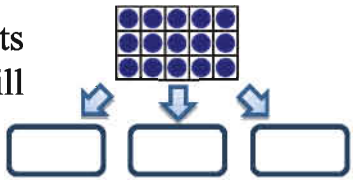
Do you remember what we can find in these 2 kinds of divisions?

2020

(1) Find "the number of objects in each group".

Example:

There are 15 biscuits. We share these biscuits among 3 children . How many biscuits will each of child get ?

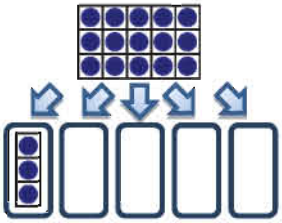


Make an another problem according to picture

(2) Find "the number of groups".

Example:

We will distribute 15 biscuits to some children so that each child gets 3 biscuits. How many children can get biscuits?



Make an another problem according to picture

Do you know?

Ways of division in other countries:
When we conduct a division 32 ÷ 4 vertically, then we write as shown in (A) on the right.
But there is a different way of writing in other countries, such as (B) on the right.
In (B), we can easily understand that this 8 is at the ones place and quotient.

(A)

```
4) 32(8
   32
   --
    0
```

(B)

```
    8
4) 32
   32
   --
    0
```

6.4 Do ourselves

1. Calculate the divisions.

(1) 8 ÷ 2 (2) 9 ÷ 3 (3) 12 ÷ 2 (4) 21 ÷ 3

(5) 45 ÷ 5 (6) 30 ÷ 6 (7) 64 ÷ 8 (8) 54 ÷ 9

(9) 42 ÷ 7 (10) 35 ÷ 5 (11) 28 ÷ 4 (12) 63 ÷ 7

2. Calculate the divisions.

(1) 2) 6 ((2) 4) 8 ((3) 6) 18((4) 8) 16(

(5) 6) 54((6) 9) 36((7) 3) 15((8) 5) 40(

(9) 9) 81((10) 4) 20((11) 3) 24((12) 8) 72(

3. 2 persons equally divide 8 mangoes. How many mangoes will each person get?

4. 4 persons equally divide 24 lozenges. How many lozenges will each person get?

5. 3 persons equally divide 27 Taka. How much Taka will each person get?

6. 5 persons sit on one bench. How many benches will be necessary for 45 persons?

7. A man bought some eggs and paid 32 Taka. If the price of one egg is 4 Taka, how many eggs did this man buy?

8. 8 students make a group in each. If there are 72 students, then how many groups will be there?

9. A student is reading a book of 54 pages. If she reads 6 pages in a day, then how many days will take to finish reading this book?

10. Solve the problems given below by following appropriate method· .
    (1) There are 10 mangoes in a basket. How many mangoes are there in 5 baskets?
    (2) A man bought 10 mangoes and distributed equally among 5 children. How many mangoes did each child get?
    (3) There are 24 students in a classroom. If 4 students sit on one bench, how many benches will be necessary?
    (4) There are 12 benches in a classroom. If students are sitting on 6 benches, how many benches are left unused?
    (5) There are 8 biscuits in one packet. A girl bought 2 packets of the biscuits. How many biscuits did she buy in total?
    (6) A man had 8 biscuits. If he ate 2 biscuits a day, in how many days did he finish the biscuits?

11. Make two different mathematical word problems for the mathematical sentence $32 \div 4 = ?$

7. Bangladeshi coins and notes

1 Taka Coin

2 Taka Coin

5 Taka Coin

10 Taka

20 Taka

50 Taka

100 Taka

Let's find other ways to change money!

10 Taka is also equal to 5 pieces of 2 Taka note, isn't it?

In a Eid day Ema gets the following notes as gift. How much Taka did she get as gift?

Make same amount of Taka with the notes given in the box.

Example

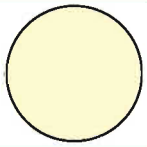
Solve the following problems:

1. Eva bought one *hali* eggs of 32 Taka, a packet of chanachur of 30 Taka, and some biscuits of 6 Taka. How much Taka did she spend in the market?

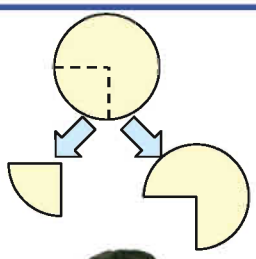
2. Raju had 16 Taka and his father gave him more 20 Taka. Raju went to a shop and bought some notebooks and pens of 32 Taka. How much Taka is left with him?

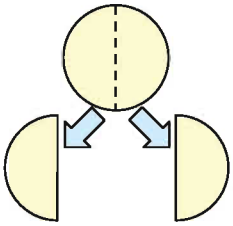
8. Fractions

Reza and Meena have one *ruti*. How can they divide this so that they can get equal pieces?



Can I cut in this way?



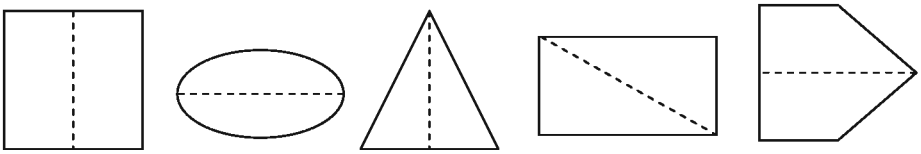


No, you can't! We should divide one ruti into two equal pieces.

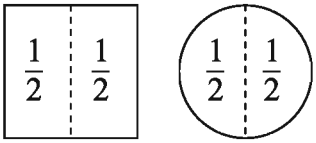
When we divide an object into 2 equal parts, we call each of these parts "**Half (Ardhek)**", or "**One of the two parts**" and write $\frac{1}{2}$

$\frac{1}{2}$
"Half" or
"One of the two parts"

Colour the $\frac{1}{2}$ part in each of the following shapes.



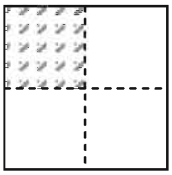
What will it be by putting two pieces of $\frac{1}{2}$s together?



Putting two $\frac{1}{2}$s together makes ☐

2020

A paper has been divided into 4 parts equally. What is said one of the four equal parts?



When we take 1 of the two equal parts, we write it $\frac{1}{2}$. So what if we divide 4 equal parts?

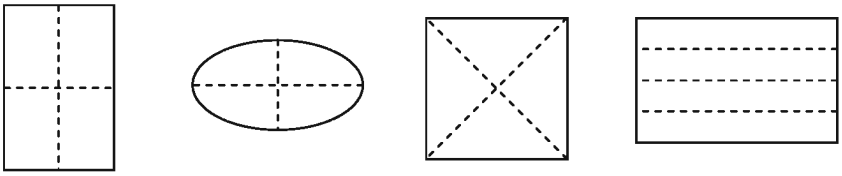
When we divide an object into 4 equal parts, we call one of these parts "**one fourth(a Quarter)**", or "**one of the four parts**" and write $\frac{1}{4}$.

Numbers such as $\frac{1}{2}$ and $\frac{1}{4}$ are called **fractions.**

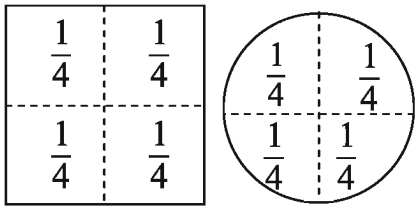
$\frac{1}{4}$

"One fourth" or "one of the four parts."

Colour the $\frac{1}{4}$ part in each of the following shapes.

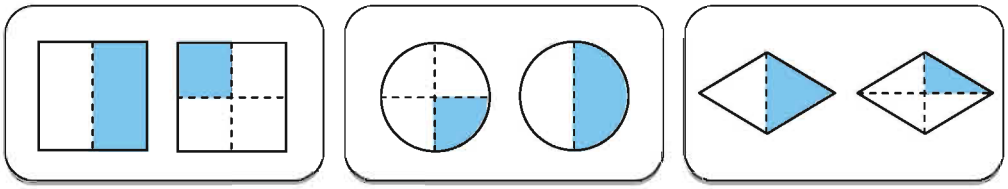


What will it be by putting four pieces of $\frac{1}{4}$s together?



Putting four $\frac{1}{4}$s together makes ☐

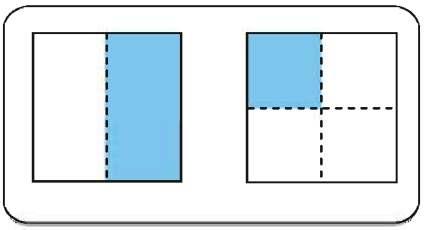
1. Compare the shaded part of two figures in each pair. Circle the larger one.



2. Choose the correct word.

- $\frac{1}{4}$ is greater / equal / smaller than $\frac{1}{2}$.
- Two pieces of $\frac{1}{4}$ is greater / equal / smaller than $\frac{1}{2}$.
- Three pieces of $\frac{1}{4}$ is greater / equal / smaller than $\frac{1}{2}$.

Reza compared the shaded part of the figures on the right, and said "$\frac{1}{2}$ is smaller than $\frac{1}{4}$ ".
Do you think his answer is correct? Please explain why you think so.

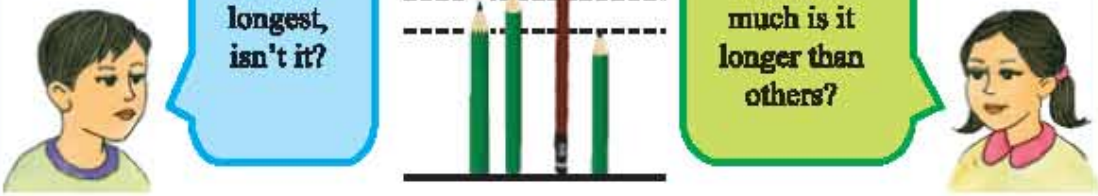


3. Draw a figure and colour the $\frac{1}{4}$ part and the $\frac{1}{2}$ part of it.

9. Measurement

9.1 Length

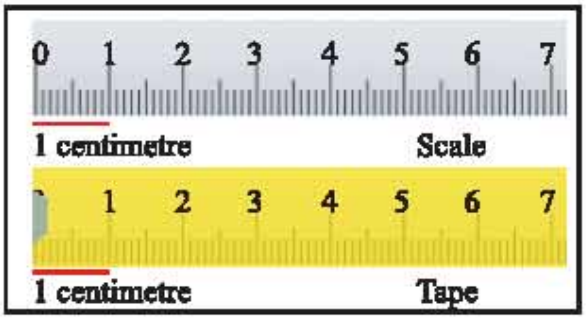
Let's compare the length of your pen or pencil with your friends'. Whose pen or pencil is the longest?



We use a unit "metre" in measuring a length which is common in the world. When we express the length of a small object, we use a unit "centimetre" or "cm." When 1 metre equals to 100 centimetres. We use rulers, scales and measuring tapes to measure the length of objects.

Metre is the unit of length

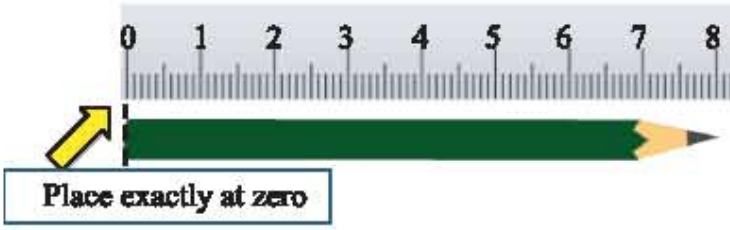
1 metre = 100 centimetres



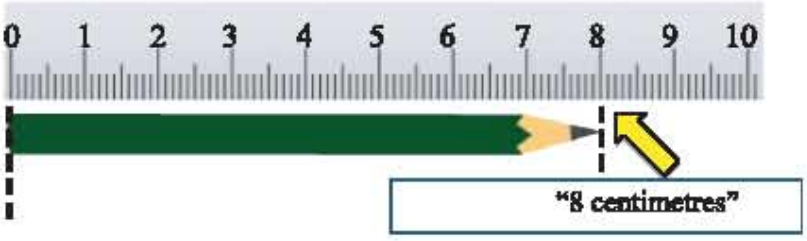
Use your scale to measure the length of your pens, pencils, erasers, notebooks, textbooks, etc. Tell each other how many centimetres they are.

How to use a ruler:

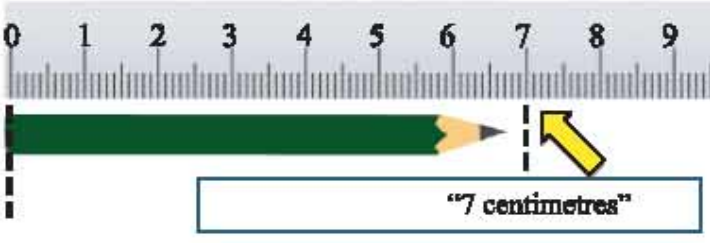
1. Place the Zero end of your ruler at the end of your object.



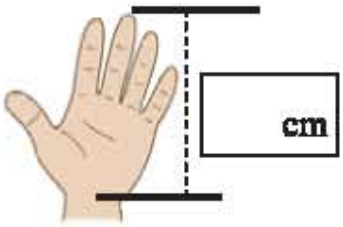
2. Look at the opposite side of the object you are measuring, and read the number on your ruler that is alongside the object.

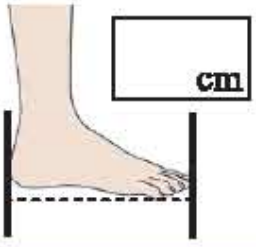


3. If the length of the object comes between two numbers, then take the nearer number.



Measure your hand and foot, and compare it with your friends.

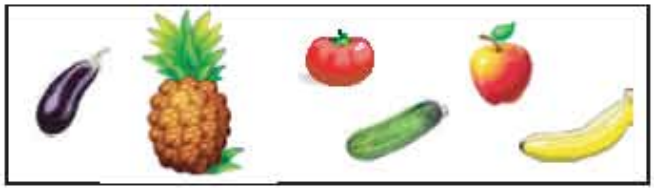




2020

9.2 Weight

Let's compare the weight of the following objects.
Which one is heavier than others? How do you compare?



Take an eggplant in one hand, and take a banana in the other hand to compare their weight one by one?

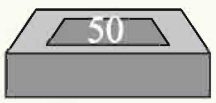
I wonder if we can express weight in numbers as we have done for length.

There are several ways to measure weight, but we basically use a balance or a scale. When you use a balance, you put weights on one side and items to measure on the other side. International weight measuring unit is "Killogram" or "Kg".Gram is used for measuring less amount.1000 grams equal to 1 Kg.

Unit for weight

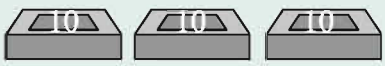
Killogram or Kg.
1 kg =1000 grams

You are a shopkeeper, and you have one 50-grams weight, two 20-grams weight, three 10-grams weight, and five 5-grams weight. How do you weigh 75 grams?



50 grams

20 grams



10 grams

5 grams

There are various ways to weigh 75 grams. Discuss with your friends to find as many ways as possible!

Use the same weights above and find the ways to weigh 100 grams as many as possible.

Use the same weights above and find the ways to weigh 100 grams as many as possible.

I think this small stone found in the school weighs 100 grams.

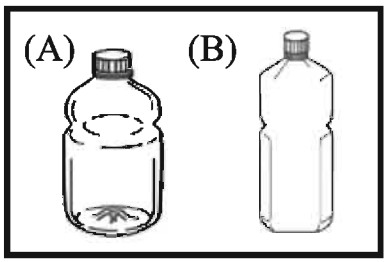
This notebook and two pencils may be sum up to around 100 grams.

In a bazar or in your home, find the items around you on which its weight is printed, such as a package of salts, spices, chanachur etc.

2020

9.3 Volume of liquid

Reza and Meena wanted to know which one of the two bottles contain more water.

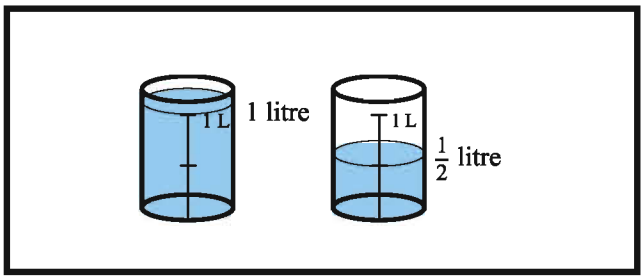


How can we compare the amount of water in these bottles?

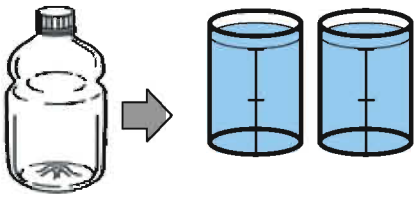
In measuring the volume of liquid, we use an international unit "litre", and write an English letter "L" or "l" to indicate it.

Unit for volume

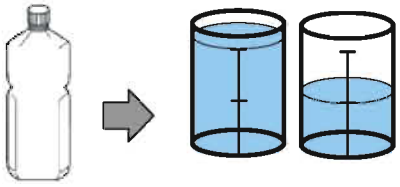
Litre



(A)



(B)



[ ] litres

[ ] and [ ] litres

Now we clearly know the bottle (A) can contain more water.

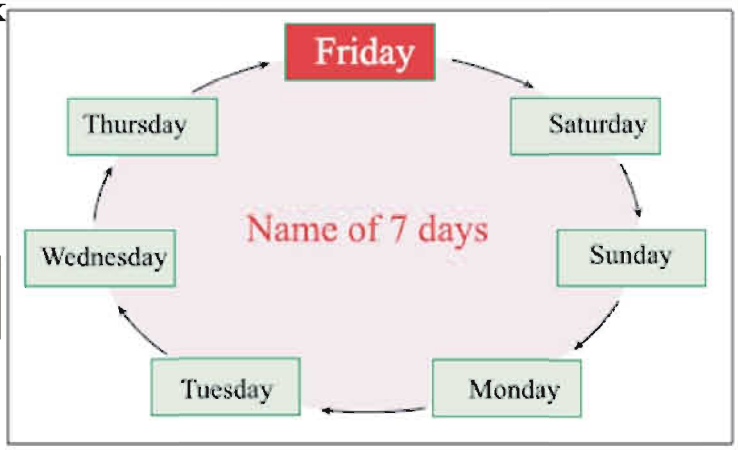
In a bazar or in your home, find the items around you on which its volume is printed, such as water bottle, oil bottle etc.

9.4 Days and week, Calendar

◆ Days of a Week

There are 7 days in a week.

1 Week = 7 Days



Fill in the blanks.

- Which day is the day after Sunday? _____
- Which day is the day after Thursday? _____
- Which day is the day before Wednesday? _____
- On which day is your school closed? _____

1. Two days ago, Reza went to maternal uncle's house. If today is Wednesday, on which day did he go to maternal uncle's house?

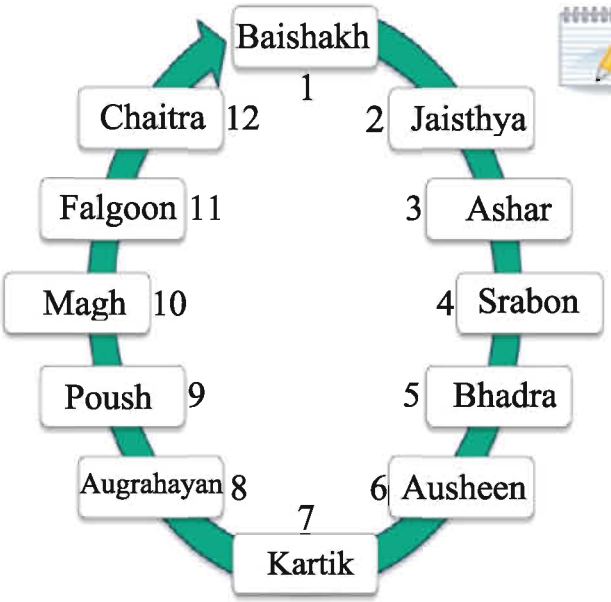
2. A Sports Day in Meena's school will be held 6 days after today. If today is Monday, on which day will the Sport's Day be?

3. Ali went to a hospital 2 days ago, but his stomach-ache started 3 days before he went to the hospital. If today is Saturday, on which day did his stomach-ache start?

2020

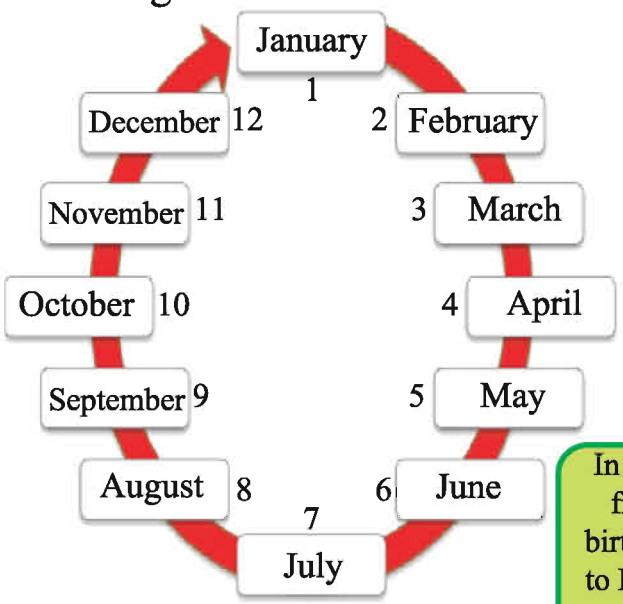
✧ Name of 12 Months

- Name of the 12 months of Bangla calendar:

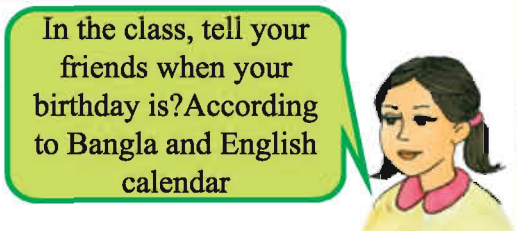


- Next month of Ashar-month
- Next month of Bhadra month
- Preceding month of Poush month
- Preceding month of Jaisthya month

- Name of the 12 months of English calendar:

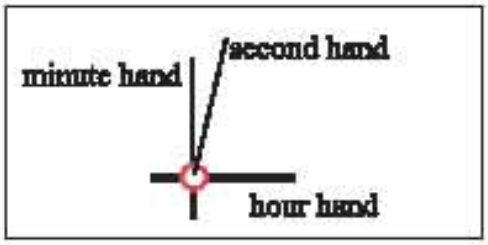


- Next month of April
- Next month of December
- Preceding month of September



9.5 Time

Clock has 3 kinds of hand. The shortest one indicates "hour", the second longest one indicates "minute" and the longest one indicates "second". The numbers from 1 to 12 indicates hours.



This clock indicates 3 O'clock.

Unit for time

Second, Minute, Hour

1. What time is it?

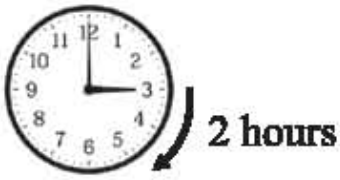
5 O'clock

In the afternoon Sifat works in the house for 2 hours from 3 O'clock, and helps his father from 6 to 9 O'clock in the evening.

(1) What time did he finish the house work?

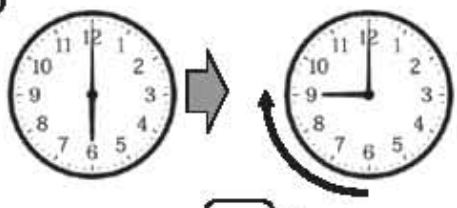
(2) How many hours did he help his father?

(1)



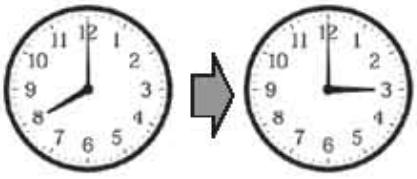
☐ O'clock

(2)



☐ hours

2. One day, Reza left home with his father at 8 O'clock in the morning, and came back home at 3 O'clock in the afternoon. How many hours was he out of home?



3. In one school, grade 2 students stay in the school for 3 hours from 9 O'clock in the morning. What time do students leave the school?

Relationship between the units of time

60 seconds	=	1 minute	24 hours	=	1 day
60 minutes	=	1 hour	7 days	=	1 week

4. Fill in the blanks.

(1) 95 seconds = _____ minute and _____ seconds

(2) 80 minutes = _____ hour and _____ minutes

(3) 36 hours = _____ day and _____ hours

10. Geometrical Shapes

Let's connect each set of same sign that have the same shape to enclose each food. Use a ruler to draw straight lines when you connect sign .

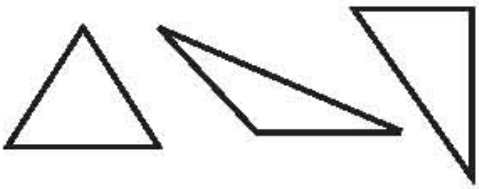
Look at the shapes you just made by connecting sign .

- What shapes did you make by connecting the sign ?
- How many straight lines did you need to enclose the Samucha?
- How many straight lines did you need to enclose the biscuits?

Divide the foods into two groups of shapes that look alike.

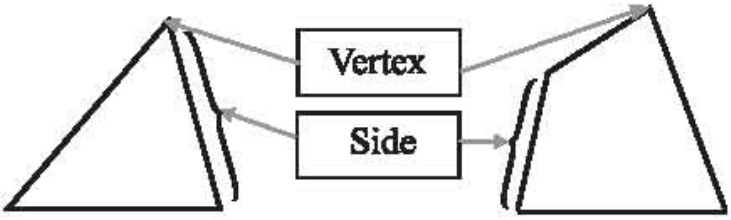
The foods enclosed by 3 straight lines	_____, _____, _____,
The foods enclosed by 4 straight lines	_____, _____, _____,

A shape that is enclosed by 3 straight lines is called a triangle

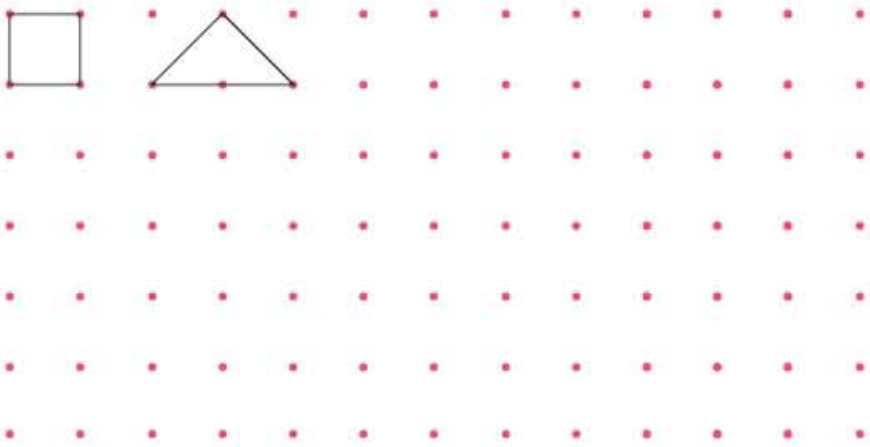


A shape that is enclosed by 4 straight lines is called a quadrangle

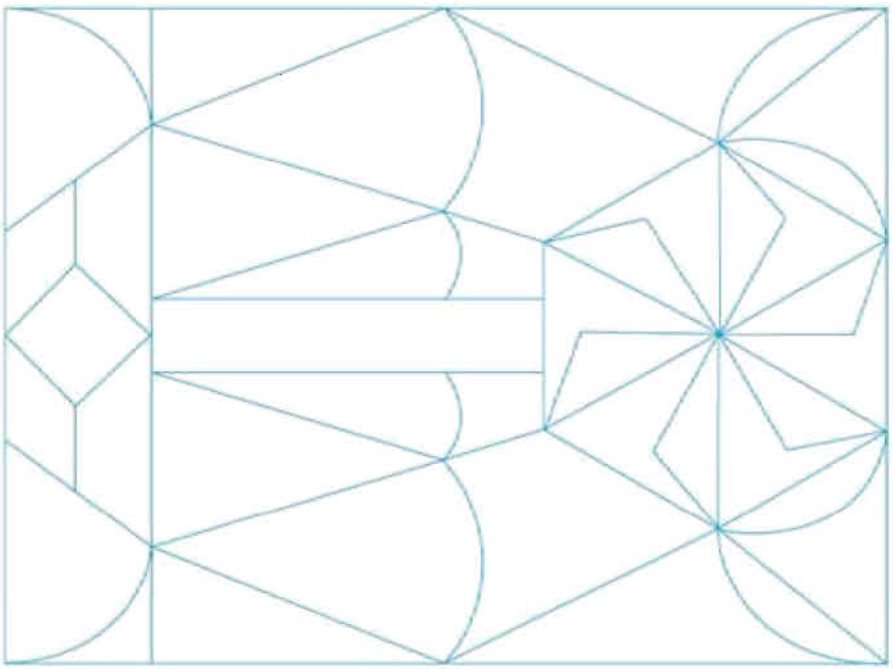
A straight line in a triangle or quadrangle is called a side. The corner point of a triangle or quadrangle is called a vertex.



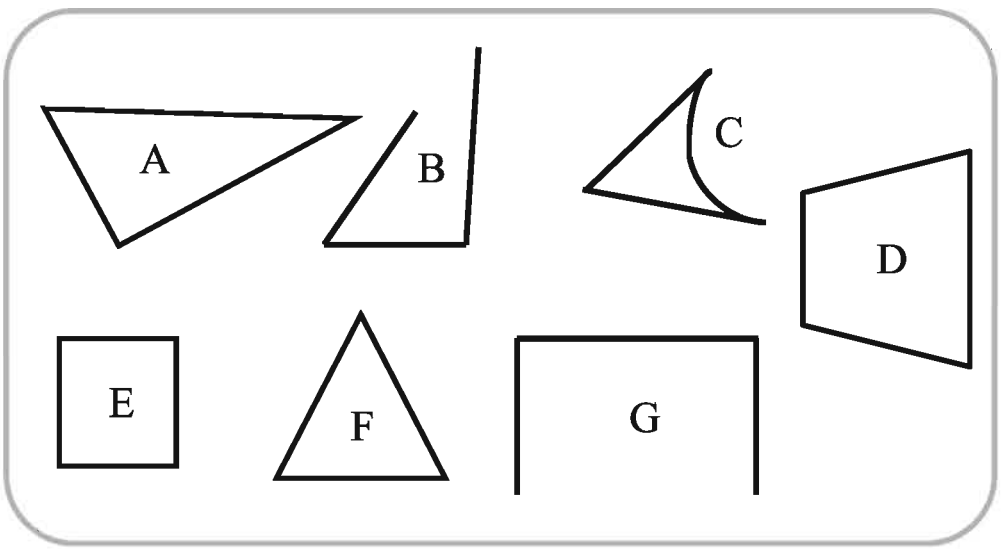
1. Let's connect dots to draw different kinds of quadrangles and triangles.



2. Let's colour quadrangular and triangular shapes by different colours.



3. Let's find the triangles and quadrangles.



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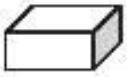
Reza and Meena collected the following items in their house. Discuss what kinds of shapes are they?

Watermelon, football, and marble must be in the same group.

Dice, brick, and book have a similar shape, don't they?

Let's write their names in the blanks in the following table.

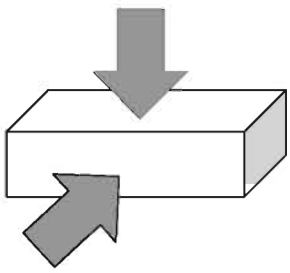
Name	Shape	Example
Cuboid		Brick, _____, _____
Cylinder		Glass, _____, _____
Cone		Ice cream, _____, _____
Sphere		Watermelon, _____, _____

Let's find more examples of cuboids, cylinders, cones, and sphere in your surroundings.

Look at a cuboid from the above and from the side. How do they look like?

I can see a rectangle from the above.

I can also see a rectangle from the side.



Match a name, a figure and its shape viewed from the above and the side.

Name	Figure	Above	Side
Cuboid			
Cone			
Sphere			
Cylinder			

2020

11. Do ourselves

1. Let's add

(1)	15 + 24	(2)	54 + 31	(3)	0 + 97
(4)	0 + 0	(5)	45 + 20	(6)	30 + 50
(7)	17 + 79	(8)	48 + 26	(9)	24 + 68
(10)	57 + 29	(11)	28 + 42	(12)	33 + 57

2. Let's subtract.

(1)	46 – 12	(2)	68 – 26	(3)	35 – 15
(4)	58 – 50	(5)	28 – 0	(6)	0 – 0
(7)	75 – 29	(8)	34 – 15	(9)	52 – 36
(10)	94 – 87	(11)	40 – 14	(12)	63 – 56

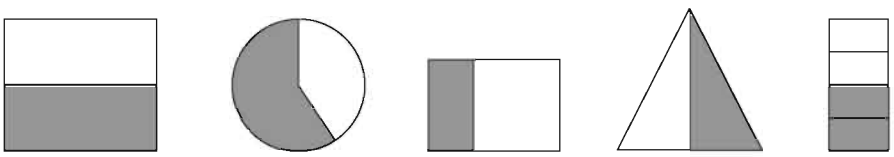
3. Let's multiply.

(1)	2 × 4	(2)	3 × 3	(3)	4 × 5
(4)	6 × 4	(5)	7 × 5	(6)	8 × 9
(7)	9 × 3	(8)	1 × 8	(9)	10 × 6
(10)	7 × 6	(11)	0 × 10	(12)	9 × 7

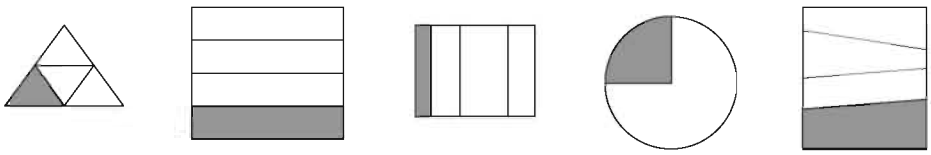
4. Let's divide.

(1)	6 ÷2	(2)	8 ÷ 4	(3)	12 ÷ 3
(4)	15 ÷ 5	(5)	18 ÷ 2	(6)	25 ÷ 5
(7)	28 ÷ 7	(8)	36 ÷ 9	(9)	49 ÷ 7
(10)	48÷ 8	(11)	56 ÷7	(12)	72 ÷ 9

5. In grade 2 of one school, there are 34 boy students and 51 girl students. Which student is more than the other? And how many more?
6. Rahim has 56 chocolates. If he eats 8 chocolates in a day, in how many days will he finish the chocolates?
7. Sumon bought a book of 48 Taka and colour pens of 36 Taka. How much Taka did he spend?
8. Sabita has been reading a book if she reads 6 pages in a day. How many pages will she read in one week?
9. A teacher has 45 pieces of blank paper. If he gives these papers equally to 9 students, how many pieces of paper each student will receive?
10. There are 10 mangoes in one basket. If there are 6 baskets, how many mangoes are there in total?
11. A family consumed 42 grams of salt on Monday, and 38 grams on Tuesday. How many grams of salt did this family used in these 2 days?
12. Nasima bought books for 85 Taka. She gave the shopkeeper a 50 Taka note and two 20 Taka notes. How much did she receive the change?
13. Circle the figures in which $\frac{1}{2}$ is coloured.



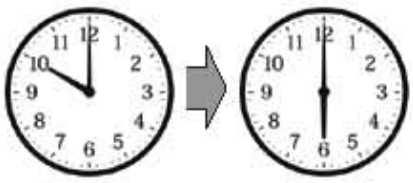
14. Circle the figures in which $\frac{1}{4}$ is coloured.



2020

15. A group of craftsmen started making an Almirah 3 days ago. They spent 5 days for preparing the Almirah. If today is Monday, on what day will the Almirah be prepared?

16. Meena usually goes to bed at 10 O'clock at night and wakes up at 6 O'clock in a morning. How many hours does she sleep?



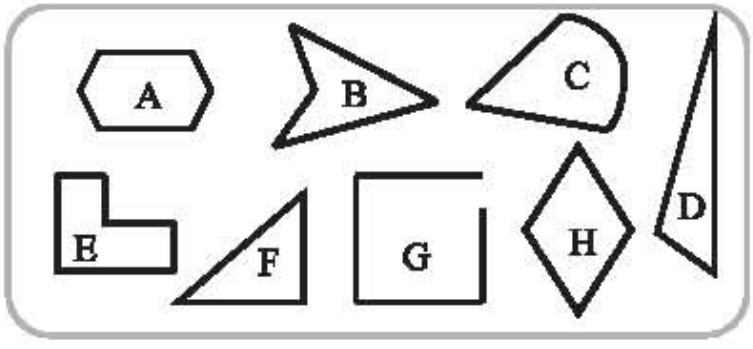
17. On one day, Robin helped the firm work of his family for 6 hours from 9 O'clock. What time did the work finished?

18. Fill in the blanks.

    (1) 66 seconds = _____ minute and _____ seconds
    (2) 111 minutes = _____ hour and _____ minutes
    (3) 30 hours = _____ day and _____ hours

19. A person planted a sunflower. One day the height of the sun flower was 18 centimetres, but it grew up to 85 centimetres in 3 weeks. How many centimetres did it grow in 3 weeks?

20. In the figures below, which are triangles? Which are quadrangles?



Appendix 1: "Reading Numbers" (51-100)

Numbers	Tens	Ones	How to read
51	5	1	Fifty one
52	5	2	Fifty two
53	5	3	Fifty three
54	5	4	Fifty four
55	5	5	Fifty five
56	5	6	Fifty six
57	5	7	Fifty seven
58	5	8	Fifty eight
59	5	9	Fifty nine
60	6	0	Sixty
61	6	1	Sixty one
62	6	2	Sixty two
63	6	3	Sixty three
64	6	4	Sixty four
65	6	5	Sixty five
66	6	6	Sixty six
67	6	7	Sixty seven
68	6	8	Sixty eight
69	6	9	Sixty nine
70	7	0	Seventy
71	7	1	Seventy one
72	7	2	Seventy two
73	7	3	Seventy three
74	7	4	Seventy four
75	7	5	Seventy five
76	7	6	Seventy six
77	7	7	Seventy seven
78	7	8	Seventy eight
79	7	9	Seventy nine
80	8	0	Eighty

Numbers	Tens	Ones	How to read
81	8	1	Eighty one
82	8	2	Eighty two
83	8	3	Eighty three
84	8	4	Eighty four
85	8	5	Eighty five
86	8	6	Eighty six
87	8	7	Eighty seven
88	8	8	Eighty eight
89	8	9	Eighty nine
90	9	0	Ninety
91	9	1	Ninety one
92	9	2	Ninety two
93	9	3	Ninety three
94	9	4	Ninety four
95	9	5	Ninety five
96	9	6	Ninety six
97	9	7	Ninety seven
98	9	8	Ninety eight
99	9	9	Ninety nine

Numbers	Hundreds	Tens	Ones	How to read
100	1	0	0	One hundred

2020

Appendix 2: "Multiplication Cards"

Make the multiplication cards so that the answer of each multiplication comes overleaf.

FRONT SIDE	BACK SIDE
1 × 1	1
1 × 2	2
1 × 3	3
1 × 4	4
1 × 5	5
1 × 6	6
1 × 7	7
1 × 8	8
1 × 9	9
1 × 10	10

FRONT SIDE	BACK SIDE
2 × 1	2
2 × 2	4
2 × 3	6
2 × 4	8
2 × 5	10
2 × 6	12
2 × 7	14
2 × 8	16
2 × 9	18
2 × 10	20

Appendix 2: "Multiplication Cards"

FRONT SIDE	BACK SIDE
3 × 1	3
3 × 2	6
3 × 3	9
3 × 4	12
3 × 5	15
3 × 6	18
3 × 7	21
3 × 8	24
3 × 9	27
3 × 10	30

FRONT SIDE	BACK SIDE
4 × 1	4
4 × 2	8
4 × 3	12
4 × 4	16
4 × 5	20
4 × 6	24
4 × 7	28
4 × 8	32
4 × 9	36
4 × 10	40

Appendix 2: "Multiplication Cards"

FRONT SIDE	BACK SIDE
5 × 1	5
5 × 2	10
5 × 3	15
5 × 4	20
5 × 5	25
5 × 6	30
5 × 7	35
5 × 8	40
5 × 9	45
5 × 10	50

FRONT SIDE	BACK SIDE
6 × 1	6
6 × 2	12
6 × 3	18
6 × 4	24
6 × 5	30
6 × 6	36
6 × 7	42
6 × 8	48
6 × 9	54
6 × 10	60

FRONT SIDE	BACK SIDE
7 × 1	7
7 × 2	14
7 × 3	21
7 × 4	28
7 × 5	35
7 × 6	42
7 × 7	49
7 × 8	56
7 × 9	63
7 × 10	70

Appendix 2: "Multiplication Cards"

FRONT SIDE	BACK SIDE
8 × 1	8
8 × 2	16
8 × 3	24
8 × 4	32
8 × 5	40
8 × 6	48
8 × 7	56
8 × 8	64
8 × 9	72
8 × 10	80

FRONT SIDE	BACK SIDE
9 × 1	9
9 × 2	18
9 × 3	27
9 × 4	36
9 × 5	45
9 × 6	54
9 × 7	63
9 × 8	72
9 × 9	81
9 × 10	90

FRONT SIDE	BACK SIDE
10 × 1	10
10 × 2	20
10 × 3	30
10 × 4	40
10 × 5	50
10 × 6	60
10 × 7	70
10 × 8	80
10 × 9	90
10 × 10	100

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THE END

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