ગુજરાત શૈક્ષણિક સંશોધન અને તાલીમ પરિષદ, ગાંધીનગરના પત્ર-ક્રમાંક
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A 'Teacher's book' has been prepared for teachers and parents (separately). Kindly use this.

MATHEMATICS

Standard 3

(Semester I - II)

PLEDGE

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 respect my parents, teachers and all my elders and treat everyone with courtesy.

I pledge my devotion to my country and its people.

My happiness lies in their well-being and prosperity.

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Gujarat State Board of School Textbooks
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PREFACE

In keeping with the guidelines laid down under NCF-2005 and RTE-2009, structural pedagogical changes have come about in primary education, curriculum and syllabus design and textbooks across India. This change refers to our understanding of concerned subjects and teaching-learning procedure on the whole. The primary objective of this syllabus is to foster creativity, out-of-box thinking, logical and analytical skills among young children keeping this approach in mind, the Textbook Board of Gujarat takes pleasure in introducing the textbook of **Standard 3 Mathematics** to students, teachers and parents painstakingly prepared by G.C.E.R.T., Gandhinagar.

IGNUS-erg Team Members have provided vital inputs and guided the State Resource Group members in the entire process of framing new syllabus and designing the textbooks. UNICEF and the core-group members of the concerned subjects have been quite helpful at various junctures.

Before prescribing this textbook in the schools across Gujarat, Gujarati edition had been introduced in selected schools on an experimental basis. Based on the feedback received from the stakeholders, necessary changes have been incorporated by Gujarat Council of Education and Research Training.

Gujarat State Board of School Textbooks convened a meeting of invited subject-experts and experts from GCERT to prepare the final draft of Gujarati edition textbook before prescribing it in the primary schools across Gujarat.

After that Gujarat State Board of School Textbooks has invited experienced teachers to translate it into english and subject expert teachers reviewed this book and then final edition is prepared.

Every effort has been made to maintain quality of the book and to cater to the taste of young students. We hope that young children will like the four-coloured form of this textbook and make the optimum use of this book. Efforts have been made to make this text book errorfree. Still we solicit suggestions from all the stakeholders.

Dr. Bharat Pandit
Director

Date : 3-3-2015

Dr. Nitin Pethani
Executive President

Gandhinagar

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FUNDAMENTAL DUTIES

It shall be the duty of every citizen of India :

(a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;

(b) to cherish and follow the noble ideals which inspired our national struggle for freedom;

(c) to uphold and protect the sovereignty, unity and integrity of India;

(d) to defend the country and render national service when called upon to do so;

(e) to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;

(f) to value and preserve the rich heritage or our composite culture;

(g) to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures;

(h) to develop the scientific temper, humanism and the spirit of inquiry and reform;

(i) to safeguard public property and to abjure violence;

(j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement.

(k) to provide opportunities for education by the parent or the guardian, to his child or a ward between the age of 6 and 14 years as the case may be.

INDEX

Semester I

Semester II

About this Text-Book....

This text-book has been prepared with a view to developing expected skills among the students on the basis of Gujarat Curriculum Frame-work (GCF). Special emphasis has been put on acquaring the knowledge through principles by the students in such a way that, they may not resort to craming. The maximum efforts has been made so that the children learn the concepts of Mathematics, students can think logically. Solve the problems, understand the roll of Mathematics in the beauty of nature and can use Mathematics in day-to-day dealings.

Each chapter begins with the activities based on the experiences of the children. The objective is that the studetns may be inspired to think, may do similar experiments and finally; what they have learnt may be evaluated as per method of ERAC by themselves.

For the preparation of this new text-book the parameters decided are : syllabus according to the age-group of children, continuity and co-ordination of concepts of two standards, simple and short presentations, life-oriented concepts as per guidelines of RTE and utility of local objects. A group of Mathematics teachers directly teching in the primary schools who are selected in SRG have prepared and reviewed this text-book as per the parameters mention here. This final script has been prepared with appropriate correction after getting reviewed by the experts of mathematics and after three years introductory implimentation of Gujarati edition by the Gujarat State Board of School Textbooks.

Each chapter in the text-book is introduce with the titles : 'Let us recall', 'Let us learn Something new', 'Practice' and 'exercise'. The answers to the exercises are given at the end of the chatper. 'Revision' has been given at the end of every three or four chapters so that students may get practice.

The syllabus of this text-book is divided into two semester. Chapter 1 to chapter 5 are in the 1st semester and chapter 6 to chapter 13 are in the 2nd semester.

The concept of place-value and comparison for numbers upto 999 is in chapter 1 : Numbers-1. Odd and even numbers is in chapter 2 : Numbers-2. Addition of two or three digit numbers with two or three digit numbers without carrying forward and with carrying for forward where sum will not exceed 999 is in chapter 3 : Addition. Subtraction of two or three digit numbers from two or three digit numbers without borrowing and with borrowing in chapter 4 : Subtraction. Multiplication of two or three digit numbers by one digit numbers so that the products do not exceed 999 in chapter 5 : Multiplication.

The concept of reading the calender, mutual conversion of hours and minutes and their addition in chapter 6 : Time. Identification geometrical shapes like triangle, suare, rectangle, circle, pentagon and hexagon in chapter 7 : Shapes. Division of two or three digit numbers by 1 digit numbers in chapter 8 : Division. Proper fractions having numberator as well as denominator not greater than 4 in chapter 9 : Fraction. Introduction of coins of denomination rupee, one rupees, two rupees, five rupees and ten rupees and also currency notes in chapter 10 : Currency. Mutual conversion of meter-centimeter and their addition-subtraction in chapter 11 : Length. Relation between kilogram and gram and their addition-subtraction in chapter 12 : Weight. Addition-subtraction of litre-mililitre in chapter 13 : Capacity. Explanation is given by using Pictures, figures, project-work, educational-games and various activities.

It is hoped that the students, the teachers and the parents will like this text-book prepared for the students of standard III.

1 Numbers : 1

- **Let us recall :**
- **Activity 1 :**

In the picture given above children are playing with gravels, aren't they ? So, friends, you also go out of the class-room and collect a handful of gravels. Make groups of four and collect the gravels. As shown in the picture, keep the number-card on the ground, drop the eraser from a little height. Pick the number of gravels with you as the eraser falls on a certain number. Play five times like this and then count the number of gravels collected by you.

1. Write the number of gravels collected by you.

   In figures : ..... In words : .....

2. Who has collected the maximum number of gravels ? .....

   How many ? .....

3. Who has the minimum number of gravels ? ..... How many ? .....

4. Did your friend collect less or more gravels than you ? .....

   How many ? ..... .

5. Arrange the numbers with you in ascending order :

....., ..., ..., ..., ...

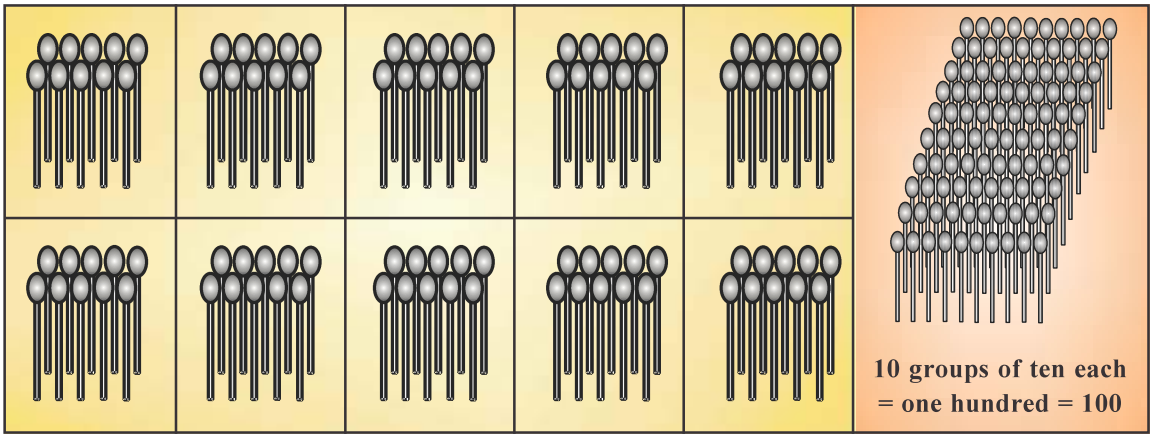
Now, make heaps of ten gravels each from all the gravels you have. How many such heaps of ten gravels each are formed ? How many gravels are left out ? Write the data in the table given below. Write similar information by asking your friends.

Name of friends	No. of gravels (in figures)	No. of gravels (in words)	Heaps of ten gravels each	No. of gravels left out
Nilesh	15	Fifteen	1	5

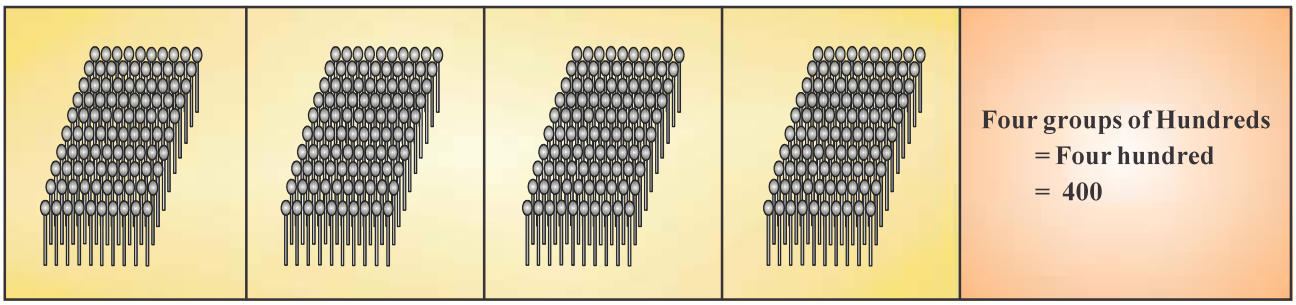
Make ten heaps of ten gravels each by collecting the heaps from your friends. Ten heaps of ten gravels mean total 100 (one hundred) gravels.

- **Let us learn something new :**

Groups of Ten :



Groups of Hundreds :



5 groups of hundreds = five hundred = 500

7 groups of hundreds = seven hundred = 700

9 groups of hundreds = nine hundred = 900

10 groups of hundreds = one thousand = 1000

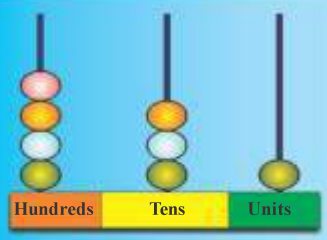
Numbers from 101 to 999 :

Fill in the blanks in the table given below to make them correct/true.

In figures	In words	In figures	In words
99	Ninety nine	.....	Five hundred
100	.....	637	.....
101	One hundred one	777	.....
109	.....	687	Six hundred eighty-seven
.....	One hundred fifty-two	.....	Seven hundred-eight
.....	Two hundred eighty-four	825	.....
745	.....	954	.....
.....	Four hundred forty-four	811	.....
497	.....	.....	Seven hundred forty-nine
599	.....	889	.....

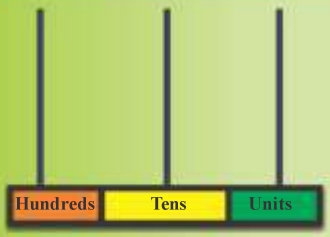
Understand the example and write accordingly :

Example 1 :

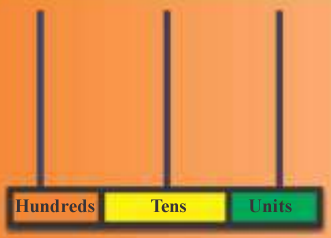


Number : 431
In words : Four hundred thirty-one
Expansion : 4 Hundreds
3 Tens 1 Units

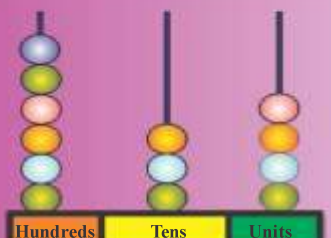
Number : .....
In words : Five hundred forty
Expansion : ..... Hundreds
..... Tens ..... Units



Number : .....
In words :
Expansion : 6 Hundreds
2 Tens 0 Units



Number : 704
In words :
Expansion : ..... Hundreds
..... Tens ..... Units



Number : .....
In words :
Expansion : ..... Hundreds
..... Tens ..... Units

Symbolic form of smaller and bigger numbers :

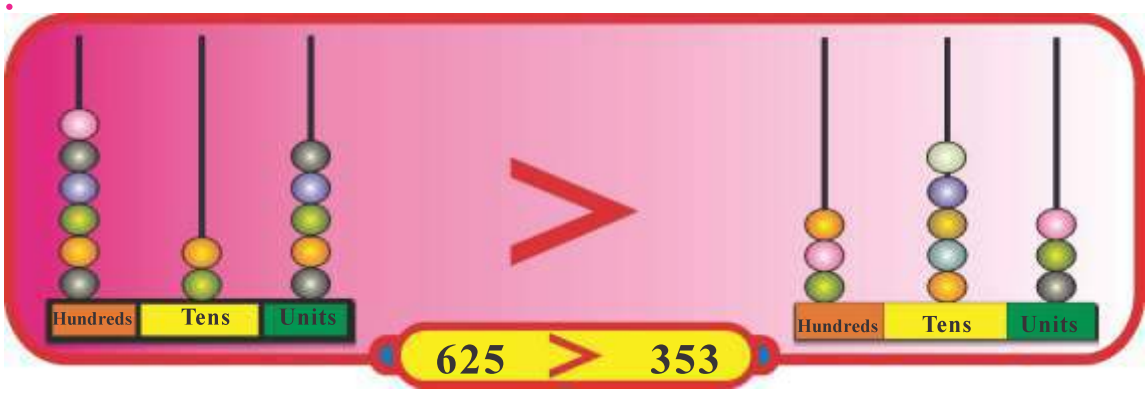
Understand the meaning of following symbols :

- '<' less than, smaller number < bigger number
- '>' greater than, bigger number > smaller number
- '=' equal to

Example 2 :

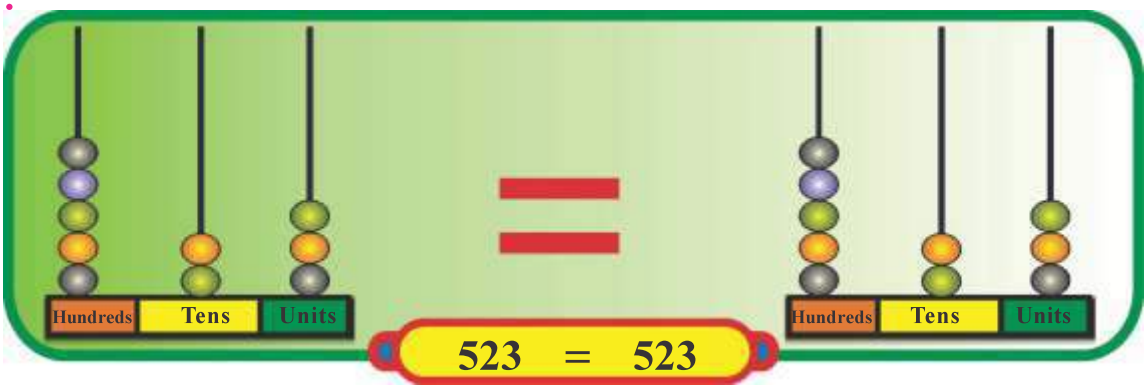
441 is smaller than 536.

Example 3 :



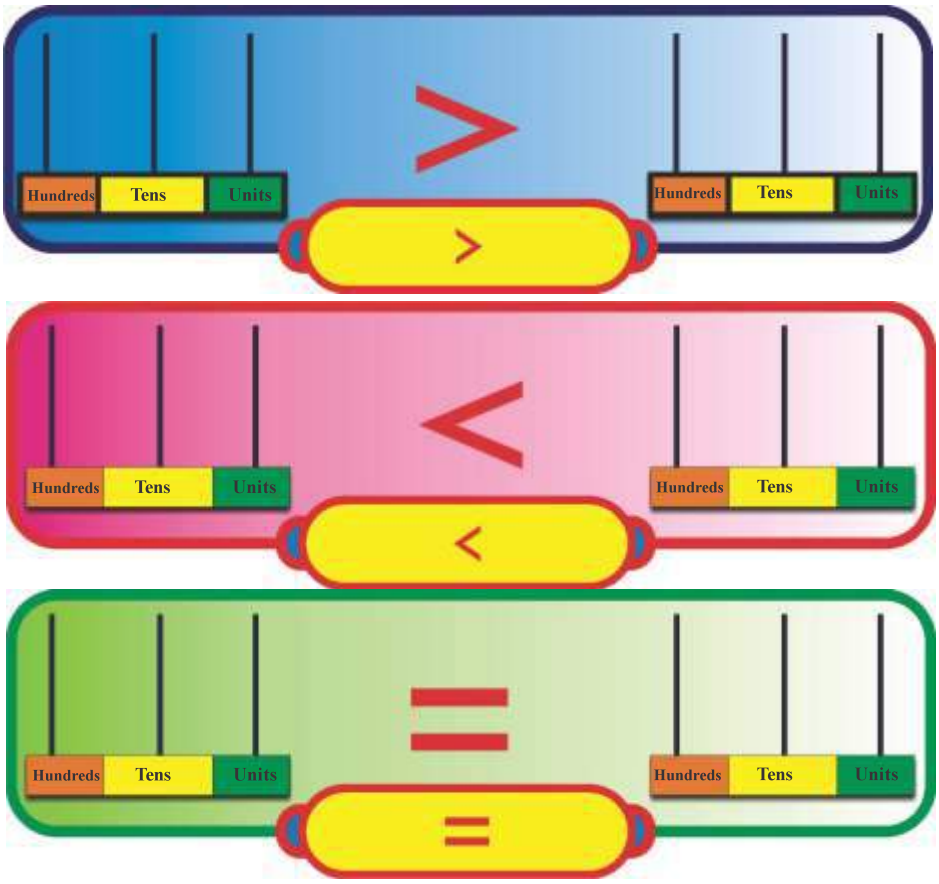
625 is greater than 353.

Example 4 :



Both the numbers are equal.

Now, select any two numbers yourself. Draw the beads in both abacuses given below and write the numbers thus formed :



Put the symbols >, < or = to make the statement true :

50 > 15	78 75	160 > 145
445 145	588 388	775 775
577 463	478 435	160 750
201 305	888 498	973 979

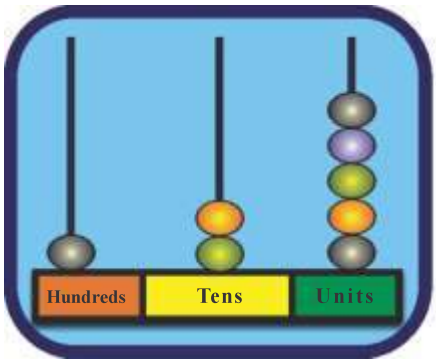
Put ○ on the wrong symbols in the table given below :

45 = 54	252 > 215	754 > 775
435 > 430	588 < 388	619 < 815
201 > 305	699 = 699	754 < 574

Place-value and writing the numbers with the help of abacus :

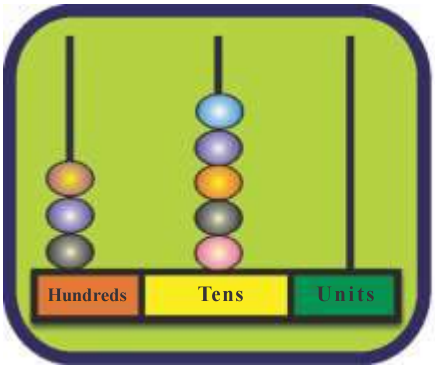
In any three digit number the first digit from left side is a number of hundred, the second digit is a number of ten and the third digit is a number of unit.

Example 5 :



Place	Hundred	Ten	Unit
Beads	1	2	5
Place-value	100	20	5

Fill in the blanks as per above example :



Place	Hundred	Ten	Unit
Beads	.....	.....	.....
Place-value	.....	.....	.....

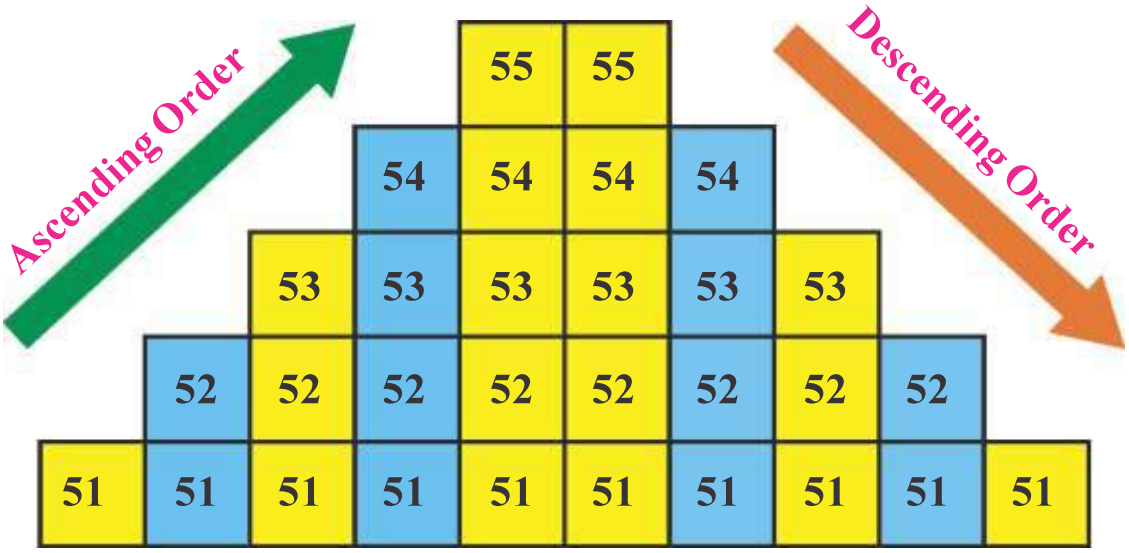
Example 6 : Write the place-value of digits 1, 3, 5 in 135

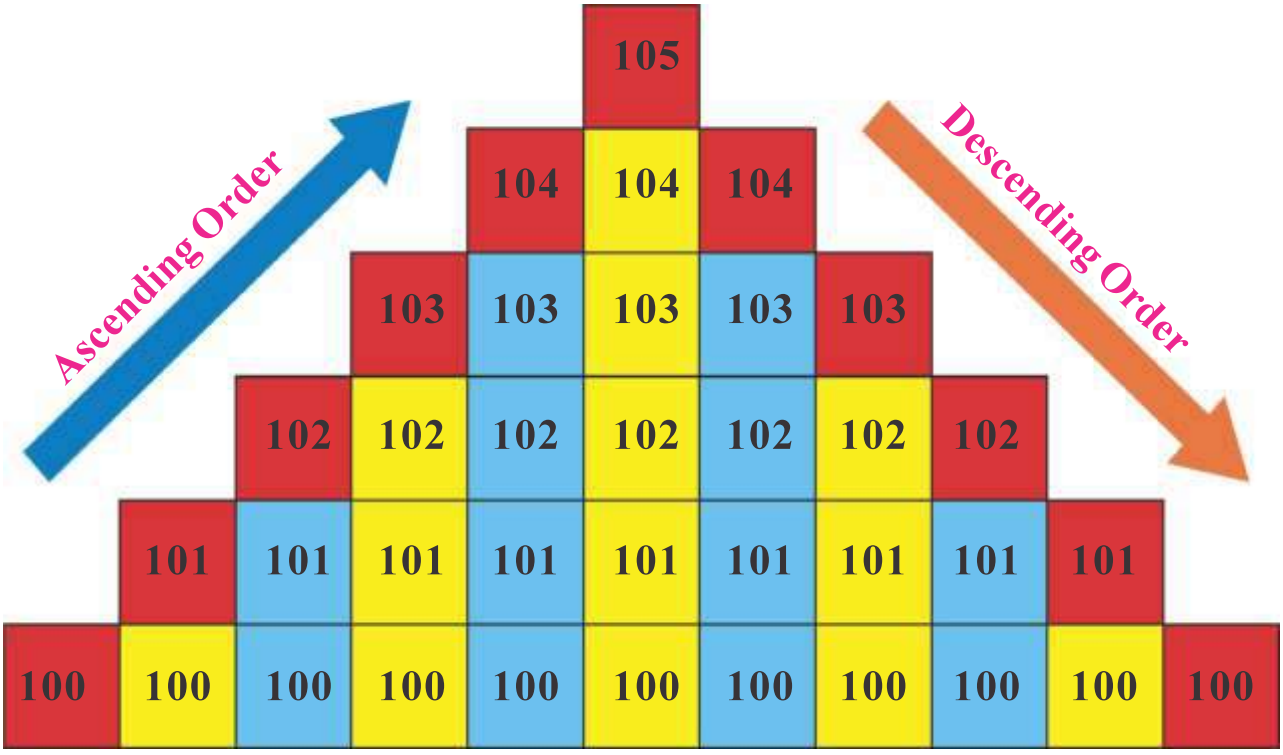
In 135, place-value of 1 is 100; place-value of 3 is 30 and the place-value of 5 is 5.

Write the place-value as per Example 6 :

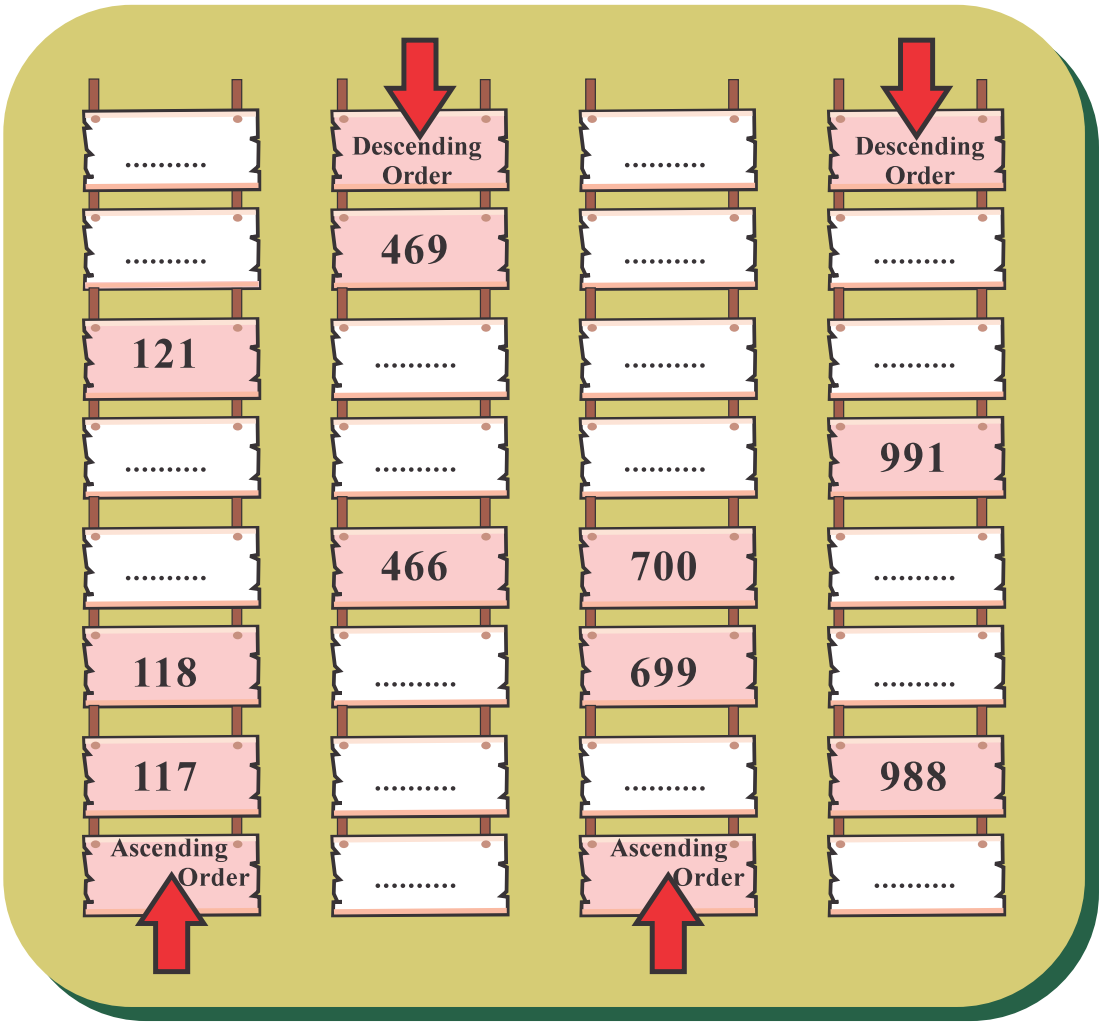
346	.....
854	.....
707	.....
510	.....
555	.....
906	.....

Ascending-Descending order of consecutive numbers :





Do it yourself :



Example 7 :

111 = 1 hundreds + 1 tens + 1 units = 10 tens + 1 tens + 1 units = 11 tens + 1 units	111 = 1 hundreds + 1 tens + 1 units = 1 hundreds + 10 units + 1 units = 1 hundreds + 11 units

Do yourself :

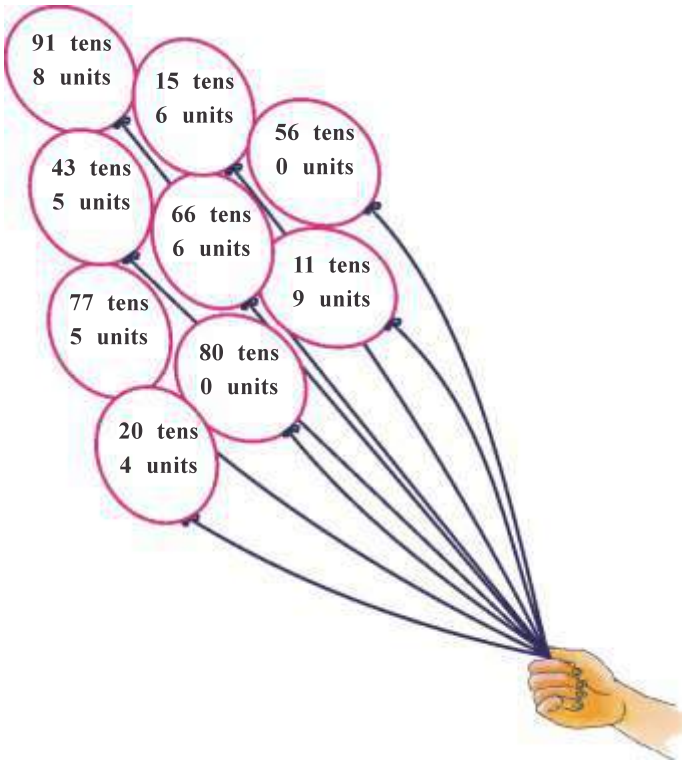
305 = 3 hundreds + ___ tens + ___ units = ___ tens + ___ tens + ___ units = ___ tens + ___ units	305 = 3 hundreds + ___ tens + ___ units = 3 hundreds + ___ units + ___ units = 3 hundreds + ___ units

- **Write the appropriate number in the table given below :**

256 = ... tens + ... units
256 = 2 hundreds + 5 tens + ... units
12 tens + 3 units = ...
1 hundreds + 23 units = ...
5 hundreds + 3 tens = ...
638 = ... hundreds + ... tens + ... units
638 = ... units
5 units + 47 tens = ...
601 = ... tens + ... units
894 = ... tens + ... units
4 units + 2 hundreds + 3 tens = ...

- **Do it yourself : Fill in the colours in the balloons as per the numbers given :**

Red	Green	Blue
One hundred fifty-six	Two hundred four	Nine hundred eighteen
Seven hundred seventy-five	Five hundred sixty	One hundred nineteen
800	435	666



- **Activity 2 :**

You have different cards marked with 3, 4 and 0. Arrange these cards to form different numbers.

By arranging these cards in places of hundreds, tens and units differently the following numbers are formed :

(1) 340 (2) 304 (3) 403

(4) 430 (5) 34 (6) 43

- Ascending order : ....., ..., ..., ..., ..., ...
- Descending order : ....., ..., ..., ..., ..., ...
- The greatest number ..... and the smallest number .....
- Place-value of digits in the numbers formed :

Numbers	Place-value of digit 3	Place-value of digit 4	Place-value of digit 0
340			
304			
430			
403			
043			
034			

- **Obtain numbers by interchanging the following number marked cards as Hundreds, Tens and Units :**

(1) 

- Numbers obtained :

  .....

- Ascending order :

  ....., ..., ...

  ....., ..., ...

- Descending order :

  ....., ..., ...

  ....., ..., ...

- The greatest number :

  .....

- The smallest number :

  .....

Numbers	Place-value of digit 1	Place-value of digit 2	Place-value of digit 4

(2)

- Numbers obtained :

  .....

- Ascending order :

  ....., ..., ...

  ....., ..., ...

- Descending order :

  ....., ..., ...

  ....., ..., ...

- The greatest number :

  .....

- The smallest number :

  .....

Numbers	Place-value of digit 6	Place-value of digit 7	Place-value of digit 8

(3) 5 7 9

- Numbers obtained :

  .....

- Ascending order :

  ....., ..., ...

  ....., ..., ...

- Descending order :

  ....., ..., ...

  ....., ..., ...

- The greatest number :

  .....

- The smallest number :

  .....

Numbers	Place-value of digit 5	Place-value of digit 7	Place-value of digit 9

(4) 3 4 5

- Numbers obtained :

  .....

- Ascending order :

  ....., ..., ...

  ....., ..., ...

- Descending order :

  ....., ..., ...

  ....., ..., ...

- The greatest number :

  .....

- The smallest number :

  .....

Numbers	Place-value of digit 3	Place-value of digit 4	Place-value of digit 5

2 Numbers : 2

- **Let us learn something new :**
- **Activity 1 :**

Friends, bring gravels as per your roll-number in the attendance-register. Make pairs from them.

Number of gravels brought by you : .....

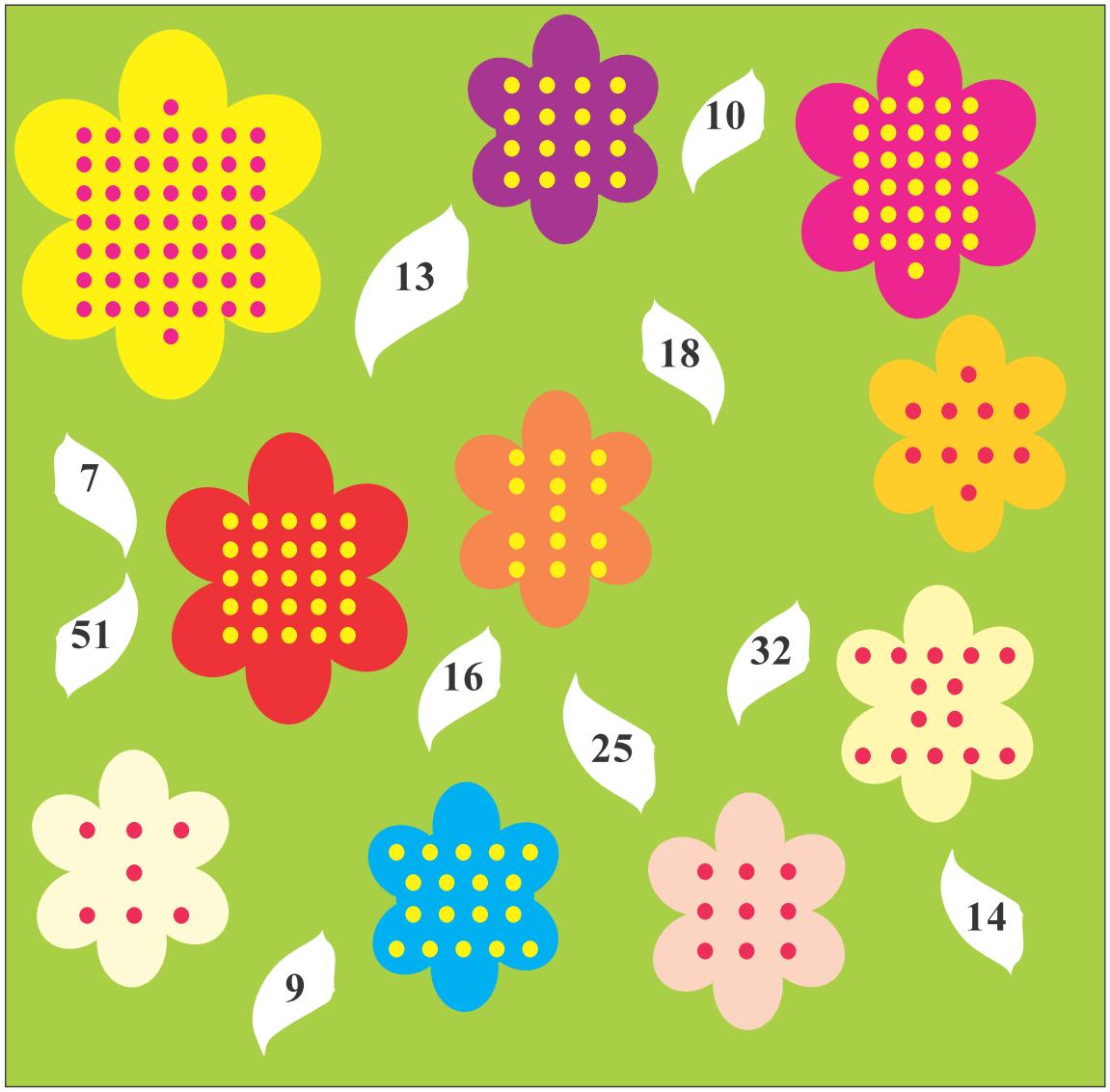
Are the pairs of all the gravels formed ?

Yes or No ? ..... Why ? .....

Name of friend	Number of gravels	Are the pairs of all the gravels formed ? Yes or No?
Lata	15	No

- **Understanding :**
  - If pairs of all the objects are formed, the number of objects is said to be even. For example : 2, 4, 6, 8,... are even numbers.
  - A number is called odd if we cannot make pairs of given number of objects or one object is always left out while making pairs. For example 1, 3, 5, 7, 9, 11,... are odd numbers.
- **Think :**
  - Take matchsticks as per your birthdate and check whether it is even or odd.

- **Activity 2 :** Count the dots and join with appropriate numbers :



Numbers	51	7	18	16	9	32	13	10	14	25
Odd or Even	.....	Odd	.....	Even	.....	.....	.....	.....	.....	.....

See and observe the unit's digit in even and odd numbers :

- Unit's digit in the odd numbers : 1, 3, 5, 7, 9
- Unit's digit in the even numbers : 2, 4, 6, 8, 0

Practice 1

Fill in the blanks as per the given example :

- 16 : Its unit's digit is 6. So it is an even number.

(1) 115 : Unit's digit is ..... So it is an ..... number.

(2) 468 : Unit's digit is ..... So it is an ..... number.

(3) 851 : Unit's digit is ..... So it is an ..... number.

(4) 739 : Unit's digit is ..... So it is an ..... number.

(5) 590 : Unit's digit is ..... So it is an ..... number.

- **Activity 3 :**

Take any three marked number cards from the digits 0, 1, 2,... or 9. Arrange them in different ways. Answer the following questions.

- Digits chosen by you : ☐ ☐ ☐
- How many numbers can be formed ? .....
- Which numbers are obtained ? .....
- Which are the odd numbers ? .....
- Which are the even numbers ? .....
- Which is the greatest number ? ..... Odd or Even ? .....
- Which is the smallest number ? ..... Odd or Even ? .....
- Which is the greatest odd number ? .....
- Which is the greatest even number ? .....

Repeat the above activity three times by taking different cards.

Practice 2

Do as directed in the table given below :

- Fill in red colour in one digit odd numbers.
- Fill in green colour in one digit even numbers.
- Draw ○ on the greatest one digit odd number.
- Draw □ on the greatest one digit even number.
- Draw Δ on the smallest two digit number.
- Fill in saffron colour on the even numbers whose ten's digit is 5.
- Fill in yellow colour on the odd numbers whose ten's digit is 7.
- Fill in blue colour on the odd numbers whose ten's digit is 5.
- Draw ⊕ on the even numbers having the same tens and units digit.
- Draw ϕ on the odd numbers having the same tens and units digit.

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

Exercise

1. Write the missing numbers :

(1) 1, 3, 5, 7, ..., ..., ..., ..., ..., ..., 21, 23

(2) 2, 4, 6, 8, ..., ..., ..., ..., ..., ..., 22, 24

(3) 32, 34, ..., ..., ..., ..., ..., ..., 48, 50

(4) 31, 33, ..., ..., ..., ..., ..., ..., 47, 49

(5) ....., ..., ..., 27, 29, 31, 33, ..., ..., ..., ...

(6) 36, 34, 32, ..., ..., ..., 24, 22, 20, 18

(7) 29, 27, 25, ..., ..., ..., ..., ..., ..., 11, 9

2. Write the odd numbers between 20 and 30 :

3. Write the even numbers between 50 and 60 :

4. Write the odd and even numbers from 108 to 121 :

(1) Odd numbers : ....., ..., ..., ..., ..., ..., ...

(2) Even numbers : ....., ..., ..., ..., ..., ..., ...

5. Encircle (put ◯) the odd numbers :

23	32	6	561	657	675	238	209	320

6. Encircle (put ◯) the even numbers :

48	51	7	223	468	772	894	916	900

7. Classify the following numbers into odd and even numbers :

43, 58, 62, 71, 75, 78, 80, 85, 92,
103, 114, 122, 134, 137, 233, 242, 260, 282,
293, 300, 310, 320, 340, 359, 369, 389, 400,
572, 683, 779, 980, 674, 799, 858, 995, 801

Practice 1

(1) 5, odd (2) 8, even (3) 1, odd (4) 9, odd (5) 0, even

Exercise

1. (1) 9, 11, 13, 15, 17, 19 (2) 10, 12, 14, 16, 18, 20
(3) 36, 38, 40, 42, 44, 46 (4) 35, 37, 39, 41, 43, 45
(5) 21, 23, 25, 35, 37, 39, 41 (6) 30, 28, 26
(7) 23, 21, 19, 17, 15, 13

2. 21, 23, 25, 27, 29 **3.** 52, 54, 56, 58

4. (1) 109, 111, 113, 115, 117, 119, 121
(2) 108, 110, 112, 114, 116, 118, 120

5. 23, 561, 657, 675, 209 **6.** 48, 468, 772, 894, 916, 900

7. Odd numbers : 43, 71, 75, 85, 103, 137, 233, 293, 359, 369, 389, 683, 779, 799, 995, 801

Even numbers : 58, 62, 78, 80, 92, 114, 122, 134, 242, 260, 282, 300, 310, 320, 340, 400, 572, 980, 674, 858

3 Addition

Let us recall :

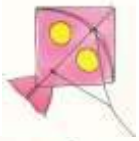
1. Observe the following in the above picture. Count and write their numbers :

(1)  = ...

(2)  = ...

(3)  = ...

(4)  = ...

(5)  = ...

(6)  = ...

(7)  = ...

(8)  = ...

2. How many ? :

(1) Number of boats in the pond ..... + Number of boats outside the pond ..... = ... boats

(2) Number of flowers in the pond ..... + Number of flowers outside the pond ..... = ... flowers.

(3) Number of frogs in the pond ..... + Number of frogs outside the pond ..... = ... frogs.

(4) Number of parrots on the tree ..... + Number of flying parrots ..... = ... parrots.

(5) Number of kites on the tree ..... + Number of kites in the sky ..... = ... kites.

(6) Number of mangoes on the tree ..... + Number of mangoes on the ground ..... = ... mangoes.

3. Add :

(1) 54 + 45	(2) 64 + 23	(3) 74 + 15	(4) 41 + 37	(5) 23 + 53

• Activity 1 :

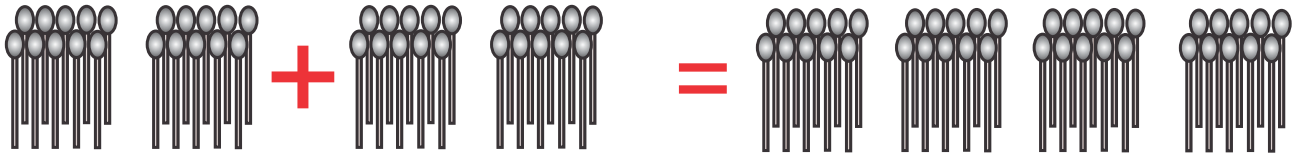
Select any two number-cards from the digits 1 to 9, and add the two numbers.

(1) Select two number-cards and form a number. Add this number with the number formed by your friend.

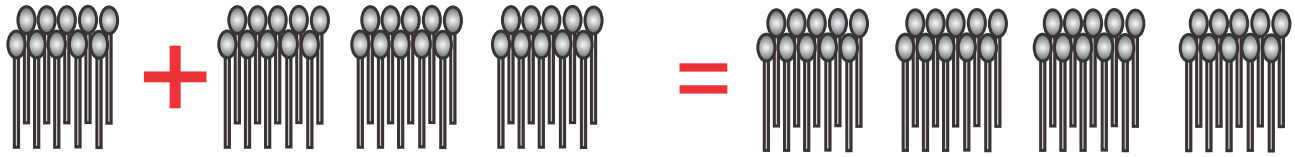
(2) Can you add numbers formed by selecting three number-cards ? Do it.

Observe and understand :

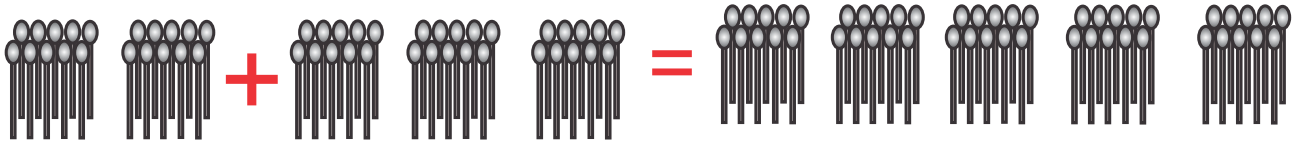
Two ten + One ten = Three ten



..... ten + ... ten = ... ten



..... ten + ... ten = ... ten



..... ten + ... ten = ... ten

Oral addition of two or three digit numbers (with zero at its unit or units and tens place) :

Observe and understand :

Example 1 : 30 + 50
= 3 tens + 5 tens
= 8 tens
= 80

Example 2 : 20 + 40 + 30
= 2 tens + 4 tens + 3 tens
= 9 tens
= 90

While adding two digit numbers; if there is a zero at the unit place, then we add the digits at the tens places and a zero is written at the units place.

Example 3 : 200 + 300
= 2 hundreds
+ 3 hundreds
= 5 hundreds
= 500

Example 4 : 100 + 300 + 400
= 1 hundreds + 3 hundreds
+ 4 hundreds
= 8 hundreds
= 800

While adding three digit numbers; if the digits in tens and units places are zero, then we add the digits in hundreds place and put zero in tens and units places.

Practice 1

1. Find the mistakes (if any) :

(1) 30 + 5	(2) 415 + 15	(3) 500 + 25	(4) 200 + 75
3 0 + 5	4 1 5 + 1 5	5 0 0 + 2 5	2 0 0 + 7 5
8 0	4 3 0	5 2 5	9 0 5

2. Colour two neighbouring boxes, the sum of which is 80 :

10	30	20	40	40
20	30	50	10	30
40	10	10	60	10
30	40	30	20	40
40	10	70	40	30

3. Fill in the blanks by selecting the correct option :

(1) ..... + 20 = 30
(A) 20 (B) 10 (C) 30 (D) 50

(2) 200 + ... = 700
(A) 700 (B) 400 (C) 500 (D) 600

(3) 100 + ... + 300 = 800

(A) 200 (B) 40 (C) 400 (D) 300

(4) 300 + 200 + ... = 900

(A) 400 (B) 200 (C) 900 (D) 100

(5) 100 + 600 + 200 = ...

(A) 600 (B) 800 (C) 900 (D) 100

Sum of three digit numbers (without carry forward) :

Example 5 : 214 + 123

	Hundreds	Tens	Units	Sum
	100	10	1 1 1 1	214
+	100			
	100	10	1 1 1	123
		10		
	3 hundreds	**3 tens**	**7 units**	**337**

Result of addition is 337

Example 6 : 351 + 112 + 23

	Hundreds	Tens	Units
	3	5	1
+	1	1	2
+	0	2	3
	4	**8**	**6**

$$\begin{array}{r} 3\ 5\ 1 \\ +\ 1\ 1\ 2 \\ +\ 0\ 2\ 3 \\ \hline 4\ 8\ 6 \end{array}$$

Sum is 486

Example 7 : 234 + 102 + 351

	2	3	4
+	1	0	2
+	3	5	1
	6	**8**	**7**

Sum is 687

- **For addition, the digit in hundreds place is written below hundreds place, the digit in tens place is written below tens place and the digit in units place is written below units place.**
- **If a two digit number is written below a three digit number, zero should be written in the hundred's place of the two digit number.**

- **Activity 2 :**

Sit in pairs and take number-badges given by your teacher. Write the numbers formed by these number-badges in your note-book. Write the number written by your friend below your number. Add both the numbers.

Now exchange your badges with other pairs to form more numbers and do the addition.

Practice 2

1. Add :

(1)	(2)	(3)	(4)
3 1 2 + 5 8 2 + 1 0 4	4 0 0 + 2 0 7 + 1 4 0	2 0 + 5 3 0 + 2 4 5	7 0 9 + 1 2 0 + 6 0

2. Add :

(1) 325 + 112

(2) 32 + 123

(3) 132 + 320 + 25

(4) 228 + 30 + 310

(5) 347 + 51

(6) 234 + 122 + 400

Sum of two three digit numbers (by carry forward) :

Observe, understand and write the numbers in the blanks :

10 units = 1 tens, 10 tens = 1 hundreds

(1) 8 units + 7 units = 15 units = 10 units + 5 units = 1 tens 5 units
(2) 9 units + 5 units = ... units = ... tens ..... units
(3) 5 units + 3 units = ... units = 0 tens ..... units
(4) 4 units + 9 units = ... units = ... tens ..... units
(5) 8 units + 8 units = ... units = ... tens ..... units

Addition in which carry forward to tens place is used :

Example 8 : Add : 125 + 236

	Hundreds	Tens	Units
		10 ←	
	100	10 10	1 1 1 1 1
+	100	10 10	1 1 1 1 1 1
	100	10	
	3 hundreds	6 Tens	1 units

	Hundreds	Tens	Units
		1	
	1	2	5
+	2	3	6
	3	6	1 1

- 5 units + 6 units = 11 units
  11 units = 1 tens (carry forward) + 1 units
- 1 tens (carry forward) + 2 tens + 3 tens
  = 6 tens
- 1 hundreds + 2 hundreds = 3 hundreds

Thus, 125 + 236 = 361

Example 9 : Add : 347 + 225

	1
	347
+	225
	572

Addition is 572

If the sum of the units place is more than 9, the carried forward digit is added to the ten's place.

Practice 3

1. Add :

(1) 1 3 5 + 2 4 6	(2) 3 4 8 + 1 0 6	(3) 2 0 6 + 3 9	(4) 7 2 7 + 3 8
(5) 4 1 5 + 2 2 7	(6) 5 7 9 + 3 1 9	(7) 4 3 6 + 2 2 4	(8) 6 7 4 + 2 3 3

2. Add :

(1) 675 + 117 (2) 324 + 139 (3) 128 + 36

(4) 738 + 253 (5) 469 + 317 (6) 842 + 148

- **Addition in which carry forward to the hundreds place is used :**

Example 10 : Add : 265 + 372

	Hundreds	Tens	Units
	(1)		
	2	6	5
+	3	7	2
	6	(1) 3	7

- 5 units + 2 units = 7 units
- 6 tens + 7 tens = 13 tens
  13 tens = 1 hundreds (carry forward) + 3 tens
- 1 hundreds (carry forward) + 2 hundreds + 3 hundreds = 6 hundreds

Sum = 637

Example 11 : Add : 391 + 423

	(1)		
	3	9	1
+	4	2	3
	8	1	4

Sum = 814

- **If the sum of the tens place is more than 9, the carried forward digit is added to the hundreds place.**
- **If the sum of any place is more than 9, the carried forward digit is added to the next place.**

Practice 4

1. Add :

(1) 285 + 274	(2) 545 + 272	(3) 268 + 170	(4) 472 + 51	(5) 328 + 91

2. Add :

(1) 675 + 133 (2) 214 + 192 (3) 567 + 62

(4) 386 + 182 (5) 473 + 255 (6) 590 + 312

- **Addition in which carry forward to tens and hundreds place is used :**

Example 12 : Add : 186 + 456

	Hundreds	Tens	Units
	(1)	(1)	
	1	8	6
+	4	5	6
	6	(1) 4	(1) 2

- 6 units + 6 units = 12 units
  12 units = 1 tens (carry forward) + 2 units
- 1 tens (carry forward) + 8 tens + 5 tens
  = 14 tens
  14 tens = 1 hundreds (carry forward) + 4 tens
- 1 hundreds (carry forward) + 1 hundreds + 4 hundreds = 6 hundreds

Sum = 642

Example 13 : 357 + 168

	(1)	(1)	
	3	5	7
+	1	6	8
	5	2	5

Sum = 525

Practice 5

1. Add :

(1) 5 7 6 + 1 4 9	(2) 2 9 8 + 3 0 6	(3) 1 6 8 + 3 5 5	(4) 3 9 6 + 1 6 5

(5) 6 5 7 + 5 8	(6) 4 8 7 + 3 2 5	(7) 3 1 9 + 2 8 9	(8) 7 1 6 + 1 8 5

2. Add :

(1) 809 + 92 (2) 689 + 163 (3) 143 + 687

(4) 758 + 67 (5) 374 + 186 (6) 427 + 273

- **Adding three numbers of three digits (by carry forward) :**

Fill in the blanks :

(1) 5 tens + 7 tens = 12 tens = 1 hundreds 2 tens
(2) 9 tens + 4 tens = ____ tens = ____ hundreds ____ tens
(3) 6 tens + 5 tens = ____ tens = ____ hundreds ____ tens
(4) 8 tens + 6 tens = ____ tens = ____ hundreds ____ tens
(5) 9 tens + 4 tens = ____ tens = ____ hundreds ____ tens

- **Addition of three numbers in which carry forward to tens place is used :**

Example 14 : Add : 154 + 213 + 316

	Hundreds	Tens	Units
		(1)	
	1	5	4
+	2	1	3
+	3	1	6
	6	**8**	(1) **3**

```
      (1)
   1  5  4
+  2  1  3
+  3  1  6
   6  8  3
```

Sum = 683

Example 15 : 239 + 213 + 108

	(2)
	2 3 9
+	2 1 3
+	1 0 8
	5 6 0

Sum = 560

Practice 6

1. Add :

(1) 2 3 4 + 1 2 3 + 3 1 4	(2) 4 5 0 + 1 0 4 + 2 1 8	(3) 5 0 7 + 1 4 3 + 2 4	(4) 4 3 4 + 1 2 9 + 2 0 8	(5) 3 1 5 + 1 3 7 + 2 1 9

2. Add :

(1) 140 + 214 + 408 (2) 208 + 136 + 12

(3) 145 + 212 + 326 (4) 309 + 142 + 146

(5) 513 + 207 + 146 (6) 49 + 204 + 458

- **Addition of three numbers in which carry forward to hundreds place is used :**

Example 16 : Add : 326 + 140 + 62

	Hundreds	Tens	Units
	(1)		
	3	2	6
+	1	4	0
+		6	2
	5	(1) 2	8

	(1)		
	3	2	6
+	1	4	0
+		6	2
	5	2	8

Sum = 528

Example 17 : 290 + 157 + 362

	(2)
	2 9 0
+	1 5 7
+	3 6 2
	8 0 9

Sum = 809

Practice 7

1. Add :

(1) 2 0 3 + 1 6 0 + 3 7 5	(2) 5 4 0 + 2 7 3 + 8 4	(3) 4 7 0 + 3 5 + 1 4 2	(4) 4 0 6 + 1 9 1 + 3 4 0	(5) 2 4 4 + 2 9 3 + 0 7 2

2. Add :

(1) 242 + 123 + 344 (2) 20 + 172 + 45

(3) 374 + 60 + 3 (4) 137 + 52 + 40

- **Addition of three numbers in which carry forward to tens and hundreds place is used :**

Example 18 : Add : 124 + 345 + 68

	Hundreds	Tens	Units
	(1)	(1)	
	1	2	4
+	3	4	5
+		6	8
	5	(1) 3	(1) 7

	(1)	(1)	
	1	2	4
+	3	4	5
+		6	8
	5	3	7

Sum = 537

Example 19 : 246 + 137 + 345

	(1) (1)
	2 4 6
+	1 3 7
+	3 4 5
	7 2 8

Sum = 728

Practice 8

1. Add :

(1) 2 5 4	(2) 1 9 8	(3) 3 4 8	(4) 1 6 8	(5) 3 7 8
+ 1 5 3	+ 1 4 0	+ 1 4 0	+ 3 0	+ 2 4 9
+ 3 6 4	+ 4 8	+ 1 3 6	+ 8 5	+ 1 7 7

2. Add :

(1) 156 + 264 + 539 (2) 147 + 345 + 240 (3) 365 + 65 + 37

(4) 471 + 218 + 163 (5) 230 + 431 + 99 (6) 536 + 87 + 282

- **Practical puzzles related to day-to-day life (oral) :**
- **Activity 3 :** Observe the given pictures and answer the questions :

(1) How many balloons does Vishwa have ?

(2) How many balloons does Anil have ?

(3) What will you do to find out the total number of balloons with Vishwa and Anil ?

(4) How many balloons do Vishwa and Anil have together ?

Practice 9

Calculate orally and write the answer :

(1) There are 20 boys and 30 girls in a class. What is the total number of students in the class ? .....

(2) A shepherd has 300 sheep and 400 goats. How many animals does he have ? .....

(3) A dairy was supplied 600 litres of buffallo's milk and 300 litres of cow's milk. How much of milk was supplied ? .....

- **Activity 4 :** Bakulaben purchased certain things from a market. The bill of the purchased items is given below :

Shri Jalaram Provision Store

Meena Bazar — Cash Memo/Credit Memo

M/s. Bakulaben Parmer — Bill No. : 72

Village : Kapadvanj — Date : 12-12-2013

No.	Particulars	Quantity	Rate ₹	Total Amount ₹
1.	Sugar	5 *kg*	30 per *kg*	150
2.	Kolhapuri Jaggery	4 *kg*	32 per *kg*	128
3.	Soap for washing clothes	8 nos.	8 per piece	64
4.	Bathing soap	6 nos.	13 per piece	78
5.	Groundnut oil	5 *kg*	75 per *kg*	375
			Total	795

Sign. Sanjay Bhavsar

(1) What is the total cost of jaggery and sugar bought by Bakulaben ?

.....

(2) What is the total cost of sugar and soap for washing clothes ? .....

(3) What is the total cost of bathing soap and soap for washing clothes ?

.....

(4) What is the total cost of groundnut oil, jaggery and bathing soap ?

.....

(5) What is the total cost of sugar, jaggery and groundnut oil ? .....

(6) How much money did Bakulaben pay to the trader ? .....

◆ **Observe and understand :**

Example 20 : There are 375 plants of banana and 215 plants of papaya in the orchard. What is the total number of plants in the orchard ?

Explanation : Total plants means sum of both kinds of plants.

```
    1
  3 7 5   Banana plants
+ 2 1 5   Papaya plants
  5 9 0   Total number of plants
```

Total 590 plants are there.

Practice 10

1. There are 415 men and 302 women in a village. What is the total population of the village ?
2. There are 218 pages in the textbook of Gujarati and 136 pages in the textbook of Environment Studies. How many total pages are there in both the textbooks together ?
3. 438 boys and 230 girls visited a science fair. How many total students visited the science fair ?
4. 225 boys and 228 girls study in the Ratanpur Primary School. Find the total number of students in the school.

Example 21 : In a forest, there are 312 Neem trees, 268 Babool trees and 150 Berry trees. What is the total number of trees in the forest ?

(**Explanation :** Total number of trees means the sum of all the three kinds of trees.)

```
    1 1
    3 1 2   Neem trees
+   2 6 8   Babool trees
+   1 5 0   Berry trees
-----------
    7 3 0   Total number of trees
```

Total 730 trees are there.

Practice 11

1. A trader bought 320 bags of rice, 240 bags of maize and 347 bags of millet. How many total bags of grains did the trader buy ?
2. There are 365 boys, 381 girls and 21 teachers in a school. What is total number of persons including students and teachers in the school ?
3. In a dairy, 350 litres of milk was brought on Monday, 275 litres on Tuesday and 282 litres on Wednesday. How many litre of milk were brought in the dairy in all ?

Exercise

1. **Add :**

(1)	(2)	(3)	(4)	(5)
2 0 0 + 1 0 + 4 0	7 0 + 4 0 0 + 1 1 0	3 0 0 + 2 0 0 + 4 0 0	1 0 0 + 8 0 + 5 0 0	3 0 0 + 2 0 + 6 0 0

2. Add :

(1) 4 6 5 + 1 0 8	(2) 1 4 2 + 2 8 1	(3) 3 6 8 + 2 4 6	(4) 6 8 6 + 2 3 5

(5) 3 0 6 + 1 4 5 + 2 4	(6) 1 4 2 + 2 5 4 + 2 3 0	(7) 3 5 6 + 1 8 0 + 1 7	(8) 2 8 9 + 7 3 + 3 6

3. Add :

(1) 254 + 30 (2) 312 + 224 + 31 (3) 54 + 105 + 313

(4) 160 + 71 + 234 (5) 275 + 46 + 389 (6) 325 + 225 + 125

(7) In a forest, there are 350 Neem trees and 485 Babool trees. How many total number of trees are there in the forest ?

(8) A shopkeeper sold 400 single-line notebooks, 370 plain notebooks and 158 square-line notebooks. How many total notebooks did he sell ?

(9) There are 254 white marbles, 277 red marbles and 80 green marbles in a jar. How many total marbles are there in the jar ?

(10) In Moonpur village, there are 343 men, 365 women and 192 children. What is the total population of the village ?

Practice 1

3. (1) 10 (2) 500 (3) 400 (4) 400 (5) 900

Practice 2

1. (1) 998 (2) 747 (3) 795 (4) 889

2. (1) 437 (2) 155 (3) 477 (4) 568 (5) 398 (6) 756

Practice 3

1. (1) 381 (2) 454 (3) 245 (4) 765 (5) 642 (6) 898 (7) 660 (8) 907

2. (1) 792 (2) 463 (3) 164 (4) 991 (5) 786 (6) 990

Practice 4

1. (1) 559 (2) 817 (3) 438 (4) 523 (5) 419

2. (1) 808 (2) 406 (3) 629 (4) 568 (5) 728 (6) 902

Practice 5

1. (1) 725 (2) 604 (3) 523 (4) 561
(5) 715 (6) 812 (7) 608 (8) 901

2. (1) 901 (2) 852 (3) 830 (4) 825 (5) 560 (6) 700

Practice 6

1. (1) 671 (2) 772 (3) 674 (4) 771 (5) 671

2. (1) 762 (2) 356 (3) 683 (4) 597 (5) 866 (6) 711

Practice 7

1. (1) 738 (2) 897 (3) 647 (4) 937 (5) 609
2. (1) 709 (2) 237 (3) 437 (4) 229

Practice 8

1. (1) 771 (2) 386 (3) 624 (4) 283 (5) 804
2. (1) 959 (2) 732 (3) 467 (4) 852 (5) 760 (6) 905

Practice 10

1. (1) 717 villagers (2) 354 pages (3) 668 students (4) 453 students

Practice 11

1. (1) 907 bags (2) 767 persons (3) 907 litres

Exercise

1. (1) 250 (2) 580 (3) 900 (4) 680 (5) 920
2. (1) 573 (2) 423 (3) 614 (4) 921 (5) 475 (6) 626
   (7) 553 (8) 398
3. (1) 284 (2) 567 (3) 472 (4) 465 (5) 710 (6) 675
   (7) 835 trees (8) 928 notebooks (9) 611 marbles
   (10) 900 persons

Revision : 1

1. Match A with B properly :

A	B
(1) Seven hundred fifty seven	(1) 787
(2) Seven hundred eighty seven	(2) 757
(3) Five hundred fifty five	(3) 149
(4) Six hundred twelve	(4) 555
(5) One hundred forty nine	(5) 612

2. Write the place-value of the underlined digit :

(1) 8$\underline{4}$1 ..... (2) $\underline{4}$58 ..... (3) 45$\underline{6}$ .....

(4) 62$\underline{7}$ ..... (5) $\underline{5}$07 ..... (6) 2$\underline{3}$1 .....

3. Fill in the box with the number lying between the two given numbers :

(1) 424 ☐ 426 (2) 399 ☐ 401 (3) 621 ☐ 623

(4) 505 ☐ 507 (5) 468 ☐ 470 (6) 776 ☐ 778

4. Which are the largest and smallest three digit numbers ?

5. Arrange 852, 89, 407, 120 in ascending order and descending order.

Ascending order	....., ..., ..., ...
Descending order	....., ..., ..., ...

6. Encircle the even numbers :

228, 417, 281, 80, 329, 276, 904

7. Fill in the box between the two numbers with > or < :

(1) 81 ☐ 79 (2) 345 ☐ 601 (3) 128 ☐ 132

8. Calculate orally and write the answers in the blanks :

(1) If 300 is added to 600, ... is the result.

(2) If 50 is added to 450, we get ..... .

(3) If 130 is added to 800, ... is the result.

9. Calculate the following examples :

(1) 345 + 122	(2) 404 + 218	(3) 275 + 304	(4) 456 + 308 + 120	(5) 538 + 241 + 191

(6) 273 + 180 + 24	(7) 327 + 105 + 170	(8) 128 + 156 + 349	(9) 427 + 252 + 134	(10) 334 + 244 + 347

10. Meghavi had 275 rupees. Her father gave her 151 rupees on her birthday. How many rupees does she have now ?

11. Maltiben bought moong worth 178 rupees, spices worth 370 rupees and sugar worth 228 rupees. How much amount did she spend in all ?

12. Nainesh purchased a shirt worth ₹ 230, a pants worth ₹ 325 and a belt worth ₹ 55. How much money did he spend in all ?

13. During the school picnic, Ramaben spent ₹ 120 on snacks and ₹ 200 on some articles. How much money did she spend in all ?

14. Kena had ₹ 325. On Diwali, she received ₹ 250. Now, how much money does she have in all ?

15. Harshil bought trousers worth ₹ 450 and a shirt worth ₹ 380. How many rupees did he spend in all ?

16. Salma bought a fancy dress worth ₹ 725 and a wrist watch worth ₹ 180. How much money did she spend in all ?

Answers

1. (1) 757 (2) 787 (3) 555 (4) 612 (5) 149

2. (1) 40 (2) 400 (3) 6 (4) 7 (5) 500 (6) 30

3. (1) 425 (2) 400 (3) 622 (4) 506 (5) 469 (6) 777 **4.** 999, 100

5. **Ascending order :** 89, 120, 407, 852;
   Descending order : 852, 407, 120, 89

6. 228, 80, 276, 904 **7.** (1) > (2) < (3) <

8. (1) 900 (2) 500 (3) 930

9. (1) 476 (2) 622 (3) 579 (4) 884 (5) 970 (6) 477 (7) 602 (8) 633 (9) 813 (10) 925

10. ₹ 426 **11.** ₹ 776 **12.** ₹ 610 **13.** ₹ 320

14. ₹ 575 **15.** ₹ 830 **16.** ₹ 905

4 Subtraction

- **Let us recall :**
- **Activity 1 :**

32 students and 3 teachers of Taiyyabpura primary school go on a picnic in a mini bus. Their bus stops near a garden. They see a big bus with students of other school parked there. Sheela says, "Our bus has less number of students than the big bus has." Komal and Sheela go to the conductor of the big bus to inquire about the number of students and teachers in that bus. The conductor says, "In our bus, there are 48 students and 4 teachers."

(1) What is the number of students in the big bus ? .....

(2) What is the number of students in the mini bus ? .....

(3) How many students are less in the mini bus ? .....

(4) What is the total number of students and teachers in the mini bus ?

.....

(5) What is the total number of students and teachers in the big bus ?

.....

- **Ajay went to a picnic with ₹ 150 with him.**

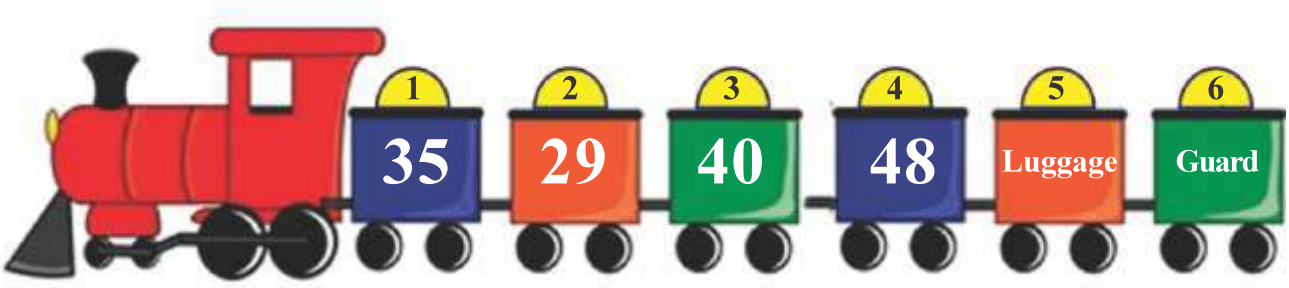
(1) Ajay spent ₹ 50 on snacks. Now, how much money is left with him ? .....

(2) He bought toys worth ₹ 30 from the amount left with him. Now, how much money is left with him ? .....

(3) Then, he spent ₹ 70 on books. Now, how much money is left with him ? .....

Activity 2 :

A picture of a train is given here. The number on the coaches shows the number of students occupying a seat in them. Answer the given questions observing these numbers :



(1) How many students are there in the first coach ? .....

(2) How many students are there in the second coach ? .....

(3) How many students are less in the second coach as compared to the first ? .....

(4) How many students are there in the third coach ? .....

(5) How many students are there in the fourth coach ? .....

(6) How many students are less in the third coach as compared to the fourth ? .....

(7) How many students are less in the first coach as compared to the third ? .....

Observe and understand :

Example 1 :

50 – 30

= 5 tens – 3 tens

= 2 tens

= 20

While subtracting numbers having zero at the units place, the subtraction of digits at the tens place is carried out and zero is written at the units place.

Example 2 :

700 – 300

= 7 hundreds – 3 hundreds

= 4 hundreds

= 400

While subtracting numbers having zero at the units and tens place, the subtraction of numbers at the hundreds place is carried out and zeros are written at the units and tens place.

Practice 1

1. Calculate orally and write answers :

(1) 60 – 20 = ...

(2) 90 – 30 = ...

(3) 300 – 200 = ...

(4) 800 – 300 = ...

(5) 900 – 400 = ...

(6) 700 – 500 = ...

2. Subtract :

(1) 7 0 – 2 0	(2) 8 0 0 – 4 0 0	(3) 5 0 0 – 2 0 0	(4) 7 0 0 – 6 0 0

◆ Subtraction of two or three digit numbers without borrowing :

See the example and accordingly subtract the numbers by drawing the figures.

Example 3 : 343 – 121 = ...

	Hun.	Tens	Units	Hundreds	Tens	Units
	3	4	3	(100) (100)	[10] [10]	1 1 1
–	1	2	1	(100)	[10] [10]	
	2	2	2	2 hundreds	2 tens	2 units

Example 4 : 546 – 214

	Hundreds	Tens	Units
	5	4	6
–	2	1	4
	3	3	2

$$\begin{array}{r} 5\ 4\ 6 \\ -\ 2\ 1\ 4 \\ \hline 3\ 3\ 2 \end{array}$$

Result of Subtraction = 332

Example 5 : 748 – 36

$$\begin{array}{r} 7\ 4\ 8 \\ -\ 0\ 3\ 6 \\ \hline 7\ 1\ 2 \end{array}$$

Result of Subtraction = 712

Practice 2

1. Subtract :

(1) 458 – 125	(2) 865 – 502	(3) 536 – 402	(4) 704 – 302

2. Subtract :

(1) 645 – 34 = ...

(2) 764 – 432 = ...

(3) 847 – 506 = ...

(4) 437 – 37 = ...

Subtraction of two or three digit numbers with borrowing :

Example 6 : 242 – 123 = ...

Hundreds	Tens	Units	Hun.	Tens	Units
		1 1 1 1 1 1 1 1 1 1		3	12 10
100 100	10 10 10 10	1 1	2 –1	4 2	2 3
1 hundreds	1 Tens	9 Units	1	1	9

- Here 3 units cannot be subtracted from 2 units, so we borrow one ten from 4 tens to make 12 units. On subtracting 3 units from 12 units, we get 9.

Example 7 : 324 – 142

Hundreds	Tens	Units	Hun.	Tens	Units
	10 10 10 10 10 10 10 10 10 10		2	12	
100 100 100	10 10	1 1 1 1	3 – 1	2 4	4 2
1 hundreds	8 Tens	2 Units	1	8	2

- 4 tens cannot be subtracted from 2 tens. So, from 3 hundreds we borrow one hundred that is 10 tens. These 10 tens are added to 2 tens to make 12 tens leaving 2 hundreds. Then 4 tens are subtracted from 12 tens. Now continue rest of the subtraction.

Example 8 : 462 – 115

	Hun.	Tens	Units
		5	12
	4	~~6~~	~~2~~
–	1	1	5
	3	4	7

$$\begin{array}{r} 5\ 12 \\ 4\ \not{6}\ \not{2} \\ -\ 1\ 1\ 5 \\ \hline 3\ 4\ 7 \end{array}$$

Result of Subtraction = 347

Example 9 : 506 – 73

$$\begin{array}{r} 4\ 10 \\ \not{5}\ \not{0}\ 6 \\ -\ \ 7\ 3 \\ \hline 4\ 3\ 3 \end{array}$$

Result of Subtraction = 433

Practice 3

1. Subtract :

(1) 3 4 5 – 2 1 7	(2) 5 3 7 – 4 7	(3) 3 4 5 – 2 0 9	(4) 6 7 3 – 5 2 4	(5) 9 1 8 – 6 5 5

2. Subtract :

(1) 5 6 2 – 2 1 4	(2) 3 0 4 – 2 3	(3) 5 4 1 – 2 1 4	(4) 3 7 0 – 2 5	(5) 8 1 0 – 5 3 9

3. Subtract :

(1) 645 – 27 = ...

(2) 650 – 35 = ...

(3) 462 – 115 = ...

(4) 584 – 229 = ...

(5) 235 – 59 = ...

(6) 412 – 107 = ...

(7) 543 – 263 = ...

(8) 670 – 190 = ...

Example 10 : There are 80 pages in a story book. Hemant read 26 pages in a day. How many pages are still to be read ?

(**Explanation :** To find the number of pages still to be read, we must subtract the number of pages already read from the total number of pages.)

	7 10	
	~~8~~ ~~0~~	Total number of pages
–	2 6	Number of pages read
	5 4	Number of pages still to be read

54 pages are still to be read by Hemant.

Example 11 : There were 242 trees in a forest. 157 trees fell down during a storm. Now how many trees were left in the forest ?

	13	
	1 ~~3~~ 12	
	~~2~~ ~~4~~ ~~2~~	Total number of trees
–	1 5 7	Number of trees fell down
	0 8 5	Number of trees left

85 trees were left in the forest.

Example 12 : Joseph has total 900 rupees. From that, he bought shoes worth rupees 485. Now how much money is left with him ?

	9	
	8 ~~0~~ 10	
	~~9~~ ~~0~~ 0	Total amount
–	4 8 5	Money spent on buying shoes.
	4 1 5	Remaining amount

₹ 415 is left with Joseph.

Practice 4

1. There are 652 books in a school library. Just before vacation, 218 books are borrowed by the students. How many books still remain in the library ?
2. A shepherd named, Hema has 206 sheep. She gave 177 sheep to her younger brother. How many sheep are left with her ?
3. Shabbirbhai took ₹ 500 with him to the bazzar. He spent ₹ 345. How much money is left with him ?
4. A school had 400 students. 86 students went to another school after passing out in standard VIII. How many students remained in the school ?
5. Govindbhai bought seeds worth ₹ 365. He gave the trader ₹ 500. How much money will the trader return to Govindbhai ?

- **Simplify**

Example 13 : 250 + 362 − 146 = ...

```
     1                 10
                     5  0  12
   2 5 0             6  1  2
 + 3 6 2           − 1  4  6
 -------           ---------
   6 1 2             4  6  6
```

Example 14 : 384 − 167 + 303 = ...

```
    7 14                1
   3 8 4              2 1 7
 − 1 6 7            + 3 0 3
 -------            -------
   2 1 7              5 2 0
```

Practice 5

Simplify :

(1) 454 + 347 − 594

(2) 326 − 142 + 135

(3) 500 + 399 − 67

(4) 532 − 116 + 485

Practical Examples :

Example 15 : An oil merchant had 450 tins of oil. One day he sold 265 tins of oil. On the next day he bought additional 275 tins of oil. How many total tins of oil does he have now ?

Explanation : We must subtract tins sold from the stock and we add the tins bought to the remaining.)

Therefore, simplify 450 − 265 + 275.

```
   14
  3 4 10
  4 5 0   Tins
- 2 6 5   Tins sold
---------
  1 8 5   Tins remaining
```

```
    1 1
    1 8 5   Tins remaining
+   2 7 5   Tins bought
-----------
    4 6 0   Total tins
```

The merchant has 460 tins now.

Example 16 : 700 persons were invited to a party but 95 persons could not come. Among those who came, 386 were men. How many women came for the party ?

(**Explanation :** 95 persons did not come, so subtracting 95 from 700 will give us the total number of persons present. From this number we must subtract 386 men to obtain the number of women.)

So, we must simplify 700 − 95 − 386.

	9			
	6	10		
	7	0	0	Persons invited
–	9	5		Persons absent
	6	0	5	Total persons present

	9			
	5	10	15	
	0	0	5	Total persons present
–	3	8	6	Total men
	2	1	9	Total women

219 women were present.

Practice 6

1. Jayaben bought *tuver dal* worth ₹ 440 and sugar worth ₹ 168 from a grocery shop. She gave ₹ 700 to the shopkeeper. How much money would the shopkeeper return ?
2. 345 people including boys, girls and teachers from a school went on a picnic. If there were 158 boys and 180 girls, find the number of teachers.
3. A trader bought 285 bags of wheat and 236 bags of rice. Out of that he sold 240 bags of both wheat and rice in all. How many bags of grains are left with him ?
4. A farmer went to the city with ₹ 900. He bought seeds worth ₹ 340 and fertilizer worth ₹ 248. How much money is left with him now ?

Exercise

1. **Subtract :**

(1) 70 – 40	(2) 900 – 200	(3) 600 – 100
(4) 800 – 500	(5) 500 – 300	(6) 700 – 100

2. **Subtract :**

(1) 68 – 32	(2) 80 – 55	(3) 486 – 142
(4) 753 – 376	(5) 853 – 271	(6) 632 – 480

3. Simplify :

(1) 325 + 341 – 93 (2) 545 – 348 + 553 (3) 400 – 99 + 108

(4) 621 – 235 + 189 (5) 826 – 209 – 345 (6) 705 – 135 – 499

4. 370 students took mid-day meal on Monday and 296 students took mid-day meal on Tuesday in the school. How many less students took mid-day meal on Tuesday as compared to those who took mid-day meal on Monday ?

5. The *Sarpanch* gifted ₹ 600 and the *Talati* gifted ₹ 151 to school for buying a fan. How much more money will be needed if the cost of the fan is ₹ 950 ?

6. Umang bought a 300 page notebook. He used 129 pages for solving sums of mathematics. How many pages are still left blank in his notebook ?

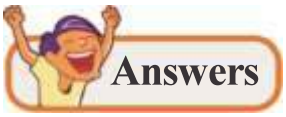
7. A donor from the village donated rupees ₹ 600 for repairing the water tank in the school. The school teachers deposited ₹ 200 to this fund. If the expenditure to repair the water tank is ₹ 900, how much money is still required ?

8. Manharbhai donated 200 notebooks to the school. Out of these the school distributed 159 notebooks to the students. How many notebooks are still left ?

9. Jalpa had ₹ 200 with her. She bought sugar worth ₹ 64 and *tuver dal* worth ₹ 62. How much money is still left with her ?

10. A student brought 900 chocolates on his/her birthday to school for distribution. Out of those 365 chocolates were distributed to the boys and 380 to the girls. How many chocolates were left ?

11. A donor from the village donated 550 notebooks. Out of those, 225 notebooks were distributed among students of standard I to V and 315 to students of VI to VIII. How many notebooks remained ?



Answers

Practice 1

1. (1) 40 (2) 60 (3) 100 (4) 500 (5) 500 (6) 200
2. (1) 50 (2) 400 (3) 300 (4) 100

Practice 2

1. (1) 333 (2) 363 (3) 134 (4) 402
2. (1) 611 (2) 332 (3) 341 (4) 400

Practice 3

1. (1) 128 (2) 490 (3) 136 (4) 149 (5) 263
2. (1) 348 (2) 281 (3) 327 (4) 345 (5) 271
3. (1) 618 (2) 615 (3) 347 (4) 355
   (5) 176 (6) 305 (7) 280 (8) 480

Practice 4

(1) 434 books (2) 29 sheep (3) 155 rupees
(4) 314 students (5) 135 rupees

Practice 5

(1) 207 (2) 319 (3) 832 (4) 901

Practice 6

(1) 92 rupees (2) 7 teachers (3) 281 bags (4) 312 rupees

Exercise

1. (1) 30 (2) 700 (3) 500 (4) 300 (5) 200 (6) 600
2. (1) 36 (2) 25 (3) 344 (4) 377 (5) 582 (6) 152

3. (1) 573 (2) 750 (3) 409 (4) 575 (5) 272 (6) 71

4. 74 students **5.** 199 rupees

6. 171 pages **7.** 100 rupees **8.** 41 notebooks **9.** 74 rupees

10. 155 chocolates **11.** 10 notebooks

◆

Activity :

1	2	4	8	16

Five number cards are given. Using these number cards make numbers from 1 to 31 as shown in the example.

e.g., 1 + 2 + 4 + 8 = 15

5 Multiplication

Let us recall :

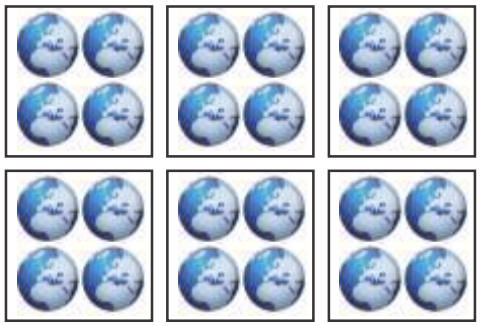
(1) Answer the following on the basis of tables :

1. 

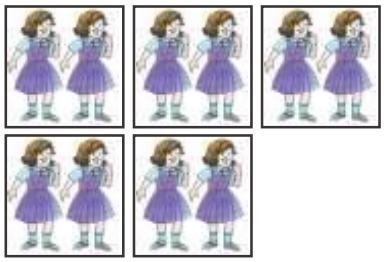
Three threes are .....

2. 

Five twos are .....

3. 

Four sixes are .....

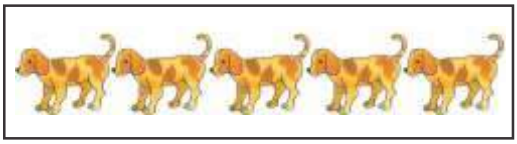
4. 

Two fives are .....

(2) Answer the following on the basis of tables :

(1) How many legs do five dogs have ?

.....



(2) How many legs do three crows have ? .....

(3) How many legs do four goats have ? .....

(4) How many fingers do three hands have ? .....

3. Observe, understand and write :

0, 2, ...4...., ...6...., ..., ..., ..., ..., ..., ..., ...

0, 3, ..., ...9...., ..., ...15...., ..., ..., ..., ...

◆ Multiplication :

• Activity 1 : Observe, understand and do as follows :

(1) 

Four groups of three balls means 3 + 3 + 3 + 3 = 12

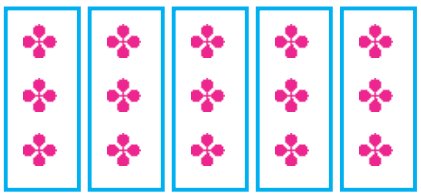
So, 3 × 4 = 12

(2) Write the remaining details as shown above :

Four groups of five stars means ..... + ... + ... + ... = ...

So, ... × 4 = 20

◆ Observe and understand :

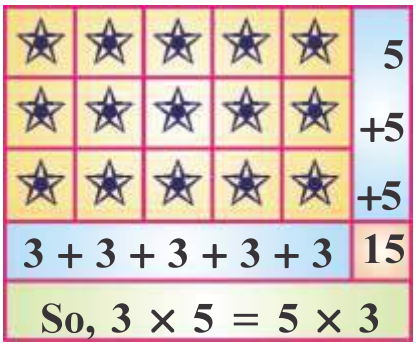


- Here, five groups of three elements.
- Total 3 + 3 + 3 + 3 + 3 = 15

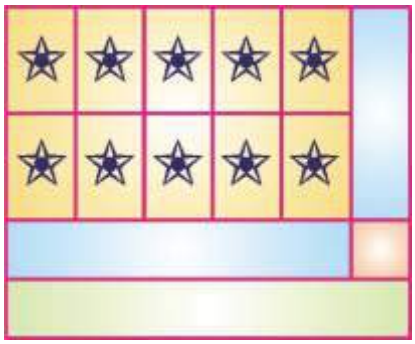
- **Addition of same number repeatedly is known as repetitive addition.**
- Here, the repetitive addition of 3 is done five times.

- Repetitive addition can be represented as **multiplication**. This is denoted by 3×5. Here '$\times$' is the symbol of multiplication. Thus, repetitive addition means multiplication.
- In short we say that repetitive addition of 3 five times means five times 3.
- Three times five means five times three.
- $3 \times 5 = 15$ can be read as three fives are fifteen.

(1)



(2) Write as adjacent picture :



(3)  = 4 Here, four times 1 = 4 is at once.

1 + 1 + 1 + 1 = 4. So, $1 \times 4 = 4 \times 1$

Now, say 1×1 = ... ; 1×2 = ... ; 1×3 = ... ;

1×4 = ... ; 1×5 = ...

If any number is multiplied by 1, what is the result of multiplication ?

.....

(4) Understand the details of the first box. Complete the details accordingly in the following boxes :

0 + 0 + 0 = 0	0 + 0 + 0 + 0 = 0	0 + 0 + 0 + 0 + 0 = 0
↓	↓	↓
So, $0 \times 3 = 0$	So,	So,
↓	↓	↓
$3 \times 0 = 0$		

- **If any number is multiplied by zero, the result is zero.**
- **Preparation of tables : (Tables of 6, 7, 8 and 9)**

In std. II, you have studied the tables of 2, 3, 4, 5 and 10. Now we prepare a multiplication table of 6.

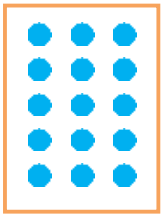
Table of 6	Sum	Multiplication	Read
6	6	6 × 1 = 6	Six ones are six
6 + 6	12	6 × 2 = 12	Six twos are twelve
6 + 6 + 6	18	6 × 3 = 18	Six threes are eighteen
6 + 6 + 6 + 6	24	6 × 4 = 24	Six fours are twenty four
6 + 6 + 6 + 6 + 6	30	6 × 5 = 30	Six fives are thirty
6 + 6 + 6 + 6 + 6 + 6	36	6 × 6 = 36	Six sixes are thirty six
6 + 6 + 6 + 6 + 6 + 6 + 6	42	6 × 7 = 42	Six sevens are forty two
6 + 6 + 6 + 6 + 6 + 6 + 6 + 6	48	6 × 8 = 48	Six eights are forty eight
6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6	54	6 × 9 = 54	Six nines are fifty four
6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6	60	6 × 10 = 60	Six tens are sixty

6	12	18	24	30	36	42	48	54	60

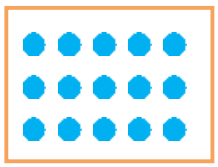
Similarly, prepare the multiplication tables of 7, 8 and 9.

Practice 1

1. Understand the given example and put dots in the following boxes :



5 × 3



3 × 5

3 × 4

4 × 3

6 × 2

2 × 6

2. Fill in the blanks :

(1) Eight tens are .....

(2) Six nines are .....

(3) Nine fours are .....

(4) Seven sixes are .....

(5) Seven fives are .....

(6) Nine sevens are .....

(7) Six threes are .....

(8) Nine eights are .....

3. Write the missing numbers in the empty boxes :

(1)	7	14	21			42	49	56	63	70
(2)	9	18		36		54				
(3)	8	16				48				

4.

Two goats have		ears.	Six chairs have		legs.
Seven cows have		legs.	Eight buffallows have		horns.
Nine rickshaws have		wheels.	Ten elephants have		trunks.

- **Multiplication of a two or a three digit number with a single digit number (without carry over) :**

Example 1 : 23×3

Tens	Units
2	3
	3
6	**9**

3 × 2 tens = 6 tens ×

3 × 3 units = 9 units

Calculate yourself :

(1) $\begin{array}{r} 23 \\ \times\ 2 \\ \hline \end{array}$

(2) $\begin{array}{r} 13 \\ \times\ 3 \\ \hline \end{array}$

(3) $\begin{array}{r} 50 \\ \times\ 4 \\ \hline \end{array}$

(4) $\begin{array}{r} 11 \\ \times\ 5 \\ \hline \end{array}$

Example 2 : 323×2

Hund.	Tens	Units
3	2	3
		2
6	**4**	**6**

2 × 3 hundreds = 6 hundreds ×

2 × 3 units = 6 units

2 × 2 tens = 4 tens

Example 3 : 123×2

$$\begin{array}{r} 123 \\ \times\ 2 \\ \hline 246 \end{array}$$

Result of Multiplication : 246

Example 4 : 101×4

$$\begin{array}{r} 101 \\ \times\ 4 \\ \hline 404 \end{array}$$

Result of Multiplication : 404

Example 5 : 400×2

$$\begin{array}{r} 400 \\ \times\ 2 \\ \hline 800 \end{array}$$

Result of Multiplication : 800

Practice 2

1. Multiply the following :

(1) 21 × 2	(2) 32 × 3	(3) 22 × 4	(4) 68 × 1	(5) 43 × 2

2. Multiply the following :

(1) 628 × 1	(2) 312 × 3	(3) 111 × 8	(4) 100 × 4	(5) 471 × 2

3. Multiply the following :

(1) 21×4 (2) 24×2 (3) 13×7 (4) 213×3

(5) 401×2 (6) 100×6 (7) 52×4 (8) 303×3

◆ **Observe and understand : Multiplication of a two digit number by a single digit number (with carry over)**

8 × 8 units = 64 units

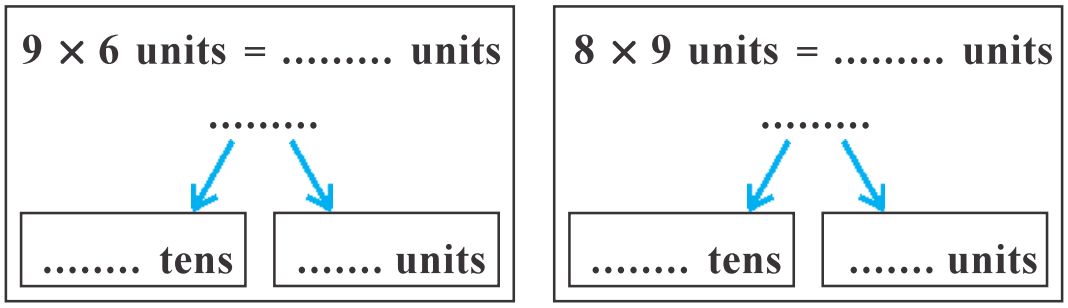
6 4

6 tens | 4 units

6 × 7 units = ... units

.....

..... tens | ..... units



Observe and understand :

Example 6 : Multiply : 49 × 2

(1) By drawing boxes :

Tens	Units
1	
4	9
	2
9	1 8

= 98

Explanation :

- 9 units × 2 = 18 units
  18 units = 1 tens and 8 units
  8 is written below in the unit box.
  Remaining 1 tens is taken as carry over.
- 4 tens × 2 = 8 tens
- 8 tens + 1 tens (carry over) = 9 tens
- So, 9 is written below in tens box.

(2) Without drawing boxes :

$$\begin{array}{r} {\scriptstyle 1\ \ } \\ 49 \\ \times\ 2 \\ \hline 98 \end{array}$$

Multiplication = 98

Practice 3

1. Multiply the following :

(1) 28 × 3	(2) 18 × 6	(3) 37 × 4	(4) 16 × 5	(5) 24 × 8	(6) 39 × 5

Example 7 : Multiply : 46×8

(1) By drawing boxes :

	Tens	Units
	(4)	
	4	6
×		8
	36	(4) 8

Explanation :

- 4 tens 6 units
  × 8
  32 tens 48 units
  = 3 hundreds 2 tens 4 tens 8 units
  = 3 hundreds 6 tens 8 units
  = 368

(2) Without drawing boxes :

$$\begin{array}{r} {\scriptstyle 4\ \ } \\ 46 \\ \times\ 8 \\ \hline 368 \end{array}$$

Multiplication = 368

Practice 4

1. Multiply the following :

(1) 72 × 8	(2) 67 × 4	(3) 46 × 9	(4) 98 × 3	(5) 32 × 9

2. Multiply the following :

(1) 93×3 (2) 65×6 (3) 83×8 (4) 79×7 (5) 68×9

Multiplication of a three digit number by a single digit number (with carry over) :

Example 8 : Multiply : 207×4

(1) By drawing boxes :

	Hundreds	Tens	Units
		(2)	
	2	0	7
×			4
	8	2	(2) 8

Explanation :

- 2 hundreds 0 tens 7 units
  × 4
  8 hundreds 0 tens 28 units
  = 8 hundreds 0 tens 2 tens 8 units
  = 8 hundreds 2 tens 8 units
  = 828

(2) Without drawing boxes :

$$\begin{array}{r} {\scriptstyle 2\ \ \ } \\ 207 \\ \times\ 4 \\ \hline 828 \end{array}$$

Product = 828

Practice 5

1. Multiply the following :

(1) 110×7 (2) 219×4 (3) 317×3 (4) 105×6

(5) 119×4 (6) 138×7 (7) 111×9 (8) 112×7

(9) 162×5 (10) 104×8 (11) 242×3 (12) 189×5

Observe and understand :

Example 9 : Multiply : 141×5

(1) By drawing boxes :

Hundreds	Tens	Units
(2)		
1	4	1
×		5
7	(2)0	5

Explanation :

- 1 hundreds 4 tens 1 units
  × 5
  5 hundreds 20 tens 5 units

= 5 hundreds 2 hundreds 0 tens 5 units

= 7 hundreds 0 tens 5 units

= 705

(2) Without drawing boxes :

$$\begin{array}{r} {\scriptstyle 2\ \ \ } \\ 141 \\ \times\ 5 \\ \hline 705 \end{array}$$

Product = 705

Example 10 : Multiply : 168×4

(1) By drawing boxes :

Hundreds	Tens	Units
(2)	(3)	
1	6	8
×		4
6	(2)7	(3)2

Explanation :

- 1 hundreds 6 tens 8 units
  × 4
  4 hundreds 24 tens 32 units

= 4 hundreds 24 tens 3 tens 2 units

= 4 hundreds 27 tens 2 units

= 4 hundreds 2 hundreds 7 tens 2 units

= 672

(2) Without drawing boxes :

$$\begin{array}{r} {\scriptstyle 2\,3} \\ 168 \\ \times\ 4 \\ \hline 672 \end{array}$$

Product = 672

Practice 6

1. Multiply the following :

(1) 242 × 3 (2) 141 × 7 (3) 351 × 2 (4) 161 × 6

(5) 469 × 2 (6) 102 × 9 (7) 153 × 5 (8) 233 × 4

2. Multiply the following :

(1) 274 × 3	(2) 177 × 5	(3) 378 × 2	(4) 234 × 4	(5) 159 × 6

3. Multiply the following :

(1) 189 × 3 (2) 105 × 9 (3) 205 × 4 (4) 318 × 2

- **Oral solution of a practical puzzle in one step :**
- **Puzzle-solution**

(1) Observe the pictures and answer the questions :

Questions :

(1) How many cards are there ? .....

(2) How many dots are there on each card ? .....

(3) How many times are 4 dots taken ? .....

(4) What will you do to find the total number of dots on five cards ?

.....

(5) What is the total number of dots on five cards ? .....

Practice 7

1. Give answers by oral calculation :

(1) The price of a ball is 5 rupees. What is the price of 3 such balls ?

.....

(2) There are 10 pencils in a box. How many pencils are there in 8 such boxes ? .....

(3) 7 chocolates are to be distributed to each child. How many chocolates are required to distribute to five children ? .....

(4) How many wheels do nine rickshaws have ? .....

- **Practical puzzles :**

Observe the different items and their prices. Calculate your answer on the basis of it.

				
130 rupees	25 rupees	28 rupees	4 rupees	32 rupees

Questions :

(1) How much money is required to purchase five bats ? .....

(2) How much money is paid by Jayesh to purchase 8 balls ?

.....

(3) What is the total cost of 6 compass boxes ? .....

(4) How much money has to be paid to purchase 24 kites ? .....

(5) How much money has to be paid to purchase 4 books ? .....

◆ **Observe and understand :**

Example 11 : The price of a school-bag is ₹ 135. Iqbalbhai purchases 3 such bags. Then how much money has he to pay ?

Explanation : The price of a school-bag is ₹ 135; to find the total cost of 3 bags, ₹ 135 has to be paid three times, so multiply 135 by 3.

$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 135 \\ \times\ \ 3 \\ \hline 405 \end{array}$$

Iqbalbhai has to pay ₹ 405.

Practice 8

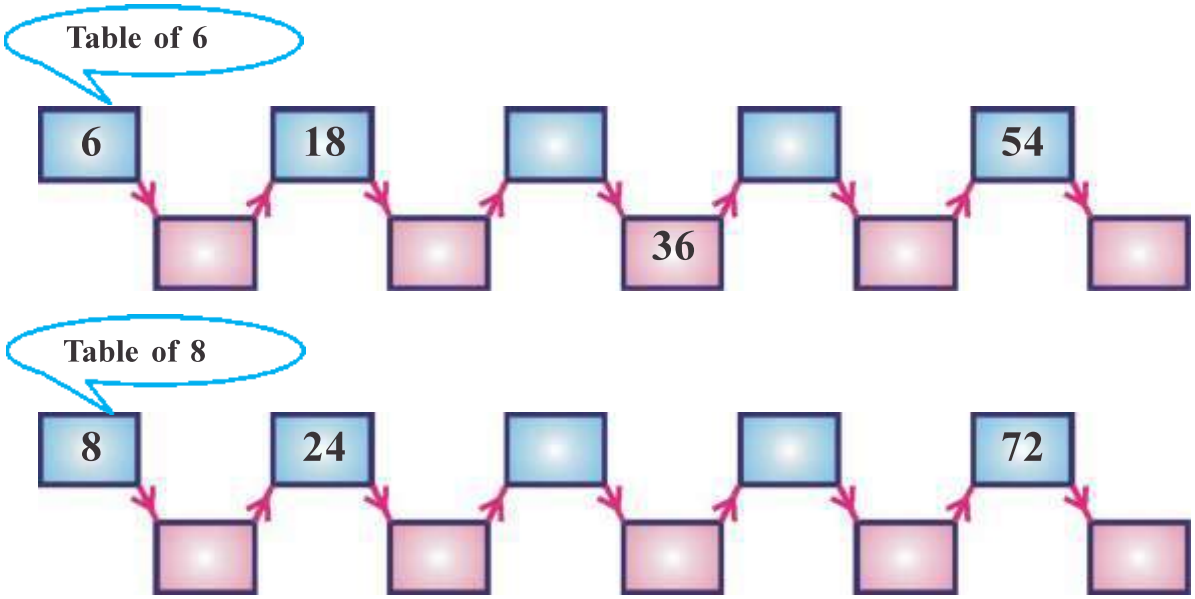
1. 48 students can sit in each class of a school for the examination. How many students can sit for the examination in 6 such classes ?
2. There are 25 mangoes in a box. How many mangoes can there be in 7 such boxes ?
3. There are 49 trees in a row of a garden. How many trees are there in 5 such rows ?
4. There are 144 soaps in a box. A merchant purchases six boxes. How many soaps are purchased by him ?
5. There are six balls in a bag. A merchant purchases 58 such bags. How many balls did he purchase in all ?

Exercise

1. Observe the table, understand and write the number of legs of a cow in the empty boxes :

Number of cows	1	2	3	4	5	6	7
Number of legs	4		12				28

2. Observe, understand and write a number in the empty box :



3. Multiply the following :

(1) 42 × 3	(2) 67 × 6	(3) 83 × 7	(4) 95 × 5	(5) 99 × 4

4. Multiply the following :

(1) 142 × 7	(2) 234 × 3	(3) 183 × 4	(4) 107 × 9	(5) 206 × 4

5. Students of a school are going to a picnic in 7 buses. In each bus, 62 students occupy seats; how many students are going to the picnic in all ?
6. Joseph purchased 109 books at the cost of ₹ 8 each. How much money did Joseph pay to the shop-keeper ?
7. There are 156 students in a school. Each student gave ₹ 5 for soldier fund. What is the total amount collected in the fund ?
8. There are 325 students in a school. Each student gave ₹ 3 for the fund on teacher's day. What is the total amount of fund collected ?
9. Rameshbhai purchased 40 compass boxes at the cost of ₹ 9 each. How much money is paid by Rameshbhai for these compass boxes ?
10. The price of a book is ₹ 6. School purchases 75 books. How much money is paid by the school for these books ?

Practice 1

2. (1) 80 (2) 54 (3) 36 (4) 42
   (5) 35 (6) 63 (7) 18 (8) 72

Practice 2

1. (1) 42 (2) 96 (3) 88 (4) 68 (5) 86
2. (1) 628 (2) 936 (3) 888 (4) 400 (5) 942
3. (1) 84 (2) 48 (3) 91 (4) 639 (5) 802 (6) 600 (7) 208 (8) 909

Practice 3

1. (1) 84 (2) 108 (3) 148 (4) 80 (5) 192 (6) 195

Practice 4

1. (1) 576 (2) 268 (3) 414 (4) 294 (5) 288

2. (1) 279 (2) 390 (3) 664 (4) 553 (5) 612

Practice 5

1. (1) 770 (2) 876 (3) 951 (4) 630 (5) 476 (6) 966

(7) 999 (8) 784 (9) 810 (10) 832 (11) 726 (12) 945

Practice 6

1. (1) 726 (2) 987 (3) 702 (4) 966 (5) 938 (6) 918 (7) 765 (8) 932

2. (1) 822 (2) 885 (3) 756 (4) 936 (5) 954

3. (1) 567 (2) 945 (3) 820 (4) 636

Practice 7

(1) 15 (2) 80 (3) 35 (4) 27

Practice 8

(1) 288 (2) 175 (3) 245 (4) 864 (5) 348

Exercise

3. (1) 126 (2) 402 (3) 581 (4) 475 (5) 396

4. (1) 994 (2) 702 (3) 732 (4) 963 (5) 824

5. 434 **6.** 872 **7.** 780 **8.** 975 **9.** 360 **10.** 450

Revision : 2

1. Fill in the gaps in the following table :

Number	Hundreds	Tens	Units	Write the number in words
666	6	6	6	Six hundred sixty six
450	.....	.....	.....	.....
.....	8	6	7	.....
.....	.....	.....	.....	Five hundred fifty four
.....	.....	.....	.....	Two hundred eight

2. Write the numbers 812, 615, 213, 905, 423 and 775 in the ascending and the descending order :

In ascending order	....., ..., ..., ..., ..., ...
In descending order	....., ..., ..., ..., ..., ...

3. Calculate the following examples :

(1) 2 8 2 + 5 7 8	(2) 3 6 5 + 1 0 3 + 2 4	(3) 9 4 8 − 2 1 4	(4) 8 0 0 − 6 0 0

(5) 4 5 6 − 3 1 8	(6) 7 0 0 + 1 0 5 + 1 6 4	(7) 2 4 0 − 1 8	(8) 7 0 8 − 2 8 0

4. Simplify :

(1) 310 – 250 + 623 (2) 225 – 115 + 345 (3) 635 – 480 + 68

(4) 540 – 435 + 115 (5) 314 + 208 – 236 (6) 789 – 293 – 139

5. Write the answers by oral calculation :

(1) What is left out by subtracting 200 from 400 ? .....

(2) What is the result, if 10 is multiplied by 5 ? .....

(3) What is left out by subtracting 200 from the sum of 300 and 400 ? .....

(4) What is the result, if 20 is multiplied by 6 ? .....

(5) What is the result of subtracting 100 from the sum of 100 and 300 ? .....

6. Multiply the following :

(1) 232 × 3 (2) 208 × 2 (3) 219 × 4 (4) 151 × 5

(5) 262 × 3 (6) 153 × 4 (7) 114 × 8 (8) 103 × 9

7. There are total 450 plants of guava and custard-apple in an orchard. Out of these, 218 plants are of guava. Find the number of plants of custard-apple.

8. There are 617 students and teachers in a school. Out of these, boys are 360 in numbers and teachers are 19 in numbers. What is the number of girls ?

9. There are 17 children standing in a row in a play ground. How many students will there be in 6 such rows ?

10. There are 159 students in a school. The guardian of each students contributed ₹ 5 for the celebration of a National Festival. What is the total amount of the fund ?

11. 25 students sit in a row in the prayer meeting of a school. How many students will sit in 8 such rows ?

2. **Ascending order :** 213, 423, 615, 775, 812, 905

Descending order : 905, 812, 775, 615, 423, 213

3. (1) 860 (2) 492 (3) 734 (4) 200

(5) 138 (6) 969 (7) 222 (8) 428

4. (1) 683 (2) 455 (3) 223 (4) 220 (5) 286 (6) 357

5. (1) 200 (2) 50 (3) 500 (4) 120 (5) 300

6. (1) 696 (2) 416 (3) 876 (4) 755

(5) 786 (6) 612 (7) 912 (8) 927

7. 232 **8.** 238 **9.** 102

10. 795 **11.** 200

MATHEMATICS

Standard 3

(Second Semester)

6 Time

Let us recall :

- Sunday, _____, _____, Wednesday, _____, _____, Saturday

Fill in the blanks as per the details above :

(1) The third day of the week is _____ .

(2) The fifth day of the week is _____ .

(3) The second day of the week is _____ .

(4) The last day of the week is _____ .

(5) There are _____ days in a week.

Which day falls ?

(1) After Sunday; _____ . (2) Before Sunday; _____ .

(3) After Wednesday; _____ . (4) Before Wednesday; _____ .

(5) Two days after Monday; _____ .

(6) Two days after Thursday; _____ .

(7) Seven days after Monday; _____ .

What do you say ?

(1) What day is it today ? _____ .

(2) What day was it yesterday ? _____ .

(3) What day will it be tomorrow ? _____ .

(4) What day will it be the day after tomorrow ? _____ .

Favourite Months :

One day Aayush, Daksh and Mina were discussing about their favourite months.

My favourite months are May and June when we eat mangoes.

Mina

Daksh

My favourite months are October and November when we fire crackers.

I like January the most because we enjoy flying kites.

Aayush

- Which is your favourite month ? _____
- Why ? _____

Calendar Showing the English Months :

January 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

February 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			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			

March 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

April 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
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					

May 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

June 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					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

July 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

August 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

September 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						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						

October 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

November 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				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	

December 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Name of Festival	Name of Month

- **Write the names of missing months :**

  January, February, _____, _____, May, _____, July, _____, September, _____, _____, December.

- **Answer the following questions according to the calendar.**

  (1) Which is the first month of a year ? _____

  (2) Which month comes after April ? _____

  (3) Which month comes before August ? _____

  (4) Which is the third month after June ? _____

  (5) Which month comes before three months from December ? _____

  (6) Which is the last month of the year ? _____

Four months have thirty days.
Seven have thirty-one days.
February is the smallest month.
Sometime it jumps.

Game :

- Make a fist with your left hand and start from the knuckle (bump) of your litle finger. The bump is Jan. (31), the dip is Feb. (28), the next bump is March (31), dip is April (30), bump - May (31), dip - June (30), bump - July (31). Continue on your right fist - the first knuckle, bump - Aug. (31), dip - Sept. (30), bump - Oct. (31), dip - Nov. (30) and finally bump - Dec. (31).
- There are 28 or 29 days in the month of February.
- Every four years (leap year) February has 29 days.

Observe and Understand :

Name of month	No. of days
January	31
February	28 or 29
March	31
April	30
May	31
June	30
July	31
August	31
September	30
October	31
November	30
December	31

Answer the following questions based on the calendar of the current year :

- How many months are there in a year ? _____
- Make a list of the months having 30 days. _____

_____

- Make a list of the months having 31 days. _____

_____

- How many days are there in the month of February ? _____
- In which of the months does Thursday occur five times ? _____

_____

- Write the name of the months having 5 Sundays. _____

_____

Find out the following dates from the calendar :

26th January

15th August

25th December

2nd October

- The names of the festivals celebrated during a year are given below. Complete the table observing the calendar.

Names of the festivals	Date	Month	Day
Diwali			
Rakshabandhan			
Gandhi Jayanti			
Christmas			
Independence day			
Uttarayan			
Holi			
Id-e-Milad			
Republic day			
Gurunanak Jayanti			
Mahavir Jayanti			
Pateti			

Prepare the calendar of the month of current year in which your birthday occurs.

Fill in your favourite colour in the box of your birthday.

Month : ..... Year : .....

Sunday	Monday	Tuesday	Wednes-day	Thurs-day	Friday	Satur-day

Answer the following questions observing the calendar above :

- Which day occurs on the 4th of month ? _____
- On which day does the month end ? _____
- Which day occurs on the 20th of the month ? _____
- On which other dates of the month does the above day occur ?

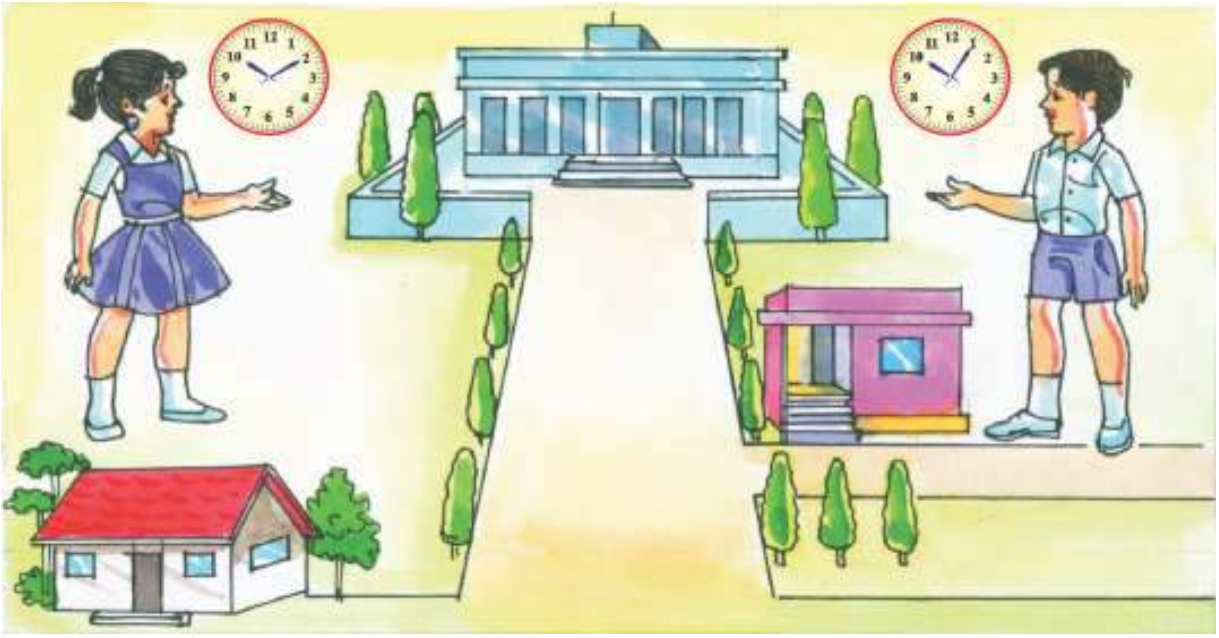
_____

- How many Thursdays are there in this month ? _____
- Which days occur five times in this month ? _____

_____

Who reaches the school earlier ?

Rohan and Roma start for the school from their homes at 10 O'clock. They walk at the same speed. They discuss as follows :



Rohan : It takes me five minutes to walk to the school.

Roma : It takes me two minutes to walk to the school. I reach the school earlier than you.

Rohan : It is not possible. Your home is farther from the school. I reach earlier than you.

Roma : Wait. I tell you the time looking at the clock. I start for the school at 10 O'clock. When I reach the school the minute-hand points at 2. So I reach the school in two minutes.

Rohan : You are incorrect. You reach the school at 10 minutes past 10. (10:10)

Roma : How ?

Rohan : The minute-hand at 2 means it is 10 minutes. There are 10 divisions (spaces) between 12 and 2. So 10 divisions mean 10 minutes. You see the small divisions (spaces) between the numbers, they show minutes.

Roma : Now I understood. I start for the school at 10 O'clock and reach at 10 minutes past 10 (10:10) because the minute-hand points at 10th division.

The hour-hand is smaller than the minute-hand in the clock.

- When the minute-hand is at 12, then the position of the hour-hand (number) shows the time.

The minute-hand is at 12 and the hour-hand is at 2. So, it is called 2 O'clock.

The minute-hand is at 12 and the hour-hand is at 5. So, it is called 5 O'clock.

The minute-hand is at 12 and the hour-hand is at 10. So, it is called 10 O'clock.

The minute-hand is at 2 and the hour-hand is between 10 and 11. So, it is called 10 minutes past 10.

The minute-hand is at 9 and the hour-hand is between 7 and 8. So, it is called 45 minutes past 7.

The minute-hand is at 3 and the hour-hand is between 11 and 12. So, it is called 15 minutes past 11.

Write the time as shown by the clock :

..... O'clock

..... O'clock

..... O'clock

..... O'clock

Put ◯ on correct time :

	Sapana	Vacha	Yash
	10:12	12:10	10:00
	6:12	12:30	6:00
	6:15	3:30	6:03
	10:15	10:45	9:45

Draw the hands of the clock to show the time given below :

8:00

2:25

4:30

10:00

Game :

Rahim and Smit are playing a game.

Smit

May I tell you the time by your watch ?

Yes, take this watch and tell the time.

Rahim

It is one minute past seven.

There are five divisions.

No, it is wrong. See, how many divisions are there between 12 and 1.

It means it is five minutes. First division after 12 shows 1 minute. Second division shows 2 minutes. In this way, the minute-hand is at 1 which shows five divisions, so it is five minutes. It is called five minutes after seven and can be written as 7:05. Do you understand now ?

Yes. Now I understood.

Now, let us try this on toy-clock. How many minutes will it be if the minute-hand is on digit 6 ?

Thirty minutes

Very good. The time can be known quickly in another way also.

There are 5 divisions from one number to the next number. So it is five minutes.
So, if minute-hand is on 1, then 5 minutes.
If minute-hand is on 2, then 10 minutes.
If minute-hand is on 3, then 15 minutes.

Now, I understood everything.

Observe and understand :

Place of minute-hand	Minutes
On 1	1 × 5 = 5 minutes
On 2	2 × 5 = 10 minutes
On 3	3 × 5 = 15 minutes
On 4	4 × 5 = 20 minutes
On 5	5 × 5 = 25 minutes
On 6	6 × 5 = 30 minutes
On 7	7 × 5 = 35 minutes
On 8	8 × 5 = 40 minutes
On 9	9 × 5 = 45 minutes
On 10	10 × 5 = 50 minutes
On 11	11 × 5 = 55 minutes
On 12	12 × 5 = 60 minutes

In general discussion, time is explained as follows :

Time	Written as	Spoken as
15 minutes after 5	5:15	Five and fifteen / Quarter past five
30 minutes after 1	1:30	One and thirty/Half past one
30 minutes after 2	2:30	Two and thirty/Half past two
3 hours 30 minutes	3:30	Three-thirty / Half past three
35 minutes after 6	6:35	Six-thirty five
8 hours 45 minutes	8:45	Eight - Forty five / Quarter to Nine / Fifteen minutes to nine
7 hours 15 minutes	7:15	Seven-fifteen / Quarter past seven
20 minutes after 9	9:20	Nine-twenty
12 hours 45 minutes	12:45	Quarter to one / Fifteen minutes to one

- Draw ◯ (encircle) on the correct time :

	2:05	2:03	2:15
	12:00	12:05	11:55
	4:40	4:04	4:20
	7:00	12:07	12:35
	9:40	7:45	8:45

- Draw the hands of the clock to show the time given below :

4:00

6:50

8:00

2:20

5:25

10:00

- **Show the time :**

Time when you go to bed.	Time when you wake-up.	Time when you take meal.	Time when you do home-work
			

- **Show the time in the following clocks :**

20 minutes past 5	40 minutes past 8
	
55 minutes past 10	**35 minutes past 3**
	

- **Find out and write :**
- How long will the minute-hand take to reach to the time shown by second clock from the time shown by the first clock ?

(1)  to

..... minutes

(2)  to

..... minutes

(3)  to

..... minutes

(4)  to

..... minutes

- **Addition of Hours and Minutes :**

(1) 3 hours and 5 hours

	3	hours
+	5	hours
	8	hours

(2) 20 minutes and 15 minutes

	20	minutes
+	15	minutes
	35	minutes

(3) 3 hours 10 minutes and 2 hours 25 minutes

	hours	minutes
	3	10
+	2	25
	5	35

5 hours 35 minutes

(4) 30 minutes after 7 hours and 15 minutes after 4 hours

	hours	minutes
	7	30
+	4	15
	11	45

45 minutes after 11 hours

Practice 1

1. Add the following :

(1)

hours	minutes
4	15
+ 8	20

(2)

hours	minutes
7	30
+ 9	25

(3)

hours	minutes
11	20
+ 5	05

(4)

hours	minutes
9	40
+ 6	15

(5)

hours	minutes
12	30
+ 9	20

(6)

hours	minutes
1	50
+ 11	05

2. Add the following :

(1) 5 hours and 10 hours

(2) 13 hours and 6 hours

(3) 7 hours and 14 hours

(4) 8 hours and 16 hours

(5) 10 minutes and 30 minutes

(6) 25 minutes and 20 minutes

(7) 15 minutes and 45 minutes

(8) 35 minutes and 10 minutes

Exercise

1. Fill in the following blanks :

(1) _____ hand is smaller in a clock.

(2) _____ hand is bigger in a clock.

(3) There are _____ days in a week.

(4) The month of _____ comes after March.

(5) There are _____ months in a year.

2. Write the time shown by the clocks in the boxes given below :

(1) 	(2) 	(3) 
(4) 	(5) 	(6) 

3. Add the following :

(1) 11 hours and 13 hours	(2) 12 hours and 16 hours

(3) 8 hours and 18 hours	(4) 17 hours and 14 hours
(5) 10 hours and 16 hours	(6) 13 hours and 17 hours

4. Add the following :

(1) 20 minutes and 38 minutes	(2) 23 minutes and 13 minutes
(3) 11 minutes and 48 minutes	(4) 30 minutes and 28 minutes

(5) 35 minutes and 15 minutes	(6) 14 minutes and 36 minutes

5. Add the following :

(1)

hours	minutes
8	25
+ 5	30

(2)

hours	minutes
18	10
+ 9	40

(3)

hours	minutes
12	15
+ 7	25

(4)

hours	minutes
13	05
+ 12	30

(5)

hours	minutes
15	15
+ 6	15

(6)

hours	minutes
22	35
+ 8	20

Practice 1

1. (1) 12 hours 35 minutes (2) 16 hours 55 minutes
(3) 16 hours 25 minutes (4) 15 hours 55 minutes
(5) 21 hours 50 minutes (6) 12 hours 55 minutes

2. (1) 15 hours (2) 19 hours (3) 21 hours (4) 24 hours
(5) 40 minutes (6) 45 minutes (7) 60 minutes (8) 45 minutes

Exercise

1. (1) Hour (2) Minute (3) Seven (4) April (5) 12

2. (1) 1:30 (2) 3:35 (3) 2:15 (4) 5:35 (5) 7:10 (6) 6:05

3. (1) 24 hours (2) 28 hours (3) 26 hours
(4) 31 hours (5) 26 hours (6) 30 hours

4. (1) 58 minutes (2) 36 minutes (3) 59 minutes
(4) 58 minutes (5) 50 minutes (6) 50 minutes

5. (1) 13 hours 55 minutes (2) 27 hours 50 minutes
(3) 19 hours 40 minutes (4) 25 hours 35 minutes
(5) 21 hours 30 minutes (6) 30 hours 55 minutes

7 Shapes

Let us recall :

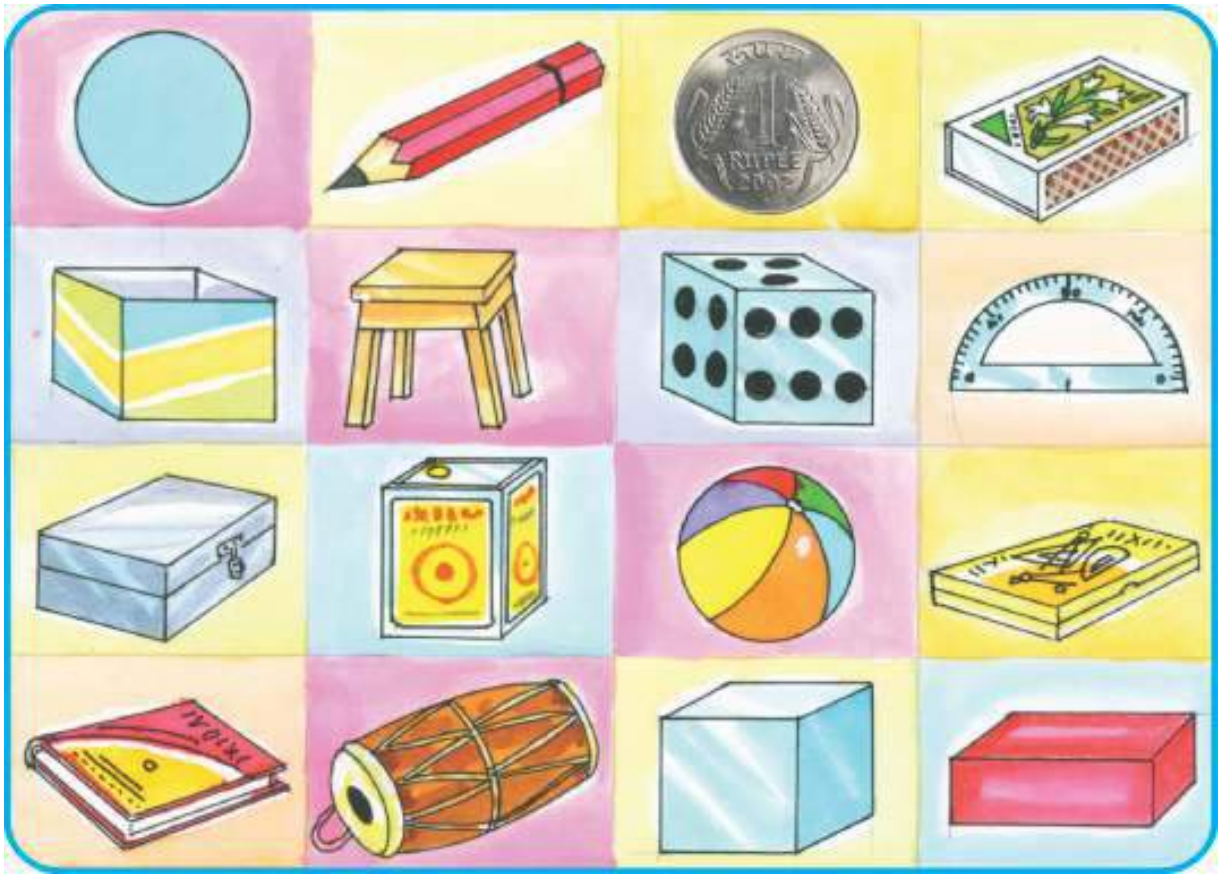
- Make a list of various things usually seen in your class-room and at home :

_____

_____

_____

- **Observe the following pictures and think about their surfaces :**



- **Answer the following questions on the base of the list made, pictures and things observed :**

(1) Write the names of things having plane surface.

_____

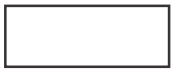
(2) Write the names of things having curved surface.

_____

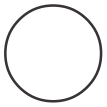
(3) Write the names of things having both plane and curved surface.

_____

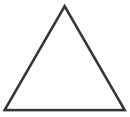
- **Now, perform an activity with your friend :**

(1) Write the names of things having  shape.

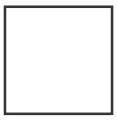
_____

(2) Write the names of things having  shape.

_____

(3) Write the names of things having  shape seen by you.

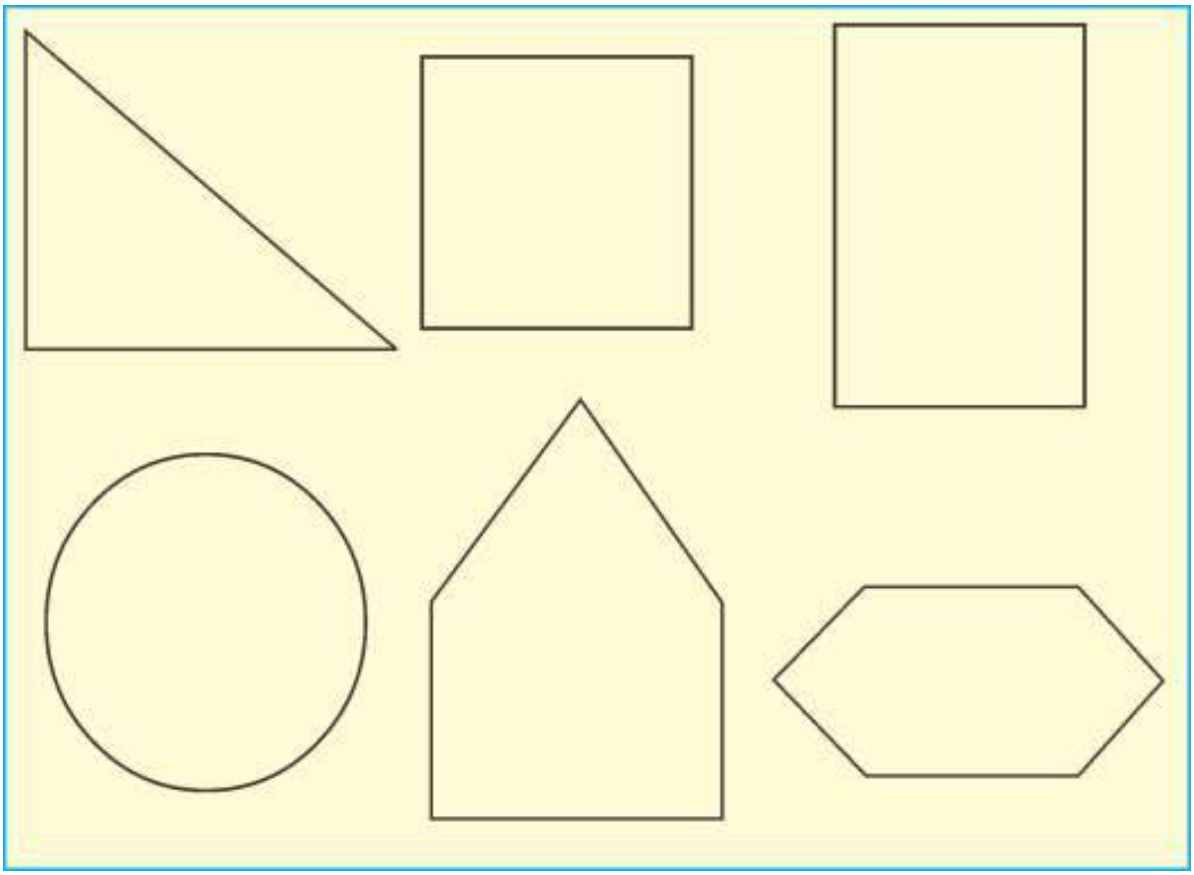
_____

(4) Have you found any thing of  shape ? If yes, write their names.

_____

☞ **By observing the above pictures and things, now you know that "Everything has a certain shape".**

- **Look at the following shapes and do as directed on the page No. 101 :**



(1) Fill in your favourite colour in the shape formed by joining three lines.

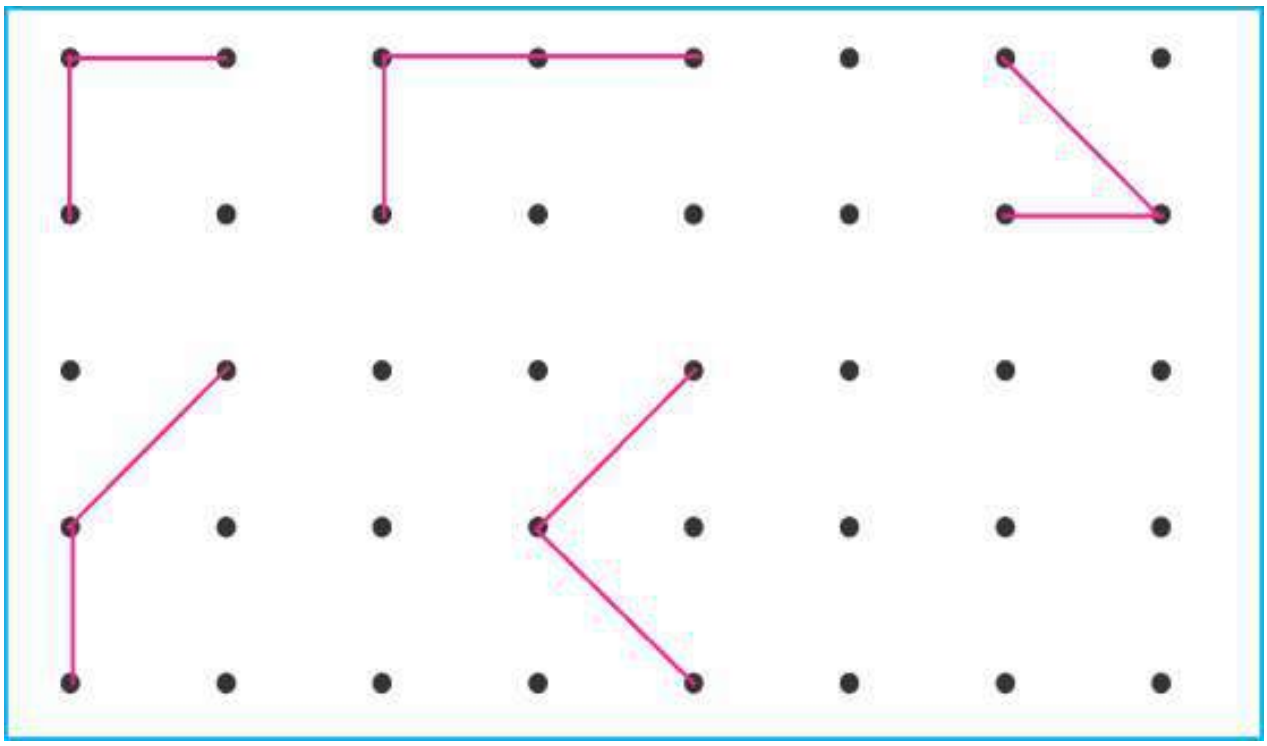
(2) Fill in your friend's favourite colour in the shape formed by joining four lines.

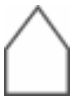
(3) Fill in green colour in the shape formed by joining five lines.

(4) Put your thumb impression in the shape formed by joining six lines.

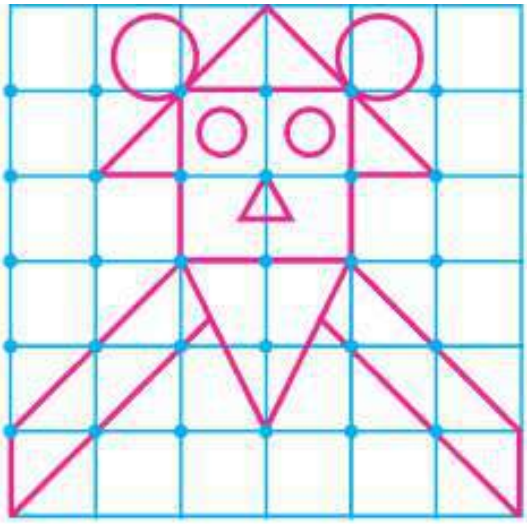
(5) Fill in yellow colour in the shape of a rupee-coin.

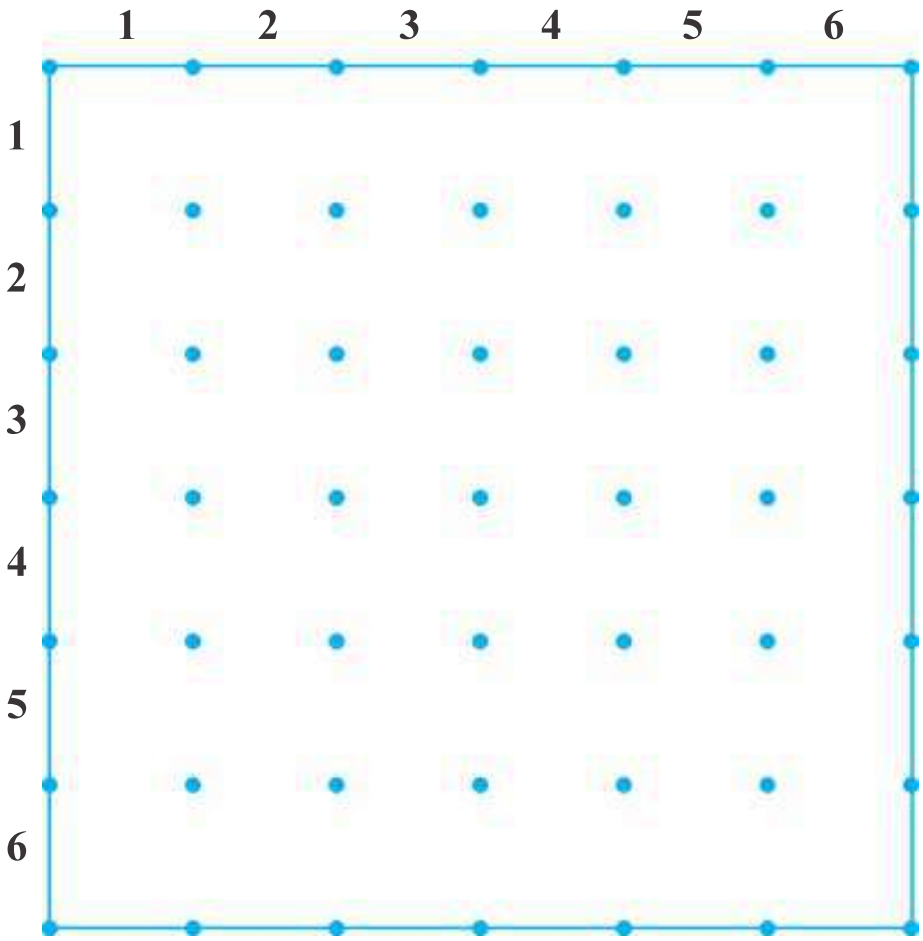
☞ **By using the following lines, form the shapes, as shown on the page no. 100 :**



We observe  ,  ,  ,  ,  and  shaped things in our surroundings.

☞ **Draw the cartoon in the bigger square by joining the dots with lines as shown. Fill in your favourite colours :**





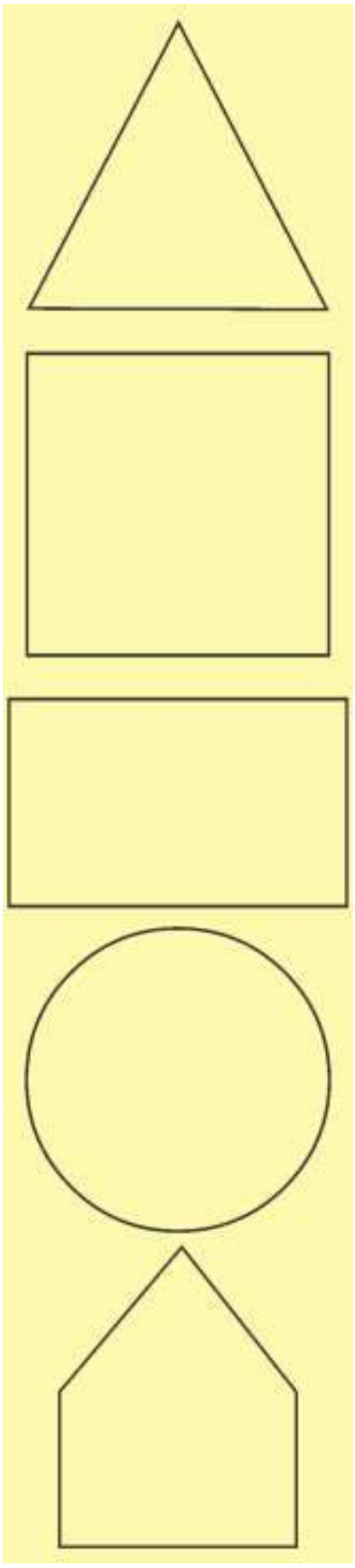
☞ **Study the following pictures :**

You may have seen such things of various shapes. Make a list of them in groups of three each. Collect as many things as possible. Classify them according to their similar shapes.

☞ **Collect pictures of such things from newspaper or elsewhere, cut and paste them in the box given below :**

☞ **Keep the collected things in the box below. Draw lines around them with a pencil and form shapes :**

☞ Let us learn something new :



- This shape is called a triangle.
  It has three sides.

- This shape is called a square.
  It has four equal sides.

- This shape is called a rectangle. It has four sides. Its opposite sides are equal.

- This figure (shape) is called a circle.

- This figure is called a pentagon.
  It has five sides.

- This figure is called a hexagon.
  It has six sides.

Your teacher will give you different types of puzzles. Using such puzzles draw square, rectangle, triangle, circle, pentagon and hexagon.

Try to form triangle, square, rectangle, circle, pentagon and hexagon using match-sticks.

(1) Example : 	(2)	(3)
(4)	(5)	(6)

- Which shape could not be formed ?
- Which things (objects) can help you to form such shapes ?

Exercise

1. Which animal is seen in the picture on next page ? Observe and answer the following questions :

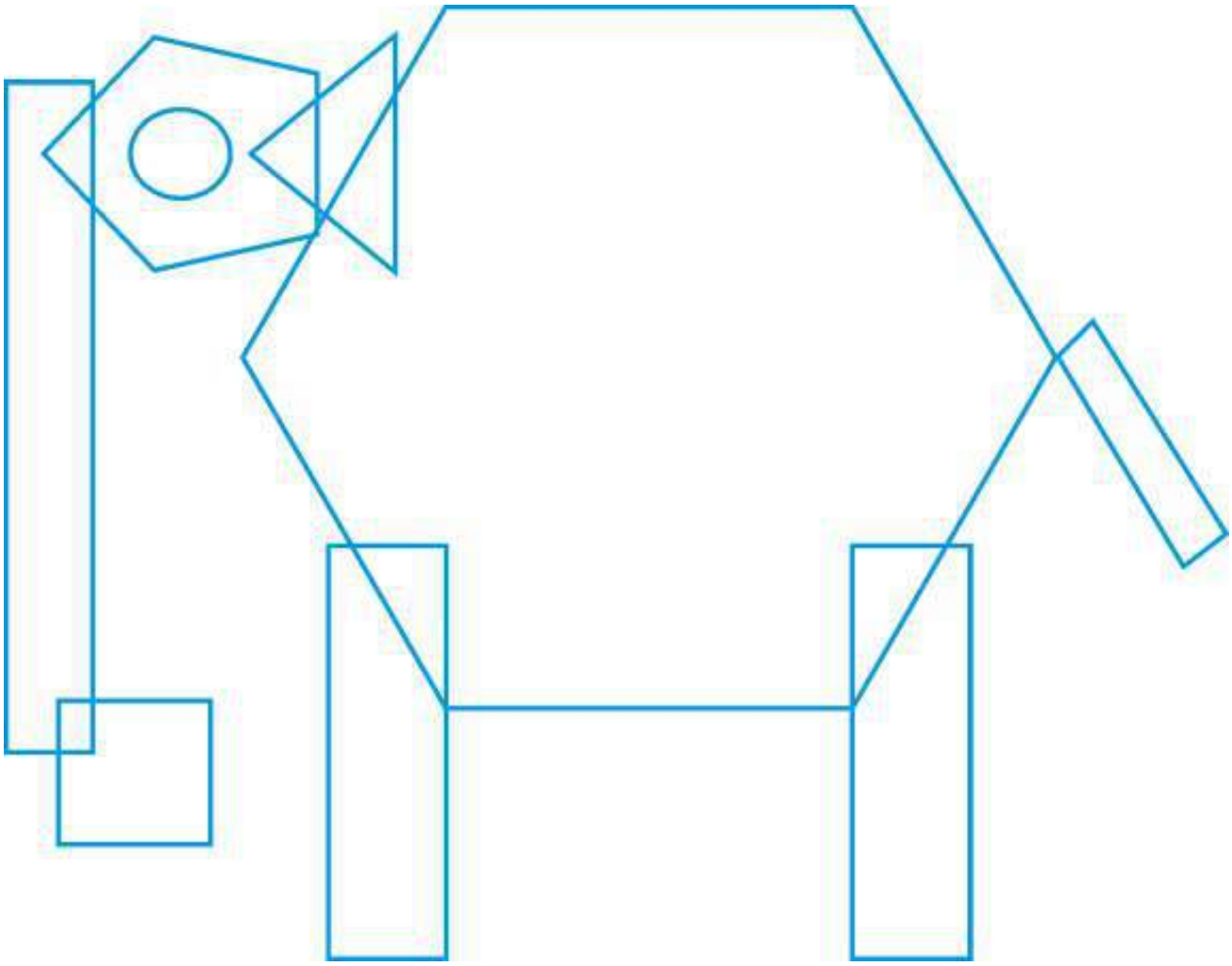
(1) What is the shape of its stomach ?

(2) Which shapes are there in the portion of the head ?

(3) Which shapes formed the trunk ?

(4) Which parts of the body are formed by the shapes of a rectangle ?

(5) Which shape does the ear of the animal show ?



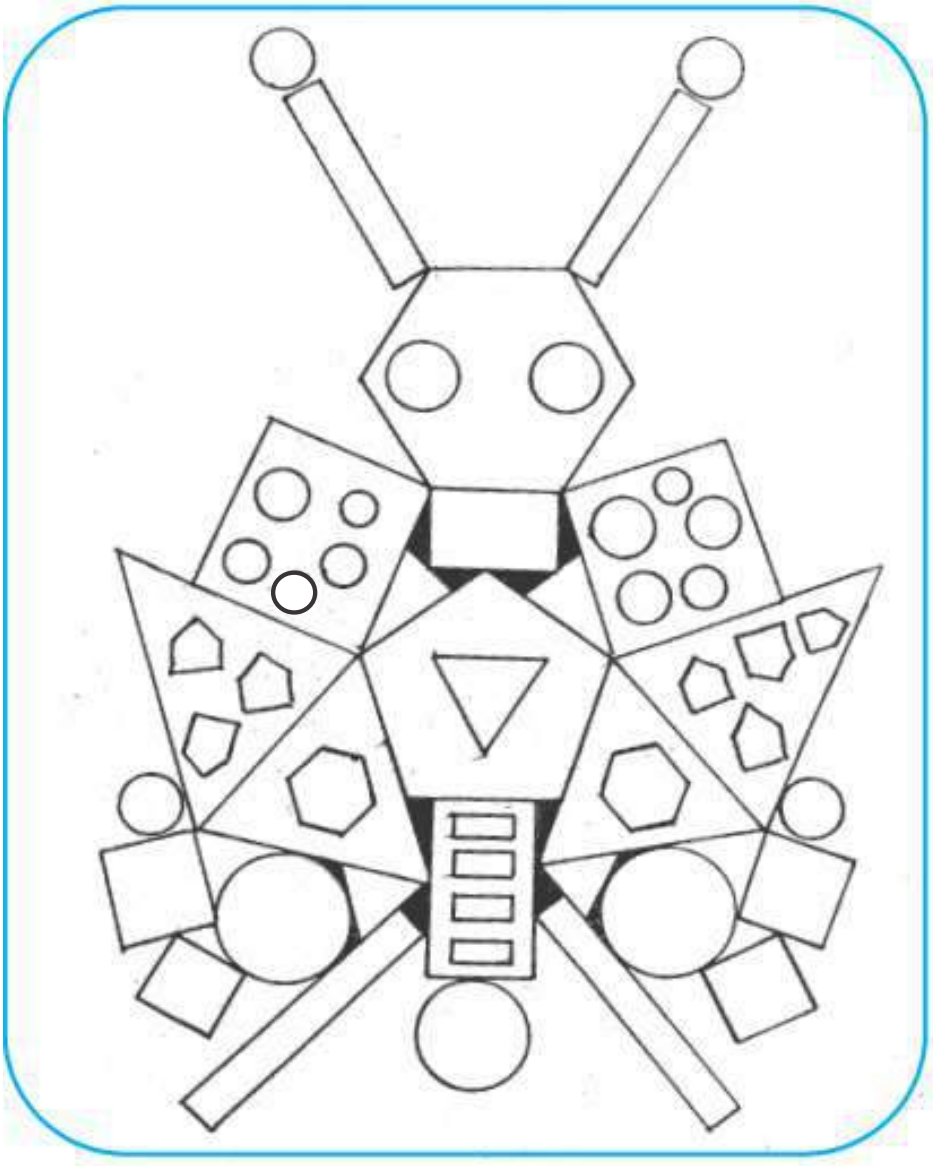
2. Fill in the colour in the picture of the animal as directed :

- Pentagon - Yellow
- Circle - Red
- Hexagon - Green
- Square - Blue
- Rectangle - Pink
- Triangle - Black

(You can also decide the colour yourself for different shapes.)

3. Fill in the colour in the picture given below as instructed :

- Circle - Red
- Square - Yellow
- Triangle - Green
- Rectangle - Blue
- Pentagon - Brown
- Hexagon - Saffron



8 Division

Equal Parts :

Activity 1 : See the picture, understand and write :

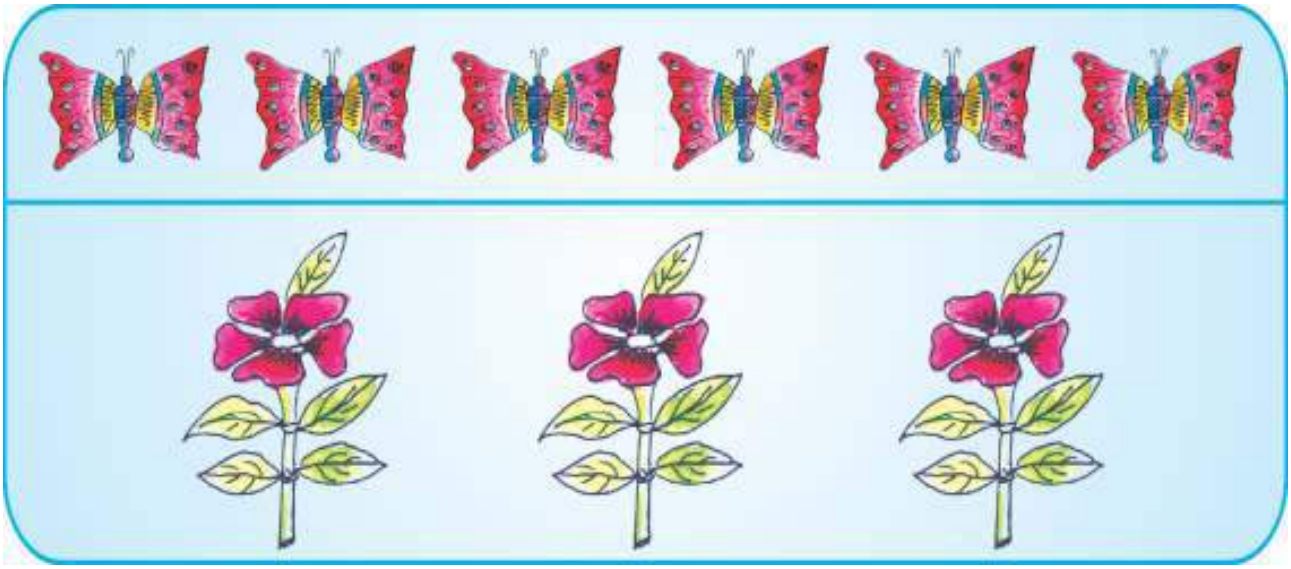
(1)

- There are _____ leaves in all.
- There are _____ pairs of leaves.

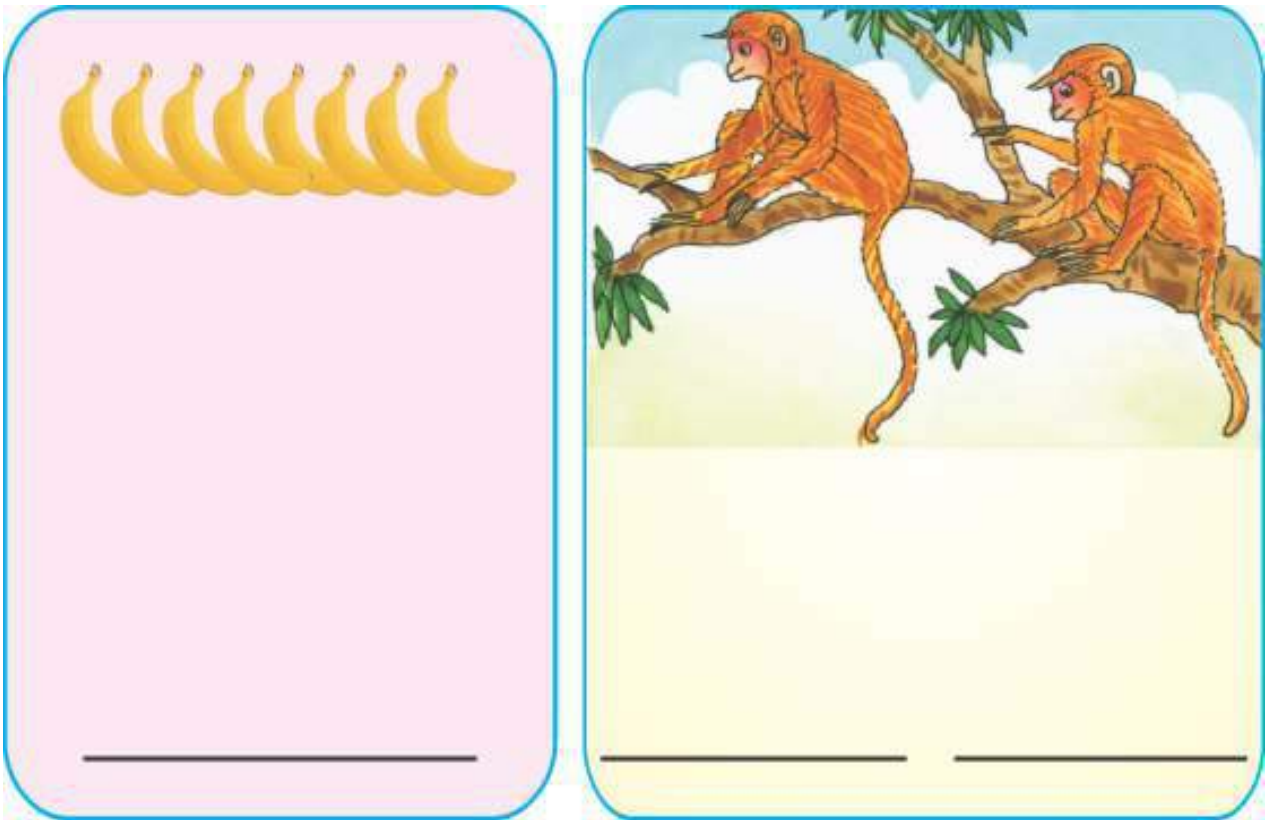
(2)

- Total number of butterflies : _____
- Total number of flowers : _____

Now, join the picture of the butterflies to the flowers in such a way that each flower has equal number of butterflies :



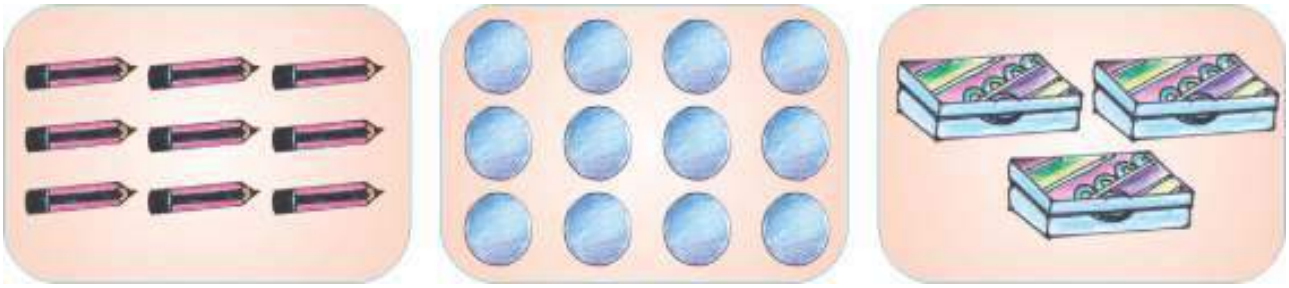
(3)



- Distribute the bananas equally between both the monkeys. Draw the pictures of bananas on the lines drawn below the picture of monkeys.

Activity 2 :

- Count the number of objects given below and divide them equally among the three children. Write the number of objects each child will get :



	To the first child	To the second child	To the third child
 Pencil	_____	_____	_____
 Marble	_____	_____	_____
 Compass-box	_____	_____	_____

Now think :

(1) How many pencils were there in all? _____

(2) In how many equal parts were the pencils divided ? _____

(3) How many pencils did each child get ? _____

Dividing nine pencils in three equal parts, each child gets 3 pencils. Don't they ?

Hence 9 ÷ 3 = 3

- **Here, '÷' is symbol for division. '÷' is read as 'divided by'.**

Now, what do you say ?

(1) Each child gets _____ marbles. So, 12 ÷ 3 = _____ .

(2) Each child gets _____ compass boxes.

So, 3 ÷ 3 = _____ .

Activity 3 :

- You and your friends go and collect 60 gravels. Now, divide these 60 gravels equally and answer the following :

  (1) Dividing equally between 2 friends each one gets _____ gravels.

  So, 60 ÷ 2 = _____ .

  (2) Dividing them equally among 3 friends each friend gets _____ gravels. So, 60 ÷ 3 = _____ .

  (3) Dividing them equally among 4 friends each friend gets _____ gravels. So, 60 ÷ 4 = _____ .

  (4) Dividing them equally among 5 friends each friend gets _____ gravels. So, 60 ÷ 5 = _____ .

☞ Observe, understand and complete the following :

(1) | ★ ★ ★ | ★ ★ ★ | ★ ★ ★ | ★ ★ ★ |

12 ÷ 4 = 3

(2) | ✱ ✱ | ✱ ✱ | ✱ ✱ |

6 ÷ 3 = 2

(3) | ◆ ◆ | ◆ ◆ | ◆ ◆ | ◆ ◆ |

□ ÷ □ = □

(4) | ❤ ❤ ❤ ❤ ❤ | ❤ ❤ ❤ ❤ ❤ |

□ ÷ □ = □

Practice 1

1. Count the pictures and write the answers :

(1) 

$\square \div \square = \square$

(2) 

$\square \div \square = \square$

(3) 

$\square \div \square = \square$

(3) 

$\square \div \square = \square$

2. Let us say...! By distributing equally how many does each one get ?

(1) Dividing 12 pens among 6 boys, each boy gets _____ pens.

(2) Dividing 16 chickoos between 2 boys, each gets _____ chickoos.

(3) Dividing 21 notebooks among 3 children, each child gets _____ notebooks.

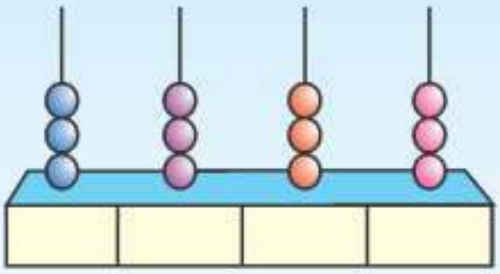
(4) Dividing 30 pencils among 6 children, each child gets _____ pencils.

(5) Dividing 40 flowers among 4 girls, each girl gets _____ flowers.

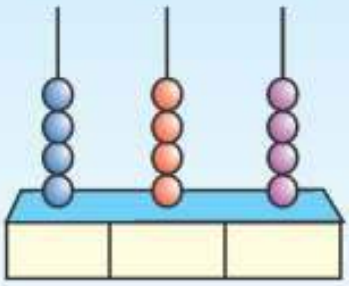
☞ Multiplication - Division :

- Play the game of arranging beads in an abacus with the help of your teacher.

☞ **Observe and understand :**



3 + 3 + 3 + 3 = 12
So, 3 × 4 = 12
(4 equal parts of 12)



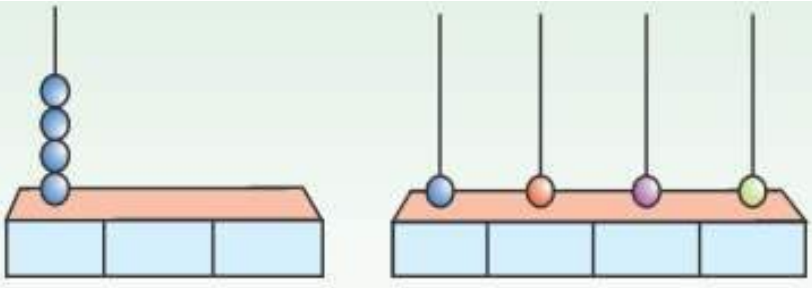
4 + 4 + 4 = 12
So, 4 × 3 = 12
(3 equal parts of 12)

- 3 × 4 = 12 means 12 ÷ 4 = 3 and 12 ÷ 3 = 4.

Similarly,

- 7 × 5 = 35, so 35 ÷ 5 = 7 and 35 ÷ 7 = 5
- 8 × 4 = 32, so 32 ÷ 4 = 8 and 32 ÷ 8 = _____
- 5 × 5 = 25, so 25 ÷ 5 = _____

☞ **Here, four beads are arranged in two different ways as below :**



4 ÷ 1 = 4

4 ÷ 4 = 1

- 4 × 1 = 4; so 4 ÷ 1 = 4 and 4 ÷ 4 = 1.

Similarly,

- 7 × 1 = 7, so 7 ÷ 1 = 7 and 7 ÷ 7 = 1.
- 15 × 1 = 15, so 15 ÷ 1 = 15 and 15 ÷ 15 = 1.

We see that any number divided by 1 remains the same.

Any number other than zero (any non-zero number) if divided by the number itself, the quotient is always 1.

Practice 2

1. Fill in the blanks as per example :

Example : $4 \times 6 = 24$ hence $24 \div 4 = 6$ and $24 \div 6 = 4$

(1) $7 \times 4 = 28$, hence $28 \div 4 =$ _____ and $28 \div 7 =$ _____ .

(2) $8 \times 6 = 48$, hence $48 \div 8 =$ _____ and $48 \div 6 =$ _____ .

(3) $7 \times 9 = 63$, hence $63 \div 7 =$ _____ and $63 \div 9 =$ _____ .

(4) $8 \times 8 = 64$, hence $64 \div 8 =$ _____ .

(5) $4 \times 4 = 16$, hence $16 \div 4 =$ _____ .

2. Fill in the blanks :

(1) $5 \div 5 =$ _____ .

(2) $5 \div 1 =$ _____ .

(3) $9 \div 1 =$ _____ .

(4) $9 \div 9 =$ _____ .

(5) $20 \div 20 =$ _____ .

(6) $20 \div 1 =$ _____ .

☞ **Division means repititive subtraction :**

Activity 4 :

- There are 6 marbles in the saucer. Let us put them equally in three bowls.

- Firstly, let us put one marble in each bowl.

- Now there are 3 marbles in the saucer.
- Let us put one marble in each of the three bowls again.

Now, there is no marble in the saucer.

- This activity can be shown in the form of subtraction as below :

6 marbles
– 3 marbles (putting one marble in each bowl.)
3 marbles (remain)
– 3 marbles (second time putting one marble in each bowl.)
0 marbles (no marble remains at the end)

Thus, nothing is left at the end. This way 3 can be subtracted from 6 two times. $6 \div 3 = 2$ means subtracting 3 twice from 6 leaves nothing.

Division is a repetitive subtraction.

Think and do :

(1) If 6 is divided by 2, then how many times can 2 be subtracted from 6 at the most ?

(2) $16 \div 4 = 4$. Show this as repetitive subtraction.

16
– 4

At the most, _____ times 4 can be subtracted from 16.

Practice 3

1. Write the repetitive subtraction form as shown in the example :

Example : 15 ÷ 3 = 5; so 3 can be subtracted at most 5 times from 15.

(1) 32 ÷ 8 = 4; so _____

(2) 20 ÷ 2 = 10; so _____

(3) 45 ÷ 5 = 9; so _____

(4) 36 ÷ 6 = 6; so _____

(5) 63 ÷ 9 = 7; so _____

2. Fill in the blanks as shown in example :

Example : At most, how many times can 3 be subtracted from 12 ?

4 times; so **12 ÷ 3 = 4**.

(1) At most, how many times can 7 be subtracted from 14 ? ___ times; so _____

(2) At most, how many times can 5 be subtracted from 45 ? ___ times; so _____

(3) At most, how many times can 9 be subtracted from 18 ? ___ times; so _____

(4) At most, how many times can 6 be subtracted from 48 ? ___ times; so _____

(5) At most, how many times can 5 be subtracted from 25 ? ___ times; so _____

Division with the help of multiplication tables :

Example 1 : Divide 18 by 3.

Recite the table of 3 until we reach 18. Now 3 × 6 = 18.

So, 18 ÷ 3 = 6

This division is written as follows :

$$\begin{array}{r|l} & 6 \\ \hline 3 & 18 \\ & -\,18 \\ \hline & 00 \end{array}$$

Example 2 : Divide 60 by 10.

Recite the table of 10 until we reach 60. Now 10 × 6 = 60.

Therefore, 60 ÷ 10 = 6

This division is written as follows :

$$\begin{array}{r|l} & 6 \\ \hline 10 & 60 \\ & -60 \\ \hline & 00 \end{array}$$

Practice 4

1. Divide the following using multiplication table :

(1) $12 \div 2$ (2) $54 \div 6$ (3) $42 \div 7$

(4) $32 \div 4$ (5) $28 \div 7$ (6) $45 \div 5$

(7) $72 \div 8$ (8) $81 \div 9$ (9) $48 \div 6$

- **Division of a two-digit number by a one-digit number :**

Observe and understand :

Example 3 : $48 \div 4$

- To divide 48 by 4, expand 48, as 4 tens 8 units $\div$ 4.

$$\begin{array}{r|l} & 1 \text{ tens } 2 \text{ units} \\ \hline 4 & 4 \text{ tens } 8 \text{ units} \\ & -4 \text{ tens } \downarrow \\ \hline & 0 \text{ tens } 8 \text{ units} \\ & -\ 8 \text{ units} \\ \hline & 0 \text{ units} \end{array}$$

Division :

1 tens + 2 units = 12

- Dividing 4 tens by 4; we get 1 tens.
- Dividing 8 units by 4; we get 2 units.

  Show these in symbols.
- 4 tens $\div$ 4 = 1 tens

  and

  8 units $\div$ 4 = 2 units
- Dividing 48 by 4, we get

  1 tens and 2 units = 12.

Let us divide without expanding in tens and units.

- Here division will start with the tens digit.

$$\begin{array}{r} 12 \\ 4\overline{)\,48} \\ -4\downarrow \\ \hline 08 \\ -8 \\ \hline 0 \end{array}$$

- 4 tens ÷ 4 = 1 tens and 8 units ÷ 4 = 2 units
- Now, see that there is no digit left to be brought down, so the operation of division is completed.
- 48 ÷ 4 = 12

Let us think : If (40 + 8) is divided by 4, then...

$$\begin{array}{r} 10 \\ 4\overline{)\,40} \\ -40 \\ \hline 00 \end{array} \quad \text{and} \quad \begin{array}{r} 2 \\ 4\overline{)\,8} \\ -8 \\ \hline 0 \end{array} \qquad \begin{array}{r} 40 \div 4 = 10 \\ +\ 8 \div 4 = 2 \\ \hline 48 \div 4 = 12 \end{array}$$

Practice 5

1. Divide the following :

(1) 84 ÷ 4 (2) 28 ÷ 2 (3) 64 ÷ 2 (4) 63 ÷ 3

(5) 93 ÷ 3 (6) 66 ÷ 6 (7) 88 ÷ 8 (8) 55 ÷ 5

☞ Observe and understand :

Example 4 : Divide 52 by 2.

$52 \div 2$

$$\begin{array}{r} 26 \\ 2\overline{)\,52} \\ -4\downarrow \\ \hline 12 \\ 12 \\ \hline 00 \end{array}$$

Quotient : 26

Explanation : Here let us start division from ten's digit.

- Recite the table of 2 to divide 5 by 2. So $2 \times 2 = 4$. $2 \times 3 = 6$ is greater than 5. 6 cannot be subtracted from 5.
- So, it cannot be divided by 3, but it can be divided by 2. So, by doing $2 \times 2 = 4$, we wrote the 2 above the 5.
- Write 4 below 5 and get 1 by subtraction.
- Bring down 2 and write down beside 1.
- Now, recite the table of 2 to get 12. $2 \times 6 = 12$. So 12 can be divided by 6 times to get 2.
- Write 6 as the quotient in the unit's place.
- As remainder is zero, further division is not possible.
- Thus, $52 \div 2 = 26$

$$\begin{array}{r} 2\ 6 \\ 2\overline{)\,5\ 2} \\ -4 \quad \rightarrow (2 \times 20 = 40) \\ \hline 1\ 2 \\ -1\ 2 \quad \rightarrow (2 \times 6 = 12) \\ \hline 0\ 0 \end{array}$$

Quotient : 26

Practice 6

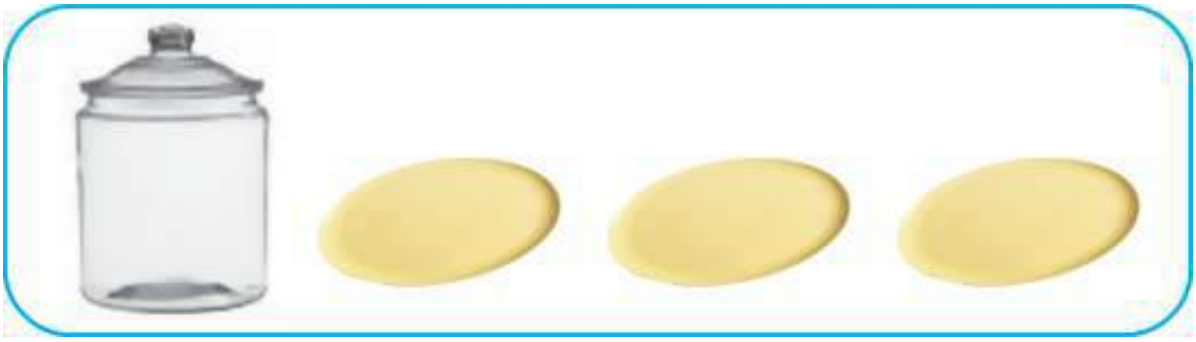
1. Divide the following :

(1) $64 \div 4$ (2) $57 \div 3$ (3) $91 \div 7$ (4) $72 \div 4$

(5) $96 \div 8$ (6) $75 \div 5$ (7) $84 \div 6$ (8) $48 \div 4$

☞ Dividing zero (0) by a non-zero number :

Activity 5 :



- Here, divide the *Laddus* (sweet-balls) kept in a jar equally in three plates.
- What happened ? How many *Laddus* are there in the jar ?

There are no *Laddus*. Which means zero. Even if we try to divide *Laddus* equally still there will be 0 *Laddus* in each plate.

Thus, $0 \div 3 = 0$

- To divide by 3, recite the table of 3. $3 \times 1 = 3$ but 3 is greater than 0, so it is not divisible by 1.
- $3 \times 0 = 0$. Therefore 0 can be written as quotient.

We have learnt multiplication table from 1 to 10.
If we think about the table of 0, then...

$0 \times 1 = 0$
$0 \times 2 = 0$
$0 \times 3 = 0$
$0 \times 4 = 0$
$0 \times 5 = 0$
$0 \times 6 = 0$
$0 \times 7 = 0$
$0 \times 8 = 0$
$0 \times 9 = 0$
$0 \times 10 = 0$

- We always get 0 as the quotient (answer) when we divide 0 by any non-zero number.

Example 5 : Divide 40 by 2.

$40 \div 2$

$$\begin{array}{r} 20 \\ 2\overline{)40} \\ -4 \\ \hline 00 \\ 0 \\ \hline 00 \end{array}$$

- Divide 4 by 2 and we get 2 as the first digit in the quotient, so we write 2 above 4 at tens place.
- We write 4 below 4 and get 0.
- Bringing down the zero and dividing it by 2, we get 0 as the second digit in the quotient.
- Write 0 in units place of quotient.

→ There is no need to subtract 0 from 0.

Therefore,

$$\begin{array}{r} 20 \\ 2\overline{)40} \\ -4 \\ \hline 00 \end{array}$$

Quotient : 20

Practice 7

1. Divide the following :

(1) $60 \div 2$ (2) $60 \div 6$ (3) $30 \div 2$

(4) $80 \div 4$ (5) $90 \div 3$ (6) $50 \div 5$

(7) $70 \div 2$ (8) $40 \div 4$ (9) $90 \div 9$

Exercise 1

1. Observe, understand and complete the following table :

No.	Number to be subtracted	At the most, how many times can it be subtracted ?	Division form
35	7	5 times	35 ÷ 7 = 5
40	10		
36	6		
72	9		
64	8		
56	7		

2. Divide the following :

(1) 30 ÷ 5 (2) 56 ÷ 7 (3) 68 ÷ 4

(4) 78 ÷ 6 (5) 72 ÷ 8 (6) 99 ÷ 9

(7) 65 ÷ 5 (8) 80 ÷ 5 (9) 88 ÷ 4

- **Division of a three digit number by a one digit number :**

We have learnt the division of a two digit number.
Now, let us see the division of a three digit number.

Example 6 : 639 ÷ 3

```
   213
3 | 639
  -6
  ---
   03
  -3
  ---
   09
  -9
  ---
    0
```

Quotient : 213

Example 7 : 906 ÷ 6

```
   151
6 | 906
  -6
  ---
   30
  -30
  ---
   006
  - 6
  ---
    0
```

Quotient : 151

Is our division correct or not ? Let us check.

639 ÷ 3 = 213

↓

Multiply the quotient with divisor.

$$\begin{array}{r} 213 \\ \times\ 3 \\ \hline 639 \end{array}$$

213 × 3 = 639

- We get 639 by 213 × 3

  So, 639 ÷ 3 = 213

  Hence the division is correct.
- You should also check when you do the sums of division.

Practice 8

1. Divide :

(1) 282 ÷ 2 (2) 882 ÷ 9 (3) 605 ÷ 5

(4) 693 ÷ 3 (5) 805 ÷ 7 (6) 904 ÷ 8

(7) 444 ÷ 4 (8) 945 ÷ 7 (9) 798 ÷ 6

Example 8 : Divide 460 by 5.

```
    092
5 | 460
    0
    46
  - 45
    010
  - 10
    00
```

- In 460, 4 is in the hundredth place.
- To divide 4 by 5, recite the table of 5.
- $5 \times 1 = 5$ is greater than 4, so the first quotient is 0.
- We write 0 in the hundredth place above 4.
- Subtracting 0 from 4, we get 4.
- Bringing down 6, we get 46. Now dividing in the usual way, we get quotient 92.

Quotient : 92

As in the above example, if the first digit in the quotient is 0, then we have to subtract 0 from the first digit; so we get the same digit again. Therefore, we don't consider the first digit in the quotient 0, and we proceed without subtracting 0 (zero).

```
    092
5 | 460
    0
    46
  -45
    010
  - 10
    00
```

→

```
    92
5 | 460
  - 45
    010
  - 10
    00
```

Quotient : 92

Practice 9

1. Divide :

(1) 186 ÷ 6 (2) 664 ÷ 8 (3) 630 ÷ 7

(4) 536 ÷ 8 (5) 846 ÷ 9 (6) 150 ÷ 5

2. Which divisions from the following have errors ? Find out.

(1)
```
    29
7 | 301
  -14
  ---
    61
   -61
  ---
    00
```

(2)
```
    66
6 | 396
  -36
  ---
    36
   -36
  ---
    00
```

(3)
```
     9
9 | 801
  -81
  ---
    11
     0
  ---
    00
```

- **Observe and understand :**

Example 9 : Obtain 828 ÷ 4

```
    207
4 | 828
  -8
  ---
    02
   -0
  ---
    28
   -28
  ---
    00
```

- 8 ÷ 4 = 2, so the first digit in the quotient is 2. We have written 2 in the hundredth place.
- We have brought down 2 from tenth place. As 2 is less than the divisor 4, the second digit in the quotient will be 0. We have written 0 in digit in the tens place.
- Subtracting 0 from 2 we get 2.
  Bring down 8 and we get 28.
- As 28 ÷ 4 = 7, we write 7 in units place.

Quotient : 207

Here, 2 is less than 4, so we can't divide 2 by 4. So in quotient, we write 0 and then we do further calculation.

```
    207
4 | 828
  -8
  ---
    028
   -28
  ---
    00
```

- We have put 0 in the quotient but we have not subtracted 0 from 2. (Think if 0 is not written then ?

- **Observe and understand :**

Example 10 : Obtain 900 ÷ 4

```
   225
4 | 900
  -8
  ---
   10
   -8
  ---
   20
  -20
  ---
    0
```

Quotient : 225

Practice 10

1. Divide :

(1) 216 ÷ 2 (2) 615 ÷ 3 (3) 915 ÷ 3

(4) 945 ÷ 9 (5) 636 ÷ 6 (6) 812 ÷ 4

2. Divide :

(1) 500 ÷ 4 (2) 300 ÷ 4 (3) 900 ÷ 6

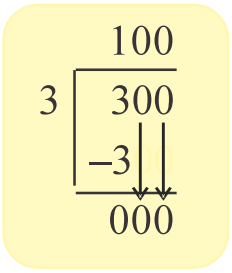
- **Observe and understand :**

Example 11 : Obtain 560 ÷ 7

```
   80
7 | 560
  -56
  ---
    0
```

- To divide 5 by 7, recite the table of 7. As 5 is less than 7, there is no need to write 0 in hundred's place.
- There is no need to subtract 0 from 5.
- Now divide 56 by 7 as usual.
- Write 0 in unit's place as it is brought down.

Example 12 : Obtain 300 ÷ 3



- 3 × 1 = 3, so the first digit in the quotient is 1.
- Subtract 3 from 3.
- Now, bring down 0. The second digit in the quotient is 0.
- Bring down 0 again. The third digit in the quotient is also 0.

Quotient : 100

Practice 11

1. Divide the following :

(1) 270 ÷ 3 (2) 480 ÷ 6 (3) 450 ÷ 5

(4) 210 ÷ 7 (5) 630 ÷ 9 (6) 450 ÷ 9

2. Divide the following :

(1) 200 ÷ 2 (2) 400 ÷ 4 (3) 600 ÷ 3

(4) 700 ÷ 7 (5) 900 ÷ 3 (6) 800 ÷ 2

Exercise 2

1. Calculate orally and write the answers :

Sr. No.	No. of children	No. of chocolates	How many chocolates does each child gets ?
(1)	5	40	
(2)	3	24	
(3)	8	56	
(4)	7	49	
(5)	9	72	
(6)	10	60	

2. Divide the following :

(1) $3\overline{)339}$ (2) $2\overline{)226}$ (3) $4\overline{)348}$

(4) $5\overline{)340}$ (5) $5\overline{)600}$ (6) $7\overline{)749}$

☞ **Oral calculation of practical puzzles :**

Think and answer : Distribute 24 balloons among 6 children.

- How many balloons are there ? _____
- How many children are there ? _____
- In how many parts we have to divide ? _____
- So, 24 ÷ _____ = _____ .
- Each child will get _____ balloons.

Think and answer : The cost of 8 similar notebooks is ₹ 40. Find the cost of each notebook.

- How many notebooks can be purchased in ₹ 40 ? _____
- In how many parts should ₹ 40 be divided to find the cost of one notebook ? _____
- So, 40 ÷ _____ = _____ .
- The cost of each notebook will be ₹ _____ .

☞ **Observe and understand :**

Example 13 : If 32 chickoos are distributed among 4 children then how many chickoos will each child get ?

$32 \div 4 = 8$

Each child will get 8 chickoos.

Practice 12

1. Calculate the following orally :

(1) If 28 beads are divided into 7 equal parts, how many beads will be there in each part ?

(2) How many cows will have a total of 36 legs ?

(3) There are 60 children in a class. How many rows can be formed if 6 children are arranged in each row ?

(4) If each garland requires 8 flowers, how many garlands can be made from 24 flowers ?

Exercise 3

1. Calculate the following :

(1) If one pen costs ₹ 10, how many pens can be purchased in ₹ 70 ?

(2) Geeta makes 8 garlands of equal number of flowers from 64 flowers. How many flowers does each garland contain ?

(3) How many currency notes of ₹ 5 make up a sum of ₹ 45 ?

(4) It is Joseph's birthday today. He distributed 76 chocolates to his class-mates equally. Each child got 4 chocolates, then how many children are there in his class ?

(5) If 96 balloons are equally divided among 6 children, how many balloons will each child get ?

(6) If 84 kites are equally distributed among 7 children, how many kites will each child get ?

Answers

Practice 1

1. (1) 2 (2) 2 (3) 12, 2 (4) 9, 3

2. (1) 2 (2) 8 (3) 7 (4) 5 (5) 10

Practice 2

1. (1) 7 and 4 (2) 6 and 8 (3) 9 and 7 (4) 8 (5) 4

2. (1) 1 (2) 5 (3) 9 (4) 1 (5) 1 (6) 20

Practice 3

1. (1) Four times 8 from 32 (2) Ten times 2 from 20
(3) Nine times 5 from 45 (4) Six times 6 from 36
(5) Seven times 9 from 63

Practice 4

1. (1) 6 (2) 9 (3) 6 (4) 8 (5) 4 (6) 9 (7) 9 (8) 9 (9) 8

Practice 5

1. (1) 21 (2) 14 (3) 32 (4) 21 (5) 31 (6) 11 (7) 11 (8) 11

Practice 6

1. (1) 16 (2) 19 (3) 13 (4) 18 (5) 12 (6) 15 (7) 14 (8) 12

Practice 7

1. (1) 30 (2) 10 (3) 15 (4) 20 (5) 30 (6) 10 (7) 35 (8) 10 (9) 10

Exercise 1

1. (1) Four times; $40 \div 10 = 4$ (2) Six times; $36 \div 6 = 6$
(3) Eight times; $72 \div 9 = 8$ (4) Eight times; $64 \div 8 = 8$
(5) Eight times; $56 \div 7 = 8$

2. (1) 6 (2) 8 (3) 17 (4) 13 (5) 9 (6) 11 (7) 13 (8) 16 (9) 22

Practice 8

1. (1) 141 (2) 98 (3) 121 (4) 231 (5) 115 (6) 113
(7) 111 (8) 135 (9) 133

Practice 9

1. (1) 31 (2) 83 (3) 90 (4) 67 (5) 94 (6) 30

Practice 10

1. (1) 108 (2) 205 (3) 305 (4) 105 (5) 106 (6) 203

2. (1) 125 (2) 75 (3) 150

Practice 11

1. (1) 90 (2) 80 (3) 90 (4) 30 (5) 70 (6) 50

2. (1) 100 (2) 100 (3) 200 (4) 100 (5) 300 (6) 400

Exercise 2

1. (1) 8 (2) 8 (3) 7 (4) 7 (5) 8 (6) 6

2. (1) 113 (2) 113 (3) 87 (4) 68 (5) 120 (6) 107

Practice 12

1. (1) 4 (2) 9 (3) 10 (4) 3

Exercise 3

1. (1) 7 pens (2) 8 flowers (3) 9 currency notes (4) 19 children
(5) 16 balloons (6) 12 kites

9 Fraction

Sunday was a holiday. Jay, Chinki, Jafar and Rajat thought of going to a farm.

Jafar : Let us go to Shankarkaka's farm.

(All the friends reached the farm.)

Jay : Shankar uncle, there are many chickoos in your farm. We all have come to eat chickoos of your farm.

Shankar uncle : Take these chickoos.

Shankar uncle gave some chickoos to all.

The friends started thinking about how to distribute the chickoos.

Chinki : Oh...! This is very easy. We got 12 chickoos. Each one should take one chickoo in turn. If no chickoo is left at the end, the distribution is done.

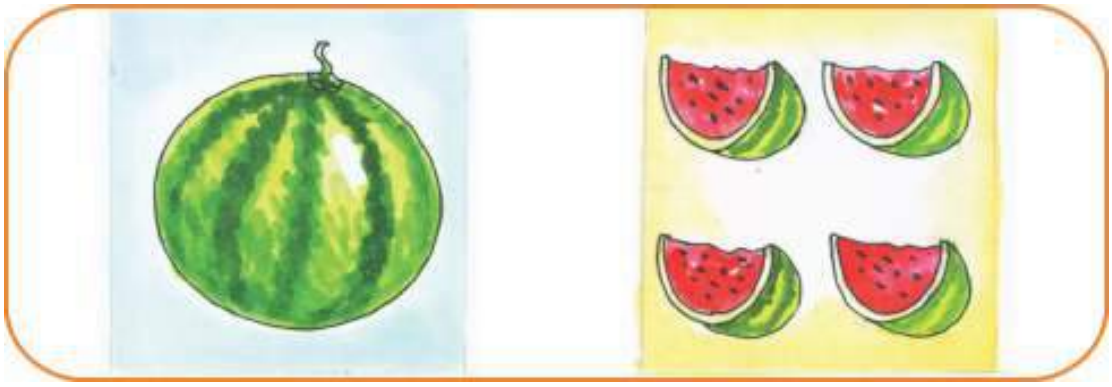
Write the number of chickoos each of the friends will get.

Jay ☐, Chinki ☐, Jafar ☐, Rajat ☐

Jay : We have enjoyed eating chickoos.

Shankar uncle : Children, do you want to enjoy a watermelon of my farm ?

(Jay, Chinki, Jafar, Rajat) : Yes... but how will we distribute it among us ?



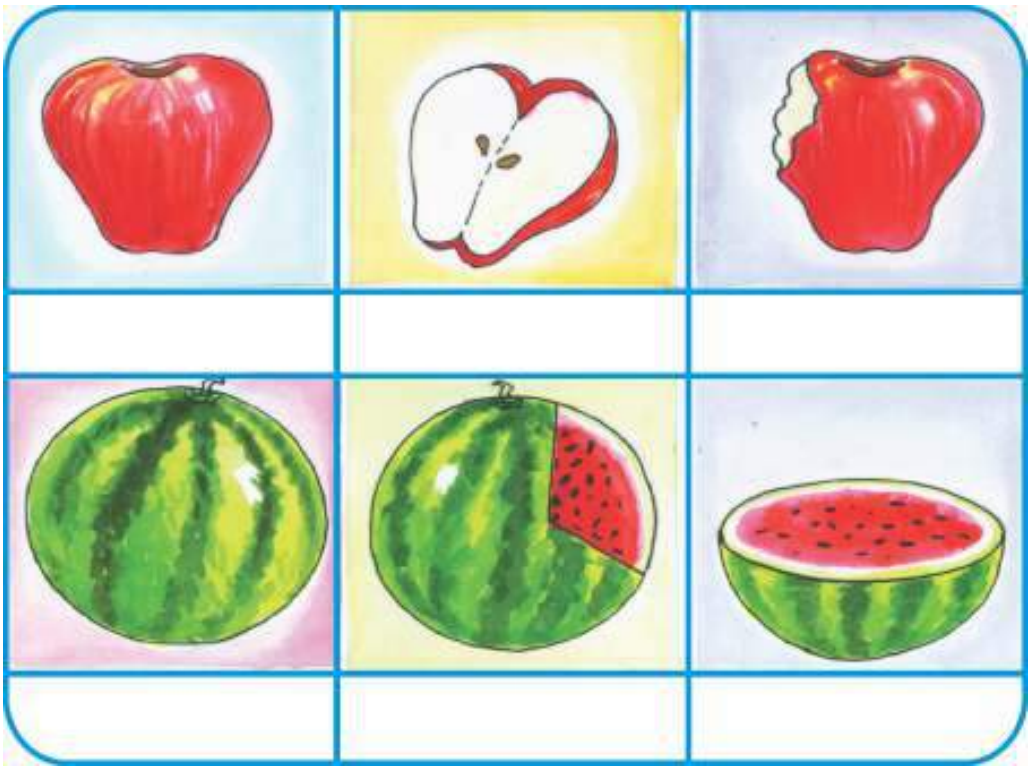
Shankar uncle : Let me distribute it for you.

(Shankar uncle divided the watermelon into four equal parts and distributed.)

- **Tick (✓) the figure that shows the fruit cut into half-part :**

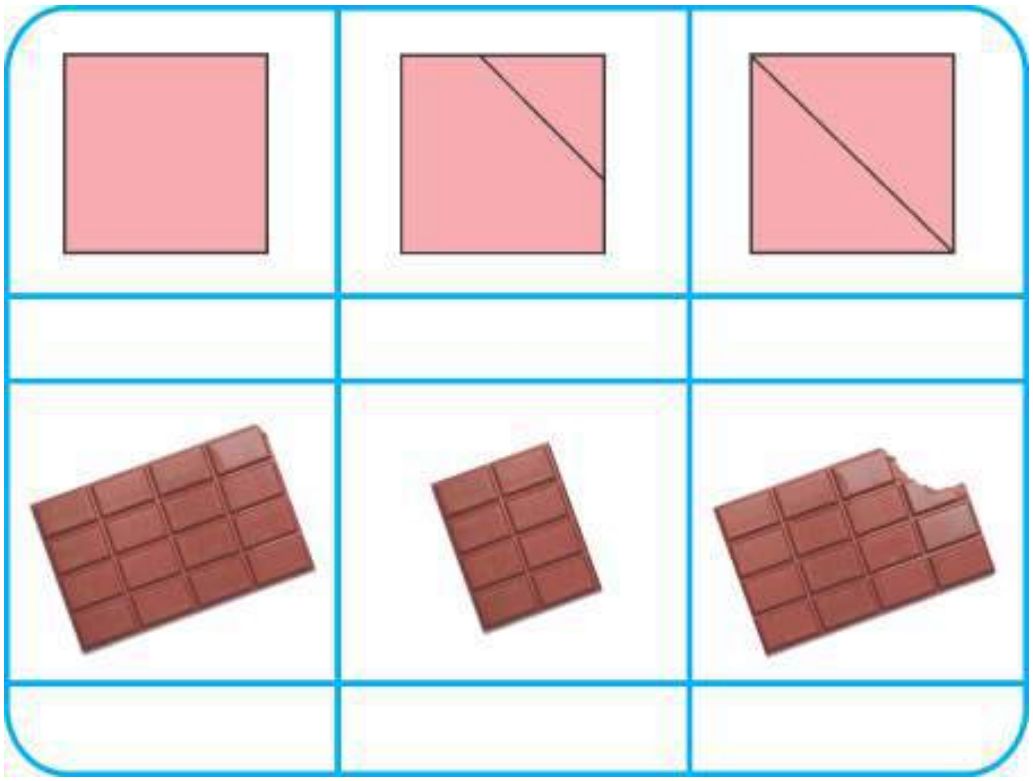
(1)

(2)

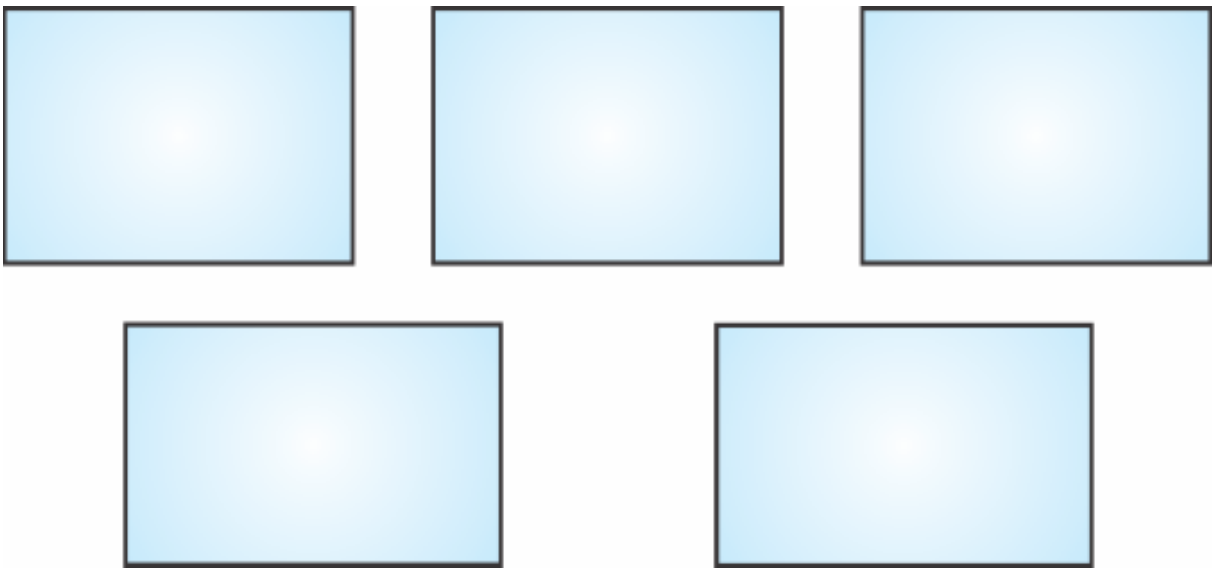


(3)

(4)



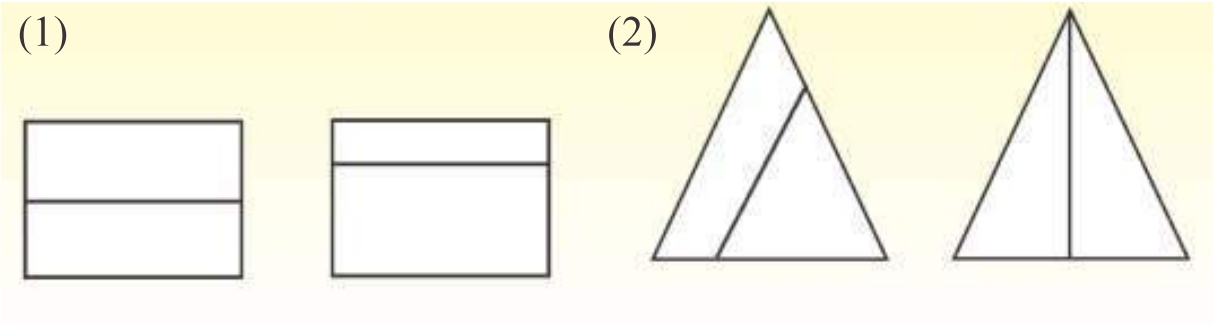
- Divide the given figures into two halves in five different ways :



- Can you check yourself whether you have divided the given shape into two equal halves ? Think.

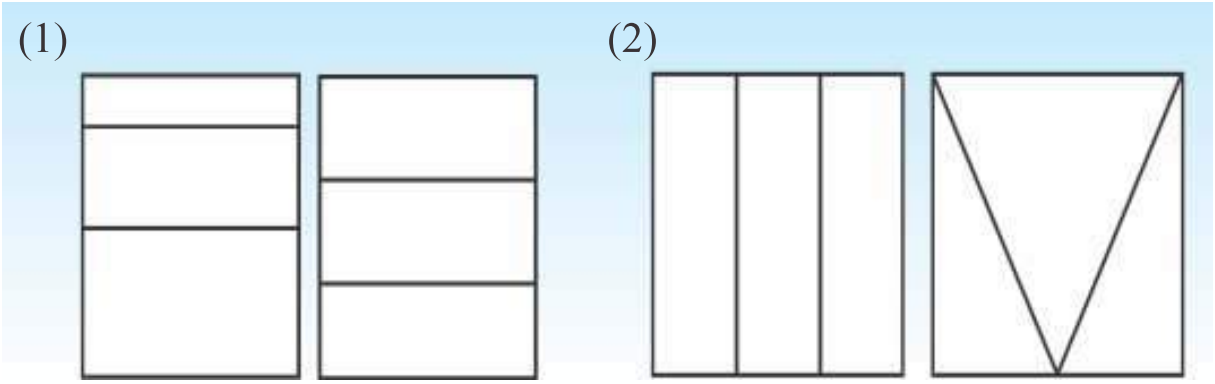
- Fill in the figures with dots which have two equal parts :

(1) (2)



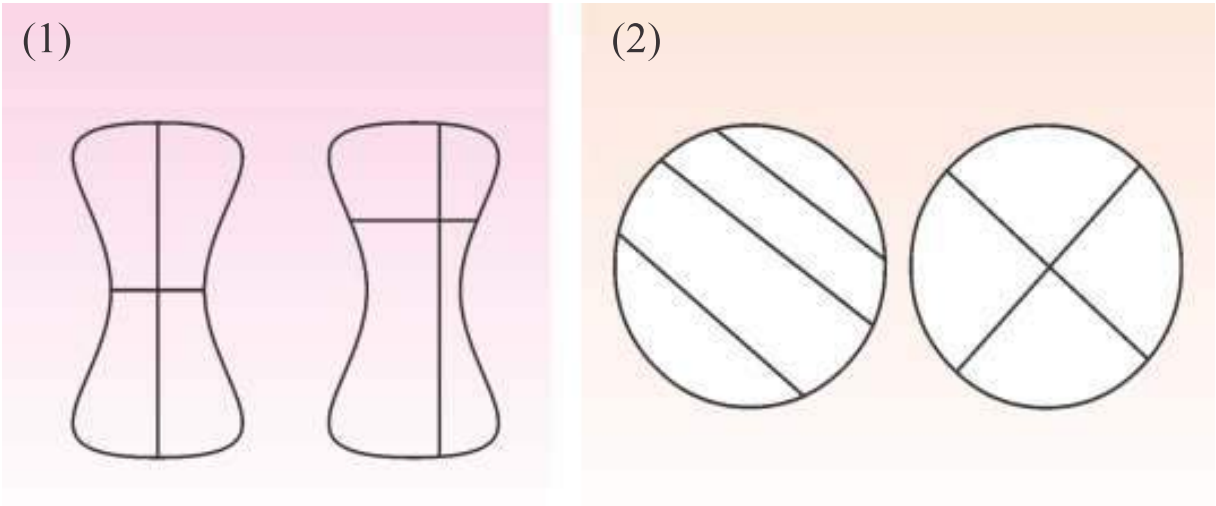
- Fill in the figures with lines having three equal parts :

(1) (2)



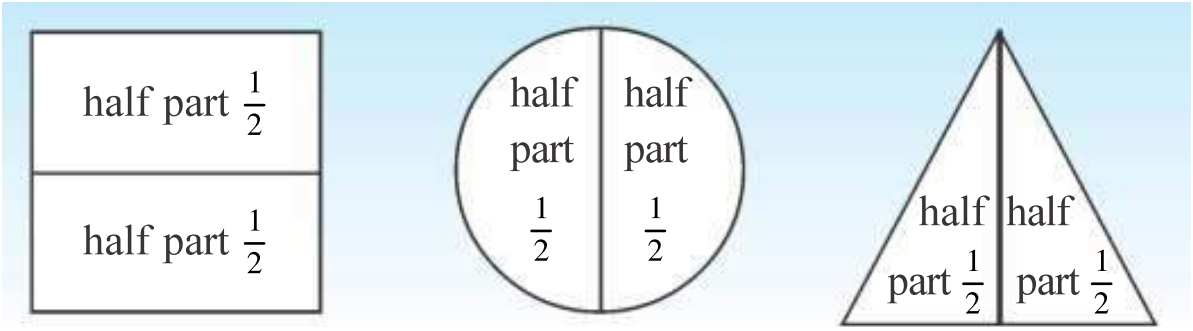
- Colour the figures having four equal parts :

(1) (2)



- Now let us understand how we can divide an object into equal parts.
- Follow the instructions of your teacher, make parts of the paper by folding it.

- Observe the following figures and try to understand the details given.
- **Two equal parts of an object :**



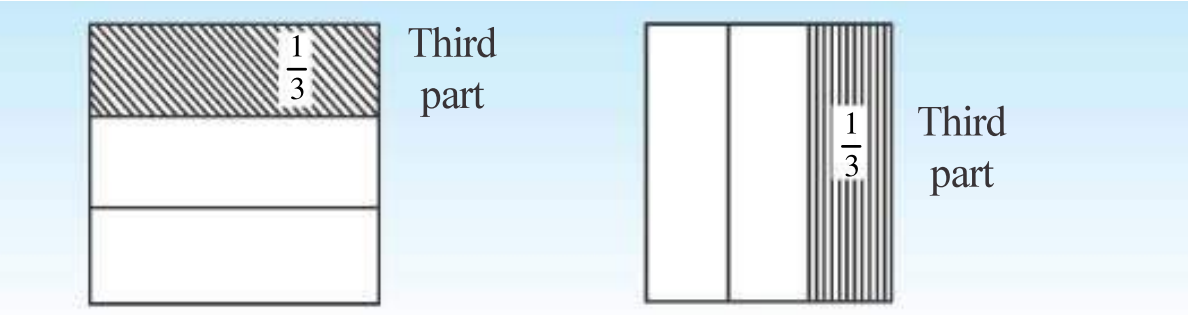
In the above figures, two equal parts are shown. Each part gives us an idea of the half of the whole.

If any object is divided into two equal parts, each part is said to be the 'half' of the 'whole'.

The half part is written as '$\frac{1}{2}$' or one half.

$\frac{1}{2}$ is a fraction (fraction means not the whole). $\frac{1}{2}$ means one part out of the two equal parts of a whole.

- **Three equal parts of an object :**



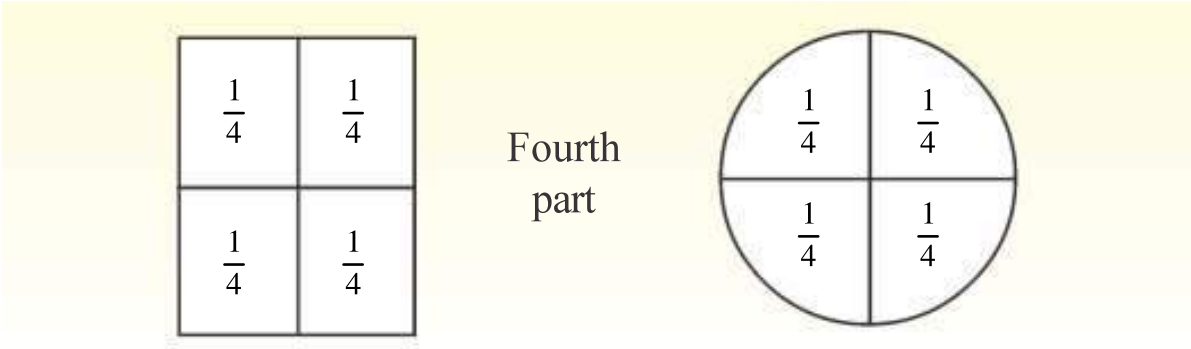
- In both these figures the whole is divided into three equal parts.
- Each part shows a one-third of the whole.

If any object is divided into three equal parts, each part is called the third part of the whole.

The third part is written as $\frac{1}{3}$. $\frac{1}{3}$ is read as 'one third' or 'third part'.

$\frac{1}{3}$ is a fraction. $\frac{1}{3}$ means one part of the three equal parts of the whole.

- **Four equal parts of an object :**



- In both these figures, the object is divided into four equal parts.
- Each part shows one fourth of the whole object.

If any object is divided into four equal parts, each part is called the fourth part of the whole.

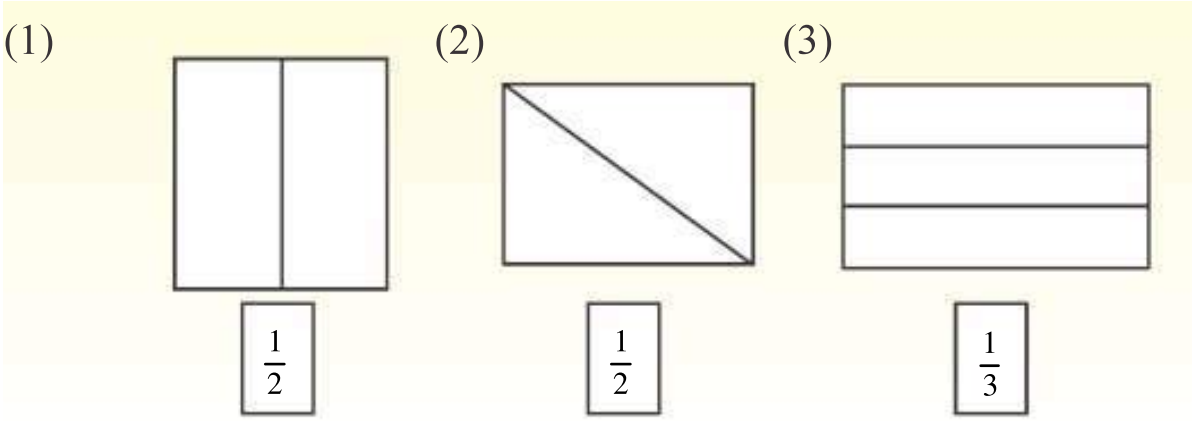
The fourth part is written as $\frac{1}{4}$. It is read as 'one fourth' or 'fourth part'.

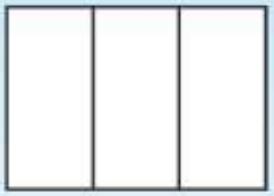
$\frac{1}{4}$ means one part of the four equal parts of the whole.

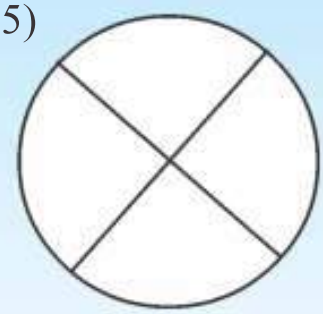
- Make $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$ parts with the paper given by your teacher.

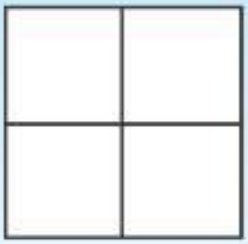
Practice 1

1. Colour the figures according to the fractions given below :



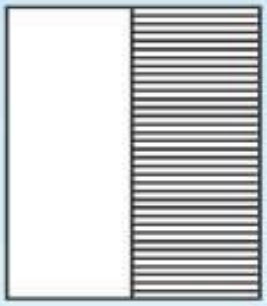
(4)  $\frac{1}{3}$

(5)  $\frac{1}{4}$

(6)  $\frac{1}{4}$

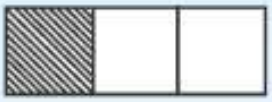
- **Parts of an object :**

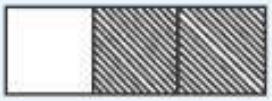
Half



$\frac{1}{2}$ (one half) means one part of the two equal parts of an object. It is also called a half part.

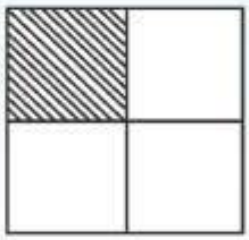
Third



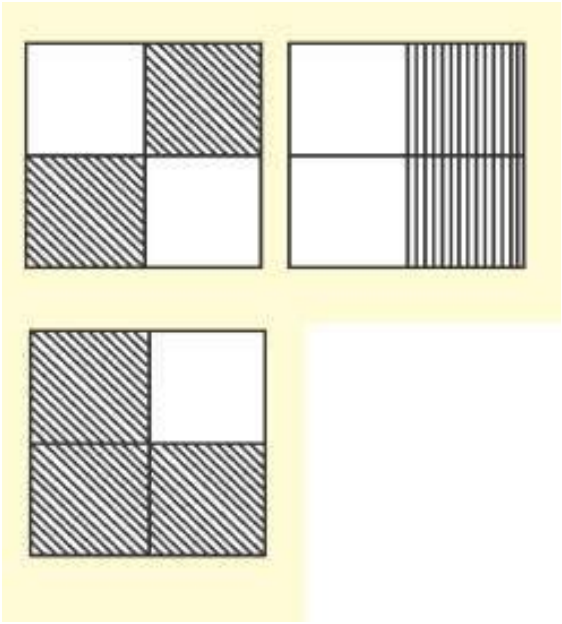


$\frac{1}{3}$ (one third) means one part out of the three equal parts of an object. $\frac{2}{3}$ (two third) means two parts of the three equal parts of an object.

Fourth



$\frac{1}{4}$ (one fourth) means one part of the four equal parts of an object. It is known as the fourth part. It is also known as a 'Quarter'.



$\frac{2}{4}$ (two fourth) means two parts of the four equal parts of an object. It is also known as half.

$\frac{1}{2}$ means half part of the whole object.

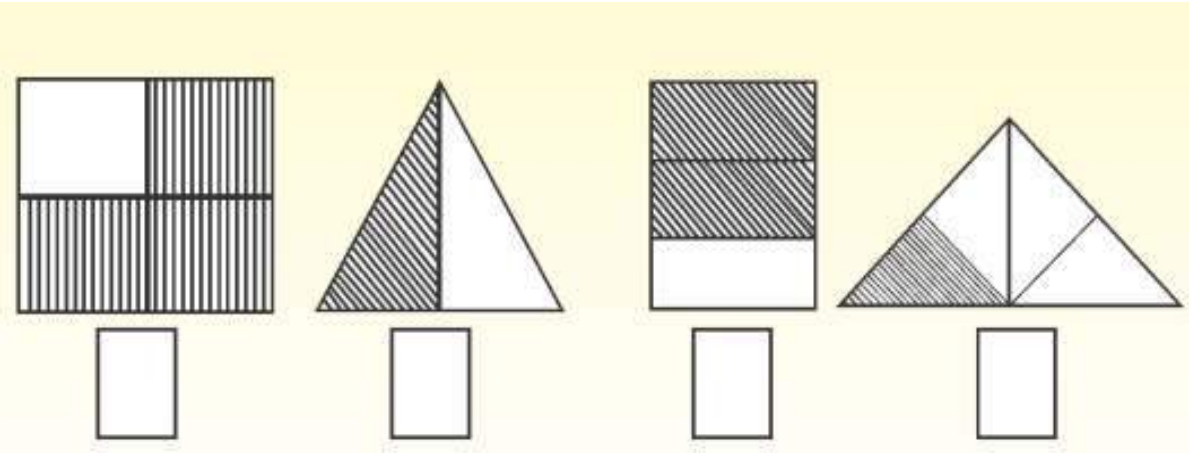
$\frac{2}{4}$ also means half part of the whole object. Therefore, $\frac{2}{4} = \frac{1}{2}$.

$\frac{3}{4}$ (three fourth) means three parts of four equal parts of an object.

It is also known as 'three quarters'.

Practice 2

1. Show the fractions for the shaded portion in each of the given figures :



2. Write the following fractions in digits :

(1) Two fourth _____

(2) One third _____

(3) One half _____

(4) Three fourth _____

(5) Two third _____

(6) One fourth _____

3. Write in fractions as asked :

(1) Two parts of three equal parts of a stick _____

(2) Two parts of four equal parts of a string _____

(3) One part of four equal parts of an apple _____

(4) Three parts of four equal parts of a paper _____

(5) One part of two equal parts of a chickoo _____

Exercise

1. Fill in the blanks :

(1) $\frac{1}{4}$ part of a stick means _____ part of _____ equal parts.

(2) $\frac{1}{2}$ part of a biscuit means _____ part of _____ equal parts.

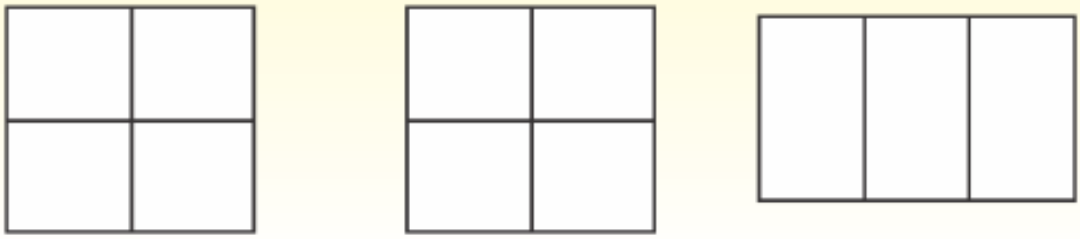
(3) $\frac{3}{4}$ part of a string means _____ parts of _____ equal parts.

(4) _____ part of a chocolate means 1 part of 3 equal parts.

(5) _____ part of a paper means 2 parts of 3 equal parts.

2. Colour the portion of each figure to represent the given fractions :

$\frac{1}{4}$ $\frac{2}{4}$ $\frac{1}{3}$



Practice 2

1. (1) $\frac{3}{4}$ (2) $\frac{1}{2}$ (3) $\frac{2}{3}$ (4) $\frac{1}{4}$

2. (1) $\frac{2}{4}$ (2) $\frac{1}{3}$ (3) $\frac{1}{2}$ (4) $\frac{3}{4}$ (5) $\frac{2}{3}$ (6) $\frac{1}{4}$

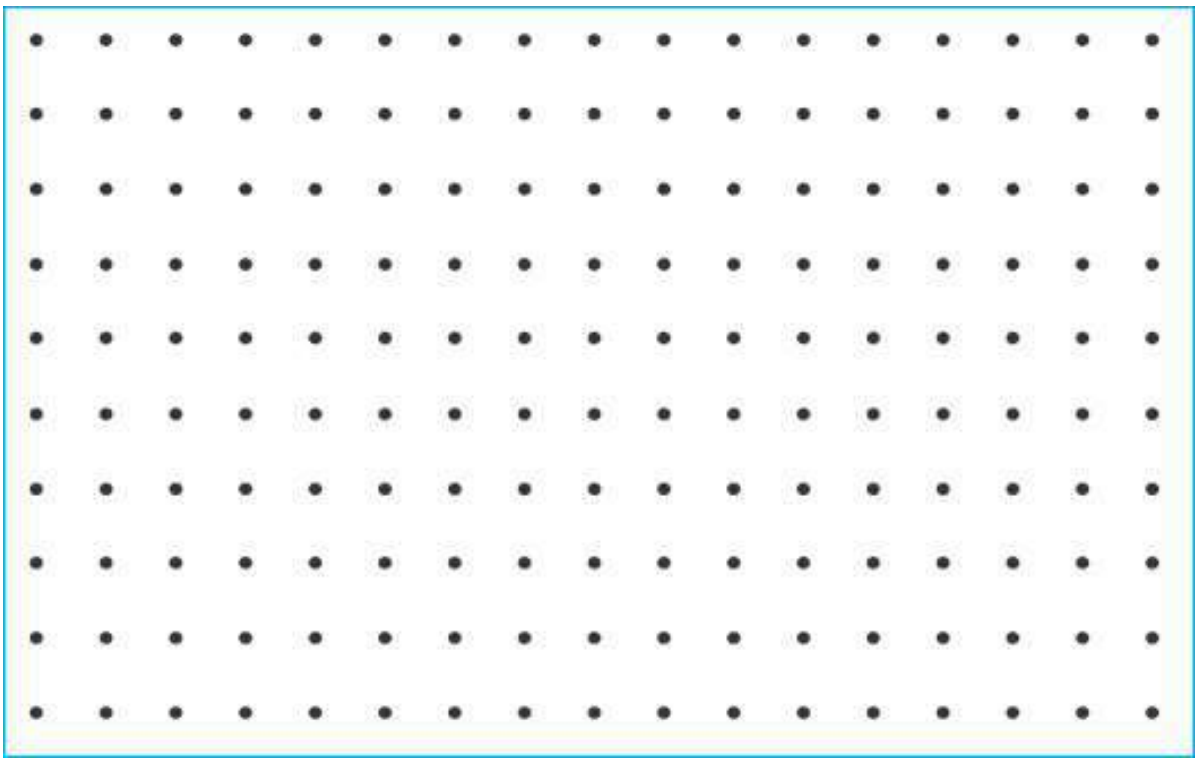
3. (1) $\frac{2}{3}$ (2) $\frac{2}{4}$ (3) $\frac{1}{4}$ (4) $\frac{3}{4}$ (5) $\frac{1}{2}$

Exercise

1. (1) 1, 4 (2) 1, 2 (3) 3, 4 (4) $\frac{1}{3}$ (5) $\frac{2}{3}$

Revision : 3

1. Draw triangle, square, rectangle, pentagon and hexagon in the given box by joining the dots :



2. Fill in the blanks :

(1) Distributing 15 pens among 3 children equally, each child gets _____ pens.

(2) Distributing 18 chickoos among 6 children equally, each child gets _____ chickoos.

(3) $6 \times 8 = 48$, therefore $48 \div 6 =$ _____ and $48 \div 8 =$ _____ .

(4) 5 can be subtracted at most _____ times from 20.

(5) $27 \div 9 = 3$ therefore 9 can be subtracted at most _____ times from 27.

(6) A week has _____ days.

(7) The hour hand in a clock is _____ than the minute hand.

(8) _____ comes after Thursday.

(9) There are _____ months in a year.

(10) _____ comes after December.

(11) 3 parts of four equal parts of a paper means _____ .

(12) 2 parts of three equal parts of an apple means _____ .

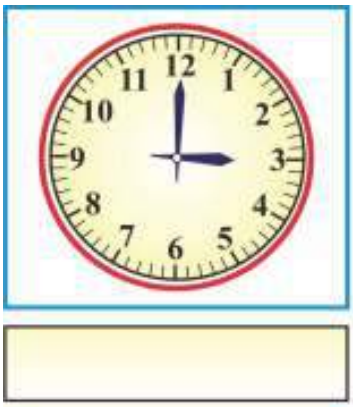
(13) 1 part of four equal parts of a string means _____ .

(14) $\frac{1}{2}$ part of a chocolate means _____ part of _____ equal parts.

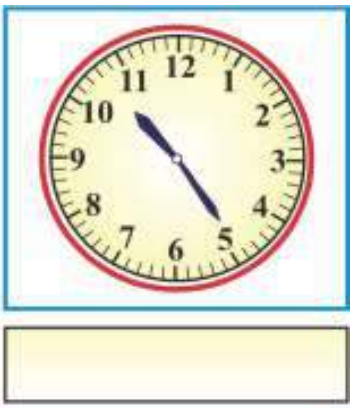
(15) $\frac{2}{3}$ part of a biscuit means _____ parts of _____ equal parts.

3. Write the time by the given clock in the box :

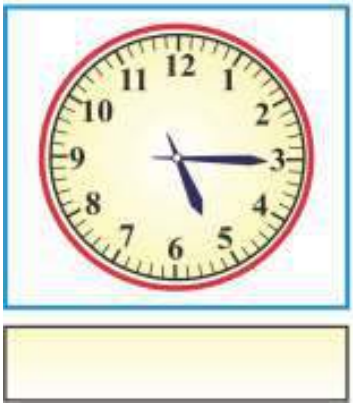
(1)



(2)



(3)



(4)

4. Divide the following :

(1) 36 ÷ 3 (2) 80 ÷ 4 (3) 95 ÷ 5 (4) 77 ÷ 7

(5) 976 ÷ 8 (6) 714 ÷ 6 (7) 450 ÷ 9 (8) 600 ÷ 4

5. Write the given fractions in numbers :

(1) Two fourth _____

(2) One third _____

(3) One fourth _____

(4) Two third _____

(5) One half _____

(6) Three fourth _____

6. Make four equal parts of the given figures in four different ways :

7. Add the following :

(1)

hours	minutes
5	5
4	10

(2)

hours	minutes
2	35
11	15

(3)

hours	minutes
9	25
3	30

(4)

hours	minutes
12	05
6	40

8. Solve the following examples :

(1) How many chocolates does each child get if 45 chocolates are distributed equally among 9 children ?

(2) If one pen costs ₹ 8, how many such pens can be bought for ₹ 72 ?

(3) How many kites does each child get, if 60 kites are equally distributed among 6 children ?

Answers

2. (1) 5 (2) 3 (3) 8, 6 (4) 4 (5) 3 (6) 7 (7) smaller (8) Friday (9) 12 (10) January (11) $\frac{3}{4}$ (12) $\frac{2}{3}$ (13) $\frac{1}{4}$ (14) 1, 2 (15) 2, 3

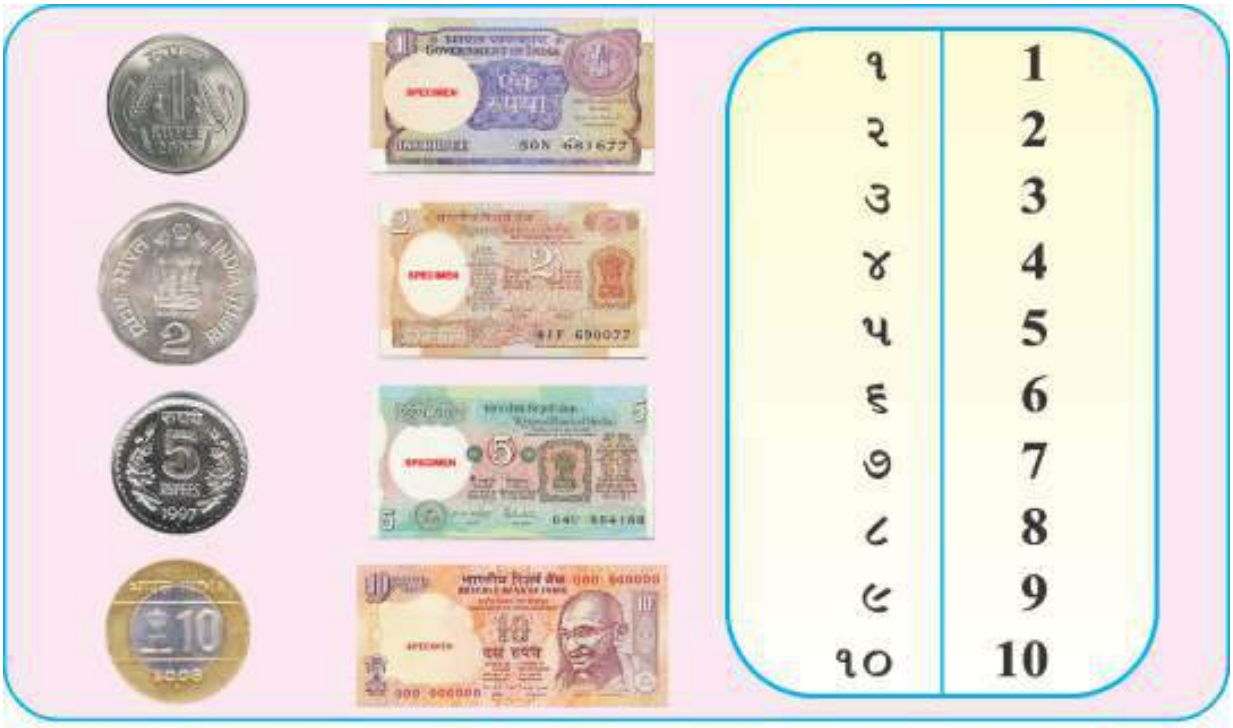
4. (1) 12 (2) 20 (3) 19 (4) 11 (5) 122 (6) 119 (7) 50 (8) 150

5. (1) $\frac{2}{4}$ (2) $\frac{1}{3}$ (3) $\frac{1}{4}$ (4) $\frac{2}{3}$ (5) $\frac{1}{2}$ (6) $\frac{3}{4}$

7. (1) 9 hours 15 minutes (2) 13 hours 50 minutes
(3) 12 hours 55 minutes (4) 18 hours 45 minutes

8. (1) 5 chocolates (2) 9 pens (3) 10 kites

10 Currency



१	1
२	2
३	3
४	4
५	5
६	6
७	7
८	8
९	9
१०	10

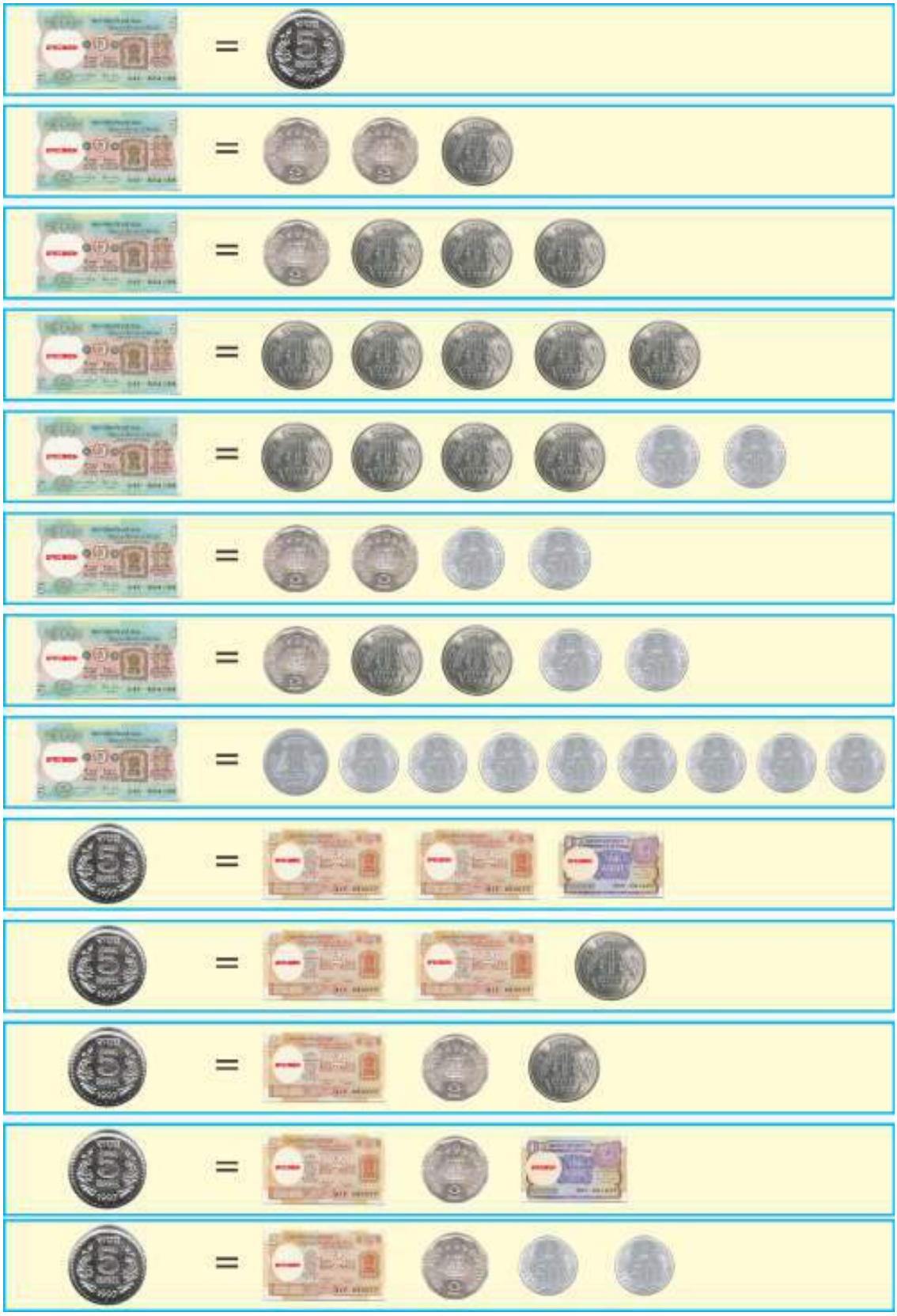
- The symbol for rupee is ₹.

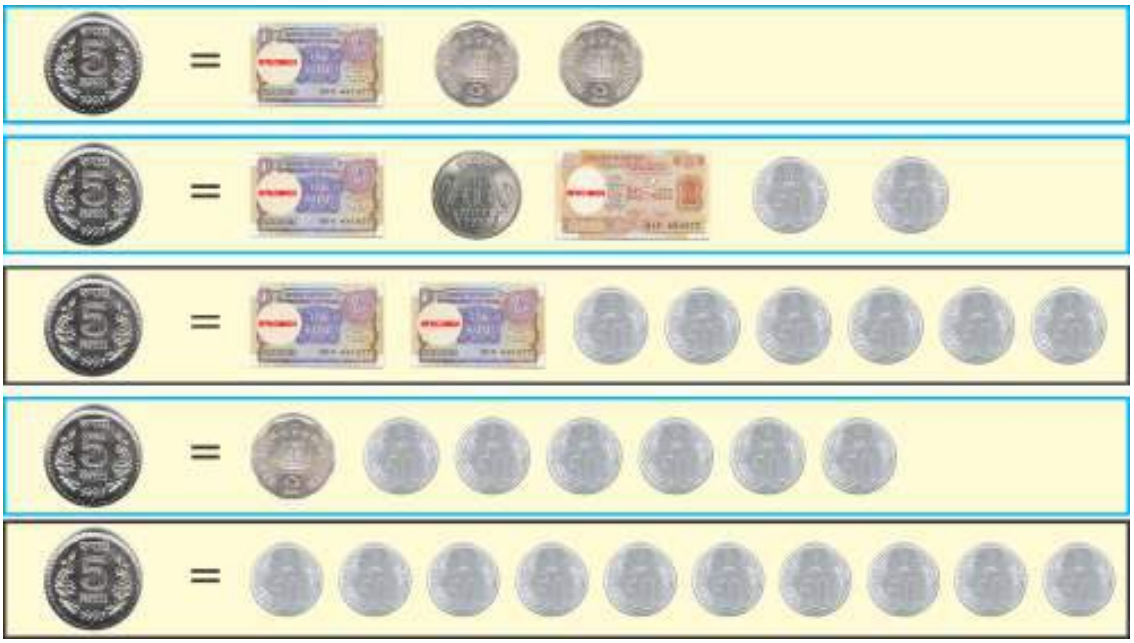
☞ **Note :** Coins other than 50 paise are not in use now.

- Meena bought 1 pencil from this shop and gave  .
- Sameera bought 1 pencil from this shop and gave  and  .
- Jitu bought 1 sharpner and 1 eraser and gave  .
- Bharat bought 1 sharpner and 2 pencils and gave  ,  and  .
- Gunjan bought 1 glue stick and 1 book and gave  and  .
- Palak bought 1 lunch box from this shop and gave  ,  and  .

Now, tick mark (✓) on the notes or coins you will pay to buy the articles / objects given below :

Example 1 : Give change of ₹ 5 in various combinations.





Practice-1

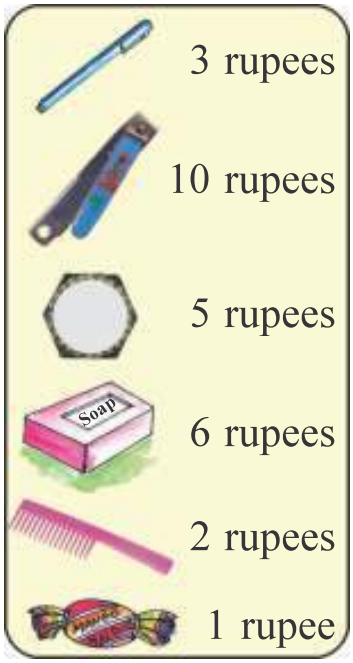
1. Match column A with column B :

A	B
	
	
	
	
	

2. How will you give change ? (Match A with B)

A		B
(1)		
(2)		
(3)		
(4)		
(5)		
(6)		

3. Answer on the basis of the given picture :



(1) How much do 3 ball pens cost ? _____

(2) Which article can be bought in maximum number for ₹ 10 ? _____ . How many in numbers ? _____ .

(3) If 1 nail-cutter and 1 soap are bought, how much should be paid ? _____

(4) You have ₹ 30; if you buy one article each, what amount will be left with you ?

4. Suman had 10 rupees, she gave 3 rupees to Kabir. Now she has 2 coins left. From these 2 coins, if one is of 2 rupees, what is the value of the second coin ?

5. If 11 coins are to make twenty rupees, which coins of different values can be taken ? Write the answers in various combinations.

☞ **Play the game given on the last page of your book.**

Observe and understand :

1 rupee = 100 paise

Likewise

2 rupees = 200 paise

3 rupees = 300 paise

5 rupees = 500 paise

10 rupees = 1000 paise

$1\frac{1}{2}$ rupees = 1 rupee + 50 paise

= 50 paise + 50 paise + 50 paise

= 150 paise

$\therefore$ $1\frac{1}{2}$ rupees = 150 paise

Likewise,

$2\frac{1}{2}$ rupees = 250 paise

$3\frac{1}{2}$ rupees = 350 paise

$7\frac{1}{2}$ rupees = 750 paise

Example 2 : Manoj had 6 rupees. Ali gave him $2\frac{1}{2}$ rupees. What amount does Manoj have ?

Solution : $2\frac{1}{2}$ rupees = 2 rupees and 50 paise = 250 paise

Rupees	Paise
6	00
+ 2	50
8	50

Now, Manoj has 8 rupees and 50 paise.

Example 3 : Julie had 2 rupees and 50 paise. Her uncle gave her 3 rupees and 50 paise. What amount does Julie have ?

Solution :

	Rupees	Paise
	1	
	2	50
+	3	50
	6	100

100 paise = 1 rupee

Now, Julie has 6 rupees.

Example 4 : Add : 50 paise and 2 rupees 50 paise.

Solution :

	Rupees	Paise
	1	
	0	50
+	2	50
	3	100

Second method :

2 rupees 50 paise = 250 paise

50 paise

\+ 250 paise

300 paise

100 paise = 1 rupee

∴ 300 paise = 3 rupees

Example 5 : Subtract : 2 rupees 50 paise from 7 rupees 50 paise.

Solution :

Rupees	Paise
7	50
– 2	50
5	00

Answer : 5 rupees

Example 6 : What is the total cost of a notebook worth 10 rupees and a compass box worth 15 rupees ?

Solution :

	10 rupees	Notebook
+	15 rupees	Compass box
	25 rupees	Total

Answer : Total cost is 25 rupees.

Example 7 : Sunny bought *Chevda* worth 20 rupees and *Penda* worth 18 rupees. How much money (in rupees) would he pay to the shopkeeper ?

Solution :

	20 rupees	*Chevda*
+	18 rupees	*Penda*
	38 rupees	Total

Answer : Sunny has to pay total 38 rupees

Example 8 : Sweta bought a ticket worth 17 rupees from the bus conductor. She gave him a 20 rupees note. How much money (in rupees) would the conductor return back to her ?

Solution :

	20 rupees	Given
–	17 rupees	For ticket
	03 rupees	Returned back

Answer : Conductor will return 3 rupees back.

Example 9 : Reshma bought 2 toys worth rupees 18 each. She gave 50 rupees to the shopkeeper. How much would the shopkeeper return ?

Solution :

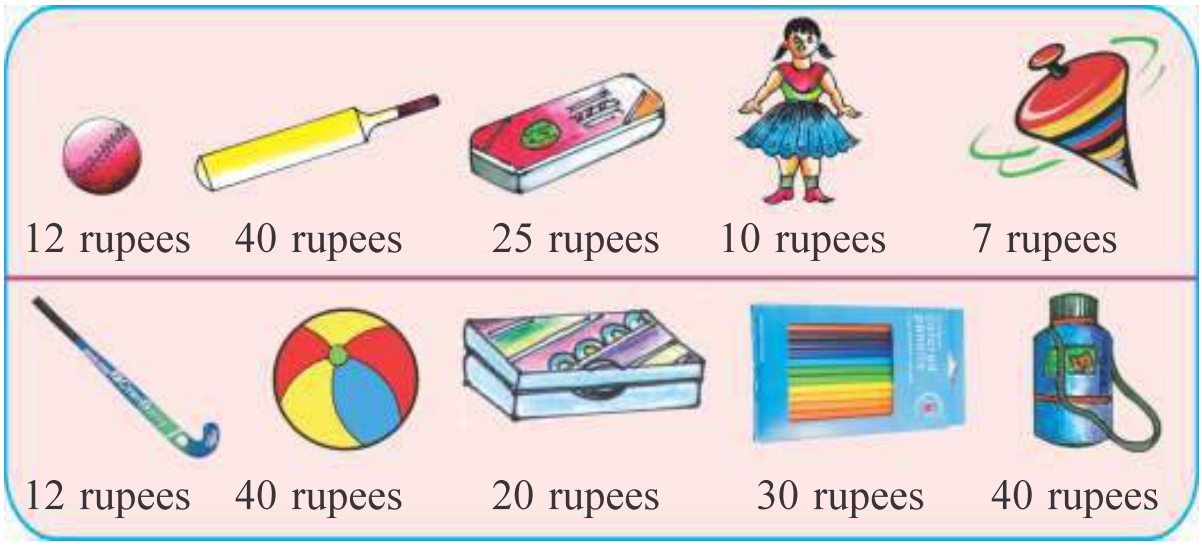
	18 rupees	First toy		50 rupees
+	18 rupees	Second toy	–	36 rupees
	36 rupees	Total amount		14 rupees

Answer : Shopkeeper will return 14 rupees to Reshma.

Practice 2

1. Buying potatoes worth 20 rupees and lady's finger worth 15 rupees, how much is to be paid in all ?
2. Buying apples worth 12 rupees and bananas worth 10 rupees, how much is to be paid in all ?
3. If a sketchpen costs 30 rupees and a notebook costs 18 rupees then what would be the total amount ?
4. If it costs ₹ 8 for one bus-ticket. How much would it cost for two such tickets ?
5. Buying things worth 13 rupees, 20 rupees are paid to the shopkeeper. How much will the shopkeeper return ?
6. Ramila has a 50 rupees note. She purchased vegetables worth 33 rupees. What amount is left with her ?

Exercise



☞ **The pictures of articles with their prices are given. How much would the buyer pay to the shopkeeper for buying the things :**

(1) Sonal bought one doll and one lunch box. _____

(2) Nimesh bought one hockeystick and a big ball. _____

(3) Krishna bought one bat, one cricket ball and one top. _____

(4) Anwar bought four tops. _____

(5) Vaacha bought one compass-box and one set of sketch pens. _____

(6) I bought one _____ and _____ for ₹ _____

☞ **Using a pencil, get the impression of coins worth 50 paise, 1 rupee, 2 rupees and 5 rupees. Ask your teacher to help you in getting the impression.**

e.g. 

My Account Sheet

Date	Received rupees and paise	From whom	Money spent	Details of expenditure	Amount left rupees-paise

Answers

Practice 1

3. (1) 9 rupees (2) chocolate, 10 (3) 16 rupees (4) 3 rupees

4. coin of 5 rupees

5. (1) 10 coins of 1 rupee and 1 coin of 10 rupees

(2) 9 coins of 2 rupees and 2 coins of 1 rupee

(3) 8 coins of 1 rupee, 2 coins of 5 rupees and 1 coin of 2 rupees

(4) 5 coins of 2 rupees, 1 coin of 5 rupees and 5 coins of 1 rupee

(5) 6 coins of 50 paise, 3 coins of 5 rupees and 2 coins of 1 rupee

Practice 2

1. 35 rupees **2.** 22 rupees **3.** 48 rupees

4. 16 rupees **5.** 7 rupees **6.** 17 rupees

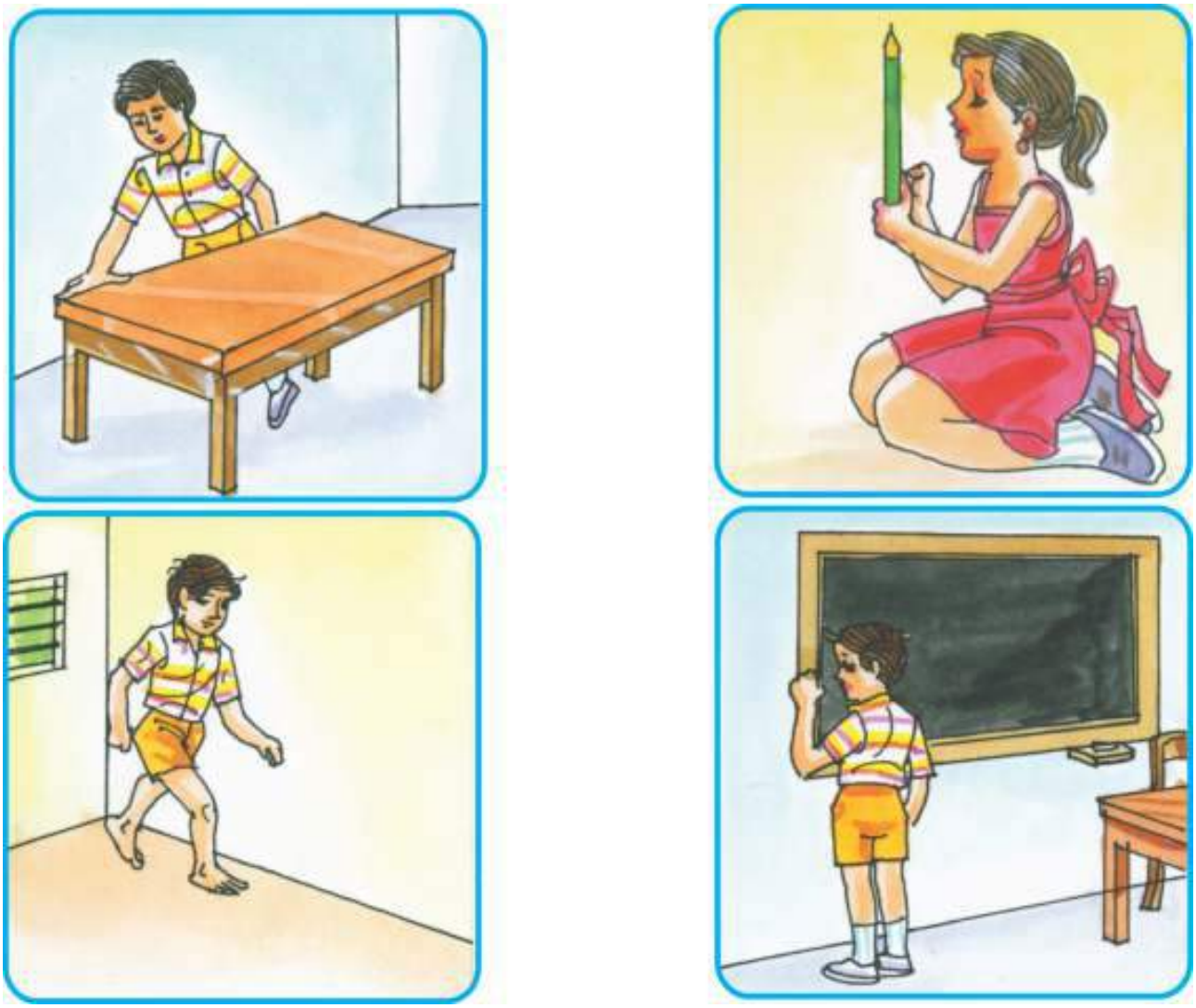
Exercise

1. 30 rupees **2.** 52 rupees **3.** 59 rupees

4. 28 rupees **5.** 55 rupees

11 Length

☞ **Observe and understand :**



Study the pictures above and answer the following questions :

(1) The length of the table in your class-room : _____ handspan.

(2) The length of your pen or pencil : _____ fingers

(3) The distance between the two ends of your class-room : _____ footsteps.

(4) The width of the blackboard in your class-room : _____ arms.

Length of a table, a pen, a pencil, a class-room or a blackboard can be measured using handspan, fingers, arms or foot-steps.

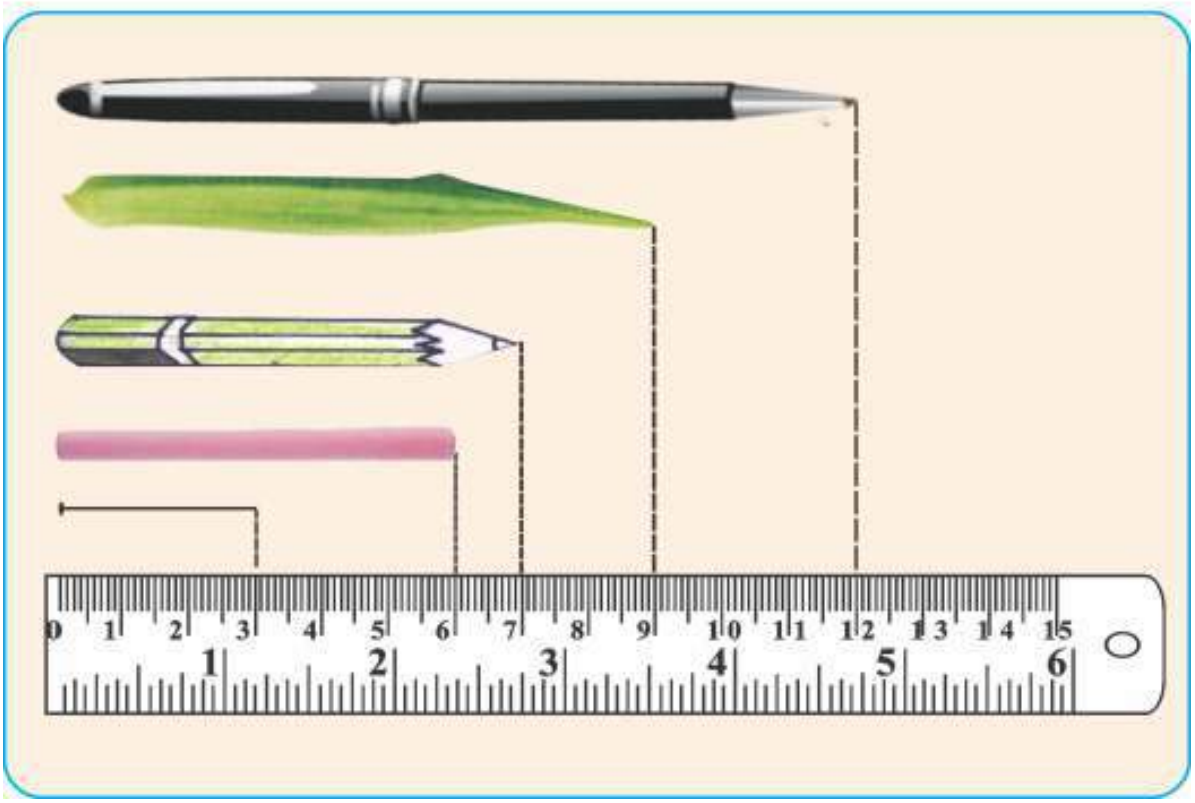
☞ Observe and understand :

Ruler : We use a ruler (scale) to find the exact measurement of length. The marked straight strip that we use for drawing a straight line is called a ruler. You must be having a ruler in your compass box. See the figure given below :

- Both the edges of a ruler are straight.
- The numbers upto 15 or 30 are written on a ruler. They denote centimeters (*cm* in short).
- The numbers upto 6 or 12 are written on the other edge of the ruler, they denote inches.

- **Centimetre**

☞ **Observe and understand :**



(1) The length of a pin is _____ *cm*.

(2) The length of a chalkstick is _____ *cm*.

(3) The length of a pencil is _____ *cm*.

(4) The length of a ballpen is _____ *cm*.

(5) The length of a ladies' finger is _____ *cm*.

(6) The length of your pencil is _____ *cm*.

(7) The length of _____ is maximum.

Similarly, we can measure the length of a book, a school bag, a pencil etc. with a ruler.

- A big ruler is used to measure or to draw the length more than 15 *cm*.

☞ While taking measurement...

- Adjust the object in such a way that one edge of the given object coincides with the zero (0) mark on the centimetre side of a ruler.
- Observe the mark on the ruler that coincides with the other edge of the object.
- Read the mark on the ruler which is the nearest to the edge of the object. That mark shows the length of the given object in centimetres.

☞ Think, measure and write :

(1) Objects having length less than 5 *cm*.

_____, _____, _____, _____

(2) Objects having length between 5 *cm* to 10 *cm*.

_____, _____, _____, _____

(3) Objects having length between 10 *cm* to 15 *cm*.

_____, _____, _____, _____

Practice 1

☞ Measure with ruler and fill in the following blanks :

(1) The length of the Mathematics textbook is _____ *cm*.

(2) The length of the Mathematics notebook is _____ *cm*.

(3) The length of your slate is _____ *cm* and its breadth is _____ *cm*.

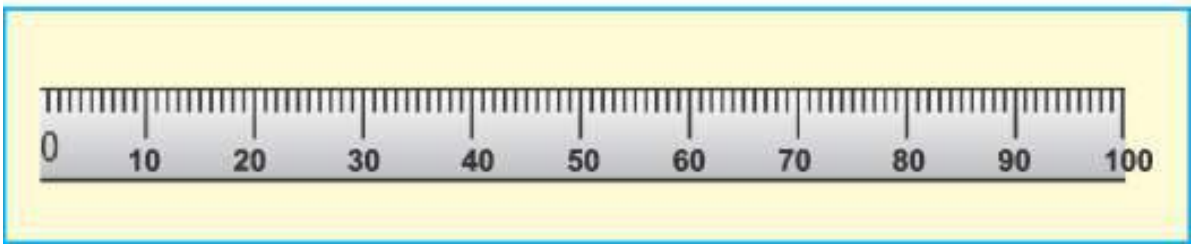
(4) The length of the compass box is _____ *cm*.

(5) The length of your pen is _____ *cm*.

(6) The length of your pencil is _____ *cm*.

Metre-centimetre

While buying cloth, we see a long steel ruler in the hands of the shopkeeper. It is called a metre-scale. Its length is 1 metre. Look at the picture of a metre-scale given below.



- Numbers from 0 to 100 are written on the metre-scale.
- The distance between every two consecutive divisions on a metre-scale is equal. This distance is 1 centimetre.
- 1 metre = 100 centimetres
- It is also read as 100 centimetres = 1 metre.
- Centimetre is written as *cm* in short.
- Metre is written in short as *m*.
- Length of a cloth, a room, a lobby etc., can be measured with a metre-scale.

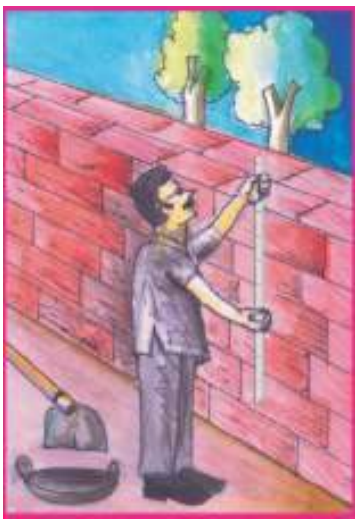
Metre	Centimetre
1	100
2	200
4	
5	
8	
9	
3	
7	
6	

Centimetre	Metre
100	1
300	
500	
600	
700	
200	
400	
800	
900	

☞ Observe and understand :

Friends, do you go to a tailor to get your shirt or pants stitched ? The tailor uses a particular measure tape to take the measurement. As it is made of cloth/plastic, it can be easily folded and kept. Its length is 1 metre and 50 centimetres.

Friends, many a times you might have seen carpenters taking measurement of wood. They also use a particular measure tape to take the measurement. Its length is more than 2 metres. It is generally made up of metal.

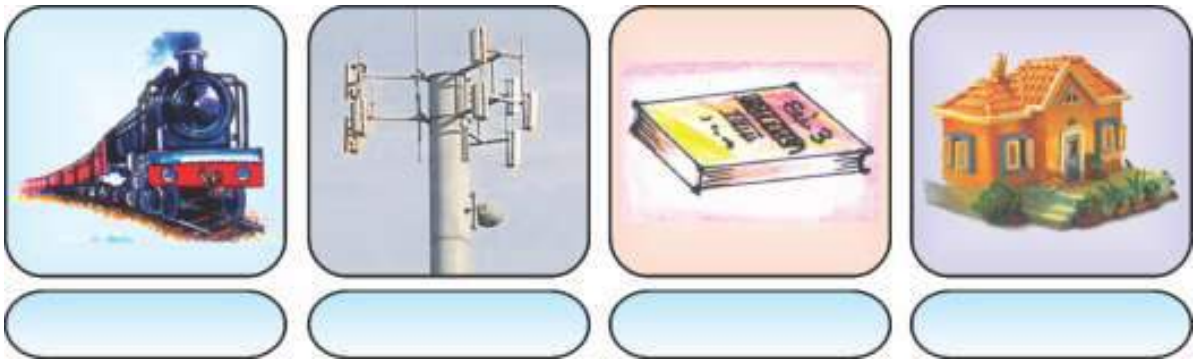


Even a mason also uses a particular measure tape for his construction work.

Friends, you might have come across a contractor or an engineer constructing the road in your village or city. They also use a particular measure tape.

☞ **Think and write :**

If the different objects shown in the given pictures are in front of you, what will you use to measure them easily ? A ruler from the compass-box or a measure tape ?



☞ **Observe and understand :**

Addition of length :

Example 1 :

(1) Add 78 metres and 54 metres.

	1	
	78	metres
+	54	metres
	132	metres

Answer : 132 metres

(2) Add 59 *cm* and 63 *cm*.

	1	
	59	*cm*
+	63	*cm*
	122	*cm*

Answer : 122 *cm*

(3) Add 16 metres 62 *cm* and 28 metres 48 *cm*.

	m	*cm*
	11	1
	. . . . .	. . . . .
	16	62
+	28	48
	45	10

Answer : 45 *m* 10 *cm*

(4) Add 125 metres 45 *cm* and 236 metres 99 *cm*.

	m	*cm*
	11	1
	. . . . .	. . . . .
	125	45
+	236	99
	362	44

Answer : 362 *m* 44 *cm*

Practice 2

1. Add :

(1) 30 *cm* and 40 *cm*

(2) 45 *cm* and 26 *cm*

(3) 46 *cm* and 45 *cm*

(4) 57 *cm* and 13 *cm*

2. Add :

(1) 40 *m* and 50 *m*

(2) 145 *m* and 136 *m*

(3) 89 *m* and 32 *m*

(4) 165 *m* and 163 *m*

3. Add :

(1) 42 *m* 30 *cm* and 56 *m* 60 *cm*

(2) 38 *m* 65 *cm* and 51 *m* 83 *cm*

(3) 85 *m* and 19 *m* 54 *cm*

(4) 140 *m* 60 *cm* and 142 *m*

☞ Subtraction of length :

Example 2 :

(1) Subtract 48 *cm* from 65 *cm*

$$\begin{array}{r} {\scriptstyle 5\ 15} \\ \not{6}\ \not{5}\ \ cm \\ -\ 4\ 8\ \ cm \\ \hline 1\ 7\ \ cm \end{array}$$

Answer : 17 *cm*

(2) Subtract 35 *cm* from 90 *cm*

$$\begin{array}{r} {\scriptstyle 8\ 10} \\ \not{9}\ \not{0}\ \ cm \\ -\ 3\ 5\ \ cm \\ \hline 5\ 5\ \ cm \end{array}$$

Answer : 55 *cm*

(3) Subtract 78 *m* from 152 *m*

$$\begin{array}{r} {\scriptstyle 14} \\ 0\ \not{4}\ {\scriptstyle 12} \\ \not{1}\ \not{5}\ \not{2}\ \ m \\ -\ 7\ 8\ \ m \\ \hline 7\ 4\ \ m \end{array}$$

Answer : 74 *m*

(4) Subtract 168 *m* from 400 *m*

$$\begin{array}{r} {\scriptstyle 3\ 9\ 10} \\ \not{4}\ \not{0}\ \not{0}\ \ m \\ -\ 1\ 6\ 8\ \ m \\ \hline 2\ 3\ 2\ \ m \end{array}$$

Answer : 232 *m*

(5) Subtract 37 metres 30 *cm* from 84 metres 80 *cm*.

m	*cm*
7 14	
~~8~~ ~~4~~	8 0
– 3 7	3 0
4 7	5 0

Answer : 47 *m* 50 *cm*

(6) Subtract 196 metres 48 *cm* from 465 metres 60 *cm*.

m			*cm*
3	15	15	5 10
~~4~~	~~6~~	~~5~~	6 0
– 1	9	6	4 8
2	6	9	1 2

Answer : 269 *m* 12 *cm*

Practice 3

1. Subtract :

(1) Subtract 30 *cm* from 74 *cm*

(2) Subtract 54 *cm* from 80 *cm*

(3) Subtract 37 *cm* from 95 *cm*

(4) Subtract 56 *cm* from 84 *cm*

2. Subtract :

(1) Subtract 29 *m* from 58 *m*

(2) Subtract 19 *m* from 42 *m*

(3) Subtract 85 *m* from 290 *m*

(4) Subtract 195 *m* from 372 *m*

3. Subtract :

(1) Subtract 47 *m* 19 *cm* from 71 *m* 36 *cm*

(2) Subtract 97 *m* 84 *cm* from 207 *m* 90 *cm*

(3) Subtract 135 *m* 76 *cm* from 325 *m* 84 *cm*

(4) Subtract 293 *m* 37 *cm* from 540 *m* 50 *cm*

Exercise

1. The students of standard III have travelled the following distance in 1 minute as shown in the table. Answer the questions accordingly :

Student's name	First trial	Second trial	Third trial
Shubham	180 *m*	195 *m*	210 *m*
Simran	200 *m*	215 *m*	227 *m*
Ronak	170 *m*	176 *m*	187 *m*
Reshma	185 *m*	189 *m*	194 *m*
Mala	209 *m*	212 *m*	224 *m*

(1) How many metres did Shubham run in all three trials, in all ?

_____

(2) How much more did Shubham run in the third trial compared to the second one ?

_____

(3) How much more did Shubham run in the first trial compared to Ronak ?

_____

(4) How much more did Simran run in the third trial compared to the second one ?

_____

(5) How much more did Reshma run in the second trial compared to the frist one ?

_____

(6) How much more did Mala run in the second trial compared to Reshma ?

_____

2. Solve the following :

(1) Add 65 *cm* and 21 *cm*

(2) Subtract 156 *m* from 194 *m*

(3) Subtract 35 *cm* from 70 *cm*

(4) Subtract 65 *m* from 74 *m*

(5) Add 6 *m* 57 *cm* and 15 *m* 79 *cm*

(6) Subtract 17 *m* 18 *cm* from 183 *m* 35 *cm*

(7) Subtract 44 *m* 37 *cm* from 132 *m* 53 *cm*

Practice 2

1. (1) 70 *cm* (2) 71 *cm* (3) 91 *cm* (4) 70 *cm*

2. (1) 90 *m* (2) 281 *m* (3) 121 *m* (4) 328 *m*

3. (1) 98 *m* 90 *cm* (2) 90 *m* 48 *cm* (3) 104 *m* 54 *cm* (4) 282 *m* 60 *cm*

Practice 3

1. (1) 44 *cm* (2) 26 *cm* (3) 58 *cm* (4) 28 *cm*

2. (1) 29 *m* (2) 23 *m* (3) 205 *m* (4) 177 *m*

3. (1) 24 *m* 17 *cm* (2) 110 *m* 06 *cm*

(3) 190 *m* 08 *cm* (4) 247 *m* 13 *cm*

Exercise

1. (1) 585 *m* (2) 15 *m* (3) 10 *m* (4) 12 *m* (5) 4 *m* (6) 23 *m*

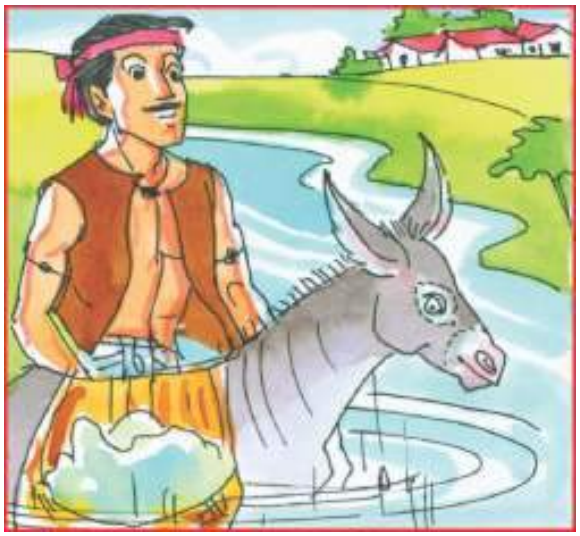
2. (1) 86 *cm* (2) 38 *m* (3) 35 *cm* (4) 9 *m* (5) 22 *m* 36 *cm*

(6) 166 *m* 17 *cm* (7) 88 *m* 16 *cm*

12 Weight

Clever Donkey

Ramu had a donkey. He used to load the sacks of salt on it and go to the market. He had to cross a river to go to the market.



One day, his donkey slipped while crossing the river.

When the donkey stood up, it felt that the sacks were lighter than before.

Think : Why did the donkey feel that the sacks of salt were lighter than before ?

The donkey enjoyed it. The donkey planned that it would sit into the water again while crossing the river next day. The donkey did it the next day.

Think, what would have happened ?

The donkey kept on repeating this trick everyday. But Ramu understood this trick one day. Next day, Ramu replaced wool in place of salt in sacks.

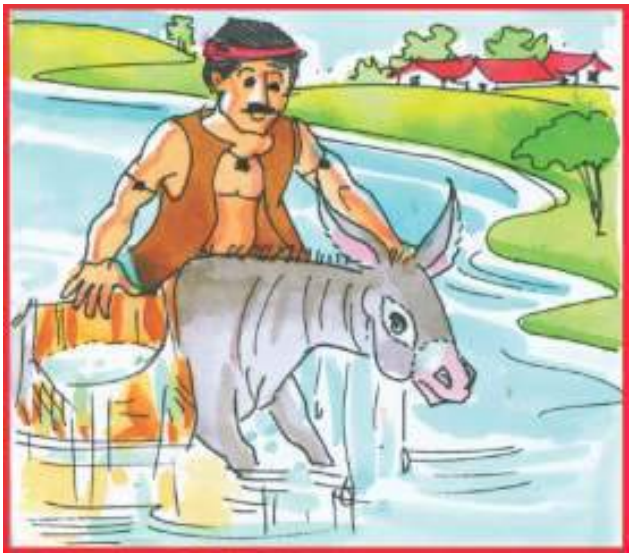
Think : What would happen if the donkey sit into the water this time ? Why ?

What do you say ? :

(1) What would happen if we keep Sugar in place of wool ?

(2) What if we keep stones now ?

(3) What if we keep sand now ?



☞ **The names of birds / animals are given beside the list of different items. Now, fill in yellow colour into those item boxes which the listed bird / animal can lift up.**

Sparrow :	A leaf of a tree	A bag of cloth	A small sack	Sticks
Elephant :	A bag of cloth	A small sack	Sticks	A leaf of a tree
Crow :	Sticks	A bag of cloth	A leaf of a tree	A small sack
Dog :	A small sack	A leaf of a tree	Sticks	A bag of cloth

Trick of the monkey

What do you say ?

(1) Which trick did the monkey use to stop the cats from fighting ?

(2) When did the monkey used to eat a piece of bread ?

(3) At last, there remains a piece of bread on one side of the weighing scale and the other side gets empty. What trick the monkey used to eat this last piece ?

(4) Was the monkey not knowing how to weigh ? Or the monkey did this cunningly ?

Use the weighing scale to decide, which one is heavier ?

(1) a football or a cricket ball, _____

(2) your textbook of Mathematics or English, _____

(3) a hammer or a pincers, _____

(4) a chalk stick or a duster, _____

(5) a bat or a stump, _____

Oh ! This shopkeeper is also using weighing scale to weigh his goods just like a green-grocer ? I also, should use a weighing scale to weigh things accurately.

The magic of see-saw :

Nirav needs a partner for swinging on see-saw.

Shefali comes to help Nirav.

But still, Nirav's position didn't change and he was still touching the ground. Can you say, why ?

Is Nirav heavier or lighter than Shefali ? (Underline the correct answer.)

Now, Jennifer comes to help them.

Can you say how does Nirav's side of the see-saw go up ? Is Nirav heavier or lighter than Shefali and Jennifer together? (Underline the correct answer.) Now Nirav keeps his bag with him.

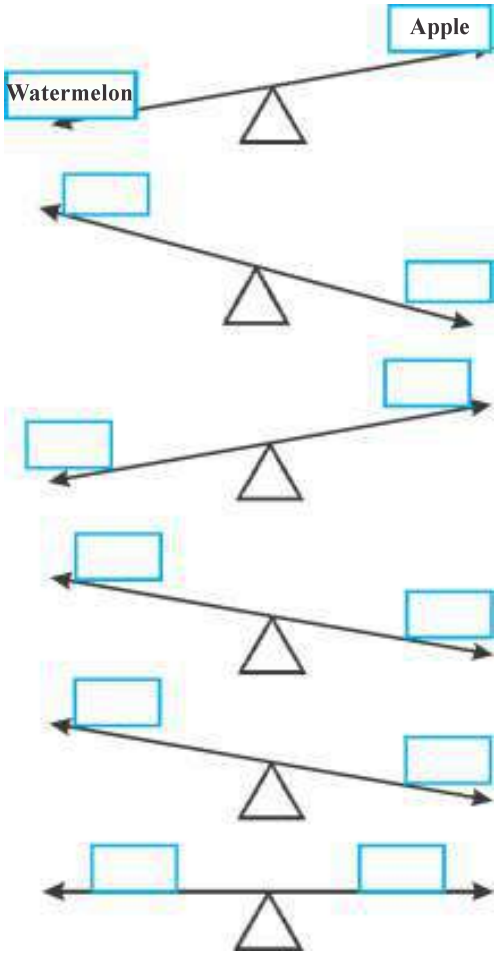
Now, they are enjoying this activity of swinging on the see-saw.

What do you say ?

When do both the sides of see-saw come to equal level ?

☞ **Do the given example :**

Watermelon	Apple
Bucket	Cup
Football	Small ball
Bag	Book
Biscuit	Chocolate
Two packets of biscuits	Two packets of biscuits



In a weighing scale, the pan carrying heavier weight stays down. We should put equal weight in both the pans of a weighing scale to keep them at equal level.

☞ Let us make Weights :

- Take 1 *kg* of goods. Now fill in gravels or sand in a bag of same weight using weighing scale.
- Divide that gravels or sand of 1 *kg* into two equal quantity in two bags.

Hence, we have two bags of half a *kg* each.

What do you say ?

Which are the other goods you can keep in the weighing scale for 1 *kg* or half a *kg* goods ?

_____

_____

_____

_____

- Using the bags made with the help of weighing scale, note down the weight of the items arround you in the following table :

Weight of an item	Name of an item
More than 1 *kg*	
1 *kg*	
less then 1 *kg*	

☞ **Guess :** Make a ◯ on the item which weighs more than 1 *kg* and a ▭ on the item which weighs less than 1 *kg*.

Banana	Water melon	Chair	Chappal
Musk melon	Fan	Compass box	Bag

☞ **Note down by estimation :**

(1) Items having weight less than half a *kg* :

_____, _____, _____, _____, _____, _____

(2) Items having weight more than half a *kg* :

_____, _____, _____, _____, _____, _____

☞ **More, less or equal :**

Write down the names of your friends in the following table :

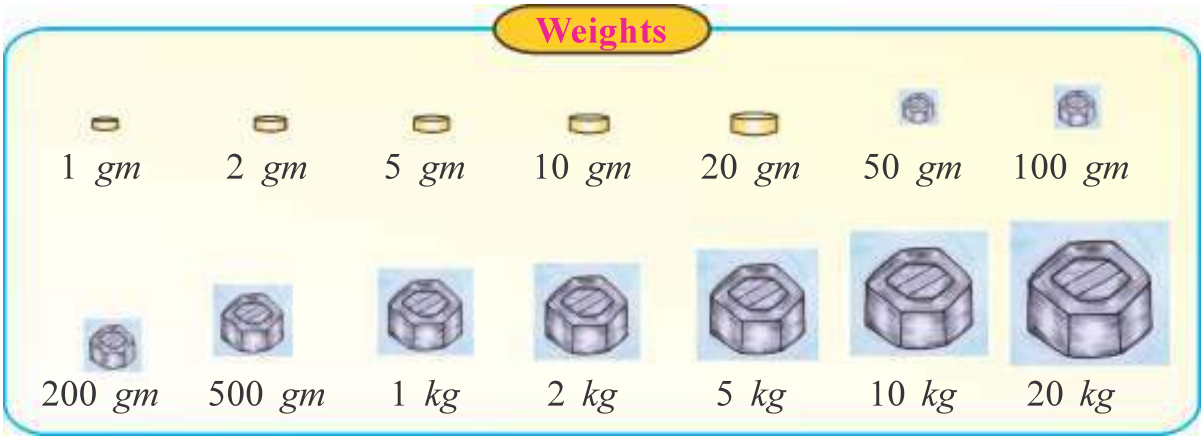
Name of friends having more weight than you	Name of friends having less weight than you	Name of friends having weight equal to your weight

We use different types of Weights and weighing scales to weigh different things.

Weighing Scales and Weights :

Visit different places like Scrape's dealer shop, green-grocer's shop, grocery shop, goldsmith's shop, sweet-mart etc. in your area and observe the different types of Weights and Weighing scales being used.

Weighing scales



What do you say ?

When you go to the market with your parents, which types of weighing scales and weights do you come across ?

Weights and weighing scales are of different types; with their help, we can find the accurate weight of the different items.

Kilogram and gram :

Salman purchased the following items from the market.

Items	Weight (in grams)
Gram	100
Green gram	100
Sesame	100
Pulses	100
Tea	100
Sugar	100
Jaggery	100
Rice	100
Chilly	100
Turmeric	100

What do you say ?

(1) What is the total weight of the goods purchased by Salman ?

_____ grams

(2) If we were to use only once, which weight would we use to weigh 1000 gms ? _____ .

- 1 kilogram = 1000 grams
- Kilogram is a larger unit of weight. It can be written as *kg*.
- Gram is a smaller unit of weight. It can be written as *gm* or *g*.

If Salman has to weigh 1 *kg* of weight, then,

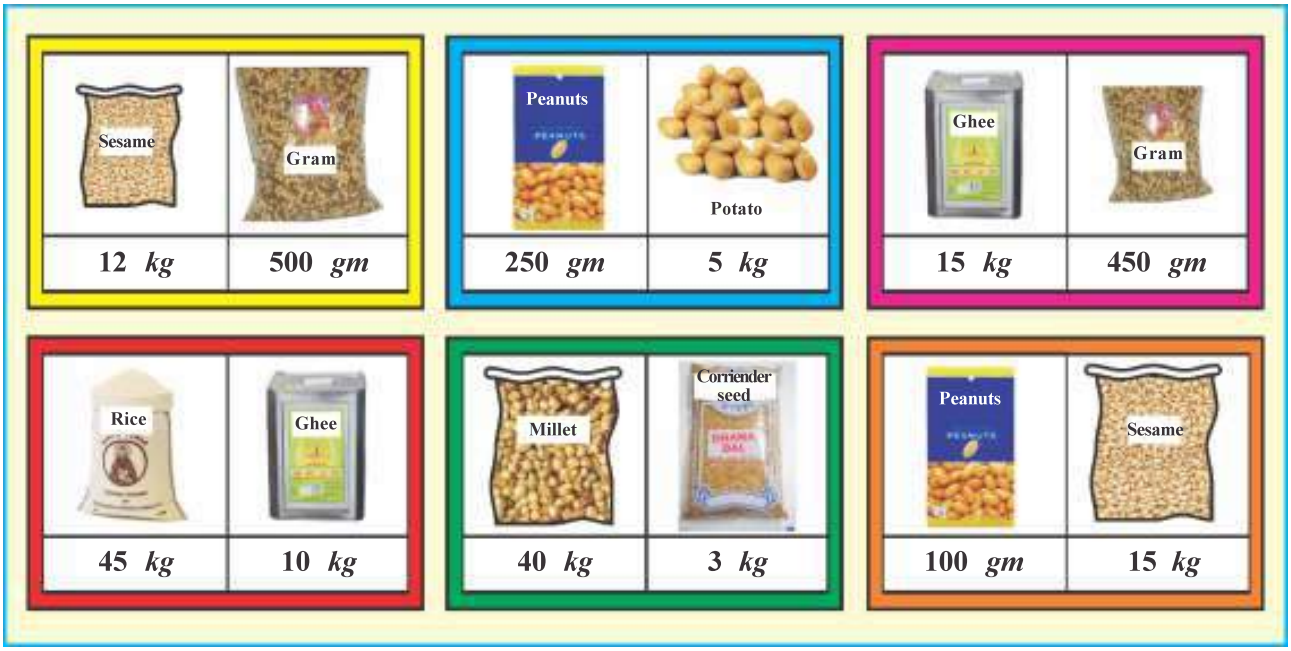
(1) how many packets of 100 *gm* biscuits are to be collected ? _____

(2) how many bags of 200 *gm* rice are to be collected ? _____

(3) how many packets of 500 *gm* tea are to be collected ? _____

(4) how many pouches of 50 *gm* turmeric are to be collected ? _____

Look at the following pictures of different items and add the weights of same items :



	
Fennel seed	Potato
250 *gm*	3 *kg*

	
Corriander seed	Millet
2 *kg*	37 *kg*

	
Rice	Fennel seeds
30 *kg*	450 *gm*

	12	*kg* sesame
+	15	*kg* sesame
	27	*kg* sesame

	40	*kg* millet
+	37	*kg* millet
	77	*kg* millet

		gm gram
+		*gm* gram
		gm gram

		gm fennel seeds
+		*gm* fennel seeds
		gm fennel seeds

		kg potato
+		*kg* potato
		kg potato

		kg rice
+		*kg* rice
		kg rice

		gm peanuts
+		*gm* peanuts
		gm peanuts

		kg corriander seed
+		*kg* corriander seed
		kg corriander seed

		kg ghee
+		*kg* ghee
		kg ghee

Example 1 :

1. Add : 255 *kg* 150 *gm* and 177 *kg* 350 *gm*

Solution :

	kg	*gm*
	1 1	1
	255	150
+	177	350
	432	500

Answer : 432 *kg* 500 *gm*

2. Add : 320 *kg* 430 *gm*, 105 *kg* 100 *gm* and 55 *kg* 185 *gm*

Solution :

	kg	*gm*
	1	1
	320	430
+	105	100
	55	185
	480	715

Answer : 480 *kg* 715 *gm*

3. Add : 3 *kg* 400 *gm* and 65 *kg* 600 *gm*

Solution :

	kg	*gm*
	1	
	3	400
+	65	600
	69	000

Answer : 69 *kg*

Practice 1

1. Add the following :

(1)

	350	*gm* sugar
+	160	*gm* sugar
+	105	*gm* sugar

(2)

	470	*gm* tea
+	280	*gm* tea
+	150	*gm* tea

(3)

	kg	*gm*
	.....	.....
	580	210
+	340	000
+	45	190

(4)

	kg	*gm*
	.....	.....
	109	500
+	622	260
+	72	140

2. Add the following :

(1) 10 *kg* 430 *gm* and 9 *kg* 270 *gm*

(2) 195 *kg* 650 *gm* and 80 *kg* 170 *gm*

(3) 225 *kg* 500 *gm* and 157 *kg* 150 *gm*

(4) 320 *kg* 300 *gm* and 210 *kg* 200 *gm*

(5) 150 *kg* 450 *gm* and 250 *kg* 370 *gm*

Example 2 :

1. Subtract : 77 *kg* from 95 *kg*

Solution :

	8 15	
	.....	.....
	~~9~~ ~~5~~	*kg*
–	7 7	*kg*
	1 8	*kg*

Answer : 18 *kg*

2. Subtract : 365 *gm* from 500 *gm*

Solution :

4 9 10	
~~5~~ ~~0~~ ~~0~~	*gm*
– 3 6 5	*gm*
1 3 5	*gm*

Answer : 135 *gm*

3. Subtract : 235 *kg* 250 *gm* Toor from 372 *kg* 800 *gm* Toor.

Solution :

kg	*gm*
6 12	7 10
3 ~~7~~ ~~2~~	~~8~~ ~~0~~ 0
– 2 3 5	2 5 0
1 3 7	5 5 0

Answer : 137 *kg* 550 *gm*

Practice 2

1. Subtract the following :

(1) Subtract 289 *kg* from 478 *kg*

(2) Subtract 159 *kg* from 245 *kg*

(3) Subtract 95 *gm* from 550 *gm*

(4) Subtract 350 *gm* from 745 *gm*

(5) Subtract 27 *kg* 170 *gm* of rice from 38 *kg* 260 *gm* of rice.

(6) Subtract 336 *kg* 850 *gm* of maize from 375 *kg* 900 *gm* of maize.

(7) Subtract 189 *kg* 290 *gm* of mangoes from 285 *kg* 300 *gm* of mangoes.

(8) Subtract 210 *kg* 405 *gm* of wheat from 400 *kg* 895 *gm* of wheat.

Exercise

1. Add the following :

(1)

	kg	gm
	83	300
+	168	800

(2)

	kg	gm
	425	250
+	333	710

(3)

	kg	gm
	330	480
+	352	202

(4)

	kg	gm
	248	285
+	268	108

(5)

	kg	gm
	15	250
+	8	075
+	6	300

(6)

	kg	gm
	605	225
+	168	065
+	095	100

(7)

	kg	gm
	330	400
+	155	350
+	045	040

(8)

	kg	gm
	248	150
+	150	330
+	070	035

(9)

	kg	gm
	455	250
+	083	145
+	060	450

(10)

	kg	gm
	575	250
+	045	350
+	030	255

2. Subtract the following :

(1)

	kg	gm
	23	850
–	12	320

(2)

	kg	gm
	323	765
–	108	325

(3)

	kg	gm
	198	379
–	68	168

(4)

	kg	gm
	768	182
–	164	153

(5)

	kg	gm
	175	215
–	124	103

(6)

	kg	gm
	957	289
–	047	189

3. Add : 34 *kg* 120 *gm* of millet and 86 *kg* 140 *gm* of millet.

4. Subtract 168 *kg* 305 *gm* of ladies' finger from 210 *kg* 765 *gm* of ladies' finger.

5. Add : 135 *kg* 208 *gm* of peas and 260 *kg* 378 *gm* of peas.

6. Add : 148 *kg* 175 *gm* of iron and 145 *kg* 250 *gm* of iron.

7. Subtract 30 *kg* 370 *gm* of guava from 50 *kg* 465 *gm* of guava.

8. Subtract 221 *kg* 200 *gm* of fertilizers from 365 *kg* 480 *gm* of fertilizers.

9. Subtract 735 *kg* 555 *gm* of peanuts from 900 *kg* 700 *gm* of peanuts.

10. Subtract 570 *kg* 385 *gm* of papaya from 805 *kg* 450 *gm* of papaya.

Answers

Practice 1

1. (1) 615 *gm* (2) 900 *gm* (3) 965 *kg* 400 *gm* (4) 803 *kg* 900 *gm*

2. (1) 19 *kg* 700 *gm* (2) 275 *kg* 820 *gm*

(3) 382 *kg* 650 *gm* (4) 530 *kg* 500 *gm*

(5) 400 *kg* 820 *gm*

Practice 2

1. 189 *kg* **2.** 86 *kg* **3.** 455 *gm* **4.** 395 *gm* **5.** 11 *kg* 90 *gm*

6. 39 *kg* 50 *gm* **7.** 96 *kg* 10 *gm* **8.** 190 *kg* 490 *gm*

Exercise

1. (1) 252 *kg* 100 *gm* (2) 758 *kg* 960 *gm*

(3) 682 *kg* 682 *gm* (4) 516 *kg* 393 *gm*

(5) 29 *kg* 625 *gm* (6) 868 *kg* 390 *gm*

(7) 530 *kg* 790 *gm* (8) 468 *kg* 515 *gm*

(9) 598 *kg* 845 *gm* (10) 650 *kg* 855 *gm*

2. (1) 11 *kg* 530 *gm* (2) 215 *kg* 440 *gm*

(3) 130 *kg* 211 *gm* (4) 604 *kg* 29 *gm*

(5) 51 *kg* 112 *gm* (6) 910 *kg* 100 *gm*

3. 120 *kg* 260 *gm* **4.** 42 *kg* 460 *gm*

5. 395 *kg* 586 *gm*

6. 293 *kg* 425 *gm*

7. 20 *kg* 95 *gm*

8. 144 *kg* 280 *gm*

9. 165 *kg* 145 *gm*

10. 235 *kg* 65 *gm*

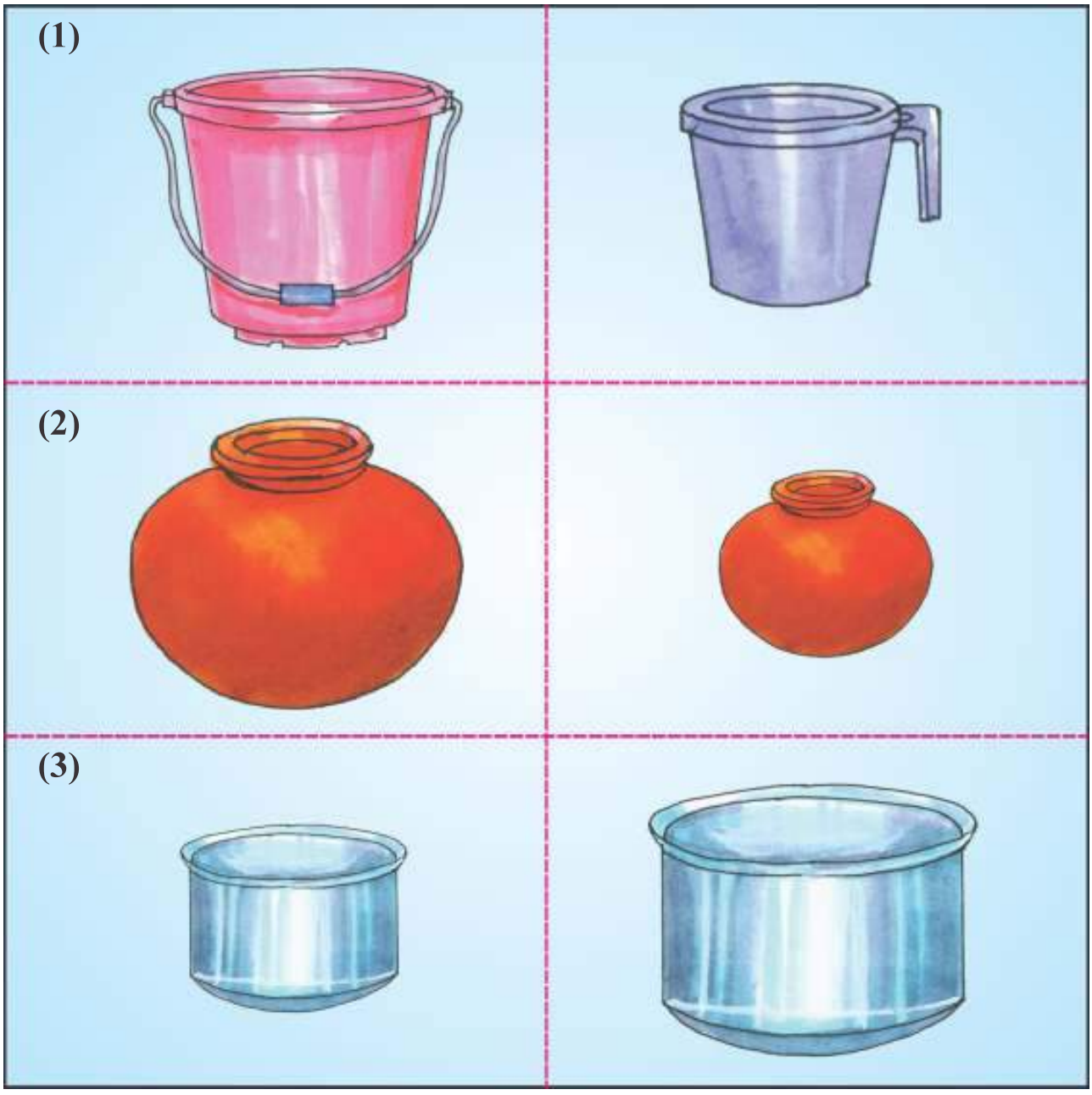
Make a list of the items purchased at home and note down the weight of the items :

Name of the item	Weight

13 Capacity

Let us recall :

There are two vessels in each row. Tick-mark (✓) on the picture of the vessel which can contain more liquid / water :



Let us measure :

Friends; collect different items like cup, glass, jug, bucket, dish, teaspoon, pot, etc. which can contain liquid in it. Now, make groups of five children each and do the activity of measurement given below :


A bucket can be filled by _____ *Kalashes* of water.


A pot can be filled by _____ glasses of water.


A pot can be filled by _____ jugs of water.

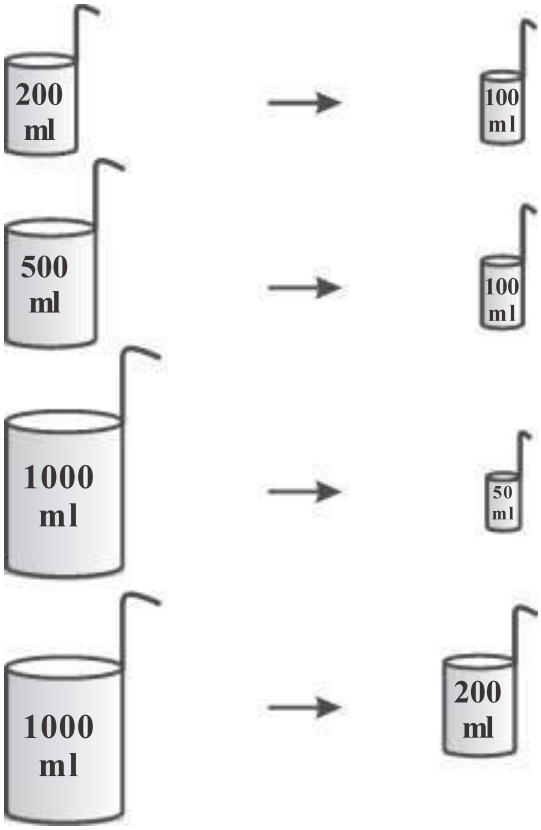

A bowl can be filled by _____ teaspoons of water.

To measure the length or width of a cloth, we use  meter-tap.

To measure the weight of an item, we use balance and weights.

Friends; liquids like water, petrol, milk, kerosene, oil etc are measured in litre and Millilitre (*ml*). For this, we use different kinds of measuring containers / vessels.

☞ **Look at the pictures of measuring containers, study them and fill in the gaps :**



can be filled 2 times.

can be filled _____ times.

can be filled _____ times.

can be filled _____ times.

☞ Now can you say ?

(1) How many times does the measuring vessel of 100 *ml* need to be poured to get 1 litre of milk ? _____

(2) How many times does the measuring vessel of 200 *ml* need to be poured to get 1 litre of milk ? _____

(3) To get 1 litre of milk, measuring vessel of _____ *ml* is to be poured twice.

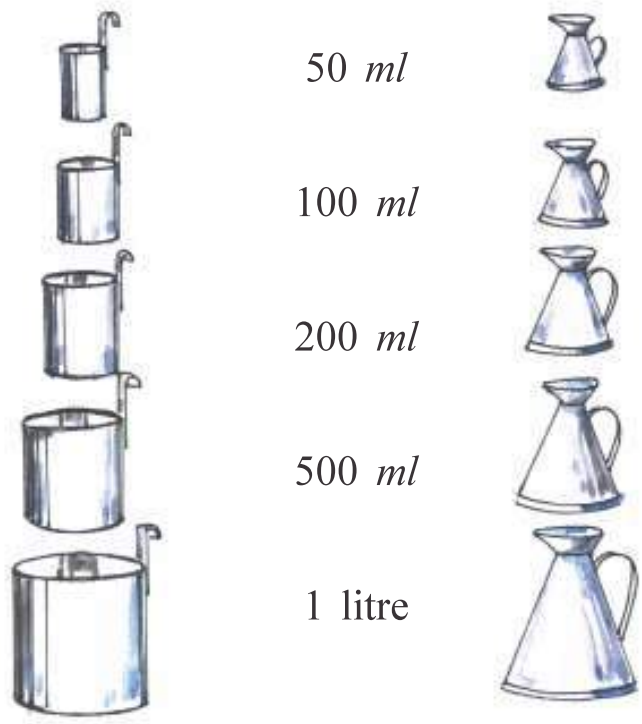
(4) How much milk do we get by using the measuring vessel of 500 *ml* of milk twice ?

_____

☞ Observe and understand :

Measuring containers of milk

Measuring containers of kerosene



Quantity	Weight of measuring scale	How many times
1 litre	100 *ml*	10
500 *ml*	100 *ml*	
1 litre	200 *ml*	
1 litre	500 *ml*	
200 *ml*	100 *ml*	
100 *ml*	50 *ml*	
500 *ml*	50 *ml*	
1 litre	1 litre	

- We measure the quantity of liquid and capacity of the vessel in litres and millilitres.

- Capacity of a vessel means the quantity of liquid it can hold.

☞ **Remember the following :**

- Litre is a larger unit of capacity.
- Millilitre is a smaller unit of capacity.
- 1 litre = 1000 Millilitres
- *ml* is the short-form of Millilitre.

☞ **Think and say :**

Pareshbhai has only the measuring vessels of 1 litre, 100 *ml* and 200 *ml*. He wants to give the milk using the vessels minimum number of times, help him to distribute the milk.

Which measuring vessels can we use ?

(1) To give 300 *ml* of milk to Rahim _____

_____

(2) To give 500 *ml* of milk to Parth _____

_____

(3) To give 900 *ml* of milk to Vishwa _____

_____

(4) To give 800 *ml* of milk to Abdul _____

_____

(5) To give 1 litre of milk to Bansari _____

_____

(6) To give 1 litre and 300 *ml* of milk to Rucha _____

_____

Now-a-days, liquid items like milk, ghee, oil, butter-milk, water, coconut-oil, cold-drinks etc. are available in polythene bags and bottles in the market. The measurement / proportion of the item is written on it.

Which liquid items are available in polythene bags or bottles, in your city or village ? List the items and their measurements / proportions in the following table :

Items	Litre/Millilitre
Milk bag	500 *ml*

On petrol-pumps, the measurements of quantity of petrol and diesel are denoted in numbers.

Friends, you would have seen a water-tank on terrace of a building. The tank can contain the quantity of water written on it.

Addition of capacity :

Example 1 : Calculate the following sums :

(1) Add : 24 litres and 47 litres

	1	
	24	litres
+	47	litres
	71	litres

Answer : 71 litres

(2) Add : 46 litres, 235 litres and 108 litres

	1	
	46	litres
+	235	litres
+	108	litres
	389	litres

Answer : 389 litres

(3) Add : 125 *ml* and 395 *ml*

	1 1	
	125	*ml*
+	395	*ml*
	520	*ml*

Answer : 520 *ml*

(4) Add : 421 litres 250 *ml* and 325 litres 600 *ml*

	litre	*ml*
	421	250
+	325	600
	746	850

Answer : 746 litre 850 *ml*

(5) Add : 7 litres 500 *ml* milk to 8 litres and 4 litres 200 *ml* milk.

	litre	*ml*
	7	500
+	8	000
+	4	200
	19	700

Answer : 19 litres 700 *ml*

(6) Add : 14 litres 700 *ml* petrol to 8 litres 70 *ml* and 4 litres petrol.

	litre	*ml*
	1	
	14	700
+	8	070
+	4	000
	26	770

Answer : 26 litres 770 *ml*

Practice 1

1. Add the following :

(1) 22 litres and 24 litres

(2) 55 *ml* and 78 *ml*

(3) 180 litres and 290 litres

(4) 326 *ml* and 500 *ml*

2. Add the following :

(1) 230 litres 600 *ml* and 206 litres 350 *ml*

(2) 340 litres and 370 litres 780 *ml*

3. Add the following :

(1)
$$\begin{array}{rl} & 85 \text{ litres kerosene} \\ + & 98 \text{ litres kerosene} \\ \hline & \end{array}$$

(2)
$$\begin{array}{rl} & 426 \text{ litres petrol} \\ + & 338 \text{ litres petrol} \\ \hline & \end{array}$$

(3)

	litre	*ml*	
	8	340	petrol
+	13	500	petrol
+	6	400	petrol

(4)

	litre	*ml*	
	128	400	milk
+	207	000	milk
+	127	251	milk

Subtraction of capacity :

Example 2 : Calculate the following sums :

(1) Subtract 47 litres from 86 litres

$$\begin{array}{rl} & \overset{7}{\cancel{8}}\,\overset{16}{\cancel{6}} \text{ litres} \\ - & 4\ 7 \text{ litres} \\ \hline & 3\ 9 \text{ litres} \end{array}$$

Answer : 39 litres

(2) Subtract 359 *ml* from 456 *ml*

$$\begin{array}{rl} & \overset{14}{\cancel{3}}\,\overset{16}{\cancel{4}}\,\overset{}{\cancel{5}\,\cancel{6}} \text{ ml} \\ - & 3\ 5\ 9 \text{ ml} \\ \hline & 0\ 9\ 7 \text{ ml} \end{array}$$

Answer : 97 *ml*

(3) Subtract 76 litres from 450 litres

14
3 $\not{4}$ 10
$\not{4}$ $\not{5}$ $\not{0}$ litres milk
– 7 6 litres milk
3 7 4 litres milk

Answer : 374 litres

(4) Subtract 445 litres 670 *ml* diesel from 560 litres 700 *ml* diesel

litre	*ml*
5 10	6 10
5 $\not{6}$ 0	$\not{7}$ 0 0
– 4 4 5	6 7 0
1 1 5	0 3 0

Answer : 115 litres 30 *ml*

Practice 2

1. Subtract the following :

(1) 47 litres from 76 litres

(2) 209 litres from 280 litres

2. Subtract the following :

(1) 330 *ml* from 740 *ml*

(2) 37 *ml* from 486 *ml*

3. Subtract the following :

(1)
893 litres water
– 206 litres water

(2)

litre	*ml*	
6	700	petrol
– 4	280	petrol

(3)

litre	*ml*	
47	826	milk
– 36	275	milk

(4)

litre	*ml*	
375	600	kerosene
– 196	350	kerosene

4. Subtract the following :

(1) 146 litres 376 *ml* from 470 litres 825 *ml*

(2) 168 litres from 416 litres 890 *ml*

Exercise

1. Add the following :

(1)

	327	litres
+	185	litres

(2)

	476	*ml*
+	280	*ml*

(3)

	litre	*ml*
	4	376
+	18	435

2. Subtract the following :

(1)

	860	litres
–	386	litres

(2)

	900	*ml*
–	376	*ml*

(3)

	litre	*ml*
	34	800
–	9	000

3. Add the following :

(1)

	litre	*ml*	
	7	350	milk
+	19	430	milk
+	8	550	milk

(2)

	litre	*ml*	
	40	360	milk
+	25	300	milk
+	16	000	milk

4. Subtract the following :

(1)

	litre	*ml*	
	18	950	kerosene
–	9	500	kerosene

(2)

	litre	*ml*	
	760	500	water
–	289	325	water

5. Observe and write :

- I want to purchase some items for ₹ 31. Which items can be purchased ? How much quantity of liquid can be purchased ?
- I want to purchase some items of capacity of 950 *ml* in all. Which items can I purchase ? _____
- I purchase a bag of milk and a bag of ghee. How much of liquid I get ? _____ . How much money do I pay ? _____
- How much millilitre of liquid is more in the water-bottle as compared to the coconut oil bottle ? _____
- If I purchase 4 pouches of 250 *ml* water for my four friends, then how much of water do I have ? _____ . How much money do I pay ? _____

Answers

Practice 1

1. (1) 46 litres (2) 133 *ml* (3) 470 litres (4) 826 *ml*

2. (1) 436 litres 950 *ml* (2) 710 litres 780 *ml*

3. (1) 183 litres (2) 764 litres (3) 28 litres 240 *ml* (4) 462 litres 651 *ml*

Practice 2

1. (1) 29 litres (2) 71 litres

2. (1) 410 *ml* (2) 449 *ml*

3. (1) 687 litres (2) 2 litres 420 *ml*

(3) 11 litres 551 *ml* (4) 179 litres 250 *ml*

4. (1) 324 litres 449 *ml* (2) 248 litres 890 *ml*

Exercise

1. (1) 512 litres (2) 756 *ml* (3) 22 litres 811 *ml*

2. (1) 474 litres (2) 524 *ml* (3) 25 litres 800 *ml*

3. (1) 35 litres 330 *ml* (2) 81 litres 660 *ml*

4. (1) 9 litres 450 *ml* (2) 471 litres 175 *ml*

Revision : 4

1. Fill in the blanks :

(1) _____ month has only 28 or 29 days.

(2) November has _____ days.

(3) Independence day comes in the month of _____ .

(4) Republic day comes in the month of _____ .

(5) 5 ÷ 5 = _____

(6) 9 ÷ 1 = _____

(7) 7 can be subtracted at most _____ times from 35.

(8) 48 chocolates are to be distributed equally between six friends. Each friend gets _____ chocolates.

2. Fill in the gaps by choosing an appropriate option :

(1) _____ is the smallest unit of capacity out of given options.

(a) litre (b) millilitre (c) centimeter (d) meter

(2) _____ is the largest unit of capacity out of given options.

(a) meter (b) centimeter (c) litre (d) millilitre

(3) 1 litre = _____ millilitres.

(a) 100 (b) 1 (c) 10 (d) 1000

(4) 7 litres + 5 litres = _____ .

(a) 12 millilitres (b) 2 litres (c) 12 litres (d) 12 metres

(5) 600 millilitres – 200 millilitres = _____ .

(a) 400 millilitres (b) 800 millilitres

(c) 400 litres (d) 400 meters

3. Write the name of the months having exactly 30 days :

(1) _____ (2) _____ (3) _____ (4) _____

4. Make (●) on the correct option :

(1) 1 kilogram means ?

( ) 1000 *gm* ( ) 1 *gm* ( ) 100 *gm* ( ) 1000 *kg*

(2) What is the short form of kilogram ?

( ) *kg* ( ) kilogram ( ) *gm* ( ) kilo and gram

(3) Which one is the smallest unit of weight ?

( ) kilogram ( ) gram ( ) kilo ( ) gramkilo

(4) 300 *gm* + 250 *gm* = _____ .

( ) 300 *gm* ( ) 250 *gm* ( ) 500 *gm* ( ) 550 *gm*

5. Calculate the following sums :

(1)

hours	minutes
9	45
+ 4	10

(2)

hours	minutes
12	35
+ 2	05

(3)

hours	minutes
17	30
+ 8	20

(4)

hours	minutes
5	15
+ 7	25

(5)

hours	minutes
10	18
+ 9	35

(6)

hours	minutes
9	22
+ 6	37

(7)

metre	*cm*
54	68
+ 15	36

(8)

metre	*cm*
25	56
+ 56	71

(9)

litre	*ml*
5	600
+ 7	300
+ 3	500

(10)

litre	*ml*
22	500
+ 3	050
+ 4	000

(11)

kg	*gm*
240	600
+ 315	000

(12)

kg	*gm*
575	130
+ 205	855

(13)

kg	*gm*
65	250
+ 268	425

(14)

kg	*gm*
109	545
+ 701	160

6. Subtract the following :

(1)

metre	*cm*
29	35
– 24	18

(2)

metre	*cm*
80	54
– 35	28

(3)

kg	*gm*
75	195
– 55	135

(4)

kg	*gm*
832	550
– 265	275

(5)

kg	*gm*
200	300
– 172	150

(6)

kg	*gm*
945	490
– 777	385

(7)

litre	*ml*
58	325
– 25	500

(8)

litre	*ml*
563	600
– 185	250

7. Divide the following :

(1) 56 ÷ 8 (2) 228 ÷ 2 (3) 356 ÷ 4 (4) 203 ÷ 7

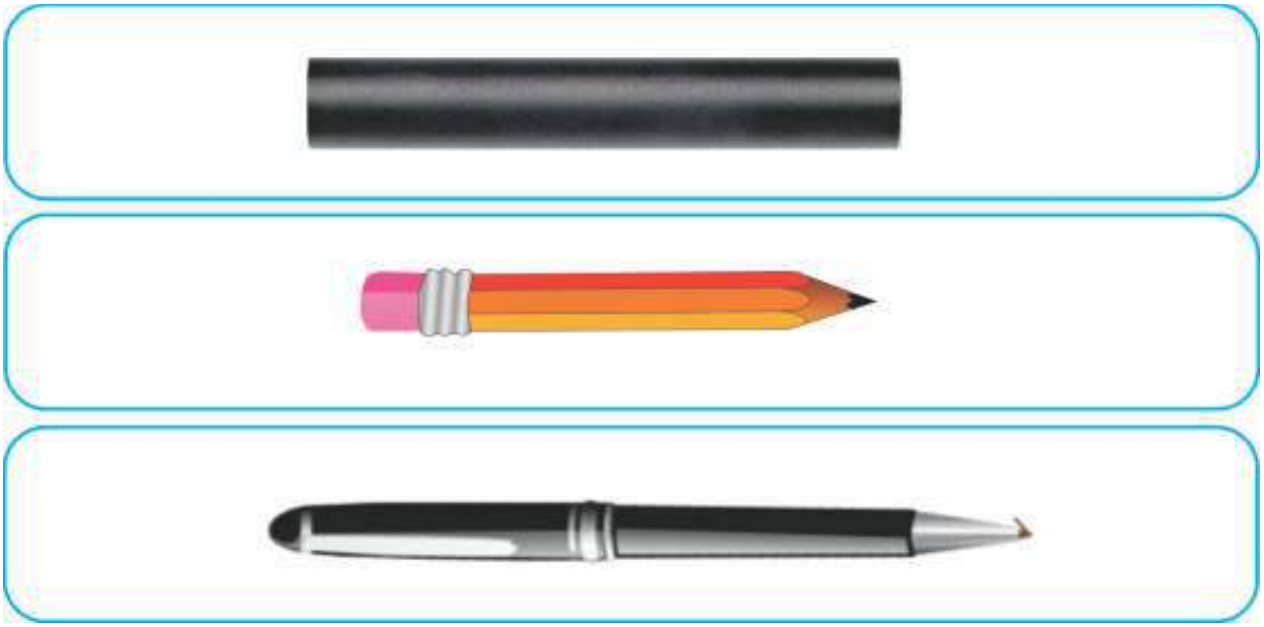
8. How many currency notes of ₹ 5 gives ₹ 45 ?

9. How many rickshaws make a total of 27 wheels ?

10. Give the change of ₹ 10 by different denomination with minimum one coin each of 50 paise, ₹ 1, ₹ 2 and ₹ 5.

11. Give the change of ₹ 20 in which the coins are of the same amount. (e.g. 10 coins of ₹ 2)

12. Measure and give the answers :



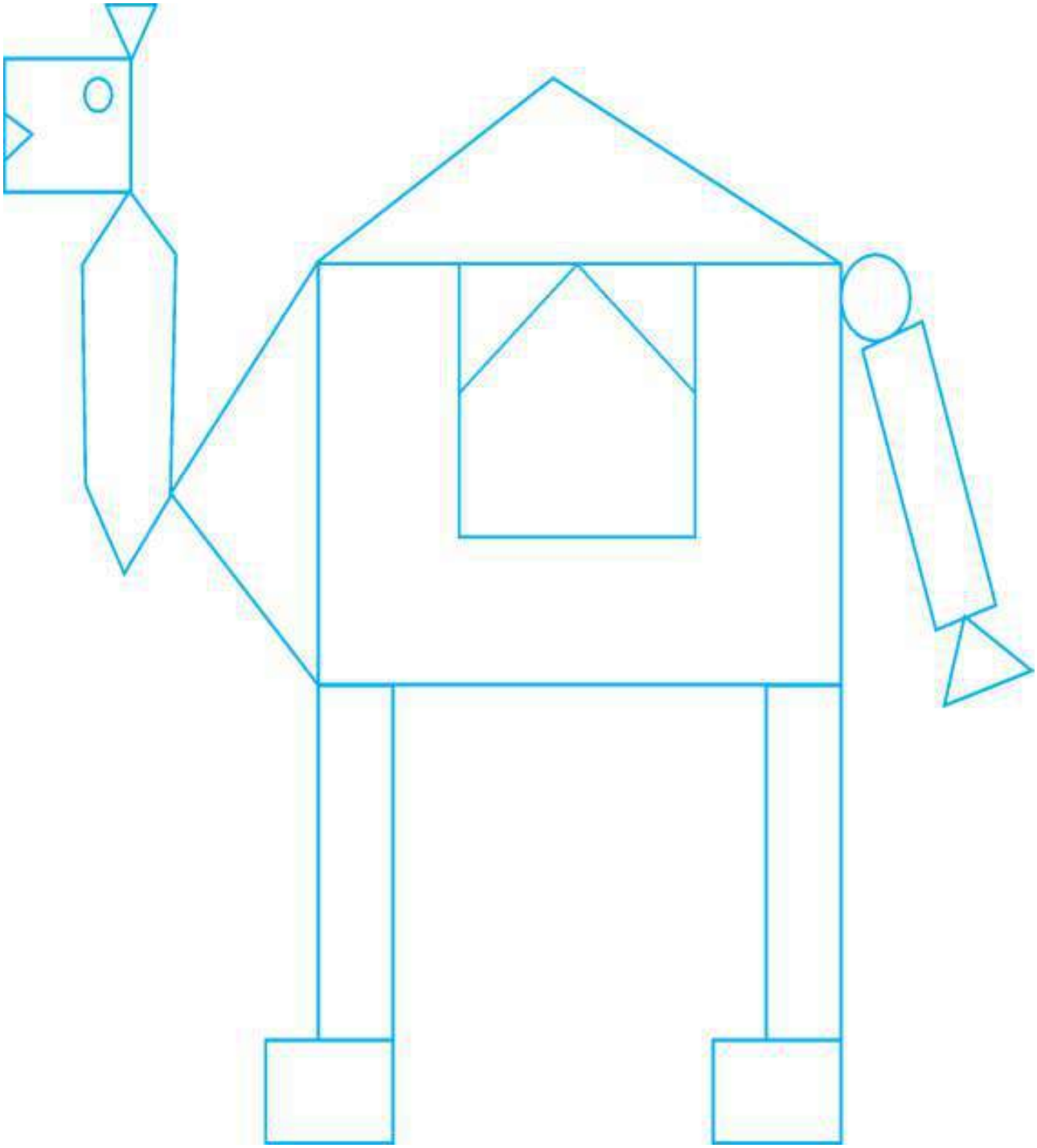
(1) The length of the iron rod is _____ *cm*.

(2) The length of the pencil is _____ *cm*.

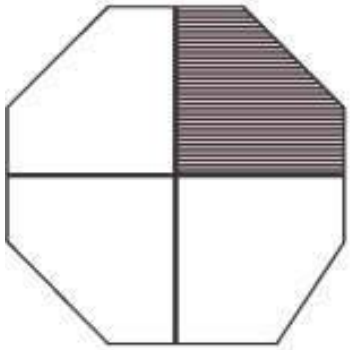
(3) The length of the ball-pen is _____ *cm*.

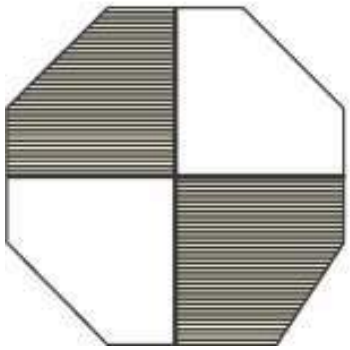
13. Fill in the colours in the following figure as per instruction :

Triangle - Red colour
Square - Yellow colour
Hexagon - Blue colour
Circle - Green colour
Pentagon - Saffron colour
Rectangle - Pink colour



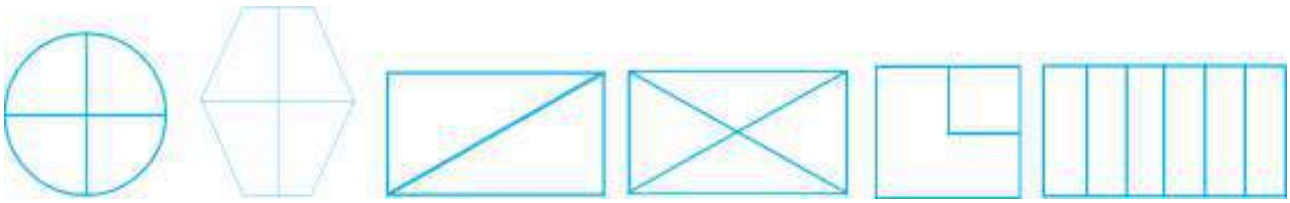
14. Match the shaded region with the correct option :





One-fourth	$\frac{1}{2}$
One-half	$\frac{1}{4}$
Three-fourth	$\frac{3}{4}$

15. Fill in the colour in the following figure as per mentioned fraction :



$\frac{1}{4}$ $\frac{3}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{3}{4}$ $\frac{1}{2}$

Answers

1. (1) February (2) 30 (3) August (4) January
(5) 1 (6) 9 (7) 5 (8) 8

2. (1) millilitre (2) litre (3) 1000 (4) 12 litres (5) 400 millilitres

3. April, June, September, November

4. (1) 1000 *gm* (2) *kg* (3) *gm* (4) 550 *gm*

5. (1) 13 hours 55 minutes (2) 14 hours 40 minutes
(3) 25 hours 50 minutes (4) 12 hours 40 minutes
(5) 19 hours 53 minutes (6) 15 hours 59 minutes
(7) 70 *meters* 04 *cm* (8) 82 *meters* 27 *cm*
(9) 16 litres 400 *ml* (10) 29 litres 550 *ml*
(11) 555 *kg* 600 *gm* (12) 780 *kg* 985 *gm*
(13) 333 *kg* 675 *gm* (14) 810 *kg* 705 *gm*

6. (1) 5 *meters* 17 *cm* (2) 45 *meters* 26 *cm*
(3) 20 *kg* 60 *gm* (4) 567 *kg* 275 *gm*
(5) 28 *kg* 150 *gm* (6) 168 *kg* 105 *gm*
(7) 32 litres 825 *ml* (8) 378 litres 350 *ml*

7. (1) 7 (2) 114 (3) 89 (4) 29

8. 9 notes **9.** 9 rickshaws

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