



Skillment

MATHEMATICS

A Multi-skill Activity Book on Mathematics

FS-5
Class - 2



PMP Planet[®]
Multimedia Publishers
The Ultimate Resource

PM PUBLISHERS PVT. LTD.

Skillment Mathematics – FS 5 (Class - 2)

PMP Editorial Team

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ISBN : 978-93-94820-51-7

First Edition : 2023

Price : ₹ 547/-

Printed at :

Published in India by :



PM PUBLISHERS PVT. LTD.

C-55, Sector-65, NOIDA, Gautam Budh Nagar-201301 (U.P.), India

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URL: www.pmpublishers.in

Preface

With a vision of making quality education accessible to all from the Foundational Stage to Secondary Stage of schooling, the **National Education Policy (NEP) 2020** has issued a new pedagogical and academic structure. The new pedagogical and academic structure has been divided into four stages as mentioned below:

Foundational Stage (5 years): Nursery, LKG, UKG, Std. 1 and Std. 2	(3-8 years)
Preparatory Stage (3 years): Std. 3, Std. 4 and Std. 5	(8-11 years)
Middle Stage (3 years): Std. 6, Std. 7 and Std. 8	(11-14 years)
Secondary Stage (4 years): Std. 9, Std. 10, Std. 11 and Std. 12	(14-18 years)

In the new 5+3+3+4 structure, a strong base of **Early Childhood Care and Education (ECCE)** from age 3 is also included.

The overall aim of Early Childhood Care and Education (ECCE) is to attain optimal outcomes in the following domains:

- ✓ Physical and motor development
- ✓ Cognitive development
- ✓ Social-emotional-ethical development
- ✓ Cultural/Artistic development
- ✓ Development of communication and early language, literacy, and numeracy

Our new series, **Skillment**, is properly graded and contains age-appropriate course material for the learners of Foundational Stage to achieve the aims and objectives outlined in the **National Curriculum Framework (NCF) for Foundational Stage 2022**. The series covers different subjects which are classified under the following categories:

FS 1 (3+ years): Maths, English, EVS, Hindi, Art and Craft, Kavitayen aur Kahaniyan, Rhymes and Stories

FS 2 (4+ years): Maths, English, EVS, Hindi, Art and Craft, Kavitayen aur Kahaniyan, Rhymes and Stories

FS 3 (5+ years): Maths, English, EVS, Hindi, Art and Craft, Kavitayen aur Kahaniyan, Rhymes and Stories

FS 4 (6+ years): Maths, English, EVS, Hindi, English Grammar, Art and Craft, Computer and GK

FS 5 (7+ years): Maths, English, EVS, Hindi, English Grammar, Art and Craft, Computer and GK

Apart from the main books, we are also providing **Workbooks** with Maths, English, EVS and Hindi to learners for extra practice.

The whole set of books for each class also carries a **Teacher's Resource Kit** which contains various kinds of relevant and interesting teaching aid that teachers may use in the classroom.

A **booklet on Social and Emotional Learning (SEL)** including lesson plans is provided for the teachers to inculcate SEL skills in the learners.

Skillment App is for skill building and joyful teaching and learning for teachers and learners.

Web Support

Our web portal pmponline.co.in provides a vital web support to teachers and learners. It includes the following:

- ◆ **Multimedia ebooks:** consist of animation, audio, video, and interactive exercises
- ◆ **Additional worksheets:** printable worksheets for extra practice
- ◆ **Teacher's resource:** comprises lesson plans
- ◆ **Virtual lessons:** consist of pre-recorded video lessons
- ◆ **AR (Augmented Reality) App both for android and iOS:** turns books into smart books with better visualisation and concept clarity

It is a concerted attempt to make the series more useful for the teachers, parents and kids. We hope this series will be quite helpful in achieving the goals set by the NEP 2020. However, we shall appreciate valuable and constructive feedback from teachers and parents to improve the books with every new edition.

—Publishers



Features of Skillment Mathematics



Skillment Mathematics series adheres to the guidelines issued under Early Childhood Care and Education mentioned in the National Education Policy 2020 and subsequently in the National Curriculum Framework (NCF) for Foundational Stage 2022.

Aims of Early Childhood Care and Education (ECCE)

- ✓ Physical and motor development
- ✓ Cognitive development
- ✓ Social-emotional and ethical development
- ✓ Cultural/artistic development
- ✓ Development of communication and early language, literacy, and numeracy

Important Features to meet the aims and objectives of ECCE

Numbers up to 200

In Class-1, you studied numbers up to 100. Let us revise these numbers and get ready to study numbers up to 200.

Get Ready

- Represent the following numbers on abacus.

a) 25	b) 48	c) 76
-------	-------	-------
- Write the following numbers in tens and ones.

a) 36 =	3 tens and 6 ones
b) 44 =	
c) 59 =	
d) 80 =	
- Match the numbers with number names.

a) 27	i) Forty-eight
b) 48	ii) Seventy-five
c) 64	iii) Ninety-six
d) 75	iv) Twenty-seven
e) 96	v) Sixty-four

Get Ready to draw attention of the students to the topic

Quick Response

- Write the following in expanded form.

a) 105 =	e) 117 =
b) 128 =	f) 136 =
c) 149 =	g) 160 =
d) 181 =	h) 199 =
- Write the following in short form.

a) 100 + 4 =	e) 100 + 50 + 1 =
b) 100 + 30 + 7 =	f) 100 + 70 + 4 =
c) 100 + 50 + 9 =	g) 100 + 80 + 9 =
d) 100 + 60 =	h) 100 + 90 =

Comparing Numbers

- A 3-digit number is always greater than a 2-digit number.
Example: 107 > 84 112 > 99 125 > 87
- If both the numbers are of 3-digit then follow the given steps.
Example: Compare 200 and 164

Compare the hundreds digits first. The number with more hundreds is greater.
So, 200 > 164.

Quick Response for topic-wise assessment to test the attentiveness of the students

Chapter Review

- Write the following in numbers.
 - One hundred sixty-four
 - One hundred eighty-nine
- Write the following in words.
 - 156 =
 - 177 =
- Write the place value and face value of the circled digits.

a) $\overset{\text{Place Value}}{1}\overset{\text{Face Value}}{2}5 =$	b) $1\overset{\text{Place Value}}{0}\overset{\text{Face Value}}{4} =$
c) $\overset{\text{Place Value}}{1}\overset{\text{Face Value}}{7}6 =$	d) $1\overset{\text{Place Value}}{9}\overset{\text{Face Value}}{8} =$
- Write the following in expanded form.
 - 137 =
 - 160 =
- Write the following in short form.
 - $100 + 7 =$
 - $100 + 50 + 5 =$
- Put <, > or = in the boxes.
 - 105 117
 - 98 100
 - 128 128
 - 167 129
 - 115 135
 - 196 191
- Write the following in ascending order.
 - 125, 101, 98, 117 =
 - 195, 187, 198, 185 =

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Chapter Review for the assessment of whole chapter

TEACHER'S OBSERVATION REPORT

Continuous observation of children's progress by the teacher is an important aspect of NIPUN BHARAT. We can assess a child's development in different skills by closely observing them throughout the academic year. Here is a chart to be filled in by the teacher. The chart will be helpful for the parents also to help and guide their children accordingly.

Sl.No.	Area of Observation	Requires attention/assistance from teacher	Able to complete tasks with little assistance	Able to complete tasks without assistance	Handwritten	Remarks
1.	Physical and Motor Skill					
2.	Cognitive Skill					
3.	Social-emotional Skill					
4.	Cultural/Artistic Skill					
5.	Communication and early language skill					
6.	Literacy skill					
7.	Technology Skill					

Maths PS-2

Teacher's Observation Report to record the learner's progress in different aspects of learning

Critical Thinking

Look at the given data and the pictograph based on it. There is a mistake in the pictograph. Find the mistake.

Sport	Number of Students	Sport	Number of Students
Cricket	3	Cricket	3
Football	6	Football	6
Badminton	4	Badminton	4
Hockey	2	Hockey	2

Maths Lab Activity

Experiential Learning

Objective
To reinforce the concept of data handling

Material Required
A pencil, paper, etc.

Method

- Ask any of your 4 friends about the number of their family members.
- Make a table on a paper.
- Draw as many stars as the number of members in each family.

Name	No. of members

Communication Skill

Given below is a table showing the number of road accidents that occurred in a city in different seasons.

Season	Rainy	Winter
	24	36

Can you tell why most number of accidents occur in the rainy season?
Talk about it in the class.

Social-Emotional Learning

Aarav's father has bought him a pizza. Meanwhile, two of his friends come to meet him. Should Aarav share pizza with them? What part of pizza should Aarav share with them so that each of them gets equal part?

SDG

Cleanliness of our neighbourhood is very important because it makes our surroundings beautiful. Moreover, we can prevent many diseases by keeping our neighbourhood clean. In a locality, the people have planned to install a dustbin in front of every tooth house. If there are 120 houses in the neighbourhood, how many dustbins are required?
How can you help in keeping your neighbourhood clean?

Art Integration

Many families in India make rangoli at their homes on festivals. Making a rangoli is an art. Make a design of rangoli on a chart paper and fill crayon colours in it. Display it in your classroom.

Life Skill

Apart from main food items, Aditi consumes 50 grams of fruits, 20 grams of butter and 100 grams of vegetables every day. Find the total quantity of fruits, butter and vegetables.

Language Skill

Time is precious. We should not waste it. Instead we should use time for some constructive work. Write about any constructive activity that you do on holidays in your notebook.

As per NEP 2020 guidelines we have included some other important features in our book that include Cross Curricular, Social-emotional Learning, Art Integration, Critical Thinking and SDG (Sustainable Development Goals).

Detailed Contents

Chapter-1	7
Numbers up to 200	
<ul style="list-style-type: none">• Understanding 1 Hundred• Forming Numbers Beyond 100• Reading Numbers Beyond 100• Place Value and Face Value• Expanded Form of Numbers• Short Form of Numbers• Comparing Numbers• Odd and Even Numbers• Cardinal Numbers and Ordinal Numbers	
Chapter-2	23
Addition	
<ul style="list-style-type: none">• Addition of Two 2-digit Numbers (without carry over)• Addition Facts• Regrouping of Ones• Addition of Two 2-digit Numbers (with regrouping/carry over)• Addition of Three 3-digit Numbers (with carry over)• Word Problems	
Chapter-3	33
Subtraction	
<ul style="list-style-type: none">• Subtraction of Two 2-digit Numbers (without borrowing)• Subtraction Facts• Subtraction of 2-digit Numbers (with borrowing)• Checking Subtraction using Addition• Word Problems	
Chapter-4	43
Multiplication	
<ul style="list-style-type: none">• Building the Tables• Vertical Multiplication• Multiplication Facts• Order of Numbers• Multiplication on the Number Line• Multiplication of a 2-digit Number by a 1-digit Number• Multiplication of a 2-digit Number by a 1-digit number by Regrouping or Carrying Over• Word Problems	
Chapter-5	60
Division	
<ul style="list-style-type: none">• Equal Distribution• Division as Repeated Subtraction• Division as Repeated Subtraction on the Number Line• Multiplication and Division are Related• Some more Division Facts• Long Division Method• Word Problems	
Chapter-6	72
Numbers up to 1000	
<ul style="list-style-type: none">• Number in Hundreds• Building Numbers up to 1000• Reading and Writing 3-digit Numbers• Before, After and Between• Place Value and Face Value• Expanded Form of Numbers• Short Form or Standard Form of Numbers• Comparison of Numbers• Formation of the Largest and the Smallest Number	
Model Test Paper-I	91
Chapter-7	93
Addition and Subtraction	
<ul style="list-style-type: none">• Addition of 2-digit and 3-digit Numbers (without carrying)• Addition of Two 3-digit Numbers (without carrying)• Addition of Two 3-digit Numbers (with carrying)• Word Problems• Subtraction of a 2-digit Number from a 3-digit Number (without regrouping)• Subtraction of Two 3-digit Numbers (without regrouping)• Subtraction with Regrouping• Checking Subtraction by Addition• Word Problems	
Chapter-8	110
Fractions	
<ul style="list-style-type: none">• Half• One-third• One-fourth• three-fourths	
Chapter-9	115
Measurement	
<ul style="list-style-type: none">• Measurement of Length• Measurement of Weight• Measurement of Capacity• Addition and Subtraction of Length• Addition and Subtraction of Weight• Addition and Subtraction of Capacity	
Chapter-10	129
Money	
<ul style="list-style-type: none">• Indian Currency• Reading and Writing Money• Addition of Money• Addition and Subtraction of Rupees and Paise• Word Problems	
Chapter-11	137
Time	
<ul style="list-style-type: none">• Reading and Writing the Time• Reading Time by Half Past• Reading Time by Quarter Past• Reading Time by Quarter to• Days of the Week• Months of the Year• Knuckle Rule for Finding Number of Days• Calendar• Seasons/Ritus	
Chapter-12	149
Shapes and Patterns	
<ul style="list-style-type: none">• More about Plane Shapes• Straight Lines and Curved Lines• Types of Straight Lines• Solid Shapes (3D shapes)• Patterns• Patterns in Alphabetic Letters• Patterns in Numbers	
Chapter-13	160
Data Handling	
<ul style="list-style-type: none">• Reading the Data	
Model Test Paper-II	168



Numbers up to 200

In Class-1, you studied numbers up to 100. Let us revise these numbers and get ready to study numbers up to 200.



Get Ready

1. Represent the following numbers on abacus.

a) 25 T O b) 48 T O c) 74 T O

2. Write the following numbers in tens and ones.

a) 36 = 3 tens and 6 ones

b) 44 = _____

c) 59 = _____

d) 80 = _____

3. Match the numbers with number names.

a) 27	i) Forty-eight
b) 48	ii) Seventy-five
c) 64	iii) Ninety-six
d) 75	iv) Twenty-seven
e) 96	v) Sixty-four



4. Put the sign $<$, $>$, or $=$ in the boxes.

a)	39 <input type="text"/> 42	b)	54 <input type="text"/> 60	c)	84 <input type="text"/> 59	d)	40 <input type="text"/> 60
	28 <input type="text"/> 28		74 <input type="text"/> 37		96 <input type="text"/> 92		85 <input type="text"/> 84

5. Write the following in ascending order.

a)	45	64	39	55	—	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
b)	82	86	99	94	—	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
c)	59	34	22	60	—	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
d)	35	54	59	37	—	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

6. Write the following in descending order.

a)	38	22	56	93	—	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
b)	82	44	69	76	—	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
c)	72	79	86	85	—	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
d)	52	67	58	69	—	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

7. Complete the numbers from 1 to 100.

1			4			8		10
	12				16			19
21				25				
		33				37		40
	42			45			48	
		53			56			59
61						67		70
	72			75			78	
81			84					89
	92				96			100

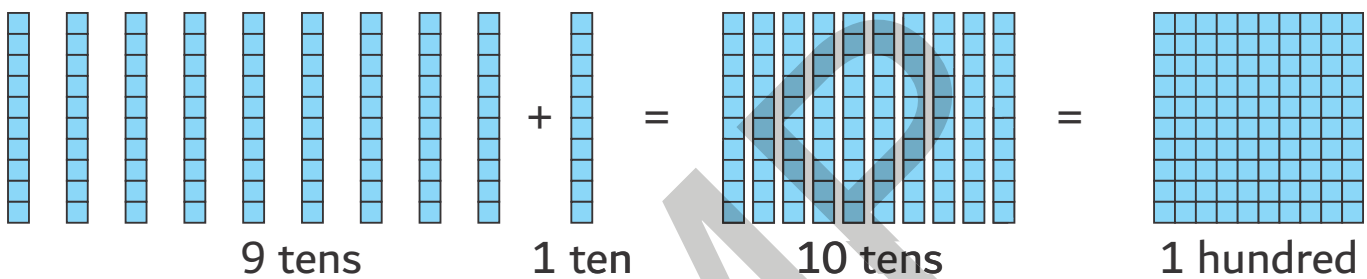
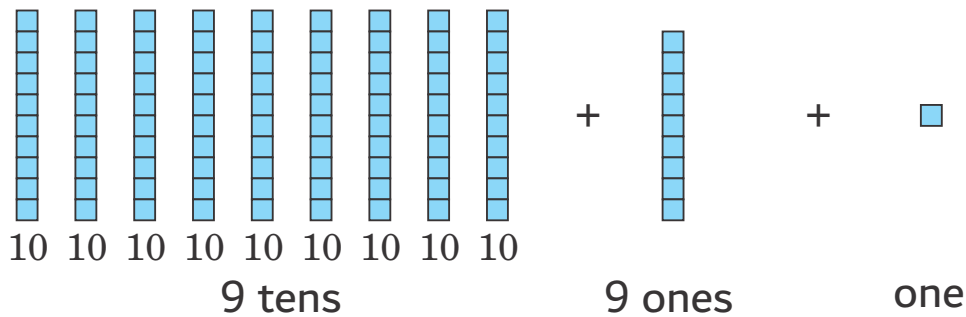


Understanding 1 Hundred

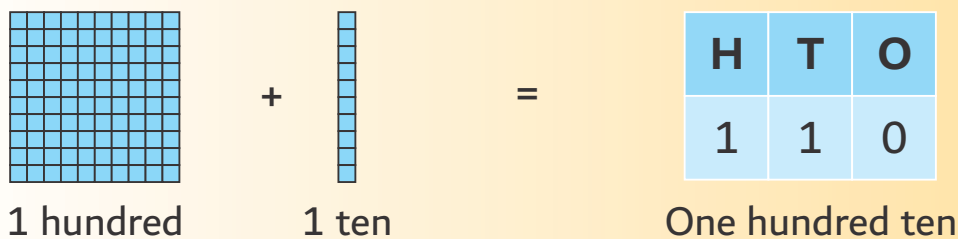
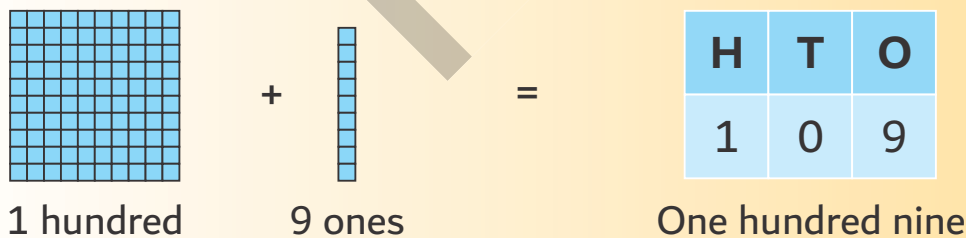
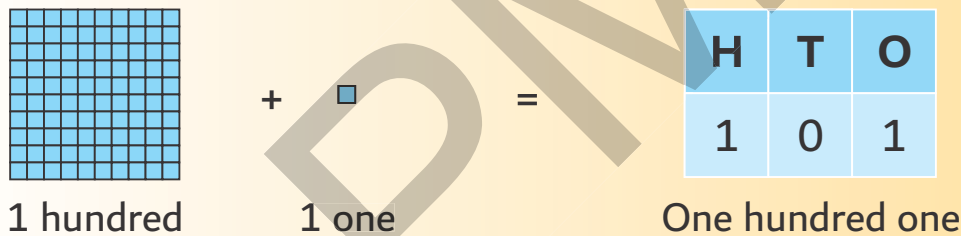
In Class-1, you studied about number 100.

99 is the greatest 2-digit number.

$$99 + 1 = 100$$

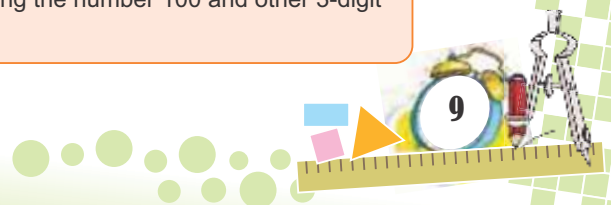


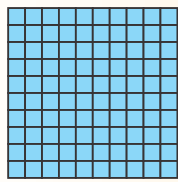
Forming Numbers Beyond 100



For Teachers

The teacher may use an abacus while introducing the number 100 and other 3-digit numbers.





1 hundred

+



2 tens

+

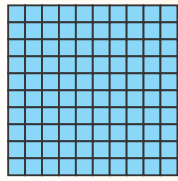


1 one

=

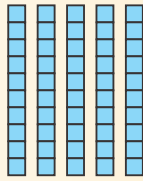
H	T	O
1	2	1

One hundred twenty-one



1 hundred

+



5 tens

+

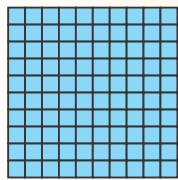


4 ones

=

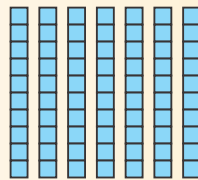
H	T	O
1	5	4

One hundred fifty-four



1 hundred

+



7 tens

+

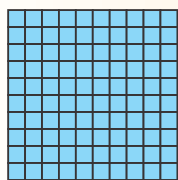


6 ones

=

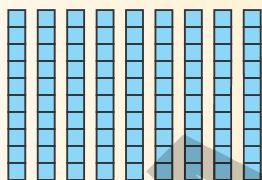
H	T	O
1	7	6

One hundred seventy-six



1 hundred

+



9 tens

+

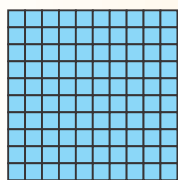


9 ones

=

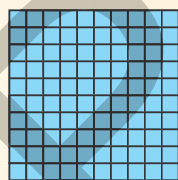
H	T	O
1	9	9

One hundred ninety-nine



1 hundred

+



1 hundred

=

H	T	O
2	0	0

Two hundred

Reading Numbers Beyond 100

To read a 3-digit number, first read the digit at hundreds place, followed by last two digits.

Examples:

$\begin{array}{c} 1 \\ \downarrow \\ \text{One hundred} \end{array}$
 $\begin{array}{c} 2 \quad 5 \\ \downarrow \\ \text{twenty-five} \end{array}$

$\begin{array}{c} 1 \\ \downarrow \\ \text{One hundred} \end{array}$
 $\begin{array}{c} 8 \quad 4 \\ \downarrow \\ \text{eighty-four} \end{array}$





Quick Response 1.1

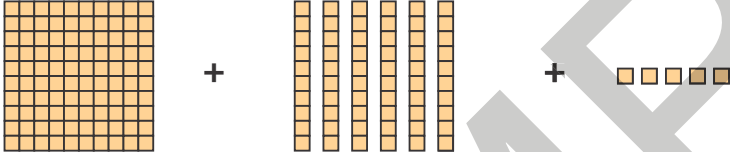
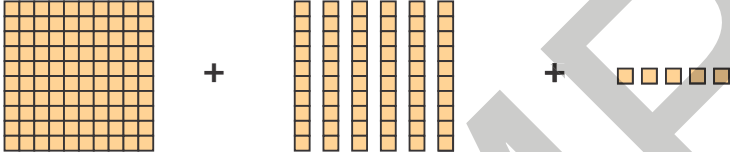

1. Say the number aloud as you write them.

a)  $+$  $+$ 

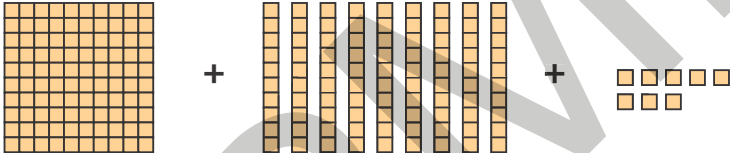
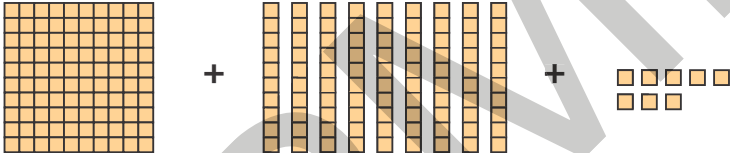

H	T	O

b)  $+$  $+$ 

H	T	O

c)  $+$  $+$ 

H	T	O

d)  $+$  $+$ 

H	T	O

2. Write the missing numbers.

101				105					110
	112				116			119	
		123				127			130
131			134				138		
	142			145				149	
151		153			156				160
	162			165		167			
		173			176			179	
181			184			187			190
	192			195			198		



3. Write the following in numerals.

- a) One hundred twelve
- b) One hundred thirty-six
- c) One hundred forty-four
- d) One hundred eighty-four
- e) One hundred ninety-three



4. Write the following in words.

- a) 119 =
- b) 145 =
- c) 168 =
- d) 177 =
- e) 187 =



5. Write the number that comes after:

- a) 110
- b) 125
- c) 137
- d) 146
- e) 156
- f) 165
- g) 175
- h) 186

6. Write the number that comes before:

- a) 109
- b) 120
- c) 139
- d) 144
- e) 156
- f) 163
- g) 180
- h) 200

7. Write the number that comes between:

- a) 124 126
- b) 129 131
- c) 145 147
- d) 159 161
- e) 178 180
- f) 195 197



Place Value and Face Value

Place value decides the value of a digit according to its place in a number.

The face value of a digit for any place in the given number is the value of the digit itself.

Look at the following 2-digit number.

T	O
4	6

6 is at the ones place. So, its place value is $6 \times 1 = 6$. Its face value is 6.

4 is at the tens place. So, its place value is $4 \times 10 = 40$. Its face value is 4.

The place value of 0 is always zero.

Now, look at the following 3-digit number.

H	T	O
1	3	5

5 is at the ones place. So, its place value is $5 \times 1 = 5$. Its face value is 5.

3 is at the tens place. So, its place value is $3 \times 10 = 30$. Its face value is 3.

1 is at the hundreds place. So, its place value is $1 \times 100 = 100$. Its face value is 1.



Write the place value and face value of the following digits.

	Place Value	Face Value
1. 3 in 123	<input type="text"/>	<input type="text"/>
2. 4 in 145	<input type="text"/>	<input type="text"/>
3. 5 in 156	<input type="text"/>	<input type="text"/>
4. 7 in 117	<input type="text"/>	<input type="text"/>

	Place Value	Face Value
5. 1 in 172	<input type="text"/>	<input type="text"/>
6. 6 in 167	<input type="text"/>	<input type="text"/>
7. 1 in 198	<input type="text"/>	<input type="text"/>
8. 9 in 190	<input type="text"/>	<input type="text"/>

Expanded Form of Numbers

The expanded form of a number is given by the sum of the place values of its digits.

Example: Write 146 in expanded form.

Arrange the digits in a place value chart.

H	T	O
1	4	6

Place value of 6 is $6 \times 1 = 6$

Place value of 4 is $4 \times 10 = 40$

Place value of 1 is $1 \times 100 = 100$



So, the expanded form of $146 = 100 + 40 + 6$

Some more examples:

$$134 = 100 + 30 + 4$$

$$175 = 100 + 70 + 5$$

$$180 = 100 + 80$$

$$109 = 100 + 9$$

Short Form of Numbers

The short form of a number is given by combining the place value of each digit at the correct places.

Example: Write $100 + 50 + 8$ in short form.

$$100 + 50 + 8 = 158$$

H	T	O
1	5	8

8 means 8 ones. So, write 8 at the ones place.

50 means 5 tens. So, write 5 at the tens place.

100 means 1 hundred. So, write 1 at the hundreds place.

Some more examples:

$$100 + 7 = 107$$

$$100 + 20 + 6 = 126$$

$$100 + 80 = 180$$

$$100 + 40 + 5 = 145$$





Quick Response 1.3

1. Write the following in expanded form.

a) $105 =$

b) $128 =$

c) $149 =$

d) $181 =$

e) $117 =$

f) $136 =$

g) $160 =$

h) $199 =$

2. Write the following in short form.

a) $100 + 4 =$

b) $100 + 30 + 7 =$

c) $100 + 50 + 9 =$

d) $100 + 60 =$

e) $100 + 50 + 1 =$

f) $100 + 70 + 4 =$

g) $100 + 80 + 9 =$

h) $100 + 90 =$



Comparing Numbers

- A 3-digit number is always greater than a 2-digit number.

Examples:

$$107 > 84$$

$$112 > 99$$

$$125 > 87$$

- If both the numbers are of 3-digit then follow the given steps.

Example: Compare 200 and 164



Compare the hundreds digits first. The number with more hundreds is greater.

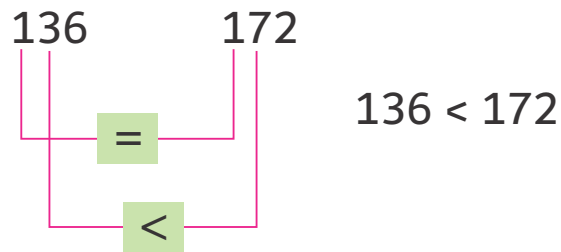
So, $200 > 164$.



⇒ If the digits at the hundreds place are the same, then compare the digits at the tens place.



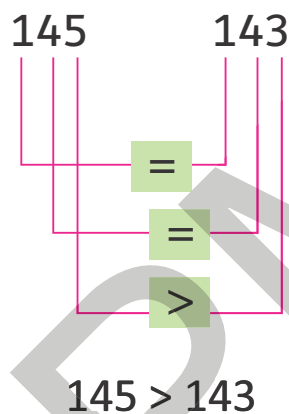
Example: Compare 136 and 172



The number with more tens is greater.
So, $136 < 172$.

⇒ If the digits at the hundreds place and the tens place are the same, then compare the digits at the ones place.

Example: Compare 145 and 143



The number with more ones is greater.
So, $145 > 143$.



Quick Response 1.4

1. Put the sign $>$, $<$ or $=$ in the boxes.

a) 107 117

e) 172 160

i) 134 134

b) 98 100

f) 125 57

j) 17 34

c) 154 154

g) 187 199

k) 107 119

d) 166 177

h) 151 105

l) 138 129



2. Write the following in ascending order.

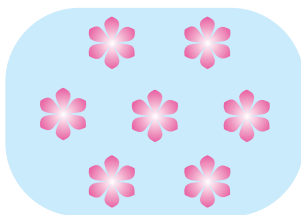
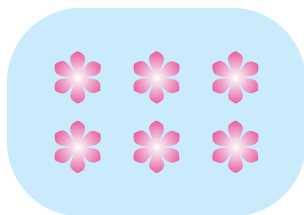
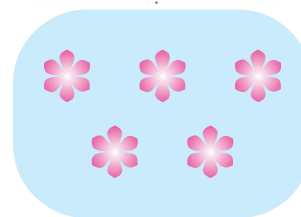
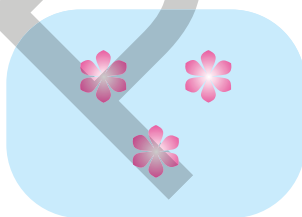
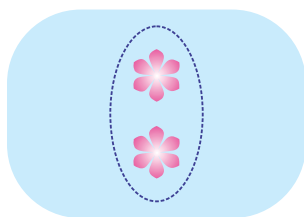
- a) 164, 114, 161, 152 =
- b) 172, 107, 171, 179 =
- c) 154, 70, 69, 175 =
- d) 189, 182, 196, 199 =

3. Write the following in descending order.

- a) 104, 114, 162, 153 =
- b) 119, 99, 67, 100 =
- c) 127, 181, 189, 134 =
- d) 154, 125, 153, 121 =

Odd and Even Numbers

Make pairs of the following things by circling two objects each time. One has been done.



The numbers which can be made into pairs are called **even numbers**.

For example: 2, 4, 6, 8, 10

The numbers which cannot be made into pairs are called **odd numbers**.

For example: 3, 5, 7, 9, 11

Even numbers have the digit 0, 2, 4, 6 or 8 in the ones place.


Odd numbers have the digit 1, 3, 5, 7 or 9 in the ones place.







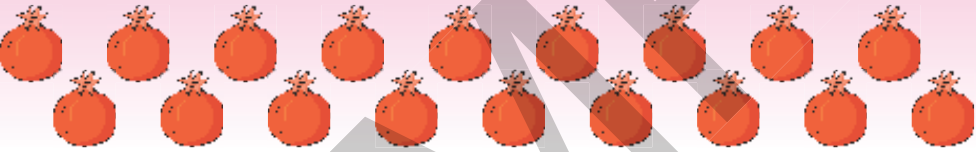
Quick Response 15


1. Make pairs of the following objects by circling two objects each time. Write whether the number is even or odd.

a) 

b) 

c) 

d) 

e) 

2. Circle the even numbers.

- a) 21 22 23 24 25 26
- b) 33 44 55 59 62 78
- c) 87 77 71 67 89 94
- d) 102 105 107 108 109 110
- e) 125 137 138 140 151 159



Cardinal Numbers and Ordinal Numbers

Numbers which are used to count are called **cardinal numbers**. For example: 1, 2, 3, 4, 5, 6, 7 and so on.

Numbers which are used to tell the position of something in a sequence are called **ordinal numbers**.

For example: 1st, 2nd, 3rd, 4th, 5th, 6th, 7th and so on.

Look at the position of these animals from left to right.



1st
First



2nd
Second



3rd
Third



4th
Fourth



5th
Fifth



6th
Sixth

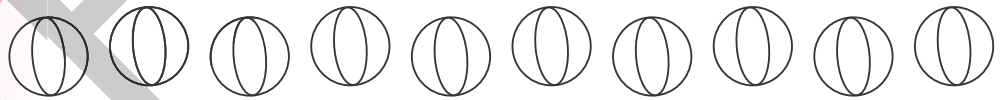


Colour the objects as directed in the box.

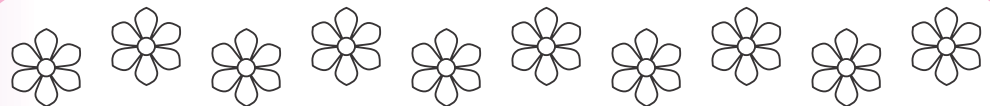
1. 3rd from left



2. 6th from right



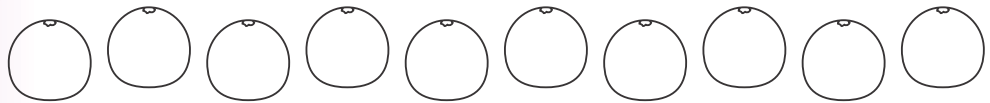
3. 8th from left



4. 9th from left

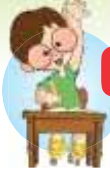


5. 7th from right



For Teachers

The teacher may form a group of ten students and organise a race competition in the playground. After the race is over, ask rest of the students to make a list of participants in order from 1st to 10th.



Chapter Review

1. Write the following in numbers.

a) One hundred sixty-four

b) One hundred eighty-nine

2. Write the following in words.

a) 156 =

b) 177 =

3. Write the place value and face value of the circled digits.

a) $1\textcircled{2}5$ =

Place Value	Face Value
<input type="text"/>	<input type="text"/>

b) $1\textcircled{0}4$ =

Place Value	Face Value
<input type="text"/>	<input type="text"/>

c) $\textcircled{1}76$ =

Place Value	Face Value
<input type="text"/>	<input type="text"/>

d) $19\textcircled{8}$ =

Place Value	Face Value
<input type="text"/>	<input type="text"/>

4. Write the following in expanded form.

a) 137 =

b) 160 =

5. Write the following in short form.

a) $100 + 7 =$

b) $100 + 50 + 5 =$

6. Put $<$, $>$ or $=$ in the boxes.

a) 105 117

b) 98 100

c) 128 128

d) 167 129

e) 115 135

f) 196 191

7. Write the following in ascending order.

a) 125, 101, 98, 117 =

b) 195, 187, 198, 185 =



8. Write the following in descending order.

a) 187, 84, 171, 117 =

b) 106, 195, 107, 197 =

9. Circle the odd numbers.

a) 5 13 21 37 56 91

b) 55 105 117 164 185 190



10. Circle the objects as directed in the boxes.

a) 4th
from left



b) 7th
from right



c) 8th
from left



d) 9th
from right



Critical Thinking

1. There are 12 children standing in a queue. If Kavya is standing at third position from the starting place, what is her position from the end?
2. Which of the following numbers will be the greatest if their ones and tens digits are interchanged?

109

116

125

192

186





Maths Lab Activity ■■■ Experiential Learning

Objective

To reinforce the concept of odd and even numbers

Material Required

A number grid showing numbers from 1 to 100.

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

Circle the number 1, skip one number and circle the number you get each time.

You will see that you have circled all the odd numbers up to 100.

All the rest of the numbers are even numbers.

Conclusion

After every odd number, there is an even number and after every even number, there is an odd number.

■■■ SDG

Cleanliness of our neighbourhood is very important because it makes our surroundings beautiful. Moreover, we can prevent many diseases by keeping our neighbourhood clean. In a locality, the people have planned to install a dustbin in front of every tenth house. If there are 120 houses in the neighbourhood, how many dustbins are required? _____

How can you help in keeping your neighbourhood clean? _____





Addition

When we put things together, we do addition. Plus '+' is the sign of addition. The numbers we add are called **addends**, and the answer we get is called the **sum**.



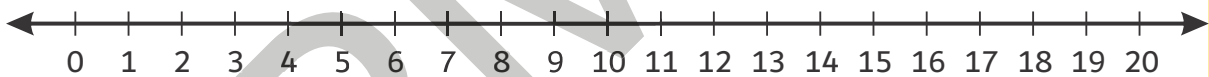
Get Ready

1. Add the following on the number line.

a) $3 + 7 = \square$



b) $15 + 4 = \square$



2. Add the following by counting forward.

a) $27 + 4 = \square$

b) $33 + 3 = \square$

c) $80 + 6 = \square$

d) $78 + 9 = \square$



3. Add the following. Regroup if required.

	T	O
	4	2
+	3	7

	T	O
	5	8
+	2	0

	T	O
	3	5
+	2	7

	T	O
	4	6
+	2	4



4. An egg seller sold 34 eggs in the morning and 24 eggs in the evening. How many eggs did he sell altogether?

+		



Addition of Two 2-digit Numbers (without carry over)

Example: Add 34 and 25.

Step-1: First add the ones.
 $4 + 5 = 9$. Write 9 under the ones column.

	T	O
	3	4
+	2	5
		9

We do not need to regroup if we get 9 or less than that.



Step-2: Now add the tens.
 $3 + 2 = 5$. Write 5 under the tens column.
 Thus, the sum is 59.

	T	O
	3	4
+	2	5
	5	9



Quick Response 21

Add the following.

1.

	T	O
	3	2
+	2	6

2.

	T	O
	4	5
+	3	2

3.

	T	O
	6	4
+	2	0

4.

	T	O
	3	8
+	4	1

5.

	T	O
	4	5
+	3	3

6.

	T	O
	5	4
+	0	4

7.

	T	O
	6	3
+	2	5

8.

	T	O
	7	6
+	1	2

9.

	T	O
	8	2
+	1	5

10.

	T	O
	7	1
+	2	8

11.

	T	O
	6	0
+	2	5

12.

	T	O
	7	4
+	2	3



Addition Facts

- When 0 is added to a number, the sum is the number itself.

Examples: $5 + 0 = 5$

$27 + 0 = 27$

$128 + 0 = 128$

- When 1 is added to a number, we get the next number.

Examples: $7 + 1 = 8$

$25 + 1 = 26$

$134 + 1 = 135$

- When the order of the addends is changed, the sum remains the same.

T	O
2	4
+ 3	2
5	6

T	O
3	2
+ 2	4
5	6

same sum

Adding $2 + 3$ is the same as adding $3 + 2$.



Change the order of the addends and find the sum.

1. $54 + 33$

T	O
5	4
+ 3	3

T	O
3	3
+ 5	4

2. $62 + 26$

T	O
6	2
+ 2	6

T	O
2	6
+ 6	2

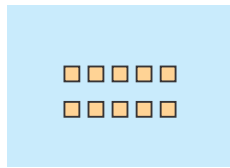


Regrouping of Ones

Regrouping means arranging the numbers to make addition/subtraction easier to solve.

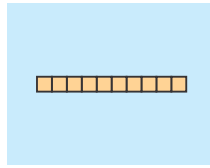
When we regroup ones, we arrange ones in tens and ones.

We know that,



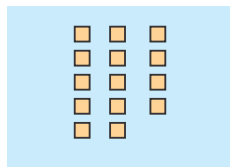
10 ones

=



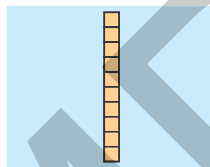
1 ten

and



14 ones

=



1 ten



4 ones



Quick Response 23

Regroup the following. One has been done for you.

- 2 tens 12 ones = 3 tens 2 ones
- 4 tens 15 ones = _____ tens _____ ones
- 3 tens 11 ones = _____ tens _____ one
- 5 tens 16 ones = _____ tens _____ ones
- 8 tens 17 ones = _____ tens _____ ones
- 6 tens 14 ones = _____ tens _____ ones



For Teachers

The teacher may use beads to help learners understand the concept of regrouping of ones.

Addition of Two 2-digit Numbers (with regrouping/carry over)

Example: Add 37 and 25.

Step-1: First add the ones.
 $7 + 5 = 12$
 12 ones means 1 ten and 2 ones.
 Write 2 in the ones column.
 Carry 1 ten to the tens column.

T	O
1	
3	7
2	5
	2

Step-2: Add the tens.
 $3 + 2 + 1$ (carried over) = 6 tens
 Write 6 under the tens column.
 Thus, the sum is 62.

T	O
1	
3	7
2	5
6	2



Quick Response 2.4



Add the following.

- | 1. | <table border="1"><tr><th>T</th><th>O</th></tr><tr><td>2</td><td>4</td></tr><tr><td>+</td><td>3</td></tr><tr><td></td><td>8</td></tr><tr><td></td><td></td></tr></table> | T | O | 2 | 4 | + | 3 | | 8 | | | 2. | <table border="1"><tr><th>T</th><th>O</th></tr><tr><td>3</td><td>7</td></tr><tr><td>+</td><td>3</td></tr><tr><td></td><td>5</td></tr><tr><td></td><td></td></tr></table> | T | O | 3 | 7 | + | 3 | | 5 | | | 3. | <table border="1"><tr><th>T</th><th>O</th></tr><tr><td>1</td><td>9</td></tr><tr><td>+</td><td>2</td></tr><tr><td></td><td>7</td></tr><tr><td></td><td></td></tr></table> | T | O | 1 | 9 | + | 2 | | 7 | | | 4. | <table border="1"><tr><th>T</th><th>O</th></tr><tr><td>3</td><td>9</td></tr><tr><td>+</td><td>0</td></tr><tr><td></td><td>9</td></tr><tr><td></td><td></td></tr></table> | T | O | 3 | 9 | + | 0 | | 9 | | | 5. | <table border="1"><tr><th>T</th><th>O</th></tr><tr><td>4</td><td>2</td></tr><tr><td>+</td><td>2</td></tr><tr><td></td><td>8</td></tr><tr><td></td><td></td></tr></table> | T | O | 4 | 2 | + | 2 | | 8 | | |
|-----|--|---|---|---|---|---|---|--|---|--|--|-----|--|---|---|---|---|---|---|--|---|--|--|-----|--|---|---|---|---|---|---|--|---|--|--|-----|--|---|---|---|---|---|---|--|---|--|--|-----|--|---|---|---|---|---|---|--|---|--|--|
| T | O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T | O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T | O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| T | O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T | O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | <table border="1"><tr><th>T</th><th>O</th></tr><tr><td>3</td><td>1</td></tr><tr><td>+</td><td>4</td></tr><tr><td></td><td>9</td></tr><tr><td></td><td></td></tr></table> | T | O | 3 | 1 | + | 4 | | 9 | | | 7. | <table border="1"><tr><th>T</th><th>O</th></tr><tr><td>4</td><td>3</td></tr><tr><td>+</td><td>2</td></tr><tr><td></td><td>9</td></tr><tr><td></td><td></td></tr></table> | T | O | 4 | 3 | + | 2 | | 9 | | | 8. | <table border="1"><tr><th>T</th><th>O</th></tr><tr><td>1</td><td>8</td></tr><tr><td>+</td><td>1</td></tr><tr><td></td><td>5</td></tr><tr><td></td><td></td></tr></table> | T | O | 1 | 8 | + | 1 | | 5 | | | 9. | <table border="1"><tr><th>T</th><th>O</th></tr><tr><td>4</td><td>2</td></tr><tr><td>+</td><td>1</td></tr><tr><td></td><td>9</td></tr><tr><td></td><td></td></tr></table> | T | O | 4 | 2 | + | 1 | | 9 | | | 10. | <table border="1"><tr><th>T</th><th>O</th></tr><tr><td>3</td><td>5</td></tr><tr><td>+</td><td>4</td></tr><tr><td></td><td>6</td></tr><tr><td></td><td></td></tr></table> | T | O | 3 | 5 | + | 4 | | 6 | | |
| T | O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T | O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| + | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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Addition of Three 2-digit Numbers (with carry over)

Example: Add $24 + 32 + 36$.

Step-1:

Add the ones. $4 + 2 + 6 = 12$

Write 2 in the ones column.

Carry 1 to the tens column.

T	O
1	
2	4
3	2
3	6
	2

→

T	O
1	
2	4
3	2
3	6
9	2

Step-2:

Add the tens. $2 + 3 + 3 + 1$ (carried over) = 9

Write 9 in the tens column.

Thus, the sum is 92.



Add the following.

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Word Problems

Example : There are 24 apples and 32 oranges in a basket. How many fruits are there in all in the basket?

$$\begin{array}{r} 24 \text{ apples} \\ + 32 \text{ oranges} \\ \hline 56 \text{ fruits} \end{array}$$



Quick Response 2.6

Solve the following.

1. There are 32 roses and 34 tulips in a garden. How many flowers are there in the garden altogether?

2. There are 33 girls and 34 boys in a class. How many students are there in the class altogether?

3. Amrit collected 62 red marbles and 26 blue marbles. How many marbles does Amrit have in all?

4. A shopkeeper sold 43 toffees in the morning and 34 toffees in the evening. How many toffees did he sell in all?

5. In a party, there were 54 vegetarians and 45 non-vegetarians. How many people were there in the party altogether?





Chapter Review

1. Add the following without carry over.

$$\begin{array}{|c|c|} \hline \text{T} & \text{O} \\ \hline 2 & 4 \\ \hline + & 3 & 2 \\ \hline & & \\ \hline \end{array}$$

$$\begin{array}{|c|c|} \hline \text{T} & \text{O} \\ \hline 4 & 3 \\ \hline + & 2 & 4 \\ \hline & & \\ \hline \end{array}$$

$$\begin{array}{|c|c|} \hline \text{T} & \text{O} \\ \hline 3 & 1 \\ \hline + & 5 & 0 \\ \hline & & \\ \hline \end{array}$$

$$\begin{array}{|c|c|} \hline \text{T} & \text{O} \\ \hline 5 & 4 \\ \hline + & 4 & 3 \\ \hline & & \\ \hline \end{array}$$

2. Regroup the following.

a) 2 tens 15 ones =

b) 4 tens 10 ones =

c) 5 tens 12 ones =

d) 6 tens 18 ones =

3. Add the following with carry over.

$$\begin{array}{|c|c|} \hline \text{T} & \text{O} \\ \hline 3 & 4 \\ \hline + & 2 & 7 \\ \hline & & \\ \hline \end{array}$$

$$\begin{array}{|c|c|} \hline \text{T} & \text{O} \\ \hline 3 & 3 \\ \hline + & 4 & 8 \\ \hline & & \\ \hline \end{array}$$

$$\begin{array}{|c|c|} \hline \text{T} & \text{O} \\ \hline 5 & 5 \\ \hline + & 1 & 7 \\ \hline & & \\ \hline \end{array}$$

$$\begin{array}{|c|c|} \hline \text{T} & \text{O} \\ \hline 4 & 8 \\ \hline + & 2 & 9 \\ \hline & & \\ \hline \end{array}$$

$$\begin{array}{|c|c|} \hline \text{T} & \text{O} \\ \hline 2 & 5 \\ \hline 4 & 3 \\ \hline + & 2 & 4 \\ \hline & & \\ \hline \end{array}$$

$$\begin{array}{|c|c|} \hline \text{T} & \text{O} \\ \hline 3 & 3 \\ \hline 2 & 4 \\ \hline + & 1 & 7 \\ \hline & & \\ \hline \end{array}$$

$$\begin{array}{|c|c|} \hline \text{T} & \text{O} \\ \hline 2 & 2 \\ \hline 1 & 8 \\ \hline + & 1 & 5 \\ \hline & & \\ \hline \end{array}$$

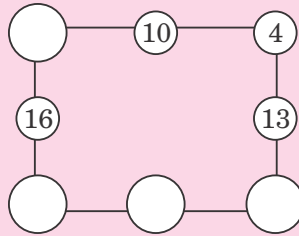
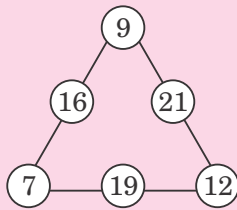
$$\begin{array}{|c|c|} \hline \text{T} & \text{O} \\ \hline 1 & 3 \\ \hline 2 & 6 \\ \hline + & 2 & 5 \\ \hline & & \\ \hline \end{array}$$

4. There are 36 men and 42 women in a bus. How many people are altogether in the bus?

$$\begin{array}{|c|c|} \hline & \\ \hline + & \\ \hline & \\ \hline \end{array}$$



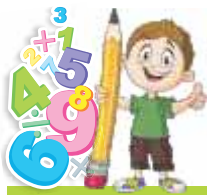
1. Observe the pattern and fill in the blank circles.



2. Choose two numbers from the box the sum of which is:

a) $50 = \text{-----} + \text{-----}$
 b) $95 = \text{-----} + \text{-----}$

50	40	28	35
23	36	55	27



Maths Lab Activity ■ ■ ■ Experiential Learning

Objective

To help the students understand how a number above a given number is 10 less and a number below the given number is 10 more

Material Required

A number grid showing numbers from 1 to 100

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

Method (for the teacher)

Ask a student to point at a number, say 24. Help the students understand that 10 less than 24 is 14 which is just above the number. Similarly, 10 more than 24 is 34 which is just below the number.



Now put up an addition sum with two 2-digit numbers that gives total of less than 100 on the board. Give each student a counter. For example, if the problem is $25 + 57$, ask the student to place the counter on 25 and then go down 5 steps for 50 (they will reach 75), then move 7 steps to the right from 75. They will reach 82 which is the answer.



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



You may give some more sums to the students to solve in the same way.

■■■ Cross Curricular

Three boats participated in a boat race in Kerala on a very popular festival. If 24 people were in first boat, 21 people in the second and 23 people in the third boat, how many people participated in all the three boats? Also, name the festival.

■■■ SDG

Sajal, Dipti and Razia planted 24, 15 and 26 saplings in their compound, respectively, to make their compounds look beautiful.

How many saplings did they plant altogether? _____

What do plants give us? _____





Subtraction

Subtraction means to find out how many are left, if certain number of objects are taken out from a group of objects. Before moving further, let us revise what we studied in Class 1.



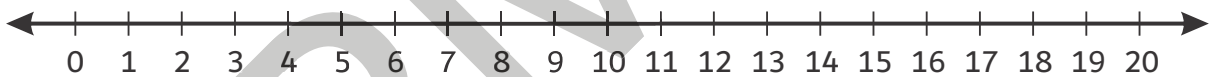
Get Ready

1. Subtract the following on the number line.

a) $15 - 4 = \square$



b) $18 - 7 = \square$



2. Subtract the following (without borrowing).

T	O
5	6
–	2 3

T	O
8	8
–	4 3

T	O
5	9
–	3 7

T	O
8	5
–	5 2



3. Subtract the following (with borrowing).

T	O
5	2
–	3 4

T	O
4	0
–	2 5

T	O
8	3
–	5 9

T	O
9	4
–	4 6

4. There were 87 passengers in a bus. 34 of them got off the bus at the next stop. How many passengers are still in the bus?

–	



Subtraction of Two 2-digit Numbers (without borrowing)

Example: Subtract 34 from 86.



Step-1: Write the bigger number first in the proper columns.

Step-2: First subtract the ones.

$$6 - 4 = 2$$

Write 2 under the ones column.

T	O
8	6
- 3	4
	2

Step-3: Now subtract the tens.

$$8 - 3 = 5$$

Write 5 under the tens column.

Thus, the difference is 52.

T	O
8	6
- 3	4
5	2



Quick Response 3.1

Subtract the following.

1.

T	O
5	7
- 2	4

2.

T	O
3	9
- 1	0

3.

T	O
4	8
- 3	5

4.

T	O
6	6
- 3	3

5.

T	O
6	9
- 2	0

6.

T	O
7	5
- 3	4

7.

T	O
5	9
- 3	6

8.

T	O
2	8
- 1	8

9.

T	O
6	4
- 3	2

10.

T	O
8	3
- 5	1

11.

T	O
8	8
- 5	0

12.

T	O
7	2
- 6	1

13.

T	O
9	8
- 5	4

14.

T	O
9	6
- 0	5

15.

T	O
8	7
- 6	7



Subtraction Facts

- When 1 is subtracted from a number, we get the number just before it.

Examples: $9 - 1 = 8$
 $25 - 1 = 24$
 $86 - 1 = 85$



- When a number is subtracted from itself, the difference is zero.

Examples: $8 - 8 = 0$
 $36 - 36 = 0$
 $87 - 87 = 0$



- Subtracting zero from a number means no subtraction. The difference is the number itself.

Examples: $7 - 0 = 7$
 $45 - 0 = 45$
 $98 - 0 = 98$



Quick Response 3.2

Fill in the boxes.

1. $7 - 1 =$

2. $25 - 1 =$

3. $38 - 0 =$

4. $77 - 77 =$

5. $98 - 1 =$

6. $11 - 11 =$

7. $55 - 1 =$

8. $64 - 64 =$

9. $81 - 0 =$

10. $93 - 93 =$



Subtraction of 2-digit Numbers (with borrowing)

Example: Subtract 36 from 82.

Step-1: Subtract ones.

Since $2 < 6$, we cannot subtract 6 from 2. So borrow 1 ten from the tens column.

1 ten + 2 ones = 12 ones.

Now subtract ones. $12 - 6 = 6$. Write 6 in the ones column.

T	O
7	12
8	2
– 3	6
	6

Step-2: In the tens column, we are left with 7 tens. Subtract tens.

$7 - 3 = 4$. Write 4 in the tens column. Thus, the different is 46.

T	O
7	12
8	2
– 3	6
4	6



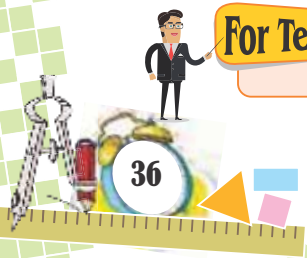
Quick Response 3.3

Subtract the following. Borrow if required.

1.	<table border="1"><tr><th>T</th><th>O</th></tr><tr><td>5</td><td>3</td></tr><tr><td>– 2</td><td>6</td></tr><tr><td></td><td></td></tr></table>	T	O	5	3	– 2	6			2.	<table border="1"><tr><th>T</th><th>O</th></tr><tr><td>4</td><td>4</td></tr><tr><td>– 1</td><td>7</td></tr><tr><td></td><td></td></tr></table>	T	O	4	4	– 1	7			3.	<table border="1"><tr><th>T</th><th>O</th></tr><tr><td>5</td><td>4</td></tr><tr><td>– 0</td><td>8</td></tr><tr><td></td><td></td></tr></table>	T	O	5	4	– 0	8			4.	<table border="1"><tr><th>T</th><th>O</th></tr><tr><td>6</td><td>0</td></tr><tr><td>– 3</td><td>5</td></tr><tr><td></td><td></td></tr></table>	T	O	6	0	– 3	5			5.	<table border="1"><tr><th>T</th><th>O</th></tr><tr><td>7</td><td>6</td></tr><tr><td>– 3</td><td>8</td></tr><tr><td></td><td></td></tr></table>	T	O	7	6	– 3	8		
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For Teachers

The teacher may use beads to demonstrate how the numbers change after borrowing.



Checking Subtraction Using Addition

Example: Subtract 27 from 52 and check the answer.

As 7 cannot be subtracted from 2, we borrow 1 ten from the tens column.

So, we have 12 ones. Subtract 7 ones from 12 ones.

$12 \text{ ones} - 7 \text{ ones} = 5 \text{ ones}$

Write 5 in the ones column.

Now subtract the tens. $4 \text{ tens} - 2 \text{ tens} = 2 \text{ tens}$.

Write 2 in the tens column.

T	O
4	12
5	2
- 2	7
2	5

How to check if the answer is correct

We add the difference of the two numbers to the number we subtracted. So we add $25 + 27$.

The answer is 52.

This shows that the answer is correct.

T	O
1	
2	5
+ 2	7
5	2



Quick Response 3.4

Subtract and check the answers.

1.

T	O
8	4
- 3	7

➔

T	O
+ 3	7

2.

T	O
5	2
- 3	5

➔

T	O
+ 3	5

3.

T	O
9	6
- 5	8

➔

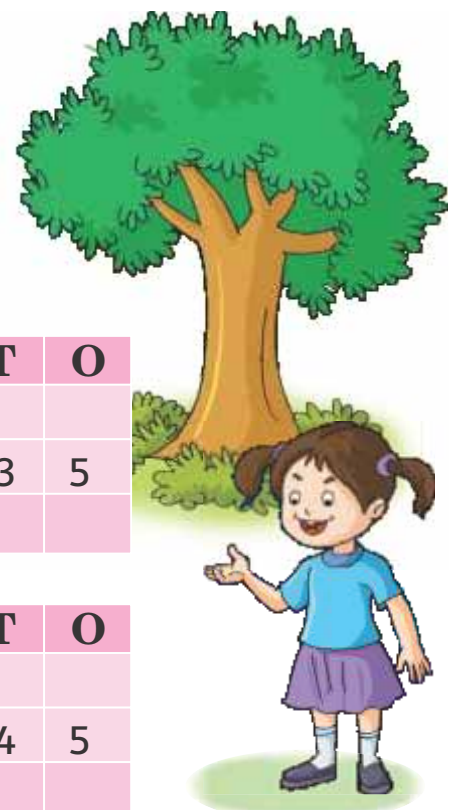
T	O
+ 5	8

4.

T	O
8	0
- 4	5

➔

T	O
+ 4	5



Word Problems

Example : Arushi had 56 toffees. She gave 24 to her friend. How many toffees are left with her?

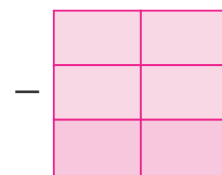
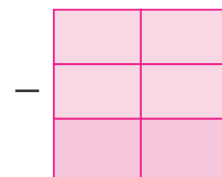
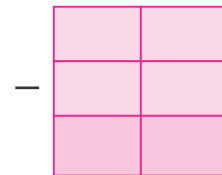
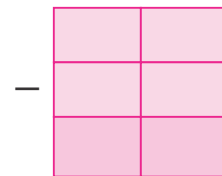
$$\begin{array}{r} 56 \text{ toffees} \\ - 24 \text{ toffees} \\ \hline 32 \text{ toffees} \end{array}$$



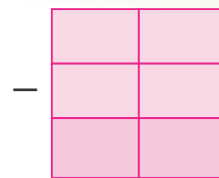
Quick Response 3.5

Solve the following.

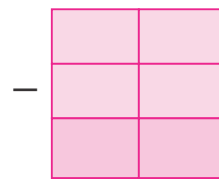
1. There were 97 mangoes on a tree. A farmer plucked 32 mangoes. How many mangoes are still on the tree?
2. There are 56 students in a class. 26 of them are girls. How many boys are there in the class?
3. Priya invited 38 friends to her birthday party. But 14 of them could not attend the party. How many friends attended the party?
4. There were 83 birds sitting on a tree. 30 of them flew away. How many birds are still on the tree?



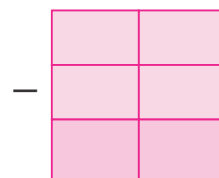
5. Rohit has 72 apples and his brother has 25 apples. How many more apples does Rohit have than his brother?



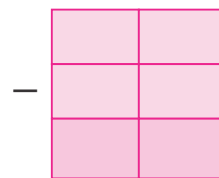
6. There are 92 pages in a book. Ananya has read only 30 pages. How many pages are left for Ananya to read?



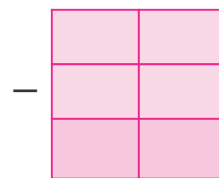
7. Achin had 54 pebbles. He gave 22 of these to his friend. How many pebbles are left with Achin now?



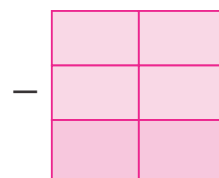
8. An egg seller bought 65 eggs. On the way to his shop, 28 eggs broke. How many eggs does the egg seller have now?

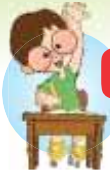


9. There were 72 children in a park. 36 of them went to their homes. How many children were still in the park?



10. There were 80 fish in the lake. 44 of them were caught. How many fish are still in the lake?





Chapter Review

1. Subtract the following. (without regrouping)

$$\begin{array}{r} \text{T} \quad \text{O} \\ 5 \quad 7 \\ - 2 \quad 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 6 \quad 9 \\ - 4 \quad 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 8 \quad 8 \\ - 5 \quad 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 9 \quad 4 \\ - 6 \quad 2 \\ \hline \end{array}$$

2. Subtract the following. (with regrouping)

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

$$\begin{array}{r} \text{T} \quad \text{O} \\ 6 \quad 0 \\ - 3 \quad 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 7 \quad 4 \\ - 4 \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 9 \quad 3 \\ - 6 \quad 5 \\ \hline \end{array}$$

3. Subtract the following and check the answers.

$$\begin{array}{r} \text{T} \quad \text{O} \\ 5 \quad 4 \\ - 2 \quad 3 \\ \hline \end{array} \quad \begin{array}{r} \text{T} \quad \text{O} \\ 2 \quad 3 \\ + 2 \quad 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 5 \quad 8 \\ - 3 \quad 6 \\ \hline \end{array} \quad \begin{array}{r} \text{T} \quad \text{O} \\ 3 \quad 6 \\ + 3 \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 9 \quad 2 \\ - 5 \quad 6 \\ \hline \end{array} \quad \begin{array}{r} \text{T} \quad \text{O} \\ 5 \quad 6 \\ + 5 \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 8 \quad 2 \\ - 4 \quad 8 \\ \hline \end{array} \quad \begin{array}{r} \text{T} \quad \text{O} \\ 4 \quad 8 \\ + 4 \quad 8 \\ \hline \end{array}$$

4. Solve the following.

a) There are 56 students in a class. 26 of them are girls. How many boys are there in the class?

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

b) There were 84 passengers in a train coach. 32 of them got off at the next station. How many passengers are still in the coach?

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


1. Subtract 35 from 60 using the following method.

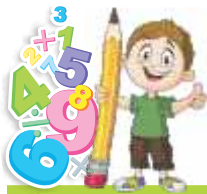
$$60 - 30 = 30, \quad 30 - 5 = 25$$

Now, solve the following using the above method.

- a) $67 - 23 = \square$ b) $87 - 45 = \square$ c) $59 - 38 = \square$
 d) $56 - 31 = \square$ e) $82 - 41 = \square$ f) $89 - 55 = \square$

2. Solve the following.

- a) 2 tens less than 3 tens and 5 ones =
 b) 10 ones less than 4 tens and 6 ones =
 c) 1 ten and 4 ones less than 6 tens and 2 ones =
 d) 2 tens and 6 ones less than 8 tens and 2 ones =



Maths Lab Activity

Experiential Learning

Objective

To reinforce the concept of subtraction of 2-digit numbers with regrouping

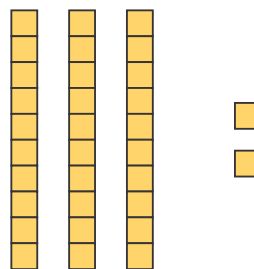
Material Required

Square lined paper, scissors

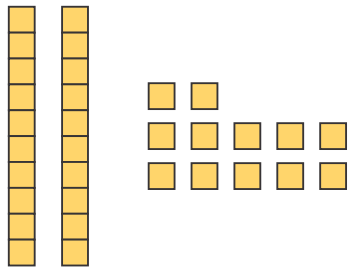
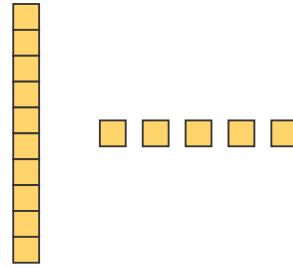
Method (for the teacher)

To solve $32 - 15$

- Ask one student to place 3 tens and 2 ones.



2. Ask the other student to place 1 ten and 5 ones.



3. Tell the students that 2 ones is less than 5 ones. So we need to borrow one ten from 32.

Ask the third student to remove 1 ten from 32 and place 10 ones beside the 2 ones.

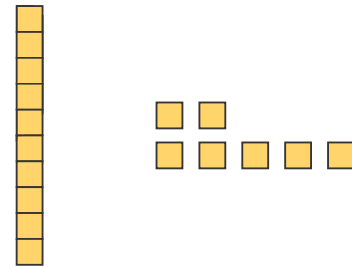
4. Ask the fourth student to remove 1 ten and 5 ones.

The number we get is the answer.

Thus the answer is

$$32 - 15 = 17$$

You may give some more such problems and ask the students to solve them in the same way.



SDG

Tripti decided that she would save electricity. She knows that a lot of coal and money is used to produce electricity. By saving electricity, we can check pollution as well as save the money of our country.

In the previous month, Tripti's family had used 98 units of electricity. But this month, they have used only 76 units. How many units of electricity has her family saved? _____

Do you also save electricity? _____





Multiplication

In Class-1, you studied that multiplication is repeated addition. Repeated addition means adding the same number many times. The sign of multiplication is '×'. The result we get after multiplication is called the **product**.



Get Ready

1. Write the following in multiplication form.

a) =

2 + 2 + 2

b) =

3 + 3 + 3 + 3

2. Write the following in repeated addition form.

- a) $4 \times 2 =$ _____
- b) $5 \times 4 =$ _____

3. Fill in the blanks.

- a) $4 \times 2 =$ b) $3 \times 2 =$ c) $2 \times 5 =$
- d) $5 \times 4 =$ e) $4 \times 6 =$ f) $3 \times 3 =$



4. Multiply.

- a) $\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$ b) $\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$ c) $\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$ d) $\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$



For Teachers

The teacher may explain the concept of repeated addition to reinforce the concept of multiplication.



Building the Tables

Multiplication table of 6 shows the repeated addition of 6. Look at the following groups of 6.



6

+



6

+



6

$$= 3 \times 6 = 18$$



6

+



6

+



6











+








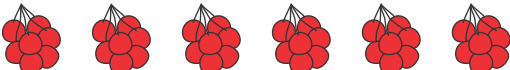

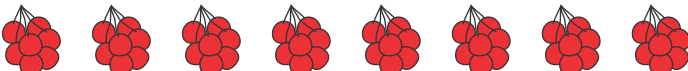


6

$$= 4 \times 6 = 24$$











Multiplication table of 6

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









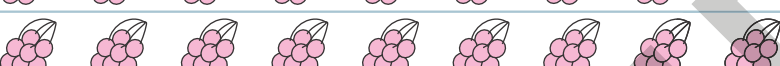

Multiplication table of 7

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











Multiplication table of 8

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

Multiplication table of 9

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

Multiplication table of 10

	$1 \times 10 = 10$
	$2 \times 10 = 20$
	$3 \times 10 = 30$
	$4 \times 10 = 40$
	$5 \times 10 = 50$
	$6 \times 10 = 60$
	$7 \times 10 = 70$
	$8 \times 10 = 80$
	$9 \times 10 = 90$
	$10 \times 10 = 100$



Quick Response 4.1

1. Write the following in multiplication form.

a) $4 + 4 + 4 + 4 + 4$ = _____

b) $6 + 6 + 6 + 6 + 6$ = _____

c) $8 + 8 + 8 + 8 + 8 + 8$ = _____

d) $9 + 9 + 9$ = _____

e) $10 + 10 + 10 + 10 + 10 + 10$ = _____

2. Fill in the boxes.

a) 7×3 =

e) 4×9 =

i) 9×9 =

b) 8×4 =

f) 5×7 =

j) 10×8 =

c) 5×8 =

g) 8×8 =

k) 6×6 =

d) 10×9 =

h) 7×6 =

l) 10×10 =

3. Match the following.

a) 5×7

b) 8×6

c) 6×7

d) 7×9

48

40

45

70

42

72

35

63

e) 9×5

f) 10×4

g) 9×8

h) 10×7



Vertical Multiplication

$4 \times 7 = 28$

is the same as

$$\begin{array}{r} 4 \\ \times 7 \\ \hline 28 \end{array}$$

$8 \times 9 = 72$

is the same as

$$\begin{array}{r} 8 \\ \times 9 \\ \hline 72 \end{array}$$



Quick Response 4.2

Multiply.

1.
$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

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

8.
$$\begin{array}{r} 6 \\ \times 2 \\ \hline \end{array}$$

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

10.
$$\begin{array}{r} 5 \\ \times 5 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$$

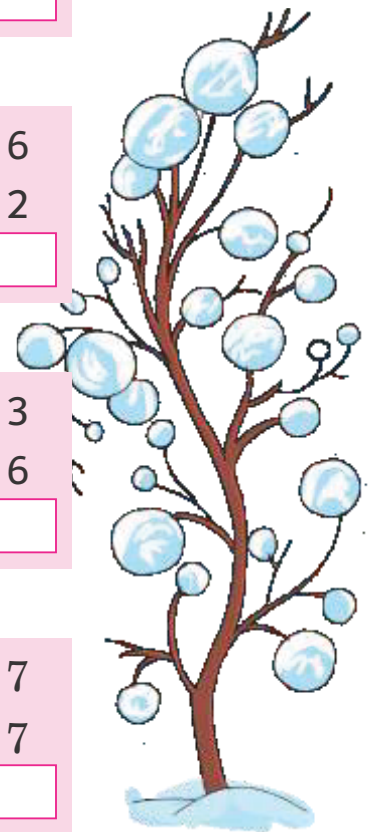
12.
$$\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$$


16.
$$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$$



Multiplication Facts

Multiplying by 1

There is one orange in each plate.


$$1 + 1 + 1 + 1 = 4 \times 1 = 4$$

Similarly,

$$1 + 1 + 1 + 1 + 1 = 5 \times 1 = 5$$

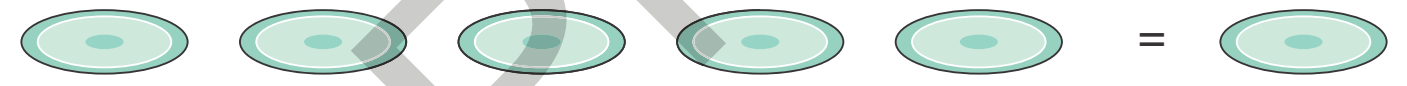
$$1 + 1 + 1 + 1 + 1 + 1 + 1 = 7 \times 1 = 7$$

Any number multiplied by 1 is the number itself.



Multiplying by 0

There is no egg in any plate.


$$0 + 0 + 0 + 0 + 0 = 5 \times 0 = 0$$

Similarly,

$$0 + 0 + 0 = 3 \times 0 = 0$$

$$0 + 0 + 0 + 0 + 0 + 0 + 0 = 7 \times 0 = 0$$

Any number multiplied by 0 is 0.



Order of Numbers



$$4 + 4 + 4 = 3 \times 4 = 12$$



$$3 + 3 + 3 + 3 = 4 \times 3 = 12$$

So, $3 \times 4 = 4 \times 3 = 12$

Similarly,

$$6 \times 5 = 5 \times 6 = 30 \quad \text{and} \quad 8 \times 9 = 9 \times 8 = 72$$

Two numbers, multiplied in any order, give the same product.



Quick Response 4.3

1. Fill in the blanks.

- a) $5 \times 1 = \square$ b) $7 \times 0 = \square$ c) $9 \times 1 = \square$
d) $12 \times 0 = \square$ e) $15 \times 1 = \square$ f) $19 \times 1 = \square$

2. Find the product.

- a)
$$\begin{array}{r} 8 \\ \times 1 \\ \hline \square \end{array}$$
 b)
$$\begin{array}{r} 9 \\ \times 0 \\ \hline \square \end{array}$$
 c)
$$\begin{array}{r} 18 \\ \times 0 \\ \hline \square \end{array}$$
 d)
$$\begin{array}{r} 15 \\ \times 1 \\ \hline \square \end{array}$$

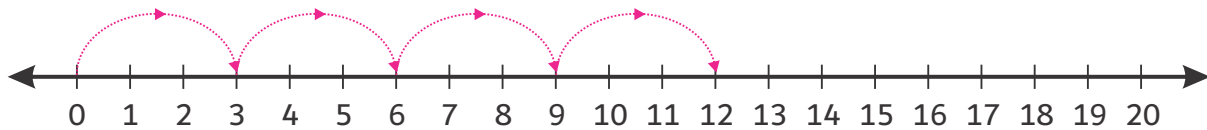
3. Fill in the missing numbers.

- a) $7 \times 8 = 8 \times \underline{\quad}$ b) $9 \times \underline{\quad} = 9$
c) $12 \times 4 = \underline{\quad} \times 12$ d) $9 \times \underline{\quad} = 0$
e) $8 \times 5 = 5 \times \underline{\quad}$ f) $15 \times \underline{\quad} = 0$



Multiplication on the Number Line

Multiply 4 by 3.



Start from 0 and count by threes with the method of skip counting.

Take four jumps of three steps each.

You reach 12.

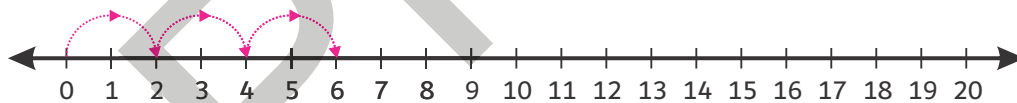
So, 4 jumps of 3 = $4 \times 3 = 12$



Quick Response 4.4

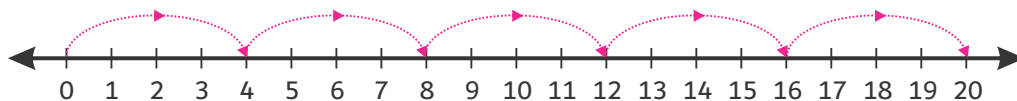
1. Write the multiplication statements for the following jumps on the number lines. One has been done.

a) Multiply 3 by 2.

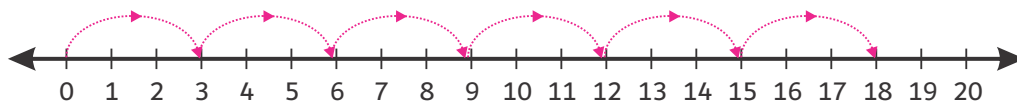


$$3 \times 2 = 6$$

b) Multiply 5 by 4.

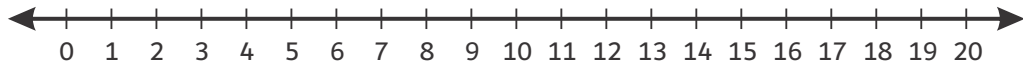


c) Multiply 6 by 3.

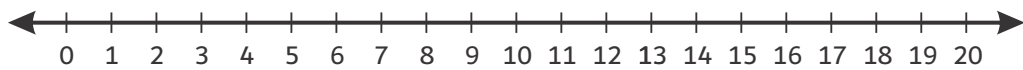


2. Multiply the following on the number lines.

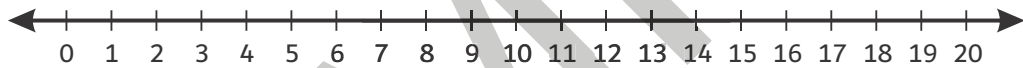
a) $3 \times 5 =$



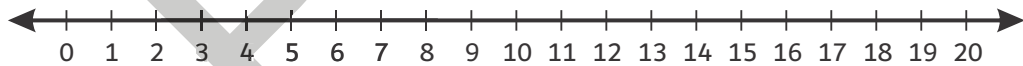
b) $7 \times 2 =$



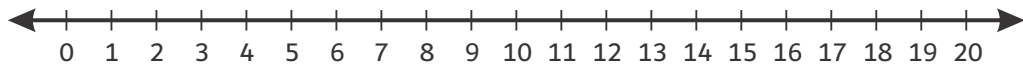
c) $8 \times 2 =$



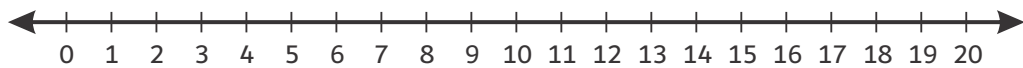
d) $5 \times 4 =$



e) $5 \times 3 =$



f) $4 \times 4 =$



Multiplication of a 2-digit Number by a 1-digit Number

Multiply 23 by 3.

Step-1: Multiply the ones.
 3 ones \times 3 = 9 ones.
 Write 9 in the ones column.

T	O
2	3
\times	3
	9



Step-2: Multiply the tens.
 2 tens \times 3 = 6 tens.
 Write 6 in the tens column.
 So, $23 \times 3 = 69$

T	O
2	3
\times	3
6	9



Quick Response 4.5



Multiply and find the product.

1.

T	O
1	2
\times	2

2.

T	O
1	3
\times	3

3.

T	O
2	2
\times	3

4.

T	O
2	1
\times	4

5.

T	O
2	3
\times	2

6.

T	O
3	2
\times	2

7.

T	O
4	1
\times	2

8.

T	O
2	2
\times	4

9.

T	O
1	2
\times	4

10.

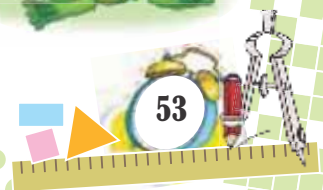
T	O
3	1
\times	3

11.

T	O
3	3
\times	3

12.

T	O
3	2
\times	3



Multiplication of a 2-digit Number by a 1-digit Number by Regrouping and Carrying Over

Multiply 45 by 3.

Step-1: Multiply the ones.
 $5 \text{ ones} \times 3 = 15 \text{ ones}$.
 Write 5 ones in the ones column and carry 1 ten to the tens column.

H	T	O
	①	
	4	5
	×	3
		5

Step-2: Multiply the tens.
 $4 \text{ tens} \times 3 = 12 \text{ tens}$.
 $12 \text{ tens} + 1 \text{ ten} = 13 \text{ tens}$.
 Write 3 tens in the tens column and 1 hundred in the hundreds column.

H	T	O
	①	
	4	5
	×	3
1	3	5



Quick Response 4.6



Multiply and find the product.

1.	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td></td><td>3</td><td>4</td></tr><tr><td></td><td>×</td><td>3</td></tr><tr><td></td><td></td><td></td></tr></table>	H	T	O		3	4		×	3				2.	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td></td><td>5</td><td>4</td></tr><tr><td></td><td>×</td><td>2</td></tr><tr><td></td><td></td><td></td></tr></table>	H	T	O		5	4		×	2				3.	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td></td><td>2</td><td>8</td></tr><tr><td></td><td>×</td><td>4</td></tr><tr><td></td><td></td><td></td></tr></table>	H	T	O		2	8		×	4				4.	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td></td><td>6</td><td>9</td></tr><tr><td></td><td>×</td><td>2</td></tr><tr><td></td><td></td><td></td></tr></table>	H	T	O		6	9		×	2			
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H	T	O																																																					
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	6	9																																																					
	×	2																																																					

5.	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td></td><td>4</td><td>8</td></tr><tr><td></td><td>×</td><td>4</td></tr><tr><td></td><td></td><td></td></tr></table>	H	T	O		4	8		×	4				6.	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td></td><td>3</td><td>9</td></tr><tr><td></td><td>×</td><td>5</td></tr><tr><td></td><td></td><td></td></tr></table>	H	T	O		3	9		×	5				7.	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td></td><td>3</td><td>4</td></tr><tr><td></td><td>×</td><td>5</td></tr><tr><td></td><td></td><td></td></tr></table>	H	T	O		3	4		×	5				8.	<table border="1"><tr><th>H</th><th>T</th><th>O</th></tr><tr><td></td><td>2</td><td>7</td></tr><tr><td></td><td>×</td><td>7</td></tr><tr><td></td><td></td><td></td></tr></table>	H	T	O		2	7		×	7			
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H	T	O																																																					
	2	7																																																					
	×	7																																																					



Word Problems

There were 65 children. Each child had 3 balloons. How many balloons were there in all?



Number of children

Number of balloons each child had

Total number of balloons

H	T	O
	1	
	6	5
	×	3
1	9	5



Solve the following word problems.

- There were 15 cars. Each car had 4 passengers. How many passengers were there in all?

Number of cars

Passengers in each car

Total number of passengers

H	T	O
	1	5
	×	4



- There were 56 children. Each child ate 2 bananas. How many bananas were eaten in all?

Total number of children

Bananas eaten by each child

Total number of bananas eaten

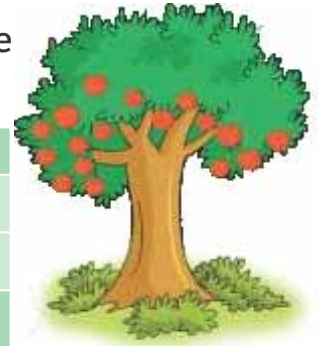
H	T	O
	5	6
	×	2



3. There are 36 apples on a tree. How many apples are there on 5 trees?

Number of apples on 1 tree
Total number of trees
Total number of apples

H	T	O
	3	6
	×	5



4. If one boy has 24 toffees, how many toffees do 6 boys have?

Number of toffees each boy has
Number of boys
Total number of toffees

H	T	O
	2	4
	×	6



5. A jeep has 4 wheels. How many wheels are there in 32 jeeps?

Total number of jeeps
Wheels in each jeep
Total number of wheels

H	T	O
	3	2
	×	4



6. A jug can hold 5 glasses of water. How many glasses of water can 22 such jugs hold?

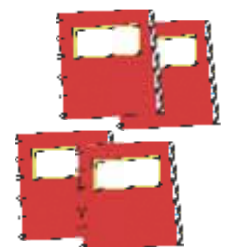
Total number of jugs
Number of glasses of water that each jug can hold
Total number of glasses of water that all jugs can hold

H	T	O
	2	2
	×	5

7. There are 36 children. Each child has 4 notebooks. How many notebooks do they have altogether?

Total number of children
Number of notebooks each child has
Total number of notebooks

H	T	O
	3	6
	×	4





Chapter Review

1. Fill in the blanks.

a) $5 \times 4 = \underline{\hspace{2cm}}$

b) $7 \times 8 = \underline{\hspace{2cm}}$

c) $7 \times 6 = \underline{\hspace{2cm}}$

d) $\underline{\hspace{2cm}} \times 8 = 0$

e) $15 \times 0 = \underline{\hspace{2cm}}$

f) $\underline{\hspace{2cm}} \times 9 = 72$

g) $27 \times 1 = \underline{\hspace{2cm}}$

h) $6 \times \underline{\hspace{2cm}} = 7 \times 6$

2. Multiply the following.

a)

2	3
\times	2

b)

2	1
\times	4

c)

3	2
\times	3

3. Multiply these, too.

a)

	3	7
	\times	4

b)

	4	5
	\times	5

c)

	2	6
	\times	5

4. There are 6 ice-cubes in an ice-tray. How many ice-cubes will be there in 9 such ice-trays?

There will be ice-cubes.

Critical Thinking

The price of a chocobar is ₹ 20 and a cone ice-cream is ₹ 35. How much money will I need to buy 3 chocobars and 4 cone ice-creams?





Maths Lab Activity

Experiential Learning

Objective

Revising multiplication table using number grid.

Material Required

Grid paper (1 to 100)

Method (for the teacher)

Write the multiplication tables from 1 to 10 in the grid from the first to the tenth row as shown.

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



To multiply 4×5 , start from 4 in the first row and trace down till the 5th row. You reach 20, which is the answer. ($4 \times 5 = 20$).

The teacher can give some more multiplication sums to solve on grid.

Social-emotional Learning

Alia's class has decided to go for a picnic. The teacher has asked each child to give ₹100. But there is a poor child who cannot pay for it. If 20 children give ₹ 5 each, how much money will be collected for the poor child?

What value do you learn from this act of these 20 children?



Ms Manpreet, Mr Akram and Mr Jaspreet go to their offices by car. Each one consumes 5 litres of petrol every day. How many litres of petrol are consumed by all the three every day? If they use car pool, how much petrol can they save every day?



■■■ Communication Skill

Shefali gives food and water to her pet dog on time. If her pet dog eats 8 slices of bread every day, how many slices of bread does it eat in a week?
If you have a pet, tell the class how you take care of it.





Division

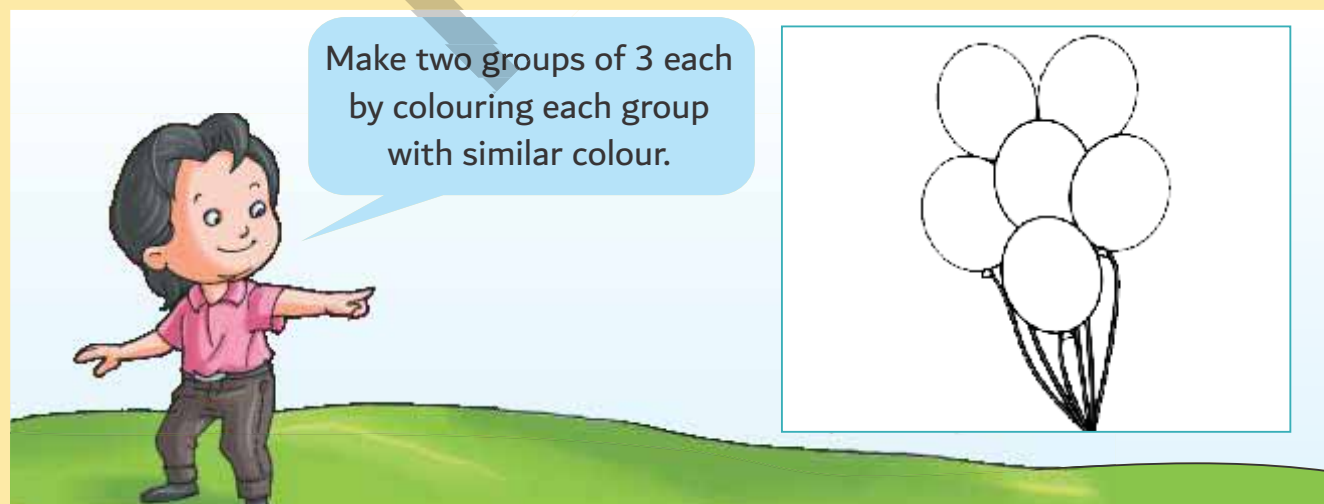
Division means equal distribution or equal sharing. The symbol of division is \div .



Get Ready



Can you help the girl in this work? Help her by making two equal groups of balloons. Circle the groups with a pencil.



Count and write the number of groups you have made.



Equal Distribution

Look at the following examples:

1. Divide 6 burgers into 2 equal groups.



There are 3 burgers in each group.

We say that 6 divided by 2 is 3 and we write $6 \div 2 = 3$

This is called division.

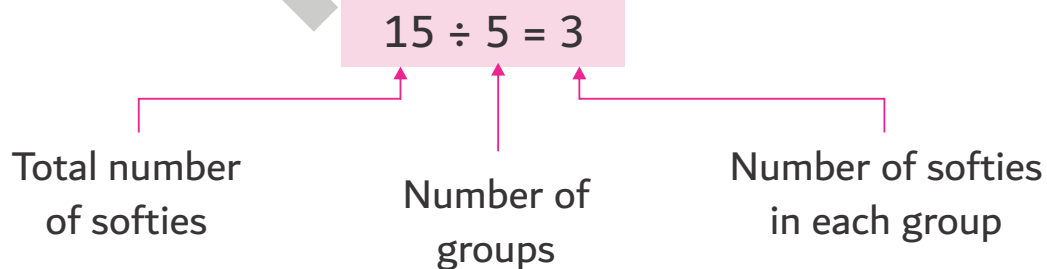
We can also say that division means equal grouping.

2. Divide 15 softies into 5 equal groups.



Thus, we get 5 groups each having 3 softies.

So, 15 divided by 5 is 3.



- The number to be divided is called the **dividend**.
- The number by which we divide is called the **divisor**.
- The answer we get after division is called the **quotient**.





Quick Response 5.1

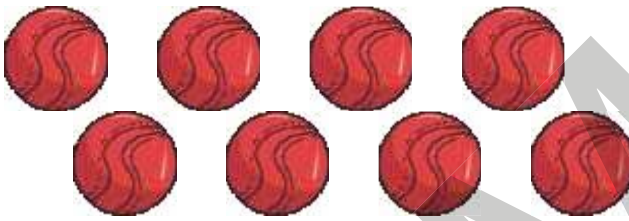
Make equal groups of objects and divide.

1. Divide 9 balloons among 3 children.



$9 \div 3 =$

2. Divide 8 balls among 2 children.



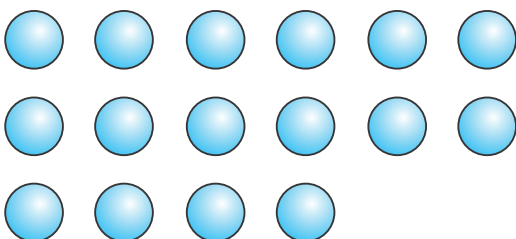
$8 \div 2 =$

3. Divide 12 teddy bears among 4 children.



$12 \div 4 =$

4. Divide 16 marbles among 2 children.



$16 \div 2 =$



Division as Repeated Subtraction

Ria has 8 balloons. She wants to distribute the balloons equally among two girls.



Ria gives away 2 balloons.
Now each girl has 1 balloon.
So, Ria has $8 - 2 = 6$ balloons.



Ria gives away 2 more balloons.
Now each girl has 2 balloons.
So, Ria has $6 - 2 = 4$ balloons.



Ria gives away 2 more balloons.
Now each girl has 3 balloons.
So, Ria has $4 - 2 = 2$ balloons.



Ria gives away 2 more balloons.
Now each girl has 4 balloons.
So, Ria has $2 - 2 = 0$ balloons.

Here you can see that Ria gives away 2 balloons 4 times to distribute all her balloons among the two girls equally.

$$\text{So, } 8 \div 2 = 4$$

Thus, division is a repeated subtraction.

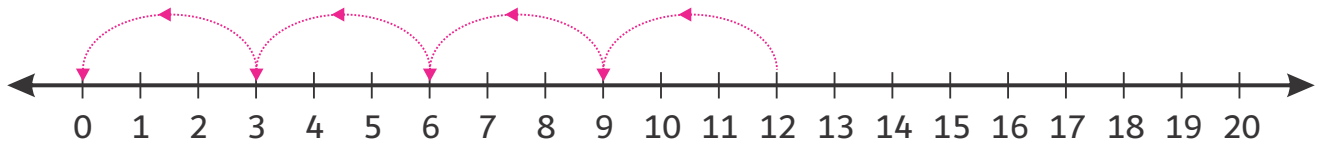


For Teachers

The teacher may demonstrate the same activity in the class using some other kind of objects.

Division as Repeated Subtraction on the Number Line

Divide 12 by 3.



Start at 12. Take backward jumps of 3 steps each. How many jumps were taken to reach 0?

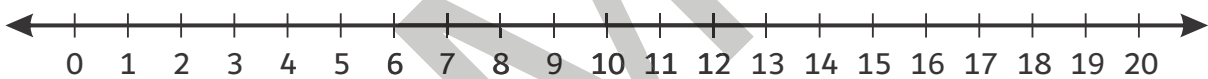
4 jumps of 3. So, $12 \div 3 = 4$



Quick Response 5.2

Show each division statement on the number line.

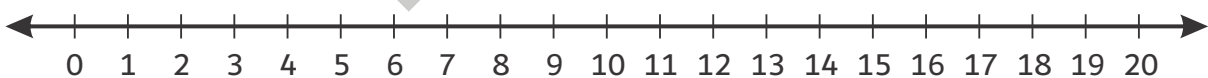
1. $15 \div 5 =$



How many jumps?

So, $15 \div 5 =$

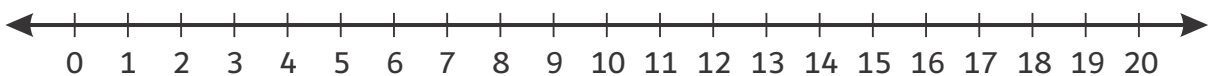
2. $16 \div 2 =$



How many jumps?

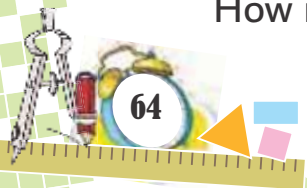
So, $16 \div 2 =$

3. $18 \div 6 =$



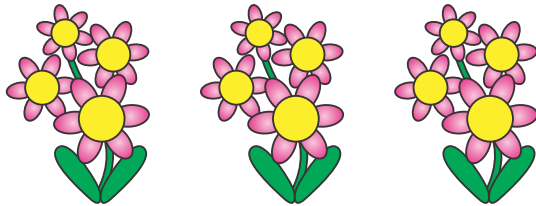
How many jumps?

So, $18 \div 6 =$



Multiplication and Division are Related

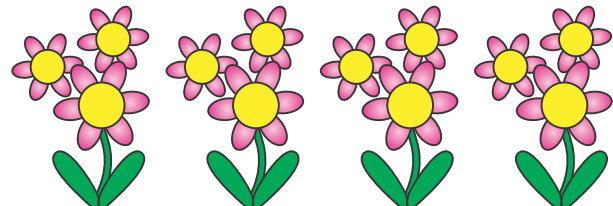
Look at the following pictures.



12 flowers arranged in the groups of 4.

$$\text{So, } 3 \times 4 = 12$$

Division fact for $3 \times 4 = 12$ is
 $12 \div 4 = 3$



12 flowers arranged in the groups of 3.

$$\text{So, } 4 \times 3 = 12$$

Division fact for $4 \times 3 = 12$ is
 $12 \div 3 = 4$

For each multiplication fact, there are two division facts.

Multiplication fact

$$5 \times 2 = 10$$

Division facts

$$10 \div 2 = 5$$

$$10 \div 5 = 2$$



Write the two division facts for each multiplication fact given below.

1. $6 \times 4 = 24$

2. $5 \times 3 = 15$

3. $4 \times 5 = 20$



Some More Division Facts

Division by 1

Division by 1 means no sharing.

For example, Ravi has 4 candies. He does not want to share the candies with any one. So, all the 4 candies will remain with him.

It means $4 \div 1 = 4$

Any number divided by 1 gives the same number.

Division by the same number

Jassi has 5 chocolates. He wants to give them equally to his 5 friends.



Each boy gets 1 chocolate

So, $5 \div 5 = 1$

A number divided by the same number gives 1.

Division by 0

You have 6 balls and you want to distribute them among children. But there are no children there. So, how can you distribute the balls?

Thus, division by 0 is not possible.

Division of 0 by another number

Suppose you have 0 lollipops (no lollipops). You want to give them to 2 of your friends equally. Obviously, you will give no lollipops.

So, $0 \div 2 = 0$

Zero divided by any number is zero.





Quick Response 5.4

1. Divide and write the quotient.

a) $4 \div 4 = \square$ b) $0 \div 7 = \square$ c) $12 \div 12 = \square$

d) $5 \div 1 = \square$ e) $7 \div 7 = \square$ f) $15 \div 1 = \square$

g) $6 \div 6 = \square$ h) $0 \div 1 = \square$ i) $15 \div 15 = \square$

2. Fill in the blanks.

a) $9 \div 1 = \underline{\hspace{2cm}}$

b) $12 \div 1 = \underline{\hspace{2cm}}$

c) $\underline{\hspace{2cm}} \div 7 = 0$

d) $8 \div \underline{\hspace{2cm}} = 8$

e) $9 \div \underline{\hspace{2cm}} = 1$

f) $\underline{\hspace{2cm}} \div 9 = 0$

g) $10 \div 1 = \underline{\hspace{2cm}}$

h) $15 \div 15 = \underline{\hspace{2cm}}$

Long Division Method

Divide 18 by 3.

Arrange the numbers as

Divisor) Dividend
---------	------------

So,

3) 18
---	------

Now, read the table of 3 till you reach 18.

$3 \times 1 = 3, \quad 3 \times 2 = 6, \quad 3 \times 3 = 9, \quad 3 \times 4 = 12$

$3 \times 5 = 15, \quad 3 \times 6 = 18$

So, we write 6 as quotient.

	6 (Quotient)
3) 18
	- 18
	0





Quick Response 5.5

1. Divide and write the quotient in the box. One has been done for you.

a)
$$\begin{array}{r} 5 \\ 2 \overline{) 10} \\ \underline{-10} \\ 0 \end{array}$$

b)
$$\begin{array}{r} \\ 3 \overline{) 9} \end{array}$$

c)
$$\begin{array}{r} \\ 3 \overline{) 12} \end{array}$$

d)
$$\begin{array}{r} \\ 2 \overline{) 18} \end{array}$$

e)
$$\begin{array}{r} \\ 4 \overline{) 12} \end{array}$$

f)
$$\begin{array}{r} \\ 5 \overline{) 25} \end{array}$$

g)
$$\begin{array}{r} \\ 5 \overline{) 45} \end{array}$$

h)
$$\begin{array}{r} \\ 6 \overline{) 24} \end{array}$$

i)
$$\begin{array}{r} \\ 6 \overline{) 48} \end{array}$$

j)
$$\begin{array}{r} \\ 7 \overline{) 49} \end{array}$$

k)
$$\begin{array}{r} \\ 7 \overline{) 63} \end{array}$$

l)
$$\begin{array}{r} \\ 8 \overline{) 64} \end{array}$$

2. Solve the division sentences and also solve them by long division method. One has been done for you.

a) $24 \div 4 = 6$

$$\begin{array}{r} 6 \\ 4 \overline{) 24} \\ \underline{-24} \\ 0 \end{array}$$

b) $27 \div 3 =$

c) $42 \div 6 =$

d) $56 \div 7 =$

e) $40 \div 8 =$

f) $63 \div 9 =$



Word Problems

Katrina has 48 apples. She wants to divide them equally among her 6 friends. How many apples will each of her friend get?

Each friend will get apples.

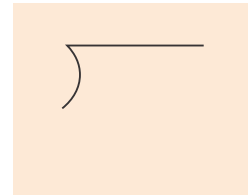
$$\begin{array}{r} 8 \\ 6 \overline{) 48} \\ \underline{-48} \\ 0 \end{array}$$



Solve the following.

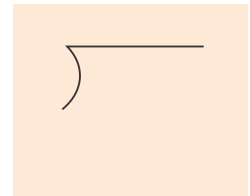
1. 15 marbles are to be distributed among 5 children. How many marbles will each child get?

Each child will get marbles.



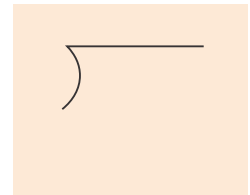
2. 36 people are to be sent by cars. If 4 people can sit in a car, how many cars will be required?

cars will be required.



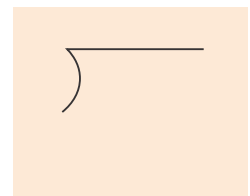
3. 35 mangoes are to be shared equally among 7 friends. How many mangoes will each friend get?

Each friend will get mangoes.



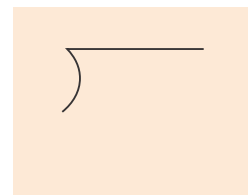
4. 54 flowers are to be kept equally in 6 vases. How many flowers should be kept in each vase?

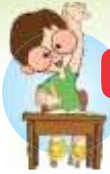
flowers will be kept in each vase.



5. 48 sweets are to be shared among 8 children. How many sweets will each child get?

Each child will get sweets.

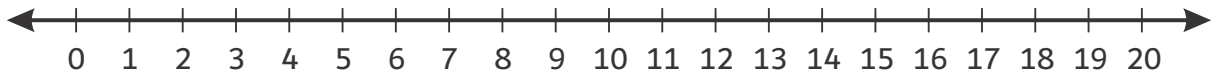




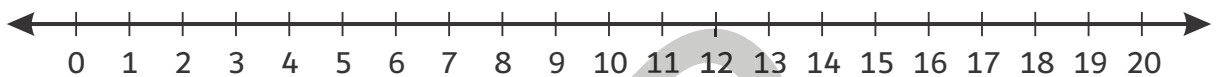
Chapter Review

1. Divide the following on the number line.

a) $15 \div 3 = \square$



b) $18 \div 6 = \square$



2. Divide the following.

a) $16 \div 4 = \square$

b) $25 \div 5 = \square$

c) $24 \div 6 = \square$

d) $72 \div 8 = \square$

e) $16 \div 2 = \square$

f) $42 \div 7 = \square$

3. Fill in the blanks.

a) $12 \div 1 = \underline{\hspace{2cm}}$

b) $7 \div \underline{\hspace{2cm}} = 1$

c) $0 \div 9 = \underline{\hspace{2cm}}$

d) $8 \div 8 = \underline{\hspace{2cm}}$

4. Divide the following.

a)
$$\begin{array}{r} 6 \overline{) 48} \end{array}$$

b)
$$\begin{array}{r} 7 \overline{) 56} \end{array}$$

c)
$$\begin{array}{r} 9 \overline{) 81} \end{array}$$

d)
$$\begin{array}{r} 8 \overline{) 64} \end{array}$$

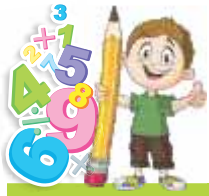
5. 21 gulab jamuns are to be shared equally among 7 children. How many gulab jamuns will each child get?

Each child will get \square gulab jamuns.



Critical Thinking

When Raghav peeped into a stable, he saw only the legs of horses and men. If he counted 24 legs of horses and 8 legs of men, how many horses and men were there in the stable?



Maths Lab Activity

Experiential Learning

Objective

To reinforce the concept of division by equal sharing

Materials Required

50 counters

Method (for the teacher)

- Keep 18 counters at one place. Make a group of 6 children. Call another child and ask him/her to divide the counters equally among the 6 children.
- The child will first give 1 counter to each of the 6 children.
- The child will repeat the same activity till he/she is left with zero counters.
- Count how many counters does each child get. Here, you see that each child gets 3 counters.

Show it mathematically, $18 \div 6 = 3$

Repeat the activity with other sets of counters.

Social-emotional Learning

You live in a joint family. You have 1 sibling and 4 cousins. You get 24 chocolates from one of your relatives. Will you share the chocolates with your sibling and cousins?

How many chocolates will you give to each of them? _____

How many chocolates will you keep for yourself? _____





Numbers up to 1000

You have learnt about numbers up to 200. Let us know about numbers up to 1000. But before moving further, let us revise what we have learnt.



Get Ready

1. Write the following in numerals.

a) One hundred forty-two _____

b) One hundred ninety-eight _____

2. Write the following numbers in words.

a) 107 : _____

b) 184 : _____

3. Write the place value and face value of the circled digits.

a) 1 **4** 5 Place value _____ Face value _____

b) **2** 0 0 Place value _____ Face value _____

4. Circle the largest number.

a) 105 59 150

b) 176 165 179

5. Write the following in ascending order.

a) 117, 95, 107, 54 _____, _____, _____, _____

b) 167, 145, 169, 170 _____, _____, _____, _____

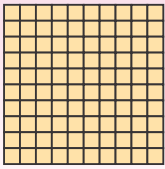
6. Write the following in descending order.

a) 101, 99, 107, 96 _____, _____, _____, _____

b) 174, 170, 169, 164 _____, _____, _____, _____

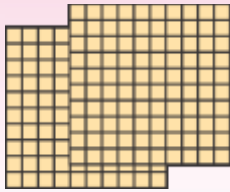


Number in Hundreds



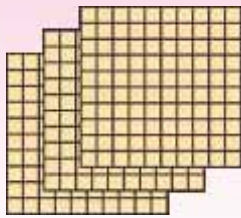
1 hundred
100
One hundred

H	T	O
1	0	0



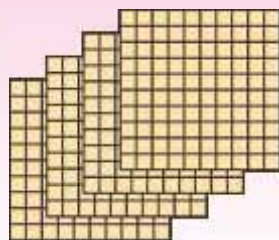
2 hundreds
200
Two hundreds

H	T	O
2	0	0



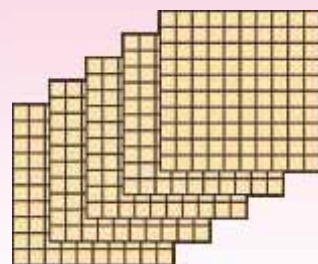
3 hundreds
300
Three hundreds

H	T	O
3	0	0



4 hundreds
400
Four hundreds

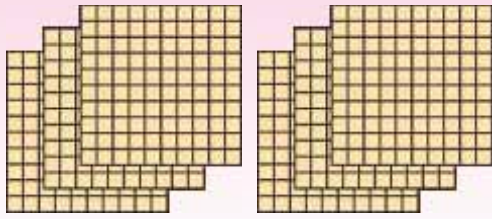
H	T	O
4	0	0



5 hundreds
500
Five hundreds

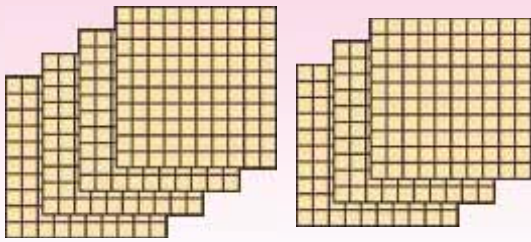
H	T	O
5	0	0





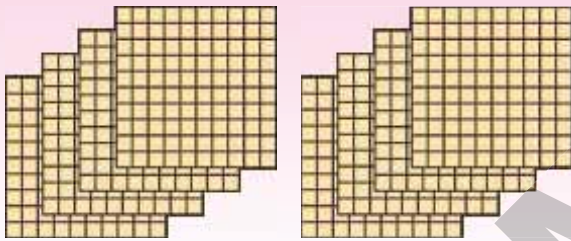
6 hundreds
600
Six hundreds

H	T	O
6	0	0



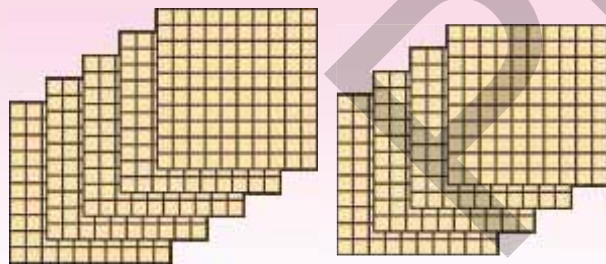
7 hundreds
700
Seven hundreds

H	T	O
7	0	0



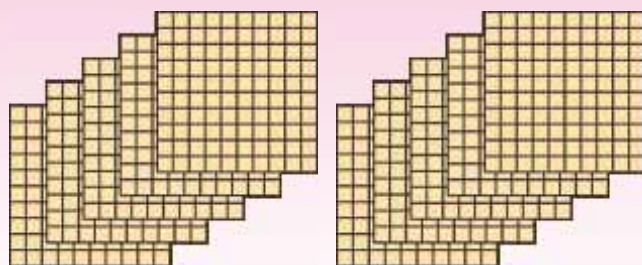
8 hundreds
800
Eight hundreds

H	T	O
8	0	0



9 hundreds
900
Nine hundreds

H	T	O
9	0	0



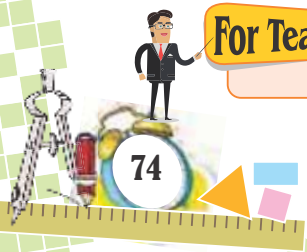
10 hundreds
1000
Ten hundreds
One Thousand

Th	H	T	O
1	0	0	0

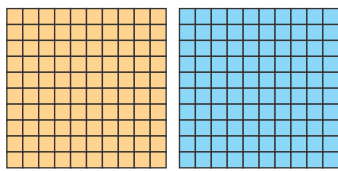
1000 is the smallest 4-digit number.

For Teachers

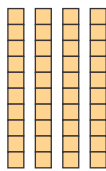
The teacher may use an abacus to show the number 1000 and introduce the term 'thousand'.



Building Numbers up to 1000



+



+

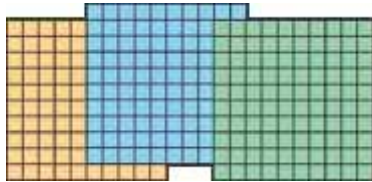


2 hundreds

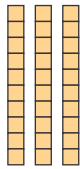
4 tens

5 ones

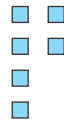
H	T	O
2	4	5



+



+

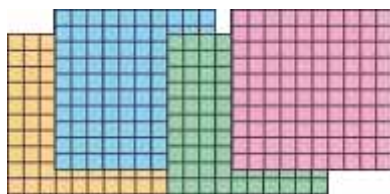


3 hundreds

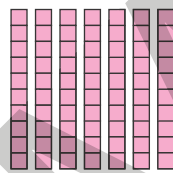
3 tens

6 ones

H	T	O
3	3	6



+



+

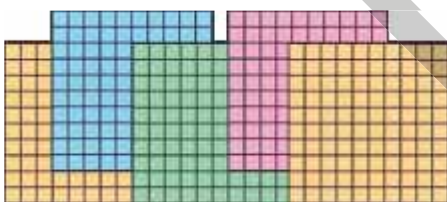


4 hundreds

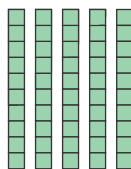
7 tens

8 ones

H	T	O
4	7	8



+



+



5 hundreds

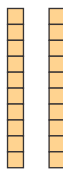
5 tens

2 ones

H	T	O
5	5	2



+



+



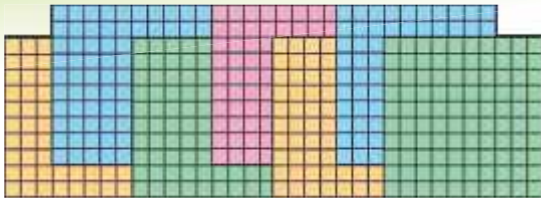
6 hundreds

2 tens

4 ones

H	T	O
6	2	4



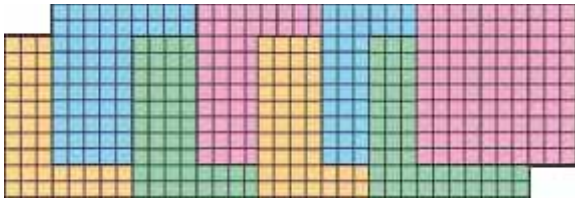


7 hundreds

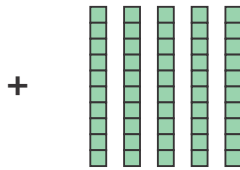


8 Ones

H	T	O
7	0	8

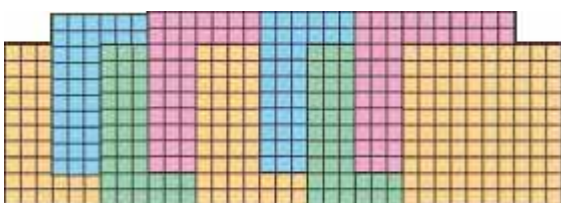


8 hundreds

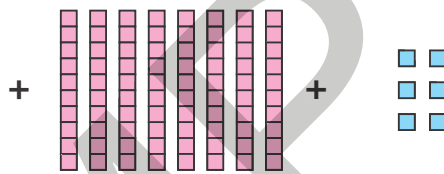


5 tens

H	T	O
8	5	0



9 hundreds

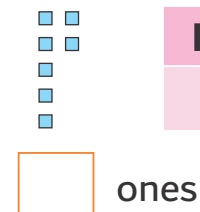
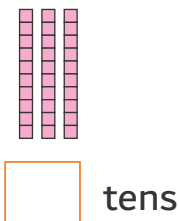
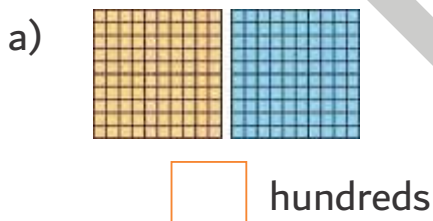


8 tens 6 ones

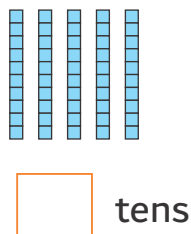
H	T	O
9	8	6

Quick Response 6.1

1. Write the number of hundreds, tens and ones in the following.




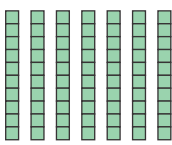
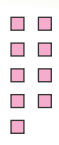
H	T	O



H	T	O

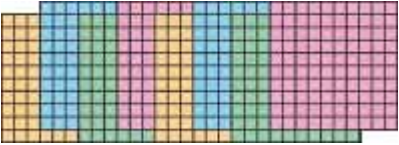
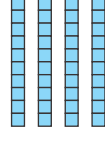

For Teachers

The teacher may put cut outs of letters H, T and O in the classroom. You may give flash number cards from 0 to 9 to any ten students. Ask any three students to stand below the cut outs. Now, rest of the students will tell the number formed in this way.

c)   


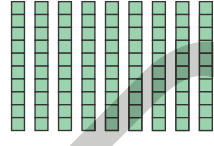
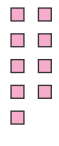
H	T	O

 hundreds tens ones

d)   

H	T	O

 hundreds tens ones

e)   

H	T	O

 hundreds tens ones

2. Complete the number grids by filling the missing numbers.

a)

201								210
		214				218		
	222						229	
				236				
241						247		
		253						
	272							
291						297		300



b)

301									
			314						
321									
					347				
		382							
				395					400



c)

401									
				435					
						458			
		473							
			494						500



d)

501									
									600



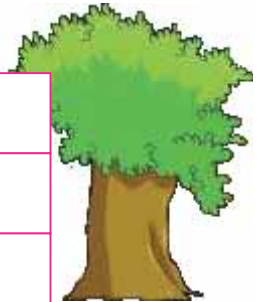
e)

601									
									700



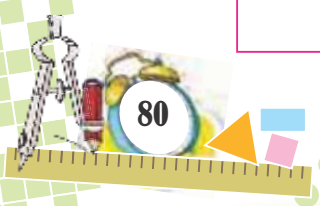
f)

701									
									800



g)

801									
									900



h)

901										
										1000



Reading and Writing 3-digit Numbers

To read a 3-digit number, first read the digit at the hundreds place and then the last 2-digits together.

Examples:

$\begin{array}{c} 2 \\ \hline \downarrow \\ \text{Two hundred} \end{array}$
 $\begin{array}{c} 75 \\ \hline \downarrow \\ \text{seventy-five} \end{array}$

$\begin{array}{c} 5 \\ \hline \downarrow \\ \text{Five hundred} \end{array}$
 $\begin{array}{c} 10 \\ \hline \downarrow \\ \text{ten} \end{array}$
 $\begin{array}{c} 9 \\ \hline \downarrow \\ \text{Nine hundred} \end{array}$
 $\begin{array}{c} 08 \\ \hline \downarrow \\ \text{eight} \end{array}$



To write 3-digit numbers, first write the number name of the digit at the hundreds place, and then the last two digits together.

Examples:

Three hundred **sixty-seven** = 367

Five hundred **four** = 504

Nine hundred **ten** = 910



 **Quick Response 6.2**

1. Write the following in words.

- a) 237 : _____
- b) 405 : _____
- c) 720 : _____
- d) 875 : _____
- e) 964 : _____

2. Write the following in numerals.

- a) Two hundred nineteen _____
- b) Five hundred nine _____
- c) Seven hundred _____
- d) Eight hundred eighty-eight _____
- e) Nine hundred fifty-seven _____



Before, After and Between

You have already learnt the concept of before, after and between. Let us revise this concept with bigger numbers.

Examples:

1. What comes before 500?

The number before 500 means $500 - 1$.

$$500 - 1 = 499$$

Thus, 499 comes before 500.

The number 499 is also called the **predecessor** of 500.



2. What comes after 500?

The number after 500 means $500 + 1$.

$$500 + 1 = 501$$

Thus, 501 comes after 500.

The number 501 is also called the **successor** of 500.

Here 500 is between 499 and 501.



Quick Response 6.3

1. Write the predecessor of the following numbers.

a) _____ 237

b) _____ 356

c) _____ 640

d) _____ 797

e) _____ 850

f) _____ 1000

2. Write the successor of the following numbers.

a) 249 _____

b) 300 _____

c) 547 _____

d) 625 _____

e) 879 _____

f) 919 _____



3. Write the number that comes between the two numbers in each of the following.

a) 260 262

b) 419 421

c) 555 557

d) 738 740

e) 848 850

f) 939 941

Place Value and Face Value

The place value of a digit depends upon its place in the number.

The face value of a digit is its actual value.

Example:

Write the place value and face value of all the digits in 745

H	T	O
7	4	5

The digit 5 is at the ones place.
Its place value is $5 \times 1 = 5$.
Its face value is 5.

The digit 4 is at the tens place.
Its place value is $4 \times 10 = 40$.
Its face value is 4.

The digit 7 is at the hundreds place.
Its place value is $7 \times 100 = 700$.
Its face value is 7.

The place value and face value of 0 in a number is always 0.



Face value of a digit in a number never changes. But the place value of a digit in a number changes with the place.

For Teachers

The teacher may use flash number cards to form different 3-digit numbers and ask the students to tell the face value and place value of certain numbers.



Expanded Form of Numbers

The expanded form of a number is given by the sum of the place values of its digits, in the hundreds, tens and ones places.

Example: Write the number 536 in expanded form.

H	T	O
5	3	6

Place value of 6 is $6 \times 1 = 6$
Place value of 3 is $3 \times 10 = 30$
Place value of 5 is $5 \times 100 = 500$

So, the expanded form of 536 = $500 + 30 + 6$

Some more examples

$$290 = 200 + 90$$

$$805 = 800 + 5$$

$$625 = 600 + 20 + 5$$

$$744 = 700 + 40 + 4$$

Short Form or Standard Form of Numbers

The short form of a number is given by combining the place value of each digit at the correct places.

Example: Write $600 + 70 + 5$ in short form.

600	+	70	+	5
↓		↓		↓
6 hundred		7 tens		5 ones
↓		↓		↓
H	T	O		
6	7	5		

Thus, 675 is in the short form.

Some more examples

$$400 + 40 + 7 = 447$$

$$900 + 5 = 905$$

$$800 + 50 = 850$$

$$900 + 90 + 9 = 999$$





Quick Response 6.4

1. Write the place value of the circled digits.

a) 2(4)6 _____

b) (6)71 _____

c) 75(9) _____

d) 9(0)5 _____

2. Write the face value of the circled digits.

a) 3(7)8 _____

b) (5)23 _____

c) 65(0) _____

d) (8)56 _____

3. Write the following numbers in expanded form.

a) 214 = _____

b) 405 = _____

c) 720 = _____

d) 995 = _____

4. Write the following numbers in short form.

a) 300 + 50 = _____

b) 500 + 5 = _____

c) 700 + 30 + 6 = _____

d) 900 + 10 + 1 = _____

Comparison of Numbers

- A 2-digit number is always smaller than a 3-digit number.

Thus, $98 < 105$

- If both the numbers are of 3-digits, compare the hundreds place digit first.

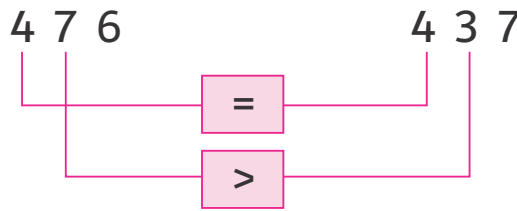


$$\begin{array}{ccc} 3 & 7 & 6 \\ | & & | \\ \hline & < & \\ \hline & & | \\ | & & | \\ 5 & 7 & 2 \end{array}$$

So, $376 < 572$.

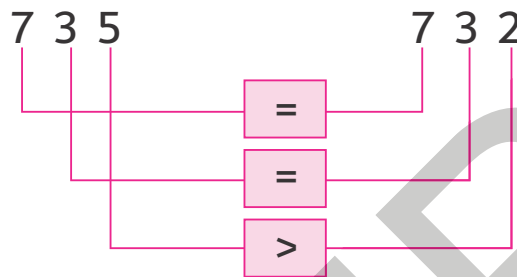


- If the digits at the hundreds place are the same, compare the digits at the tens place.



So, $476 > 437$.

- If the digits at the hundreds place and the tens place are the same, compare the digits at the ones place.



So, $735 > 732$.

Quick Response 6.5

1. Put < or > sign in the boxes.

- | | |
|---------------------------------|---------------------------------|
| a) 324 <input type="text"/> 98 | b) 527 <input type="text"/> 537 |
| c) 741 <input type="text"/> 745 | d) 105 <input type="text"/> 404 |
| e) 649 <input type="text"/> 639 | f) 910 <input type="text"/> 915 |

2. Circle the largest number and cross the smallest number.

- | | |
|----------------------|----------------------|
| a) 245 314 536 | b) 806 739 789 |
| c) 401 425 421 | d) 936 948 919 |
| e) 700 649 450 | f) 647 645 642 |

3. Write the following in ascending order.

- a) 307, 409, 907, 804 _____, _____, _____, _____
- b) 647, 689, 576, 567 _____, _____, _____, _____

4. Write the following in descending order.

- a) 478, 375, 485, 588 _____, _____, _____, _____
- b) 826, 929, 919, 845 _____, _____, _____, _____



Formation of the Largest and the Smallest Number

To form the greatest number, write the greatest digit at the hundreds place, the second greatest digit at the tens place, and the smallest digit at the ones place.

Example: Form the largest number using the digits 4, 2 and 7.

The largest 3-digit number is 742.

To form the smallest number, write the smallest digit at the hundreds place, the second smallest digit at the tens place, and the greatest digit at the ones place.

Example: Form the smallest number using the digits 6, 4, and 8.

The smallest 3-digit number is 468.

If 0 is one of the digits, it is placed at the tens place and the next bigger digit takes the hundreds place.

Example: Write the smallest number using the digits 4, 0 and 2.

The smallest number is 204.



Form the largest and the smallest numbers from the given digits.

	Largest	Smallest
1. 6, 4 and 7	-----	-----
2. 9, 0 and 8	-----	-----
3. 5, 3 and 6	-----	-----





Chapter Review

1. Tick (✓) the correct option.

a) Five hundred sixty-nine is written as _____.

i) 576

ii) 569

iii) 596

b) Which of the following is largest?

i) 776

ii) 767

iii) 766

c) Which of the following is smallest?

i) 809

ii) 890

iii) 799

d) The place value of 3 in 739 is _____.

i) 300

ii) 30

iii) 3

2. Write the following in figures.

a) Seven hundred forty-nine

b) Nine hundred eighty-five

3. Write the following in words.

a) 509 :

b) 996 :

4. Write the successor and predecessor of the following.

a) _____ 690 _____

b) _____ 700 _____

5. Write the following in expanded form.

a) 710 :

b) 889 :



Critical Thinking

Which number will be the largest if we replace the digits at the ones place with the digits at the hundreds place in each of the following numbers?

734

596

895



Maths Lab Activity

Experiential Learning

Objective

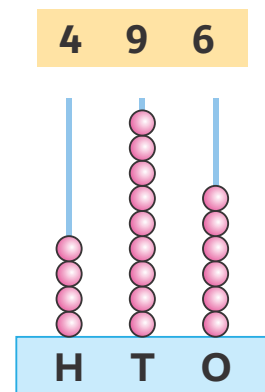
To reinforce the concept of forming 3-digit numbers

Material Required

An abacus with 3 rods for each pair of students, wooden beads in 3 different colours, 3-digit number cards

Method (for the teacher)

- Give an abacus, some beads and 4–5 number cards to each pair of students.
- Ask students to pick up 1 card at a time and read the number.
- Then ask them to show that number on the abacus using the required number of beads.
- Check whether they are doing it correctly or not.
- When they have used all the cards, ask them to exchange the cards with other students.



SDG

Ria, Tina and Anu used 432 litres, 396 litres and 516 litres of water respectively. Who used the largest amount of water? _____

What should we do to save water? _____



Model Test Paper - I

(Based on Chapters 1 to 6)

1. Tick (✓) the correct option.

a) What is the place value of 3 in 235?

i) 3

ii) 30

iii) 300

b) Which of the following is an odd number?

i) 12

ii) 15

iii) 18

c) Which of the following is largest?

i) 207

ii) 701

iii) 719

d) $98 - 98 = ?$

i) 0

ii) 1

iii) 98

e) $7 \times 5 = ?$

i) 25

ii) 30

iii) 35

2. Write the following numbers in words.

a) 179 :

b) 649 :

3. Write the following numbers in numerals.

a) Four hundred forty-four

:

b) Nine hundred nine

:

4. Add the following. Regroup if required.

a)

	4	2
+	2	3

b)

	7	7
+	8	4

c)

	4	7
+	8	6

d)

	2	9
+	7	5

5. Subtract the following. Regroup if required.

a)
$$\begin{array}{r} 78 \\ - 54 \\ \hline \end{array}$$

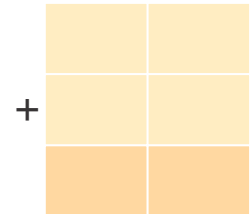
b)
$$\begin{array}{r} 96 \\ - 84 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 72 \\ - 47 \\ \hline \end{array}$$

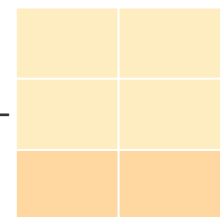
d)
$$\begin{array}{r} 80 \\ - 55 \\ \hline \end{array}$$

6. Solve the following.

a) There were 48 birds on a tree. 36 more birds came to the tree. How many birds were there on the tree altogether?



b) A shopkeeper had 82 chocolates. He sold 36 chocolates. How many chocolates are left with him now?



7. Arrange the following in ascending order.

a) 274, 402, 139, 824 _____, _____, _____, _____

b) 864, 876, 904, 914 _____, _____, _____, _____

8. Multiply the following.

a)
$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 12 \\ \times 3 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 32 \\ \times 4 \\ \hline \end{array}$$

9. Divide the following.

a)
$$4 \overline{) 16}$$

b)
$$5 \overline{) 20}$$

c)
$$6 \overline{) 36}$$

d)
$$9 \overline{) 63}$$



Addition and Subtraction

You have already learnt how to add 2-digit numbers without carrying and with carrying. You have also learnt how to subtract two 2-digit numbers without and with borrowing. Let us learn to do these operations on bigger numbers.



Get Ready

1. Add the following by forward counting.

a) $15 + 4 = \underline{\quad}$ b) $21 + 7 = \underline{\quad}$ c) $34 + 6 = \underline{\quad}$

2. Subtract the following by backward counting.

a) $28 - 6 = \underline{\quad}$ b) $54 - 5 = \underline{\quad}$ c) $88 - 7 = \underline{\quad}$

3. Add the following. Regroup if required.

a)

	T	O
	4	2
+	2	6

b)

	T	O
	6	0
+	3	7

c)

	T	O
	3	7
+	2	9

d)

	T	O
	5	4
+	3	9

4. Subtract the following. Regroup if required.

a)

	T	O
	4	2
-	2	6

b)

	T	O
	6	7
-	4	0

c)

	T	O
	5	2
-	3	4

d)

	T	O
	8	0
-	4	5

5. Drishti got 34 marks in Test-1 and 48 marks in Test-2. Find her total marks. _____

6. Jayant got 68 marks and his friend got 89 marks. How many more marks did he get than his friend? _____



Addition of 2-digit and 3-digit Numbers (without carrying)

Example: Add 346 and 23.

Step-1: Write the given numbers in the correct columns.

H	T	O
3	4	6
+	2	3
3	6	9

Step-2: Add the ones first.
6 ones + 3 ones = 9 ones.
Write 9 in the ones column.

Step-3: Add the tens.
4 tens + 2 tens = 6 tens.
Write 6 in the tens column.

Step-4: Now add the hundreds.
3 hundreds + 0 hundreds = 3 hundreds.
Write 3 in the hundreds column.

Answer: So, $346 + 23 = 369$.



Quick Response 7.1

Add the following.

1.

H	T	O
2	4	6
+	3	2

2.

H	T	O
5	1	2
+	7	6

3.

H	T	O	
	4	2	
+	4	4	3

4.

H	T	O
8	2	5
+	2	0

5.

H	T	O
6	0	7
+	9	2

6.

H	T	O
7	5	3
+	2	6

7.

H	T	O
5	5	2
+	3	4

8.

H	T	O	
	1	2	
+	6	7	7



Addition of Two 3-digit Numbers (without carrying)

Example: Add 243 and 435.

Step-1: After writing the numbers in correct columns, add the ones.

3 ones + 5 ones = 8 ones.

Write 8 in the ones column.

	H	T	O
	2	4	3
+	4	3	5
	6	7	8

Step-2: Add the tens.

4 tens + 3 tens = 7 tens.

Write 7 in the tens column.

Step-3: Now add the hundreds.

2 hundreds + 4 hundreds = 6 hundreds.

Write 6 in the hundreds column.



Answer: So, $243 + 435 = 678$.



Add the following.

	H	T	O
1.	2	0	4
+	3	2	4

	H	T	O
2.	5	1	6
+	3	4	2

	H	T	O
3.	6	1	0
+	2	4	7

	H	T	O
4.	4	2	4
+	3	2	4

	H	T	O
5.	1	2	1
+	7	6	7

	H	T	O
6.	3	0	2
+	4	8	6

	H	T	O
7.	8	2	5
+	1	7	4

	H	T	O
8.	6	3	0
+	2	4	7



Addition of Two 3-digit Numbers (with carrying)

Example: Add 267 and 358.

Step-1: Add the ones.

$$7 \text{ ones} + 8 \text{ ones} = 15 \text{ ones.}$$

$$= 1 \text{ ten} + 5 \text{ ones}$$

Write 5 in the ones column and carry 1 ten to the tens column.

H	T	O
	1	
2	6	7
+	3	5
		8
		5

Step-2: Add the tens.

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

$$= 12 \text{ tens} = 1 \text{ hundred} + 2 \text{ tens}$$

Write 2 tens in the tens column and carry 1 hundred to the hundreds column.

H	T	O
1	1	
2	6	7
+	3	5
		8
	2	5

Step-3: Add the hundreds.

$$2 \text{ hundreds} + 3 \text{ hundreds} + 1 \text{ hundred (carried over)} = 6 \text{ hundreds}$$

Write 6 in the hundreds column.

H	T	O
1	1	
2	6	7
+	3	5
		8
6	2	5

Answer: So, $267 + 358 = 625$.



Quick Response 7.3

Add the following.

1.	H	T	O
	2	4	7
+	1	6	5

2.	H	T	O
	3	7	9
+	2	4	6

3.	H	T	O
	3	7	6
+	4	8	5

4.	H	T	O
	5	2	7
+	2	9	4



$$\begin{array}{r} 5. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 3 \quad 5 \quad 7 \\ + \quad 1 \quad 9 \quad 5 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 4 \quad 2 \quad 7 \\ + \quad 3 \quad 4 \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 5 \quad 1 \quad 9 \\ + \quad 1 \quad 7 \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 5 \quad 0 \quad 5 \\ + \quad 2 \quad 9 \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 4 \quad 5 \quad 8 \\ + \quad 2 \quad 7 \quad 5 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 3 \quad 0 \quad 5 \\ + \quad 4 \quad 9 \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 2 \quad 0 \quad 7 \\ + \quad 2 \quad 9 \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} 12. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 5 \quad 2 \quad 5 \\ + \quad 2 \quad 7 \quad 9 \\ \hline \end{array}$$

$$\begin{array}{r} 13. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 1 \quad 7 \quad 8 \\ + \quad 2 \quad 7 \quad 5 \\ \hline \end{array}$$

$$\begin{array}{r} 14. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 3 \quad 5 \quad 5 \\ + \quad 3 \quad 5 \quad 5 \\ \hline \end{array}$$

$$\begin{array}{r} 15. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 6 \quad 1 \quad 9 \\ + \quad 1 \quad 9 \quad 5 \\ \hline \end{array}$$

$$\begin{array}{r} 16. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 4 \quad 2 \quad 8 \\ + \quad 2 \quad 8 \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 3 \quad 9 \quad 8 \\ + \quad 2 \quad 9 \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 2 \quad 2 \quad 5 \\ + \quad 6 \quad 8 \quad 4 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 6 \quad 9 \quad 6 \\ + \quad 1 \quad 0 \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 3 \quad 4 \quad 7 \\ + \quad 5 \quad 8 \quad 5 \\ \hline \end{array}$$

$$\begin{array}{r} 21. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 1 \quad 8 \quad 8 \\ + \quad 2 \quad 9 \quad 9 \\ \hline \end{array}$$

$$\begin{array}{r} 22. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 5 \quad 8 \quad 4 \\ + \quad 3 \quad 8 \quad 7 \\ \hline \end{array}$$

$$\begin{array}{r} 23. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 4 \quad 8 \quad 0 \\ + \quad 3 \quad 8 \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 24. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 7 \quad 4 \quad 5 \\ + \quad 1 \quad 7 \quad 9 \\ \hline \end{array}$$

$$\begin{array}{r} 25. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 1 \quad 8 \quad 7 \\ + \quad 1 \quad 5 \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} 26. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 2 \quad 7 \quad 7 \\ + \quad 1 \quad 8 \quad 5 \\ \hline \end{array}$$

$$\begin{array}{r} 27. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 1 \quad 8 \quad 9 \\ + \quad 1 \quad 6 \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 28. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 2 \quad 4 \quad 8 \\ + \quad 2 \quad 3 \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} 29. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 2 \quad 7 \quad 7 \\ + \quad 2 \quad 8 \quad 4 \\ \hline \end{array}$$

$$\begin{array}{r} 30. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 2 \quad 3 \quad 7 \\ + \quad 3 \quad 2 \quad 9 \\ \hline \end{array}$$

$$\begin{array}{r} 31. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 3 \quad 2 \quad 4 \\ + \quad 2 \quad 8 \quad 8 \\ \hline \end{array}$$

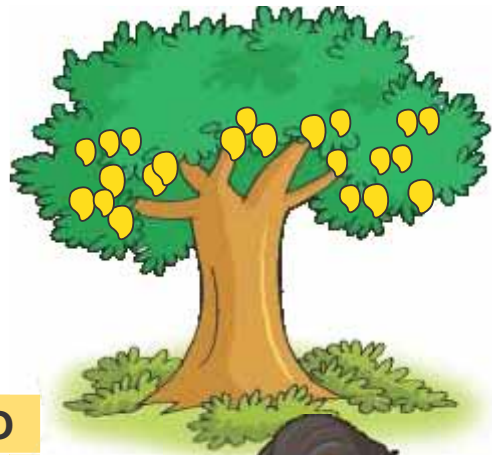
$$\begin{array}{r} 32. \quad \text{H} \quad \text{T} \quad \text{O} \\ \quad 3 \quad 2 \quad 9 \\ + \quad 1 \quad 8 \quad 7 \\ \hline \end{array}$$



Word Problems

Example:

There are 276 ripe mangoes and 345 raw mangoes on a mango tree. How many mangoes are there in all on the tree?



Number of ripe mangoes
Number of raw mangoes
Total mangoes on the tree

	H	T	O
	1	1	
	2	7	6
+	3	4	5
	6	2	1



Quick Response 7.4

Solve the following word problems.

- There are 146 apple trees and 247 pear trees in an orchard. How many trees are there in all in the orchard?
- On the last Saturday, 246 people visited the zoo. And on Sunday, 348 people visited the zoo. How many people visited the zoo on these two days?
- There are 486 men and 388 women workers in a company. How many total workers are there in the company?

H	T	O

H	T	O

H	T	O



4. Abhinav bought 275 pieces of gulab jamuns and 285 pieces of burfis for a party. How many pieces of sweets did he buy for the party?

H	T	O

5. There are 348 boy students and 362 girl students in a school. How many students are there in all in the school?

H	T	O

6. There are 178 rose plants and 96 jasmine plants in a big garden. How many flowering plants are there in the garden altogether?

H	T	O

7. There are 236 male passengers and 208 female passengers in a train. Find the total number of passengers.

H	T	O

8. There are 461 red kites and 379 blue kites in a shop. How many kites are there in all in the shop?

H	T	O

9. There were 645 people in a stadium. 278 more people entered the stadium. How many people were there altogether in the stadium?

H	T	O



Subtraction of a 2-digit Number from a 3-digit Number (without regrouping)



Example: Subtract 32 from 274.

Step-1: Write the numbers in the correct columns.

Subtract the ones first.

4 ones – 2 ones = 2 ones.

Write 2 in the ones column.

H	T	O
2	7	4
–	3	2
2	4	2

Step-2: Subtract the tens.

7 tens – 3 tens = 4 tens.

Write 4 in the tens column.

Step-3: Subtract the hundreds.

2 hundreds – 0 hundreds = 2 hundreds.

Write 2 in the hundreds column.



Answer: So, $274 - 32 = 242$.



Quick Response 7.5

Subtract the following.

1.

H	T	O
3	7	4
–	3	1

2.

H	T	O
5	8	7
–	5	3

3.

H	T	O
6	9	7
–	6	6

4.

H	T	O
2	5	6
–	4	5

5.

H	T	O
1	6	8
–	4	2

6.

H	T	O
7	8	9
–	7	6

7.

H	T	O
9	5	7
–	5	7

8.

H	T	O
8	3	0
–	2	0



Subtraction of Two 3-digit Numbers (without regrouping)

Example: Subtract 274 from 596.

Step-1: Subtract the ones.

$$6 \text{ ones} - 4 \text{ ones} = 2 \text{ ones.}$$

Write 2 in the ones column.

Step-2: Subtract the tens.

$$9 \text{ tens} - 7 \text{ tens} = 2 \text{ tens.}$$

Write 2 in the tens column.

Step-3: Subtract the hundreds.

$$5 \text{ hundreds} - 2 \text{ hundreds} = 3 \text{ hundreds.}$$

Write 3 in the hundreds column.

	H	T	O
	5	9	6
–	2	7	4
	3	2	2



Answer: So, $596 - 274 = 322$.



Subtract the following.

1.

	H	T	O
	3	7	5
–	1	2	4

2.

	H	T	O
	8	0	8
–	4	0	5

3.

	H	T	O
	7	4	0
–	3	2	0

4.

	H	T	O
	4	5	8
–	3	0	8

5.

	H	T	O
	6	4	3
–	3	4	3

6.

	H	T	O
	9	4	6
–	4	3	5

7.

	H	T	O
	5	9	8
–	1	9	6

8.

	H	T	O
	6	3	7
–	1	3	5



Subtraction with Regrouping

Example: Subtract 65 from 284.

Step-1: Subtract the ones.

Since, $5 > 4$, we cannot subtract 5 ones from 4 ones.

So, we borrow 1 ten from the tens column.

Now, 8 tens become 7 tens.

1 ten + 4 ones = 14 ones.

14 ones – 5 ones = 9 ones.

Write 9 in the ones column.

Step-2: Subtract the tens.

7 tens – 6 tens = 1 ten.

Write 1 in the tens column.

Step-3: Subtract the hundreds.

2 hundreds – 0 hundreds = 2 hundreds.

Write 2 in the hundreds column.

So, $284 - 65 = 219$

H	T	O
	7	14
2	8	4
–	6	5
2	1	9

Example: Subtract 275 from 523.

Step-1: We cannot subtract 5 ones from 3 ones, so we regroup.

We borrow 1 ten from the tens column.

2 tens become 1 ten.

3 ones become 1 ten + 3 ones = 13 ones.

So, 13 ones – 5 ones = 8 ones.

Write 8 in the one's column.

H	T	O
		13
5	2	3
–	7	5
		8

Step-2: Now 7 tens cannot be subtracted from 1 ten.

We borrow 1 hundred or 10 tens from 5 hundreds.

So, 5 hundreds become 4 hundreds.



1 ten becomes 10 tens + 1 ten = 11 tens.

So, 11 tens – 7 tens = 4 tens.

Write 4 in the tens column.

Step-3: Subtract hundreds.

4 hundreds – 2 hundreds = 2 hundreds.

Write 2 in the hundreds column.

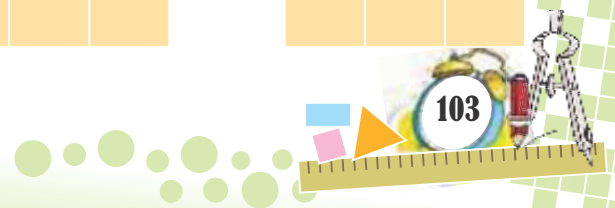
So, $523 - 275 = 248$.

H	T	O
4 5	1 2	3 13
–	2	7
	2	4
		8



Subtract the following. Regroup if required.

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Checking Subtraction by Addition

Example: Subtract 275 from 528. Also check the answer.

Step-1: Subtract the ones first.

$$8 \text{ ones} - 5 \text{ ones} = 3 \text{ ones.}$$

Step-2: Subtract 7 tens from 2 tens after regrouping.

Borrow 1 hundred from the hundreds column.

1 hundred means 10 tens.

So, 2 tens + 10 tens = 12 tens.

12 tens - 7 tens = 5 tens.

H	T	O
5	12	8
- 2	7	5
2	5	3

Step-3: Subtract the hundreds.

$$4 \text{ hundreds} - 2 \text{ hundreds} = 2 \text{ hundreds.}$$

Check:

Add the difference of 528 and 275 (which is 253) to the number subtracted (which is 275).

Here the sum (which is 528) is equal to the greater number for subtraction.

Thus, the subtraction is correct.

H	T	O
1		
2	5	3
+ 2	7	5
5	2	8



Quick Response 7.8

Subtract the following and check the answer.

1. $629 - 482$

H	T	O	H	T	O
-			+		

2. $720 - 386$

H	T	O	H	T	O
-			+		



3. $576 - 398$

	H	T	O		H	T	O
-				+			

4. $914 - 537$

	H	T	O		H	T	O
-				+			

Word Problems

Example: There were 315 horses and 227 mules. How many more horses were there than mules?



	H	T	O	
		10	15	Number of horses
23	0	1	5	Number of mules
-	2	2	7	Number of more horses
	0	8	8	Number of more horses

Answer: 88 horses



Solve the following.

- There were 784 passengers in a train. 348 passengers got down at the next station. How many passengers were left in the train?
- There were 124 books in a shelf. Ria took out 86 of them. How many books were left in the shelf?

	H	T	O
	H	T	O

3. There were 108 beads on a string. If 48 of them broke, how many beads were left on the string?

H	T	O

4. Out of 472 toffees, Kavya and her friends ate 295. How many toffees were still left?

H	T	O

5. Rohit got 575 marks in Term-1. He got 386 marks in Term-2. How many less marks did he get in Term-2 than Term-1?

H	T	O

6. Junaid collected 250 stamps and his brother, Firoz collected 185 stamps. How many more stamps did Junaid collect than Firoz?

H	T	O

7. A shopkeeper had 534 packets of chips. Out of these packets, she sold 420. How many packets were left?

H	T	O

8. An egg-seller bought 612 eggs. But 174 of them broke. How many eggs were left with the egg-seller?

H	T	O





Chapter Review

1. Add the following. Regroup if required.

	H	T	O
	3	2	5
+	4	2	

	H	T	O
	4	6	3
+	2	8	

	H	T	O
	1	4	7
+	2	5	1

	H	T	O
	2	8	4
+	3	4	8

	H	T	O
	5	8	6
+	2	9	4

	H	T	O
	4	9	8
+	4	6	6

2. Subtract the following. Regroup if required.

	H	T	O
	4	8	7
-		5	4

	H	T	O
	5	3	4
-	3	0	2

	H	T	O
	8	6	0
-	2	2	4

	H	T	O
	9	6	8
-	4	8	8

	H	T	O
	8	0	0
-	5	4	5

	H	T	O
	7	2	4
-	3	4	8

3. Solve the following.

a) There are 247 mango trees and 396 gauva trees in an orchard. Find the total numbers of trees.

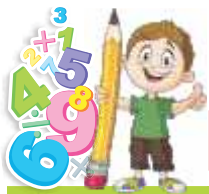
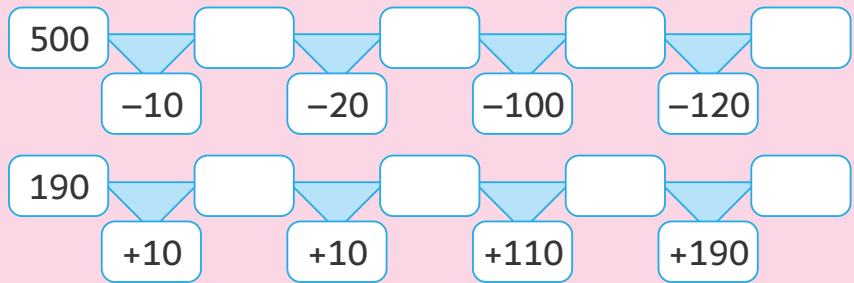
+			

b) Out of 625 students in a school, 447 are boys. Find the number of girl students.

-			



Follow the arrows and write the missing numbers to make the sum correct.



Maths Lab Activity

Experiential Learning

Objective

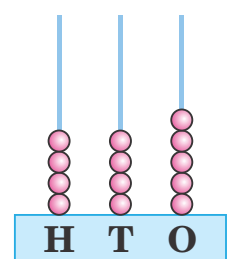
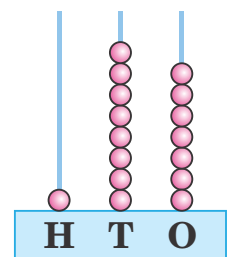
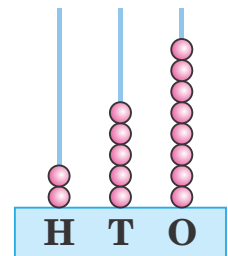
To reinforce the concept of addition of 3-digit numbers by regrouping.

Material Required

An abacus with three spikes, beads

Method (for the teacher)

- Make a pair of students and give an addition sum, say $258 + 187$.
- Ask them to add the numbers on the abacus.
- Help them understand how to regroup the numbers. For example, add the spike at the ones place and carry 1 ten to the tens column.
- Now add the tens [$5 + 8 + 1$ (carried over) = 14]. So, put 4 beads into spike at the tens place, and carry 1 hundred to the hundreds column.
- Add the hundreds [$2 + 1 + 1$ (carried over) = 4]. Put 4 beads in the spike at the hundreds place.



Life Skill

Anay saved ₹ 325 from his pocket money last year. This year he has saved ₹ 432. How much money has he saved in these two years? _____
What is the benefit of saving money? _____

Social-emotional Learning

Mrs Ahana donates 150 notebooks, Mr Kaushik donates 264 and Mrs Rawat donates 325 notebooks to an orphanage. How many notebooks did they donate altogether?

Cross Curricular

There are 154 one-storey houses, 204 duplexes and 27 huts in a town. How many houses are there in the town altogether?





Fractions

When something is divided into equal parts, each equal part represents a fraction of the whole. If you divide a slice of bread into two equal parts, each part represents a fraction of the whole slice.



Get Ready

Colour half part of the slice of bread.



For Teachers

Since the topic of fraction is new for the children, the teacher may introduce the concept by carrying out an activity. The teacher may divide a used page into two equal parts and help children understand that each part is a fraction of the whole page.

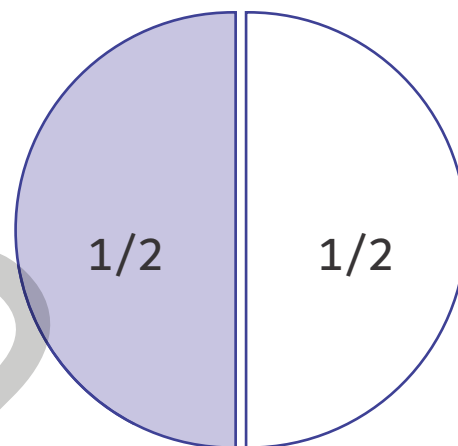
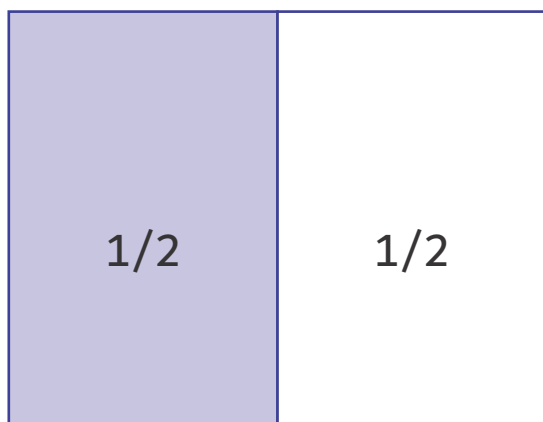


Half

When an object is divided into two equal parts, each part represents half of the object.

Half is also written as $\frac{1}{2}$.

Look at the following pictures.

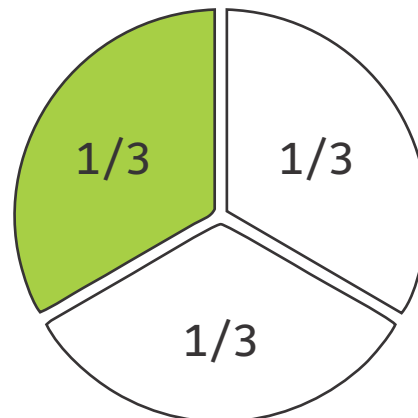
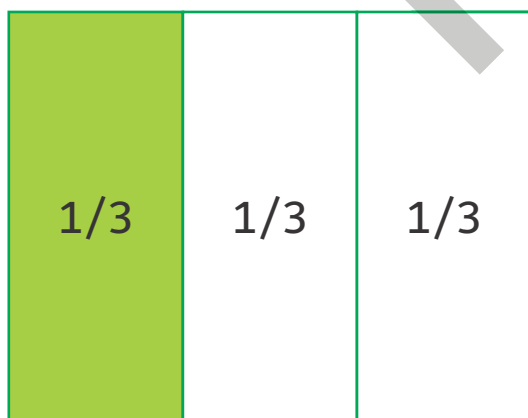


One-third

When an object is divided into three equal parts, each part represents one-third of the object.

One-third is also written as $\frac{1}{3}$.

Look at the following pictures.



For Teachers

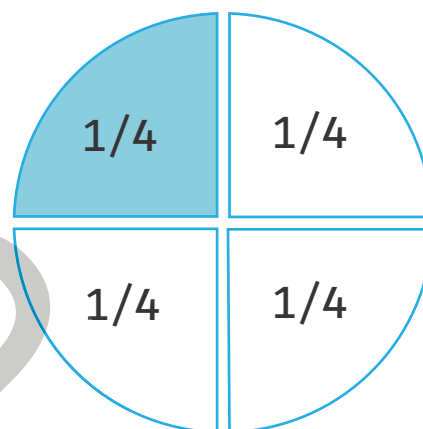
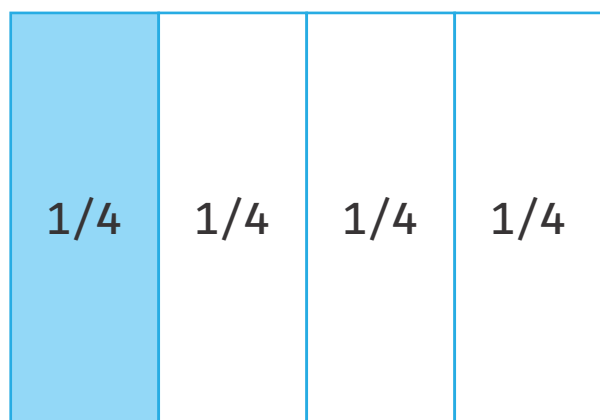
The teacher should explain students by taking more examples of notation representing a fraction.

One-fourth

When an object is divided into four equal parts, each part represents one-fourth of the object.

One-fourth is also written as $\frac{1}{4}$.

Look at the following pictures.

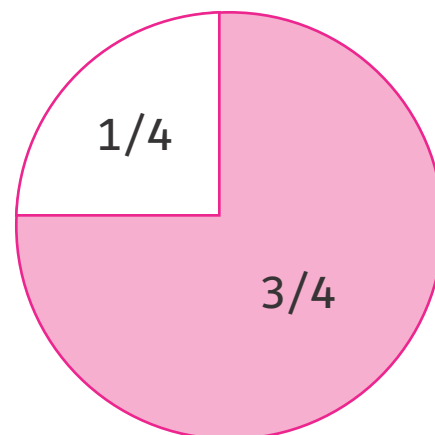
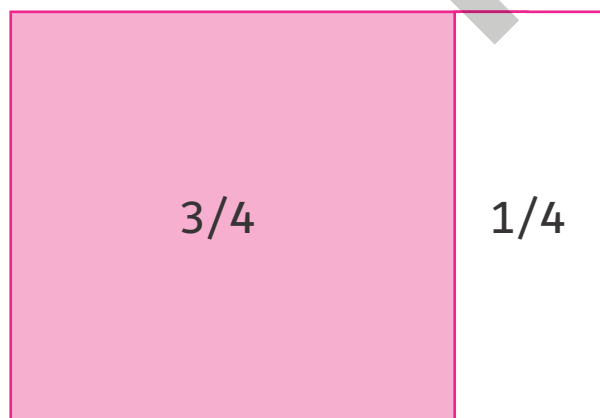


Three-fourths

When an object is divided into four equal parts, three out of four equal parts is called three-fourths.

Three-fourths is also written as $\frac{3}{4}$.

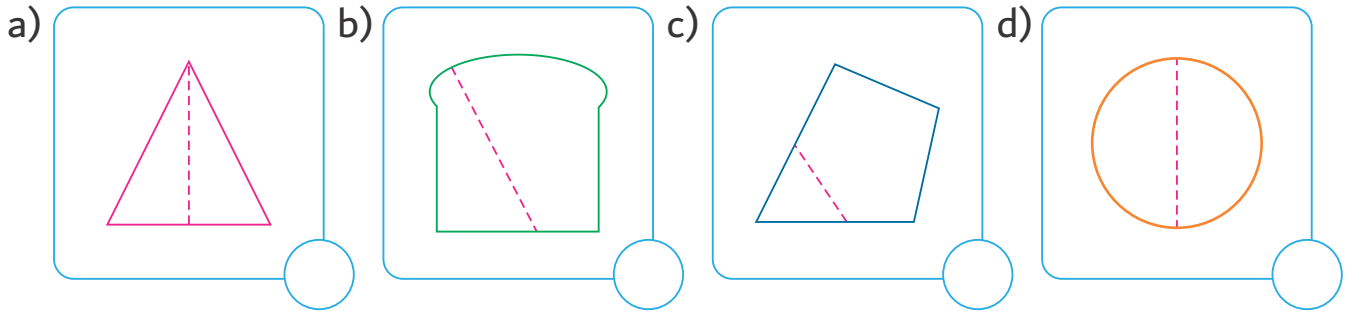
Look at the following pictures.



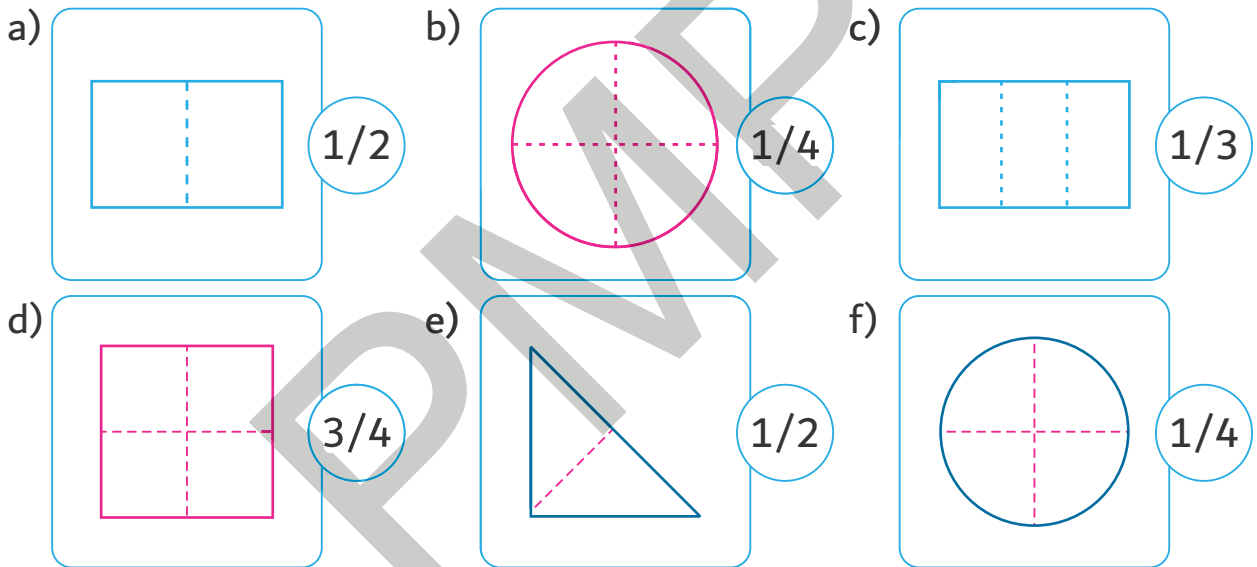


Chapter Review

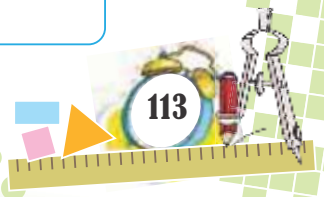
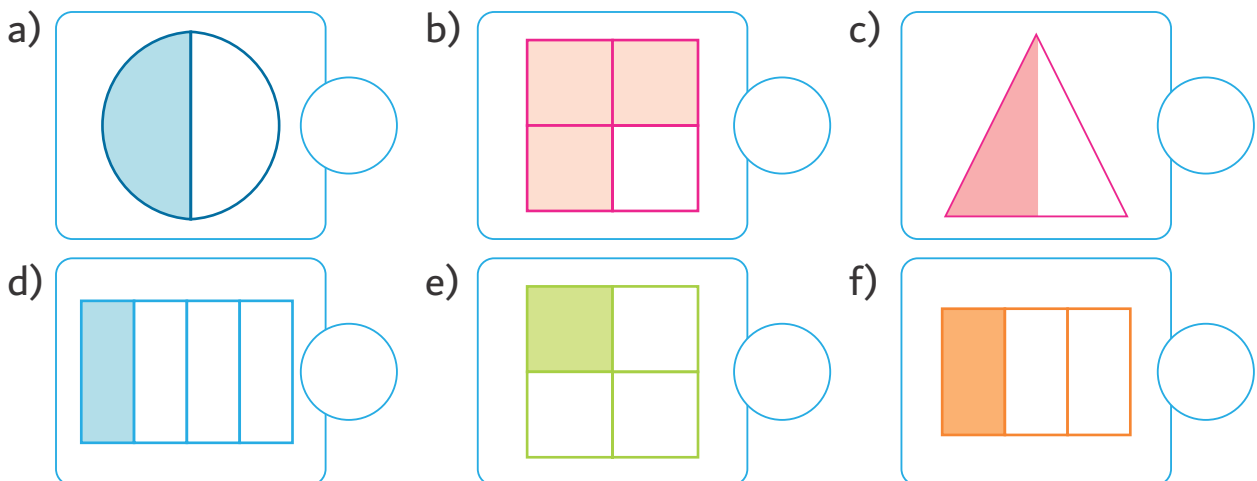
1. Tick (✓) the figures which are divided into equal parts.



2. Colour each figure as mentioned.

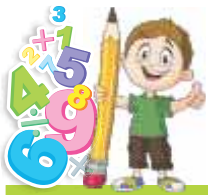
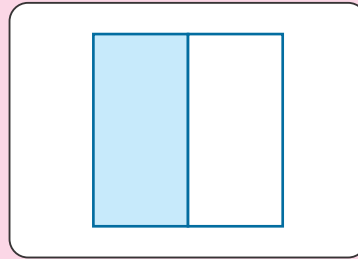
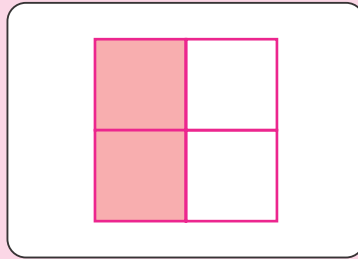


3. Write the coloured part of each figure in fraction.



Critical Thinking

Which of these two figures represents bigger fraction? Do they represent equal fraction? Share with your classmates.



Maths Lab Activity

Experiential Learning

Objective

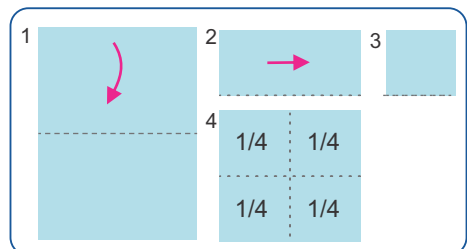
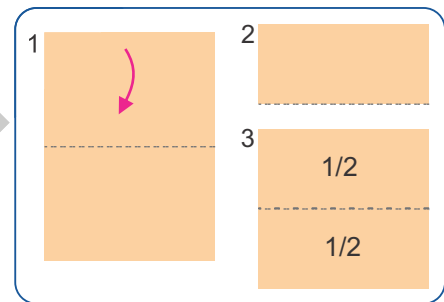
To reinforce the concept of fraction

Material Required

Sheets of paper, crayons and pencil

Method for the teacher

- Fold the paper into half as shown in the picture.
- Open the paper and colour one part of it.
- It will represent $\frac{1}{2}$.
- Now, fold the paper into half. Give another fold as shown in the picture.
- Open the paper. You will see four equal parts.
- Colour one part of it. It will represent $\frac{1}{4}$.



Social-emotional Learning

Aarav's father has bought him a pizza. Meanwhile, two of his friends come to meet him. Should Aarav share pizza with them? What part of pizza should Aarav share with them so that each of them gets equal part?





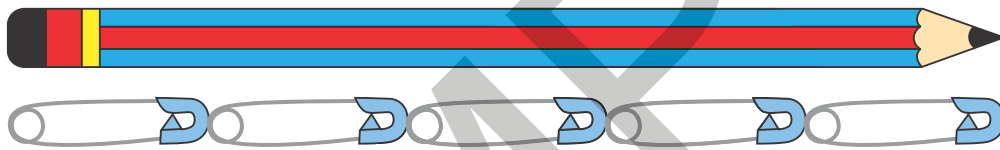
Measurement

Measurement helps us find the length, weight and capacity. You have already studied about it in Class-1. Let us revise first and then learn more.



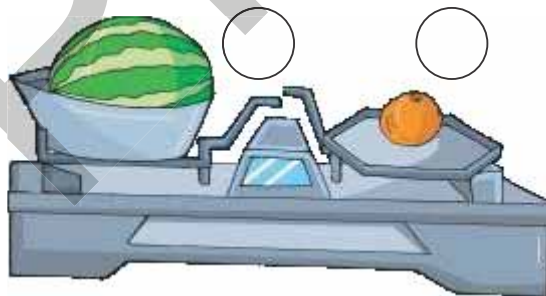
Get Ready

1. How long is the pencil?



The pencil is safety pins long.

2. Tick (✓) the heavier object.



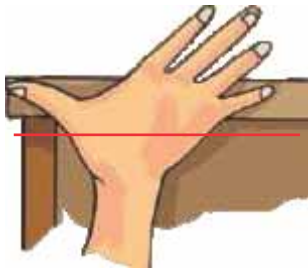
3. If 1 jug holds 4 cups of water, circle the number of cups that will fill the two jugs with water.



Measurement of Length

Measurement of length helps us know how long something is. It also helps us to compare which of the two objects is longer or shorter.

Earlier, people used their body parts to measure length. For example:



Handspan



Cubit



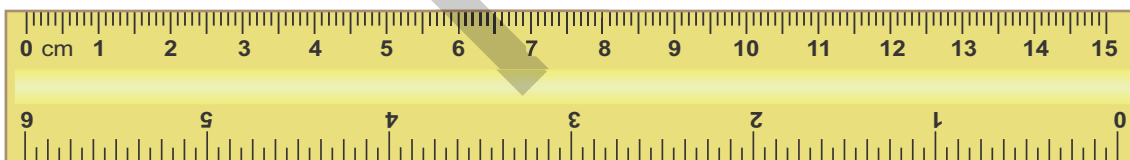
Footspan

But these units of measurement are non-standard units of length because these body parts vary from person to person.

To measure length correctly, we use fixed measures which are **centimetres** (cm) for small lengths and **metres** (m) for bigger lengths.

Centimetre and **metre** are standard units of length.

Look at the following picture of a ruler.



It has centimetre marks on one side.

The ruler we commonly use is 15 cm long.

We write centimetre as 'cm'.

The length of an eraser is about 2 cm.



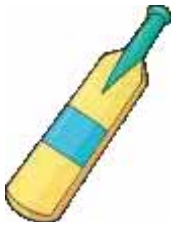
The length of a pencil is about 15 cm.



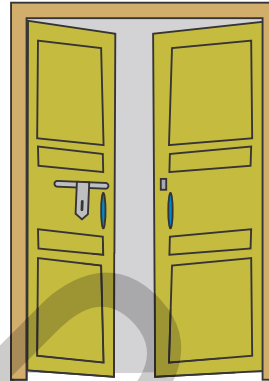
Metre

Metre is a bigger unit of length. 1 metre is equal to 100 centimetres. We write metre as 'm'.

$$1 \text{ m} = 100 \text{ cm}$$



A cricket bat is about 1 m long.



A door is about 2 m high.



Examples : a) Write 400 cm in metres.

$$400 \text{ cm} = 4 \text{ m}$$

b) Write 3 m in centimetres.

$$3 \text{ m} = 300 \text{ cm}$$

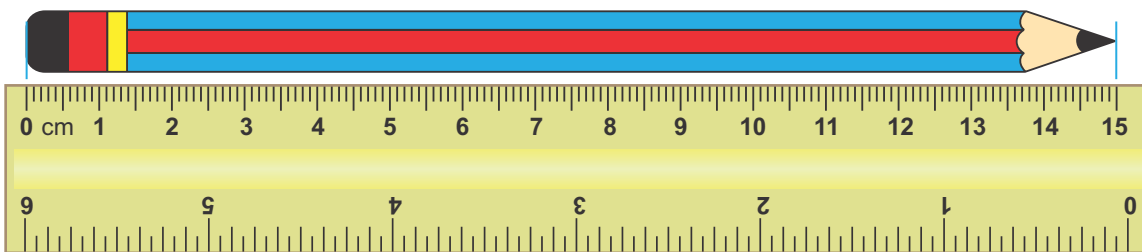


Measuring Length with a Ruler or Scale

A ruler or scale is used to measure small lengths.

Let us measure the length of a pencil.

Remember we start measuring from '0' mark.



The length of the pencil is 15 cm.



For Teachers

The teacher may ask the students to measure the length of their used pencils and write in their notebook. You may check randomly if their measurements are correct.





Quick Response 9.1

1. Measure the length of the following things using a ruler and write them.

- The length of my pencil is _____ cm.
- The length of my toothbrush is _____ cm.
- The length of my crayon is _____ cm.
- The length of my middle finger is _____ cm.

2. Write whether the lengths of the following are measured in m or cm.

- The length of the blackboard _____
- The length of a book _____
- The length of a car _____
- The length of a mobile phone _____



3. Write in metres.

- | | |
|-------------------|-------------------|
| a) 200 cm = _____ | b) 400 cm = _____ |
| c) 500 cm = _____ | d) 700 cm = _____ |
| e) 300 cm = _____ | f) 900 cm = _____ |

4. Write in centimetres.

- | | |
|----------------|----------------|
| a) 1 m = _____ | b) 3 m = _____ |
| c) 5 m = _____ | d) 6 m = _____ |
| e) 8 m = _____ | f) 9 m = _____ |



Measurement of Weight

Measurement of weight helps us know how heavy something is.

Take a book in one hand and an eraser in the other hand.

You would notice that the hand with the book tends to feel heavier than the other hand.

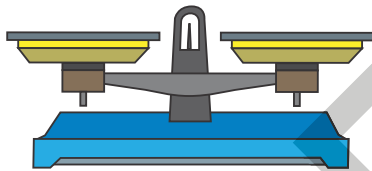
This is because the weight of the book is more than that of the eraser. The book is heavier than the eraser.



Weighing by a Balance

Weight is measured by using a balance. It helps us know whether the objects are of the same or different weights.

These are different types of balance.



Beam balance



Electronic balance



Grams and **kilograms** are the standard units of weight. Standard units give the same weight of an object every time. We use 'g' for 'gram' and 'kg' for 'kilogram'.

Weights of different measures.



50 g



100 g



200 g



500 g



1 kg



2 kg



5 kg



For Teachers

The teacher may bring a beam balance and weights of 50 gram, 100 gram and 200 gram in the classroom. Demonstrate how to weigh objects on it.



Gram

We use 'gram' to measure the weight of light objects. For example: spices like cardamom, cumin, black pepper, etc. are measured in grams.



a 100 g pouch of cardamom



a toothpaste packet of 150 gm



a cake of soap of 75 gm

Kilogram

We use kilogram to measure heavy objects. For example: weight of a person, a sack of wheat, a gas cylinder, etc.



a 1 kg packet of salt



a 5 kg packet of rice



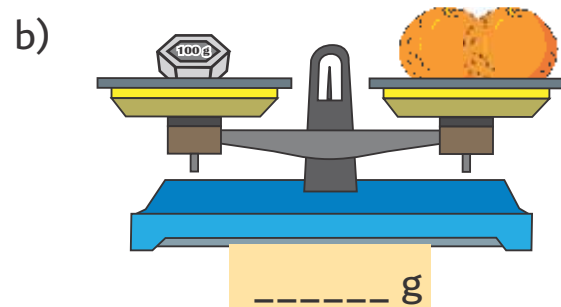
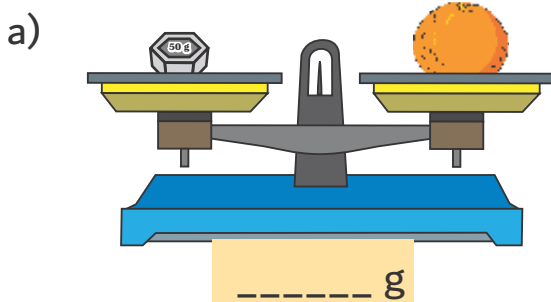
a 10 kg packet of flour

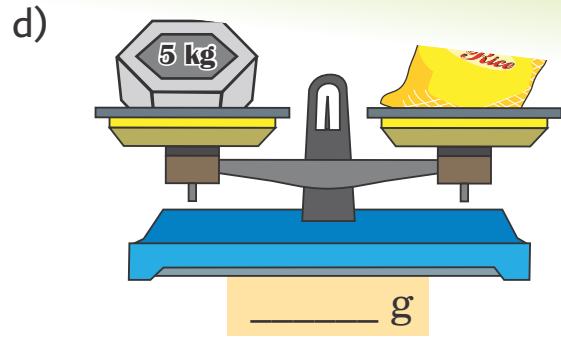
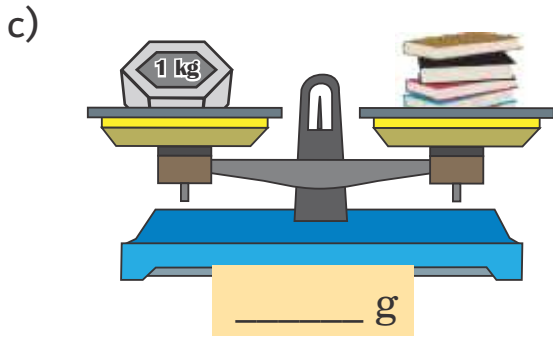
$$1 \text{ kilogram} = 1000 \text{ grams}$$



Quick Response 9.2

1. Write the weight of the following.



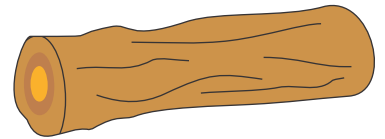


2. Write whether the weight of the following things are measured in g or kg.

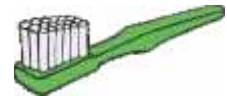
a) A pen _____



b) A log of wood _____



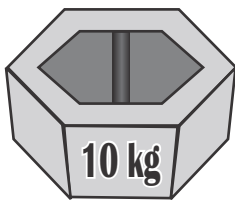
c) A toothbrush _____



d) A baby _____



3. A shopkeeper has the weights given below. How will he use them to weigh the following? One has been done for you.



10 kg



5 kg



2 kg



1 kg

a) 7 kg = $5\text{ kg} + 2\text{ kg}$ _____

b) 8 kg = _____

c) 12 kg = _____

d) 3 kg = _____

e) 15 kg = _____

f) 17 kg = _____



Measurement of Capacity

Measurement of capacity helps us know how much liquid (water, milk, petrol, etc.) a container can hold.

To measure capacity correctly, we use fixed standard units of capacity like **millilitre** and **litre**.

Millilitre

We use millilitre to measure smaller capacities.

Millilitre is written as 'ml' in short.

We use millilitre to measure milk in a baby feeder, medicine in a teaspoon, etc.



200 ml of milk
in a baby-feeder



5 ml of medicine
in a teaspoon



500 ml cold drink
in a bottle

Litre

Litre is used to measure bigger capacities. We also write litre as 'l'.

$$1 \text{ litre} = 1000 \text{ millilitres}$$

We use litre to measure water in a bucket, petrol in a car tank, milk in a gallon, etc.



a 1 litre packet
of milk



a bucket with
20 litres of water



a water tank with
500 litres of water



Quick Response 9.3

1. If a glass can hold 200 ml of water, find the capacity of the containers given below.



A thermos can hold ml of water.



A jug can hold ml of water.

2. Write whether the capacities of the following are measured in ml or l.

a) Water in a tanker _____



b) Soup in a bowl _____



c) Medicine in a syringe _____



d) Vegetable oil in a tin _____



For Teachers

The teacher may demonstrate how to measure small quantities of liquid using a measuring equipment.

Addition and Subtraction of Length

Example: Add 25 m 24 cm and 32 m 23 cm.

We add m with m and cm with cm.

	m	cm
	25	24
+	32	23
	57	47

Answer: 57 m 47 cm

Just like other number, we can add and subtract m or cm.



Example: Subtract 15 m 22 cm from 38 m 44 cm.

We subtract m with m and cm with cm.

	m	cm
	38	44
-	15	22
	23	22

Answer: 23 m 22 cm

Remember, cm column can have a maximum of 2-digit number.



Quick Response 9.4

1. Add.

a)

	m	cm
	12	51
+	23	24

b)

	m	cm
	20	21
+	15	37

c)

	m	cm
	32	40
+	34	20

d)

	m	cm
	51	43
+	17	12

2. Subtract.

a)

	m	cm
	38	57
-	24	33

b)

	m	cm
	58	78
-	32	53

c)

	m	cm
	94	98
-	54	43

d)

	m	cm
	88	96
-	45	36



Addition and Subtraction of Weight

Example: Add 24 kg 240 g and 32 kg 350 g.

	kg	g
	24	240
+	32	350
	56	590

Add kg with kg and g with g.



Answer: 56 kg 590 g.

Example: Subtract 34 kg 345 g from 95 kg 855 g.

	kg	g
	95	855
-	34	345
	61	510

Subtract kg from kg and g from g.



Answer: 61 kg 510 g



Quick Response 9.5

1. Add.

a)

	kg	g
	12	250
+	14	125

b)

	kg	g
	24	104
+	34	272

c)

	kg	g
	71	855
+	15	100

d)

	kg	g
	42	625
+	37	230

2. Subtract.

a)

	kg	g
	58	690
-	37	530

b)

	kg	g
	87	855
-	52	725

c)

	kg	g
	65	895
-	25	745

d)

	kg	g
	96	980
-	72	740



Addition and Subtraction of Capacity

Example: Add 62 l 142 ml and 32 l 510 ml.

	l	ml
	62	142
+	32	510
	94	652

Add l with l and ml with ml.



Answer : 94 l 652 ml.

Example: Subtract 52 l 232 ml from 85 l 685 ml.

	l	ml
	85	685
-	52	232
	33	453

Subtract l from l and ml from ml.



Answer : 33 l 453 ml.

Quick Response 9.6

1. Add.

a)

	l	ml
	14	234
+	31	342

b)

	l	ml
	36	150
+	32	425

c)

	l	ml
	54	750
+	24	120

d)

	l	ml
	72	472
+	16	105

2. Subtract.

a)

	l	ml
	57	847
-	23	524

b)

	l	ml
	69	910
-	43	710

c)

	l	ml
	86	780
-	54	450

d)

	l	ml
	98	850
-	28	850





Chapter Review

1. Tick (✓) the correct option.

- a) We use metre to measure _____.
 i) weight ii) length iii) capacity
- b) 1 metre is equal to _____.
 i) 10 cm ii) 100 cm iii) 1000 cm
- c) Which of the following is the greatest?
 i) 5 kg ii) 200 g iii) 500 g
- d) We use litre to measure _____.
 i) length ii) capacity iii) weight

2. Solve the following.

a)	<table border="1"><tr><th>m</th><th>cm</th></tr><tr><td>15</td><td>25</td></tr><tr><td>+ 12</td><td>32</td></tr><tr><td></td><td></td></tr></table>	m	cm	15	25	+ 12	32			b)	<table border="1"><tr><th>m</th><th>cm</th></tr><tr><td>82</td><td>43</td></tr><tr><td>+ 14</td><td>15</td></tr><tr><td></td><td></td></tr></table>	m	cm	82	43	+ 14	15			c)	<table border="1"><tr><th>m</th><th>cm</th></tr><tr><td>64</td><td>85</td></tr><tr><td>- 20</td><td>34</td></tr><tr><td></td><td></td></tr></table>	m	cm	64	85	- 20	34			d)	<table border="1"><tr><th>m</th><th>cm</th></tr><tr><td>75</td><td>96</td></tr><tr><td>- 23</td><td>80</td></tr><tr><td></td><td></td></tr></table>	m	cm	75	96	- 23	80		
m	cm																																						
15	25																																						
+ 12	32																																						
m	cm																																						
82	43																																						
+ 14	15																																						
m	cm																																						
64	85																																						
- 20	34																																						
m	cm																																						
75	96																																						
- 23	80																																						

3. Solve the following.

a)	<table border="1"><tr><th>kg</th><th>g</th></tr><tr><td>5</td><td>420</td></tr><tr><td>+ 2</td><td>350</td></tr><tr><td></td><td></td></tr></table>	kg	g	5	420	+ 2	350			b)	<table border="1"><tr><th>kg</th><th>g</th></tr><tr><td>15</td><td>650</td></tr><tr><td>+ 12</td><td>230</td></tr><tr><td></td><td></td></tr></table>	kg	g	15	650	+ 12	230			c)	<table border="1"><tr><th>kg</th><th>g</th></tr><tr><td>24</td><td>750</td></tr><tr><td>- 12</td><td>250</td></tr><tr><td></td><td></td></tr></table>	kg	g	24	750	- 12	250			d)	<table border="1"><tr><th>kg</th><th>g</th></tr><tr><td>85</td><td>960</td></tr><tr><td>- 43</td><td>640</td></tr><tr><td></td><td></td></tr></table>	kg	g	85	960	- 43	640		
kg	g																																						
5	420																																						
+ 2	350																																						
kg	g																																						
15	650																																						
+ 12	230																																						
kg	g																																						
24	750																																						
- 12	250																																						
kg	g																																						
85	960																																						
- 43	640																																						

4. Solve the following.

a)	<table border="1"><tr><th>l</th><th>ml</th></tr><tr><td>4</td><td>460</td></tr><tr><td>+ 3</td><td>320</td></tr><tr><td></td><td></td></tr></table>	l	ml	4	460	+ 3	320			b)	<table border="1"><tr><th>l</th><th>ml</th></tr><tr><td>14</td><td>250</td></tr><tr><td>+ 35</td><td>140</td></tr><tr><td></td><td></td></tr></table>	l	ml	14	250	+ 35	140			c)	<table border="1"><tr><th>l</th><th>ml</th></tr><tr><td>28</td><td>980</td></tr><tr><td>- 15</td><td>780</td></tr><tr><td></td><td></td></tr></table>	l	ml	28	980	- 15	780			d)	<table border="1"><tr><th>l</th><th>ml</th></tr><tr><td>77</td><td>890</td></tr><tr><td>- 42</td><td>750</td></tr><tr><td></td><td></td></tr></table>	l	ml	77	890	- 42	750		
l	ml																																						
4	460																																						
+ 3	320																																						
l	ml																																						
14	250																																						
+ 35	140																																						
l	ml																																						
28	980																																						
- 15	780																																						
l	ml																																						
77	890																																						
- 42	750																																						



Critical Thinking

A fruit seller has a weight of 200 g. In how many times will he be able to weigh 1 kg of apple?



Maths Lab Activity

Experiential Learning

Objective

To estimate small lengths and verify the estimate by taking actual measure

Material Required

Measuring tape, marker pen, a pair of scissors, glue, geometry box

Method

- Estimate the length of the given objects in cm and write in the first column.
- Use a measuring tape to take the actual length of these objects. And write in the second column.
- Find the difference and write in the third column.

Objects	Estimated Measure	Actual Measure	Difference
Your pen			
Maths book			
Your leg			
Middle finger			
Your height			

Life Skill

Apart from main food items, Aditi consumes 50 grams of fruits, 20 grams of butter and 100 grams of vegetables every day. Find the total quantity of fruits, butter and vegetables.





Money

You know that money is used to buy things and to pay bills. Every country has a system of money which is called its **currency**. **Rupee** is the currency of India. And its symbol is ₹.



Get Ready

1. Write the value of these notes and coins.



₹ _____



₹ _____



₹ _____



2. Match the following.



- ₹ 30
- ₹ 57
- ₹ 25
- ₹ 12



Indian Currency

Indian currency is in the form of notes and coins. Look at the pictures of commonly used coins and notes.

Coins



1 Rupee



2 Rupees



5 Rupees



10 Rupees



20 Rupees



Notes



2000 Rupees



500 Rupees



200 Rupees



100 Rupees



50 Rupees



20 Rupees



10 Rupees



5 Rupees



For Teachers

The teacher may show some coins and notes to the children and help them understand the value (denomination) of each.

Reading and Writing Money

We use ₹ for rupee or rupees, and p for paise.

1 Rupee = 100 paise

Examples:

1. Write 2 rupees 50 paise in figure.

In figure, 2 rupees 50 paise = ₹ 2.50

↑
This point or dot separates rupee from paise.

When we put the point or dot, we do not write paise.

2. Write ₹ 10.25 in words.

In words, ₹ 10.25 = 10 rupees 25 paise.



1. Write the following amounts in figure.

- a) 8 rupees 35 paise = _____
b) 12 rupee 50 paise = _____
c) 25 rupees 75 paise = _____
d) 50 rupees 10 paise = _____
e) 60 rupees 25 paise = _____



2. Write the following amounts in words.

- a) ₹ 9.55 = _____
b) ₹ 15.60 = _____
c) ₹ 25.75 = _____
d) ₹ 35.80 = _____
e) ₹ 52.40 = _____

Addition of Money

Find the total amount.



₹	100
+	₹ 50
₹	150



Quick Response 10.2

1. Add the following.

- | | | | | | | | | | |
|----|----------------|----|----------------|----|-----------------|----|---------------|----|----------------|
| a) | ₹ 20
+ ₹ 10 | b) | ₹ 50
+ ₹ 20 | c) | ₹ 100
+ ₹ 10 | d) | ₹ 60
+ ₹ 5 | e) | ₹ 70
+ ₹ 20 |
|----|----------------|----|----------------|----|-----------------|----|---------------|----|----------------|

2. Match the following sets of money with the price of objects.

- | | | | | |
|----|--|---|------|--|
| a) | | • | i) | |
| b) | | • | ii) | |
| c) | | • | iii) | |
| d) | | • | iv) | |



Addition and Subtraction of Rupees and Paise

Example:

1. Add ₹ 24.50 and ₹ 32.25.

Step-1: Add the paise first.

Step-2: Add the rupees now.

Answer: ₹ 56.75

₹	p
24	50
+	32
32	25
56	75

2. Subtract ₹ 34.20 from ₹ 86.50.

Step-1: Subtract the paise first.

Step-2: Subtract the rupees now.

Answer: ₹ 52.30.

₹	p
86	50
-	34
34	20
52	30



Quick Response 10.3

1. Add the money.

a)

₹	p
12	35
+	23
23	20

b)

₹	p
44	30
+	45
45	45

c)

₹	p
37	40
+	51
51	50

d)

₹	p
54	65
+	32
32	30

2. Subtract the money.

a)

₹	p
44	75
-	12
12	35

b)

₹	p
58	60
-	34
34	50

c)

₹	p
96	85
-	50
50	30

d)

₹	p
87	90
-	60
60	90



Word Problems

Example:

Aditi bought a pen for ₹ 20.50 and a pencil box for ₹ 50.00. How much money did Aditi spend?

Aditi spent ₹ 70.50.

₹	p
20	50
+ 50	00
70	50



Quick Response 10.4

Solve the following.

1. Mother gave Ananya ₹50 and her father gave her ₹100. How much money does she have now altogether?



₹	p

2. There were ₹75.50 in the money bank. Ria put ₹20 more in it. How much money is there in the money bank now?



₹	p

3. Rohit buys an ice-cream for ₹30. He gives ₹50 to the ice-cream vendor. How much money will he get back?



₹	p

4. Soumya buys a toy for ₹120. She gives ₹150 to the shopkeeper. How much money will she get back?



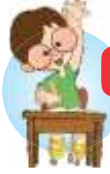
₹	p

5. Ramya buys a notebook for ₹12. She gives a 20-rupee note to the shopkeeper. How much money will she get back?



₹	p





Chapter Review

1. Write the following amounts in figures.

a) 15 rupees 85 paise : _____

b) 95 rupees 60 paise : _____

2. Write the following amounts in words.

a) ₹ 17.15 : _____

b) ₹ 25.45 : _____



3. Find the total sum.



₹ _____



₹ _____

4. Add or subtract the following.

a)

₹	p
42	30
+	35
	20

b)

₹	p
88	75
-	46
	25

5. Solve the following.

a) Rohit had ₹ 125 with him. His father gave him ₹ 100. How much money does he have now?

₹	p
+	

b) Ria had ₹ 95.50. She bought a pen for ₹ 15.50. How much money is left with her?

₹	p
-	



Ranjana has two 5-rupee coins, three 10-rupee coins, five 2-rupee coins and fifteen 1-rupee coins. How much money does she have?





Maths Lab Activity

Experiential Learning

Objective

To learn how to change money

Material Required

Dummy notes of ₹ 500, ₹ 100, ₹ 50, ₹ 20, ₹ 10 and ₹ 5

Method (for the teacher)

- Make a pair. Give some dummy notes to a student.
- Now give a dummy note (say, a 100-rupee note) to the other student. He/she will ask his/her partner to give him/her the change.
- The partner will give him/her the change. He/she can give him/her the change in the following combinations:

₹ 50 + ₹ 50

₹ 50 + ₹ 20 + ₹ 20 + ₹ 10

- Repeat this activity with other denominations of notes.



Communication Skill

Ria bought a pen for ₹20. She gave a 50-rupee note to the shopkeeper. By mistake, the shopkeeper returned her ₹40. But Ria returned ₹10 to the shopkeeper. The shopkeeper thanked her.

How much more money did the shopkeeper return? _____

What quality do you see in Ria? _____

What value does the act of Ria depict? Share with the class.





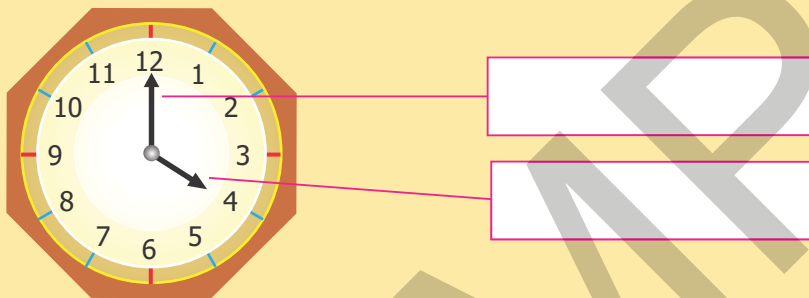
Time

We do most of the things according to time. A clock tells us the time. Can you recall what you studied about time in Class-I? Let us see.



Get Ready

1. Label the minute hand and hour hand of the clock.



2. Write the time shown in the clocks.

a)	b)	c)	d)
<input type="text"/> o'clock	<input type="text"/> o'clock	<input type="text"/> o'clock	<input type="text"/> o'clock

3. Draw the hour hand in the clocks according to the given time.

a)	b)	c)	d)
<input type="text"/> 7 o'clock	<input type="text"/> 10 o'clock	<input type="text"/> 6 o'clock	<input type="text"/> 9 o'clock

Reading and Writing the Time

3 o'clock is the same as 3:00. The two dots separate hours and minutes.

One more example



10 o'clock

10:00

You can write the time in both ways.



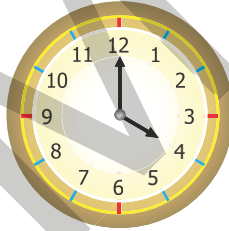
Quick Response 11.1

1. Write the given time in both ways.

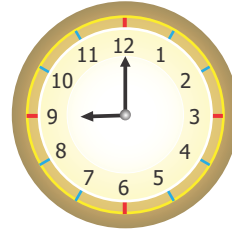
a)



b)

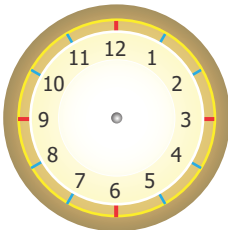


c)



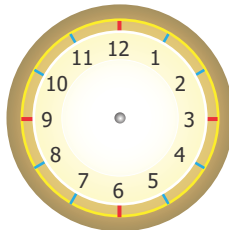
2. Draw hands in the following clocks according to the given time.

a)



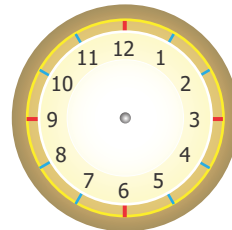
1:00

b)



8:00

c)



11:00



For Teachers

The teacher may use a dummy clock to help children learn how to read the time. Change the time in the clock and ask them to tell the time.



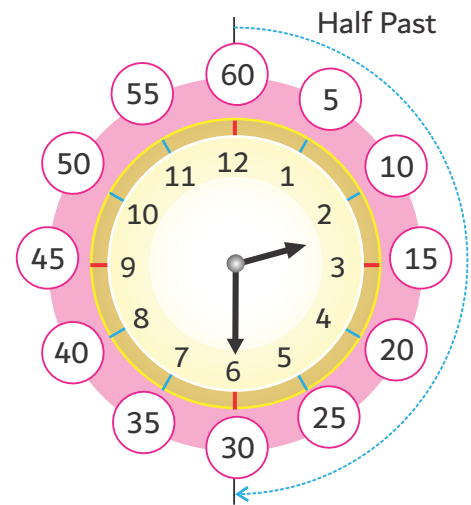
Reading Time by Half Past

When the minute hand is at 6 and the hour hand is between two numbers, we tell the time by half past.

When the minute hand moves from a number to next number, it completes 5 minutes. So, when it moves from 12 to 6, it completes $(6 \times 5 \text{ minutes})$ 30 minutes.

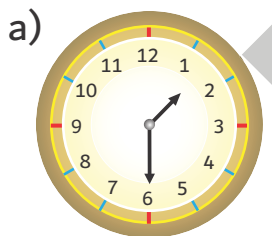
In the given clock, the hour hand is between 2 and 3. And the minute hand is at 6.

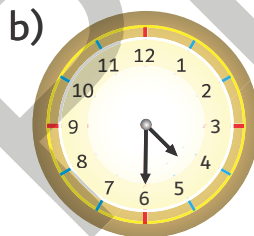
So, the time is **half past 2** or **2:30**.

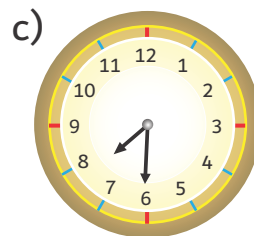


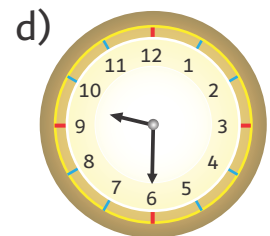
Quick Response 11.2

1. Write the time shown by the clocks.



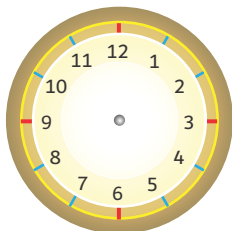




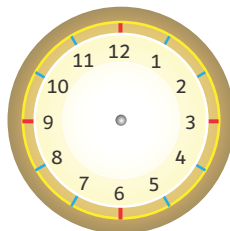


2. Draw hands of the clocks according to the given time.

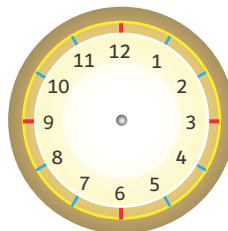
a) 3:30



b) 5:30



c) 8:30



d) 10:30

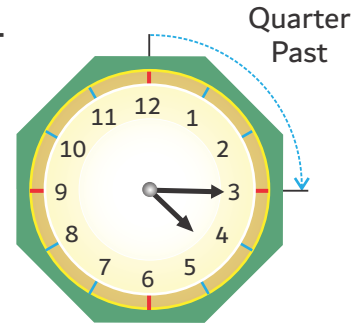


Reading Time by Quarter Past

In the given clock, the hour hand is little ahead of 4 and the minute hand is at 3.


It means, the minute hand has completed (3 × 5 minutes) 15 minutes.

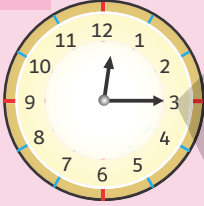
So, the time is **quarter past 4** or **4:15**.

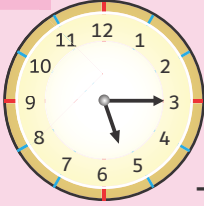


Quick Response 11.3

Write the time shown by the clocks.

a)  _____

b)  _____

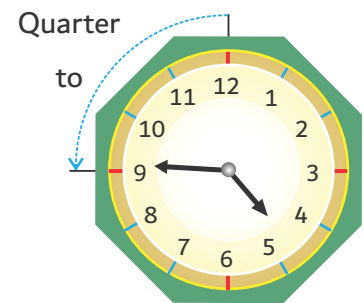
c)  _____

Reading Time by Quarter to

In the given clock, the hour hand is about to reach 5. And the minute hand is at 9.

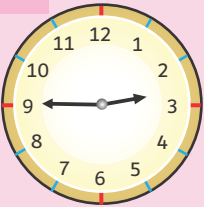
It means, the minute hand is 15 minutes short to reach 12.


So, the time is **quarter to 5** or **4:45**.

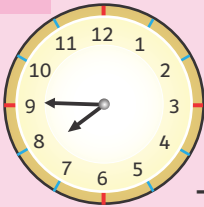


Quick Response 11.4

Write the time shown by the clocks.

a)  _____

b)  _____

c)  _____



Days of the Week

There are 7 days in a week.

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

Monday is the first day and Sunday is the last day of the week.



Saturday and Sunday are called weekends.



In a calendar, Sunday is shown as the first day of the week. But Monday is called the first working day of the week.



Quick Response 11.5

Fill in the blanks.

1. _____ is the first day of the week.
2. There are _____ days in a week.
3. _____ comes just after Monday.
4. _____ is the last day of the week.
5. _____ comes between Friday and Sunday.
6. The fifth day of the week is _____.
7. Wednesday comes between _____ and Thursday.



For Teachers

The teacher may use the calendar of current year to help the children relate the current day and month with it.



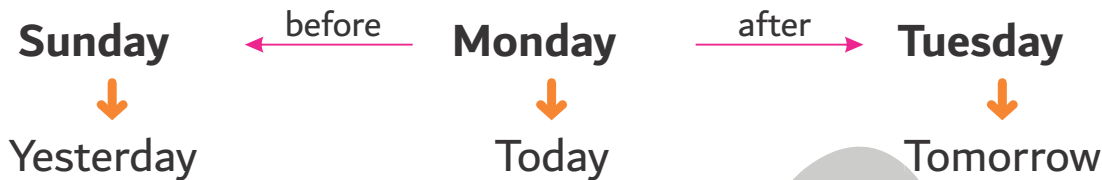
Yesterday, Today, Tomorrow

The day presently going on is called **today**.

The day before today which has passed is called **yesterday**.

The day after today which is to come is called **tomorrow**.

Suppose today is Monday, then:



If today is Monday, yesterday was Sunday and tomorrow will be Tuesday.



Quick Response 11.6

Fill in the blanks.

1. If today is Thursday, yesterday was _____.
2. If today is Saturday, tomorrow will be _____.
3. If yesterday was Wednesday, today is _____.
4. If tomorrow is Sunday, today is _____.
5. If yesterday was Tuesday, today is _____.
6. If yesterday was Monday, tomorrow will be _____.
7. If tomorrow is Wednesday, yesterday was _____.



Months of the Year

There are 12 months in a year. These are:

Order of the months	Name of the months	Number of days
1st	January	31
2nd	February	28 or 29
3rd	March	31
4th	April	30
5th	May	31
6th	June	30
7th	July	31
8th	August	31
9th	September	30
10th	October	31
11th	November	30
12th	December	31

Learn the Rhyme

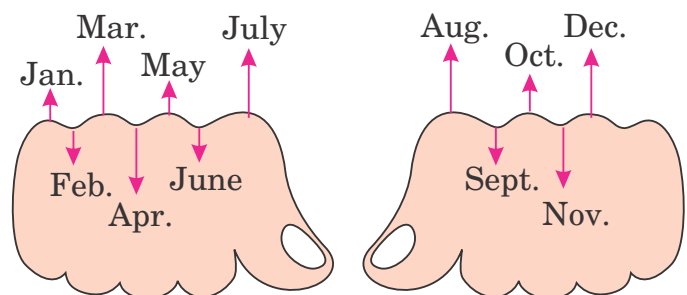
*Thirty days have September,
April, June, and November.
All the rest have thirty-one,
Excepting February alone,
That has 28 days dear,
And 29 days in a leap year.*



Knuckle Rule for Finding Number of Days

You can use your knuckles to find the number of days in a month in the year. Fold your fingers into a fist as shown. Count the months of the year starting from the first knuckle—

January on the knuckle, February in the dip, March again on the knuckle. All the months on the knuckle have 31 days. The months in the dip have 30 days. February is an exception which has 28 or 29 days.





Quick Response 117

Fill in the blanks.

- _____ is the first month of the year.
- July comes just after _____.
- September comes between _____ and October.
- There are _____ days in November.
- _____ has 28 or 29 days.
- _____ is the last month of the year.



Calendar

A calendar displays the days, weeks and months of the year.

January							February							March							April						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	1	2	3	4	5	6			1	2	3	4	5					1	2		
4	5	6	7	8	9	10	7	8	9	10	11	12	13	6	7	8	9	10	11	12	3	4	5	6	7	8	9
11	12	13	14	15	16	17	14	15	16	17	18	19	20	13	14	15	16	17	18	19	10	11	12	13	14	15	16
18	19	20	21	22	23	24	21	22	23	24	25	26	27	20	21	22	26	27	25	26	17	18	19	20	21	22	23
25	26	27	28	29	30	31	28	29					27	28	29	30				24	25	26	27	28	29	30	

May							June							July							August						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
30	31					1				1	2	3	4	31					1	2		1	2	3	4	5	6
2	3	4	5	6	7	8	5	6	7	8	9	10	11	3	4	5	6	7	8	9	7	8	9	10	11	12	13
9	10	11	12	13	14	15	12	13	14	15	16	17	18	10	11	12	13	14	15	16	14	15	16	17	18	19	20
16	17	18	19	20	21	22	19	20	21	22	23	24	25	17	18	19	20	21	22	23	21	22	23	24	25	26	27
23	24	25	26	27	28	29	26	27	28	29	30			24	25	26	27	28	29	30	28	29	30	31			

September							October							November							December						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	30	31				1			1	2	3	4	5					1	2	3	
4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12	4	5	6	7	8	9	10
11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19	11	12	13	14	15	16	17
18	19	20	21	22	26	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26	18	19	20	21	22	23	24
25	26	27	28	29	30		23	24	25	26	27	28	29	27	28	29	30				25	26	27	28	29	30	31



Some More Facts

1 year	=	12 months
1 month	=	about 4 weeks
1 year	=	52 weeks
1 week	=	7 days
1 year	=	365 days
1 leap year	=	366 days

Every fourth year
is a leap year.



Reading a Calendar

From the given calendar, we can say that:

1. The month begins with Thursday.
2. The first Sunday is on 4th.
3. The second Saturday is on 10th.
4. Saturday is the last day of the month.

January						
S	M	T	W	T	F	S
				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



Fill in the blanks.

1. How many Sundays are there in this month? _____
2. On which date is the first Saturday? _____
3. Which day is on the last date of the month? _____
4. What is the date on the last Monday of the month? _____
5. How many days are there in the month? _____



Seasons/Ritus

When a particular weather prevails for a couple of months, it is called **season**. In Hindi, season is called *ritu*. There are six *ritus* according to the Indian calendar. These are:

December-January



Shishir Ritu
(Winter season)

February-March



Vasant Ritu
(Spring season)

April-May



Grishma Ritu
(Summer season)

June-July



Varsha Ritu
(Monsoon season)

August-September



Sharad Ritu
(Post-monsoon season)

October-November



Hemant Ritu
(Autumn season)

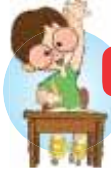


Match the following.

1. December-January
2. June-July
3. October-November
4. February-March
5. April-May

- a) *Hemant Ritu*
- b) *Grishma Ritu*
- c) *Shishir Ritu*
- d) *Varsha Ritu*
- e) *Vasant Ritu*





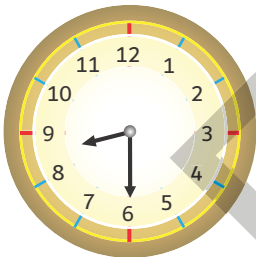
Chapter Review

1. Tick (✓) the correct option.

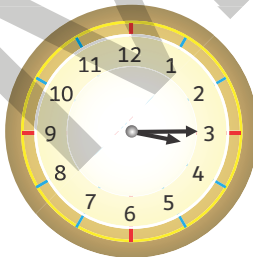
- a) The minute hand takes a complete round in _____.
i) 60 minutes ii) 90 minutes iii) 30 minutes
- b) _____ comes just after Monday.
i) Wednesday ii) Tuesday iii) Thursday
- c) _____ is the last day of the week.
i) Monday ii) Sunday iii) Saturday
- d) July comes between June and _____.
i) August ii) September iii) October

2. Look at the clock and write the time in two ways.

a)



b)



c)

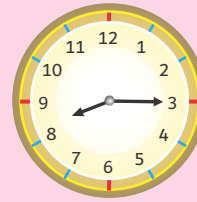


3. Fill in the blanks.

- a) There are _____ months in a year.
- b) In a leap year, the month of February has _____ days.
- c) There are _____ days in a week.
- d) In a leap year, there are _____ days in a year.
- e) Summer season is called _____ in Hindi.



Look at the clock. It is running late by 15 minutes. Can you tell the actual time?





Maths Lab Activity

Experiential Learning

Objective

To get familiar with the calendar

Material Required

Colour pencils, ruler, pencil, etc.

Method (for the teacher)

- Make the calendar for the month in which your birthday falls (for the current year). The format is given below.

Year _____

Month _____

Sun	Mon	Tue	Wed	Thu	Fri	Sat

- Using colour pencils, mark holidays including Sundays.

Language Skill

Time is precious. We should not waste it. Instead we should use time for some constructive work. Write about any constructive activity that you do on holidays in your notebook.










Shapes and Patterns

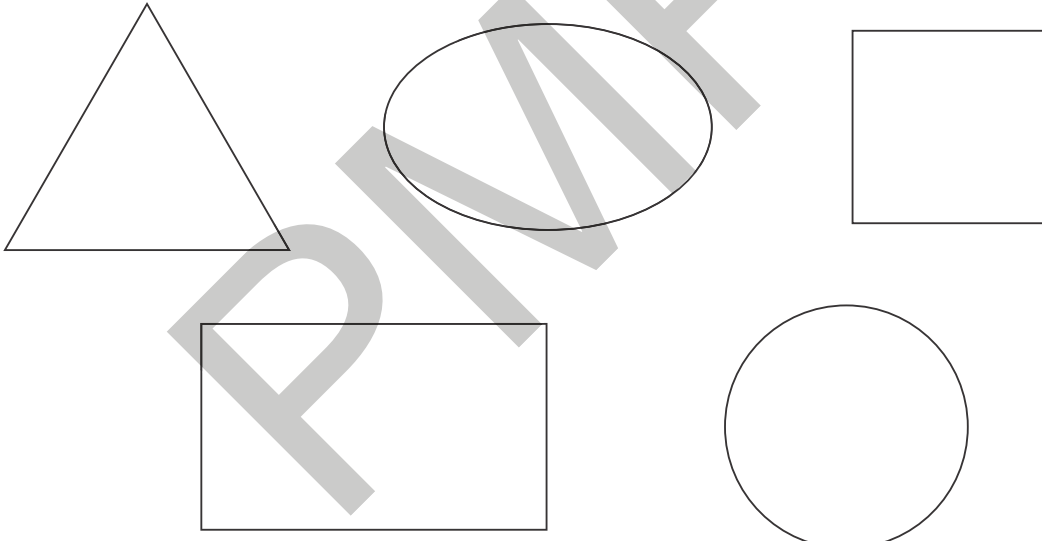
In Class-1, you studied about shapes. Can you recognise those shapes? Let us see.



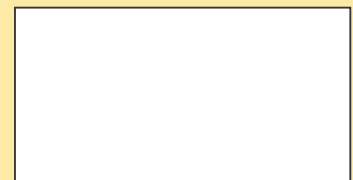
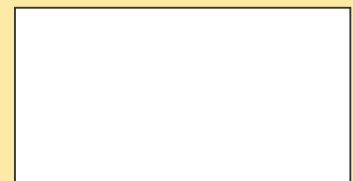
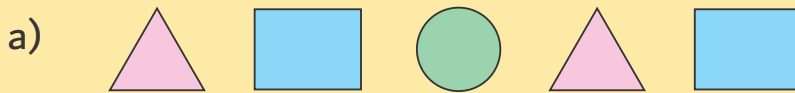
Get Ready

1. Colour the shapes as per the instructions given below.

Triangle  Square  Oval  Circle  Rectangle 



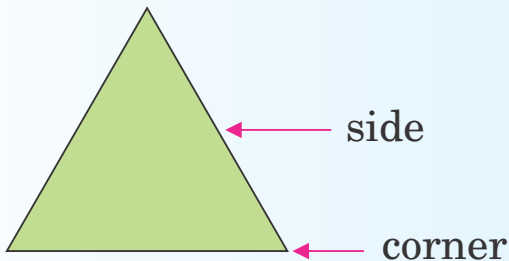
2. Draw and colour the figures that will come next.



More about Plane Shapes

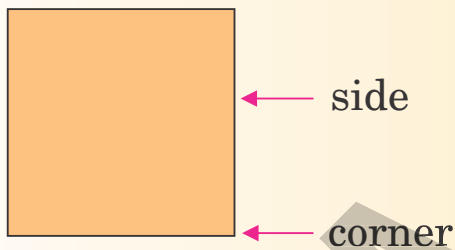
Triangle, circle, square, rectangle, etc. are plane shapes.

Triangle



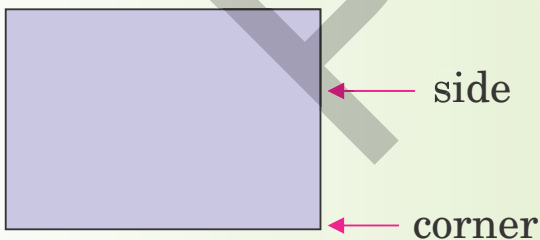
A triangle has 3 sides.
It has 3 corners.

Square



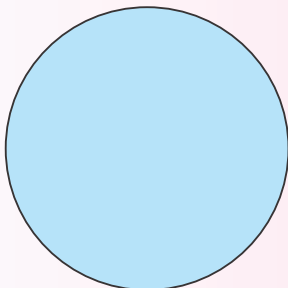
A square has 4 sides.
It has 4 corners.
Its all sides are equal.

Rectangle



A rectangle has 4 sides.
It has 4 corners.
Its opposite sides are equal.

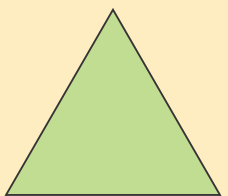
Circle

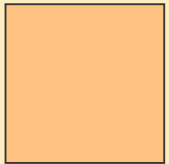



A circle has no sides.
It has no corners.

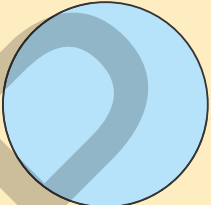


Write the number of sides and corners for the given figures.

1.  _____ sides
 _____ corners

2.  _____ sides
 _____ corners

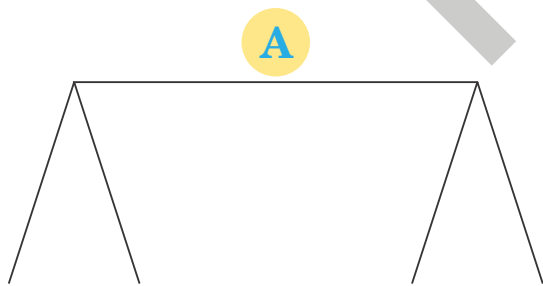
3.  _____ sides
 _____ corners

4.  _____ sides
 _____ corners

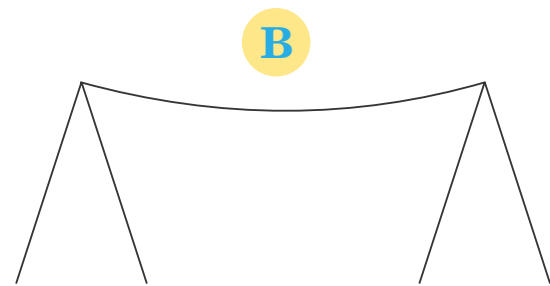
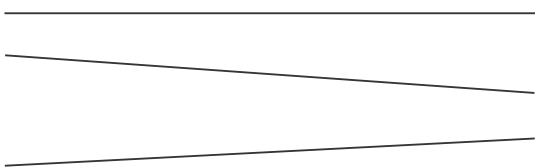
Straight Lines and Curved Lines

Look at the following clothesline. Clothesline A is tight and hence, forms a straight line.

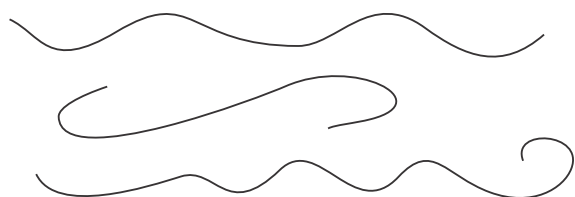
Clothesline B is a little bit loose and hence, it forms a curved line.



Some more straight lines



Some more curved lines



Types of Straight Lines

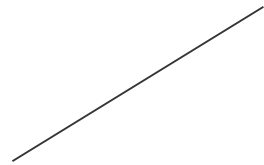
Straight lines are of 3 types. These are:



Horizontal line
(sleeping line)



Vertical line
(standing line)



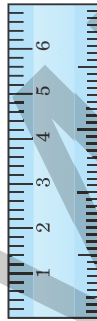
Slanting line

Drawing Lines

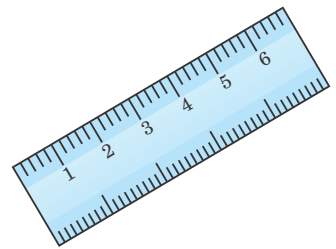
Keep the ruler in the following positions to draw horizontal line, vertical line or slanting line.



To draw a horizontal line



To draw a vertical line

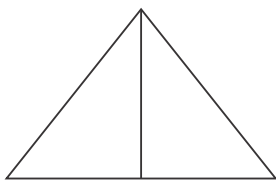


To draw a slanting line

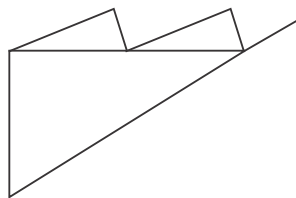


Quick Response 12.2

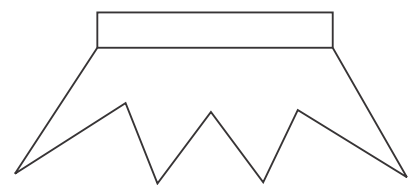
Count and write how many horizontal, vertical and slanting lines each of the following shapes has.



Horizontal line
Vertical line
Slanting line



Horizontal line
Vertical line
Slanting line



Horizontal line
Vertical line
Slanting line



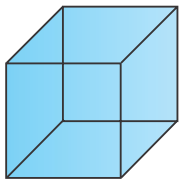
Solid Shapes (3D shapes)

Look at the shapes of these objects.

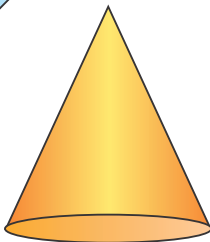


The shape of the above given objects is called solid shape or 3D-shape.

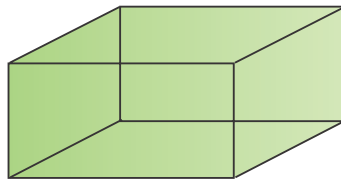
Let us know the names of these solid shapes.



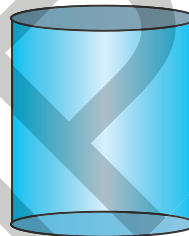
Cube



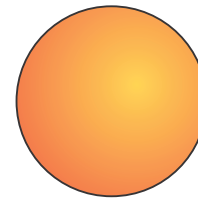
Cone



Cuboid



Cylinder

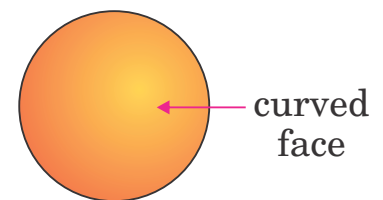
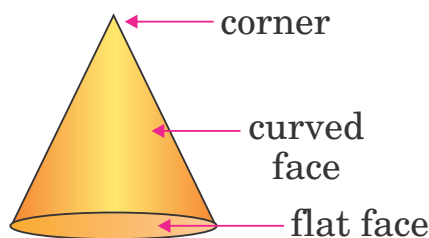
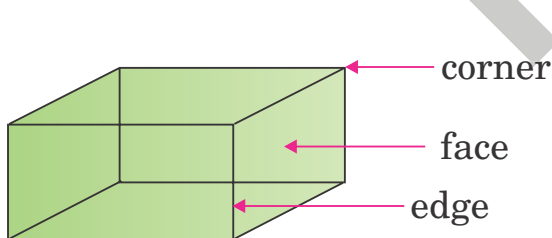


Sphere



Face, Edge and Corners

A solid shape has one or more faces. A solid shape may have corners/vertices and edges.




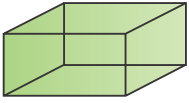

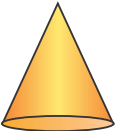
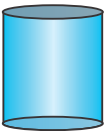
The outside of a solid is called its **face**.

Two faces meet to make an **edge**.



For Teachers

The teacher may bring some objects in the class and ask the children to identify their shapes.

Shape	Faces	Edges	Corners/ Vertices
Cube 	6 Each face is a square.	12	8
Cuboid 	6 Each face is a rectangle.	12	8
Sphere 	1	0	0
Cone 	2	1	1
Cylinder 	3	2	0



Quick Response 12.3

1. Fill in the blanks.

- A cube has _____ faces, _____ edges and _____ corners.
- A cuboid has _____ faces, _____ edges and _____ corners.
- A _____ has 1 face but no edges and no corners.
- A cone has 2 faces, _____ edge and _____ corner.
- A cylinder has _____ faces, _____ edges and _____ corners.



2. Write the shapes of the following objects.

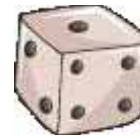
a)



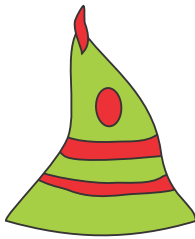
b)



c)



d)

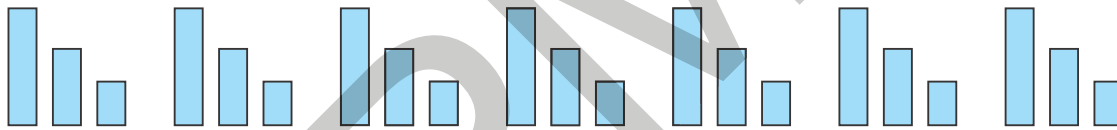


e)



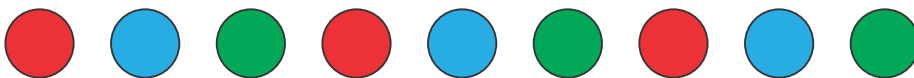
Patterns

A pattern is made by repeating certain shapes figures or colours in an order. You can see patterns on clothes, tiles in a building, ornaments, etc.



The above given pattern is made by repeating the shape of three rectangles in an order.

Now look at the pattern made by repeating three colours in an order.



You can also make a pattern using matchsticks.



For Teachers

The teacher may encourage the children to find patterns made on the walls, window panes, doors, clothes, etc.

Pattern in Alphabetic Letters

Look at the following pattern.

AA BB CC DD

In the above pattern, every letter has been used twice, and the letters are in order.

Look at the following pattern.

AB BC CD DE

In the above pattern, the pairs of consecutive letters have been used.

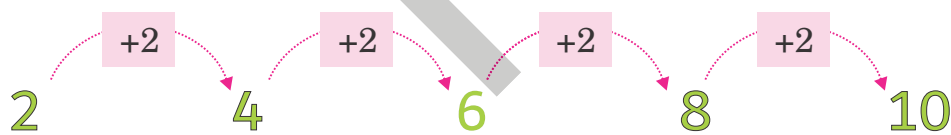


Pattern in Numbers

Look at the number pattern given below.

2 4 6 8 10

In the above pattern, you can see that every succeeding number is increased by 2.



Look at another example given below.

50 45 40 35 30


























In the above example, every succeeding number is decreased by 5.





Quick Response 12.4

1. Draw and colour the figure that will come next.

- a)     
- b)     
- c)     
- d)     
- e)     

2. Write the letter that will come next.

- a) **A** **D** **G** **J**
- b) **Z** **Y** **X** **W**
- c) **ABC** **ADE** **AFG** **AHI**
- d) **AB** **BC** **CD** **DE**

3. Write the number that will come next.

- a) **5** **10** **15** **20**
- b) **100** **95** **90** **85**
- c) **2** **4** **8** **16**
- d) **12** **22** **32** **42**





Chapter Review

1. Tick (✓) the correct option.

a) How many sides are there in a triangle?

i) 3

ii) 4

iii) 5

b) How many corners are there in a square?

i) 3

ii) 4

iii) 6

c) How many sides are there in a rectangle?

i) 3

ii) 4

iii) 5

d) Which of the following has no sides?

i) square

ii) triangle

iii) circle

2. Name these straight lines.

a)



b)

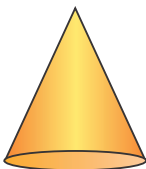


c)

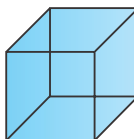


3. Name these solid shapes.

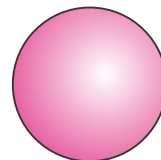
a)



b)

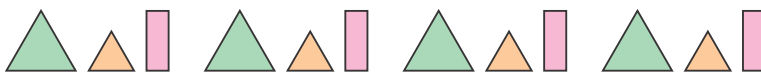


c)



4. Complete the pattern.

a)



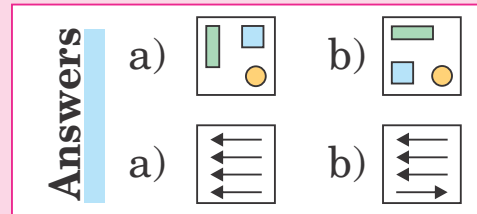
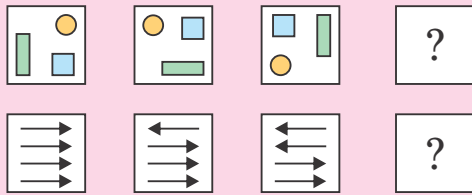
b)

AB AC AD AE



Critical Thinking

Tick (✓) the box in the answers column that will fit in the box with (?) mark.



Maths Lab Activity

Experiential Learning

Objective

To learn drawing plane shapes using objects of different shapes

Material Required

A bottle cap, match-box, prism, straw, birthday cap, crayon, pencil, chart paper, etc.

Method

- Take a chart paper and trace the shapes of different objects one by one.
- Which plane shape do you get after tracing a solid shape? Write in the column.

Object	Plane shape
bottle cap	
match-box	
prism	
straw	
birthday cap	
crayon	

Art Integration

Many families in India make rangoli at their homes on festivals. Making a rangoli is an art. Make a design of rangoli on a chart paper and fill crayon colours in it. Display it in your classroom.

Communication Skill

Observe a square and a cube carefully. What is the difference between them? Share with the class.





Data Handling

Suppose a fruit seller sold 50 apples, 40 oranges and 60 mangoes yesterday. Here 50 apples, 40 oranges and 60 mangoes are **data**. Collecting, arranging and presenting data is called **data handling**.

Let us revise what we studied in Class-1.



Get Ready

Look at the given picture of a parking lot.

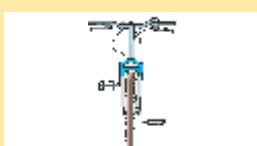


How many each of the following are there in the parking lot?

1.



2.



3.







4.



Reading the Data

Rohit bought some eatables for his birthday party. The eatables are shown in the following table.

Item	Number
Pizza	
Burger	
Donut	
Ice-cream	

Now answer the following questions.

1. How many pizzas did he buy?
2. How many burgers did he buy?
3. How many more pizzas did he buy than burgers?
4. How many ice-creams did he buy?
5. How many donuts did he buy?

Solution:

1. He bought **6** pizzas.
2. He bought **4** burgers.
3. He bought **$(6 - 4 = 2)$** 2 more pizzas than burgers.
4. He bought **7** ice-creams.
5. He bought **5** donuts.



Quick Response 13.1

1. Ria and her friends bought some ice-creams which are shown below.

Ice-cream	Number of ice-creams bought
Cone	
Cup	
Kulfi	
Mangobar	

Now answer the following questions.

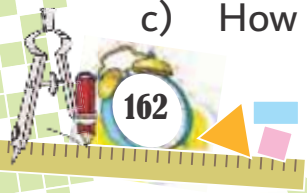
- How many ice-creams did they buy altogether? _____
- Which kind of ice-cream was bought in the largest number? _____
- How many more kulfis were bought than cones? _____

2. Ashu has the following toys. Read the table carefully.

Toy	Number of toys
Doll	
Duck	
Bear	
Aeroplane	

Now answer the following questions.

- How many toy ducks does Ashu have? _____
- How many toys does Ashu have in all? _____
- How many more toy ducks does he have than dolls? _____



3. Here is given a table containing the weight of 4 students. Read the table carefully.

Student	Weight
Riyan	20 kg
Alia	18 kg
Shivam	22 kg
Anay	28 kg



Now answer the following questions.

- a) Who is the heaviest amongst all the students?
b) Is Alia heavier than Shivam?
c) How much is Anay heavier than Riyan?

4. The following table shows the number of members in 5 families.

Family	Number of members
Family A	6
Family B	4
Family C	10
Family D	3
Family E	8



Now answer the following questions.

- a) How many members are there in Family B? _____
b) Does Family C have more members than Family A? _____
c) How many more members are there in Family E than that of Family D? _____



Chapter Review

Look at the following table carefully. It is showing the height of eight students of a class.

Name of Student	Height
Ananya Jain	98 cm
Mukti Arora	110 cm
Chhaya Sen	90 cm
Rachit Gupta	105 cm
Aditi Singh	98 cm
Rayan Roy	102 cm
Firoz Ali	115 cm
Simran Kaur	108 cm

Now answer the following questions.

1. Who is the tallest?

2. Who is the shortest?

3. Which two students are of equal height?

4. What is the difference between the height of Chhaya Sen and Simran Kaur?

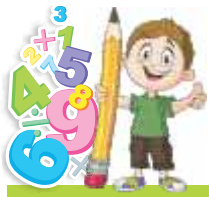


Critical Thinking

Look at the given data and the pictograph based on it. There is a mistake in the pictograph. Find the mistake.

Sport	Number of Students
Cricket	3
Football	6
Badminton	4
Hockey	2

Sport	Number of Students
Cricket	☺☺☺
Football	☺☺☺☺☺☺
Badminton	☺☺☺☺
Hockey	☺☺



Maths Lab Activity ■ ■ ■ Experiential Learning

Objective

To reinforce the concept of data handling

Material Required

A pencil, paper, etc.

Method

- Ask any of your 4 friends about the number of their family members.
- Make a table on a paper.
- Draw as many stars ★ as the number of members in each family.

Name	No. of members

Communication Skill

Given below is a table showing the number of road accidents that occurred in a city in different seasons.

Can you tell why most number of accidents occur in the rainy season?

Talk about it in the class.

Summer	Rainy	Winter
24	58	36



Model Test Paper - II

(Based on Chapters 7 to 12)

1. Tick (✓) the correct option.

a) $88 - 7 = ?$

i) 71

ii) 81

iii) 80

b) Length is measured in _____.

i) metre

ii) gram

iii) litre

c) Which of the following is the largest amount?

i) ₹ 15.27

ii) ₹ 15.30

iii) ₹ 15.12

d) 1 hour = _____ minutes.

i) 30

ii) 50

iii) 60

e) Which month comes just after July?

i) September

ii) June

iii) August

2. Add or subtract the following.

a)
$$\begin{array}{r} 423 \\ + 246 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 517 \\ + 289 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 979 \\ - 765 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 648 \\ - 277 \\ \hline \end{array}$$

3. Add or subtract.

a)

	m	cm
	20	25
+	15	30

b)

	kg	g
	25	360
+	31	130

c)

	l	ml
	72	750
-	42	240

4. Add or subtract.

a)

₹	p
25	20
+	14
	15

b)

₹	p
72	24
+	15
	75

c)

₹	p
67	95
-	25
	35

5. Fill in the blanks.

- There are _____ days in a week.
- Friday comes just after _____.
- February has _____ days in a leap year.
- Summer season is called _____ in Hindi.

6. Fill in the blanks.

- There are _____ faces of a cube.
- A cuboid has _____ edges.
- A cone has _____ corners.
- A cylinder has _____ faces.

7. Read the following table containing the marks obtained by four students in Maths. Answer the given questions.

Name	Surbhi	Rajat	Rohan	Kamya
Marks	79	84	82	96

- Who got the highest marks? _____
- What are the marks obtained by Rohan? _____
- How many students have got more than 80 marks? _____

TEACHER'S OBSERVATION REPORT

Continuous observation of children's progress by the teacher is an important aspect of **NIPUN BHARAT**. We can assess a child's development in different skills by closely observing them throughout the academic year. Here is a chart to be filled in by the teacher. The chart will be helpful for the parents also to help and guide their children accordingly.

Sl.No.	Area of Observation	Requires attention/assistance from facilitator	Able to complete tasks with little assistance	Able to complete tasks without assistance	Hard spots	Remarks
1.	Physical and Motor Skill					
2.	Cognitive Skill					
3.	Social-emotional Skill					
4.	Cultural/artistic Skill					
5.	Communication and early language skill					
6.	Literacy skill					
7.	Numeracy skill					