MATHEMATICS

CLASS - 2



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PREFACE

After the formation of the new state Chhattisgarh, it became necessary that concerns of education should be determined again and curriculum, syllabus and textbooks should be developed in new perspective as per the needs of the state. Keeping the needs of the state in view, development of new textbooks started in the state in the session 2003-04 as per the new planning. In the beginning, newly developed textbooks were tried out in selected schools of 4 districts. On the basis of the feedback received from children, teachers and educationists; textbooks were corrected. In the session 2006-07, textbooks of classes I, II, and VI were mainstreamed at the state level. Then, the target was to translate these books for the students of English medium schools.

In the textbooks all the concepts have started with some reference to what the children already know so that they can use it while learning the concept and they start adding something new to their experiences, use them in new situations and slowly start learning.

This process of learning is the basis of this book. We expect that the child's language / mother-tongue is used in the classroom so that he can put together the concepts with the structure of the language.

While preparing this book, we got support and guidance from teachers, teacher-educators and other people who are closely associated with education. No creation is best or final. Continuous refinement is necessary for making it better. So kindly send your valuable suggestions to improve this book further.

Director
S. C.E. R. T.
Chhattisgarh, Raipur

SUGGESTIONS FOR TEACHERS AND PARENTS

There have been continuous efforts to make teaching-learning processes interesting and effective. There have been efforts to understand the objects of having different disciplines in the school syllabus and to understand and explain nature of each subject. Yet in teachers and children a reflection on clarity and good understanding does seem to be evident. This is particularly true about mathematics.

If you were to pose the question, "What is mathematics?", the answers would range from counting objects, displaying numbers, doing number operations, lines, making shapes and so on. A few answers might differ from the ones cited above, but these would be largely the things mentioned.

Before we go ahead, let us try and understand what all happens when we are attempting to solve a problem in mathematics. For example, "A bus travels a distance of 35 kilometers in 1 hour. How far will it travel in 6 hours?"

Here, time is an abstract concept. We have defined an interval as the unit of this abstract concept and expressed large time intervals in terms of these units. Similarly, for distance, we have defined a unit, which then helps us quantify it.

In the next step we explore the relationship between these two units of time and distance. We have stated, " The bus travels a distance of 35 kilometres in 1 hour". This defines a relationship, which we translate in term of an operation-for instance, either addition or multiplication.

Let us consider another example. A kilogram of rice costs Rs. 16. How much will 54 kilograms of rice cost?

In this example, we have again defined a unit for quantity of rice, and expressed the total quantity in terms of the unit. The same can be observed while solving problems related to area, etc. It is clear from these examples that mathematics is not just limited to counting or operations on numbers. In the same way, mathematics of shapes and lines is about exploring and establishing the relationships between them. Further, while we include the concept of measurement for use, the sorting, classification searching for and establishing their properties, constitute important facets of mathematics.

When a child begins learning mathematics, in order to express abstract ideas understand operations as well as simple problems faced in daily life, it becomes necessary to use concrete (real physical) objects. However, this dependence on real objects progressively decreases as mathematical skills develop.

Children then begin to build arguments. Their ability to deal with abstractions increases. They begin to abstract arguments from their daily life, and translate abstractions into reality. They also begin to seek solutions to problems of their own accord using various methods. This whole process helps children understand how and where available information can be used to solve problems.

Therefore, it is imperative that in the teaching of mathematics children be allowed to have maximum opportunity to think and work independently. This will only happen if children are not provided with ready-made solutions, and are instead encouraged to think on their own, with guidance towards the right direction. This might seem strange in the beginning, but it is difficult to teach mathematics without developing the ability to think independently and take decisions on the basis of this thought. The development of this ability will make the children self-confident and reduce the fear of mathematics that is widely prevalent.

The class 1 textbook has been developed keeping in mind that it could be used by teachers as a guide and for self-learning by children. We have also tried to provide many opportunities for students following this textbook to think and act independently.

Beginning mathematics using concrete objects and games generates interest amongst the children. Therefore, we have also begun the book with games. The first section develops the ability to focus and concentrate, develop, eye-hand coordination, learn to sort and classify objects, and make pairs. These are through games and would help develop the abilities for sorting, classification, understanding one to one correspondence and comparing quantities.

It is expected that children will be given sufficient time to use as concrete objects while working on the materials given in the book. We have given some examples of the concrete objects that can be used for this purpose but you have to think of some more. Some suggestions can also be seen from the teachers' guide which is being published separately. The purpose of having children engaged with activities with concrete objects and for creation of supplementary materials for games is to ensure that they work with concrete objects while learning new concepts. They should work on their own, understand operations and slowly move towards greater abstractions. In this period they should be given opportunities to use language in the context of these concepts and operations. These occasions should be both in small groups and in common situations along with teachers so that they can build their self confidence. If there is an opportunity in each chapter to do this then many difficulties that arise in learning Mathematics would be destroyed from the root. Children would develop different attitudes towards mathematics there is a need to pose for a while and think about this point.

Children love stories. One sees children completely engrossed in a story being told to them, especially, if it being related well. In order to understand mathematics because of its abstraction it is useful to have it embedded in stories or contexts, understanding and enjoying stories is a prerequisite. Keeping this in mind, some characters have been created in the textbook. Children can be encouraged to name these characters imaginatively and a short story could be woven around them at the beginning of the lesson. Problems can be posed through play, activities with concrete objects and stories, which would help children form their own base for understanding mathematics better.

No lesson or activity is complete in itself. The materials in the text are just indicative. According to the needs of your classroom and the interest of the children, develop and use new materials, new interesting activities and new games. We have given some suggestions for this purpose. Wherever extra things can be

thought of symbols at the bottom of the page show what is possible according to use. The key to the symbols is given at the beginning of the book. Children could be encouraged to interpret the symbols and complete the activities on their own.

To summarise:-

- ❒ Children must be given the opportunity to flip through their books, look at the pictures given and attempt to read in an independent manner
- ❒ Every page of the textbook contains interesting activities and practice exercises. Make more such tasks, ask children to develop them and also to solve them.
- ❒ Children must be given sufficient time to understand and learn a new concept. Children develop new techniques to understand concepts, and must be encouraged in these endeavors.
- ❒ The objective of solving problems is to understand the underlying mathematical concept. Solving a select set of questions or rote learning of select solutions is not the correct way to teach mathematics. Children must, therefore, be encouraged to solve problems as well as develop new problems.
- ❒ Mistakes are a natural process of learning while learning a concept or in solving problems. Children must not be discouraged on mistakes. Instead, they should be encouraged to develop new methods and ways to solve problems.
- ❒ Children learn from their peers, and therefore, must be encouraged to indulge in conversations and group work, and then to present the work that was done in the group.
- ❒ If children have difficulty in solving a problem guidance can be provided in the form of pointed questions that help students think along a certain direction.
- ❒ The materials mentioned in the book are indicative. Please develop and use new materials, innovative games, exercises, and activities depending on the needs, interest and background of the children. The use of symbols in the book indicates the areas where this is possible. Children should be encouraged to understand the symbols independently and work according to the instructions given.

This book is an attempt to dialogue with the teachers/parents and children. All suggestions to improve the book are invaluable and you must please send these to the SCERT.

Director
State Council of Educational Research and Training
Raipur (Chattisgarh)

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IDENTIFY AND UNDERSTAND THESE



Do activities with concrete objects.



Do more exercises of this type.



Practice using cards.



Work in groups/discuss in groups/ form question and give to each other



Use dice for activity



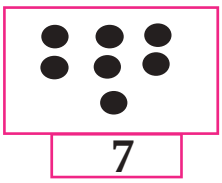
Create new questions

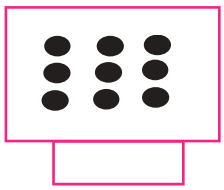
The symbols provided above will be seen spread across the book. Perform the activities according to the suggestion that each symbol stands for. Group discussions and making questions have been put together to imply that each member should create questions. These questions could be then posed to the other members of the group. Alternatively, questions could be created by members of a group and posed for the other groups.

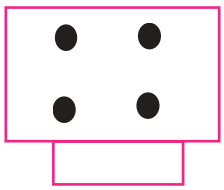
Lesson 1 REVISION

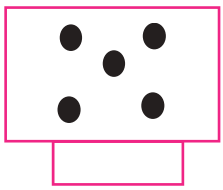
Arrange pebbles on the dots, count and write.

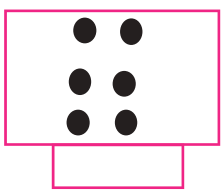


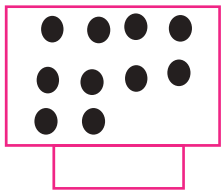


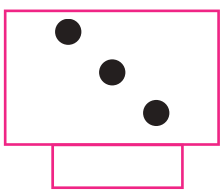


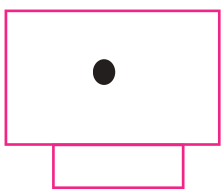






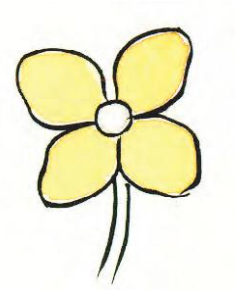




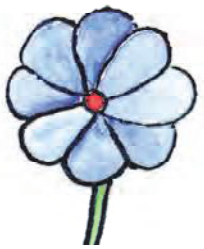




Place one pebble on each petal of the flowers.
Tick '√' the flower with the largest number of petals.
Cross 'X' the flower with the smallest number of petals.





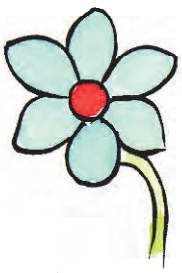






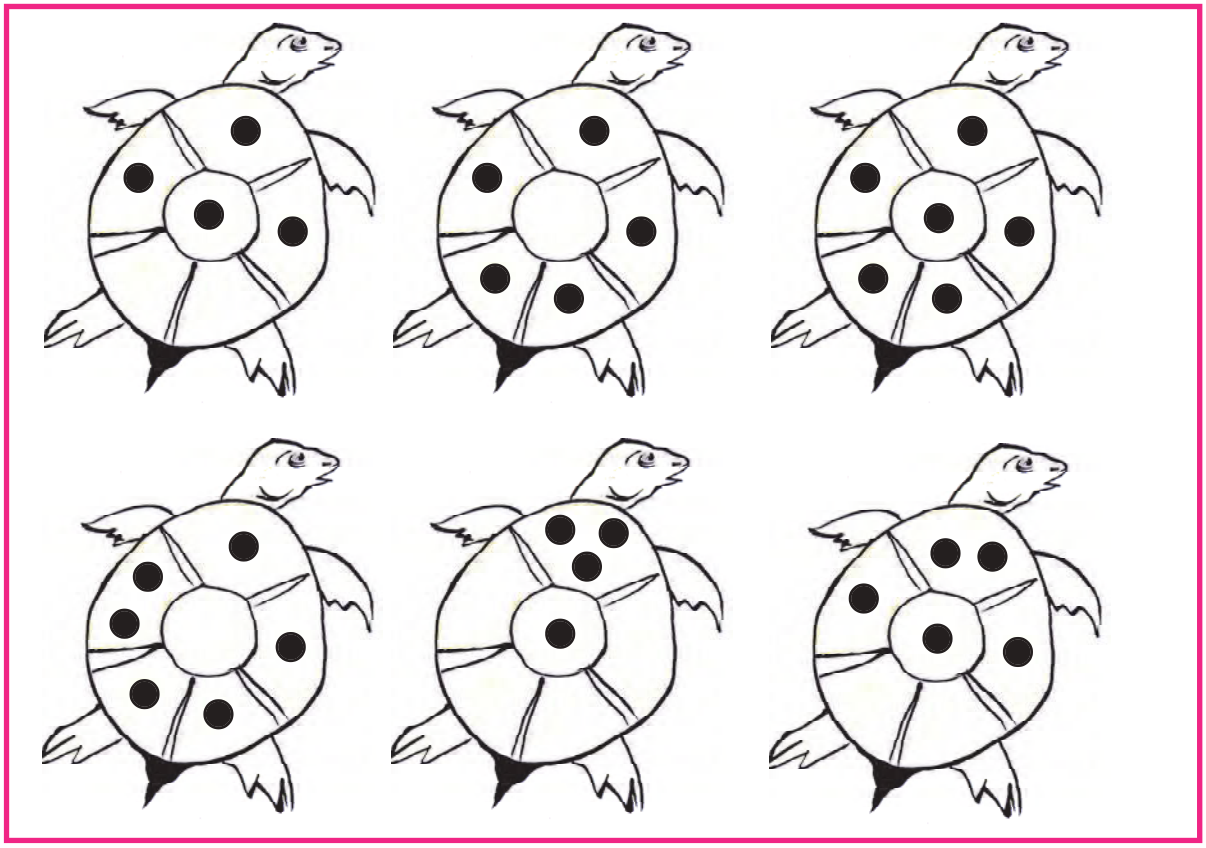






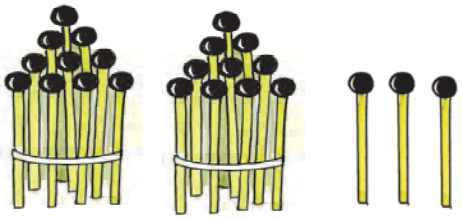


The back of each turtle has dots drawn on it.
Put a pebble on each of these dots.

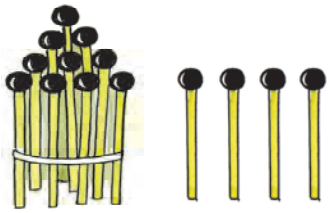


- Draw a line joining turtles with the same number of pebbles.
- Colour the two turtles with the largest number of pebbles, red.
- Colour the turtle with the least number of pebbles, green.
- Colour the remaining turtles blue.
- How many dots on the back of a red-coloured turtle? ☐
- How many dots on the back of a green-coloured turtle? ☐
- How many more dots on the back of the red turtle than the green turtle? ☐

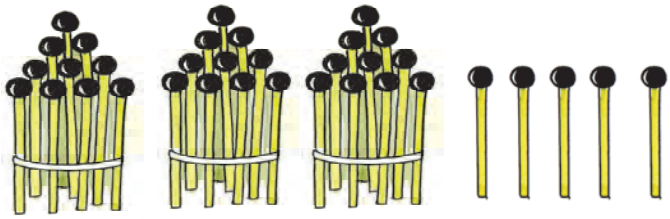
Make bundles of 10 matchsticks each. Pictures of bundles and matchsticks are given below.
Place bundles and matchsticks on each picture and match their count with the correct number.



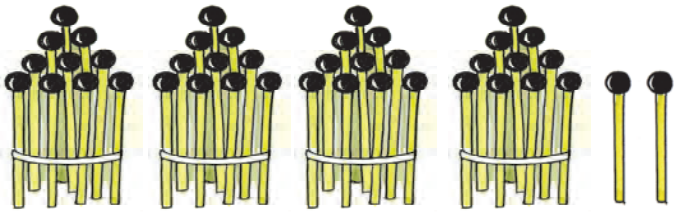
35
53



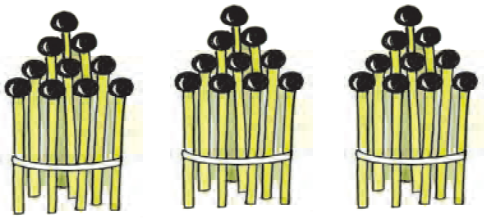
42
24



30
03



23
32

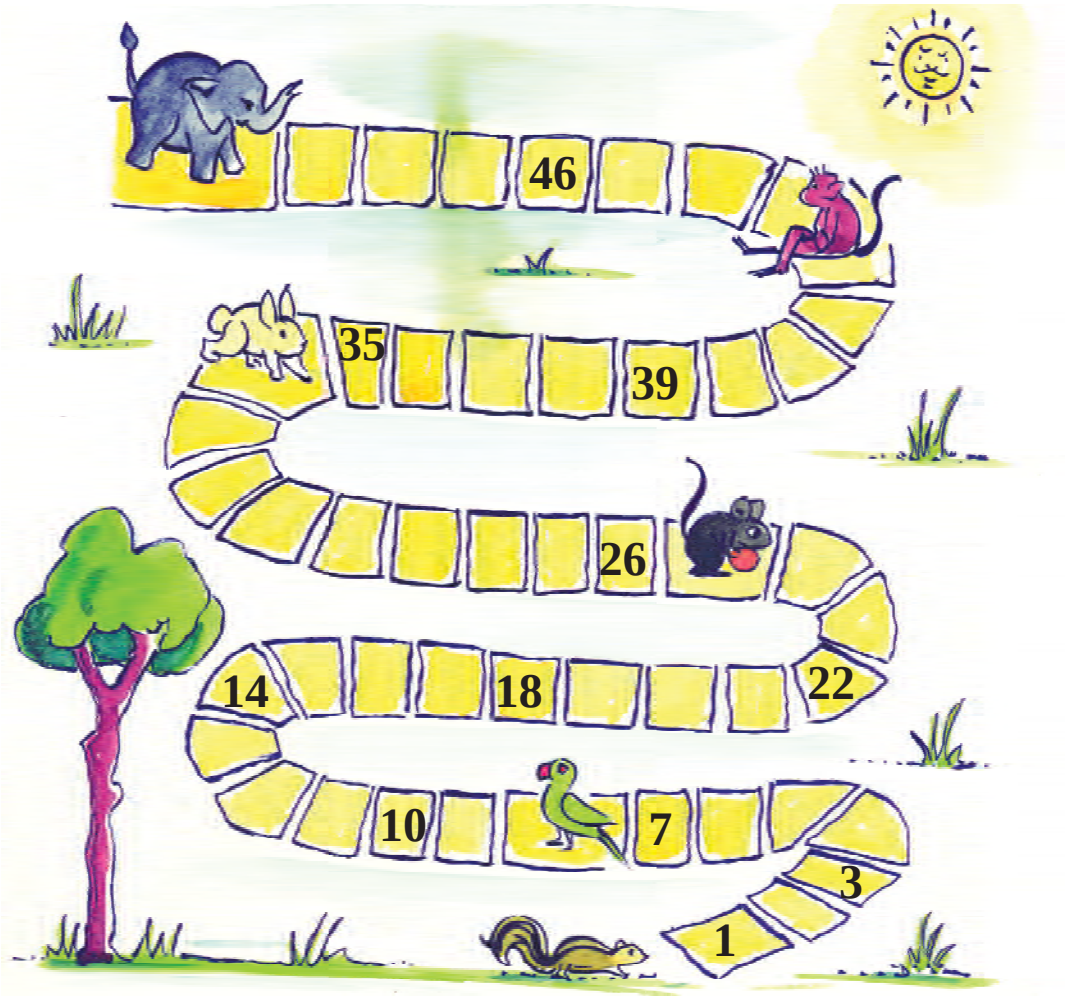


14
41

Make the numbers remaining with bundles and sticks and show them to your teacher.



Fill the missing numbers in path.

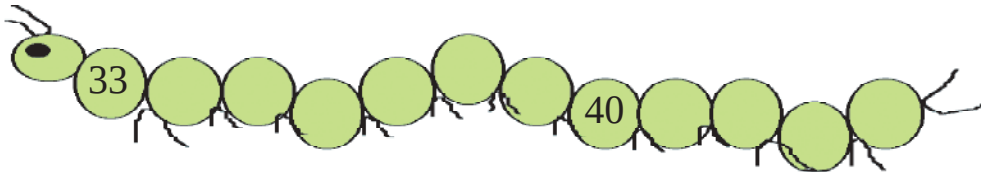


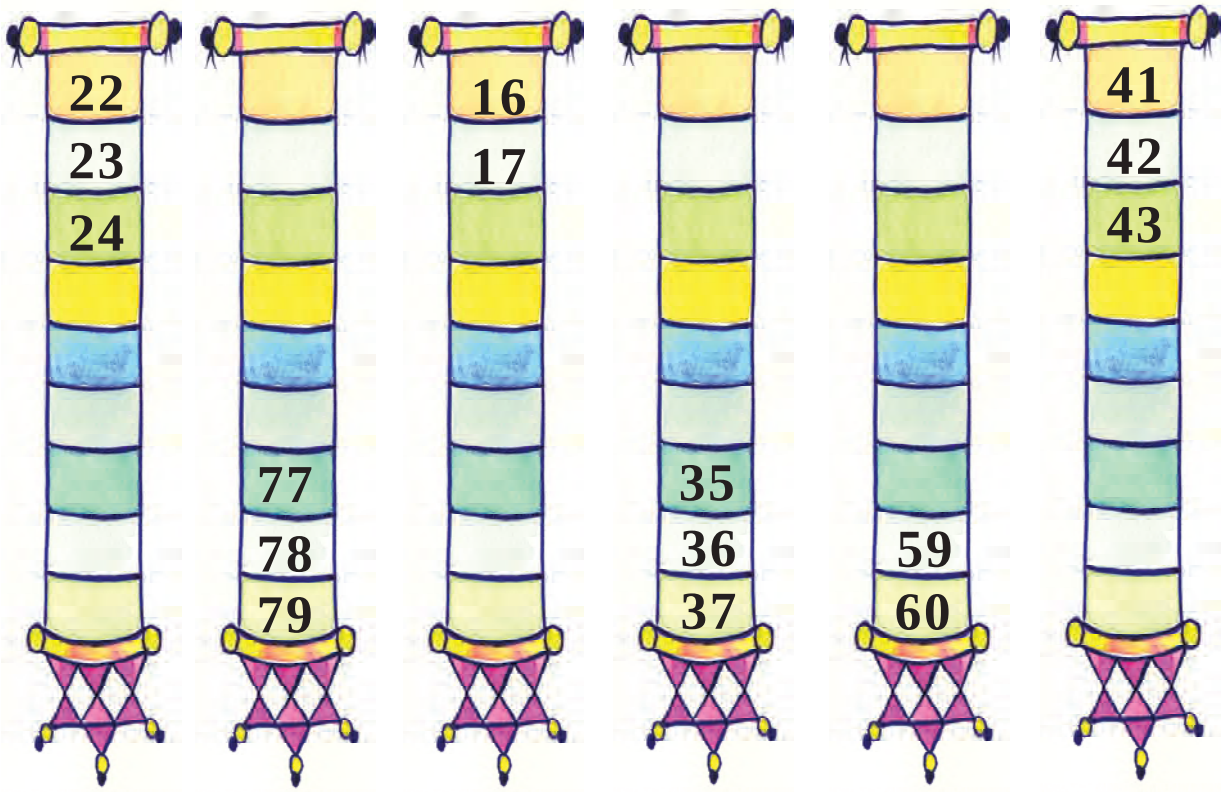
Now answer the following:

1. Parrot is in which box? ☐
2. Mouse is in which box? ☐
3. Which are the numbers that the squirrel will pass through to reach the parrot? ☐☐☐☐☐☐☐
4. Who is closer to number 36,the rabbit or the monkey? ☐
5. Which number between the elephant and the monkey has identical digits? ☐



In the pictures given below write the missing numbers in serial order.



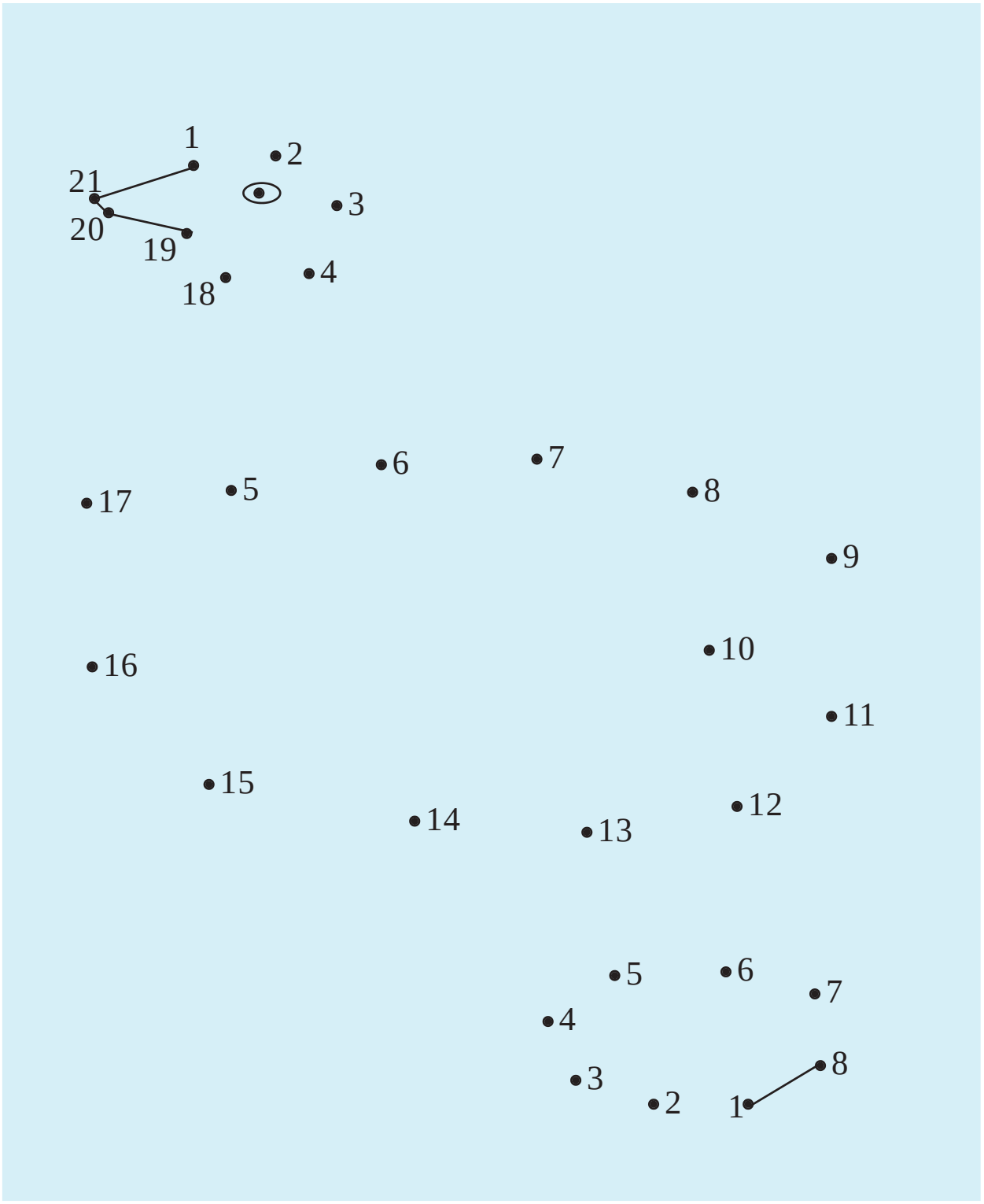




Make more pictures of this kind and ask your friends to write the missing numbers.



Join the dots serially. What picture is formed?



Do more such tasks to serially join numbers and make pictures.



Circle the alternate numbers.

1	2	3	4	5	6	7	8	9	10

Write the circled numbers in the boxes below.

Circle every third number.

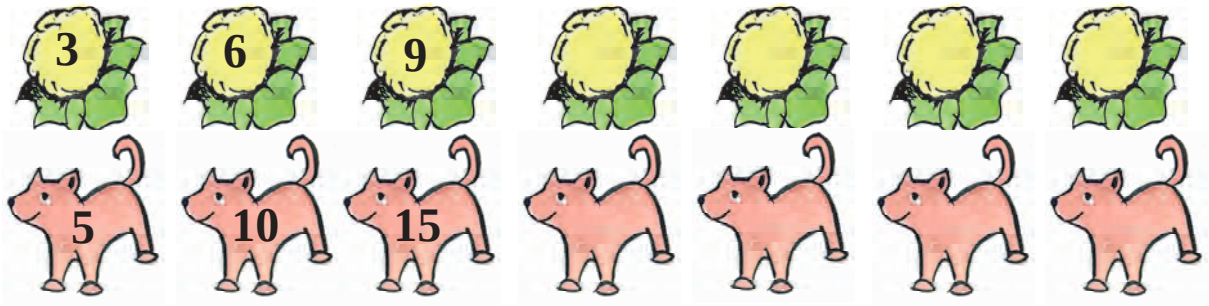
1	2	3	4	5	6	7	8	9	10

Write the circled number in the boxes below.

Continue the number sequence.



2	4	6				



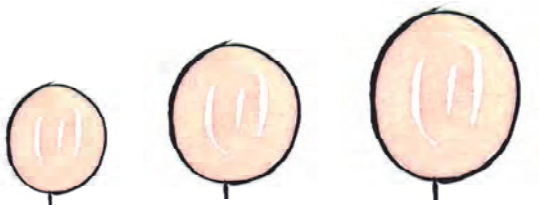


Write in ascending order.

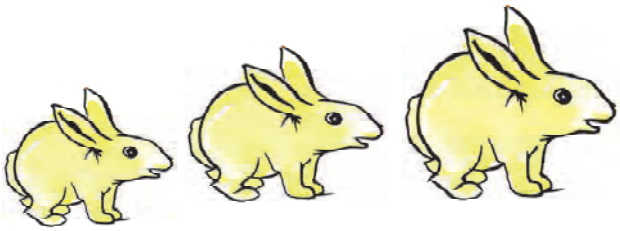
39	37	38



10	12	9

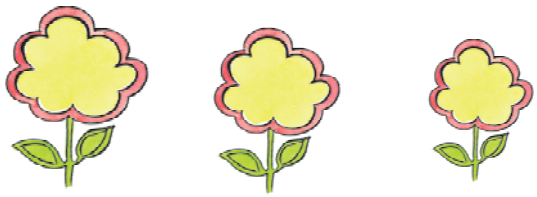


23	29	15



Write in descending order.

10	6	15



37	16	31



40	10	30



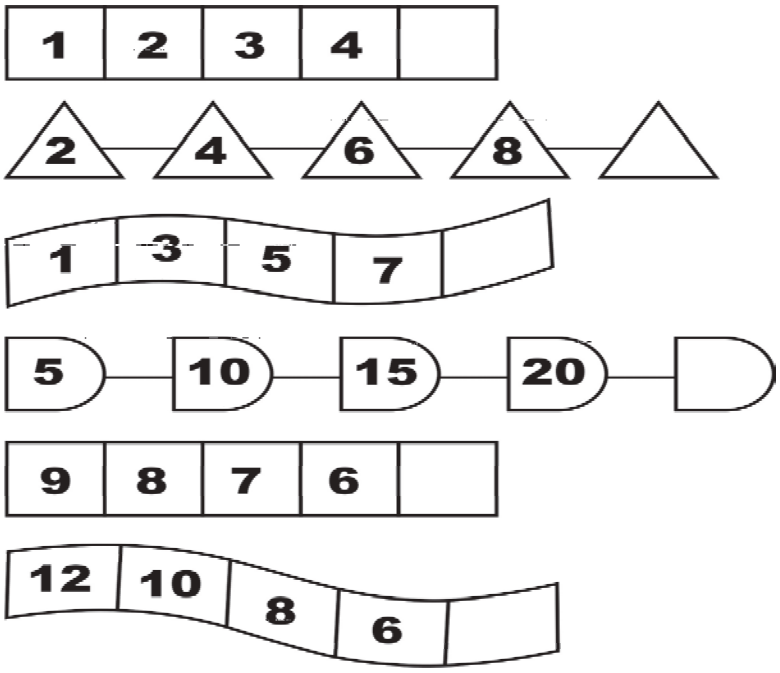
25	16	31





Number Pattern

Look at the patterns. FIll in the blank with proper number following the pattern.



Look carefully and fill in the next boxes.

20	30	40				
3	6	9				
30	29	28				
1	5	9				

Take a few matchsticks. Put as many sticks in the box as the number on it. Add and write the answer.

3	plus +	2	equals to =		5
2	plus +	1	equals to =		
4	plus +	3	equals to =		
5	plus +	4	equals to =		
4	plus +	2	equals to =		
5	plus +	1	equals to =		
7	plus +	2	equals to =		

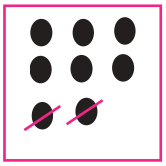
Take number cards from your teacher. Take two cards. Pick as many matchsticks as the number mentioned on each card. Add together.



Take as many seeds as the number of dots in the pictures. Remove as many seeds as the number of dots crossed out. Write the remaining number of seeds in the space given.



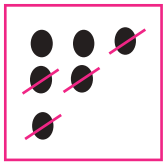
9 − 3 = 6



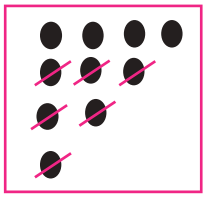
8 − 2 = ☐



7 − ☐ = ☐



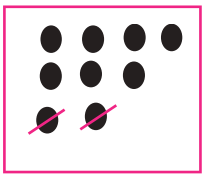
6 − ☐ = ☐



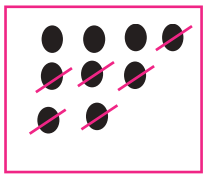
☐ − ☐ = ☐



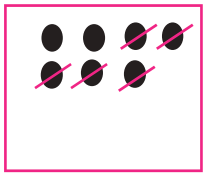
☐ − ☐ = ☐



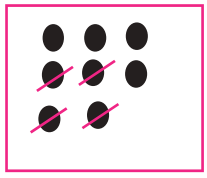
☐ − ☐ = ☐



☐ − ☐ = ☐



☐ − ☐ = ☐



☐ − ☐ = ☐

Play this game with your friends.



Add

$4 + 3 =$ ☐ $5 + 1 =$ ☐

$3 + 5 =$ ☐ $8 + 2 =$ ☐

$$\begin{array}{r} 5 \\ +\ 5 \\ \hline \end{array} \qquad \begin{array}{r} 4 \\ +\ 2 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ +\ 2 \\ \hline \end{array} \qquad \begin{array}{r} 4 \\ +\ 3 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ +\ 4 \\ \hline \end{array}$$

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

Subtract

$9 - 6 =$ ☐ $8 - 4 =$ ☐

$4 - 1 =$ ☐ $7 - 4 =$ ☐

$$\begin{array}{r} 9 \\ -\ 3 \\ \hline \end{array} \qquad \begin{array}{r} 7 \\ -\ 2 \\ \hline \end{array} \qquad \begin{array}{r} 4 \\ -\ 2 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ -\ 1 \\ \hline \end{array} \qquad \begin{array}{r} 9 \\ -\ 4 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ -\ 1 \\ \hline \end{array}$$

Make more such questions and solve them.



Read the questions and write your answers in the box.

1. Ramu had 7 flowers.

   He got 2 more flowers.

   How many flowers does he have now?

2. Kamla had Rs. 5 .

   Her mother gave her Rs. 3 more.

   How much money does she have now?

3. Rajni's garden has 8 rose and 11 marigold plants.

   How many plants are there in all?

4. You had 10 pencils.

   You gave 4 pencils to your brother.

   How many pencils are left with you?

5. Our teacher had 10 books.

   She distributed 5 books to the children.

   How many books are left with her?

6. Mohan bought 15 balloons.

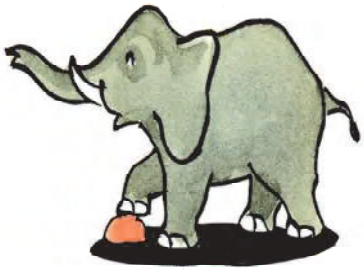
   5 of them burst.

   How many balloons are left?

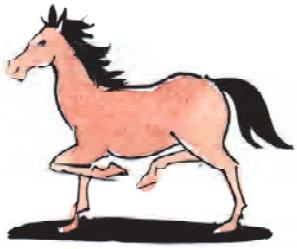


Lesson 2 NUMBERS

1. Who is where?



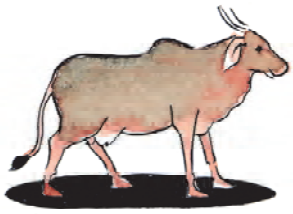
First



Second



Third



Fifth



Fourth

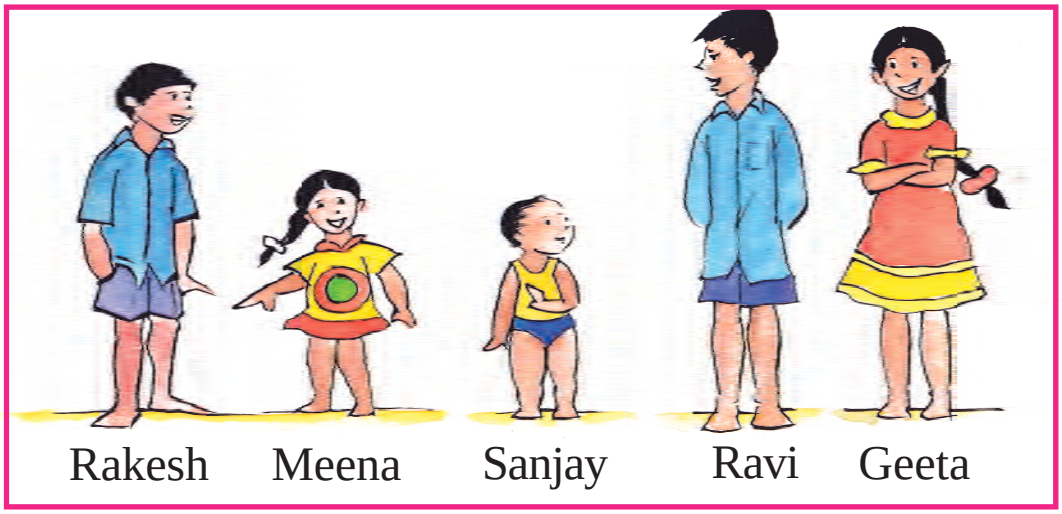
Look at the pictures above, and answer the following.

1. Who is in the first place?
2. Who is in the third place?
3. What position is the lion in?
4. What position is the camel in?

Make groups of five. Make a queue in such a way that the smallest child is infront and the child next in height just behind her and so on.



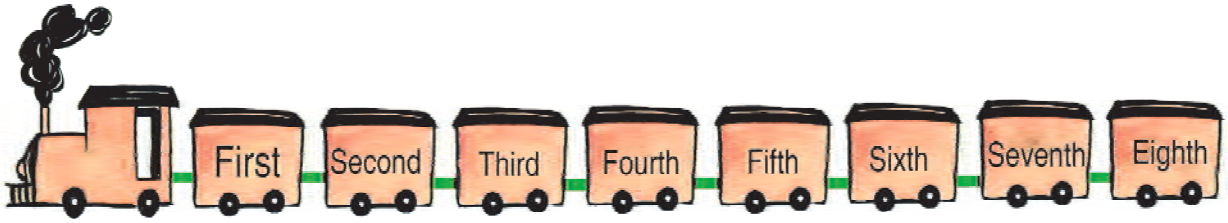
Who is where?



1. Who is at the first place?
2. Who is second?
3. Which child is fifth in order?

Do the task with other objects as well. The task can be done with the class divided into groups also.

Train carriages.



The carriage just after the engine is the first carriage.

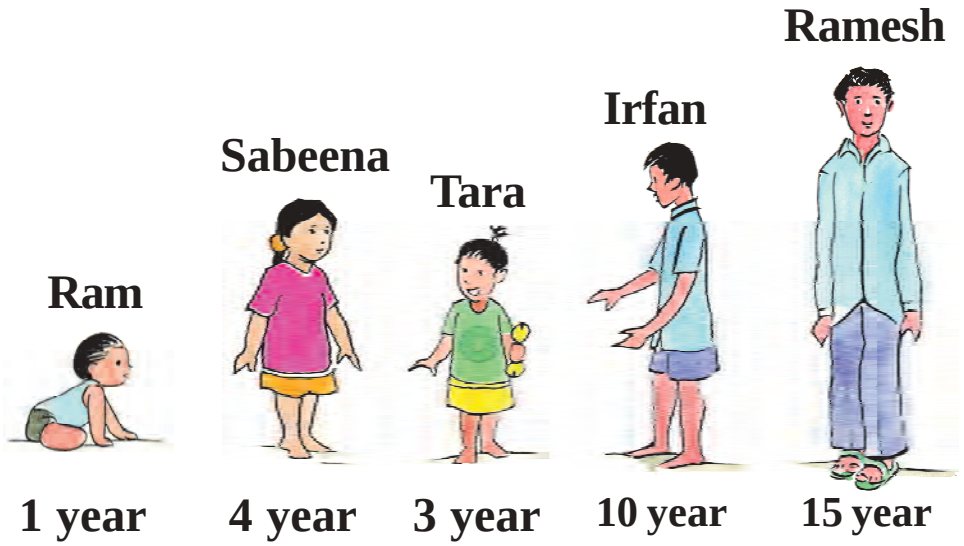
Place a (✓) on the third carriage.

Place a (X) on the eighth carriage.

Place a (O) on the fifth carriage.

Place a (△) on the seventh carriage.

Tara's neighbours



Arrange Tara's neighbours in increasing order of ages, start with the youngest and go on to the oldest at the end.

	Name	Age
First		
Second		
Third		
Fourth		
Fifth		

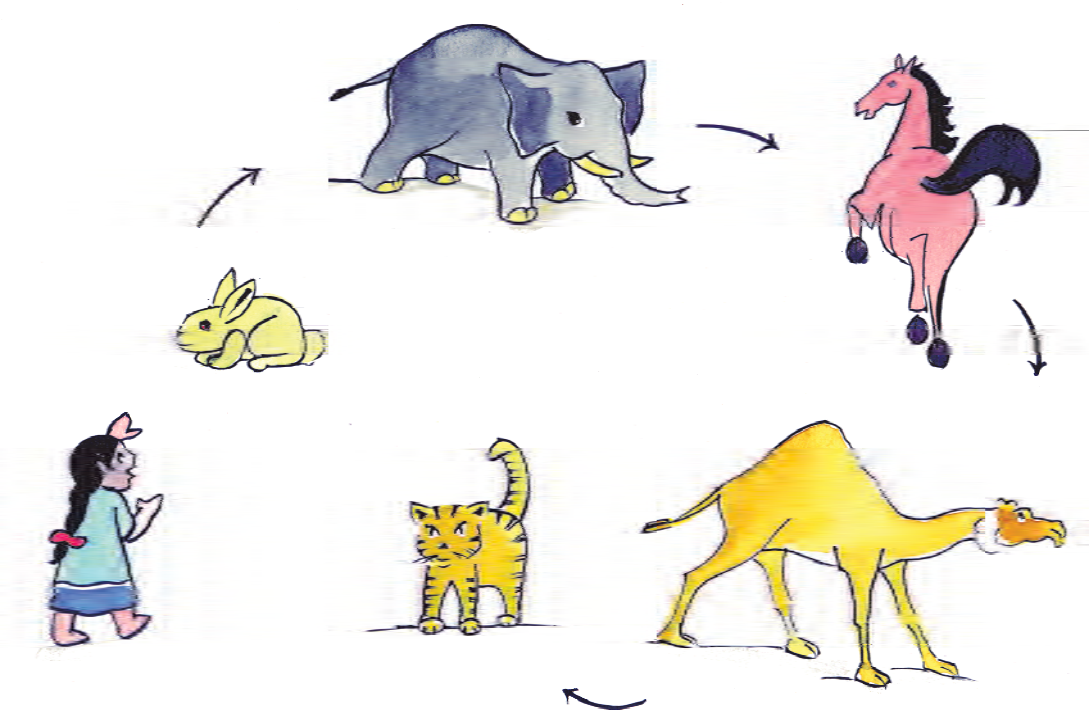
Look at the table and answer the following-

1. Where is the oldest child placed?
2. Where is Irfan standing?
3. Who is at the fourth position?

Find out the names and ages of children around you. Write down their names in ascending or descending order of age.



Who is first?



Follow the arrows and name the animals that meet Gudiya on the way. Fill their names in order in the table below.

First	Second	Third	Fourth	Fifth

Think of more such pictures and arrange them in order to do the same exercise.



Even and odd numbers



Take as many pebbles as the numbers written in the circles below. Now make pairs of pebbles. How many such pairs did you make? And how many pebbles are left? Write your answer as shown in the example.

		pairs	Pebbles left
5		2	1
8			
7			
13			
14			
9			
10			

Write down the numbers where one pebble got left behind.

				These are **odd numbers .**

Now write those numbers that did not leave any pebbles behind when grouped into pairs.

				These are **even numbers .**

You can take more numbers and identify odd and even numbers.





Were pebbles left behind?

Take as many pebbles as the number.

Make pairs of the pebbles.

Circle those numbers that do not leave behind a pebble when pairs are formed.

8 =				
(8)	9	15	14	7
3	10	18	13	20
28	21	12	17	5
30	35	22	19	32

Now list the numbers that you have circled in the places given below- (even numbers)

List the numbers **NOT** circled in the spaces given below (odd numbers)

Give your friends new numbers and ask them to identify even and odd numbers.





Read, think and do.

Which of the following numbers leave no remainder when distributed in groups of two?

Circle the numbers which display this.

2 4

8 10

46 7

19 3 28

15

35 24

For e.g.: Number 4 can be shown as two groups of two, 👀 👀 leaving no remainder.

Which numbers cannot be represented completely in the form of pairs? Put a box around these numbers.

47

35 8 39

13

16 10 43

15 32

Write the even numbers in increasing order

2 → 4 → 6 → ◯ → ◯ → ◯ → ◯ → ◯

24 → 26 → 28 → ◯ → ◯ → ◯ → ◯ → ◯





Write odd numbers in increasing order

1 → 3 → 5 → ◯ → ◯ → ◯ → ◯ → ◯

35 → 37 → 39 → ◯ → ◯ → ◯ → ◯ → ◯

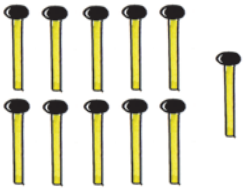
Identify the even numbers.

Circle (◯) the even numbers from 1 to 50 in the table below.

1	11	21	31	41
2	12	22	32	42
3	13	23	33	43
4	14	24	34	44
5	15	25	35	45
6	16	26	36	46
7	17	27	37	47
8	18	28	38	48
9	19	29	39	49
10	20	30	40	50

Bundles and matchsticks

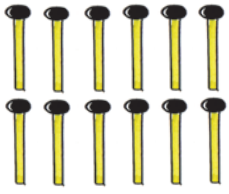
Take matchsticks from your teacher. Take as many as the number indicated in the box.



11



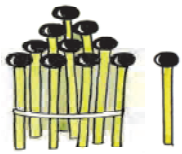
14



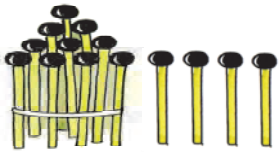
12



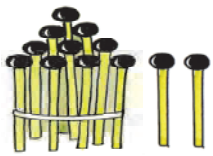
Now make bundles of 10 with these matchsticks. How many matchsticks are left?



11



14



12

How many bundles were made? And how many matchsticks are left behind?

Take as many matchsticks as the number given below. Make bundles of Ten. tell how many bundles were made and how many matchsticks are left?

	No. of bundles	Remaining matchsticks
15		
19		
21		
26		

Take some more numbers, make bundles and count the remaining matchsticks. You could use beads, seeds etc instead of matchsticks.

How many necklaces?

Take few beads from your teacher. String 10 beads together to make a necklace. How many necklaces are made?

BEADS	NECKLACES	NO. OF NECKLACES
10		1
20		





30

40

50

60

70

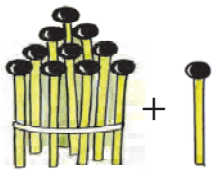
80

90

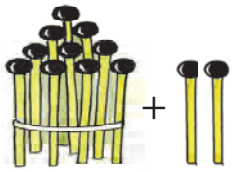
100

Do the same exercise with other numbers.

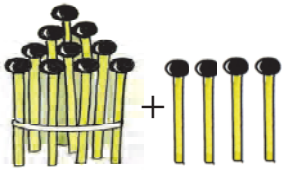
Moving forward.



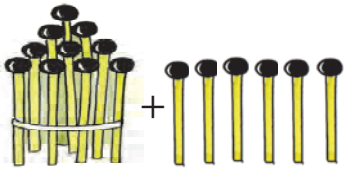
Ten and one 10 + 1 = 11



Ten and two 10 + 2 = ☐

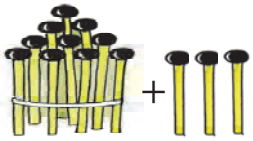


Ten and four 10 + 4 = ☐

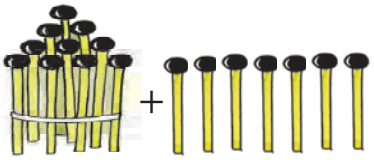


Ten and six 10 + 6 = ☐

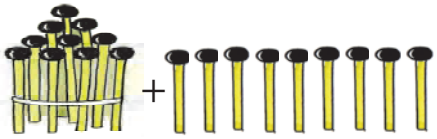




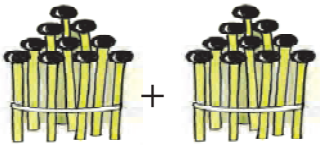
Ten and three ☐ + ☐ = ☐



Ten and seven ☐ + ☐ = ☐



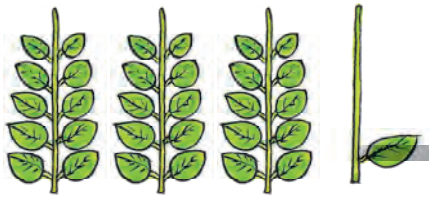
Ten and nine ☐ + ☐ = ☐



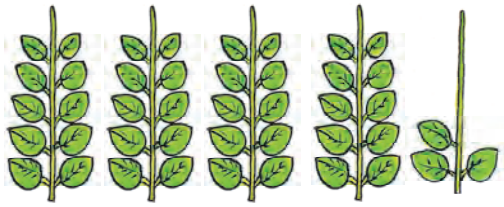
Ten and ten ☐ + ☐ = ☐

Do this exercise with numbers from 20 to 50.

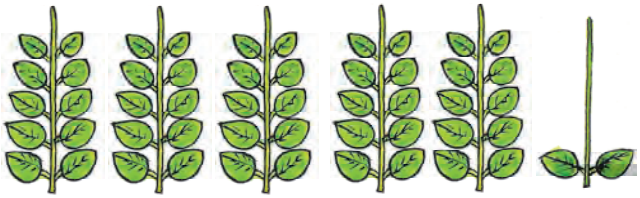
Some more exercises.



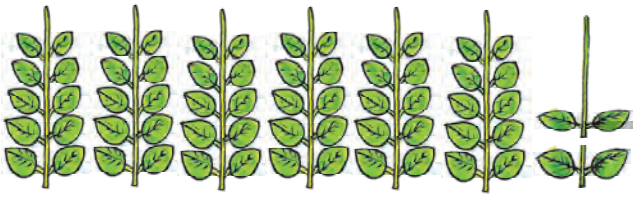
30 + 1 = 31



40 + 3 = ☐



50 + ☐ = ☐

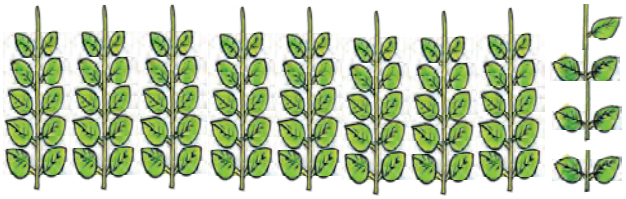


☐ + ☐ = ☐





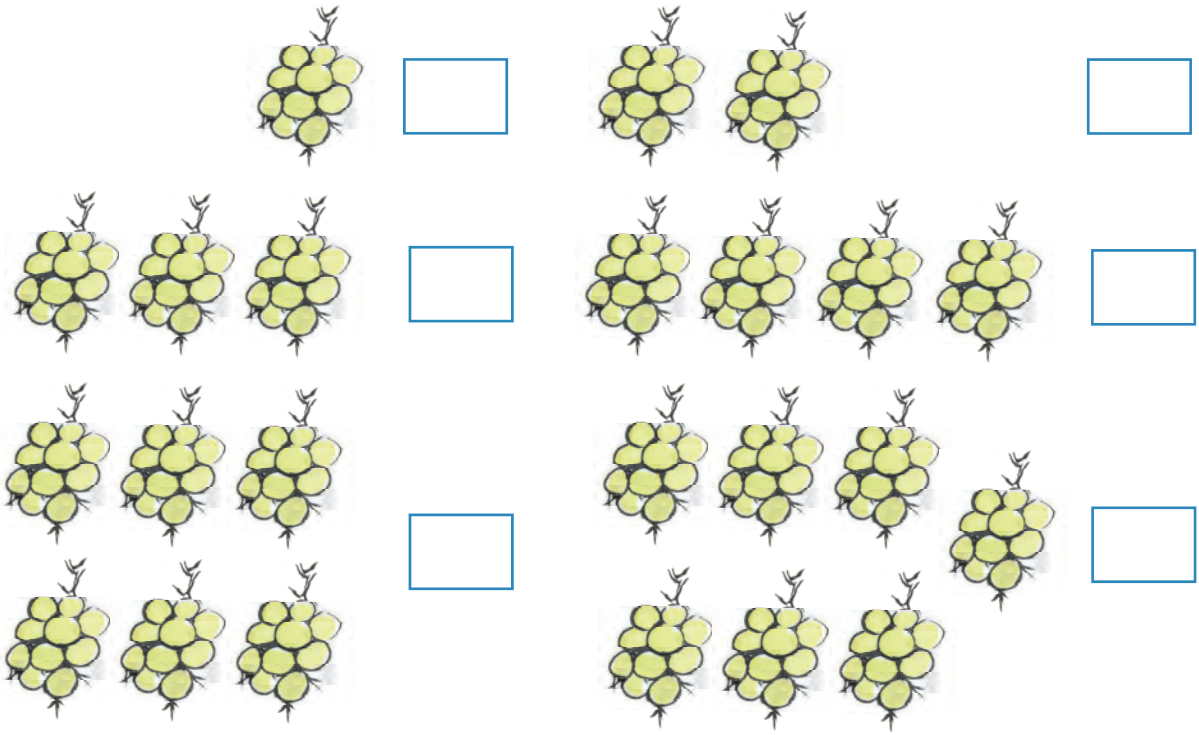
□ + □ = □



□ + □ = □

Solve these.

See the bunches of grapes below and write the total number of grapes.



Thus by counting bunches of ten grapes each we can find out that:

5 bunches = 10 + 10 + 10 + 10 + 10 = 50

3 bunches = □ + □ + □ = □



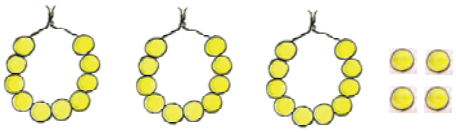
2 bunches = ☐ + ☐ = ☐

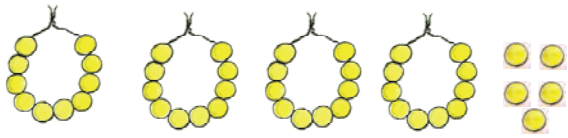
4 bunches = ☐ + ☐ + ☐ + ☐ = ☐

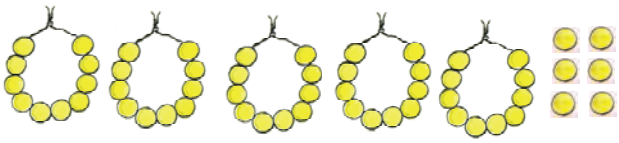
Beads and necklaces

Let us practice some more:

23  = ☐20 + ☐3

34  = ☐ + ☐

45  = ☐ + ☐

56  = ☐ + ☐

You have seen that for number 23, we get 2 necklaces of 10 beads each and 3 beads left behind, which can be written as :

23 = 2 necklaces + 3 beads = 2 tens + 3 ones

34 = 3 necklaces + 4 beads = 3 tens + 4 ones

45 = 4 necklaces + 5 beads = ☐ + 5 ones

56 = 5 necklaces + 6 beads = ☐ + ☐

The bundle or necklace of 10 beads can be considered to be tens, while the beads can be considered as ones.

10 ones make one tens.



Tens and ones

We have learnt that

34 = 3 tens + 4 ones

15 = 1 ten + 5 ones

52 = 5 tens + 2 ones

Identify the tens and ones in the numbers given below.

Number	Tens	Ones
21	2	1
42	4	2
15	1	
31		
12	1	2
15	1	5
23		
45		
67		
82		
94		

Play a game of identifying the tens and ones in numbers from 1 to 99



What is the number?

Write the number.

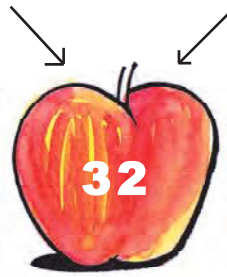
1 ten and 4 ones = 14

4 tens and 3 ones = ☐

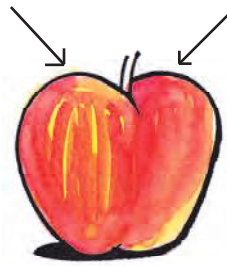
2 tens and 6 ones = ☐

Now write the number in the apples given below.

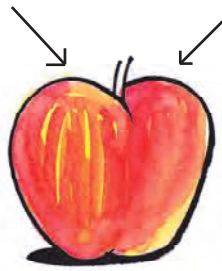
3 tens and 2 ones



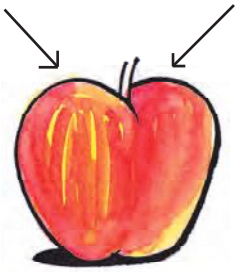
5 tens and 5 ones



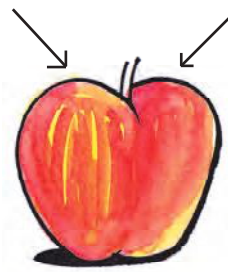
7 tens and 1 ones



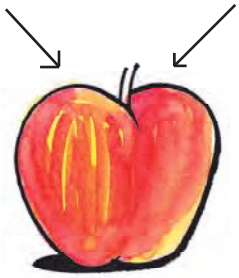
4 tens and 8 ones



9 tens and 8 ones



8 tens and 4 ones



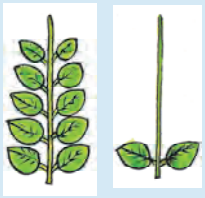
Make more numbers in this manner with your classmates.



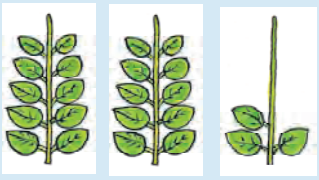
3 tens and 2 ones	59
9 tens and 3 ones	83
7 tens and 8 ones	35
5 tens and 9 ones	93
8 tens and 3 ones	78
1 ten and 6 ones	68
4 tens and 7 ones	99
2 tens and 5 ones	16
6 tens and 8 ones	47
3 tens and 5 ones	25
9 tens and 9 ones	32



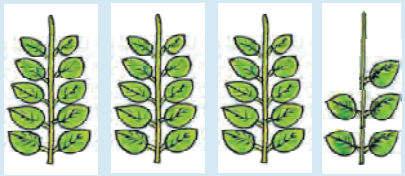
How many tens and ones?

12 = 

1 ten + 2 ones
10 ones + 2 ones
10 + 2

23 = 

2 tens + 3 ones
20 ones + 3 ones
20 + 3

35 = 

☐ tens + ☐ ones
☐ ones + ☐ ones
☐ + ☐

Do as above without drawing pictures

42 =

☐ tens + ☐ ones
☐ ones + ☐ ones
☐ + ☐

56 =

☐ tens + ☐ ones
☐ ones + ☐ ones
☐ + ☐

83 =

☐ tens + ☐ ones
☐ ones + ☐ ones
☐ + ☐

Look at the example and complete the following exercises

Write down the place value of the following numbers:

15

Place value of 5 at ones place is 5

Place value of 1 at tens place is 10



27
Place value of [7] at ones place is [ ]
Place value of [2] at tens place is [ ]

36
Place value of [ ] at ones place is [ ]
Place value of [ ] at tens place is [ ]

49
Place value of [ ] at tens place is [ ]
Place value of [ ] at once place is [ ]

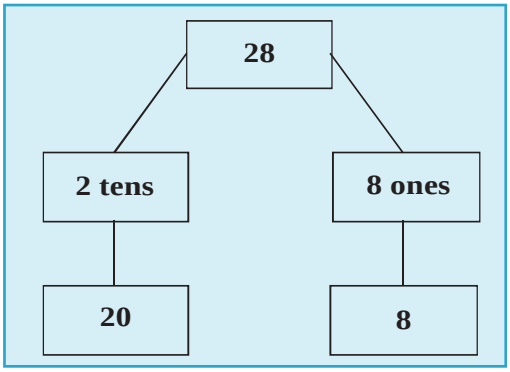
50
Place value of [ ] at ones place is [ ]
Place value of [ ] at tens place is [ ]

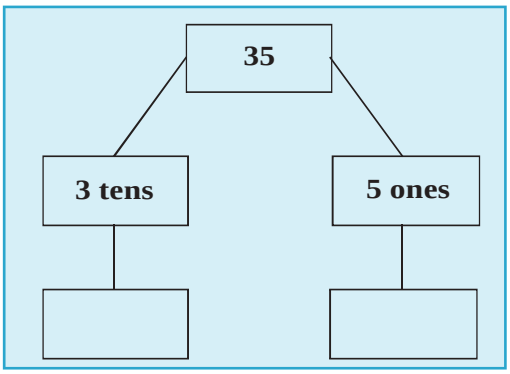
84
Place value of [ ] at tens place is [ ]
Place value of [ ] at once place is [ ]

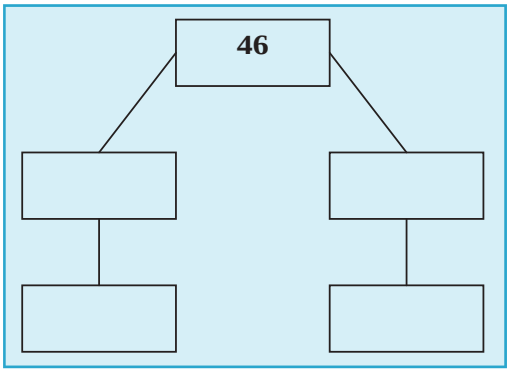
Similarly play this game with other numbers as well.

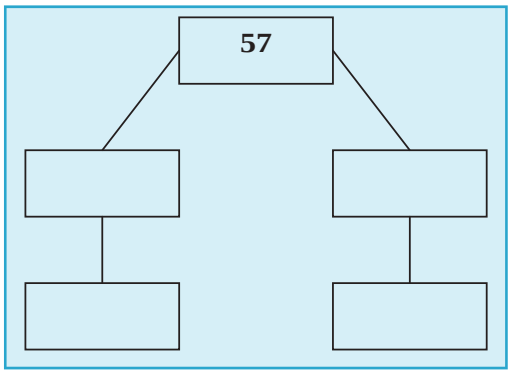
Tens and ones

Look at the example and solve the other sums.

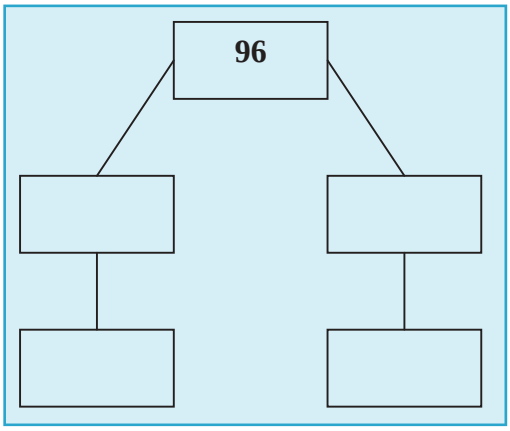


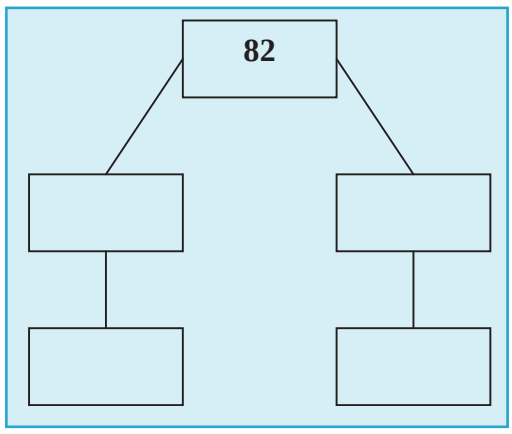












Play this game with other numbers as well.

Make biggest and smallest number using the two numbers given.

Let's make a few numbers

1. If two numbers 5 and 2 are given the numbers which can be formed using them will be 52 and 25.

2. Numbers formed by 3 and 7 will be 37 and 73

Now take number cards from 1 to 9. Pick up any two cards from them. Arrange them in different ways in such a way that different numbers are formed.

Similarly keep on picking up 2-2 cards and tell the numbers that you get each time to your friends.

Learn by doing

Make numbers by using given digits.

(1) 7, 2, ----------, ----------

(2) 5, 8, ----------, ----------

(3) 3, 3, ----------, ----------

(4) 6, 4, ----------, ----------

(5) 7, 8, ----------, ----------

(6) 9, 9, ----------, ----------

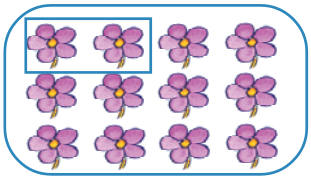




Take two sets of cards of numbers 1-9. Pick up any two cards from this set and write the numbers made with these digits. Now tell greater and smaller two digit number.

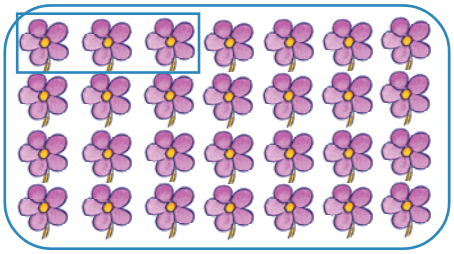
Make groups.

Make groups of two.



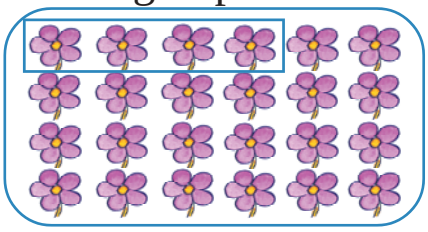
How many flowers ? ☐
How many groups ? ☐
Remaining flowers ? ☐

Make groups of three.



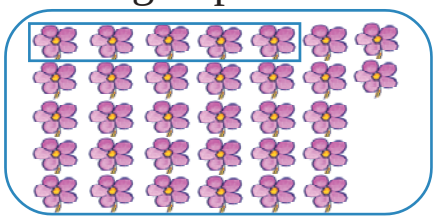
How many flowers ? ☐
How many groups ? ☐
Remaining flowers ? ☐

Make groups of four.



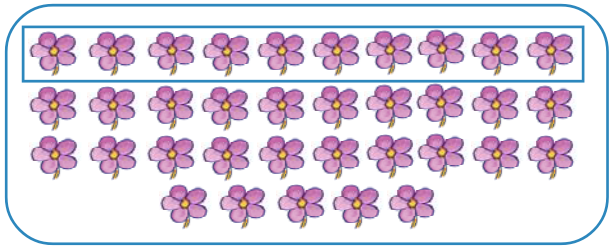
How many flowers ? ☐
How many groups ? ☐
Remaining flowers ? ☐

Make groups of five.



How many flowers ? ☐
How many groups ? ☐
Remaining flowers ? ☐

Make groups of ten.



How many flowers ? ☐
How many groups ? ☐
Remaining flowers ? ☐

Make such new groups.

Write in words.

Number	Words	Number	Words
1	One	11	Eleven
2	Two	12	Twelve
3	Three	13	Thirteen
4	Four	14	Fourteen
5	Five	15	Fifteen
6	Six	16	Sixteen
7	Seven	17	Seventeen
8	Eight	18	Eighteen
9	Nine	19	Nineteen
10	Ten	20	Twenty

Write the following numbers in words.

1	☐	15	☐	2	☐
5	☐	18	☐	4	☐
8	☐	20	☐	13	☐
10	☐	9	☐	17	☐
12	☐	6	☐	14	☐



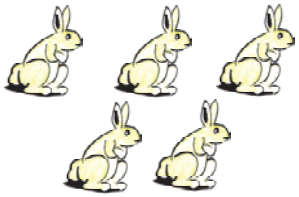
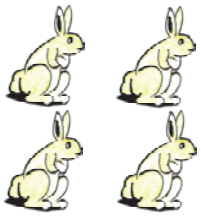
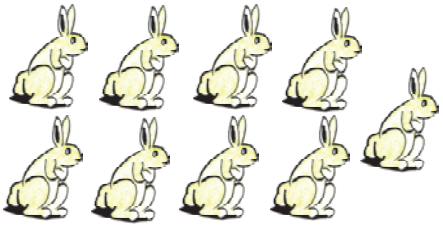
Lesson 3 ADDITION


and

add to

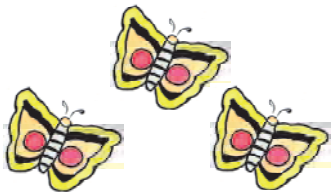
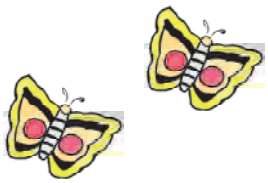
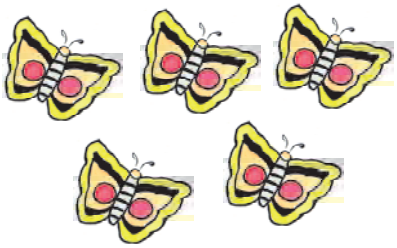

4	+	3	=	7

4 and 3 add to 7

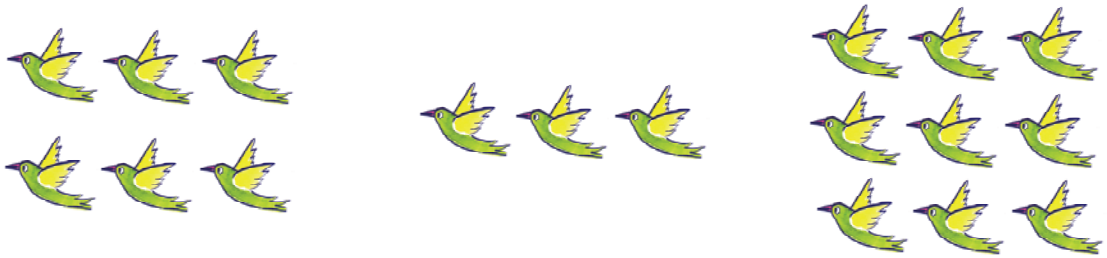
5	+	4	=	

5 and 4 add to 9

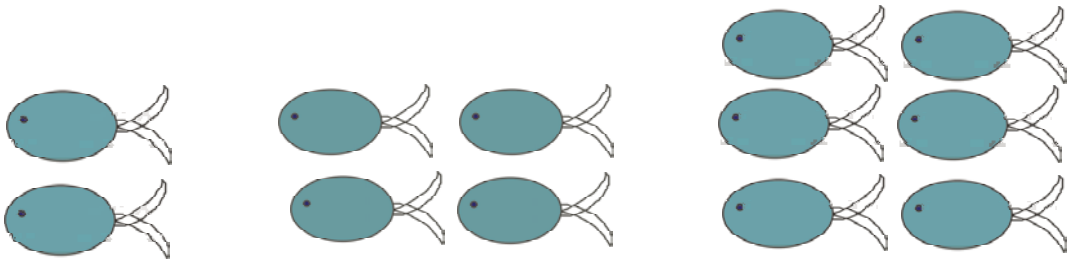
	+		=	

3 and 2 add to 5



☐ + ☐ = ☐

..... and ..... add to .....



☐ + ☐ = ☐

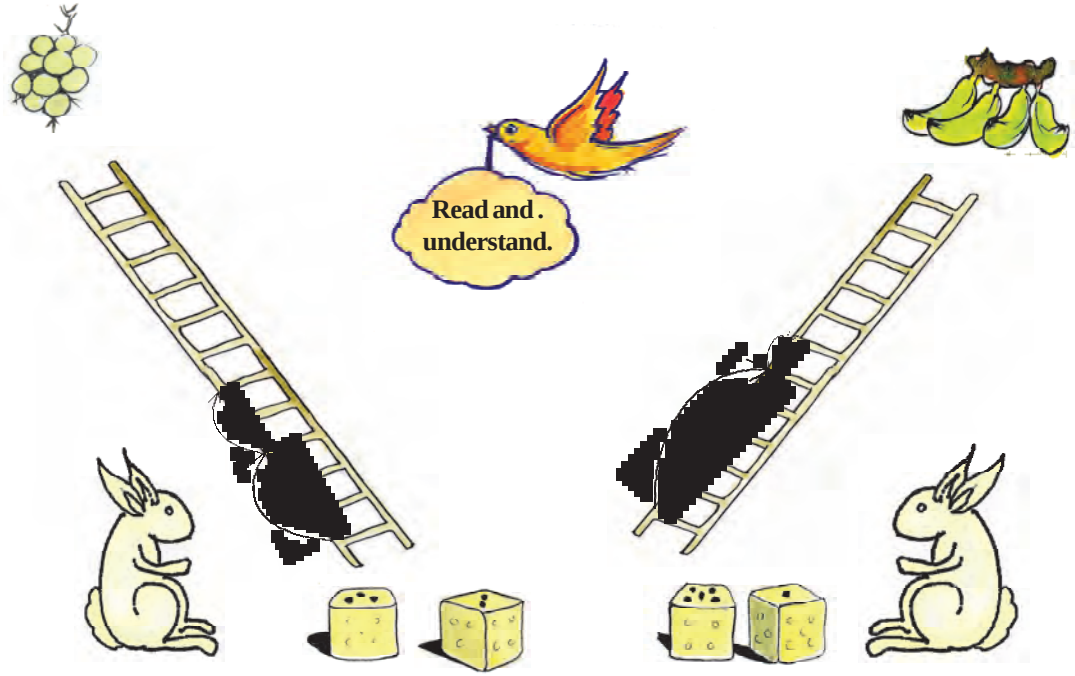
..... and ..... add to .....

Now Add these

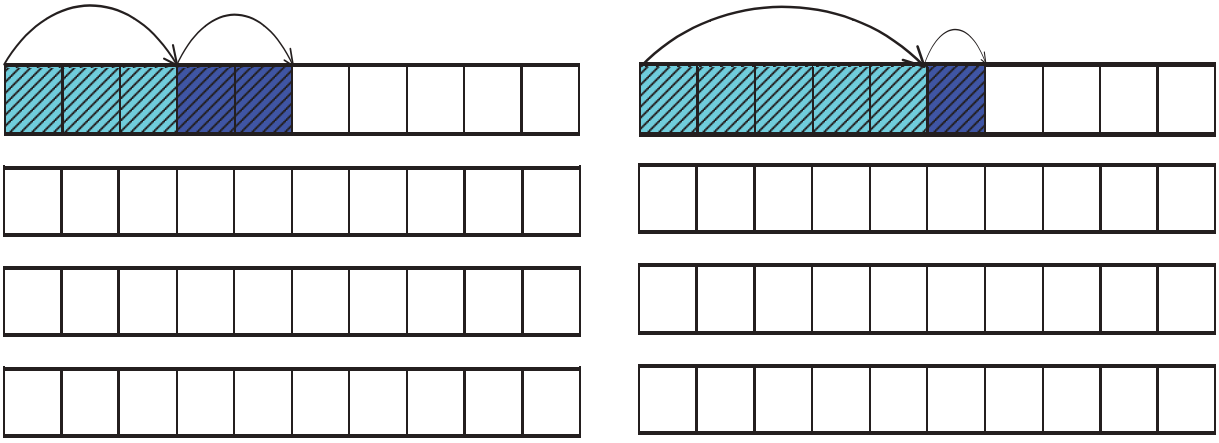
3 + 2 = ☐	6 + 2 = ☐	8 + 1 = ☐
2 + 3 = ☐	2 + 6 = ☐	1 + 8 = ☐
5 + 2 = ☐	4 + 4 = ☐	7 + 2 = ☐
2 + 5 = ☐	5 + 3 = ☐	2 + 7 = ☐
4 + 3 = ☐	7 + 1 = ☐	5 + 4 = ☐
3 + 4 = ☐	3 + 5 = ☐	4 + 5 = ☐



Read and understand.



Sonu and Monu were playing with a pair of dice. They climbed as many steps on the ladder as the number shown on the dice. Sonu got 3 and 2, so he climbed 3 and then 2 steps. Monu got 5 and 1. Both began fighting Sonu said, " We both are equal—one of your dice has a large number and one of my dice has a larger number." Monu said, "But, the sum of numbers on my dice is more than yours". He coloured the blocks. Monu coloured 5 blocks and then 1, and said to Sonu, " You would have only 5 coloured blocks, while I have 6". Play this game with your friends,colour the boxes and find out who gets highest total?



You can make more such boxes in your notebook and play the same.



How many did each pick?



Make a group with four of your friends. Collect some pebbles from out side. Each child should pick up pebbles from the heap of pebbles with her eyes shut. Now count the number of pebbles each one has picked up.

How many pebbles did the first child pick? = ☐

How many pebbles did the second child pick? = ☐

How many pebbles did the third child pick? = ☐

How many pebbles did the fourth child pick? = ☐

How many pebbles do the first and second child have altogether?

☐ + ☐ = ☐

How many pebbles do the third and fourth child have in all?

☐ + ☐ = ☐

How many pebbles do all four children have with them?

☐ + ☐ = ☐

Put the pebbles back in the pile. Again pick pebbles from the pile. count and fill the new table.



How many with each person?

Divide the children in groups of 4. Count and write the number of notebooks and textbooks you have. The number of textbooks and notebooks belongs to a child is given below. Similarly write down the number of textbooks and notebooks you have.

	Name	Notebooks	Textbooks
	Rakesh	7	9
Your Name			
First Friend			
Second Friend			
Third Friend			



How many notebooks and textbooks do you have in all? = ☐

How many notebooks and textbooks does _____have? = ☐

How many notebooks and textbooks does _____have? = ☐

How many notebooks and textbooks does _____have? = ☐

How many notebooks are there in the group in all? = ☐

How many textbooks are there in the group in all? = ☐

How many textbooks and notebooks are there in your group in all? = ☐

Do the same with other things as well.



How do we solve this?

1. You have 4 flowers. Rashmi gives you 2 more flowers. How many flowers do you have in all?
2. Rani had 12 garlands. Raja gave her 7 more garlands. How many garlands does Rani have altogether?

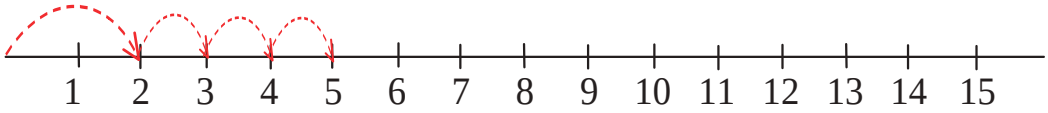


3. A vase has 6 red flowers and 5 yellow flowers. How many flowers are there in the vase?
4. Anita is wearing 8 bangles on one hand and 6 on the other hand. How many bangles is Anita wearing in all?
5. Class two has 8 old mats, and 5 new mats. How many mats are there in the class altogether?
6. Sumit had Rs. 4 and Saurabh had Rs. 6. Each of them got another Rs. 3. How much money does each have now?
7. Meena had 5 toys and Surbhi had 3 toys. Each of them received 2 more toys. How many toys do the two have now?



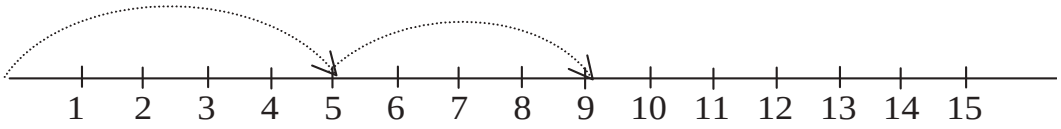
Addition on the number line.

(1)



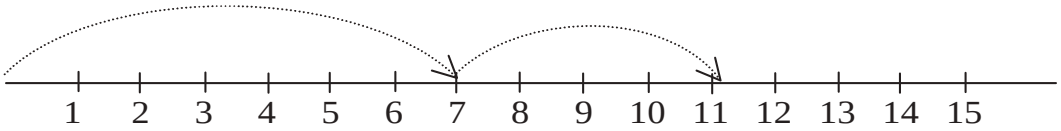
2 + 3 = 5 3 + 2 = 5

(2)



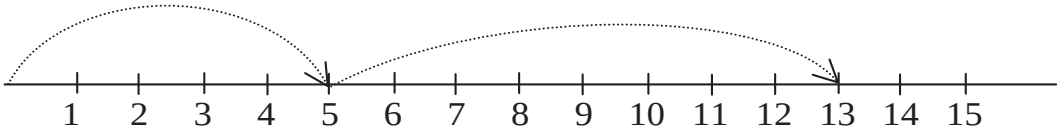
5 + 4 = 9 4 + 5 = 9

(3)



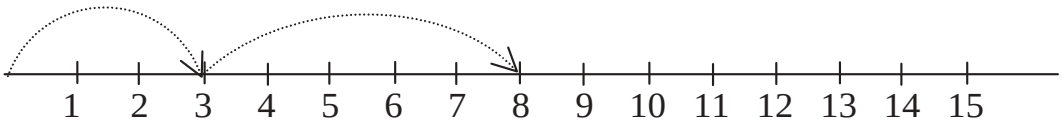
7 + 4 = 11 4 + 7 = 11

(4)



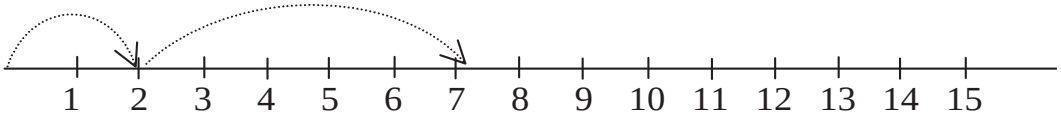
5 + 8 = 13 8 + 5 = 13

(5)



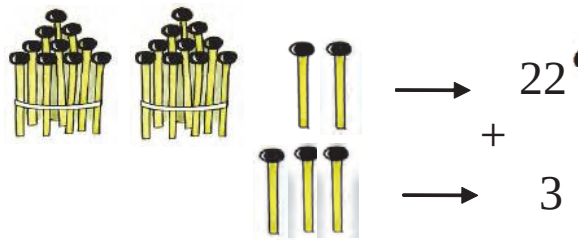
□ + 5 = 8 □ + □ = □

(6)



□ + □ = □ □ + □ = □



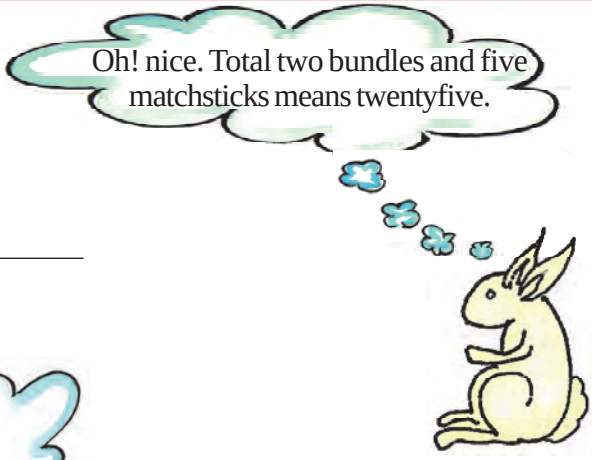


22

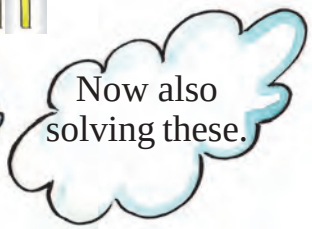
+

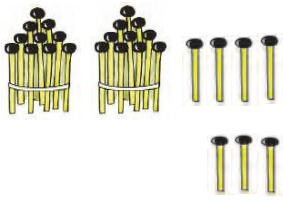
3

25


Oh! nice. Total two bundles and five matchsticks means twentyfive.



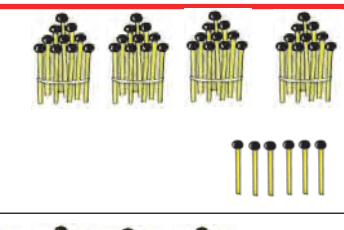

Now also solving these.



+ ☐

3

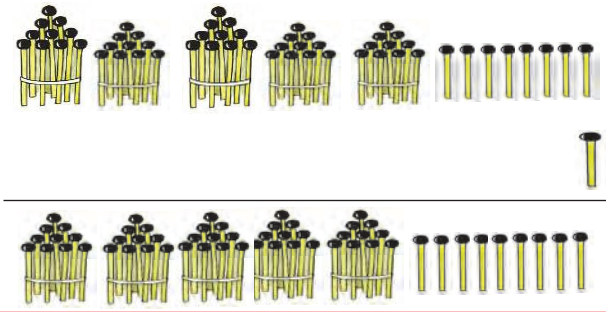
☐



+ ☐

☐

☐



+ ☐

☐

☐

Solve these



Add 46 and 3

Tens Ones

Add 72 and 26

Tens Ones

Add62 and 7

Tens Ones

Add 30 and 20

Tens Ones

Add 23 and 6

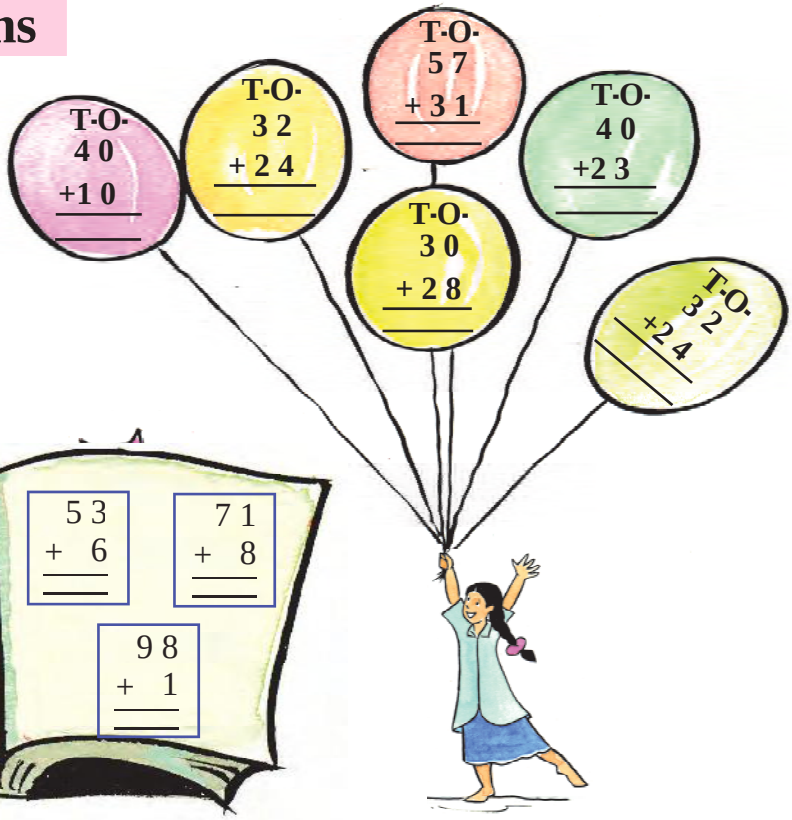
Tens Ones

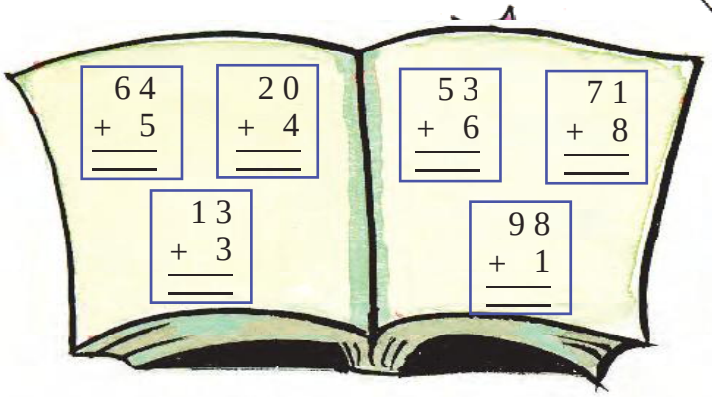
Add 35 and 3

Tens Ones

Some more sums

Ones = O
Tens = T





Make more sums of this kind and solve them.



Word problems

1. Lalita needs 25 seeds for her game. Sheila needs 22 seeds to complete her picture. How many seeds do they need in all?
2. Tara gave12 pencils each to 2 children to distribute. How many pencils in all she gave to distribute?
3. Rahul had 10 toys. His aunt gifted him 3 more toys. How many toys does Rahul have now?
4. Kamla has 15 mango and 8 banana trees in her orchard. How many trees are there in all?
5. Ghisa had 17 cows. He bought 13 more cows. How many cows does he have in all now?
6. There are 8 roses on a rose plant. Another plant has 12 roses. How many roses are there in all?
7. There were 45 students in a school. 12 more students were admitted. How many children are enrolled in the school now?
8. Sethji had 12 kilos of sugar in his shop. He bought 17 kilos of sugar more. How much sugar does he have in his shop now?
9. One fruit seller has 25 kilos of cheeku, 12 kilos of mango and 7 kilos of apples. How many kilos of fruits does the seller have now?

Solve these problems as well.

1. 33 + 45 = ☐
2. 12 + 27 = ☐
3. 21 + 7 = ☐

4. 35 + 42 = ☐

5. 31 + 40 = ☐

6. 20 + 13 = ☐

Make more questions of the same kind and solve them.

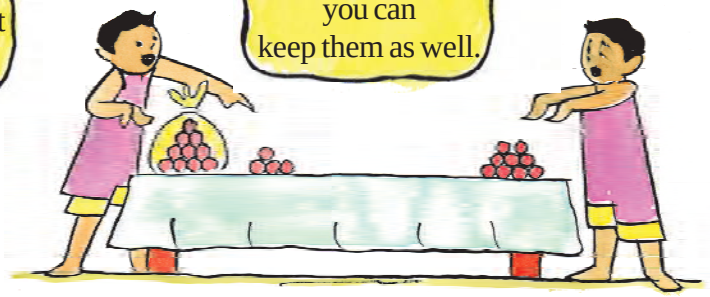


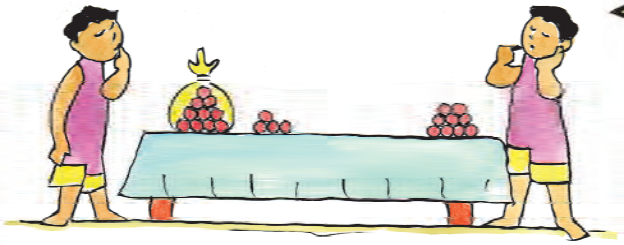
Chatku and Matku

Chutku, I have fourteen berries, ten placed in a bag and four kept separately

I have nine berries, Matku. you can keep them as well.

How many will there be altogether?

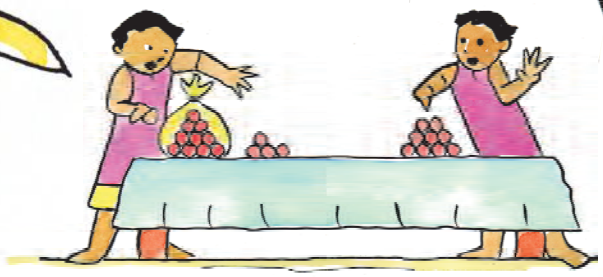


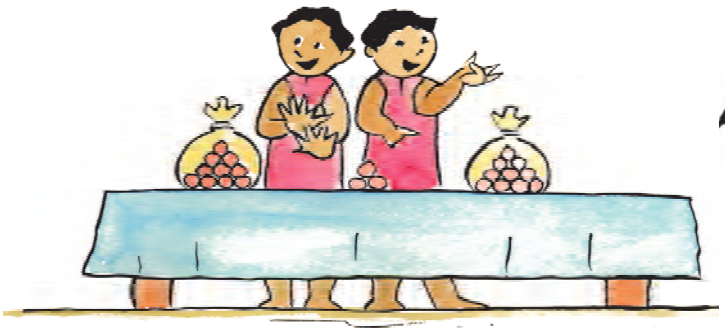


Let us think

We can make one more bag of ten berries from this pile. Three berries will remain.

This bag already has ten berries. Beside these I have four berries and you have given me nine berries.



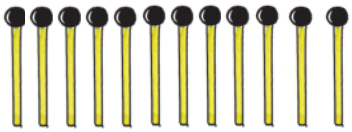


Ten and ten make twenty, and three more, which is twenty-three. Fourteen and nine together make twenty-three berries.



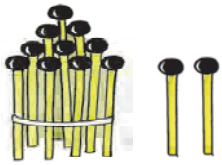


Bundles and matchsticks

= 12

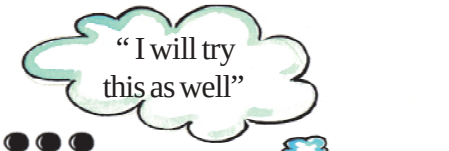
Make a bundle of 10 matchsticks.

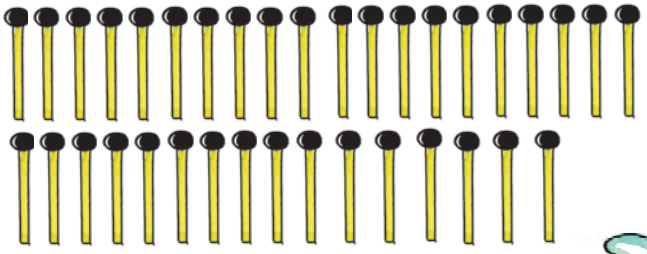


= 10 + 2

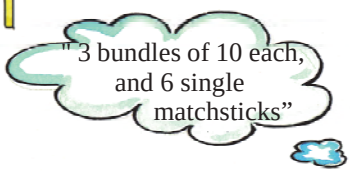
1 bundle of 10 matchsticks = 1 ten

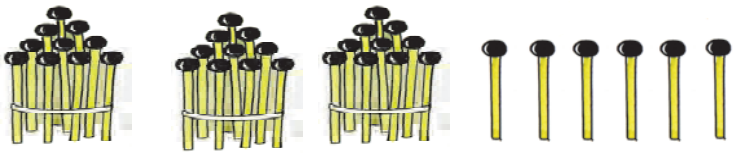
2 matchsticks = 2 ones













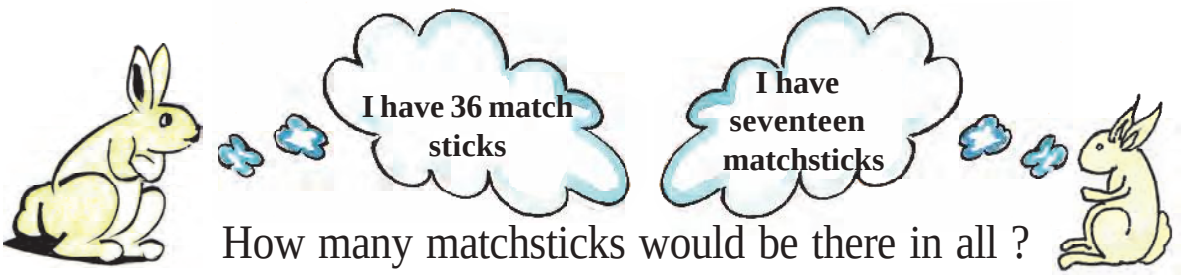
3 bundles = 3 tens = 30

6 ones = 6 ones = + 6





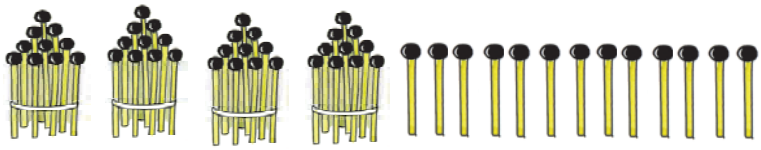
Addition



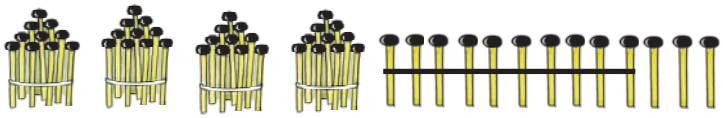
How many matchsticks would be there in all ?



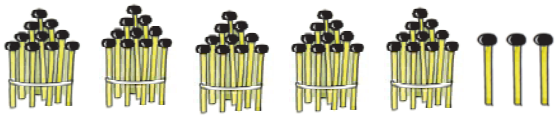
We have 4 bundles and 13 matchsticks in all.



A bundle of 10 can be made from the 13 matchsticks.



Earlier we had four bundles, now we have another bundle we can put it with four bundles. Now we have 5 bundles and 3 matchsticks left behind.



This can also be written as follows:

(We know that a bundle refers to ***tens*** and loose sticks refers to ***ones.***)

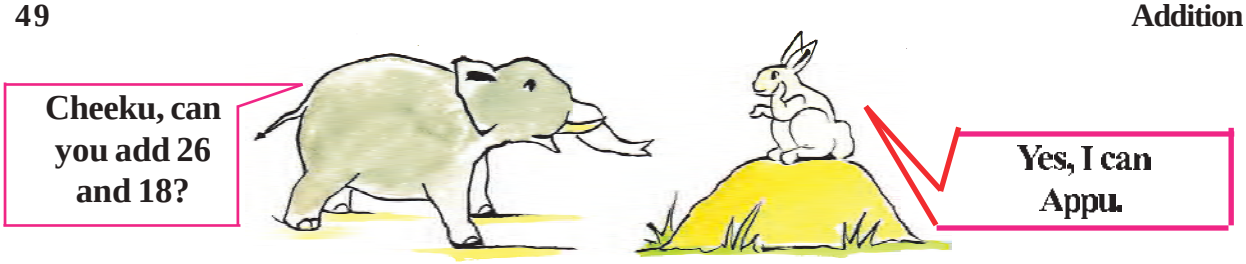
	t.	o.
	3	6
+	1	7
	4	(1) 3
	5	3

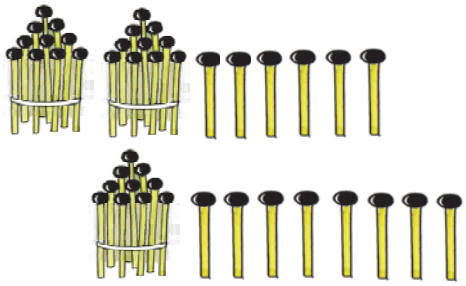
= 4 tens + 13 ones = 4 tens + 10 ones + 3 ones

= 4 tens + 1 tens + 3 ones

= 5 tens + 3 ones







T.	O.
(1)	2 6
+	1 8
3	(1) 4

T.	O.
	2 6
+	1 8
	4 4

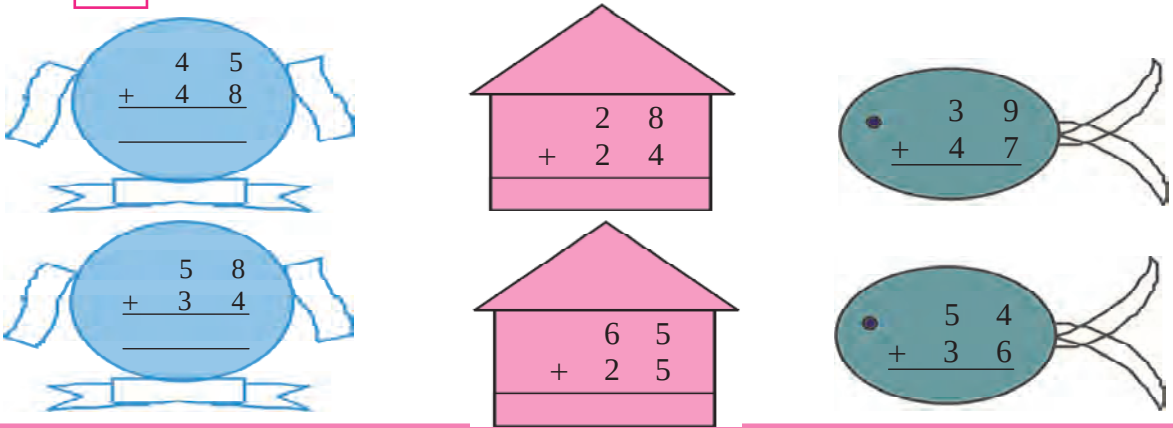
$$\begin{array}{r} 39 \\ +\ 20 \\ \hline \square \end{array}$$

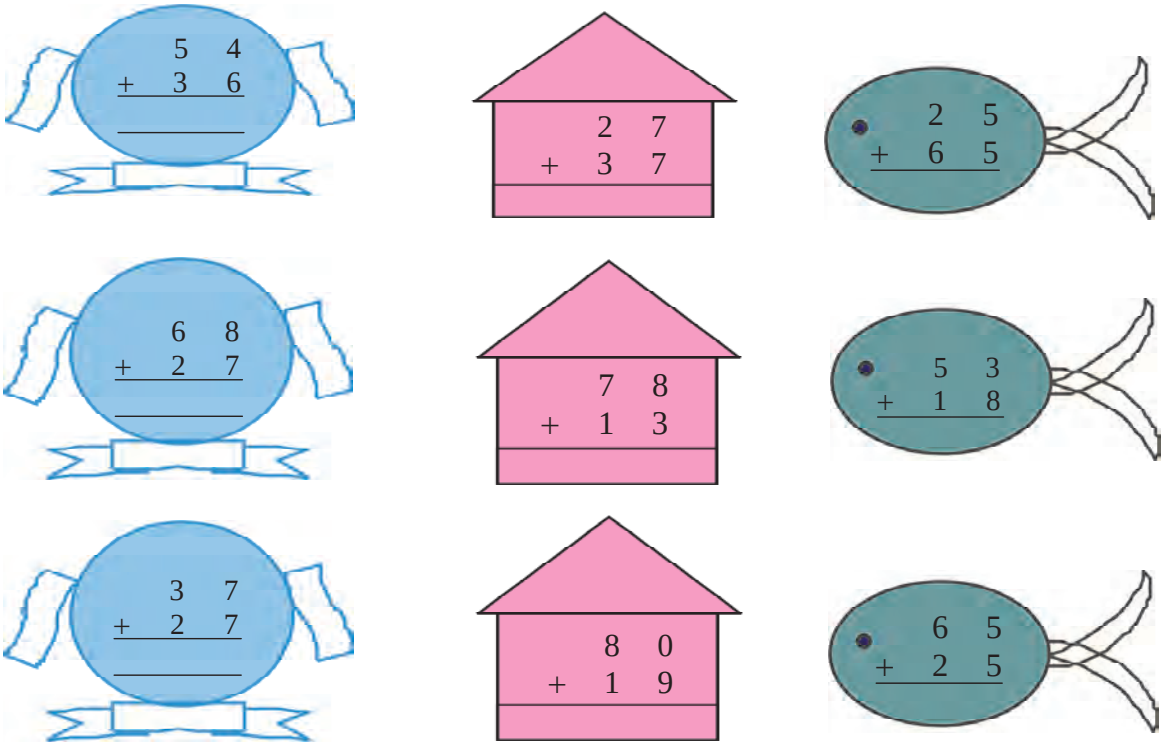
$$\begin{array}{r} 55 \\ +\ 16 \\ \hline \square \end{array}$$

$$\begin{array}{r} 60 \\ +\ 28 \\ \hline \square \end{array}$$

$$\begin{array}{r} 35 \\ +\ 25 \\ \hline \square \end{array}$$

$$\begin{array}{r} 74 \\ +\ 18 \\ \hline \square \end{array}$$





Make more such questions and solve them. Which question did you find toughest?

Some more questions



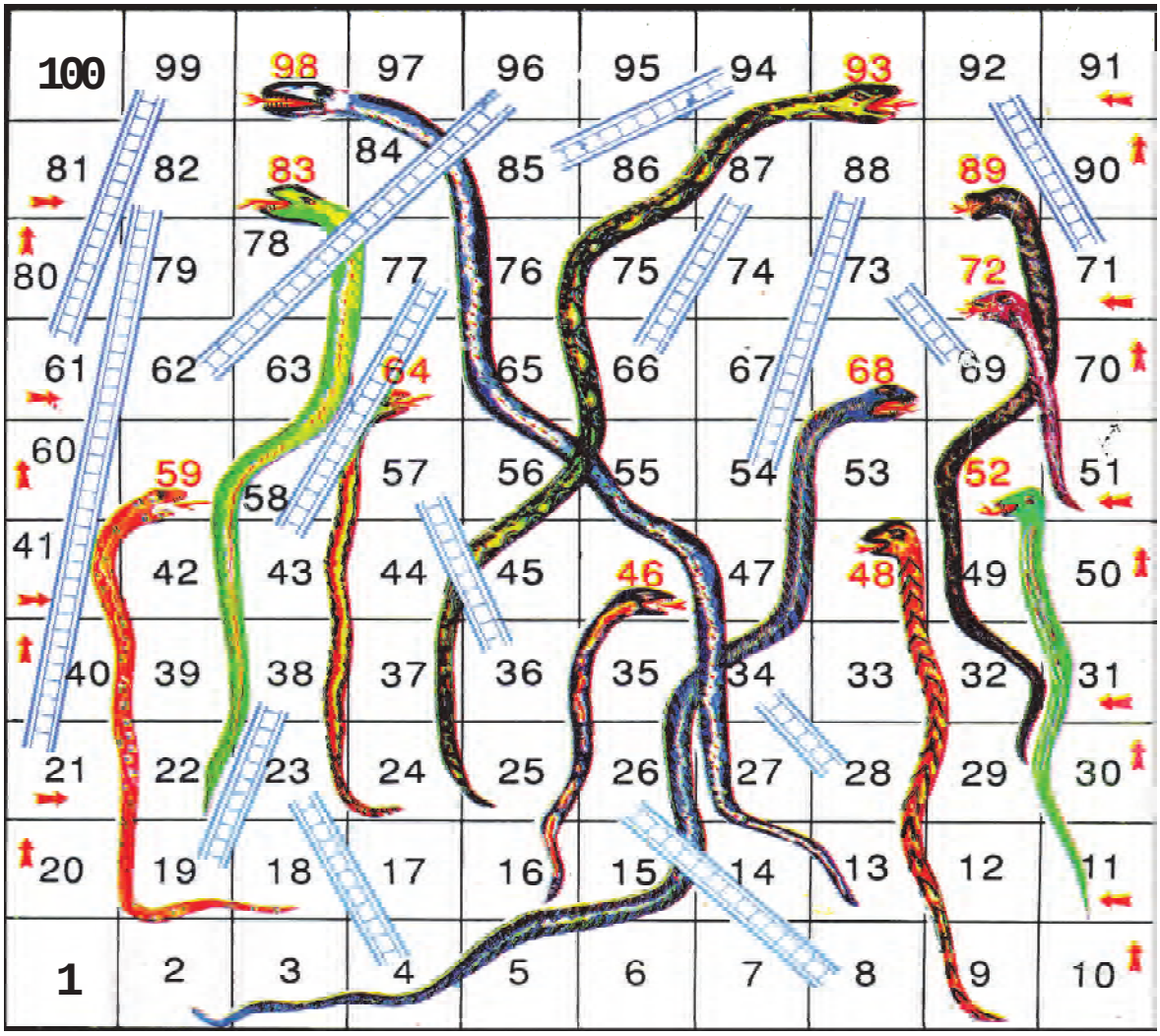
1. Anil has 25 balls. Ramesh gave him 13 more balls. How many balls does Anil have now?
2. Sanjay had 18 guava trees and 23 lemon trees in his garden. How many trees are there in all?
3. There were 32 people seated in a bus. 10 more people join them. How many people are seated in the bus now?
4. A flower bed has 26 plants, while another has 35 plants. How many plants are there in the two beds together?
5. Ramu took 25 goats and 15 sheep for grazing. How many animals did he take altogether?

6. Sushila bought apples for Rs. 68 and bananas for Rs. 44. How much money did he spend on buying fruits?

7. Rajiv bought a football for Rs. 20. He now has Rs. 10 left over. How much money did he have to begin with?

8. Sudhir has 15 plates, while Rajendra has 20 plates. Each of them received 10 each. How many plates does each have now?

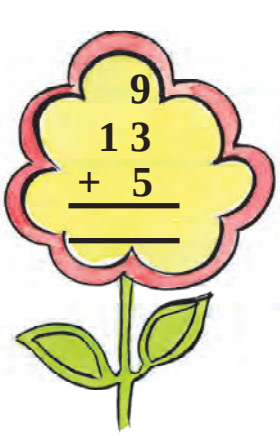
Snakes and Ladders

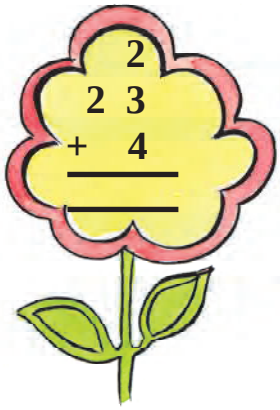


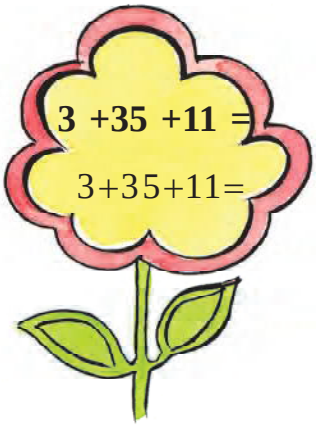
Play the game of snakes and ladders and answer the questions given below.

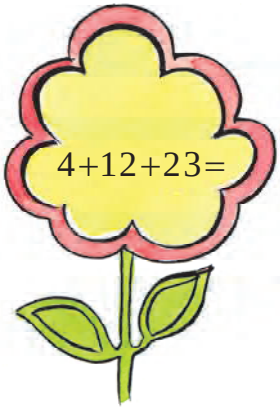


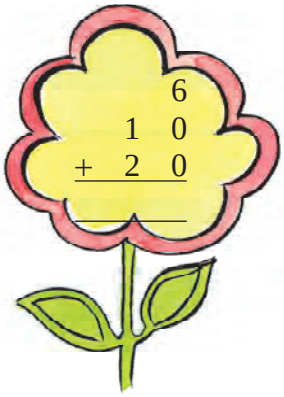
1. If you are on number 5 and you want to move to 10, then what number should you get on your dice?
2. If you are on number 3, and you get 5 on your dice, where would you reach? And how many numbers do you gain as a result of that?
3. You are on 44 and your dice shows 2. Where will you reach? How many blocks behind would you reach?

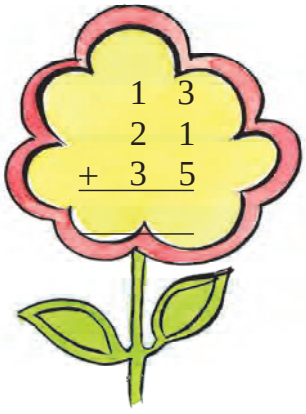


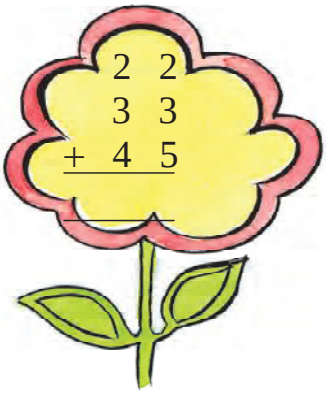


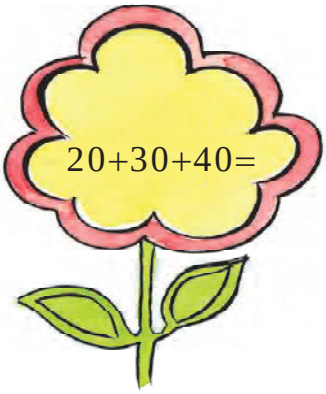


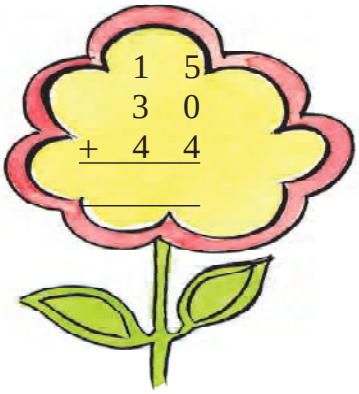






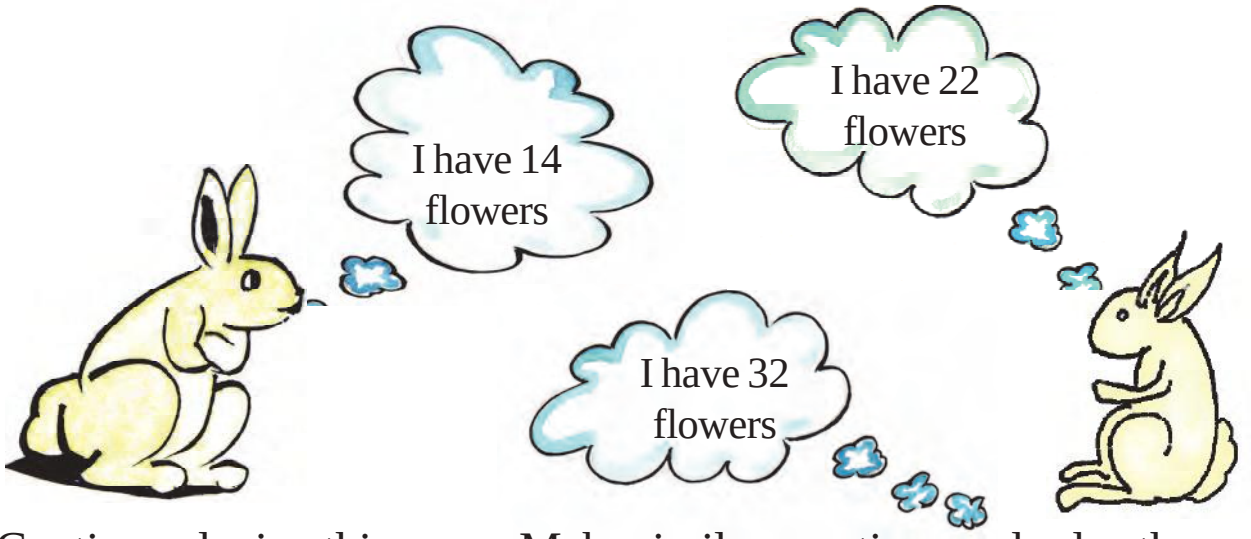












Continue playing this game. Make similar questions and solve them.

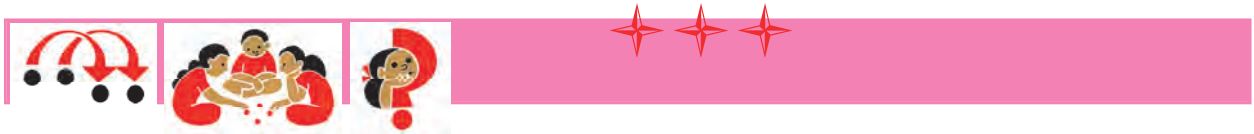


Add these as well.

How many flowers do these three have altogether?

$$\begin{array}{rrl} & 14 & \text{flowers} \\ & 22 & \text{flowers} \\ + & 32 & \text{flowers} \\ \hline & 68 & \text{flowers} \end{array}$$

1. An orchard has 45 guava trees, 23 apple trees and 31 pomegranate trees. How many trees exist in all?
2. A tailor sews 20 shirts, 31 trousers and 46 kurtas. How many clothes does he stitch in all?
3. Raju bought toys for Rs. 30, books for Rs. 40 and toffees for Rs. 10. How much money did he spend totally?
4. There were 24 men, 18 women and 11 children who were seated in a garden. How many people were seated in the garden in all?
5. A basket has 51 red balls, 35 yellow balls and 22 blue balls. How many balls are lying in the basket altogether?
6. Sunita solved 13 questions on the first day, 18 questions on the second day and 21 questions on the third day. How many questions did Sunita solve altogether in three days?



Lesson 4 SUBTRACTION

How many remain?



6 - 2 = 4

from 6 take away 2, 4 are left

6 - 2 = 4

six minus two is four



8 - 3 = 5

from 8 take away 3, 5 are left

8 - 3 = 5

eight minus three is five



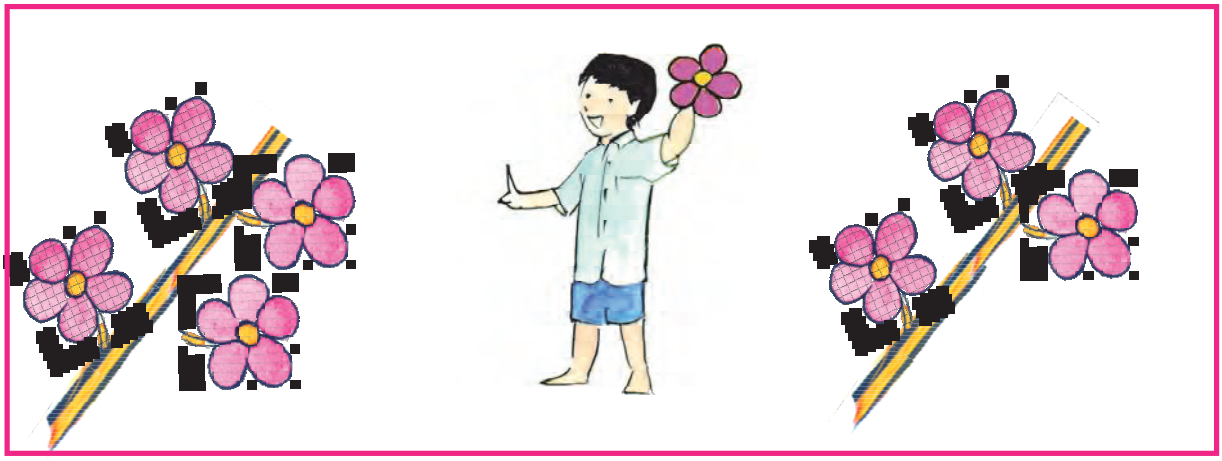


5 - 2 = 3

from 5 take away 2, 3 are left

5 - 2 = 3

five minus two is three

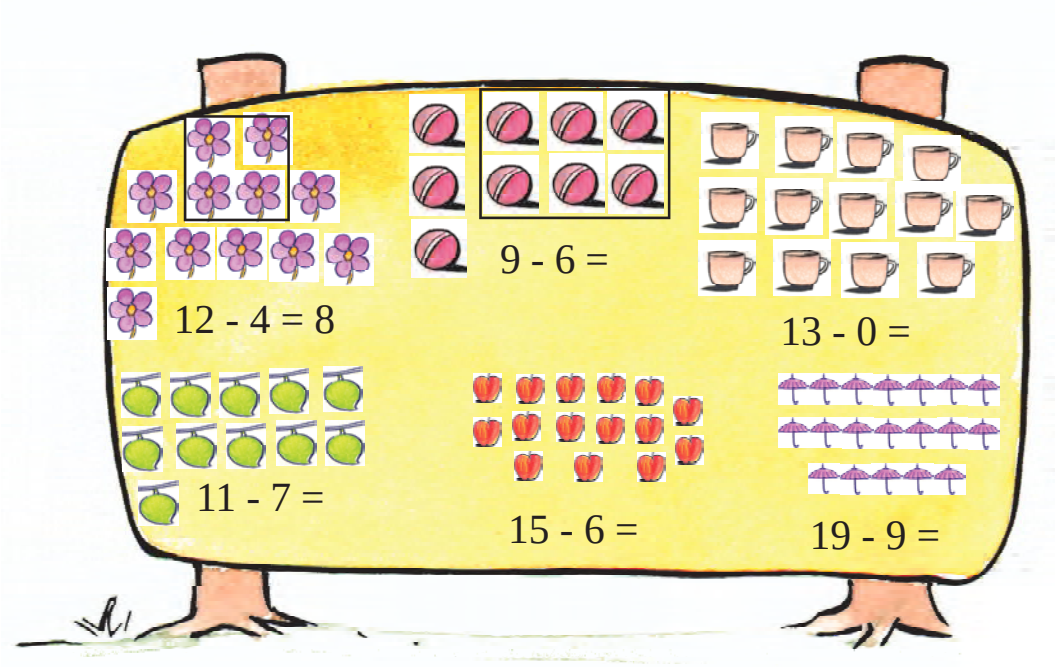


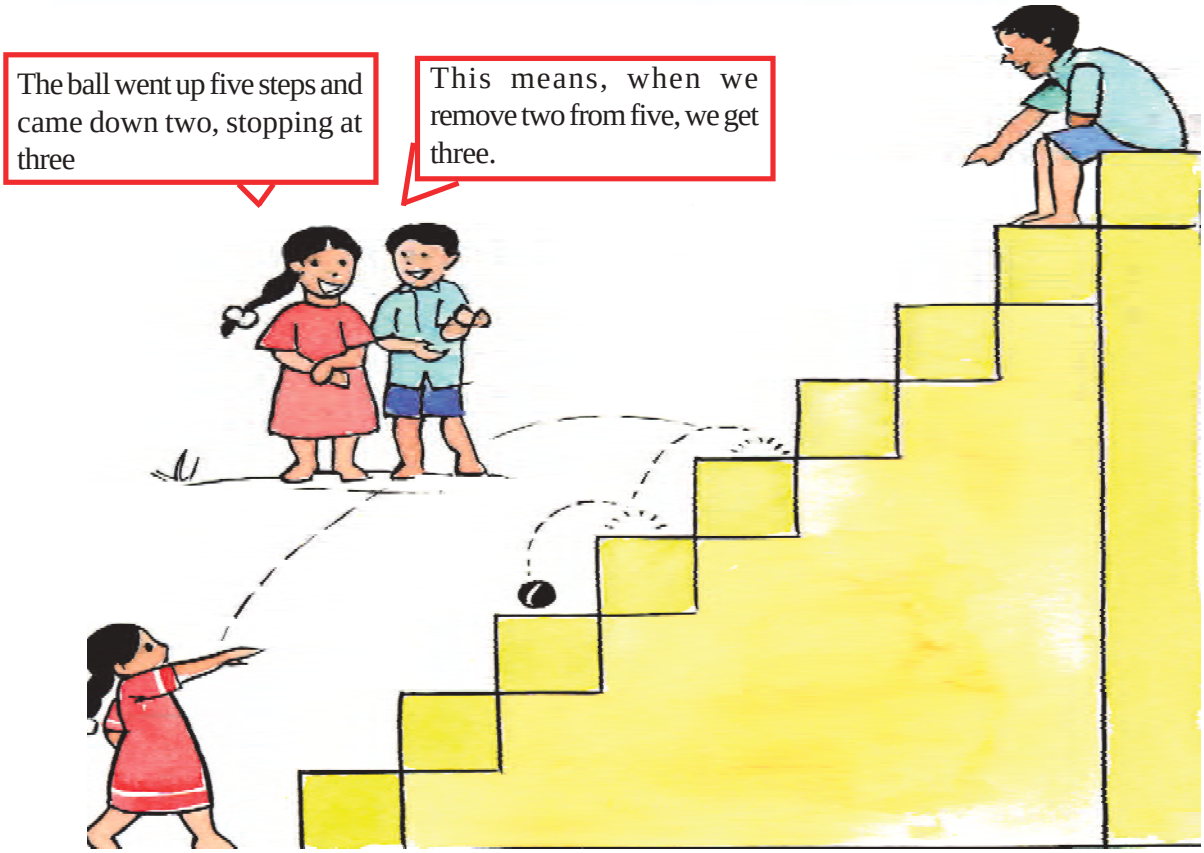
□ - □ = □

Make more questions like this and solve them.



How many remain? Count and write.

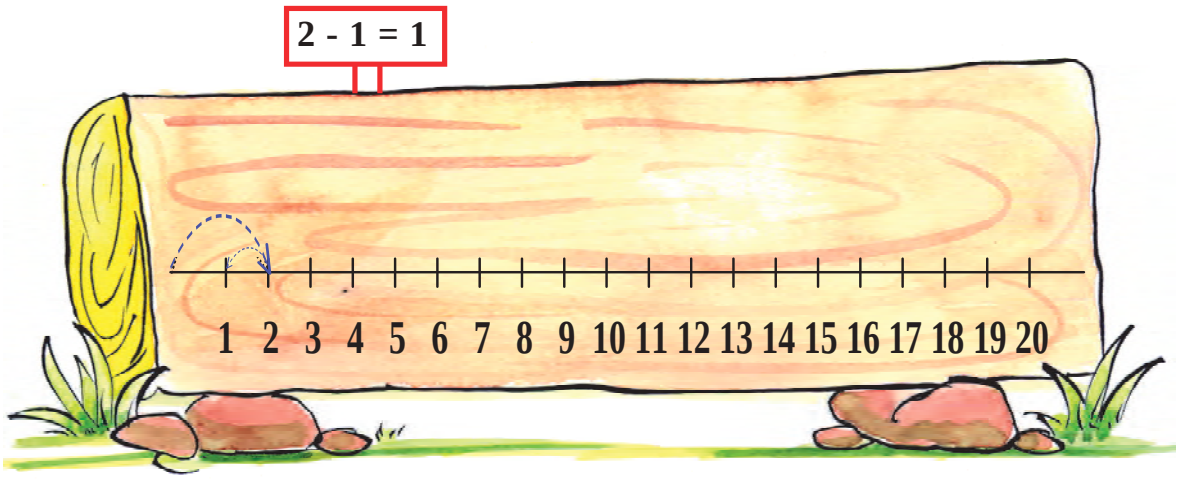


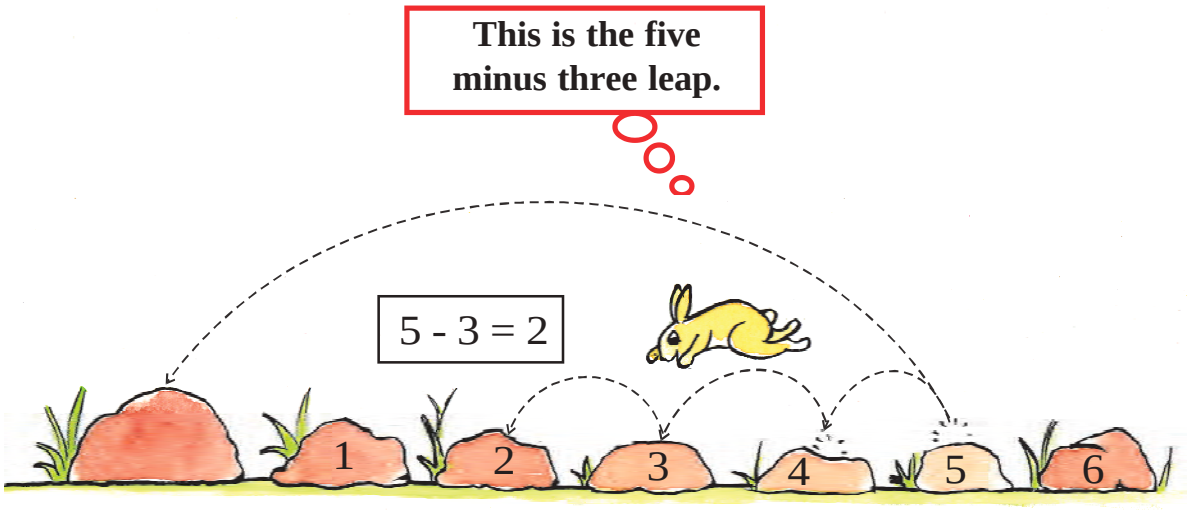


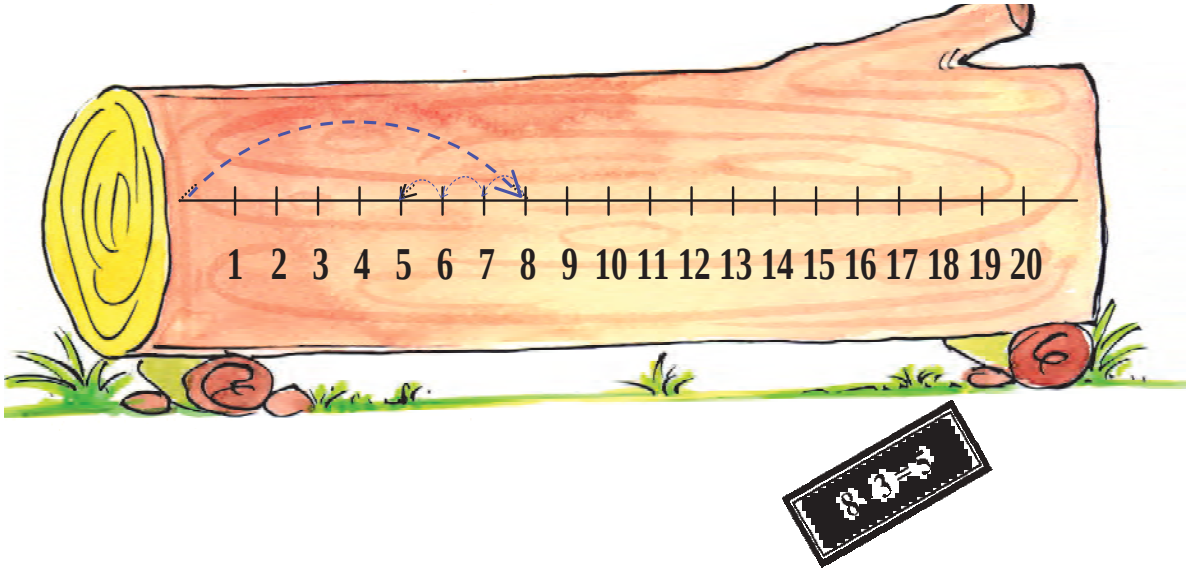
If the ball goes up eight steps and rolls down three, then where does it reach? If the ball goes up 9 steps and comes down 7 steps, where does it reach?




Subtract like this also.

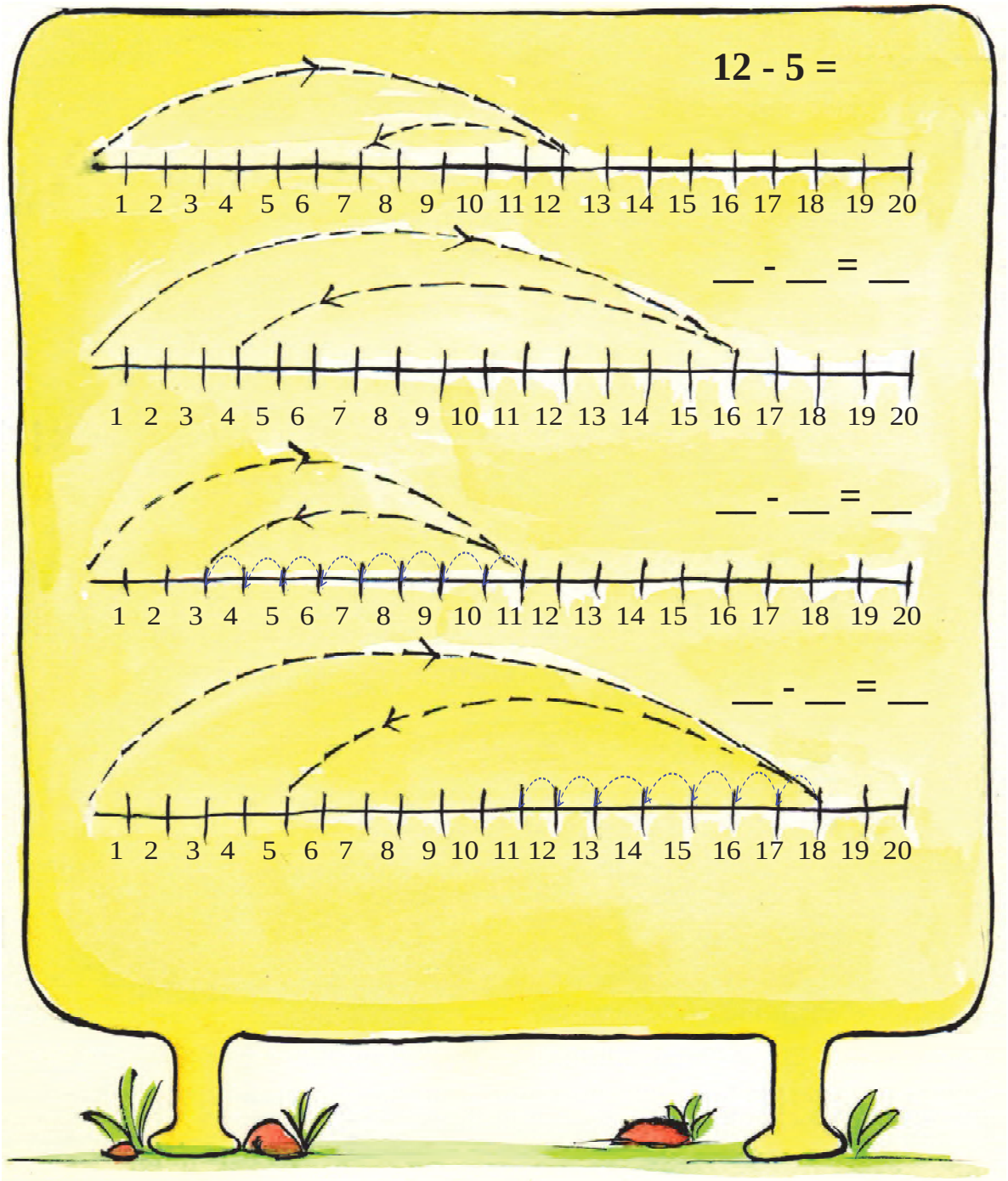








Read the numbers on the number line and fill in the blanks.



Make other such questions on the number line and ask your friends to solve them.

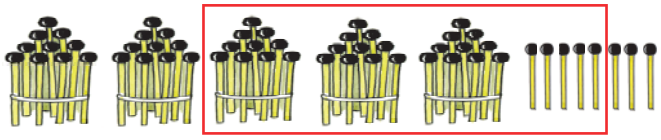


Bundle, matchsticks and subtraction.

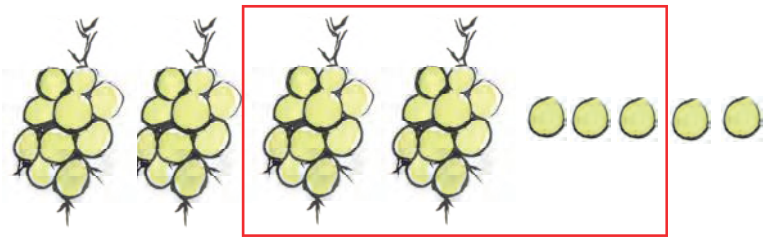
There were 5 bundles and 8 matchsticks.

From these 3 bundles and 5 matchsticks were given away.

How many are left?

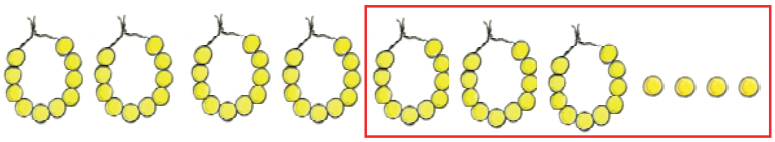


Sonu had four bunches with 10 grapes each and 5 more grapes. He ate two bunches and 3 grapes. How many grapes remain with him?



7 necklaces and 4 beads

3 necklaces and 4 beads are given away

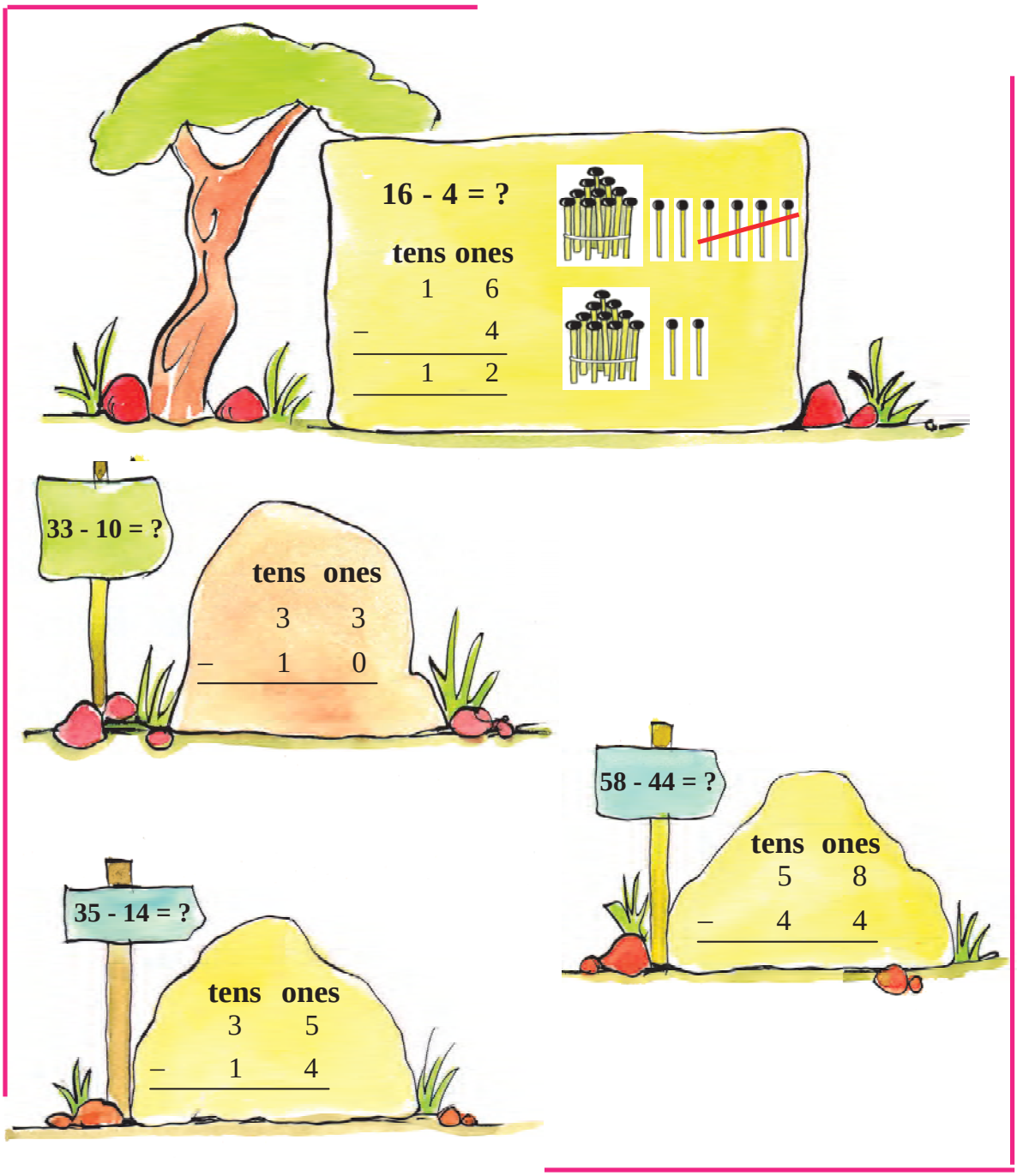


Solve these:

From 8 bundles 5 sticks, 4 bundles 2 sticks are given away. How many left?
From 7 bundles 8 sticks, 3 bundles 5 sticks are given away. How many left?
From 9 necklaces and 4 beads 1 necklace and 3 beads are given away. How many left?
From 6 necklaces and 3 beads 4 necklaces and 3 beads are given away. How many left?
Make more such questions using both bundles- matchsticks and necklaces-beads, also solve them. Make questions for others in your group as well.



Subtract these as well.



Solve these.

66 - 34 = 65 - 23 =

78 - 45 = 38 - 16 =

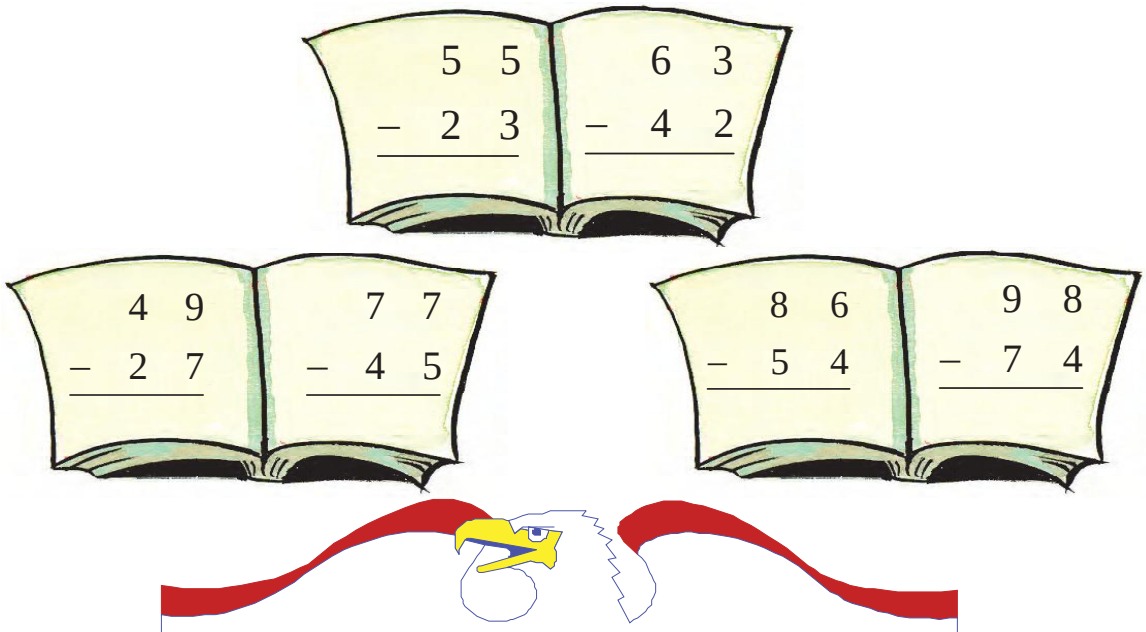


WORD PROBLEM

1. There are 17 girls and 22 boys in class two. How many children are there in this class altogether?
2. A shopkeeper has 32 red balls and 45 blue balls. How many balls does the shopkeeper have in all?
3. Janaki planted 18 saplings of flowers in her garden. She took out 12 saplings for planting in school. How many saplings are left in Janaki's garden?
4. Sarla bought copies for Rs. 16 and books for Rs. 60. How much money did Sarla spend in all?
5. A milkman had 28 litres milk in his can, he sold 21 litres of milk. How many litres of milk are left with him.
6. There are 26 children in class one and 15 children in class two. How many more children are there in class one in comparison to class two?
7. Rajneesh had Rs. 7 when he returned from the market. He had spent Rs.12 on sweets. How many rupees did he go to the market with.
8. There was a herd of 8 elephants in Jashpur. Another herd of 12 elephants from Semorsote came there. How many elephants are now there in Jashpur forest altogether.
9. Grand mother gave Ramesh Rs. 15. He now has Rs. 27. how much money did he have before?
10. Ameena took Rs.50 for purchasing things. She bought wheat for Rs. 20 and gram for Rs. 10. How many rupees are left with her.



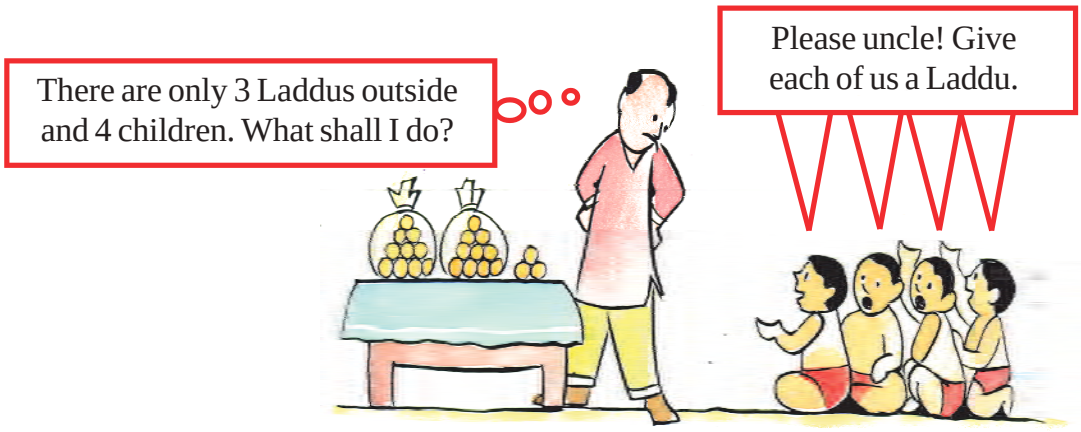
Try these also.



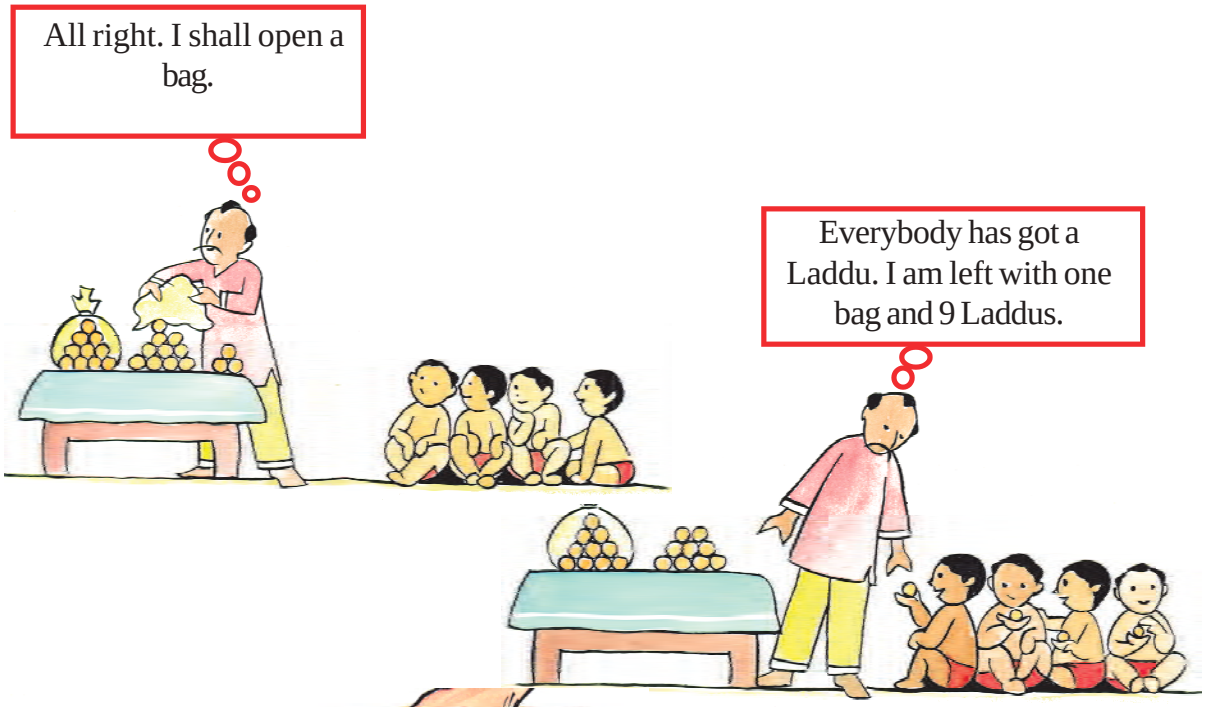
Find the difference

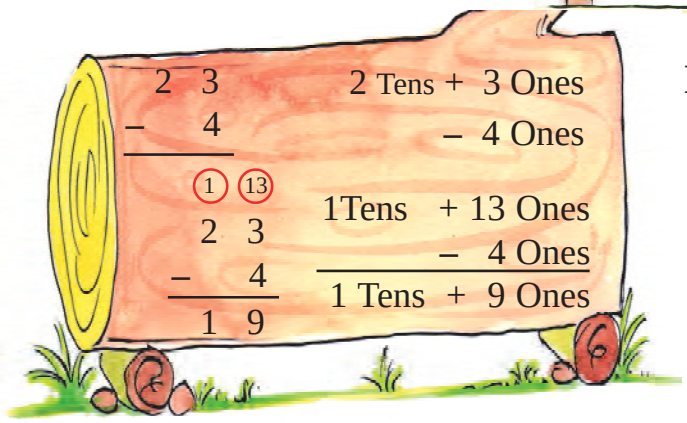
46 - 26 =	95 - 73 =
78 - 72 =	88 - 44 =
54 - 32 =	57 - 30 =
67 - 26 =	49 - 29 =

At last a bag had to be opened!









Discuss and write a story for this.

Why did uncle have to open the bag?

If there were 5 children, how many bags would have remained close?

If there were 5 children, how many Laddus would have been left in the opened bag?

How did we solve?

1. Ramesh had a packet of 10 pencils and 2 more pencils. Ramesh opened the packet. How many pencils does Ramesh have in all?

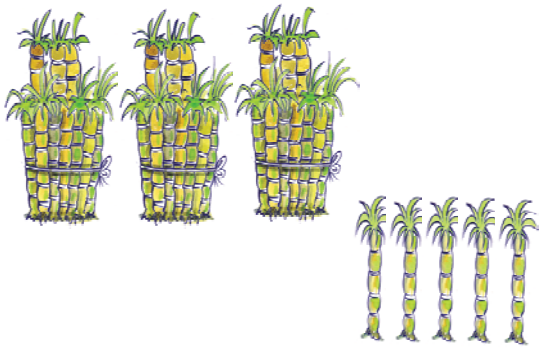
Let us understand this



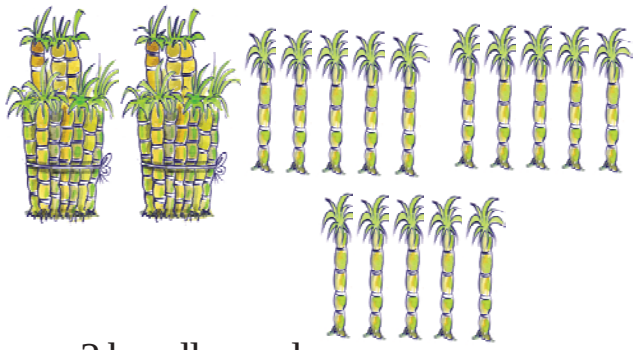
1 packet 2 pencils 12 pencils



2. A farmer had 3 bundles of 10 sugarcanes each and 5 more sugarcanes. He opened one bundle. How many bundles and how many sugarcanes he has now?



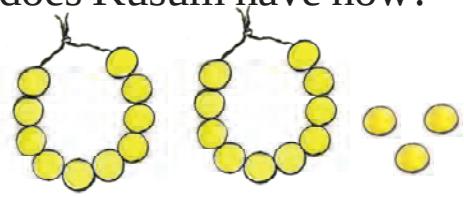
3 Bundles and 5 sugarcanes



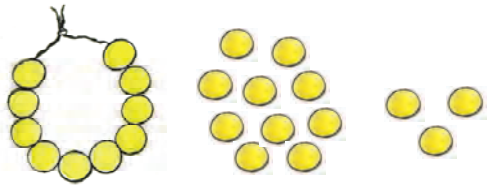
2 bundles and _____ sugarcanes.

Try these

1. Gangaram has 2 bundles with ten tooth-sticks each and 8 more tooth-sticks. If he opens one bundle then how many bundles and how many loose tooth-sticks would he have?
2. Somsai has 4 bundles of ten corals each and 6 more corals. If he opens 2 bundles, then how many bundles and how many loose corals would he have?
3. Kusum had 2 necklaces of 10 beads each and 3 more beads. One necklace broke. How many necklaces and how many beads does Kusum have now?



2 necklaces and 3 beads



---------- necklaces and ---------- beads

4. There are 3 garlands of ten flowers each and 7 more flowers. All the flowers from one garland were taken and mixed with the other flowers. How many garlands and how many flowers will be there now?



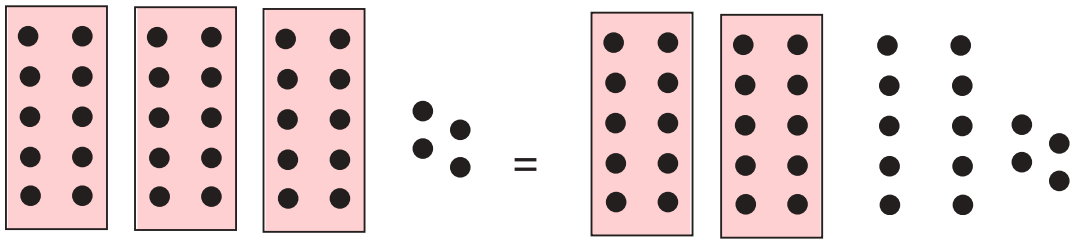
5. Rupsingh has 2 necklaces of ten gems each. He opened both the necklaces and took out all the gems. How many gems does he have?

6. Mangli has 3 ten rupees notes and 6 one rupee coins. As a change for a ten rupee note she got 10 one rupee coin. How many coins and how many notes does she have now?

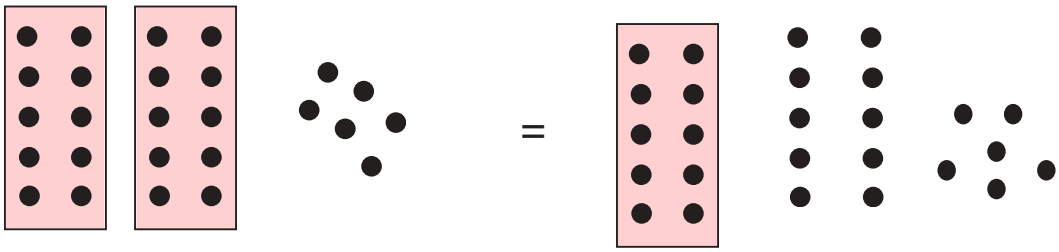
7. Saagar had 4 bundles of ten sticks each and 7 loose sticks. 2 bundles were opened. How many bundles and how many loose sticks does he have now?

You also frame more such questions and give each other to solve. How many questions could you frame?

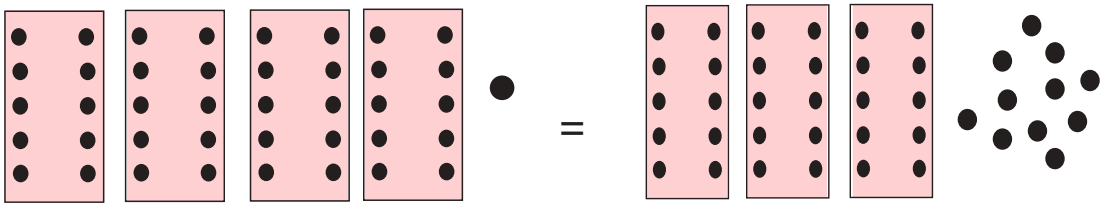
Convert tens into ones



Three tens and four ones = Two tens and fourteen ones

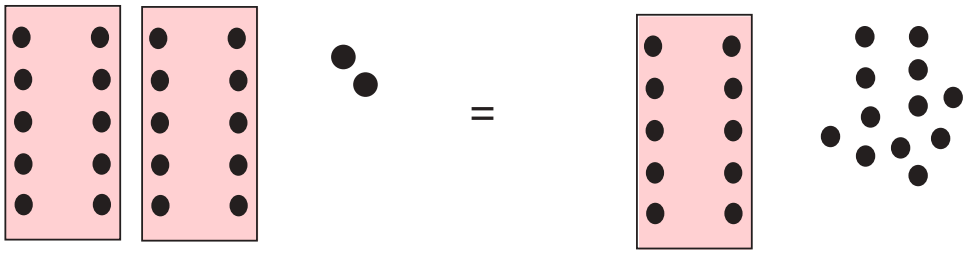


Two tens and six ones = One ten and -------- ones





Two tens and .....ones ------tens and ------ ones



Two tens and ----- ones -----tens and ---- ones

Take tens and ones cards and do the exercise.
Make such sums for friends in your group.

Let's understand these:

1 ten	+	0 one	=	0 ten	+	10 ones
2 ten	+	3 one	=	1 ten	+	13 ones
5 ten	+	0 one	=	4 ten	+	10 ones
1 ten	+	7 one	=	0 ten	+	17 ones

Fill in the Blanks

3 tens	+	1 one	=	2 tens	+	-----one
4 tens	+	0 one	=	3 tens	+	-----one
2 tens	+	5 ones	=	----ten	+	15 ones
1 ten	+	----one	=	0 ten	+	12 ones
5 tens	+	4 ones	=	4 tens	+	----one
----tens	+	----one	=	1 ten	+	17 ones
----tens	+	-----one	=	2 tens	+	13 ones

Look at these

4 tens	+	5 ones	=	3 tens	+	15 ones
----------	+	----------	=	1 ten	+	35 ones



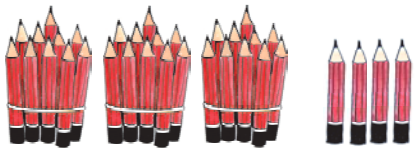
Do these

5 tens + 3 ones = -------

3 tens + 7 ones = -------

6 tens + 8 ones = -------

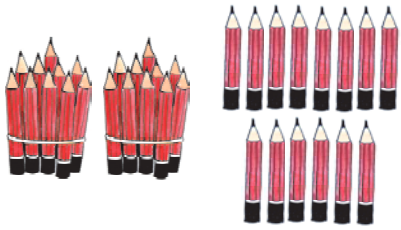
Subtract 15 from 34



34 ⟶ 3 tens + 4 ones

\- 15 ⟶ 1 ten + 5 ones

Convert one ten to ones



34 ⟶ 2 tens + 14 ones

\- 15 ⟶ 1 ten + 5 ones

Subtract ones from ones.

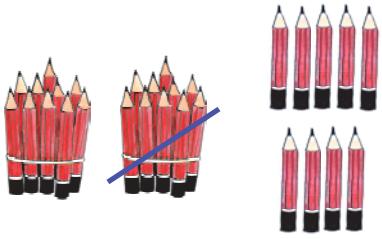


34 ⟶ 2 tens + 14 ones

\- 15 ⟶ 1 ten + 5 ones

-------- + 9 ones

Subtract tens from tens.



34 ⟶ 2 tens + 14 ones

\- 15 ⟶ 1 tens + 5 ones

1 ten + 9 ones



So

$$\begin{array}{r} 3\ 4 \\ -\ 1\ 5 \\ \hline 1\ 9 \end{array}$$

$$\begin{array}{r} \overset{2}{\cancel{3}}\ \overset{14}{4} \\ -\ 1\ 5 \\ \hline 1\ 9 \end{array}$$

34 – 15 = 19

Understand the example and then solve.

Subtract 19 from 36

$$\begin{array}{r} 3\ 6 \\ -\ 1\ 9 \\ \hline \end{array}$$

$$\begin{array}{r} \overset{2}{\cancel{3}}\ \overset{16}{\cancel{6}} \\ -\ 1\ 9 \\ \hline \end{array}$$

$$\begin{array}{r} \overset{2}{\cancel{3}}\ \overset{16}{\cancel{6}} \\ -\ 1\ 9 \\ \hline 1\ 7 \end{array}$$

36 - 19 = 17

Subtract 48 from 72

$$\begin{array}{r} 7\ 2 \\ -\ 4\ 8 \\ \hline \end{array}$$

$$\begin{array}{r} \overset{6}{\cancel{7}}\ \overset{12}{\cancel{2}} \\ -\ 4\ 8 \\ \hline \end{array}$$

$$\begin{array}{r} \overset{6}{\cancel{7}}\ \overset{12}{\cancel{2}} \\ -\ 4\ 8 \\ \hline 2\ 4 \end{array}$$

72 - 48 = 24

Subtract 26 from 43

$$\begin{array}{r} \overset{3}{4}\ \overset{13}{3} \\ -\ 2\ 6 \\ \hline 1\ 7 \end{array}$$

Subtract 28 from 55

$$\begin{array}{r} \overset{4}{5}\ \overset{15}{5} \\ -\ 2\ 8 \\ \hline 2\ 7 \end{array}$$

Subtract 18 from 40

$$\begin{array}{r} \overset{3}{4}\ \overset{10}{0} \\ -\ 1\ 8 \\ \hline 2\ 2 \end{array}$$

Subtract 46 from 60

$$\begin{array}{r} \overset{5}{6}\ \overset{10}{0} \\ -\ 4\ 6 \\ \hline 1\ 4 \end{array}$$





Solve these

47 - 18
50 - 13
51 - 12
67 - 48

32 - 12
44 - 29
56 - 39
80 - 34

Let's practice.

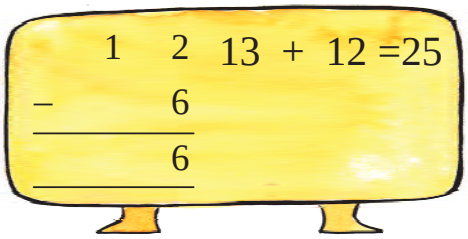
25 − 8 =	20 − 8 =	23 + 17 =	32 − 16 =
52 + 34 =	76 − 29 =	32 − 16 =	44 + 26 =
83 − 55 =	65 − 39 =	44 + 27 =	96 − 77 =
36 − 18 =	48 + 26 =	36 − 29 =	64 − 58 =
86 − 79 =	75 + 18 =	66 − 33 =	38 − 26 =

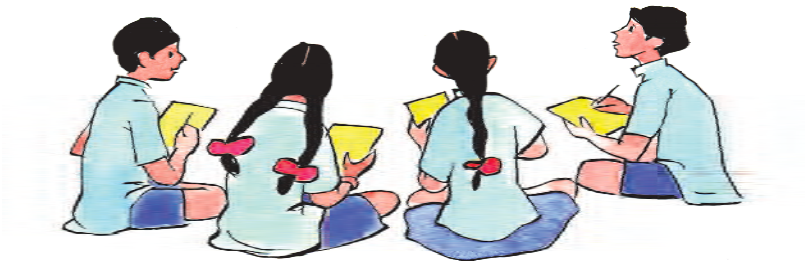
74 + 25 = ... 75 - 28 = ... 66 - 37 = ...

47 - 38 = ... 48 - 26 = ... 45 + 18 = ...



Read, comprehend and solve.





1. There are 21 students in class one and 25 in class two. what is the number of children in both the classes together?
2. A garden has 18 Chikoo trees and 28 Orange trees. How many trees are there in all?
3. There are 20 books of Hindi and 38 books of Maths in a library. How many books of these subjects are there in the library altogether?
4. A box has 35 chocolates and an another box has 56 chocolates in it. How many chocolates are there in these two boxes altogether?
5. There are 43 boys and 46 girls in a class. How many children are there in all?
6. Meena stiched 36 shirts and 22 halfpants. How may clothes has she stiched altogether.
7. Manglu has 7 cows at his home, he bought 4 more cows. How many cows does he have now?
8. Yamini beaded 8 Rose and 7 Jasmine flowers in a garland. How many flowers are there in the garland altogether.

EXERCISE



1. There were 49 passengers in the bus. 34 passengers got down at the station. How many passengers are left in the bus?
2. Rekha had Rs. 75. She bought bangles for Rs. 38. How many Rs. are left with her?
3. Malti had 12 copies. She gave 5 copies to Juhi. How many copies does she have now?
4. Madhuri bought 52 eggs. She gave 26 eggs to Girdhar. How many eggs does she have now?
5. Daras took 16 pumpkins to the market. He came back with 4 pumpkins. How many pumpkins did he sell?
6. Sudhir had 7 books. He gave 2 books to Manoj. How many books are left with him?
7. When I came here I had 5 chalks with me. Now I have 2 chalks. How many chalks have I used?





1. Rajni gave 4 laddus each to her son and her daughter. She has 2 laddus left with her. How many laddus did she have to begin with ?
2. Fatima bought 8 pencils from one shop and 6 pencils from the other. She wants to distribute these pencils among her 12 friends. Will she be able to give pencils to everybody? How many pencils would be left after giving to everyone?
3. There were 8 passengers in the bus. 8 more passengers got on from Durg and 10 passengers got down at Nandgaon. How many passengers are there in the bus.
4. I bought 3 mangoes and 5 bananas from the market. I ate 4 fruits out of these . How many fruits are left?
5. A nursery has 15 mango and 10 Jamun saplings. Mohini planted 12 saplings in her garden. How many saplings are left in the nursery?
6. Faraz had Rs. 7. He bought fruits for Rs. 4. Aman gave him another Rs.6 on his birthday . How many rupees does Faraz have now?

Lesson - 5 Multiplication



Take a few buttons or seeds from your teacher.

Draw nine circles on the floor. Place two buttons in each circle.

How many buttons are there in one circle?

- How many buttons are there in two circles altogether?
- How many buttons are there in three circles altogether.
- How many buttons are there in four circles? Similarly……
- How many buttons are there in five circles, …….., six circles …… seven circles ……. and so on. Count and write for each.

In the same way now place three buttons in each circle.

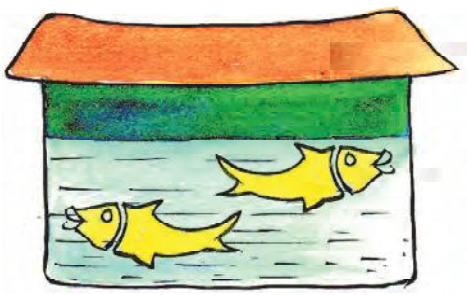
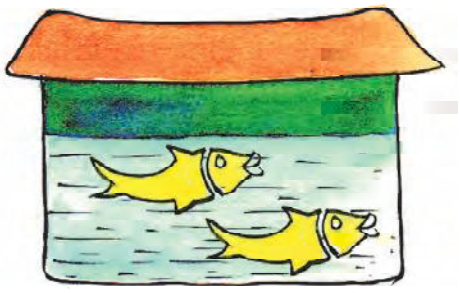
How many buttons are there in two circles altogether?

How many buttons are there altogether with two buttons each in three circles.

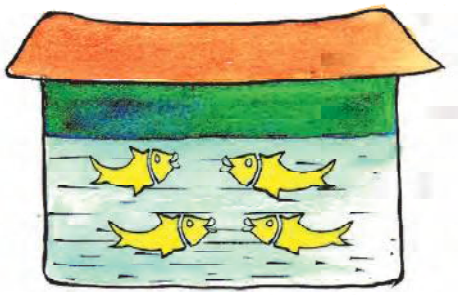
Now place buttons or any other objects in groups of three, four or five. Show them to your friends and ask them how many things are there in total each time.



Adding equally sized groups.

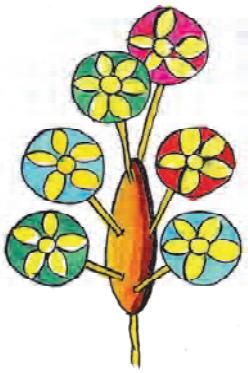



2 + 2



= 4



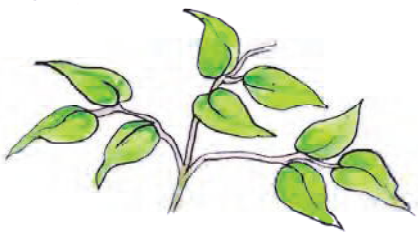



2 + 2 + 2 = ☐



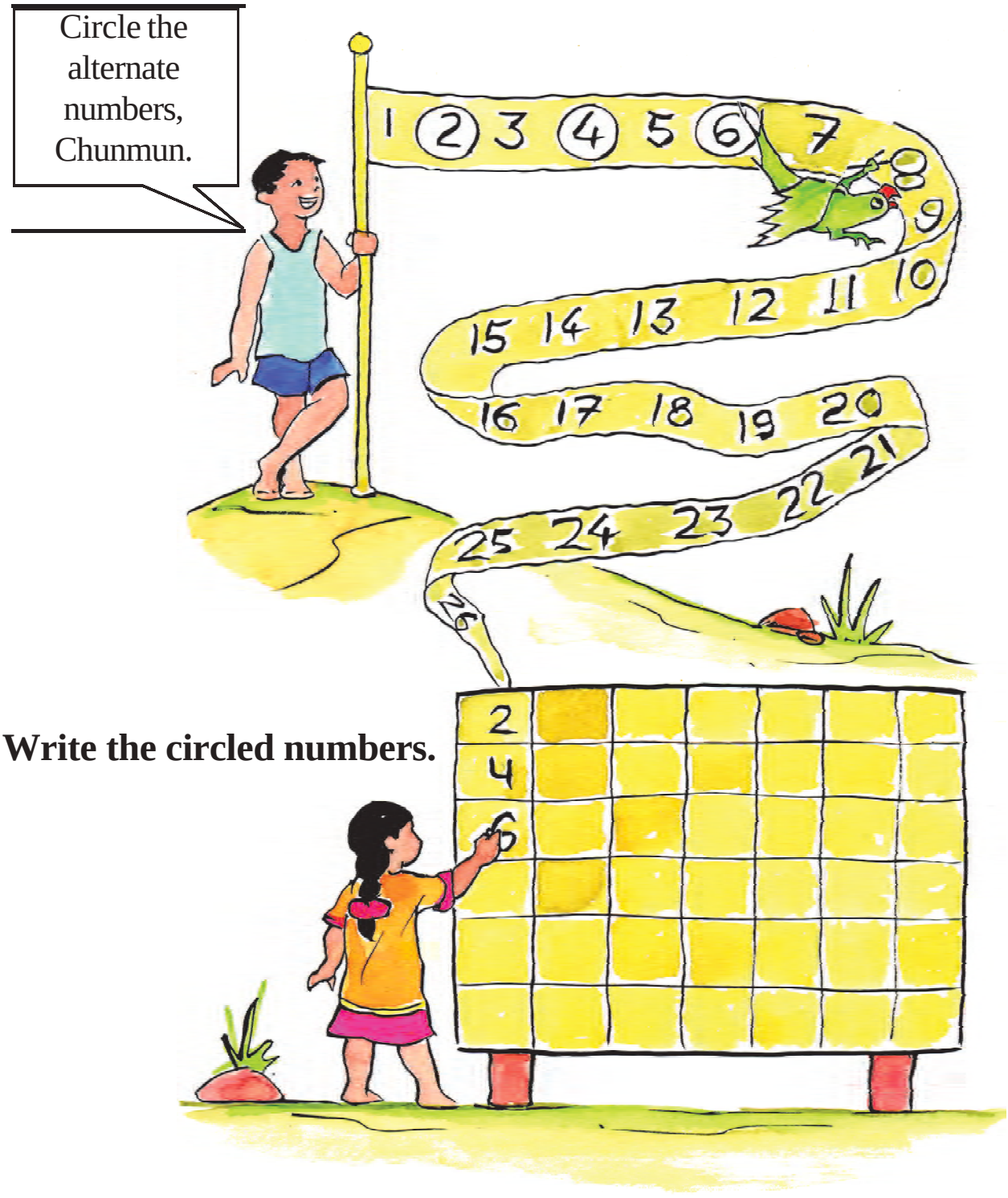


3 + 3 + 3



= ☐

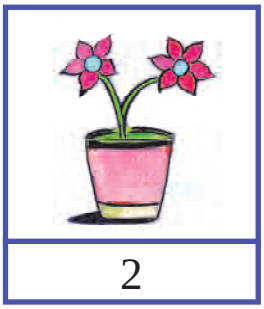
Take some more groups of different numbers and find out how many objects are altogether each time.

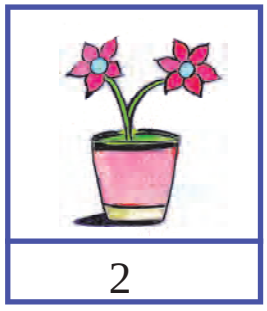


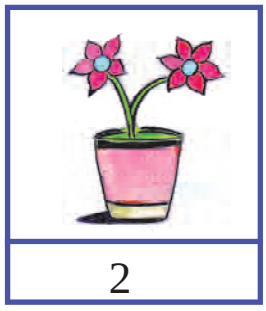
Write the circled numbers.

Write numbers from 1 to 50 on your slate. Encircle every third, fourth and ninth numbers. Write the circled number.

Solve these:


2

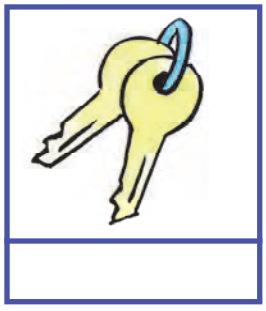

2

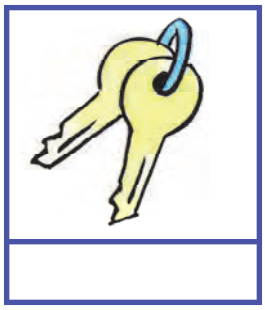

2

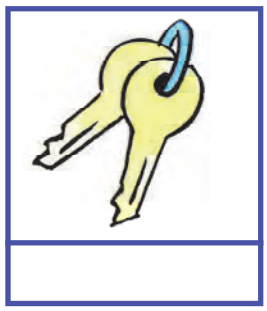
How many are there flowers in a pot? = 2

How many pots are there ? = 3

How many flowers are there altogether? = 6



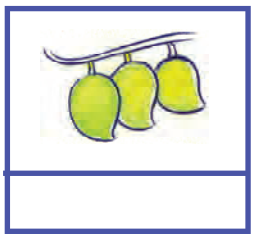


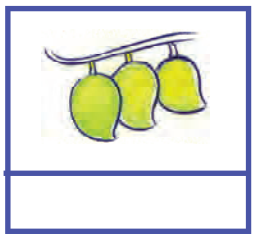


How many keys are there in a key ring? =

How many such key rings are there? =

How many keys are there altogether? =





How many mangoes are there in a bunch? =

How many such bunches are there? =

How many mangoes are there altogether? =

Make more sums of this kind.





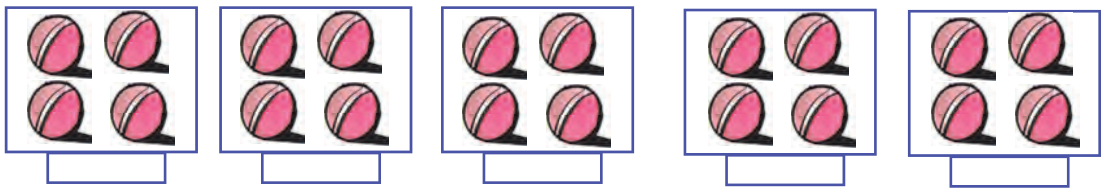
Do these as well



How many objects are there in a group? = ☐

How many groups are there? = ☐

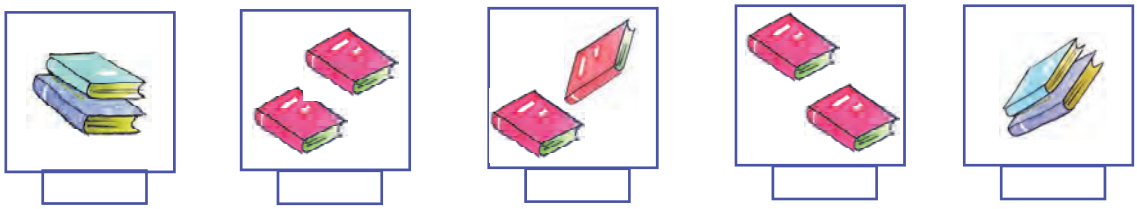
How many objects are there in all? ----+-----+----- = ☐



How many objects are there in a group? = ☐

How many groups are there? = ☐

How many objects are there in all? --+--+--+--+-- = ☐

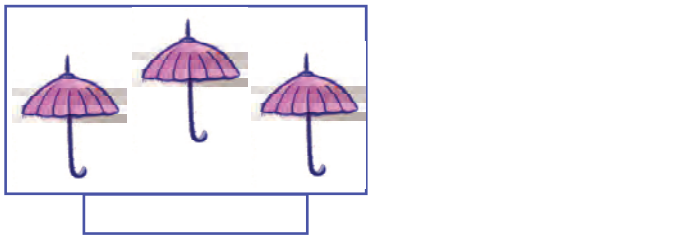


How many objects are there in a group? = ☐

How many groups are there? = ☐

How many objects are there in all? --+--+--+--+-- = ☐

Multiplication Symbol

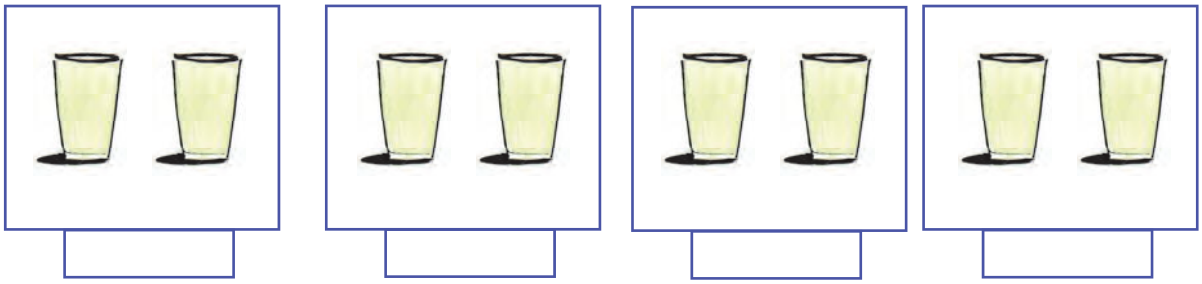




How many umbrellas are there in a group? = ☐

How many groups are there? = ☐

How many umbrellas are there in all ? = 3+3 (Two groups of three = 6) We also write it like this 3 × 2 = 6 (3 multiply by 2 = 6)



How many glasses are there in a group? = ☐

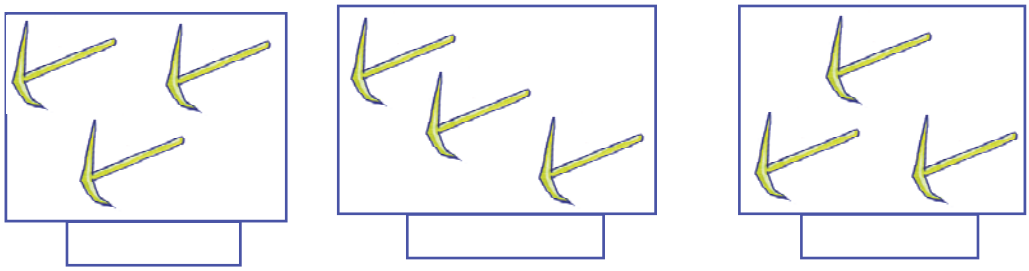
How many groups are there? = ☐

How many glasses are there in all ? = ☐ (2 multiply by 4 = 8)

4 groups of 2 = 8

This can be written 2x4 = 8

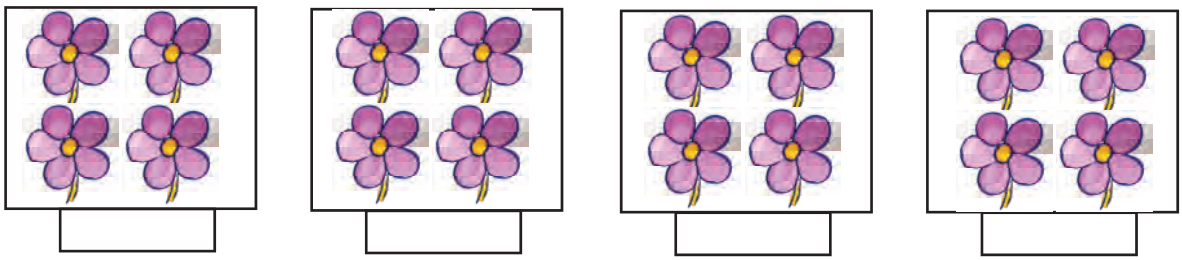
Understand and solve these.

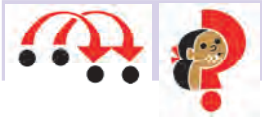


How many ploughs are there in a group? = ☐

How many groups are there? = ☐

How many ploughs are there in all ? = ☐





How many flowers are there in a group? = ☐

How many groups are there? = ☐

How many flowers are there in all ? = ☐

Make more sums of this kind and solve them.

Multiplication means repeated addition.

2 + 2 + 2	= ☐	3 + 3 + 3 + 3	= ☐
2 × 3	= ☐	3 × 4	= ☐
3 + 3	= ☐	5 + 5 + 5	= ☐
3 × 2	= ☐	----- × 3	= ☐
4 + 4	= ☐	3 + 3 + 3 + 3 + 3	= ☐
4 × ----	= ☐	3 × -----	= ☐
6 + 6	= ☐	8 + 8 + 8 + 8	= ☐
6 x -----	= ☐	----- × -----	= ☐
4 × 3	= ☐	7 + 7 + 7	= ☐
---+---+---=	☐	---- × -----	= ☐

Legs of bird

Tinu and Hamid were discussing whether 6 birds would have more legs or 4 cats. Teenu started counting and said 6 birds will have only 12 legs. Cats will have more legs. Hamid said o.k. Lets make a table. Teenu agreed and they made a table for the legs of brids.

Legs of one bird 2

Legs of two birds 2 + 2 = 4

After doing a little bit they thought why should bird and all. This can tell us about many other objects as well. They made this table:

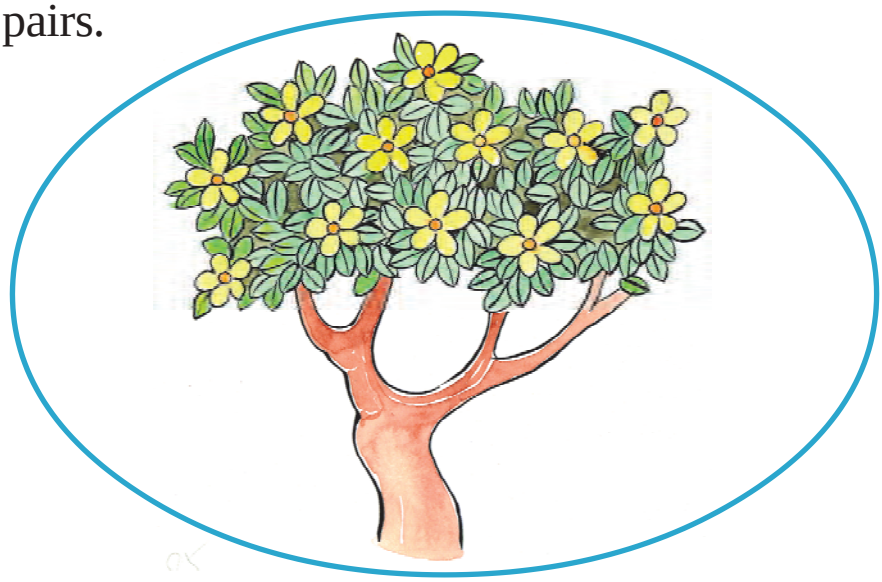


2×1	$= 2$	$= 2$	2×1	$= 2$	Two Ones are two
2×2	$= 2 + 2$	$= 4$	2×2	$= 4$	Two Twos are four
2×3	$= 2 + 2 + 2$	$= 6$	2×3	$= 6$	Two Threes are Six
2×4	$= 2 + 2 + 2 + 2$	$= 8$	2×4	$= 8$	Two Fours are Eight
2×5	$= 2 + 2 + 2 + 2 + 2$	$= 10$	2×5	$= 10$	Two Fives are Ten
2×6	$= 2 + 2 + 2 + 2 + 2 + 2$	$= 12$	2×6	$= 12$	Two Sixes are Twelve
2×7	$= 2 + 2 + 2 + 2 + 2 + 2 + 2$	$= 14$	2×7	$= 14$	Two Sevens are Fourteen
2×8	$= 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2$	$= 16$	2×8	$= 16$	Two Eights are Sixteen
2×9	$= 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2$	$= 18$	2×9	$= 18$	Two Nines are Eighteen
2×10	$= 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2$	$= 20$	2×10	$= 20$	Two Tens are Twenty

Now you make such table for cat's legs.

Flowers and Petals

Look at this tree. Each of its flower has five petals and its leaves grow in pairs.







Shabana observed this tree and wrote:

If there is 1 flower then how many petals $5 \times 1 = 5$

If there is 2 flowers then how many petals $5 \times 2 = 10$

If there is 3 flowers then how many petals

If there is 4 flowers then how many petals

She wrote till four and that was incomplete would you be able to complete it? Do it. How many petals will be there in 9 flowers.

Sohan started counting leaves in pairs:

One pair has 2 leaves $2 \times 1 = 2$ leaves

One branch has 2 pairs of leaves means $2 \times 2 = 4$ leaves

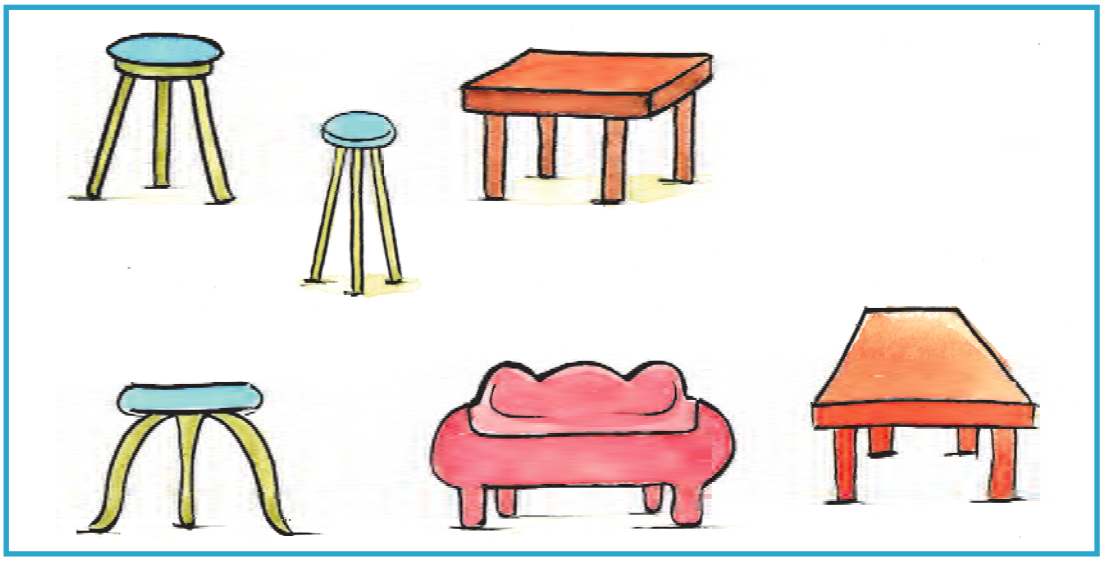
Another branch has 3 pairs of leaves means .....

One more branch has 4 pairs of leaves means .....

Sohan says this is very easy task. Would you complete it? Do it and if you need help then ask your friends.

Legs of Tripods?

Shahnaz and Ali's mother ask them to place a piece of brick beneath the legs of the tables and tripods. Shahnaz said, "I will do it for Tripods, Ali said Okay I will place beneath the legs of the tables."





Shahnaz made this table for herself:

One Tripod	3 legs	$3 \times 1 = 3$
Two Tripods	3 + 3 legs	$3 \times 2 = 6$
Three Tripods	3 + 3 + 3 legs	$3 \times 3 = 9$

Shahnaz said I will count the tripods and will find out, how many legs are there in all and then will bring that much pieces of bricks. Complete the table that Shahnaz has left incomplete and tell how many legs will there be in 8 tripods.

Make such table for Ali also.

Everything became zero

We have learnt multiplication of one digit numbers like 3×9, 4×2 ..etc.

If we have to multiply a number with zero then what will we do? Like 0 x 3 =?

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

Three groups of 3 9 objects in all

$2 \times 3 = 2 + 2 + 2$ 

Three groups of 2 6 objects in all

$1 \times 3 = 1 + 1 + 1$ 

Three groups of 1 3 objects in all

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

Three groups of 0 No object at all

Therefore $0 \times 3 = 0$, now find out the value of 0×6, 0×8, 0×10

look at 4×0 ……

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

Three groups of 4 12 objects in all



$4 \times 2 = 4 + 4$



Two groups of 4



8 objects in all

$4 \times 1 = 4$



One groups of 4 4 objects in all

$4 \times 0 = 0$



Zero groups of 4 No objects at all

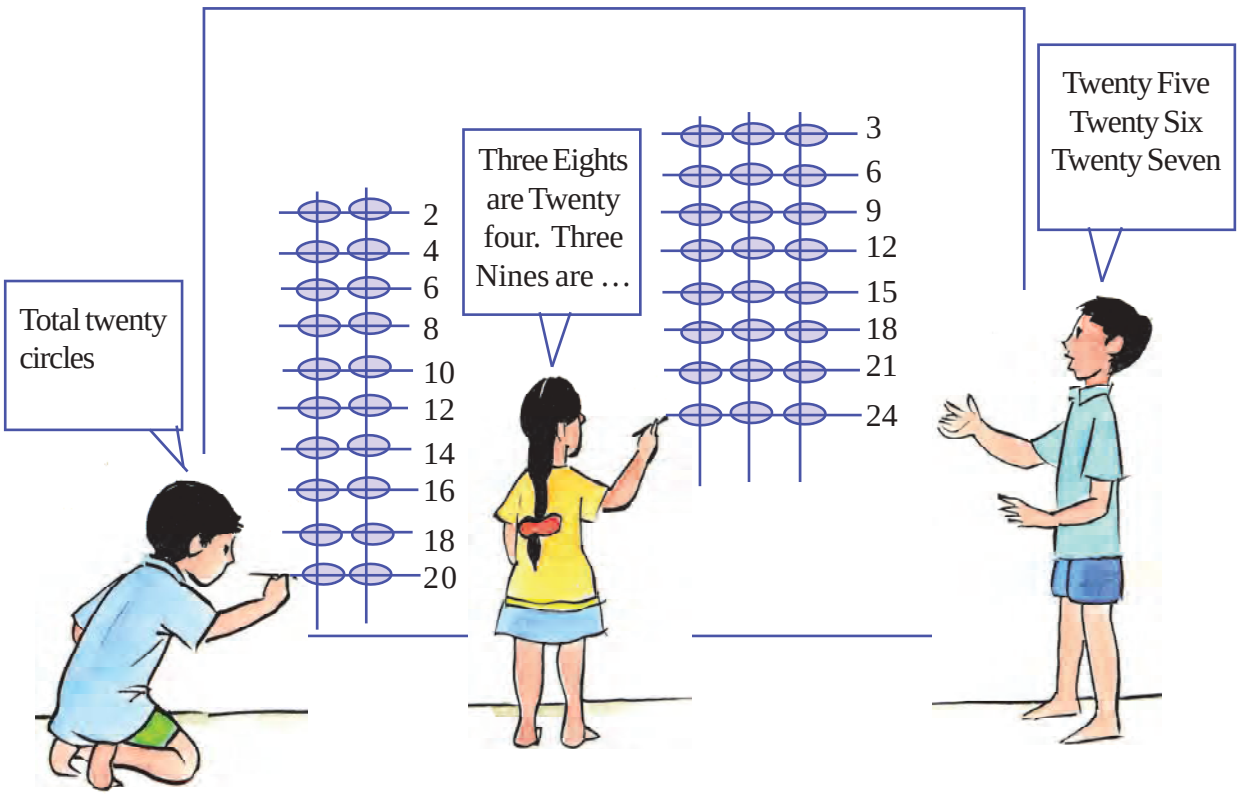
So $4 \times 0 = 0$

Similarly $5 \times 0 = 0$ $6 \times 0 = 0$ $3 \times 0 = 0$

Multiply zero by any number or multiply any number by zero we will get zero.

Count the circles and write the table

Radhika and Peter made a game. They took few twigs and arranged them horizontally and vertically. Peter said I will make table of two by counting circles . Radhika said, I will make table of three.

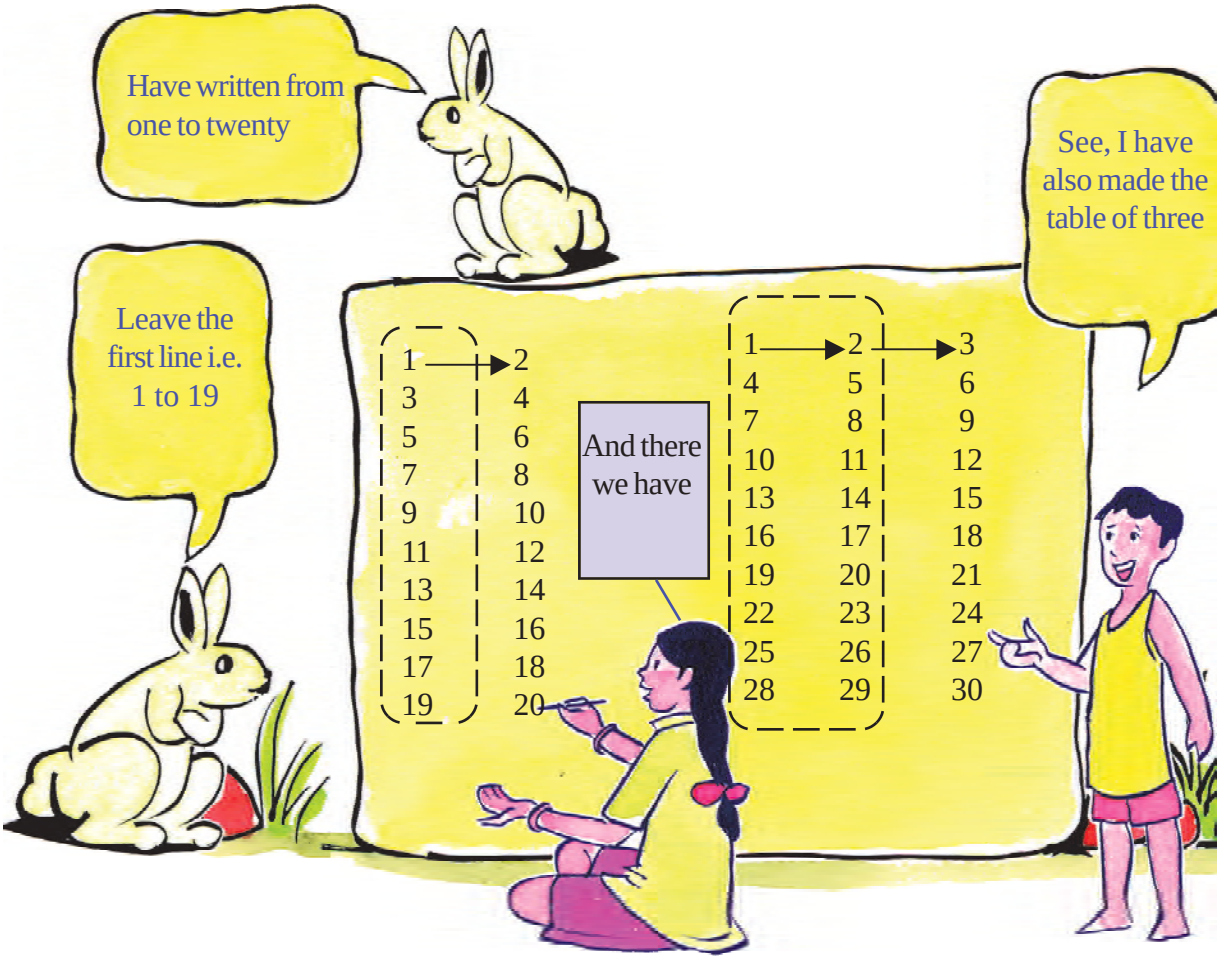




Discuss among your friends what they have done and tell how did they make table.

Do the same in group and make tables of 4, 5 and 10.

Lets Make Tables



How did Meena and Aaftab make the table?

Now you too write counting on your slate and make table of 4 with four friends.

1	2	3	4
5	6	-	-
-	-	-	-

In similar way make tables of 5 and 10.



Write tables from 1 to 10

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

Complete the tables.

2		6		10		14			20
			12			21		27	
		12		20			32		40
5	10		20			35			
		18		30		42		54	
7	14		28		42		56		
		24		40		56		72	80
9	18		36		54		72		
	20			50		70			





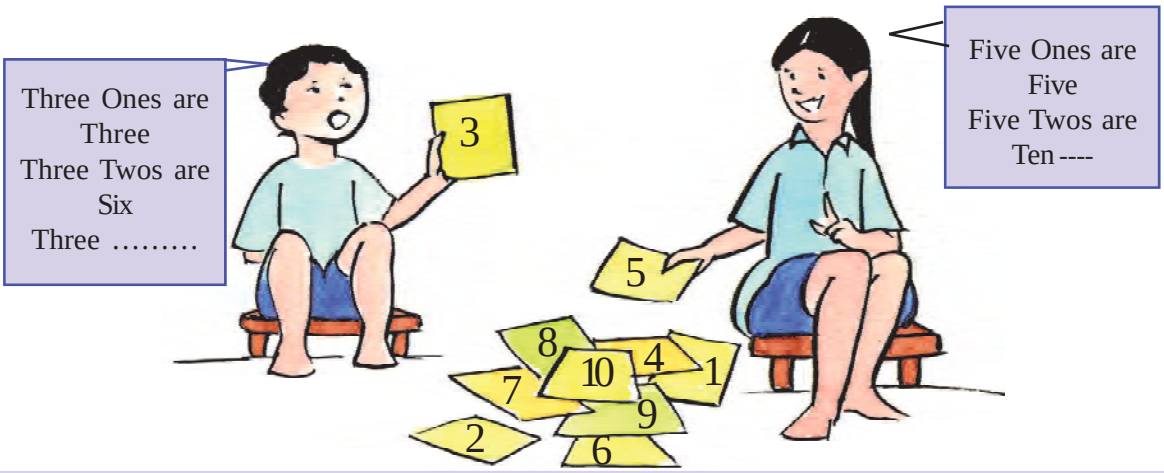
Solve these.



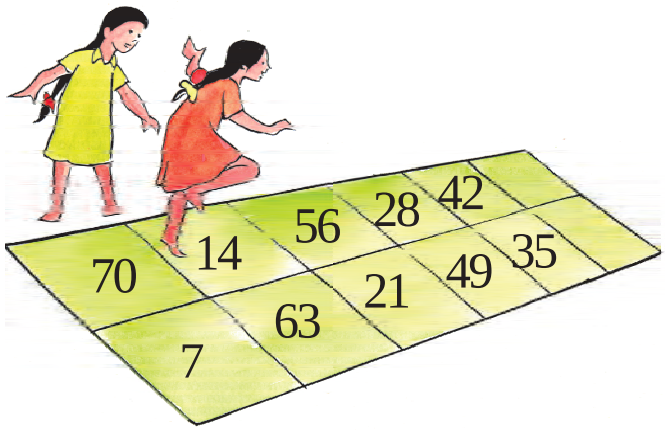
1. Mohan got 4 notes of Rs. 5, how many rupees did he get in all?
2. A Tripod has 3 legs. How many legs will there be in 2 tripods?
3. One mustard flower has 4 petals. How many petals will there be in 5 flowers?
4. Cost of a pencil is Rs. 2. What will be the cost of 4 pencils?
5. Shambhu bought 5 oranges. There are 10 flakes in each orange. How many flakes are there in five oranges altogether?
6. Jyoti wants to sow seeds in beds. She has 7 beds and in each bed she have to sow 6 seeds. How many seed will she need in all?
7. Shekhar is collecting tamarind seeds. He got 6 tamarind beans and there were 6 seeds in each bean. How many seeds did he get in all?
8. Reeta has 3 chalks. Geeta, Ameena, Rahul and Aaftab has 2 chalks each. How many chalk do they have in all?



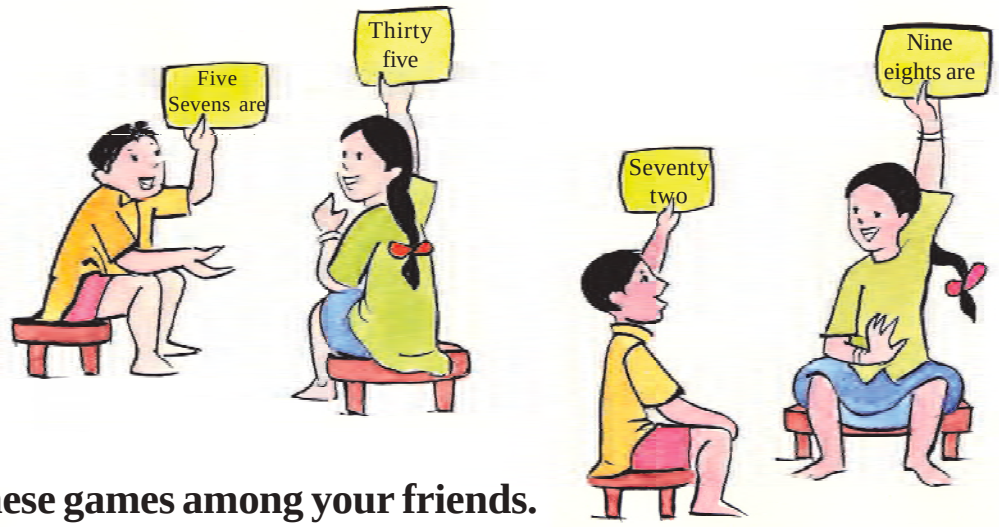
Select the card and say the table



Play the game and say the table



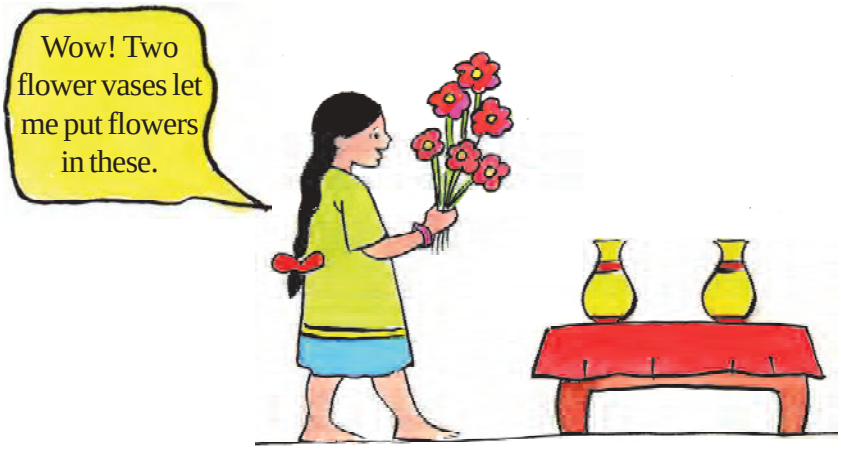
Ask you friends.

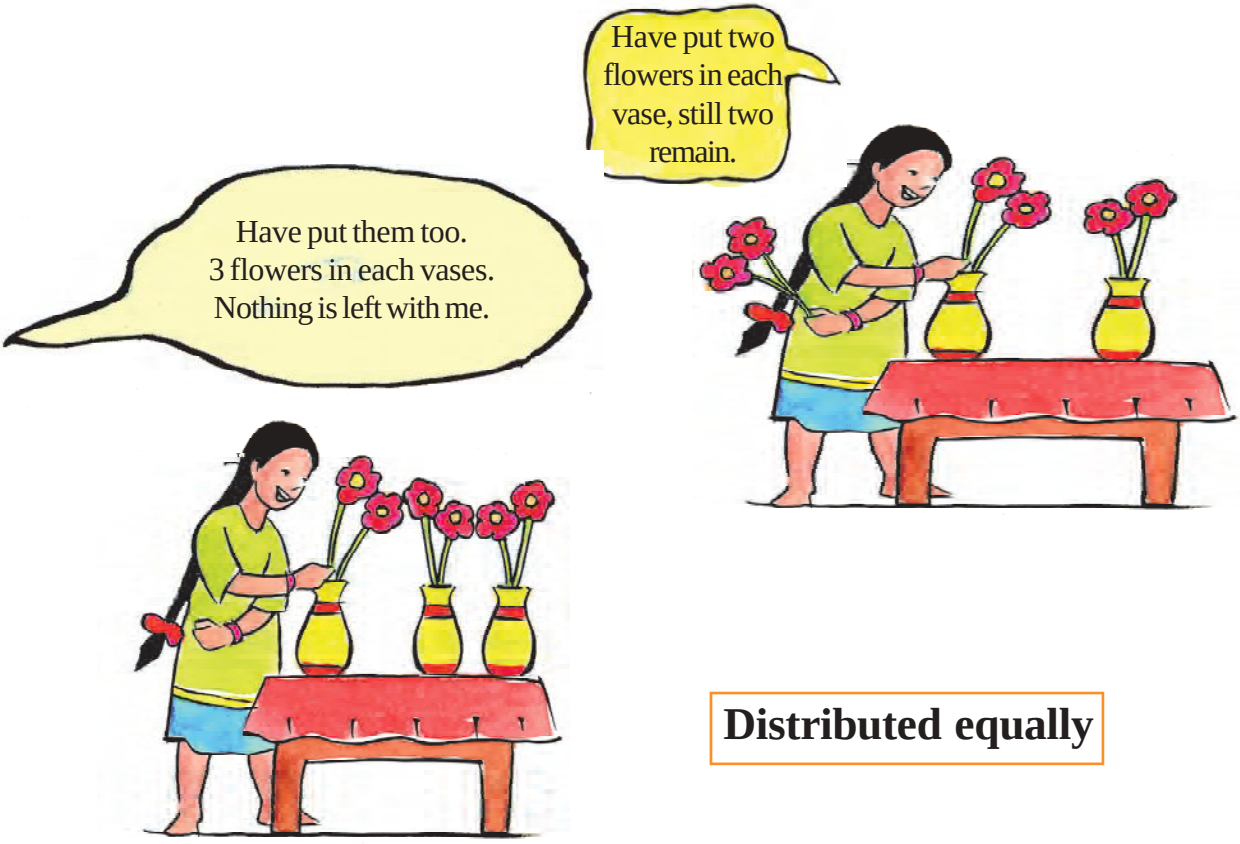


Play these games among your friends.



Lesson - 6 Division





Distributed equally

Think more examples of this kind, where you need to divide equally.



How to Distribute Equally

Meena has 8 marbles. She wants to distribute the marbles to Chunnu and Gudia equally.



Will you help Meena?

Take 8 marbles.

Make two circles one for Chunnu and one for Gudia.

Distribute the marbles equally and -



How many did Chunnu get?

How many did Gudia get?

Similarly;

Take 10 marbles and distribute them into 3 circles.

Take 12 marbles and distribute them into 4 circles.

Now take as many marbles as you wish. Make some circles and put equal number of marbles in each of them.

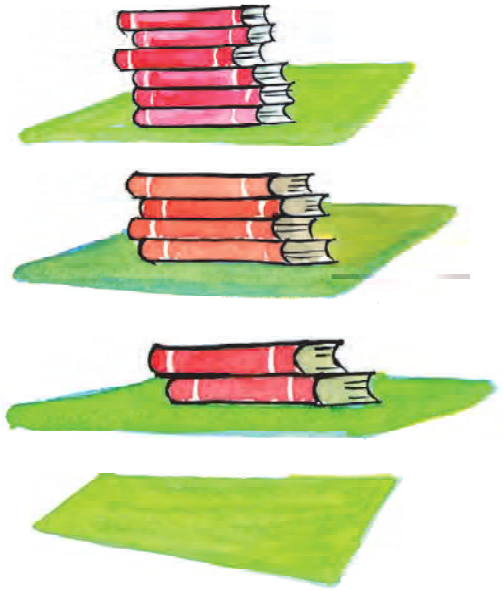
Distribution of Books



8







8 – 2 = ☐

6 – 2 = ☐

4 – 2 = ☐

2 – 2 = ☐

There were 8 books. It was possible to take out two-two books, four times.

Collect objects in different numbers with your friends. Take out two objects from them repeatedly. In how many times were you able to take two things out?. Have some objects remained?

Write those numbers that leave no remainder when two things were taken out repeatedly.

Distribution of Seeds



Take seven seeds from a heap of seeds.

From these seeds take out two seeds repeatedly and keep them separately.



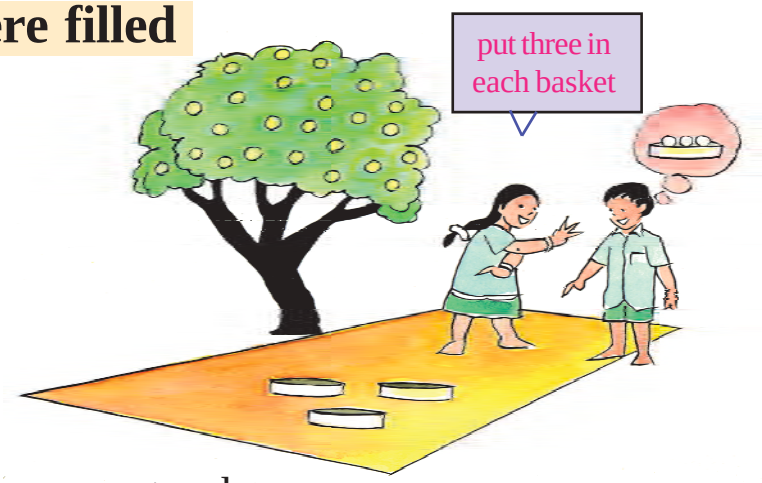


Now find out

How many pairs of seeds were taken out from the 7 seeds?
How many seeds remained?
Now take twelve seeds.

Take out sets of two seeds and keep them separately.
How many times were you able to take two seeds out?
How many seeds remain?

How many baskets were filled



Take some buttons from your teachers.
Place one button on each fruit of the tree.
Now treat these buttons as your fruits.
Pluck three fruits, place them in a basket.
Again pluck three fruits, place them in another basket.
In the same way, keep placing three fruits in each basket.

Answer these

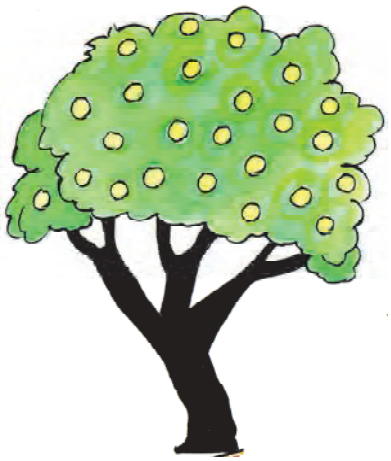
How many fruits were there on the tree?
In how many baskets were three fruits placed?
How many times can we subtract three from the number of fruits?
How many baskets were left empty?
Now look at this tree.
Pluck three fruits from this tree also and place them in baskets .



How many baskets were filled?

How many fruits were left?

Out of ..... fruits,.....equal groups of three were formed and .....fruits remained. Write these using the division (÷) symbol.



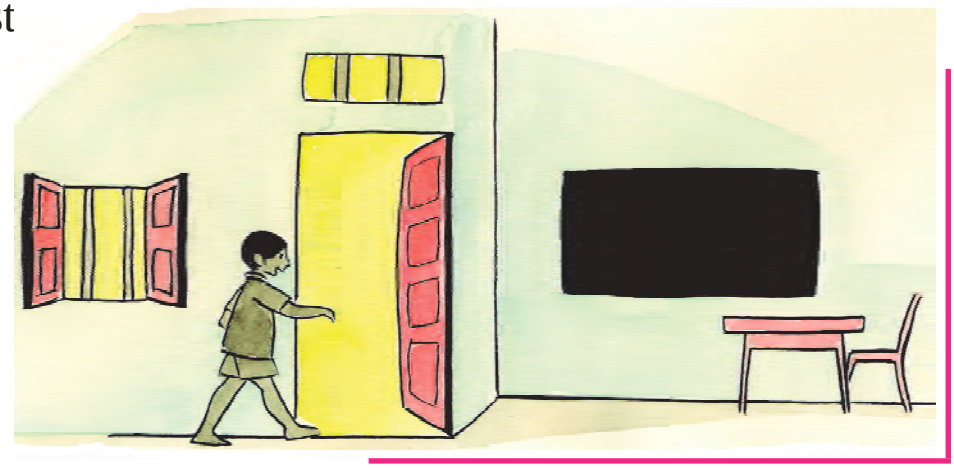
Try to work these out also.

1. There is a bunch of 5 mangoes on each branch of a mango tree. How many mangoes will be there on 4 such branches ?
2. There are 5 petals on each sadabahar flower. How many petals will be there in 6 flowers ?
3. Ramu takes 3 tablets each day. If he has to take the tablets for a week, then how many tablets would he require ?
4. 6 cycles are placed in front of a house. How many wheels the cycles have in all ?
5. Sona goes to a shop with a 20 rupee note. How many 5 rupee notes will the shopkeeper give in exchange for the twenty rupee note.
6. Each room in Hamid's house is fitted with 3 windows. If there were 21 windows in his house, then how many rooms will they be fitted in?
7. There are 35 laddus in Ramesh's house. He wishes to distribute them equally among his 5 friends. How many laddus will each get?
8. Shyama has a 100 rupees note. How many 20 rupees note will the shopkeeper give him as change?
9. If we can place 8 pencils in a box, then how many boxes were needed to place 40 pencils?
10. If 25 rupees is to be distributed equally among 5 children, how many rupees will each child get?
11. 6 chairs have to be placed in a room then how many rooms can 36 chairs be placed in ?
12. Shameem brought 4 oranges. There are 10 flakes in each orange. After peeling the oranges, the flakes were distributed equally among 5 children. How many flakes did each child get?

Lesson - 7 Length

Which is longer

Collect some objects inside the classroom, like newspaper, duster, copy, book, pencil etc. Arrange them in order from shortest to longest



Look at the objects in the classroom and answer whether-

The door is longer or the window?

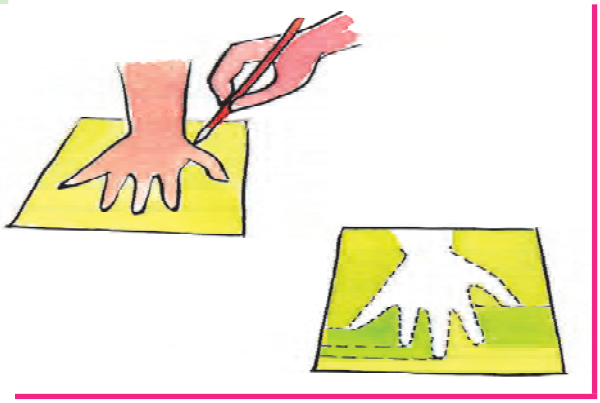
Blackboard is broader or the door?

You are taller or the door?

Ventilator is longer or the window?

Also compare household things. Write their names in order from longest to shortest. (Some things which you can take- table, cot, broom, cupboard, pillow, etc.)

Which finger is longer

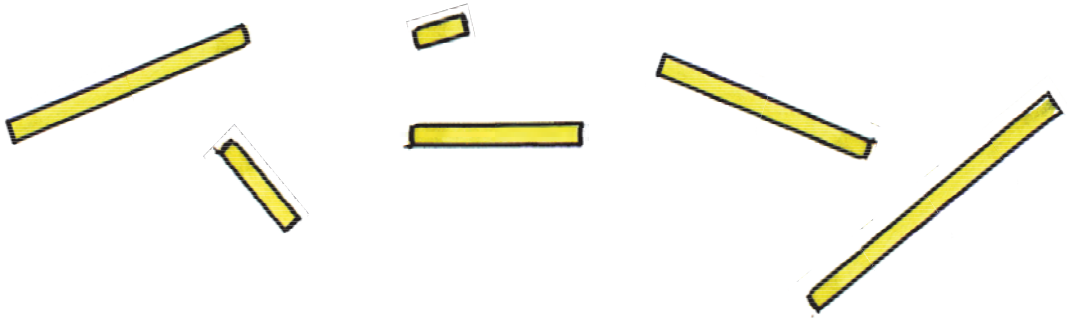




1- Spread your hand on a paper. Move your pencil around each finger, one by one and draw the shape of your hand on the paper.

Which is the longest finger?
Which finger is the shortest?
Number the fingers from longest to shortest.
Is there any finger shorter than the thumb?

2- Go outside and bring 10-12 twigs. Arrange these twigs in order from longest to shortest.



Do such an exercise with other objects as well.

Which leaf is longer

Go outside and bring leaves from different trees and plants. Which leaf is the longest?



How did you find out?

Now place all the leaves together and observe which leaf is the shortest?

Arrange the leaves from shortest to longest.

Find out

Which is the tallest tree in your surroundings?

Which is the tallest building?

Who is tallest in the class?

Which line is longer

Look at the lines below. Can you tell which is the longest one? How will you find out?



Place on each line a thread, equal to its length which line needs the longest thread?

Take twigs equal to the length of each line. To ensure that the twigs length is correct, take the twigs length equal to the length of the thread each time.





Arrange the twigs from longest to shortest.



Number the lines from longest to shortest as 1, 2, ...

Search for the longest class

Let us find out, which is the longest class of the school? We will measure all. We shall measure the class rooms with footsteps. We will measure the verandah also.

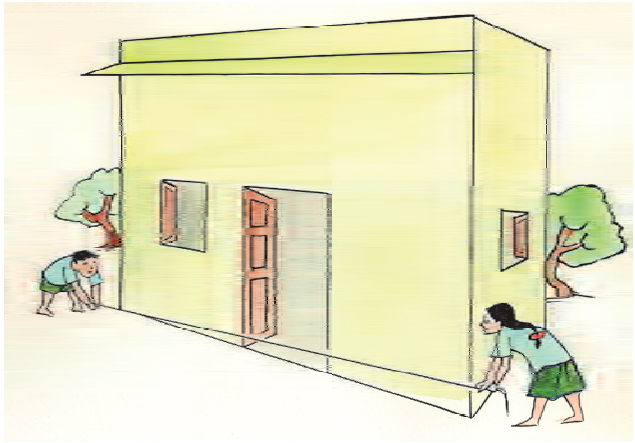
We will do this in groups of four. Walk from one wall to another and count the number of footsteps.

Room No.	Length (footsteps)	Breadth (footsteps)
1		
2		
3		

Which room is the longest? ----------

The length of which room is the shortest? ----------

You can measure the rooms and the verandah of your house with footsteps and also the school ground.



How long is the table

Measure the length and breadth of Bag with your duster, pencil or pen. Also measure the length and breadth of your bag.



Measure the length of the rooms of your house and verandah with your foot-steps. Measure the school ground also. Write the measurement in the table below.

Object	Length	Breadth	How much longer
Table			
Bag			
Windows			
Chart			
Calendar			

Measure other objects as well and write their measures in a table.



Lesson - 8 Weight

Which is heavier?

Look at the picture and answer the questions.



What is drawn in the picture?

Is there any object on its pan?

Are both the pans equal?



What is placed on one pan?

Which pan weight more?

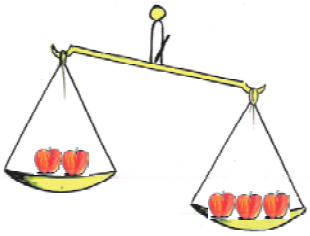
Empty pan

the pan with apple

Which pan is lower?

Empty pan

the pan with apple

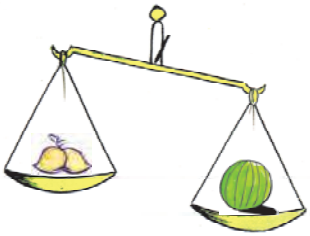


Are both the pans equal now?

Which pan is heavier?

Pan with 2 apples

pan with 3 apples

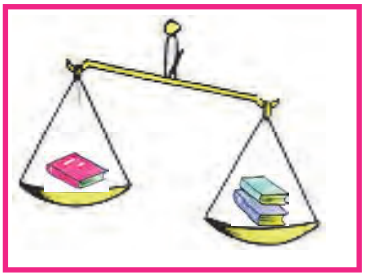


Are both the pans equal?

Why?

What is Heavy?

There are some objects given in the table compare their weights using a balance.



Objects	Light	Heavy
2 seeds and 1 pen	.....	.....
1 pencil and 1 duster	.....	.....
2 chalks and 1 pencil	.....	.....
1 book and 1 copy	.....	.....

We can measure the weight of any object by using certain things like cube, marble, nail, seed etc.

Measure the weight of the objects given in the table and write them.

Objects	With marble	With seed
Duster	.....	.....
2 pencil	.....	.....
2 chalk	.....	.....
Pen	.....	.....
Rubber	.....	.....





Measure the objects given below, with the help of marbles.

Objects	Number of marbles used to measure
Chalk	----------
Pencil	----------
Match box	----------
Duster	----------

Estimate the weight of the objects given in the table and then weigh them .

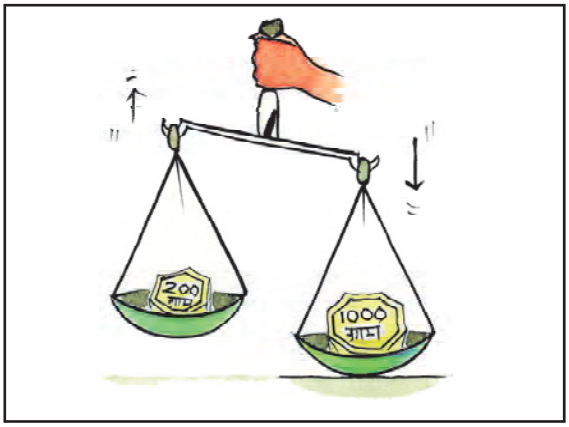
Objects	Estimated weight	Weight after measurement
Duster	---------- marbles	---------- marbles
Chalk	---------- marbles	---------- marbles
Pencil	---------- nails	---------- nails
Rubber	---------- nails	---------- nails
Scale	---------- marbles	---------- marbles

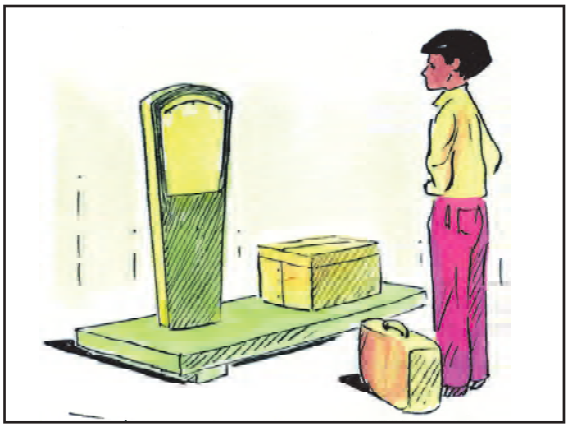
Find out

How does nurse take your weight in the hospital?

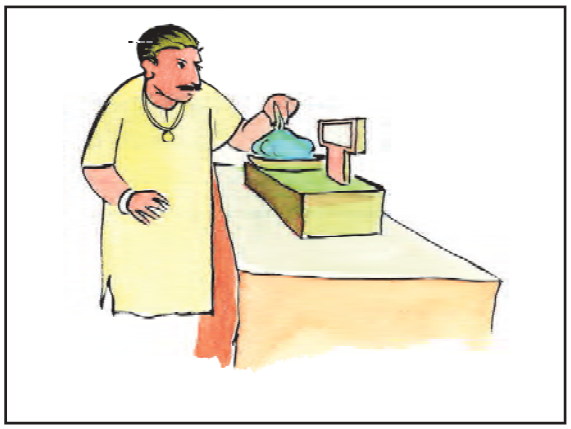
Have you seen any other method of weighting?

Which methods have you seen?











Lesson - 9 Capacity

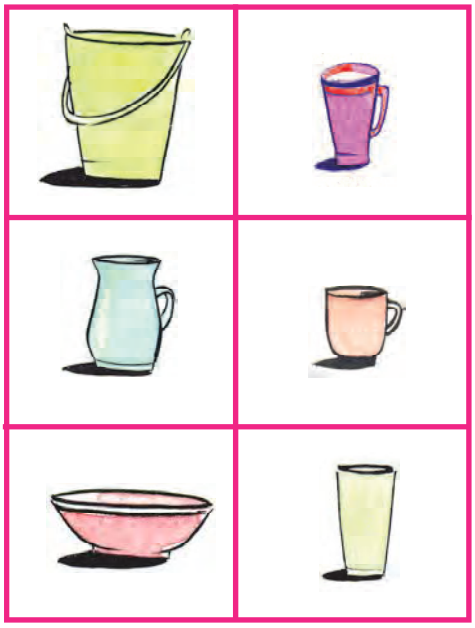
How much can these hold.

Look at the utensils given below and mention their use.



These are used to fill and measure milk, oil, water etc.

Do and tell



The bucket can hold..... mugs of water.

The jug can hold..... cups of water.

The bowl can hold..... glasses of water.

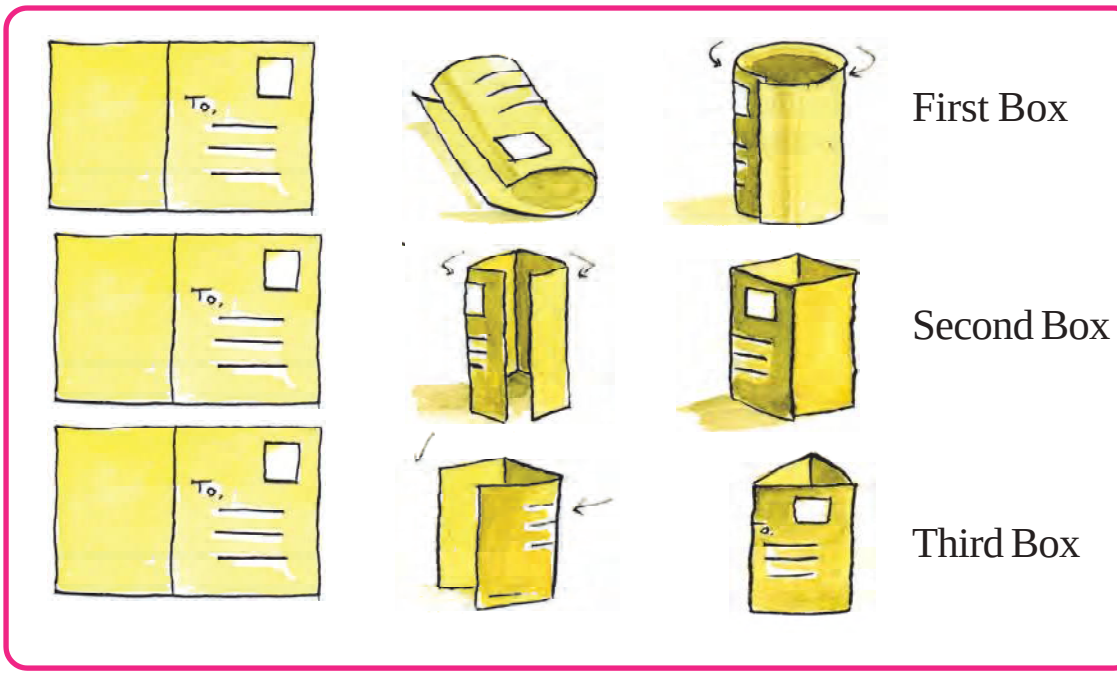


A vessel which can hold more water has more capacity and a vessel that can hold less water has less capacity.

Complete your table. First estimate and then measure and write

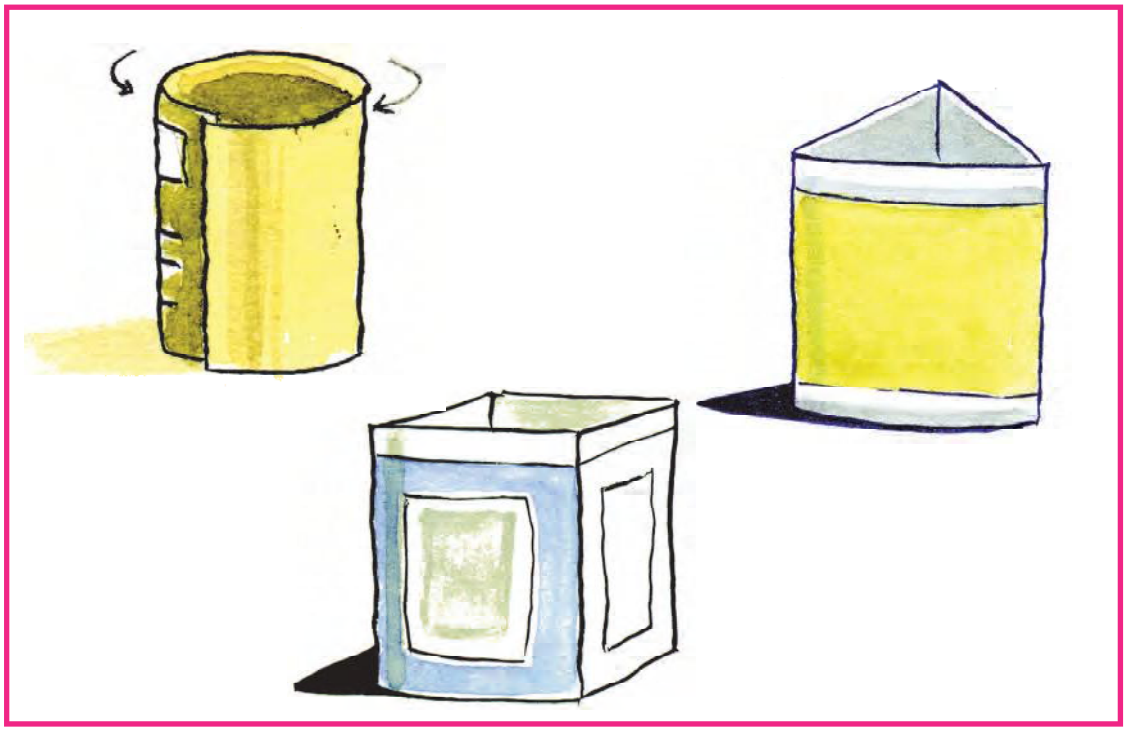
S.No.	Vessel	Estimation	Measured	difference
1	Lota	……..Bowl	……..Bowl	……..
2.	Bottle	……..Cup	……....Cup	……..
3.	bucket	……..Cup	….....Cup	……..
4.	jug	…... glasses	…….. glasses	……..
5.	mug	……. Bowl	…….. Bowl	……..

Fold a post card and make round, square and triangular boxes from it.



To measure, fill a match box with sand and pour it in the container again and again

Find out which box can hold more sand.



Shape	How many match boxes of sand needed

– Instead of post card you can use any other card.

– Instead of match box you can use a bottle lid or any other small box.

– Instead of sand you can put saw dust.

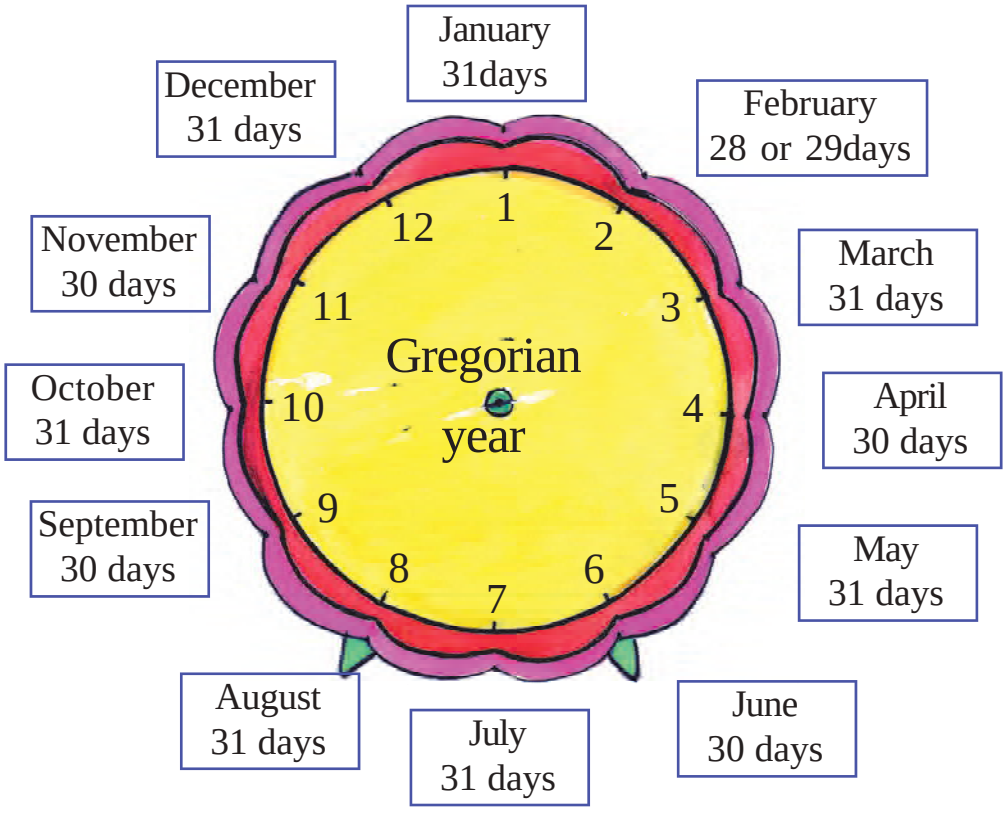
Lesson - 10 Time

We have learnt that a week consists of seven days. Every day of the week has different name too, like Monday, Tuesday, Wednesday,Thursday, Friday, Saturday,Sunday.

Now Tell

1. Which day do you like the most? Why?
2. Which day is today?
3. Which day was yesterday?
4. Which day will be tomorrow?
5. On which day there is market in your village?
6. On which day sweets/sweetmeat is given in midday meal?
7. Which day is a holiday in your school?

Read and understand





How many days are there in a year or twelve months? How will you find out? Write the names of months and the no. of days in the table given below:

Name of the month	No. Of Days
	Total days

Look at the chart and answer.

1. How many months are there in a year? .....
2. Which month comes between January and March. .....
3. Which month comes after August. .....
4. Which is the Eighth month of the year. .....
5. The month of May comes after which month? .....
6. Which month comes immediately before July. .....
7. Which is third month of the year. .....
8. In which month do we celebrate Independence day. .....
9. Which is the last month of the year. .....
10. Which month comes before December. .....
11. Your birthday lies in which month. .....
12. Children's day comes in which month? .....

Lesson - 11 Shapes


Stick


Ball


Pencil


Football


Cap


Wheel


Chalk box


Bottle


Bangle


Book


Box


Match box


Necklace


Flower


Kite


Water melon


Chakari


Buntings


Dice


Flute


Bindi


Apple


Brick


Laddu


Button


Belan


Rupee


Home


Box


Door

See and write- one things can be written at two places.

like a bindi	like a matchbox	like a ball	like a belan	like a buntings	others

Make pictures of things around you and write them in such table if you wish you can also add few more categories in the table and can clarify these objects according to the categories you have made.



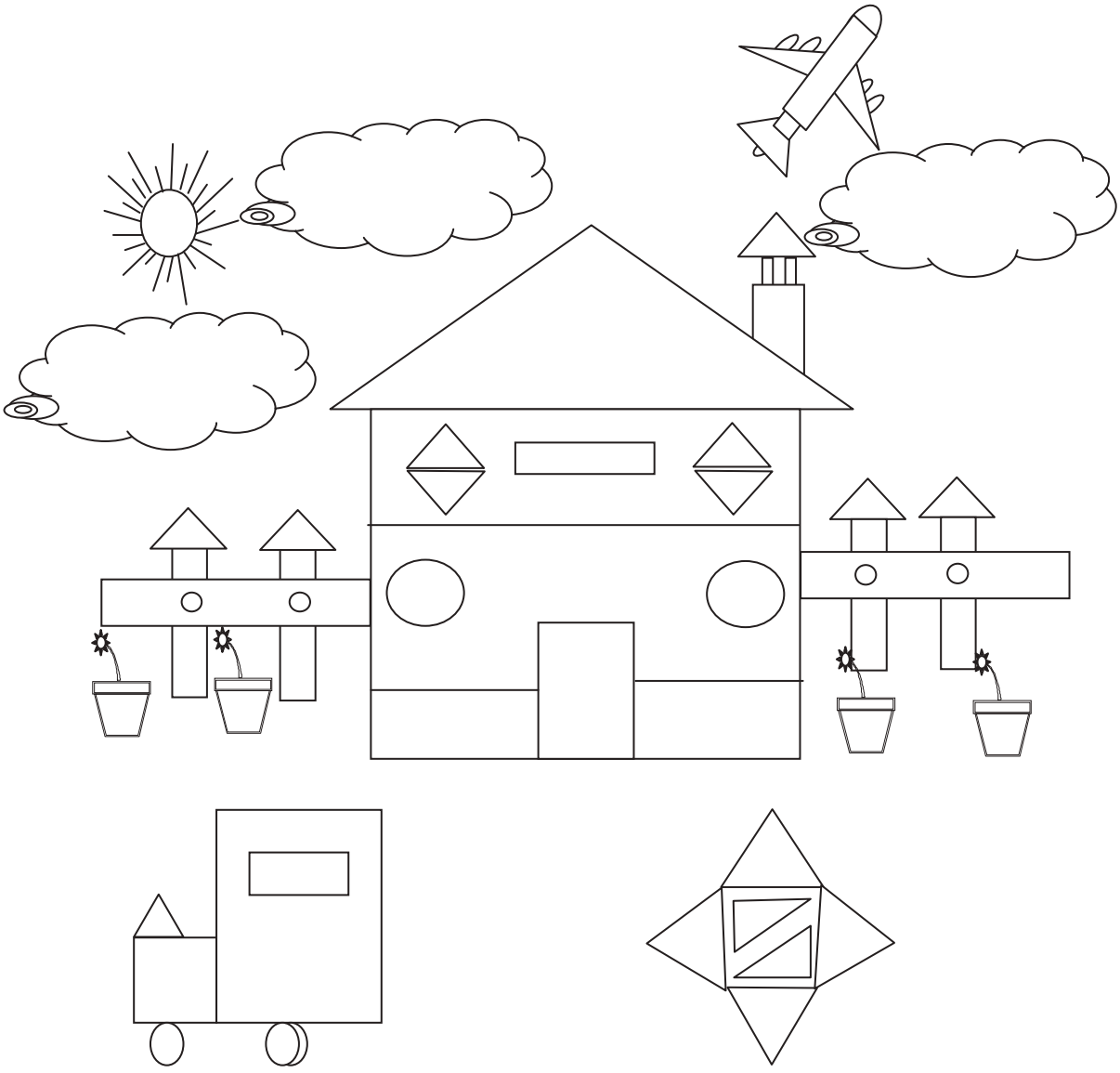
Colour the picture

Green in 

Red in 

Yellow in 

Blue in 

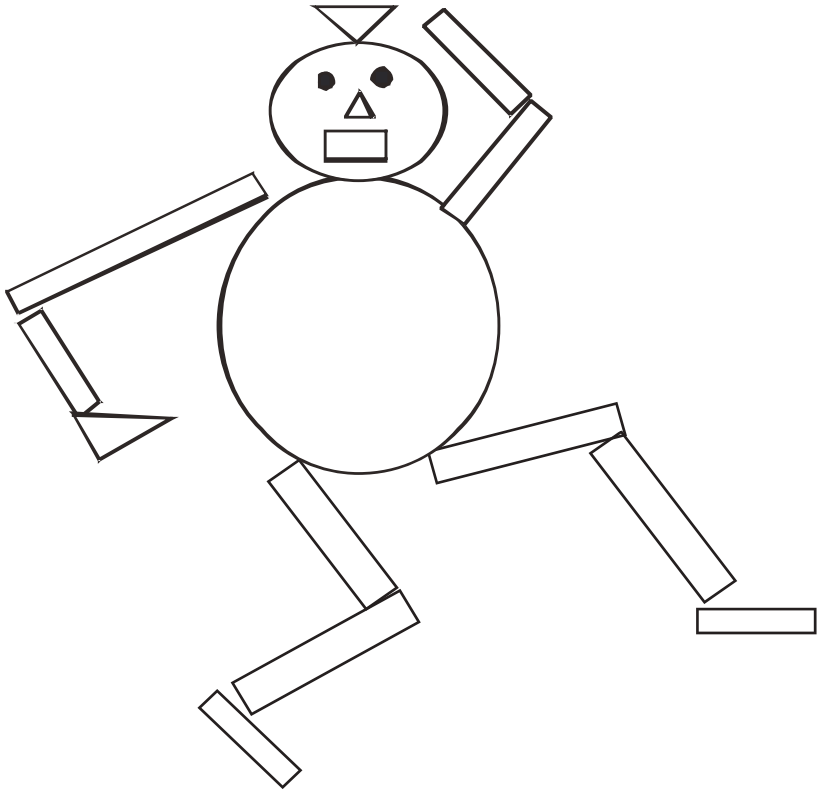


Fill colour

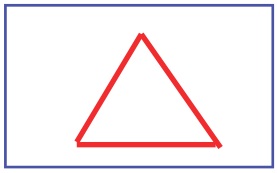
△ = Blue

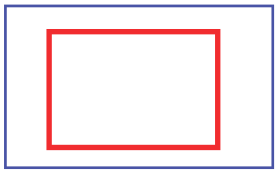
□ = Red

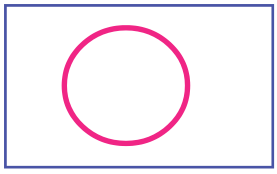
○ = Green

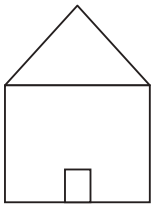


Draw these

Three sided  called triangle

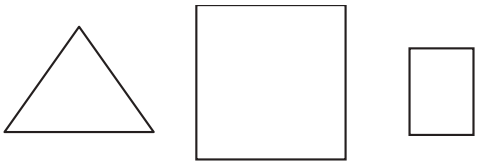
Four sided  called quadrilateral

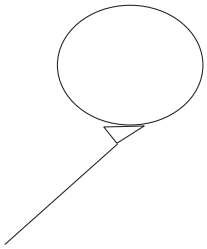
Round  called circle



Name the various shapes in the picture? – – – –

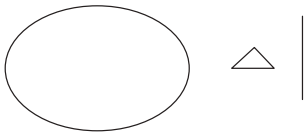
This picture is formed by using following shapes.
Name the followings

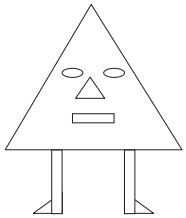




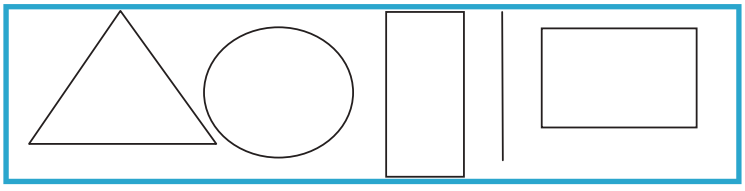
Which are the shapes in the picture – – – – –

This picture is formed using the following shapes –





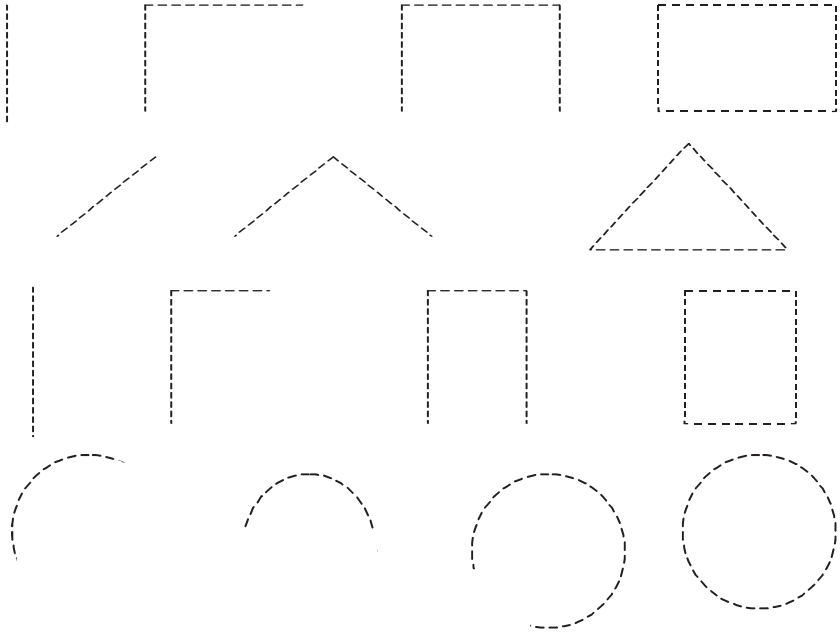
Which shapes are there in the picture, draw here



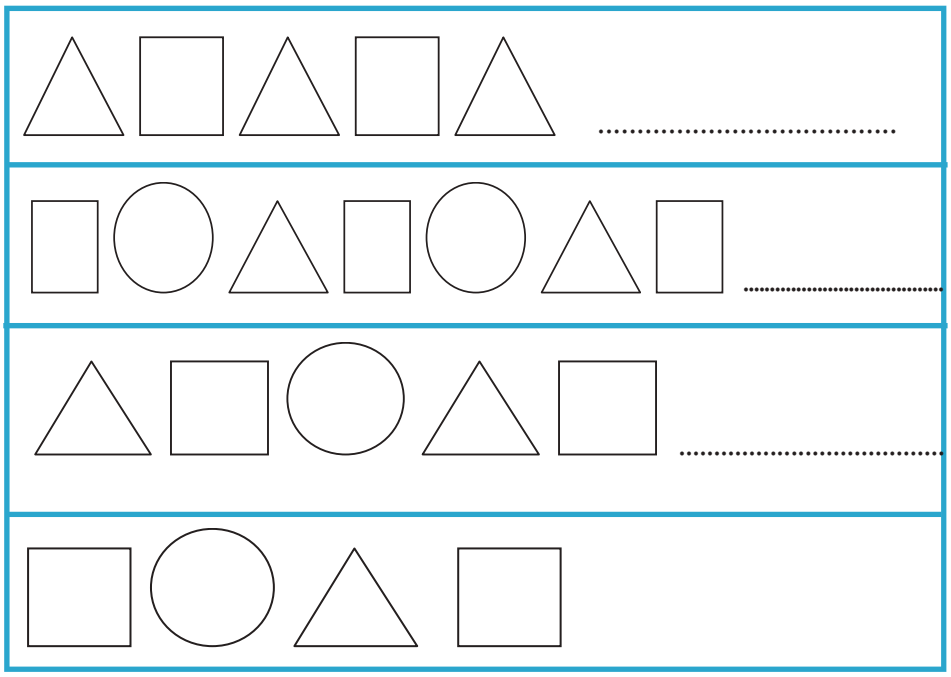
Draw more pictures of this kind using the shapes given in the box. Colour the picture. You can take two or more shapes in each picture.



Run your pencil on the shapes given below and then draw such shapes yourself.

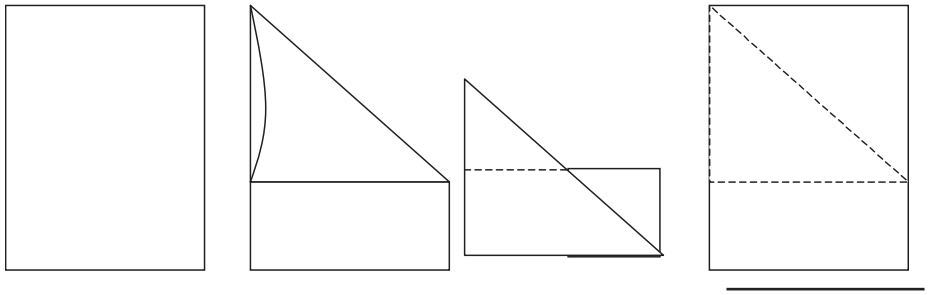


Continue the pattern of shapes .

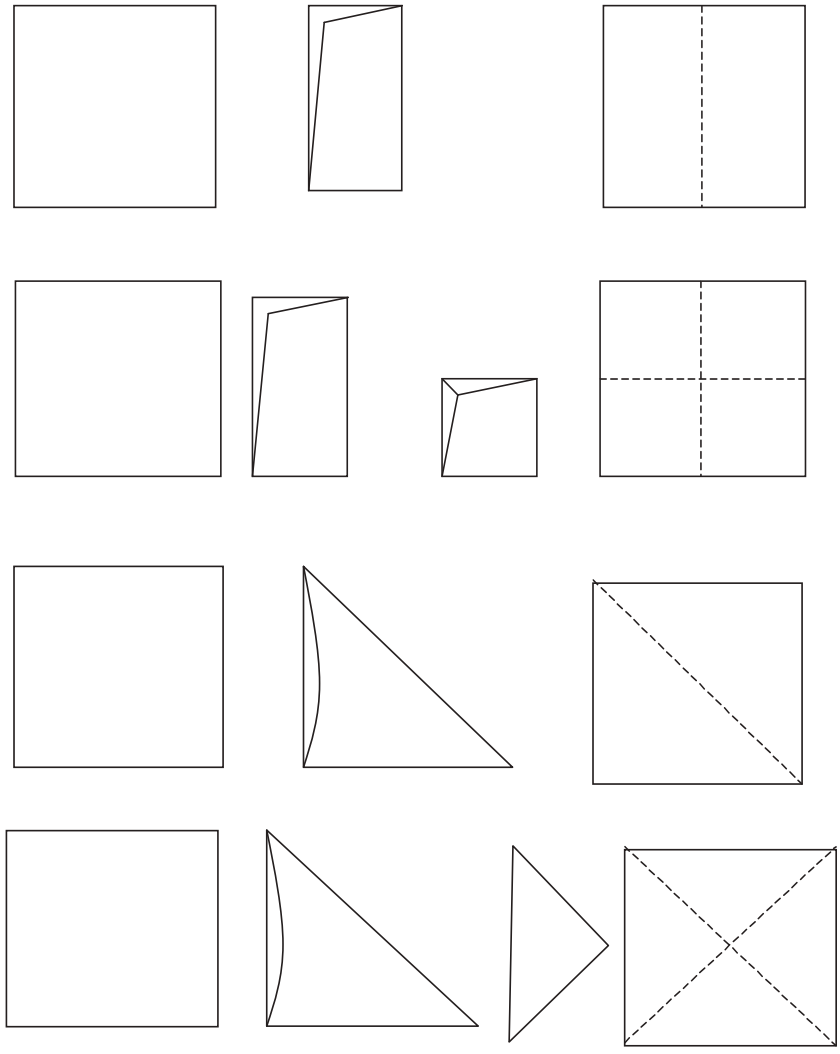




Fold the paper and make shapes as shown below:



Fold and cut the paper on the dotted line and then make using this paper.





Lesson - 12 Money



Biscuit Packet	-	1 Rupee
Chocolate	-	2 Rupees
Copy	-	5 Rupees
Milk bottle	-	10 Rupees
Cold drink	-	5 Rupees
Book	-	5 Rupees
Pencil	-	1 Rupee
Rubber	-	50 Paise
Box	-	12 Rupees
Slate	-	8 Rupees











Lets do shopping

Play the game in groups of two. Some children handle the shop and others play the role of buyer. Make coins and notes from paper. Every buyer can have 5 notes of Rs. 10, 4 notes of Rs. 5, 3 notes of Rs. 2 and 4 notes of Re. 1. Also 5 coins of Rs. 5, 3 coin of Rs. 2, 4 coins of Re. 1 and 6 coins of 50 paisa each.

Buy things as per the price tags. Make purchasing according to the price list of the articles in the shop.

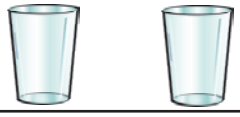
Exercise

1. Hamid has two notes of Rs. 2 and two notes of Rs. 5. How many rupees does he have?
2. Abhishek wants to give you 70 rupees. He only has 10 Rs. notes.How many notes will he give you ?
3. Shreya bought an umbrella of Rs. 95. She gave ten notes of Rs. 10 to shopkeeper. How many rupees will the shopkeeper return?
4. Palash had 25 rupees. He gave Rs. 10 to Sanjana and Rs. 6 to Manjari. How many rupees are left with Palash?
5. Nandini bought mangoes for Rs. 10 and bananas for Rs. 8. If she gave 20 rupees to the shopkeeper than what is the money will she receive as the balance?
6. Shivani had 70 paisa. She bought a balloon for 50 paisa. What much amount is left with her?
7. Vivek has 50 rupees and Madhu has 25 rupees. How many rupees both have altogether?

Make more sums of this kind and give your friends to solve them.

Lesson - 13 Understanding Data

Let's find out how many glasses of water do your friends drink in a day

How many glasses of water	Name of friends	Number of friends
		
		
		
		
		

Now tell -

What is the number of friends who drink one glass of water?

What is the number of friends who drink three glasses of water?

What is the number of friends who drink five glasses of water?

Number of friends drinking three glasses of water is ..... than the number of friends drinking two glasses of water. (more or less).



Your favourite colour

Let's find out from the colours given in theWhich colour is liked by maximum friends?

Favourite colour	name of friends	number of friends
		
		
		
		
		
		

Now tell-

Which colour is liked by minimum friends?

How many friends like yellow colour?

table, which colour

is your friend's favourite colour.

OUR

Devanagari Numerals

Introduction and Exercises



Our Numerals

Introduction

Numbers are also written on this calender.

These numbers are written differently from your textbook.

The numerals used in this calender are numerals of Devanagari.

Let us identify these Devanagari numerals.

Number one is written as 1 in international numeral and as १ in Devanagari numerals.

January २०१८

Sun	Mon	Tue	Wed	Thus	Fri	Sut
	१	२	३	४	५	६
७	८	९	१०	११	१२	१३
१४	१५	१६	१७	१८	१९	२०
२१	२२	२३	२४	२५	२६	२७
२८	२९	३०	३१			

Like this 2 is written as २ in Devanagari numerals.

3, 4 and 5 are written as ३, ४ and ५ in Devanagari numerals.

In the given table numbers from 1 to 10 written in international numerals and Devnagiri numerals. See it carefully and understand.

Number	One	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten
International numerals	1	2	3	4	5	6	7	8	9	10
Devnagiri numerals	१	२	३	४	५	६	७	८	९	१०

Write and count from १ to ६

१	, d



१						

२	nk



२						

३	rhu

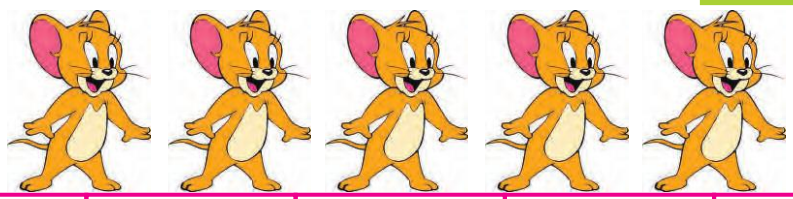


३						

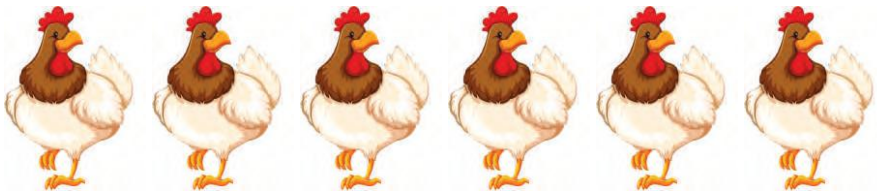
४	pkj



४						

५	ikp	

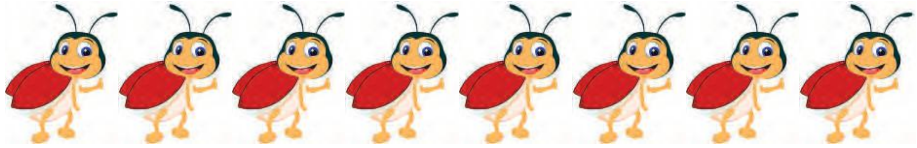
५						

६	N%	

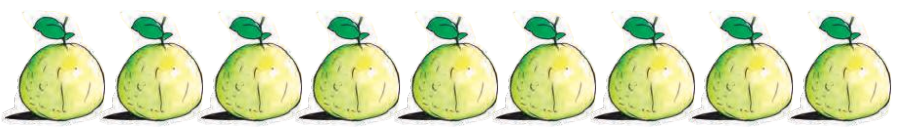
६						

७	I kr	

७						

८	vkB	

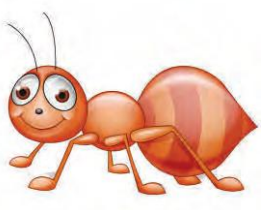
८						

९	uk	

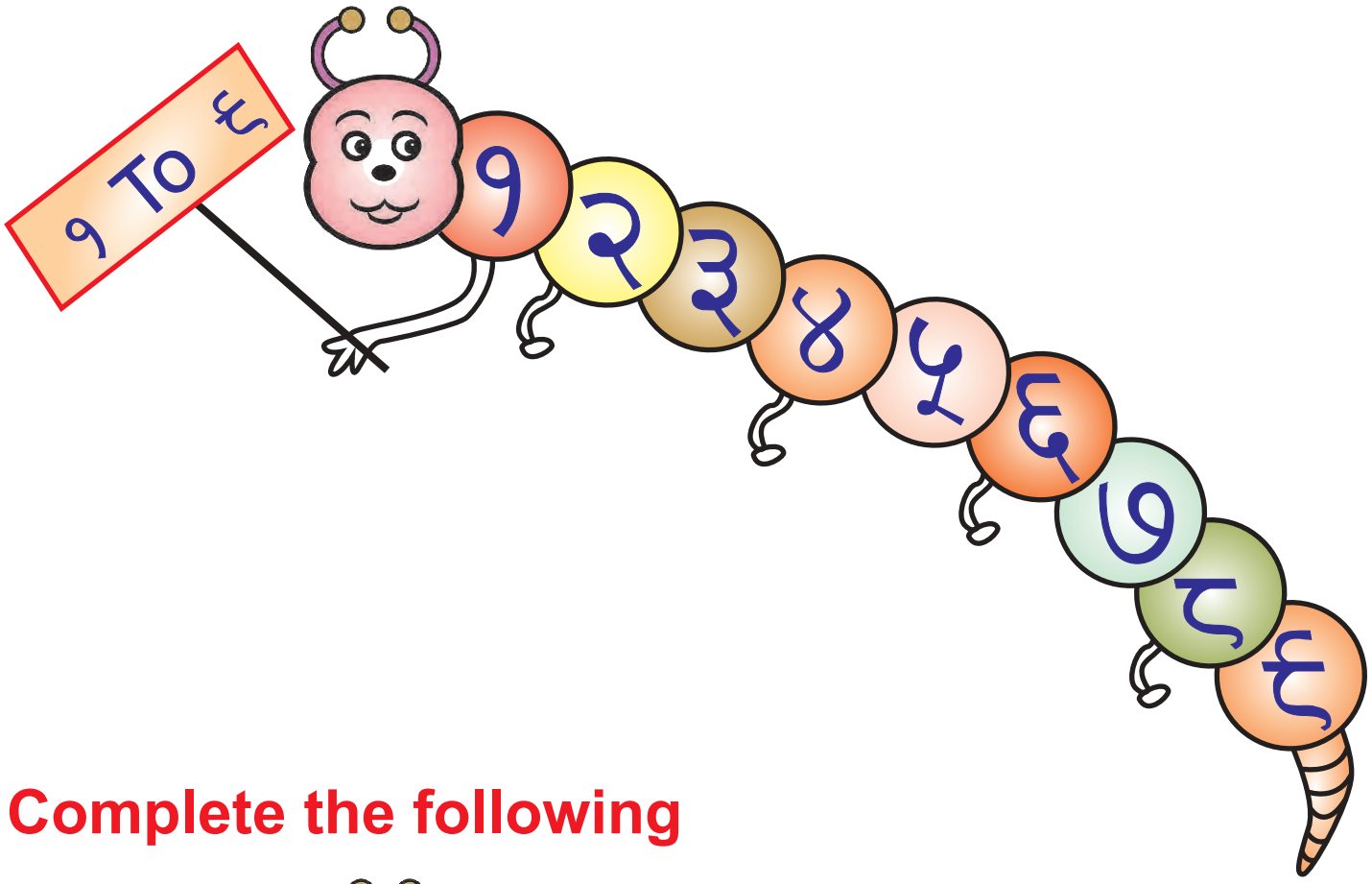
९						

Count the pictures and write the numbers

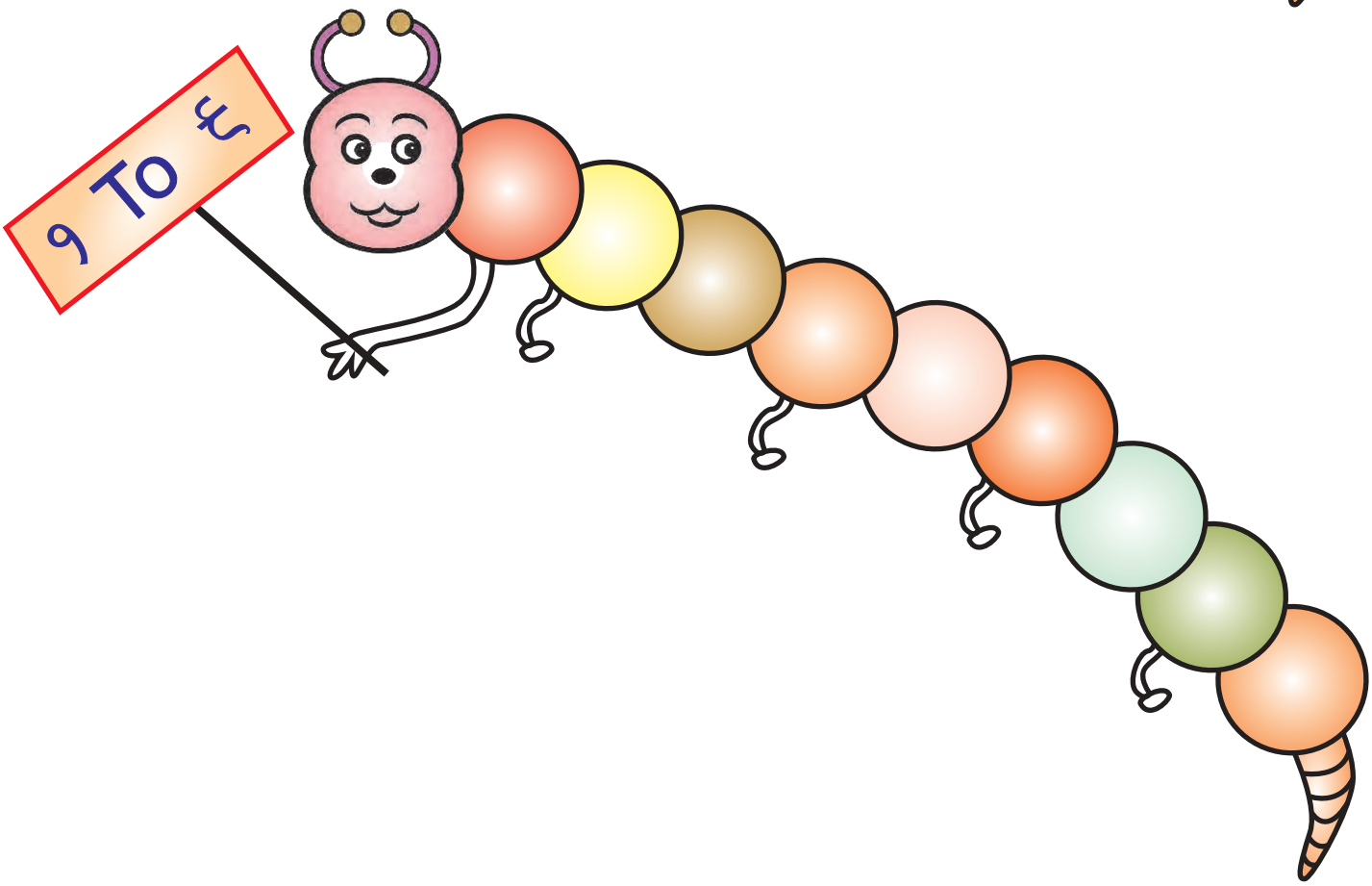


Picture	Number	Picture	Number
	8		
			
			

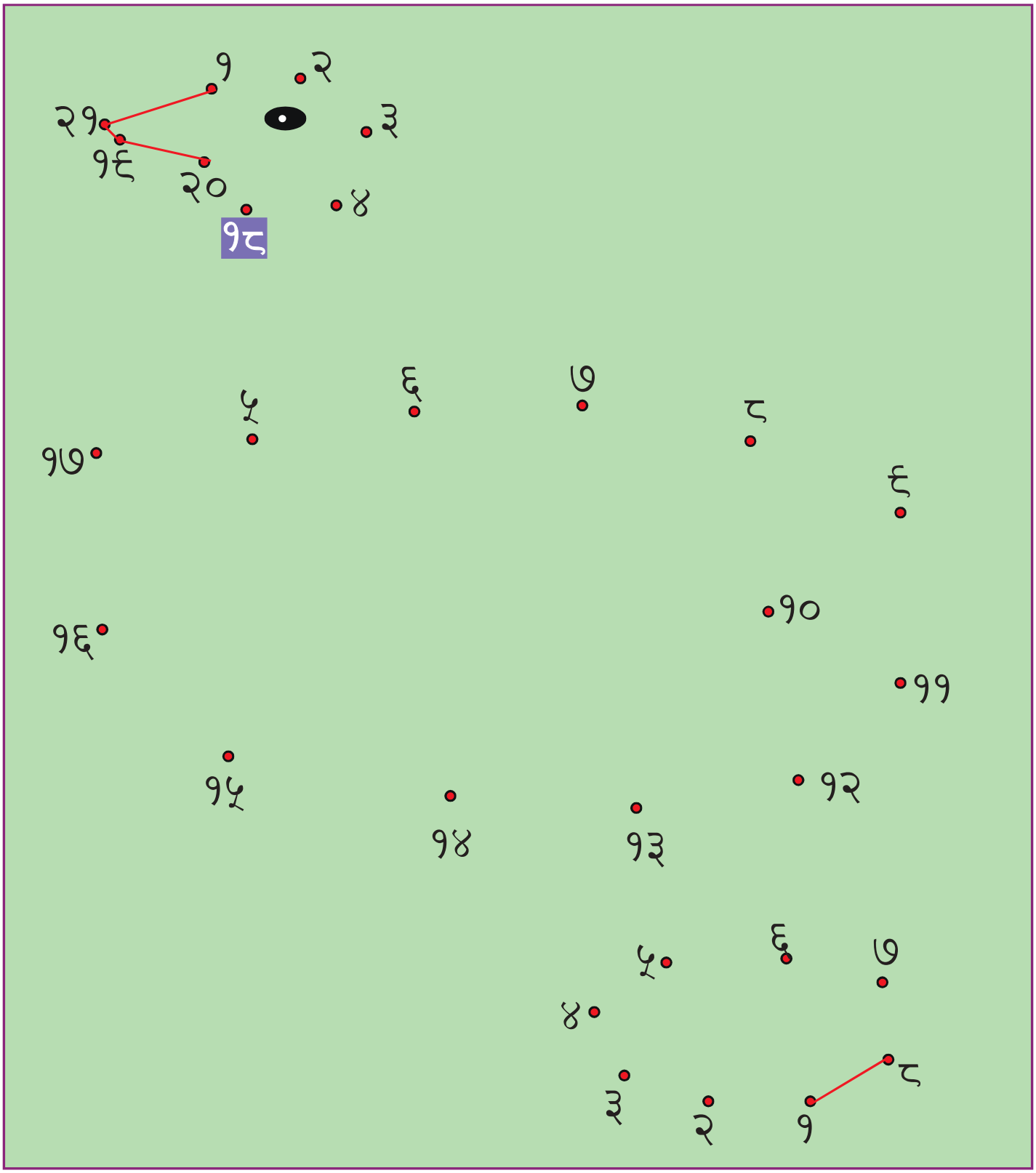
See and understand



Complete the following



In The pictures given below join the numbers in serial order



Write in ascending order

३, ४, १, २	१	२	३	४
६, २, ५, ३				
७, ४, २, ८				
२, ५, ८, ३				

Write in descending order

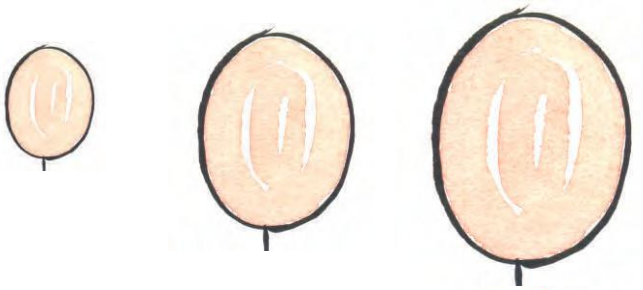
२, ४, १, ५	५	४	२	१
४, ८, ६, ३				
५, ७, ४, २				
१, ८, ८, ६				

Write in ascending order.

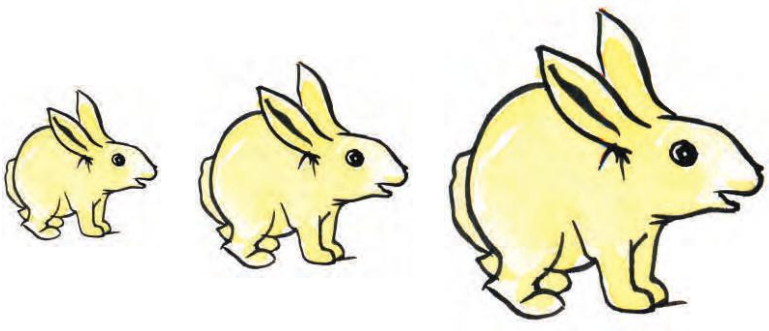
३६	३७	३८



१०	१२	६



२३	२६	१५

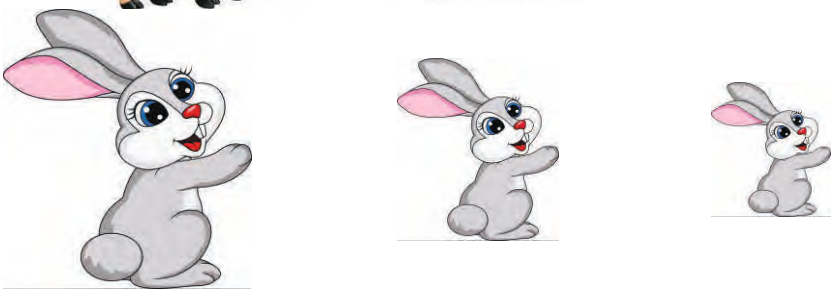


Write in descending order.

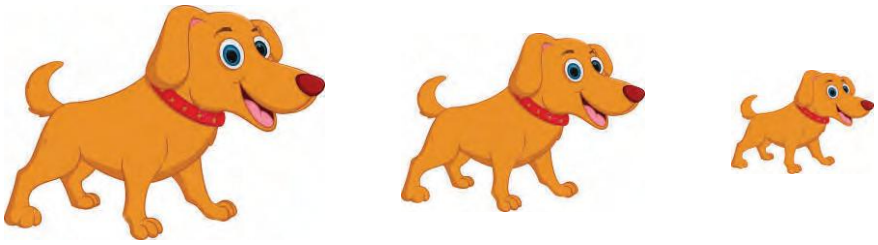
१०	६	१५



३७	१६	३१



४०	१०	३०



२५	१६	३१



Even and odd numbers.



Take as many pebbles as the numbers written in the circles below. Now make pairs of pebbles. How many such pairs did you make? And how many pebbles are left? Write your answer as shown in the example.

		pairs	Pebbles left
५	●● ●● ●		
१२			
३१			
२६			
२३			
३८			
१७			

Write down the numbers where one pebble got left behind.

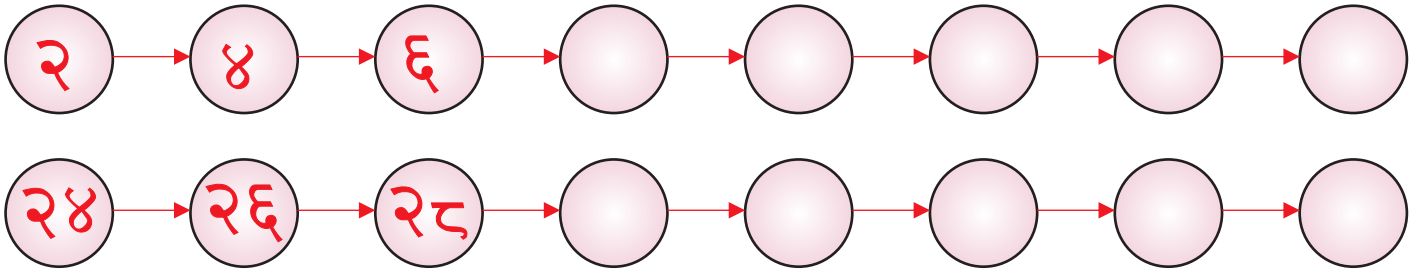
These are **odd number.**

Now write those numbers that did not leave any pebbles behind when grouped into pairs.

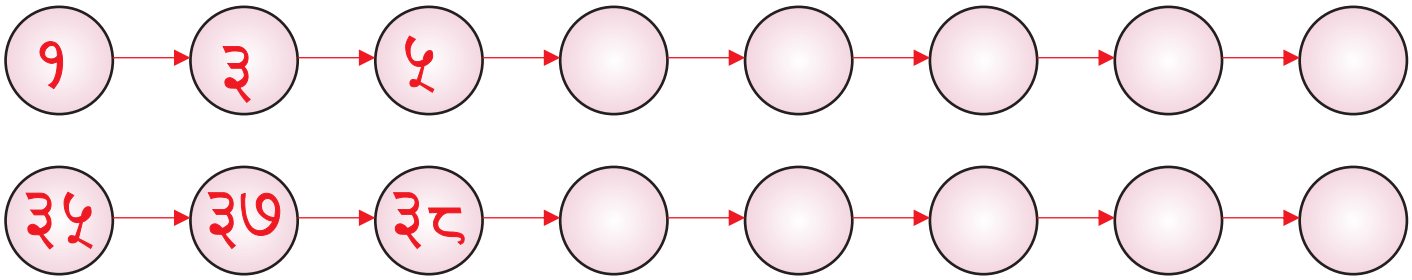
These are **even numbers.**

You can take more numbers and identify odd and even numbers.

Write the even numbers in increasing order.



Write the odd numbers in increasing order.



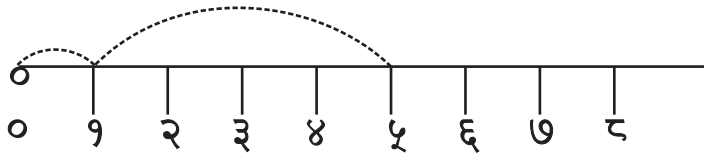
Identify the even numbers .

Circle the even numbers from १ to ५०

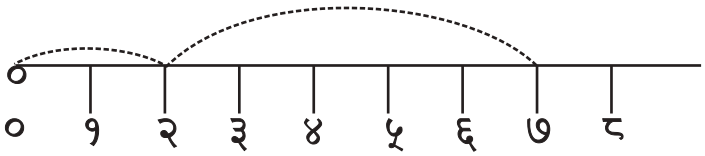
१	११	२१	३१	४१
२	१२	२२	३२	४२
३	१३	२३	३३	४३
४	१४	२४	३४	४४
५	१५	२५	३५	४५
६	१६	२६	३६	४६
७	१७	२७	३७	४७
८	१८	२८	३८	४८
९	१९	२९	३९	४९
१०	२०	३०	४०	५०

Add on the number line.

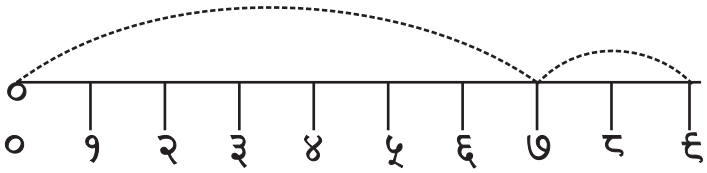
१. १ + ४ = ५



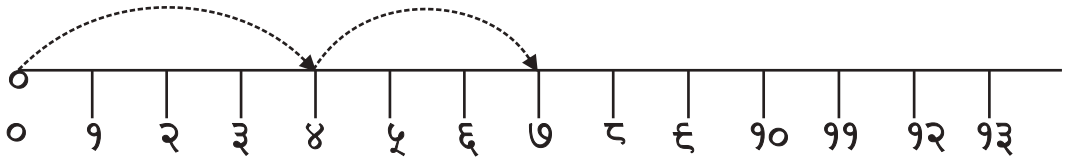
२. २ + ५ = ☐



३. ७ + २ = ☐

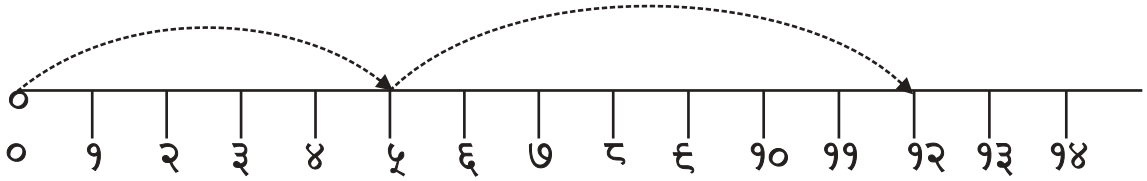


४.



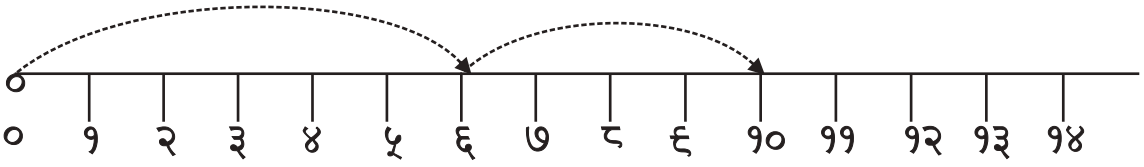
☐ + ☐ = ☐

५.



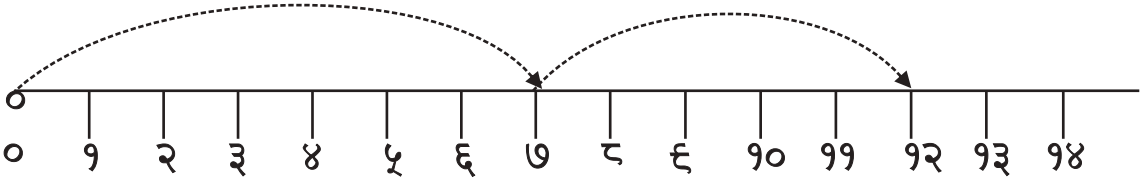
☐ + ☐ = ☐

६.



☐ + ☐ = ☐

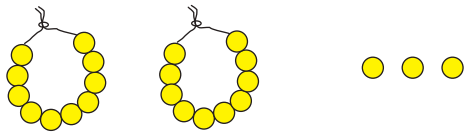
७.

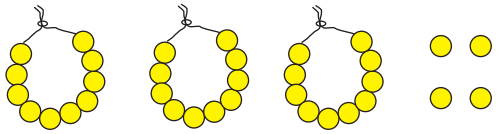


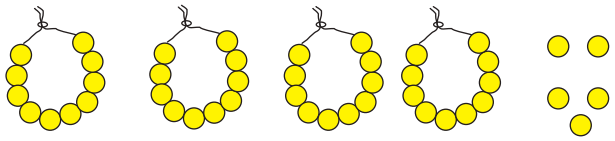
☐ + ☐ = ☐

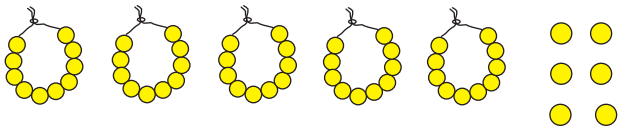
Beads and necklaces

Let us practice some more:

२३  = २० + ३

३४  = ☐ + ☐

४५  = ☐ + ☐

५६  = ☐ + ☐

You have seen that for number 23, we get 2 necklaces of 10 beads each and 3 beads left behind, which can be written as :

२३	=	2 necklaces	+	3 beads	= 2 tens	+	3 ones
३४	=	3 necklaces	+	4 beads	= 3 tens	+	4 ones
४५	=	4 necklaces	+	5 beads	= ☐	+	5 ones
५६	=	5 necklaces	+	6 beads	= ☐	+	☐

The bundle or necklace of 10 beads can be considered to be tens, while the beads can be considered ones.

10 ones make one ten.

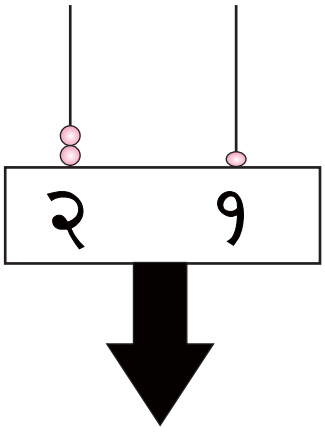
Match the following.

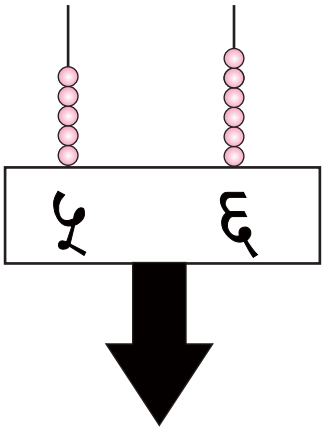


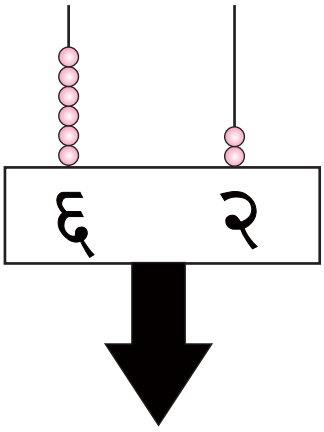
३ tens	.	२ ones	५६
६ tens	.	३ ones	८३
७ tens	.	८ ones	३५
५ tens	.	६ ones	६३
८ tens	.	३ ones	७८
१ tens	.	६ ones	६८
४ tens	.	७ ones	६६
२ tens	.	५ ones	१६
६ tens	.	८ ones	४७
३ tens	.	५ ones	२५
६ tens	.	६ ones	३२

Tens and Ones

		Tens	Ones
१.	१५	१	५
२.	२१		
३.	४३		
४.	३५		
५.	५२		
६.	६७		७





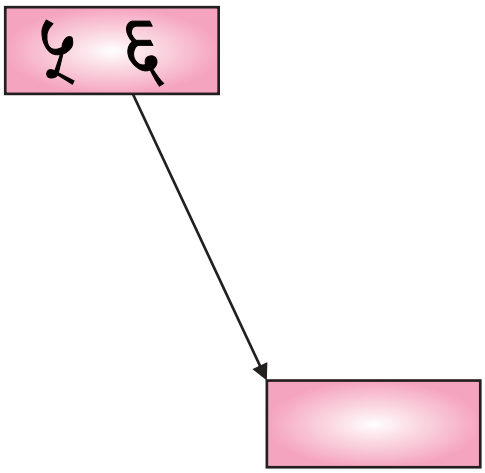


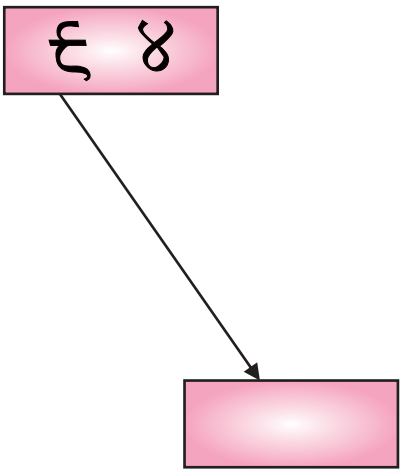
☐ Tens + ☐ Ones

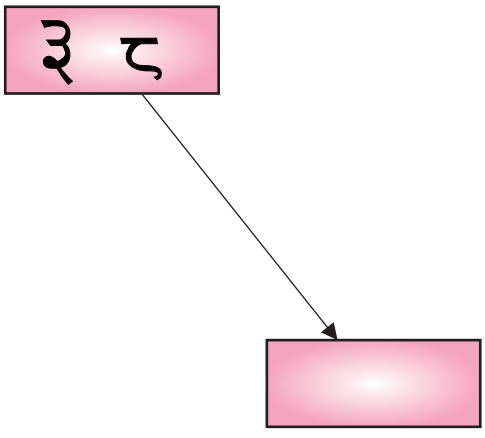
☐ Tens + ☐ Ones

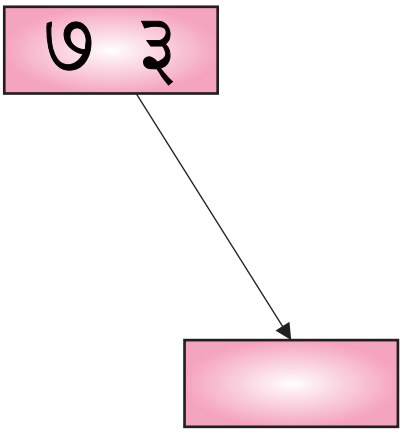
☐ Tens + ☐ Ones

Write only Ones.

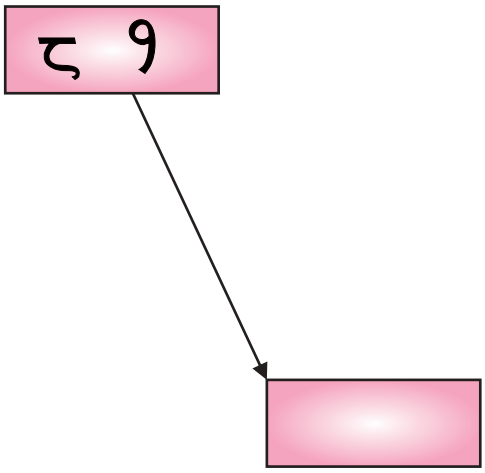


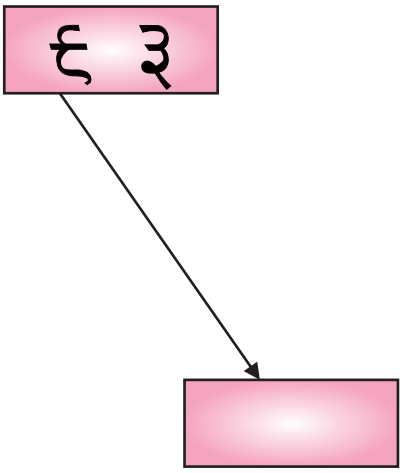


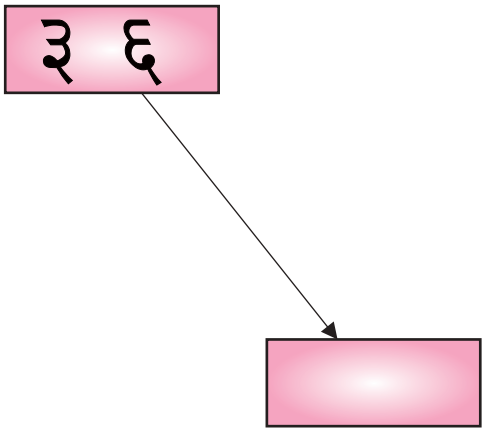


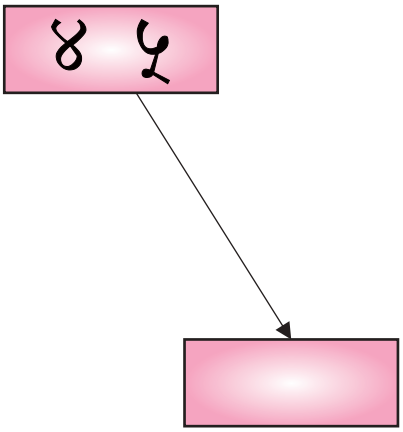


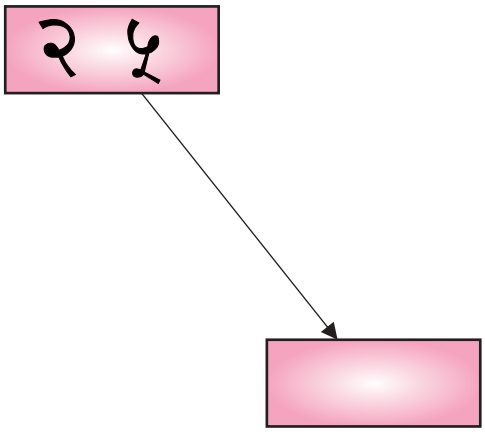
Write only tens.

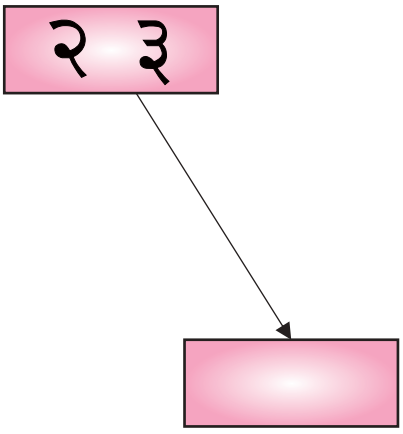




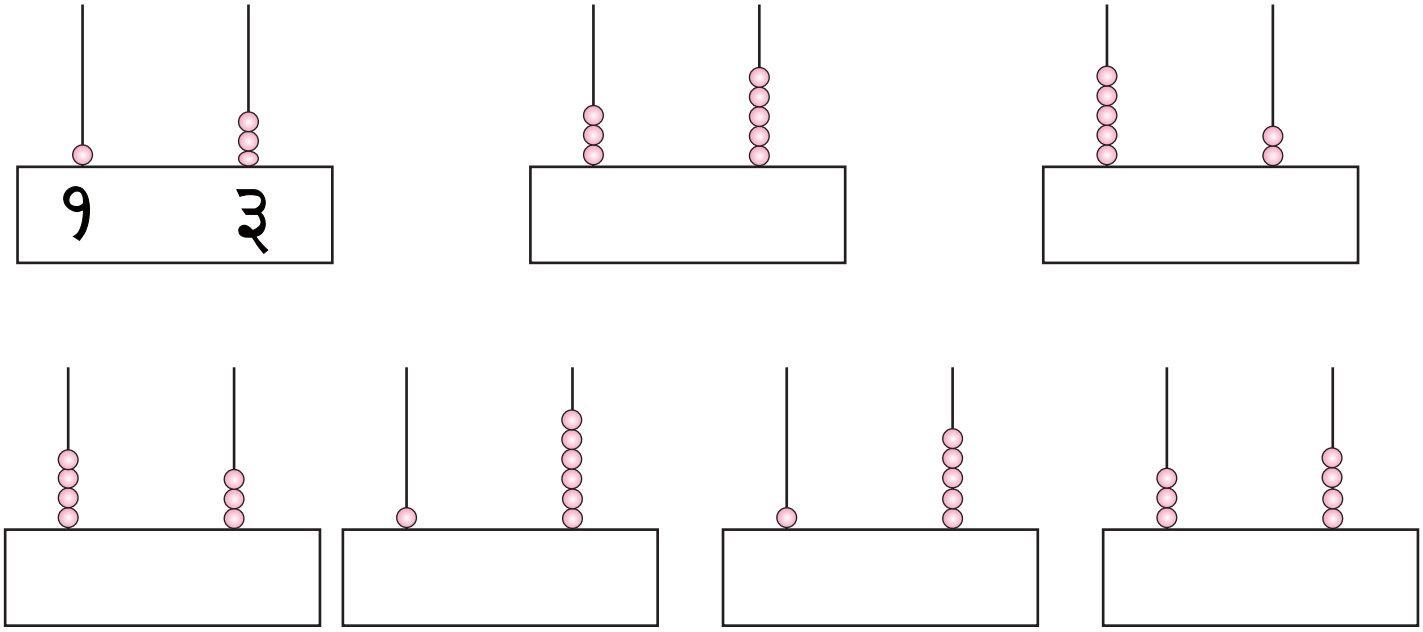




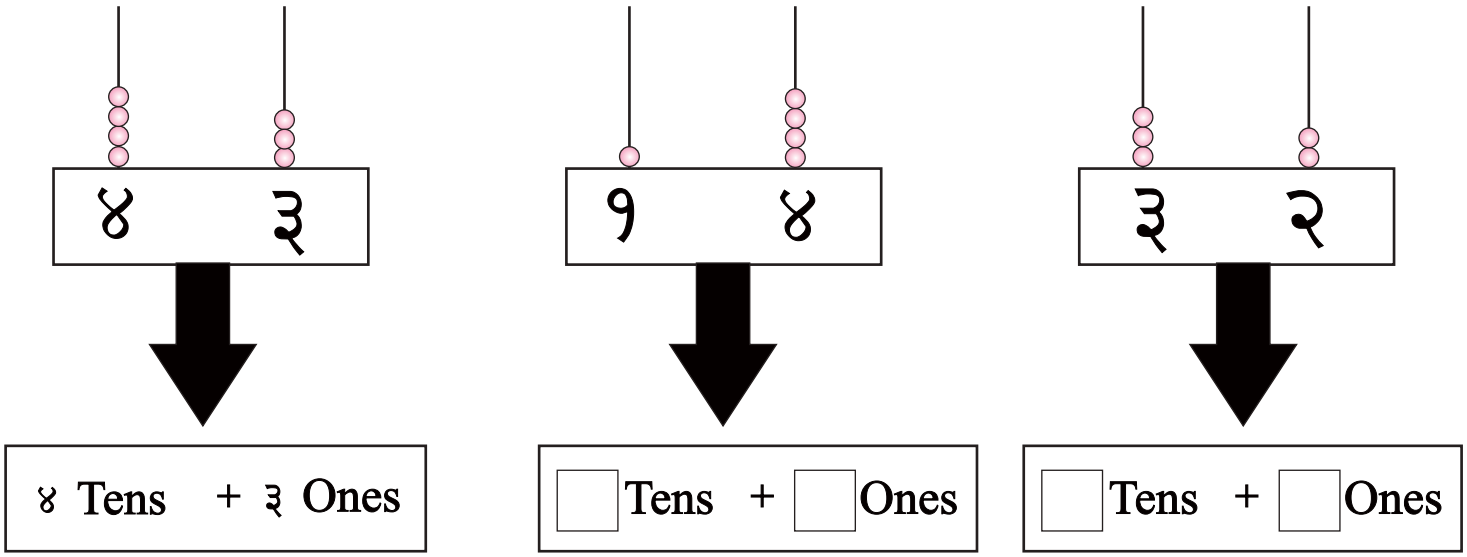




Understand and write the number.



See and Write.



Look at the example and complete the following exercises.

Write down the place value of the following numbers:

৭৫

Place value of ৫ at ones place is. ৫

Place value of ৭ at tens place is. ৭০

২৩

Place value of ৩ at ones place is. ____

Place value of ২ at tens place is. ____

৩৬

Place value of ____ at ones place is. ____

Place value of ____ at tens place is. ____

৪৬

Place value of ____ at ones place is. ____

Place value of ____ at tens place is. ____

৫০

Place value of ____ at ones place is. ____

Place value of ____ at tens place is. ____

৮৪

Place value of ____ at ones place is. ____

Place value of ____ at tens place is. ____

Similarly play this game with other numbers as well.

Make biggest and smallest number using the two numbers given.

Let's make a few numbers

१. If two numbers ५ and २ are given the numbers which can be formed using them will be ५२ and २५.

२. Numbers formed by ३ and ७ will be ३७ and ७३

Now take number cards from १ to ९. Pick up any two cards from them. Arrange them in different ways in such a way that different numbers are formed.

Similarly keep on picking up २-२ cards and tell the numbers that you get each time to your friends.

Learn by doing

Make numbers by using given digits.

(१) ७, २, ..., ...

(२) ५, ८, ..., ...

(३) ३, ३, ..., ...

(४) ६, ४, ..., ...

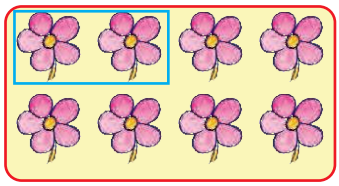
(५) ७, ८, ..., ...

(६) ९, ९, ..., ...

Take two sets of cards of numbers १-९. Pick up any two cards from this set and write the numbers made with these digits. Now tell greater and smaller two digit number.

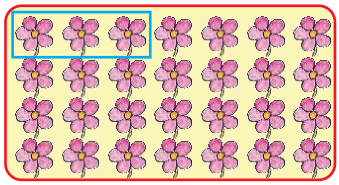
Make groups.

Make groups of two.



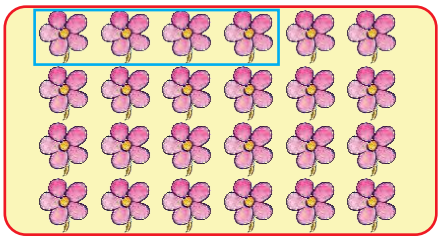
How many flowers ? ☐
How many groups ? ☐
Remaining flowers ? ☐

Make groups of three.



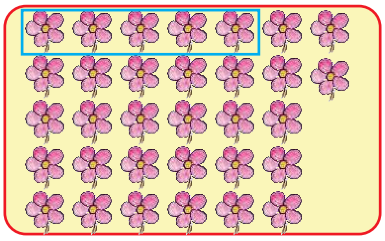
How many flowers ? ☐
How many groups ? ☐
Remaining flowers ? ☐

Make groups of four.



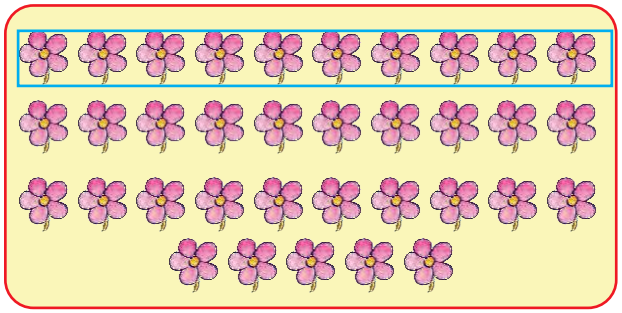
How many flowers ? ☐
How many groups ? ☐
Remaining flowers ? ☐

Make groups of five.



How many flowers ? ☐
How many groups ? ☐
Remaining flowers ? ☐

Make groups of ten.



How many flowers ? ☐
How many groups ? ☐
Remaining flowers ? ☐

Make such new groups.

Write in words.

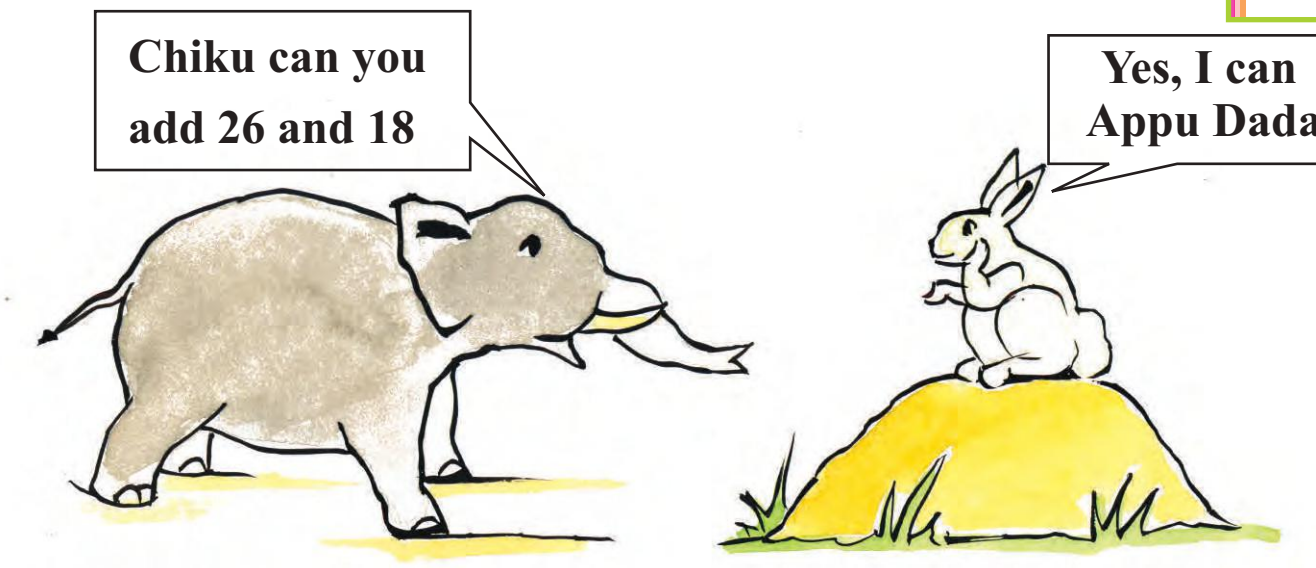
Number	Words	Number	Words
१	एक	११	ग्यारह
२	दो	१२	बारह
३	तीन	१३	तेरह
४	चार	१४	चौदह
५	पाँच	१५	पंद्रह
६	छः	१६	सोलह
७	सात	१७	सतरह
८	आठ	१८	अठारह
९	नौ	१९	उन्नीस
१०	दस	२०	बीस

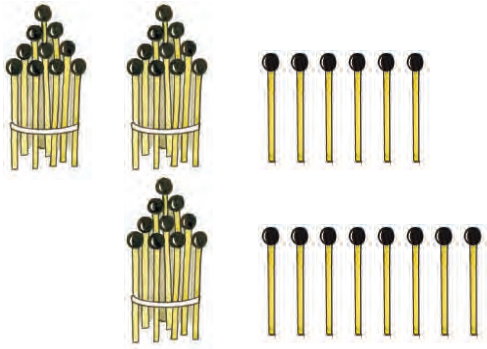
Write the following numbers in words.

१		१५		२	
५		१८		४	
८		२०		१३	
१०		९		१७	
१२		६		१४	

Some more sums.







T.	O.
(१	
२	६
+ १	८
(१)	४

T.	O.
१	
२	६
+ १	८
४	४

Add these.

३ ६
+ २ ०

---

५ ५
+ १ ६

---

६ ०
+ २ ८

---

३ ५
+ २ ५

---

७ ४
+ १ ८

---

१. At Ranjeeta's house १६ jamun tree and २४ custard apple trees are there . Tell the total number of trees at Ranjeeta house.

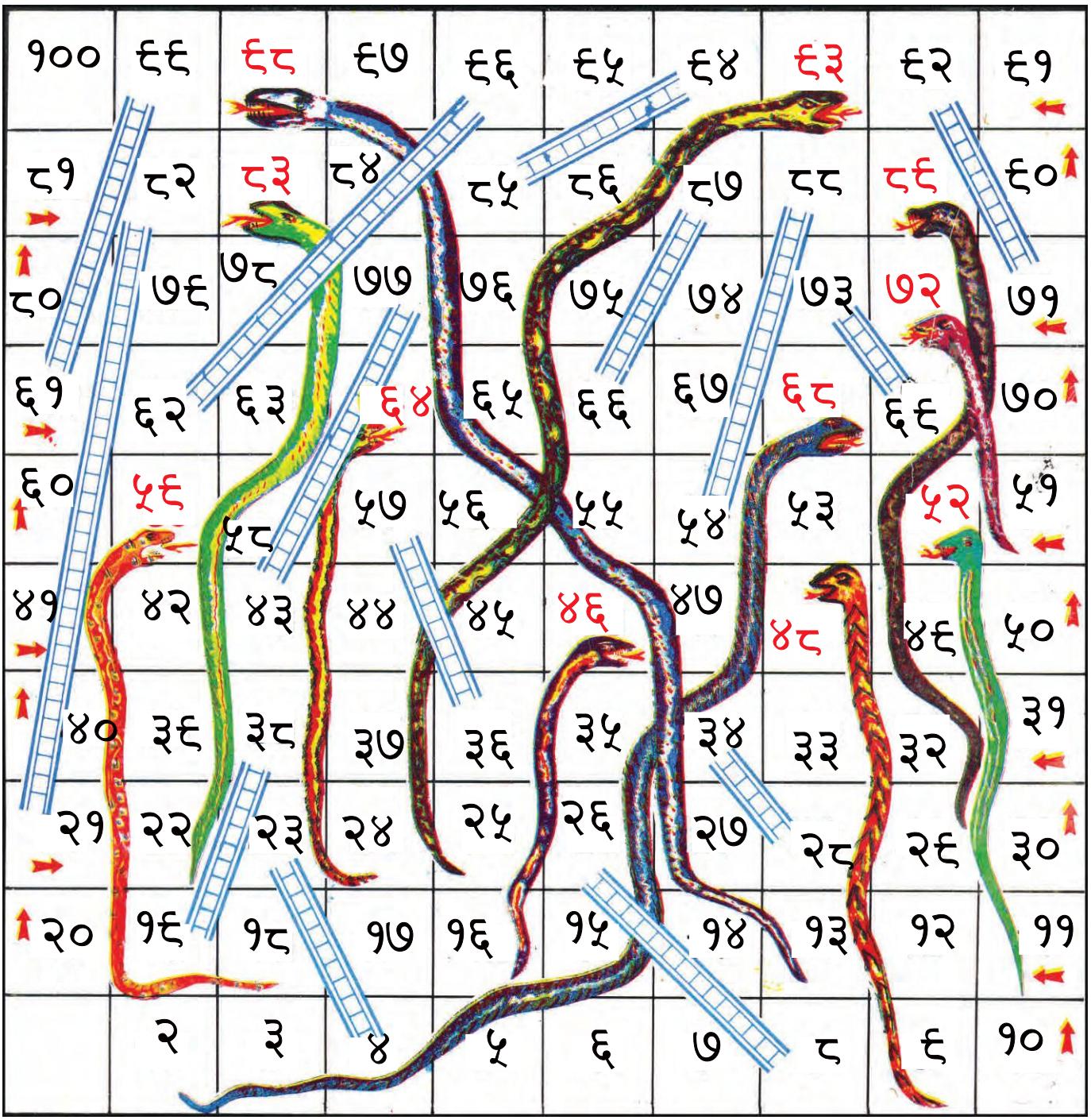
२. Hema buys gulabjamun of ७८ rupees and jalebi of ४५ rupees. Tell the total amount from which she buy sweets.

३. In a field there are २६ bringle plants and ३३ peas plants. Tell the total number of plants in the field.

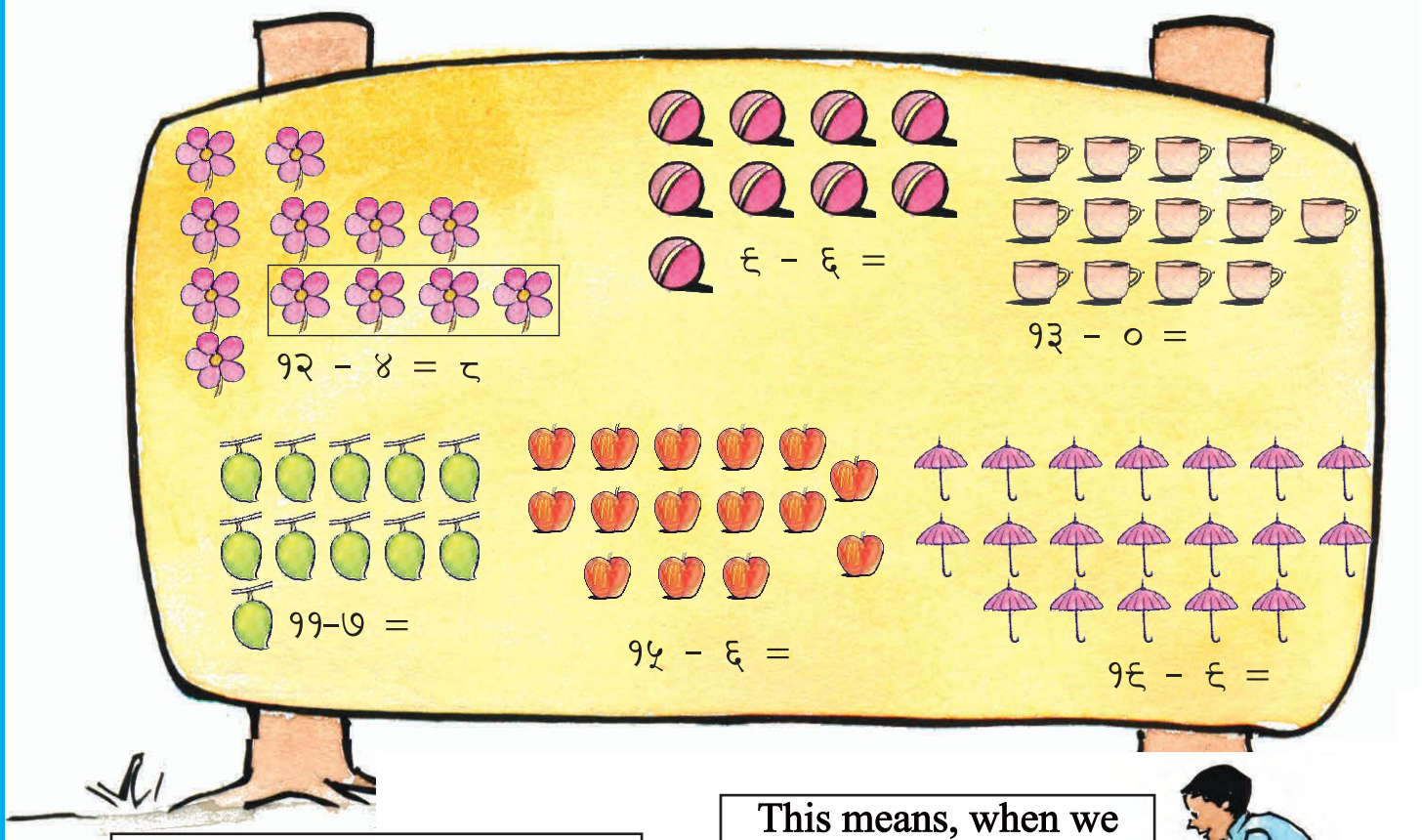
४. Priya has १६ books and Sameer has २० books. Each of them get १० more books. Now tell total number of books they have.

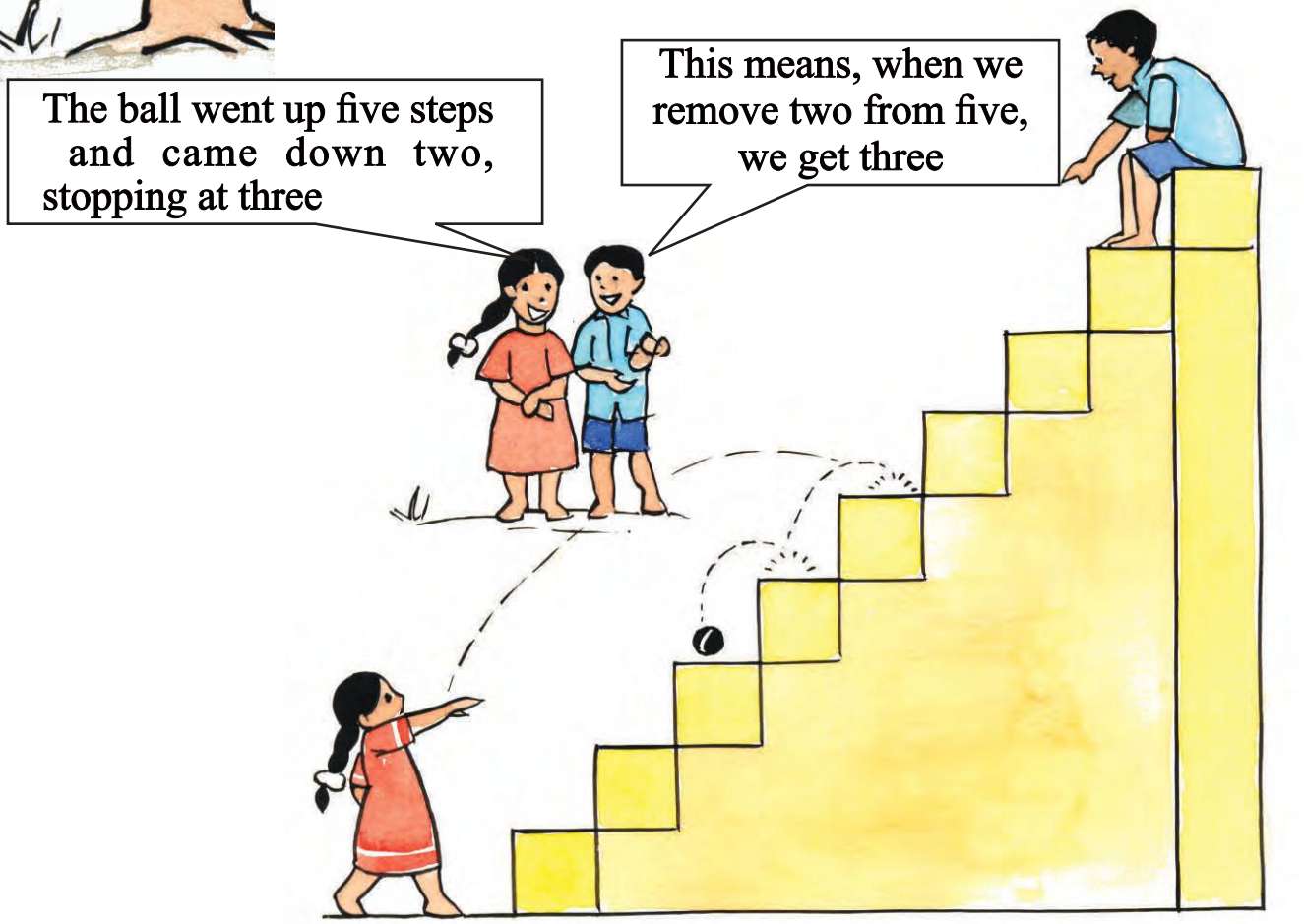
5. Dinesh has २५ goats . He buys १६ more goats. Now tell the total number of goats.

Snakes and Ladders.



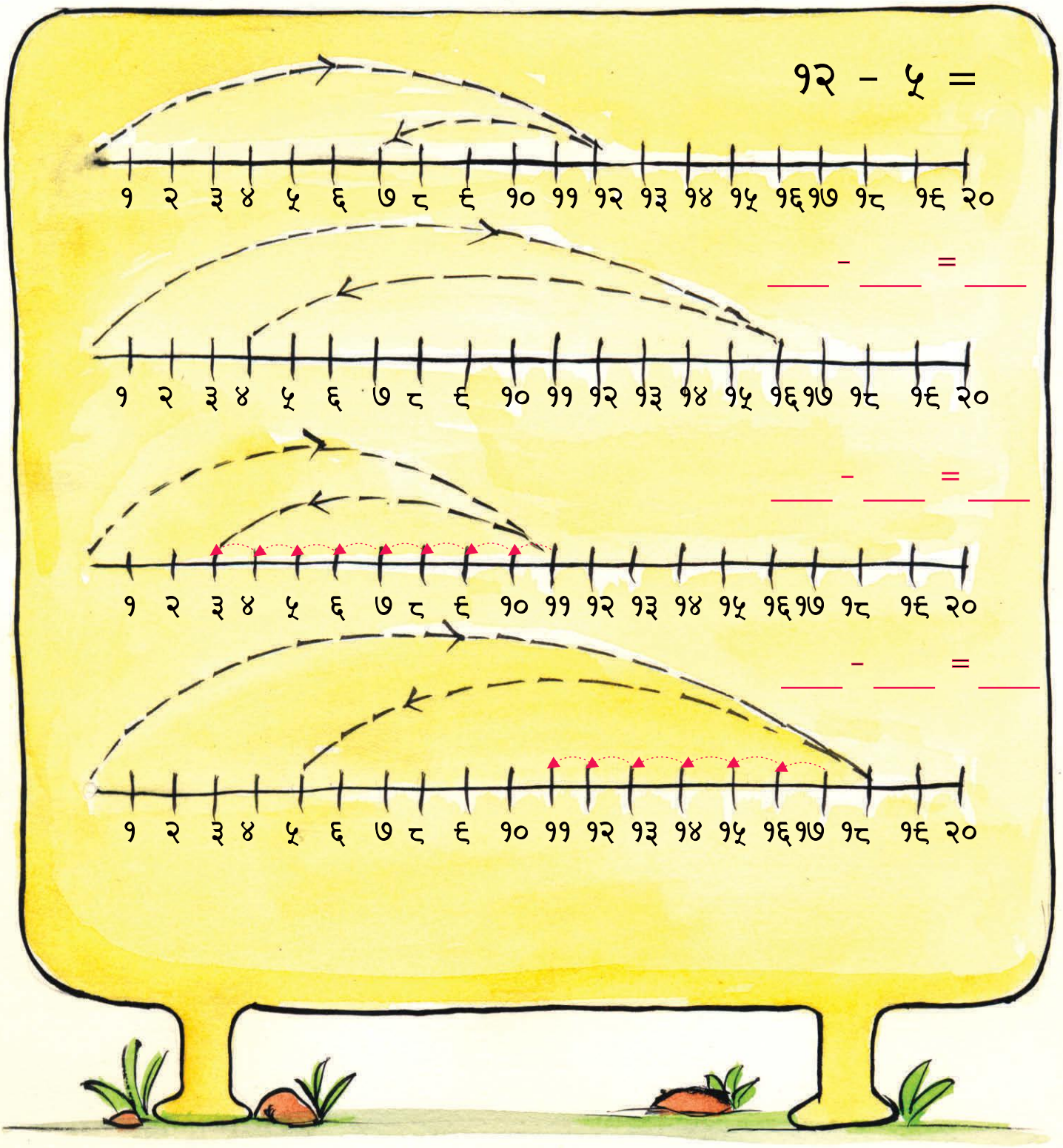
How many remain? Count and write.





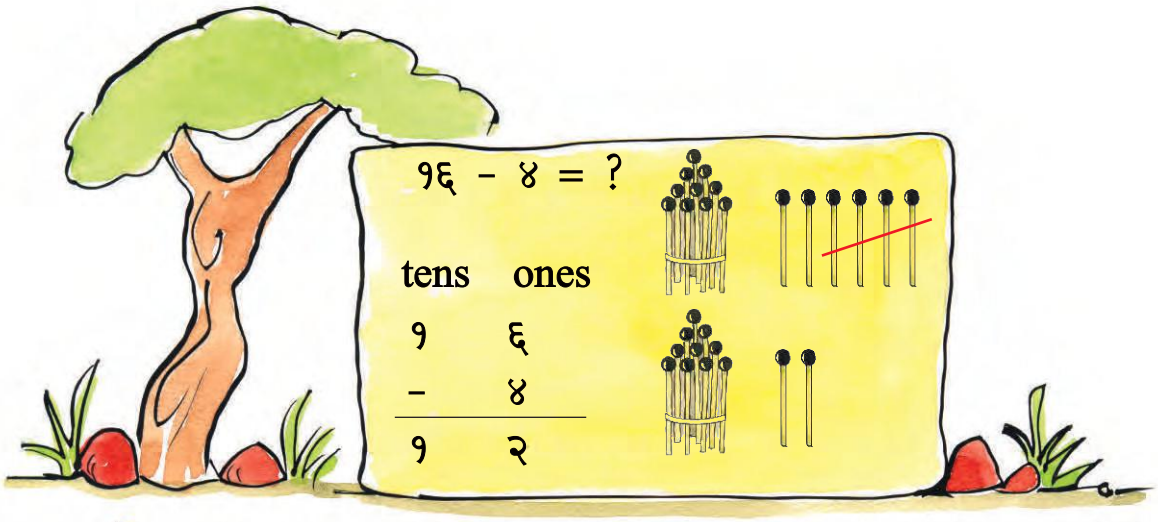
If the ball goes up eight steps and rolls down three, then where does it reach?
If the ball goes up 9 steps and comes down 7 steps, where does it reach?

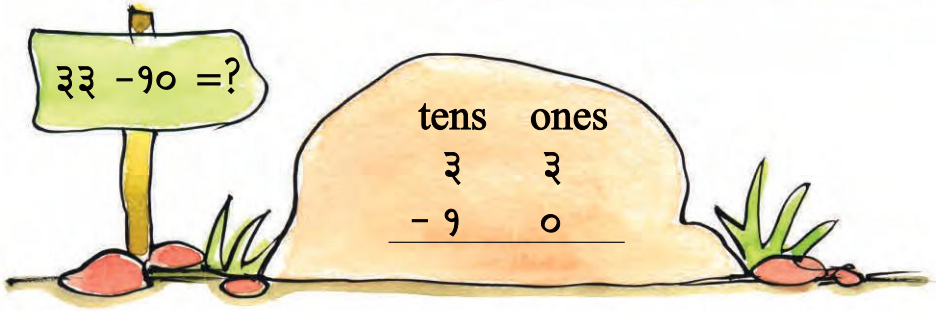
Read the numbers on the number line and fill in the blanks.

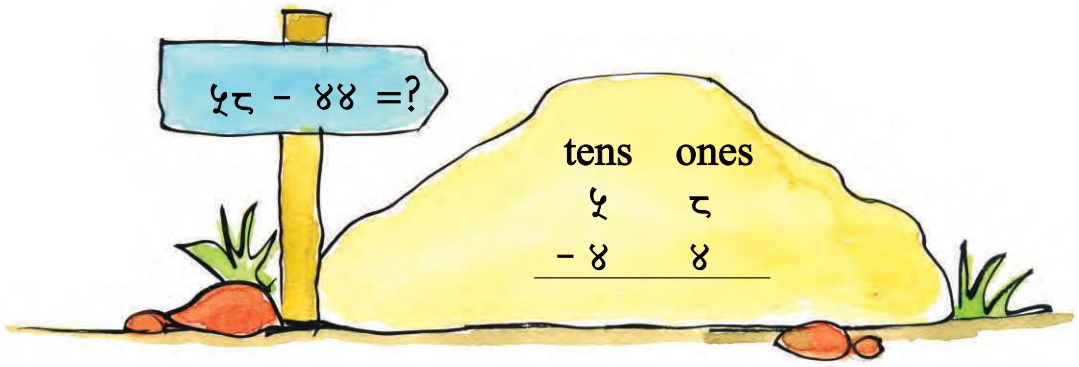


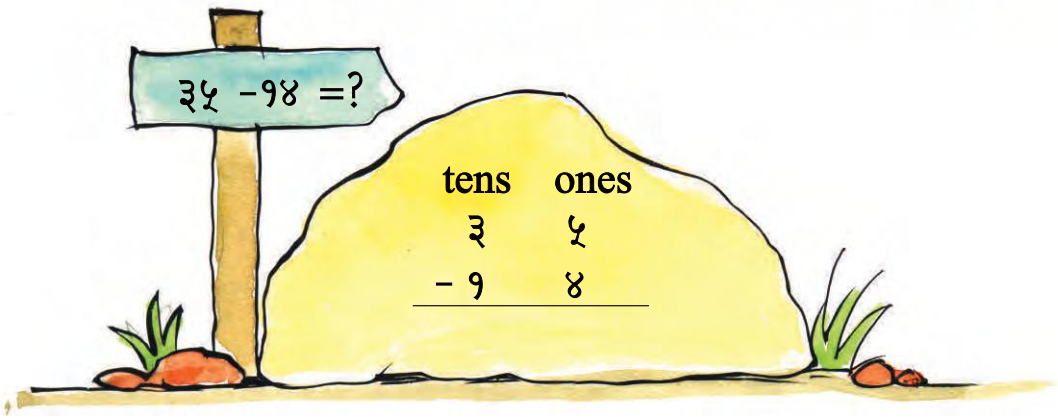
Make other such questions on the number line and ask your friends to solve them

Subtract these as well.









Solve these.

66 − 34 =

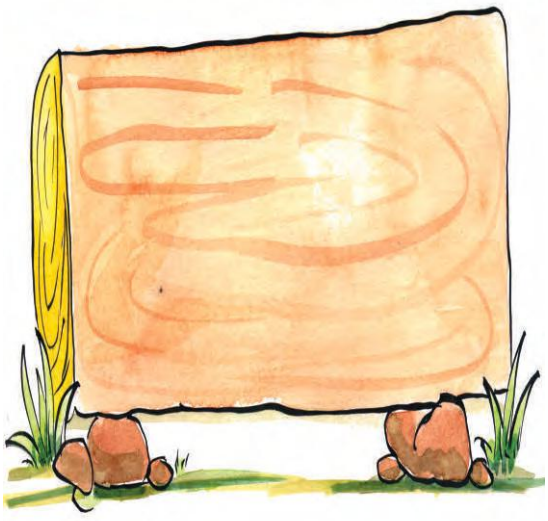
78 − 45 =

65 − 23 =

38 − 16 =

At last a bag had to be opened!





Discuss and write a story for this.

Why did uncle have to open the bag?

If there were ५ children, how many bags would have remained close.

If these were ५ children, how many Laddus would have been left in the opened bag?

Understand the example and then solve.

Subtract ౧౯ from ౩౬

	౩	౬		~~౩~~	~~౬~~		~~౩~~	~~౬~~
−	౧	౯	−	౧	౯	−	౧	౯
							౧	౭

36 − 19 = 17

Subtract ౪౮ from ౭౨

	౭	౨		~~౭~~	~~౨~~		~~౭~~	~~౨~~
−	౪	౮	−	౪	౮	−	౪	౮
							౨	౪

72 − 48 = 24

Subtract ౨౬ from ౪౩

	౩	౧౩
	౪	౩
−	౨	౬
	౧	౭

Subtract ౨౮ from ౫౫

	౪	౧౫
	౫	౫
−	౨	౮
	౨	౭

Subtract ౧౮ from ౪౦

	౩	౧౦
	౪	౦
−	౧	౮
	౨	౨

Subtract ౪౬ from ౬౦

	౫	౧౦
	౬	౦
−	౪	౬
	౧	౪

Solve these.

౪౭ − ౧౮

౫౦ − ౧౩

౫౧ − ౧౨

౬౭ − ౪౮

౩౨ − ౧౨

౪౪ − ౨౯

౫౬ − ౩౯

౮౦ − ౩౪

Solve these.

१. Rashmi has ४६ ducks. He sold २४ ducks . How many ducks she has now?

२. Tanu took ७४ rupees and went to bazaar. She brought some copies of worth ५२ rupees. How many rupees does she have now?

३. Chandani has २४ cups of icecream in her fridge. she distributes १७ cups among her friends. How many cups of icecream she has now?

४. Rinki's chachaji gave Rinki १७ rupees. Now she has २५ rupees. How many rupees she had with her ?

५. When Abhay returned from mela he had ६ rupees. In the mela, he bought a car of १३ rupees. Tell how much money he took to the mela?

Some more question.

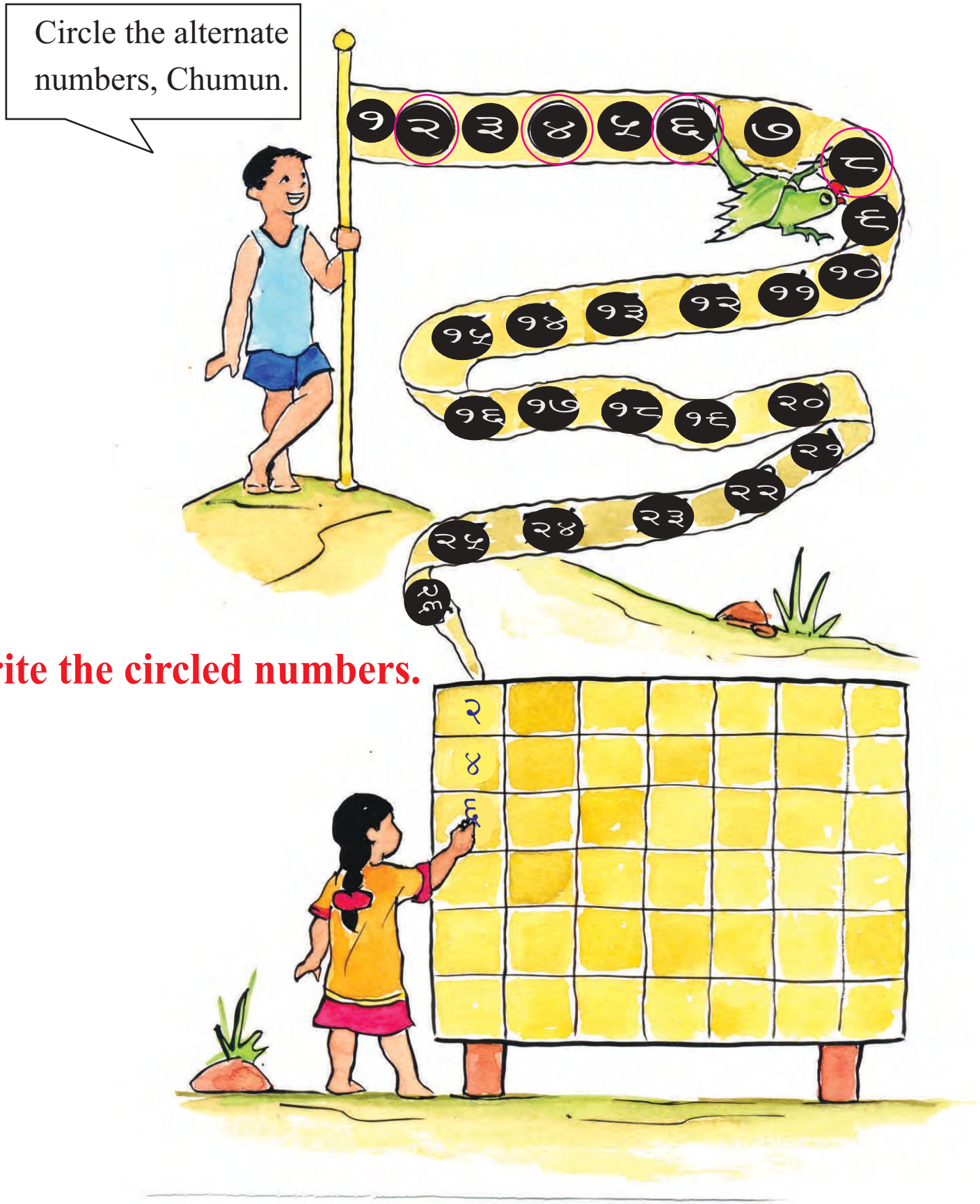
१. Vivek and Abhay together collected ५६ ber and gave ३३ ber to Ankit. How many ber are left with them?

२. Ishan planted ५३ plants of guava out of which १६ plant died in summer. How many plants will be remaining in his backyard.

3. Anil takes ६४ jackfruit to the market ४२ jackfruits are sold. How many jackfruits are left with them.

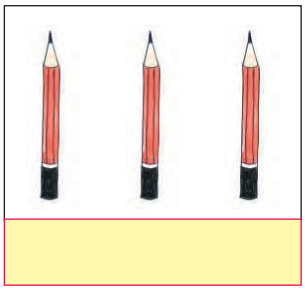
४. Deepak has २३ books in his library. He buys २८ more books. How many total books are there in library.

४. Reena and Rita are making garland. Reena puts ३३ mogra flowers in the garland and Reeta puts २७ flowers. Now tell how many mogra flowers they put in together.



Write numbers from ৭ to ৫০ on your slate. Encircle every third, fourth and ninth numbers. Write the circled number.

Do these as well

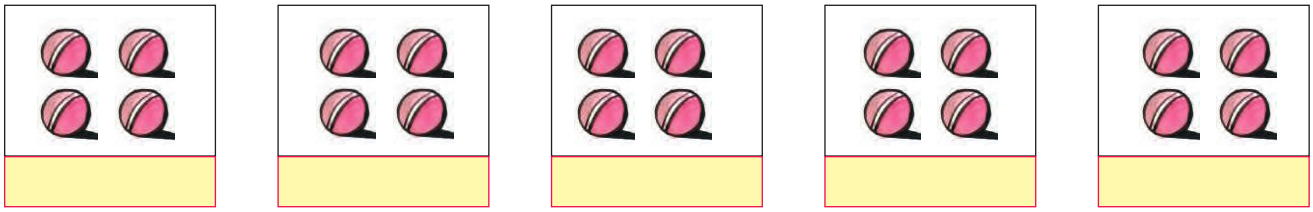




How many objects are there in a group? =

How many groups are there? =

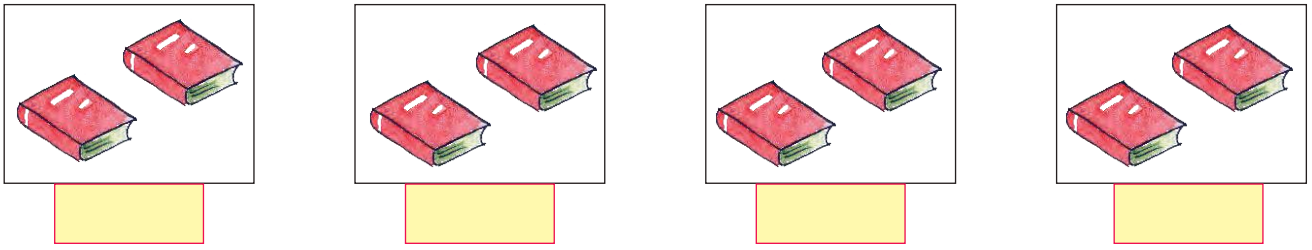
How many objects are there in all?.....+.....+.....=



How many objects are there in a group? =

How many groups are there? =

How many objects are there in all? ....+....+....+....+...=

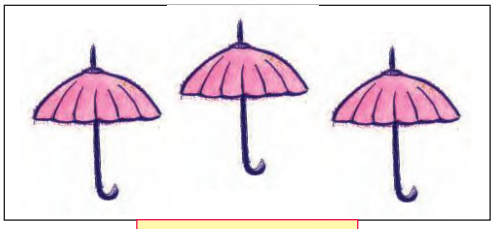


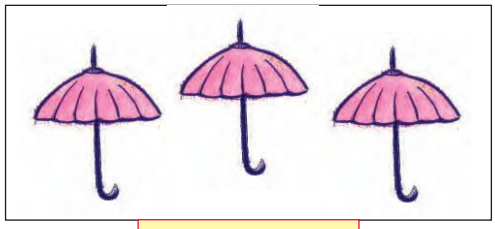
How many objects are there in a group? =

How many groups are there? =

How many objects are there in all? ....+....+....+....+....=

Multiplication Symbol





How many umbrellas are there in a group? =

How many groups are there? =

How many umbrellas are there in all ? = ३+३ (Two groups of three) = ६

We also write it like this ३ × २ = ६ (३ multiply by २) = ६



How many glasses are there in a group? =

How many groups are there? =

How many glasses are there in all ? = (२ multiply by ४) = ८

४ groups of २ = ८

This can be written २ × ४ = ८

Multiplication means repeated addition.

२+२+२	=		३+३+३+३	=	
२×३	=		३×४	=	
३+३	=		५+५+५	=	
३ ×२	=		..... ---×३	=	
४+४	=		३+३+३+३+३	=	
४×....	=		३ ×.....	=	
६+६	=		८+८+८+८	=	
६×	=		....	=	
४×३	=		७+७+७	=	
..+..+...	=		....	=	

Legs of Tripods?

Shahnaz and Ali's mother ask them to place a piece of brick beneath the legs of the tables and tripods. Shahnaz said, "I will do it for Tripods, Ali said Okay I will place beneath the legs of the tables."



Shahnaz made this table for herself:

One Tripod	३ legs	३ × १ = ३
Two Tripods	३ + ३ legs	३ × २ = ६
Three Tripods	३ + ३ + ३ legs	३ × ३ = ९

Shahnaz said I will count the tripods and will find out, how many legs are there in all and then will bring that much pieces of bricks. Complete the table that Shahnaz has left incomplete and tell how many legs will there be in ८ tripods.

Make such table for Ali also.

Everything became zero

We have learnt multiplication of one digit numbers like ३ ×६, ४ ×२. etc. If we have to multiply a number with zero then what will we do? Like ० × ३ = ?

३ × ३ = ३+३+३



Three groups of ३ ६ objects in all

२×३ = २+२+२



Three groups of २ ६ objects in all

१×३ = १+१+१



Three groups of १ ३ objects in all

०×३ = ०+०+०

Three groups of 0 No object at all

Therefore ०×३ = ०, now find out the value of ०×६, ०×८, ०×१०

look at ४ × ० .....

४×३ = ४+४+४



Three groups of ४ १२ objects in all

४×२ = ४+४



Two groups of ४ ८ objects in all

४×१ = ४



One group of ४ ४ objects in all

४×० = ०

So, ४×० = ०

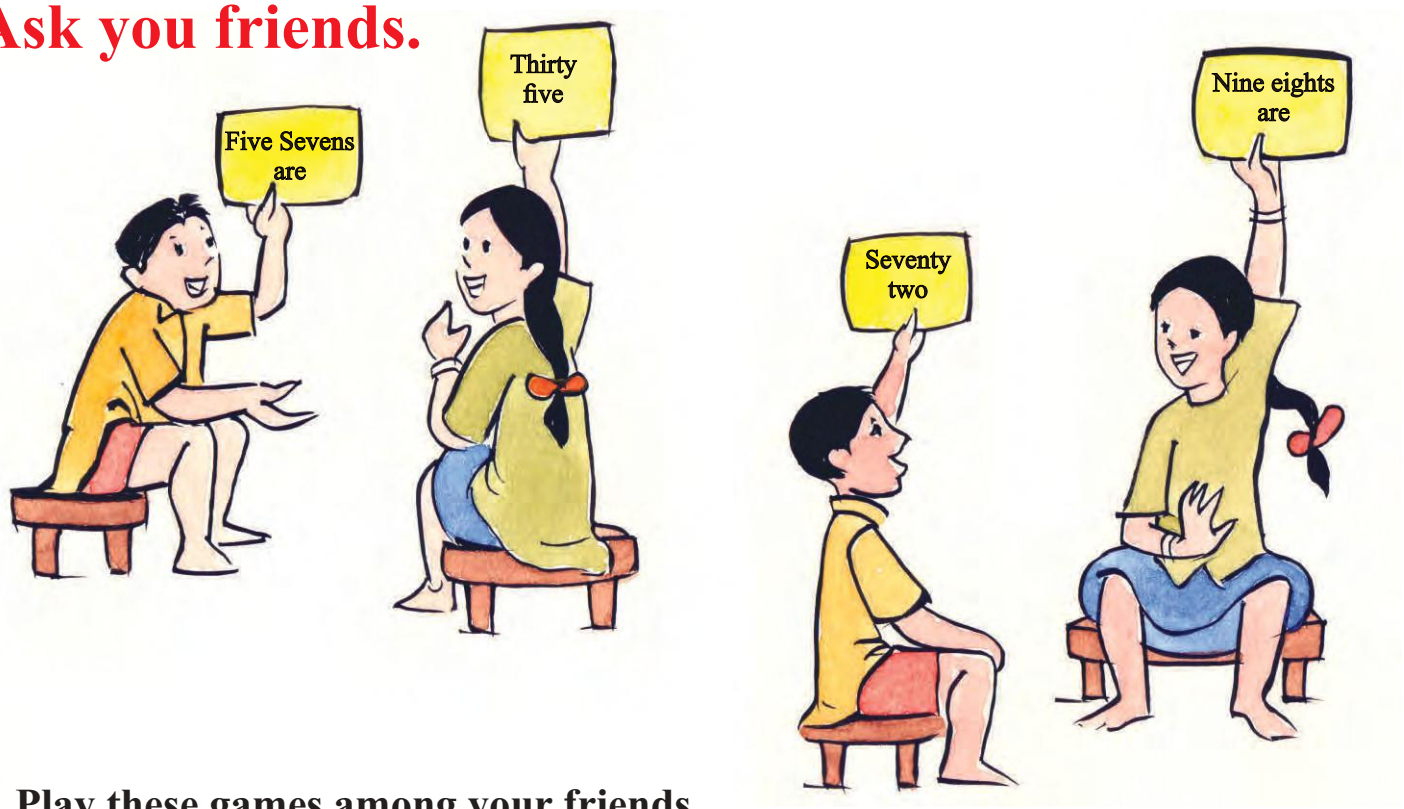
Similarly ५×० = ० ६×० = ० ३×० = ०

Multiply zero by any number or multiply any number by zero we will get zero.

Write ૧ to ૧૦ multiplication table

	૨			૫					૧૦
				૧૦					
				૧૫					
				૨૦					
	૧૦	૧૫	૨૦	૨૫	૩૦	૩૫	૪૦	૪૫	૫૦
				૩૦					
				૩૫					
				૪૦					
				૪૫					
૧૦				૫૦				૬૦	

Ask you friends.



Play these games among your friends.

Solve these.

૧. Two slippers are there in ૧ pair . So how many slippers are there in ૩ pairs.

૨. Tulesh have ૫ gardens. Each garden has ૬ mango trees. Tell the total numbers of mango trees in Tulesh garden.

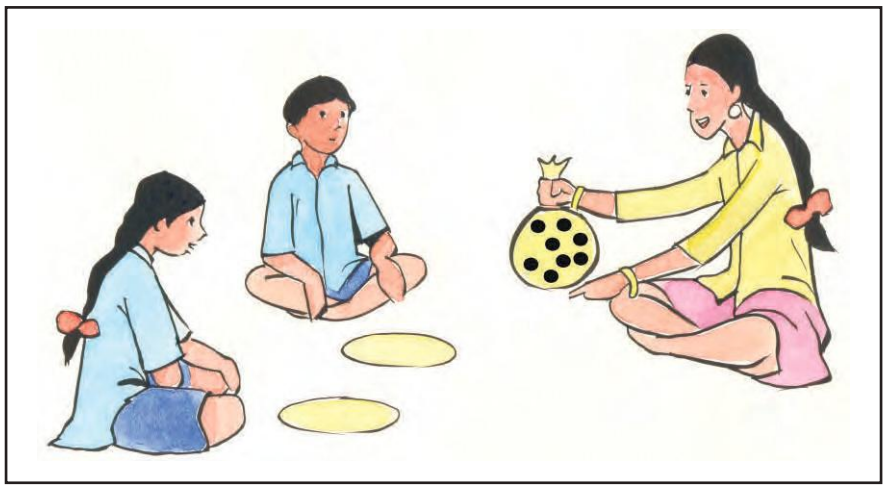
૩. Mahi collected seeds of peanut. She has ૮ peanut. Each peanut has ૩ seeds. Tell the total number of seeds Mahi have.

૪. Preeti wants to plant seeds of Arahar. She has ૧૦ small field In each small field she has to plant ૫ seeds. How many seeds she needed.

૫. One bed had four legs, so tell the total number of legs in ૭ beds.

How to Distribute Equally.

Meena has ८ marbles. She wants to distribute the marbles to Chunnu and Gudia equally.



Will you help Meena?

Take ८ marbles.

Make two circles one for Chunnu and one for Gudia.

Distribute the marbles equally.



How many did Chunnu get ?

How many did Gudia get ?

Similarly;

Take १० marbles and distribute them into ३ circles.

Take १२ marbles and distribute them into ४ circles.

Now take as many marbles as you wish. Make some circles and put equal number of marbles in each of them.

Distribution of Books.



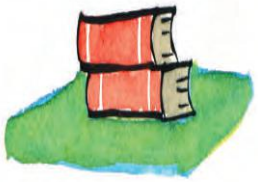
८



८ − २ = ☐



६ − २ = ☐



४ − २ = ☐



२ − २ = ☐

There were ८ books. It was possible to take out two books, four times.

Collect objects in different numbers with your friends. Take out two objects from them repeatedly. In how many times were you able to take two things out?. Have some objects remained?

Write those numbers that leave no remainder when two things were taken out repeatedly.

Solve these.

१. Mahesh planted १० Neem trees and २१ Mango trees which school garden. How many trees Mahesh planted in all ?

२. Naveen has ४० kg rice in his home. १४ kg rice is used at his home. Tell how much rice left in the sack.

३. Vimla has to eat ३ pills in a day. How many pills she needed in ७ days.

४. Lata has one ५०० rupees note. She goes to the shop to take its change. Shopkeeper gives her २० rupees notes.So how many २० rupees notes she gets from the shopkeeper.

५. ६ beds have to place in one room. So how many rooms are needed for ३६ beds.



If there are mentally challenged students in your class:

1. Break the lesson into small portions. Explain difficult concepts with examples and in simple language. Try and relate difficult concepts with experiences from daily life.
2. Pay constant attention to these students while teaching so that they do not lose their focus. Encourage them to answer questions in class and reward them when they answer properly.
3. Encourage the other students to be friendly and helpful towards their mentally challenged classmates.

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If there are visually-impaired students in your class, extend your help:

1. *Always address visually-impaired students by their names and speak out whatever is written on the blackboard.*
2. *Familiarize these students with the way to the classroom, staircases, Principal's room, drinking water facility, toilet, playground and library. This will enable them to go about their tasks independently.*
3. *Visually-impaired students use the Braille script. If your school does not have sufficient resources, contact the nearest DIET office and agencies that provide Braille and audio books, cassettes and CDs.*

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If there are physically challenged students in your class, extend your help:

1. Familiarize these students with the way to the classroom, staircases, Principal's room, drinking water facility, toilet, playground and library. This will enable them to go about their tasks independently.
2. Keep the classroom and nearby areas obstacle free. The drinking water tap should be reachable. The toilet should have commodes and a rod for support that they might need in sitting or standing up.
3. Encourage the other students to be friendly and helpful towards their classmates

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