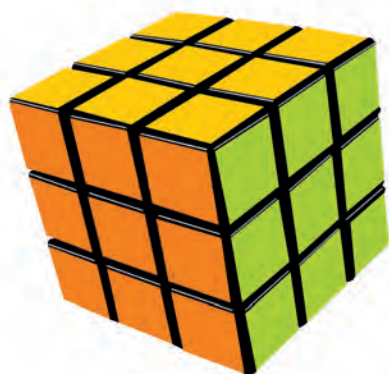




A Gateway to

MATHEMATICS



A Gateway to

MATHEMATICS

PART-1

Published by:

© Copyright Reserved by the Publishers

All right reserved. No part of this book, including interior design, cover design and icons, may be reproduced or transmitted in any form, by any means (electronic, photocopying, or otherwise) without prior written permission from the publishers.

All efforts have been taken for the authenticity of the facts. However the publishers will not be responsible for any fault, if any.

Designed & Illustrated by :

EDIT ONE INTERNATIONAL

PREFACE

Mathematics is a demanding, challenging and dynamic subject which is deeply associated with the day to day life activities and experiences to different types of quantities. Every one uses mathematics in his/her daily life in various ways irrespective of their knowledge of mathematical concepts. Study of mathematics introduces to child the basic mathematical concepts and skills needed for the child to face real life problems.

A Gateway to Mathematics is a series of eight books from **Class I to VIII**, based on the latest reviews and guidelines issued by the NCERT and CBSE. Our objective is to empower the students with ideal and quality education. Each chapter is well-illustrated with relevant study material, stepwise solved examples and adequate practice questions are there on each topic. It helps the preceptor to increase the ability of a child to easy understand, analyze and solve the problems with accurate logical sequence.

All the books of this series have enough Diagrams, Clear Explanations, Maths Lab Activities to help children understand the several principles and patterns of mathematics intended for them.

Salient features of the series are:

- Interactive study approach.
- Easy to learn educational methodology.
- Simple and easy language has been used keeping in mind the comprehensive level of the students.
- Each topic has appropriate illustrations which help in visualization of abstract mathematical concepts.
- Examples and word problems to provide a variety of experience to children and to sharpen their observational skills.
- Points to remember is given at the end of each chapter to highlight some important points of the topics.
- Maths Lab Activities to explore and improve the child's memory potential and to utilize the rich and varied opportunities available outside a classroom situation.
- To develop creativity in the children, enough pattern exercises have been introduced.
- Revision exercises including MCQ's are given for self assessment of the learners.

Any constructive suggestions for the improvement of this series are always appreciated.

— Publisher

CONTENTS

S.No.	Chapter Name	Page No.
1.	Let's Revise	5
2.	Numbers Up To 20	12
3.	Addition Up To 10	27
4.	Subtraction Up To 10	41
	↳ Revision Test Paper-I	51
5.	Addition and Subtraction Up to 20	52
6.	Shapes and Patterns	61
7.	Numbers Up To 50	71
	↳ Revision Test Paper-II	83
	↳ Model Test Paper-I	84
8.	Numbers Up To 100	86
9.	Addition and Subtraction Up To 100	98
10.	Multiplication	108
11.	Division	118
	↳ Revision Test Paper-III	124
12.	Measurement	125
13.	Time and Money	131
14.	Data Handling	139
	↳ Revision Test Paper-IV	142
	↳ Model Test Paper-II	143

New Edition

© All Rights Reserved

All rights reserved with the Publishers. No part of this book may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means : electronic, mechanical, photocopying, recording or otherwise without the prior written permission of publisher.

Disclaimer :

Information contained in this book has been obtained by its authors from sources believed to be reliable and are correct to the best of their knowledge. However, the publisher and its authors shall, in no event, be liable for any errors, omissions or damages arising out of information and specifically disclaim any implied warranties or merchantability or fitness for any particular use.

Printed by :

Aggarwal Print Media



MATHEMATICS



1

Let's Revise



Tall and Short

The giraffe is **tall**.



The puppy is **short**.



The **boy** is



The **man** is



Long and Short



The train is **long**.

The cycle is **short**.




The **pen** is

The **pin** is




Big and Small



The Tiger is **big**.

The dog is **small**.




The Jug is

The bucket is




Top and Bottom



The crow is at the **top**.

The fox is at the **bottom**.



The man is at the

The bike is at the



Heavy and Light



The box is **heavy**.



The orange is **light**.



The cow is



The ant is



Thick and Thin



The book is **thick**.



A sheet of paper is **thin**.



The leg is



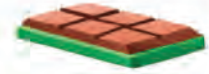
The finger is





Inside and Outside

The toffees are **inside** the jar.



The chocolate is **outside** the jar.

The mangoes are
the basket.



The orange is
the basket.



On and Under

The parrot is **on** the tree.



The cat is **under** the tree.

The woman is sitting
the chair.



A mouse is hiding
the table.





Nearer and Farther



The dog is **nearer** to the boy.
But, the lion is **farther** from the boy.

A. Circle (○) the bird which is farther from the fire.



B. Tick (✓) the spoon which is nearer to the glass.



C. Cross (×) out the dog which is farther from the cat.





Biggest and Smallest



D. Round (○) the biggest cow.



E. Tick (✓) the smallest boy.



F. Cross (×) out the biggest plant.





Lab Activity

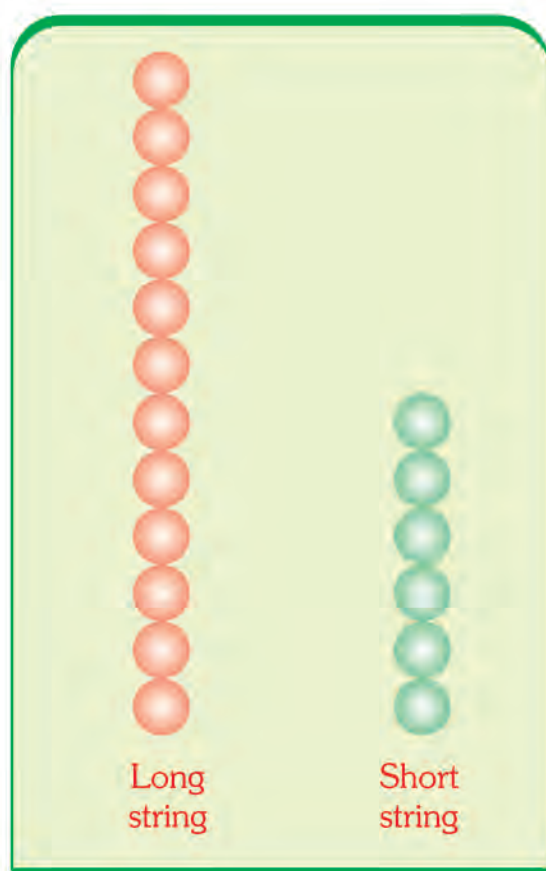


Objective : To understand the concept of 'long' and 'short'.

Required : String, beads of different colours.

Activity :

- ❖ Take some strings and beads in two colours, say red and green. One student threads some red beads on the string.
- ❖ The other student does the same with his green beads.
- ❖ They compare their strings and decide whose string long.
- ❖ Now, they again compare their strings to find out whose string is short.



2

Numbers Up To 20



Picture Observation



A. Look this picture carefully. Count and write how many they are.

1. Trees
2. Butterflies
3. Duckling
4. Grasshoppers
5. Snake
6. Fishes
7. Birds
8. Crows





Number Name of Numbers



B. Write the missing letters to get the **number names**.
One has been done for you.

1. ...O... N... E...



2. T



3. T

E



4. U



5. F



6. S X



7. S

N



8. I H



9. I



10. N





Zero

C. Count and write in the box.



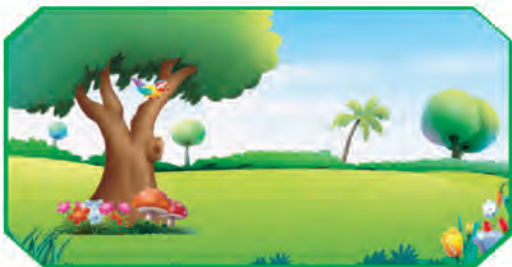
1. How many birds are sitting on the tree?



2. One bird flew away. Now there are..... birds.



3. One more bird flew away. Now there are..... birds.



4. Now, one more bird flew away. How many birds are left?



Facts to know

Zero means nothing or none. We write zero like this 0.



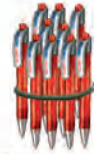


Making Ten

1. Ten (10) pens in a bundle make one (1) ten of pens.



10 Pens



1 bundle of 10 pens

Tens	Ones
1	0

2. Ten (10) leaves in a bunch make one (1) ten of leaves.



10 leaves



1 bunch of 10 leaves

Tens	Ones
1	0

10 ones = 1 ten

10 is a 2-digit number. We write 0 in the ones place and 1 in the tens place.



Building Numbers



Tens	Ones
1	1

11

eleven

a bundle of 10 pencils + 1 pencil



Tens	Ones
1	2

a bundle of 10 pencils + 2 pencils



Tens	Ones
1	3

a bundle of 10 pencils + 3 pencils





a bundle of 10 pencils + 4 pencils

Tens

Ones

1

4



a bundle of 10 pencils + 5 pencils

Tens

Ones

1

5

15

fifteen



a bundle of 10 pencils + 6 pencils

Tens

Ones

1

6

16

sixteen



a bundle of 10 pencils + 7 pencils

Tens

Ones

1

7

17

seventeen



a bundle of 10 pencils + 8 pencils

Tens

Ones

1

8

18

eighteen



a bundle of 10 pencils + 9 pencils

Tens

Ones

1

9

19

nineteen



2 bundles of 10 pencils

Tens

Ones

2

0

20

twenty





D. Read, say and write the numbers and number names.

Number	Number name	Number	Number name
11	Eleven	.....	.....
12	Twelve	.....	.....
13	Thirteen	.....	.....
14	Fourteen	.....	.....
15	Fifteen	.....	.....
16	Sixteen	.....	.....
17	Seventeen	.....	.....
18	Eighteen	.....	.....
19	Nineteen	.....	.....
20	Twenty	.....	.....

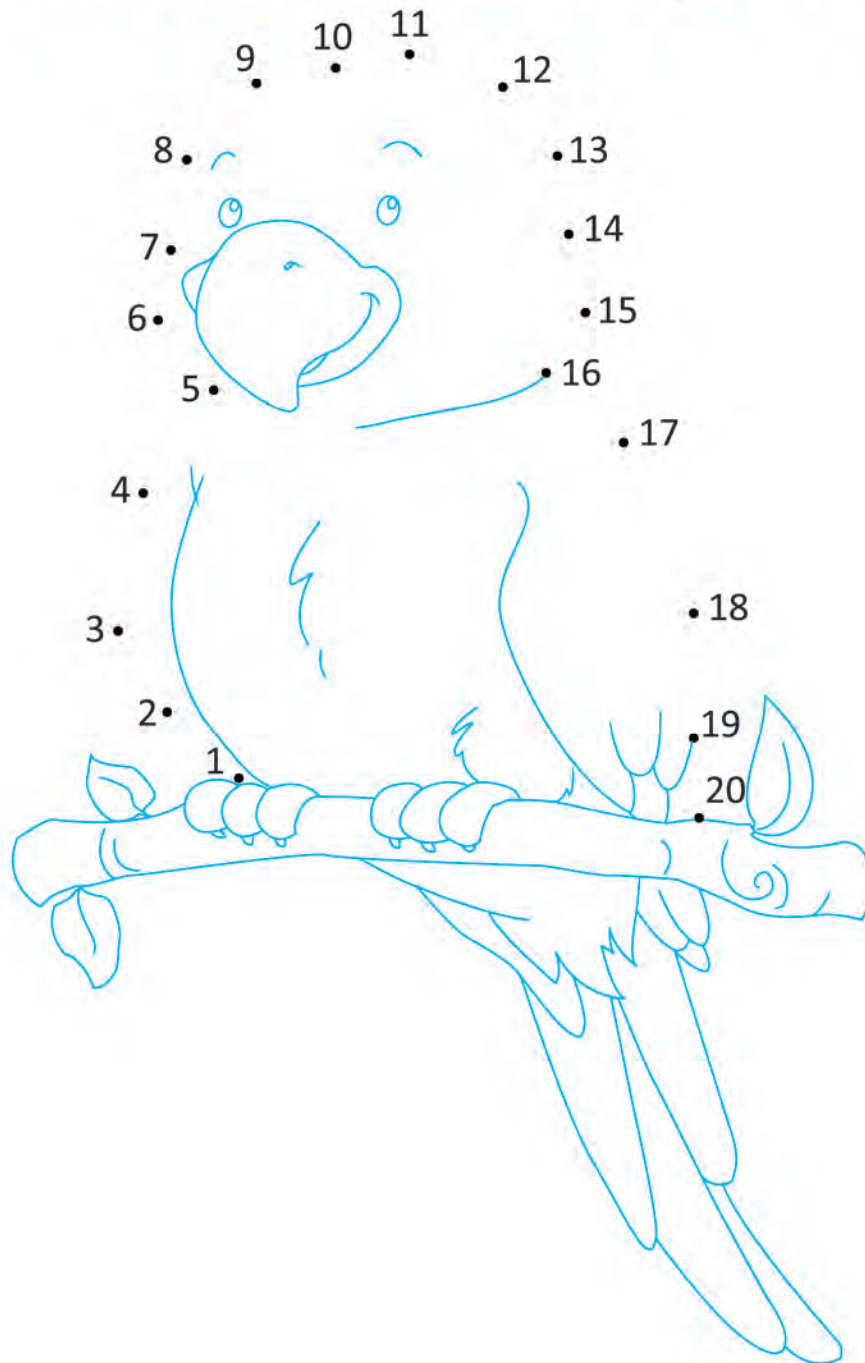


E. Fill in the boxes.

1		4		7		10
11			15			20



F. Join the dots 1-20 and colour the picture.





G. Write the missing numbers on caterpillar.



Before, After and Between

Soumya is **before** Naira.

Sonu is **after** Naira.

Naira is **between** Soumya and Sonu.



Soumya



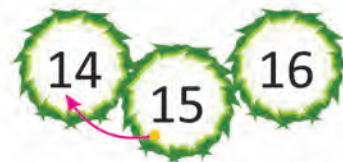
Naira



Sonu

14 is before 15.

BEFORE



15 is between 14 and 16.

BETWEEN



16 is after 15.

AFTER





Use the number strip.



12 ● ● ● ● ● ● ● ● ● ● 13 ● ● ● ● ● ● ● ● ● ● 14

12 is before 13. 13 is between 12 and 14. 14 is after 13.

H. Write the number that comes just before the given number.

- | | | | | | |
|-------------------------|----|-------------------------|----|-------------------------|----|
| 1. <input type="text"/> | 7 | 2. <input type="text"/> | 9 | 3. <input type="text"/> | 18 |
| 4. <input type="text"/> | 13 | 5. <input type="text"/> | 20 | 6. <input type="text"/> | 15 |

I. Write the number that comes just after the given number.

- | | | |
|---------------------------|----------------------------|----------------------------|
| 1. 9 <input type="text"/> | 2. 8 <input type="text"/> | 3. 16 <input type="text"/> |
| 4. 8 <input type="text"/> | 5. 18 <input type="text"/> | 6. 13 <input type="text"/> |

J. Write the number that comes between the two given numbers.

- | | | |
|-------------------------------|-------------------------------|-------------------------------|
| 1. 9 <input type="text"/> 11 | 2. 5 <input type="text"/> 7 | 3. 11 <input type="text"/> 13 |
| 4. 13 <input type="text"/> 15 | 5. 14 <input type="text"/> 16 | 6. 17 <input type="text"/> 19 |



Analysis of Numbers



Smaller Numbers

K. Tick (✓) the group which has less number of objects.

<input type="checkbox"/>	<input type="checkbox"/>

<input type="checkbox"/>	<input type="checkbox"/>

<input type="checkbox"/>	<input type="checkbox"/>

<input type="checkbox"/>	<input type="checkbox"/>

Bigger Numbers

L. Tick (✓) the group which has more number of objects.

<input type="checkbox"/>	<input type="checkbox"/>

<input type="checkbox"/>	<input type="checkbox"/>

<input type="checkbox"/>	<input type="checkbox"/>

<input type="checkbox"/>	<input type="checkbox"/>



Use the number strip.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

A number which is farther from zero on the number strip is a **bigger** number. But a number which is nearer to zero on the number strip is **smaller**.

A number which comes **after** any number on the number strip is **bigger** than that number.

12 is **bigger** than 11, 10, 9, 8, 7 and so on.

A number which comes **before** any number on the number strip is **smaller** than that number.

5 is **smaller** than 6, 7, 8, 9, 10 and so on.

Compare numbers using the number strip.

M. Round the smaller number.

1. 18 **12** 2. 10 16 3. 20 15 4. 13 15
5. 15 8 6. 15 7 7. 16 14 8. 4 17

N. Cross (×) the smallest number.

1. 18 10 ~~2~~ 2. 19 15 20 3. 15 16 5
4. 15 8 20 5. 15 17 12 6. 9 12 18

O. Ring the bigger number.

1. 9 **12** 2. 17 10 3. 19 18 4. 11 13
5. 19 14 6. 9 15 7. 20 14 8. 18 20

P. Tick (✓) the biggest number.

1. 13 15 **18** 2. 15 14 18 3. 11 5 15
4. 18 10 16 5. 20 16 17 6. 7 12 18



Facts to know

The number which is nearer and nearest to zero is the smaller and smallest number respectively.





Ascending Order : Smallest to Biggest



The books below are shown from the smallest to the biggest.

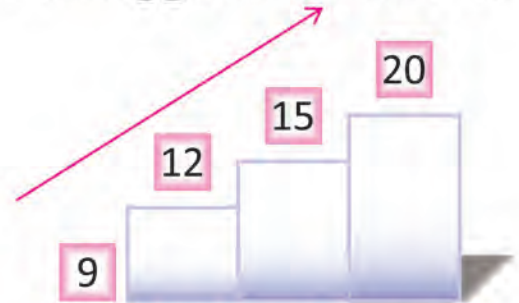


Use the number strip.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

'The arrangement from the smallest to the biggest number' is called **increasing order**.

The given numbers are in increasing order.



Q. Write the numbers from the smallest to the biggest.

1. 18 15 9 12 \longrightarrow 9
smallest biggest

2. 9 5 14 20 \longrightarrow 5
smallest biggest

R. Use the number strip to write the numbers from the smallest to the biggest.

- 1. 6 to 10
 - 2. 11 to 15
 - 3. 16 to 20
- 





S. Write the numbers in order. Start from the smallest.

1. 15 8 5 13



2. 16 11 14 19



3. 6 12 10 20



4. 20 4 18 10



5. 9 15 7 18



Descending Order : Biggest to Smallest

The books are now shown from the biggest to the smallest.

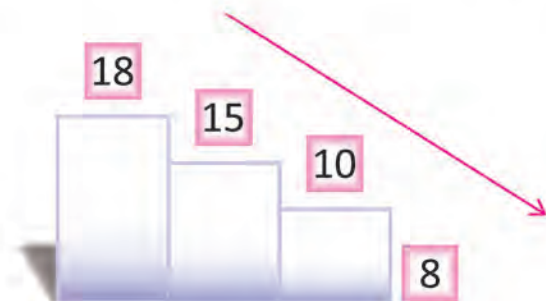


Use the number strip.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

'The arrangement from biggest to smallest number' is called **decreasing order**.

The following numbers are in decreasing order.



T. Write the numbers from the biggest to the smallest.

1. 12 8 10 15 \longrightarrow [15] [] [] [] []
biggest smallest

2. 7 16 19 13 \longrightarrow [19] [] [] [] []
biggest smallest

U. Use the number strip to write the number from the biggest to the smallest.

1. 8 to 4 

2. 15 to 11 

3. 20 to 16 

V. Write the numbers in order. Start from the biggest.

1. 5 19 8 16 

2. 16 12 14 10 

3. 20 7 9 14 

4. 3 14 6 9 



Points to Remember :

- Zero means nothing or none.
- 10 ones = 1 ten
- General ideas of Before, After and Between
- General ideas of Increasing and Decreasing Numbers





HO-HO



Divya is running after Sanju and Vrinda is running ahead of Sanju. Write the names in order:

1.
2.
3.

Lab Activity



4	8	12	14
---	---	----	----



Objective

: To build an understanding of the numbers from 11 to 20.

Required

: Slips of paper 5 cm by 12 cm, pencils and number cards from 4 to 15

Activity :

- ❖ Fold the slips of paper into half.
- ❖ Draw ten dots on one half. Students work in pairs with one set of number cards and at least ten prepared slips.
- ❖ One student picks a number card (for example, 12).
- ❖ The student does not show it to his or her partner.
- ❖ He/she takes a slip of paper and puts the number of extra dots that will be needed to make it 12.
- ❖ The student asks the partner to call out the number that is made.
- ❖ Next the partner picks a number card and repeats the activity.
- ❖ The student calls out the number his/her partner has made.

Record the Activity :

$$10 \text{ and } 2 = 12$$

Do yourself :

Repeat till all the number cards have been picked up.



3

Addition Up To 10



Picture Observation

A. See this picture carefully. Count and write how many they are.



1. 4 monkeys on the tree + 1 fish in the water = animals

2. 3 bathing elephants + 5 running rabbits = animals

3. 4 brown monkeys + 3 grey elephants = animals





Addition Means




Addition means 'putting together'. The '+' is sign of addition, and '=' sign says **the same as** or **equal to**.

B. Use '+' instead of 'and'. Use '=' instead of 'is'. Count and write in the following.

1.  and  is 

3 + 2

2.  and  is 

3.  and  is 

4.  and  is 















Adding Zero

When we add 0 to a number, the answer is the number itself.

 4 aeroplanes 4	+	 0 aeroplanes 0	=	 4 aeroplanes 4
 0 ball 0	+	 5 balls 5	=	 5 balls 5

Adding One

When we add 1 to a number, the answer is the number that comes **after**.

0 pigeon 0  1 pigeon 1	+	 1 pigeon 1	=	 1 
 2 pigeon 2	+	 1 pigeon 1	=	
 3 pigeon 3	+	 1 pigeon 1	=	





4 pigeon



1 pigeon



5 pigeon



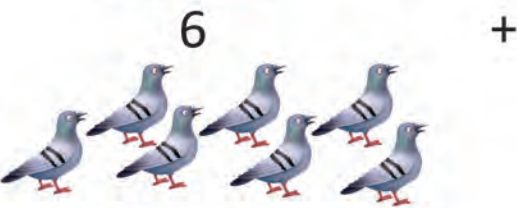
1 pigeon



6 pigeon



1 pigeon



7 pigeon



1 pigeon



8 pigeon



1 pigeon



9 pigeon



1 pigeon



Facts to know

- 9 is bigger than 0, 1, 2, 3, 4, 5, 6, 7 and 8.
- The biggest 1-digit number is '9'.





E. Add the following.

1. $5 + 1 = (\quad)$ 2. $1 + 8 = (\quad)$ 3. $3 + 1 = (\quad)$
 4. $4 + 1 = (\quad)$ 5. $7 + 1 = (\quad)$ 6. $1 + 2 = (\quad)$
 7. $1 + 6 = (\quad)$ 8. $1 + 1 = (\quad)$ 9. $1 + 9 = (\quad)$



Addition Facts

Each number has one more addition fact than the number itself.

ADDITION FACTS OF 1



$$1 + 0 = 1$$



$$0 + 1 = 1$$



ADDITION FACTS OF 2



$$2 + 0 = 2$$



$$1 + 1 = 2$$



$$0 + 2 = 2$$



ADDITION FACTS OF 3



$$3 + 0 = 3$$



$$2 + 1 = 3$$



$$1 + 2 = 3$$



$$0 + 3 = 3$$





ADDITION FACTS OF 4

- 4 + 0 = 4
- 3 + 1 = 4
- 2 + 2 = 4
- 1 + 3 = 4
- 0 + 4 = 4



ADDITION FACTS OF 5

- 5 + 0 = 5
- 4 + 1 = 5
- 3 + 2 = 5
- 2 + 3 = 5
- 1 + 4 = 5
- 0 + 5 = 5


F. Write the missing number.

- | | | |
|---------------------------------|---------------------------------|---------------------------------|
| 1. 4 + <input type="text"/> = 4 | 2. 2 + <input type="text"/> = 5 | 3. 1 + <input type="text"/> = 2 |
| 4. 1 + <input type="text"/> = 3 | 5. 2 + <input type="text"/> = 4 | 6. 0 + <input type="text"/> = 4 |
| 7. 3 + <input type="text"/> = 5 | 8. 0 + <input type="text"/> = 2 | 9. 1 + <input type="text"/> = 5 |


Similarly, the addition facts of 6 to 10 are followed.



G. Circle the pairs of numbers that add till the numbers which the little Tobu is holding.

1.  $6 + 1$ $2 + 4$ $5 + 3$ $6 + 0$

2.  $0 + 7$ $0 + 6$ $2 + 5$ $3 + 3$

3.  $6 + 1$ $5 + 3$ $5 + 2$ $4 + 4$

4.  $3 + 6$ $4 + 6$ $7 + 1$ $9 + 0$

H. Complete the addition facts of 10.

1. $\quad + 8$

2. $9 + \quad$

3. $4 + \quad$

4. $\quad + 2$

5. $\quad + 3$

6. $5 + \quad$

7. $7 + \quad$

8. $\quad + 6$

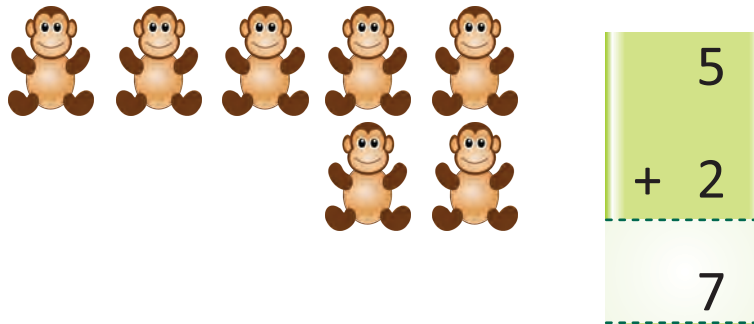
9. $\quad + 0$

10. $1 + \quad$






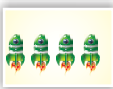
Vertical Addition







5 + 2 = 7 is the same as



Numbers can be added **left-right** or **up-down**. The answer will be the same.


J. Add the following.


1.
$$\begin{array}{r} 5 \\ + 4 \\ \hline \end{array}$$



2.
$$\begin{array}{r} 3 \\ + 2 \\ \hline \end{array}$$



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



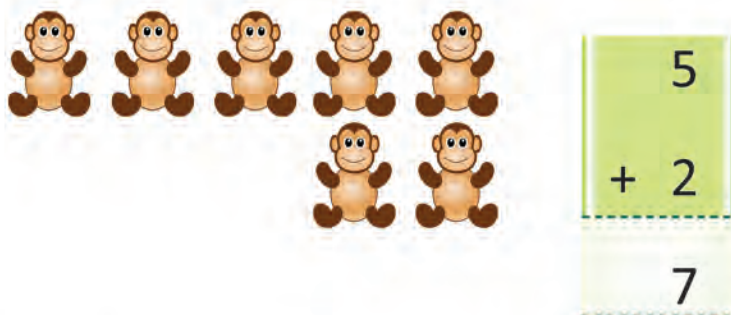
4.
$$\begin{array}{r} 1 \\ + 3 \\ \hline \end{array}$$



5.
$$\begin{array}{r} 7 \\ + 0 \\ \hline \end{array}$$


6.
$$\begin{array}{r} 0 \\ + 6 \\ \hline \end{array}$$




Vertical Addition



5 + 2 = 7 is the same as

Numbers can be added **left-right** or **up-down**. The answer will be the same.

J. Add the following.

1.
$$\begin{array}{r} 5 \\ + 4 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 3 \\ + 2 \\ \hline \end{array}$$

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

4.
$$\begin{array}{r} 1 \\ + 3 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 7 \\ + 0 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 0 \\ + 6 \\ \hline \end{array}$$





Adding Three Numbers



While adding three numbers, numbers can be added in any order, the answer will be the same.



3 pigeons



2 pigeons



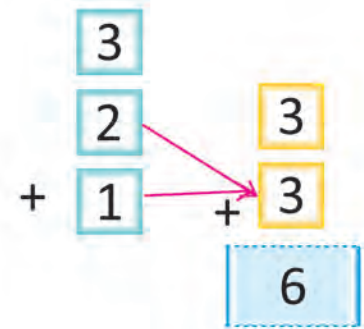
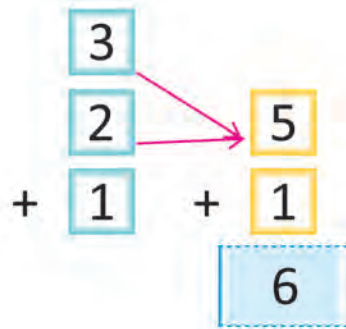
1 pigeon



= 6 pigeons

Fact to know

You can add numbers in any order and still get the same answer.



K. Add the following.

1.

$$\begin{array}{r} 5 \\ + 2 \\ + 0 \\ \hline \end{array}$$

2.

$$\begin{array}{r} 6 \\ + 2 \\ + 1 \\ \hline \end{array}$$

3.

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

4.

$$\begin{array}{r} 3 \\ + 0 \\ + 2 \\ \hline \end{array}$$

5.

$$\begin{array}{r} 5 \\ + 1 \\ + 2 \\ \hline \end{array}$$

6.

$$\begin{array}{r} 0 \\ + 1 \\ + 6 \\ \hline \end{array}$$




L. Count, add, and write the numbers in the boxes.

1. guavas

apples

+ Mangoes

Total fruits



2. red balls

green balls

+ blue ball

Total balls



M. Add the following.

$$\begin{array}{r} 1. \quad 2 \\ + 4 \\ + 2 \end{array}$$

$$\begin{array}{r} 2. \quad 5 \\ + 3 \\ + 2 \end{array}$$

$$\begin{array}{r} 3. \quad 4 \\ + 2 \\ + 1 \end{array}$$

$$\begin{array}{r} 4. \quad 6 \\ + 3 \\ + 1 \end{array}$$

$$\begin{array}{r} 5. \quad 4 \\ + 2 \\ + 2 \end{array}$$

$$\begin{array}{r} 6. \quad 3 \\ + 1 \\ + 2 \end{array}$$

$$\begin{array}{r} 7. \quad 4 \\ + 5 \\ + 1 \end{array}$$

$$\begin{array}{r} 8. \quad 4 \\ + 2 \\ + 1 \end{array}$$

$$\begin{array}{r} 9. \quad 3 \\ + 2 \\ + 4 \end{array}$$

$$\begin{array}{r} 10. \quad 6 \\ + 3 \\ + 1 \end{array}$$





Word Problems

1. Neetu has 4 pens.

Meenu has 5 pens.

There are 4 + 5 = 9 pens in all.

$$\begin{array}{r} 4 \\ + 5 \\ \hline 9 \end{array}$$

2. 4 kites are in the sky.

3 kites are on the roof.

There are + = kites in all.

$$\begin{array}{r} 4 \\ + 3 \\ \hline \end{array}$$

3. Sheena has 3 balloons.

Vibha gives him 2 more balloons.

Now, Sheena has + = balloons in all.

$$\begin{array}{r} 3 \\ + 2 \\ \hline \end{array}$$

4. Meenu drew 5 balls.

Poly drew 1 ball.

Together they drew + = balls.

$$\begin{array}{r} 5 \\ + 1 \\ \hline \end{array}$$

5. One cutter costs 4 rupees.

One pencil also costs 4 rupees.

The total cost of both is + = rupees.

$$\begin{array}{r} 4 \\ + 4 \\ \hline \end{array}$$





Points to Remember :

- When we put together two or more numbers, it is called addition.
- When we add 0 to any number, the answer is the number itself.
- When we add 1 to any number, the answer is the number that comes after.
- Numbers can be added in any order, the answer will be the same.



Hold

Manav is 6 years old. His sister is 2 years older from him. How old is she ? years old

Lab Activity



ORDER IN ADDITION

Objective

: To place the commutative property of addition.

Materials required : Cardboard strips of 15 cm, cloth pegs of two colours and clips.

Activity :

Students work in pairs. They are given one cardboard strip and 8 pegs of each colour.

- One student takes 2 pegs of one colour and fixes them on the cardboard strip.
- The partner takes 4 pegs of the other colour and fixes them next to the earlier clips.
- Then he/she records the sum in column A below.
- The cardboard is flipped over to make a new sum.
- They record the new sum in column B.
- The students make their observations.

Record the Activity :

A	B
$2 + 4 = 6$	$4 + 2 = 6$

Do yourself:

Try it out with other number combinations.

A	B



4

Subtraction Up To 10



Subtraction Means?



6 parrots on a branch



1 parrot flew away



5 parrots left on the branch

If we take away 1 from 6, we get 5.

When some things are taken away, they are being subtracted.

Taking away is **subtraction**. '-' (minus) is sign of subtraction.

A. Take away and write the answer (Use '-' instead of 'take away').

1.



5 apples in a plate

—



1 is taken away

=

5

—

1

=

4

apples left

2.



8 birds in the sky

—



3 flew away

=

○

—

○

=

○

birds left





3.



5 rabbits

-



2 ran away



rabbits left

B. Circle (0) to show how many left. Write the answer.

1.



$$4 - 4 = \square$$

2.



$$4 - 2 = \square$$

3.



$$6 - 3 = \square$$

4.



$$7 - 3 = \square$$

Subtracting Zero

There are 5 cakes. None is eaten.
How many are left?
5 cakes are left.



So, $5 - 0 = 5$

Facts to know

- If we subtract zero from any number, answer is the same number.





C. Subtract 0 and write the numbers in the boxes.

1. $6 - 0 = \square$ 2. $5 - 0 = \square$ 3. $9 - 0 = \square$
 4. $8 - 0 = \square$ 5. $7 - 0 = \square$ 6. $4 - 0 = \square$

Subtracting One



There were 8 balls and 1 is stolen. How many are left?

$$8 - 1 = 7$$

When we subtract 1 from a number, we get the number just **before** the given number.

D. Subtract 1 and write the numbers in the boxes.

1. $3 - 1 = \square$ 2. $5 - 1 = \square$ 3. $1 - 1 = \square$
 4. $4 - 1 = \square$ 5. $10 - 1 = \square$ 6. $6 - 1 = \square$

Subtracting a number from itself



There were 5 ducklings in the pond. All 5 went away.
Now, there left 0 duckling in the pond.

$$5 - 5 = 0$$

When you subtract a number from itself the answer is **zero**.



E. Subtract the following.

1. $1 - 1 =$

2. $3 - 3 =$

3. $7 - 7 =$

4. $4 - 4 =$

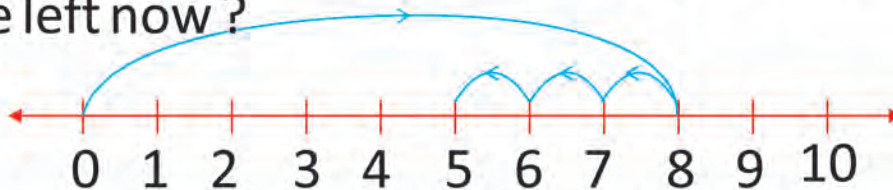
5. $5 - 5 =$

6. $2 - 2 =$



Number Line Subtraction

Rohan had 8 toffees. He gave 3 toffees to his friend. How many toffees are left now?



Start at 8. Then go back 3 spaces. You will reach 5.

So, $8 - 3 = 5$

F. Use the number line to subtract. Use your crayons to do the following.



$9 - 4 =$



$6 - 3 =$

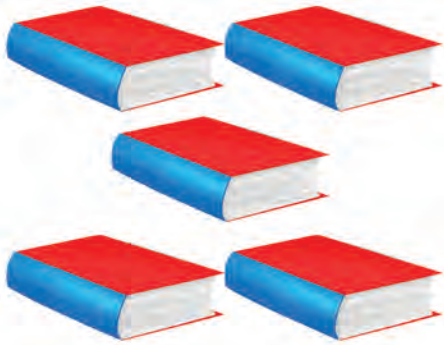


$5 - 2 =$





Vertical Subtraction




5 - 3 = 2 is the same as

We can also subtract the numbers by arranging them vertically. We see that the answer is same whether the numbers are subtracted **horizontally** or **vertically**.

G. Cross (x) out and subtract the following.

1.

7
- 3
4



2.

5
- 2



3.

-




4.

-



5.

9
- 4



6.

-







Subtraction Facts

SUBTRACTION FACTS OF 1

$1 - 0 = 1$

$1 - 1 = 0$



SUBTRACTION FACTS OF 2

$2 - 0 = 2$

$2 - 1 = 1$

$2 - 2 = 0$



SUBTRACTION FACTS OF 3

$3 - 0 = 3$

$3 - 1 = 2$

$3 - 2 = 1$

$3 - 3 = 0$



SUBTRACTION FACTS OF 4

$4 - 0 = 4$

$4 - 1 = 3$

$4 - 2 = 2$

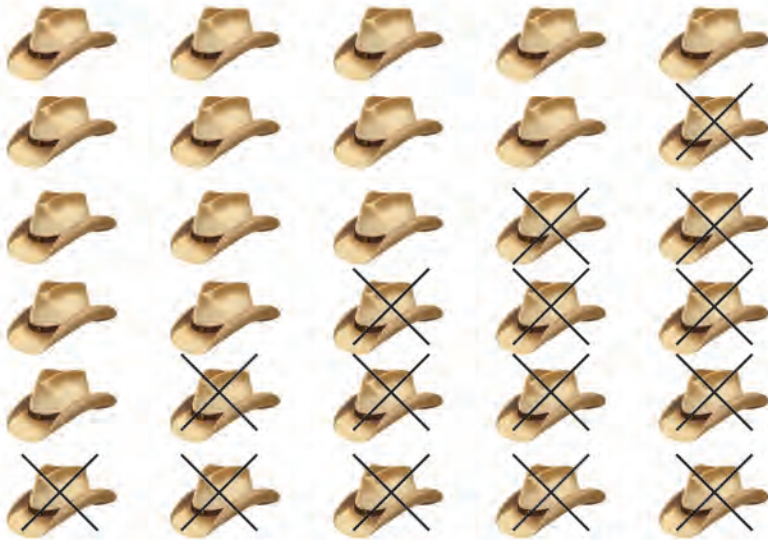
$4 - 3 = 1$

$4 - 4 = 0$





SUBTRACTION FACTS OF 5



$5 - 0 = 5$

$5 - 1 = 4$

$5 - 2 = 3$

$5 - 3 = 2$

$5 - 4 = 1$

$5 - 5 = 0$

H. Write the missing number.

1. $3 - 0 =$

2. $3 - 3 =$

3. $2 - 2 =$

4. $2 - 0 =$

5. $4 - 2 =$

6. $3 - 2 =$

Similarly, the subtraction facts of 6 to 10 are followed.



Word Problems

1. There were 7 puppies sitting under the table. 4 puppies went away. How many puppies are left now ?




$$7 - 4 = 3$$

2. Sunidhi has 8 toffees. She gives 3 toffees to Swarna. How many toffees she has Sunidhi now ?

$$\quad - \quad =$$

3. Shivam had 9 balloons. He gave 5 balloons to his sister. How many balloons are left with him ?

$$\quad - \quad =$$

4. Seema had 7 oranges. She gave 3 oranges to her friends. How many oranges are left with her ?

$$\quad - \quad =$$

5. There were 10 guavas on a tree. Rahul picked 6 guavas. How many guavas were left on the tree ?

$$\quad - \quad =$$





I. Cross (×) and fill in the blanks to find the subtraction facts of 10.

	1.	$10 - 9 = 1$
	2.	$10 - 4 = \dots\dots\dots$
	3.	$10 - 10 = \dots\dots\dots$
	4.	$10 - 5 = \dots\dots\dots$
	5.	$10 - 6 = \dots\dots\dots$
	6.	$10 - 9 = \dots\dots\dots$
	7.	$10 - 3 = \dots\dots\dots$
	8.	$10 - 7 = \dots\dots\dots$
	9.	$10 - 0 = \dots\dots\dots$
	10.	$10 - 2 = \dots\dots\dots$
	11.	$10 - 1 = \dots\dots\dots$



Points to Remember :

- Subtraction is taking away something from a group.
- If subtract zero from a number, answer is the same number.
- If subtract 1 from a number, answer is the number just before the given number.
- When we subtract the numbers by arranging them vertically. It is called vertical subtraction.



Daksh had 7 sweets. He gave away 2 sweets to Rohit and 3 sweets to Ramesh. How many sweets are left now ?

..... sweets





SUBTRACTION

Objective : Brushing up your knowledge in subtraction up to 10.

Materials Required : Counters and folded slips of paper showing number from '0' to '10'

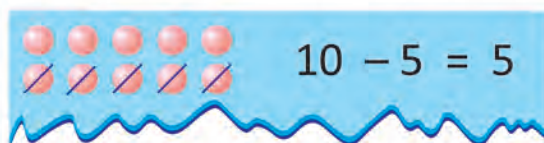
Activity :

- Each student has ten counters. Now, a student picks up a folded slip of paper.
- The number of counter written on this slip is removed from his/her 10 counters. (For example 5)
- The number of counters left is called out (5 in this case).



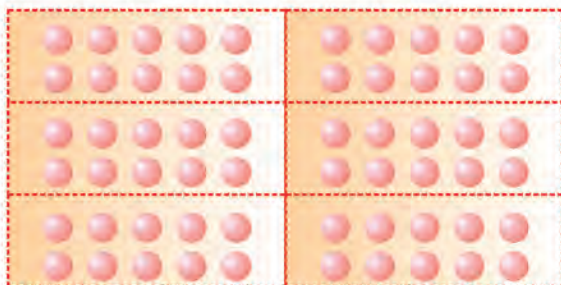
- The sum is recorded.
- The turn passes on to the next student till everybody has had a turn.
- The student with the least number of counters left wins the round.
- If there is more than one student with the least number of counters, they alone play with 10 counters each until the winner is decided.

Record the Activity :



Do yourself :

Repeat the activity and record the sum in the table.



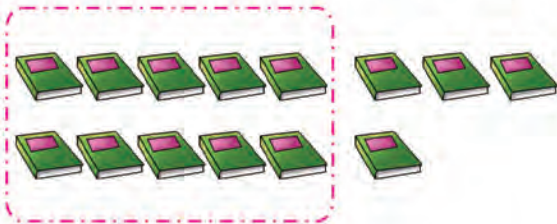
5

Addition and Subtraction Up to 20



Addition

Two single digits on adding can give a double digit answer. Sakshi has 8 books on the table and 6 books in the bag. How many books does she have in all?

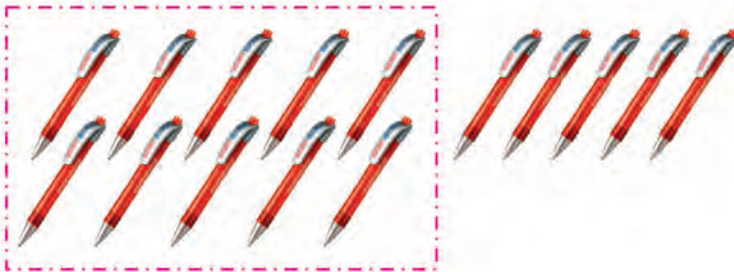


$$8 + 6 = 14$$

Sakshi has 14 books in all.

We can also make **tens** to add.

While adding 9 pens to 6 pens we can make a **ten** of 10 pens and 5 pens remain as **units**.



$$9 + 6 = 15$$

$$10 + 5 = 15$$

The answer is same in both the cases.

A. Make **tens** and add the following.



$$7 + 6 = \square$$





$$7 + 8 = \square$$



$$7 + 5 = \square$$

Adding Tens

Sarika has a lovely *bindi* collection.

B. Count how many of each kind she has.

1.

1	0
+	5

2.

1	0
+	4

3.

1	0
+	9

4.

1	0
+	3

5.

1	0
+	2

6.

1	0
+	4



Forward-Counting For Addition



Add 4 and 7.

Count and jump to 4. Count forward 7 boxes.

The answer is 11.

C. Add using the number strip.

1.

$$\begin{array}{r} 8 \\ + 4 \\ \hline \end{array}$$

2.

$$\begin{array}{r} 8 \\ + 7 \\ \hline \end{array}$$

3.

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

4.

$$\begin{array}{r} 9 \\ + 5 \\ \hline \end{array}$$

5.

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

6.

$$\begin{array}{r} 8 \\ + 5 \\ \hline \end{array}$$

7.

$$\begin{array}{r} 5 \\ + 2 \\ \hline \end{array}$$

8.

$$\begin{array}{r} 9 \\ + 7 \\ \hline \end{array}$$



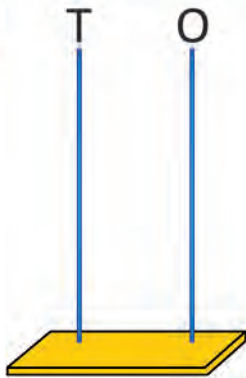


Abacus Addition



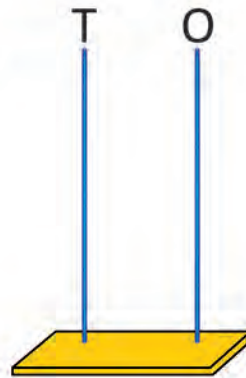
D. Add by drawing beads on the Abacus.

1.



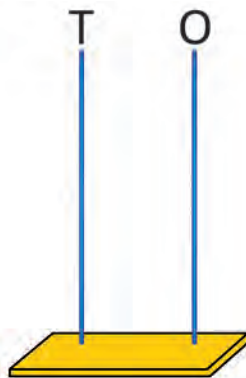
$$10 + 5 = 15$$

2.



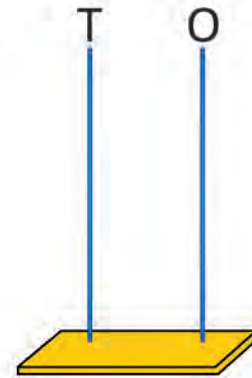
$$10 + 7 =$$

3.



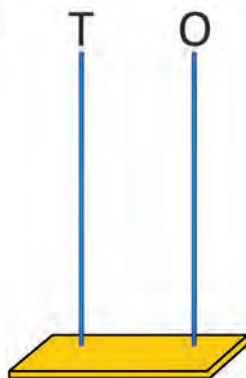
$$10 + 6 =$$

4.



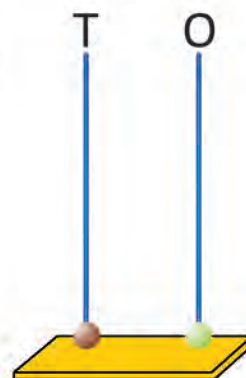
$$10 + 8 =$$

5.



$$10 + 4 =$$

6.



$$10 + 2 =$$





More Addition Practice

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20



$$11 + 8 = 19$$



1 ten + 9 ones

E. Add the following.

1.



$$12 + 3 = \square$$



.....ten +ones

2.



$$12 + 8 = \square$$



.....ten +ones

3.



$$14 + 2 = \square$$



.....ten +ones



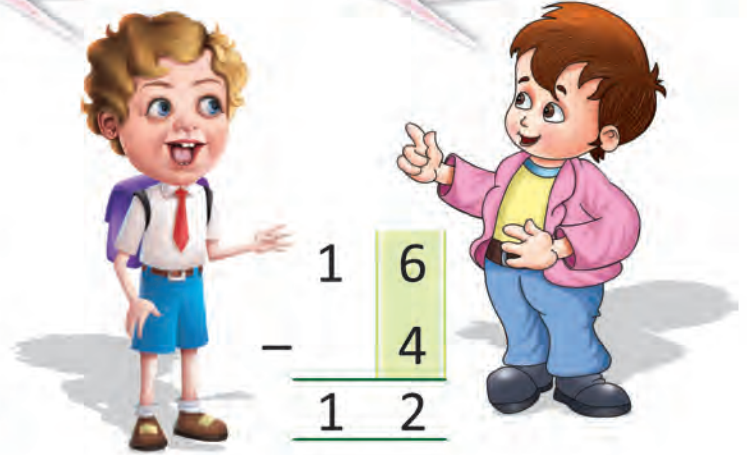


Subtraction

I have 16 toffees.

Can you give me 4 toffees?

Roshan has 16 toffees. He gave 4 sweets to Akshay. How many toffees are left with Roshan?



$$\begin{array}{r} 16 \\ - 4 \\ \hline 12 \end{array}$$

12 toffees are left with Roshan.

F. Cross (x) out and solve the following.

1.
$$\begin{array}{r} 16 \\ - 5 \\ \hline \end{array}$$

Can I have 5 notebooks?



2.
$$\begin{array}{r} 18 \\ - 4 \\ \hline \end{array}$$

Can I have 4 notebooks?



3.
$$\begin{array}{r} 17 \\ - 3 \\ \hline \end{array}$$

Can I have 3 notebooks?





Word Problems



I. Add or subtract. Put the sign '+' or '-'. Solve the following.

1. There are 8 biscuits in the packet. Abraham takes out 4 biscuits. How many biscuits are left in the packet ? ...4..

$$\begin{array}{r} 8 \\ - 4 \\ \hline 4 \end{array}$$

2. 8 parrots and 7 pigeons are flying in the sky. How many birds are there in all ?

$$\begin{array}{r} 8 \\ 7 \\ \hline \end{array}$$

3. There are 6 pencils in a geometry box. Neetu takes out 1 pencils. How many pencils are left in the geometry box?

$$\begin{array}{r} 6 \\ 1 \\ \hline \end{array}$$

4. 5 blue kites and 7 green kites are flying in the sky. How many kites are there in all?

$$\begin{array}{r} 5 \\ 7 \\ \hline \end{array}$$

5. 12 crows are on the tree. 5 hopped down from the tree. How many crows are left on the tree?

$$\begin{array}{r} 12 \\ 5 \\ \hline \end{array}$$

6. There are 5 men and 6 womens in the park. How many people are there in all?

$$\begin{array}{r} 5 \\ 6 \\ \hline \end{array}$$



6

Shapes and Patterns



Picture Observation

A. See the colour code cautiously and colour the shapes in the picture below.



Green



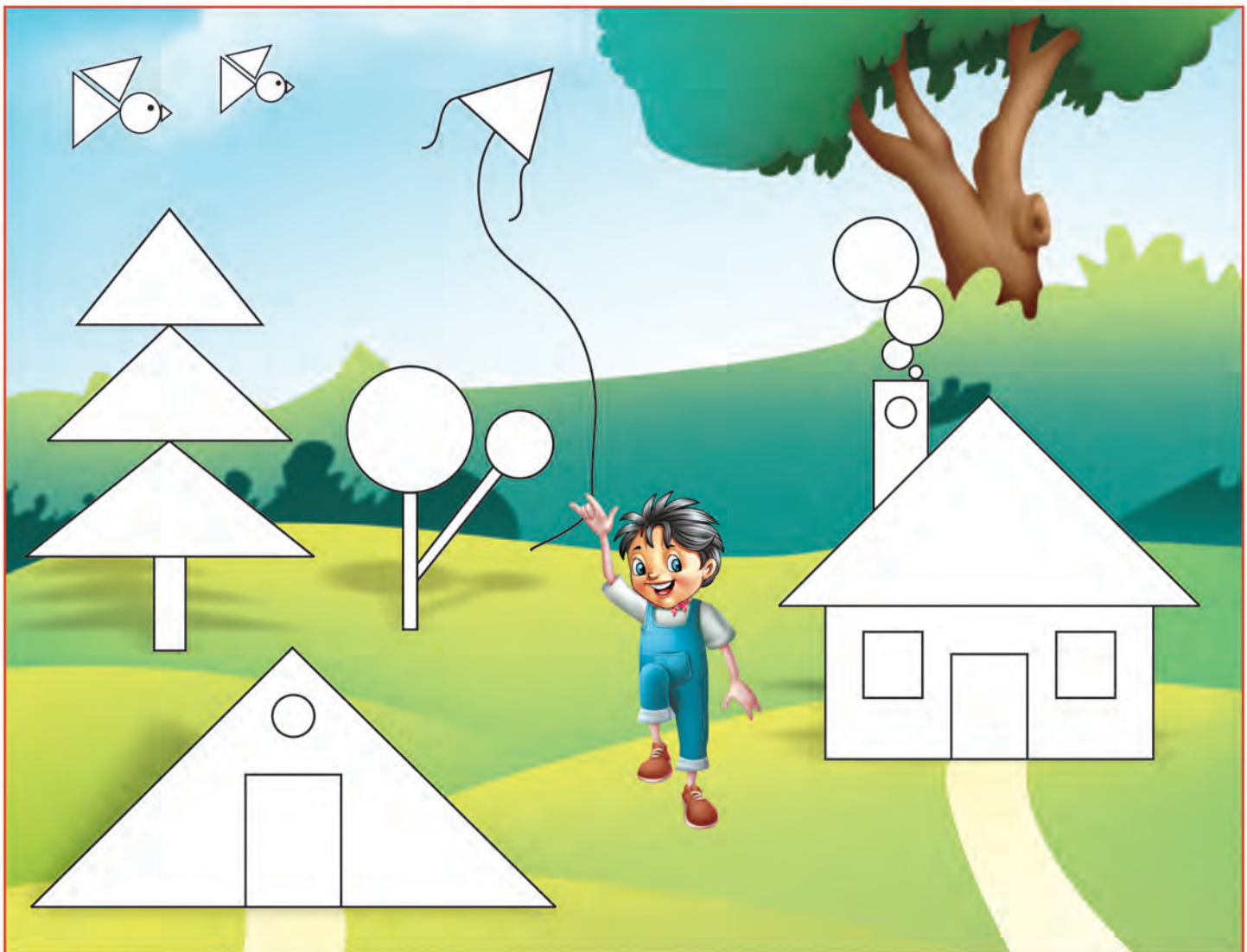
Blue



Yellow



Red





Different Shapes

Triangle

A triangle has 3 sides and 3 corners. The sandwich has the shape of a triangle.



Rectangle

A rectangle has 4 sides and 4 corners. The opposite sides are equal.



Square

A square has 4 equal sides and 4 corners. The face of a dice (🎲) is in the shape of a square.



Circle

A circle does not have a side or a corner. A bangle is in the shape of a circle.

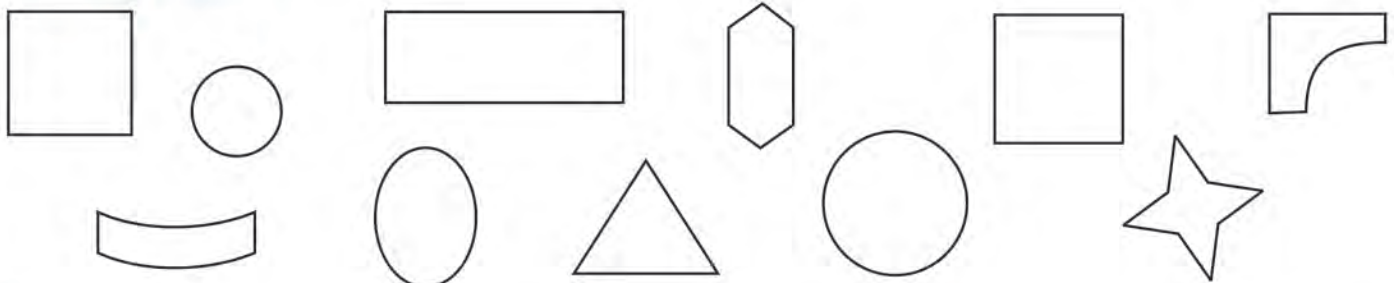


Oval

This is an oval shape. It has no corners. An egg has an oval shape.



B. Colour the circles in green colour, triangles in orange colour, squares in red colour, rectangles in yellow colour and ovals in blue colour. Use your crayons.





Same Size Shapes

C. Join the shapes of the same size. One has been done for you.



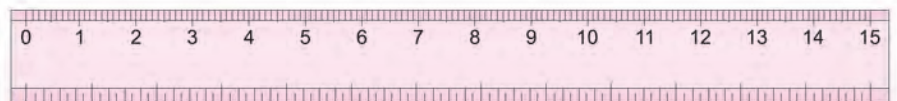
Straight Lines and Curved Lines



Straight Line

A piece of string held tight will give you a **Straight Line**.

Example : Edge of a scale





Curved Line

A piece of string held loose will give you a **Curved Line**.

Example : Take a ball of wool, expand it. It forms a curved line.



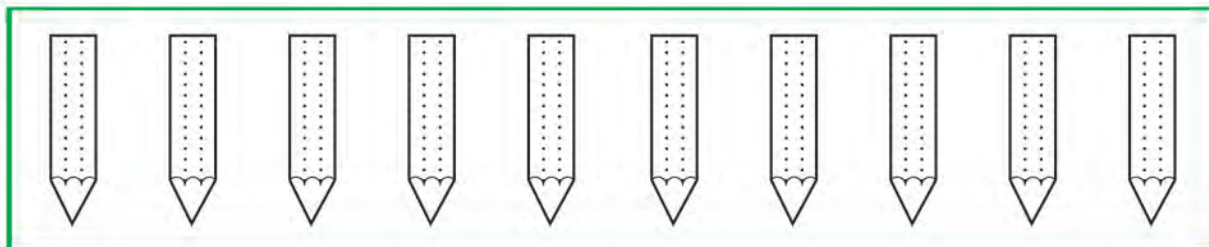
MENTAL MATHS

Write your complete name and find out:

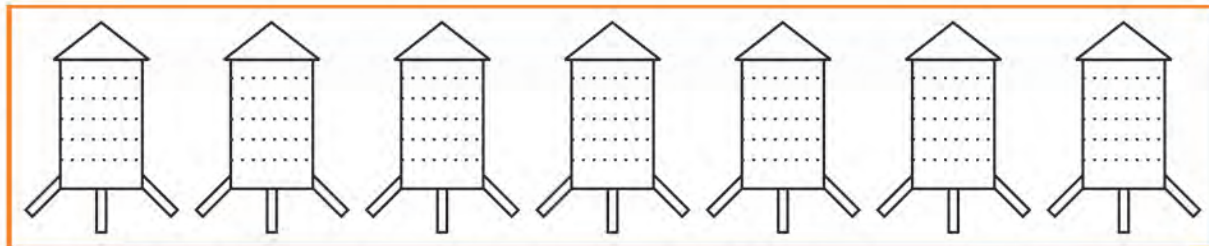
- number of letters with straight lines.
- numbers of letters with curved lines.
- numbers of letters with both type of lines.

D. Trace over the lines.

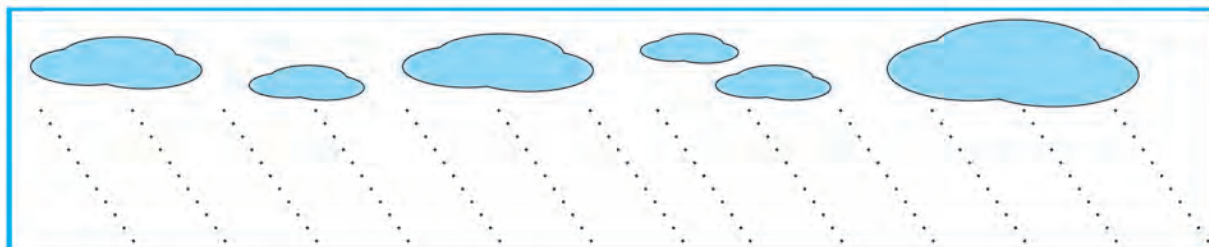
Standing Lines



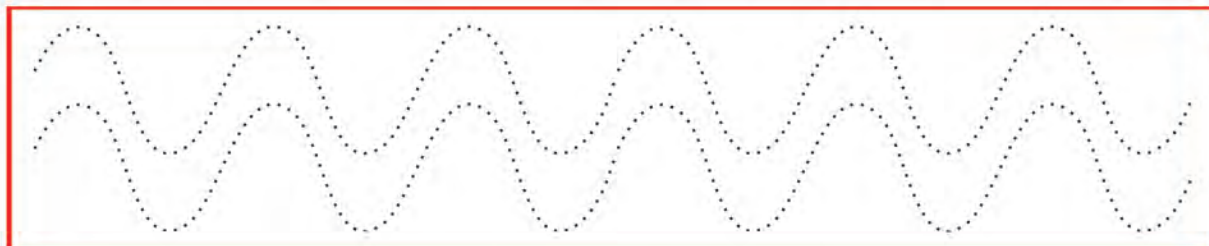
Sleeping Lines



Slanting Lines



Curved Lines





Shapes of Solids



SPHERE



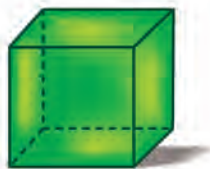
A **sphere** has 1 face only.



CONE



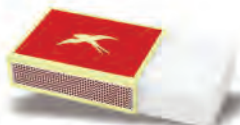
A **cone** has 2 faces.
It has 1 vertex.
It has 1 edge.



CUBE



A **cube** has 8 corners.
It has 6 faces.
Each face is a square.
A cube has 12 edges.



CUBOID

A **cuboid** has 8 corners.
It has 6 faces.
Each face is a rectangle.
A cuboid has 12 edges.





A **cylinder** has no corners.
It has 3 faces.
It has 2 edges.

CYLINDER

E. Write the name of each shape. Colour the shapes.

1.



Circle

2.



3.



4.



5.



6.



7.



8.





F. Write the name of the shape which shows the following property.

1. It has 4 corners.
2. It has 1 vertex.
3. It has 8 corners.
4. It has no corners.
5. It has only 1 face.
6. It has 3 faces.



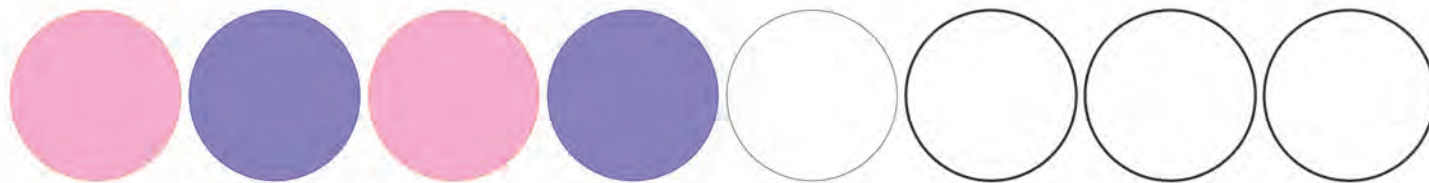
Patterns

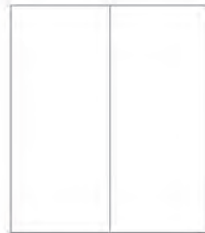
Rahul drew four arrows. Circle the arrow which looks different.



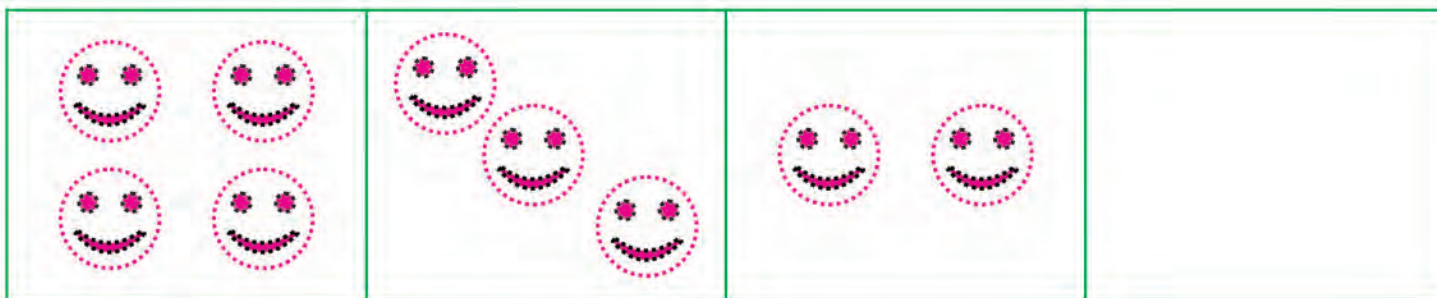
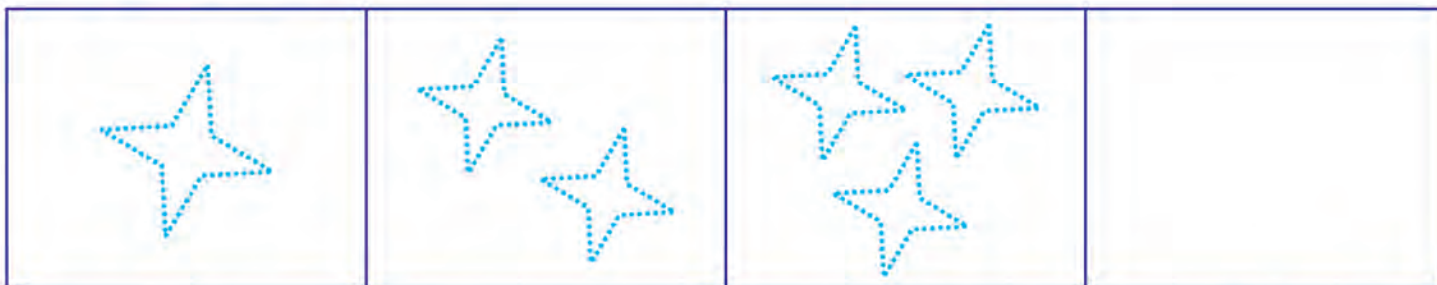
The first three arrows form a **pattern**.

G. Saurabh is making a pattern. Help him to complete it.



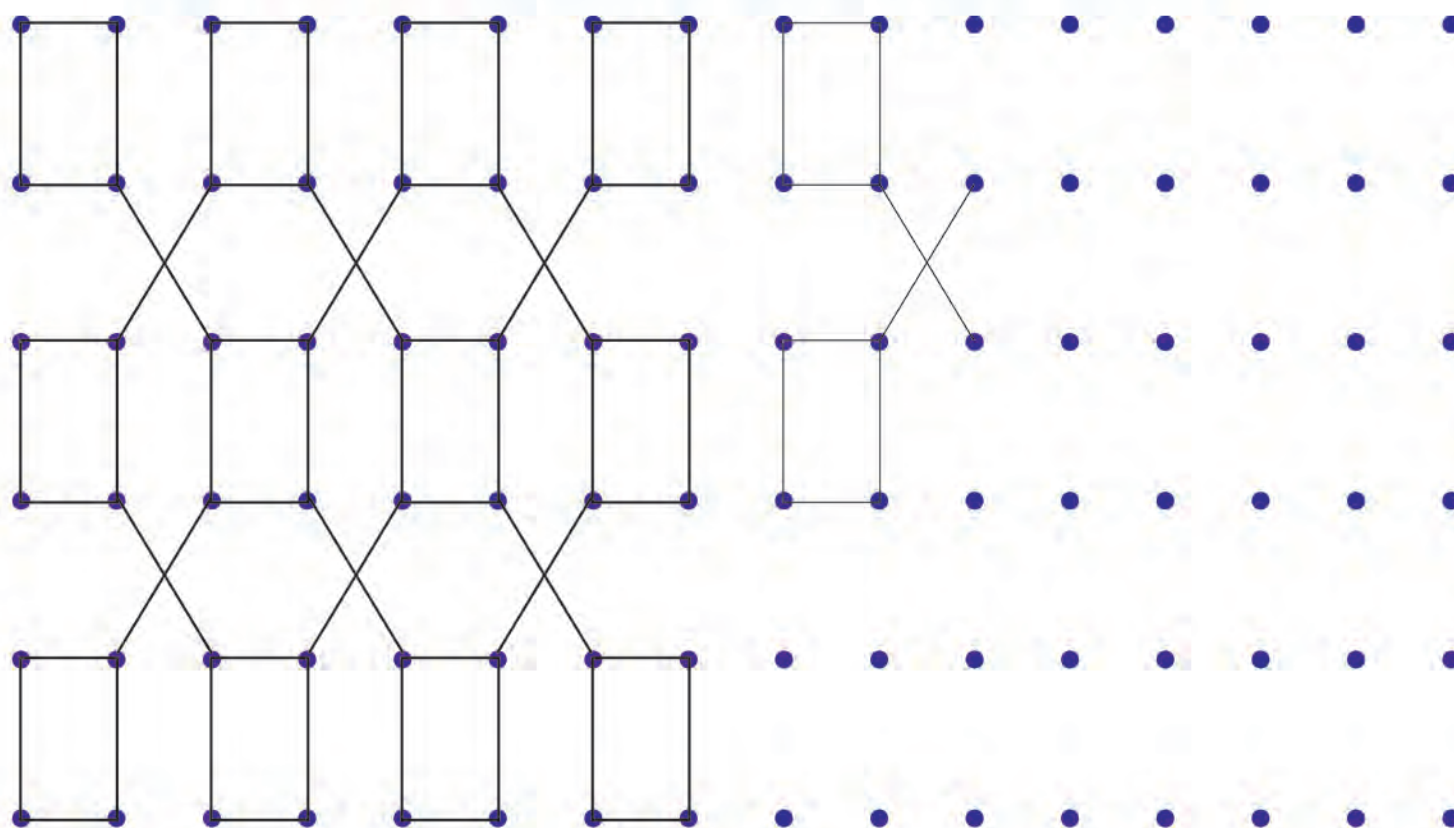


H. Look carefully at the pictures given below. Fill in the empty boxes by drawing the pictures following their pattern.





I. Join the dots and follow the pattern. Then colour your *Rangoli* in different shades of colours.



Points to Remember :

- A triangle has 3 sides and 3 corners.
- A circle does not have a side or a corner.
- A square has 4 equal sides and 4 corners.
- A sphere has 1 face only.
- A cylinder has 3 faces and no corner.
- A cube has 8 corners, 6 faces and 12 edges.





Name three things which have a cuboid shape.

1.
2.
3.

Lab Activity

Objective : To recognize and extend patterns.

Materials Required : Paper, two shallow containers with red and green paint and a few *bhindi* (ladyfinger)

Activity:

- Each student is given a paper, red and green paint, two halves of a ladyfinger.
- The student dips one cut edge of the ladyfinger into the red paint and presses it on the paper to make a design.



- The other cut edge of the ladyfinger is dipped into the green paint and pressed on the sheet next to the red design.
- One more green design is made.

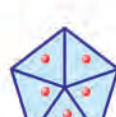


- This is followed by a red design.



- The activity is repeated up to the end of the sheet.

Record the Activity :





Making Tens

Let us make bundle with these pens. 



Pranika has made 1 bundle of ten pens.

1 ten = **10** ten



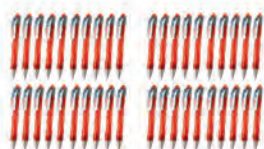
Amit has made 2 bundles of ten pens each.

2 tens = **20** twenty



Mansi has made 3 bundles of ten pens each.

3 tens = **30** thirty



Pratibha has made 4 bundles of ten pens each.

4 tens = **40** forty



Devam has made 5 bundles of ten pens each.

5 tens = **50** fifty



A. Write the number names. Read them aloud as you write them repeatedly.

1.	10	ten		
2.	20		twenty	
3.	30			thirty
4.	40		forty	
5.	50		fifty	



The Twenties

B. Count and write the numbers in the boxes.

20

1. 
2 tens and 0 one = 20

2. 
2 tens and 1 one =

3. 
2 tens and 2 ones =

4. 
2 tens and 3 ones =

5. 
2 tens and 4 ones =

6. 
2 tens and 5 ones =

7.



2 tens and 6 ones =

8.



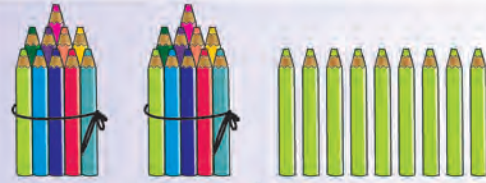
2 tens and 7 ones =

9.



2 tens and 8 ones =

10.



2 tens and 9 ones =

C. Read and write the numbers in tens and ones.

Tens Ones

1.	20	Twenty	2	0
2.	21	Twenty one		
3.	22	Twenty two		
4.	23	Twenty three		
5.	24	Twenty four		

Tens Ones

6.	25	Twenty five		
7.	26	Twenty six		
8.	27	Twenty seven		
9.	28	Twenty eight		
10.	29	Twenty nine		



The Thirties

D. Count and write the numbers in the boxes.

30 31 32 33 34 35 36 37 38 39

1.



3 tens and 0 ones = 30

2.



3 tens and 1 ones =



3.



3 tens and 2 ones =

4.



3 tens and 3 ones =

5.



3 tens and 4 ones =

6.



3 tens and 5 ones =

7.



3 tens and 6 ones =

8.



3 tens and 7 ones =

9.



3 tens and 8 ones =

10.



3 tens and 9 ones =

E. Read and write the numbers in tens and ones.

Tens Ones

1.	30	Thirty	3	0
2.	31	Thirty one		
3.	32	Thirty two		
4.	33	Thirty three		
5.	34	Thirty four		

Tens Ones

6.	35	Thirty five		
7.	36	Thirty six		
8.	37	Thirty seven		
9.	38	Thirty eight		
10.	39	Thirty nine		





The Forties



F. Count and write the numbers in the boxes.

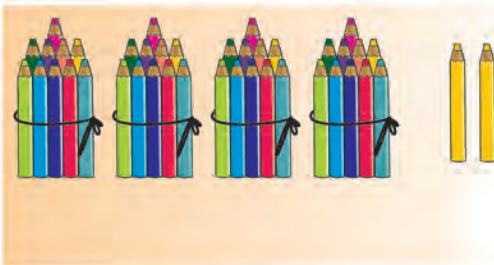
1.



2.



3.



4.



5.



6.



7.



8.



9.



10.



$$49 + 1 = 50$$





G. Read and write the numbers in tens and ones.

			Tens	Ones
1.	43	Forty three	4	0
2.	41	Forty one		
3.	48	Forty eight		
4.	40	Forty		
5.	46	Forty six		

			Tens	Ones
6.	45	Forty five		
7.	44	Forty four		
8.	47	Forty seven		
9.	42	Forty two		
10.	49	Forty nine		



Number Names

H. Match the numbers with their number names.

- | | |
|--------|-----------------|
| 1. 25 | a. Twenty four |
| 2. 49 | b. Forty nine |
| 3. 30 | c. Thirty three |
| 4. 28 | d. Twenty eight |
| 5. 38 | e. Thirty nine |
| 6. 45 | f. Twenty three |
| 7. 39 | g. Thirty |
| 8. 24 | h. Forty five |
| 9. 46 | i. Forty seven |
| 10. 33 | j. Thirty eight |
| 11. 23 | k. Twenty five |
| 12. 47 | l. Forty six |



I. Write the numbers against their number names.

1. Forty two		2. Thirty	
3. Thirty one		4. Thirty three	
5. Twenty two		6. Twenty	
7. Forty eight		8. Twenty eight	
9. Thirty Six		10. Thirty nine	

J. Count and write the answers.



1. 3 bunches of ten flowers each and 2 loose ones.

Tens	Ones	=	<input type="text"/>
<input type="text"/>	<input type="text"/>		



2. 6 collections of ten roses each and 2 loose ones.

Tens	Ones	=	<input type="text"/>
<input type="text"/>	<input type="text"/>		



3. 2 packets of ten crayons each and 6 loose ones.

Tens	Ones	=	<input type="text"/>
<input type="text"/>	<input type="text"/>		



4. 2 baskets of ten apples each and 9 loose ones.

Tens	Ones	=	<input type="text"/>
<input type="text"/>	<input type="text"/>		



5. 4 bundles of ten pens each and 7 loose ones.

Tens	Ones	=	<input type="text"/>
<input type="text"/>	<input type="text"/>		





K. Fill up the blank boxes.

Number after

Number in between

Number before

1. 42

2. 10 12

3. 31

4. 31

5. 34 36

6. 9

7. 29

8. 27 29

9. 18

10. 39

11. 25 27

12. 41

13. 38

14. 35 37

15. 50

16. 25

17. 48 50

18. 24



Comparing Numbers

My sister is 5 years old.

My cousin is 13 years old.

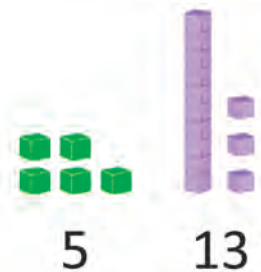
Who is older? Write the answer.

My sister is years old.

My cousin is years old. 13 is bigger than 5.

My is older.

A 2-digit number is always bigger than a 1-digit number.



13 is bigger than 5.

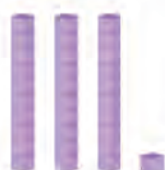




L. Ring the bigger number.

1. 8 10 2. 5 12 3. 17 2 4. 9 30
5. 25 12 6. 5 18 7. 44 7 8. 8 22

If there are two 2-digit numbers, compare the digits in the tens place to know which is bigger.



31

2-digit number



25

2-digit number

3 1 2 5
3 tens is more than 2 tens.

So, 31 is bigger than 25.

M. Look at the blocks and circle the bigger number.



20



13



16



22



11



20



40



39

N. Circle the bigger number.

1. 8 7 2. 17 28 3. 16 32 4. 25 8
5. 9 38 6. 24 13 7. 8 31 8. 49 25



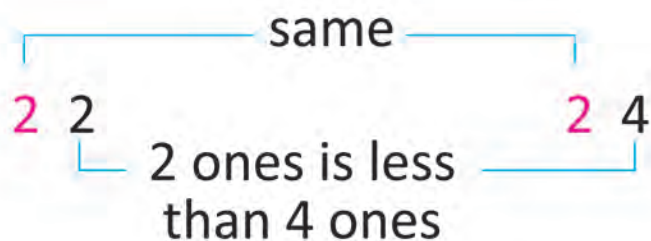
When the digit in the tens place is the same, then compare the ones.



22



24



So, 22 is smaller than 24.

O. Circle the smaller number.

1. 10 15 2. 11 19 3. 25 20 4. 33 39
5. 42 48 6. 49 50 7. 28 22 8. 39 34

P. Ring the biggest number.

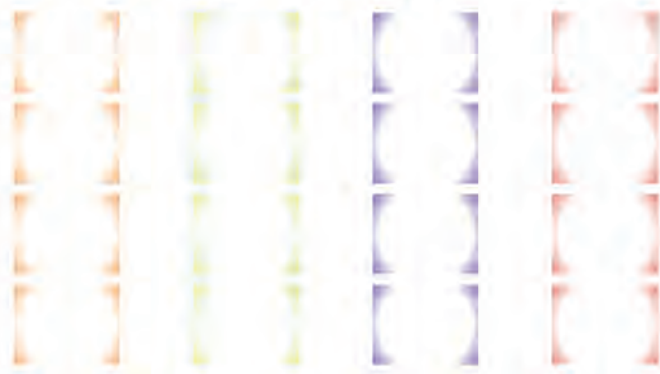
1. 18 17 20 2. 30 25 15 3. 42 28 48
4. 35 32 39 5. 42 50 35 6. 41 47 48

Q. Round the smallest number.

1. 6 12 18 2. 46 36 26 3. 33 37 32
4. 34 31 38 5. 23 33 43 6. 44 25 30

R. Write the numbers in increasing order.

1. 49 48 27 38
2. 28 27 18 42
3. 18 22 27 42
4. 28 32 41 20





S. Write the numbers in decreasing order.

1. 14 23 46 34

2. 45 38 42 24

3. 39 42 24 38

4. 42 28 21 38



Word Problems

1. Raman had 25 story books. His father gave him 14 more books. Now, he has books in all.

T	O
25	
14	
<hr/>	

2. Ashok had 35 toys. He gave 23 toys to his friends. Now, he has toys.

T	O
<hr/>	

3. Ankita has 28 rupees. Her sister has 12 rupees. Together they have rupees.

T	O
<hr/>	

4. Shalini had 48 rupees in her piggy bank. She spent 14 rupees. Now, She has rupees.

T	O
<hr/>	





Points to Remember :

- A 2-digit number is always bigger than a 1-digit number.
- In there are two 2-digit numbers, we compare the digits in the tens place to know which is bigger.
- If the digit in the tens place is the same, then compare the ones.



HOTS

I am a number of two digits. The digit at tens place is same as that of number of your hands. The digit at ones place is same as that of number of fingers in your left hand. Guess who am I?

Lab Activity

- Purpose** : To reinforce the concept of place values of numbers 1-50.
- Want of Materials** : Big plastic beads in two colours, i.e. blue and yellow, wooden bases with thick vertical rods to form an abacus (as shown in the figure) and at least one abacus for each group

Manners :

- This activity should be done in groups of 5 students.
- Make groups of 5 students.
- Each group will be given an abacus.
- The teacher will write a number on the blackboard between 1 and 50, e.g., 38
- One student from a group will put 3 blue beads in the tens rod and another student from the same group will put 8 yellow beads in the ones rod. The group will say '3 tens and 8 ones'.
- The teacher will write another number on the blackboard for the activity to continue, e.g., 45.
- This time the other two students from the group will place the beads. The whole group says the number, e.g., 4 tens and 5 ones.



8

Numbers Up To 100



Numbers up to 100



= 6 tens 0 ones

= 60

Sixty



= 7 tens 0 ones

= 70

Seventy



= 8 tens 0 ones

= 80

Eighty



= 9 tens 0 ones

= 90

Ninety



= 10 tens 0 ones

= 100

Hundred

A. Write the number names of the following.

Tens		Ones		Tens		Ones		Tens		Ones		Tens		Ones	
6	0	7	0	8	0	9	0	10	0						





The Fifties



50 51 52 53 54 55 56 57 58 59

B. Count and write number in the boxes.



1. 5 tens and 0 ones = 50



2. 5 tens and 1 ones =



3. 5 tens and 2 ones =



4. 5 tens and 3 ones =



5. 5 tens and 4 ones =



6. 5 tens and 5 ones =



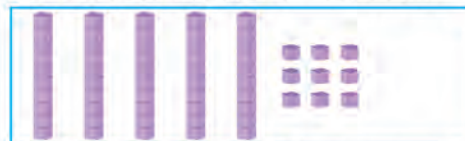
7. 5 tens and 6 ones =



8. 5 tens and 7 ones =



9. 5 tens and 8 ones =



10. 5 tens and 9 ones =

C. Read and write the numbers in tens and ones.

			Tens	Ones
1.	50	Fifty	5	0
2.	51	Fifty one		
3.	52	Fifty two		
4.	53	Fifty three		
5.	54	Fifty four		

			Tens	Ones
6.	55	Fifty five		
7.	56	Fifty six		
8.	57	Fifty seven		
9.	58	Fifty eight		
10.	59	Fifty nine		

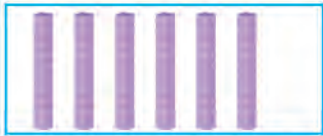




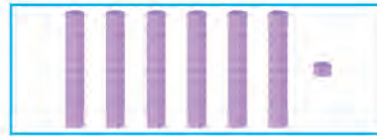
The Sixties

60 61 62 63 64 65 66 67 68 69

D. Count and write number in the boxes.



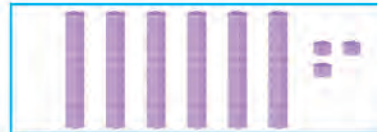
1. 6 tens and 0 ones = 60



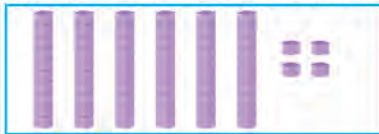
2. 6 tens and 1 ones =



3. 6 tens and 2 ones =



4. 6 tens and 3 ones =



5. 6 tens and 4 ones =



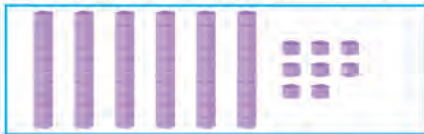
6. 6 tens and 5 ones =



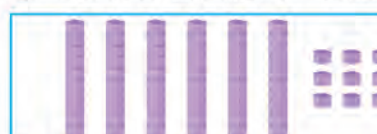
7. 6 tens and 6 ones =



8. 6 tens and 7 ones =



9. 6 tens and 8 ones =



10. 6 tens and 9 ones =

E. Read and write the numbers in tens and ones.

	Tens	Ones
1. 60	Sixty	6 0
2. 61	Sixty one	
3. 62	Sixty two	
4. 63	Sixty three	
5. 64	Sixty four	

	Tens	Ones
6. 65	Sixty five	
7. 66	Sixty six	
8. 67	Sixty seven	
9. 68	Sixty eight	
10. 69	Sixty nine	



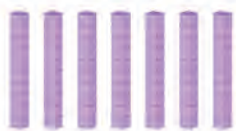


The Seventies

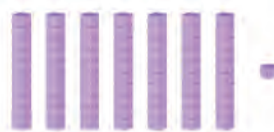


70 71 72 73 74 75 76 77 78 79

F. Count and write number in the boxes.



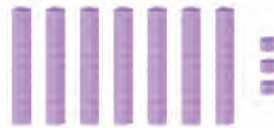
1. 7 tens and 0 one = 70



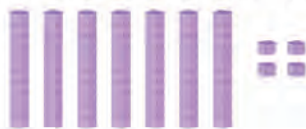
2. 7 tens and 1 one =



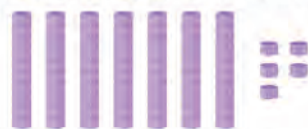
3. 7 tens and 2 ones =



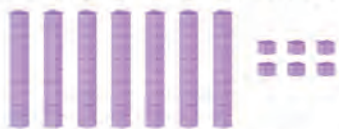
4. 7 tens and 3 ones =



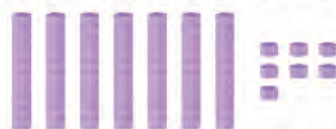
5. 7 tens and 4 ones =



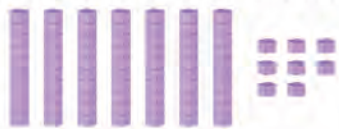
6. 7 tens and 5 ones =



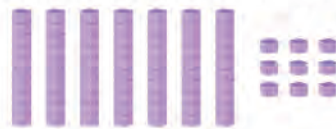
7. 7 tens and 6 ones =



8. 7 tens and 7 ones =



9. 7 tens and 8 ones =



10. 7 tens and 9 ones =

G. Read and write the numbers in tens and ones.

			Tens	Ones
1.	70	Seventy	7	0
2.	71	Seventy one		
3.	72	Seventy two		
4.	73	Seventy three		
5.	74	Seventy four		

			Tens	Ones
6.	75	Seventy five		
7.	76	Seventy six		
8.	77	Seventy seven		
9.	78	Seventy eight		
10.	79	Seventy nine		

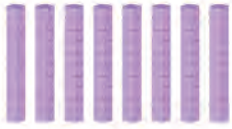




The Eighties

80 81 82 83 84 85 86 87 88 89

H. Count and write number in the boxes.



1. 8 tens and 0 ones = 80



2. 8 tens and 1 ones =



3. 8 tens and 2 ones =



4. 8 tens and 3 ones =



5. 8 tens and 4 ones =



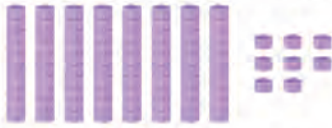
6. 8 tens and 5 ones =



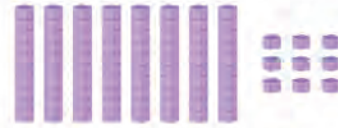
7. 8 tens and 6 ones =



8. 8 tens and 7 ones =



9. 8 tens and 8 ones =



10. 8 tens and 9 ones =

I. Read and write the numbers in tens and ones.

			Tens	Ones
1.	80	Eighty	8	0
2.	81	Eighty one		
3.	82	Eighty two		
4.	83	Eighty three		
5.	84	Eighty four		

			Tens	Ones
6.	85	Eighty five		
7.	86	Eighty six		
8.	87	Eighty seven		
9.	88	Eighty eight		
10.	89	Eighty nine		















The Nineties



90 91 92 93 94 95 96 97 98 99

J. Count and write number in the boxes.

- | | |
|---|---|
| 
1. 9 tens and 0 ones = 90 | 
2. 9 tens and 1 ones = |
| 
3. 9 tens and 2 ones = | 
4. 9 tens and 3 ones = |
| 
5. 9 tens and 4 ones = | 
6. 9 tens and 5 ones = |
| 
7. 9 tens and 6 ones = | 
8. 9 tens and 7 ones = |
| 
9. 9 tens and 8 ones = | 
10. 9 tens and 9 ones = |

99 + 1 = 100 100 is the smallest 3-digit number.

K. Read and write the numbers in tens and ones.

			Tens	Ones		Tens	Ones		
1.	90	Ninety	9	0	6.	95	Ninety five		
2.	91	Ninety one			7.	96	Ninety six		
3.	92	Ninety two			8.	97	Ninety seven		
4.	93	Ninety three			9.	98	Ninety eight		
5.	94	Ninety four			10.	99	Ninety nine		





L. Write the missing numbers up to 100.

1					6				
	12								20
					26				
			34						40
						47			
51								59	
							78		
		83							
				95					100

M. Write the biggest and the smallest numbers.

					Smallest	Biggest
1.	29	75	97	71	<input type="text"/>	<input type="text"/>
2.	89	99	98	74	<input type="text"/>	<input type="text"/>
3.	38	18	35	47	<input type="text"/>	<input type="text"/>
4.	98	75	68	47	<input type="text"/>	<input type="text"/>
5.	55	75	68	89	<input type="text"/>	<input type="text"/>
6.	56	66	83	75	<input type="text"/>	<input type="text"/>





N. Arrange the numbers in ascending order.

1. 64 76 88 71

--	--	--	--

2. 49 89 48 98

--	--	--	--

3. 22 89 79 28

--	--	--	--

4. 91 42 22 89

--	--	--	--

5. 98 82 77 95

--	--	--	--

6. 74 68 85 27

--	--	--	--

O. Arrange the numbers in a descending order.

1. 68 72 45 78

--	--	--	--

2. 72 81 68 89

--	--	--	--

3. 49 78 87 83

--	--	--	--

4. 97 86 48 68

--	--	--	--

5. 53 32 55 48

--	--	--	--

6. 37 44 62 78

--	--	--	--

P. Count and write the answers.

1. 4 collections of ten CDs each and 3 more CDs.



Tens	Ones	=	

2. 7 packets of ten erasers each and 6 more erasers.



Tens	Ones	=	



3. 5 sets of ten balloons each and 6 more balloons.

Tens	Ones	
		=



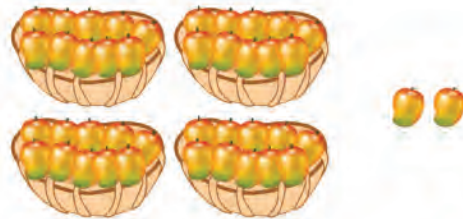
4. 8 bundles of ten crayons each and 9 more crayons.

Tens	Ones	
		=



5. 4 buckets of ten mangoes each and 2 more mangoes.

Tens	Ones	
		=



Q. Write the numbers against their number names.

1. Ninety three	<input type="text"/>	2. Ninety one	<input type="text"/>
3. Sixty four	<input type="text"/>	4. Eighty one	<input type="text"/>
5. Sixty five	<input type="text"/>	6. Seventy	<input type="text"/>
7. Fifty six	<input type="text"/>	8. Fifty two	<input type="text"/>
9. Seventy seven	<input type="text"/>	10. Seventy five	<input type="text"/>
11. Eighty eight	<input type="text"/>	12. Ninety	<input type="text"/>



The Number After

The number **after** means the same as one more or plus 1.

The number after 68 is 69 .

One more than 68 is 69 .

68 + 1 is 69 .





R. The number after	One more than	+1
1. 24 is 25	2. 24 is	3. 24 is
4. 98 is	5. 98 is	6. 98 is
7. 7 is	8. 7 is	9. 7 is
10. 89 is	11. 89 is	12. 89 is
13. 49 is	14. 49 is	15. 49 is



The Number Before

The number **before** means the same as one less or minus 1.

The number before 80 is 79 .

One less than 80 is 79 .

$80 - 1$ is 79 .

S. The number before	One less than	-1
1. 82 is 81	2. 82 is	3. 82 is
4. 20 is	5. 20 is	6. 20 is
7. 98 is	8. 98 is	9. 98 is
10. 81 is	11. 81 is	12. 81 is
13. 87 is	14. 87 is	15. 87 is



Facts to know

- The number **after** means one more or + 1.
- The number **before** means one less or -1.





Word Problems

1. Shantam had 53 rupees in his piggy bank. His mother gave him 34 rupees more. How much money does he have in his piggy bank?

	T	O
+	5	3
	3	4

2. Aryan and Vaibhav were playing with marbles. They counted 42 marbles. They lost 31 marbles. How many marbles are left with them now?

	T	O
-		

3. The Indian team needs 88 runs to win the match. Dhoni made 64 runs. How many more runs are needed to win the match?

	T	O
-		

4. Mrinal had 54 fruits. He gave 34 fruits to his friend. How many Fruits were left with him?

	T	O
-		

5. 28 students went to play. 16 more students joined them. How many students in all, were there to play?

	T	O
+		

6. Vanshika and Tanuj had 66 cups. They were given 22 more. How many cups do they have now?

	T	O
+		



Points to Remember :

- The smallest 3-digit number is '100'.
- The number after means one more or + 1.
- The number before means one less or - 1.



HOLES

Write down the smallest 3-digit and 2-digit numbers. Find the difference of them. - =



Lab Activity

Objective : Subtraction with regrouping.

Materials Required : A box of toothpicks or matchsticks and rubber bands

Activity : For this activity, the teacher will form pairs.

- Each student is given a handful of pens and a few rubber bands.
- The pen are grouped into bundles of 10 with rubber bands—a few pens may be left over.
- Each student records the number of tens and ones (left over pens) in his notebook e.g., 2 bundles of tens and left overs in ones.
- Each pair forms a subtraction problem e.g., Rajat has 2 tens 4 ones and Prabhat has 1 tens 6 ones.
- With the help of regrouping they find out how many more pens does Rajat have.

$$\begin{array}{r}
 2 \text{ tens } 4 \text{ ones} \\
 - 1 \text{ tens } 6 \text{ ones} \\
 \hline
 1 \text{ tens } 14 \text{ ones} \\
 - 1 \text{ tens } 6 \text{ ones} \\
 \hline
 0 \text{ tens } 8 \text{ ones}
 \end{array}$$

So, Rajat has 8 ones more than Prabhat.

- More pen can be given—fresh bundles of tens can be made to form another subtraction sum.



9

Addition and Subtraction Up to 100



Addition

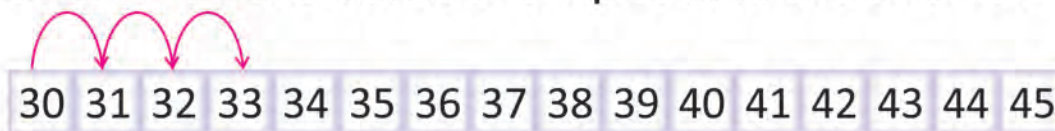
Add a 2 - digit and 1 - digit number.

When we put things together, we do addition.

Sunidhi had 30 bangles. Her mother gave her 3 more.

Now, Sunidhi had $30 + 3$ bangles.

Count forward on the number strip to find the answer.



Start at 30. Move forward 3 boxes. You reach at 33.

The answer is **33**.



Step 1: Add the ones.

$$0 \text{ ones} + 3 \text{ ones} = 3 \text{ ones}$$

T	O
3	0
+	3
	3

Write 3 in the ones column.

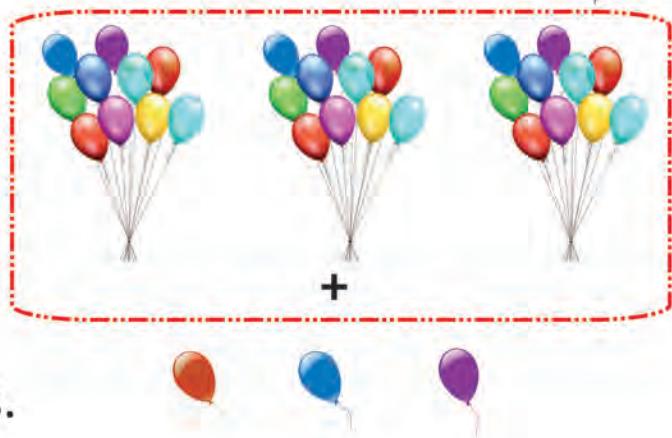


Step 2: Add the tens.

$$3 \text{ tens} + 0 \text{ ten} = 3 \text{ tens}$$



$$\begin{array}{r}
 \text{T} \quad \text{O} \\
 3 \quad | \quad 0 \\
 + 0 \quad | \quad 3 \\
 \hline
 3 \quad | \quad 3
 \end{array}$$



Write 3 in the tens column.

Now, Sunidhi has 33 balloons.

Example I: Add 20 and 6.

Solution :

Step 1 : Arrange the numbers in the columns correctly.

Step 2 : Add the ones.

0 ones + 6 ones = 6 ones

Write 6 ones in the ones column.

Step 3 : Add the tens.

2 tens + 0 ten = 2 tens

Write 2 in the tens column.

Therefore, $20 + 6 = 26$.

$$\begin{array}{r}
 \text{T} \quad \text{O} \\
 2 \quad | \quad 0 \\
 + \quad | \quad 6 \\
 \hline
 2 \quad | \quad 6
 \end{array}$$

A. Add the following.

$$\begin{array}{r}
 1. \quad 8 \quad | \quad 2 \\
 + \quad | \quad 4 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 2. \quad 8 \quad | \quad 2 \\
 + \quad | \quad 2 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 3. \quad 8 \quad | \quad 4 \\
 + \quad | \quad 3 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 4. \quad 4 \quad | \quad 3 \\
 + \quad | \quad 6 \\
 \hline
 \end{array}$$

Add two 2 - digit numbers.

Example II : Luv has 87 apples and Kush has 22 apples.

There are $87 + 22$ apples in all.





Solution :

Step 1 : Arrange the numbers in the columns correctly.

Step 2 : Add the ones.

$$3 \text{ tens} + 0 \text{ one} = 3 \text{ tens}$$

T	O
3	0
+	0
3	0

Write 3 in the tens column.

Step 3 : Add the tens.

$$4 \text{ tens} + 2 \text{ ones} = 42$$

T	O
4	0
+	2
4	2

Write 10 in the tens column.

Therefore 42 apples in all.

Example III : Add 50 and 28.

Solution :

Step 1 : Arrange the numbers in the columns correctly.

Step 2 : Add the ones.

$$0 \text{ ones} + 8 \text{ ones} = 8 \text{ ones}$$

Write 8 in the ones column.



50 + 28
= ?





Step 3: Add the tens.

$$5 \text{ tens} + 2 \text{ tens} = 7 \text{ tens}$$

Write 7 in the tens column. +

$$\text{Therefore, } 50 + 28 = 78.$$

T	O
5	0
2	8
7	8

B. Add the following.

$$\begin{array}{r} 1. \quad 2 \quad 4 \\ + 2 \quad 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 4 \quad 3 \\ + 2 \quad 4 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 3 \quad 2 \\ + 4 \quad 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 6 \quad 2 \\ + 2 \quad 1 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 1 \quad 2 \\ + 5 \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 8 \quad 6 \\ + 1 \quad 3 \\ \hline \end{array}$$

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

$$\begin{array}{r} 8. \quad 5 \quad 6 \\ + 2 \quad 4 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 3 \quad 2 \\ + 2 \quad 4 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 2 \quad 7 \\ + 5 \quad 2 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad 6 \quad 2 \\ + 3 \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad 3 \quad 8 \\ + 6 \quad 0 \\ \hline \end{array}$$

C. Read and solve the following.

1. There are 35 parrots and 14 pigeons in the park.

How many birds in all?

$$35 + 14 = 49 \text{ birds in all.}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 3 \quad 5 \\ + 1 \quad 4 \\ \hline 4 \quad 9 \end{array}$$

2. Manjusha has 34 story books. Her brother buys 54 more at the book fair.

How many story books do

Manjusha have now?

$$34 + 54 = \dots\dots\dots \text{ story books.}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 3 \quad 4 \\ + 5 \quad 4 \\ \hline \end{array}$$





3. 45 boys are walking. 82 girls are playing.
How many children are there in all?

..... + = children in all.

4. The book seller has 56 books in one hand and 33 books in the other.
How many books does he have altogether?

..... + = books.

5. There are 36 students in a class. 52 more join in the class. How many students are there in the class?

..... + = students.



Subtraction

When we subtract a smaller number from a bigger number, the answer we get is called the **difference**. It means taking away.

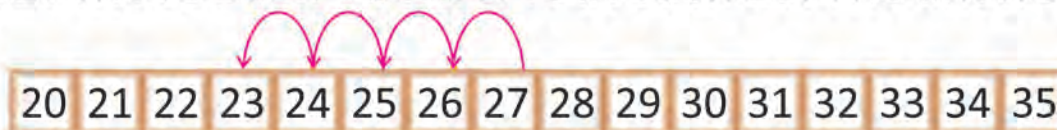
Take away a 1-digit number from a 2-digit number.

Sheena had a bunch of 27 grapes. She ate 4 grapes.

How many grapes are left in the bunch now?

Move back on the number strip to find the answer.

Start at 27 Move back 4 boxes. You reach 23. The answer is 23.





Step 1 : Subtract the ones.

$$7 \text{ ones} - 4 \text{ ones} = 3 \text{ ones}$$

	T	O
	2	7
-		4
		3



Write 3 in the ones column.

Step 2 : Subtract the tens.

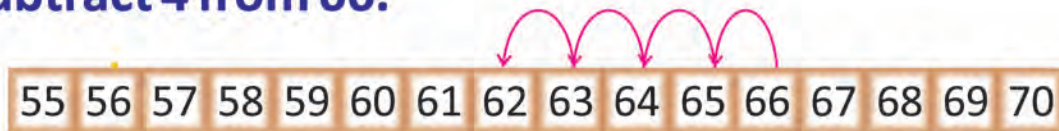
$$2 \text{ tens} - 0 \text{ ten} = 2 \text{ tens}$$

	T	O
	2	7
-		4
		3
	2	3



Write 2 in the tens column.

Subtract 4 from 66.



Start at 66. Move back 4 boxes.

You reach 62.

The answer is 62.

	T	O
	6	6
-		4
		2
	6	2



D. Subtract and write the following.

$$\begin{array}{r} 28 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 57 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 69 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ - 4 \\ \hline \end{array}$$

Take away a 2-digit number from a 2-digit number.

Example IV: Subtract 23 from 46.

Solution :

Step 1 : Subtract the ones.

$$6 \text{ ones} - 3 \text{ ones} = 3 \text{ ones}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 4 \quad 6 \\ - 2 \quad 3 \\ \hline \quad 3 \end{array}$$

Write 3 in the ones column.

Step 2 : Subtract the tens.

$$4 \text{ tens} - 2 \text{ tens} = 2 \text{ tens}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 4 \quad 6 \\ - 2 \quad 3 \\ \hline 2 \quad 3 \end{array}$$

Write 2 in the tens column.

Example V: Solve $84 - 82$.

Solution :

Step 1 : Arrange the numbers in the columns correctly.

