

CORDOVA® App 24x7
For Teachers Only



STEP BY STEP Mathematics

1



CORDOVA®

5 - 16

1. Comparison

17 - 25

2. Numbers up to 9

26 - 35

3. Addition up to 9

36 - 44

4. Subtraction up to 9

45 - 51

5. Numbers up to 20

52 - 60

6. Numbers up to 50

61 - 69

7. Numbers up to 100

70 - 89

8. Addition and Subtraction up to 99

90 - 103

9. Introduction to Multiplication

104 - 109

10. Shapes

110 - 111

11. Patterns

112 - 115

12. Measurement

116 - 118

13. Money

119 - 125

14. Time

126 - 128

15. Data Handling

1

Comparison

Use Cordova Smart Class Software on the smart board in class to learn about comparison.

This is big.



This is small.



Big/Small

Exercise-1

Use Cordova Smart Class Software on the smart board in class to do Exercise.

Tick (✓) the small fruit :



Tick (✓) the big fish :



Teacher Tip

Introduce and emphasise on bigger/smaller concept through a game. Keep a basket full of various objects such as ball, bat, book, pencil etc. Ask a student to pick up an object from the basket. Then ask another student to pick something bigger than the first one. This continues till all the things have been picked up. Vary instruction by saying bigger and smaller at random.

Biggest/Smallest



Smallest



biggest



Exercise-2

Use Cordova Smart Class Software on the smart board in class to do Exercise.

Tick (✓) the biggest :



Tick (✓) the smallest :



Long/Short

My skirt is long.



My skirt is short.



Exercise-3

Use Cordova Smart Class Software on the smart board in class to do Exercise.

Tick (✓) the child with long hair :



Tick (✓) the short animal :



Tall/Short



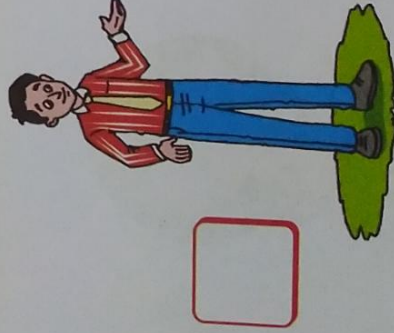
This is short.



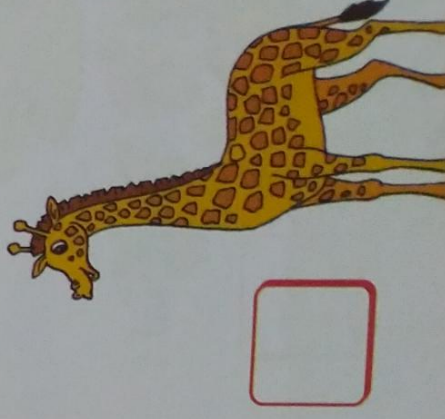
Exercise-4

Use Cordova Smart Class Software on the smart board in class to do Exercise.

Tick (✓) the tall man :



Tick (✓) the short animal:



Heavy/Light

This is heavy.



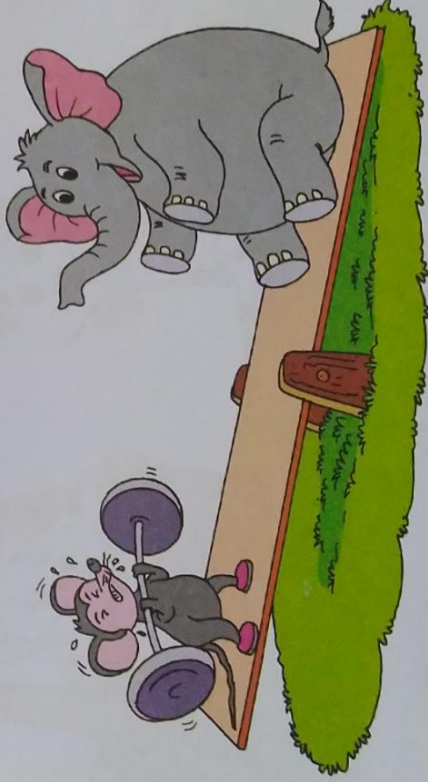
This is light.



Exercise-5

Use Cordova Smart Class Software on the smart board in class to do Exercise.

Tick (✓) the heavy animal :



Tick (✓) the fruit which is light :



Inside/Outside

Rocky is inside the kennel.



Tommy is outside the kennel.



Exercise-6

Use Cordova Smart Class Software on the smart board in class to do Exercise.

Tick (✓) the cat that is inside the basket ;



Tick (✓) the chicks that are outside the box ;



More/Less



More flowers



Less flowers

Exercise-7

Use Cordova Smart Class Software on the smart board in class to do Exercise.

Tick (✓) the child with more balloons :



Tick (✓) the monkey with less bananas :



Rolling/Sliding



A ball rolls.



A book slides.

Exercise-8

Use Cordova Smart Class Software on the smart board in class to do Exercise.

Tick (✓) the objects which roll and cross (X) the objects which slide :



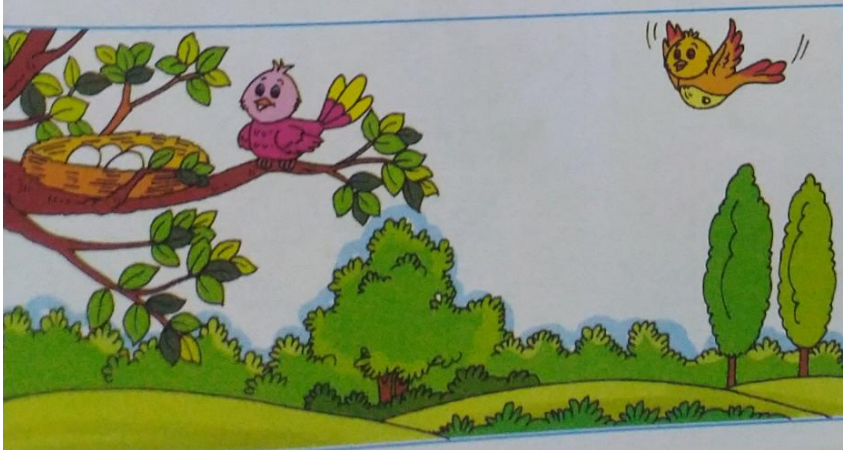
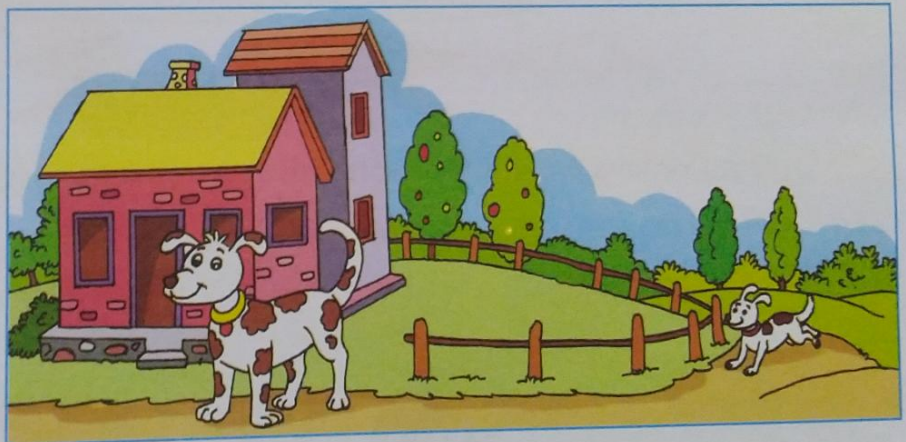
Near/Far



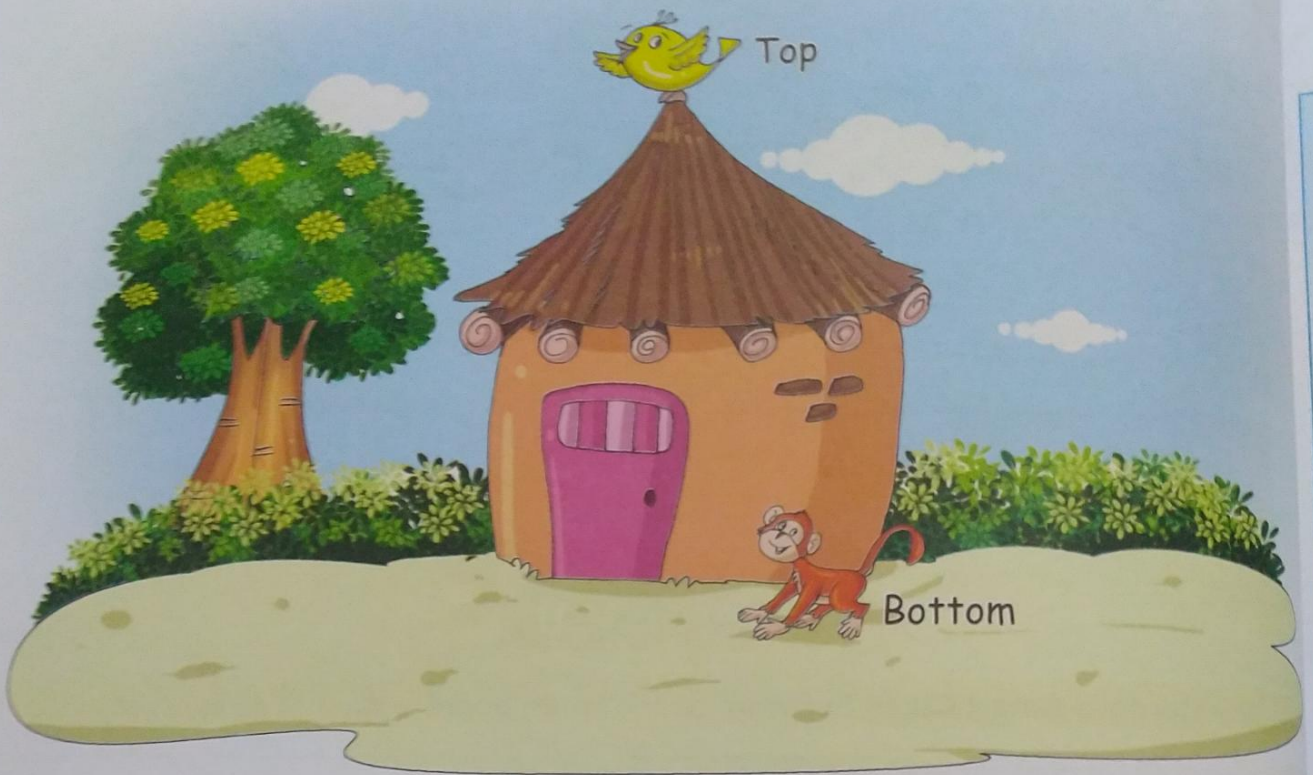
Exercise-9

Use Cordova Smart Class Software on the smart board in class to do Exercise.

Circle the dog
near the house.



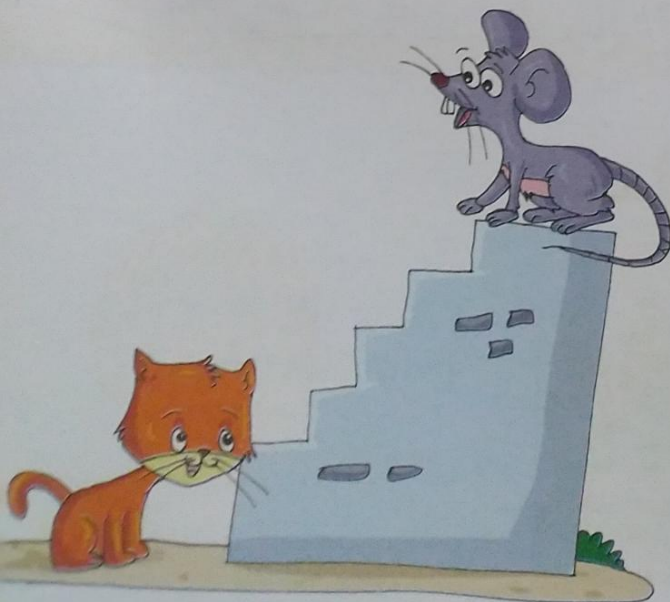
Circle the bird far
from the nest.



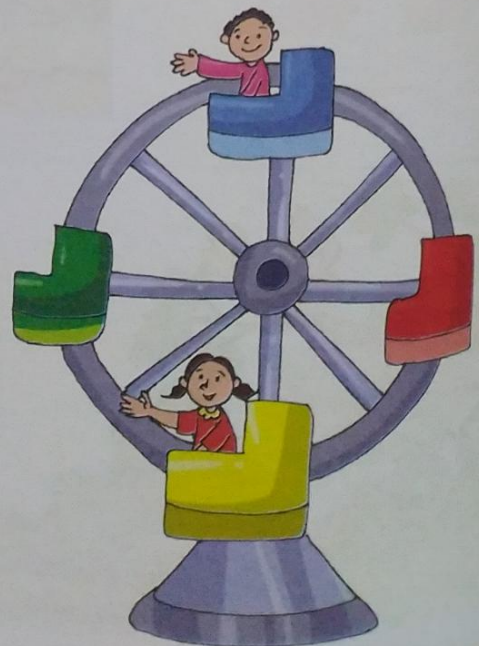
Exercise-10

Use Cordova Smart Class Software on the smart board in class to do Exercise.

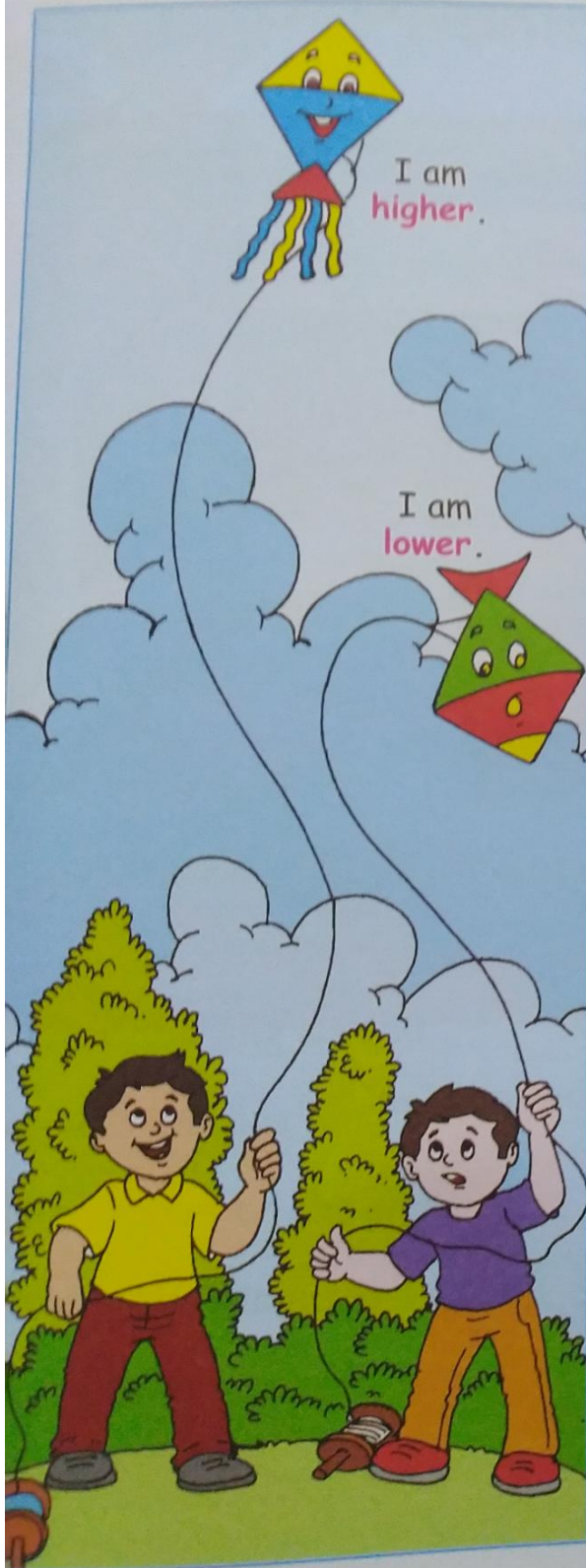
Circle the animal at the top of the stairs.



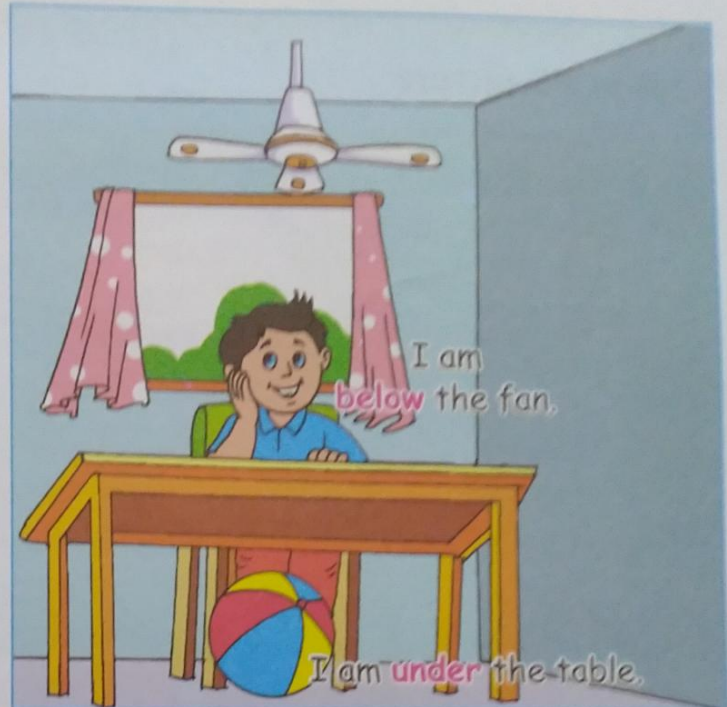
Circle the child on the bottom of the swing.



Higher/Lower



Below/Under



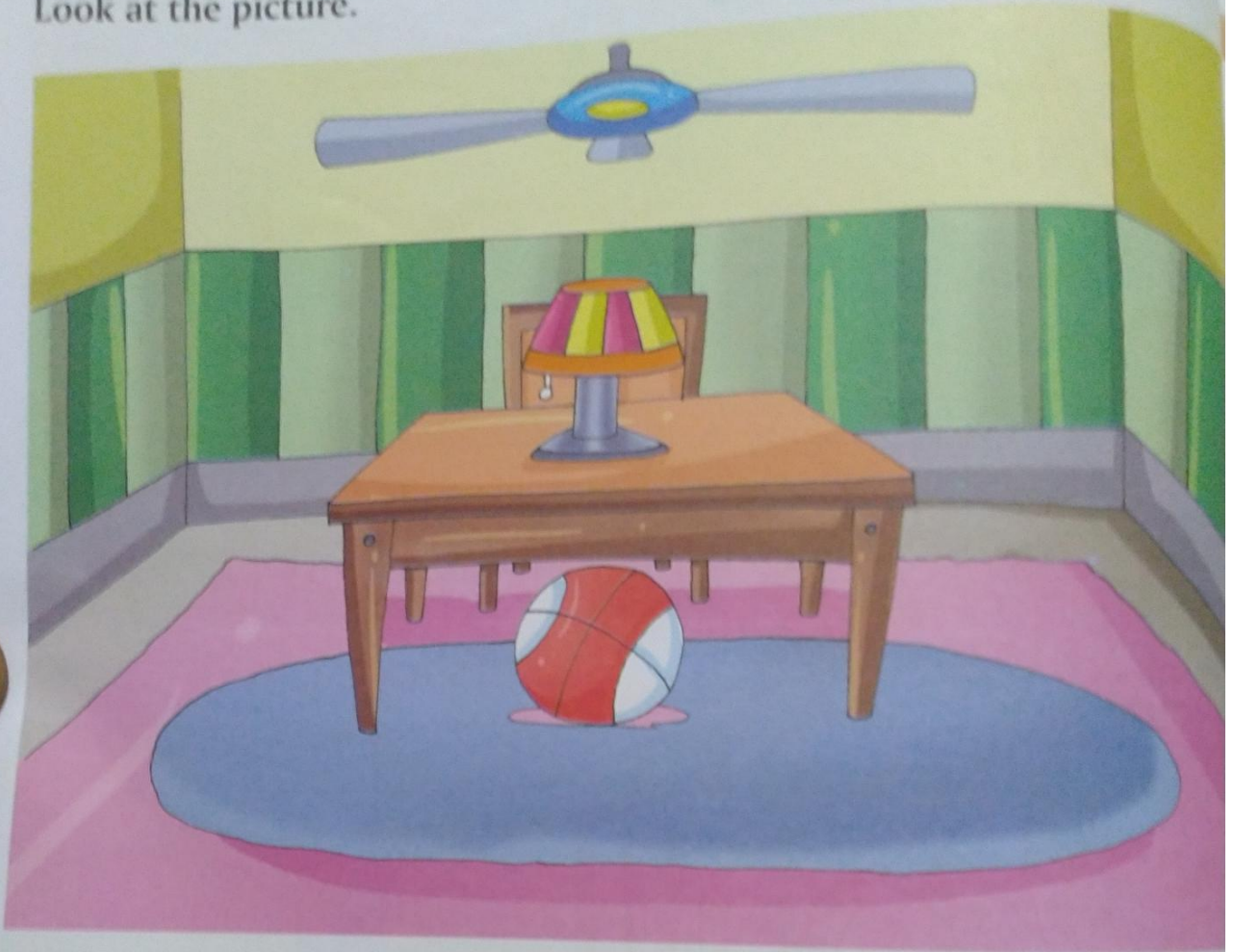
Above/On



Exercise-11

Use Cordova Smart Class Software on the smart board in class to do Exercise

Look at the picture.



Fill in the blanks using 'under', 'above', 'below' and 'on'.

Fan is the table lamp.

Ball is the table.

Table lamp is the fan.

Table lamp is the table.

2

Numbers up to 9

Use Cordova Smart Class Software on the smart board in class to learn about numbers up to 9.



One big yellow sun	1	1	One	One
Two boys having fun	2	2	Two	Two
Three ants in a line	3	3	Three	Three
Four squirrels looking fine	4	4	Four	Four
Five fish playing around	5	5	Five	Five
Six bees buzzing aloud	6	6	Six	Six
Seven apples on the tree	7	7	Seven	Seven
Eight birds flying free	8	8	Eight	Eight
Nine flowers orange and red	9	9	Nine	Nine

Teacher Tip

Perform activities of counting objects with children. Count loudly one, two, three, ..., nine and point distinctly to each object.

Exercise-1

Use Gordova Smart Class Software on the smart board in class to do Exercise

1. Count and write the number and number name.
The first one has been done for you.



3

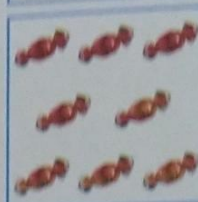
three



.....



.....



.....

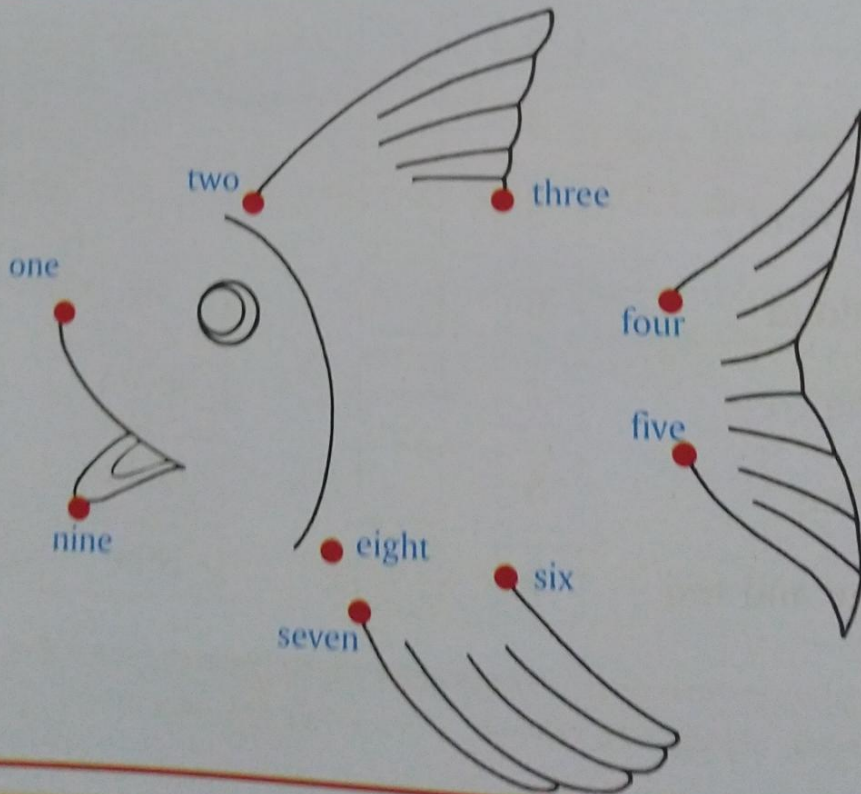


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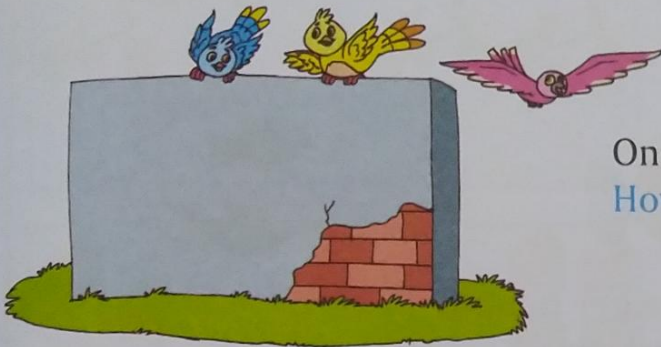
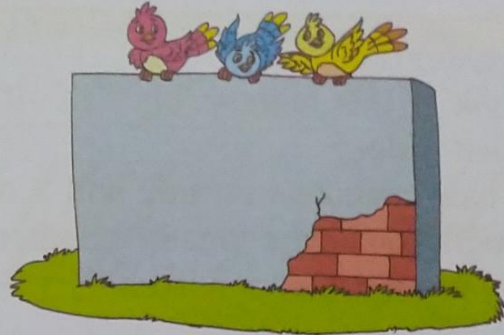
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2. Join the dots from one to nine to complete the picture. Now colour it.



Concept of Zero

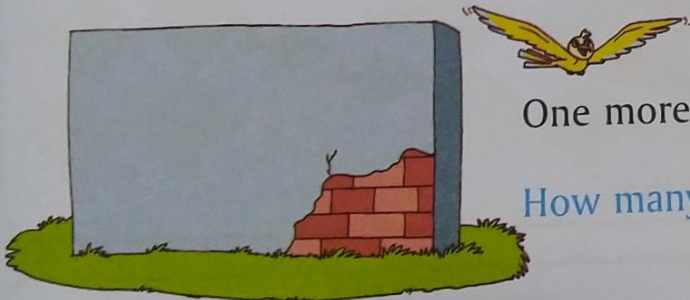
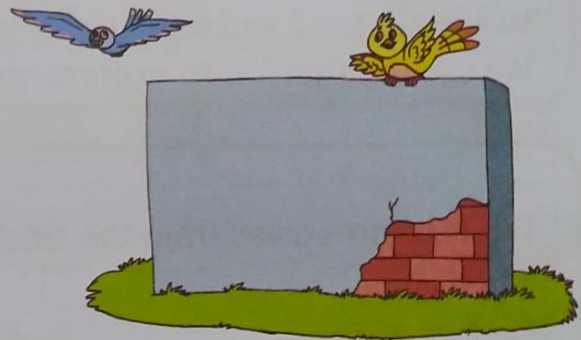
3 birds sit on a wall.



One bird flies away.
How many birds are left?

One more bird flies away.

How many birds are left?



One more bird flies away.

How many birds are left?

Zero birds are left.

When there is no bird on the wall, we say that there are zero birds on the wall. Zero means nothing.

'0' is the symbol to represent zero.

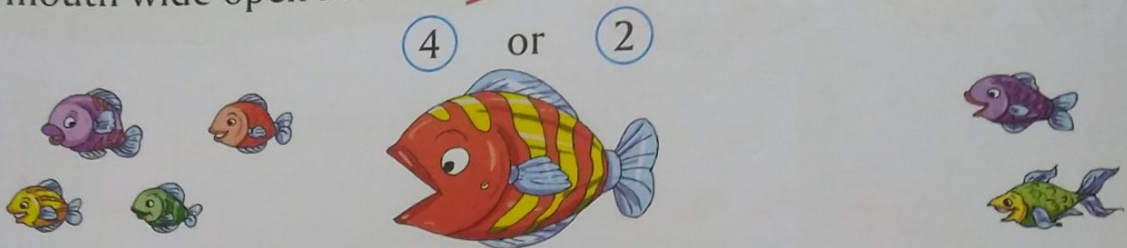
Zero comes just before 1.

Comparison of Numbers

Greater than

Look at this hungry 'big fish'. It is very very hungry. So, its mouth is open wide.

It has 4 fish on one side and 2 on the other. But the big fish opens its mouth to eat the greater number of fish. So, it goes for the 4 fish with its mouth wide open like this $>$

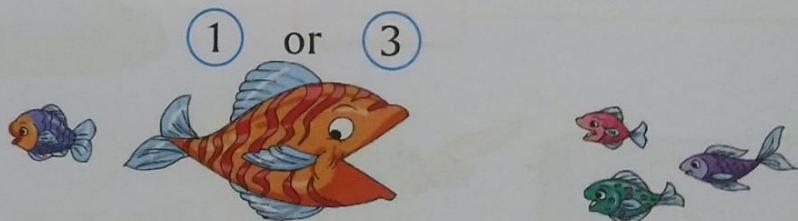


We write, $4 > 2$ and read it as 4 is **greater than** 2.

We use the sign ' $>$ ' to express 'greater than'.

Less than

The fish turns away from the smaller number of fish.

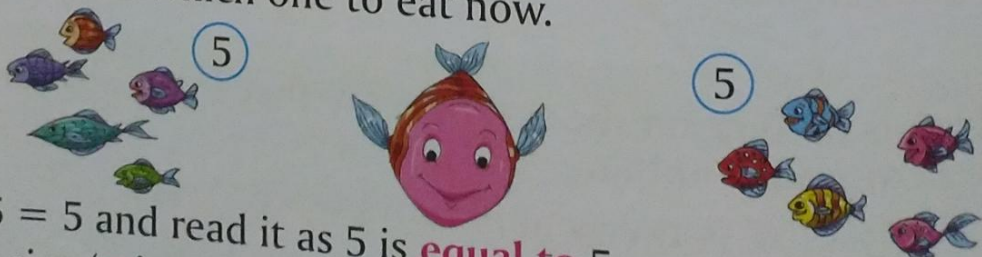


We write, $1 < 3$ and read it as 1 is **less than** 3.

We use the sign ' $<$ ' to express 'less than'.

Equal to

The fish is not sure which one to eat now.





We write, $5 = 5$ and read it as 5 is **equal to** 5.



We use the sign ' $=$ ' to show that the numbers are equal

Exercise-2



Use Cordova Smart Class Software on the smart board in class to do Exercise.


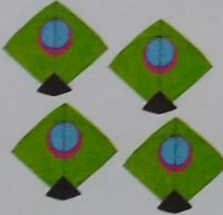
Compare the groups and put the sign $>$, $<$ or $=$.



		
3		4



		
7		7



		
3		9

		
4		2

		
4		4

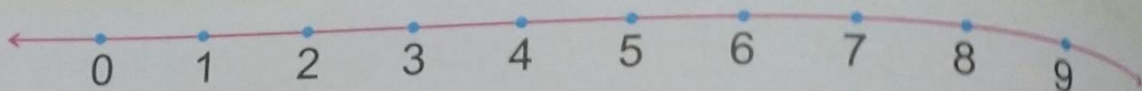
		
5		8

		
8		5

		
5		9

Comparison on the Number Line

Look at the number line.



The number closer to 0 is smaller.

As we move from 0 towards right, the numbers become greater.

Let us take numbers 4 and 6.

4 is closer to 0 than 6.

So, 4 is smaller than 6. We write it as $4 < 6$.

6 is far away from 0 than 4.

So, 6 is greater than 4. We write it as $6 > 4$.

Exercise-3

Use Cordova Smart Class Software on the smart board in class to do Exercise.

Fill in the blanks with $>$ or $<$ using the number line.

The first one has been done for you.

5	<	7	6		1	3		5
9		3	2		3	7		4
5		1	3		7	2		7

Exercise-4

Use Cordova Smart Class Software on the smart board in class to do Exercise.

Use $>$, $<$ or $=$ to fill in the boxes given below.

The first one has been done for you.

1. 6 is greater than 3.

$$6 \quad \boxed{>} \quad 3$$

2. 8 is less than 9.

$$8 \quad \boxed{} \quad 9$$

3. 4 is greater than 2.

$$4 \quad \boxed{} \quad 2$$

4. 1 is greater than 0.

$$1 \quad \boxed{} \quad 0$$

5. 7 is less than 8.

$$7 \quad \boxed{} \quad 8$$

6. 4 is equal to 4.

$$4 \quad \boxed{} \quad 4$$

7. 5 is greater than 3.

$$5 \quad \boxed{} \quad 3$$

8. 3 is less than 7.

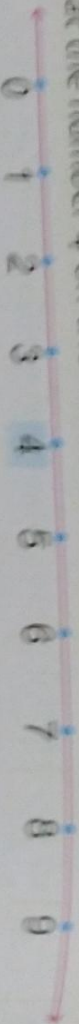
$$3 \quad \boxed{} \quad 7$$



Remember : The fish opens its mouth towards the greater number.

Before-Between-After

Look at the number 4 on the number line.



The number 3 is to the left of number 4.

So, 3 comes just before 4.

The number 5 is to the right of number 4.

So, 5 comes just after 4.

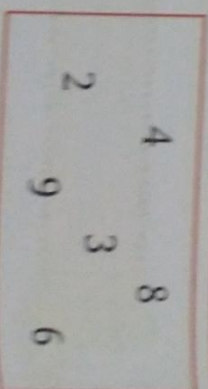
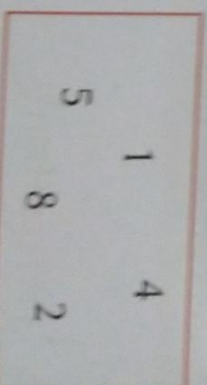
The number 4 is between 3 and 5.

3 4 5

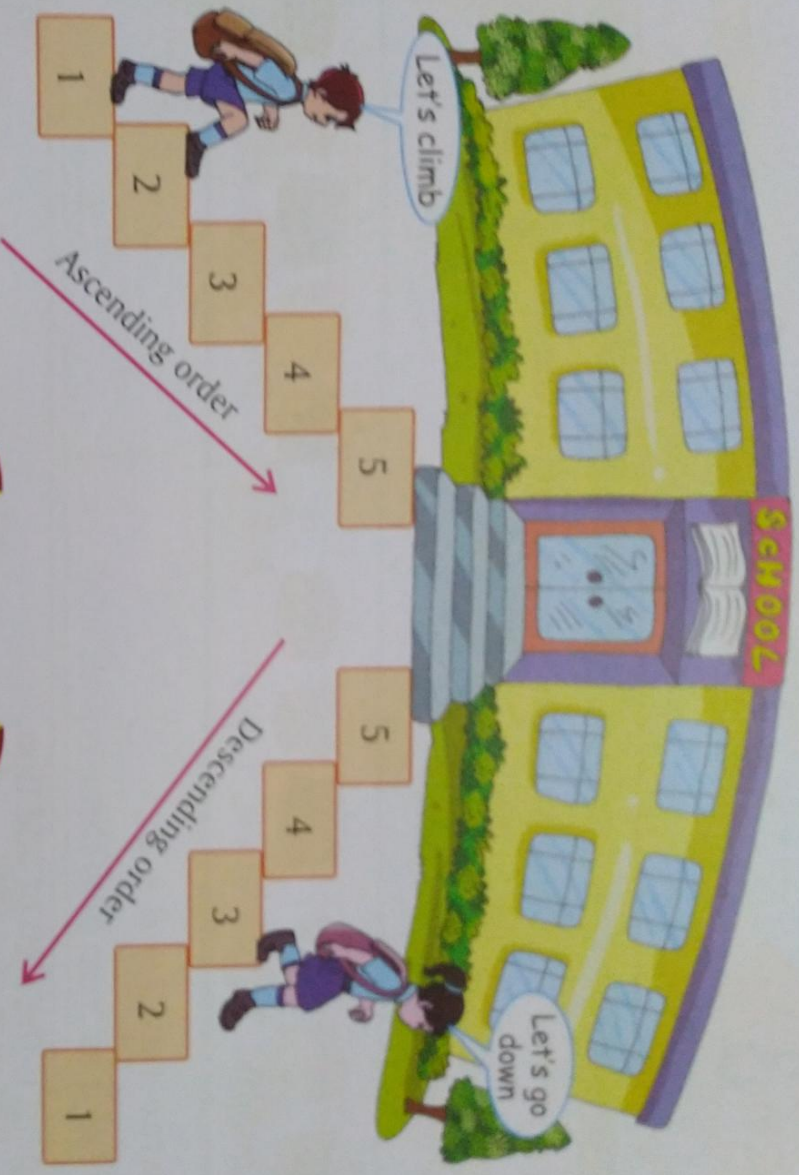
Exercise-5

Use Cordova Smart Class Software on the smart board in class to do Exercise.

1. Which number comes just before 5 ?
2. Which number comes just after 2 ?
3. What comes between 7 and 9 ?
4. Circle all the numbers which come after 3.
5. Circle all the numbers which come before 7.



Ascending and Descending Order



Exercise-6

Use Cordova Smart Class Software on the smart board in class to do Exercise.

1. Write the numbers in ascending order.

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

2. Write the numbers in descending order.

9	8							2	
---	---	--	--	--	--	--	--	---	--

Oral

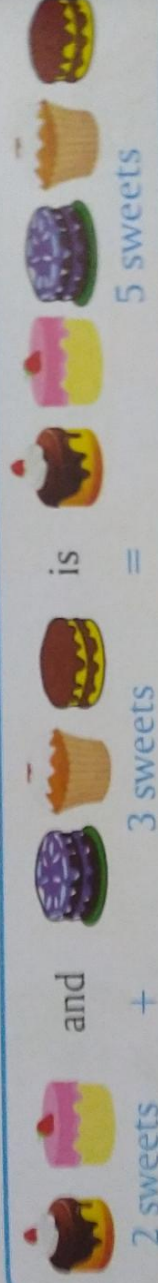
1. What comes just after 3?
2. Which is greater : 5 or 2?
3. Which number comes just before 7?

3

Addition up to 9

Use Cordova Smart Class Software on the smart board in class to learn about addition up to 9.

It is my friend's birthday. She distributes sweets in the class. She gives me two sweets. Then she gives me three more. How many sweets do I have?



We write it as $2 + 3 = 5$.

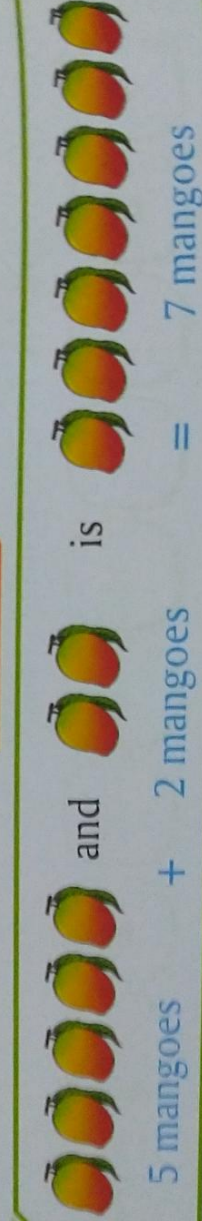
We read it as "two plus three equals five".

'+' (plus) is the sign of addition.

Let us take some more examples.



$$3 + 1 = 4$$





$$5 + 2 = 7$$



When we combine two or more collections, we call it addition.



Exercise-1



Use Cordova Smart Class Software on the smart board in class to do Exercise.



Count the objects in each group. Write the number in the box. Write the sum in the box. The first one has been done for you.

1.  and  is + =

2.  and  is + =

3.  and  is + =

4.  and  is + =

5.  and  is + =

Addition on the Number Line

We can also add by counting forward on the number line.

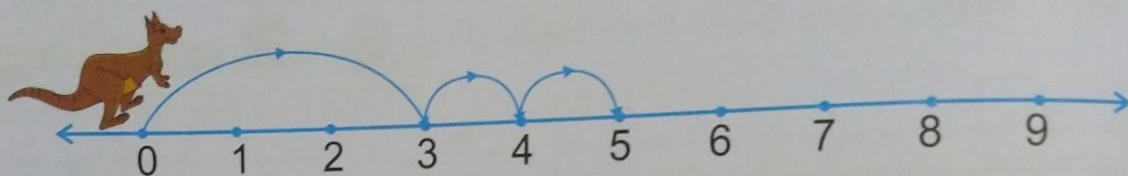
Let us add 3 and 2.

We start from 0 and jump to 3.

Then we take 2 jumps forward to reach number 5.

So,

$$3 + 2 = 5$$



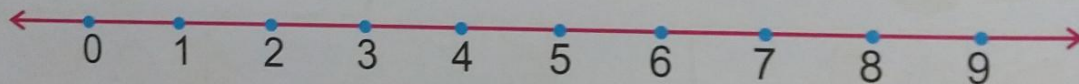
Exercise-2

Use Cordova Smart Class Software on the smart board in class to do Exercise.



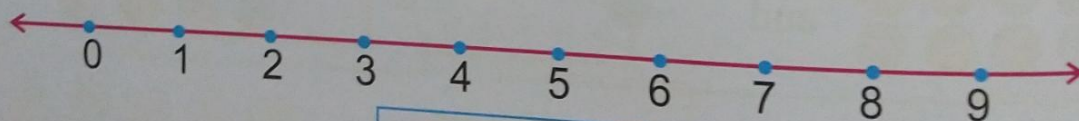
Help me add on the number line.

1



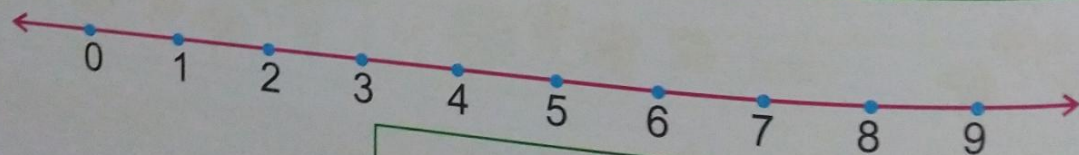
$$3 + 3 = \dots\dots\dots$$

2



$$7 + 1 = \dots\dots\dots$$

3



$$2 + 6 = \dots\dots\dots$$

Vertical Addition

Addition is done horizontally as well as vertically. The answer is same in both the cases.

Horizontal addition

$$7 + 2 = 9$$

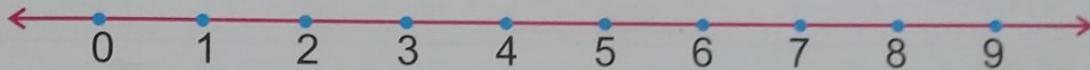
Vertical addition

$$\begin{array}{r} 7 \\ + 2 \\ \hline 9 \end{array}$$

Exercise-3

Use Cordova Smart Class Software on the smart board in class to do Exercise.

1. Add using the number line :



$$5 + 2 = \square$$

$$3 + 2 = \square$$

$$2 + 4 = \square$$

$$3 + 6 = \square$$

$$1 + 4 = \square$$

$$2 + 2 = \square$$

2. Add vertically :

$$\begin{array}{r} 7 \\ + 1 \\ \hline \end{array}$$

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

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

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

Properties of Addition

Adding One

1.



and



is



6

+

1

=

7

2.



and



is



5

+

1

=

6

When 1 is added to a number, the answer is the number that comes just after that number.



Exercise-4

Use Cordova Smart Class Software on the smart board in class to do Exercise.

Fill in the blanks :

$$1 + 1 = 2$$

$$2 + 1 = \boxed{}$$

$$3 + 1 = \boxed{}$$

$$4 + \boxed{} = 5$$


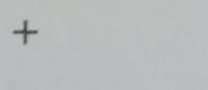

$$6 + \boxed{} = 7$$




$$\boxed{} + 1 = 8$$




Teacher Tip

Encourage the students to use concrete objects such as books, pencils, crayons, toffees, chalk pieces etc. for adding. The concept of 'more' to be emphasised in addition.

Adding Zero

1.  +  = 
five balls + no balls = five balls

2.  +  = 
no apples + three apples = three apples

3.  +  = 
four dolls + no dolls = four dolls


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

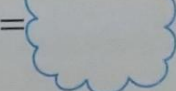


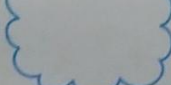
Exercise-5


Use Cordova Smart Class Software on the smart board in class to do Exercise.


Fill in the blanks :


1. $2 + 0 =$ 

4. $9 + 0 =$ 

2. $0 + 5 =$ 

5. $8 +$  $= 8$

3. $0 +$  $= 6$

6. $7 +$  $= 7$



Teacher Tip

The concept of zero should be made clear. 'Zero' here would mean 'nothing'. So, when we add nothing to a number, the number does not change.

Order in Addition

I go to buy ice-cream with my sister. I buy 3 ice-cream cones and my sister buys 4. Together we buy 7.

We write the sum like this :

me  +  +  =  **Together**

$$3 + 4 = 7$$

Or like this :

sister  +  +  =  **Together**

$$4 + 3 = 7$$

The answer is same in both the cases.

Exercise-6

Use Cordova Smart Class Software on the smart board in class to do Exercise.

Fill in the blanks :

1.

$$2 + 4 = \text{[]}$$
$$4 + 2 = \text{[]}$$

$$2 + 4 = 4 + \text{[]}$$

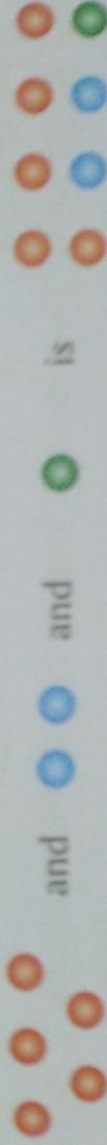
2.

$$5 + 3 = \text{[]}$$
$$3 + 5 = \text{[]}$$

$$5 + 3 = \text{[]} + \text{[]}$$

Adding Three Numbers

We can add three numbers in any order, the sum will remain the same.



$$\begin{array}{r} 5 \\ + 2 \\ \hline 7 \end{array} + 1 = 8$$

$$\begin{array}{r} 5 + 2 + 1 \\ = 5 + 3 = 8 \end{array}$$

$$\begin{array}{r} 5 + 2 + 1 \\ = 6 + 2 = 8 \end{array}$$

$$\begin{array}{r} 5 \\ + 2 \\ + 1 \\ \hline 8 \end{array}$$

Exercise-7

Use Cordova Smart Class Software on the smart board in class to do Exercise.

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

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

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

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

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

6.
$$\begin{array}{r} 1 \\ + 3 \\ + 5 \end{array}$$

7.
$$\begin{array}{r} 1 \\ + 3 \\ + 2 \end{array}$$

8.
$$\begin{array}{r} 4 \\ + 0 \\ + 1 \end{array}$$

Teacher Tip

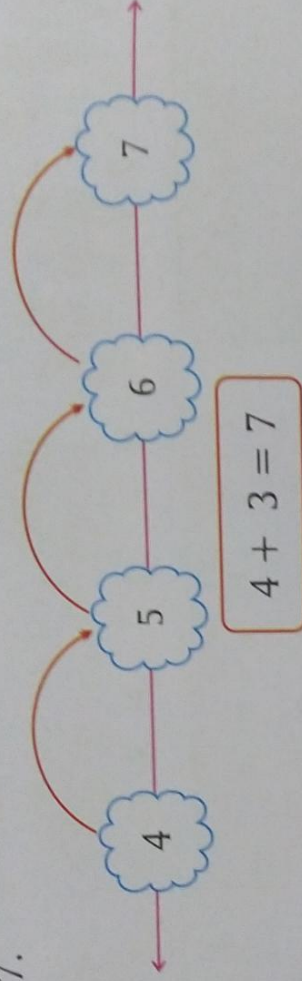
Encourage students to add numbers in any order and verify that the numbers can be added in any order to get the same answer.

Addition by Forward Counting

We also add numbers by forward counting.

Example : Add 4 and 3.

Put your finger on 4. Then move 3 steps forward. You reach on 7. So, the answer is 7.



Exercise-8

Use Cordova Smart Class Software on the smart board in class to do Exercise.

Add the following by forward counting :

$2 + 3 =$		\rightarrow		\rightarrow		\rightarrow	
$3 + 5 =$		\rightarrow		\rightarrow		\rightarrow	
$4 + 2 =$		\rightarrow		\rightarrow		\rightarrow	
$5 + 4 =$		\rightarrow		\rightarrow		\rightarrow	
$4 + 3 =$		\rightarrow		\rightarrow		\rightarrow	

Exercise-9

Use Cordova Smart Class Software on the smart board in class to do Exercise.

Story Sums

1.



Sumit has 5 marbles and Amit has 4. What is the total number of marbles with them?

Ans. Total number of marbles is

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

2.



Angel has 2 books. Her mother gives her 4 more. How many books does she have now?

Ans. Angel has books.

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

3.



Radhika eats 3 biscuits. Then, she eats 5 biscuits more. How many biscuits does she eat in all?

Ans. Radhika eats biscuits in all.

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

Oral

1. What is $9 + 0$?
2. What is one more than 5 ?
3. I have 2 books in my bag and 3 in my hand. What is the total number of books with me ?