

# MATHS MAGIC

## Class - III

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## Foreword

The Government of Andhra Pradesh has unleashed a new era in school education by introducing extensive curricular reforms from the academic year 2020-21. The Government has taken up curricular reforms intending to enhance the learning outcomes of the children with focus on building solid foundational learning and to build up an environment conducive for an effective teaching-learning process. To achieve this objective, special care has been taken in designing the textbooks to achieve global standards.

As a part of the curricular reform, in order to support the designing of textbooks, with better pedagogical strategies, handbooks are given to teachers with elaborate lesson plans. For the practice of the students, workbooks are given which will reinforce the learning in the classroom. Parental handbooks are prepared to impart awareness regarding the teaching-learning process to the parent community. The textbooks are also designed in such a way that the initial two months will focus on the school readiness of the children in order to create a learning environment in the school at the start of the academic year.

In this textbook, concepts are introduced through activities related to daily life incidents, situations, contexts and conversations. To strengthen these concepts, whole class activity, group activity and individual activities are designed. The lessons incorporated are also suitable for multigrade teaching. For additional information on the concepts, QR codes are incorporated in each chapter to enable learning outside the classroom. Care has been taken to ensure that the new textbook is calibrated with the learning requirement of the 21<sup>st</sup> century.

We are grateful to Honourable Chief Minister Sri. Y.S. Jagan Mohan Reddy for being our source of inspiration to carry out this extensive reform in the education department. We extend our gratitude to Dr. Adimulapu Suresh, Honourable Minister of Education for striving towards qualitative education. Our special thanks to Sri. Budithi Rajsekhar, IAS, Principal secretary, School Education, Sri. Vadrevu Chinaveerabhadrudu, IAS, Commissioner, School Education, Ms. Vetriselvi.K, IAS, Special Officer for their constant motivation and guidance.

We convey our thanks to the expert team who studied curriculum from Chicago to Singapore and recommended best practices across the globe to reach global standards. Our sincere thanks to SCERT of Kerala, Tamilnadu, Karnataka and Haryana in designing the textbooks. We also thank our textbook writers, editors, artists and layout designers for their contribution in the development of this textbook. We invite constructive feedback from the teachers and parents in the further refinement of the textbook.

**Dr. B. Pratap Reddy**  
*Director*  
*SCERT – Andhra Pradesh*

## Instructions to Teachers

- ☞ The new text books designed for class 1 to 5 are in accordance with the recommendations of NCF – 2005, RTE – 2009, APSCF – 2011 and NEP – 2019 Draft.
- ☞ Use the face sheet placed at the beginning of every lesson as the basis for interacting with the children to encourage, speak and motivate them to listen. Prepare and organize some more activities similar to the activities given in the text book for every concept.
- ☞ The lessons are designed based on the classwise expected learning outcomes and the concepts like number system, measurement, geometry, data handling etc are arranged in a spiral approach.
- ☞ The text book contains three important components under headings like – Do these, Try these and Exercise. The questions under the component ‘Do these’, will be direct and simple and ‘Try these’ are difficult. Similarly the ‘Exercise’ component contains mixed questionnaire of 2 or 3 concepts.
- ☞ The teacher should read and understand every concept in the text book before going for teaching. Also they should conduct the individual, group and whole class activities in the class room. Teacher should use the hand book designed for this purpose.
- ☞ Teacher should prepare and use teaching learning material related to the activities of the text book by using available resources, to make the children understand the concepts.
- ☞ Teacher should provide required practice activities to teach children different concepts keeping in mind the academic standards of the subject.
- ☞ Work book is also provided along with the textbook. The 90 minutes duration of a period should be divided for the practice of the children as follows,
  - ◆ 45 minutes for practising the concepts of text book.
  - ◆ 45 minutes for practising the sums of work book.
- ☞ New text book is designed with exercises and activities. So, in such a way that the pupil will be able to understand the concept of Number system, Fractions, Geometry, Multiples and factors, Measurements and Time. The first chapter, Let’s Recall and practice the previous classes concepts. Hence special care should be taken, while teaching this chapter. In this process locally available objects like pebbles, seeds, sticks, beads etc must be used.

## Our National Anthem

- Rabindranath Tagore

*Jana-gana-mana-adhinayaka jaya he*

*Bharata-bhagya-vidhata*

*Panjaba-Sindhu-Gujarata-Maratha*

*Dravida-Utkala-Banga*

*Vindhya-Himachala-Yamuna-Ganga*

*uchchala-jaladhi-taranga*

*Tava Subha name jage, tave subha asisa mage,*

*gahe tava jaya-gatha.*

*Jana-gana-mangala-dayaka jaya he*

*Bharata-bhagya-vidhata.*

*Jaya he, Jaya he, Jaya he,*

*jaya jaya jaya jaya he.*

## Pledge

- Pydimarri Venkata Subba Rao

India is my country. All Indians are my brothers and sisters.

I love my country and I am proud of its rich and varied heritage.

I shall always strive to be worthy of it.

I shall give my parents, teachers and all elders respect,  
and treat everyone with courtesy. I shall be kind to animals.

To my country and my people, I pledge my devotion.

In their well-being and prosperity alone lies my happiness.

# Maths Magic

## Class - III

S.No.	Topic	Month	Page No.
1.	Let's Recall	June, July	1 - 11
2.	Numbers	August	12 - 29
3.	Addition	September	30 - 41
4.	Subtraction	September, October	42 - 56
5.	Multiplication	November	57 - 74
6.	Let's Share	December	75 - 88
7.	Data Handling	December	89 - 95
8.	Share Equally	January	96 - 102
9.	Shapes around us	February	103 - 116
10.	Measurements	February	117 - 134
	Revision	March	
	Revision	April	



Teacher Corner



Student Corner

# Academic Standards-Learning Outcomes

*Academic standards are clear statements about what students must know and be able to do.  
The following are the specifications on the basis of which we lay down academic standards*

## **Problem Solving**

- Using concepts and procedures to solve mathematical problems

## **Stages of problem solving**

- Reads problems
- Identifies all pieces of information
- Separates relevant pieces of information
- Understanding what concept is involved
- Selection of procedure
- Solving the problem

## **Reasoning and Proof**

- Reasoning between various steps
- Understanding and making mathematical generalizations and conjectures
- Understanding and justifying procedures
- Examining logical arguments
- Understanding the notion of proof
- Using inductive and deductive logic
- Testing mathematical conjectures

## **Communication**

- Writing and reading mathematical expressions
- Creating mathematical expressions
- Explaining mathematical ideas in his/her own words
- Explaining mathematical procedure
- Explaining mathematical logic

## **Connections**

- Connecting concepts within a mathematical domain
- Making connections with daily life
- Connecting mathematics to different subjects
- Connecting concepts of different mathematical domains
- Connecting concepts to multiple procedures

## **Visualization and representation**

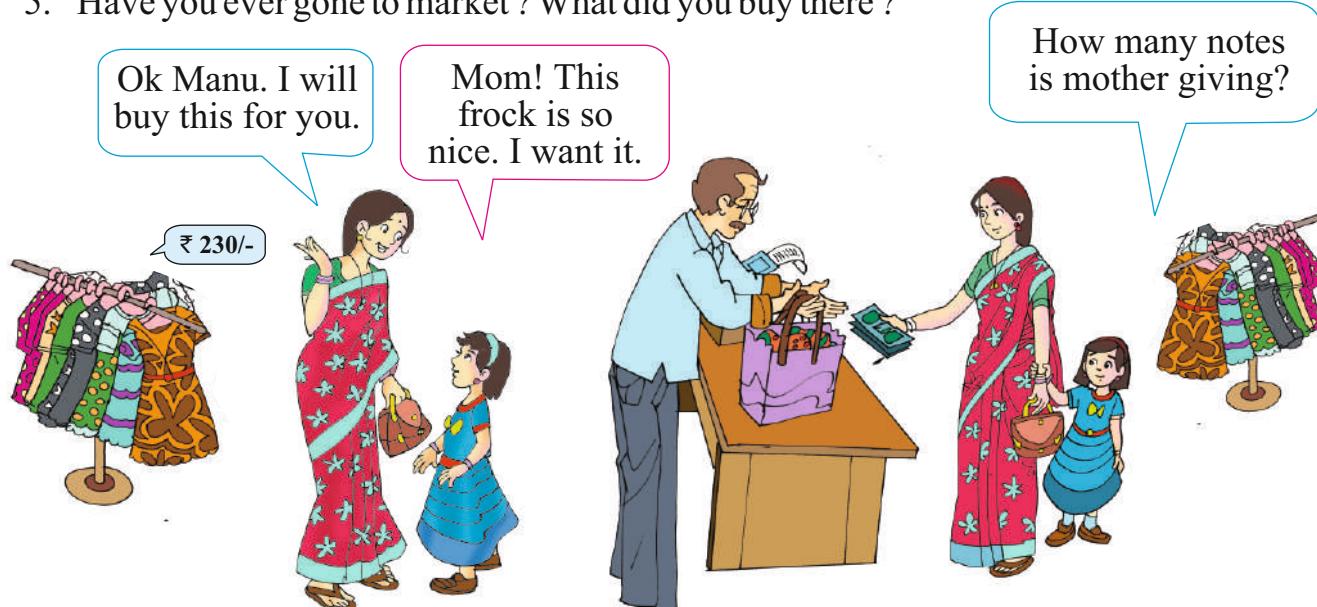
- Interprets and reads data in tables, number line, pictograph, bar graph, 2D figures, 3D figures, pictures
- Making tables, number line, pictograph, bar graph, pictures

# Let's Recall



Suma and her daughter Manu went for shopping on a Sunday to buy some dresses and vegetables. At first they entered a garment shop and looked at the prices of various dresses.

1. How many frocks are there ?
2. How many pants are there?
3. What are the other items you can see in the shop ?
4. What is the price of the frock ?
5. Have you ever gone to market ? What did you buy there ?

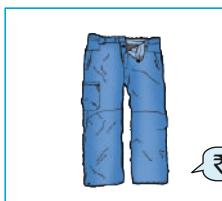


Suma paid the amount for frock as shown below.



$$\text{₹ } 100 + \text{₹ } 100 + \text{₹ } 10 + \text{₹ } 10 + \text{₹ } 10 = \text{₹ } 230$$

She has ₹ 100, ₹ 10 notes only available in her purse. What notes should be given to purchase the following items?



₹ 510 = \_\_\_\_\_

Trousers



₹ 450 = \_\_\_\_\_

Shirt



### Do these:

#### 1) Write the following numbers in words.

- a) 4      b) 9      c) 14      d) 19      e) 28      f) 46      g) 76  
h) 147      i) 263      j) 471      k) 683      l) 750      m) 806      n) 975

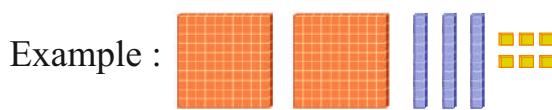
#### 2) Write the number of the followings.

- a) Eight = \_\_\_\_\_      b) Fifteen = \_\_\_\_\_      c) Nineteen = \_\_\_\_\_  
d) Seventy = \_\_\_\_\_      e) Eighty six = \_\_\_\_\_  
f) Three hundred and sixty five = \_\_\_\_\_      g) Five hundred and seventy nine = \_\_\_\_\_

#### 3. Complete the following table.

Number	Expanded form
34	
67	
453	4 hundreds + 5 tens + 3 ones = $400 + 50 + 3$
516	
530	
947	

**Observe the following base 10 blocks and write the numbers.**



$$200 + 30 + 6 = 236$$

1. Five orange hundreds blocks, two blue tens blocks, and four yellow ones blocks.  $\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$
2. Four orange hundreds blocks, one blue tens block, and one yellow ones block.  $\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$
3. Three orange hundreds blocks, four blue tens blocks, and five yellow ones blocks.  $\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$

#### Place and face value:

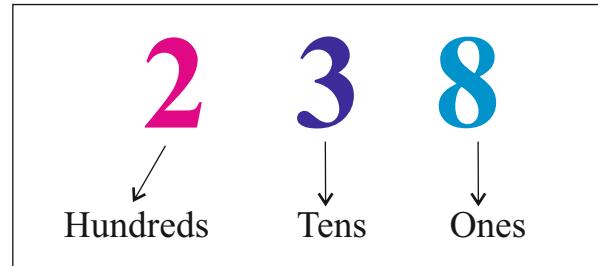
Every digit in a number has two values. One is place and the other is face value.

#### Place value:

The value of a digit determined by its place is called place value. Place value of a digit changes according to the place of a digit in the number.

#### Face value:

Face value of a digit is the digit itself.



Hundreds	Tens	Ones
2	3	8

Place value of 2 is 200 and  
Face value of 2 is 2

Place value of 3 is 30 and  
Face value of 3 is 3

Place value of 8 is 8 and  
Face value of 8 is 8

## Exercise - 1

1. a) Identify and colour the boxes with the number that have the same digit in ones and tens place.
- b) Colour the boxes with the number that have "3" in tens places

11	26	47	55
58	22	66	72
81	77	33	92
88	94	98	44

36	41	34	48
52	30	57	75
86	31	83	39
33	83	37	93



2. Write the face value and place values of underlined digits in the following numbers.

88 : Face value \_\_\_\_\_ Place Value \_\_\_\_\_

61 : Face value \_\_\_\_\_ Place Value \_\_\_\_\_

560 : Face value \_\_\_\_\_ Place Value \_\_\_\_\_

725 : Face value \_\_\_\_\_ Place Value \_\_\_\_\_

3. Observe the prices:



Frock



Suit



Long Frock



Shirt



Trousers

- a) What is the price of a long frock?

- b) Which one is of the lowest price?

- c) Which one is of the highest price?

- d) Which one is cheaper between shirt and trousers? \_\_\_\_\_

- e) Arrange the above items from lowest to highest price. \_\_\_\_\_



4. Compare the numbers with suitable symbols ( $<$ ,  $>$ ,  $=$ )

a) 8  10

d) 128  256

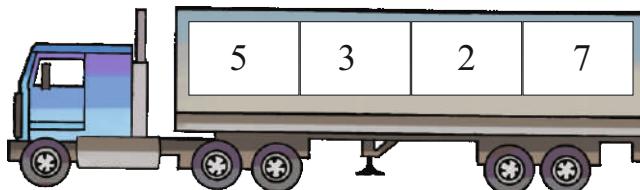
b) 10  12

e) 869  639

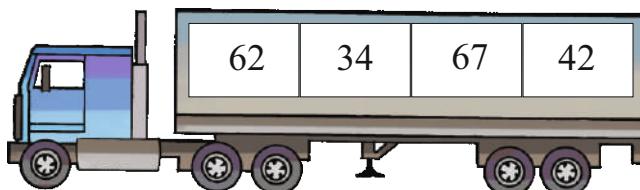
c) 78  67

f) 900  900

5. Write the numbers in the ascending order.

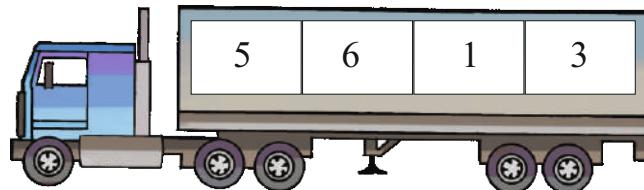


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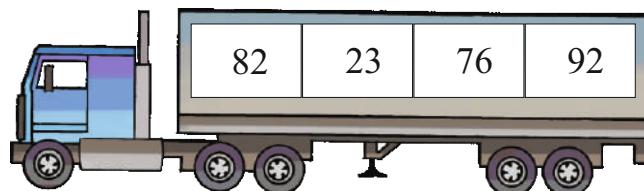


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6. Write the numbers in the descending order.



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7. Write the given numbers in ascending and descending order.

a) 384, 648, 438, 583, 689

Ascending order: \_\_\_\_\_

Descending order: \_\_\_\_\_

b) 684, 568, 796, 769, 830

Ascending order: \_\_\_\_\_

Descending order: \_\_\_\_\_

8. Write the 3 digit number which has 7 in hundreds place, 5 in tens place and 6 is one place?

### Rythu bazaar:

On the way returning home, Suma noticed that she had to purchase some vegetables from Rythu bazaar. They observed the price list.



**Price List**

Item	Quantity	Price
Lemons	1 dozen	₹ 26
Tomatoes	1 kg	₹ 18
Ridge gourd	1 kg	₹ 54
Green chilly	1 kg	₹ 20
Ladiesfinger	1 kg	₹ 33
Snake gourd	Each piece	₹ 18
Bottle gourd	Each piece	₹ 33
Pumpkin	Each piece	₹ 65
Brinjal	1 kg	₹ 30

They purchased ridge gourd and ladiesfinger each 1 Kg. How much money do they have to pay to the shop keeper?

$$\begin{array}{rcl}
 \text{Price of one kg. Ridge gourd} & = & 54 \\
 \text{Price of one kg. Ladiesfinger} & = & (+) 33 \\
 \text{The total price of two vegetables} & = & \hline 87 \\
 \text{Money to be paid} & = & ₹ 87
 \end{array}$$





## Do these:

### 1) Do the followings.

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

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

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

d) 
$$\begin{array}{r} 25 \\ + 52 \\ \hline \end{array}$$

e) 
$$\begin{array}{r} 63 \\ + 75 \\ \hline \end{array}$$

f) 
$$\begin{array}{r} 65 \\ + 48 \\ \hline \end{array}$$

g) 
$$\begin{array}{r} 46 \\ + 59 \\ \hline \end{array}$$

h) 
$$\begin{array}{r} 63 \\ + 76 \\ \hline \end{array}$$

i) 
$$\begin{array}{r} 72 \\ + 48 \\ \hline \end{array}$$

j) 
$$\begin{array}{r} 85 \\ + 47 \\ \hline \end{array}$$

k) 
$$\begin{array}{r} 92 \\ + 56 \\ \hline \end{array}$$

l) 
$$\begin{array}{r} 98 \\ + 64 \\ \hline \end{array}$$

### 2) If they buy the vegetables in the following ways, how much money do they have to pay? Solve the following questions.

- Find the total price of 1kg. chillies and 1kg ridge gourds.
- Find the total price of one piece of pumpkin and a dozen lemons.
- Find the total price of 1 kg. of tomatoes and a snake gourd.

### 3) Fill in the boxes with numbers to make the sum equal to 100.

$60 + \boxed{\quad} = 100$

$10 + \boxed{\quad} = 100$

$70 + \boxed{\quad} = 100$

$40 + \boxed{\quad} = 100$

$50 + \boxed{\quad} = 100$

$80 + \boxed{\quad} = 100$

$30 + \boxed{\quad} = 100$

$90 + \boxed{\quad} = 100$

$20 + \boxed{\quad} = 100$

### How much get back?



Suma purchased 1 kg. of green chillies and gave ₹100 note to the shop keeper. How much amount does she get back?

Amount paid by them = ₹ 100

Price of 1kg. of green chillies = (-) ₹ 20

Money to be returned by the shop keeper = ₹ 80



### Do these:

- Suma took 1 kg Brinjal and gave ₹ 40, how much money will she get back ?
- What is the difference between the cost of 1kg ladiesfingers and 1 kg of brinjals ?



If, Suma buy a snake gourd and gives 50 rupee note. How much money will she get back?

$$\begin{array}{rcl} \text{The amount of money she gave} & = & 50 \\ \text{Price of a piece of snake gourd} & = & (-) \quad 18 \\ \text{The amount she gets back} & = & \underline{\quad\quad\quad} \quad 32 \\ & & \text{She gets back } \text{₹} 32 \end{array}$$

T	O
4	10
5	0
- 1	8
3	2



### Do these:

- Subtract the following.



-	7	9	6	8
58	51			
62				
71				
84				76

- Can Suma buy a pumpkin with ₹ 50, or not? If not, how much money she needs in addition?
- If, Suma wants to buy a dozen lemons with ₹ 30, how much money will she get back ?
- What is the difference between the price of 1 kg. of brinjals and one snake gourd ?

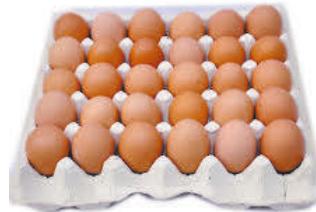


Later, they went to a grocery shop to buy some eggs. There, they bought a tray of eggs. Each tray has 6 rows and 5 eggs in each row. Find the total number of eggs in the tray

Number of rows in the tray = 6

Number of eggs in each row = 5

Total number of eggs in the tray =  $6 \times 5 = 30$  eggs.



Total number of eggs in the tray =  $6 \times 5$  (no. of rows  $\times$  no. of eggs in each row) = 30 eggs.

**Example:** In the shop, there is a cupboard of 4 rows and 5 columns of shelves. How many shelves are there ?



Number of shelves =  $4 \times 5$  = \_\_\_\_\_

There are 4 rows in the cupboard. In each row there are 5 shelves. In each shelf there are 10 salt packets. How many salt packets are there in total ?

Number of salt packets =  $5 \times 10$  = \_\_\_\_\_



### Do these:

Do the following.

a)  $2 \times 1$  = \_\_\_\_\_;  $3 \times 4$  = \_\_\_\_\_;  $5 \times 3$  = \_\_\_\_\_;  $4 \times 6$  = \_\_\_\_\_

$4 \times 8$  = \_\_\_\_\_;  $4 \times 0$  = \_\_\_\_\_;  $10 \times 3$  = \_\_\_\_\_;  $10 \times 5$  = \_\_\_\_\_

$10 \times 9$  = \_\_\_\_\_;  $5 \times 9$  = \_\_\_\_\_;  $5 \times 5$  = \_\_\_\_\_;  $2 \times 8$  = \_\_\_\_\_

b) Manu gave 5 biscuits each of her 4 friends. How many biscuits are there in total ?

c) In a game, Avinash won 5 marbles from each of his 6 friends. How many marbles did Avinash won ?

d) Manu's age is 8 years. If we multiply Manu's age with 5, we get her mother's age. What is the age of her mother ?



### Manu 's Birthday :

On the occation of munu's birthday, she distributed 9 chocolates to her 3 friends equally. Can you say, how many chocolates did each one get?

Total number of chocolates = 9

Number of children shared = 3

Number of chocolates each child gets =  $9 \div 3$

3) 9 (3

- 9

—  
0





### Do these:



- Do the following.
 

a) $4 \div 2 =$ _____	e) $24 \div 4 =$ _____
b) $6 \div 3 =$ _____	f) $35 \div 5 =$ _____
c) $15 \div 5 =$ _____	g) $49 \div 7 =$ _____
d) $18 \div 3 =$ _____	h) $72 \div 8 =$ _____
- The cost of an eraser is ₹4. How many erasers can you get for ₹20?
- There are 16 students in a classroom. If 4 students sit on each bench, how many benches are needed for the students?
- In a garden, Sunitha planted 20 saplings. If she planted 5 saplings in each row, how many rows did she plant in?
- If the cost of a hair band is ₹5, how many hair bands can you get for ₹15?
- There are 3 chairs in each row. If there are 18 chairs in total, in how many rows were they arranged?



### Fun Activity

Colour the following numbers as per instructions given below.

Green
One hundred and forty
Two hundred and two
Two hundred and sixty one.
Eight hundred
Six hundred and sixty

Red
Fifty four
Sixty
One hundred and ninety five
Five hundred and fifty five
Ninety nine

Blue
Four hundred and forty
Sixteen
One hundred and fifty nine
Six hundred and eighty five
Three hundred and seven



660	99	307
440	800	54
60	16	202
261	555	685
159	140	195

## Exercise - 2

1. Write the numbers of the following.

a) Forty six =

b) Seventy four =

c) Eight hundred and twenty nine =  d) Seven hundred and six =

2. Write the numbers in words.

a) 37 =  b) 98 =

b) 469 =  d) 657 =

3. Do the following Additions

a) 18

b) 35

c) 57

d) 45

e) 87

+ 21

+ 42

+ 28

+ 37

+ 56






4. Do the following subtractions.

a) 78

b) 45

c) 92

d) 85

e) 63

- 24

- 19

- 48

- 27

- 36






5. Do the following multiplications.

a)  $2 \times 5 =$

d)  $4 \times 6 =$

b)  $3 \times 6 =$

e)  $12 \times 2 =$

c)  $5 \times 3 =$

f)  $18 \times 5 =$



6. Do the following

a)  $6 \div 3 =$

d)  $12 \div 2 =$

b)  $9 \div 3 =$

e)  $18 \div 3 =$

c)  $10 \div 2 =$

f)  $15 \div 5 =$





## Observe the following picture:

Bindu went to a household exhibition cum sales center with her mother. They wanted to buy the following items. Observe the items and their price tags.

Bindu started to read the cost of these items, please help her.



1. What are the items do you observe in this sales center?

2. What is the price of hot box ?

3. What is the price of thermos flask?

4. What is the price of vegetable basket?

5. What is the price of gas stove ?

- \* How is a 4 - digit number form?
- \* By what name, do we call the fourth place in a 4 - digit number?



**Do these:**



**Write the numbers in words.**

<b>Sl.</b>	<b>Item</b>	<b>Price</b>	<b>In words</b>
1.	hot box	₹ 795	
2.	vegetable basket	₹ 42	
3.	tiffin box	₹ 328	
4.	gas stove	₹ 2350	

## Let us know about 4 - digit numbers:

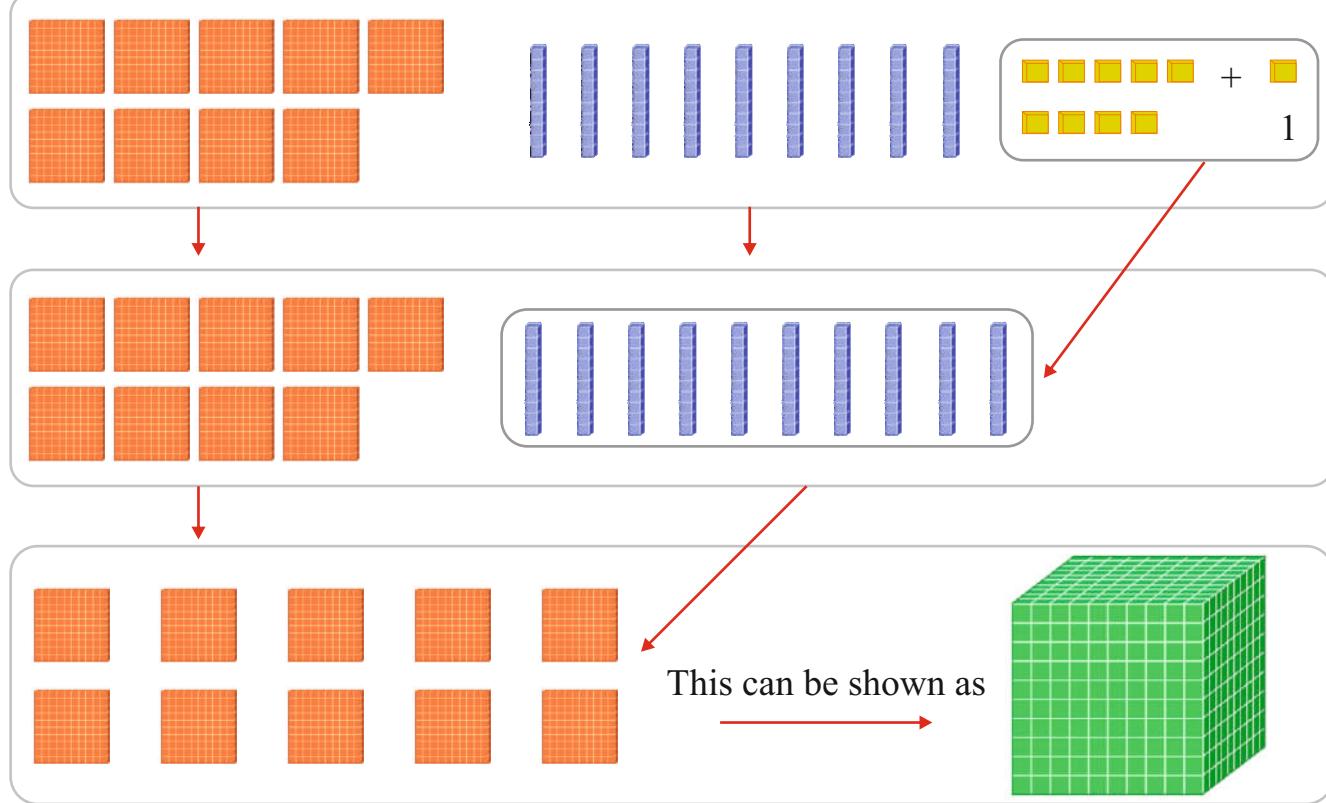
Let us recall how we got 10 from 9 and 100 from 99. We got 10 by adding 1 to 9 and 100 by adding 1 to 99. What shall we get by adding 1 to 999?

How many hundreds are there?

$$9 + 1 = 10 : \text{two digit number}$$

$$99 + 1 = 100 : \text{three digit number}$$

$$999 + 1 = 1000 : \text{four digit number}$$



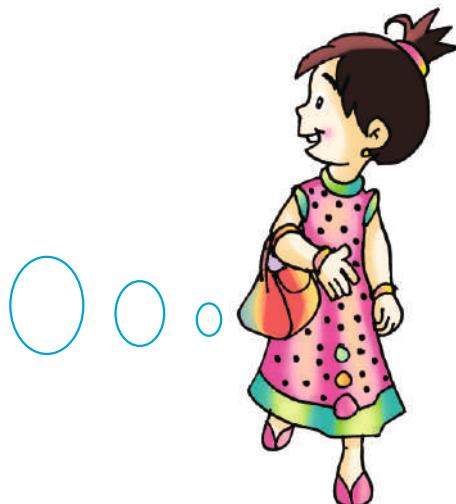
9 hundreds + 1 hundred = ten hundreds = one thousand

10 hundreds make 1 thousand.

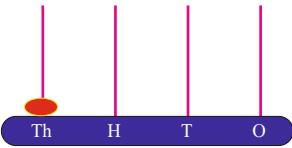
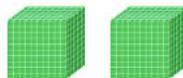
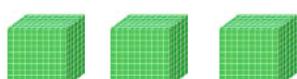
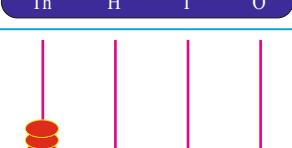
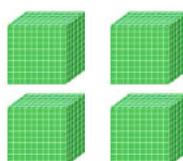
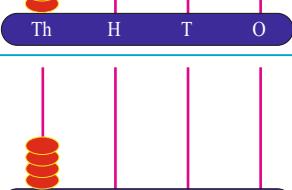
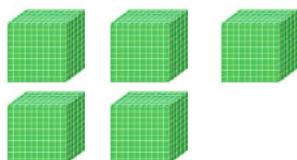
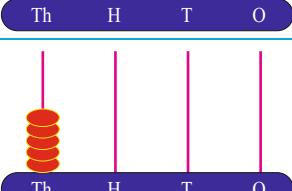
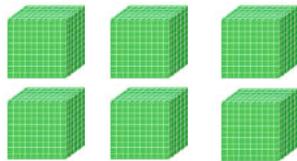
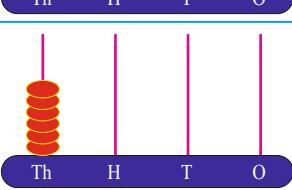
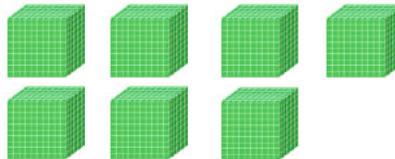
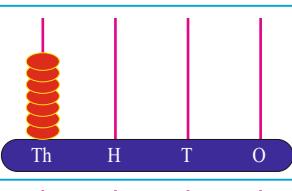
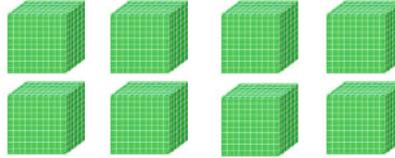
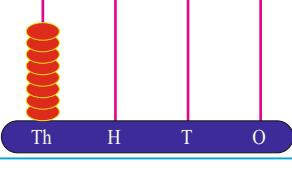
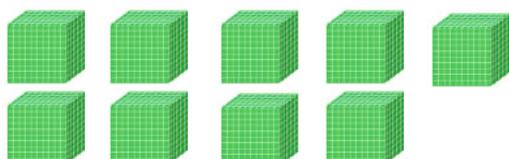
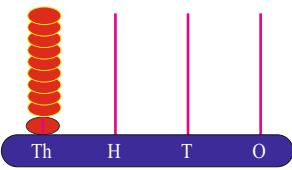
We write one thousand as 1000.

Thus, we get 1000 adding 1 to 999.

Oh! Now I know  
how to form 1000



**Observe the following:**

Number represented in blocks	Number and number name	Number represented on spike abacus
	1,000 One Thousand	
	2,000 Two Thousand	
	3,000 Three Thousand	
	4,000 Four Thousand	
	5,000 Five Thousand	
	6,000 Six Thousand	
	7,000 Seven Thousand	
	8,000 Eight Thousand	
	9,000 Nine Thousand	

## **The numbers after 1000:**

Which is the next number to 1000?

$$1000 + 1 = 1001$$

Which is the next number to 1001?

$$1001 + 1 = 1002$$

**Like wise, let us prepare a chart of numbers that come after 1000 and read.**

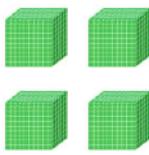
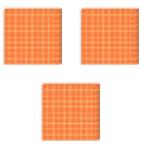
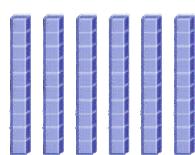
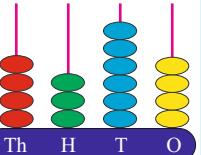
1001	1002	1003							1010
		1013							
		1023							
1031							1038		
						1047			
			1055						
1061				1066				1070	
		1074						1079	
	1082								1090
1091									1100

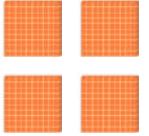
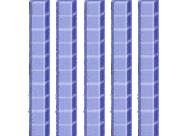
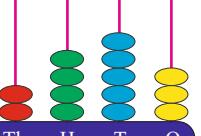
**We read and write numbers beyond 999 as follows.**

<b>How we write</b>	-	<b>How we read</b>
1000	-	One thousand
1001	-	One thousand and one
1004	-	One thousand and four
1009	-	
1010	-	
1100	-	
1199	-	One thousand one hundred and ninety nine
1500	-	One thousand and five hundred
_____	-	Two thousand nine hundred and ninety nine
_____	-	Four thousand and five hundred
7740	-	Seven thousand seven hundred and forty
9009	-	Nine thousand and nine
9999	-	

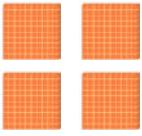
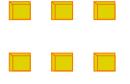
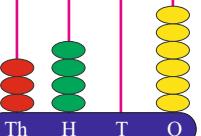


## Representation of four digit numbers:

				4364	
4 thousands	3 hundreds	6 tens	4 ones		4364

				2453	
2 thousands	4 hundreds	5 tens	3 ones		2453

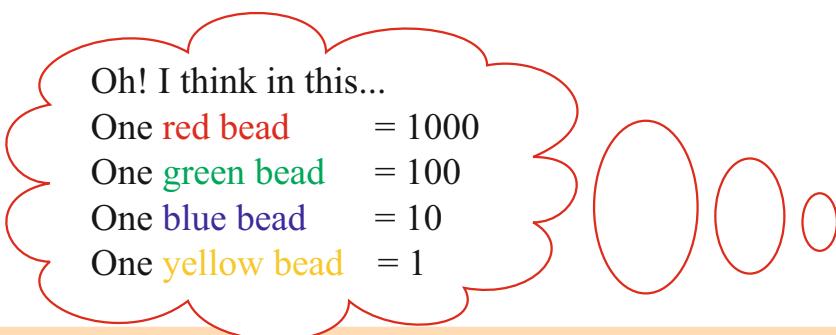
2453, we read it as two thousand four hundred and fifty three.

				3406	
3 thousands	4 hundreds	0 tens	6 ones		3406

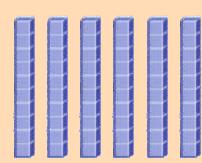
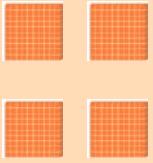
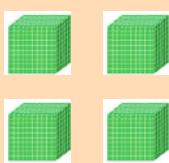
3406, we read it as three thousand four hundred and six.



Do these:



1. Write the correct digit in  and write the number in



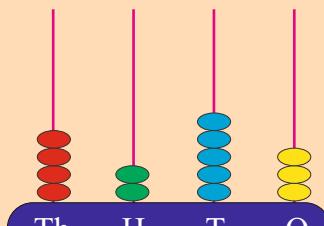
Thousands

Hundreds

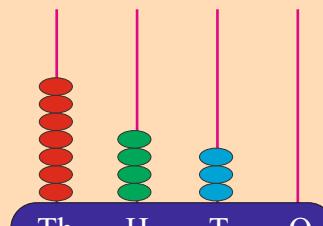
Tens

Ones

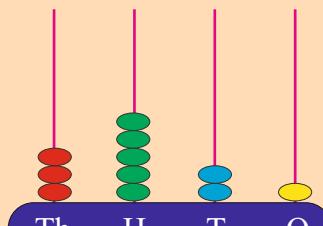
2. Write the number and number name by observing beads on the abacus. One is done for you.



4253



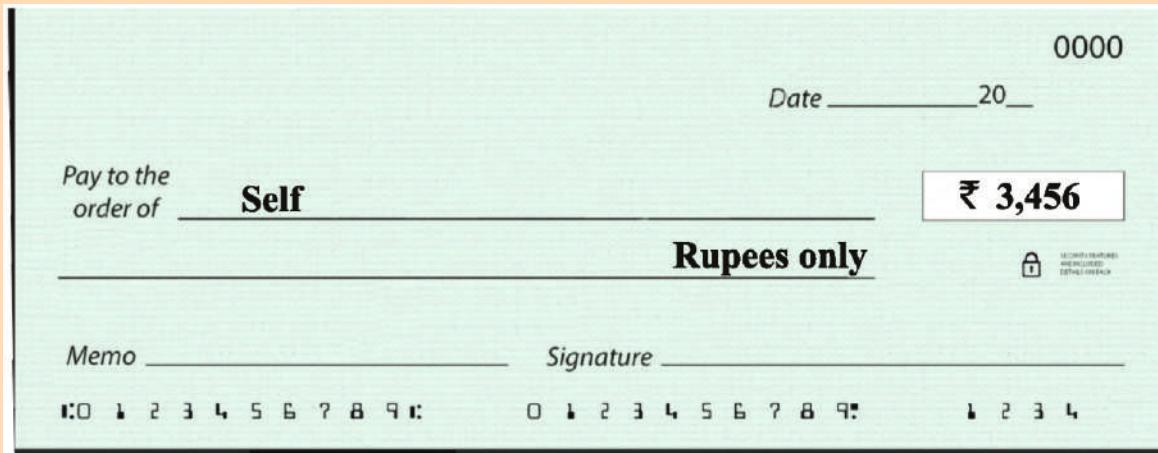
\_\_\_\_\_



\_\_\_\_\_

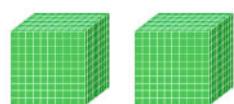
- a) Four thousand two hundred and fifty three  
 b) \_\_\_\_\_  
 c) \_\_\_\_\_

3. Mr. Pradeep has to write a cheque for ₹ 3,456. Help him to write the amount in words.



### Place value and face value of 4 - digit numbers:

Observe the following blocks:



2 Thousands



3 Hundreds



2 Tens



6 Ones

Th	H	T	O
2	3	2	6

Two thousand three hundred and twenty six

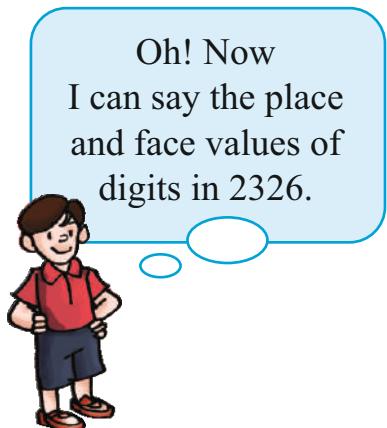
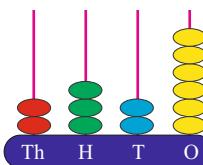
What did you notice in the picture above?

Which digit is in the ones place? 6, it's place value is 6.

Which digit is in the tens place? \_\_\_\_\_, it's place value is \_\_\_\_\_.

Which digit is in the hundreds place? \_\_\_\_\_, it's place value is \_\_\_\_\_.

Which digit is in the thousands place? \_\_\_\_\_, it's place value is \_\_\_\_\_.



	Place value	Face value
Th	(2 thousands)	= 2000
2	= 300	3
H	(3 hundreds)	
3	= 20	2
T	(2 tens)	
2	= 6	6
O	(6 ones)	

**Example :** Find the place value of each of the digits in the number 8025.

	Place value	Face value
Th	(8 thousands)	= 8000
8	= 0	0
H	(0 hundreds)	
0	= 20	2
T	(2 tens)	
2	= 5	5
O	(5 ones)	

**Note:** The place value of '0' is always 0 , wherever it is placed in a number.



**Do these:**

1. Find the place value and face value of each of the digits in the following numbers.

a) **6742**

b) **5309**

Digit	Place value	Face value
6		
7		
4		
2		

Digit	Place value	Face value
5		
3		
0		
9		

2. Encircle the place value of the digits underlined in the given numbers? One is done for you.

a) 4 <u>5</u> 43	50	5	500	5000
b) <u>3</u> 356	3000	300	30	3
c) 79 <u>4</u> 3	4000	40	400	4
d) 8 <u>0</u> 25	0	20	500	800
e) 953 <u>2</u>	20	200	2000	2

3. For each of the number given below, match the place value and face value of the circled digits by drawing line as shown below.

Number	Face value	Place value
8 5 <u>3</u> 6	8	2000
3 <u>2</u> 6 7	3	8
<u>2</u> 6 7 3	2	30
6 9 7 <u>8</u>	2	200



### Expanded and shortened form of 4 - digit number:

9432 =	thousands	hundreds	tens	ones
	9	4	3	2

$$\begin{aligned} 9432 &= 9 \text{ Thousands} + 4 \text{ Hundreds} + 3 \text{ Tens} + 2 \text{ Ones} \\ &= 9000 + 400 + 30 + 2. \end{aligned}$$

5407 =	thousands	hundreds	tens	ones
	5	4	0	7

$$\begin{aligned} 5407 &= 5 \text{ Thousands} + 4 \text{ Hundreds} + 0 \text{ Tens} + 7 \text{ Ones} \\ &= 5000 + 400 + 0 + 7. \end{aligned}$$



### Do these:

1. Write the expansion form of the following numbers.

- a) 4354 = \_\_\_\_\_
- b) 4199 = \_\_\_\_\_
- c) 7575 = \_\_\_\_\_
- d) 6402 = \_\_\_\_\_

2. Match the following expansion form with their short form.

- |    |                       |      |
|----|-----------------------|------|
| a) | $3000 + 400 + 60 + 5$ | 4904 |
| b) | $5000 + 0 + 40 + 9$   | 2547 |
| c) | $4000 + 900 + 0 + 4$  | 3465 |
| d) | $2000 + 500 + 40 + 7$ | 6660 |
| e) | $6000 + 600 + 60 + 0$ | 5049 |



**Think and discuss:-** How many four digit numbers are there in all?

### Exercise - 1

1. Observe the series and fill the boxes with correct numbers:

- |    |                      |      |      |                      |                      |                      |                      |
|----|----------------------|------|------|----------------------|----------------------|----------------------|----------------------|
| a) | 2001                 | 2002 | 2003 | <input type="text"/> | <input type="text"/> | 2006                 | <input type="text"/> |
| b) | <input type="text"/> | 4100 | 4200 | <input type="text"/> | <input type="text"/> | <input type="text"/> | 4600                 |

2. Read the numbers given in words below and write in numbers (Numerals) in the boxes.

- |    |   |                        |
|----|---|------------------------|
| a) | Three thousand five hundred and twenty five | = <input type="text"/> |
| b) | Seven thousand seven hundred and eight      | = <input type="text"/> |
| c) | Eight thousand and five                     | = <input type="text"/> |

3. Write the place value of encircled digits.

- |    |   |       |    |   |       |
|----|---|-------|----|---|-------|
| a) | 5 <input checked="" type="circle"/> 3 7   | _____ | b) | 3 8 <input checked="" type="circle"/> 1   | _____ |
| c) | 7 <input checked="" type="circle"/> 5 5 6 | _____ | d) | 8 2 5 <input checked="" type="circle"/> 4 | _____ |

4. Write the following numbers in words.

- |    |        |       |
|----|--------|-------|
| a) | 5876 - | _____ |
| b) | 7305 - | _____ |
| c) | 4975 - | _____ |
| d) | 2089 - | _____ |

5. Write each of the following in expanded form :

- |    |        |                      |   |                      |   |                      |   |                      |
|----|--------|----------------------|---|----------------------|---|----------------------|---|----------------------|
| a) | 3870 = | <input type="text"/> | + | <input type="text"/> | + | <input type="text"/> | + | <input type="text"/> |
| b) | 7077 = | <input type="text"/> | + | <input type="text"/> | + | <input type="text"/> | + | <input type="text"/> |
| c) | 9330 = | <input type="text"/> | + | <input type="text"/> | + | <input type="text"/> | + | <input type="text"/> |

6. Fill in the blanks with the missing place value.

a.  $5000 + \underline{\hspace{2cm}} + 90 + 3 = 5693$

b.  $\underline{\hspace{2cm}} + 600 + 0 + 5 = 3605$

c.  $6000 + \underline{\hspace{2cm}} + 70 + 7 = 6177$

d.  $9000 + 900 + \underline{\hspace{2cm}} + 9 = 9999$



7. Write the following in shortened form in numerals?

a. Five thousands + Two Hundreds + Forty + Three = \_\_\_\_\_

b. Seven thousands + One Hundred + Sixty + Eight = \_\_\_\_\_

c. One thousand + One Hundred + One = \_\_\_\_\_

d. Two Thousand + Thirty + Five = \_\_\_\_\_

8. Write the four digit number having 5 in thousands place, 8 in hundreds place, 3 in tens place and 2 in ones place.

Th      H      T      O  
  \underline{\hspace{1.5cm}}    \underline{\hspace{1.5cm}}    \underline{\hspace{1.5cm}}    \underline{\hspace{1.5cm}}      = \_\_\_\_\_

9. Write the 4 - digit number having 2 in ones place, 5 in tens place, 0 in hundreds place and 6 in thousands place.

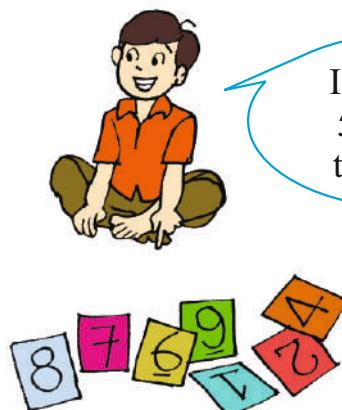


### Activity

Making 4 - digit numbers: (Using digit cards from 0 to 9)



I made 4592  
from these  
cards



I also made  
5942 from  
these cards

- \* Take any 4 cards from 0 to 9.
- \* Make any 4-digit number with those cards.
- \* Read and write the number in words.
- \* Write as many as numbers you can form with those digits in the following table.

S. No	Number	Number Name in Words
1.	4592	Four thousand five hundred and ninety two
2.		
3.		
4.		
5.		
6.		



### Try these:

1. Write all possible 2 - digit numbers using the digits 3, 5 and 1.
2. Write any five 4 digit numbers using the digits 2, 6, 8 and 4.
3. If  $A = 0$ ,  $B = 1$ ,  $C = 2$ ,  $D = 3$ ,  $E = 4$ , then find out the price of objects given below using secret code. One is done for you.



D E A

₹ 340



C D A

₹ ..... .



B C A

₹ ..... .



E C D A

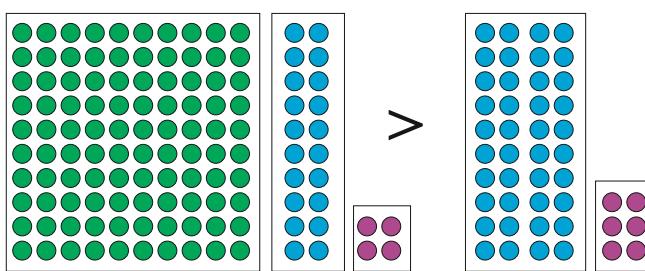
₹ ..... .

### Comparison of the numbers :

To compare numbers we follow the rules mentioned here under.

**Rule -1:** The numeral containing more digits is the greater (larger) number.

**Example:** In 124 and 46 , 124 contains three digits whereas 46 contains 2 digits and hence 124 is greater than 46.



124 > 46

124 is greater than 46.

Do you remember?

'>' Greater Than

'<' Less than

'=' Is equal to

Similarly, in 356 and 3247, 356 contains three digits whereas 3247 contains 4 digits. Hence 356 is less than 3247.  $356 < 3247$

### Rule -2:

While comparing 4 - digit numbers, we always compare starting from left most digit.

#### Example:

- a) Comparison of two numerals having same number of digits.

Compare 5476 and 6123

$$\begin{array}{cc} 5476 & 6123 \\ \swarrow & \searrow \\ (<) & \end{array}$$

as  $5 < 6$   
 $5476 < 6123$

5476 is less than 6123

Compare 3541 and 2689

$$\begin{array}{cc} 3541 & 2689 \\ \swarrow & \searrow \\ (>) & \end{array}$$

as  $3 > 2$   
 $So\ 3541 > 2689$

3541 is greater than 2689

- b) Comparison of two numerals having same digits in thousands place.

Compare 7435 and 7621

$$\begin{array}{cc} 7435 & 7621 \\ \swarrow & \searrow \\ (=) & \end{array}$$

as  $4 < 6$   
 $So\ 7435 < 7621$

7435 is less than 7621

Compare 6810 and 6542

$$\begin{array}{cc} 6810 & 6542 \\ \swarrow & \searrow \\ (=) & \end{array}$$

as  $8 > 5$   
 $So\ 6810 > 6542$

6810 is greater than 6542

- c) Comparison of two numerals having same digits in thousands and hundreds place.

Compare 5215 and 5236

$$\begin{array}{cc} 5215 & 5236 \\ \swarrow & \searrow \\ (=) & \end{array}$$

as  $1 < 3$   
 $So\ 5215 < 5236$

5215 is less than 5236

Compare 4358 and 4342

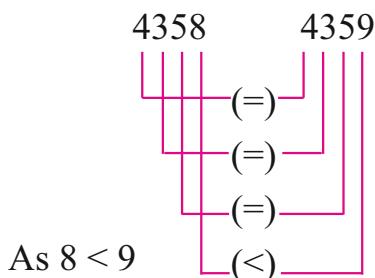
$$\begin{array}{cc} 4358 & 4342 \\ \swarrow & \searrow \\ (=) & \end{array}$$

as  $5 > 4$   
 $So\ 4358 > 4342$

4358 is greater than 4342

d) Comparison of two numerals having same digits in thousands, hundreds and tens place.

Compare 4358 and 4359

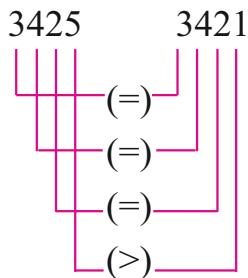


As  $8 < 9$

So  $4358 < 4359$

4358 is less than 4359

Compare 3425 and 3421



As  $5 > 1$

So  $3425 > 3421$

3425 is greater than 3421



### Do these:

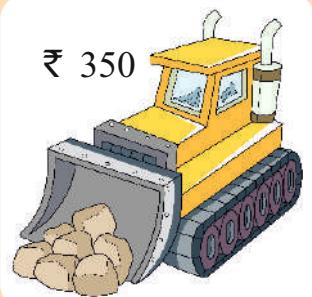
1. Fill in the boxes with  $<$  or  $>$  symbols.

a) ₹ 250



Price of the  
toy Car is

₹ 350



Price of the  
toy JCB.

b) ₹ 2675



Price of  
the Rice  
cooker is

₹ 1675



Price of  
the Pressure  
cooker.

2. Write the correct symbol ( $<$ ,  $=$  or  $>$ ) in the boxes given below.

a) 6472  5306

b) 465  3079

c) 5780  5967

d) 6504  6079

e) 3281  3896

f) 4650  4698

g) 7856  7854

h) 6702  6923

i) 5063  5063

j) 5716  5186



3. Encircle the smallest number in the following. One is done for you.

- |         |      |      |      |
|---------|------|------|------|
| a) 4356 | 567  | 9075 | 3207 |
| b) 2354 | 2435 | 2345 | 2543 |
| c) 6079 | 8254 | 975  | 4280 |
| d) 5204 | 5402 | 4502 | 2504 |

4. Put a (✓) mark to the largest number in the following.

- |         |      |      |      |
|---------|------|------|------|
| a) 5648 | 3772 | 6660 | 5555 |
| b) 2074 | 2879 | 2978 | 2542 |
| c) 3945 | 3495 | 4530 | 2471 |



**Ordering of numbers:** Observe these pictures of investment details of four merchants and answer the following questions.



Anwar invested  
₹ 5526



Somu invested  
₹ 4690



Madanna invested  
₹ 3480



Gourayya invested  
₹ 6370

- a) Who invested more money? \_\_\_\_\_ How much? \_\_\_\_\_  
b) Who invested less money? \_\_\_\_\_ How much? \_\_\_\_\_  
c) Write the names of the merchants according to their investments from less to more.

\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ .

- d) Write the investments of the merchant from less to more.

\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ .

Observe the above numbers, those are from lowest to highest. This order is called **ascending order**. The order from highest to lowest is called **descending order**.



## Do these:

1. Arrange the following numbers in ascending order.

72, 27, 16, 108, 61.

Ascending order \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

2. Arrange the following numbers in descending order.

65, 506, 650, 560, 605.

Descending order \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

3. 1009, 4002, 6088, 3800.

Write the numbers by observing the symbols.

a) \_\_\_\_\_ > \_\_\_\_\_ > \_\_\_\_\_ > \_\_\_\_\_

b) \_\_\_\_\_ < \_\_\_\_\_ < \_\_\_\_\_ < \_\_\_\_\_

4. Arrange the following numbers both in ascending and descending order.

2566, 2988, 2300, 2377.

Ascending Order: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Descending Orders: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_



## Activity

Observe the ascending and descending order in the pictures given below. Observe and discuss these type of orders in your surroundings



## Exercise - 2

1. Observe and fill the number chart. Write all the numbers having ‘3’ in tens place in the given blanks.

5001	5002	5003	5004	5005	5006	5007	5008	5009	5010
5011									5020
5021									5030
5031									5040
5041									5050

\_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

2. Sumathi has the following currency notes. How much money does Sumathi have?



3. Write the numerals for each of the following:

- a) Seven thousand and seventy seven: \_\_\_\_\_.  
b) Eight thousand nine hundred and sixty seven: \_\_\_\_\_.

4. Write the number names for each of the following.

- a) 3003 = \_\_\_\_\_.  
b) 6010 = \_\_\_\_\_.  
c) 9909 = \_\_\_\_\_.



5. In number 2768, 2 is in which place? [ ]

- a) Ones      b) Ten      c) Hundreds      d) Thousands

6. Write the expansion form of the following numbers.

- a) 5004 = \_\_\_\_\_  
b) 2069 = \_\_\_\_\_  
c) 3678 = \_\_\_\_\_

7. Observe the number chart and fill in the blanks. (Some may have multiple answers)

- a)  8000  >
- b)   <  2000
- c)   <  5000
- d)  3000  =

1000	6000	7000
2000	5000	8000
3000	4000	9000



8. In each of the following, circle the largest number.

- |         |      |      |      |      |
|---------|------|------|------|------|
| a) 512  | 734  | 1092 | 6581 | 3985 |
| b) 2963 | 3629 | 2396 | 2693 | 2369 |
| c) 813  | 9031 | 3149 | 299  | 1001 |

9. Write any six 4-digit numbers using the digits 2, 5, 7 and 8. Then find out the largest and smallest number from them.

- a) \_\_\_\_\_ b) \_\_\_\_\_
- c) \_\_\_\_\_ d) \_\_\_\_\_

10. How many different 4-digit number can you arrange using the digits 1, 1, 9 and 9. Write them?

11. Some numbers are given below. Circle the range that the number lies in.

- |        |           |           |
|--------|-----------|-----------|
| a) 250 | 300 - 400 | 200 - 300 |
| b) 460 | 300 - 400 | 400 - 50  |
| c) 884 | 700 - 800 | 800 - 900 |

12. Observe the population of the villages and circle to the nearest thousands.

Name of the Village	Population	Population of the Village nearest to thousands		
Kodumuru	2750	2000	3000	4000
Ramasagaram	1340	1000	2000	3000
Venkatapuram	3890	3000	4000	5000

13. Circle the nearest number and write it in the given blank. One is done for you.

a)



4 Tens

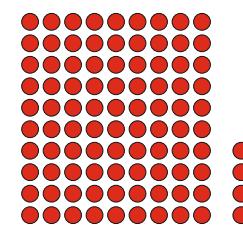
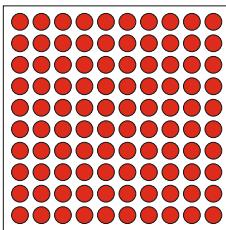
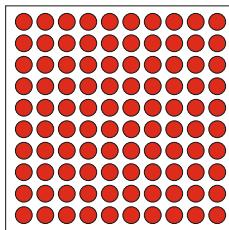


7 Ones

40      **50**      60

The number of pencils are nearer to 50

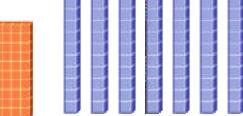
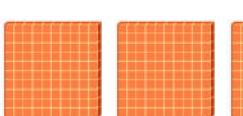
b)



200      300      400

The number of dots are nearer to .....

c)



500      700      600

The number of blocks are nearer to .....

d)



2000      3000      4000

The total currency is nearer to .....

14. Write the largest and smallest numbers formed by the given digits.

Digits	Largest number	Smallest number
3, 7, 5, 9	9753	3579
6, 4, 9, 5		
1, 7, 5, 2		
2, 9, 4, 6		

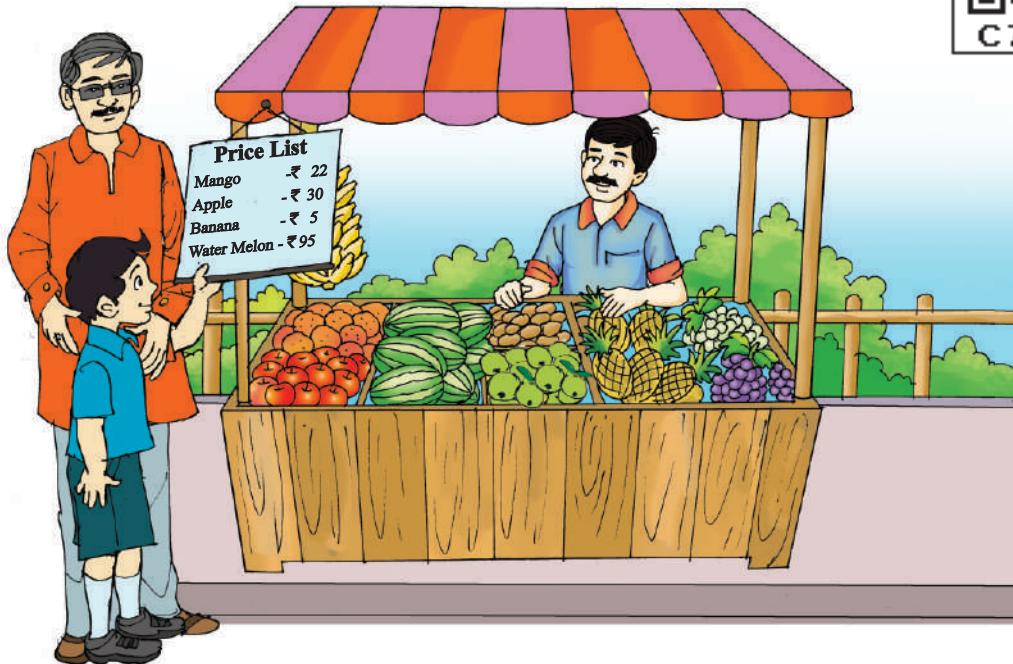
**Project Work:** Collect the vehicle numbers and write it in the table.

S. No.	Autorickshaw	Motor cycle	Car	Bus

- Write the numbers of Autorickshaws in ascending order.
- Write the numbers of motor cycles in descending order.



# Addition



Harsha is studying 3<sup>rd</sup> class. His class teacher asked to collect the information regarding costs of different fruits. So, he went to Sankaraiah's fruits shop in the evening. Now observe the costs of fruits and answer the following questions.

1. What is the cost of a mango?
2. What is the cost of an apple?
3. What is the cost of banana?
4. What is the total cost of mango and banana?
5. What is the total cost of mango, apple and banana?

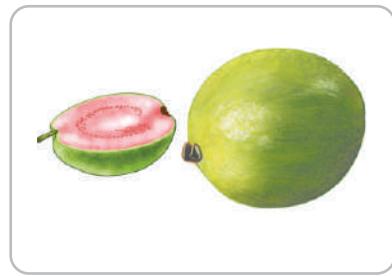
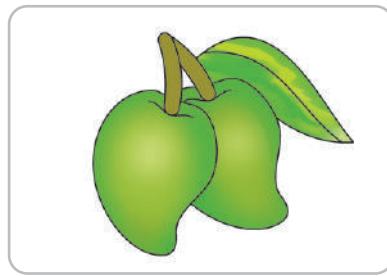
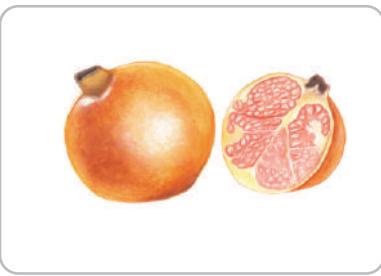
At the end of the day, Sankaraiah found only 51 pomegranates, 6 mangoes and 22 guavas in his shop. He went to an orchard. There are 32 pomegranate trees, 25 mango trees and 38 guava trees. How many trees are there in all in the orchard?

Number of pomegranate trees	=	3	2
Number of mango trees	=	2	5
Number of guava trees	= +	3	8
Total number of trees	=	<hr/>	

Can you do the above sum?

## Addition of 2 - digit number with 2 - digit number:

Now Sankaraiah wants to purchase fruits in whole sale. He purchased 60 pomegranates, 120 mangoes and 110 guavas.



Number of pomegranates purchased	= 60
Number of pomegranates remaining in shop	= 51
Now how many pomegranates does he have totally?	= $60 + 51$

**Step 1:** We add ones first.  $0 + 1 = 1$ . Write '1' in ones place.

**Step 2:** We add digits in tens place.

$$\begin{aligned} 6 \text{ tens} + 5 \text{ tens} &= 11 \text{ tens} = 10 \text{ tens} + 1 \text{ ten} \\ &= 1 \text{ hundred} + 1 \text{ ten} \end{aligned}$$

10 tens = 1 hundred

H	T	O
6		0
5		1
		1

Write '1' in tens place and carry forward '1' to hundreds place.

**Step 3:** Write '1' in hundreds place as there is no number in the hundred place.

Total '111' pomegranates are there.



H	T	O
1		
6		0
5		1
1	1	1

### Do these:

Do the following.

a)

H	T	O
4	8	
+	6	6

b)

H	T	O
6	8	
+	7	5

c)

H	T	O
9	9	
+	4	9

d)  $35 + 78 = \underline{\hspace{2cm}}$  e)  $66 + 44 = \underline{\hspace{2cm}}$

- f) Rani brought 87 beads and Farhana brought 75 beads to make a necklace.

How many beads they brought altogether?

Number of beads brought by Rani = 87

Number of beads brought by Farhana = 75

Total number of beads = \_\_\_\_\_

H	T	O
	8	7
	7	5

### Addition of 3 - digit number with 1 - digit number:

Let's find the total mangoes with Shankaraiah.

Number of mangoes purchased = 120

Number of mangoes in stock = 6

Total number of mangoes = 120 + 6

H	T	O
1	2	0
		6
1	2	6

**Step 1:** We add ones,  $0 + 6 = 6$ . Write '6' in ones place.

**Step 2:** We write '2' in tens place there is no other numbers to add.

**Step 3:** We write '1' in hundreds place as there is no other number to add.

Total "126" mangoes are there.



### Do these:

Do the following.

a)

H	T	O
5	0	1
		8

+

b)

H	T	O
7	1	3
		3

+

c)

H	T	O
8	9	1
		5

+

d)  $195 + 4 = \underline{\hspace{2cm}}$

e)  $300 + 2 = \underline{\hspace{2cm}}$

- f) A Television shop owner Ramesh had 123 TVs in his shop. Dealer supplied 6 more TVs to him. Total how many TVs does Ramesh have now?

Number of TVs in the shop =

Number of TVs supplied by the dealer =

Total number of TVs in the shop =



## Addition of 3 - digit number with 2 - digit number:

Now, we find out the total number of guavas in Shankaraiah's shop.

Number of guavas purchased	=	110
Number of guavas in stock	=	22
	<hr/>	<hr/>
Total number of guavas	=	110 + 22
	<hr/>	<hr/>

H	T	O
1	1	0
	2	2
1	3	2

**Step 1:** We add ones,  $0 + 2 = 2$ . Write '2' in ones place.

**Step 2:** We add tens,  $1 + 2 = 3$ . Write '3' in tens place.

**Step 3:** We write '1' in hundreds place as there is no  
the hundreds place.



Totally, "132" guavas are there.



### Do these:

Do the following.

a)

H	T	O
6	2	3
+ 3	5	

b)

H	T	O
4	0	5
+ 7	0	

c)

H	T	O
8	5	7
+ 4	2	

d)  $555 + 44 = \underline{\hspace{2cm}}$    e)  $936 + 52 = \underline{\hspace{2cm}}$

f) In a zoo, mother elephant ate 111 bananas and little elephant ate 36 bananas. Totally, how many bananas were eaten?

Number of bananas ate by mother elephant =

Number of bananas ate by little elephant =

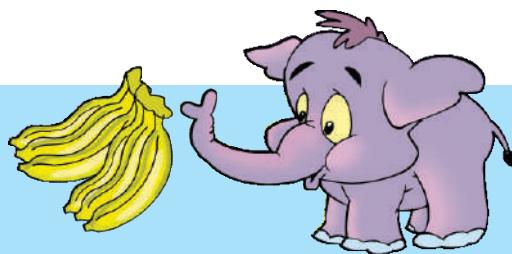
Total number of bananas ate by both =

H	T	O
1	1	1
	3	6



### Try these:

1. Find the number which is 50 more than 45.
2. Find the number which is 120 more than 60.



## Addition of 3 - digit number with 3 - digit number:

Now Shankaraiah had 111 pomegranates, 126 mangoes and 132 guavas in his shop.

How many mangoes and guavas are there totally ?

$$\begin{array}{rcl} \text{Number of mangoes} & = & 126 \\ \text{Number of guavas} & = & 132 \\ \text{Total number of mangoes and guavas} & = & \underline{126 + 132} \end{array}$$



**Step 1:** We add ones,  $6 + 2 = 8$ . Write ‘8’ in ones place.

**Step 2:** We add tens,  $2 + 3 = 5$ . Write ‘5’ in tens place.

**Step 3:** We add hundreds place,  $1 + 1 = 2$ . Write ‘2’ in hundreds place.

H	T	O
1	2	6
1	3	2
2	5	8

**Example:** Help Shankaraiah to find total number of fruits in his shop.

$$\begin{array}{rcl} \text{Number of pomegranates} & = & 111 \\ \text{Number of mangoes} & = & 126 \\ \text{Number of guavas} & = & 132 \\ \text{The total number of fruits} & = & \underline{111 + 126 + 132} \end{array}$$

H	T	O
1	1	1
1	2	6
1	3	2



### Do these:

Do the following.

a)  $\begin{array}{r} \begin{array}{|c|c|c|} \hline \text{H} & \text{T} & \text{O} \\ \hline 7 & 6 & 3 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|} \hline 1 & 2 & 5 \\ \hline \end{array} \\ \hline \end{array}$

b)  $\begin{array}{r} \begin{array}{|c|c|c|} \hline \text{H} & \text{T} & \text{O} \\ \hline 6 & 0 & 7 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|} \hline 3 & 1 & 2 \\ \hline \end{array} \\ \hline \end{array}$

c)  $\begin{array}{r} \begin{array}{|c|c|c|} \hline \text{H} & \text{T} & \text{O} \\ \hline 4 & 3 & 2 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|} \hline 5 & 6 & 1 \\ \hline \end{array} \\ \hline \end{array}$

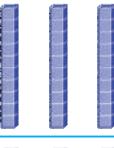
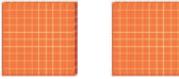
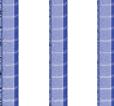
e)  $326 + 463 = \underline{\hspace{2cm}}$

f)  $514 + 174 = \underline{\hspace{2cm}}$

## Addition by using block:

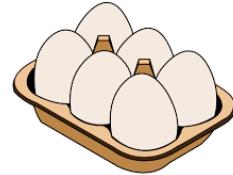
The number of eggs supplied in the first week of a month to Koduru Primary school were 345. As there were some holidays, in the second week only 234 eggs were supplied. How many eggs were supplied in two weeks? (Use base 10 blocks)



Hundreds	Tens	Ones	100	10	1
3	4	5			
+ 2	3	4			
5	7	9	5	7	9

We can write the same, as follows.

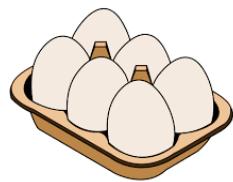
$$\begin{aligned}
 345 + 234 &= 300 + 40 + 5 + 200 + 30 + 4 \\
 &= 300 + 200 + 40 + 30 + 5 + 4 \\
 &= 500 + 70 + 9 \\
 &= 579
 \end{aligned}$$



Eggs supplied in the first week = \_\_\_\_\_

Eggs supplied in the second week = \_\_\_\_\_

Total number of eggs supplied = \_\_\_\_\_



### Exercise - 1

1. Add the following.

H	T	O
8	6	
1	3	

H	T	O
7	8	6
		3

H	T	O
5	4	7
	3	2

H	T	O
1	5	6
8	4	3

2) Match the following

85 + 90	318
262 + 4	300
303 + 15	175
444 + 222	266
100 + 200	666



3. Find the missing number. Check sums.

a)

3	2	6
+	<input type="text"/>	<input type="text"/>
<hr/>		
7	5	8

b)

<input type="text"/>	<input type="text"/>	3
+	1	2
<hr/>		
4	6	8

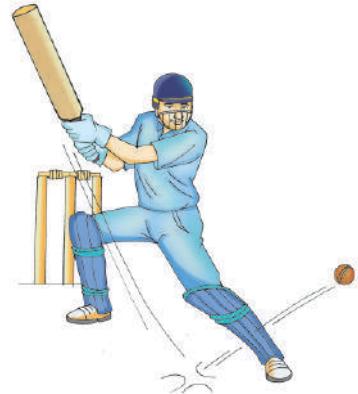
c)

<input type="text"/>	<input type="text"/>	<input type="text"/>
+	7	3
<hr/>		
9	9	9

4. In a test cricket match team India scored 216 runs on the first day. Second day it scored 172 runs more than the first day. How many runs were scored on the second day?

Children answer the following.

- How many runs did India score on the first day?
- How many more runs did India score than the first day?
- What you have to find ?
- Which operation you follow to solve the problem?



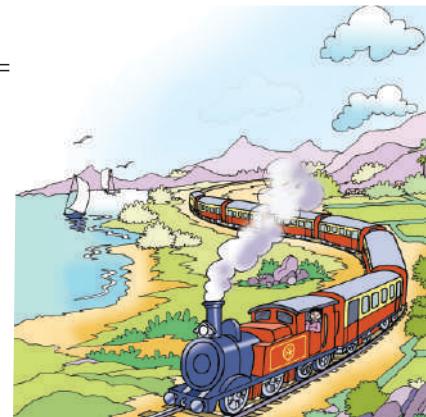
5. In Raamapuram primary school 106 students were present and 13 students were absent on the day. Find the total number of students studying in the school.

Number of students present	= 106
Number of students absent	= 13
Total Number of students studying in the school	<hr/> = $106 + 13$

H	T	O
1	0	6
	1	3

6. In a train there are 145 people in one compartment and 130 people in another compartment. How many people are there in two compartments?

Number of people in the first compartment	=
Number of people in the second compartment	=
Total number of people in both compartments	=



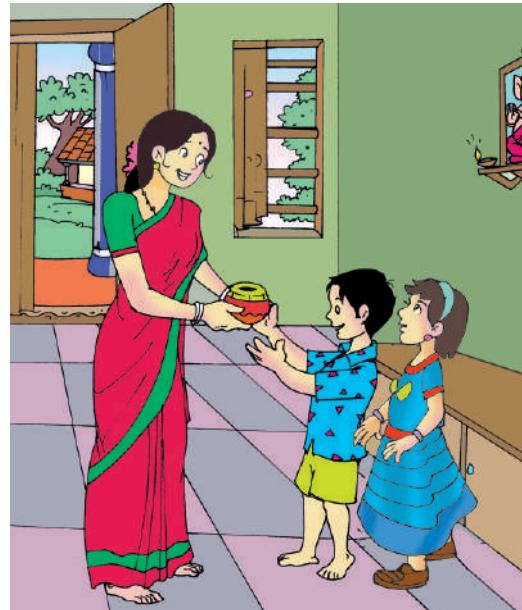
## Addition of 3 - digit number with 1 - digit number: (Carry forward)

### Kiddy Bank:

Venu and Ramya are twins and studying 3<sup>rd</sup> class. They wanted to donate money on the occasion of their birthday. They opened their kiddy banks and counted their savings.

Venu had ₹ 639, his mother gave him ₹ 9.

Then he added ₹ 9 to his saved amount ₹ 639 = 639 + 9



**Step 1:** We add ones, 9 ones + 9 ones = 18 ones = 10 ones + 8 one  
= **1 ten + 8 ones**

$$10 \text{ ones} = 1 \text{ ten}$$

So, we write '8' in ones place and carry forward '1' to tens place. +

H	T	O
	1	
6	3	9
		9
		8

**Step 2:** We add tens, 3 tens place + 1 ten (carry forward) = 4 tens.

We write '4' in tens place.

H	T	O
	1	
6	3	9
		9
6	4	8

**Step 3:** We write '6' in hundreds place as there is no other number in hundreds place.

Venu had a total of ₹ 648 with him.



### Do these:

Do the following.

a)

H	T	O
5	6	8
+		7

b)

H	T	O
4	0	3
+		9

c)

H	T	O
7	9	5
		8

d)  $678 + 7 =$  \_\_\_\_\_

e)  $836 + 6 =$  \_\_\_\_\_

f) '5' more than 205 = \_\_\_\_\_

g) '9' more than 369 = \_\_\_\_\_

## Addition of 3 - digit number with 2 - digit number: (Carry forward)

Ramya saved ₹ 468 and her mother gave ₹ 19. Then she added ₹ 19 to her savings.

$$\text{Total amount with Ramya} = ₹ 468 + ₹ 19$$

**Step 1:** We add ones, 8 ones + 9 ones = 17 ones = 10 ones + 7 ones

$$= 1 \text{ ten} + 7 \text{ ones}$$

$$10 \text{ ones} = 1 \text{ ten}$$

H	T	O
	1	
4	6	8
	1	9
		7

So, we write '7' in ones place and carry forward '1' to tens place.

**Step 2:** We add tens, 6 tens + 1 ten + 1 ten (carry forward) = 8 tens.

We write '8' in tens place

H	T	O
	1	
4	6	8
	1	9
4	8	7

**Step 3:** We write '4' in hundreds place as there is no other number to add

Ramya had a total of ₹ 487 with her.



### Do these:

Do the following.

a)	H	T	O
+			
3	4	5	
+	2	7	

b)	H	T	O
+			
5	8	7	
+	3	4	

c)	H	T	O
+			
6	1	6	
+	8	5	

d)  $709 + 83 =$  \_\_\_\_\_

e)  $216 + 96 =$  \_\_\_\_\_

## Addition of 3 - digit number with 3 - digit number: (Carry forward)

Venu and Ramya went to Jyothi Orphanage home to donate money. Venu donated ₹ 648 and Ramya donated ₹ 487.

Now let's find total amount they donated.



**Step 1:** We add 8 ones and 7 ones = 15 ones

$$\mathbf{15 \ ones = 1 \ ten + 5 \ ones}$$

Put 5 in ones place and 1 is carried over to ten's place

Th	H	T	O
		1	
	6	4	8
+	4	8	7
			5

**Step 2:** We add 4 tens and 8 tens and 1 ten (carry over) = 13 tens

$$\mathbf{13 \ tens = 1 \ hundred + 3 \ tens}$$

Put 3 in tens place and 1 is carried over to hundred's place

Th	H	T	O
	1	1	
	6	4	8
+	4	8	7
		3	5

**Step 3:** We add 6 hundreds, 4 hundreds and 1 hundred (carry over)

$$\mathbf{= 11 \ Hundreds = 10 \ hundreds + 1 \ hundred}$$

$$\mathbf{= 1 \ thousand + 1 \ hundred}$$

(10 Hundreds = 1 Thousand)

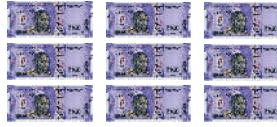
Put '1' in thousands place and '1' in hundreds place

Th	H	T	O
	1	1	
	6	4	8
+	4	8	7
1	1	3	5

Total amount donated by Venu and Ramya = ₹ 648 + ₹ 487 = ₹ 1135

### Example:

Father brought dresses for Venu and Ramya. Cost of Venu's dress is ₹ 755 and Ramya's dress is ₹ 978. What is the total amount spent on the dresses?

Thousands	Hundreds	Tens	Ones	1000	100	10	1
	9	7	8				
	7	5	5				
+							

### Exercise - 2

1. Do the following.

a)	Th	H	T	O
	8	4	5	
+	3	6	5	



b)	Th	H	T	O
	5	6	7	
+	3	1	6	

c)  $869 + 371 =$  \_\_\_\_\_

d)  $704 + 379 =$  \_\_\_\_\_

2. Ramya did the additions as shown below. Correct the errors if any.

a)

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

b)

5	6	7
+ 3	1	6
<hr/>		
8	7	1
3		

c)

8	1	5
+ 3	2	3
<hr/>		
1	1	3
8		

3. Write the missing number in the boxes.

a)

2	4	3
+ <input type="text"/>	2	<input type="text"/>
<hr/>		
6	7	2

b)

<input type="text"/>	<input type="text"/>	5
+ 4	3	6
<hr/>		
7	8	1

c)

<input type="text"/>	<input type="text"/>	<input type="text"/>
+ 6	3	9
<hr/>		
9	0	8

4. Write the numbers in the table and find the sum. One is done for you.

a)  $325 + 42 =$

H	T	O
3	2	5
+ <input type="text"/>	4	2
3	6	7

b)  $462 + 8 =$

H	T	O

H	T	O

5. Circle the correct answer. One is done for you.

a)  $48 + 96$

134

144

154

b)  $312 + 9$

3111

311

321

c)  $430 + 74$

504

494

410

d)  $4529 + 678$

5207

4197

1207

e)  $675 + 735$

1410

1310

1400

6. A shopkeeper Rafi had 783 candle packets. He purchased 237 candle packets from Imthiaz. How many candle packets does Rafi have now?

7. In a school library there are 468 books in Telugu and 655 books in English. How many books are there in the library?

8. Find the sum of the biggest 3 - digit number and the biggest 2 - digit number.

9. Find the sum of the biggest 3 - digit number and smallest 3 - digit number.



## Maths Fun Activity

Do the following sums:

A)  $75 + 20$

= 95

B)  $25 + 33$

= 58

C)  $90 + 60$

=

D)  $49 + 31$

=

E)  $500 + 200$

=

F)  $400 + 350$

=

G)  $370 + 220 =$

H)  $670 + 120 =$

I)  $205 + 650 =$

J)  $128 + 600 =$

K)  $150 + 69 =$

L)  $37 + 49 =$

### Find Raju's School Bag :

Find Raju's school bag and check your answers. Draw a line through the numbers which are answers written in the boxes above.

The grid contains the following numbers:

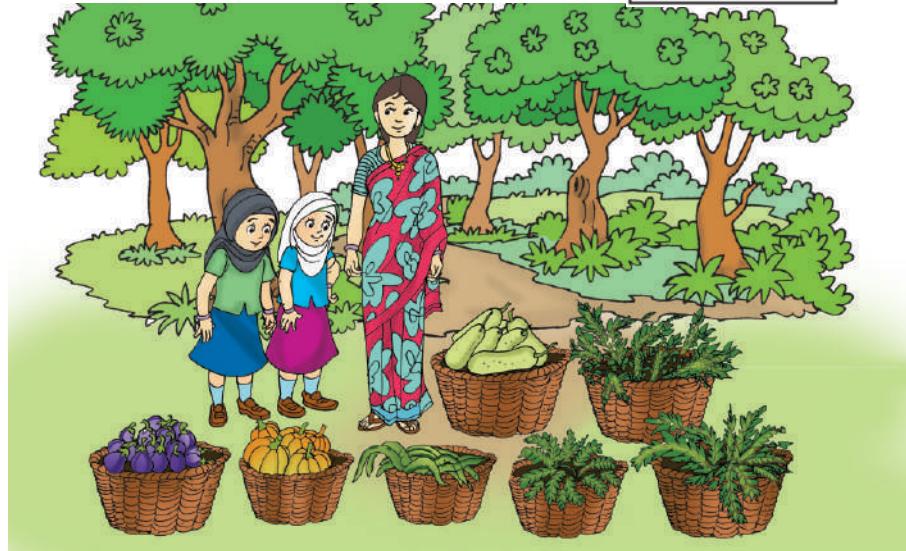
95	58	73	428	59
80	150	790	855	615
700	750	590	728	155
341	212	93	219	47
100	99	120	86	200

A pink arrow points from the bottom right towards the number 86, which is highlighted with a pink bracket. A QR code is located in the bottom right corner of the grid area, with the text "G8G9F2" printed below it.

# Subtraction



Mariyamma is a farmer. She harvests different types of vegetables everyday. One day, Shameela and Jakeera visited Mariyamma's farm to collect some details regarding their project. Mariyamma gave the details. Then they prepared a table as per the information given by Mariyamma.



## Today's details

Sl. No.	Name of the vegetable	Number of vegetables	Cost of each vegetable bundle in ₹
1	Bottle gourd	68	15
2	Pumpkin	35	40
3	Green banana	54	6
4	Snake gourd	66	12
5	Coriander bundles	40	25
6	Celery (Thotakura) bundles	97	4
7	Roselle (Gongura) bundles	70	5

Now, answer the following questions from the above information.

- 1) What leafy vegetables that Mariyamma yielded ? \_\_\_\_\_
- 2) Which leafy vegetable bundle costs more today ? \_\_\_\_\_
- 3) How many more bottle gourds are harvested than pumpkin today? \_\_\_\_\_
- 4) How many less green bananas are harvested than snake gourd? \_\_\_\_\_
- 5) If you want, one hundred bundles of Roselle, how many more bundles are required ? \_\_\_\_\_

## Subtraction of 1 - digit number from 3 - digit number:

### Hand fan maker:

Danayya is a Palm leaf hand fan maker. He made 128 fans in which Muthaiah and his grandson took 3 fans for his friends. How many hand fans remain with Danayya?

$$\text{Total number of Palm leaf hand fans} = \quad \begin{array}{r} 1 \\ 2 \\ 8 \end{array}$$

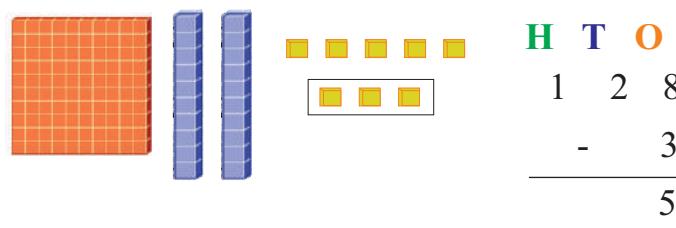
$$\text{Number of fans Muthaiah took} = \quad \begin{array}{r} - \\ 3 \end{array}$$

$$\text{Number of hand fans remaining} = \quad \underline{\hspace{2cm}}$$



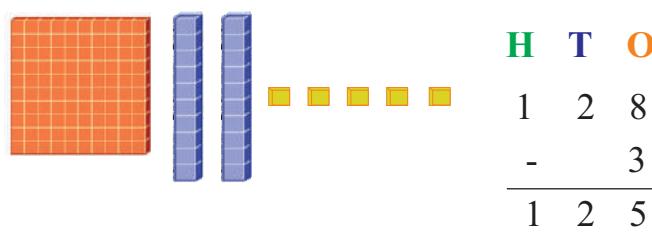
### Step 1: Subtraction in Ones place

- a) Subtract 3 from 8
- b)  $8 \text{ ones} - 3 \text{ ones} = 5 \text{ ones}$
- c) Write the answer 5 in ones place



### Step 2: Subtraction in Tens and Hundreds place

Write answer 2 in Tens place and 1 in Hundreds place as there is no number to subtract



Now Danayya has 125 hand fans to sell.



## Do these:

Do the following.

a) **H T O**  
2 3 6  
- 5

b) **H T O**  
3 2 7  
- 4

c) **H T O**  
4 7 8  
- 7

d) **H T O**  
5 6 9  
- 6





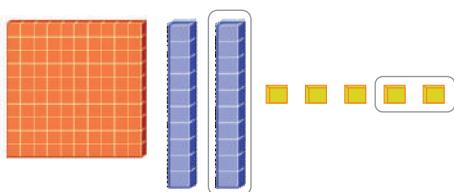
## Subtraction of 2 - digit number from 3 - digit number: (Hand Fans Seller)

Danayya sells hand fans in the villages by cycle. In a village, Karimullah stopped Danayya to buy a dozen fans to donate to an old age home. After selling the dozen fans, Danayya wants to count the number of fans now with him.



### Do you know:

(1 Dozen = 12 items)



Number of hand fans with Danayya

$$\begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ = 1 \quad 2 \quad 5 \end{array}$$

Number of hand fans bought by Karimullah

$$\begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ - 1 \quad 2 \end{array}$$

Number of hand fans remained

$$\begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ = \end{array}$$

## Subtraction in Ones' place.

### Step 1:

- 1) Subtract 2 from 5
- 2)  $5 \text{ Ones} - 2 \text{ Ones} = 3 \text{ Ones}$
- 3) Write answer 3 in Ones' place

$$\begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 1 \quad 2 \quad 5 \\ - 1 \quad 2 \\ \hline 3 \end{array}$$

## Subtraction in Tens place

**Step 2:**

- Subtract 1 from 2
- 2 Tens – 1 Ten = 1 Ten
- Write 1 in Tens place

$$\begin{array}{r}
 \text{H} \quad \text{T} \quad \text{O} \\
 1 \quad 2 \quad 5 \\
 - \quad 1 \quad 2 \\
 \hline
 1 \quad 1 \quad 3
 \end{array}$$



## Subtraction in Hundreds place

**Step 3:**

$$\begin{array}{r}
 \text{H} \quad \text{T} \quad \text{O} \\
 1 \quad 2 \quad 5 \\
 - \quad 1 \quad 2 \\
 \hline
 1 \quad 1 \quad 3
 \end{array}$$

Write '1' in hundreds place as there is no number to subtract  
The answer is 113

After selling 1 dozen hand fans, the number of remaining fans is 113.

**Example:** If Karimullah buys 14 fans, how many hand fans are remained?

Number of hand fans Danayya had	=	H    T    O
	=	1    2    5
Number of hand fans Karimullah bought	=	-    1    4
Number of hand fans remaining	=	_____



**Do these:**

1. Do the following.

a)  $\begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 1 \quad 3 \quad 7 \\ - \quad 1 \quad 4 \\ \hline \end{array}$

b)  $\begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 3 \quad 5 \quad 6 \\ - \quad 2 \quad 4 \\ \hline \end{array}$

c)  $\begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 7 \quad 4 \quad 5 \\ - \quad 3 \quad 0 \\ \hline \end{array}$

d)  $\begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 8 \quad 4 \quad 9 \\ - \quad 4 \quad 2 \\ \hline \end{array}$

2. There are 247 birds sitting on a tree. Out of them 42 flew away. How many birds are there on the tree?

Number of birds sitting on the tree	=	H    T    O
	=	2    4    7
Number of birds flew away	=	-    4    2
Number of birds remained on the tree	=	_____

3. The cost of a shirt is ₹ 385. The price is reduced by ₹ 35 for a festive season. What is the price of the shirt after reduction in price?

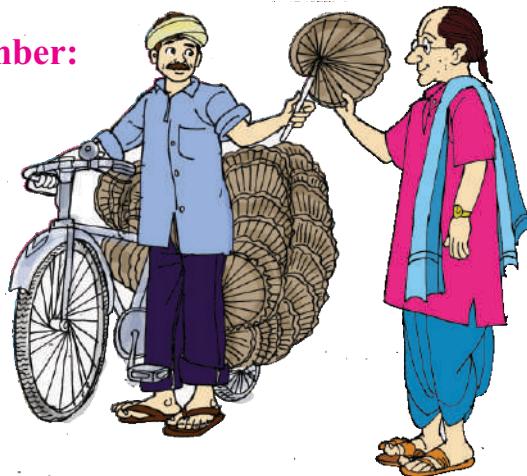


The cost of a shirt =  
Price reduced =  
Actual price of the shirt =

H T O

### Subtraction of 3 - digit number from 3 - digit number:

Now Danayya has 113 Palm leaf fans. On the way Sharma stopped Danayya to buy 116 Palm leaf fans for distributing in a puja ceremony. How many fans are still required?



	H	T	O	
Number of Palm leaf fans required	=	1	1	6
Number of Palm leaf fans available	=	1	1	3
Number of fans be required	=	_____		

### Step 1: Subtraction in Ones place

- a) Subtract 3 from 6
- b) 6 Ones – 3 Ones = 3 Ones
- c) Write answer 3 in Ones place

	H	T	O
	1	1	6
-	1	1	3
	_____		
	3		



### Step 2: Subtraction in Tens place

- a) Subtract 1 from 1
- b) 1 Tens – 1 Tens = 0 Tens
- c) Write answer 0 in Tens place

	H	T	O
	1	1	6
-	1	1	3
	_____		
	0 3		

## Subtraction in Hundreds place

### Step -3

- a) Subtract 1 from 1
- b) 1 Hundred – 1 Hundred
- c) Write answer 0 in Hundreds place

$$\begin{array}{r}
 \text{H} \quad \text{T} \quad \text{O} \\
 1 \quad 1 \quad 6 \\
 - \quad 1 \quad 1 \quad 3 \\
 \hline
 0 \quad 0 \quad 3
 \end{array}$$

Number of fans required is = 3

If Danayya has 3 more Palm leaf fans, he can fulfil Sharma's need.

### Example:

If Danayya has only 113 Palm leaf fans, and Sharma needs 226 Palm leaf fans, how many are to be required?

	H   T   O
Number of Palm leaf fans required	=                  2    2    6
Number of Palm leaf fans available	=                  - 1    1    3
Number of fans to be required	=                  _____



### Exercise - 1

1. Do the following.

a) 
$$\begin{array}{r}
 3 \quad 5 \quad 6 \\
 - \quad \quad 4 \\
 \hline
 \end{array}$$

b) 
$$\begin{array}{r}
 4 \quad 7 \quad 8 \\
 - \quad \quad 2 \\
 \hline
 \end{array}$$

c) 
$$\begin{array}{r}
 5 \quad 8 \quad 2 \\
 - \quad \quad 3 \\
 \hline
 \end{array}$$

d) 
$$\begin{array}{r}
 8 \quad 7 \quad 6 \\
 -4 \quad 2 \quad 3 \\
 \hline
 \end{array}$$

e) 
$$\begin{array}{r}
 7 \quad 4 \quad 5 \\
 -1 \quad 3 \quad 2 \\
 \hline
 \end{array}$$

f) 
$$\begin{array}{r}
 2 \quad 6 \quad 7 \\
 -1 \quad 3 \quad 2 \\
 \hline
 \end{array}$$

g) 
$$\begin{array}{r}
 4 \quad 7 \quad 8 \\
 -1 \quad 1 \quad 4 \\
 \hline
 \end{array}$$

h) 
$$\begin{array}{r}
 6 \quad 8 \quad 9 \\
 -4 \quad 3 \quad 1 \\
 \hline
 \end{array}$$

2. Answer the following oral questions.

- a) What is the difference between 300 and 200?
- b) What will we get, if we subtract 125 from 175?
- 3. How many rupees are needed to make a sum of ₹ 425 to ₹ 679?
- 4. There are 385 students in a school. Mid Day Meal agency has 142 eggs with them. How many more eggs are required to distribute each one an egg?

## Subtraction of 1 - digit number from a 3 - digit number with re-grouping



- 1) Bhimayya has ₹ 350. He wants to visit a medical camp. He travelled by Palle Velugu bus and paid ₹ 8 for ticket. How much money is with him?

	H	T	O
Total amount that Bhimayya has	=	3	5
Fare paid for ticket	=	-	8
Balance amount with Bhimayya	=		



### Step 1: Subtraction at Ones place

- 1) We have to subtract 8 from 0 which is not possible.
- 2) Carry 1 Ten from Tens place to ones place.
- 3) 1 Ten from Tens place becomes 10 Ones in Ones place.
- 4) Subtract 8 Ones from 10 Ones = 2 Ones.
- 5) Write 2 in Ones place.

H	T	O
	4	10
3	5	0
-		8
		2

### Step 2: Subtraction at Tens place

Now there remains 4 in Tens place.

- 1) There is no number in Tens place to subtract hence write 4 in Tens place.

H	T	O
	4	10
3	5	0
-		8
	4	2

### **Step 3: Subtraction at Hundreds place**

There is no number in Hundreds place to subtract hence write 3 in a hundred place.

So, the balance amount with Bhimaiah is ₹ 342



H	T	O
4	10	
3	5	0
-		8
3	4	2

- 2) Now, Bhimayya has ₹ 342 with him. Bhimayya drank a soda and paid 5 rupees. What is the balance amount left with him?



**H   T   O**

$$\begin{array}{lcl} \text{The amount Bhimayya has} & = & 3 \quad 4 \quad 2 \\ \text{Amount paid for soda} & = & - \quad \quad \quad 5 \\ \text{Balance amount with Bhimayya} & = & \underline{\hspace{2cm}} \end{array}$$



**Do these:**

Do the following.

a)

H	T	O
2	4	8
-		9

b)

H	T	O
3	9	4
-		7

c)

H	T	O
6	8	7
-		8

## Subtraction of 2 - digit number from a 3 - digit number with re-grouping



Now, Bhimayya has ₹ 337. He ate one masala dosa in a hotel and paid ₹ 48. How much money does he have?

$$\text{Total Amount Bhimayya have} = \text{₹ } 3 \ 3 \ 7$$

$$\text{Amount paid for Dosa} = \text{₹ } - 4 \ 8$$

$$\text{Balance Amount is} = \underline{\hspace{2cm}}$$

### Step 1: Subtraction at Ones place

1) 8 is greater than 7, hence subtraction is not possible.

<b>H</b>	<b>T</b>	<b>O</b>
2	1	7

2) Carry 1 Ten from 3 Tens to ones place.

3	2	7
---	---	---

3) 1 Ten from Tens places becomes 10 Ones in Ones place.

2	1	7
---	---	---

Now  $10 + 7 = 17$  Ones in ones place.

-	4	8
---	---	---

4) Subtract 8 from  $17 = 17$  Ones – 8 Ones = 9 Ones

9		
---	--	--

5) Write 9 in Ones place

### Step 2: Subtraction at Tens place

1) 4 is greater than 2 hence subtraction is not possible

<b>H</b>	<b>T</b>	<b>O</b>
2	2	17

2) Carry 1 Hundred from 3 hundreds in Hundreds place to Tens place

3	2	17
---	---	----

3) 1 Hundred from Hundred place becomes 10 Tens in Tens place

2	1	7
---	---	---

Now  $10 + 2 = 12$  Tens

-	4	8
---	---	---

4) Subtract 4 Tens from 12 Tens = 12 Tens – 4 Tens = 8 Tens

8		
---	--	--

5) Write 8 in Tens place

### Step 3: Subtraction at Hundreds place

Now, there is 2 in hundreds place

- 1) There is no number in Hundreds place to subtract
- 2) Write 2 in Hundreds place

The answer is ₹289.

Now Bhimayya has ₹ 289 with him.

H	T	O
2	2	17
2	2	17
-	4	8
2	8	9

**Example:** If, Bhimayya ate 70mm dosa for ₹69, how much amount is left with Bhimayya?

$$\text{Total amount Bhimayya has} = 337$$

$$\text{Amount paid for 70mm. Dosa} = -69$$

$$\text{Balance with Bhimayya is} = \underline{\hspace{2cm}}$$



#### Do these:

- 1) Do the following.

a)  $425$

$- 37$

b)  $546$

$- 69$

c)  $635$

$- 77$

- 2) Rajayya has 342 sheep. He sold 65 sheep. How many sheep are there now?

### Subtraction of 3 - digit number from a 3 - digit number with regrouping

#### In Medical Camp

The doctor examined Bhimayya and gave a prescription in the medical camp. Bhimayya went to a private medical shop. The shop owner said your medicine costs ₹ 425.



Bhimayya purchased the medicine in a generic medical shop at a cost of ₹156 for the same medicine. How much money did Bhimayya benefit by choosing Generic medical shop?

Cost of medicine in private medical shop	$= \begin{array}{r} \text{H} \quad \text{T} \quad \text{O} \\ 4 \quad 2 \quad 5 \end{array}$
cost of the same medicine in generic medical shop	$= \begin{array}{r} - 1 \quad 5 \quad 6 \\ \hline \end{array}$
Price difference	$= \begin{array}{r} \\ \hline \end{array}$



### Step 1: Subtraction in Ones place

1)  $5 < 6$  hence subtraction is not possible.

2) Borrow 1 Ten from 2 Tens in tens place.

3) Now in ones place  $1 \text{ ten} + 5 \text{ ones} = 10 \text{ ones} + 5 \text{ ones} = 15 \text{ ones.}$

4) Subtract 6 ones from 15 ones.  $= 15 - 6 = 9 \text{ ones.}$

5) Write 9 in ones place.

H	T	O
1	15	
4	2	5
-1	5	6
<hr/>		
		9

### Step 2: Subtraction in Tens place

1)  $1 < 5$  hence subtraction is not possible.

2) Borrow 1 hundred from 4 hundreds ( $1 \text{ hundred} = 10 \text{ tens.}$ )

3) Now in tens place  $10 \text{ tens} + 1 \text{ tens} = 11 \text{ tens.}$

4) Subtract 5 tens from 11 tens  $= 11 \text{ tens} - 5 = 6 \text{ tens.}$

5) Write 6 in tens place.

H	T	O
3	15	
2	5	5
-1	5	6
<hr/>		
		69

### Step 3: Subtraction in Hundreds place

1)  $3 > 1.$

2) subtract 1 Hundred from 3 Hundred.

3)  $3 \text{ Hundreds} - 1 \text{ Hundreds} = 2 \text{ Hundreds.}$

4) Write 2 in hundreds place.

H	T	O
3	15	
2	5	5
-1	5	6
<hr/>		
		269

So, the answer is ₹269

Bhimayya get benefitted ₹ 269 at generic medical shop instead of not purchasing at a private medical shop.

## Example:

Neelu noted electricity meter reading in a month as follows.

$$\text{Last month reading} = 269 \text{ units}$$

$$\text{Present reading} = 327 \text{ units}$$

How many units of electricity did the family consumed in this month?



Neelu's family has consumed 58 units of electricity in this month.

## Exercise - 2

1. Do the following.

$$\begin{array}{r} a) 612 \\ - 67 \\ \hline \end{array}$$

$$\begin{array}{r} b) 854 \\ - 487 \\ \hline \end{array}$$

$$\begin{array}{r} c) 941 \\ - 267 \\ \hline \end{array}$$

$$\begin{array}{r} d) 502 \\ - 321 \\ \hline \end{array}$$

$$\begin{array}{r} e) 609 \\ - 531 \\ \hline \end{array}$$

$$\begin{array}{r} f) 786 \\ - 117 \\ \hline \end{array}$$

$$\begin{array}{r} g) 229 \\ - 137 \\ \hline \end{array}$$

$$\begin{array}{r} h) 421 \\ - 269 \\ \hline \end{array}$$

$$\begin{array}{r} i) 535 \\ - 377 \\ \hline \end{array}$$

$$\begin{array}{r} j) 957 \\ - 428 \\ \hline \end{array}$$

2. Balu has done some subtraction sums given below. Verify and correct the mistakes.

$$\begin{array}{r} a) 430 \\ - 218 \\ \hline 228 \end{array}$$

$$\begin{array}{r} b) 309 \\ - 127 \\ \hline 222 \end{array}$$

$$\begin{array}{r} c) 987 \\ - 456 \\ \hline 531 \end{array}$$

$$\begin{array}{r} d) 700 \\ - 453 \\ \hline 353 \end{array}$$

3. If 235 hens are sold from 520 hens in a poultry, how many hens are remaining?

4. Match the following. One is done for you.

$200 - 112$	218
$415 - 197$	315
$642 - 327$	88
$941 - 149$	783
$960 - 177$	792



5. There are 432 students in a school. Among them, 245 are girls. How many boys are there?
6. The cost of a pair of Chappal is ₹ 250. If, Shiva has ₹195 with him, how much more amount is required to buy the Chappals?
7. Naresh has ₹ 500/- with him. Which of the following items can he buy?

- |                  |                         |                  |                |
|------------------|-------------------------|------------------|----------------|
| 1) Shirt = ₹ 200 | 2) Pant = ₹ 300         | 3) Shoes = ₹ 400 | 4) Bag = ₹ 300 |
| 5) Ball = ₹ 200  | 6) Water bottle = ₹ 100 | 7) Bat = ₹ 400   |                |

**Example:** Salman went to a rice store to buy a rice bag costs ₹ 850. He gave ₹ 900. How much amount he got back?

**Think:** I read the problem. I have to find the change he gets back. Data available is amount paid and cost of rice bag. The process to solve is subtraction.

**Solution:**

Amount paid by Salman	=	900
Cost of the Rice bag	= -	850
Amount he gets back	=	<u>      50      </u>

Salman gets back ₹ 50 only



#### Do these:

- 1) Age of Vahida is 39 years. Her daughter, Karima's age is 21 years less than her age. What is the age of Karima?
- 2) There are 650 eggs in a school. In which, 579 eggs are used to serve in lunch. How many eggs remain?
- 3) I have some money. If you give ₹ 200 to me, my money will become ₹ 780. How much money do I have already?

## **Subtraction by Estimation**

Observe the picture and answer the following. One is done for you.



One is done for you.

- 1) 140 is nearer to      **100**      200      300  
 2) 255 is nearer to      100      200      300  
 3) 170 is nearer to      100      200      300



### **Estimate the difference:**

Example:  $375 - 215$       100      **200**      300

375 is nearer to 400

215 is nearer to 200

The difference between 400 and 200 =  $400 - 200 = 200$ .

So the difference of  $375 - 215$  is nearer to 200.



### **Do these:**

Estimate the difference and circle to the nearer one.

- |                |     |     |     |     |
|----------------|-----|-----|-----|-----|
| a) $520 - 180$ | 300 | 400 | 500 | 600 |
| b) $685 - 210$ | 500 | 600 | 700 | 400 |

## **Oral Subtractions:**

- 1) Easy subtraction – 10 concept

(This is applicable only to 2 digits minued)

$$14 - 6$$

4      2

$$12 - 7$$

2      5

$$13 - 9$$

3      6

$$15 - 8$$

5      3

**Step 1:** Split Subtrahend into two parts, one must be as in unit's place of minued.

**Example:**  $6 = 4 + 2$  (4 is ones place of 14).

**Step 2:** Subtract, first split from minued.

**Example:**  $14 - 4 = 10$ .

**Step 3:** Subtract second split from the result that is 10.

i.e.  $10 - 2 = 8$ .

There fore  $14 - 6 = 8$ .

Do the remaining problem.

**Shakuntala Devi** (4-November 1929-21 April 2013) was an Indian writer and mental calculator. She was popularly known as “**human computer**.” Her talent was recorded in the Guinness book of world records in 1982. She multiplied 2 thirteen digits numbers in 28 seconds.



### **Project work:**

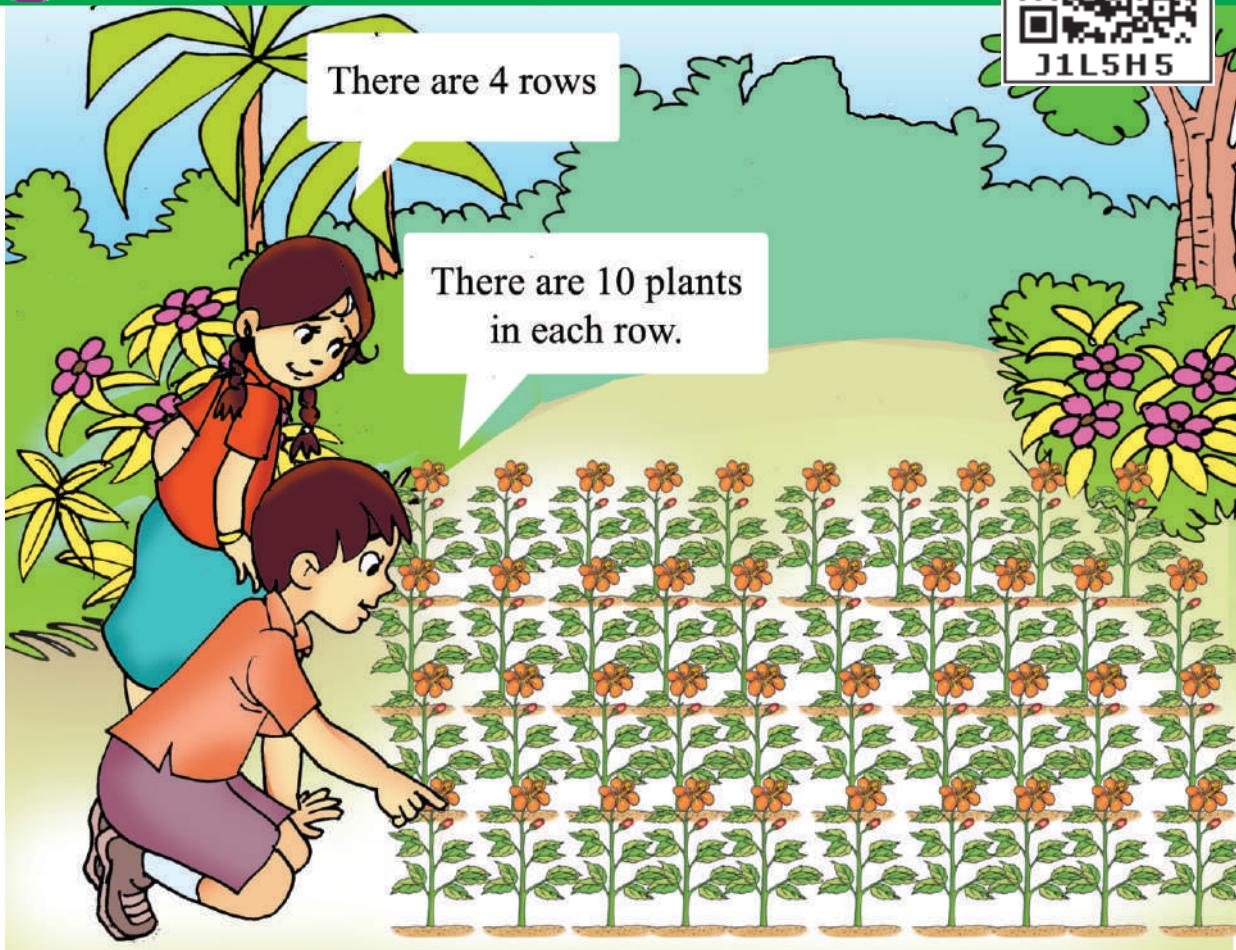
Visit an Anganwadi centre in your village. Collect the information of eggs supplied to the center and enter the details in the table given below.

Sl. No.	Day	Stock of eggs	Number of used eggs	Remaining eggs
1	Monday			
2	Tuesday			
3	Wednesday			
4	Thursday			
5	Friday			
6	Saturday			

1. On which day eggs remained more?
2. On which day eggs remained less?
3. How many total eggs are used in the five days?



# Multiplication



Iswarya and Dheeraj are good friends. Gardening is their hobby. They do gardening in their school kitchen garden every day, with the help of their class teacher. Observe their school kitchen garden. Count the plants, which are in rows.

$$\text{Number of plants} = 10 + 10 + 10 + 10 = 40.$$

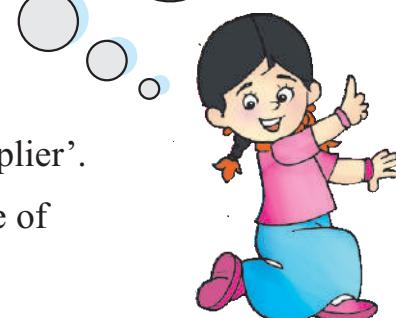
This can be written as  $4 \times 10 = 40$ .

In the multiplication  $4 \times 10 = 40$ , the number 4 is getting multiplied by 10. Hence, 4 is called the ‘Multiplicand’.

10 is being multiplied with 4. Hence, 10 is called the ‘Multiplier’.

The result so obtained is 40 which is shown on the right side of the symbol ‘=’. It is called the ‘Product’.

In this example,  
Multiplicand = 4  
Multiplier = 10  
Product = 40



In  $16 \times 3 = 48$ ,

**16**  
**Multiplicand**

**3**  
**Multiplier**

**48**  
**Product**

In  $21 \times 2 = 42$ ,

Which one is multiplicand? Answer = \_\_\_\_\_

Which one is multiplier? Answer = \_\_\_\_\_

Which one is product? Answer = \_\_\_\_\_

**Do you know :**

Multiplicand  $\times$  Multiplier  
= Product



**Do these:**

Write multiplicand, multiplier and product in the following multiplications:

1. In,  $8 \times 2 = 16$  Multiplicand = \_\_\_\_\_, multiplier \_\_\_\_\_, product \_\_\_\_\_

2. In,  $30 \times 3 = 90$  Multiplicand = \_\_\_\_\_, multiplier \_\_\_\_\_, product \_\_\_\_\_

3. In,  $91 \times 1 = 91$  Multiplicand = \_\_\_\_\_, multiplier \_\_\_\_\_, product \_\_\_\_\_

**Multiplication of 2-digit number by 1-digit number:** (How many Guavas?)

A boy and a girl are counting some guava packets near the tree.

There are  
13 packets

In each packet  
there are  
5 guavas

How many  
guavas are there  
in all packets?



## Kapil did like this :

### Step 1:

Write the numbers in column form.

Multiply 3 ones with 5.

$$3 \text{ ones} \times 5 = 15 \text{ ones} = 1 \text{ ten} + 5 \text{ ones}$$

Write 5 ones under ones column and carry over 1 to tens column.

T	O
1	3
x	5
	-----
	-----

### Step 2:

Multiply 1 ten with 5.

$$1 \text{ ten} \times 5 = 5 \text{ tens.}$$

$$5 \text{ tens} + 1 \text{ ten (carried over)} = 6 \text{ tens}$$

Write 6 under tens column.

$$\text{Thus, } 13 \times 5 = 65$$

Here, 65 is the product. Totally 65 guavas are there.

T	O
1	3
x	5
	-----
	-----

### Example:

A packet contains 17 candles. How many candles are there in 4 such packets?

$$\text{Candles in each packet} = 17$$

$$\text{Number of packets} = 4$$

$$\begin{aligned} \text{Total number of candles in all 4 packets} &= 17 \times 4 \\ &= 68 \end{aligned}$$

T	O
1	7
x	4
	-----
	-----



### Do these:

1. Do the following.

a) T O

1 4

x 3

b) T O

1 2

x 5

c) T O

1 3

x 4

2. Karthik had 4 packets. In each packet, there are 24 crackers.

How many crackers are there in all?

$$\text{Crackers in each packet} = 24$$

$$\text{Number of packets} = \underline{\hspace{2cm}}$$

$$\text{Total number of crackers} = 24 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$



3. There are 12 bananas in a bag. Find the number of bananas in 5 such bags.

Number of bananas in each bag = \_\_\_\_\_

Number of bags = 5

Total number of bananas = \_\_\_\_\_  $\times$  5  
= \_\_\_\_\_



### Other process for multiplication:

There are 47 neem trees in 3 rows. How many neem trees are there?

Jaggubai did like this

$$\begin{array}{r}
 \text{H} \quad \text{T} \quad \text{O} \\
 4 \quad 7 \\
 \times \quad 3 \\
 \hline
 1 \quad 4 \quad 1
 \end{array}$$



Padmaja said we can do this in expanded form also:

$$\begin{aligned}
 47 \times 3 &= (40 + 7) \times 3 \\
 &= (40 \times 3) + (7 \times 3) \\
 &= 120 + 21 \\
 &= 141
 \end{aligned}$$

### Example:

There are 32 coconuts in a bag. How many coconuts are there in 4 such bags?

Number of coconuts in a bag = 32

Number of bags =

Total number of coconuts in all bags = \_\_\_\_\_  $\times$  \_\_\_\_\_  
= \_\_\_\_\_



### Do these:

1. Do the following.

a)  $86 \times 2 =$  \_\_\_\_\_

b)  $64 \times 3 =$  \_\_\_\_\_

c)  $45 \times 5 =$  \_\_\_\_\_

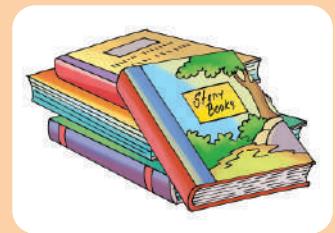
d)  $58 \times 4 =$  \_\_\_\_\_

2. There are 50 books in a box and there are 4 such boxes. Find the total number of books.

Number of boxes =

Number of books in each box =

Total number of books =



3. Cost of a pen is ₹4. What is the cost of 32 pens?
4. There are 63 sweets in a box. How many sweets are there in 3 such boxes?
5. 52 people can travel in a bus. How many people can travel in 4 such buses?

### FORMATION OF TABLES:

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

## Method 1: Add table 5 and table 1 for making table 6

Table 5	5	10	15	20	25	30	35	40	45	50
Table 1	1	2	3	4	5	6	7	8	9	10
Table 6	6	12	18	24	30	36	42	48	54	60

1 x 6 read as 1 time 6      i.e.  $6 \times 1 = 6$

We can say that  $1 \times 6 = 6 \times 1 = 6$

2 x 6 read as 2 times 6      i.e.  $6 \times 2 = 12$

We can say that  $2 \times 6 = 6 \times 2 = 12$

3 x 6 read as \_\_\_\_\_

We can say that  $3 \times 6 = \underline{\hspace{2cm}} = 6 \times 3 = \underline{\hspace{2cm}}$

When we multiply two numbers, the order in which we multiply them does not matter. The product remains the same.

## Formation of Table 9 by counting leaves.

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

## Method 2: Add table 6 and table 3 for making table 9

Table 6	6	12		24		36		48	54	60
Table 3	3	6	9		15		21		27	30
Table 9	9	18								90

## Observe the pattern.

$$1 \times 9 = 9$$

$$(0 + 9 = 9)$$

$$2 \times 9 = 18$$

$$(1 + 8 = 9)$$

$$3 \times 9 = 27$$

$$(2 + 7 = 9)$$

$$4 \times 9 = 36$$

$$(3 + 6 = 9)$$

$$5 \times 9 = 45$$

$$(4 + 5 = 9)$$

$$6 \times 9 = 54$$

$$(\underline{\quad} + \underline{\quad} = \underline{\quad})$$

$$7 \times 9 = 63$$

$$(\underline{\quad} + \underline{\quad} = \underline{\quad})$$

$$8 \times 9 = 72$$

$$(\underline{\quad} + \underline{\quad} = \underline{\quad})$$

$$9 \times 9 = 81$$

$$(\underline{\quad} + \underline{\quad} = \underline{\quad})$$

$$10 \times 9 = 90$$

$$(\underline{\quad} + \underline{\quad} = \underline{\quad})$$

All the digits in one's place are decreasing and in tens place are increasing.



## Observe these and express in your own words:

$$1. \ 9 \times 5 = 45; \ 5 \times 9 = 45$$

Hence

$$9 \times 5 = 5 \times 9 = 45$$

$$2. \ 4 \times 30 = 120; \ 30 \times 4 = 120$$

Hence

$$4 \times 30 = 30 \times 4 = 120$$



### Do these:

1. Make table 7 by using Table 5 and Table 2.
2. Make table 9 by using Table 7 and Table 2.
3. Make table 8 by using any two relevant tables chosen by you.



## Multiply by 10's:

1. A color pencils packet contains 10 pencils  $1 \times 10 = 10$
2. How many pencils do 2 packets have?  $2 \times 10 = 20$
3. How many pencils do 3 packets have?  $3 \times 10 = 30$
4. How many pencils do 4 packets have?  $4 \times 10 = 40$
5. How many pencils do 5 packets have?  $5 \times 10 = 50$
6. How many pencils do 6 packets have?  $6 \times 10 = 60$

7. How many pencils do 7 packets have?  $7 \times 10 = 70$
8. How many pencils do 8 packets have?  $8 \times 10 = 80$
9. How many pencils do 9 packets have?  $9 \times 10 = 90$
10. How many pencils do 10 packets have?  $10 \times 10 = 100$



When we multiply a number by 10,  
the product comes out to be the  
multiplicand followed by one zero.



How many pencils do 12 packets have?

$$12 \times 10 = 120, 10 \times 12 = 120$$

$$12 \times 10 = 10 \times 12 = 120$$

How many pencils do 14 packets have?

$$14 \times 10 = 140, 10 \times 14 = 140$$

$$\text{Hence, } 14 \times 10 = 10 \times 14 = 140$$



### Do these:

1.  $34 \times 10 = 340,$
2.  $80 \times 10 = 800,$
3.  $48 \times 10 = \underline{\hspace{2cm}},$
4.  $85 \times 10 = \underline{\hspace{2cm}},$
5.  $10 \times 90 = \underline{\hspace{2cm}},$

$$\begin{array}{l} 10 \times 34 = \underline{\hspace{2cm}} \\ 10 \times 80 = \underline{\hspace{2cm}} \\ \underline{\hspace{2cm}} \times 10 = \underline{\hspace{2cm}} \\ \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\ \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \end{array}$$



## Exercise - 1

1. Write multiplicand, multiplier and product in the following multiplications :

a)  $72 \times 4 = 288$ ; Multiplier = \_\_\_\_\_; multiplicand = \_\_\_\_\_; product = \_\_\_\_\_

b)  $5 \times 100 = 500$ ; Multiplier = \_\_\_\_\_; multiplicand = \_\_\_\_\_; product = \_\_\_\_\_

c)  $84 \times 1 = 84$ ; Multiplier = \_\_\_\_\_; multiplicand = \_\_\_\_\_; product = \_\_\_\_\_

d)  $24 \times 24 = 576$ ; Multiplier = \_\_\_\_\_; multiplicand = \_\_\_\_\_; product = \_\_\_\_\_

2. Multiply the following:

$$\text{a) } 75 \times 2 =$$

$$\text{b) } 95 \times 4 =$$

c)  $70 \times 8 =$

d)  $93 \times 9 =$

$$\text{e) } 64 \times 8 =$$

$$f) \ 96 \times 10 =$$

$$\text{g) } 20 \times 10 =$$

$$\text{h)} \quad 75 \times 10 =$$

i)  $55 \times 10 =$

3. a) Prepare table for 5 using the tables 2 and 3.  
b) Prepare table for 10 using the table 6 and 4.  
c) Prepare table for 9 using the table 5 and 4.



- #### 4. Work out the following:

- a) The cost of one pencil is ₹ 6. What is the cost of 72 such pencils ?

b) In an orchard, there are 10 rows of mango trees and each row contains 25 trees. How many mango trees are there in total ?

## Multiplication of 2-digit number by 2-digit number: (Cement Shop)

Ramayya and his granddaughter harika went to a cement shop. There are so many cement bags in a room. Harika is trying to count number of bags. Can you help her?



How many number of cement bags are there?

Harika did like this:

Multiply 13 by 12

**Step 1:** To multiply, first write the number in column form

Multiply 3 ones with 2 ones

3 ones  $\times$  2 = 6 ones.

Write 6 in ones place.

Multiply 1 ten with 2 ones

You get 1 ten  $\times$  2 = 2 tens

Write 2 under tens column

H	T	O
1	3	
x	1	2
		2 6



**Step 2:** Multiply 3 ones with tens place number 1

You get  $3 \times 1$  tens = 3 tens = 30

$30 = 3$  tens + 0 ones

Write 0 under ones place in the second row

And write 3 under tens place in the second row

H	T	O
	1	3
x	1	2
	2	6
	3	0

**Step 3:** Multiply 1 tens with 1 tens place

1 ten  $\times$  1 ten =  $10 \times 10 = 100$  = 1 hundred

Write 1 under hundred places in second row

Add 26, 130

I got  $13 \times 12 = 156$ . Hence, there are 156 cement bags in the godown of grandpa.

H	T	O
	1	3
x	1	2
	2	6
	1	3
	1	5
	6	

**Example :**  $18 \times 13 = ?$

Lalitha did like this:

$$18 \times 13 = (10 + 8) \times (10 + 3)$$

10	+ 8	x
$10 \times 10 =$	$10 \times 8 =$	10
100	80	
$3 \times 10 =$	$3 \times 8 =$	3
30	24	



$$18 \times 13 = 100 + 80 + 30 + 24 = 234$$

**Example:**  $34 \times 25 = ?$

$$34 \times 25 = (30 + 4) \times (20 + 5)$$

30	+	4	
$20 \times 30 =$		$20 \times 4 =$	$\times 20$
$\underline{\hspace{2cm}}$		$\underline{\hspace{2cm}}$	
$5 \times 30 =$		$5 \times 4 =$	$\times 5$
$\underline{\hspace{2cm}}$		$\underline{\hspace{2cm}}$	

$$34 \times 25 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$



Divya bought 21 orange packets. There are 13 oranges in each packet.  
How many oranges are there in all packets?

$$\text{The number of orange packets} = 21$$

$$\text{The number of oranges in each packet} = 13$$

$$\begin{aligned}\text{The total number of oranges in all packets} &= \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} \\ &= \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}\end{aligned}$$

H	T	O
2	1	
x	1	3
6	3	
2	1	0
2	7	3



### Do these:

1. Do the following.

a) H T O

2 0

x 1 4

b) H T O

8 1

x 1 1

c) H T O

6 3

x 1 2

d) H T O

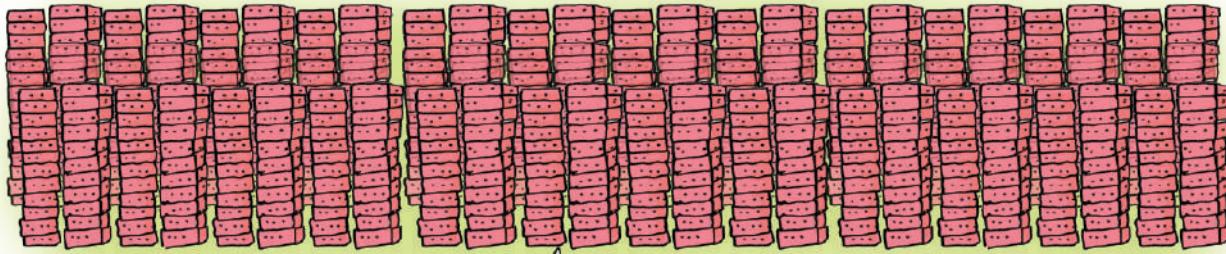
3 2

x 1 3

2. There are 24 hours in a day. How many hours are there in 11 days?  
3. Cost of Black gram per Kg. is ₹ 90, how much money has to be paid for 13 Kg?

Saidaiah asked them to count the bricks.

### Multiplication of 2-digit number by 2-digit number: (With regrouping)



How many rows of  
bricks are there?

73 rows

How many bricks are  
there in each row?

48 bricks

How many bricks are there in all?

**Harika did like this:**

**Step 1:** First write the numbers in column form

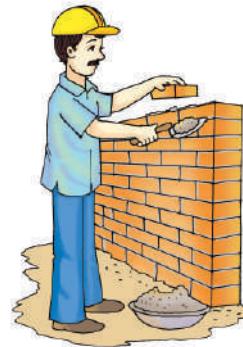
Multiply 3 ones with 8

We get  $3 \text{ ones} \times 8 = 24 \text{ ones}$

$24 \text{ ones} = 2 \text{ tens} + 4 \text{ ones}$

Write 4 ones in ones place column and

Carry 2 to tens place column.



Th	H	T	O
(2)			
	7	3	
x	4	8	
<hr/>			
4			
<hr/>			

**Step 2:** Multiply 7 tens with 8

$7 \text{ tens} \times 8 = 56 \text{ tens}$

$56 \text{ tens} + 2 \text{ tens} = 58 \text{ tens} = 5 \text{ hundreds} + 8 \text{ tens}$

Write 8 in tens place and 5 in hundreds place

Th	H	T	O
(2)			
	7	3	
x	4	8	
<hr/>			
5	8	4	
<hr/>			

**Step 3:** Then,  $4 \text{ tens} \times 3 = 12 \text{ tens} = 120$

$120 = 1 \text{ hundred} + 2 \text{ tens} + 0 \text{ ones}$

Write 0 in ones place, 2 in tens place and

Carry over 1 to hundreds place.

Th	H	T	O
(2)			
	7	3	
x	4	8	
<hr/>			
5	8	4	
<hr/>			
2	0		

**Step 4:** Multiply 4 tens with 7 tens.

$7 \text{ tens} \times 4 \text{ tens} = 70 \times 40 = 2800 = 28 \text{ hundreds}$

Add carry over 1 hundred to 28 hundreds = 29 hundreds

$29 \text{ hundreds} = 2900 = 2 \text{ thousands} + 9 \text{ hundreds}$

Write 9 in hundreds place and 2 in thousands place.

Then, we have to add 584 with 2920.

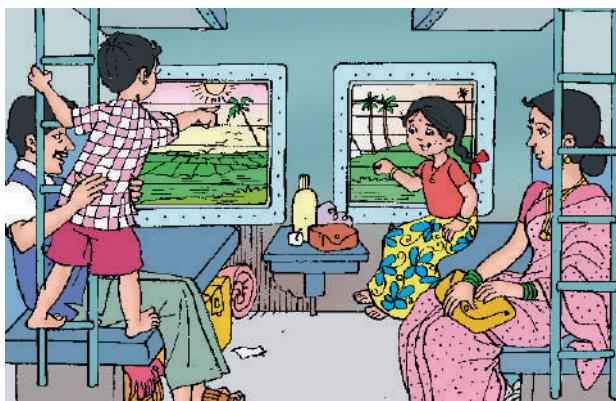
$$584 + 2920 = 3504$$

There are 3504 bricks in all.

Th	H	T	O
(1)	(2)		
	7	3	
x	4	8	
<hr/>			
5	8	4	
2	9	2	0
<hr/>			
3	5	0	4
<hr/>			

### Example :

72 people can sit in one compartment of a train. How many people can sit in a train, with 23 such compartments?



Th	H	T	O
	7	2	
X	2	3	
	2	1	6
1	4	4	0
1	6	5	6

$$\text{Capacity of compartment to sit} = 72$$

$$\text{Number of compartments} = 23$$

Total number of people can travel in the 23 compartments

$$= \underline{\quad} \times \underline{\quad} = \underline{\quad}$$



### Do these:

1. Do the following.

a) Th H T O

$$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$$

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

b) Th H T O

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

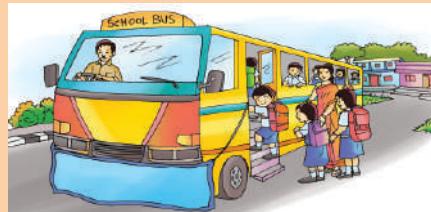
$$\begin{array}{r} \\ 8 \\ \hline \end{array}$$

c) Th H T O

$$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$$

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

2. 48 people can travel in a bus. How many people can travel in 26 such buses?



3. In a library, there are 48 cupboards and in each cupboard, there are 63 books. How many books are there in the library?



## Multiply by 100s:

- |   |                        |
|---|------------------------|
| 1. A chocolate packet contains 100 chocolates | $1 \times 100 = 100$   |
| 2. How many chocolates do 2 packets have?     | $2 \times 100 = 200$   |
| 3. How many chocolates do 3 packets have?     | $3 \times 100 = 300$   |
| 4. How many chocolates do 4 packets have?     | $4 \times 100 = 400$   |
| 5. How many chocolates do 5 packets have?     | $5 \times 100 = 500$   |
| 6. How many chocolates do 6 packets have?     | $6 \times 100 = 600$   |
| 7. How many chocolates do 7 packets have?     | $7 \times 100 = 700$   |
| 8. How many chocolates do 8 packets have?     | $8 \times 100 = 800$   |
| 9. How many chocolates do 9 packets have?     | $9 \times 100 = 900$   |
| 10. How many chocolates do 10 packets have?   | $10 \times 100 = 1000$ |

When we multiply number by 100,  
the product comes out to be the  
multiplicand followed by two zeros.

Example-1 :  $14 \times 100 = 1400$ ,  $100 \times 14 = 1400$

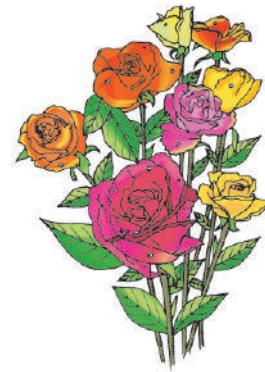
$$14 \times 100 = 100 \times 14 = 1400$$

Example-2 : One bouquet contains 100 flowers.

How many flowers do 17 bouquets have?

$$17 \times 100 = 1700 \text{ or } 100 \times 17 = 1700$$

Hence,  $17 \times 100 = 100 \times 17 = 1700$  flowers



### Do these:

Fill in the blanks.

a)  $32 \times 100 = 3200$ ,  $100 \times 32 = 3200$

b)  $60 \times 100 = 6000$ ,  $100 \times 60 = \underline{\hspace{2cm}}$

c)  $84 \times 100 = \underline{\hspace{2cm}}$ ,  $\underline{\hspace{2cm}} \times 100 = \underline{\hspace{2cm}}$

d)  $56 \times 100 = \underline{\hspace{2cm}}$ ,  $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

e)  $100 \times 76 = \underline{\hspace{2cm}}$ ,  $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

f)  $100 \times 90 = \underline{\hspace{2cm}}$ ,  $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

g)  $100 \times 90 = \underline{\hspace{2cm}}$ ,  $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$



## Multiplication of 3-digit number by 1-digit number:

**Method 1:** Multiply 132 with 3

**Step 1:** Write the numbers in the columns

Multiply 2 ones by 3

2 ones  $\times$  3 = 6 ones. Write 6 under ones column

H	T	O
1	3	2
x 3		6

**Step 2:** Multiply 3 tens by 3

3 tens  $\times$  3 = 9 tens. Write 9 under tens column

H	T	O
1	3	2
x 3		9
6		

**Step 3:** Multiply 1 hundred by 3

1 hundred  $\times$  3 = 3 hundreds.

Write 3 under hundreds column.

Thus  $132 \times 3 = 396$

H	T	O
1	3	2
x	3	9
3	9	6

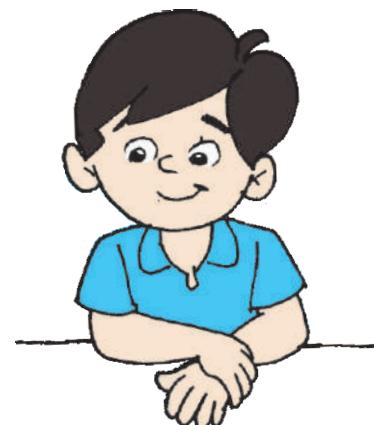
## Method 2:

Example-1 :  $234 \times 2$

$$200 + 30 + 4$$

$200 \times 2$	$30 \times 2$	$4 \times 2$
= 400	= 60	= 8

$$\therefore 234 \times 2 = 400 + 60 + 8 = 468$$



## Method 3:

$$\begin{aligned}234 \times 2 &= (200 + 30 + 4) \times 2 \\&= (200 \times 2) + (30 \times 2) + (40 \times 2) \\&= 400 + 60 + 8 \\&= 468\end{aligned}$$

## Example-2 :

A basket contains 120 mangoes. How many mangoes are there in 4 such baskets?

Number of mangoes in basket = 120

Number of baskets = 4

Total number of mangoes =  $120 \times 4 = 480$



### Do these:

1. Do the following.

a) H T O

$$\begin{array}{r} 1 & 2 & 2 \\ \times & 4 & \\ \hline \end{array}$$

b) H T O

$$\begin{array}{r} 1 & 4 & 0 \\ \times & 2 & \\ \hline \end{array}$$

c) H T O

$$\begin{array}{r} 2 & 2 & 1 \\ \times & 3 & \\ \hline \end{array}$$

d) H T O

$$\begin{array}{r} 1 & 1 & 1 \\ \times & 9 & \\ \hline \end{array}$$

2. A book contains 130 pages. Total how many pages are there in 3 such books?

3. A bag costs ₹300. How much money will be paid to buy 2 bags?

4. There are 2 boxes and in each box there are 142 balls. How many balls are there in all?

### How many times:

Charan's mother brought ration from the store. After coming home, she gave the ration card to Charan to observe. Charan noticed a table having the details of the family.

#### FAMILY MEMBER DETAIL

S.No.	Name	Relation	UID No.	Date of Birth	Age
1	Seenayya		*****	*****	40
2	Lakshmamma	Wife	*****	*****	36
3	Siri	Daughter	*****	*****	12
4	Charan	Son	*****	*****	6

(Just then Charan's Mamayya Visits home)

**Charan:** Akka! I am 6 years old. If my age is multiplied with 2, it is your age.  $6 \times 2 = 12$ . It is very surprising.

**Siri:** Yes. Let us observe more. If my age is multiplied with 3, it is Amma's age.  $12 \times 3 = 36$ . Isn't it?

**Mamayya:** Hey kids! Nice of you. If you multiply Charan's age with 2, you are getting Siri's age. It means Siri's age is twice/two times to that of Charan.

**Siri :** Mamayya! Now I have understood that Amma's age is 3 times to that of my age. Am I right?

**Mamayya:** Yes. You are right Siri. Now tell me my age if it is 7 times to that of Charan.

**Charan & Siri:** It is  $6 \times 7 = 42$ . Your age is 42 Mamayya.

**Mamayya:** Very nice. Your answer is correct.

### Exercise - 2

1. Multiply:

a)  $24 \times 3 = \underline{\hspace{2cm}}$ ;  $3 \times 24 = \underline{\hspace{2cm}}$ ;  $24 \times \underline{\hspace{2cm}} = 3 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

b)  $100 \times 1 = \underline{\hspace{2cm}}$ ;  $1 \times 100 = \underline{\hspace{2cm}}$ ;  $100 \times \underline{\hspace{2cm}} = 1 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

c) In  $53 \times 27 = 1431$ ; Multiplicand =       ; Multiplier =       ; Product =       

d) In  $321 \times 3 = 963$ ; Multiplicand =       ; Multiplier =       ; Product =       

e) In  $108 \times 2 = 216$ ; Multiplicand =       ; Multiplier =       ; Product =       

2. Multiply:

a) H T O

$$\begin{array}{r} 1 \quad 2 \\ \times \quad 9 \\ \hline \end{array}$$

b) H T O

$$\begin{array}{r} 4 \quad 2 \\ \times \quad 1 \quad 9 \\ \hline \end{array}$$

c) H T O

$$\begin{array}{r} 4 \quad 1 \quad 4 \\ \times \quad \quad 2 \\ \hline \end{array}$$



3. Fill in the blanks

a)  $67 \times 5 = \underline{\hspace{2cm}}$       b)  $93 \times 4 = \underline{\hspace{2cm}}$       c)  $123 \times 3 = \underline{\hspace{2cm}}$

4. There are 36 beads in a necklace. How many beads are there in 13 necklaces?

5. If there are 48 bottles in one carton, how many bottles are there in 16 cartons?

6. There are 54 grapes in one bunch. If, there are 44 such bunches, how many grapes are there?

7. Cost of a dictionary is ₹120. How much money he has to pay for 4 dictionaries?

8. 5 students of a class collected ₹110 each for the Prime Minister's relief fund. How much money did they collect altogether?

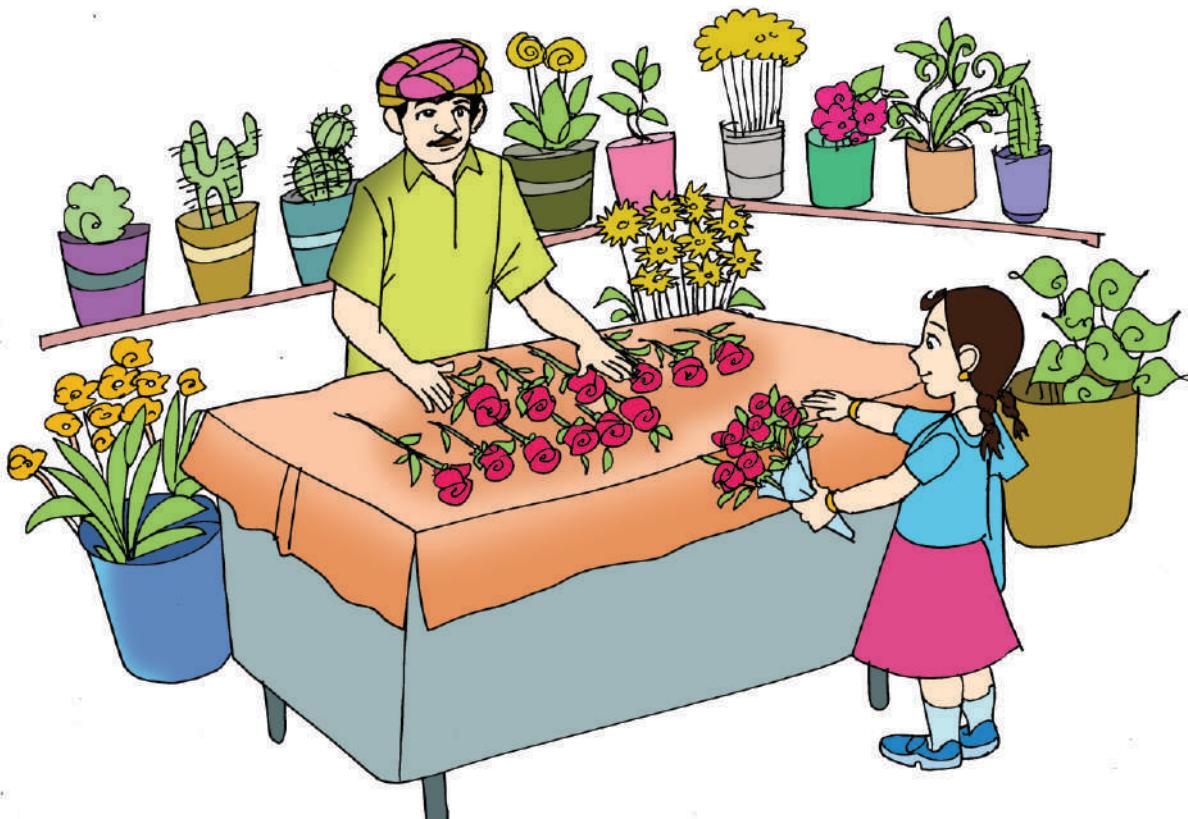


## Let's Share



### Colourful bouquets:

"Malli" lives in a village. Her father Yadayya has a nursery. He gave her 18 roses and told to make bouquets with 6 roses in each one. Malli started preparing bouquets. How many bouquets can Malli make?



- How many roses are given to Malli to make bouquets? \_\_\_\_\_.
- How many roses should be used to make one bouquet ? \_\_\_\_\_.
- How many number of bouquets can she make ? \_\_\_\_\_

From 18 roses, with 6 roses in each bouquet, 3 bouquets can be made.

So, it can be written as

$$18 \div 6 = \boxed{3}$$

' $\div$ ' is the symbol for the division  
and read as divided by

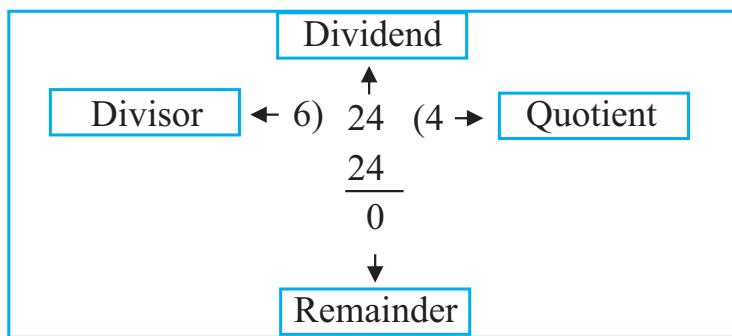
Yadayya took 24 plants to plant in the nursery. If he wants to plant 6 plants in each row, how many rows will be formed?



$$\text{Total number of plants} = 24$$

$$\text{Number of plants to be planted in each row} = 6$$

To know the number of rows, we have to divide 24 by 6.  $= 24 \div 6$



**24 -Dividend** (the number which is to be divided by another number).

**6 - Divisor** (the number which divides another number).

**4 - Quotient** (the result we get after the division).

**0 - Remainder** (the number which remains after division).

Thus, 24 plants are planted in 4 rows, if 6 plants are planted in each row.

**If the remainder is '0', then the dividend is exactly divisible by the divisor**



### Do these:

Do the following divisions and find out the dividend, divisor, quotient and remainder.

1.  $30 \div 6$ ,      Dividend = \_\_\_\_\_,      Divisor = \_\_\_\_\_

Quotient = \_\_\_\_\_,      Remainder = \_\_\_\_\_

2.  $30 \div 5$ ,      Dividend = \_\_\_\_\_,      Divisor = \_\_\_\_\_

Quotient = \_\_\_\_\_,      Remainder = \_\_\_\_\_

## Relation between multiplication and division

For a marriage decoration, workers in the nursery arranged flowers in the following way.

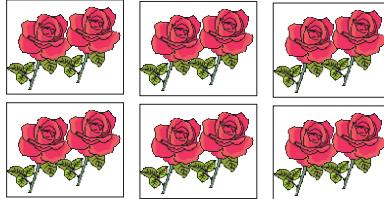
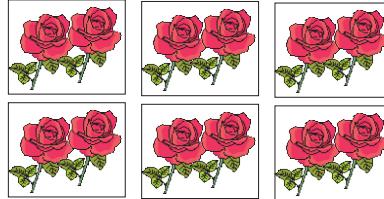
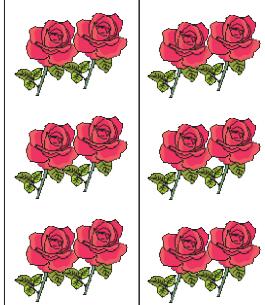
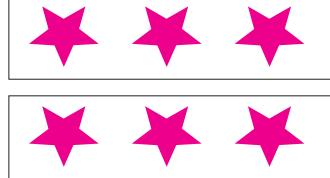
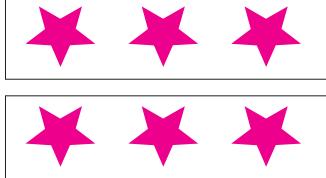
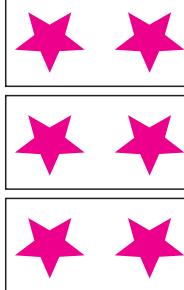
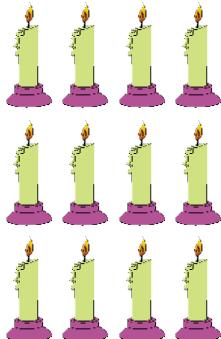
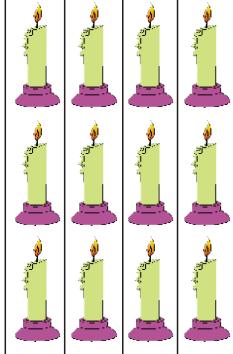
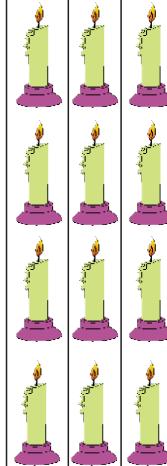


$$30 \div 6 = 5$$

$$30 \div 5 = 6$$

$$\text{So, } 5 \times 6 = 30$$

Now observe the following

Multiplication	Division - 1	Division - 2
 Total number of flowers $6 \times 2 = 12$	 $12 \div 2 = 6$	 $12 \div 6 = 2$
 Total number of stars $2 \times 3 = 6$	 $6 \div 3 = 2$	 $6 \div 2 = 3$
 Total number of candles $3 \times 4 = 12$	 $12 \div 3 = 4$	 $12 \div 4 = 3$

From the above table, we see that the multiplication fact has two division facts. For each multiplication fact, there are 2 division facts.

$$2 \times 9 = 18 \quad \begin{matrix} \rightarrow \\ \rightarrow \end{matrix} \quad \begin{matrix} 18 \div 2 = 9 \\ 18 \div 9 = 2 \end{matrix}$$

$$6 \times 3 = 18 \quad \begin{matrix} \rightarrow \\ \rightarrow \end{matrix} \quad \begin{matrix} 18 \div 6 = 3 \\ \boxed{\phantom{00}} \end{matrix}$$



### Do these:

1. Write the division facts for the following multiplication facts.

Multiplication fact	Division form - 1	Division form - 2
$8 \times 4 = 32$	$32 \div 4 = 8$	$32 \div 8 = 4$
$6 \times 5 = 30$		
$7 \times 6 = 42$		
$12 \times 8 = 96$		
$20 \times 1 = 20$	$20 \div 1 = 20$	$20 \div 20 = 1$
$35 \times 1 = 35$		
$73 \times 1 = 73$		

From the above table, it can be noted as



When a number is divided by 1, we get the same number.

When a number is divided by itself, we get 1.



### Maths Fun:

Try to construct atleast 3 division facts for each of times table of 6, 7 and 8.

## Making word problems:

Example:  $30 \div 6 = 5$ .

$$30 \div 5 = ?$$

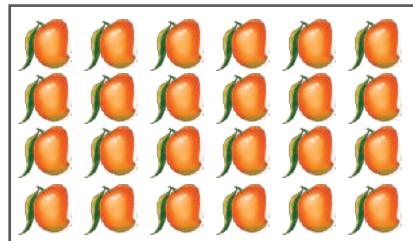
If 30 laddoos are distributed to 5 persons equally, how many laddoos will each person get?



Observe the pictures and fill the blank.

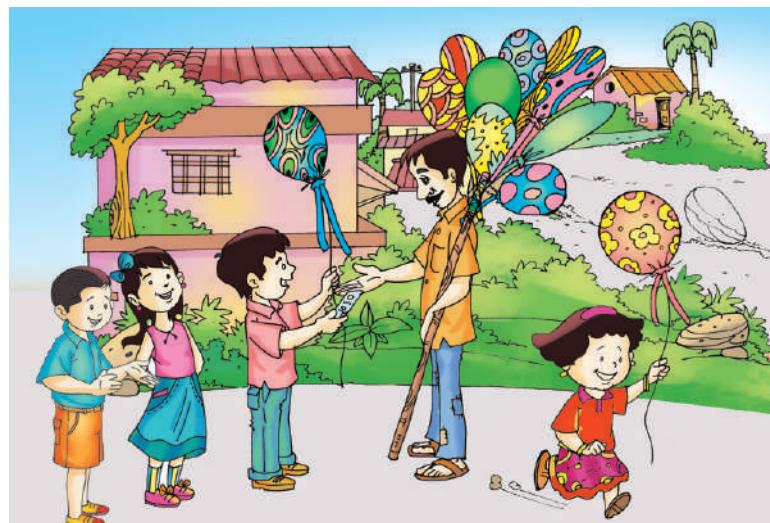
1)  $24 \div 4 = ?$

If 24 \_\_\_\_\_ are distributed among \_\_\_\_\_ persons equally, how many \_\_\_\_\_ will each person get?



2)  $12 \div 3 = ?$

12 \_\_\_\_\_ are distributed among \_\_\_\_\_ children equally. How many \_\_\_\_\_ will each child get?



3)  $20 \div 4 = ?$

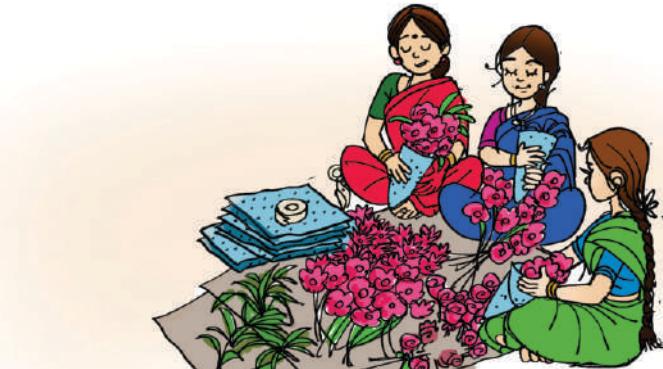
If an anganwadi teacher is distributing 20 \_\_\_\_\_ to \_\_\_\_\_ mothers, how many \_\_\_\_\_ will each get?



- 4) Write your own problem for division fact  $12 \div 4 = 3$


### Nursery:

Nursery workers wanted to make 4 bouquets with those 72 flowers. They asked Malli to separate them into 4 equal groups. Malli grouped in the following way of doing long division.



### Division of 2 digit number by 1 digit Number:

To make 72 flowers into four groups, she divides 72 by 4.

$$72 \div 4$$

**Step - 1:** Write  $72 \div 4$  as shown.      4) 72 (

**Step - 2:** Start division from highest place value number.

Here it is '7', so  $7 \div 4$

Observe 4th table till you get nearly 7

$$4 \times 1 = 4, 4 \times 2 = 8$$

8 is bigger than '7'. So, we take  $4 \times 1 = 4$

Now write 1 in quotient's place and 4 under 7

Now subtract 4 from 7; we get  $7 - 4 = 3$ .

$$4 \times 0 = 0 \quad 4 \times 6 = 24$$

$$4 \times 1 = 4 \quad 4 \times 7 = 28$$

$$4 \times 2 = 8 \quad 4 \times 8 = 32$$

$$4 \times 3 = 12 \quad 4 \times 9 = 36$$

$$4 \times 4 = 16 \quad 4 \times 10 = 40$$

$$4 \times 5 = 20$$

$$\begin{array}{r} 4) 72 (1 \\ - 4 \\ \hline 3 \end{array}$$



**Step - 3:** Now bring down the digit '2' in the ones place and write beside 3. It becomes 32.

Again from 4th table,  $4 \times 8 = 32$

Now write 8 in the ones place of the quotient.

32 under 32 [dividend] and subtract it.

$$\text{i.e. } 32 - 32 = 0$$

$$\begin{array}{r} 4) 72 (18 \\ - 4 \\ \hline 32 \\ - 32 \\ \hline 0 \end{array}$$

$$72 \div 4 = 18$$

Dividend=72. Divisor=4

Quotient=18 Remainder=0

**Example:**

56 people were at a party. If 8 people could be accommodated on one bench, how many benches were needed for them?

Number of people in a party = 56

Number of people on a bench = 8

Number of benches needed = \_ ?

$$\begin{array}{r} 8) 56(07 \\ -0 \\ \hline 56 \\ -56 \\ \hline 0 \end{array} \text{ Remainder}$$

Dividend=56 Divisor=8

Quotient=7 Remainder=0

If 72 flowers are made into 4 bouquets, we get 18 flowers in each bouquet.



How can we divide 5 by 8?

$8 \times 0 = 0$	$8 \times 6 = 48$
$8 \times 1 = 8$	$8 \times 7 = 56$
$8 \times 2 = 16$	$8 \times 8 = 64$
$8 \times 3 = 24$	$8 \times 9 = 72$
$8 \times 4 = 32$	$8 \times 10 = 80$
$8 \times 5 = 40$	



### Activity

### Jumpy Animals



A frog jumps 2 steps a time



A squirrel jumps 3 steps



A rabbit jumps 5 steps



A horse jumps 15 steps

A kangaroo jumps 30 steps

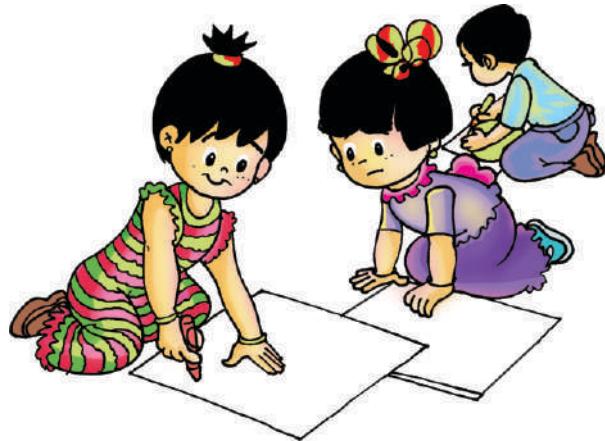
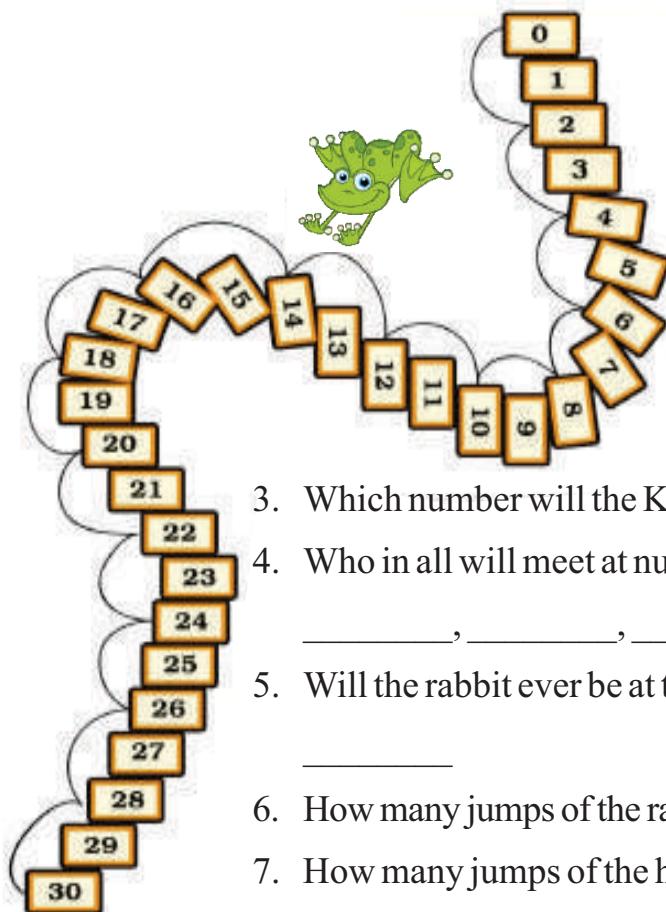
**Use the path to find out:**

1. In how many jumps will the frog reach 30?

$$30 \div 2 =$$

2. In how many jumps will the squirrel reach 27?

$27 \div 3 =$  \_\_\_\_\_



3. Which number will the Kangaroo reach in two jumps?

4. Who in all will meet at number 15?

\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

5. Will the rabbit ever be at the number 18?

6. How many jumps of the rabbit are equal one jump of the horse?

7. How many jumps of the horse are equal two jumps of the kangaroo?

8. Which is the smallest number where the frog and the squirrel will meet?



## Do these:

$$1. \quad 55 \div 5 =$$

Dividend =      Divisor = \_\_\_\_\_      Quotient = \_\_\_\_\_      Remainder = \_\_\_\_\_

2. 84 tyres were put on cars. If each car needs 4 tyres, how many cars would be fitted with tyres?

Number of tyres available =

Number of tyres needed for 1 car =

Number of cars fitted with tyres = ÷

二

3. If 92 are distributed among 4 children, how much money does each child get?

4.  $64 \div 8 = \underline{\hspace{2cm}}$

Dividend = \_\_\_\_\_ Divisor = \_\_\_\_\_ Quotient = \_\_\_\_\_ Remainder = \_\_\_\_\_

5. 63 children were standing in 9 rows equally. How many children were in each row?

Number of children	= _____
Number of rows	= _____
Children standing in each row	$= 63 \div 9$
	= _____

### Division of 2 digit number by a 1 digit number with remainder:

Yadayya has 76 flower plants. He wants to plant 3 flower plants in one pot. Then, how many pots are needed to plant those plants?

If 76 is divided by 3, we get the needed pots and the remaining plants.



$$76 \div 3 \quad 3) \overline{76} \quad (25$$

$$\begin{array}{r} - 6 \\ \hline 16 \\ - 15 \\ \hline 01 \end{array}$$

$3 \times 1 = 3$	$3 \times 6 = 18$
$\textcolor{red}{3 \times 2 = 6}$	$3 \times 7 = 21$
$3 \times 3 = 9$	$3 \times 8 = 24$
$3 \times 4 = 12$	$3 \times 9 = 27$
$\textcolor{red}{3 \times 5 = 15}$	$3 \times 10 = 30$

**Step - 1:** Start division from the highest place value number, that is  $7 \div 3 = 2$

Remainder =  $7 - 6 = 1$

**Step - 2:** Carry down 6 in ones place, you have 16 ones

Now  $16 \div 3 = 5$

Remainder =  $16 - 15 = 1$

Dividend = 76

Divisor = 3

Quotient = 25

Remainder = 1

\* Yadayya needs 25 pots, and 1 plant is unplanted.



## Do these:

1. Harish has 98 plants with him. He wants to distribute them equally among 6 schools, how many plants does each school get? How many are left over?

Number of plants with Harish =

Number of schools =

Plants each school gets =  $98 \div 6$

Plants leftover =

2. Ramana distributed Rs. 70 among 4 children. How much money does each child get?

How many rupees are leftover?

Amount to be distributed(in rupees) =

Number of children =

Each child gets =  $70 \div 4$

Number of rupees left over =

3. There are 65 students in a school. The teacher wants to make them stand in 8 rows. He did like that. What is your observation?

Total number of students = \_\_\_\_\_

Number of rows to be formed = \_\_\_\_\_

Number of rows formed = \_\_\_\_\_  $\div$  \_\_\_\_\_ = \_\_\_\_\_

Number of students remained = \_\_\_\_\_

4. Fill the following blanks.

1)  $3) 6 \quad 4 ($

$$\begin{array}{r} - \\ \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} \boxed{\phantom{0}} \\ \boxed{\phantom{0}} \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} \end{array}$$

Dividend =   
Divisor =   
Quotient =   
Remainder =

2)  $9) 7 \quad 5 ($

$$\begin{array}{r} - \\ \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} \boxed{\phantom{0}} \\ \boxed{\phantom{0}} \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} \end{array}$$

Dividend =   
Divisor =   
Quotient =   
Remainder =

3)  $9) 4 \quad 9 ($

$$\begin{array}{r} - \\ \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} \boxed{\phantom{0}} \\ \boxed{\phantom{0}} \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} \end{array}$$

Dividend =   
Divisor =   
Quotient =   
Remainder =

## Division of 3-digit number by one digit number:

Yadamma plucked 5kg of marigold flowers from her garden and sold them in the market. She got ₹960.

She calculated how much she got for each kg of flowers in the following way.

Amount for 5 kg of marigold flowers = ₹960

Amount for 1kg of marigold flowers = ₹960 ÷ 5



$$5) \ 960(192$$

$$\begin{array}{r} -5 & \leftarrow 5 \times 1 = 5 \\ \hline 46 \\ -45 & \leftarrow 5 \times 9 = 45 \\ \hline 10 \\ -10 & \leftarrow 5 \times 2 = 10 \\ \hline 0 & \leftarrow \text{Remainder} \end{array}$$

- Step - 1:** Start division from the highest place value number, that is  $9 \div 5 = 1$   
Remainder =  $9 - 5 = 4$
- Step - 2:** Carry down 6 in tens place, you have 46 tens  
Now  $46 \div 5 = 9$   
Remainder =  $46 - 45 = 1$
- Step - 3:** Carry down 0 in ones place. Now have 10 ones  
Now  $10 \div 5 = 2$   
Remainder =  $10 - 10 = 0$

Dividend = 960

Divisor = 5

Quotient = 192

Remainder = 0

Cost of 1 kg of marigold flowers = ₹192

## Observe and understand (Dividend with zeros):

**Example:**  $560 \div 7$

$$\begin{array}{r} 7) 560(080 \\ -0 \downarrow \\ \hline 56 \\ -56 \downarrow \\ \hline 00 \\ -00 \\ \hline 00 \end{array}$$



**Note:** In 080, as the initial zero has no value. So, the answer is 80



## Do these:

1.  $380 \div 3 =$

2.  $306 \div 6 =$

3. The strength of a school is 695. If 5 students can sit on one bench, how many benches are required?

Strength of the school = \_\_\_\_\_

Number of students sitting on one bench = \_\_\_\_\_

Number of benches required =  $695 \div 5$  = \_\_\_\_\_

4. 9 oranges can be packed in a box. How many boxes will be needed to pack 738 oranges?
5. 700 students are divided into 6 groups. How many students are there in each group? How many are left over?

## Even numbers and Odd numbers:

- I. Observe the following division:

$$\begin{array}{r} 2) 2 (1 \\ - 2 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 2) 4 (2 \\ - 4 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 2) 6 (3 \\ - 6 \\ \hline 0 \end{array}$$

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

$$\begin{array}{r} 2) 10 (5 \\ - 10 \\ \hline 00 \end{array}$$

- \* What is the remainder in all the above divisions? \_\_\_\_\_
- \* It means that 2, 4, 6, 8 and 10 are exactly divisible by \_\_\_\_\_
- \* Such numbers are called EVEN numbers

**Any number that can be divided exactly by 2 is called an even number.**

$$\begin{array}{r} 2) 1 (0 \\ - 0 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 2) 3 (1 \\ - 2 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 2) 5 (2 \\ - 4 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 2) 7 (3 \\ - 6 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 2) 9 (4 \\ - 9 \\ \hline 1 \end{array}$$



- \* What is the remainder in all the above divisions?
- \* It means that 1, 3, 5, 7, 9 are not exactly divisible by \_\_\_\_\_
- \* Such numbers are called ODD numbers

**Any number that can not be divided exactly by 2 is called an odd number.**



### Activity

1 to 30 numbers are given below. Circle the even numbers.

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

- \* Write circled numbers \_\_\_\_\_
- \* Write un circled numbers \_\_\_\_\_
- \* Write digits in ones place of even numbers (circled) \_\_\_\_\_
- \* Write digits in ones place of odd numbers (uncircled) \_\_\_\_\_
- \* What do you observe ?
- \* Odd numbers have 1, 3, 5, 7 or 9 in their ones place
- \* Even numbers have 0, 2, 4, 6, or 8 in their ones place



### Try these:



- a) Write the next even number.  
1) 38, \_\_\_\_\_    2) 46, \_\_\_\_\_    3) 84, \_\_\_\_\_
- b) Write the next odd number  
1) 135, \_\_\_\_\_    2) 847, \_\_\_\_\_    3) 965, \_\_\_\_\_
- c) Which of the following are even numbers? Why?  
1) 784                  2) 835                  3) 963
- c) Which of the following are odd numbers? Why?  
1) 645                  2) 237                  3) 840

## Exercise - 2

1. Fill the blanks :

a)  $55 \div 55 = \underline{\hspace{2cm}}$

b)  $175 \div 5 = \underline{\hspace{2cm}}$

d)  $12 \times 13 = 156$  so  $\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$  and  $\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

e)  $25 \times 20 = 500$  so  $\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$  and  $\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

2. Divide and write dividend, divisor, quotient and remainder

a)  $60 \div 5$

b)  $79 \div 8$

c)  $150 \div 6$

d)  $220 \div 4$

e)  $496 \div 7$

f)  $589 \div 9$

g)  $380 \div 3$

h)  $940 \div 2$

3. One jug of water can fill 7 tumblers. How many jugs of water are needed to fill 84 tumblers?

4. There are 7 days in a week and 365 days in a year. How many weeks are there in a year? How many extra days are there?

5. Write all the even numbers between 760 to 800.

6. Write all the odd numbers between 860 to 900.

7. Classify the following as even and odd numbers.

- a) 396      b) 495      c) 893      d) 747      e) 898



8. For  $240 \div 8$ , create a word problem.

9. There are 54 gulab jamuns in a vessel. These are to be distributed equally among 9 girls, how many gulab jamuns should each girl get?

10. The cost of 9 mangoes is Rs 45. Find the cost of one mango?

11. 4 students can sit on one bench. On how many benches can 36 boys sit?

12. If we cut 40 metre ribbon into 9 pieces, what is the length of each piece?

13. How many tri cycles can be made using 72 wheels?

14. The product of two numbers is 168. If one of them is 4, find the other number?

15. 225 school children are to be divided into 5 groups. How many children are there in each group?

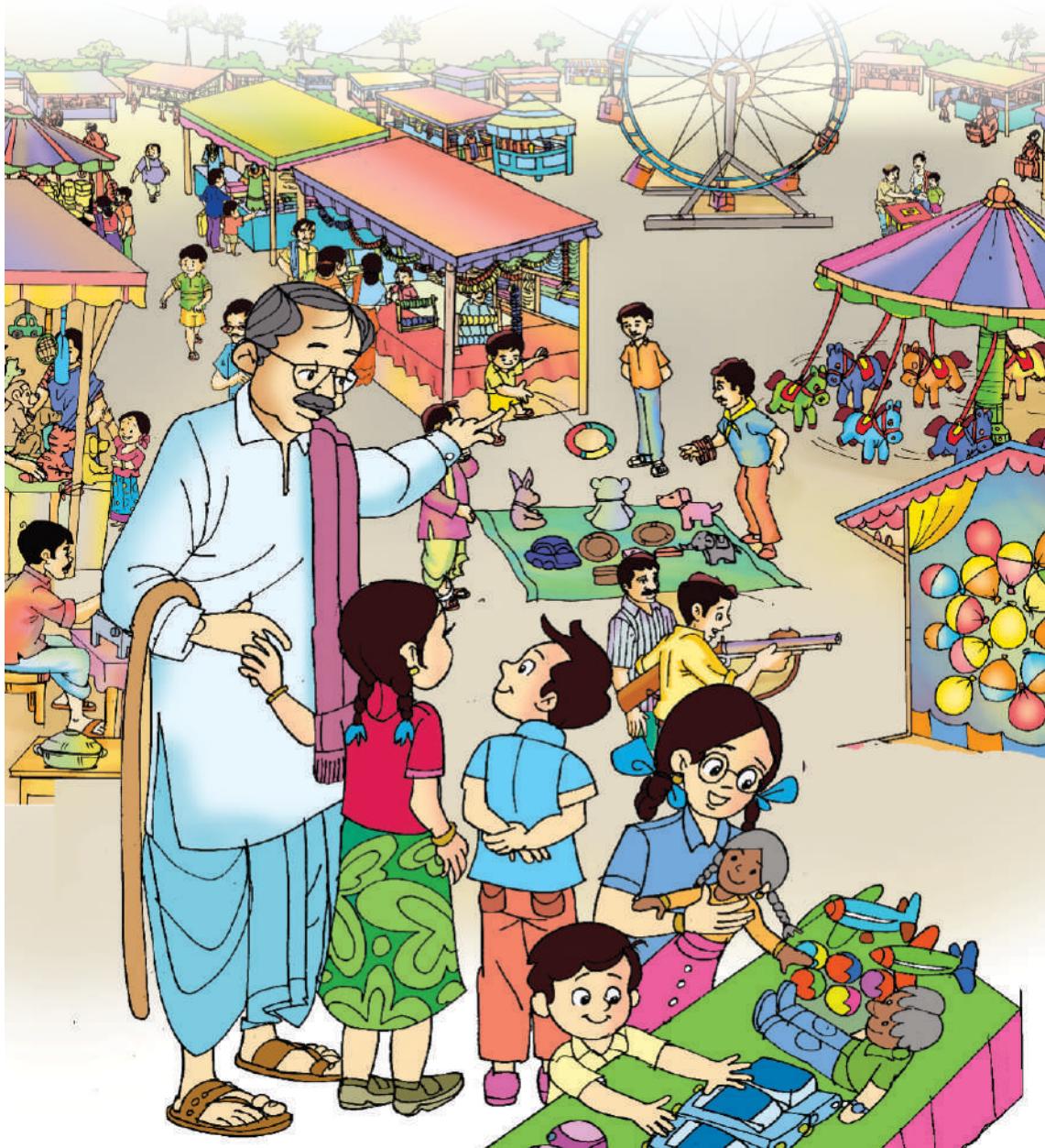
16. 640Kg of rice is shared equally among 6 persons. Find how many Kgs of rice will each one get and how many Kgs of rice will be left?

# Data Handling



Hello ! I am Sai. We are enjoying summer holidays. Our grand father (Tatayya) took us to a jatara. In that jatara so many stalls are there. We are attracted by a toy stall. There are many attractive toys in the stall.

My sister Kavya and my brother Ramana started counting the toys very curiously. I and my friend Srikari listened eagerly to my grand father saying about jatara.





**1. Observe the above picture and answer the following questions.**

1. What do you observe in the picture? \_\_\_\_\_
2. How many toy cars are there ? \_\_\_\_\_
3. How many toy elephants are there ? \_\_\_\_\_
4. How many toy buses are there ? \_\_\_\_\_
5. How many toy aeroplanes are there? \_\_\_\_\_

Ramana bought some toys. The toys he bought and their numbers are shown below in the table.

**2. Observe the following table count the number of toys he bought.**

Name of the toy/doll	Picture of the toys	Number of toys
Car	_____	
House	_____	
Teddy bear	_____	
Balls	_____	
Aeroplanes	_____	

- Which toys are bought highest in number?
- How many teddy bears have they bought?
- How many aeroplanes are they bought?
- Which toys are bought least in number?
- What is the total number of toys they bought?

Grand father made payment for toys to the shopkeeper. The amount has notes and coins as mentioned below.

Note/ coin					
Number of notes/ coins	1	5	6	4	2

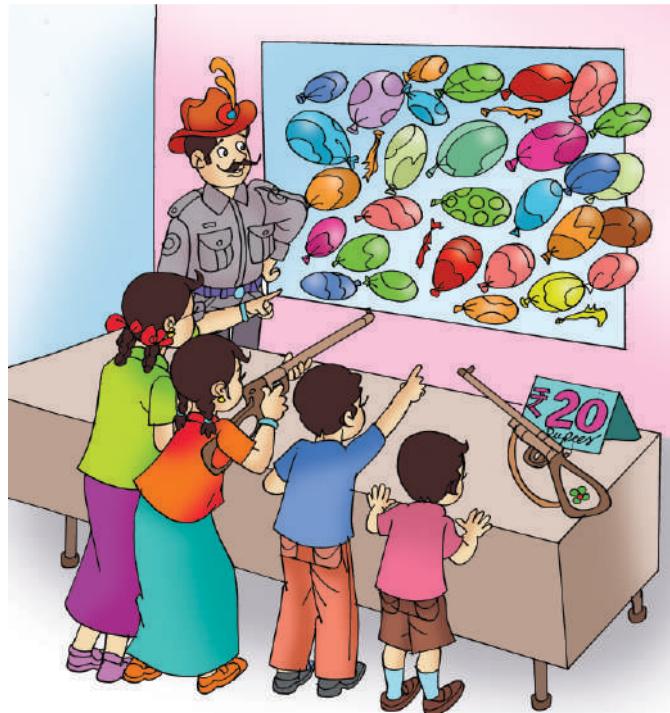
Circle the notes/ coins equal to the number of notes/ coins paid by grand father in the below table.

Note/ coin	Number of notes/ coins	Pictures of currency notes/ coins
₹ 2000	1	
₹ 100	5	
₹ 10	6	
₹ 5	4	
₹ 1	2	

## Using tally marks

After buying the toys, we left the shop to see the Jatara. On the way, we saw another shop. There people are shooting balloons with a toy gun.

We showed interest to play it. Tatayya bought tickets. Each one has a chance to shoot 5 times on one ticket. All of us played the game with joy.



The results are shown in the table given below.

‘✓’ mark indicates a successful shot and ‘✗’ indicates failed one.

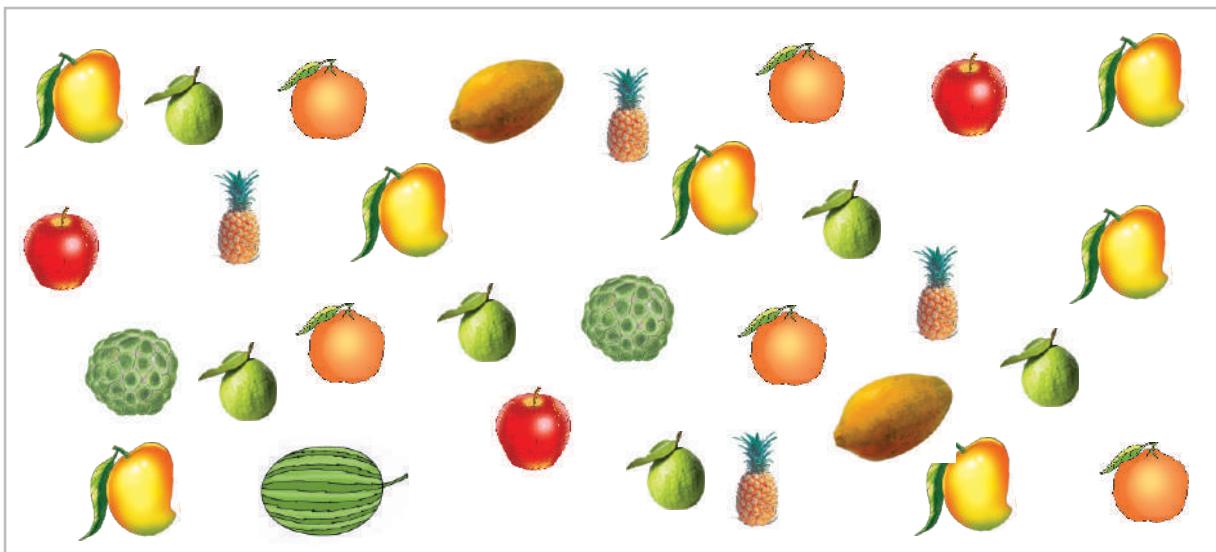
Note: Each successful shot, ‘✓’ can be recorded by using tally marks (|)

Name of the Shooter	Chance 1	Chance 2	Chance 3	Chance 4	Chance 5	Tally marks	Number
Tatayya	✓	✓	✗	✗	✓	///	3
Ramana	✓	✗	✓	✗	✗		
Sai	✓	✓	✗	✓	✓		
Kavya	✗	✗	✗	✗	✓		
Srikari	✓	✓	✗	✗	✗		

**Observe the table and answer the following questions:**

1. a) Who successfully shot the highest number of balloons? \_\_\_\_\_
- b) How many? \_\_\_\_\_
2. How many balloons Srikari shot?
3. How many less balloons did Srikari shot than Sai?
4. Who shot the equal number of balloons ?
5. What is the least number of balloons shot successfully?

4. Count the fruits in the given box. Put tally marks in the second column and write the number in third column.



Name of the fruit	Tally marks	Number
Apple		
Pine apple		
Custard apple		
Guava		
Papaya		
Water melon		
Mango		
Orange		

1. Which fruit is more in number?
2. Which fruit is less in number?
3. Write the names of the fruits from least to highest by number.

When we pass through Jatara, I saw plastic waste thrown everywhere. I remembered my teacher's words about "SWATCHA BHARATH". I told the people there to keep the premises clean. They praised me.

Then we all collected the littered plastic material and thrown into a dustbin.

I made a list of those plastic material on a paper. It is as followed.

water bottle	water packet	polythene cover	biscuit cover
water packet	ice cream cup	plastic glass	water packet
plastic glass	water bottle	ice cream cup	polythene cover
water packet	ice cream cup	water bottle	plastic glass

Represent the data in tally marks and write their number.

Name of the material	Tally marks	Number
water bottles		
plastic glasses		
water packets		
polythene covers		
biscuit covers		
ice cream cups		

- 1) How many bottles are there in our waste - plastic litter collection?
- 2) Which items are large in number?
- 3) Which items are less in number?
- 4) How many biscuit packet covers have we collected?

## Project Work:

Collect the data from your classmates about the game they favour most. Record them using tally marks.

S.No	Game	Tally Marks	Number
1.	Cricket		
2.	Kabaddi		
3.	Kho - kho		
4.	Kundullu		
5.	Tennicoit		
6.	Skipping		
7.	Ring		
8.	Tokkudubilla		

1. How many children like cricket?
2. Which is the most favourite game and how many children liked it?
3. Which is the least favourite game and how many children liked it?
4. What is the total number of participants in your project?





**Srinu and Giri are brothers. They are playing with her friends in a park. Observe the above picture and answer the following questions.**

1. How many marbles does Srinu has?
2. How many marbles does Giri has?
3. How many marbles are there in total ?
4. Who has marbles equally in both the hands ?
5. If the boys share all marbles equally how many marbles would each get ?



## Activity

Srinu and Giri wanted to make a paper house. So, they brought 3 post cards and folded them in the middle as shown below.

Middle line



Second post card



Third post card



Arrangement



- How is the card folded into? (Equal / Not equal)
- How the folded parts look like? (Same / Not same)
- How many equal parts are each card folded into? \_\_\_\_\_



## Do these:

Observe the following pictures and put (✓) in the box, that have equal parts.

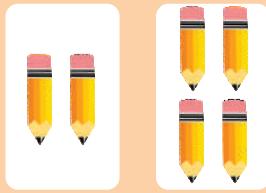
1)



( )

( )

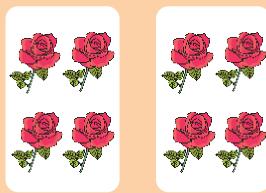
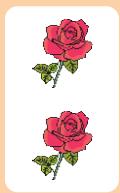
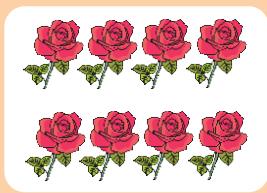
2)



( )

( )

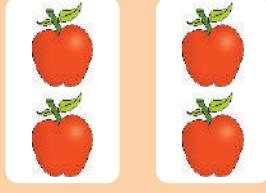
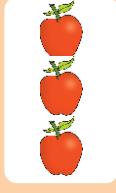
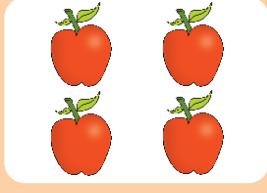
3)



( )

( )

4)

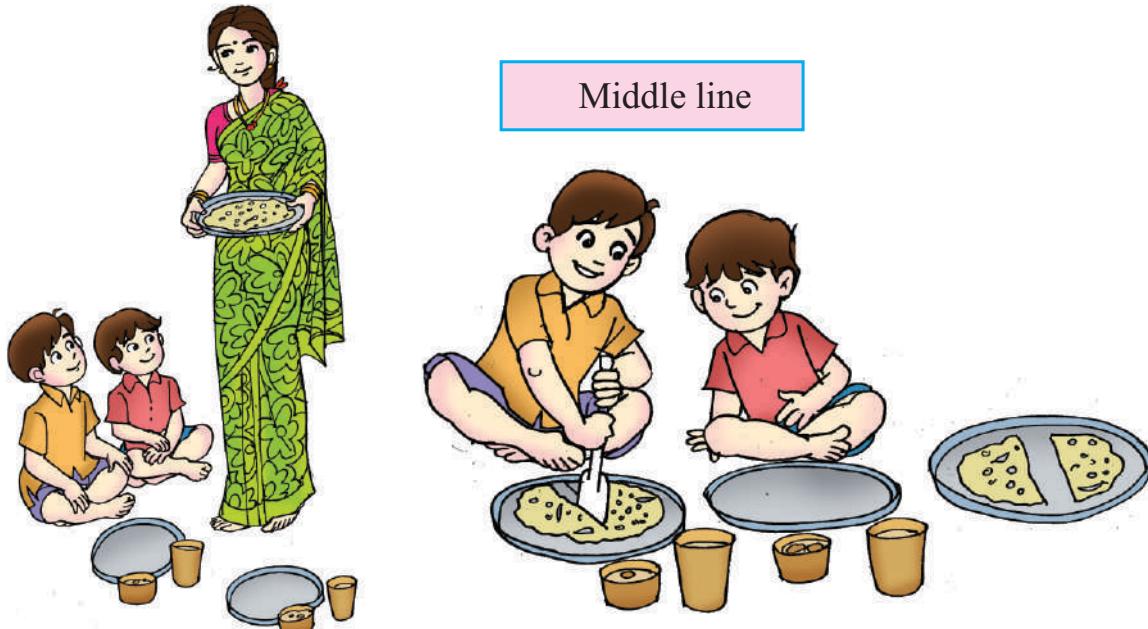


( )

( )

## Half (Masala Dosa) :

Amma is preparing dosas in kitchen. But only one dosa is completed. Her two sons Srinu and Giri want to share the dosa equally. How do they get equal shares? Srinu folded the dosa in the middle and cut into two equal pieces. (To get middle line how did Srinu fold the dosa?)

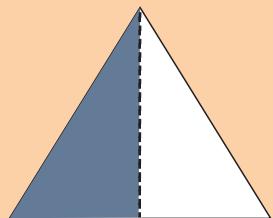


### Do these:

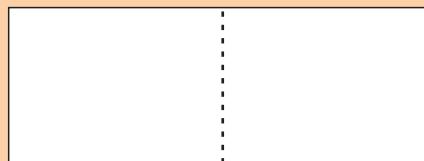
Colour half of the figure. One is done for you.

(Dotted line represents middle line)

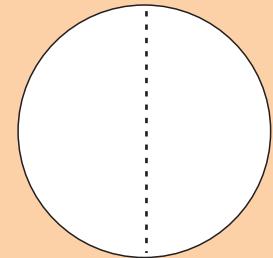
a)



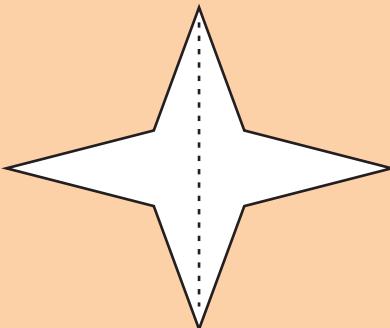
b)



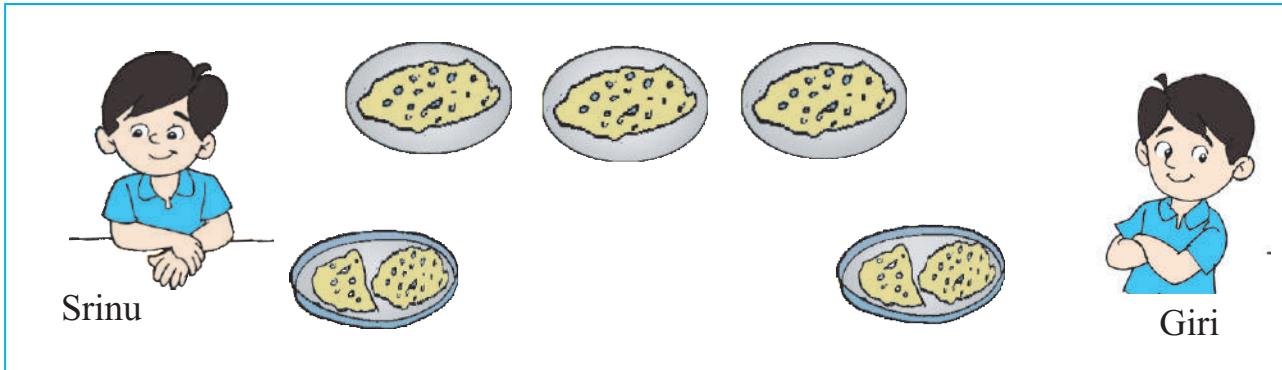
c)



d)



If Amma makes 3 dosas, how can she share them to Srinu and Giri equally?



Do Srinu and Giri get equal dosas ?



### Do these:

Share equally as expressed above.

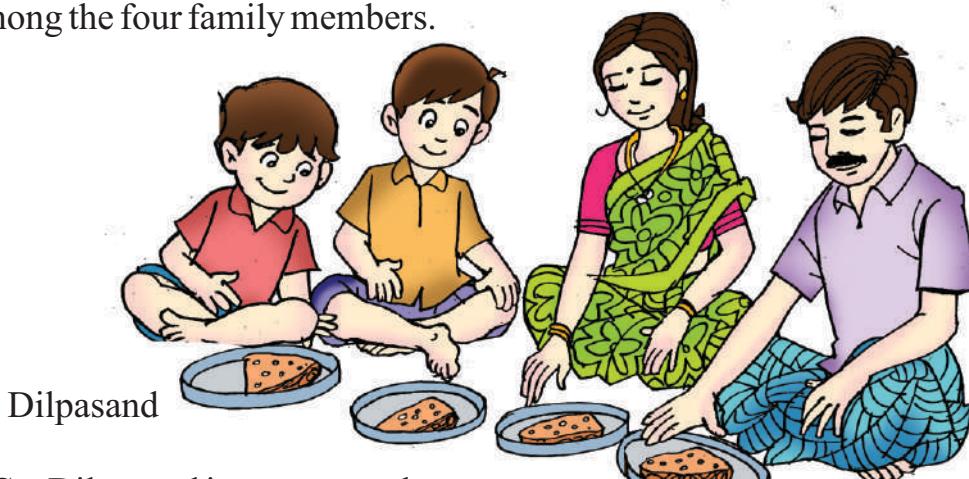
Sharing of 5 biscuits  
between two girls.



Sharing 7 chocolates  
between two girls.



**Quarter:** Nanna brought one Dilpasand. Now let's help them to share the Dilpasand equally among the four family members.



Dilpasand

**Step I:** Cut Dilpasand into two equal parts.

**Step II:** Cut again each one into two equal parts. Each one of these pieces is called a quarter. It is represented as  $\frac{1}{4}$ .

**Half of half** is called “**quarter**”. It is represented as ‘ $\frac{1}{4}$ ’.

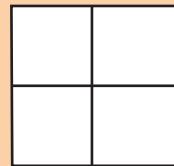
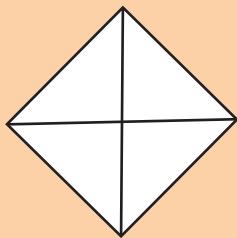
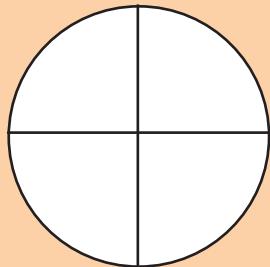
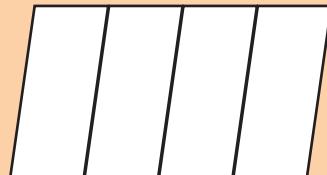
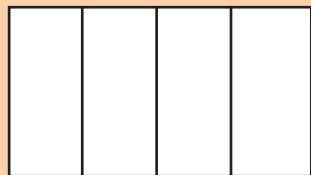
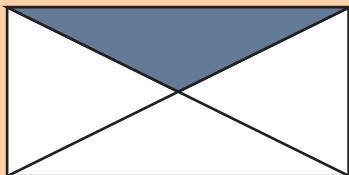
So each one gets a quarter piece of Dilpasand

4 quarter parts make one full Dilpasand

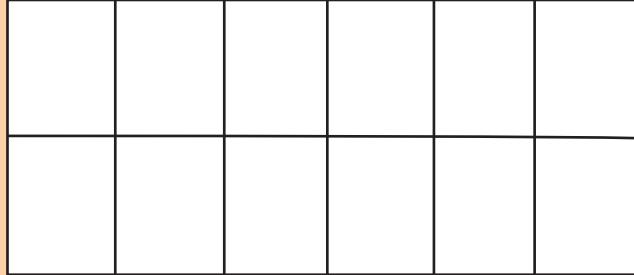
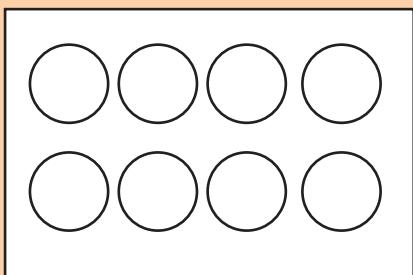
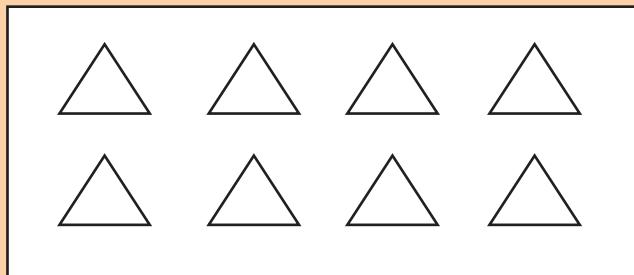
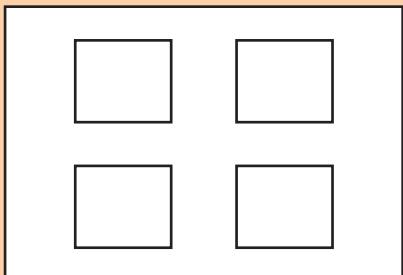


**Do these:**

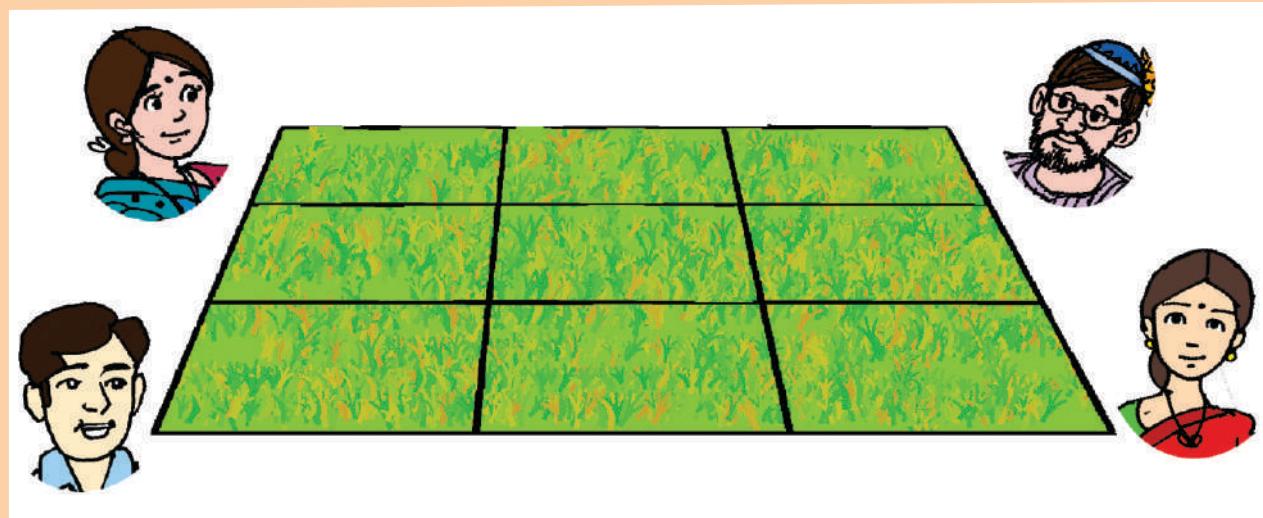
- I. Colour the quarter part of the figure. One is done for you.



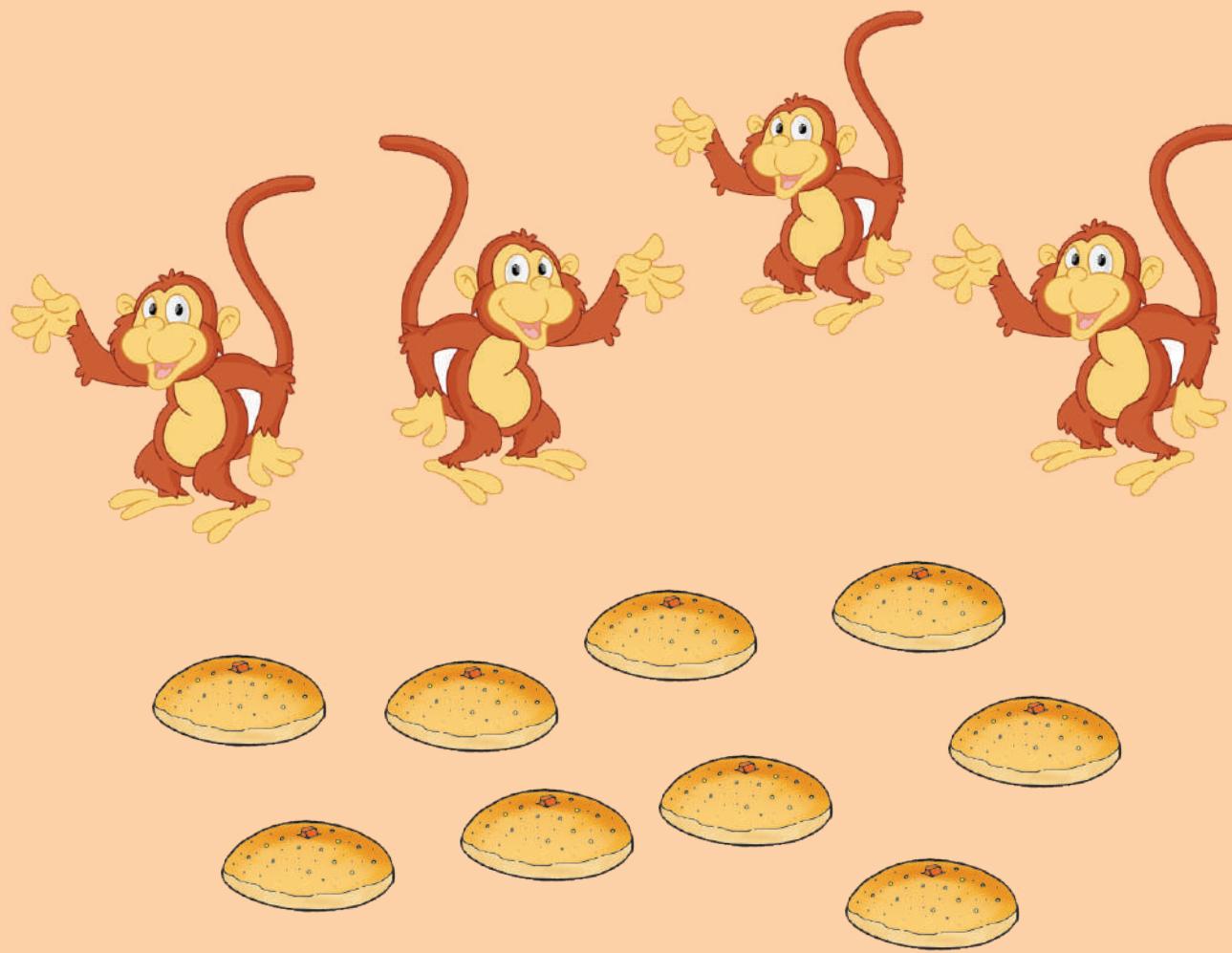
- II. Colour quarter number of objects in each picture.



III. There are four members in a family. Share the land equally.



IV. Share the buns equally among four monkeys.



## Exercise



I. Tick (✓) equally parted pictures.



( )



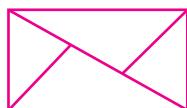
( )



( )



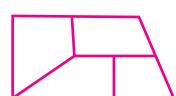
( )



( )



( )



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( )



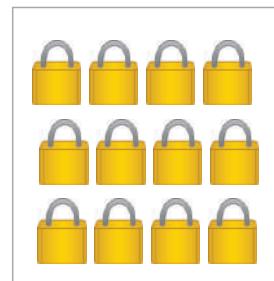
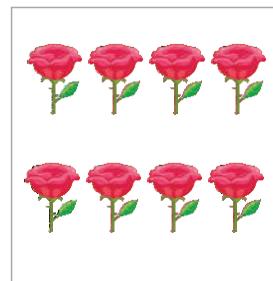
( )



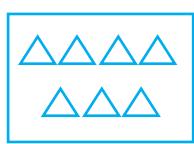
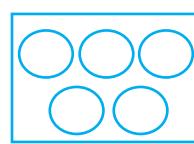
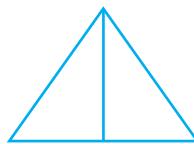
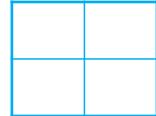
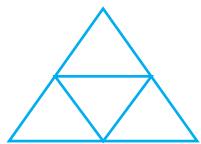
( )



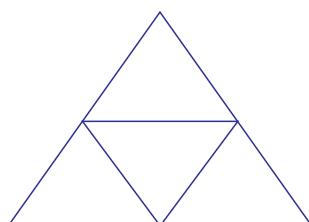
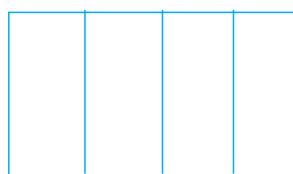
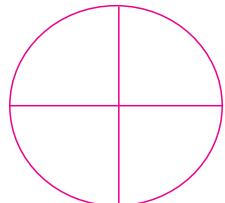
II. Make 2 equal parts.



III. Shade “half” part of each picture.

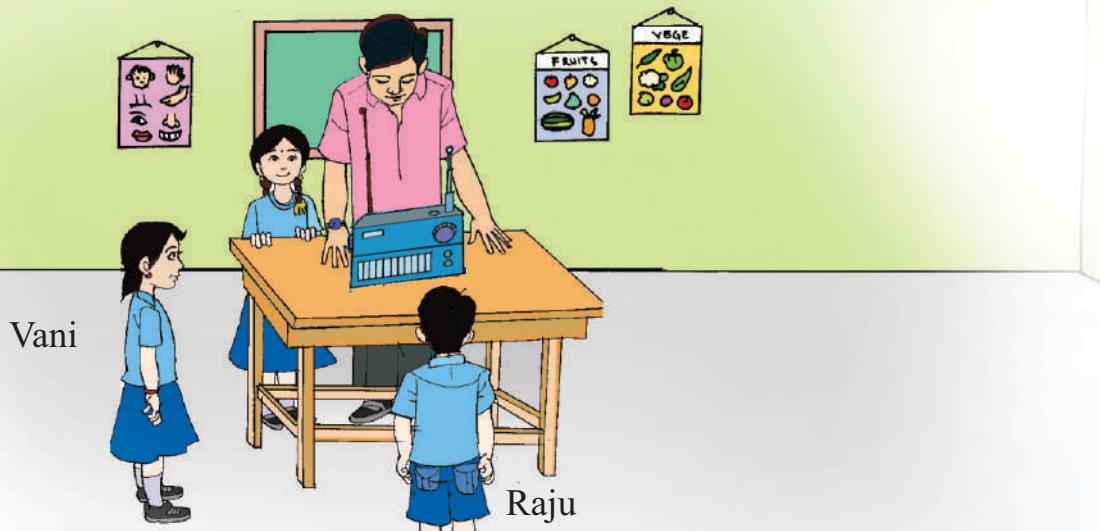


IV. Shade “quarter” part of each picture.





**Viewing objects from top, front and side view :**



One day class III students are listening radio lesson. They saw radio on the table from different directions. Observe the view position of radio on the table.

#### Observe the radio positions.

Name of the person	Position of the Radio	View to the person
Raju		Front view
Vani		Side view
Teacher		Top view

**Example :** Tick ( ✓ ) the correct view of the shoe (Top / Front / Side).



(Top / Front / Side)



(Top / Front / Side)



(Top / Front / Side)



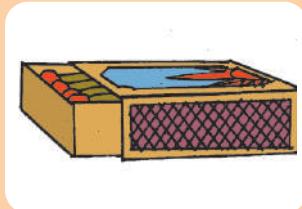
## Do these:

1. Tick ( ✓ ) the correct view of the different items (Top / Front / Side).

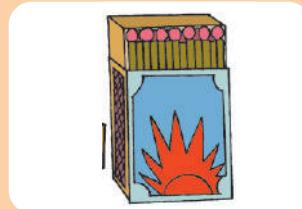
a)



(Top / Front / Side)

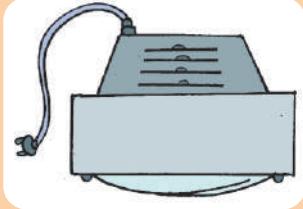


(Top / Front / Side)

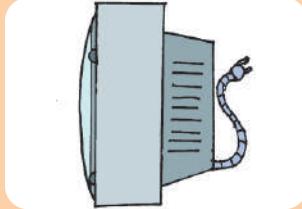


(Top / Front / Side)

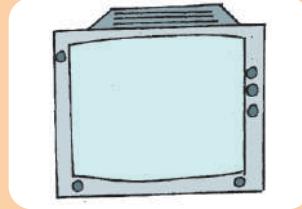
b)



(Top / Front / Side)

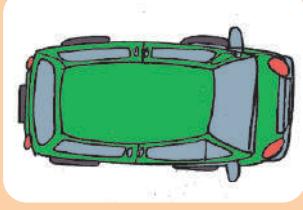


(Top / Front / Side)

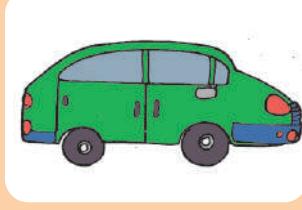


(Top / Front / Side)

c)



(Top / Front / Side)



(Top / Front / Side)

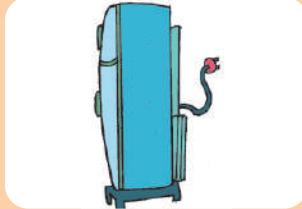


(Top / Front / Side)

d)



(Top / Front / Side)

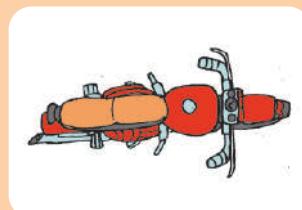
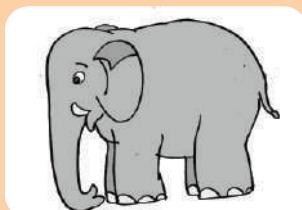


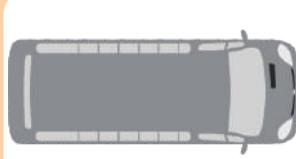
(Top / Front / Side)



(Top / Front / Side)

2. Look at the pictures and write the view of the picture (Top / Side / Front)

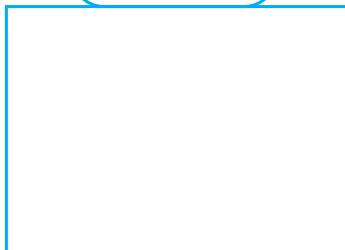




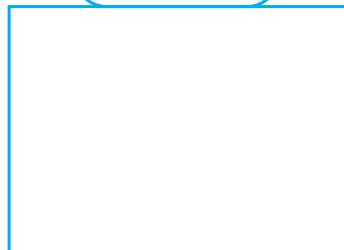
## Activity

- a) Draw Side, Top and Front view pictures of an eraser.

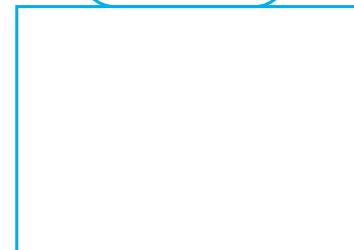
Front



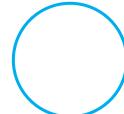
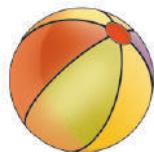
Side



Top



- b) Match the object with the shapes. One is done for you



## **Rolls and Slides:**

Which one slides and which one rolls?

A) \_\_\_\_\_ slides

B) \_\_\_\_\_ rolls



**Teacher Note:** Conduct this activity in your class room with different objects.



### **Activity**



Observe the above pictures and list the objects that:

S.No.	roll	slide
1		
2		
3		
4		
5		
6		



The ball is in round shape (curved).



The book is flat.



**Observe the objects in the above picture and classify**

flat objects	curved objects



The objects with flat surface slide.

The objects with curved surface roll.



**Do these:**

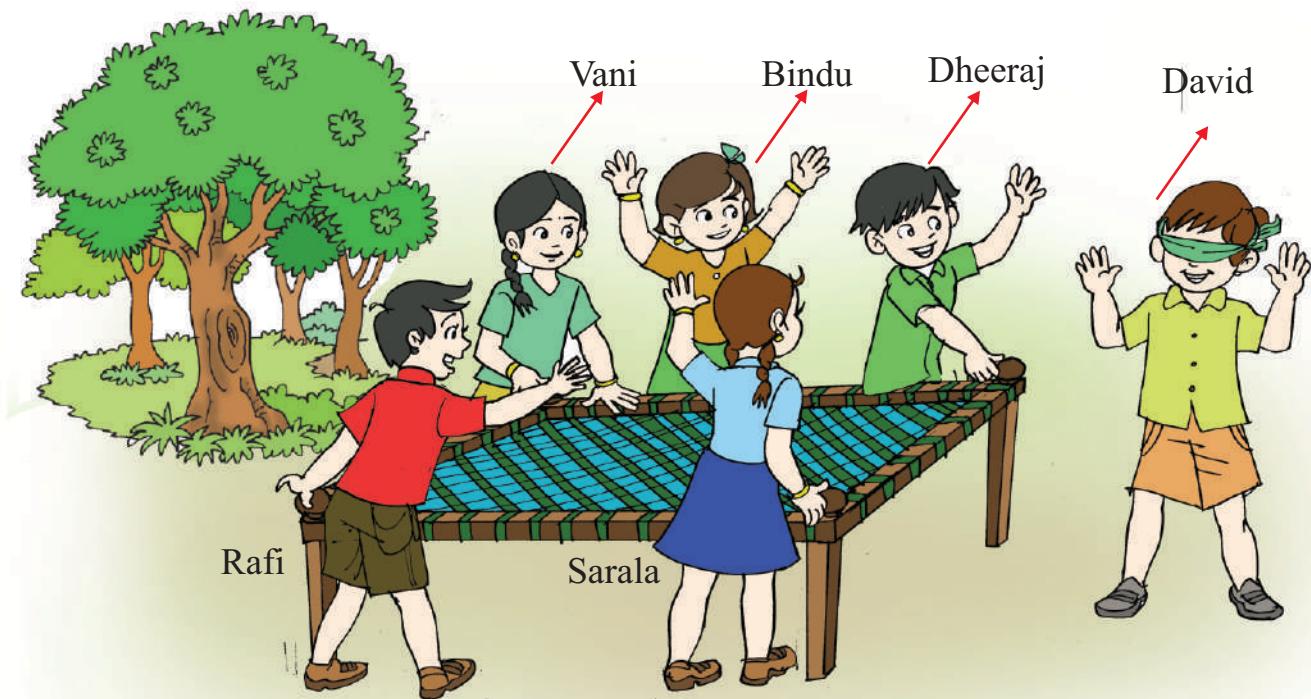
- a) Observe the following pictures. Mark ‘C’ against curved surface objects. Mark ‘F’ against the flat surface objects.



**Let's Play: Corners and Edges**

Vani and her 5 friends were playing a game. David was blindfolded. He was asked to keep clapping as long as he wished while others would move around a cot. When David stops clapping, everyone should stop wherever they were. The child who is at an edge is out of the game, who is at the corner is not out.





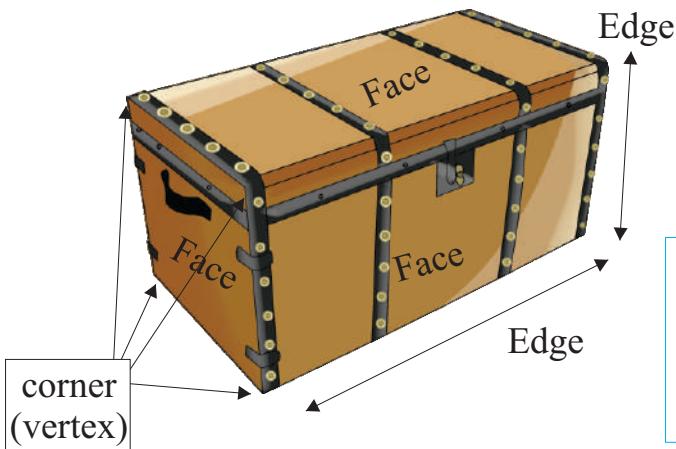
**Look at the picture and answer the following questions :**

1. Who are standing at corners?
2. Who is out?
3. Who are not out?
4. Why they are not out?

**Note:** Why not this game be played at a round table?

Many things around us have edges, vertices and faces.

**For example:**



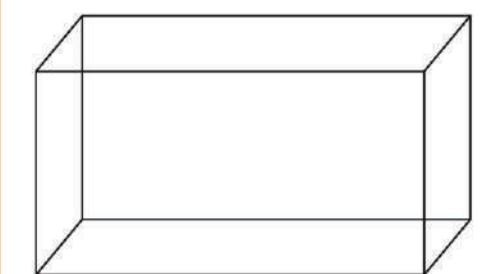
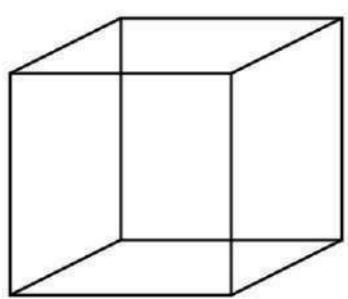
Another name of the corner is **vertex**. Plural of vertex is **vertices**.

The edge is where two faces meet.  
The vertex (corner) is where two edges meet.



### Do these:

- a) Colour the faces of these objects with orange, edges with blue and corners with red.



### Stamping :

Take an eraser. Press it on ink pad. Stamp its impression in the space provided. Repeat the same with the objects given in the table.

### Stamp images of the given objects



The image is called face of the object.

Some more expressions with objects available to you.

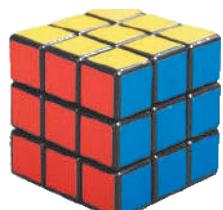
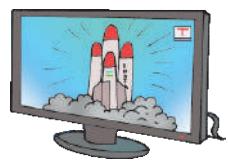
**Note to the teacher:** See the  $\triangle$  shaped objects to be available to the children.



## Activity

Take an eraser / small toothpaste box trace three different faces along all its edges.

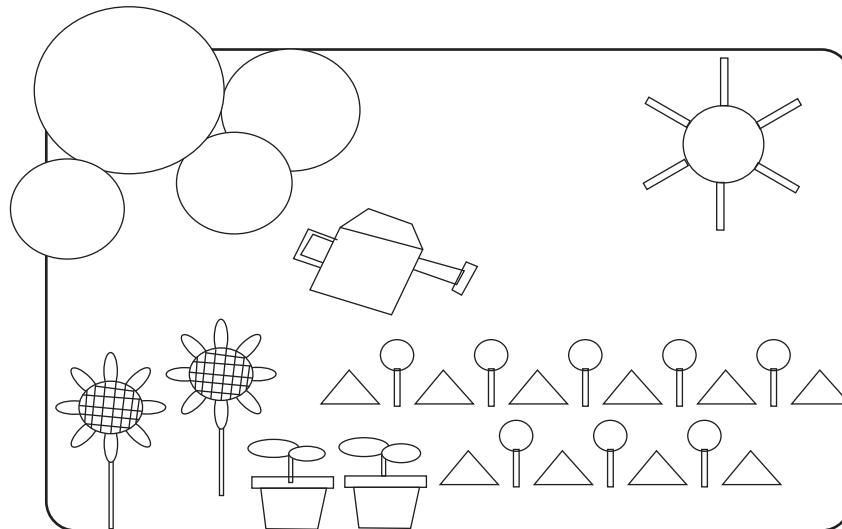
Observe the given real life objects and fill the table according to their shape.



Fill the table matching the shapes with their names.

Shaped objects	Shaped objects	Shaped objects	Shaped objects

Count the number of  $\square$ ,  $\square$ ,  $\triangle$ ,  $\circ$ , shapes in the picture given below and colour them as per your choice.



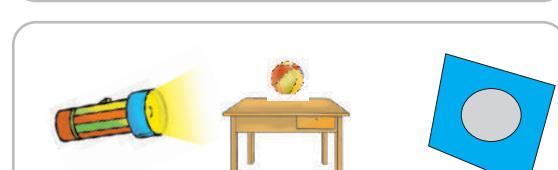
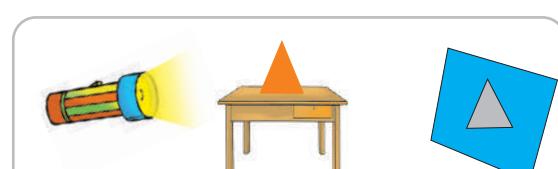
Observe the

- |                                  |                                |
|----------------------------------|--------------------------------|
| a) number of $\square$ s _____   | b) number of $\square$ s _____ |
| c) number of $\triangle$ s _____ | d) number of $\circ$ s _____   |

**Math Lab Activity:** (Observe the shadow of the objects)

Take book, ball, pencil box, plate, joker cap, glass, duster, chess board etc.,

Focus a torch on each object so that the image forms on the wall as shown in the figures. Change the object each time and observe the shade on the wall. Draw the shape of the image in the table given below.

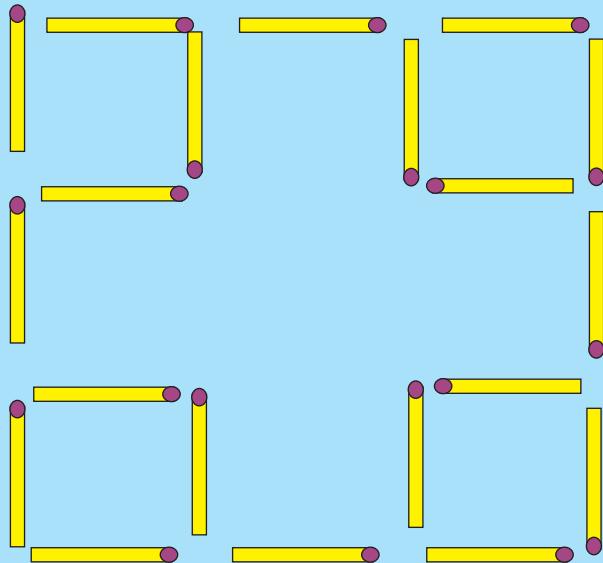


S.No.	Name of the Object	Shape of its shade
1	Chess board	<input type="checkbox"/>
2	Ball	
3	Book	
4	Coin	
5	Vicks candy	
6	Eraser	
7	Dice	
8	Samosa	



### Try these:

**Puzzle:** Here is a  shape made up of 20 sticks. Try to form 7  by moving any two sticks.

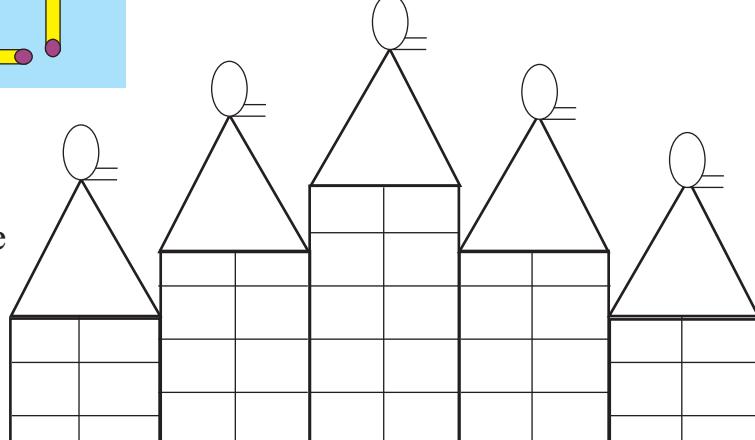


**Hint:**  
Move internal sticks.  
Think of small and big shapes .

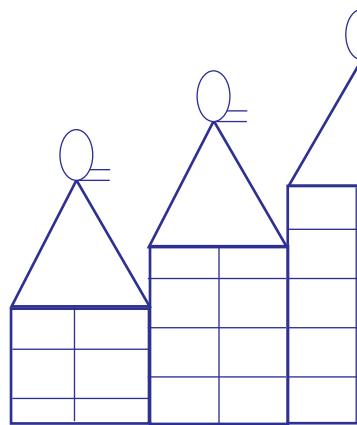


### Where is my other half (Symmetry)

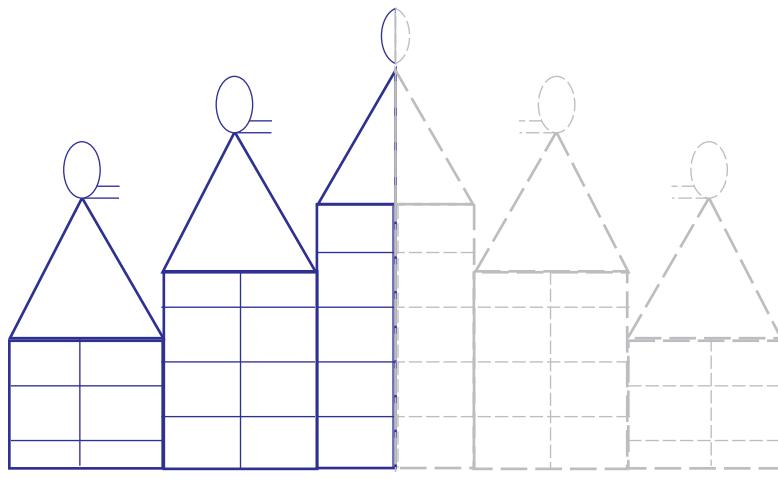
A king ordered an artist to draw the picture of his palace in one day.



The artist could only draw half of the picture in one day.



The king asked why he didn't draw the complete picture. Then the artist kept a mirror and showed the remaining half in the mirror.

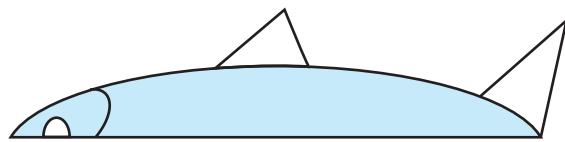
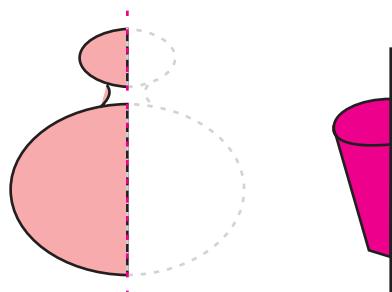


Children, now observe the picture with mirror and draw the other half.



### Activity - 1

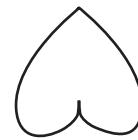
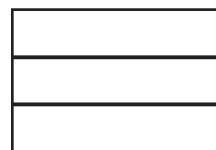
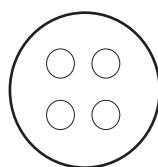
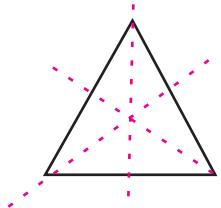
Children! Take a mirror. Keep it on the line. Observe the full picture. Then remove the mirror and draw the other half. One is done for you.





## Activity - 2

Look at the pictures given below. Divide them into equal halves with a dotted line. One is done for you. Draw such lines as many as possible to each picture.



A

B

G

J

2

8

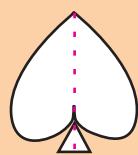
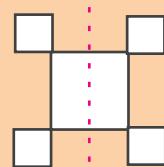
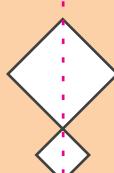
3

7

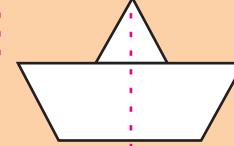


### Do these:

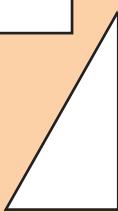
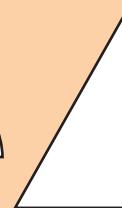
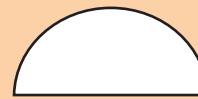
- I. Look at the pictures given below. Do the dotted lines divide the pictures into two equal halves? If so, mark them with a (✓) mark.



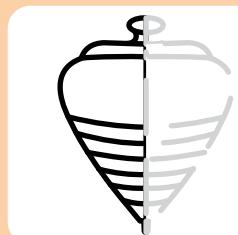
B



- II. Match the following pictures with their other halves.



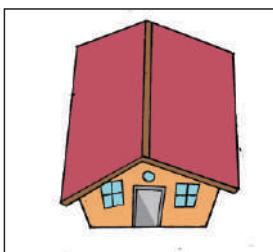
- III. Draw the other half of these pictures. Check with a mirror.



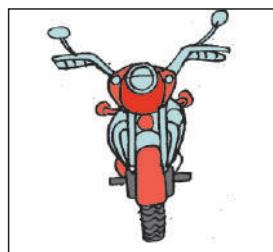
## Exercise - 1

1) Write the view of the following.

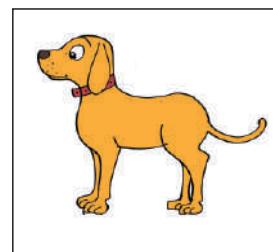
a)



b)

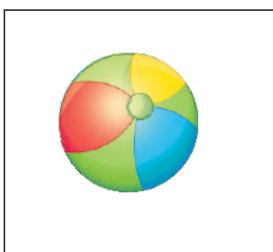


c)

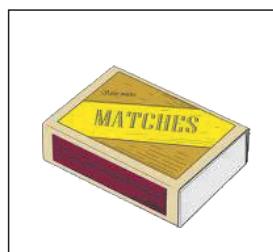


2) Write which one slides (or) rolls.

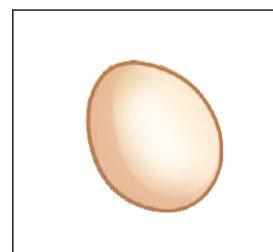
a)



b)



c)



3) Draw other of the following pictures.

a)



b)



4) Extend the following patterns.

a)

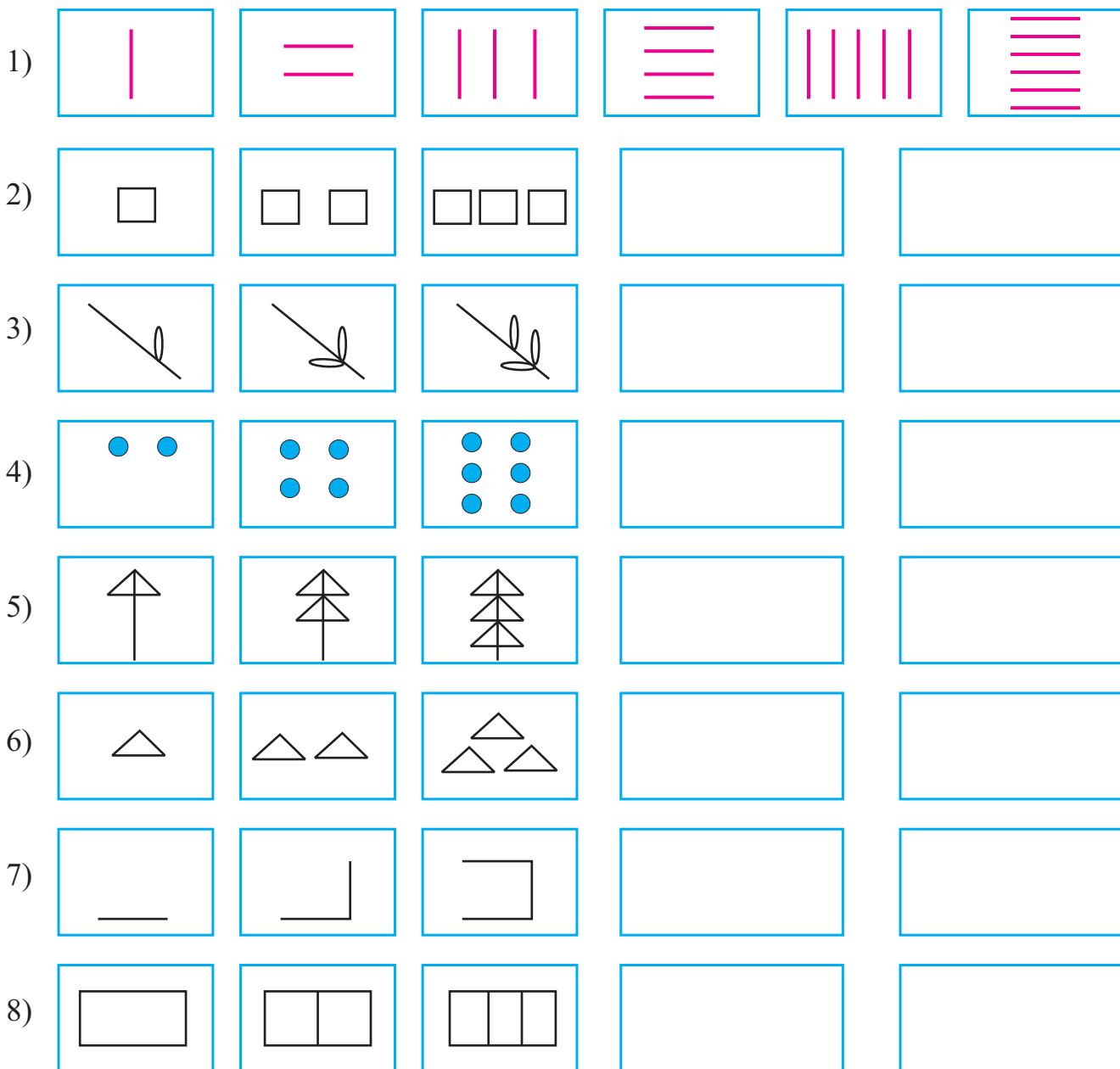


b)



Observe the pattern and draw the shape that should come next. One is done for you.

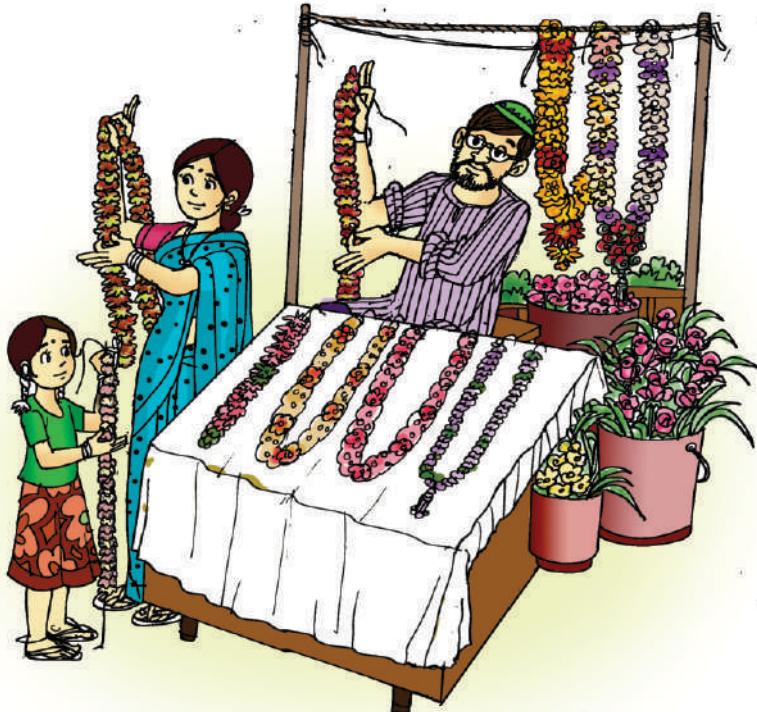
Example:



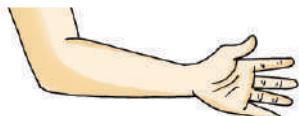
# Measurements



## CHINNI'S BIRTHDAY PARTY



I measured.  
It was 4 cubits.



Flower merchant's cubit

I measured.  
It was 7 cubits.



Chinni's cubit

I measured.  
It was 5 cubits.



Chinni's mother cubit

## What do you observe?

The measure of cubit differs from person to person. Therefore, to maintain uniformity in measurement, we need a standard unit for measuring lengths.



The standard unit for measuring lengths is “metre”. We simply write this as ‘m’



We use centimetres to measure shorter lengths. We denote centimetres by ‘cm’.

## Measuring instruments:

### For shorter lengths



15 cm scale



30 cm scale

### For larger lengths



1m tape

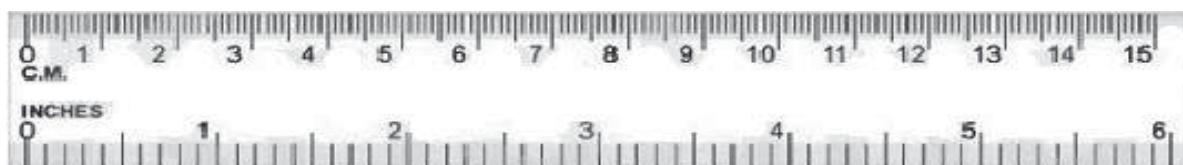


tape role

### Know about the scale:

Have you ever seen this in your school or geometry box?

This is a scale.



This is an instrument used for measuring lengths of objects. We can see the centimetres marked on the scale. The length between the lines marked with 3 and 4 is '1cm'. The length between the lines marked 4 and 5 is '1 cm'.

Hence the distance between any two consecutive numbers is 1 centimetre or 1 cm.

### How to measure the length of an object by using a scale:

I can see small lines on the scale.



I guess the distance between two large lines is 1cm.



Let's start measuring from initial position.



The length of the scale from 0 to 15 is 15cm.



Suppose we need to measure the length of a pencil, we place one end of the pencil at zero as shown in figure. Read the other end of the pencil pointing the number on the scale. This number is the length of the pencil.

In this figure, the pencil is pointing at 8.

Hence length of the pencil is 8 cms.





## Do these:

- Observe the following figures and write the lengths of the objects.

OBJECT	LENGTH

- Measure the length of your index finger and compare it with lengths of your friends index fingers.



**Do you know?**  
The length of the  
cricket bat is about 1 metre.

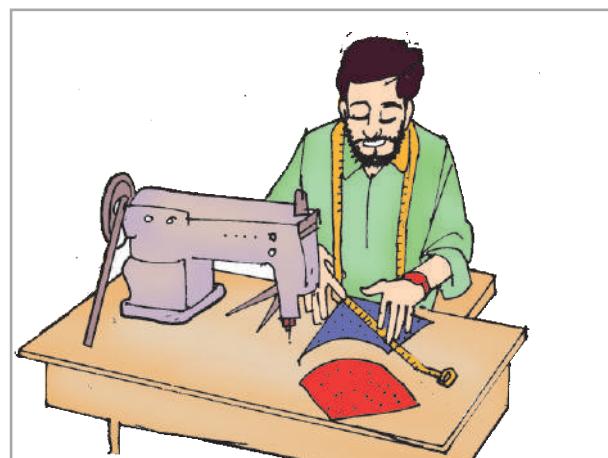
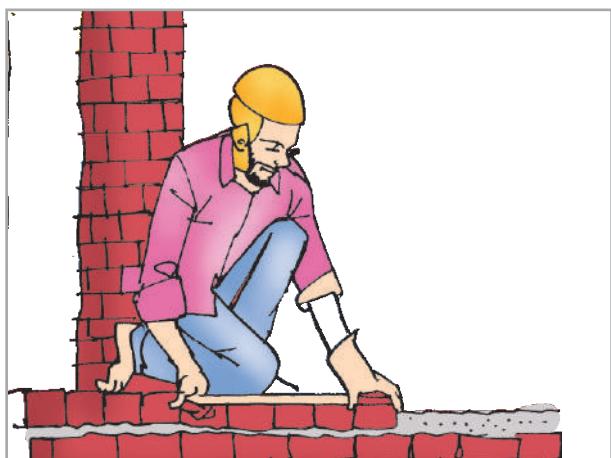


3. Complete the following table.

Object	Estimated length	Actual length
Your note book		
Piece of chalk		
Maths text book		
Your classroom door		
Your sharpener		

### Measuring bigger lengths:

Do you think that it is easy to measure the length of your classroom in cms? Absolutely not. We need bigger units to measure bigger lengths. So, to measure bigger lengths, we use meter scale or measuring tape.



Meter Scale

### Math Lab activity:

$$1\text{m}=100\text{cm}$$

Making 1m thread.

1. Take a reel of cotton thread .
2. Using a tape measure exactly 100cm of the thread.
3. Cut and separate 100cm length string from the reel.
4. Now you have a 100cm long measuring string ready with you.





## Do these:

- Measure the lengths of
  - black board
  - table
  - class room
  - distance between two walls of your class room
 using the meter scale or a measuring thread or a measuring tape.
- Identify which of the following objects are measured in centimeters and which are measured in meters. Write 'm' or 'cm' in the given boxes.
  - Height of the building
  - Length of a pencil
  - Length of a saree
  - Length of a tube light
  - Length of a note book
  - Length of a car
- Write the lengths of the objects given below.




**Do you know some lengths are measured in feet and inches too. 1 foot = 12 inches.**

### Other units of length:

Ex: 1. My shoe size is 6 inches.  
Size of the shoes is expressed in inches.



Ex: 2. My height is 3 feet 8 inches.  
Height of people are represented in feet and inches.



## Do these:

- Express your shoe size in inches using a scale.
- How many cm does 1m have?

## WEIGHT

On her birthday Chinni wants to distribute laddoos.



What are the material needed to make laddoos?

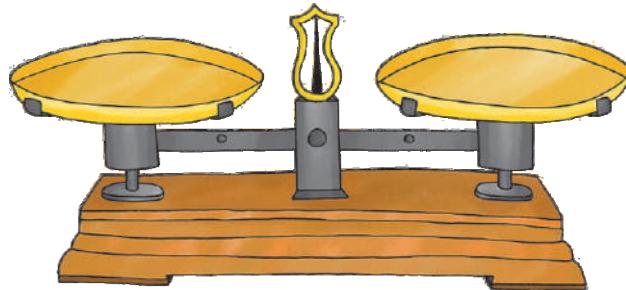
Material needed for laddoos

Besan flour	1 kg
Sugar	1 kg
Elachi	10 g
Cashew nuts	100 g
Kismis	100 g
Ghee	200 g



Besan flour -1kg. What is Kg ? How to measure it?

A balance is used to measure weights.



The weighing stones are ..



The weights of objects are measures in kilograms and is written as kg.

The object which needs to be weighed is to be put in one pan of the balance. Then, weighing stones are to be put on the other pan till the scale balances. The correct weight of the object is the total of weighing stones placed in the other pan..

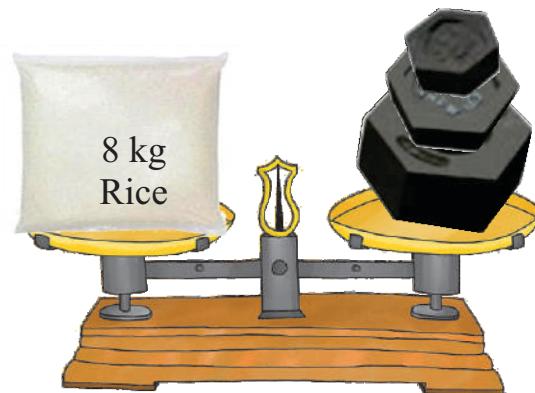


What are the materials measured in kg in the above list?

Besan-1kg, Sugar-1kg. Observe how to measure.



Write the correct weights on the other pan (Use 1kg, 2kg and 5kg weighing stones).



### Do these:

1. Measure the weights of these items to the nearest kilogram with a balance.
  - a) Your school bag
  - b) Weight of 3 books
  - c) A brick



### Try this:

Lift 1kg weighing stone or 1kg table salt packet with one of your hands and feel the weight. Now write any five objects you come across that weigh.

- a) approximately 1kg.
- b) less than 1 kg.
- c) more than 1 kg.

The other types of balances used for measuring weights are



### Do you Know?

$$1 \text{ Kg} = 1000 \text{ g}$$



What are the other materials used for laddoos and how their weights are expressed .

- a) Elachi -10g      b) Cashew nuts -100g      c) Kismis -100g

## What do you observe?

Some materials are measured in grams.

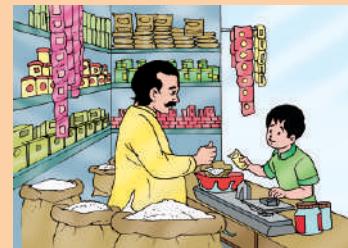
Weighing stones in ‘g’ Objects with less than 1 kg weighed are measured in grams. Simply written as ‘g’



## Do these:

1. Collect the cartons / empty wrappers and read the weights written on them about their contents and write in the table.

S.No.	Contents	Weighting
1	Paste	
2	Biscuits	
3	Bath soap	
4	Detergent Soap	



2. Choose the suitable unit of measurement (g / kg). One is done for you.

- a) Eraser ..... g
  - b) 100 pages notebook ..... .....
  - c) Your school bag ..... .....
  - d) Slate ..... .....

3. Write appropriate units of measurement after the numbers given (kgs or grams)

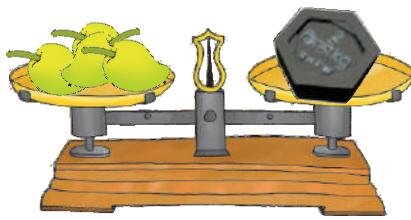
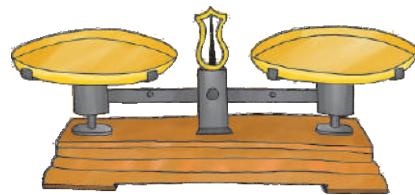
- a) Tamarind pod 15 .....
  - b) Shirt button 3 .....
  - c) Water melon 5 .....
  - d) Lemon 8 .....
  - e) Pumpkin 7 .....
  - f) Orange 50 .....
  - g) Egg 48 .....



These are some different types of balances. They are used in different instances. Write some more instances of using these balances.



\* People who buy newspapers



\* In small provision shops



\* Vegetables and fruits vendors etc...



\* In big malls, sweet vendors.



\* In gold shops



\* In hospitals

## CAPACITY

On Chinni's birthday mother prepared 2 bottles (same size) of orange juice. Chinni filled the juice in tumblers to serve the guests.

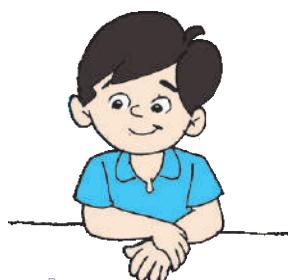
The bottle filled  
5 tumblers.

The other bottle  
filled 12 cups.



What do you observe?

To avoid different answers we take a vessel or jar of standard capacity. To do so, we need standard units. Litre is the standard unit to measure the capacity of liquids. We denote Litre as L.



The amount of liquid,  
which a vessel can hold is  
called its capacity.

You can find lots of examples of different liquids measured in litres in daily life.



Jars for measuring  
capacity in litres.





### Do these:

1. Can you say some instances where we use more than 1 litre?
2. Compare with 1 l water bottle. Name the friends who have less than 1 l bottle and who have more than 1 l bottle.

Sl. No	Name of your friend	less than 1l	more than 1l
1.			
2.			
3.			
4.			

3. Match the following.

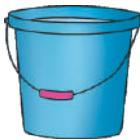
a) About 1 litre



b) About 10 litres



c) About 500 litres



d) About 5 litres



How do we measure little amounts of liquids like a spoon of honey, syrup in a bottle, shampoo in a sachet, amount of medicine taken into an injection etc? We use millilitres to measure smaller amounts.

*For example:-*



Jars for measuring small amount of liquids in millilitres:



Measuring Jar



A spoon can hold 5 ml. of liquid approximately.

Keeping this in mind, estimate the capacities of these objects.

Item	Estimated Capacity	Actual Capacity
 Small shampoo sachet		
 Small coconut oil		
 Small milk packet		
 Buttermilk packet		
 Mosquito repellent refill		

2. Collect some different sizes of glasses. Estimate their capacities and measure them by using the measuring jar.



Glass	Estimate Capacity	Actual Capacity



TIME

Chinni celebrates her  
birthday on 22<sup>nd</sup>  
February every year.  
Can you show this  
date on the calendar  
below?



# 2020 Calendar

JANUARY							FEBRUARY							MARCH							APRIL									
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S			
							1	2	3	4				1	1	2	3	4	5	6	7						1	2	3	4
5	6	7	8	9	10	11	2	3	4	5	6	7	8	8	9	10	11	12	13	14		5	6	7	8	9	10	11		
12	13	14	15	16	17	18	9	10	11	12	13	14	15	15	16	17	18	19	20	21		12	13	14	15	16	17	18		
19	20	21	22	23	24	25	16	17	18	19	20	21	22	22	23	24	25	26	27	28		19	20	21	22	23	24	25		
26	27	28	29	30	31		23	24	25	26	27	28	29	29	30	31						26	27	28	29	30				
MAY							JUNE							JULY							AUGUST									
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S			
							1	2		1	2	3	4	5	6		1	2	3	4		1						1		
3	4	5	6	7	8	9	7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8			
10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15			
17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22			
24	25	26	27	28	29	30	28	29	30					26	27	28	29	30	31		23	24	25	26	27	28	29			
31																				30	31									
SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER									
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S			
							1	2	3	4	5		1	2	3	1	2	3	4	5	6	7	1	2	3	4	5			
6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12			
13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21	13	14	15	16	17	18	19			
20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26			
27	28	29	30				25	26	27	28	29	30	31	29	30						27	28	29	30	31					

Use the above calendar and answer the following.

- a) How many months are there in a year?
  - b) Write the names of all the months in a year.



- c) How many days are there in the month of January ?
  - d) How many days are there in the month of November ?
  - e) How many days are there in the month of February ?
  - f) Write the names of the months, that have 31 days.
- .....

- g) Write the names of the months that have only 30 days.
- .....

When do you celebrate your birthday? Do you know how to write the date?

Let's see with an example.

We got Independence on 15<sup>th</sup> August 1947.

We write this as      15-8-1947  
                         ↓    ↓    ↓  
      Day    Month    Year



### Activity

Prepare current year calendar.

January						
Sun						
Mon						
Tue						
Wed						
Thu						
Fri						
Sat						

February						
Sun						
Mon						
Tue						
Wed						
Thu						
Fri						
Sat						

March						
Sun						
Mon						
Tue						
Wed						
Thu						
Fri						
Sat						

April						
Sun						
Mon						
Tue						
Wed						
Thu						
Fri						
Sat						

May						
Sun						
Mon						
Tue						
Wed						
Thu						
Fri						
Sat						

June						
Sun						
Mon						
Tue						
Wed						
Thu						
Fri						
Sat						

July						
Sun						
Mon						
Tue						
Wed						
Thu						
Fri						
Sat						

August						
Sun						
Mon						
Tue						
Wed						
Thu						
Fri						
Sat						

September						
Sun						
Mon						
Tue						
Wed						
Thu						
Fri						
Sat						

October						
Sun						
Mon						
Tue						
Wed						
Thu						
Fri						
Sat						

November						
Sun						
Mon						
Tue						
Wed						
Thu						
Fri						
Sat						

December						
Sun						
Mon						
Tue						
Wed						
Thu						
Fri						
Sat						



## Do these:

1. In present year calender, mark the birthdays of your friend and family members .
2. Complete the table by writing the birth dates of the persons given in it.

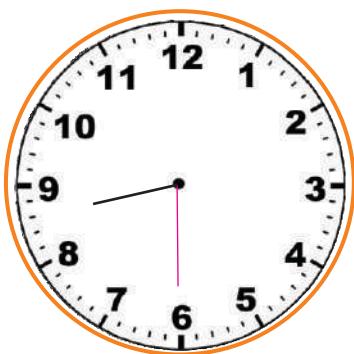
Person	Date of Birth
Your's	
Your father	
Your mother	
Your brother / sister	
Your friends	



## CLOCK

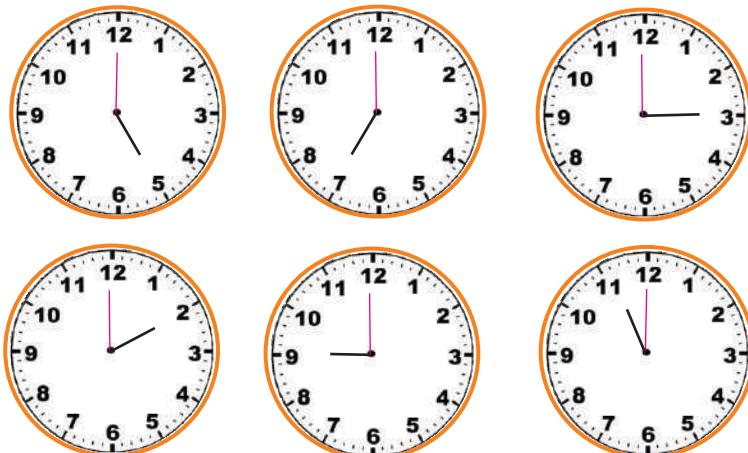
Hello, I am your clock.  
I am your companion all the day.  
You can measure time by reading me.

The time shown in the first clock is 5 O' clock. Write the times shown by other clocks given here.



8 : 30

If minute hand completes one rotation, the hour hand moves by one number.  
i.e one hour.



Observe the time shown by the adjacent clock.  
The hours hand is in between 8 and 9.  
The minute hand is on 6.  
So, to read such times, we need to know.....  
something more about the clock.

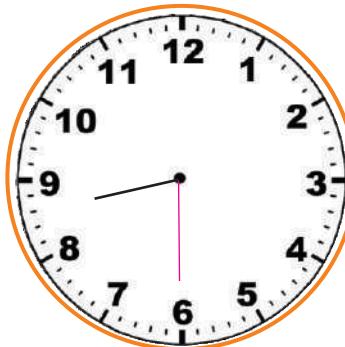
### Do you know?

7 O' clock read as 7 on / of the clock  
1 hour = 60 minutes

## How to read the clock?



Long hand shows Minutes



Short hand shows hours



Hours hand crossed 8 and is in between 8 and 9.  
So, now the time is 8 hours.....

Minute hand takes 5 minutes to pass from one number to next number. So, start at 12 and then count by 5s until you reach the number shown by minute hand. Here the count comes out to be 30 ( $6 \times 5 = 30$ ).

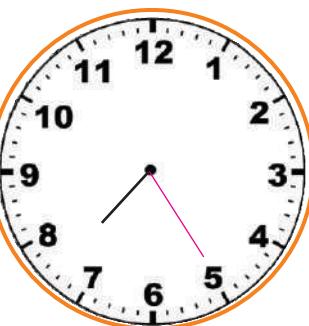


So, the time is 8 hours  
30 minutes. It can be  
written as 8 : 30



Now, read the clock  
and write the time.

7 hours



7 : 25

$5 \times 5 = 25$  minutes





6 hours



$2 \times 5 = 10$  minutes



8 hours



6 : 10



$4 \times 5 = 20$  minutes

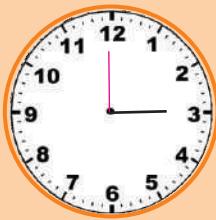


8 : 20



### Do these:

1. Read the clock and match the following.



10:30

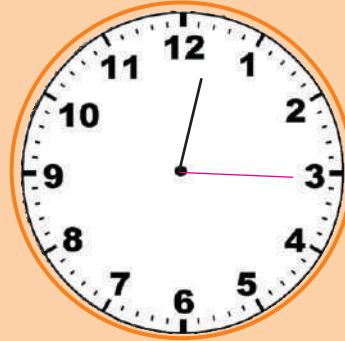
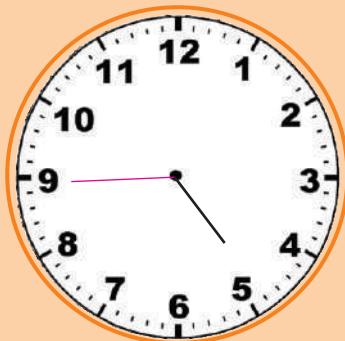
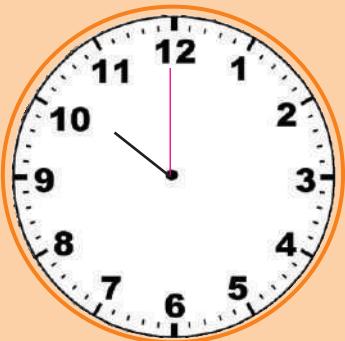
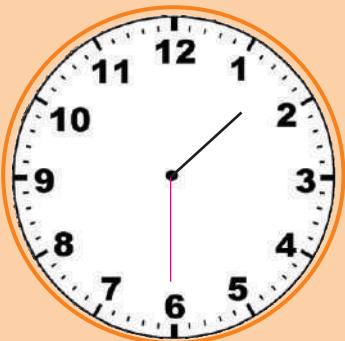
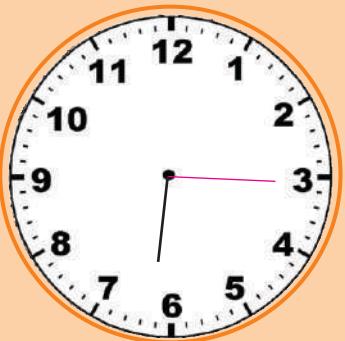
8:00

11:00

11:30

3:00

2. Read the clock and write the time in the given box.



## Glossary

Abacus	- పూసల చట్టం	Distribute	- పంచు
Addition	- కూడిక	Divide	- విభజించు
Amount	- డబ్బు	Dividend	- విభాజ్యం
Announce	- ప్రకటించు	Division	- భాగహరం
Arrange	- అమర్ఖడం	Divisor	- భాజకము
Ascending order-	ఆరోహణ క్రమం	Edge	- అంచు
Available	- అందుబాటు	Equal	- సమానం
Balance	- మిగిలిన	Even number	- సరి సంఖ్య
Balance	- త్రాసు	Exactly	- ఖచ్చితంగా
Beads	- పూసలు	Face value	- సహజ విలువ , వాస్తవ విలువ
Benefit	- లాభం	Flat	- సమతలం
Breadth	- వెడల్పు	Fold	- మడత
Buy	- కొనడం	Form	- రూపం
Capacity	- పరిమాణం	Fraction	- భిన్నము
Collect	- సేకరించు	Greater than	- కంటే పెద్దది
Column	- నిలువు వరుస	Hang	- వేలాడదీయడం
Consume	- వినియోగించు	Height	- ఎత్తు
Corner	- మూల	Highest	- ఎత్తయిన
Cost	- ధర, వెల	Hour	- గంట
Count	- లెక్కించు	Hundreds	- వందలు
Currency	- సగదు	Image	- చిత్రం
Curved	- వంపు తిరిగిన	Increasing	- పెరుగుతున్న
Data	- దత్తాంశం	Index finger	- చూపుడు వేలు
Decrease	- తగ్గించబడు	Invest	- పెట్టుబడి
Descending order	- అవరోహణ క్రమం	Is equal to	- సమానమైన
Difference	- వ్యత్యాసం, తేడా	Least	- అత్యంత చిన్న, తక్కువ
Digit	- అంకె	Leftover	- మిగిలిపోయినది
Distance	- దూరం	Length	- పొడవు

Less than	- కంటే తక్కువ	Relation	- సంబంధం
Marbles	- గోళీలు	Remain	- మిగిలిన
Measurement	- కొలత	Reminder	- శేషం, మిగిలినది
Minute	- నిమిషం	Require	- ఆవసరం
Money	- డబ్బు, సౌమ్య	Row	- అడ్డు వరుస
Multiplicand	- గుణయము	Scale	- కొలబద్ద
Multiplication	- గుణకారం	Second	- రెండవ, నిమిషంలో 60వ వంతు
Multiplier	- గుణకము	Sell	- అమ్మడం
Near to	- దగ్గరగా ఉన్న	Shade	- నీడ
Number	- సంఖ్య	Shape	- ఆకారము, రూపము
Numerals	- సంఖ్యలు	Share	- పంచు, భాగం
Object	- వస్తువు	Subtraction	- తీసివేత
Observe	- పరిశీలించు	Subtrahend	- వ్యవకలితం
Odd	- బేసి	Sum	- మొత్తం
Ones	- ఒకట్లు	Surface	- ఉపరితలం
Palm leaf	- తాటి ఆకు	Symbol	- గుర్తు
Part	- భాగం	Tally mark	- గణన చిహ్నం
Pay	- చెల్లించు	Tens	- పదులు
Place value	- స్థాన విలువ	Thousands	- వేలు
Pluck	- తుంచడం, లాగడం	Total	- మొత్తం
Point	- బిందువు	Vendor	- అమ్మేవారు
Prepare	- తయారు చేయు	Vertex	- శీర్షం
Price	- వెల, ధర	Vessel	- పాత్ర
Product	- వస్తువు	View	- చూసే దృష్టి
Purchase	- కొనడం	Weight	- బరువు
Queue	- వరుస	Width	- వెడల్పు
Quotient	- భాగఫలం		
Range	- విస్తృతి - పరిధి		
Recite	- వల్లెవేయడం		
Reduce	- తగ్గించు		