ARTICLE 51A

Fundamental Duties- It shall be the duty of every citizen of India–

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

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

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

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

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

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

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

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

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

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

(k) who is a parent or guardian to provide opportunities for education to his child or, as the case may be, ward between the age of six and fourteen years.
The Coordination Committee formed by GR No. Abhyas - 2116/(Pra.Kra.43/16) SD - 4 Dated 25.04.2016 has given approval to prescribe this textbook in its meeting held on 08.05.2018 and it has been decided to implement it from the educational year 2018-19.

MATHEMATICS
Standard One

Maharashtra State Bureau of Textbook Production and Curriculum Research, Pune - 411 004

Download DIKSHA App on your smartphone. If you scan the Q.R.Code alongside, you will be able to access the full text. Q.R.Codes are given at the foot of some pages also. Scanning these you will be able to access audio-visual study material as teaching and learning aid, related with some contents.
The Constitution of India

Preamble

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC and to secure to all its citizens:

JUSTICE, social, economic and political;
LIBERTY of thought, expression, belief, faith and worship;
EQUALITY of status and of opportunity;
and to promote among them all FRATERNITY assuring the dignity of the individual and the unity and integrity of the Nation:

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.
NATIONAL ANTHEM

Jana-gana-mana-adhināyaka jaya hē
Bhārata-bhāgya-vidhātā,

Panjāba-Sindhu-Gujarāta-Marāthā
Drāvida-Utkala-Banga

Vindhya-Himāchala-Yamunā-Gangā
uchchala-jaladhi-taranga

Tava subha nāmē jāgē, tava subha āsisa māgē,
gāhē tava jaya-gāthā,

Jana-gana-mangala-dāyaka jaya hē
Bhārata-bhāgya-vidhātā,

Jaya hē, Jaya hē, Jaya hē,
Jaya jaya jaya, jaya hē.

PLEDGE

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

I love my country, and I am proud
of its rich and varied heritage. I shall
always strive to be worthy of it.

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

To my country and my people,
I pledge my devotion. In their
well-being and prosperity alone lies
my happiness.
Dear Little friends,

Welcome to the first standard! Now you have new school, new friends, new teachers and new books. Open your new Mathematics book. You will find it amusing with colorful pictures, games and poems. Do jump around, dance, play and also learn maths with the book.

Counting is possible only if you are able to recite numbers first from one to ten and then from eleven to twenty. You can recite numbers using the fun songs in this book.

Fingers are useful in counting. You can decorate your fingers with colourful paper caps. Try to carry out the activities given in the book. Take help from your teachers, parents, siblings and friends for doing these activities. Rama and Y ash will accompany you in this fun filled book-journey. A colourful kingfisher may appear to help you.

We need ample practice of additions and subtractions in practical life. Some stories in the book will help you to practise such sums. Some pictures are also given so that you can make stories based on them. Make such stories yourselves, prepare examples and enjoy posing problems to each other.

Q. R. Codes are given at the foot of some pages. You will find the information in the Q. R. Codes interesting.

You will find that Mathematics is an easy subject once you make friends with the numbers and play with them!

(Dr. Sunil Magar)
Pune
Date: 16 May 2018
Indian Solar Year: 26 Vaishakh 1940

Maharashtra State Bureau of Textbook Production and Curriculum Research, Pune
## Mathematics Standard I - Learning Outcomes

<table>
<thead>
<tr>
<th>Suggested Pedagogical Processes</th>
<th>Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All learners may be provided opportunities in pairs/groups/individually and encouraged to-</strong></td>
<td><strong>The learner —</strong></td>
</tr>
<tr>
<td>• observe different contexts and situations, for example, inside/outside the classroom.</td>
<td>01.71.01 works with numbers from 1 to 20.</td>
</tr>
<tr>
<td>• encourage them to use the spatial vocabulary or concepts like top-bottom, on-under, inside-outside, above-below, near-far, thin-thick, big-small etc.</td>
<td>01.71.02 classifies objects into groups based on the shape of the objects and size of the objects.</td>
</tr>
<tr>
<td>• identify and draw the things which are near-far, tall-short, thick-thin etc.</td>
<td>01.71.03 recites number names and counts objects up to 20, concretely, pictorially and symbolically.</td>
</tr>
<tr>
<td>• handle concrete materials and models and classify them, for example, objects which are round in shape like chapatti, ball etc. and which are not round such as pencil, box.</td>
<td>01.71.04 counts objects using numbers 1 to 9.</td>
</tr>
<tr>
<td>• count objects such as students may take out objects up to 9 from a given collection of objects such as picking any 8 leaves/4 beads/6 ice cream sticks etc. from the given box.</td>
<td>01.71.05 compares numbers up to 20, for example, tell whether number of girls or number of boys is more in the class.</td>
</tr>
<tr>
<td>• take out objects up to 20 from a given collection of objects.</td>
<td>01.71.06 applies addition and subtraction of numbers 1 to 20 in day-to-day life.</td>
</tr>
<tr>
<td>• use words like more than, less than or equal through the strategy of one to one correspondence in objects in two groups.</td>
<td>01.71.07 constructs addition facts up to 9 by using concrete objects, for example, to find 3+3 counts 3 steps forward from 3 onwards and concludes that 3+3=6.</td>
</tr>
<tr>
<td>• explore different strategies to add numbers up to 9 like counting on forward and using already known addition facts.</td>
<td>01.71.08 subtracts numbers using 1 to 9, for example, the child takes out 3 objects from a collection of 9 objects and counts the remaining to conclude 9 - 3= 6.</td>
</tr>
<tr>
<td>• explore/Develop different strategies to subtract numbers up to 9 like recounting after taking out objects from a given collection.</td>
<td>01.71.09 solves day-to-day problems related to addition and subtraction of numbers up to 9.</td>
</tr>
<tr>
<td>• use different strategies like aggregation, counting forward, using addition facts etc., to extend addition up to 20 (sum no exceeding 20)</td>
<td>01.71.10 recognizes numbers up to 99 and write numerals.</td>
</tr>
</tbody>
</table>
| • develop different strategies of taking away through objects/pictures. | 01.71.11 observes, extends and creates patterns of shapes and numbers, for example, arrangement of shapes / objects / numbers like □□△□□△
**Suggested Pedagogical Processes**

- count in groups of tens and ones for numbers more than 20 like 38 has 3 groups/bundles of ten each and 8 loose (ones)
- sort objects based on similarities and difference through their sense of touch and observation.
- use concrete play money for making amounts up to Rs.20.
- conduct classroom discussions on observation of pattern and allow them to describe in their own language. Let children find what will come next and justify the answer.
- observe and collect information from the visuals, contexts/situations such as number of items.

**Learning Outcomes**

- 1, 2, 3, 4, 5, ...
- 1, 3, 5
- 2, 4, 6 ...
- 1, 2, 3, 1, 2,...1,...3,...

01.71.12 collects, records (using pictures/numerals) and interprets simple information by looking at visuals. (For example, in a picture of a garden the child looks at different flowers and draws inference that flowers of a certain colour are more.)

01.71.13 understands the concept of zero.

---

**Instructions for Teachers**

Let’s make efforts so that students understand and like Mathematics and find it enjoyable. Make sure that they are not afraid of maths. While dealing with the songs and games in the book, see that the students participate happily.

When it comes to counting, it is necessary to recite first from one to ten, and then from eleven to twenty. See that the students do it with pleasure. **A lot of practice of counting different objects is expected.** Small additions can be practised with the help of fingers. You can make a game out of it.

Specific instructions for teachers are given in the book at several places.
Colour the  below the smaller clock.

Colour the  below the bigger vehicle.

Colour the  below the smaller vessel.

Colour the  below the bigger ball.
Colour the [ ] below the child who is behind the curtain.

Colour the [ ] below the swing which is in the front.

Colour the [ ] below the child who is in front of the stumps.
the monkey sitting below the tree.

the vehicle above the bridge.

the object below the lamp.
Mom made chapati **earlier**. **Later** she roasted it.

Rama wore her socks **earlier**. **Later** she wore her shoes.

Yash wears his helmet **earlier**. **Later** he rides his bicycle.
Draw a ⟲ around the picture showing one object.

Draw a ⟲ around the picture showing many objects.

Draw a ⟲ around the picture showing one object.

Draw a ⟲ around the picture showing many objects.
Observe both the pictures given below.
Find out and tell the differences between them.
Draw one object.

Draw one ☁ and colour it. Draw one ⭐ and colour it.

Parrot has beak one, come on let’s have fun.
Draw two objects.

Two, Two, Two
Two ears has a Rabbit
And two eyes, too.

One and one make two.

Draw two \( \bigcirc \).
Understanding and writing the number 3:

- Draw three beads
- Colour three
- Colour three
- Colour three

Three, Three, Three
A Rickshaw has wheels three.
Set the doggy free.

Two and one make three.
Three and one make four

Four, Four, Four
A car has wheels four,
will you please shut the door.

Understand and write 4

**Four**

Draw four beads.

Colour four 🍧.
Colour four 🍬.
Colour four 🍬.

Four, Four, Four
A car has wheels four,
will you please shut the door.
Understand and write 5

Five

Four and one make five.

Draw five beads.

Five, Five, Five
Each hand has fingers five,
Let’s go for a long drive.

Colour five 🍓.

Colour five 🍊.

Colour five 🍏.

Four and one make five.
Number song and finger caps

Cut circles of about 5 cm diameter. Cut each of them into 3 equal parts. Make a cap of each piece using a gum tape. See that children participate in the activity. They will enjoy, exchanging the caps and playing with them.

It is easy to count the objects only after reciting the numbers from one to ten. So ask the children to sing the number song. Students will happily practise reciting from one to ten by singing the song.

One two three, four five six seven eight
nine ten, my fingers are ten.
Let’s count them, now and again,
everybody has fingers just ten.

Decorate them, with papercaps,
that are so, easy to get
Red Y ellow, blue purple,
or is the white your best

How many, caps everybody
then should obtain
Each finger, to have a cap
then, the caps also ten.
Draw six beads

Place the string in such a way that six objects will be in its loop.

Cockroach has legs six count them if you wish

Six

Five and one make six

Place the string in such a way that six objects will be in its loop.
Seven, Seven, Seven
A Rainbow has colours seven,
A week has days seven.

Draw seven beads

Place the string in such a way that seven objects will be in its loop.
Draw eight beads

Place the string in such a way that eight objects will be in its loop.

Seven and one make eight

An umbrella has sticks eight,
Come on children sit up straight.

Eight, Eight, Eight

Eight objects in a loop
Draw nine beads

Eight and one make nine

Understand and write 9

Nineteen, Nineteen, Nineteen
The clock struck nine,
All the children, stand in a line

Place the string in such a way that nine objects will be in its loop.

<table>
<thead>
<tr>
<th>9</th>
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<th>9</th>
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<tbody>
<tr>
<td>9</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
1, 2, 3, 4, 5, 6, 7, 8, 9 are symbols used for numbers. They are called digits. Practise writing the digits.

Write numbers in the blank spaces.
Count and circle the correct number.

- Green parrots: 4 7 3 5
- Yellow birds: 3 7 6 8
- Peacocks: 4 2 3 5
- Yellow ducks: 8 7 9 6
- Black birds: 2 5 4 3
- Owls: 7 8 9 6
Count and write

How many wings does a bird have?

How many colours does a rainbow have?

How many wheels does a rickshaw have?

How many corners does a slate have?

How many legs does a cockroach have?

How many petals does the flower have?

How many legs does an octopus have?

How many handles does a cup have?

<table>
<thead>
<tr>
<th>Picture</th>
<th>Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in digits</td>
</tr>
<tr>
<td><img src="image1" alt="Picture" /></td>
<td>1</td>
</tr>
<tr>
<td><img src="image2" alt="Picture" /></td>
<td>2</td>
</tr>
<tr>
<td><img src="image3" alt="Picture" /></td>
<td>3</td>
</tr>
<tr>
<td><img src="image4" alt="Picture" /></td>
<td>4</td>
</tr>
<tr>
<td><img src="image5" alt="Picture" /></td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Picture</th>
<th>Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image6" alt="Picture" /></td>
<td>Six</td>
</tr>
<tr>
<td><img src="image7" alt="Picture" /></td>
<td>Seven</td>
</tr>
<tr>
<td><img src="image8" alt="Picture" /></td>
<td>Eight</td>
</tr>
<tr>
<td><img src="image9" alt="Picture" /></td>
<td>Nine</td>
</tr>
</tbody>
</table>
Observe the picture carefully

Count the objects and write their numbers in the given boxes.
Passengers are waiting for a bus. Passengers went in the bus. Zero passengers remain.

The white dish has [ ] laddoos. Pink dish has no laddoos. It means there are [ ] laddoos.

Instructions for teachers

Take a tin box. Put some pebbles in the box. Shake the box. Let the children hear the sound. Remove all the pebbles from the box and shake the box again. Now ask students why there is no sound and let them understand that zero pebbles means no pebbles.

Zero means nothing
Let us count the butterflies!

1 2 3 4 5 6

Has Yash counted correctly? Is Rama’s counting correct?

Magician Kingfisher came to their help,
He told the butterflies to stay in a line.

Is the counting easy now?
How many butterflies are there?

What is easier? counting children while they are playing or while they are standing in a row?

Make groups and ask children to discuss the above point.
Join the picture with the correct number, as Yash has done for you.

Help Rama to join numbers 1 to 9 in the increasing order.

Just for fun...
Write your name. Count the number of letters in your name and the number of letters in your friends’ name. Compare the number of letters in different names. Which name has the maximum letters? Also write five-lettered names.
Colour the □ under picture having more children.

Colour the □ below the picture having less boats.

Colour the □ below the picture having more birds.
Let us pair the boats in group A and group B.

By joining one boat in group A with one boat in group B, we observe that, the boats in group A are over. Some boats in group B remain. It means that boats in group B are more.

Pairing helps to decide more or less.

Pair the boats in group A and group B and observe.

The boats in which group are over?

Colour the box under the group which has less boats.

Let us understand...

When the number of boats is large, it is easier to use the pairing to know which group is bigger.
Observe the numbers written in decreasing order.

Write in the increasing order.

We have learnt the numbers from 1 to 9 is increasing order.
We can write these numbers in a reverse or decreasing order.

Observe the numbers written in decreasing order.

Write in the increasing order.

Write in the decreasing order.
This is my block.

This is mine.

Yash has 1 block.

Rama has 1 block.

They together have 2 blocks.

To add two numbers, + sign is used. It is read as ‘plus’. The sign = shows equality. It is read as ‘is equal to’.
Observe the addition train.

Are there any more words to show addition? For example: to gather, ..............................................................

Draw beads to match the given numbers and add them.

\[
\begin{array}{cc}
3 & + \\
\end{array}
\]

\[
\begin{array}{c}
\text{Equal to}
\end{array}
\]

Count the pictures and add.

\[
\begin{array}{c}
3 + 5 = 8
\end{array}
\]

\[
\begin{array}{c}
4 + 3 = 7
\end{array}
\]

\[
\begin{array}{c}
5 + 4 = 9
\end{array}
\]

\[
\begin{array}{c}
4 + 4 = 8
\end{array}
\]
Addition of Zero

Add, write the numbers and draw proper pictures.

Let's practise addition.

\[
\begin{align*}
4 + 1 &= \underline{5} \\
3 + 5 &= \underline{8} \\
6 + 2 + 7 &= \underline{15} \\
5 + \underline{2} &= 7 \\
8 + \underline{1} &= 9 \\
2 + \underline{3} &= 5 \\
\underline{3} + \underline{5} &= 8
\end{align*}
\]
Read and solve.

- Salil had 6 chalks. Hameed gave him 3 more chalks. How many chalks does Salil have in all?
  
<table>
<thead>
<tr>
<th>Salil’s chalks</th>
<th>+</th>
<th>Hameed gave</th>
<th>Total chalks</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td></td>
<td>3</td>
<td>9</td>
</tr>
</tbody>
</table>

- Ketan has 4 almonds and Neha has 4 almonds. How many almonds do they together have?

<table>
<thead>
<tr>
<th>Ketan’s almonds</th>
<th>+</th>
<th>Neha’s almonds</th>
<th>Total almonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>

- Joseph has 7 flowers and Angel has 2 flowers. Find the total number of flowers with them.

<table>
<thead>
<tr>
<th>Joseph’s flowers</th>
<th>Angel’s flowers</th>
<th>Total flowers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Jiya has 5 beads and Parmeet has 3 beads. How many beads do they have together?

<table>
<thead>
<tr>
<th>Jiya’s beads</th>
<th>Parmeet’s beads</th>
<th>Total beads</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Add the numbers given on a butterfly and join it with the correct flower.

Colour the petals whose answer is equal to number in the circle.
Did you observe this picture?

Five frogs were on a river bank. One frog jumped into water. Count how many frogs are on the river bank now.

\[ 5 - 1 = \]
Taking away a smaller number from a big number is called Subtraction. It is shown by the sign ‘−’ and read as ‘minus’.

The above pictures are drawn by our friends. Make stories for the pictures. Can you draw some similar pictures and ask your friends to make a story?
Observe the pictures and fill in the boxes.

1. 3 - 1 =
2. 4 - 2 =
3. 5 - 2 =
4. 3 - 1 =
The story of Laddoos

Mother made 6 laddoos and kept them in a jar. Then she went to the market to buy vegetables. When Rama came home from school, she saw the laddoos. The laddoos were very tempting. Rama ate 2 laddoos. When mother came home, she saw 4 laddoos in it.

Mother: Rama, did you eat 2 laddoos?
Rama: I ate one laddoo mother.

Mother: Rama, are you telling the truth?
Rama: Mother, I liked the laddoo very much. So I ate one more laddoo.

Mother: Very good! I am happy that you spoke the truth. Now take one more laddoo for you. Give one laddoo to your father one to your grandmother and I will eat this one.

Did you like the story? Now tell us,
1) How many laddoos did mother keep in the jar? 
2) How many laddoos did Rama eat? 
3) How many laddoos did mother give to Rama as an award for telling the truth?
4) How many laddoos did Rama give in all to her father and grandmother?
5) How many laddoos did mother take for herself?
6) How many laddoos were left in the jar at the end?

Write the correct numbers in the boxes.

\[
\begin{align*}
5 - 3 &= \_\_\_ \\
2 - 1 &= \_\_\_ \\
8 - 2 &= \_\_\_ \\
9 - 5 &= \_\_\_ \\
6 - \_\_\_ &= 1 \\
7 - 3 &= \_\_\_ \\
9 - \_\_\_ &= 9 \\
\_\_\_ - \_\_\_ &= 8
\end{align*}
\]
- **Nagma had 5 berries, she gave 3 berries to Salma.** How many berries are left with Nagma now?

<table>
<thead>
<tr>
<th>5</th>
<th>Berries Nagma had</th>
</tr>
</thead>
<tbody>
<tr>
<td>− 3</td>
<td>Berries given to Salma</td>
</tr>
<tr>
<td></td>
<td>Berries left with Nagma</td>
</tr>
</tbody>
</table>

- **A fruit-basket contained 9 custard apples. My brother distributed 6 of them to his friends.** Find the number of custard apples remaining in the basket.

<table>
<thead>
<tr>
<th>9</th>
<th>Custard apples in the basket</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Custard apples distributed</td>
</tr>
<tr>
<td></td>
<td>Remaining custard apples.</td>
</tr>
</tbody>
</table>

- **There were 3 pencils with Samira. She gave 1 pencil to her friend.** How many pencils are left with Samira now?

<table>
<thead>
<tr>
<th></th>
<th>Pencils Samira had</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pencils given to her friend</td>
</tr>
<tr>
<td></td>
<td>Pencils left</td>
</tr>
</tbody>
</table>

- **There were 4 laddoos in a jar. Balbir ate one of them.** How many laddoos are there in the jar now?

<table>
<thead>
<tr>
<th></th>
<th>Laddoos in the jar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Laddoo eaten by Balbir</td>
</tr>
<tr>
<td></td>
<td>Remaining laddoos in the jar</td>
</tr>
</tbody>
</table>
Do the following subtractions.

- 9 - 2 = ___
- 8 - 4 = ___
- 7 - 2 = ___
- 5 - 3 = ___
- 4 - 2 = ___

- 7 - 5 = ___
- 4 - 1 = ___
- 6 - 2 = ___
- 8 - 5 = ___
- 8 - 3 = ___

- 8 - 0 = ___
- 3 - 1 = ___
- 9 - 7 = ___
- 1 - 1 = ___
- 4 - 0 = ___
Nine and one make ten.

One to nine, each number has a unique sign. Zero has an oval ring that is fine. We want no more signs to memorise. To write all numbers is an easy exercise. How can we write then the next number ten? ‘10’ is how it's written!
Ten units gathered together, let us make a bunch of them. Tie them into a bundle and keep on the left side. Note that a ‘Ten’ is a set of ten singletons together. When they were single they were called ‘units’. The house of Ten’s is on the left and is now occupied. Zero fills the unit’s house which was emptied.

Instead of bundles, towers of blocks of ten or chains of ten beads can also be made. The concept of a ten can be taught using any of the above objects.
Both of you right!

Eleven

One Ten
One Unit

Ten and one make eleven

\[ \text{Ten} + 1 = 11 \]

11

One Ten
One Unit

11 11 11 11 11 11 11
Eleven and one make twelve

\[ + \quad = \]

Twelve

One ten

Two Units

Twelve and one make thirteen

\[ + \quad = \]

Thirteen

One ten

Three Units
Thirteen and one make fourteen

\[ 13 + 1 = 14 \]

| 14 | 14 | 14 | 14 | 14 | 14 |

Fourteen and one make fifteen

\[ 14 + 1 = 15 \]

| 15 | 15 | 15 | 15 | 15 | 15 |

14
Fourteen

One Ten

Four Units

15
Fifteen

One Ten

Five Units
Sixteen and one make seventeen

16 + 1 = 17

Fifteen and one make sixteen

15 + 1 = 16

16 16 16 16 16 16

17 17 17 17 17 17
Seventeen and one make eighteen

\[17 + 1 = 18\]

Eighteen

One Ten

Eight Units

Eighteen and one make nineteen

\[18 + 1 = 19\]

Nineteen

One Ten

Nine Units
There is no digit bigger than 9. So, if there are 10 units, we tie them in a bundle. Keep that bundle in ten’s house on the left. Now, there are two bundles of ten and nothing is left in unit’s house, so we write zero there.

Nineteen and one make Twenty

<table>
<thead>
<tr>
<th>20</th>
<th>20</th>
<th>20</th>
<th>20</th>
<th>20</th>
<th>20</th>
</tr>
</thead>
</table>

Eleven Twelve
Thirteen Fourteen
Fifteen Sixteen
Seventeen Eighteen
Nineteen Twenty

arrange, books on shelves
put garbage in the bin
Keep your room clean
See, plants are green
Flowers are in plenty!

Teachers can use this song to make children learn numbers from 11 to 20. If children know the sequence, counting will be easy for them.
### Steps of 'Ten'

<table>
<thead>
<tr>
<th>Tens</th>
<th>Number</th>
<th>Tens Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two</td>
<td>20</td>
<td>Twenty</td>
</tr>
<tr>
<td>Three</td>
<td>30</td>
<td>Thirty</td>
</tr>
<tr>
<td>Four</td>
<td>40</td>
<td>Fourty</td>
</tr>
<tr>
<td>Five</td>
<td>50</td>
<td>Fifty</td>
</tr>
<tr>
<td>Six</td>
<td>60</td>
<td>Sixty</td>
</tr>
<tr>
<td>Seven</td>
<td>70</td>
<td>Seventy</td>
</tr>
<tr>
<td>Eight</td>
<td>80</td>
<td>Eighty</td>
</tr>
<tr>
<td>Nine</td>
<td>90</td>
<td>Ninety</td>
</tr>
</tbody>
</table>
How can you give exact amount?

1 rupee  2 rupees  5 rupees  10 rupees

One rupee  Two rupees  Five rupees  Ten rupees  Twenty rupees

Think
Can you make up the same amounts using other combinations of currency notes and coins?
Which notes or coins will you pay to buy given articles?

<table>
<thead>
<tr>
<th>Article</th>
<th>Price</th>
<th>Coins/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 rupees</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12 rupees</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 rupees</td>
<td></td>
</tr>
</tbody>
</table>

Find the price of the article by counting coins.

<table>
<thead>
<tr>
<th>Article</th>
<th>Coins</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>![Coins]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>![Coins]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>![Coins]</td>
<td></td>
</tr>
</tbody>
</table>

Read and write the answers.

1) A bunch of methi costs 10 rupees. How many five-rupee coins are needed to pay for it?

2) A pencil was bought by giving 3 coins of two-rupee, so what was the price of the pencil?

3) The price of a candle is rupees 10 and price of a match box is rupee 1. Find the total price of one candle and one match box.

4) Ajahar bought a note book by giving one currency note of 10 rupees and one coin of rupees 10, what is the cost of the note book?
Let’s learn...

<table>
<thead>
<tr>
<th>Tens</th>
<th>Units</th>
<th>Two Tens Units</th>
<th>Twenty One</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>Two Tens One Unit</td>
<td>Twenty One</td>
<td>21</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Two Tens Two Units</td>
<td>Twenty Two</td>
<td>22</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>Two Tens Three Units</td>
<td>Twenty Three</td>
<td>23</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Two Tens Four Units</td>
<td>Twenty Four</td>
<td>24</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>Two Tens Five Units</td>
<td>Twenty Five</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>Two Tens Six Units</td>
<td>Twenty Six</td>
<td>26</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>Two Tens Seven Units</td>
<td>Twenty Seven</td>
<td>27</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>Two Tens Eight Units</td>
<td>Twenty Eight</td>
<td>28</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>Two Tens Nine Units</td>
<td>Twenty Nine</td>
<td>29</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>Three Tens</td>
<td>Thirty</td>
<td>30</td>
</tr>
</tbody>
</table>

Toran of consecutive numbers.
House numbers in succession

22  25  28
## Introduction and Writing of 31 to 40

Let's learn...

<table>
<thead>
<tr>
<th>Tens</th>
<th>Units</th>
<th>Three Tens One Unit</th>
<th>Thirty One 31</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>Three Tens Two Units Thirty Two 32</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Three Tens Three Units Thirty Three 33</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Three Tens Four Unit Thirty Four 34</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>Three Tens Five Units Thirty Five 35</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>Three Tens Six Units Thirty Six 36</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>Three Tens Seven Units Thirty Seven 37</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>Three Tens Eight Units Thirty Eight 38</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>Three Tens Nine Units Thirty Nine 39</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>Four Tens Forty 40</td>
<td></td>
</tr>
</tbody>
</table>

Toran of consecutive numbers.

Write correct numbers in the blank spaces.
Let's join the dots in correct order and fly in the sky.

Write the next two successive numbers.

Write the middle number in gap.

Write the two successive numbers before the given numbers.
**Introduction and writing of 41 to 50**

<table>
<thead>
<tr>
<th>Tens</th>
<th>Units</th>
<th>Four Tens</th>
<th>Forty One</th>
<th>41</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1</td>
<td>One Unit</td>
<td>Forty One</td>
<td>41</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>Two Units</td>
<td>Forty Two</td>
<td>42</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>Three Units</td>
<td>Forty Three</td>
<td>43</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>Four Units</td>
<td>Forty Four</td>
<td>44</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>Five Units</td>
<td>Forty Five</td>
<td>45</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>Six Units</td>
<td>Forty Six</td>
<td>46</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>Seven Units</td>
<td>Forty Seven</td>
<td>47</td>
</tr>
<tr>
<td>4</td>
<td>8</td>
<td>Eight Units</td>
<td>Forty Eight</td>
<td>48</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>Nine Units</td>
<td>Forty Nine</td>
<td>49</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>Five Tens</td>
<td>Fifty</td>
<td>50</td>
</tr>
</tbody>
</table>

Toran of consecutive numbers.

Write correct numbers in the blank spaces.
Introduction and writing of 51 to 60

<table>
<thead>
<tr>
<th>Tens</th>
<th>Units</th>
<th>Five Tens</th>
<th>Fifty One</th>
<th>51</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1</td>
<td>One Unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>Two Units</td>
<td></td>
<td>52</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>Three Units</td>
<td></td>
<td>53</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>Four Units</td>
<td></td>
<td>54</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>Five Units</td>
<td></td>
<td>55</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>Six Units</td>
<td></td>
<td>56</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>Seven Units</td>
<td></td>
<td>57</td>
</tr>
<tr>
<td>5</td>
<td>8</td>
<td>Eight Units</td>
<td></td>
<td>58</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>Nine Units</td>
<td></td>
<td>59</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>Six Tens</td>
<td></td>
<td>60</td>
</tr>
</tbody>
</table>

Toran of consecutive numbers.
Write correct numbers in the blank spaces.
### Introduction and writing of 61 to 70

**Tens** | **Units** | **Six Tens One Unit** | **Sixty One** |
---|---|---|---|
6 | 1 | Six Tens One Unit | Sixty One 61 |
6 | 2 | Six Tens Two Units | Sixty Two 62 |
6 | 3 | Six Tens Three Units | Sixty Three 63 |
6 | 4 | Six Tens Four Units | Sixty Four 64 |
6 | 5 | Six Tens Five Units | Sixty Five 65 |
6 | 6 | Six Tens Six Units | Sixty Six 66 |
6 | 7 | Six Tens Seven Units | Sixty Seven 67 |
6 | 8 | Six Tens Eight Units | Sixty Eight 68 |
6 | 9 | Six Tens Nine Units | Sixty Nine 69 |
7 | 0 | Seven Tens | Seventy 70 |

**Toran of consecutive numbers.**

Write correct numbers in the blank spaces.
### Toran of consecutive numbers.

Write correct numbers in the blank spaces.

<table>
<thead>
<tr>
<th>Tens</th>
<th>Units</th>
<th>Seven Tens One Unit</th>
<th>Seventy One</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>1</td>
<td></td>
<td>71</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>Seven Tens Two Units</td>
<td>72</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>Seven Tens Three Units</td>
<td>73</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>Seven Tens Four Units</td>
<td>74</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
<td>Seven Tens Five Units</td>
<td>75</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
<td>Seven Tens Six Units</td>
<td>76</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>Seven Tens Seven Units</td>
<td>77</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>Seven Tens Eight Units</td>
<td>78</td>
</tr>
<tr>
<td>7</td>
<td>9</td>
<td>Seven Tens Nine Units</td>
<td>79</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>Eight Tens</td>
<td>80</td>
</tr>
</tbody>
</table>
Let’s Understand ...

<table>
<thead>
<tr>
<th>Tens</th>
<th>Units</th>
<th>Eight tens One unit</th>
<th>Eighty One 81</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>1</td>
<td>Eight tens One unit</td>
<td>Eighty One 81</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>Eight tens Two units</td>
<td>Eighty Two 82</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>Eight tens Three units</td>
<td>Eighty Three 83</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>Eight tens Four units</td>
<td>Eighty Four 84</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>Eight tens Five units</td>
<td>Eighty Five 85</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>Eight tens Six units</td>
<td>Eighty Six 86</td>
</tr>
<tr>
<td>8</td>
<td>7</td>
<td>Eight tens Seven units</td>
<td>Eighty Seven 87</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>Eight tens Eight units</td>
<td>Eighty Eight 88</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>Eight tens Nine units</td>
<td>Eighty Nine 89</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>Nine tens Ninety 90</td>
<td>Ninety 90</td>
</tr>
</tbody>
</table>

Toran of consecutive numbers.
Write correct numbers in the blank spaces
## Introduction and writing of 91 to 99

### Tens and Units

<table>
<thead>
<tr>
<th>Tens</th>
<th>Units</th>
<th>Nine tens</th>
<th>Ninety One</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>1</td>
<td>One unit</td>
<td>91</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>Two units</td>
<td>92</td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>Three units</td>
<td>Ninety Three</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>Four units</td>
<td>Ninety Four</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>Five units</td>
<td>Ninety Five</td>
</tr>
<tr>
<td>9</td>
<td>6</td>
<td>Six units</td>
<td>Ninety Six</td>
</tr>
<tr>
<td>9</td>
<td>7</td>
<td>Seven units</td>
<td>Ninety Seven</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td>Eight units</td>
<td>Ninety Eight</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>Nine units</td>
<td>Ninety Nine</td>
</tr>
</tbody>
</table>

### Toran of consecutive numbers.

Write correct numbers in the blank spaces.

[93, 97]
Write the numbers in correct order on the back of caterpillar.
What is the sum of 99 and 1? How can we write it?

99 = 9 tens + 9 units

There is no digit bigger than nine. When there are 10 units in the units house, make a bundle of them and place it in the house of tens on left.

99 + 1 = 9 tens + 1 ten = 10 tens

Now there are 10 tens in the tens house. Make a big bundle of 10 tens. Place this bundle in a house on the left. This big bundle is known as 'Hundred'. It is written as '100'.

It contains one hundred, zero ten and zero unit. So a hundred is written as '100'.
We learnt small additions, now let's learn more additions.

1. \[ 5 + 4 = 9 \]
2. \[ 8 + 5 = \_ \]
3. \[ 10 + 3 = 13 \]
4. \[ 13 + 2 = \_ \]

### Story of Addition

One day, Yash was reading a story book at home. When his father came home, he saw Yash reading a book. He was very happy. He hugged him. Yash told, "Dad, I have already read all the seven books". His father praised him and said," Oh nice! very good!"

Father was so pleased that he gave four more books to him. Yash also became very happy. Now how many books does Yash have?

Now find ..... 
1) How many books did Yash have before? 
2) How many books did father give to Yash as a gift? 
3) How many books does Yash have in total?
Let's add five and three. Count three numbers after five. 6, 7, 8. Total beads are 8. So the sum is 8.

Now, let's find the sum of eight and five. For it, count five beads after 8 beads. 9, 10, 11, 12, 13. So total beads are 13.

While adding two numbers, count forward the numbers equal to the second number after the first number. Addition will be easy if we take bigger number and then count forward the smaller number. While adding 4 + 9 counting four numbers after 9 is easier than counting nine numbers after 4.

Let's practise Addition.

\[
\begin{align*}
8 + 6 &= 14 \\
4 + 9 &= 13 \\
7 + 5 &= 12 \\
7 + 7 &= 14 \\
12 + 4 &= 16 \\
15 + 5 &= 20 \\
17 + 2 &= 19 \\
12 + 6 &= 18 \\
13 + 4 &= 17 \\
11 + 7 &= 18
\end{align*}
\]
Draw next three pictures in order or write next three numbers in order.

Patterns

Observe and colour
Colour the box below the picture showing puppy in the basket.

Colour the box below the picture showing a man outside the car.

Colour the box below the picture showing broad road.

Colour the box below the picture of narrow brush.
Observe the shapes.

```plaintext
\[ \square \bigcirc \triangle \] count objects of these shapes and write their numbers.

\[ \square = \square \quad \triangle = \square \quad \bigcirc = \square \]
Arrange the objects according to increasing order of their lengths.
Colour the □ below the longest caterpillar.

Longest

Shortest

Colour the □ near the shortest queue.
Tall - Short

Colour □ below tall object.

Colour □ below short object.
Colour the □ below the tallest dog.

Colour the □ below the shortest tree.

Colour the □ below the shortest pillar.
Colour the □ below the heavy object.

Colour the □ below the light object.

Discuss.
Are the bigger objects always heavier?
The [ ] is near Rama and the [ ] is far from Rama.

Who is the nearest to the well? [ ]
Who is the farthest from the well? [ ]
Turn Left.

Turn Right.
Colour [ ] under the vessel which will fill in less time.

Colour [ ] under the picture of the vehicle which takes more time for journey.
What is next?

Observe the picture. Write proper order of activities.

1 2 3

1 3 2

1 2 3

1 2 3

1 2 3
Let us measure

A bedcover is needed for Yash's cot. One is very short, the other is very long.

Yash does not have a tape to measure. Let's measure the length by span.

Yash measured the length as 11 spans. So the length of bedcover should be 13 spans, as it has to be a little longer.

Discuss: Think of objects whose lengths are measured. Which instrument should be used to measure length?

1) Measure the distance by feet between two flowerpots nearby. feet.

2) Guess the length of a newspaper. Measure it by span and write. spans
See the above table and write answers in the boxes.

1) Which game do children play on Tuesday?

3) If children are playing today Kho-Kho, which game will they play tomorrow?

2) Which day they play hide and seek?

4) If yesterday children played Langadi, which game will they play today?
1) Which animal is in the least number? 

2) Which animal is in the largest number? 

3) How many lions are there in the zoo? 

4) How many deer are there in the zoo? 

5) Which animal has a count of two? Which is your favourite animal of the above animals? Why?
इयत्ता ९ ली ते ८ वी साठीची पाठ्यपुस्तक मंडळाची वैशिष्ट्यपूर्ण पुस्तके

- मुलांसारीव्या संस्कार कथा
- बालगीते
- उपयुक्त असा मराठी भाषा शब्दार्थ संग्रह
- सर्वांव्या संग्रही असली अशी पुस्तके

पुस्तक मागणीसाठी www.ebalbharati.in, www.balbharati.in संकेतस्थळावर भेट द्या.

साहित्य पाठ्यपुस्तक मंडळाच्या विभागीय भांडारांमध्ये विकीर्णीसाठी उपलब्ध आहे.

विभागीय भांडारे संपर्क क्रमांक: पुणे - ☎ २५६५९६५६, कोल्हापूर- ☎ २५६५७७९, मुंबई (एकेडेमी) - ☎ २३३२७०८, पांढरे - ☎ २५६५८१५, नाशिक - ☎ २३६७९५३, अंबराव - ☎ २३३२७०८, नागपूर - ☎ २५५७९६/२५२३०७८, लावूर - ☎ २२०३०, अमरावती - ☎ २५३०९६५