Government of Karnataka

MATHEMATICS

Text cum Workbook

(Revised)

English Medium



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1st Standard

Part 1

Karnataka Text Book Society (R.)
6th Cross, Malleshwaram,
Bengaluru-560 003.

Preface

The Textbook Society, Karnataka has been engaged in producing new textbooks according to the new syllabi which in turn are designed on NCF – 2005 since June 2010. Textbooks are prepared in 12 languages; seven of them serve as the media of instruction. From standard 1 to 4 there is the EVS, mathematics and 5th to 10th there are three core subjects namely mathematics, science and social science.

NCF – 2005 has a number of special features and they are:

- connecting knowledge to life activities
- learning to shift from rote methods
- enriching the curriculum beyond textbooks
- learning experiences for the construction of knowledge
- making examinations flexible and integrating them with classroom experiences
- caring concerns within the democratic policy of the country
- make education relevant to the present and future needs.
- softening the subject boundaries- integrated knowledge and the joy of learning
- the child is the constructor of knowledge

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The new books are produced based on three fundamental approaches namely. Constructive approach, Spiral approach and Integrated approach.

The learner is encouraged to think, engage in activities, master skills and competencies. The materials presented in these books are integrated with values. The new books are not examination oriented in their nature. On the other hand, they help the learner in the total development of his/her personality, thus help him/her become a healthy member of a healthy society and a productive citizen of this great country, India.

Mathematics is essential in the study of various subjects and in real life. NCF 2005 proposes moving away from complete calculations, construction of a framework of concepts, relate mathematics to real life experiences and cooperative learning.

Many students have a maths phobia and in order to help them overcome this phobia, jokes, puzzles, riddles, stories and games have been included in textbooks. Each concept is introduced through an activity or an interesting story at the primary level. The contributions of great Indian mathematicians are mentioned at appropriate places.

The Textbook Society expresses grateful thanks to the chairpersons, writers, scrutinisers, artists, staff of DIETs and CTEs and the members of the Editorial Board and printers in helping the Textbook Society in producing these textbooks.

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Managing Director
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Chairperson's note to teachers

This First Standard Mathematics Textbook is prepared according to the revised syllabus based on NCF, 2005. The basic feature highlighted in NCF (2005) and seriously adopted in this textbook is that "The child is the constructor of his/her own knowledge". The focus in this textbook is on **experiential learning** which is based on both **hands on** and **minds on** activities.

The introduction of new mathematics syllabus and textbooks should be always backed up by a wealth of activities, illustrations and problems through which children can play and explore mathematics. There is no better guidance than well chosen illustrations that appeal to the intuition and focus the imagination and through which the child can construct his/her own mathematical knowledge. Such self-discovery leads to a much deeper understanding and a confidence in the subject, which the children can never forget and upon which he/she can build further.

The First Standard Mathematics Textbook is designed keeping all the above mentioned facts in view and also the intellectual development of children at that age level. Considering the point that the children are at **concrete operation stage** during this age, a large store of pictures are provided, which represent real life objects and situations. As mathematics is a very challenging and vibrant subject connected to the real world at every level, these illustrations help children to connect mathematics with real life situations. They also provide opportunities for children to indulge in challenging and exciting tasks of discovery and creativity as well.

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Mathematics teaching should be child-centred and also learning-centred. It is the responsibility of the teachers to generate interest and stimulate enthusiasm in the subject. Teachers are expected to play the role of facilitators and create constructive learning environments with the help of illustrations suggested in this textbook and many more similar to or beyond them.

Hope that the material presented in this textbook will trigger the imagination, thinking and reasoning skills in children and support them to construct meaningful mathematical knowledge. Constructive suggestions for further improvement of this textbook are always welcome.

Text Book Committee

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About the Revision of Textbooks

Honourable Chief Minister Sri Siddaramaiah who is also the Finance Minister of Karnataka, in his response to the public opinion about the new textbooks from standard I to X, announced, in his 2014-15 budget speech of constituting an expert-committee, to look into the matter. He also spoke of the basic expectations there in, which the textbook experts should follow: "The textbooks should aim at inculcating social equality, moral values, development of personality, scientific temper, critical acumen, secularism and the sense of national commitment", he said.

Later, for the revision of the textbooks from class I to X, the Department of Education constituted twenty seven committees and passed an order on 24-11-2014. The committees so constituted were subject and class-wise and were in accordance with the standards prescribed. Teachers who are experts in matters of subjects and syllabi were in the committees.

There were already many complaints, and analyses about the textbooks. So, a freehand was given in the order dated 24-11-2014 to the responsible committees to examine and review text and even to prepare new text and revise if necessary. Eventually, a new order was passed on 19-9-2015 which also gave freedom even to re-write the textbooks if necessary. In the same order, it was said that the completely revised textbooks could be put to force from 2017-18 instead of 2016-17.

Many self inspired individuals and institutions, listing out the wrong information and mistakes there in the text, had sent them to the Education Minister and to the Textbook Society. They were rectified. Before rectification we had exchanged ideas by arranging debates. Discussions had taken place with Primary and Secondary Education Teachers' Associations. Questionnaires were administered among teachers to pool up opinions. Separate meetings were held with teachers, subject inspectors and DIET Principals. Analytical opinions had been collected. To the subject experts of science, social science, mathematics and languages, textbooks were sent in advance and later meetings were held for discussions. Women associations and science related organistation were also invited for discussions. Thus, on the basis of all inputs received from various sources, the textbooks have been revised where ever necessary.

Another very important aspect has to be shared here. We constituted three expert committees. They were constituted to make suggestions after making a comparative study of the texts of science, mathematics and social science subjects of central schools (NCERT), along with state textbooks. Thus, the state text books have been enriched based on the comparative analysis and

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suggestions made by the experts. The state textbooks have been guarded not to go lower in standards than the textbooks of central school. Besides, these textbooks have been examined along side with the textbooks of Andhra Pradesh, Kerala, Tamil Nadu and Maharashtra states.

Another clarification has to be given here. Whatever we have done in the committees is only revision, it is not the total preparation of the textbooks. Therefore, the structure of the already prepared textbooks have in no way been affected or distorted. They have only been revised in the background of gender equality, regional representation, national integrity, equality and social harmony. While doing so, the curriculum frames of both central and state have not been transgressed. Besides, the aspirations of the constitution are incorporated carefully. Further, the reviews of the committees were once given to higher expert committees for examination and their opinions have been inculcated into the textbooks.

Finally, we express our grateful thanks to those who strived in all those 27 committees with complete dedication and also to those who served in higher committees. At the same time, we thank all the supervising officers of the Textbook Society who sincerely worked hard in forming the committees and managed to see the task reach its logical completion. We thank all the members of the staff who co-operated in this venture. Our thanks are also due to the subject experts and to the associations who gave valuable suggestions.

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Bengaluru.

Text Books Revision Committee

Chairman-in-chief.

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Foreword

In the pursuit of fostering a healthier and more balanced educational journey, we present this initiative aimed at reducing the weight of school bags. Education is the cornerstone of progress and it is our responsibility to ensure that the pursuit of knowledge is accompanied by the wellbeing of students.

As a first step, to reduce the burden of heavy bags, the School Education Department, Government of Karnataka has decided to print semester-wise textbooks in 2 parts i.e., Summative Assessment 1 and 2. This intervention will help significantly in reducing the weight of school bags.

This endeavour signifies a paradigm shift, acknowledging the strain posed by bulky bags on students.

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Manjushree. N. IAS
Managing Director
Karnataka Textbook Society (R.)

Contents

L5U5B3

Sl. No.	lesson	Page No.
1.	Spatial Understanding	1-15
2.	Solids Arounds Us	16-24
3.	Digits (1-9)	25-62
4.	Zero	63-66
5.	Addition (Sum not more than 9)	67-77
6.	Subtraction	78-85
7.	Number 10	86-98
8.	Units and Tens	99-103
9.	Number 11 to 20	104-118

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LESSON-1

Spatial Understanding

V9Q8D9

After studying this unit, you can

- use the vocabulary of spatial relationship such as, top-bottom, on-under, inside-outside, above-below, near-far, before-after.

Top - Bottom



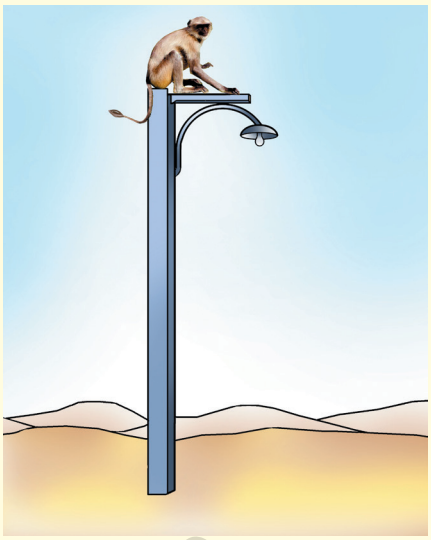
Anant is painting at the **top** of the building.

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Bird is sitting on the **top** of the tree.

Monkey is sitting at the **top** of the pillar.





Fire is touching the **bottom** of the pot.

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Milk is at the **bottom** of the glass.



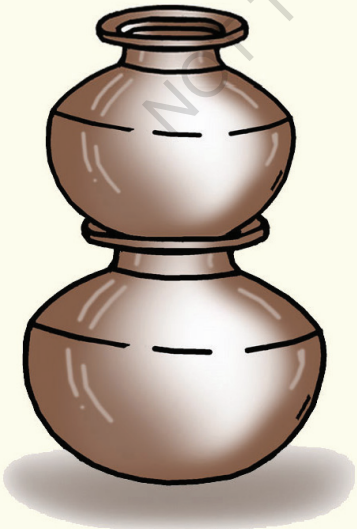


Hole is at the **bottom** of the pot.



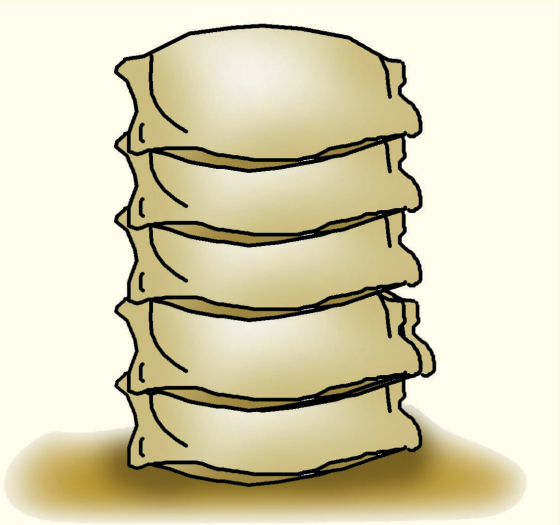
Flower is at the **top**.
Pot is at the **bottom.**

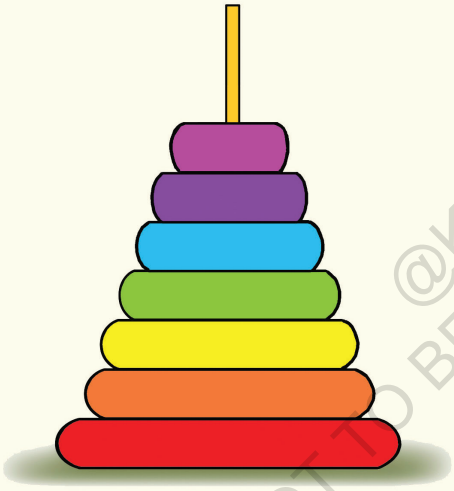
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Tick (✓) the pot at the **bottom.**

Tick (✓) the sack at the **top.**

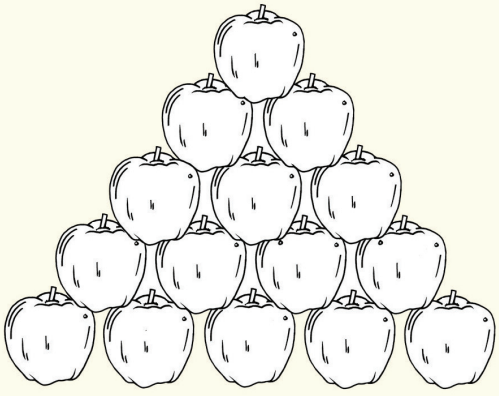




Tick (✓) the disc at the **bottom.**

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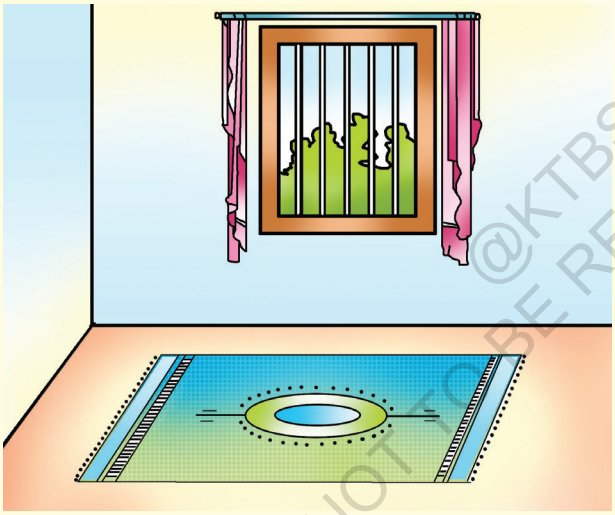
Colour the apple at the **top.**



On - Under

Television is **on** the table.

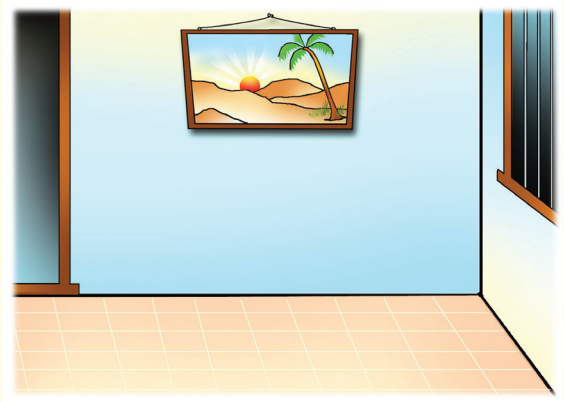




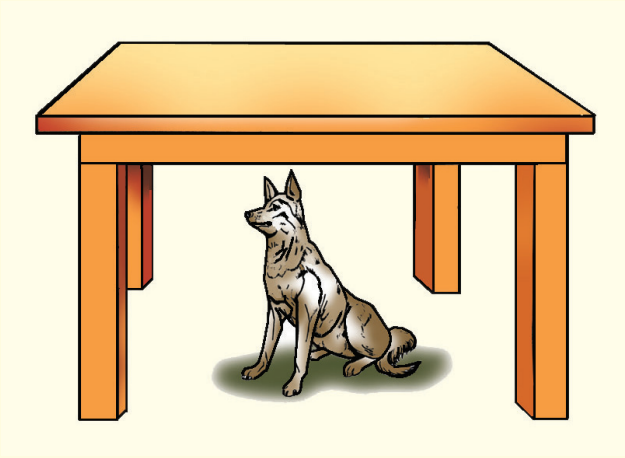
Mat is **on** the floor.

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Photograph is **on** the wall.



Dog is **under** the table.

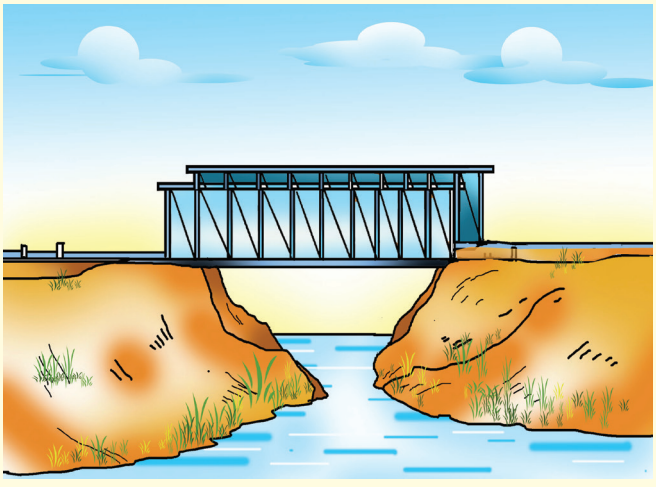




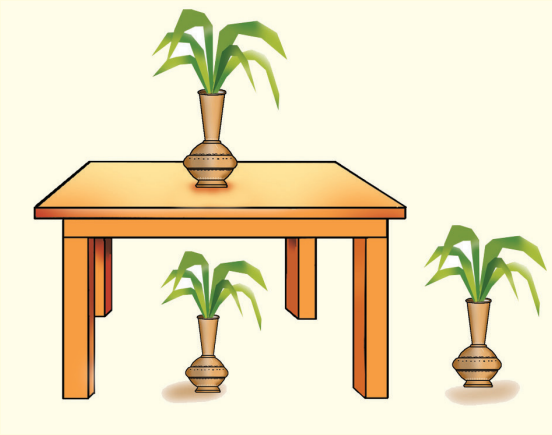
Cat is **under** the cage.

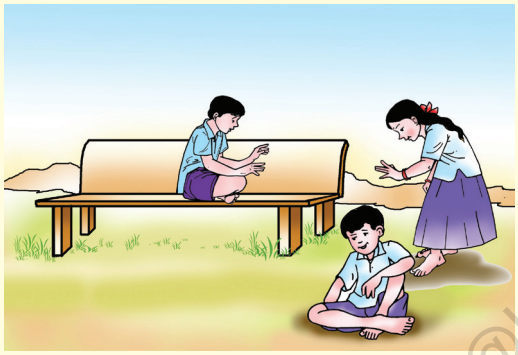
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River is flowing **under** the bridge.



Tick (✓) the vase **on** the table.

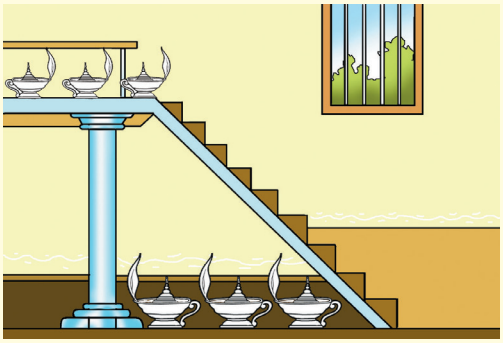


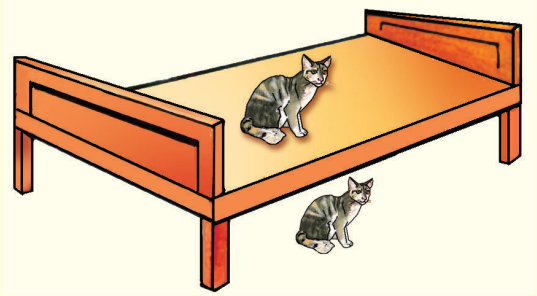


Tick (✓) the boy sitting **on** the bench.

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Colour the lamps **under** the staircase.



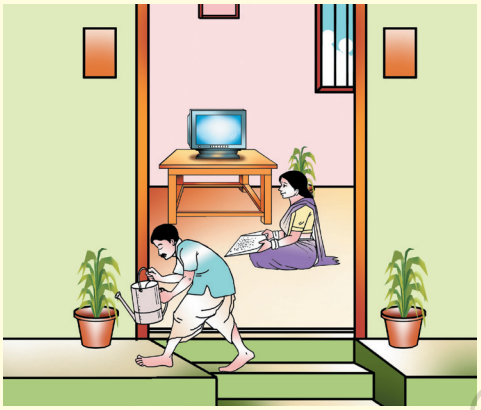


Tick (✓) the cat **under** the cot.

Inside-Outside

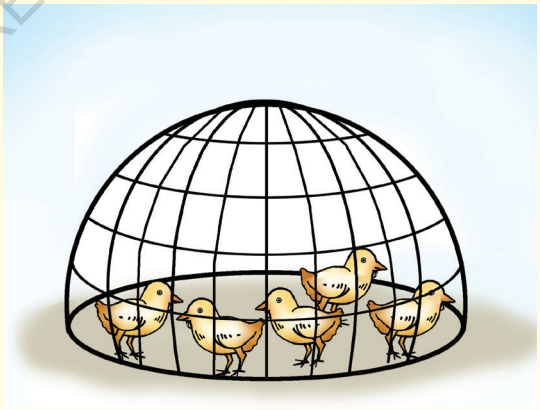


Fruits are **inside** the basket.
Leaves are **outside** the basket.

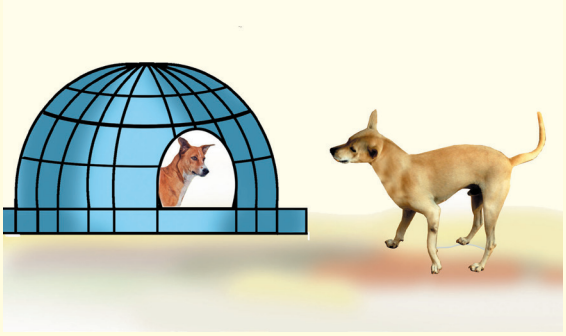


Mother is **inside** the house.
Father is **outside** the house.

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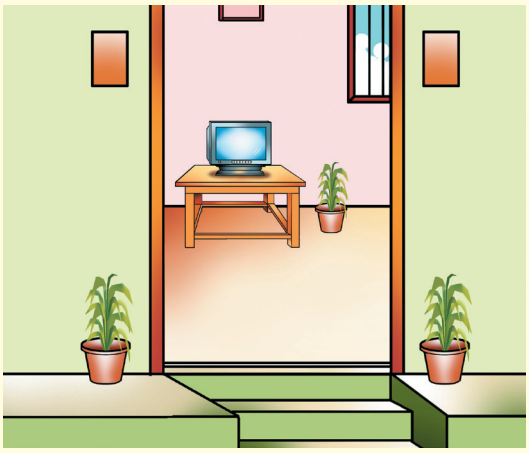


Chickens are **inside** the basket.

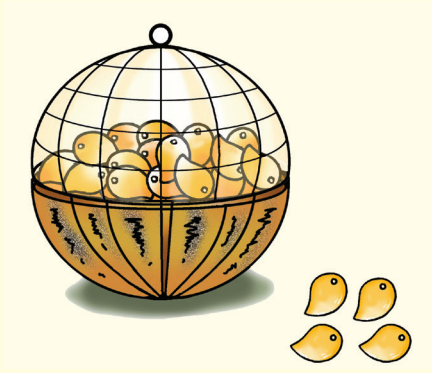


Tick (✓) the dog **inside** the kennel.

Tick (✓) the flowerpot **inside** the house.

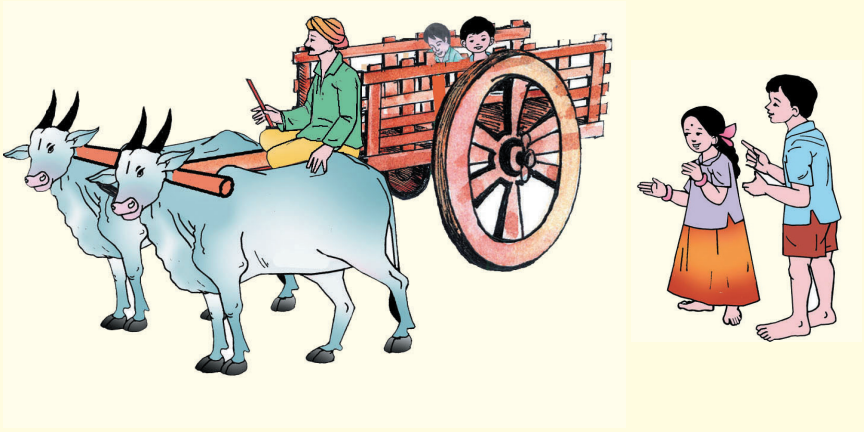


Tick (✓) the fruits **inside** the basket.



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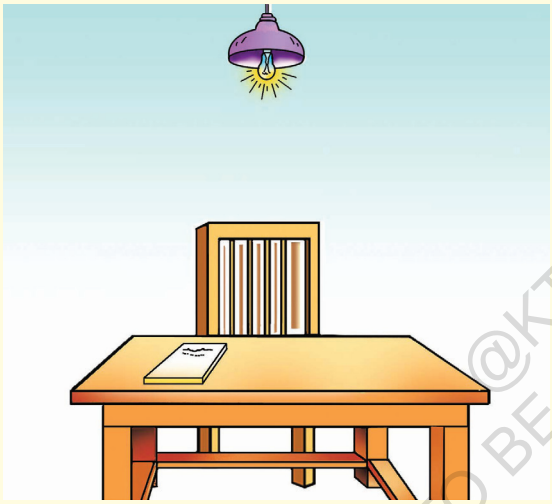
Tick (✓) the children **outside** the cart.



Above - Below



Eyes are **below** the eyebrows.
Mouth is **below** the nose.
Nose is **above** the mouth.
Eyebrows are **above** the eyes.

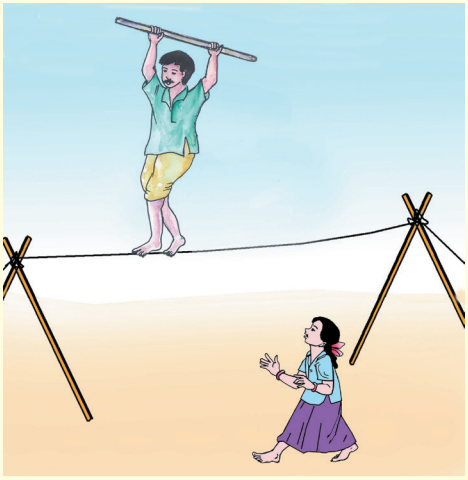


Lamp is **above** the table.
Table is **below** the lamp.

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A circus artist is holding the rod **above** his head.

A girl is watching from **below**.

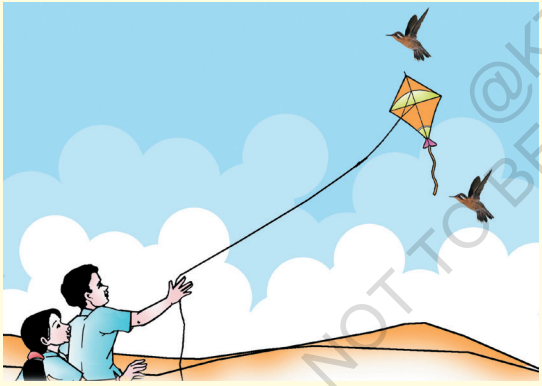




Tick (✓)the bird flying **above** the tree.

Colour the ball **above** the head of the Joker.

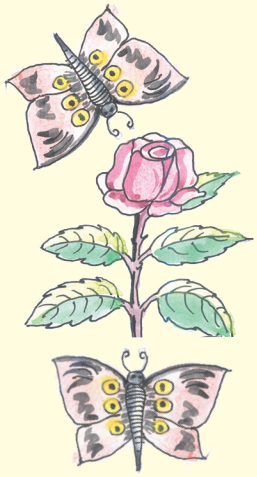




Tick (✓) the bird flying **below** the kite.

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Tick (✓) the butterfly **below** the flower.



Near-Far

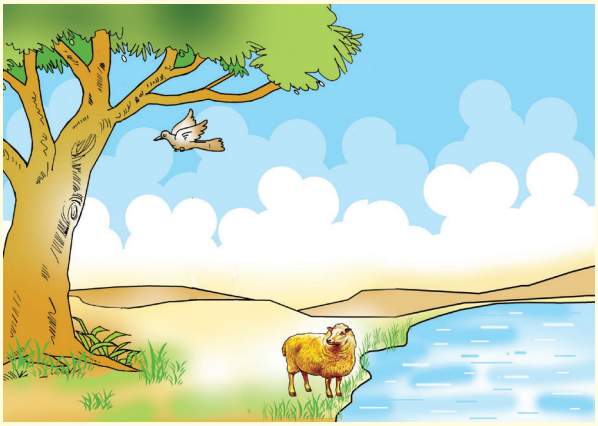


Mother is **near** the child.
Moon is **far** away from the child.



Ravi is standing **near** the swing.

Mary is standing **far** from the swing.

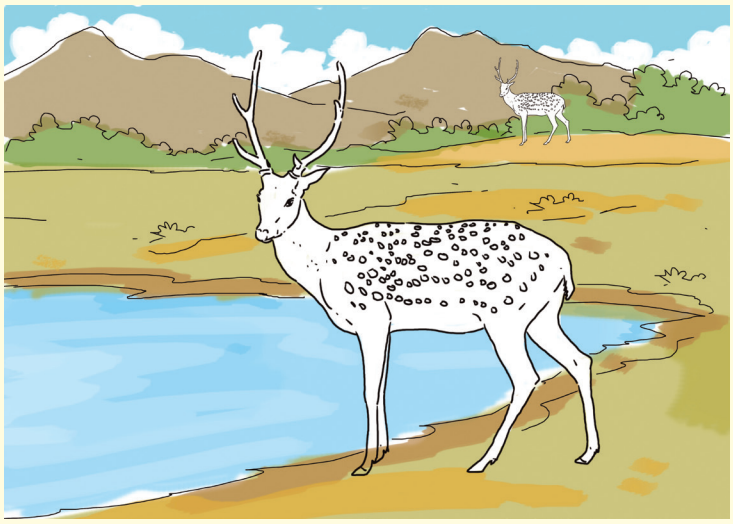


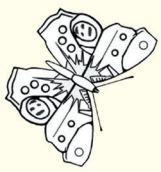
Bird is **near** the tree.
Sheep is **far** from the tree.

Sheep is **near** the pond.
Bird is **far** from the pond.

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Colour the deer **near** the pond.



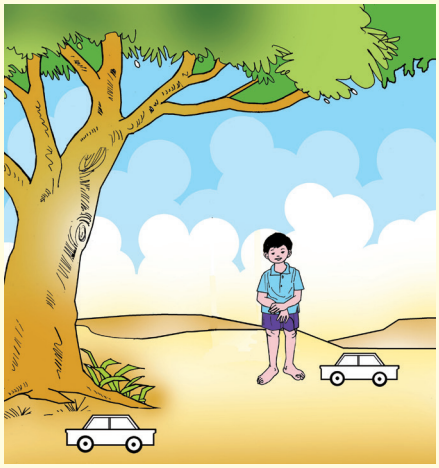




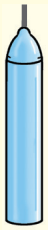
Colour the butterfly **far** from the flower.

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A boy is playing with 2 cars. Colour the car **near** him green and the car **far** from him blue.



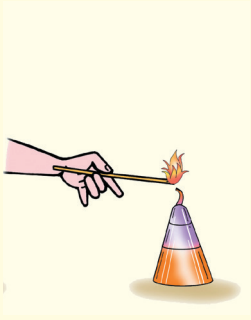
Before - After



Candle **before** lighting.



Candle **after** lighting.

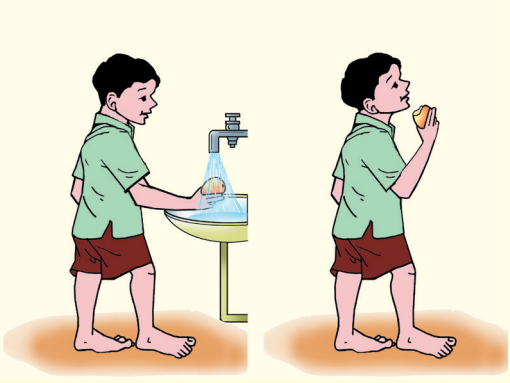


Flowerpot **before** lighting.



Flowerpot **after** lighting.

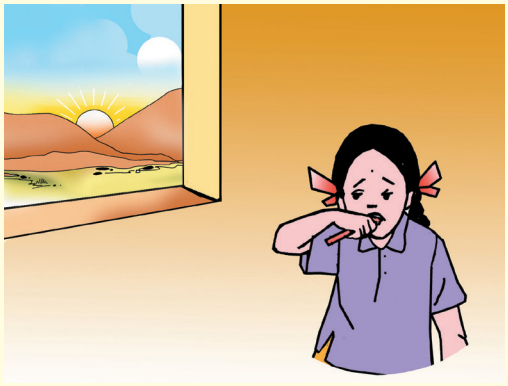
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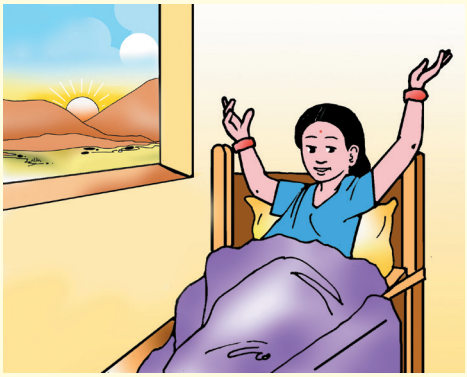


Wash the mango **before** eating.

Eat the mango **after** washing.

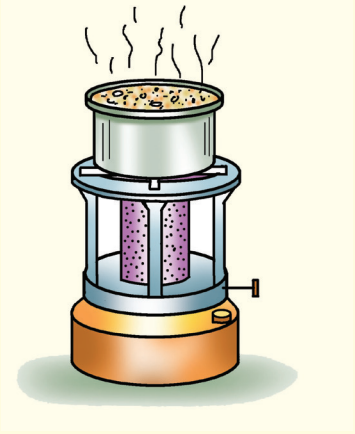
Tick (✓) the activity that comes **before**.





Tick (✓) the activity that comes **after**.





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LESSON-2

Solids Around Us

Y9N3P6

After studying this unit, you can

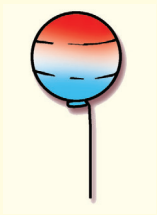
- sort and classify objects based on their shapes.
- observe and explain how the shapes affect the movement of objects like rolling and sliding.
- identify two dimension flat objects with shapes such as square, triangle, rectangle and circle.
- draw free hand figures of triangles, rectangles, squares and circles.

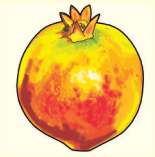
@KTBS NOT TO BE REPUBLISHED

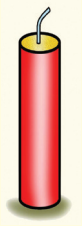
Look at the pictures given below.



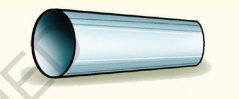
Objects of the same shape can be grouped. Observe the following.

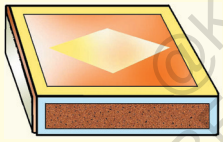
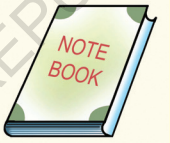






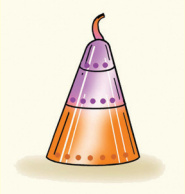
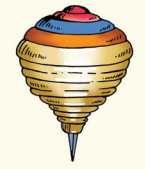
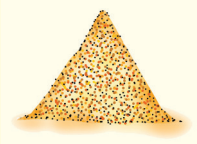


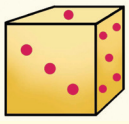
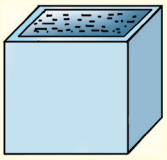
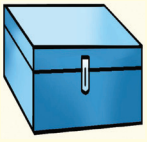
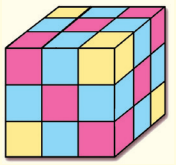




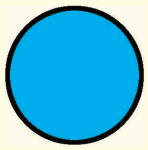
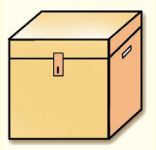
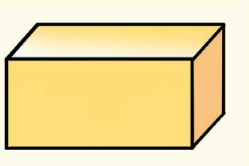
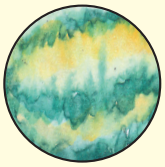


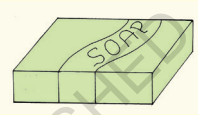




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Objects of the same shape can be grouped. Observe the following. Match the objects of same shape.

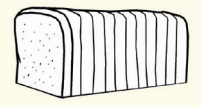





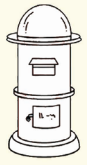


Sorting Shapes

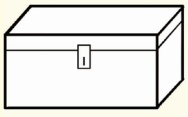
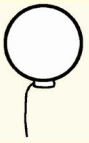
Colour the same shapes, with the same colours as directed.

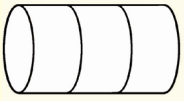
Red	Blue	Green	Yellow	Pink

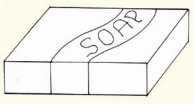






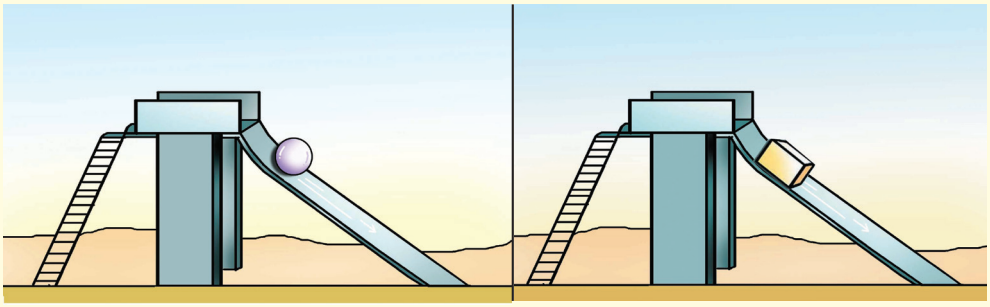







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Movement of objects

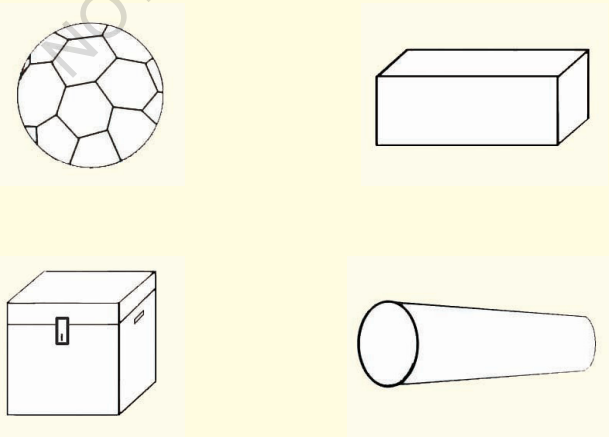


Rolling Sliding

Tick (✓) the object that rolls.



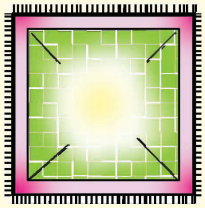
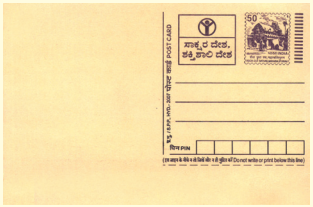
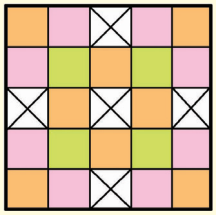
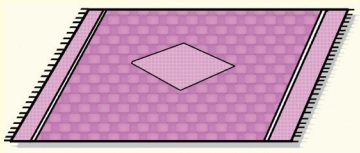
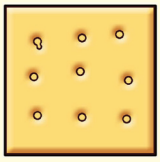
Colour the objects that slide.

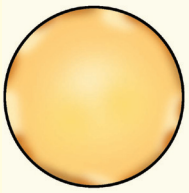
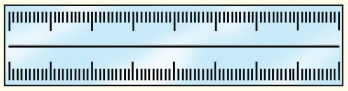
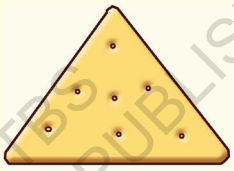


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Observe the shape of top surface of the given objects.



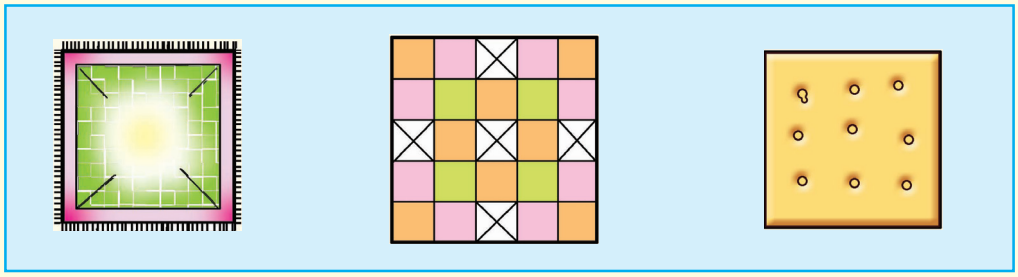






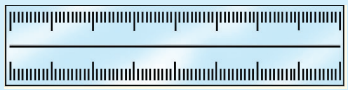
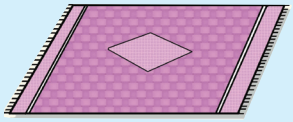





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Objects of the same shape have been grouped. Observe them.

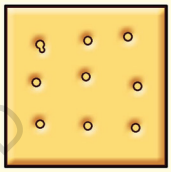
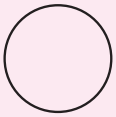
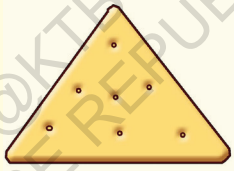
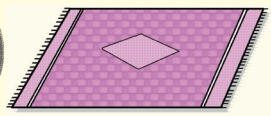
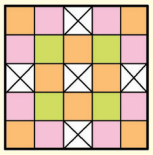
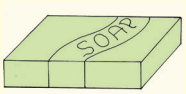
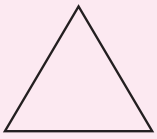
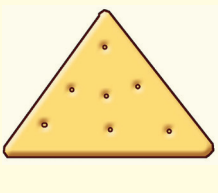
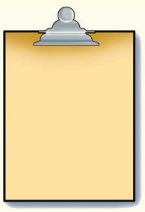






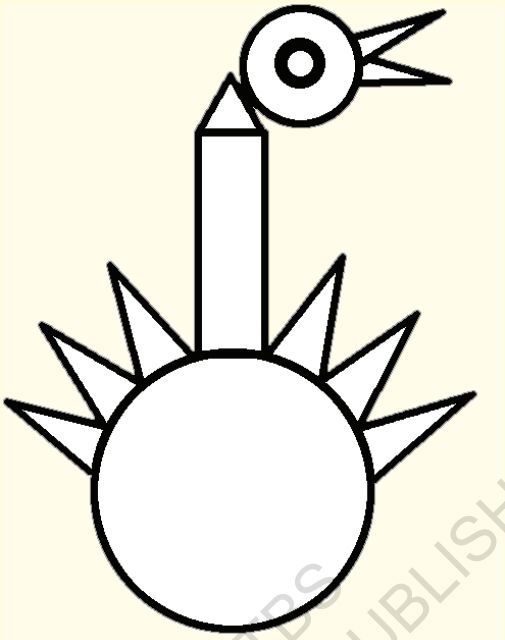
Tick (✓) the shape which is similar to the given shape.

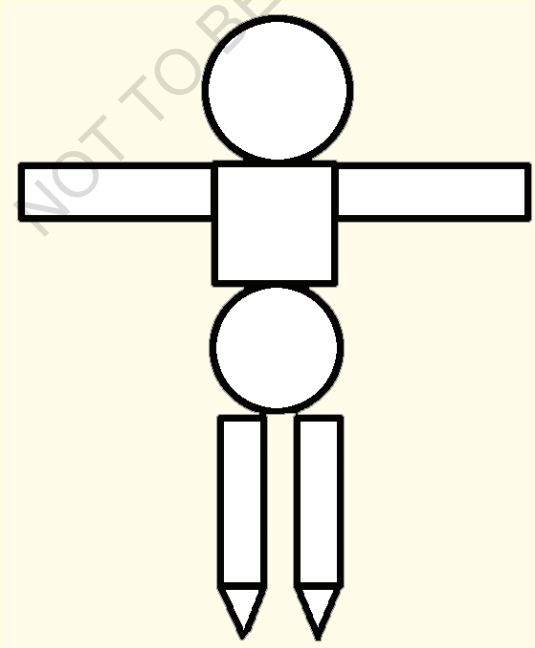
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Colour the different shapes by different colours.

1)

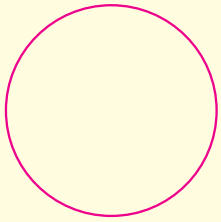


2)

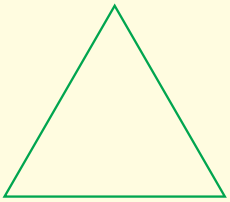


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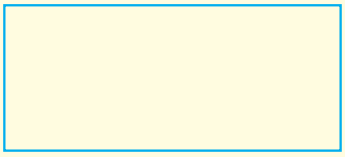
Observe the shapes given below and their names. Repeat the names.



Circle



Triangle



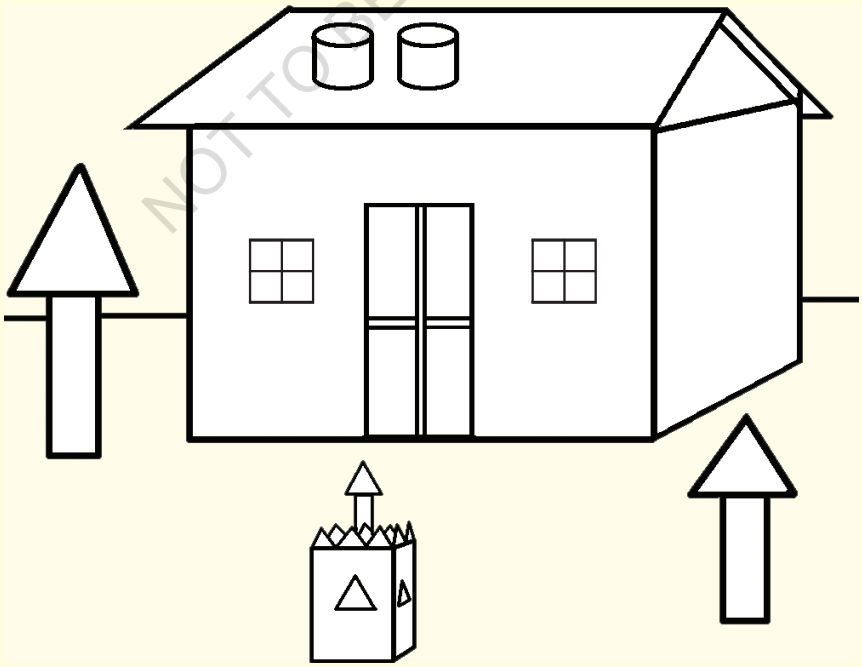
Rectangle



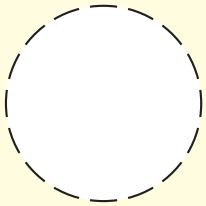
Square

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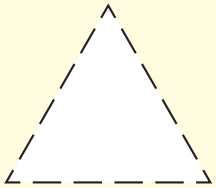
Colour ○ with red, △ with green , ▭ with yellow, □ with brown.



Join the dots and complete the picture.



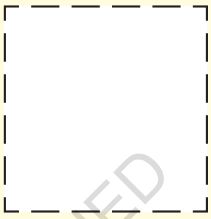
Circle



Triangle



Rectangle



Square

Draw the above shapes (free hand) and practice.

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LESSON-3

Digits (1-9)

X5B7J5

After studying this unit, you can

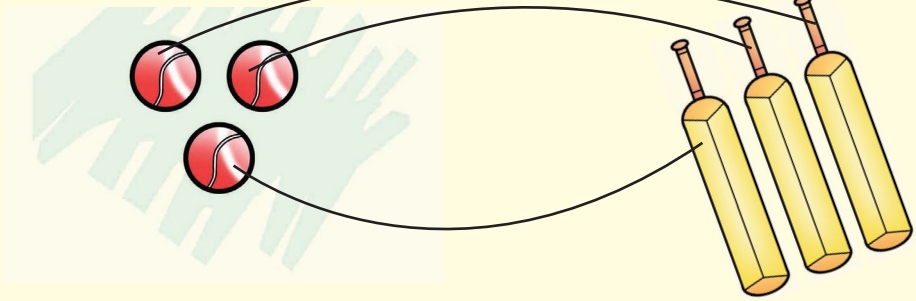
- match the objects having equal number.
- identify more-less.
- count objects from 1 to ९.
- identify, read and write numbers from 1 to ९.
- identify and write before and after number.

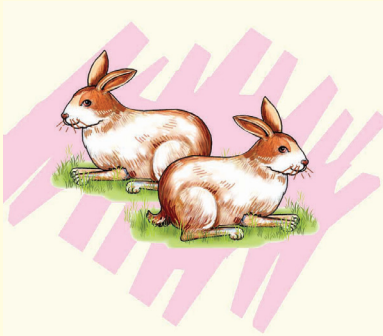
@KTBS NOT TO BE REPUBLISHED

Observe the trees, birds, ants, balloons, ducks, children ..... in the picture given below. How many of them are there ?
Let us learn about this.



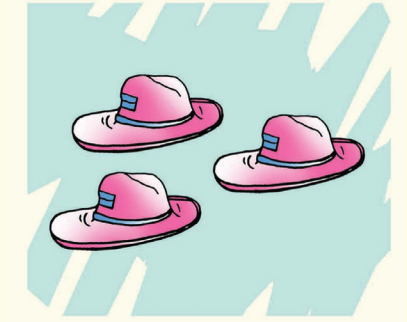
Match as shown.

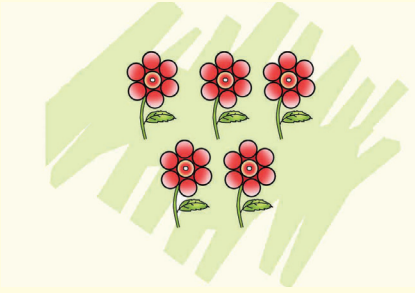












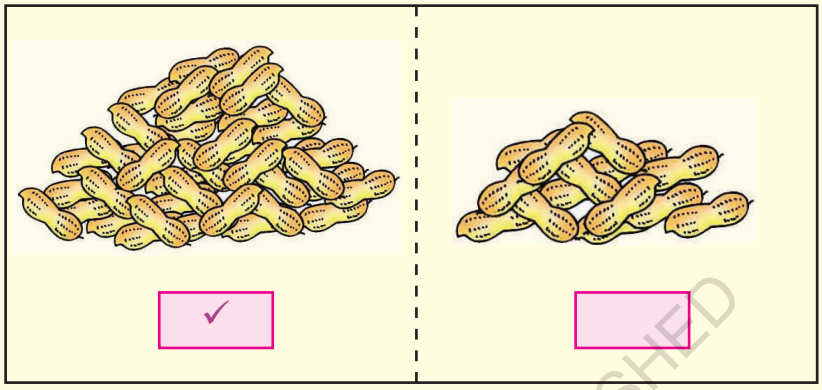


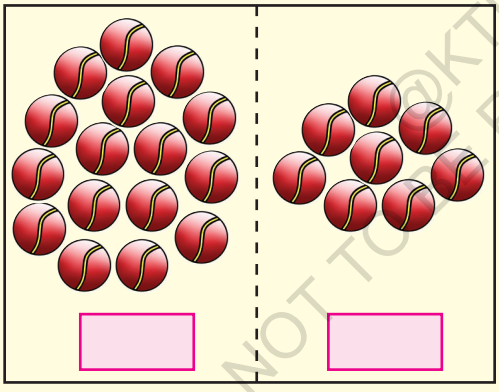
@KTBS NOT TO BE REPUBLISHED

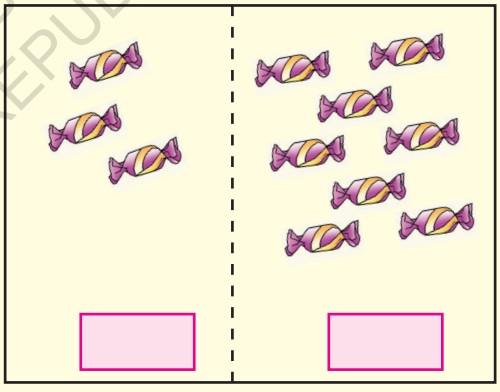
More-Less

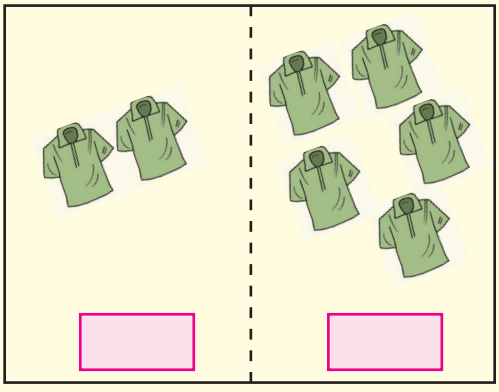
Look at the pictures given below. Tick (✓) the part which has more.

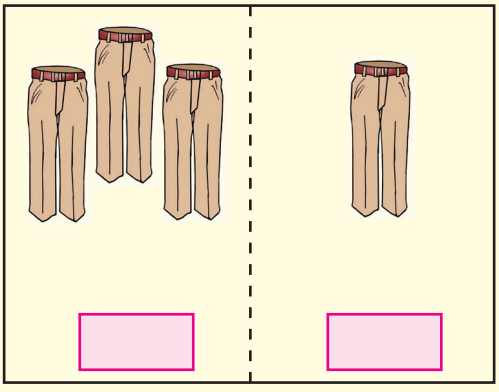
Example :







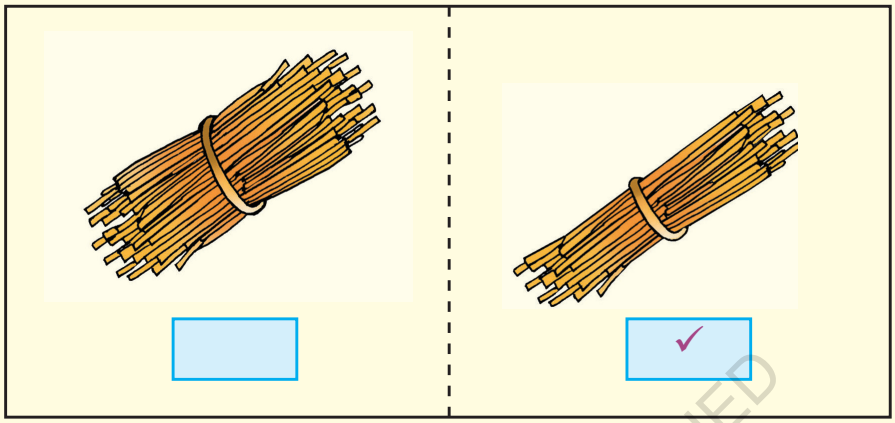


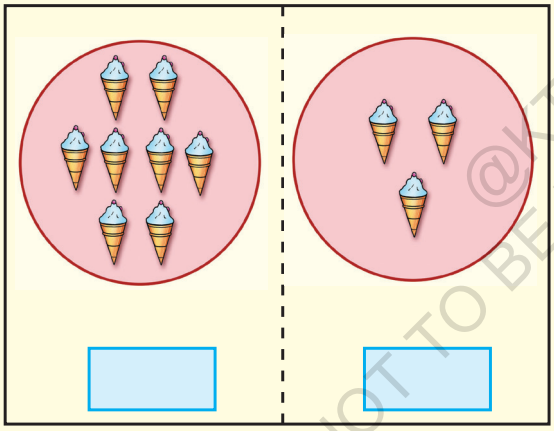


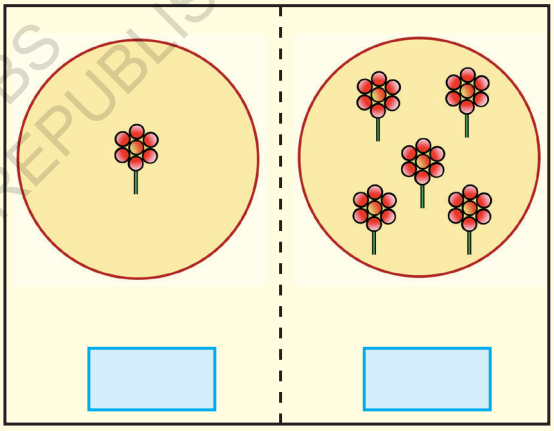
© KTBS NOT TO BE REPUBLISHED

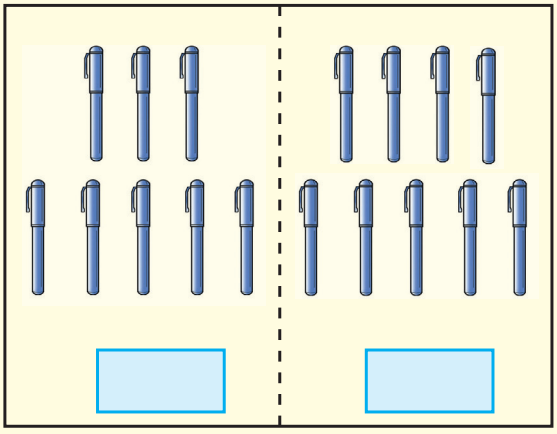
Look at the pictures given below. Tick (✓) the part which has less.

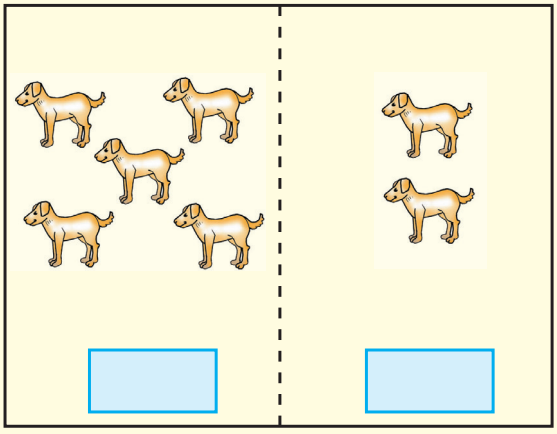
Example











@KTBS NOT TO BE REPUBLISHED

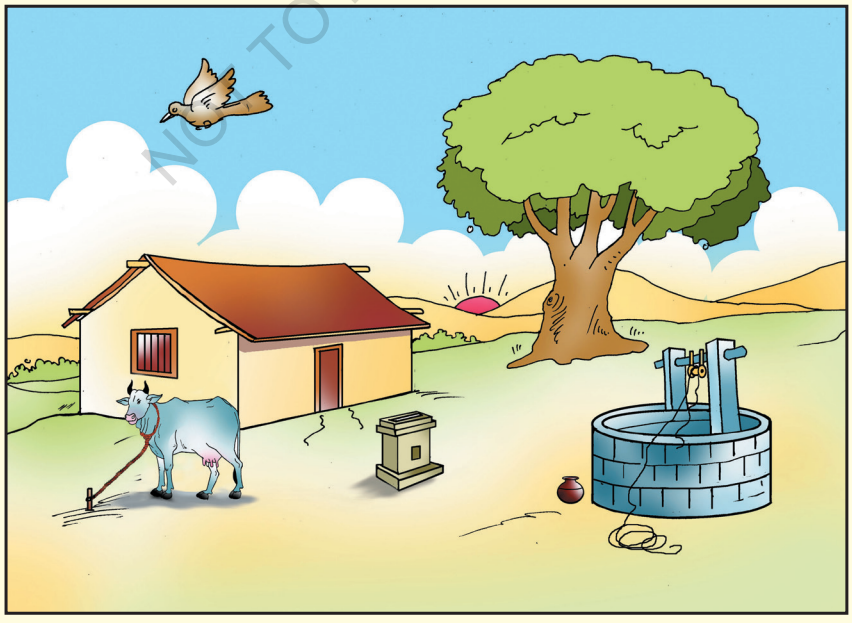
NUMBERS

ONE

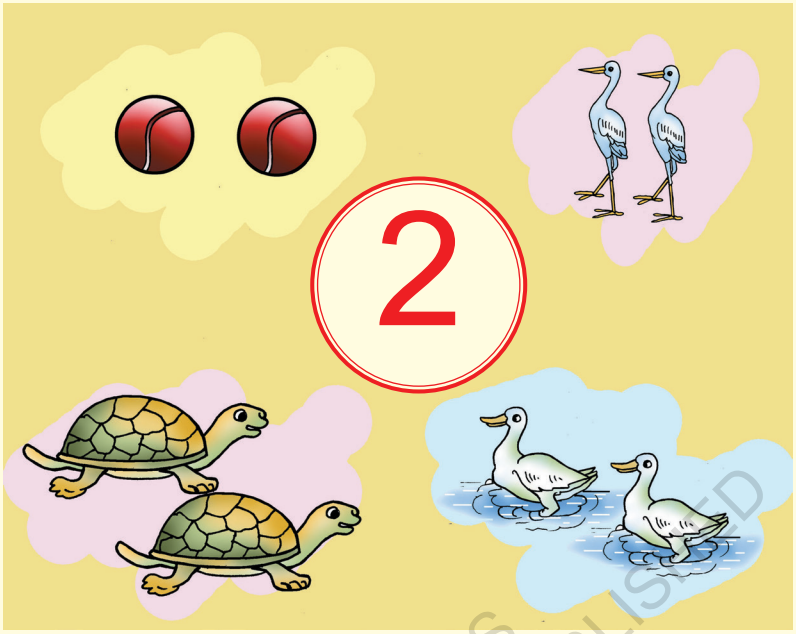


@KTBS NOT TO BE REPUBLISHED

In this picture, name the things that are one in number.

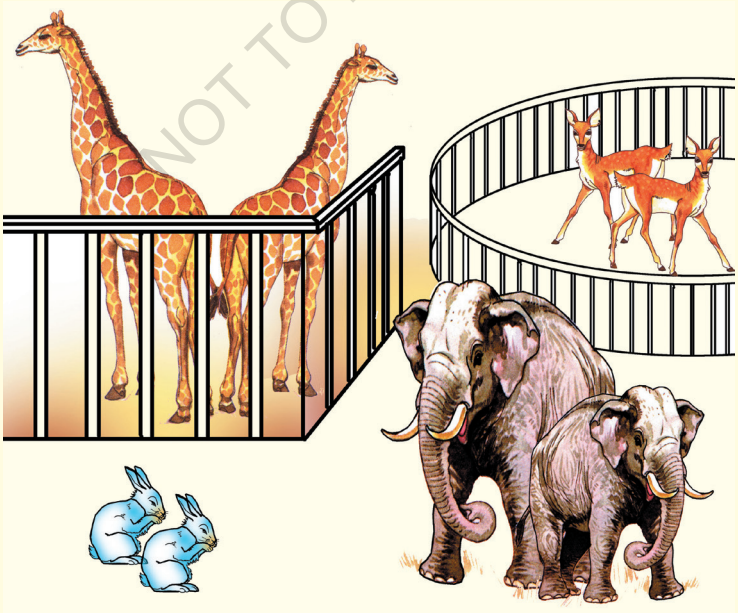


TWO



@ICTBS
NOT TO BE REPUBLISHED

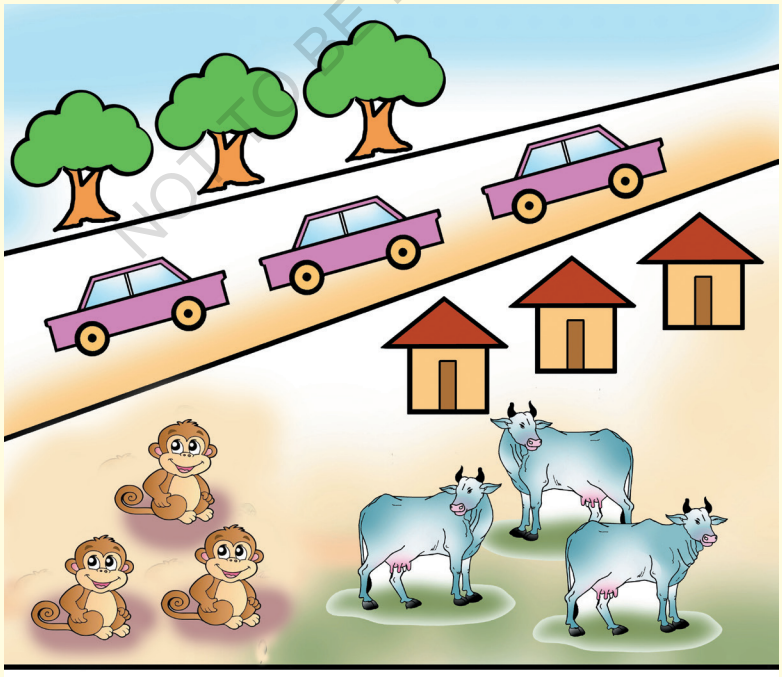
In this picture, name the things that are two in number.



THREE

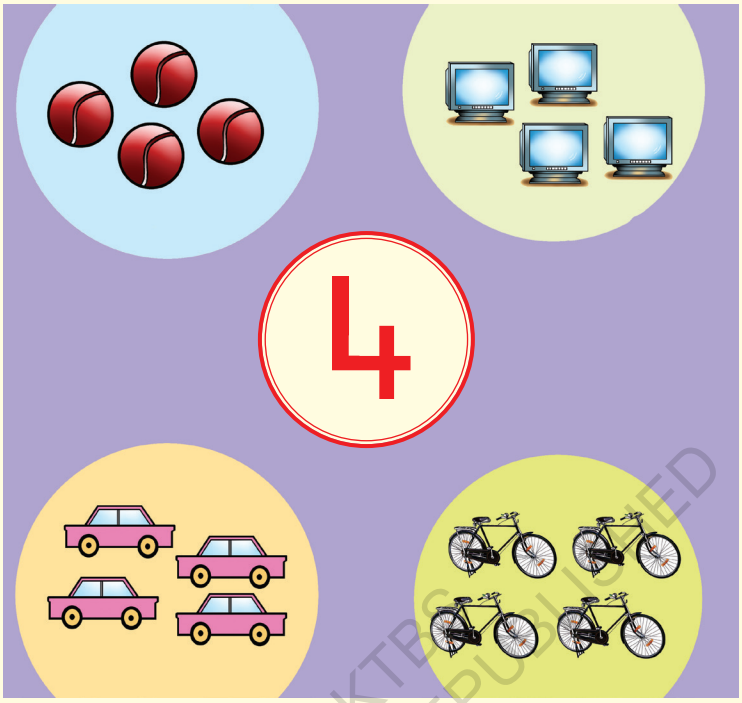


In this picture, name the things that are three in number.



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FOUR

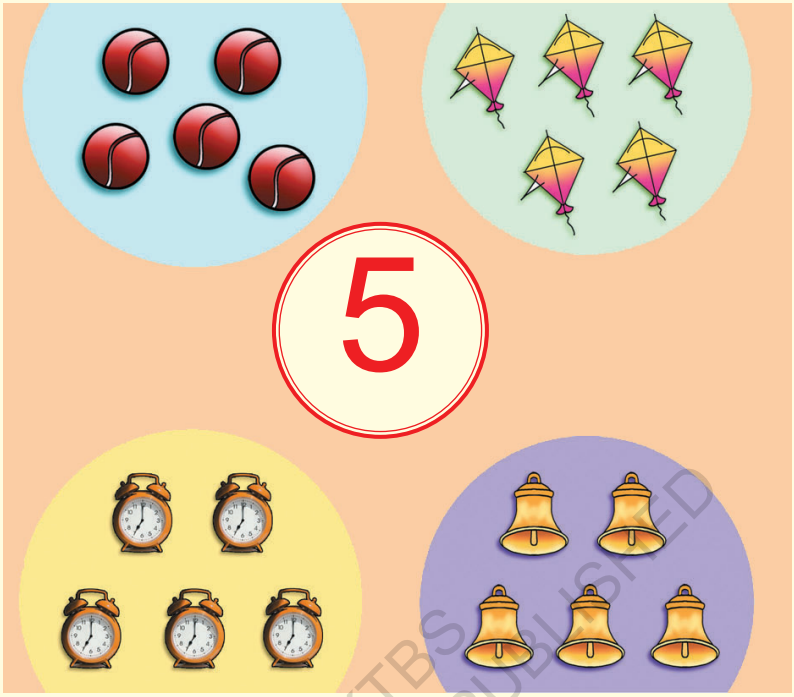


@KTBS NOT TO BE REPUBLISHED

In this picture, name the things that are four in number.

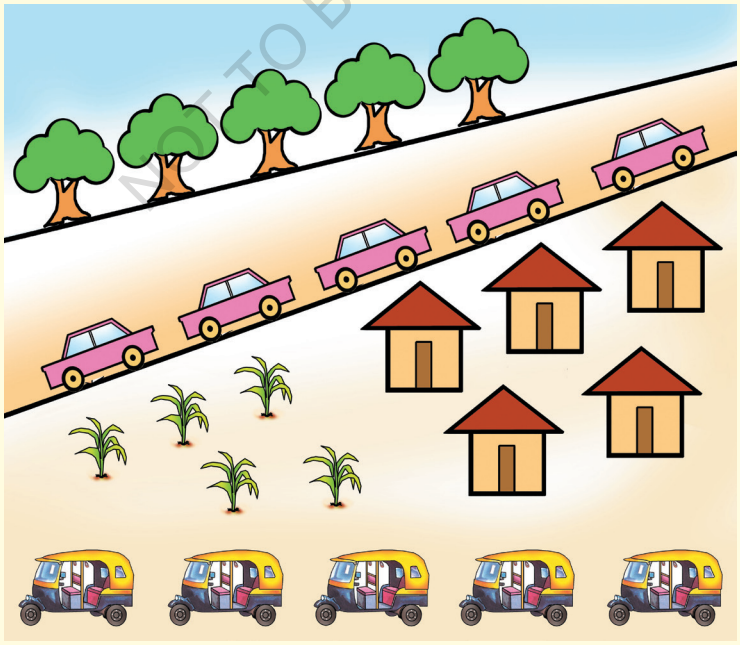


FIVE

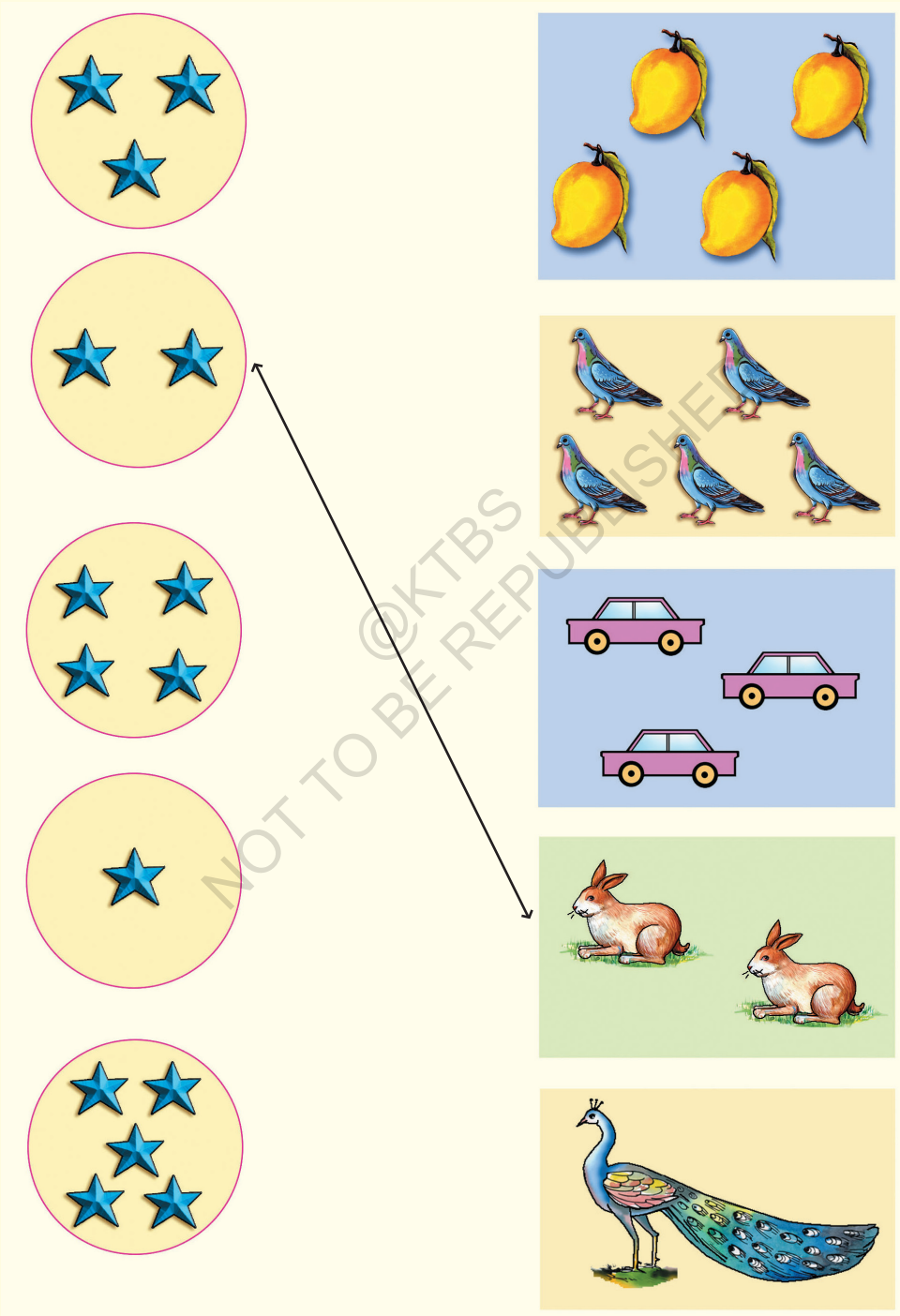


©KTBS NOT TO BE REPUBLISHED

In this picture, name the things that are five in number.

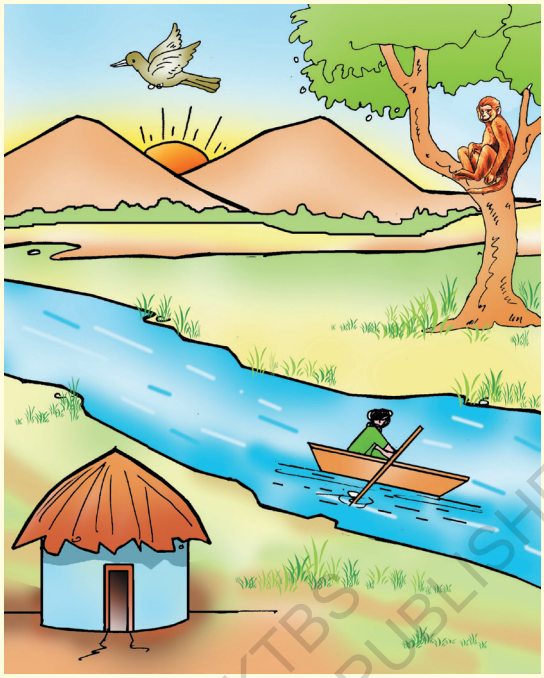


Identify the groups having equal number of objects. Match as shown.



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Look at the number and read.



1

One



1 Sun



1 Bird



1 Monkey



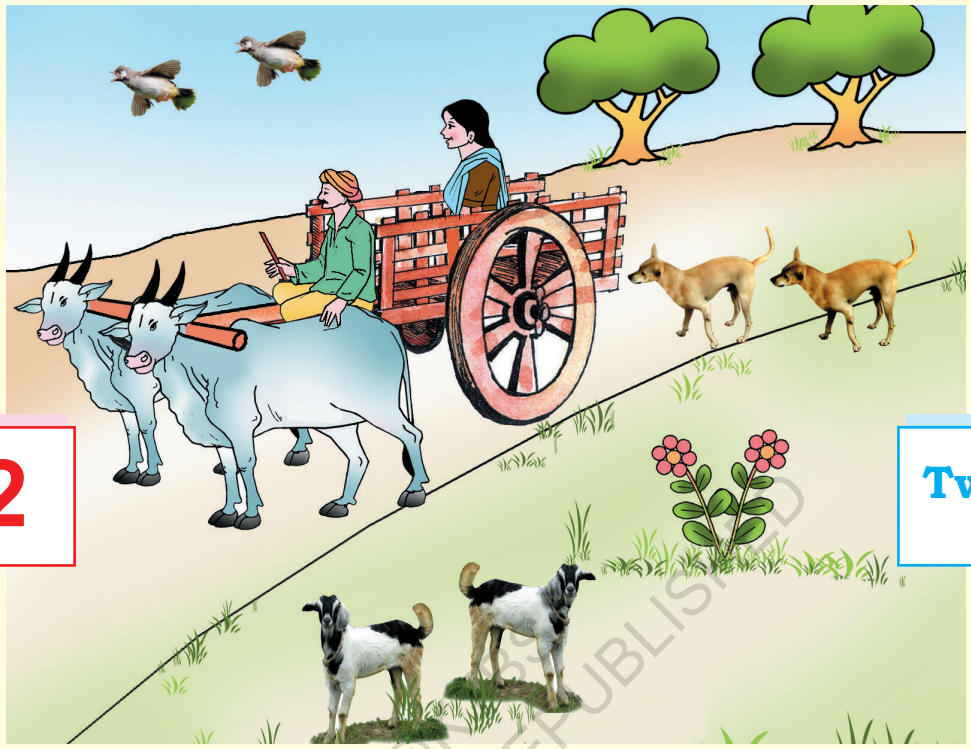
1 Tree

@KTBS NOT TO BE REPUBLISHED

Join the dots and complete the number. Write the number in the boxes.

1	1	1	1				

Look at the number and read.



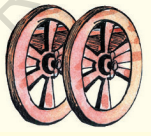
2 **Two**



2 Birds



2 Oxen



2 Wheels



2 Dogs

Join the dots and complete the number. Write the number in the boxes.

2	2	2	2				

@NCERT NOT TO BE REPUBLISHED

Look at the number and read.

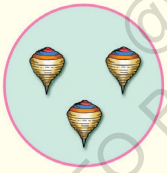


3

Three



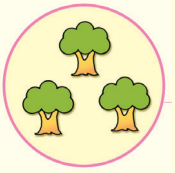
3 Hens



3 Tops



3 Houses



3 Trees

Join the dots and complete the number. Write the number in the boxes.

3	3	3	3				

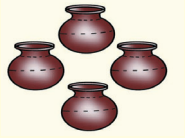
© KTBS NOT TO BE REPUBLISHED

Look at the number and read.

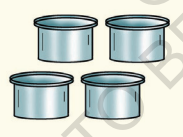


4

Four



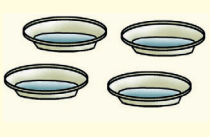
4 Pots



4 Vessels



4 Tumblers



4 Plates

Join the dots and complete the number. Write the number in the boxes.

4	4	4	4				

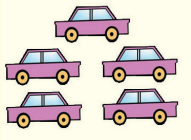
NOT TO BE REPUBLISHED @KTBS

Look at the number and read.



5

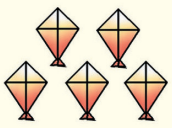
Five



5 Cars



5 Balls



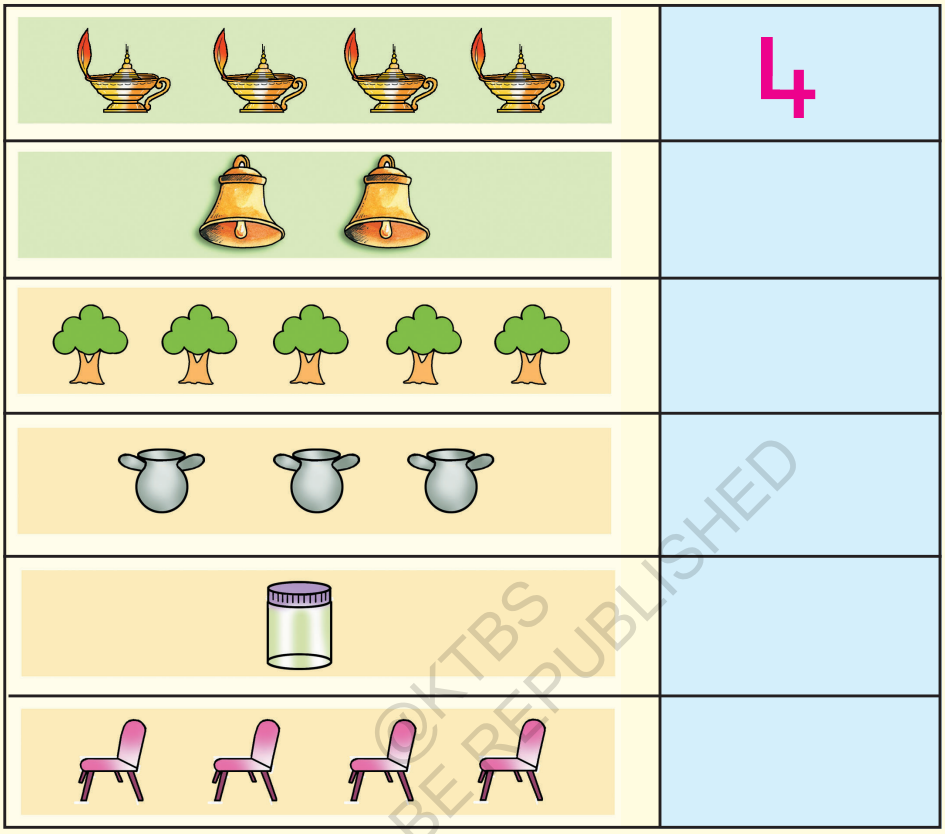
5 Kites

Join the dots and complete the number. Write the number in the boxes.

5	5	5	5				

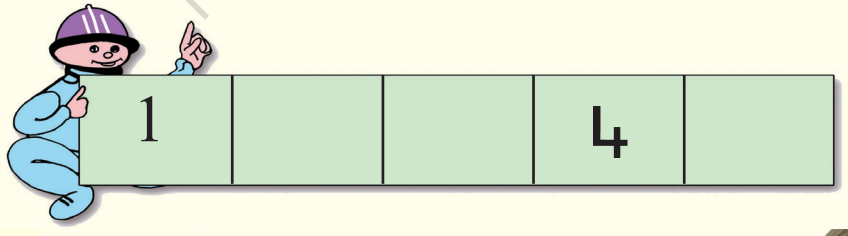
@KVBS NOT TO BE REPRINTED

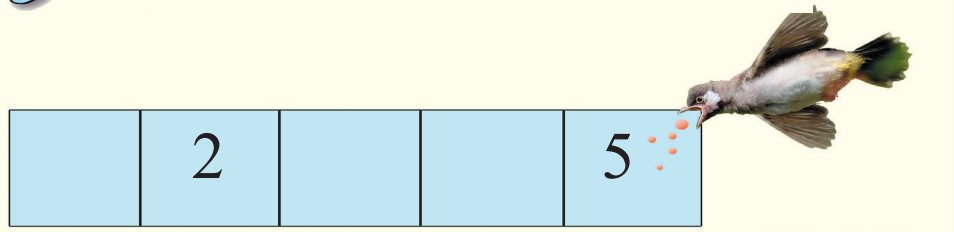
Count and write.



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Fill in the missing numbers.





SIX

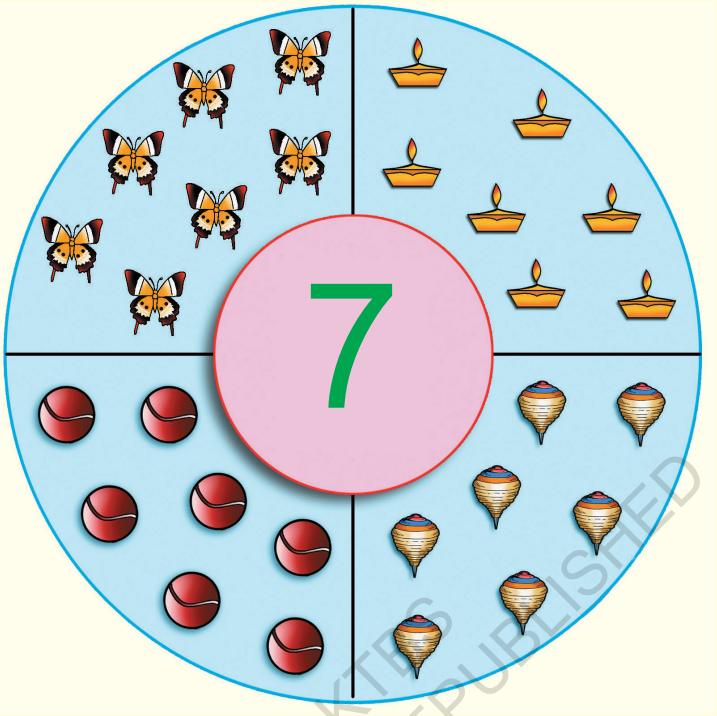


In this picture, name the figures that are six in number.



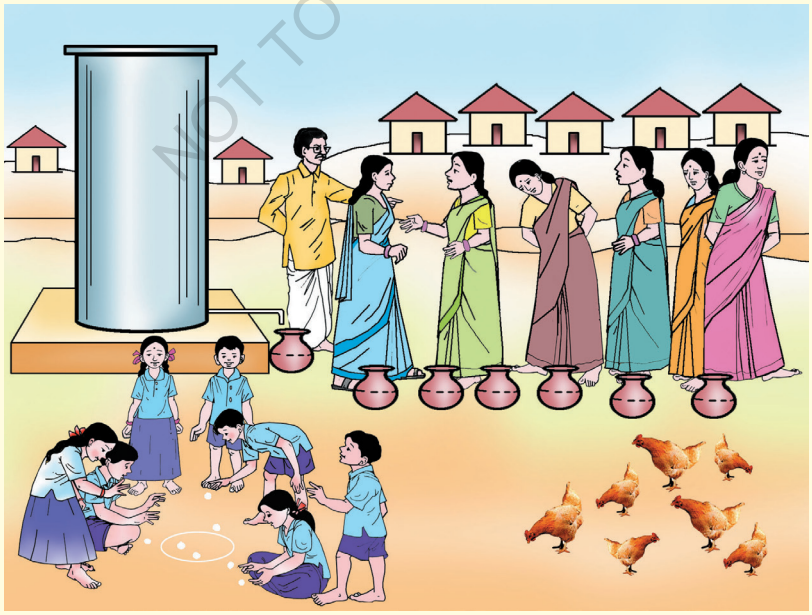
@KTBS NOT TO BE REPUBLISHED

SEVEN

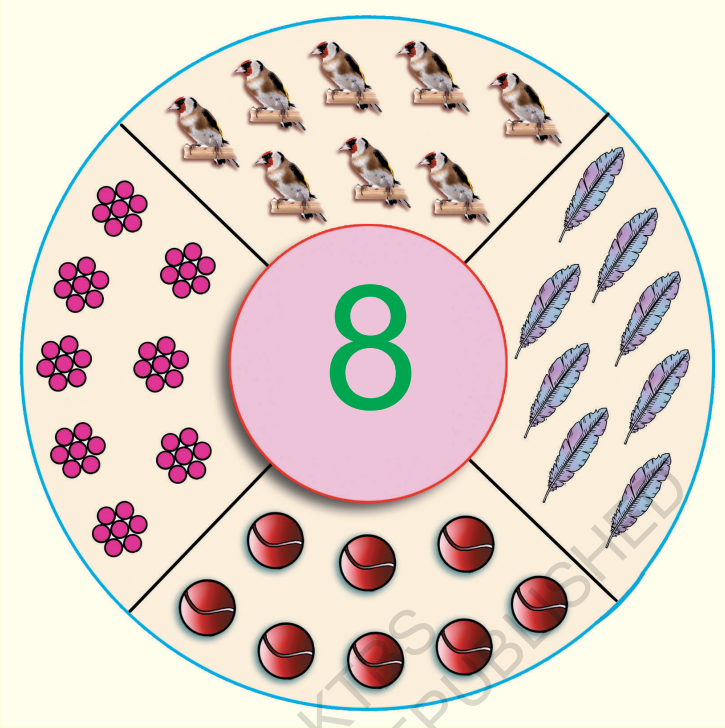


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In this picture, name the things that are seven in number.

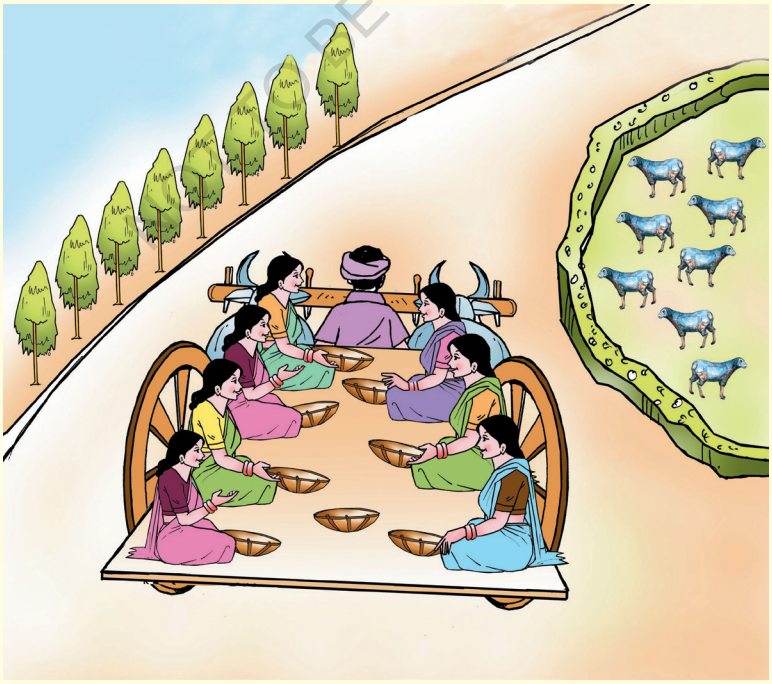


EIGHT

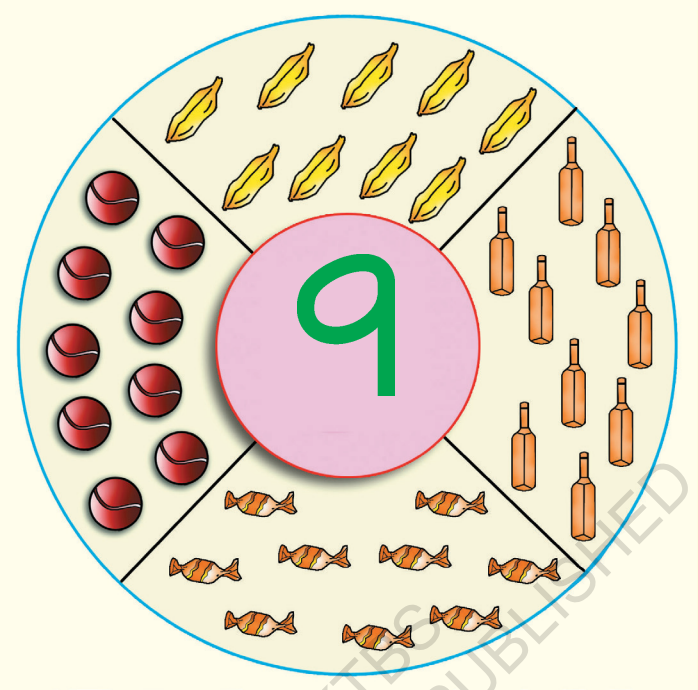


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In this picture, name the things that are eight in number.



NINE

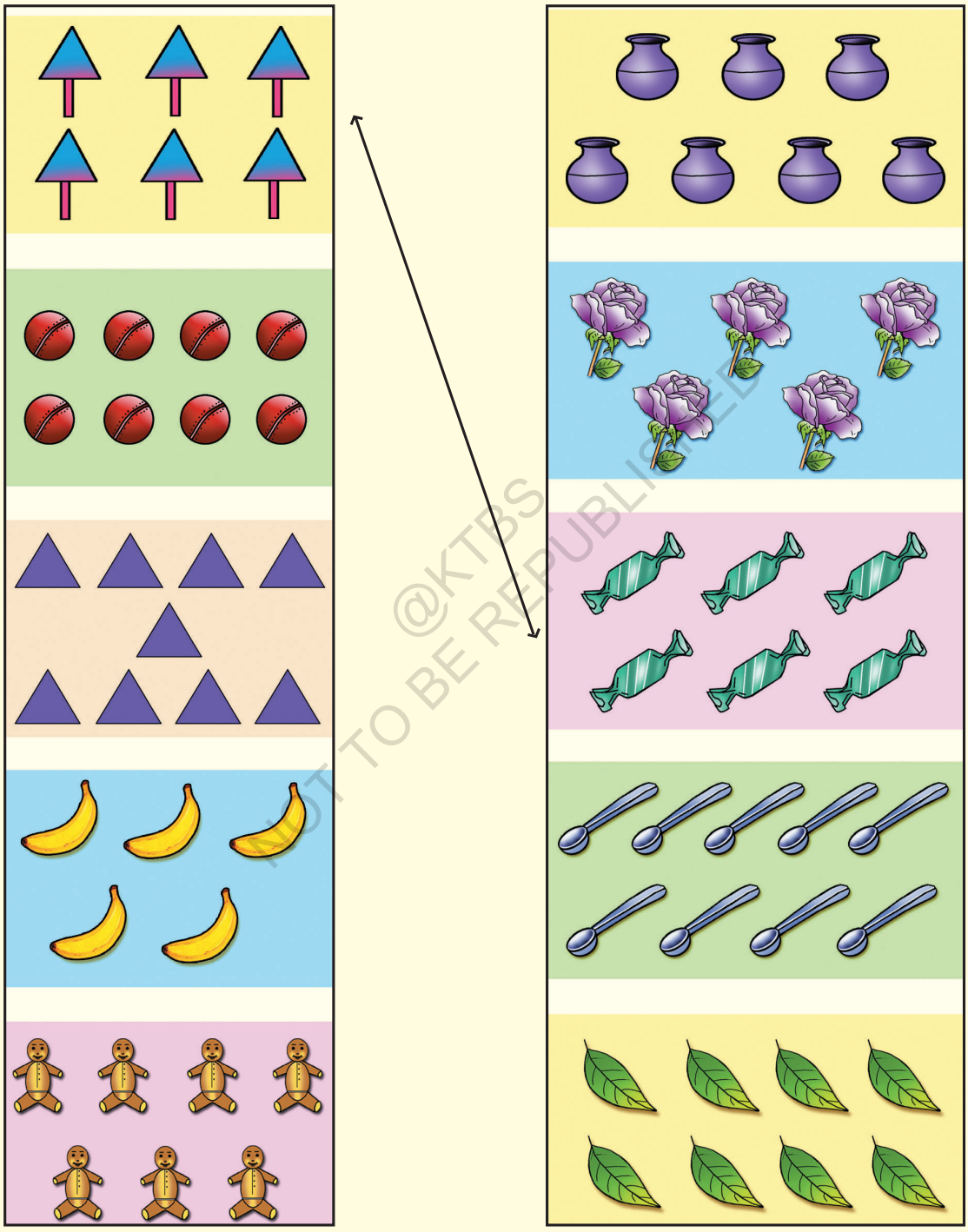


In this picture, name the things that are nine in number.



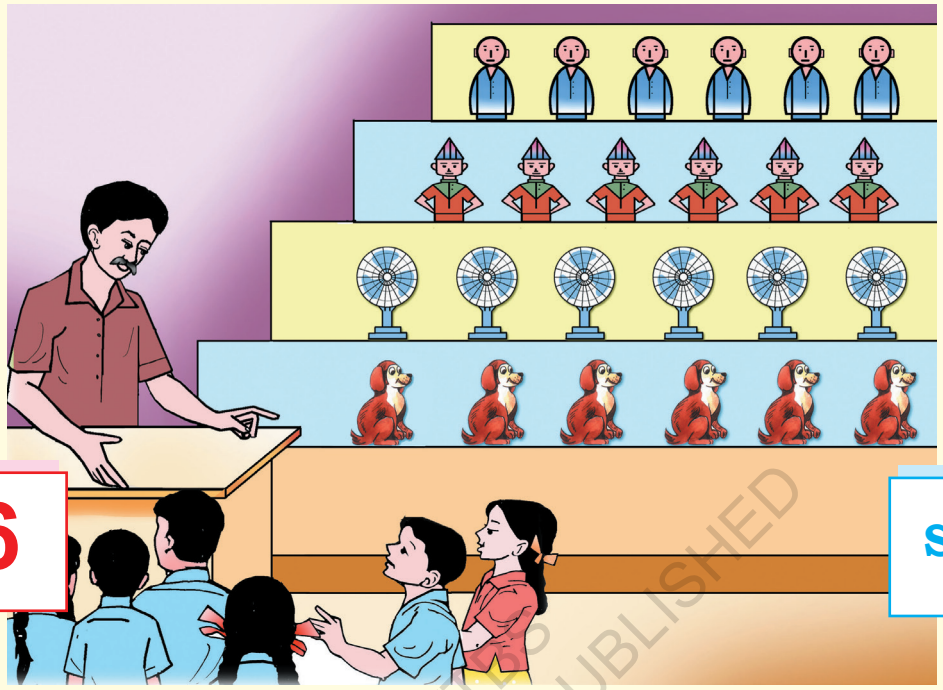
@KTBS NOT TO BE REPUBLISHED

Match the groups having equal number of objects as shown.



@KTBS NOT TO BE REPUBLISHED

Look at the number and read.

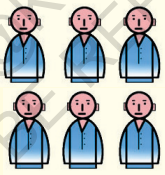


6

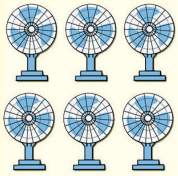
Six



6 Children



6 Dolls



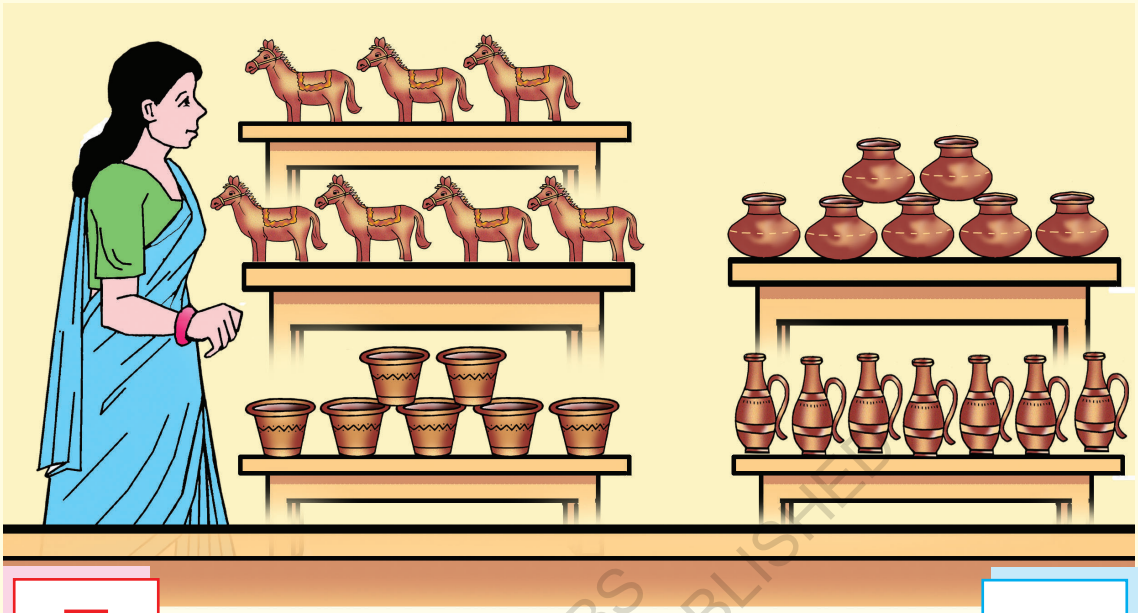
6 Fans

@KTBS NOT TO BE REPUBLISHED

Join the dots and complete the number. Write the number in the boxes.

6	6	6	6				

Look at the number and read.



7 **Seven**



7 Jugs



7 Flower pots



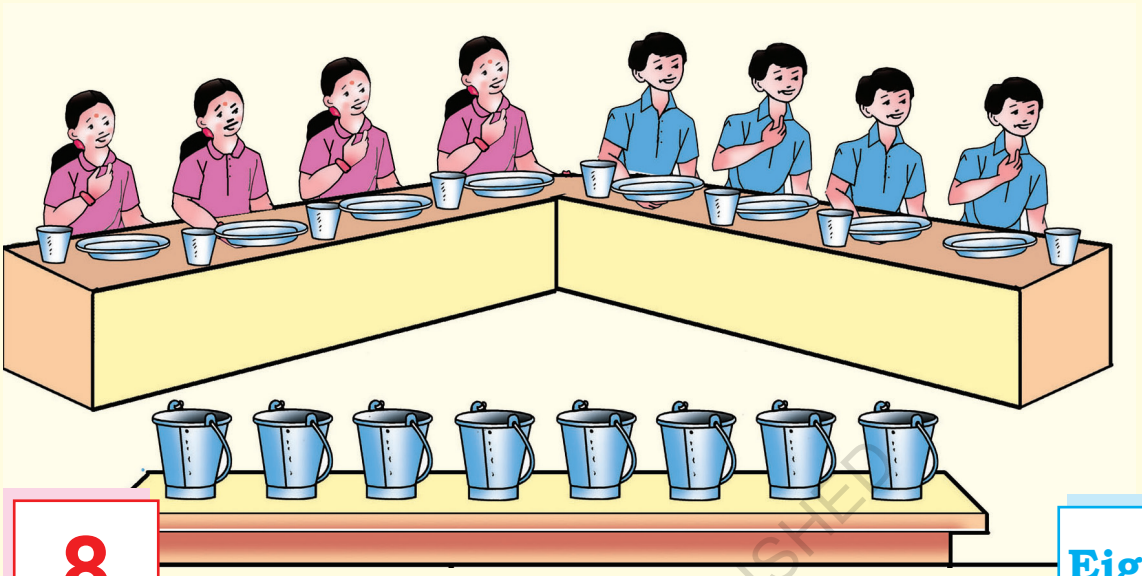
7 Pots

Join the dots and complete the number. Write the number in the boxes.

7	7	7	7				

@KTBS NOT TO BE REPUBLISHED

Look at the number and read.



8 **Eight**



8 Children



8 Plates



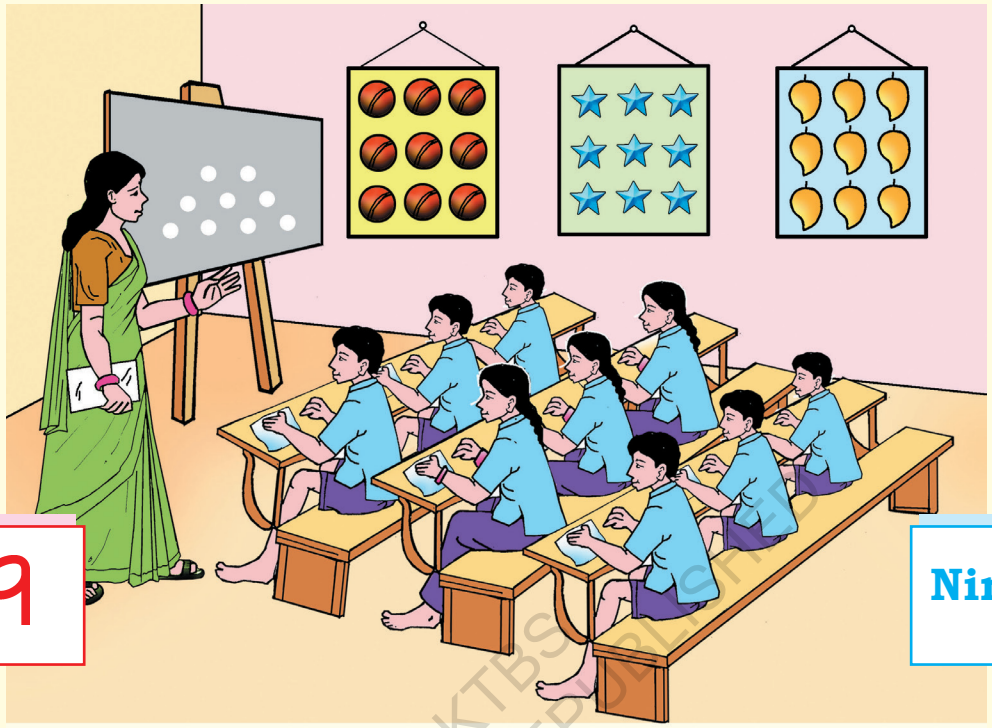
8 Buckets

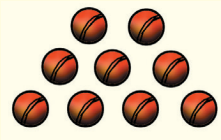
© NCERT NOT TO BE REPUBLISHED

Join the dots and complete the number. Write the number in the boxes.

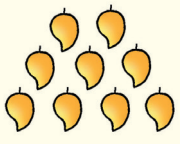
8	8	8	8				

Look at the number and read.









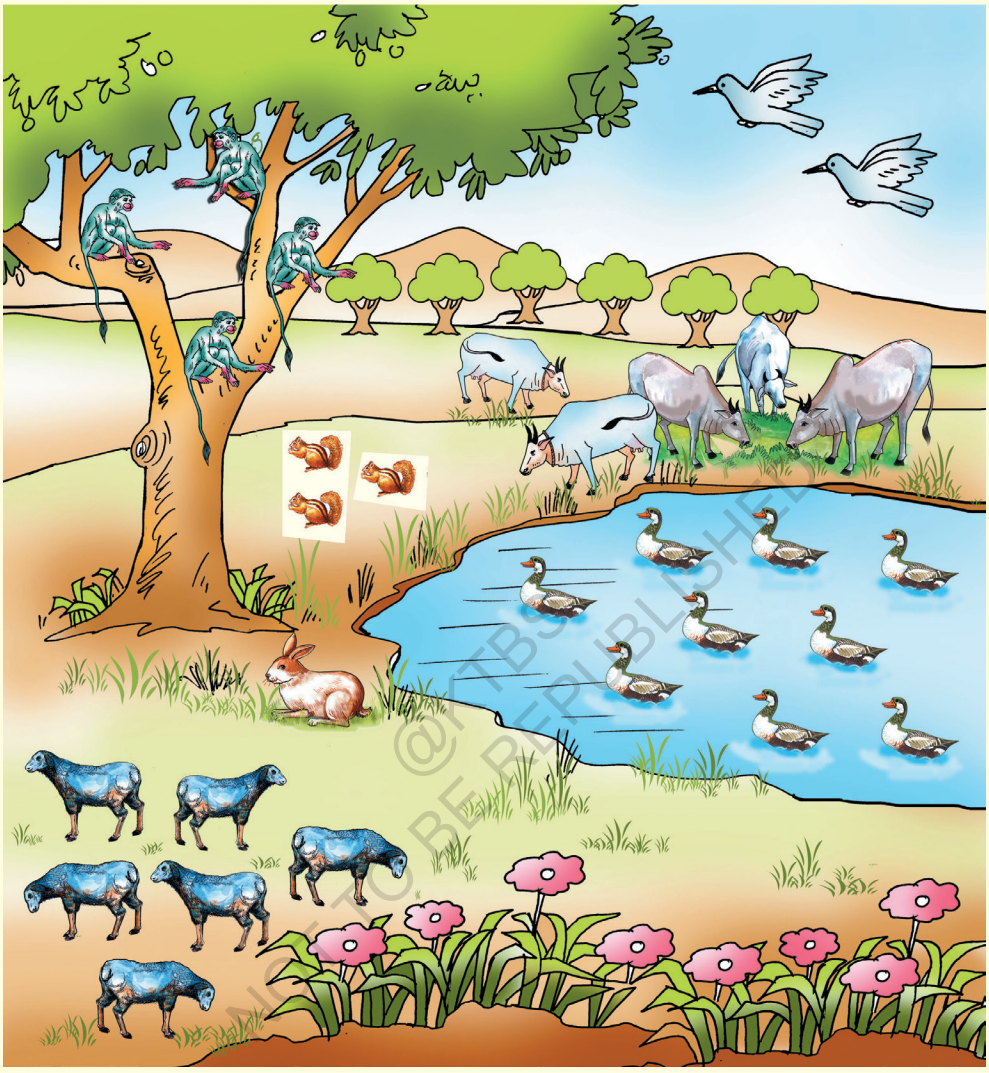
९ Balls ९ Stars ९ Mangoes

Join the dots and complete the number. Write the number in the boxes.

९	९	९	९				

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Look at this picture, Count the different things.



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Come, Let us count.

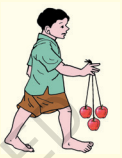
One one one
One red apple
Is on the table.

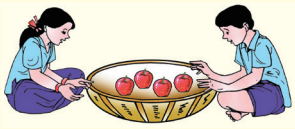




Two two two
Red apples are two
With me and you.

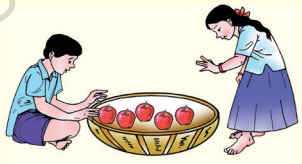
Three three three
Three red apples are
Hanging from the finger.





Four four four
Four red apples
Placed in a basket.

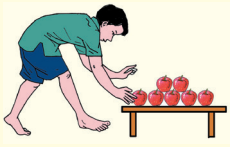
Five five five
Five red apples
Pick up any apple.





Six six six
Apples are six
Inside the sack.

Seven seven seven
Apples are seven
No apple is thrown.





Eight eight eight
Apples are eight
Be ready to eat.

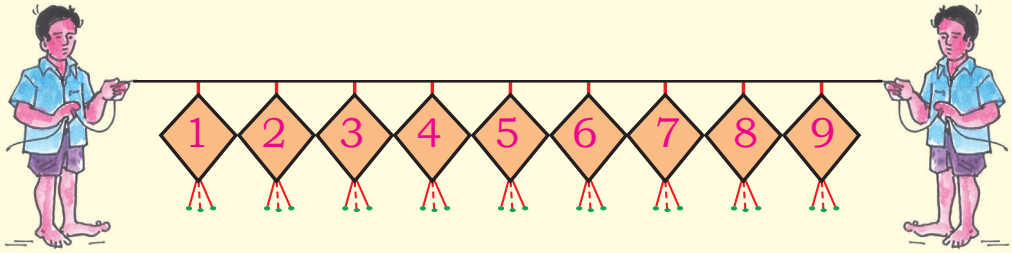
Nine nine nine
Apples are nine
Taste is very fine.

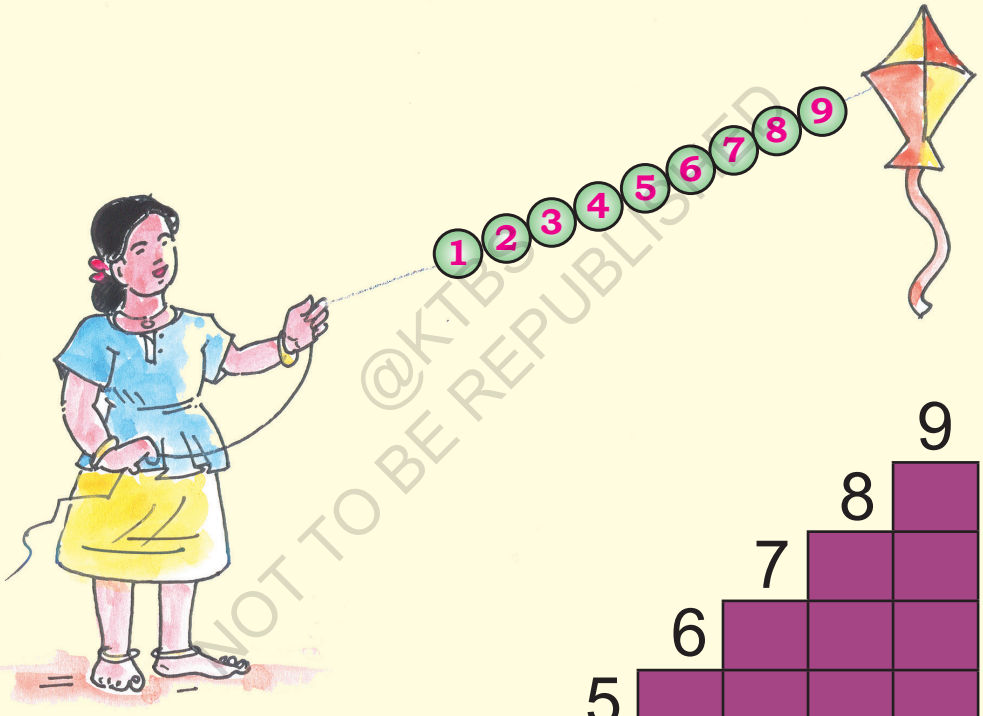


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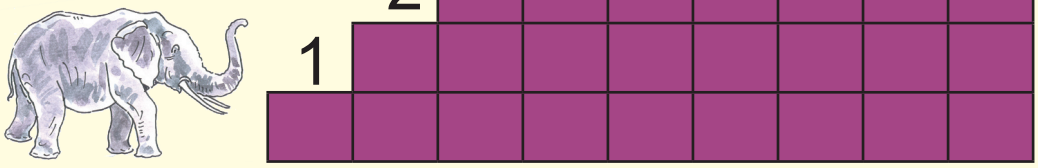
Number Buntings

Look at the numbers written in order. Read them.

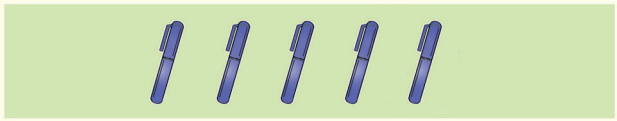




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Count and write.

	7
	
	
	
	

Fill in the missing numbers.

1			4			7		9

		3			6		8	

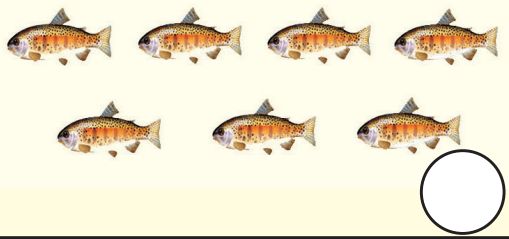
@KTBS NOT TO BE REPUBLISHED

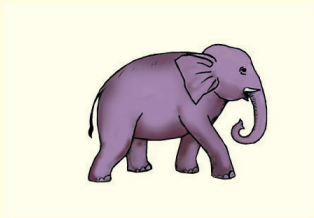
Count and write as shown.

Example :



4





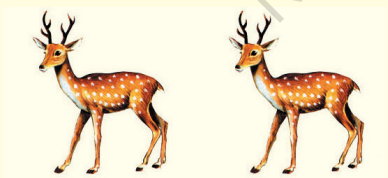




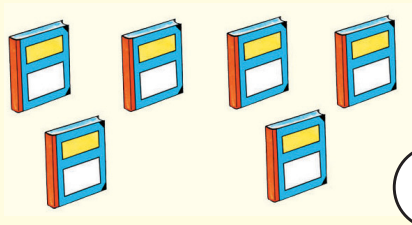


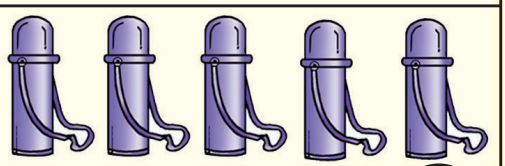












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Read the numbers. Draw as many pictures as the number.

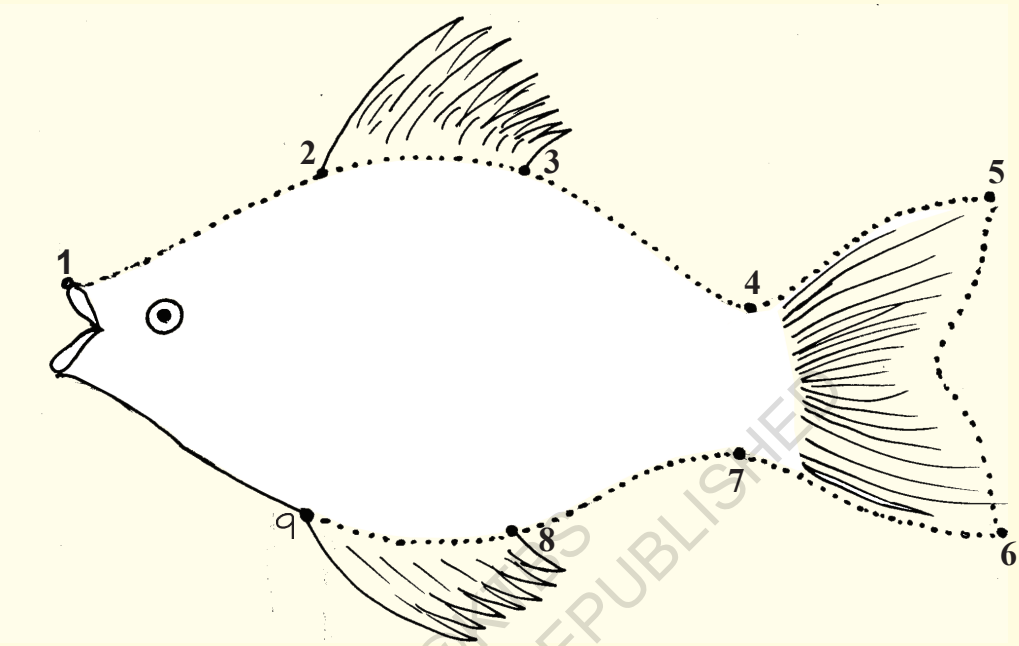
Example:

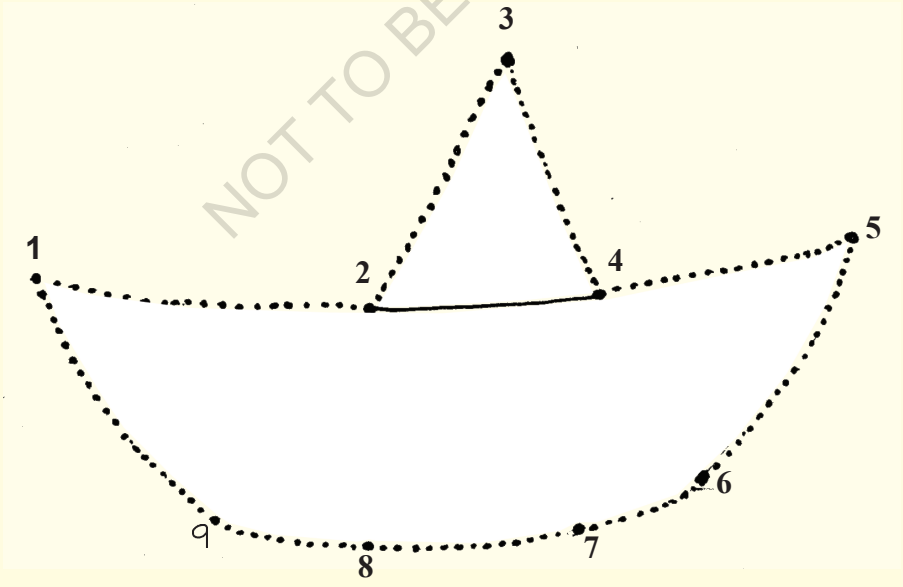


4									
	5								
	3								
	4								
	1								
	2								
	6								
	8								
	7								
	९								

@KTBS NOT TO BE REPUBLISHED

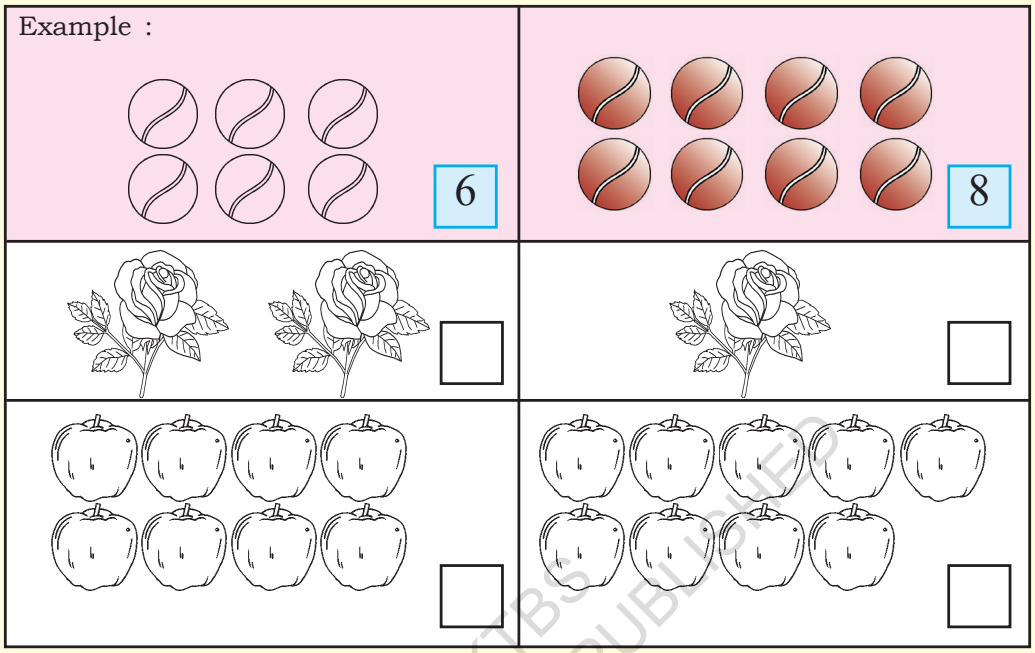
Join the dots in order and colour the picture.



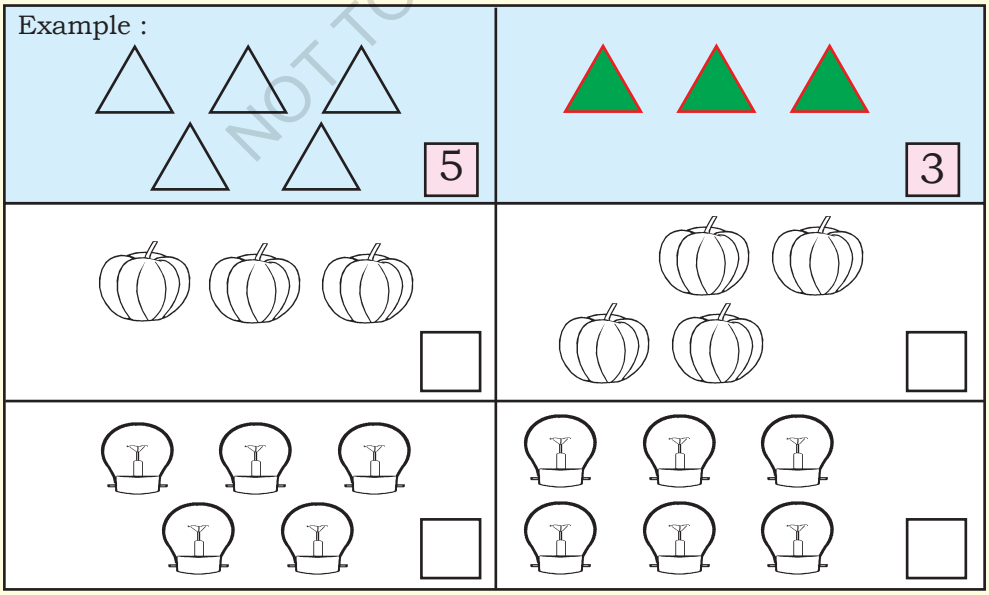


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Count and write the number. Colour the objects of the group which has more.



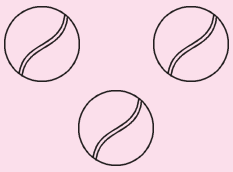
Count and write the number. Colour the objects of the group which has less.



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Draw pictures to make both the groups equal. Write the number.

Example:



3 = 3

2 =

9

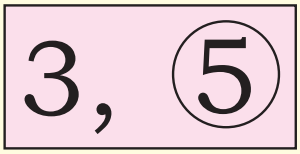
7 =

6 =

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Observe the numbers given in each strip. Circle the big number.

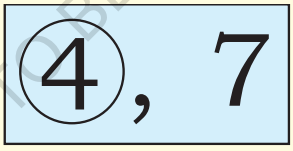
Example :



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

Observe the numbers given in each strip. Circle the small number.

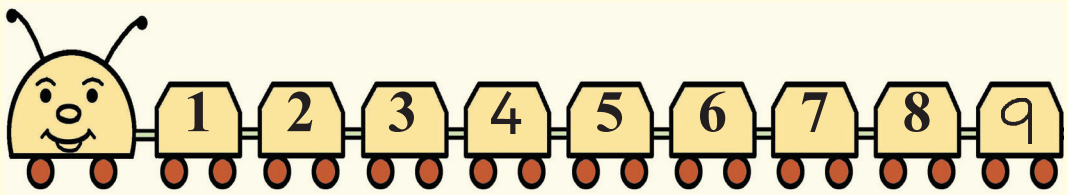
Example :



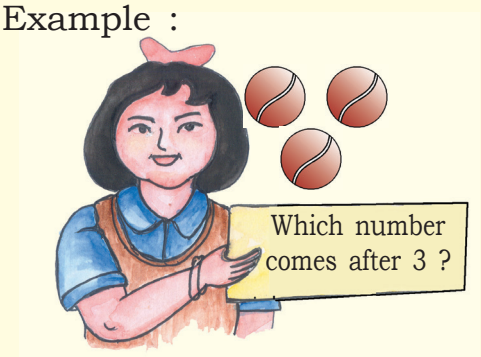
8, 7	3, 7	9, 4
2, 6	3, 1	9, 8
5, 6	7, 4	

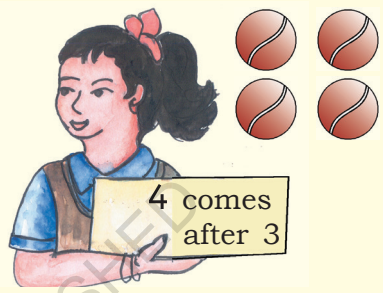
© @KTBS NOT TO BE REPUBLISHED

To find the next number of a given number.

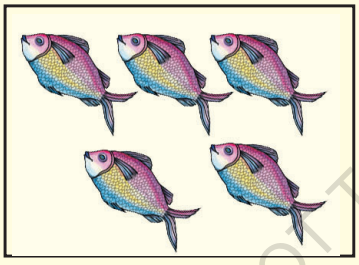


Example :

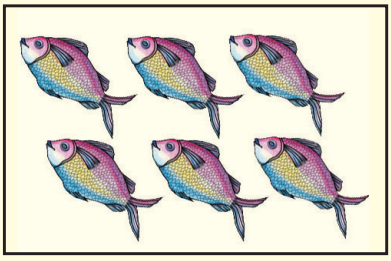




Which number comes after 5 ?



5 , 6



Number after 6 is	Number after 2 is .....
 	 

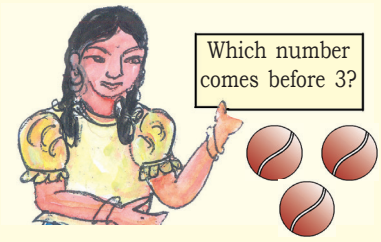
Number after 7 is	Number after 4 is .....
Number after 3 is	Number after 8 is .....

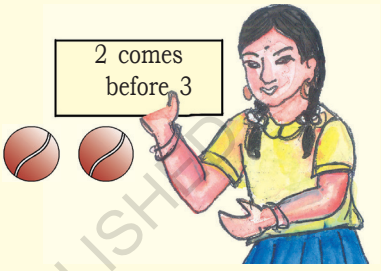
@KTBS NOT TO BE REPUBLISHED

Read the number in each strip and write its next number in the space provided.

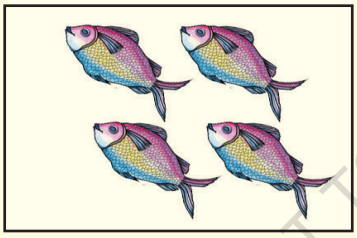
6, ☐	1, ☐	3, ☐	5, ☐
8, ☐	7, ☐	2, ☐	4, ☐

To find the previous number of a given number

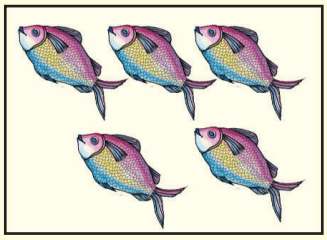


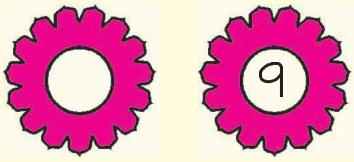
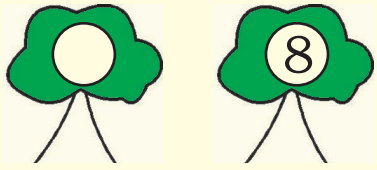


Number before 5 is 4



4 , 5



Number before 9 is ..... 	Number before 8 is ..... 

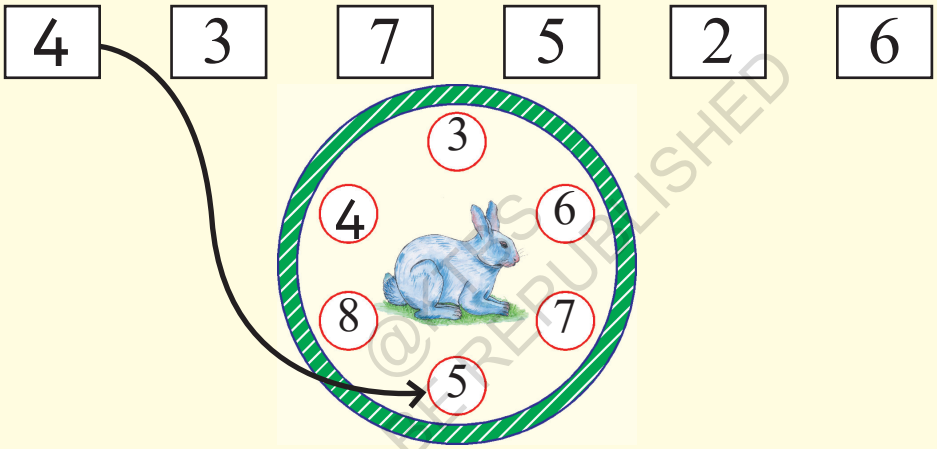
Number before 7 is	Number before 4 is .....
Number before 2 is	Number before 6 is .....

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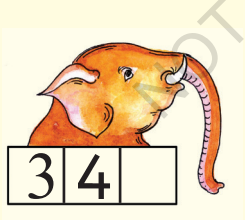
In each number strip, write the before number of the given number in the space provided.

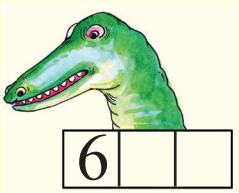
☐ , 4	☐ , 6	☐ , 8
☐ , 5	☐ , 9	☐ , 7

Some numbers are given below. Match each of them with the number that comes after as shown.



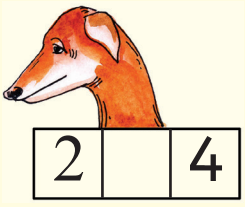
Fill in the missing numbers.













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LESSON-4

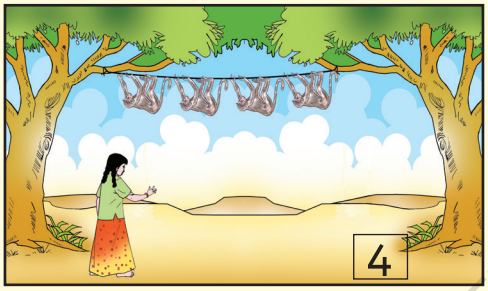
Zero

U3A9U2

After studying this unit, you can

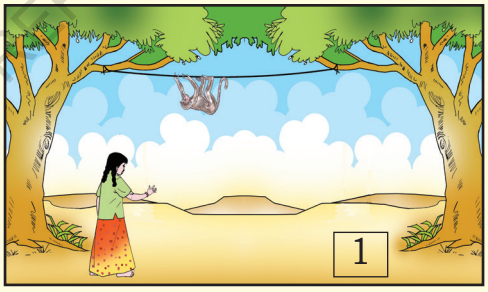
☞ develop the concept of zero.

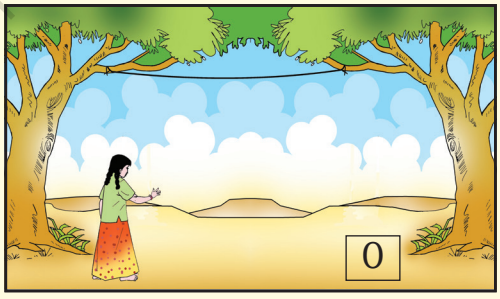
Look at the pictures. Count the number of monkeys dangling from the wire.

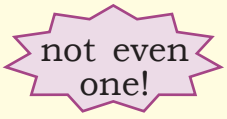








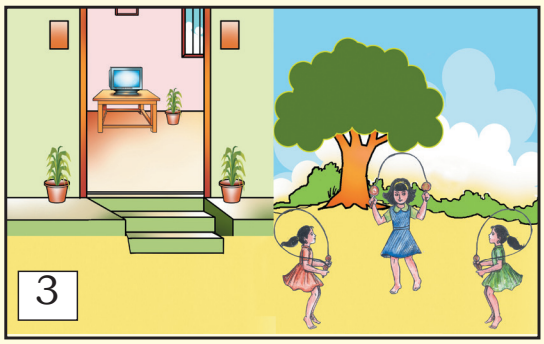




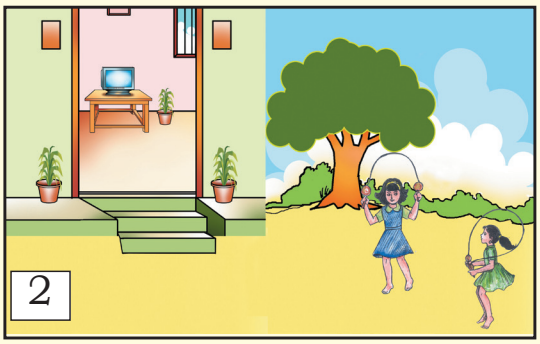
There are no monkeys dangling from the wire so, number of monkeys dangling form the wire is **"Zero"** (0)

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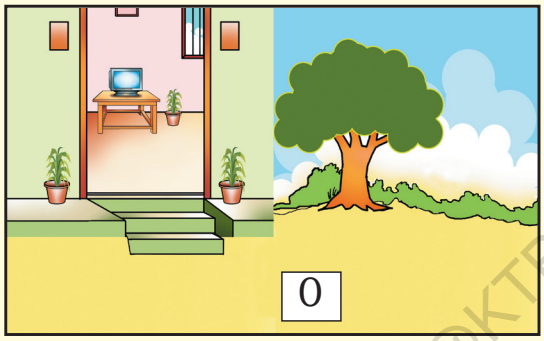
How many children are playing with skipping rope in each picture ?



3



2



0

No one is skipping. So, the number of children skipping the rope is 'ZERO' (0).

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How many fruits are there in each basket ?



5



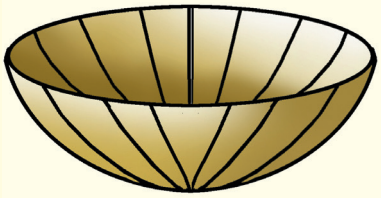
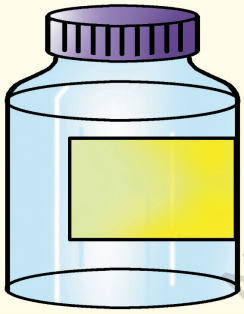
2



0

There are no fruits in the basket. So, number of fruits in the basket is 'Zero' (0).

There is no one ; 'there is nothing' these terms are represented by 'zero'. Zero is written as 'O'.

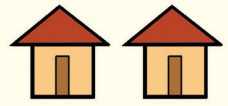
	There are no monkeys dangling from the wire. So, number of monkeys dangling from the wire is ZERO.	
	There are no fruits in the basket. So, number of fruits in the basket is ZERO.	
	There are no chocolates in the jar. So, number of chocolates in the jar is ZERO.	
	There are no flowers in the plant. So, the number of flowers in the plant is ZERO.	

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Trace and write.

0	0	0	0				

Look at the picture. Write the correct number in the given space.

Example 

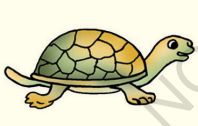
Houses [2]

Trees [0]



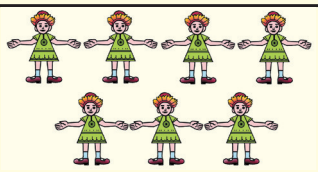
Fruits [ ]

Flowers [ ]



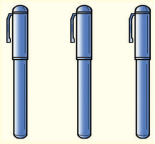
Tortoises [ ]

Birds [ ]



Balls [ ]

Dolls [ ]



Pencils [ ]

Pens [ ]

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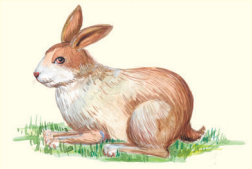
LESSON-5

Addition (sum not more than 9)

After studying this lesson you can

- ☞ add using objects and pictures.
- ☞ identify and use the symbols '+' and '='.

E5F5K1



One rabbit was sitting.

One more rabbit joins
Making them two.
Two rabbits were playing.







One more rabbit joins
Making them three.
Three rabbits are ready
For a party.

One more comes in
Making them four.
Four little rabbits are
Now ready to race.









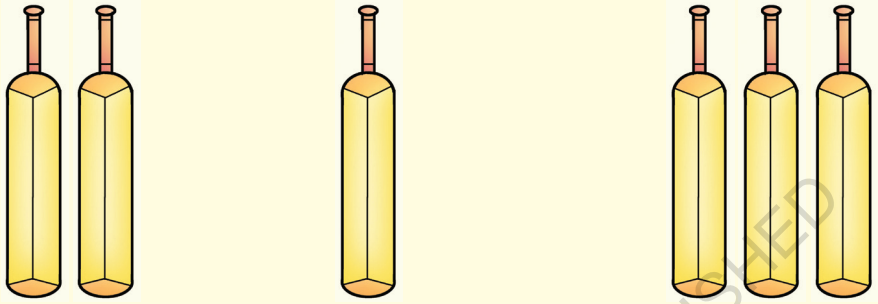
One more enters
Making them five.

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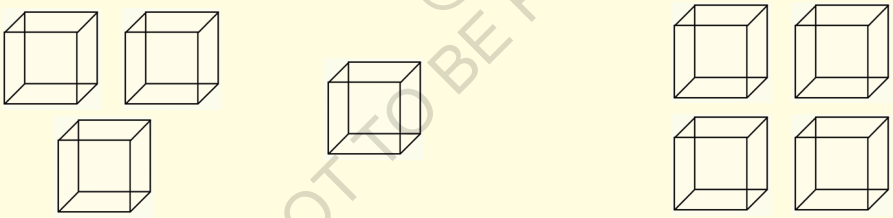
Process of Addition :



1 and 1 make 2



2 and 1 make 3

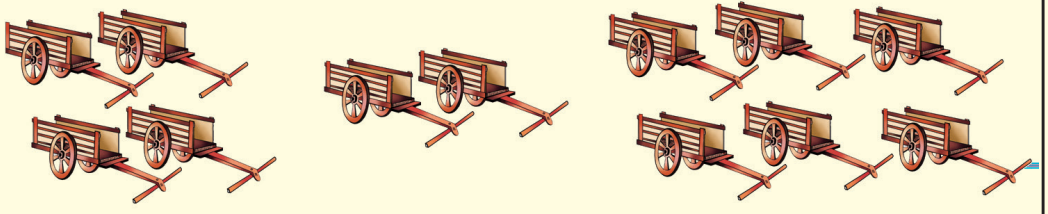


3 and 1 make 4

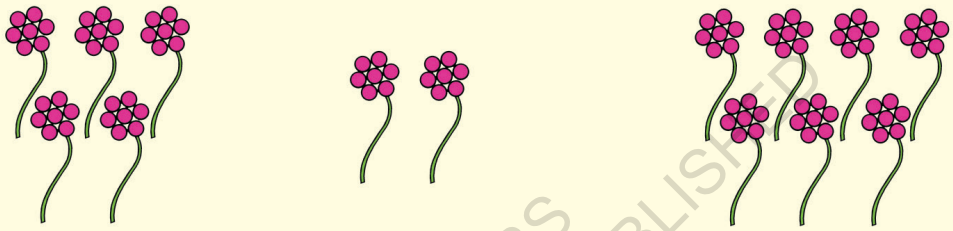


3 and 2 make 5

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4	and	2	make	6
4	and	2	is equal to	6



5	and	2	is equal to	



6	and	3	is equal to	



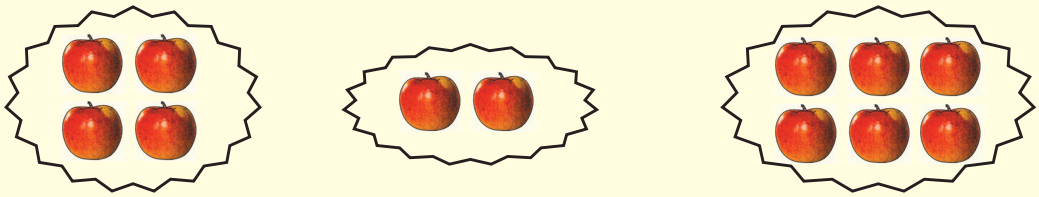
3	and	3	is equal to	

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Sign for 'Addition' and 'Equal'.

Observe the pictures.

How many fruits are there?



4 and 2 make 6

We write this addition as follows.

4 + 2 = 6

Look at the signs.

'+' means '**Add**' Read as '**Plus**'.

'=' means '**is equal to**'.

Say and write (draw).

+	+	+	+	+	+	+	+
+	+	+	+	+	+	+	+

=	=	=	=	=	=	=	=
=	=	=	=	=	=	=	=

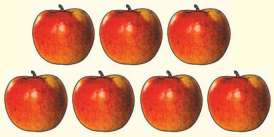
@KTBS NOT TO BE REPUBLISHED

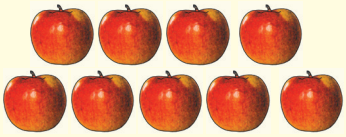
Look at the example. Do as directed. Put ☐ to +, and ◯ to = as shown.

Example : [+] (=)

+	+	=	+	+	=	+	+
=	=	+	=	=	+	=	=

How many altogether ?



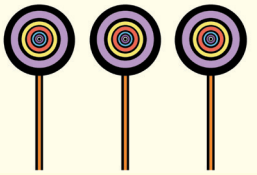


7 + 2 = 9





__ + __ = __





__ + __ = __

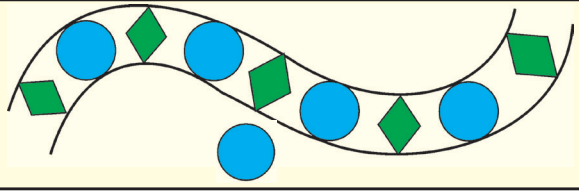




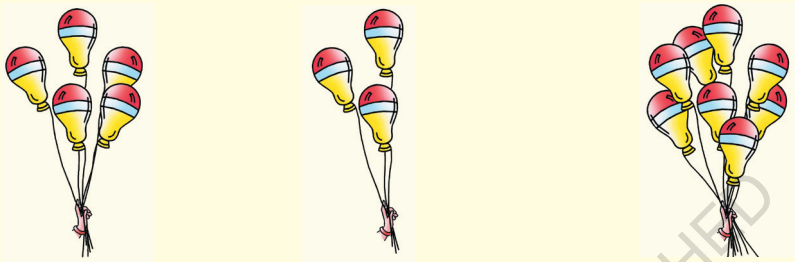
__ + __ = __

@KTBS NOT TO BE REPUBLISHED

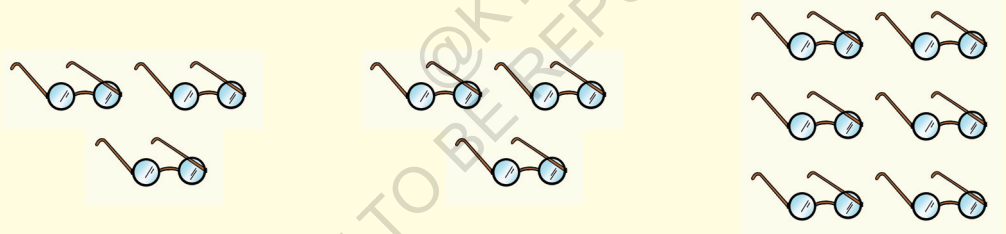
How many altogether ?



□ + □ = □



□ + □ = □



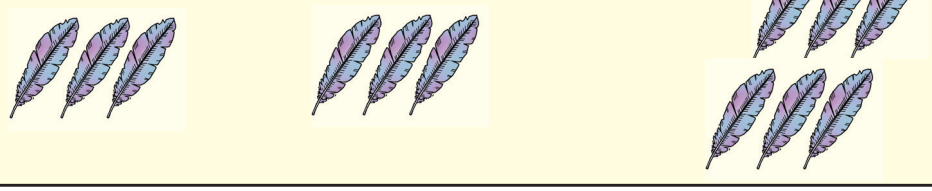
□ + □ = □



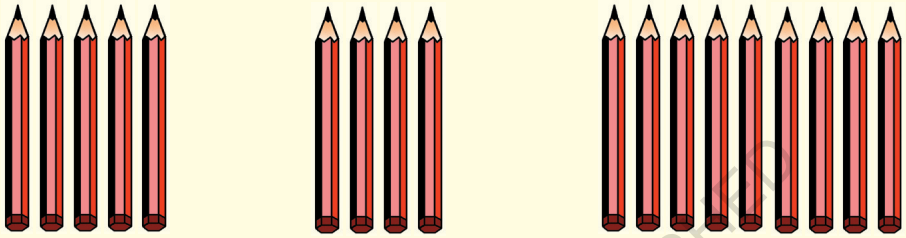
□ + □ = □

© @KTBS NOT TO BE REPUBLISHED

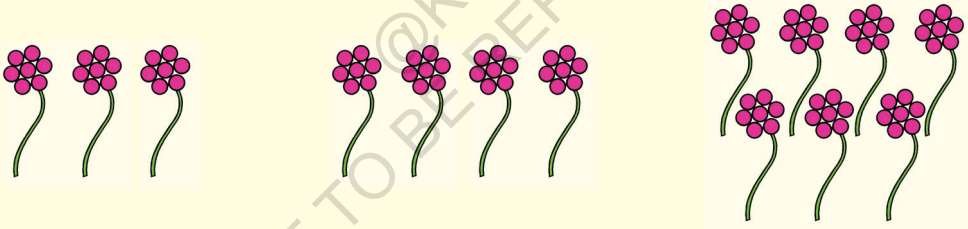
How many altogether ?



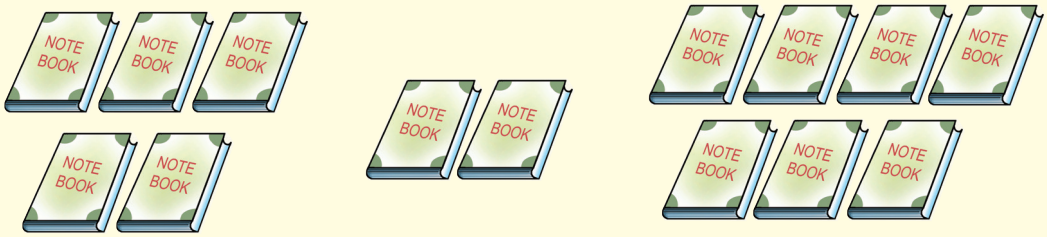
□ + □ = □



□ + □ = □



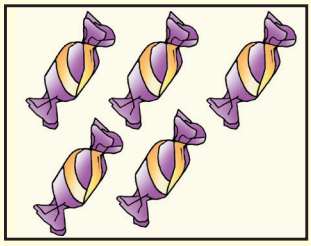
□ + □ = □

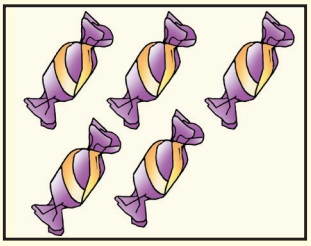


□ + □ = □

@KTBS NOT TO BE REPUBLISHED

How many altogether ?



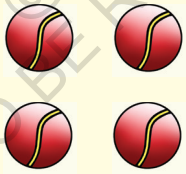


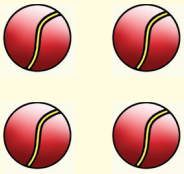
+ =





+ =





+ =

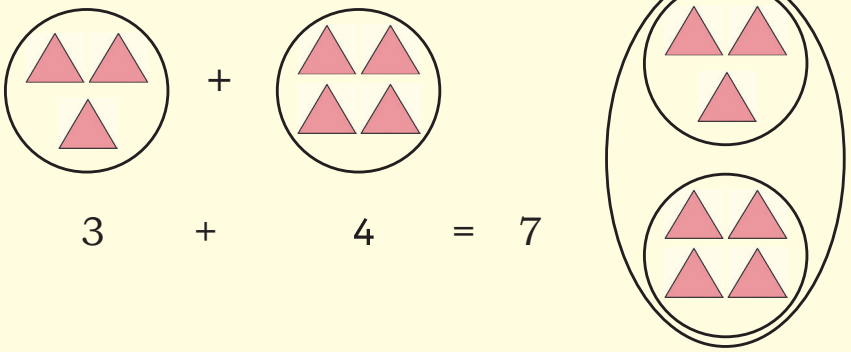




+ =

@KTBS NOT TO BE REPUBLISHED

Addition



3 + 4 = 7

$$\begin{array}{r} 3 \\ +\ 4 \\ \hline 7 \\ \hline \end{array}$$

2 + 1 = ☐

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

2 + 3 = ☐

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

3 + 6 = ☐

$$\begin{array}{r} 3 \\ +\ 6 \\ \hline \\ \hline \end{array}$$

@KTBS NOT TO BE REPUBLISHED

Observe the addition property Complete the remaining.

6 + 1 = 7

1 + 6 = 7

4 + 3 = ☐

3 + 4 = ☐

2 + 5 = ☐

5 + 2 = ☐

4 + 4 = 8

5 + 3 = 8

3 + 5 = ☐

6 + 2 = ☐

2 + 6 = ☐

1 + 7 = ☐

7 + 1 = ☐

Add

4 + 2 = 6

2 + 4 = ☐

1 + ☐ = 6

5 + ☐ = 6

3 + 3 = ☐

0 + 6 = ☐

6 + 0 = ☐

---

4 + 5 = ☐

5 + 4 = ☐

6 + 3 = ☐

3 + ☐ = 9

3 + ☐ = 7

4 + ☐ = 7

4 + 4 = ☐

☐ + 4 = 8

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2 + 6 = ☐

6 + ☐ = 8

☐ + 6 = 7

6 + ☐ = 7

☐ + 3 = 4

☐ + 3 = 6

☐ + 3 = 7

☐ + 3 = 9

4 + ☐ = 5

5 + ☐ = 6

6 + ☐ = 7

7 + ☐ = 7

Add and Match

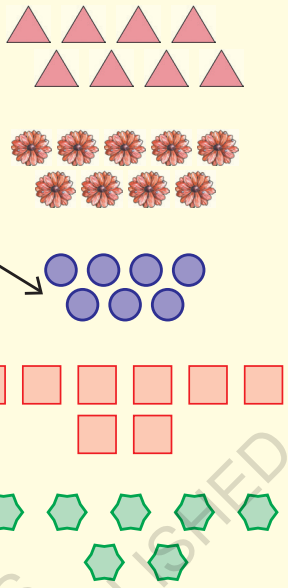
4 + 3

6 + 2

5 + 2

5 + 4

4 + 4



Add

3 + 5 = ☐

2 + 7 = ☐

3 + 3 = ☐

1 + 4 = ☐

2 + 5 = ☐

1 + 5 = ☐

@KEBS
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2 + 7 =	3 + 4 =	4 + 4 =	0 + 7 =
1 + 5 =	6 + 0 =	2 + 2 =	5 + 3 =

LESSON-6

Subtraction

E7I7Y7

After studying this unit, you can

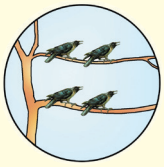
- ☞ subtract using objects and pictures
- ☞ identify and use the symbol '–'

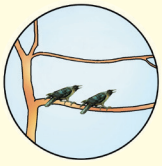
Look at the following :



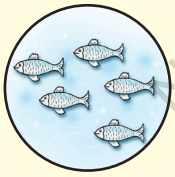
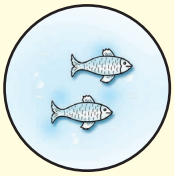
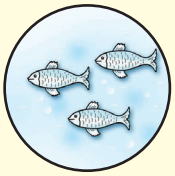


From 2 Takeaway 1 Left 1

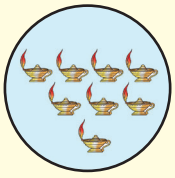


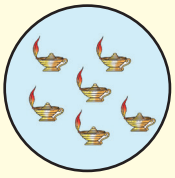


From 4 Takeaway 2 Left 2

From 5 Takeaway 2 Left 3





From 8 Takeaway 2 Left

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Sign for 'Subtraction'

Observe the pictures :

Out of 4 balloons, one bursts. How many are left ?





From 4 takeaway 1 then 3 left

We write this subtraction as follows.

4 - 1 = 3

Observe the sign '—'

'—' means **'Subtract'** - Read as **'minus'** and we already know **'='** means **'is equal to'**

Say and Write :

—	....	....	....	....	....	....	....
—	....	....	....	....	....	....	....

@KTBS NOT TO BE REPUBLISHED

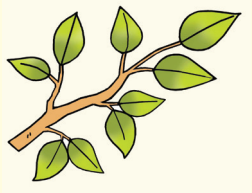
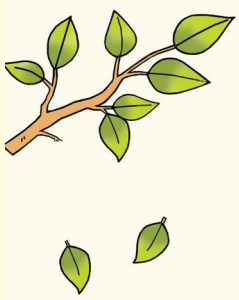
Put □ for +, '△' for = and ◯ for —

Example : 

\+ — = + — — + — — =

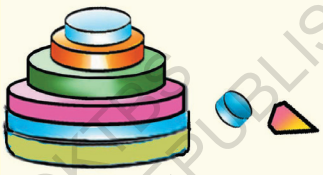
= + — + = — — + — +

Look at the following :

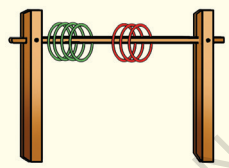



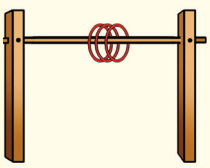

☐ Takeaway 2 is equal to ☐

☐ – 2 is equal to ☐

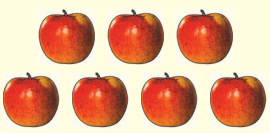
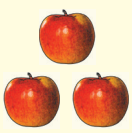
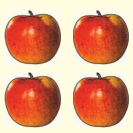




8 – ☐ = ☐





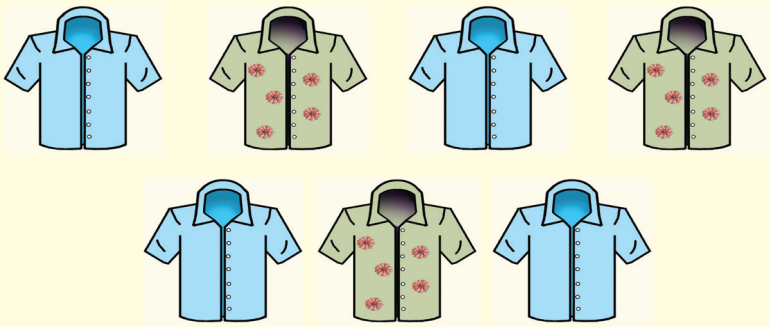
☐ – ☐ = ☐

☐ – ☐ = ☐

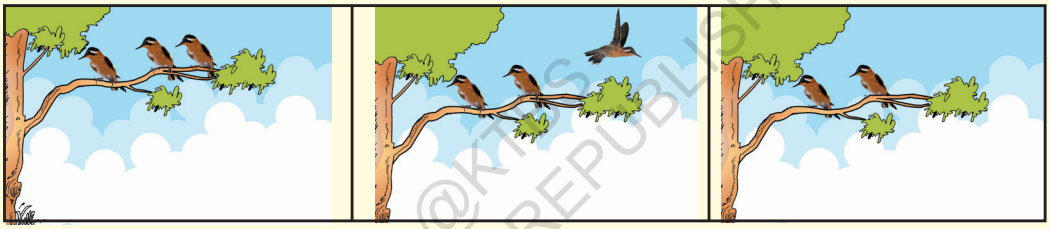
@KTBS NOT TO BE REPUBLISHED

How many shirts are there ? Take away shirts with flower prints on them. How many left ?



☐ – ☐ = ☐

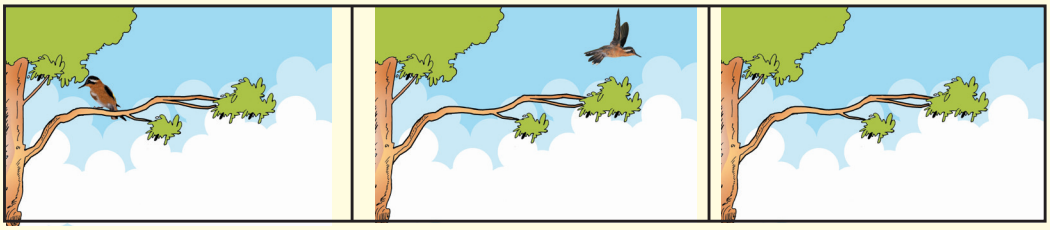
How many left ?



3 – 1 = 2



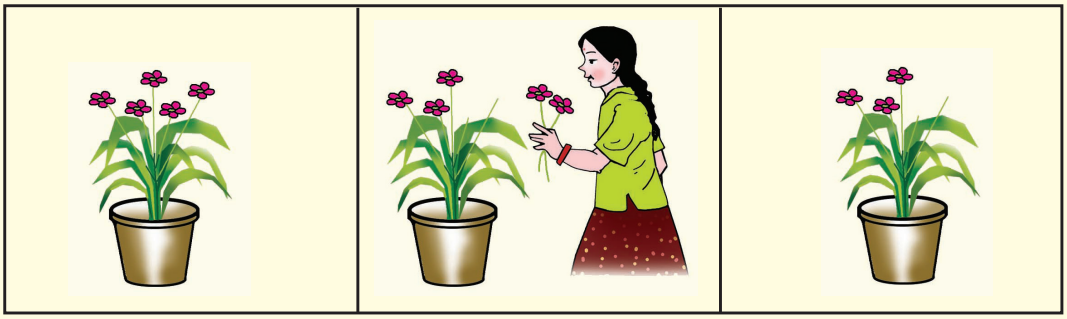
2 – 1 = 1



1 – 1 = 0

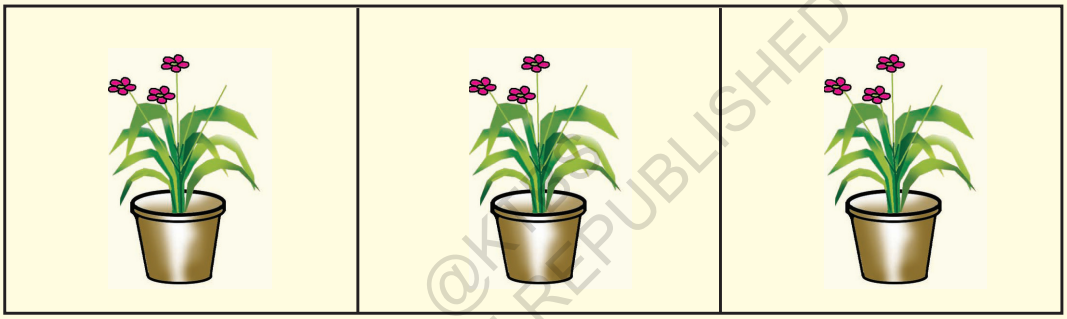
@KTBS NOT TO BE REPUBLISHED

Subtract



5 – 2 = 3

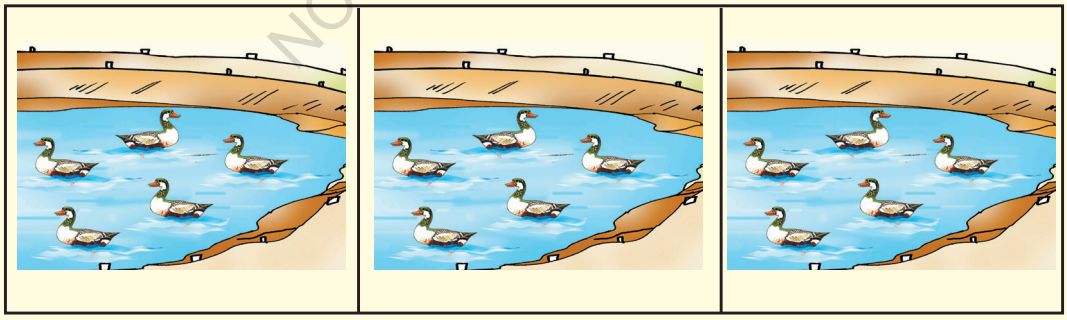
Out of 5 flowers, 2 are taken, 5 - 2 = 3.



3 – 0 = 3

There are 3 flowers, no body takes it, 3 – 0 = 3.

@KSCERT NOT TO BE REPUBLISHED

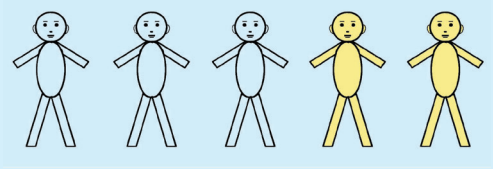


5 – 0 = 5

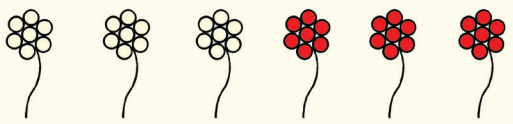
5 Ducks floating. No duck moves away, 5 – 0 = 5.

Take away the coloured objects.

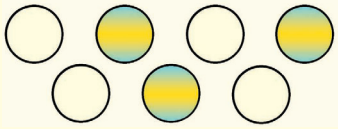
Example :



5 − 2 = 3



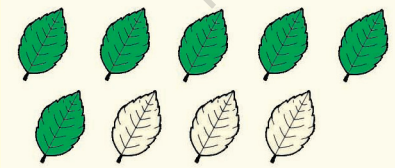
6 − ☐ = ☐



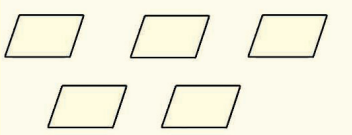
7 − ☐ = ☐



8 − ☐ = ☐



☐ − ☐ = ☐



☐ − ☐ = ☐

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Subtract

3 - 1 = ☐

7 - 1 = ☐

6 - 4 = ☐

8 - 8 = ☐

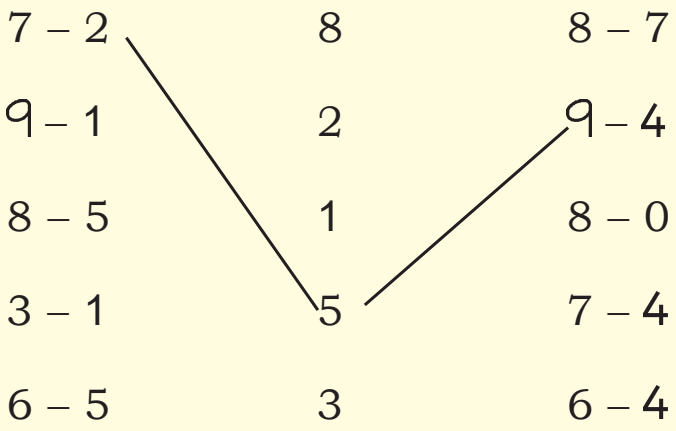
7 - 0 = ☐

Subtract

@KTBS NOT TO BE REPUBLISHED

6 - 1 =	5 - 2 =	6 - 3 =	4 - 0 =
7 - 1 =	6 - 6 =	9 - 4 =	8 - 3 =
3 - 3 =	5 - 4 =	6 - 0 =	9 - 1 =

Subtract and match as shown.



Write the suitable number in the blanks.

8	–	2	=		
3	–	1	=		
7	–		=	5	
9	–	6	=		
	–	2	=	4	
	–	0	=	8	
	–	3	=	0	
	–	5	=	2	

@KTBS NOT TO BE REPUBLISHED

LESSON-7

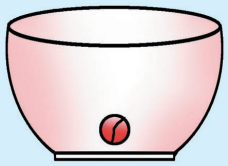
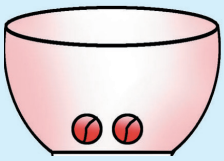
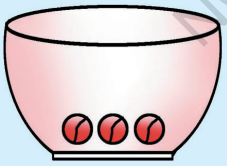
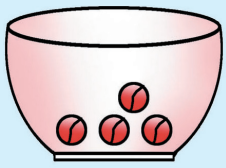
Number 10

M2Q1Q9

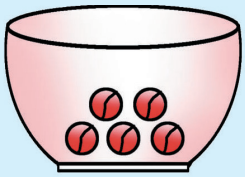
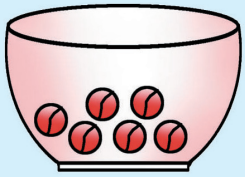
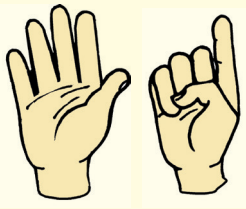
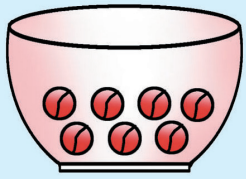
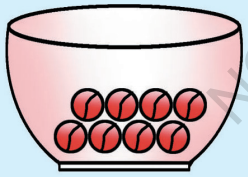
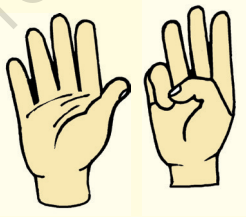
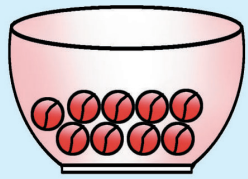
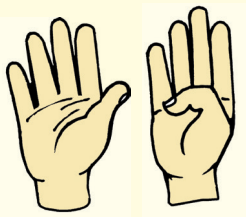
After studying this unit, you can

- identify and write the number 10.
- count the objects using numbers.

Follow the instruction :-

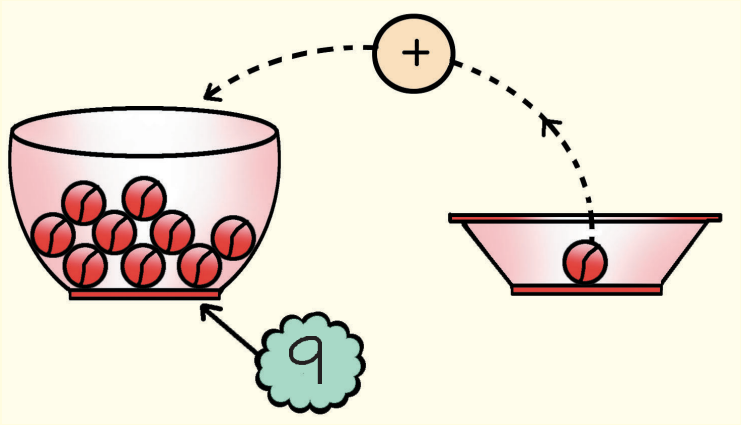
Count the marbles in the bowl.	Show your fingers and say the number	Write the number
		1
		
		
		

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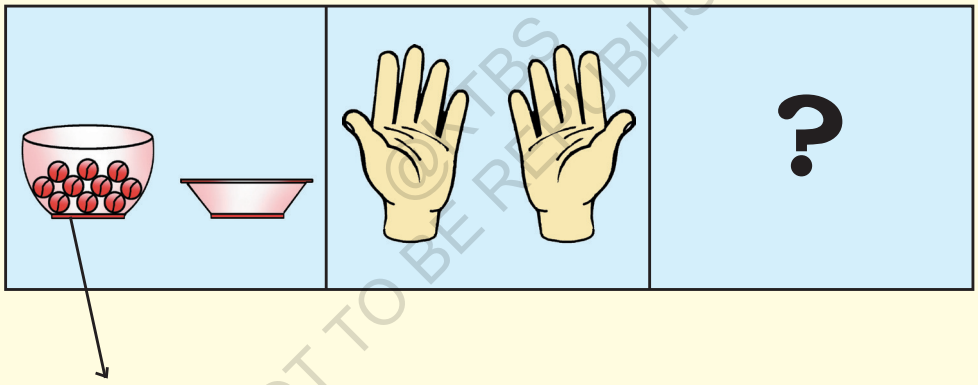
		
		
		
		
		

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Put one more marble into the bowl.



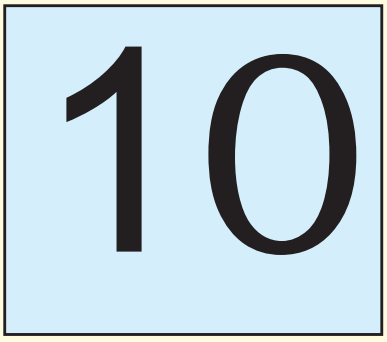
How many marbles do, 9 marbles and 1 more make ?



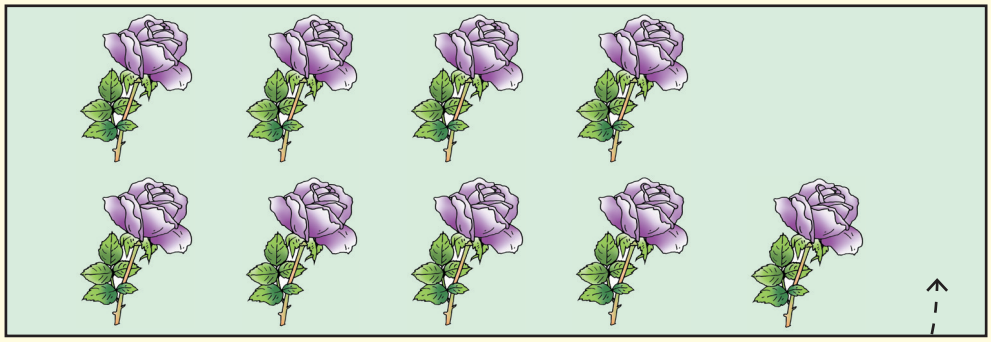
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There are TEN marbles.

TEN is written as



Count the roses in the tray and write the number in the box.

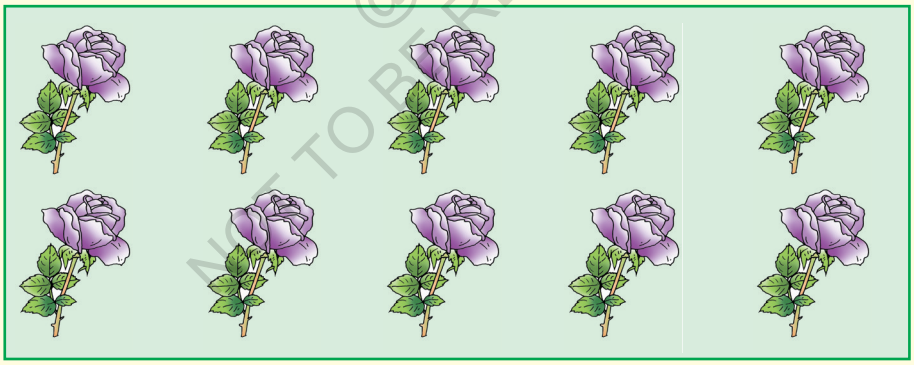


There are ☐ roses.

Put one more rose into the tray.



Now, count the roses in the tray.



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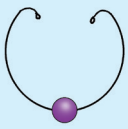
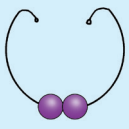
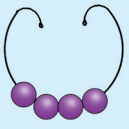
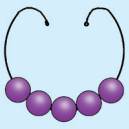
There are **TEN** roses.

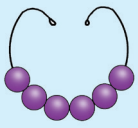
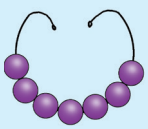
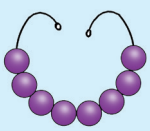
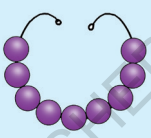
TEN is a number.
The next number of 9 is 10.

TEN is written as

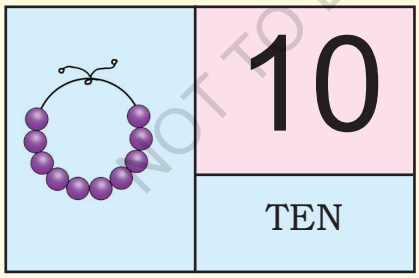
10

Count the beads in each necklace and write the missing numbers.

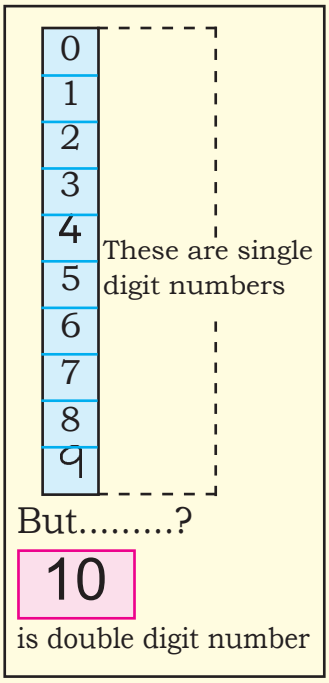
				
1		3		5
ONE	TWO	THREE	FOUR	FIVE

				**What is the next number?**
	7		9	
SIX	SEVEN	EIGHT	NINE	

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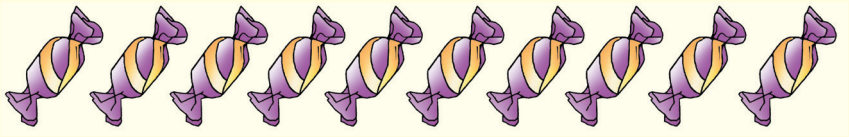


- The numeral (symbol) for number TEN is 10.
- There are two digits in the number 10.
- They are 0 and 1.
- 10 is a two digit number.



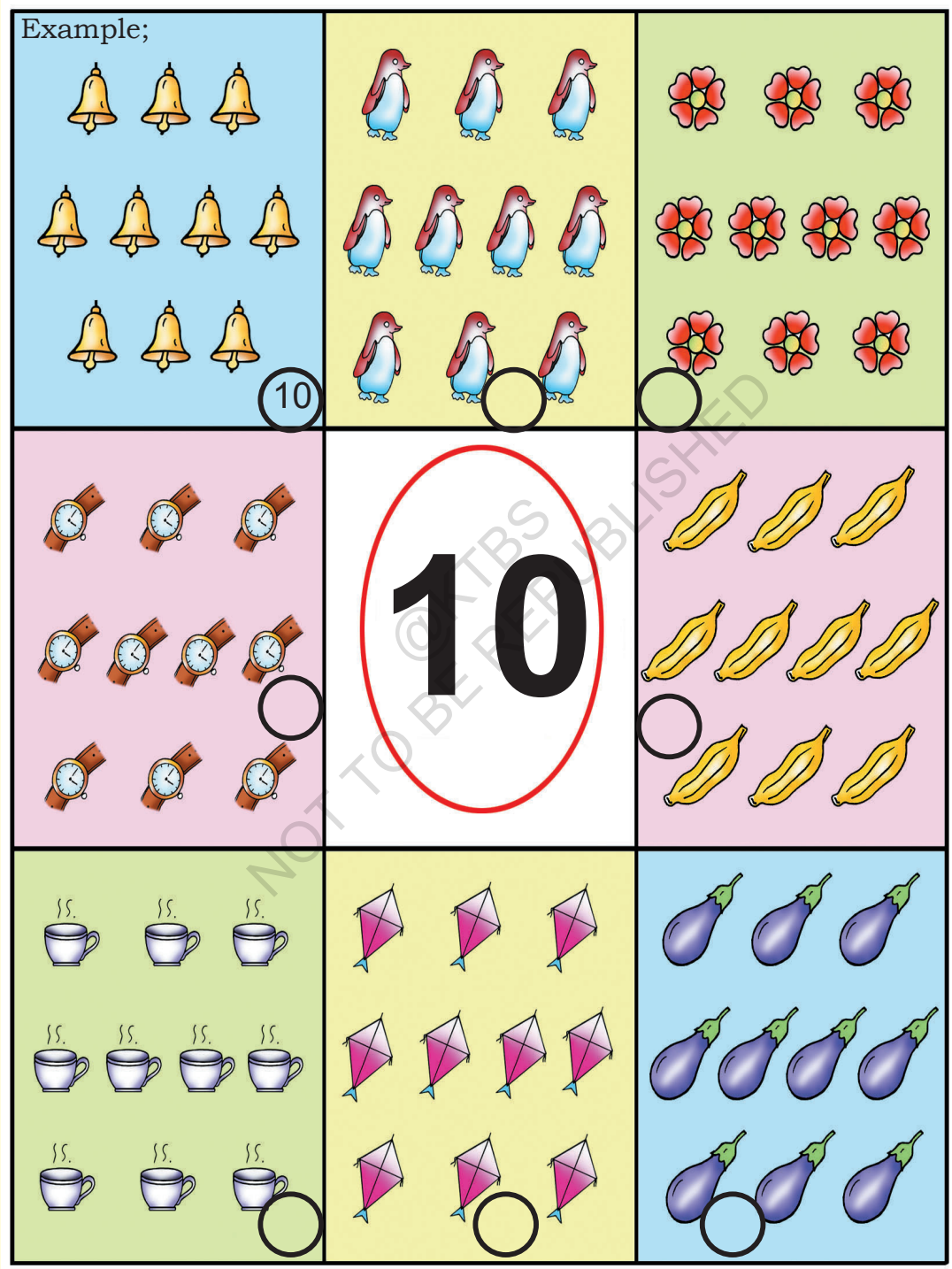
Practise yourself :

Write the number 10 in the given boxes.

10								
10	10	10	10					

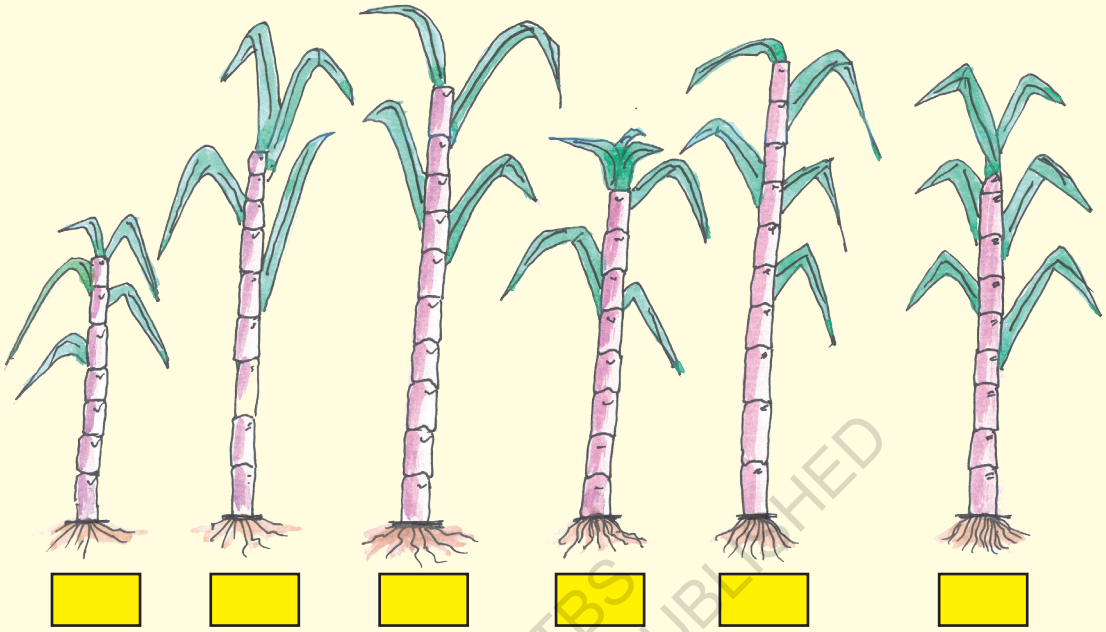
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Count the objects in each box and write the number in the given space.

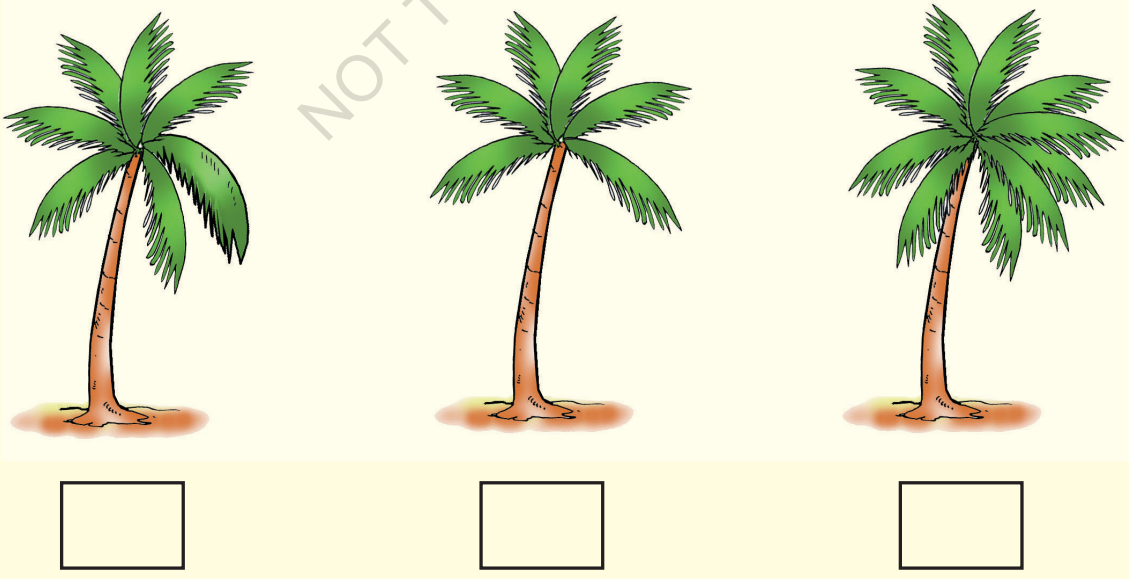


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Put (✓) mark for the sugarcane which has TEN parts. Put (✱) mark for the sugarcane which does not have TEN parts.



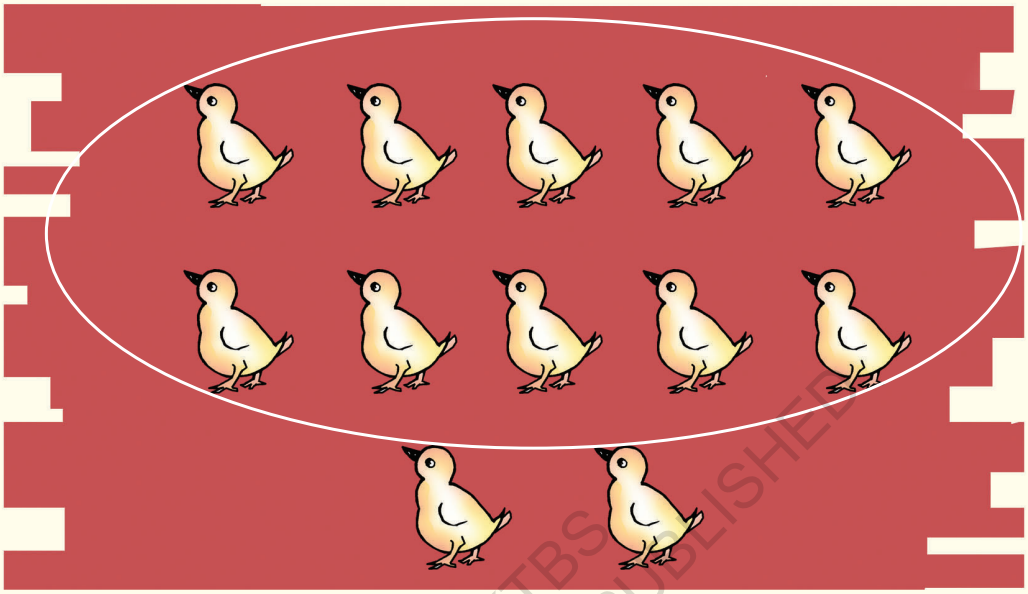
Put (✓) for the coconut tree which has TEN leaves. Put (✱) for the coconut tree which does not have TEN leaves.

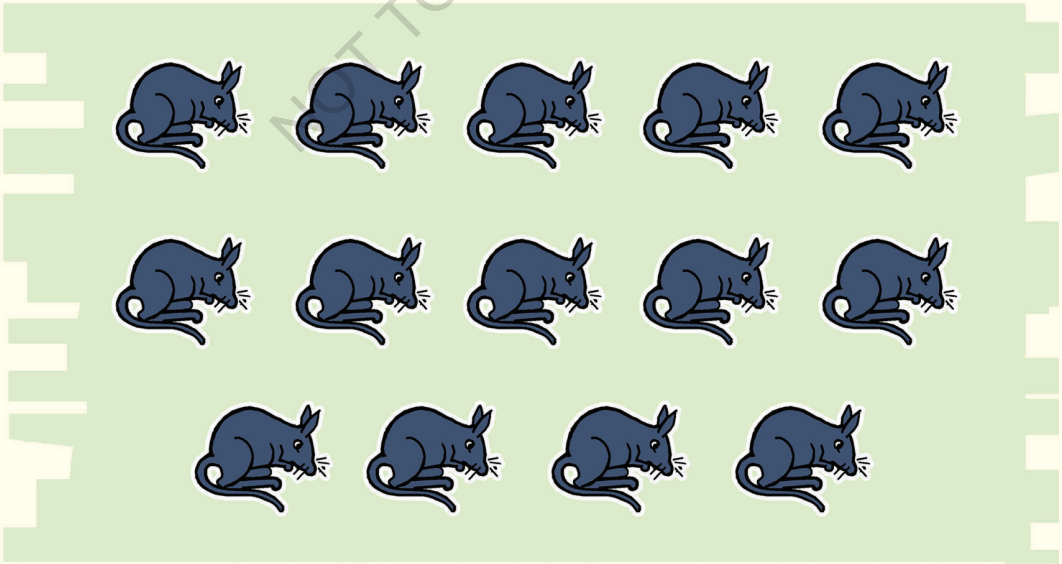


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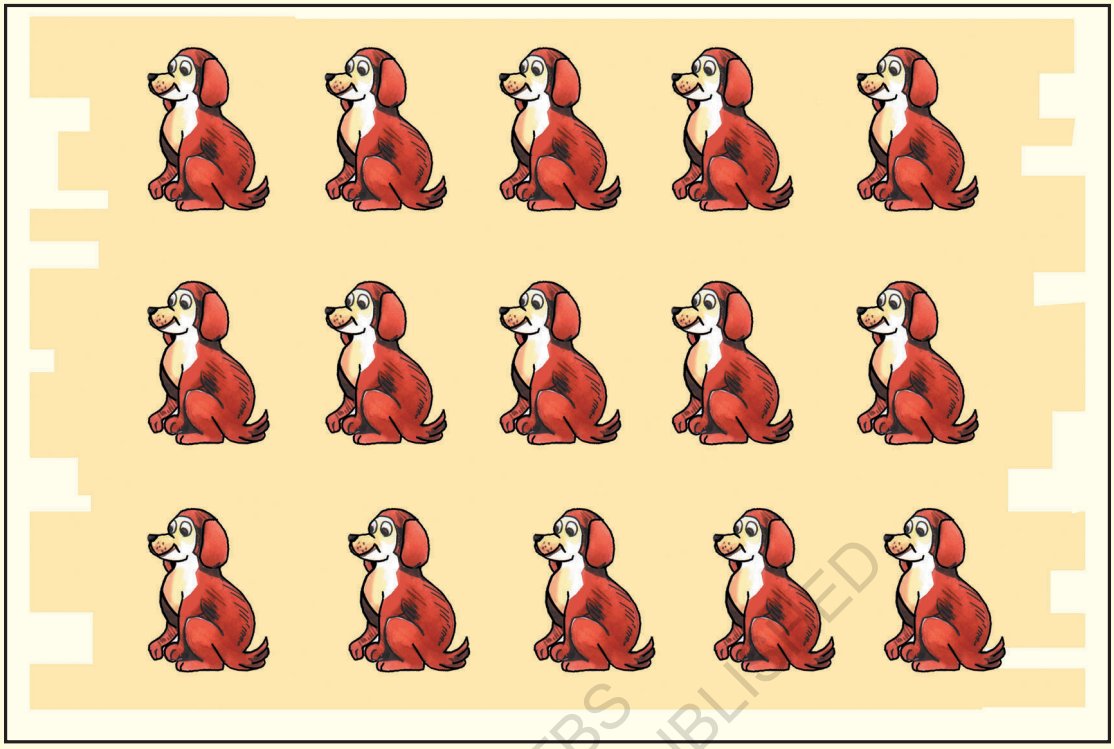
Count and circle around 10 objects as shown.

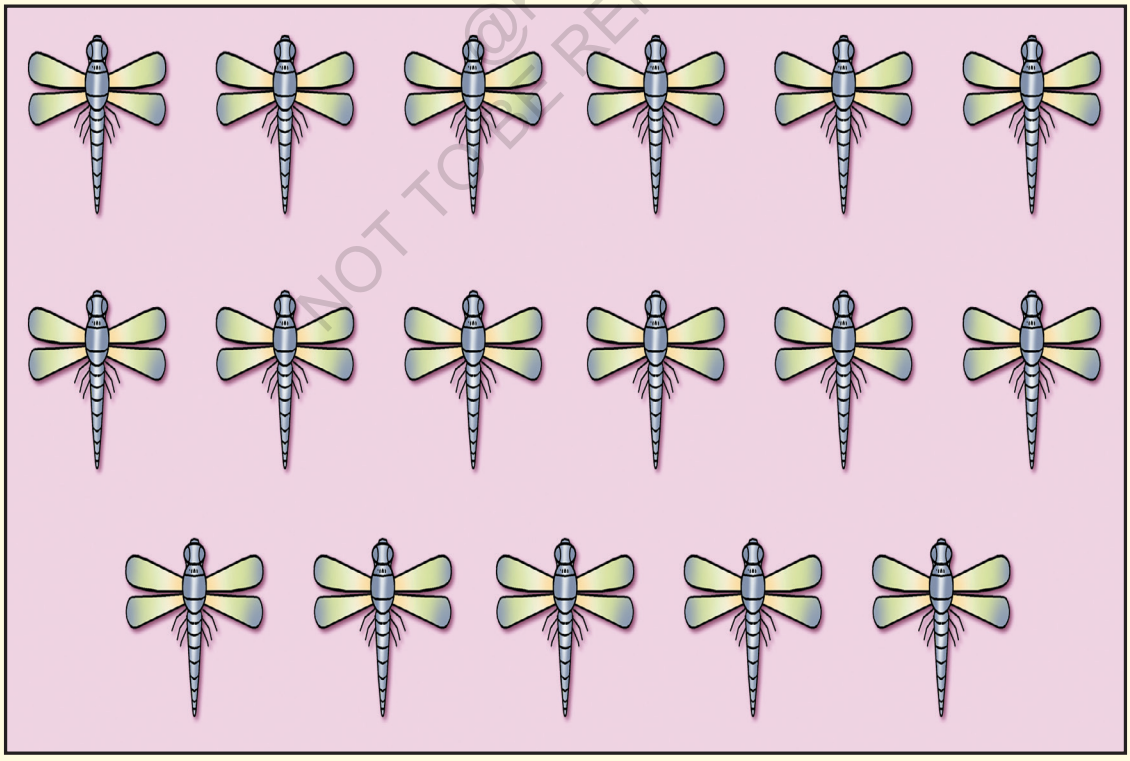
Model :





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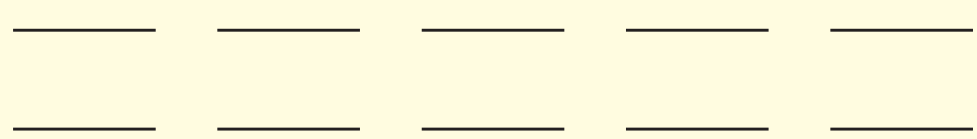


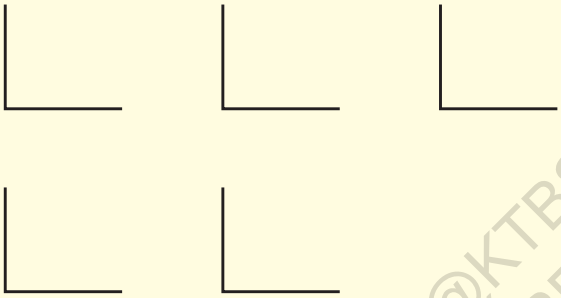


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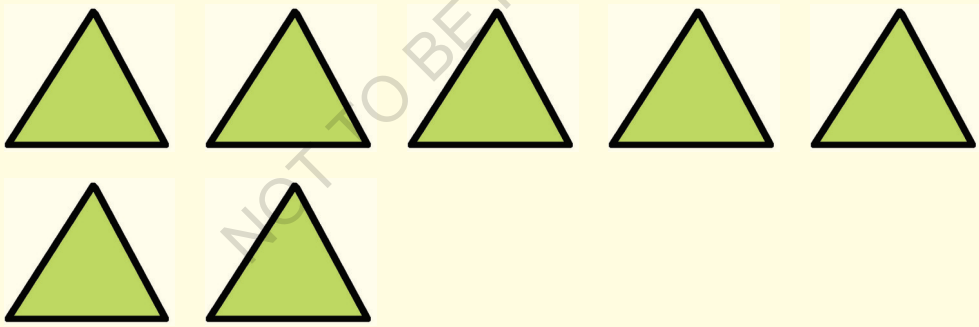
Draw similar figure or figures to make them TEN figures in each box.

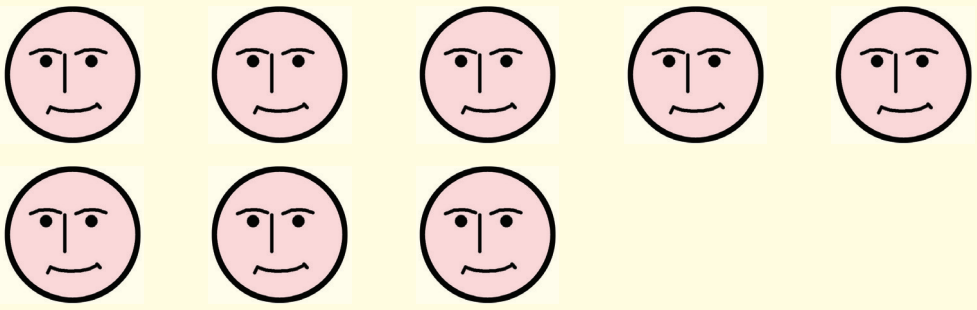
Model :



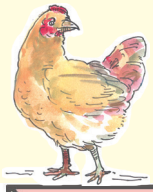


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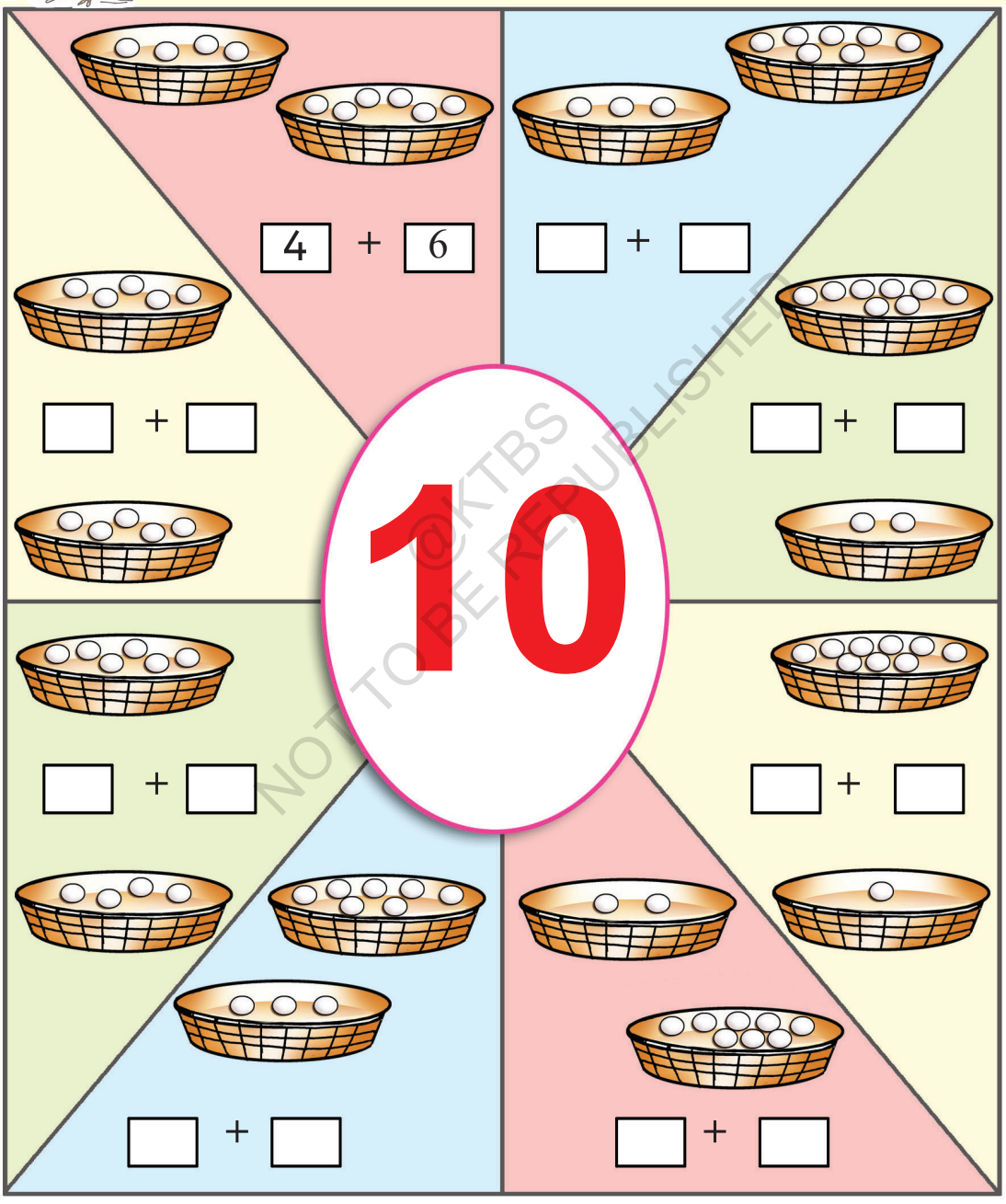




"TEN in many ways"

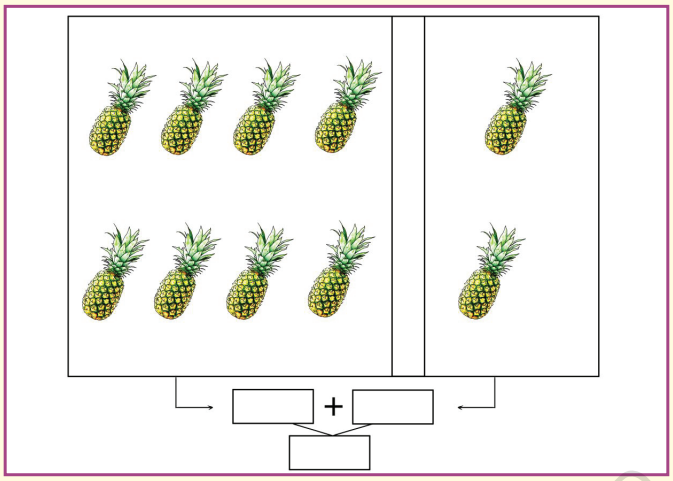


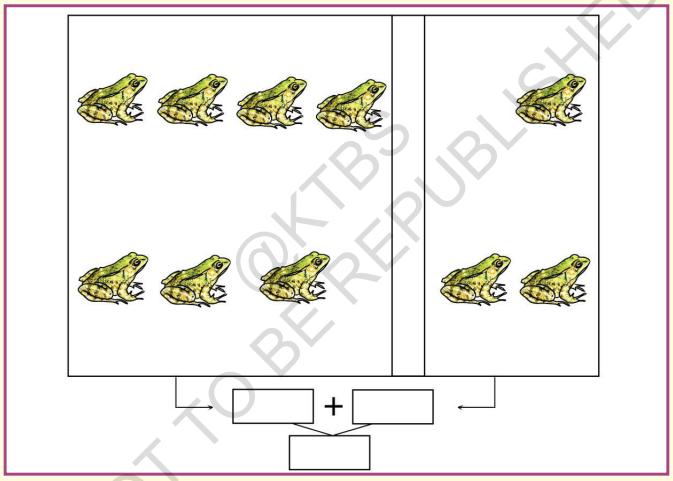
Can you count my eggs ?

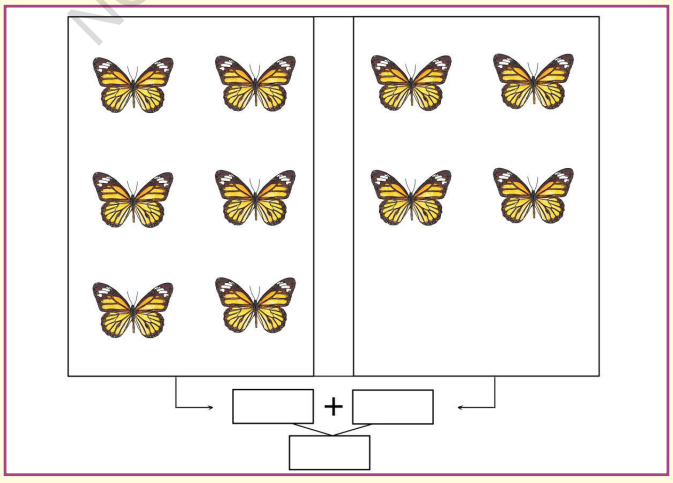


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Count the objects in the two groups. Write the numbers.







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LESSON-8

Units and Tens

H7G3A4

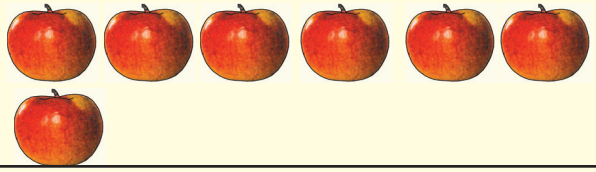
After studying this unit, you can

- ☞ form groups of tens and units in a collection.
- ☞ use the terms - tens and units.
- ☞ represent groups of tens and units through pictures.

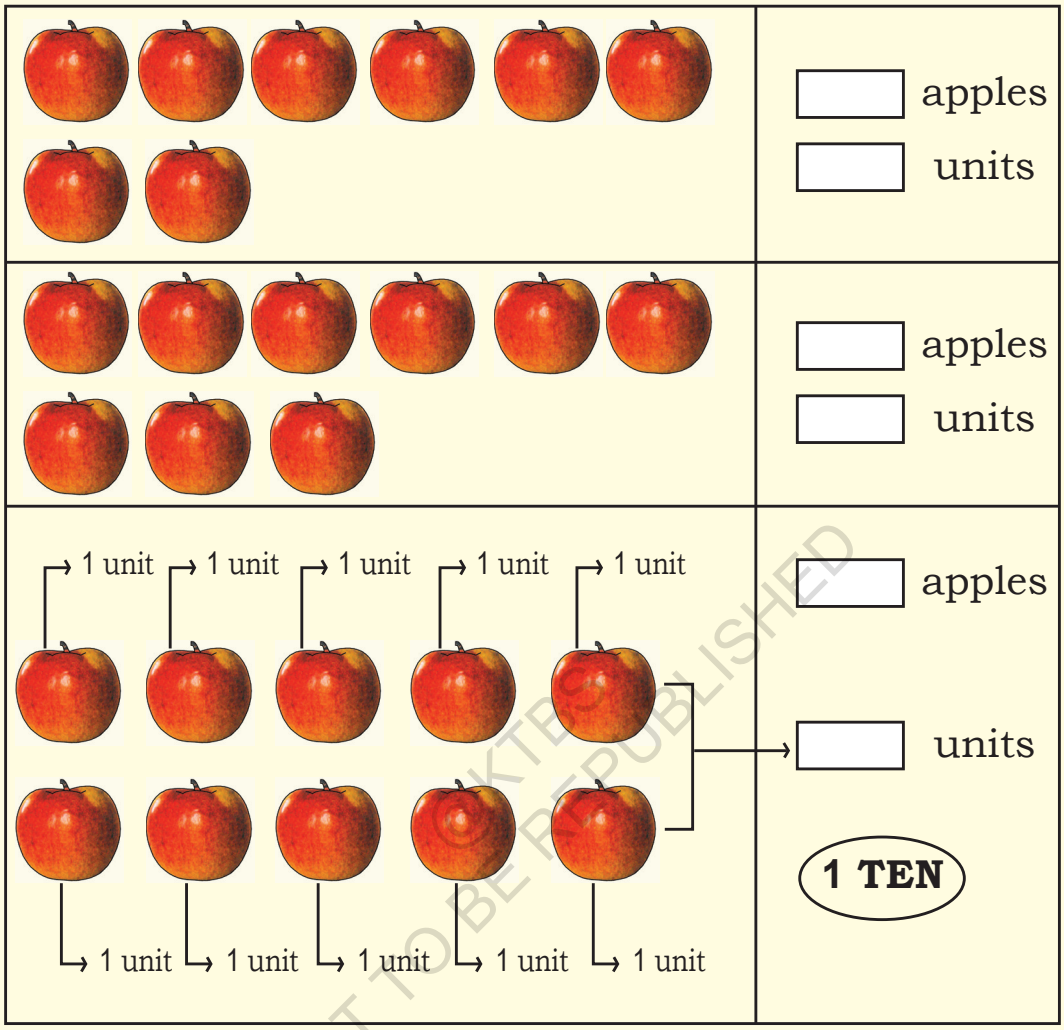
Count the apples. Write the number of apples in the box.

Each apple is a unit

Write the number of Units in the given box.

	1 1	apple unit
		apples units
		apples units
		apples units
		apples units
		apples units
		apples units

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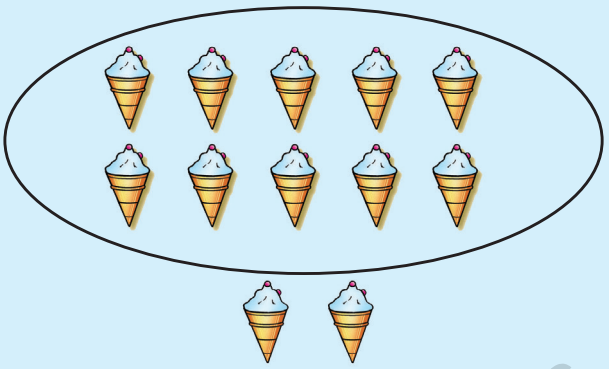
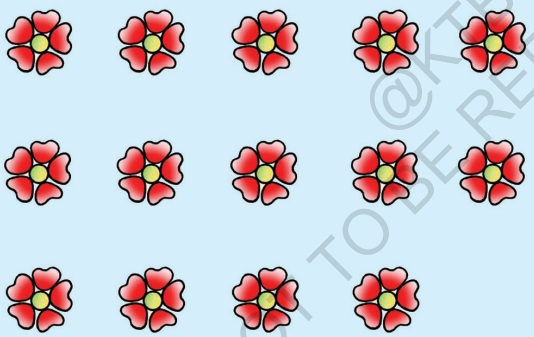
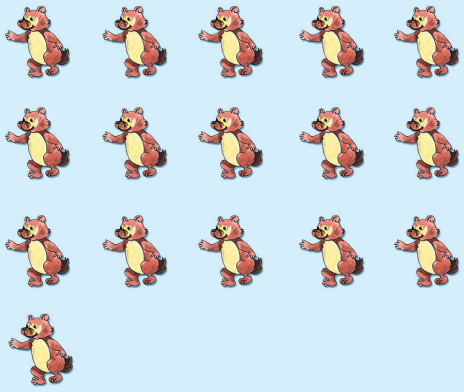
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-: NOTE :-

Every object you count is ONE UNIT.

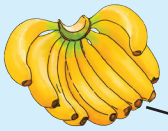
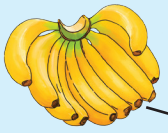
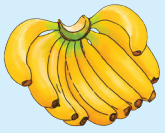
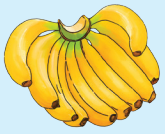
10 units make a group of 1 ten.

Count and circle TEN objects. Write the number of round up objects and the remaining objects as shown.

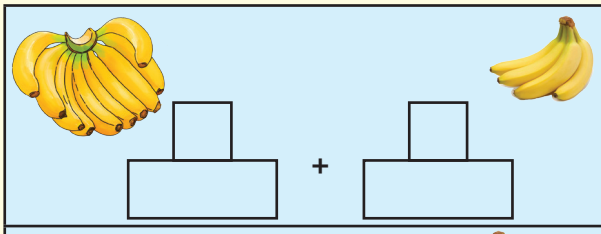
Objects	round up objects	remaining objects
Example : 	10	2
		
		

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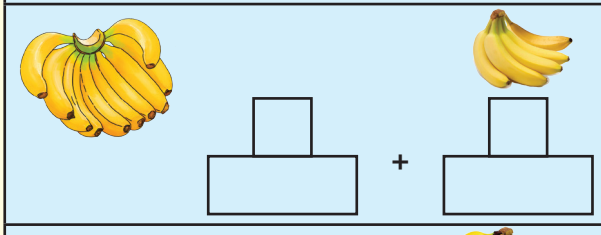


Count the Bananas	Write the number of Bananas.		
	TENS	UNITS	NUMBER
  10 (1 TEN) + 0 (0 UNIT)	1	0	10
  10 (1 TEN) + 1 (1 UNIT)	1	1	11
  +			12
  +			13

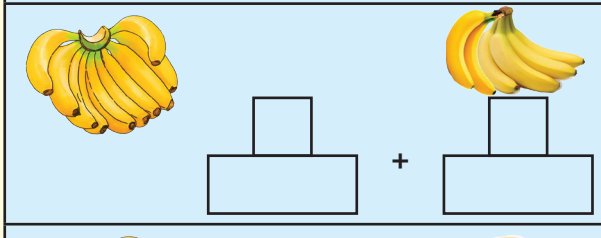
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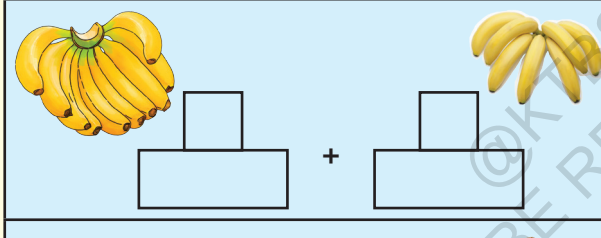
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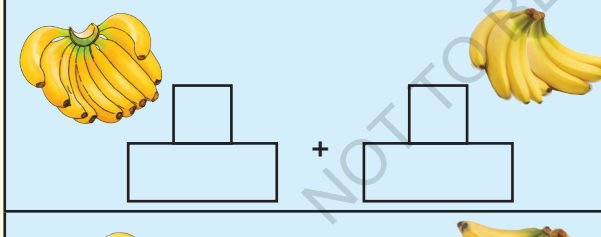
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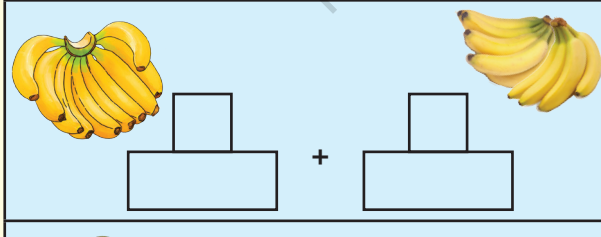
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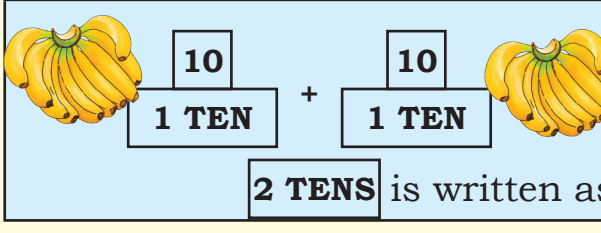
17



18



19



2 TENS is written as

20

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LESSON-9

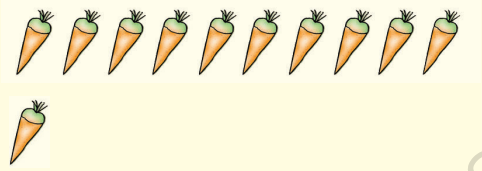
Numbers - 11 to 20

F2B1Z7

After studying this unit, you can

- write the numbers from 11 to 20.
- identify and write before, after and between numbers (upto 20).

Count the objects and write the numbers.

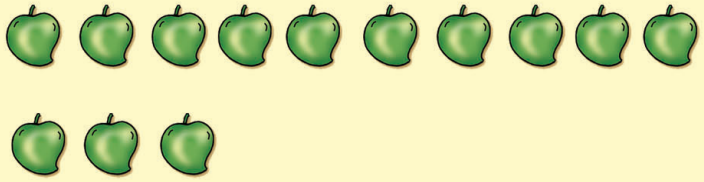


11	11	11					

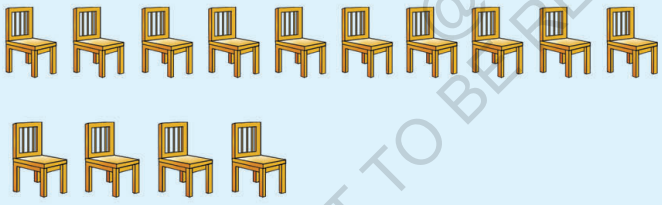


12	12	12					

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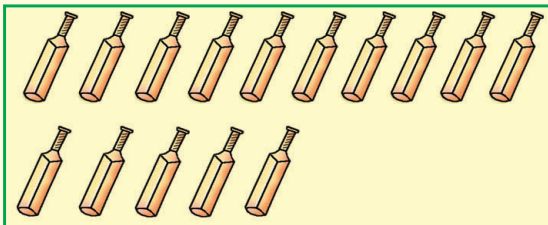


13	13	13						



14	14	14						

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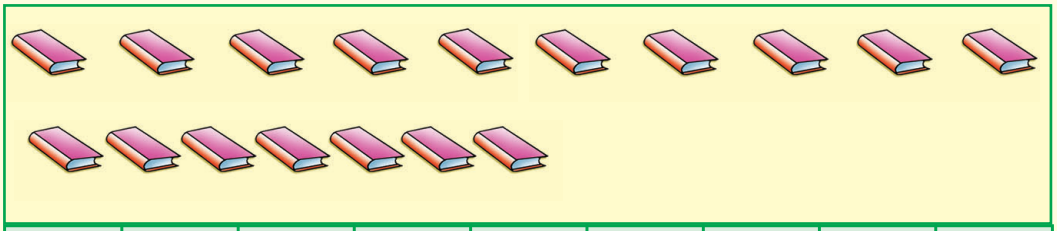


15	15	15						



16	16	16						

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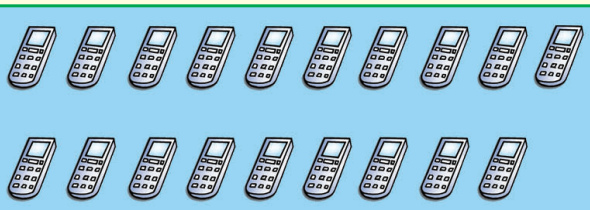


17	17	17						



18	18	18						

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19	19	19						



20	20	20						

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Read and write the numbers in the boxes.

11	11							
12	12							
13	13							
14	14							
15	15							
16	16							
17	17							
18	18							
19	19							
20	20							

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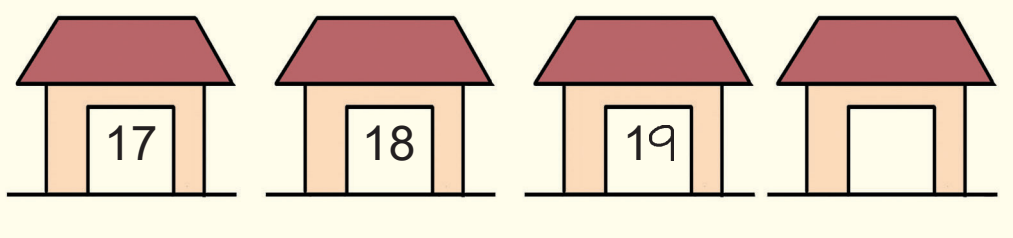
Look at the picture and write the missing numbers.

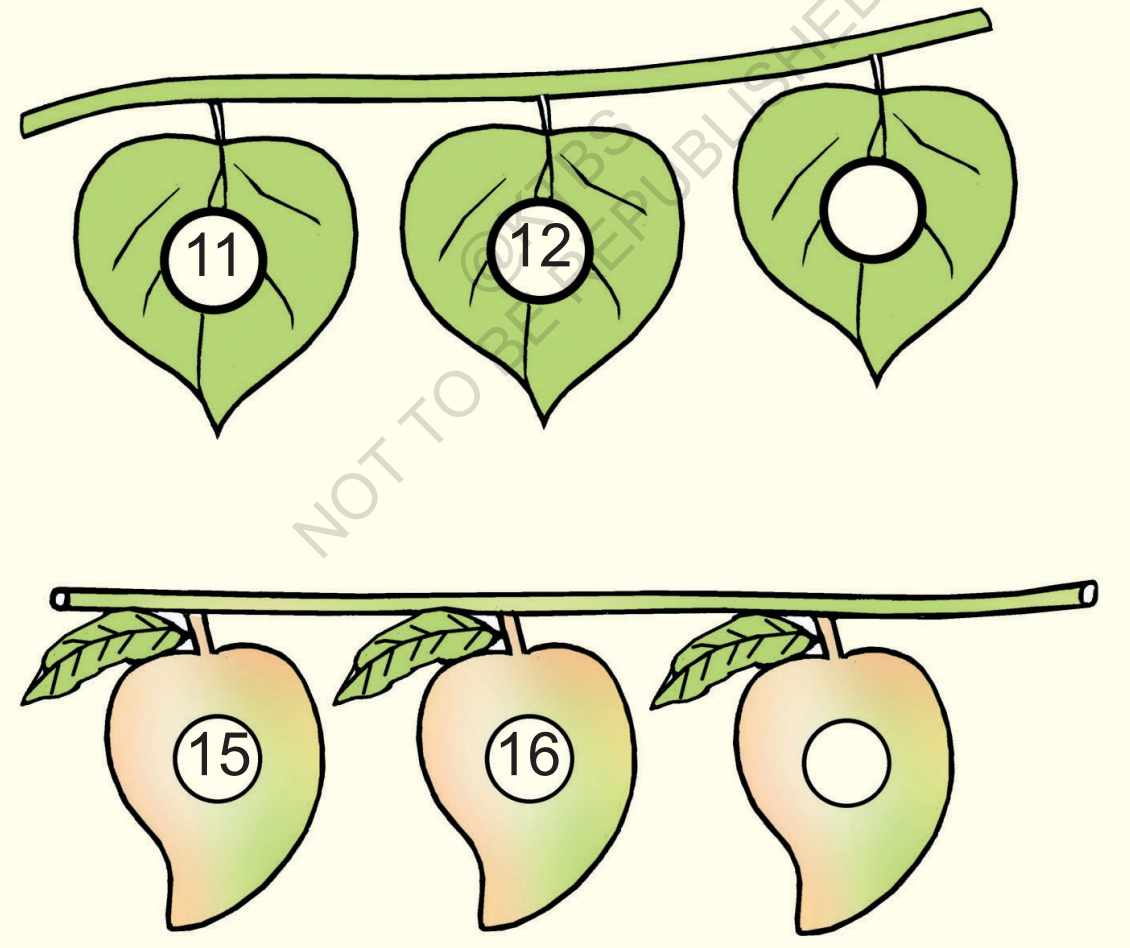


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After, Before and In-between number.

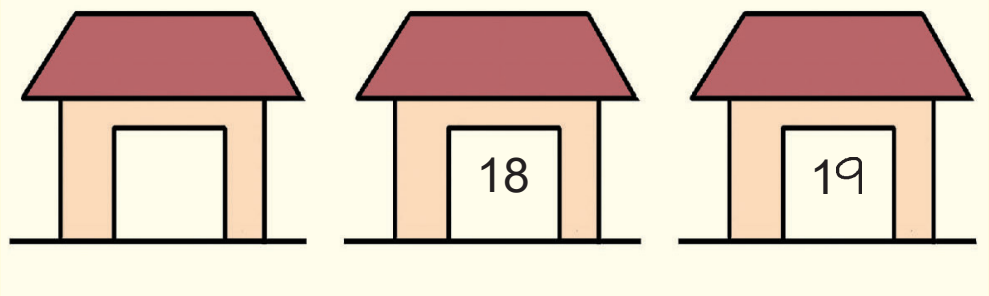
Write the number which comes after.

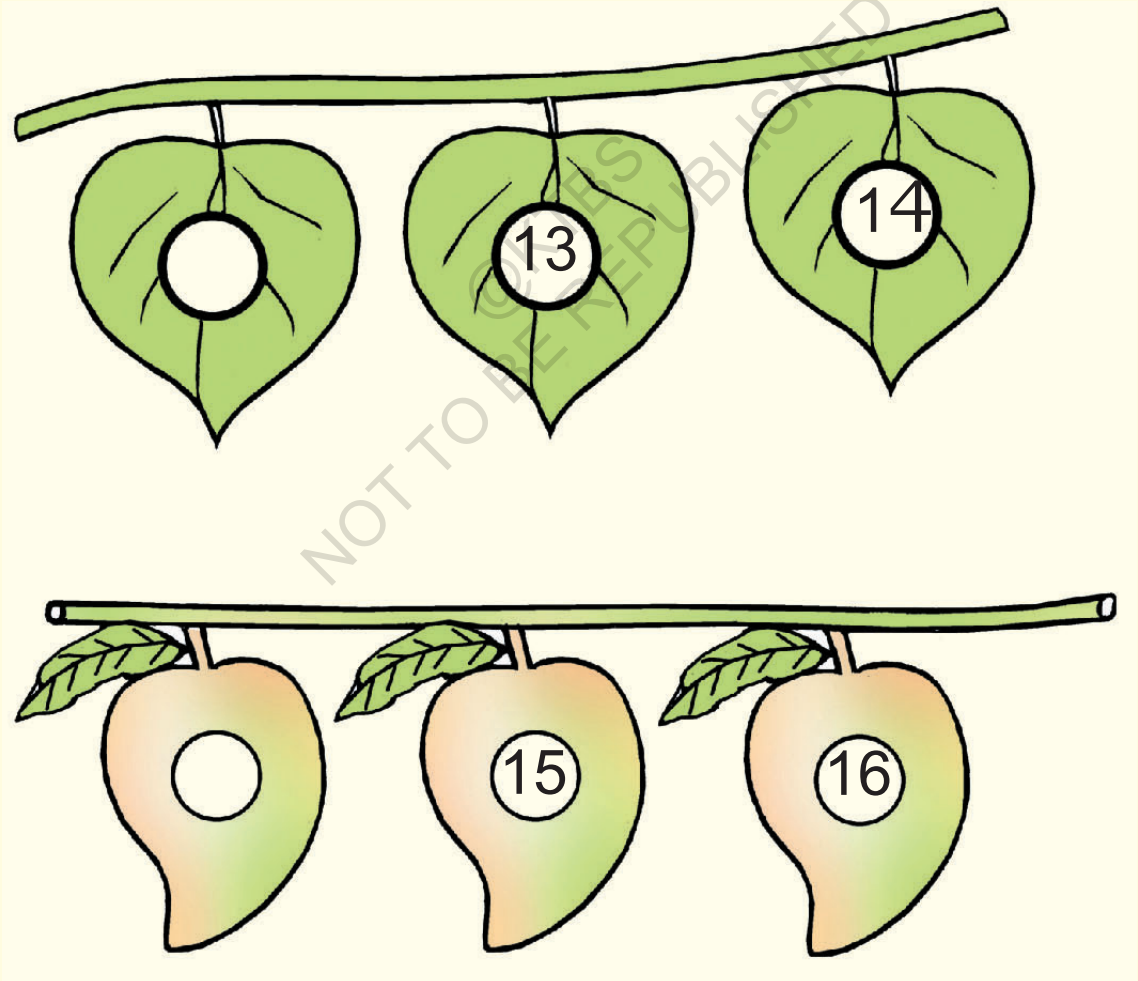




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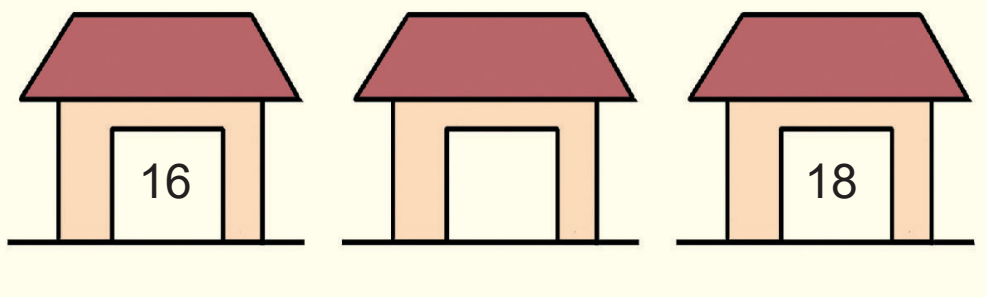
Write the number which comes before.

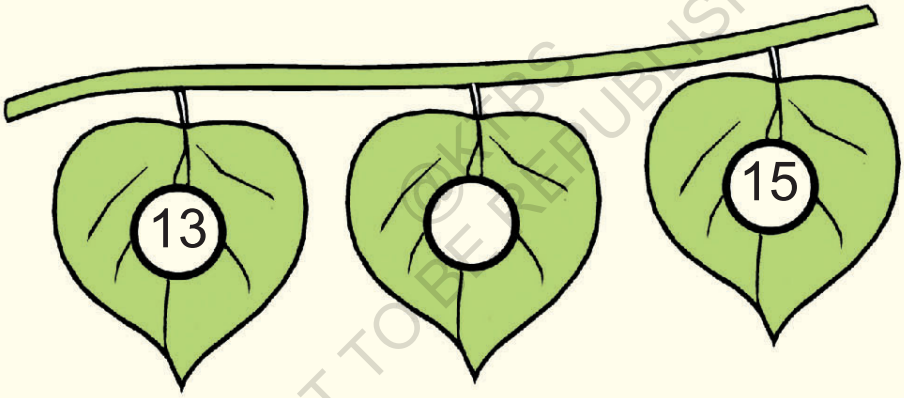


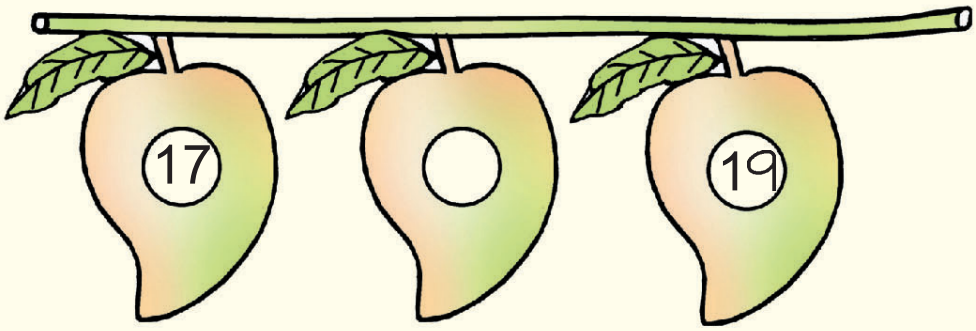


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Write the number which comes in between.

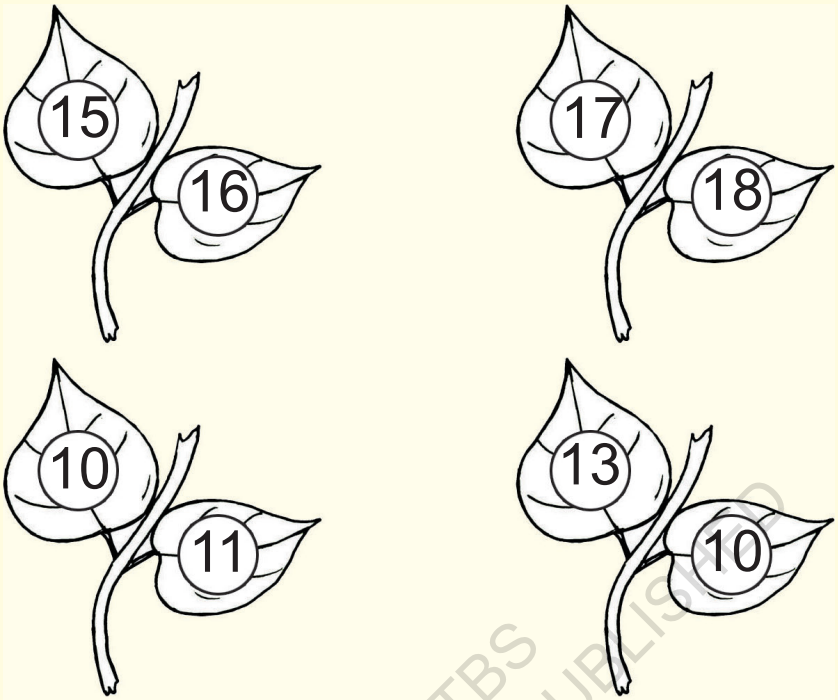






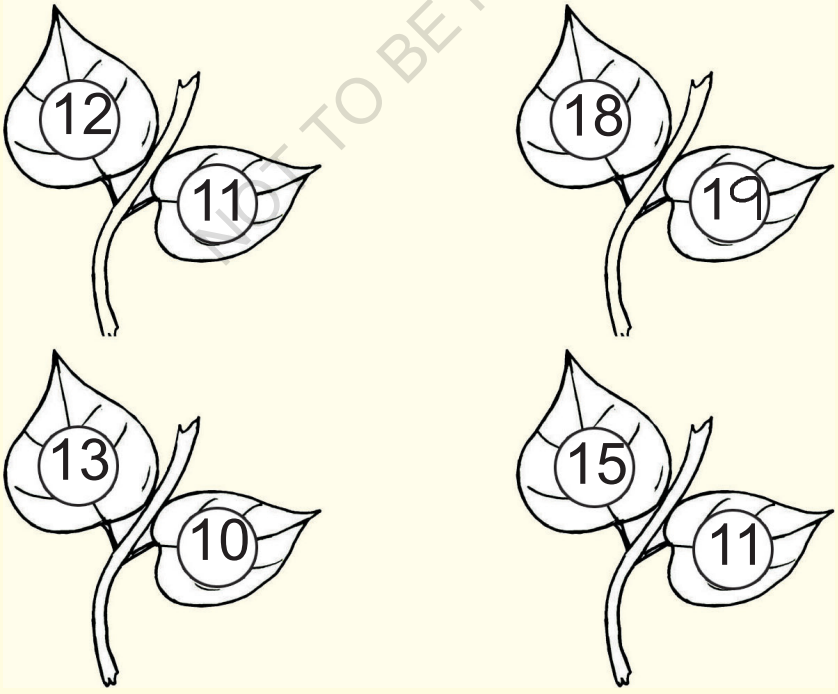
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Colour the leaf with the bigger number in each pair.



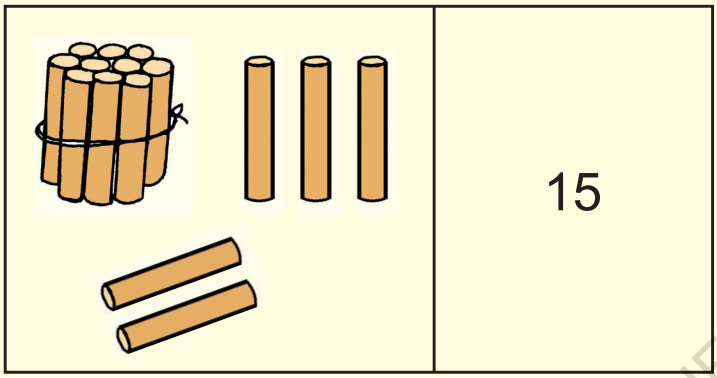
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Colour the leaf with the smaller number in each pair.

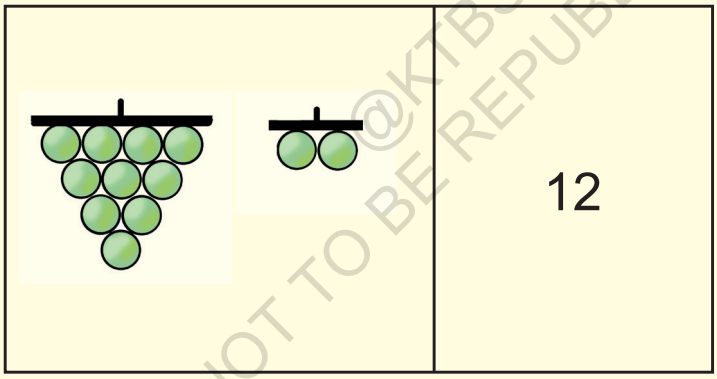


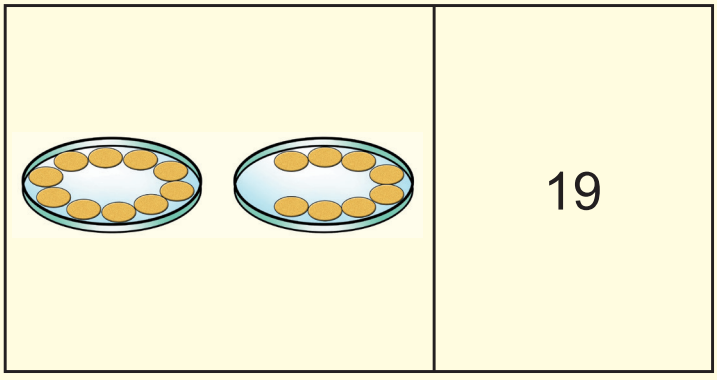
Count the given objects. Compare the number of objects and the number given against the group. Put '✓' if they are same, put 'X' if they are not same.

Example :



✓

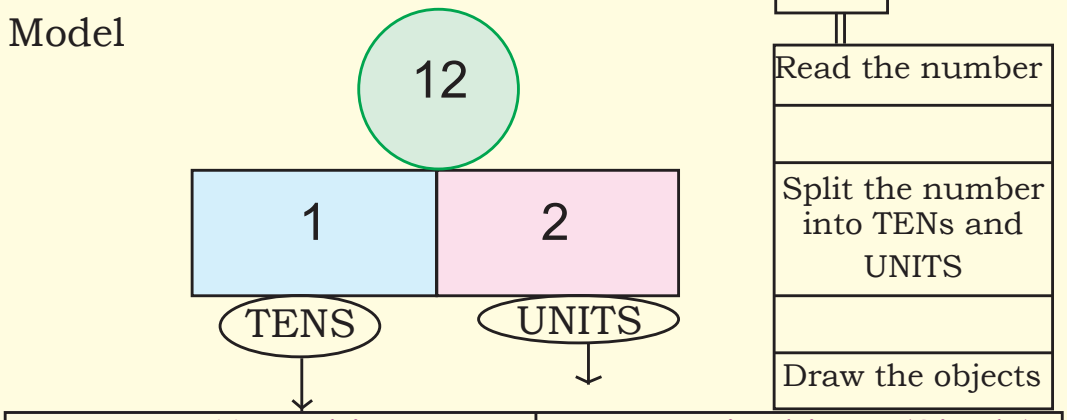




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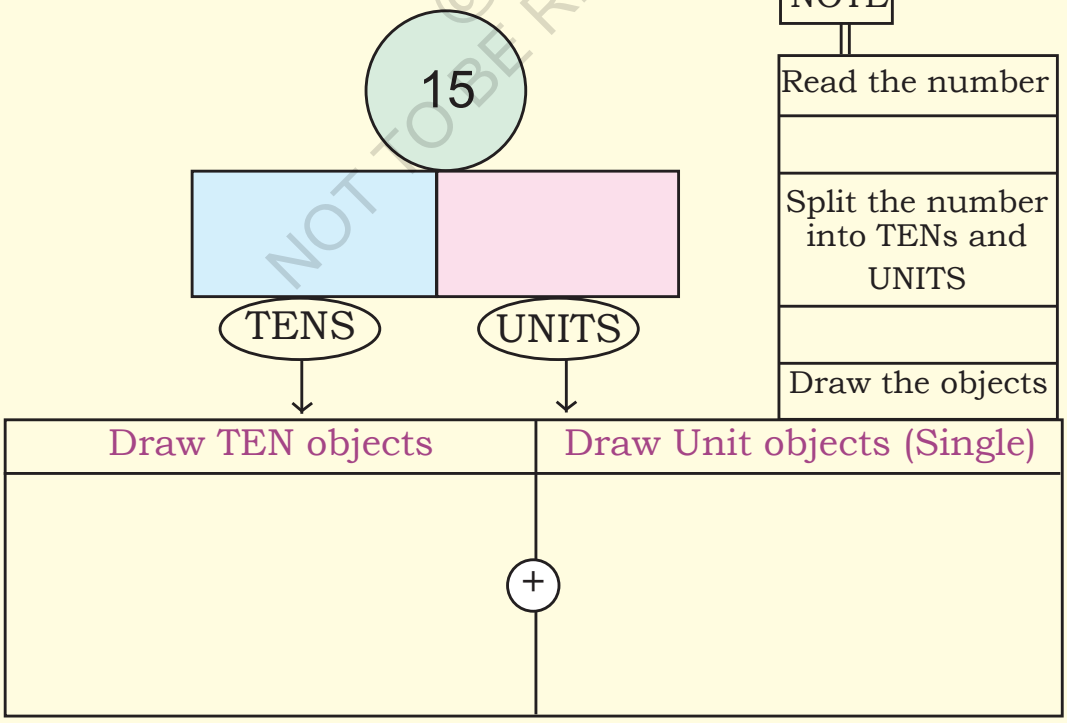
Group of tens and units

Model



NOTE

- Read the number
-
- Split the number into TENs and UNITS
-
- Draw the objects



NOTE

- Read the number
-
- Split the number into TENs and UNITS
-
- Draw the objects

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NOTE

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