Math

PRE-PRIMER

Written by:-
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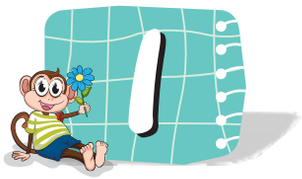
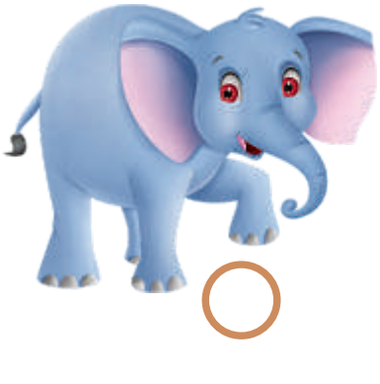
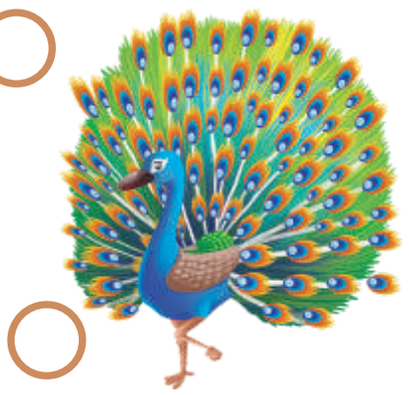
Contents



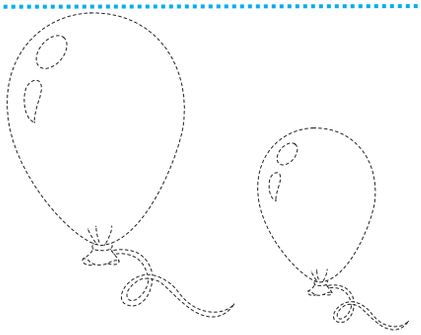
Big and Small

Tick (✓) the bigger and cross (✗) the smaller animal.





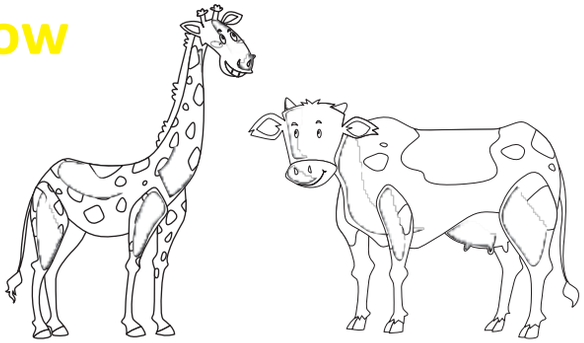
Trace the figures with the help of a pencil and colour the bigger one with red.



Tall and Short

Look at the object and write T for the tall and S for the short object.

Colour the bigger one with yellow and the shorter one with black.

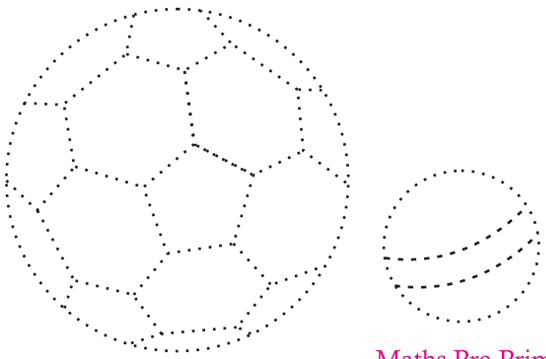


3 Heavy and Light

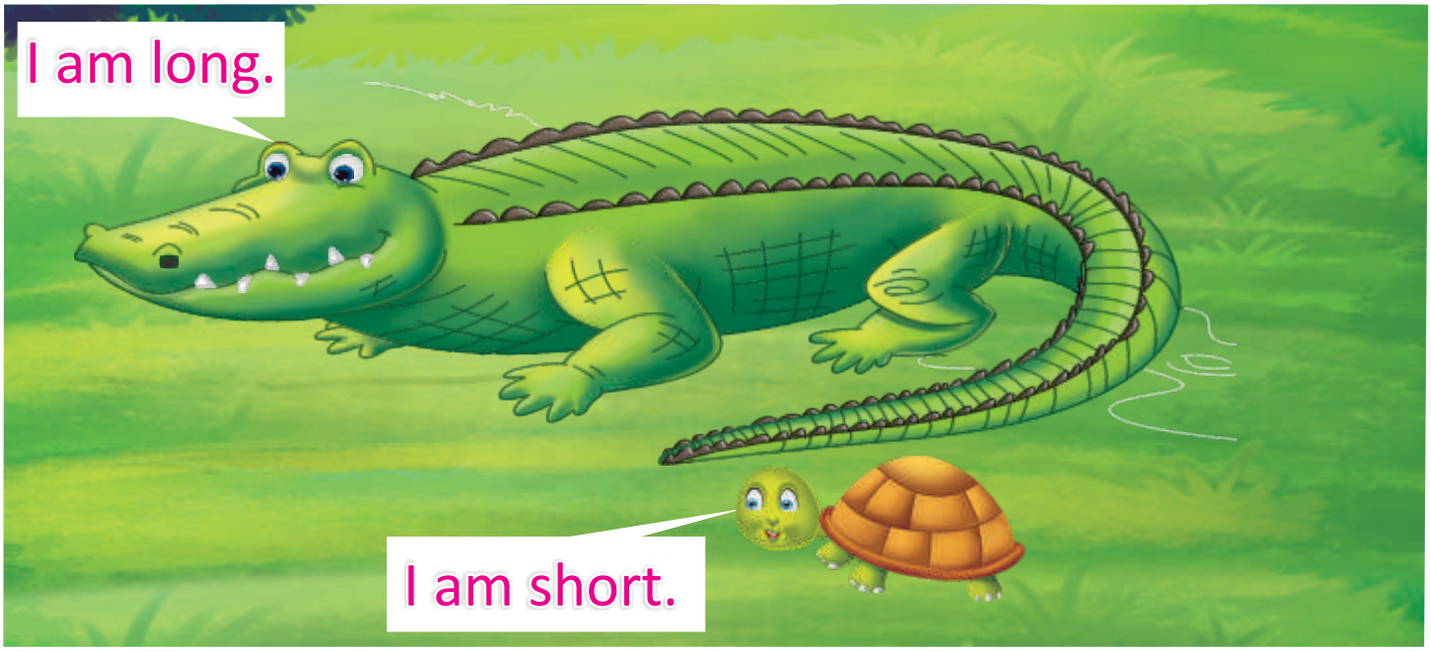
Tick (✓) the heavy and cross (✗) the light object.



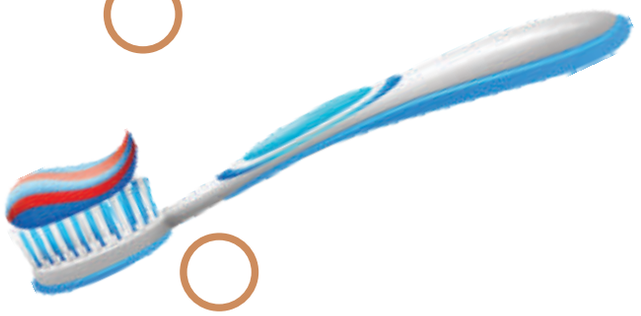

Trace the figures with the help of a pencil and colour the heavy one with red.



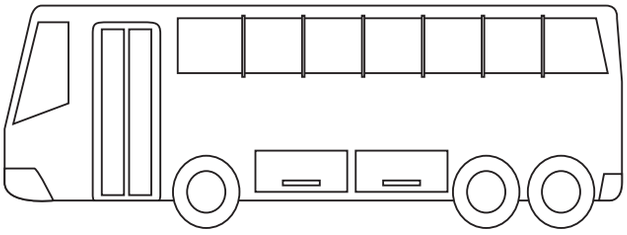
4 Long and Short

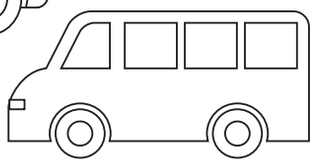


Look at the object and write L for the long and S for the short object.



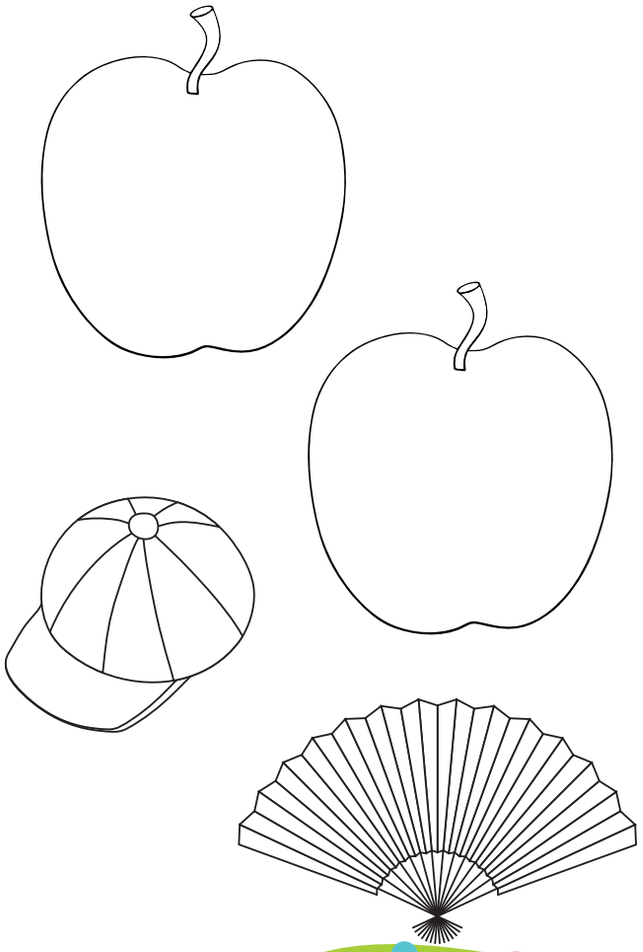
Colour the long one with red and the shorter one with blue.



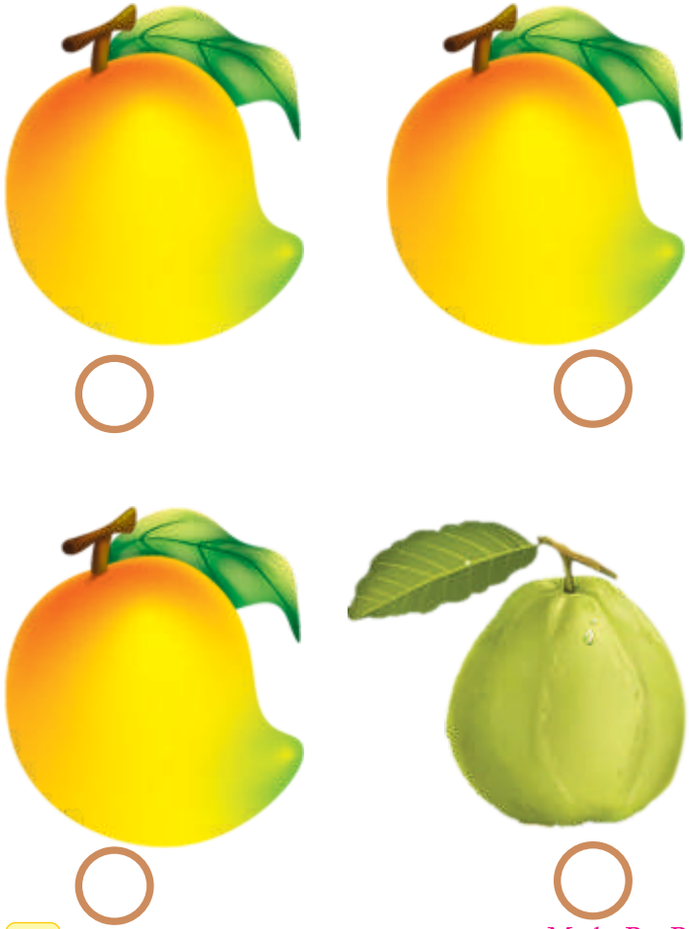


Similar Kinds

Colour the same objects.



Cross (×) the same fruits.

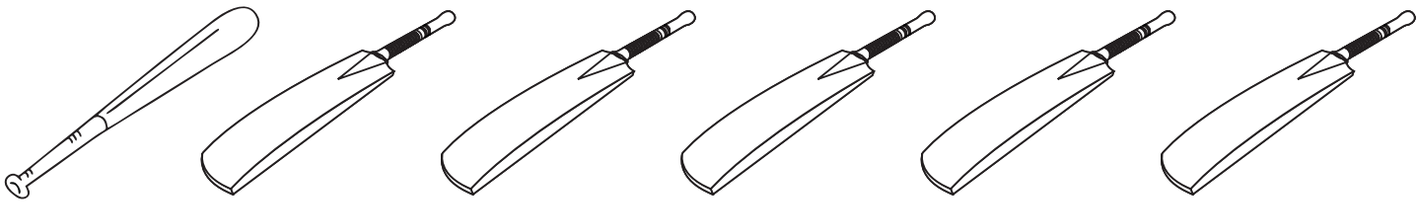


Odd One Out

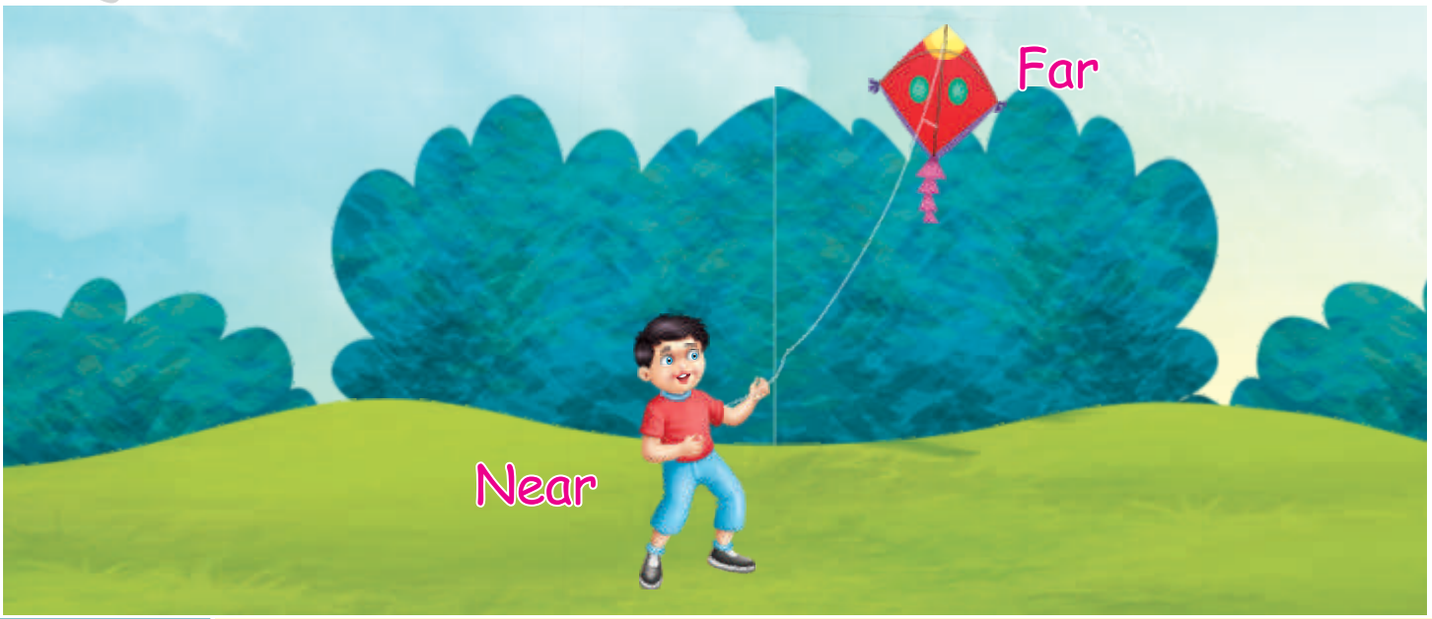
Objective : Children should be able to say whether an object belongs to a collection with distinct features.

Cross (✗) the one which is different in each row:

Colour the different object in each row:



Near and Far



Objective : The child learns to draw by comparing and classifying objects based on distance.

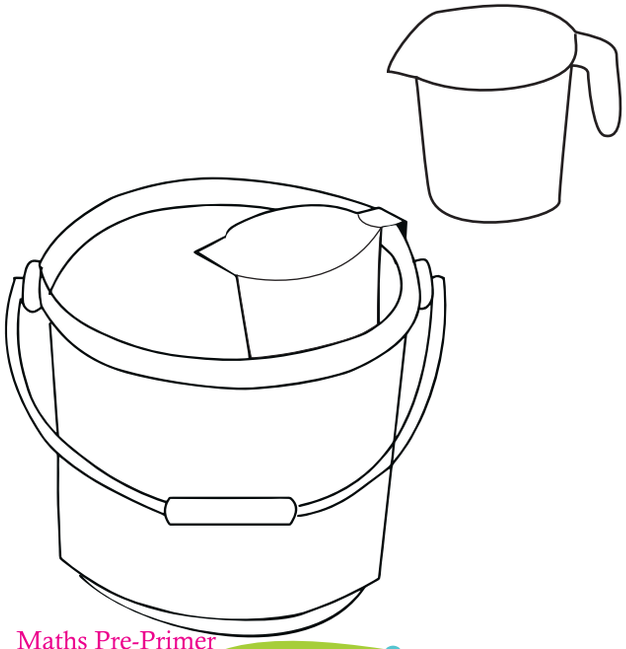
Colour the object which is near the tree:

Tick (✓) the animal which is far from the girl:

Inside and Outside

Objective : The child learns to draw by comparing and classifying objects based on their places/positions.

Colour the mug which is inside the bucket:



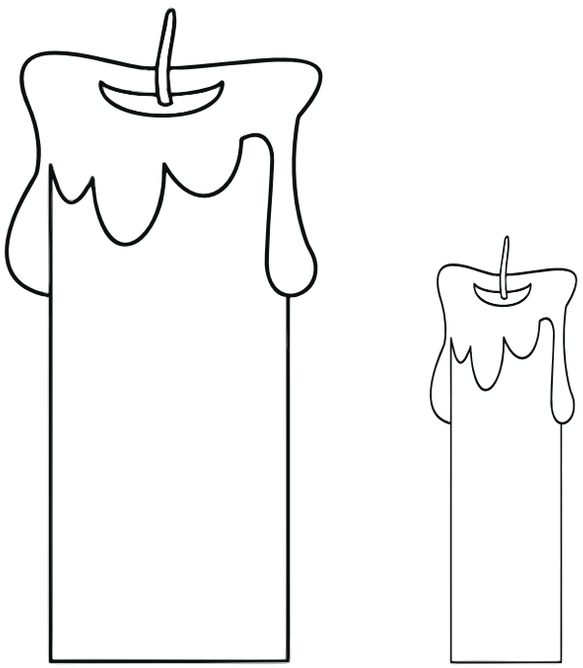
Cross (×) the fruit which is outside the basket:

9 Thick and Thin

Objective : The child learns to draw by comparing and classifying objects based on size.

EXERCISE

Colour the thicker object:



Cross (×) the object which is thick:

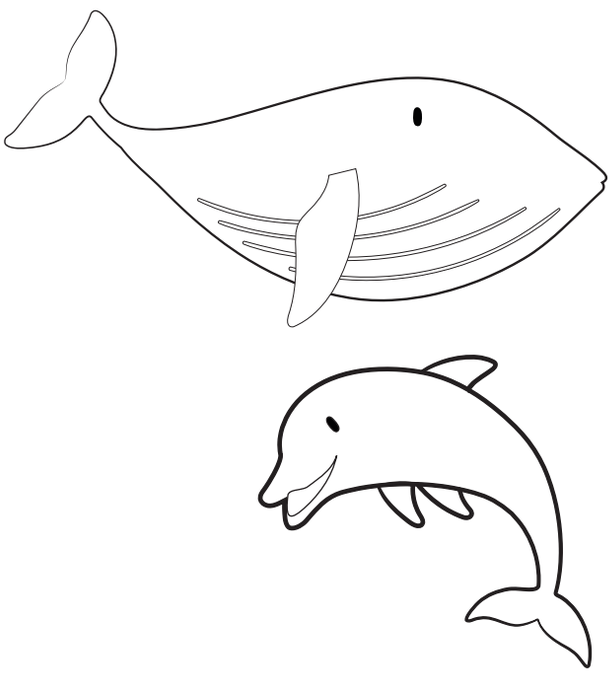
10

Fat and Slim

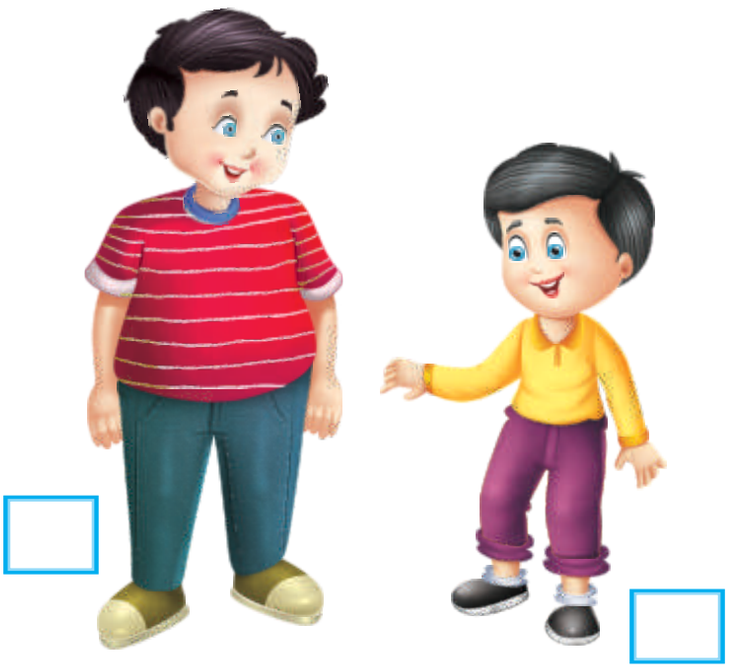
Objective : The child learns application of facts, improves his thinking skill, classifies and discriminates objects based on size.

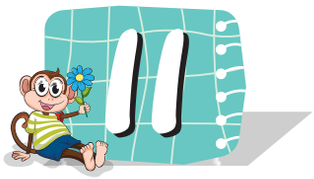
EXERCISE

Colour the fat one:



Tick (✓) the slim one:

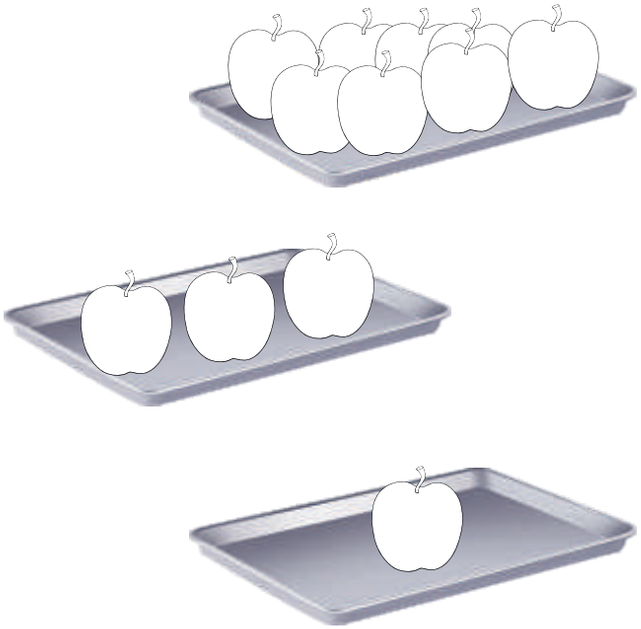




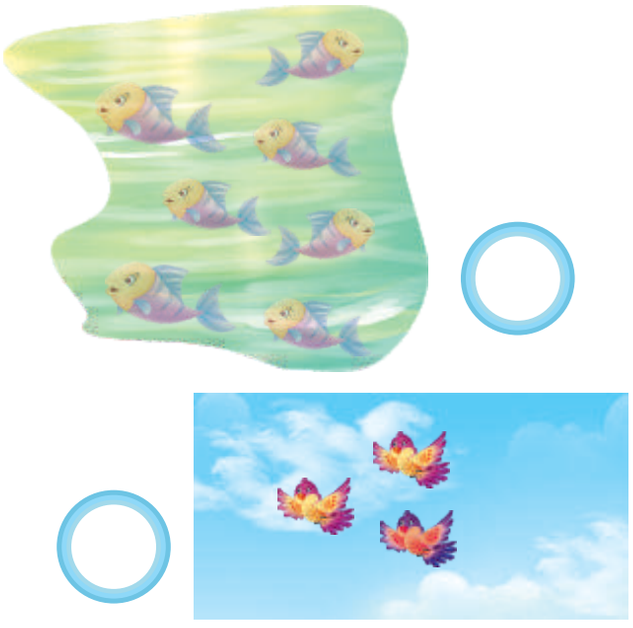
More and Less

Objective : The child learns to draw by comparing and classifying objects based on quantity.

Colour the tray which has more apples:



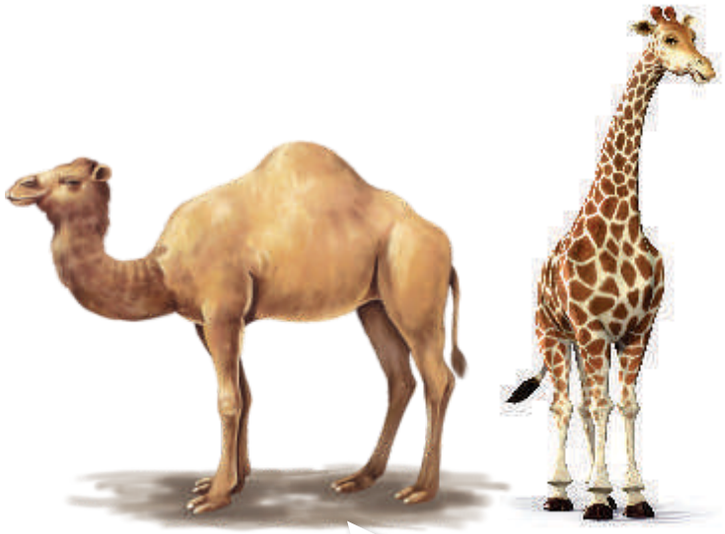
Write M for more objects and L for less objects:



12

Same-Different

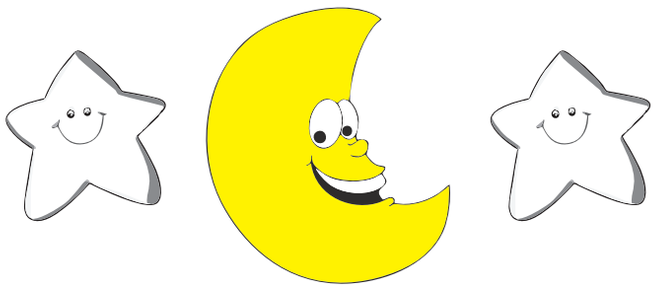
Same



Different

Tick (✓) the objects that are the same:

Circle the odd one out:



Shapes

Let's learn about four basic shapes:

RECTANGLE

A rectangle has four sides and four corners. Its opposite sides are equal.

SQUARE

A square has four sides and four corners. Its all sides are equal.

TRIANGLE

A triangle has three sides and three corners. Its sides may or may not be equal.

CIRCLE

A circle has no sides and no corners. It is round in shape.

Objective : The child learns to identify the objects based on shapes.

Trace and colour the shapes with indicated colour :

RED

BLUE

GREEN

YELLOW

Match the similar shapes :

Match the objects with their collections :

(a) 

(b) 

(c) 

(d) 

(e) 

Counting (1–9)

1 ONE

1	1	1	1	1	1	1

2	2	2	2	2	2	2

TWO 2

3 THREE

3	3	3	3	3	3	3

4	4	4	4	4	4	4

FOUR 4

5 FIVE

5	5	5	5	5	5	5

6	6	6	6	6	6	6

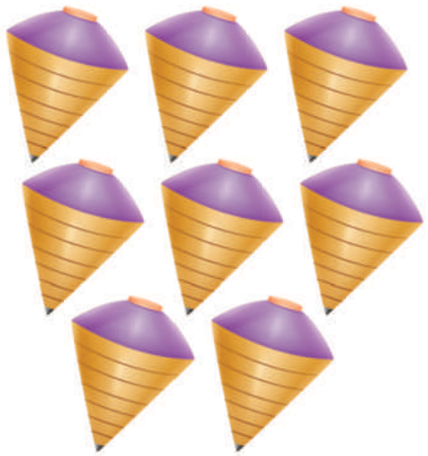
SIX 6

7 SEVEN

7	7	7	7	7	7	7

8	8	8	8	8	8	8

EIGHT 8



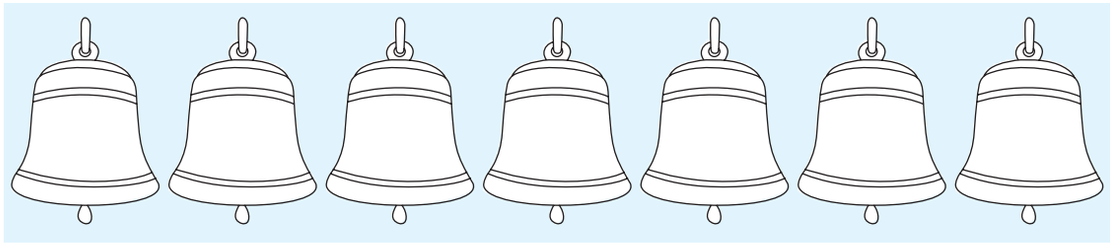
9 NINE

9	9	9	9	9	9	9

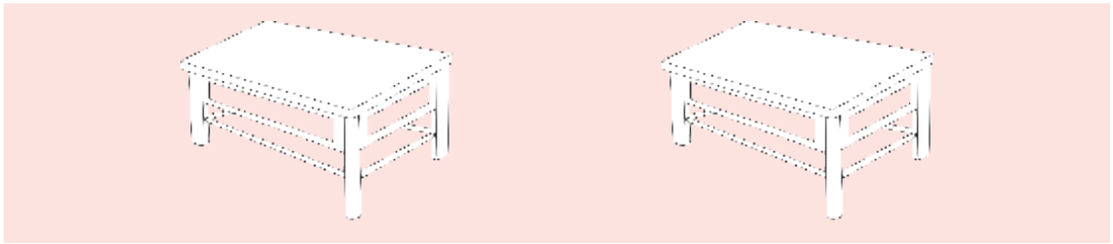
Count and Colour

Read the numbers and colour the objects accordingly.

4



1



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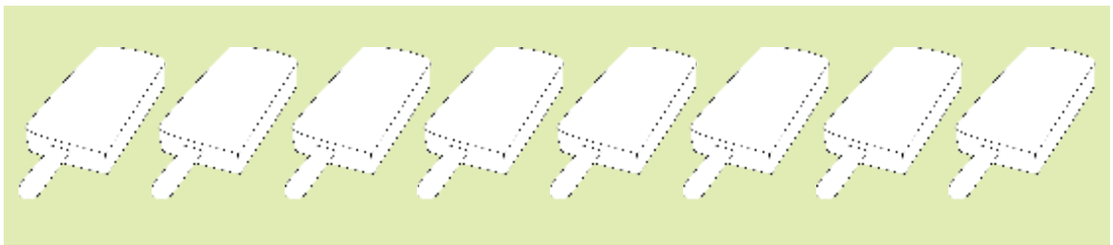

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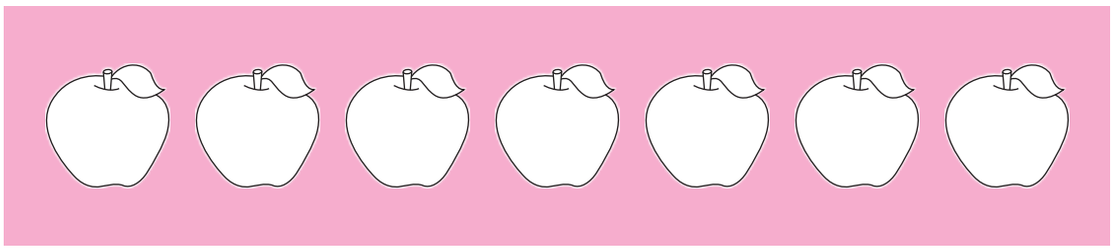
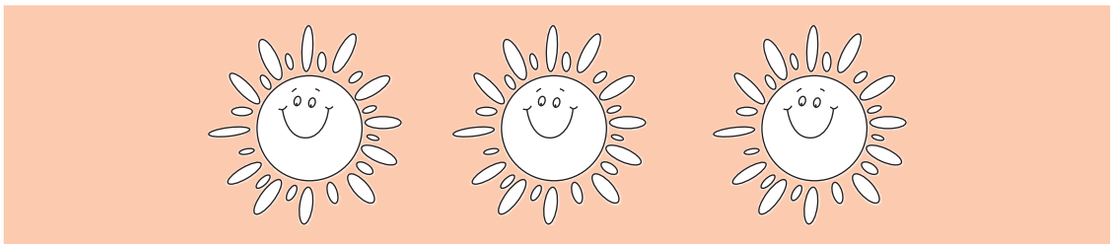


2



6

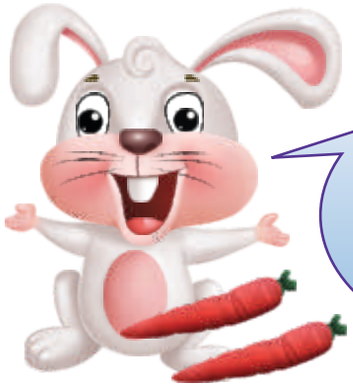
16

Concept of Zero

Look and understand :

I have three carrots.

I am eating one carrot.



I have two carrots now.

Now I am eating one more carrot.

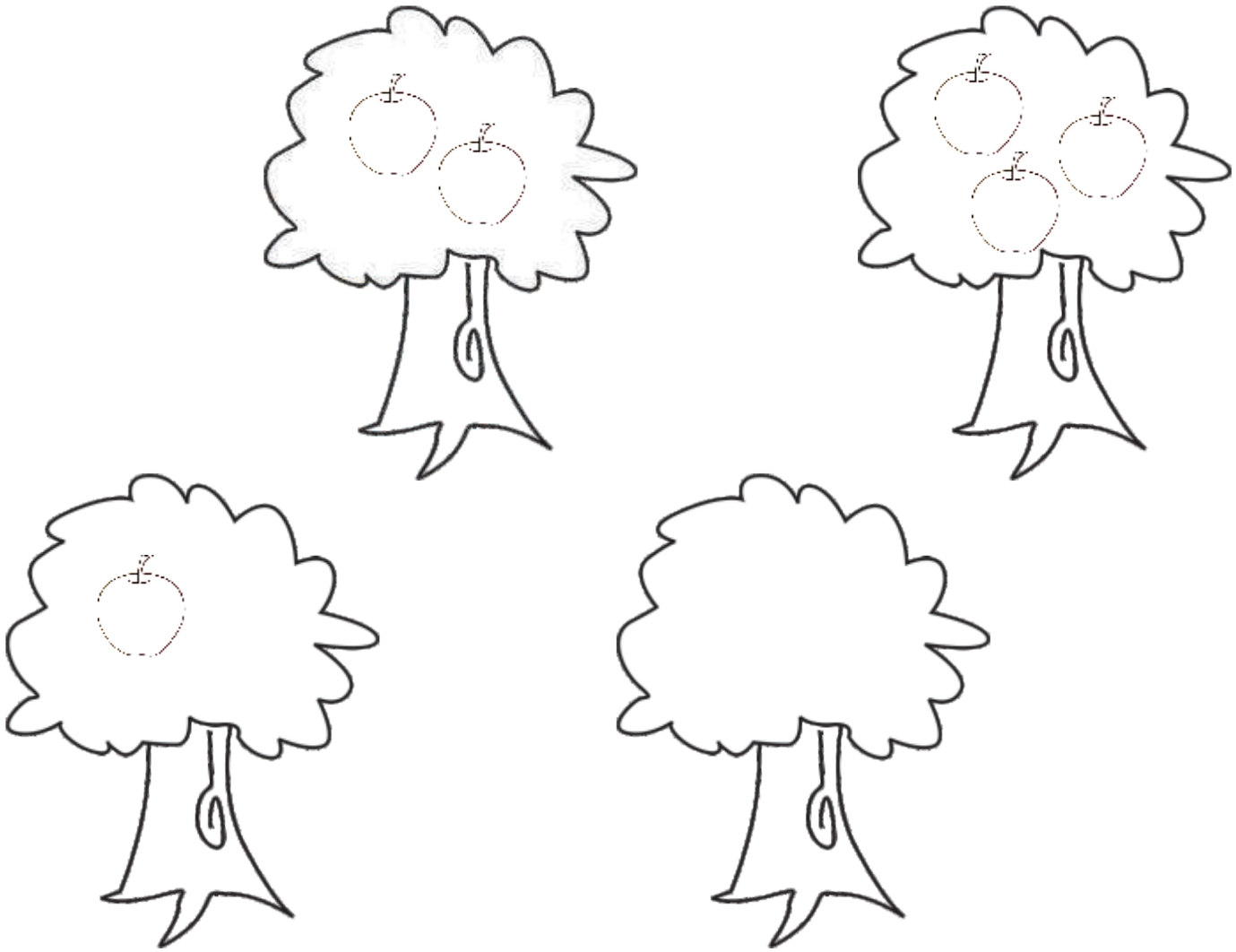
So I have just one carrot now.

I am eating the last carrot.

Now all the carrots have been eaten.
This means nothing or absence of something.
We read this as zero. We write this as 0.

Learn to read and write 0

0 Colour the tree which has 0 apple or no apple.



Copy writing practice of 0

0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

The Number Ten

Read and understand :

Look, once again :

9 and 1 more make 10. We read this as ten.

Trace and colour :

10

TEN

More and Less

5 rabbits

More

4 carrots

Less

5 bananas

More

4 monkeys

Less

Count the objects and tick (✓) the set of more objects :

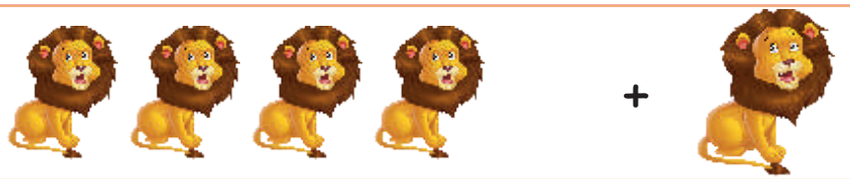
One More Than

Count and write the number in the box :

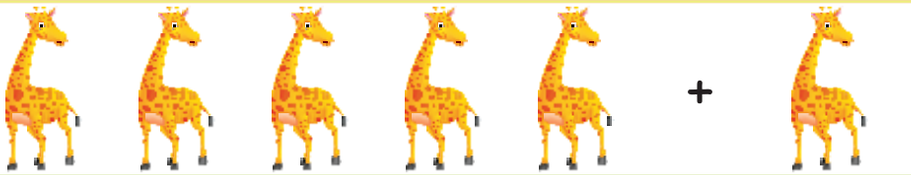
1 + 1 = ☐

2 + 1 = ☐

3 + 1 = ☐



4 + 1 = ☐

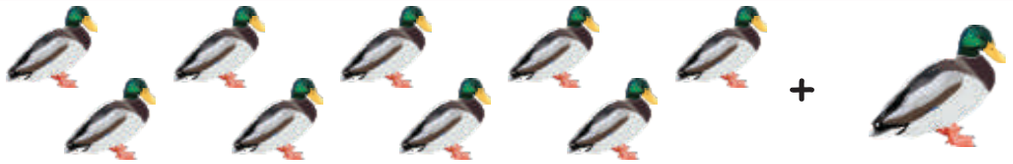


5 + 1 = ☐

6 + 1 = ☐

7 + 1 = ☐

8 + 1 = ☐



9 + 1 = ☐

Counting (11–20)

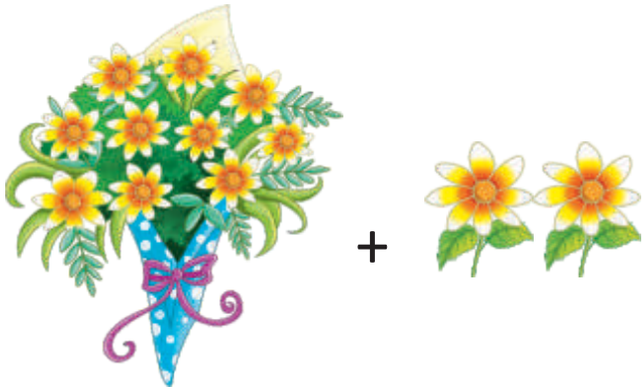
11

Eleven

10 + 1 = 11

12

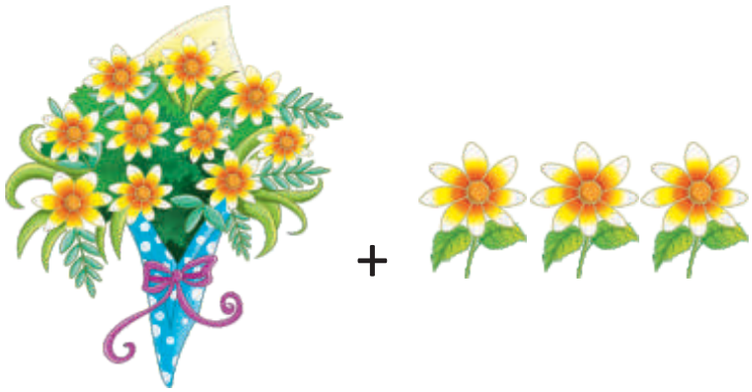
Twelve



10 + 2 = 12

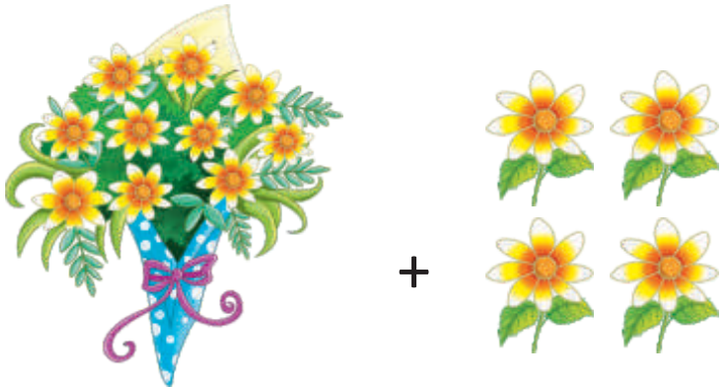
13

Thirteen



10 + 3 = 13

14



Fourteen

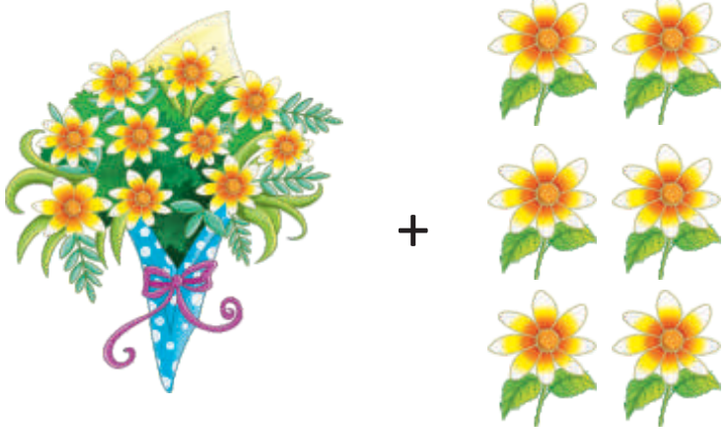
10 + 4 = 14

15

Fifteen

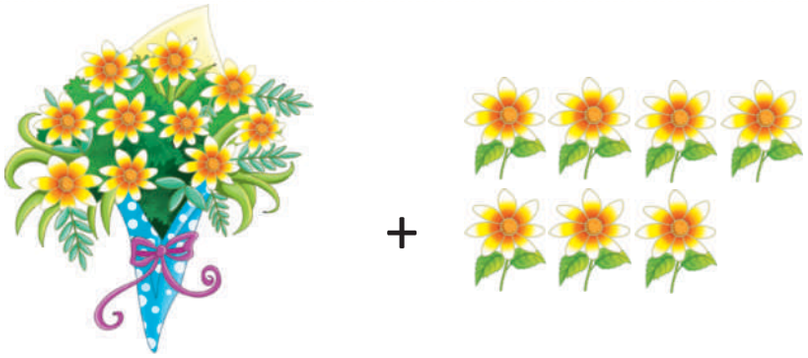
10 + 5 = 15

16



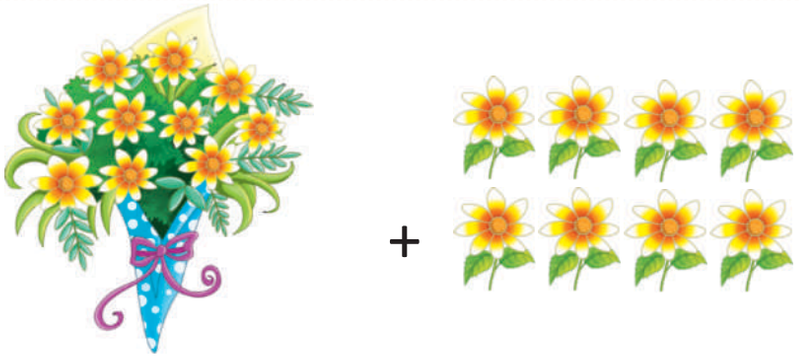
Sixteen

10 + 6 = 16



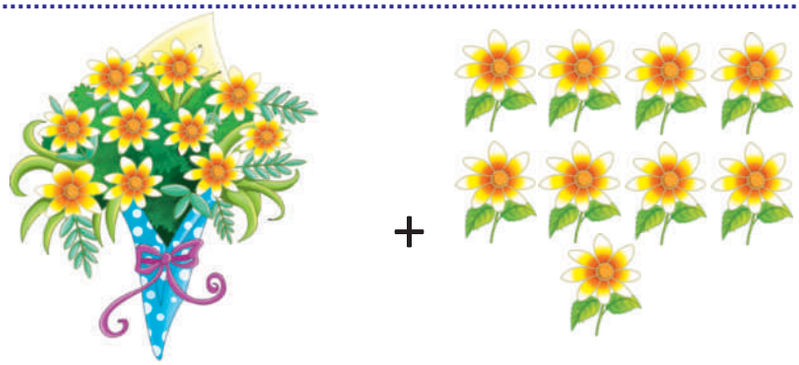
Seventeen

10 + 7 = 17



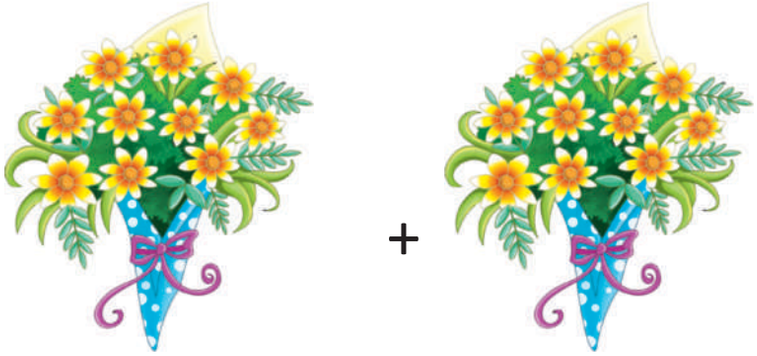
Eighteen

10 + 8 = 18



Nineteen

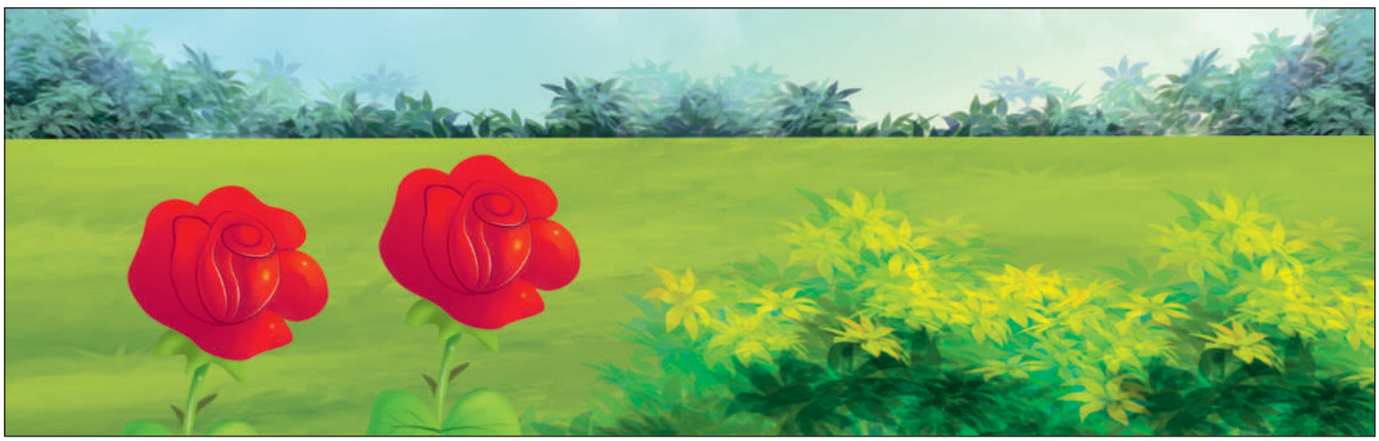
10 + 9 = 19



Twenty

10 + 10 = 20

Let's Learn Addition



There are 2 flowers in a garden.

There are 4 flowers in another garden.

Now, there are 6 flowers in the both gardens.

Mathematically, we write it as (vertically) :

$$\begin{array}{r} 2 \\ +\ 4 \\ \hline 6 \end{array}$$

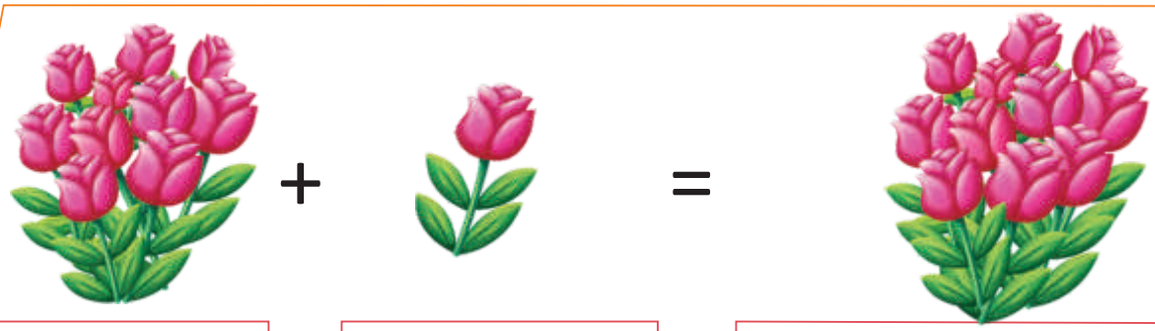
Horizontally we write it as: 2 + 4 = 6

It is read as, two plus four is equal to (=) six.

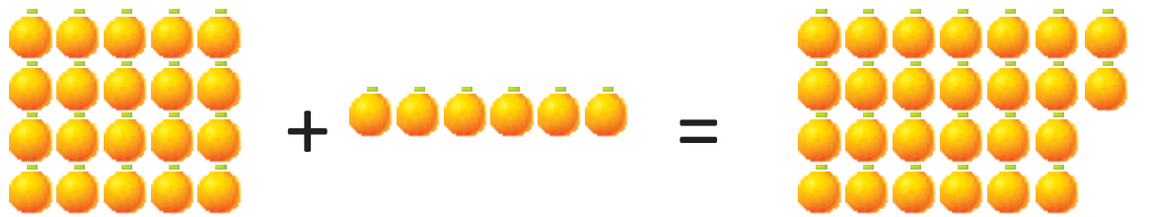
(+) is the sign of **Addition**.

(=) is the sign of **equal to**.

Tens and Ones



10 or 1 ten	+	1 or 1 one	=	11 or 1 ten + 1 one



20 or 2 tens	+	6 or 6 ones	=	26 or 2 tens + 6 ones

Sort tens and ones :

11 = (1) Ten + (1) one

17 = ( ) Ten + ( ) ones

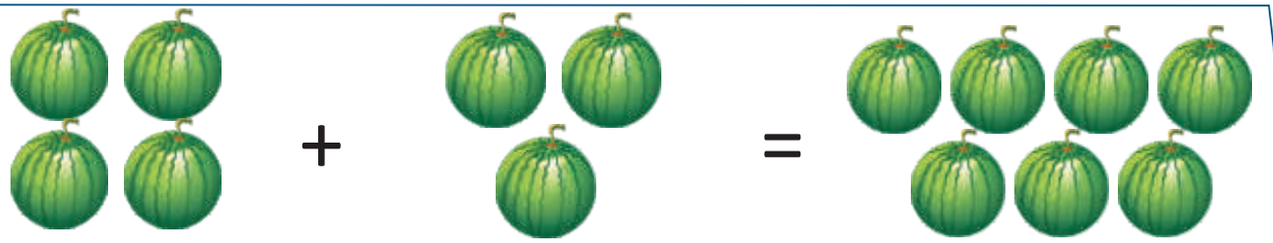
55 = ( ) Tens + ( ) ones

34 = ( ) Tens + ( ) ones

74 = ( ) Tens + ( ) ones

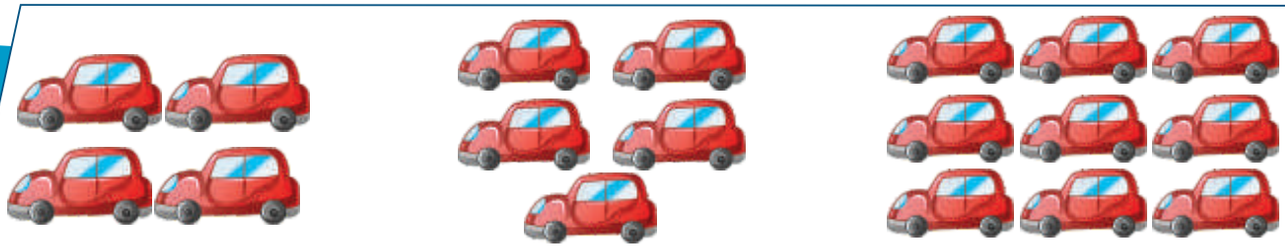
Addition

2 + 3 = 5

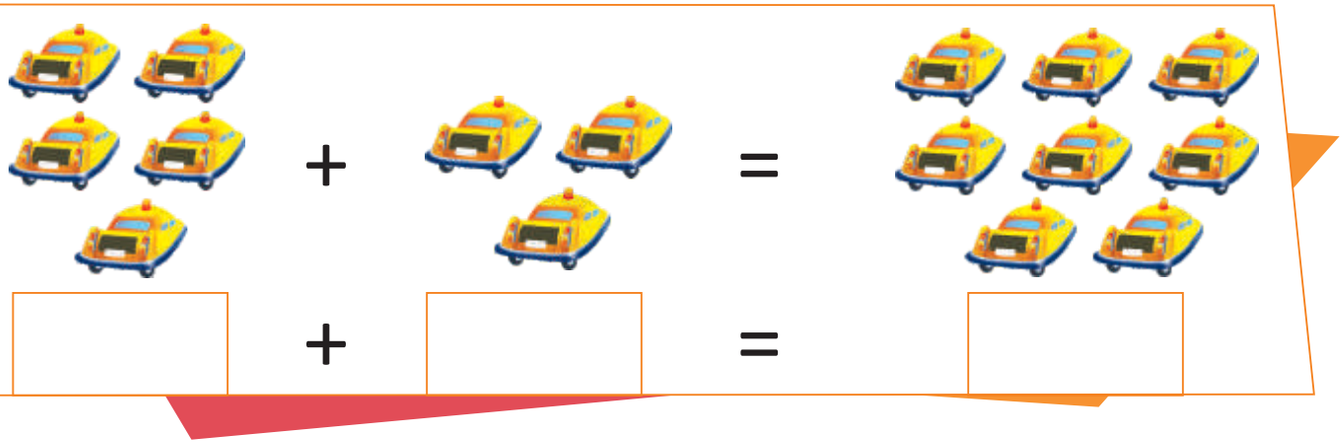


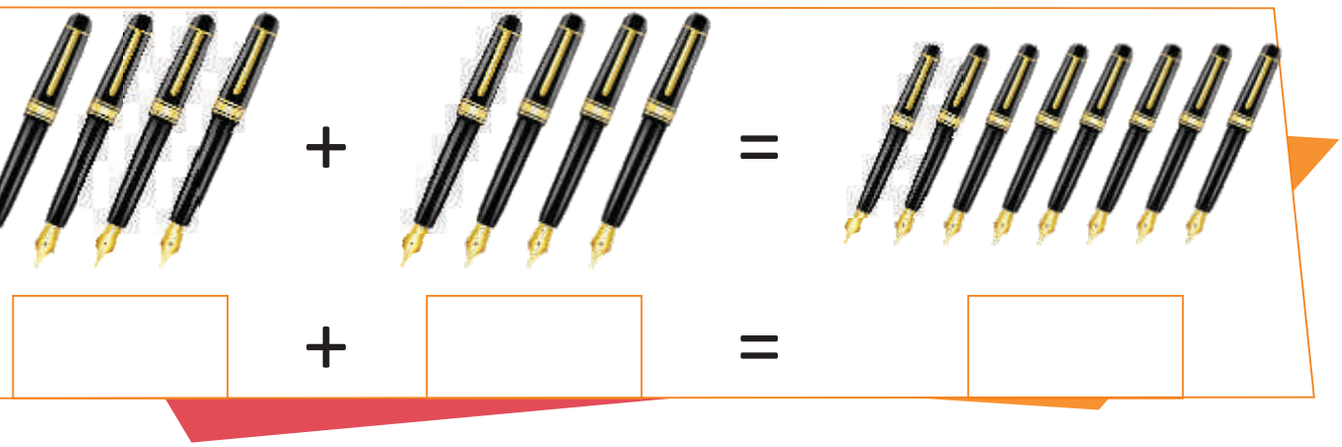
4 + 3 = 7

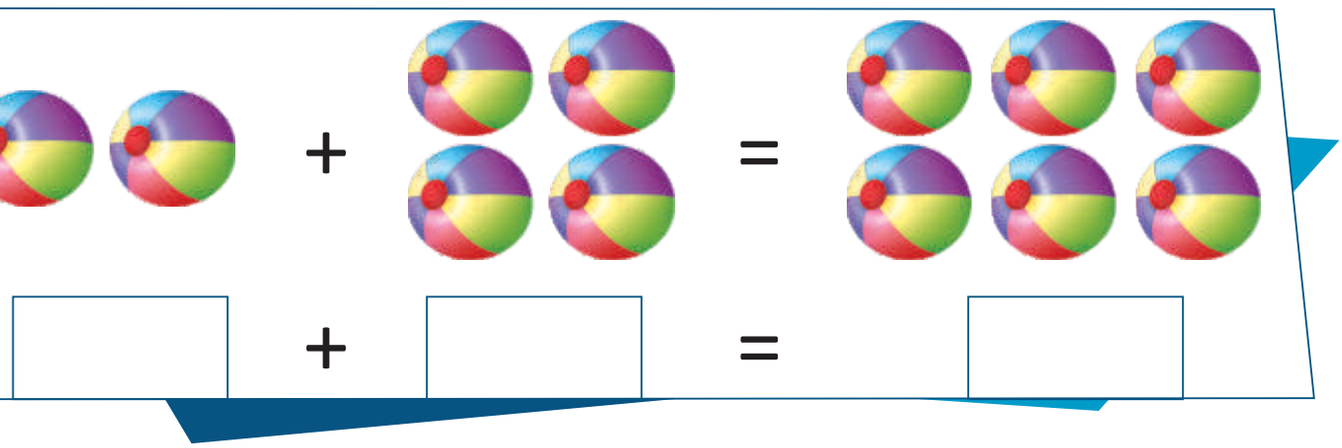
2 + 1 = 3



4 + 5 = 9

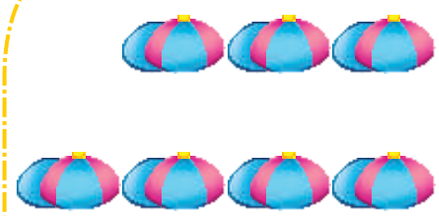




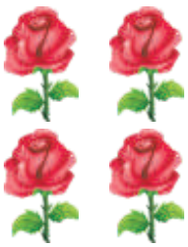


Vertical Addition

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



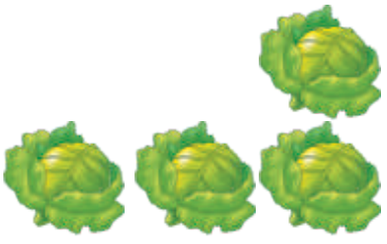
$$\begin{array}{|r|} \hline 3 \\ \hline +\ 4 \\ \hline \end{array}$$



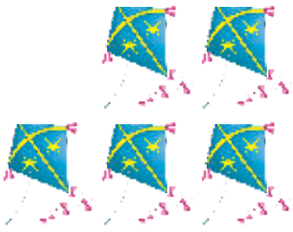
$$\begin{array}{|r|} \hline 2 \\ \hline +\ 2 \\ \hline \end{array}$$

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

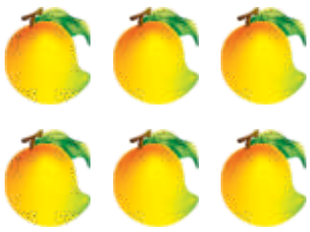
$$\begin{array}{|r|} \hline 4 \\ \hline +\ 2 \\ \hline \end{array}$$



$$\begin{array}{|r|} \hline 1 \\ \hline +\ 3 \\ \hline \end{array}$$



$$\begin{array}{|r|} \hline 2 \\ \hline +\ 3 \\ \hline \end{array}$$



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

Addition of Zero (0)

Nothing in the plate.

2 apples kept in the plate.

Same 2 apples are in the plate.

We find that;

0 + 2 = 2

In the same way;

0 + 5 = 5

0 + 7 = 7 and so on

When a number is added to zero, the number remains the same.

We keep 4 samosas in a plate.

We kept nothing more in the plate.

4 samosas will remain in the plate.

We find that;

4 + 0 = 4

In the same way;

6 + 0 = 6

9 + 0 = 9 and so on

When zero is added to any number, the number remains the same.

Add the following horizontally :

1	+	0	=	0	+	9	=
3	+	0	=	7	+	0	=
0	+	5	=	0	+	6	=
2	+	0	=	8	+	0	=

Add the following vertically :

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

Addition with Word Problem

Abhi has
2 balloons.

His sister gives
him 4 balloons.

Now, Abhi has
6 balloons.

+	2
	4
	6

1

There are 3
birds in
the field.

3 more birds
join them.

Now, there are
___ birds in
the field.

+	3
	3

2

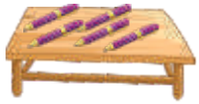
There are 4
apples in
the tray.

Sita puts 2
more apples
in the tray.

Now, there are
____ apples in the
tray.

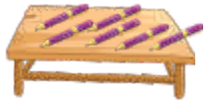
+	4
	2

3



There are 5 pens
on the table.

Ram puts 1 more
pen on the table.



Now, there are
____ pens on the
table .

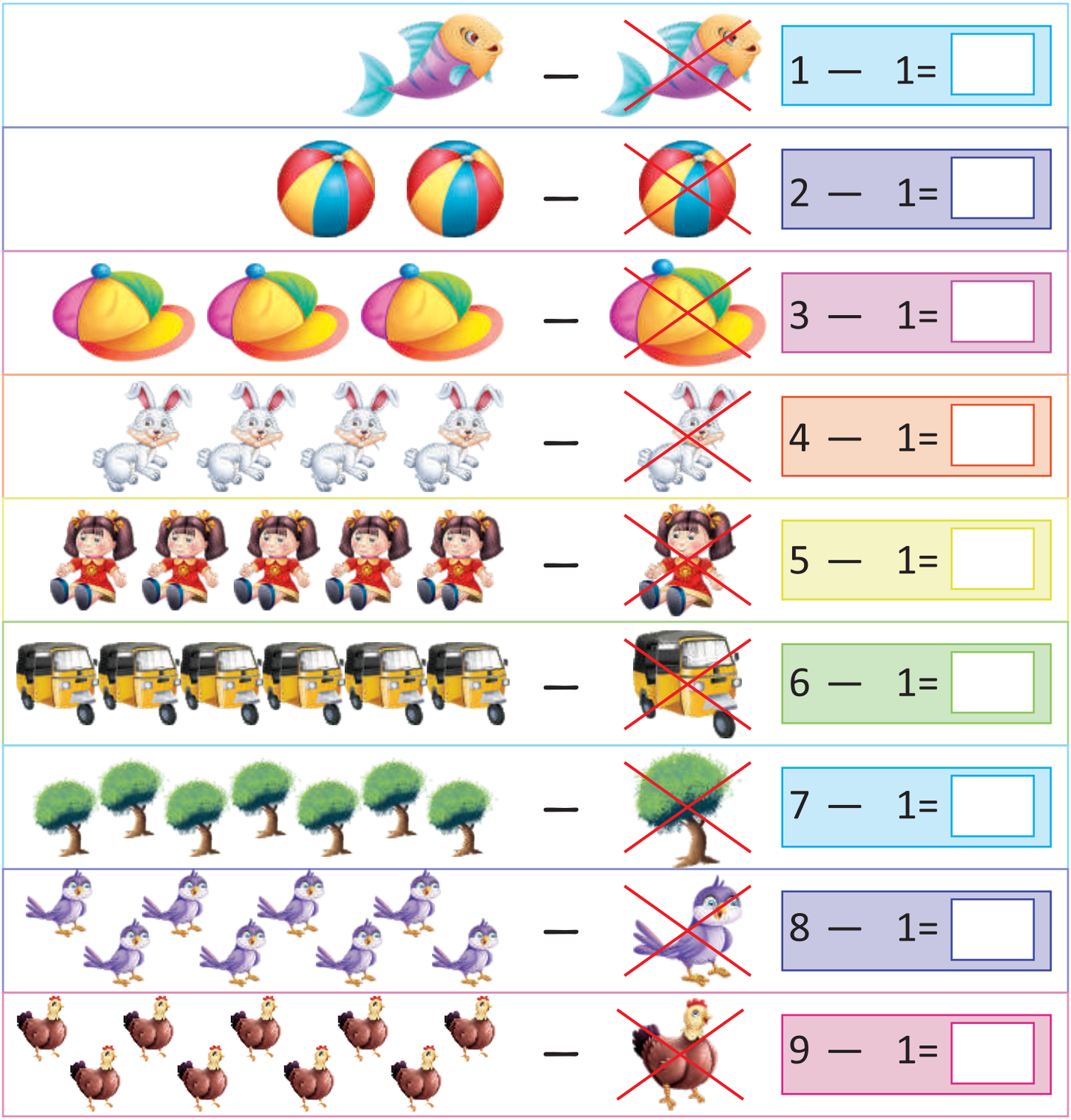
+	5
	1

Add the following.

2 + 4 =	6 + 3 =	2 + 1 =	4 + 4 =
3 + 1 =	1 + 6 =	8 + 1 =	2 + 5 =
2 + 6 =	4 + 2 =	4 + 3 =	8 + 1 =
5 + 4 =	7 + 1 =	2 + 2 =	5 + 1 =
3 + 3 =	6 + 3 =	1 + 8 =	3 + 2 =

One Less Than

First count the objects which are not crossed out and then count the objects which are crossed out. Write the correct number in the box :



Subtraction

There are 3 butterflies on the flower.

1 butterfly flew away.

Now, there are only two butterflies on the flower.

Mathematically, we write it as (vertically) :

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

Horizontally we write it as 3 — 1 = 2

It is read as, three minus one is equal to (=) two.

(—) is the sign of **Subtraction**.

EXERCISE

Count, subtract and write their number in the boxes:

2 —  = 1

2 — 1

—  =

—

—  =

—

—  =

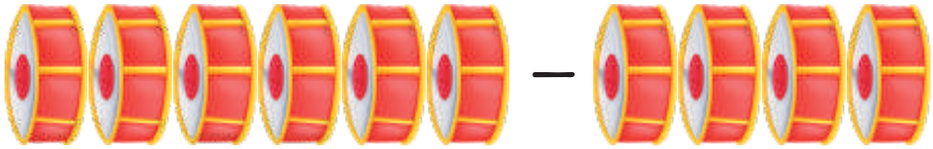
—

—  =

—

Count, subtract and write their number in the boxes :

 5 – 4 = 1

 ☐ – ☐ = ☐

 ☐ – ☐ = ☐

 ☐ – ☐ = ☐

 ☐ – ☐ = ☐

 ☐ – ☐ = ☐

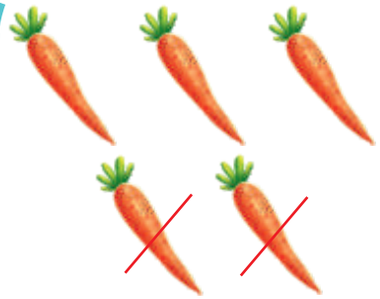
 ☐ – ☐ = ☐

 ☐ – ☐ = ☐

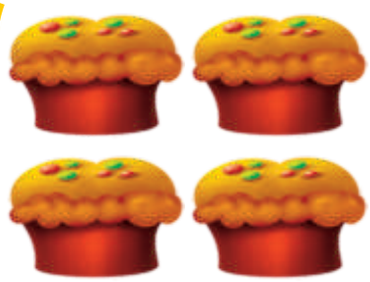
 ☐ – ☐ = ☐

Vertical Subtraction

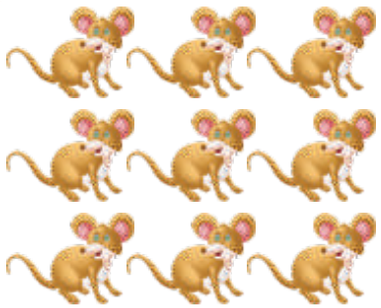
Cross out and subtract



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



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



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

$$\begin{array}{r} 8 \\ -\ 1 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ -\ 5 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ -\ 2 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ -\ 3 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ -\ 1 \\ \hline \end{array}$$

Subtract the following:

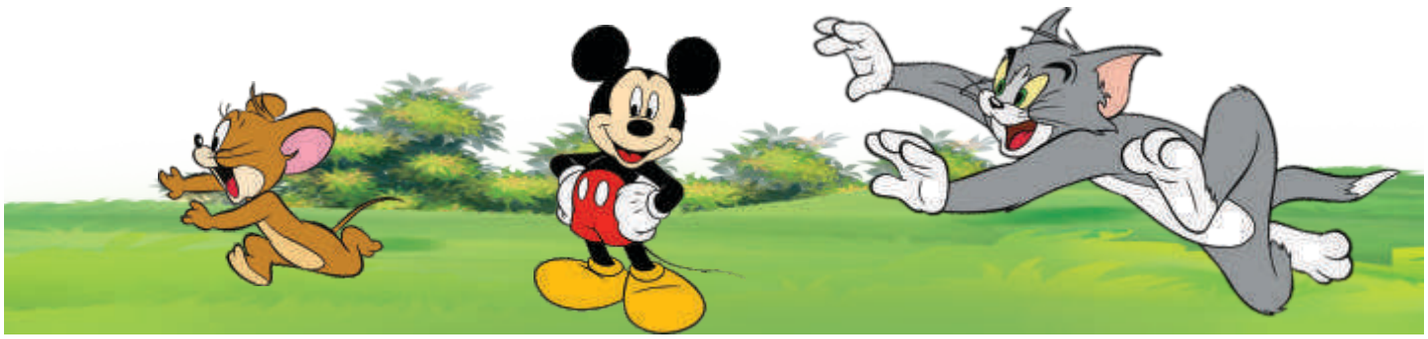
4 − 2	6 − 3	2 − 1	5 − 4
3 − 1	7 − 6	8 − 1	8 − 5
6 − 3	4 − 2	4 − 3	8 − 2
5 − 3	7 − 1	9 − 2	5 − 1
4 − 1	6 − 4	9 − 8	3 − 2

Before, After and Between

Look and understand :

Nobita is before Doraemon.
Jiyan is after Doraemon and Doraemon is between Nobita and Jiyan.

Look and understand once again :



Mickey is between Jerry and Tom.
Tom is after Mickey and Jerry is before Mickey.

1	2	3
Before	In Between	After
1 is before 2.	2 is between 1 and 3.	3 is after 2.

Before

Circle the objects which are before the cap :

a



b



c



d



e



After

Tick (✓) the objects which are after the grapes :

a



b



c



d

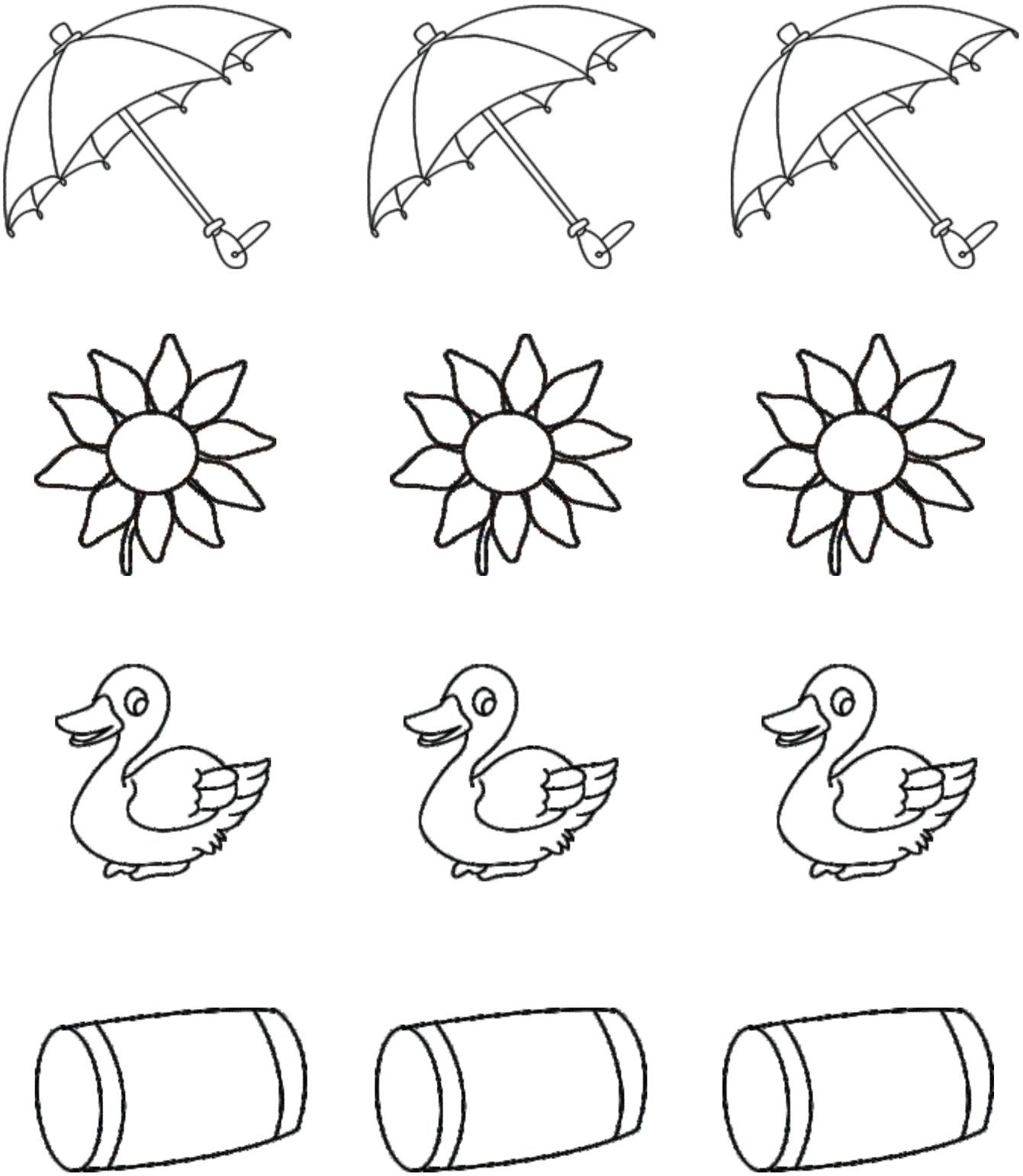


e



Between

Colour the objects which are in between.



Fill in the blanks:

What comes Before

____	12	____	2
____	8	____	10
____	7	____	13
____	6	____	5
____	3	____	16

What comes After

18	____	13	____
3	____	11	____
15	____	7	____
10	____	9	____
4	____	17	____

What comes Between

11	____	13	2	____	4
10	____	12	1	____	3
9	____	11	7	____	9
4	____	6	18	____	20
6	____	8	12	____	14

Solve

	____	16		____	7
15	____		1	____	3
10	____	12		____	8
9	____		17	____	19
8	____		10	____	

Counting (21-100)

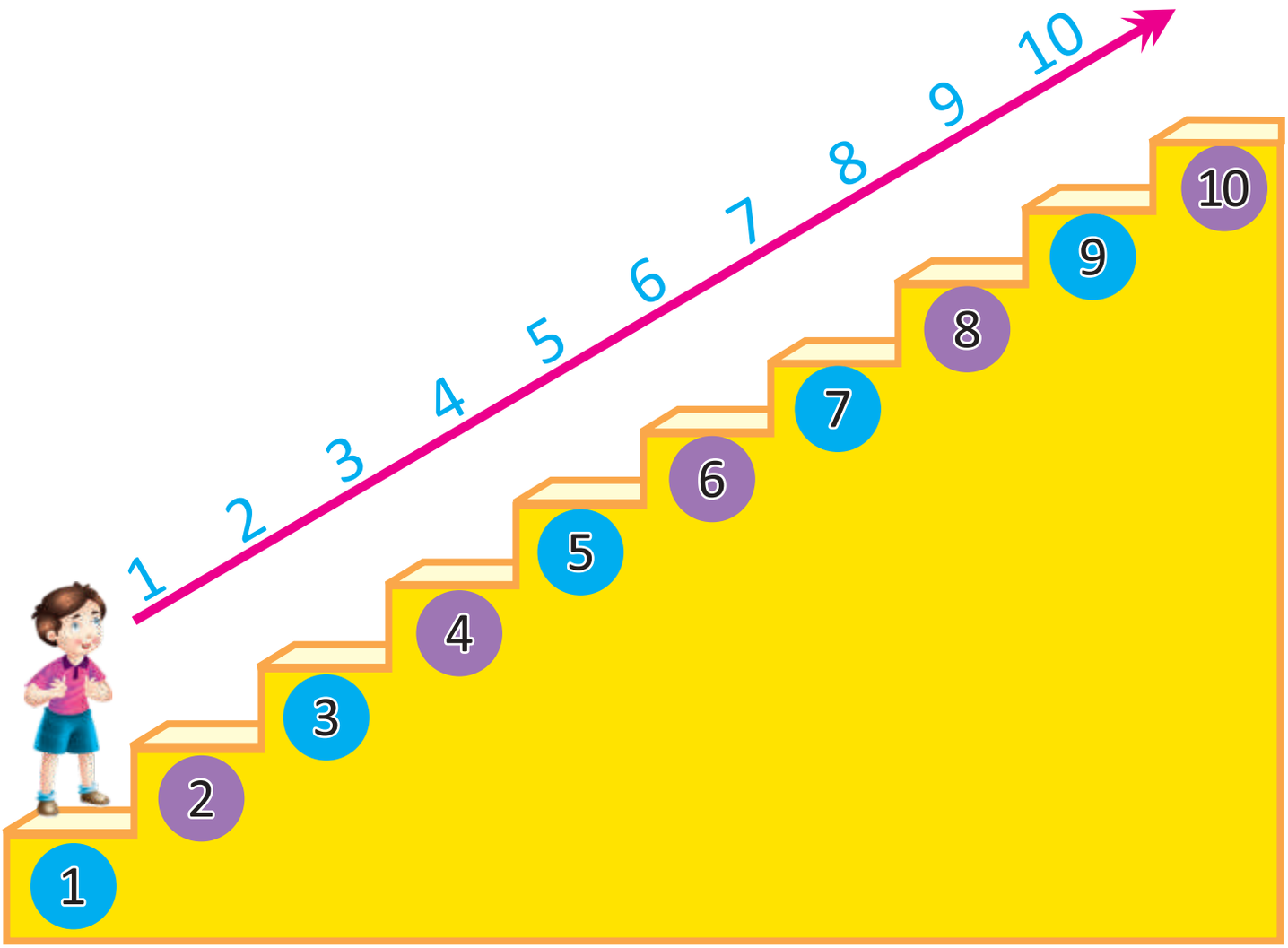
21	31	41	51
Twenty One	Thirty One	Forty One	Fifty One
22	32	42	52
Twenty Two	Thirty Two	Forty Two	Fifty Two
23	33	43	53
Twenty Three	Thirty Three	Forty Three	Fifty Three
24	34	44	54
Twenty Four	Thirty Four	Forty Four	Fifty Four
25	35	45	55
Twenty Five	Thirty Five	Forty Five	Fifty Five
26	36	46	56
Twenty Six	Thirty Six	Forty Six	Fifty Six
27	37	47	57
Twenty Seven	Thirty Seven	Forty Seven	Fifty Seven
28	38	48	58
Twenty Eight	Thirty Eight	Forty Eight	Fifty Eight
29	39	49	59
Twenty Nine	Thirty Nine	Forty Nine	Fifty Nine
30	40	50	60
Thirty	Forty	Fifty	Sixty

61	71	81	91
Sixty One	Seventy One	Eighty One	Ninety One
62	72	82	92
Sixty Two	Seventy Two	Eighty Two	Ninety Two
63	73	83	93
Sixty Three	Seventy Three	Eighty Three	Ninety Three
64	74	84	94
Sixty Four	Seventy Four	Eighty Four	Ninety Four
65	75	85	95
Sixty Five	Seventy Five	Eighty Five	Ninety Five
66	76	86	96
Sixty Six	Seventy Six	Eighty Six	Ninety Six
67	77	87	97
Sixty Seven	Seventy Seven	Eighty Seven	Ninety Seven
68	78	88	98
Sixty Eight	Seventy Eight	Eighty Eight	Ninety Eight
69	79	89	99
Sixty Nine	Seventy Nine	Eighty Nine	Ninety Nine
70	80	90	100
Seventy	Eighty	Ninety	One hundred

Ascending Order

Ravi is at the bottom.
He is going up.
He climbs up step no. 1
Count the steps as he climbs up.
His steps are

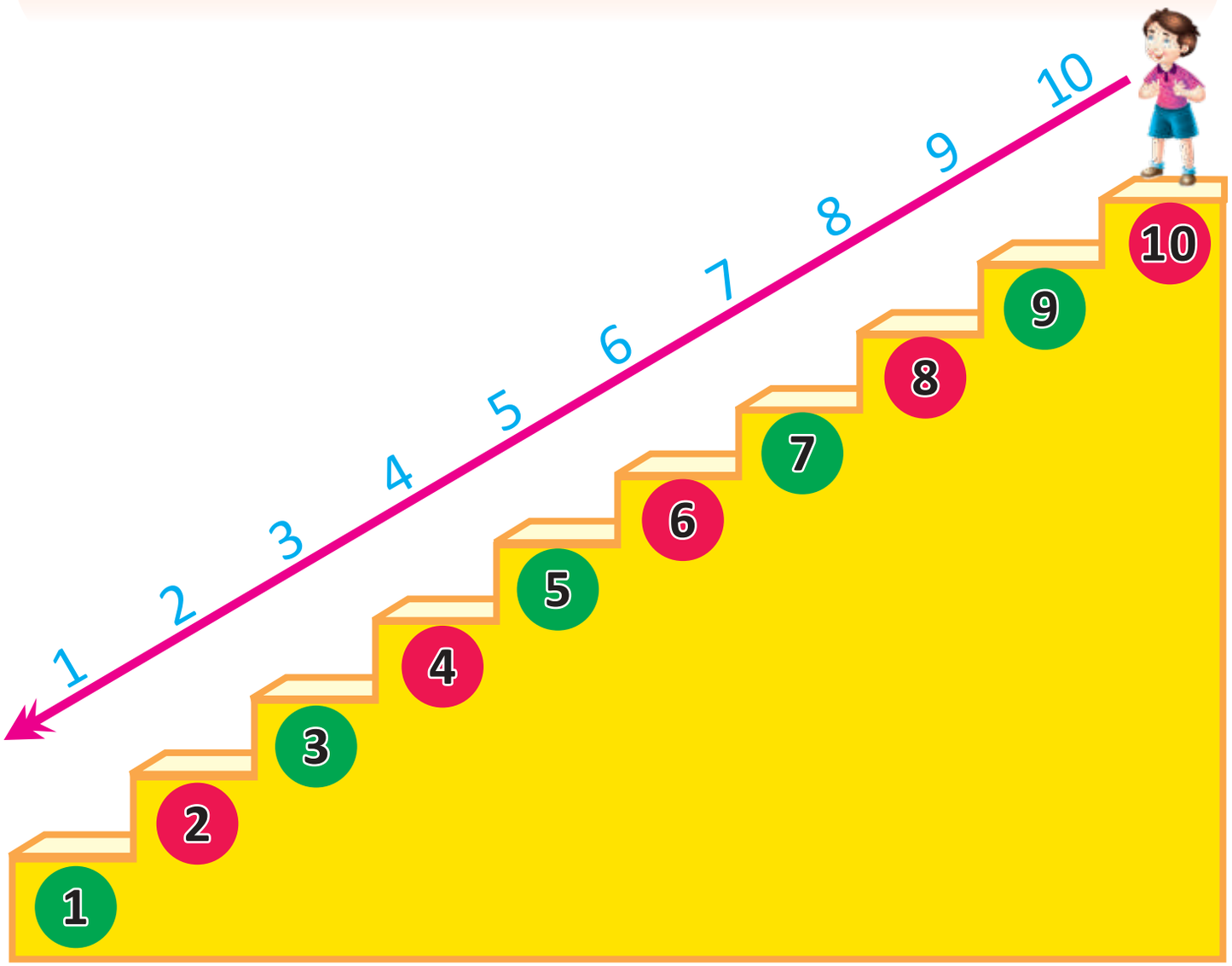
1 2 3 4 5 6 7 8 9 10



Descending Order

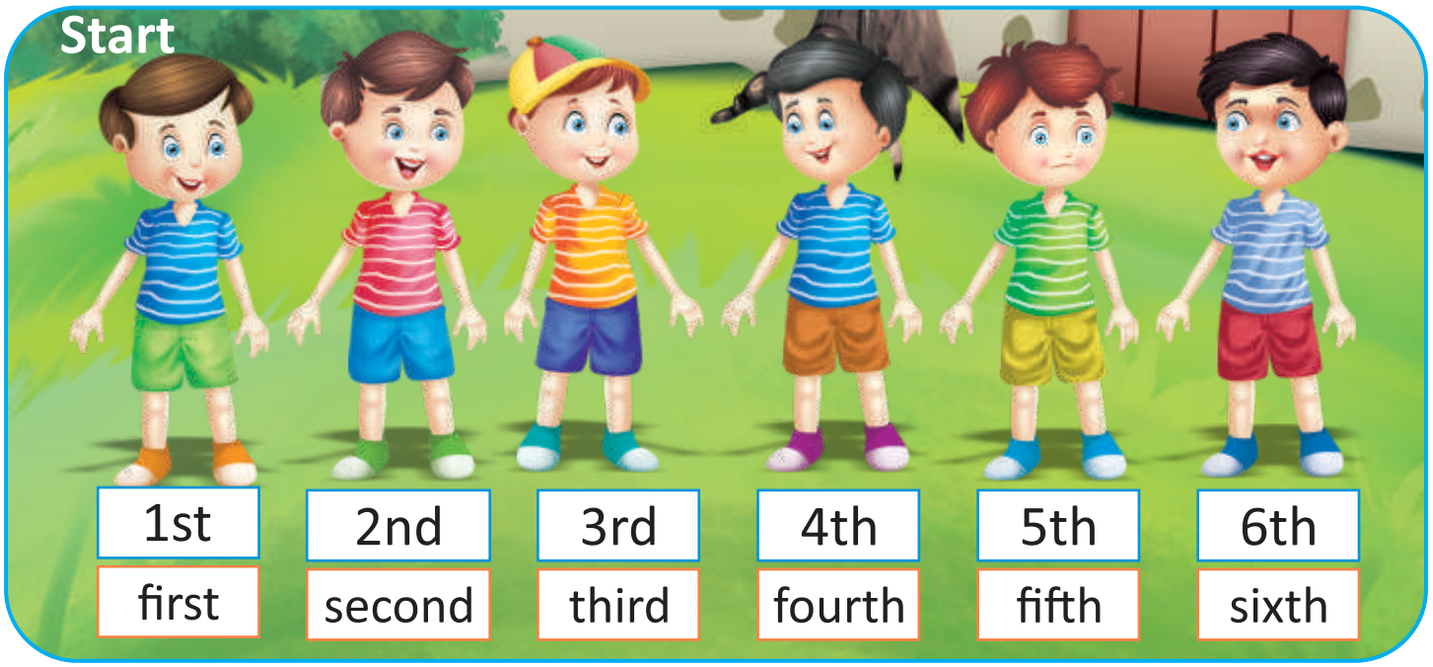
Ravi is at the top. He comes down to step 9.
Then step 8 and so on.
Then step no. 7 and so on.
Now count the steps as he comes down.
His steps are

10 9 8 7 6 5 4 3 2 1



Ordinal Numbers

The numbers that indicate the position are called ordinal numbers 1^{st}, 2^{nd}, 3^{rd}, 4^{th}.. are ordinal numbers. In words, the ordinal numbers are written as first, second, third, fourth etc.

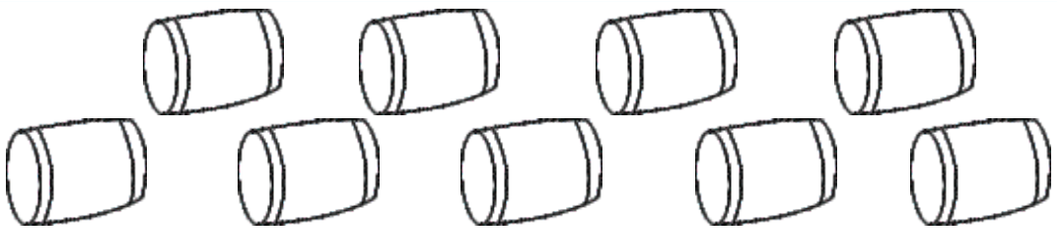
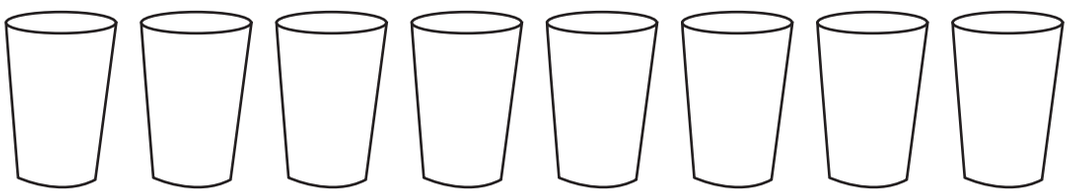


The number above show the position of each boy in the queue. The following table show numbers and their ordinal numbers :

Number	Ordinal Number
1	First
2	Second
3	Third
4	Fourth
5	Fifth

Number	Ordinal Number
6	Sixth
7	Seventh
8	Eighth
9	Ninth
10	Tenth

Circle and colour the correct picture in each row:

Second	
Fifth	
Third	
Ninth	
Fourth	
Sixth	
Seventh	

Indian Currency

Indian Coins :

₹ 1

₹ 2

₹ 5

₹ 10

Indian Paper Currency :

₹ 1

₹ 2

₹ 5

₹ 10

₹ 20

₹ 50

₹ 100

₹ 200

₹ 500

₹ 2000

EXERCISE

Write the value of the following :

Read the tag on each object. Tick (✓) the coin/note you need to buy it :

Time

A clock has twelve numerals on its face.

It has two hands.

The long hand of the clock tells us the minutes.

It is at 12.

The short hand of the clock tells us the hours.

It is at 10. Time is 10 o'clock.

The minute-hand moves from one numeral to another in five minutes.

The hour-hand goes round the clock in one hour.

Look at the clock :

6 o'clock (Morning)
You wake up.

12 o'clock (Noon)
You take your lunch.

7 o'clock (Morning)
You take a bath.

2 o'clock (Afternoon)
Your school is over.

8 o'clock (Morning)
You go to school.

5 o'clock (Evening)
It is your play time.

Write the time in boxes :

1 o'clock

Look at the time and make hands of the clock.

5 o'clock

7 o'clock

12 o'clock

11 o'clock

8 o'clock

6 o'clock

1 o'clock

4 o'clock

2 o'clock

9 o'clock

Patterns

Look and understand :

1. A B C A B C A B C ...

2. 1 2 3 4 1 2 3 4 ...

3. + — + — + — + — + — ...

4.  ...

Above each series forms a pattern.

ACTIVITY

Complete the patterns :

1.  _____ _____ _____ _____

2.  _____ _____ _____ _____

3.  _____ _____ _____ _____

4. 1 A 1 A _____ _____ _____ _____

Days of the Week

There are seven days in a week.

1 week = 7 days

SUNDAY	→	First day of the week
MONDAY	→	Second day of the week
TUESDAY	→	Third day of the week
WEDNESDAY	→	Fourth day of the week
THURSDAY	→	Fifth day of the week
FRIDAY	→	Sixth day of the week
SATURDAY	→	Seventh day of the week

Note : In some countries, Monday is the first day of the week.

ACTIVITY

Fill in the blanks :

1. _____ is the third day of the week.
2. _____ is the fourth day of the week.
3. _____ is the second day of the week.
4. _____ is the first day of the week.
5. _____ is the fun day.

Months of the year

There are twelve months in a year.

1 year = 12 months

	MONTHS	DAYS
1	JANUARY	31 Days
2	FEBRUARY	28/29 days
3	MARCH	31 Days
4	APRIL	30 Days
5	MAY	31 Days
6	JUNE	30 Days
7	JULY	31 Days
8	AUGUST	31 Days
9	SEPTEMBER	30 Days
10	OCTOBER	31 Days
11	NOVEMBER	30 Days
12	DECEMBER	31 Days

365/366 Days

REMEMBER

1. Each month comes again after 11 months.
2. January is the first month of the year.
3. December is the last month of the year.
4. There are 365 (28 days February in a normal year) or 366 (29 days February in a leap year) days in a year.
5. Some of the months have 30 days.
6. Some of the months have 31 days.

ACTIVITY

Fill in the blanks :

1. _____ is the third month of the year.
2. _____ is the fourth month of the year.
3. _____ is the second month of the year.
4. _____ is the first month of the year.
5. _____ is the tenth month of the year.