

Mathematics

Part - 1

Standard
III



Government of Kerala
Department of General Education

Prepared by
State Council of Educational Research and Training (SCERT) Kerala
2024

THE NATIONAL ANTHEM

Jana-gana-mana adhinayaka, jaya he
Bharatha-bhagya-vidhata
Punjab-Sindh-Gujarat-Maratha
Dravida-Utkala-Banga
Vindhya-Himachala-Yamuna-Ganga
Uchchala-Jaladhi-taranga
Tava subha name jage,
Tava subha asisa mage,
Gahe tava jaya gatha
Jana-gana-mangala-dayaka jaya he
Bharatha-bhagya-vidhata
Jaya he, jaya he, jaya he,
Jaya jaya jaya, jaya he.

PLEDGE

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

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

I shall give my parents, teachers and all elders, respect and treat everyone with courtesy. To my country and my people, I pledge my devotion. In their well-being and prosperity alone, lies my happiness.

Mathematics

3

State Council of Educational Research and Training (SCERT)

Poojappura, Thiruvananthapuram 695012, Kerala

Website : www.scertkerala.gov.in

e-mail : scertkerala@gmail.com, Phone : 0471 - 2341883,

Typesetting and Layout : SCERT

First Edition : 2024

Printed at : KBPS, Kakkanad, Kochi-30

© Department of General Education, Government of Kerala

Dear students,

We have learnt many mathematical concepts, through drawing, colouring and games. Now we know how to count, calculate sums and recognise shapes.

There are a lot more we need to know; learn bigger numbers, their calculations, find relations between numbers, solve problems, analyse patterns and many other things.

Let's move forward, thinking divergently, seeking different ways, evolving diverse methods, using logic and exchanging views.

Wishing you the best,

Dr. Jayaprakash R.K.
Director
SCERT Kerala



Textbook Development Team

Advisor

Dr. E. Krishnan

Head (Retd.), Department of Mathematics,
University College, Thiruvananthapuram

Chairperson

Dr. Gokuldasan Pillai C.

Curriculum Head (Retd.), SCERT

Experts

Dr. M. Shaheedali

Senior Lecturer,
DIET, Palakkad

Dr. Rajesh K.P.

Senior Lecturer, DIET Kannur

Members

Swaminathan K.

Headmaster (Retd.),
Govt. LP School, Palode,
Thiruvananthapuram

Sreevishakhan

Headmaster (Retd.)
GLP School,
Cherukulathoor, Kozhikode

Jiji Verghese P.

Trainer, BRC Edappal

Anoop

HST Drawing
PMSAPTHSS, Kakkove,
Vazhayur, Malappuram

Biju T.

Headmaster,
Govt. SMVLPS
Thevalakkara Kollam

Beenasteephan

SPTPM Govt. UPS
Kuravankonam,
Thiruvananthapuram

Sujith K.R.

UPST,
Meppayil East SB School
Vadakara, Kozhikode

Dhaneshan M.V.

HSST English,
GFHSS Padannakadappuram,
Kasaragod

Sajeewan C.V.

ALP School, Kariyil,
Cheruvathoor, Kasaragode

Ayswarya Soman

SMSGUPS,
Chandanakunnu,
Pathanamthitta

Hari Charutha

Nemom,
Thiruvananthapuram

Shaji Mathew

Pathanamthitta

Academic Coordinator

Dr. Abhilash Babu P.

Research Officer, SCERT



State Council of Educational Research and Training (SCERT)

Vidhyabhavan, Poojappura, Thiruvananthapuram 695 012

CONTENTS

01	Let's Draw	07
02	Numbers are Our Friends	17
03	Thousands and Thousands	33
04	Let's Join Together	45
05	Let's Measure	61
06	Adding... and Adding Again	75

The icon below is used in this
textbook for convenience



Let's do problems



THE CONSTITUTION OF INDIA

PREAMBLE

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a ¹**[SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC]** and to secure to all its citizens :

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity; and to promote among them all

FRATERNITY assuring the dignity of the individual and the ²[unity and integrity of the Nation];

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

1. Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec.2, for "Sovereign Democratic Republic" (w.e.f. 3.1.1977)
2. Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec. 2, for "Unity of the Nation" (w.e.f. 3.1.1977)

1

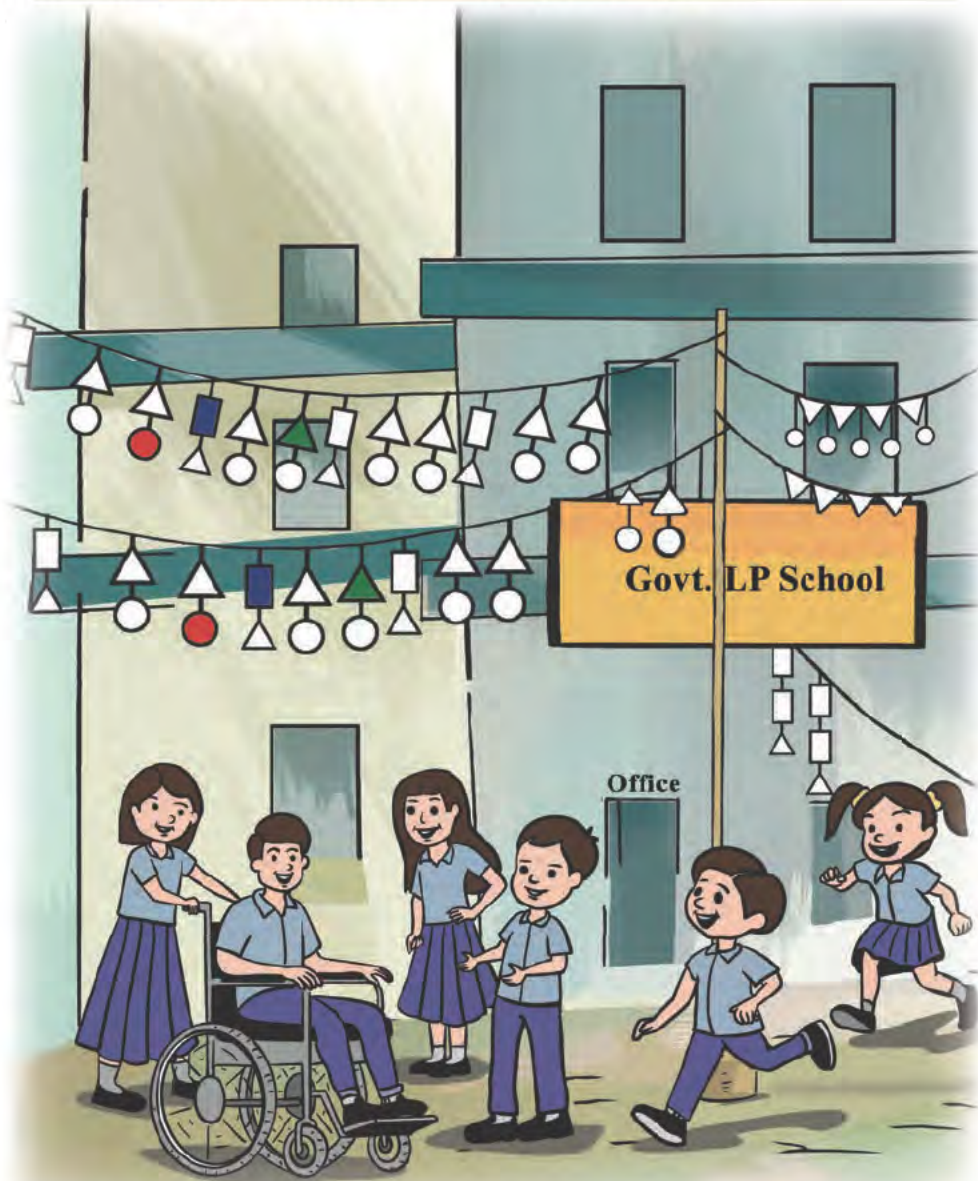
LET'S DRAW



Welcome Fest

Anu and Subi are in Class three. Their school is decorated for the Welcome Fest.

Colour the festoons and make the picture prettier.



Count the number of each shape in the festoons

Shape			
Number			

Greeting Card

Vidhu is a new student this year.

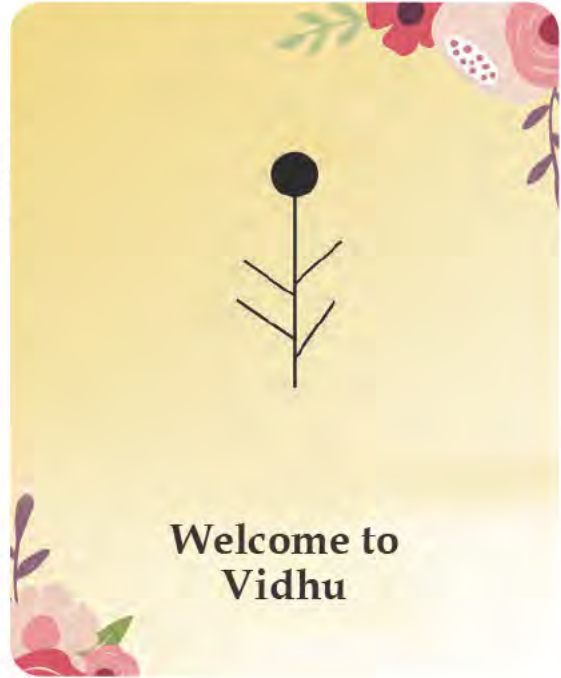
The others want to make him a greeting card.

Subi and others are drawing pictures and sticking dots to make it pretty.

Can you help?

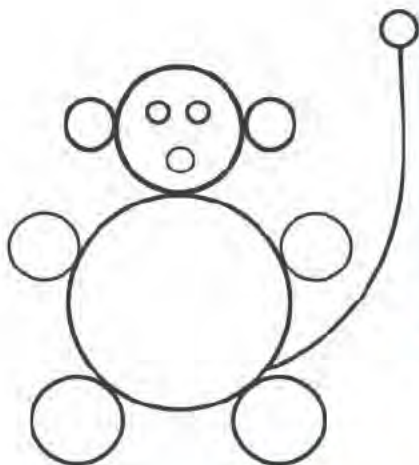
- There is one dot in the picture. How many more of the same size can you fix around it?
- What I guessed:

- How many dots could I actually fix?

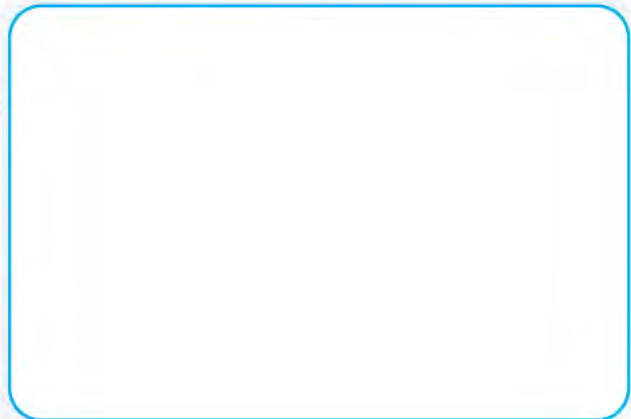


Can you draw?

See the picture made with circles. Can you colour it?



Draw another picture using circles

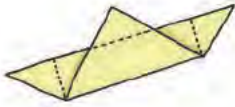


How did you draw the circles?



Any other way to draw circles?

Shapes in a boat

Vidhu liked the card. He gave them a paper boat he made.

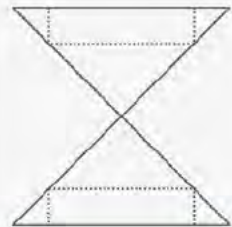
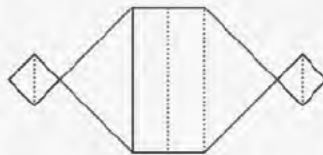
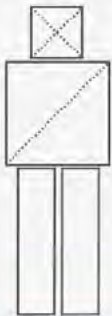


Unfold the boat. What shapes do you see? Write the number of each in this table:

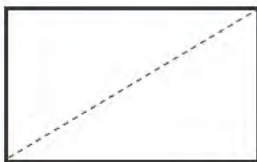
Shape	Name	Number
	Rectangle	
	Triangle	

- Anu unfolded the boat and cut along the folds. See how she pasted the shapes in her notebook.

Like this, paste these in different ways and make more pictures.



Let's make shapes !



Cut out a rectangle. Cut it into two pieces as in the picture. Join the pieces in different ways. What shapes can you make?

Now cut it into four and try.

Let's make shapes



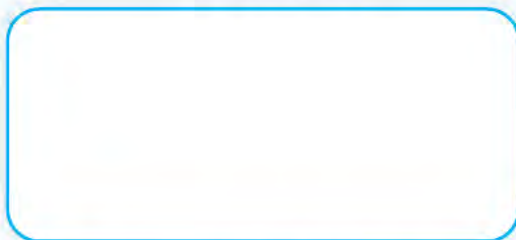
Anu and friends are making rectangles and triangles with *eerkkil* bits.

- Use 24 *eerkkil* bits of the same length to make rectangles and triangles. Write their numbers in the table below.

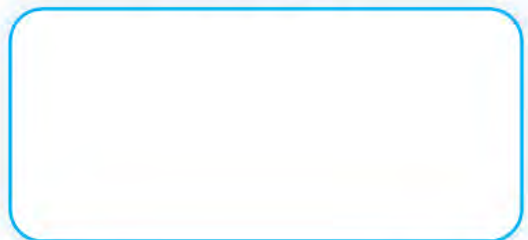
Shape	Number
Triangles	
Rectangles	

- Draw a triangle and a rectangle here.

Rectangle



Triangle



How many *eerkkil* bits did you use to make a rectangle?

And how many for a triangle?

Pictures in tiles

The Grama panchayat has made a smart class room for the school. And the floor is tiled. Isn't it nice?



See the tile designs the children have drawn.

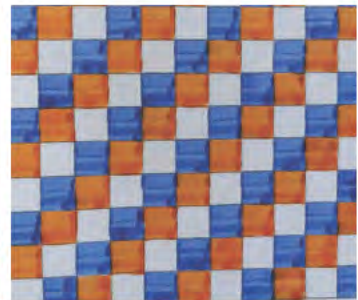
Anu



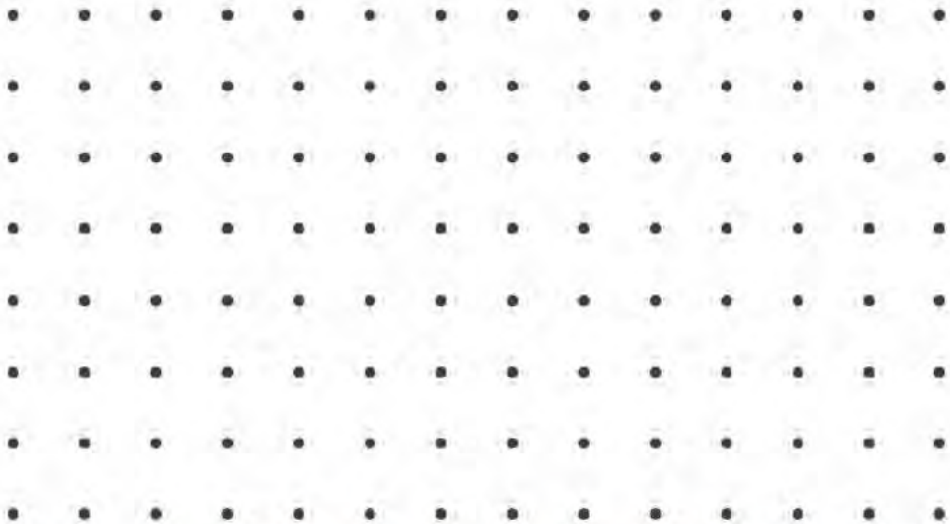
Vidhu



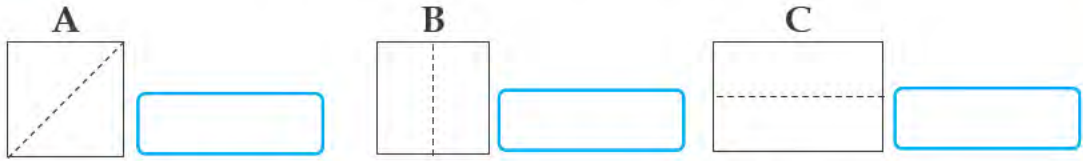
Subi



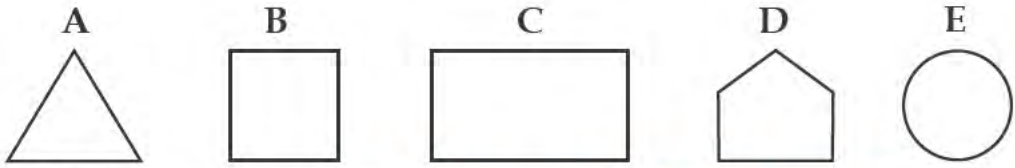
Make a tile design by joining the dots below and colour it. Think in what different ways you can join the dots.



- What shapes do you get by cutting along the dotted lines?



- Draw a single line to divide each picture below into two triangles. For which figures can't you do this?

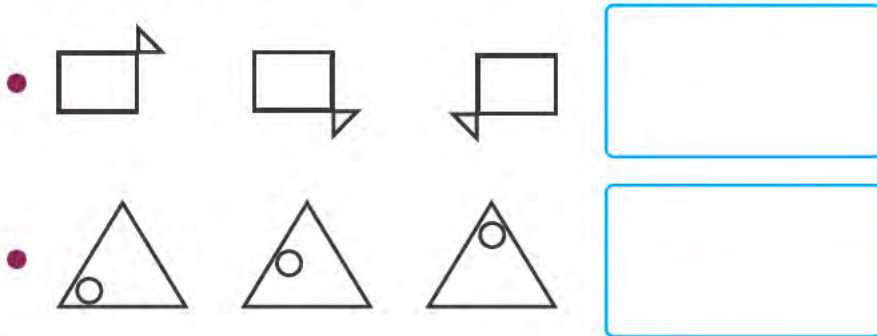


Tick those you can't.

A	B	C	D	E
---	---	---	---	---

What comes next?

Draw what comes next in each of the patterns below.



Can you draw more patterns like these?

-

-

Shapes around us

See the picture. Do you see any familiar shapes?

Write them down



Do you see any such shapes in and around your school? Write them in the table below.

Rectangle	Triangle	Circle

Wooden shapes

Anu and friends are making shapes with wooden blocks.

You can also play such games. Who made the highest stack?



- Write the names of some objects shaped like rectangular blocks and balls.

Rectangular blocks	Balls



Brick is a rectangular block.

Ball is a sphere.



Vegetable printing

Vidhu made a vegetable printed table cloth for the work experience contest.

He used okra, carrot, potato and onion to make it.

Can you too make such prints?



Evaluation activities

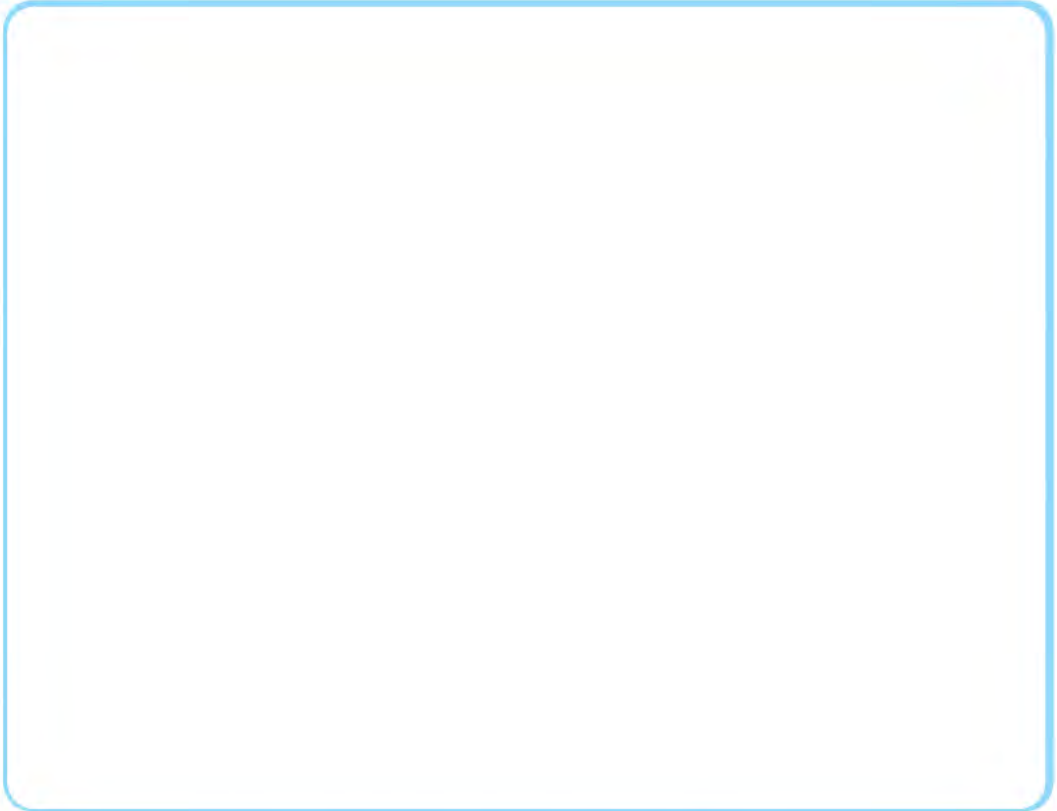
1. Look at the pictures on page 7. Which picture do you like the most?

What shapes are there in the picture?

Make one such in the sand tray.

2. Joining shapes

Use rectangles and triangles and circles to draw any picture you like.



3. Colour the picture below and make it pretty.



2

NUMBERS ARE OUR FRIENDS!

Fill the cells

A game with tokens.

Fill the cells with tokens numbered from 1 to 100. Minha and friends are playing this game. You can also play it. Your teacher also will help you.

1	2	3	4	5	6	7	8	9	10
11									
21									
				55					
									100

Where will you put token 65? How did you find it out? Put the tokens from 1 to 100 in the correct places. What is the connection between the numbers in the yellow cells? Find other patterns and colour them.

School store



Price list

Item	Price
Crayons	Rs.25
Pen	Rs.20
Sketch pens (packet)	Rs.40
Notebook	Rs.60
Markers (Packet)	Rs.75
Scale	Rs.25
Brown paper	Rs.25

Minha bought things worth 100 rupees.

What could she have bought?

What I calculated

What my friend calculated

Any other way?



Pencil company

Minha's father has a pencil company.
10 pencils are to be put in each packet.
And 10 packets in each box.



Number of pencils
in a packet

Number of packets
in a box

Total number of
pencils in a box

See how the pencils are boxed. Write the number of pencils in the empty cells of the table below.

How many pencils would be there in 10 boxes?

Menma Store

Menma Store wants a thousand pencils. Minha and her father packed two bags with the same number of boxes in each. How many pencils were there in each bag?



How many?

How many pencils in each bag?

$300 + 700 =$ 1000	$100 + \dots =$ 1000	$\dots + \dots =$ 1000	$\dots + \dots =$ 1000

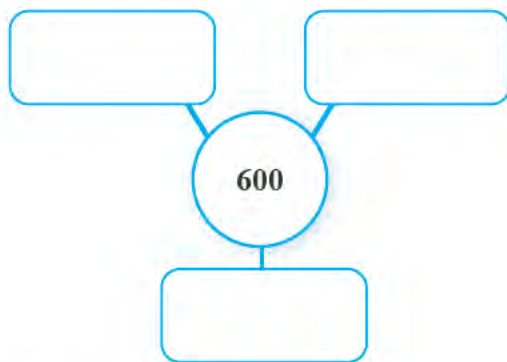
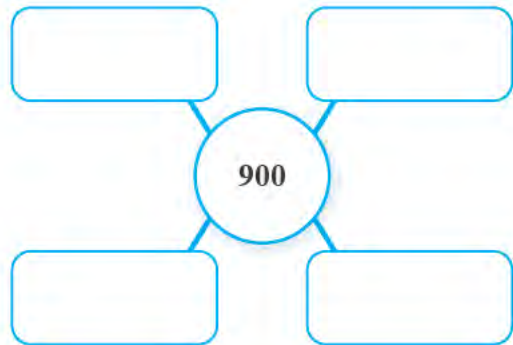
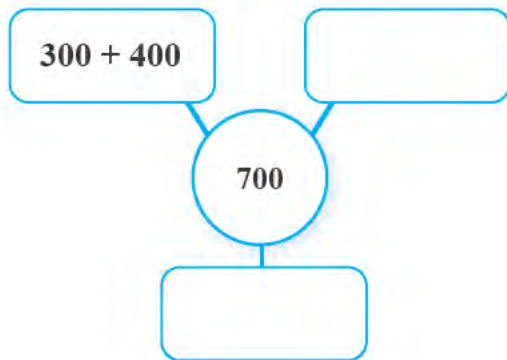
Nanma Store

They gave 800 pencils to Nanma Store in two bags. How many pencils in each bag?

Complete the table below.

Bag 1	Bag 2	Total
400	400	800
100		800
		800
		800

Split into hundreds



Equal split	
$100 + 100$	$= \underline{\quad}$
$250 + \underline{\quad}$	$= 500$
$300 + 300$	$= \underline{\quad}$
$\underline{\quad} + \underline{\quad}$	$= 700$
$\underline{\quad} + \underline{\quad}$	$= 900$

A mistake

Minha was asked to pack 870 pencils for the school, in packets of 100 and 10. She filled 7 packets of 100 and 8 packets of 10. How many did she pack in all? How many more are there to be packed?

What I understood on reading the problem

Information needed to calculate the answer

What I did

Answer

Pension

200 rupees to the milkman,
 rupees to the grocery, 100 rupees
 Minha : (to be given)



How much in
 all?



I'll deposit the 100
 rupees Grandma gave
 me, in my piggy bank.



I'll give you one rupee
 each day.

Minha wrote in a card, how much she had in her money box
 each day. Can you complete it?

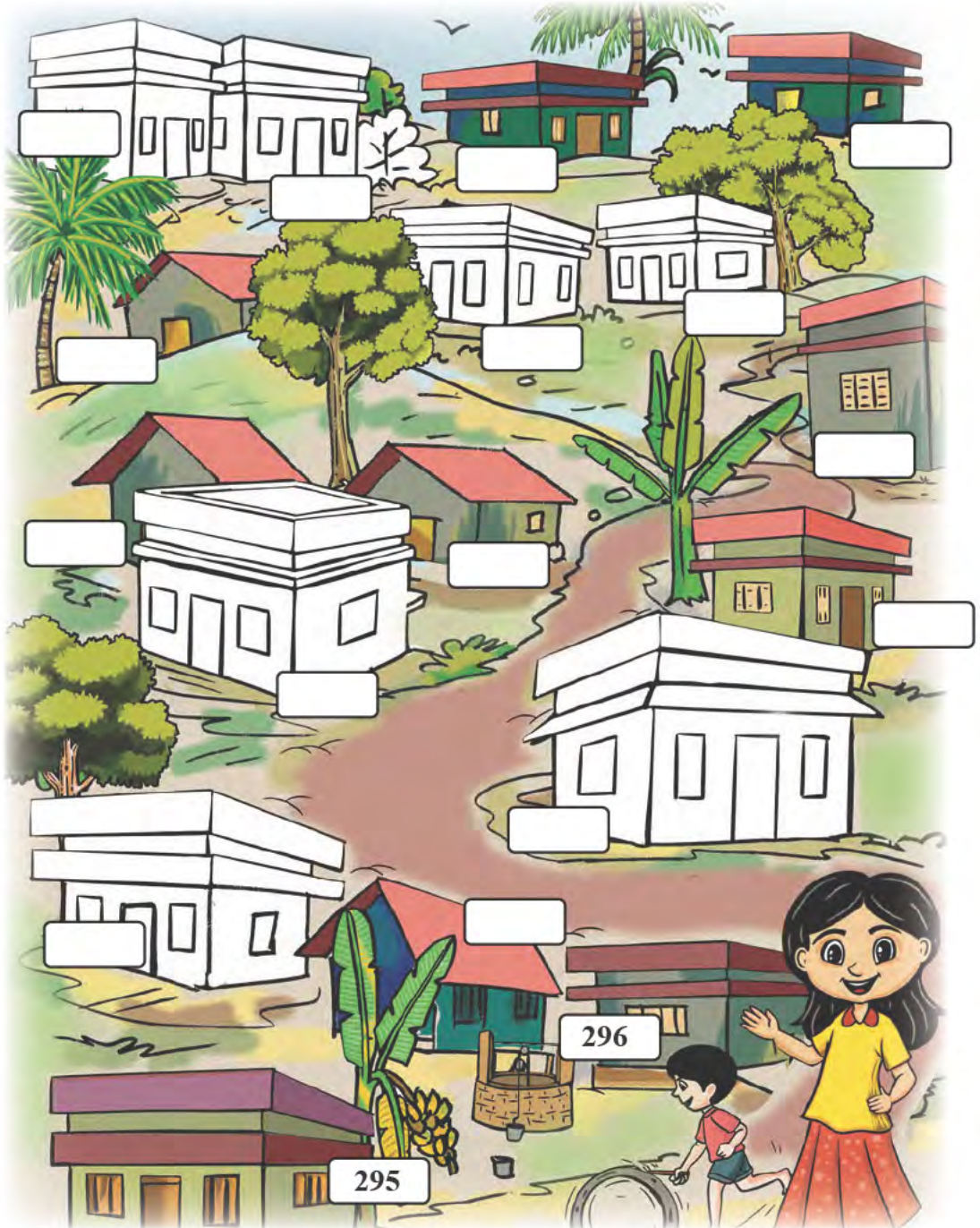
What I got each day	Using place value card	Amount
First day	1 0 0 ▶	100
Second day	1 0 0 ▶ 1 ▶	$100 + 1 = 101$
Fifth day		
Sixth day		
Eighth day		
Ninth day		
Tenth day		
Eleventh day		

How much on the
 twenty first day?

How much on the
 fifty fourth day?

Health survey

A health survey is being conducted. They visit houses in the order of their numbers. They reach Minha's home and the house number is 296. Write the numbers of the houses they are going to visit next, in the correct order. You can also colour the houses.



Price of pencils

Anay bought a box of pencils from the factory where Minha's father's shop. The price was Rs 300. In what denominations would he have given the following notes and coins?

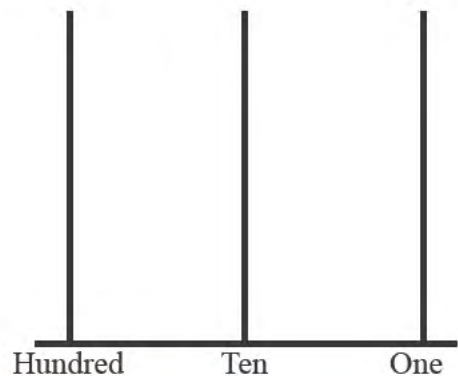


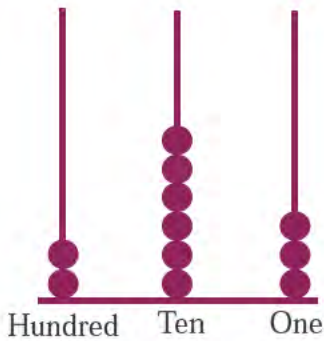
How I calculated

How my friend calculated

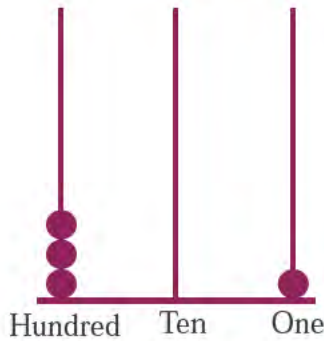
If each note and coin in the picture is taken together, how much rupees would it be?

Can you draw it in the abacus?



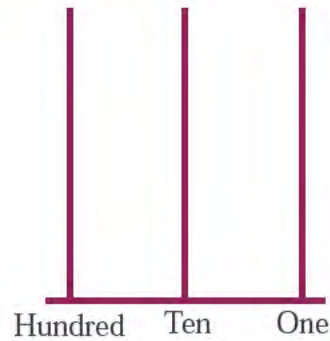


What is the number shown in the abacus?



What is the number?

Draw beads to make it 764 in this picture.



Draw beads to show any number you like and write it down.

A cheque

Look at the cheque Minha's father wrote. The amount is written only in words. Write it as a number.



Complete the table

Number	In words
125	
	Four hundred five
	Eight hundred ninety
	Three hundred forty two
617	
550	
261	

Bank deposit

Look at the pay-in slip of a bank. We have to write the number of notes of each denomination and the total amount.

Minha's father gave 6 notes to deposit 800 rupees.

What notes would he have given?

Account Number <input style="width: 100px;" type="text"/>			Date _____	
Account Holder's Name _____				
Bank & Branch	Cheque No.	Amount	Denomination/Pieces	Amount
		₹	500 x	₹
		₹	200 x	₹
		₹	100 x	₹
		₹	50 x	₹
		₹	20 x	₹
		₹	10 x	₹
		₹	5 x	₹
		₹	2 x	₹
		₹	1 x	₹
		₹	Coins	₹
	Total	₹	Total (in figures)	₹

Total (in words) _____

Name of depositor: _____

Signature of depositor: _____

Number of notes

I have 370 rupees remaining. The number of notes is the sum of the digits of this number. What notes do I have? And how many of each?



Sum ten

The sum of the digits of 109 is $1 + 0 + 9 = 10$.

What is the sum of the digits of 118 ?

Another number is 127, isn't it?

<p>How many numbers are there with sum of digits 10 ?</p>	Between 100 and 200	<input type="text"/>
	Between 200 and 300	<input type="text"/>
	Between 300 and 400	<input type="text"/>
	How many three-digit numbers in all?	<input type="text"/>



I have 100 rupee and 10 rupee notes and also 1 rupee coins. These make 456 rupees. What is the minimum number of notes and coins which make up 456 rupees?

How much rupees does 6 hundred rupee notes, 8 ten rupee notes and 5 one rupee coins make?

What about 4 hundred rupee notes and 9 one rupee coins?

3 hundred rupees	<p>Three hundred</p> 50 rupees
..... 10 rupees	 5 rupees
..... 20 rupees	 1 rupee

Corner PTA



et to buy
orrow's
s here.



Father bought 6 kilogram of bananas for the corner PTA. The price of one kilogram of bananas is 50 rupees. Father gave a 500 rupee note and got three notes in different denominations back.

What notes did he get?

How many of each?

Note	Number

What if he had got four different notes back?

Note	Number

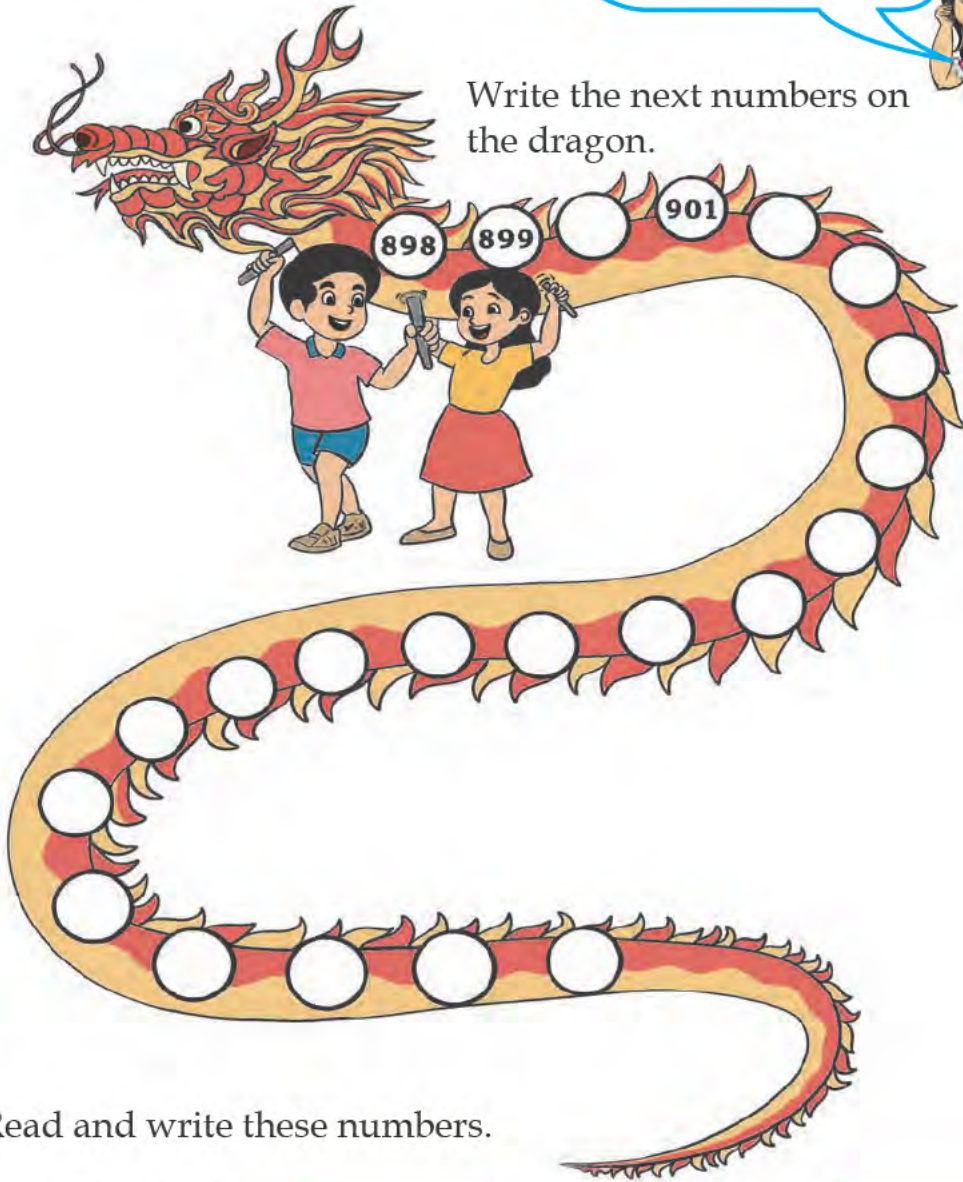
Dragon

Minha and friends went to the park.

Here's a dragon.
Let's play with it.



Write the next numbers on the dragon.



Read and write these numbers.

Eight hundred ninety nine

Nine hundred ninety

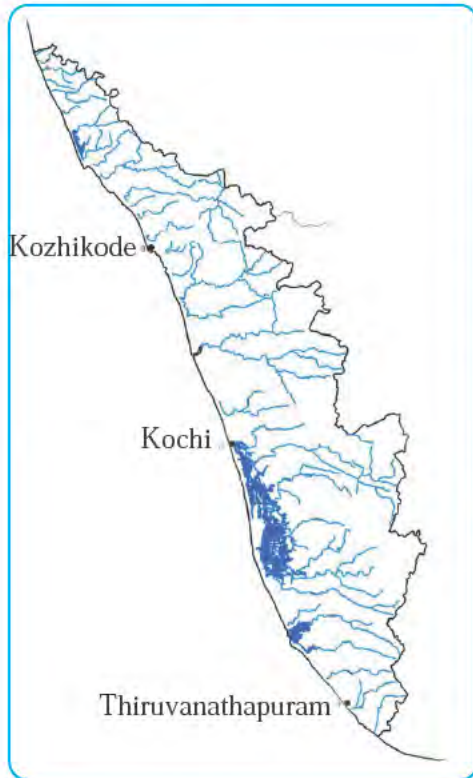
Nine hundred

Nine hundred ninety five

Nine hundred one

Nine hundred ninety eight

Brother's gift



Minha's brother gave her a gift. A map showing the rivers of Kerala. She liked it very much

See, how they have tabulated some of the rivers of our state and their lengths. Then write the answers to the questions below.

River	Length (km)
Manjeswaram river	16
Valapattanam river	110
Chaliyar	169
Bharathappuzha	209
Periyar	244
Pamba river	176
Achankovil river	128
Neyyar	56
Kallada river	121

The longest river

The shortest river

How many rivers in the list are longer than Chaliyar? Write their names in the order from the longest to the shortest.



Evaluation activities

1. Complete the pattern

11, 22, 33, 44, _____, _____

150, 250, 350, _____, _____

100, 101, 103, 106 _____, _____

990, 980, 970, _____, _____

My Pattern

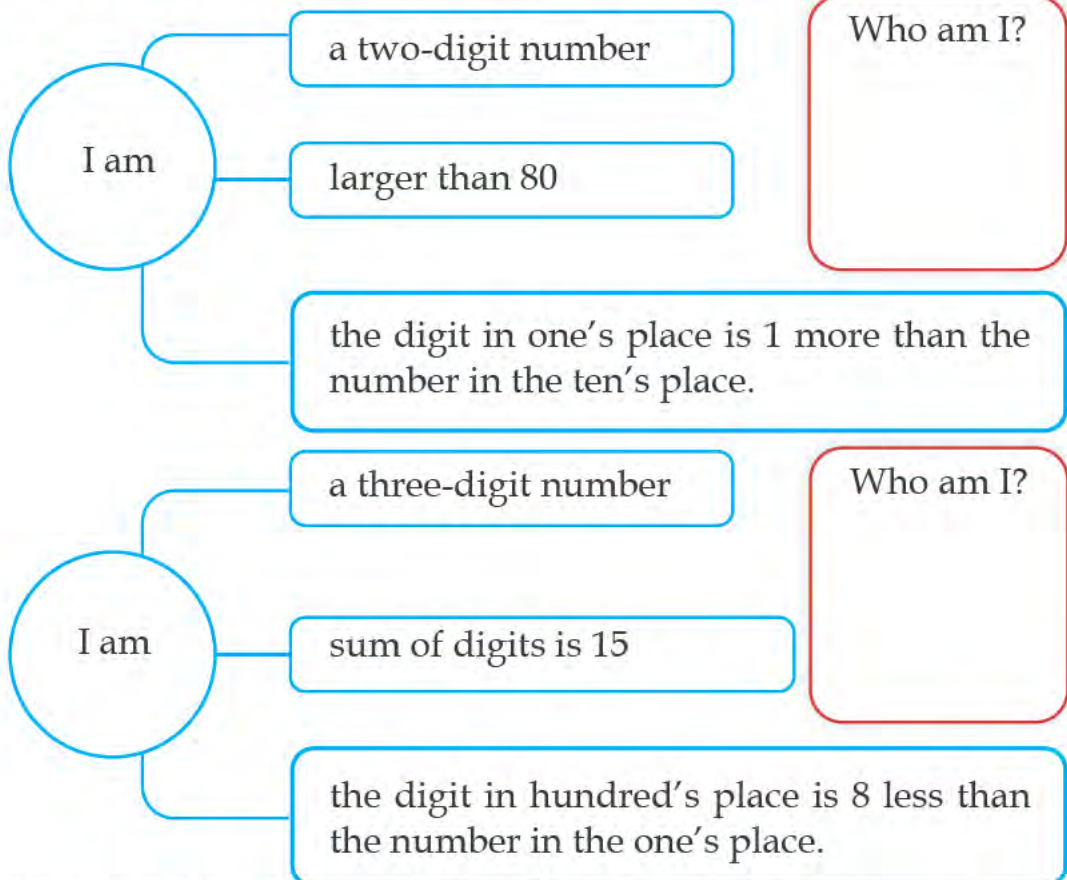
_____, _____, _____, _____

_____, _____, _____, _____

_____, _____, _____, _____

_____, _____, _____, _____

2. Who am I ?



Make a riddle of your own like this and write it in your notebook.
Compare with friends' riddles and try to solve them.

3. School store

The school store needs 950 pencils. Minha gave 7 boxes and 6 packets of pencils. Each box has 100 pencils and in each packet, 10 pencils. How many more should she give to make it 950 ?

How did you calculate?

Suppose 950 pencils are given in boxes and packets.

Number of
boxes

Number of
packets

4. Fill up the blank circles

i. 301 401 501

ii. 299 399 499

iii. 300 400 500

3

THOUSANDS AND THOUSANDS



Sports-fest



Welcome to the sports-fest at Poomala forest. All contestants please collect your chest numbers. The 15 athletes starting with number 986 please get ready for the long jump event.

Write the chest numbers of the contestants for the long jump event.

986				990



Me too!

Your number is 1001. Your name is not in the long jump list.



1000 and 1 together make 1001.



Whoops! Now the numbers are jumbled. Can you help me put them in order?



1002, 1003, 1004,,,,,
.....,,, 1012

Announcement

The table shows the numbers of the contestants for manchadi collection. It must be filled for the announcement. Can you help Kuttan elephant?

879	Eight hundred seventy nine
904	
918	
906	
809	
749	



ATM





Titu parrot has sponsored some prizes. She needs 760 rupees for it. The ATM in the forest has only 100 rupee notes, 10 rupee notes and 1 rupee coins. What all notes and coins would she have got? How many of each?

My computation



Fund raising

A group of four were asked to collect money for food. See how much each got.

Member	100 rupee notes	10 rupee notes	1 rupee coins	Total
	9	8	3	983
	7	14		
				785
		10		909

Chakki kite collected 785 rupees. What are the ways in which she could have got this? See how some of her friends thought about this.



7 hundreds
..... tens
5 ones

..... ones



7 hundreds
..... ones

78 5.....



700 + + 5

70 tens
85



6 hundreds
..... tens
5 ones

600 +






Write in your notebook, the different ways of splitting 909 rupees collected by Kunjan owl.

Eating contest

Mallan elephant is making bundles of sugar cane for the eating contest. He has made 20 bundles of 100 each. How many sugar canes in all?



Jimpan giraffe, Balu bear and Dinku donkey agreed to carry the sugar cane bundles to the spot. How many bundles did each carry?

	Number of bundles	Number of sugar canes
	6	
	10	
		

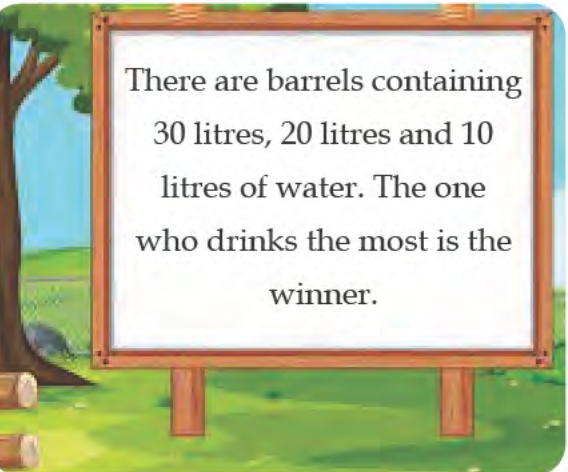
2000 mangoes were stored for the contest. They are kept in 4 sacks, each containing the same number of mangoes. How many in each?



Water drinking contest



Those who have given their names for the water drinking competition please report at once.



See how much each has drunk.
Complete the table

Name	Amount of water			Total in litres
	50 litres	20 litres	10 litres	
Jimpan Giraffe	1	3	1	
Kompan elephant	3	4	2	
Jintu bear		2	2	
Kuttan camel		5	10	
Mallan tiger				80
Chillu bison				100

Who won?

Think of two 50 litre barrels of water. How many 20 litre barrels contain the same amount of water?

And how many 10 litre barrels?



Don't you know that we won't have enough water during summer? Please don't waste water.

Write the amount of water each has drunk in the ascending order.



Gift coupons



Kangaroo Sports gave a gift coupon worth 900 rupees to each of the contestants in the first three positions. Each could choose three items. Which items would they have chosen?

Item	Price (Rs.)
Cricket bat	750
Badminton bat	300
Football	650
Shuttlecock	250
Net	400
Volleyball	350

Item	Price (Rs.)
Shoes	600
Jersey	200
Gloves	150
Chessboard	100
Cricket ball	50

	Items selected	Price (Rs.)
		
		
		

Children's contests

Mittu rabbit is preparing chest numbers for the children's contests.

- Chest numbers from 10 to 20 are made for the 100 metre race. How many cards are there?
- Numbers from 30 to 50 are, made for the swimming contest. How many are given the cards?
- Numbers from 60 to 100 are for gooseberry gathering. How many cards are needed for this event?

How I found the answer

- How many two-digit numbers are there in all?
- How many numbers are there between 100 and 200?
- How many three-digit numbers are there in all?
- How many odd numbers are there between 1 and 100?
- How many even numbers are there between 1 and 100?

How I calculated

Any other method?

Card games



Me too for the number card game!



Each player is given 4 cards. The winner is the one who makes the most three-digit numbers without any repetition of digits.

Look at the cards Maniyan ant got

9

3

2

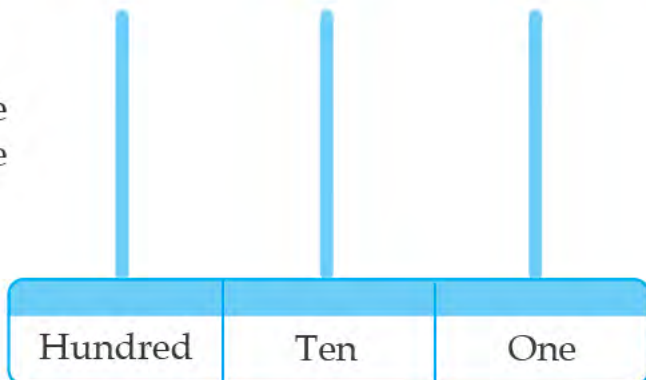
5

What would be the three-digit numbers he made?

The largest number made

The smallest number made

Draw beads in the abacus to show the smallest number.



What is the peculiarity of the sum of two consecutive numbers?

$1 + 2$, $2 + 3$,,, $5 + 6$, $6 + 7$, ...

Do more examples to find the peculiarity-

- What's the peculiarity of the sum of two odd numbers?
- What about the sum of two even numbers?
- How much does 6, 60 and 600 make?
- 8 hundreds added together is equal to how many tens added together?



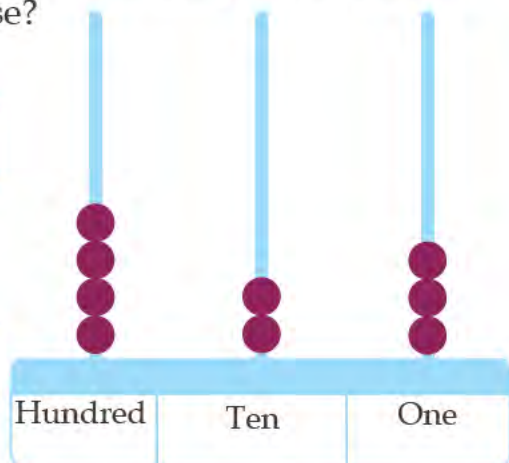
Evaluation activities

1. The number formed by 7 hundreds, 6 tens and 5 ones was written as 675. What is the correct number? How many tens should be added to 675 to get the correct number?

2. If one bead in the place of 100 is shifted to the place of 10, how much would the number decrease?

The present number

After shifting the bead



If a bead from hundred's place is shifted to one's place, how much would the number decrease?

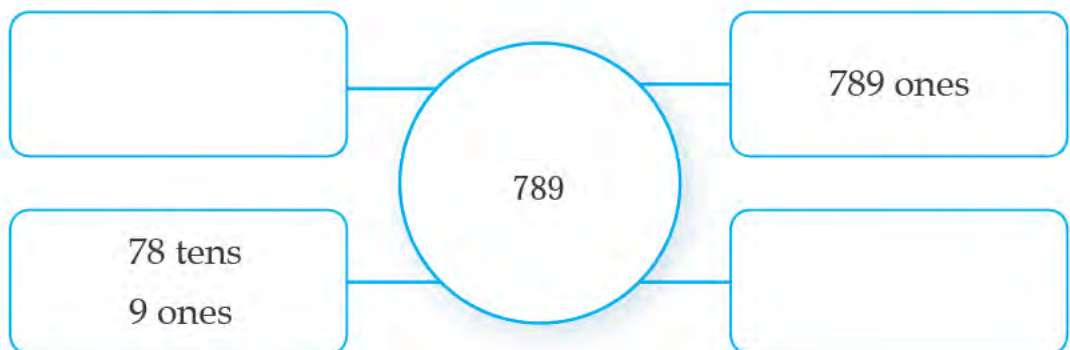
Using only the number of beads now in the abacus,
The largest three digit number that can be made.

The smallest three-digit number that can be made.

3. Complete the pattern

- 596, 597, 598,,
- 102, 112, 122,,
- 123, 234, 345,,
- 986, 886, 786,,
- 900, 890, 880,,
-

4. Fill up the blanks



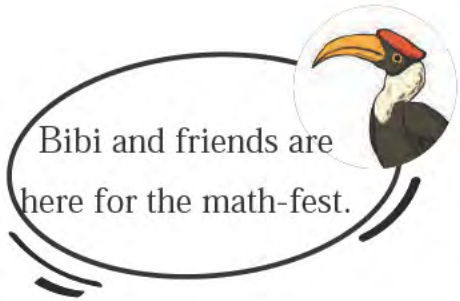
LET'S JOIN TOGETHER

Govt. LP School, Muthani

Math-fest
Welcome



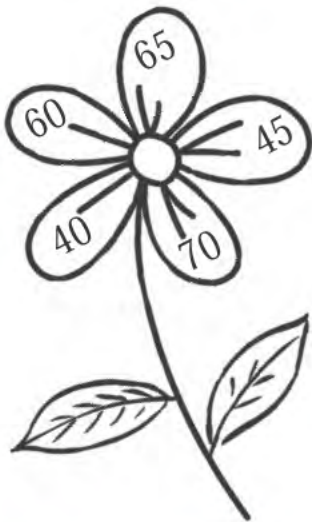
Math-fest



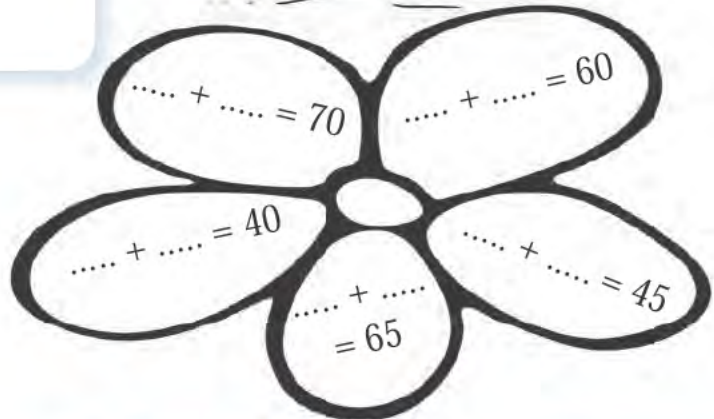
Stall - 1

Add up... Colour in...

Take two cards from the box. Find the sum... Colour the flower.

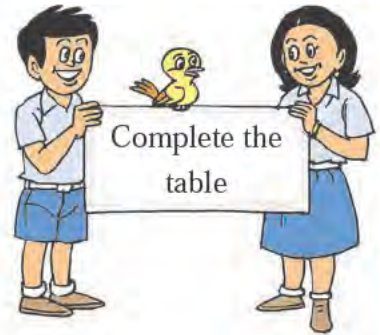


What I got



Pairing

Pair	Sum	Pair	Sum
$1 + 9$	10	$1 + \dots\dots$	100
$\dots\dots + \dots\dots$	10	$\dots\dots + 65$	100
$\dots\dots + \dots\dots$	10	$60 + \dots\dots$	100
$\dots\dots + \dots\dots$	10	$70 + \dots\dots$	100
$\dots\dots + \dots\dots$	10	$\dots\dots + 45$	100



There are other pairs too which add up to 100.

Can you find some more?

$$49 + 51 = 100$$

$$48 + 52 = 100$$

Can't we easily find all pairs with the sum 100?

What I found out

A pair means two things taken together. 80 and 20 form a pair with the sum 100.



Connect all pairs with the sum 100

40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59

Pairs making 1000

$$50 + 950 = 1000$$

$$150 + 850 = \boxed{}$$

$$250 + \boxed{} = 1000$$

$$\boxed{} + 650 = 1000$$

$$450 + \boxed{} = 1000$$

Stall - 2

Cloth shop



Which among the two dresses can we buy with 500 rupees?

Look at the prices and calculate.

Bill 1

Item	Price
.....
.....
Total	500

Bill 2

Item	Price
.....
.....
Total	500

Stall - 3

Beauty of numbers

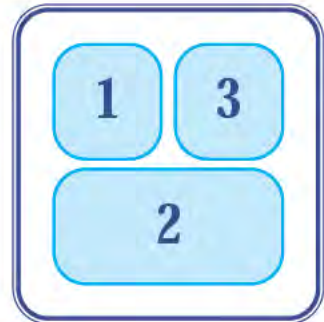
What are the numbers you can make by using these digits only once?

Which is the largest among them?

And the smallest?

What is their sum?

The numbers I got



The largest number I got

The smallest number I got

Sum

My guess: between

and

Number got by adding

What if we use the digits 2, 3, 4 ?

The largest number

The smallest number

The number got by adding

What if we use the digits 3, 4, 5 ?

The largest number

The smallest number

The number got by adding

The speciality of the digits of the sum

Write the answers without actually adding. Say how you did them.

$310 + 230 = 540$
$317 + 230 =$ <input style="width: 60px; height: 25px;" type="text"/>
$315 + 231 =$ <input style="width: 60px; height: 25px;" type="text"/>
$308 + 232 =$ <input style="width: 60px; height: 25px;" type="text"/>

Stall - 4
Let's play together!

Welcome !
Everyone gets
a gift packet



Hey ! Play money !

What Bibi and
Jebi got

Notes/ Coins	What Bibi got		What Jebi got	
	Number	Amount	Number	Amount
200	2		0	
100	0		2	
50	4		0	
20	3		0	
10	4		5	
5	0		2	
Total			Total	

Bibi got

Jebi got

Total

Amount needed to
make it 1000 rupees

You can also play this game.
Write what you got in a table and
calculate the total.


Do this in your notebook



Stall - 5

Fun and games

312	146	205	320
148	237	419	400
315	236	226	145
536	325	200	130



Throw the token twice.

Find the sum of the
numbers got.

Bibi and Jebi got the same
pair of numbers in their
first round. See how they
calculated the sum.

Numbers got : 237, 146

Bibi's method

$$\begin{aligned}
 237 + 146 &= 200 + 30 + 7 + 100 + 40 + 6 \\
 &= 200 + 100 + 30 + 40 + 7 + 6 \\
 &= 300 + 70 + 13 \\
 &= 300 + 83 \\
 &= 383
 \end{aligned}$$

Jebi's method

$$\begin{aligned}
 237 &= 230 + 7 \\
 146 &= \underline{140 + 6} \\
 237 + 146 &= 370 + 13 = 383
 \end{aligned}$$

Hundreds	Tens	Ones
2	3	7 +
1	4	6
	1	
3	8	3

7 and 6 added together gives 13. The 10 in 13 is shifted to the place of tens.

237 and 146 added together gives 383. What do we get on adding 236 and 148 ? Can you do it in your head?

Minha got 536 and 325. See how she found the sum.

$$536 = 500 + 30 + 6$$

$$325 = 300 + 20 + 5$$

$$536 + 325 = 800 + 50 + 11 = 861$$

$$\begin{array}{r}
 536 + \\
 300 \\
 \hline
 836 + \\
 20 \\
 \hline
 856 + \\
 5 \\
 \hline
 861
 \end{array}$$

Let's play this number game. Each player gets two throws. Find the sum of the numbers got in each round.

Numbers I got

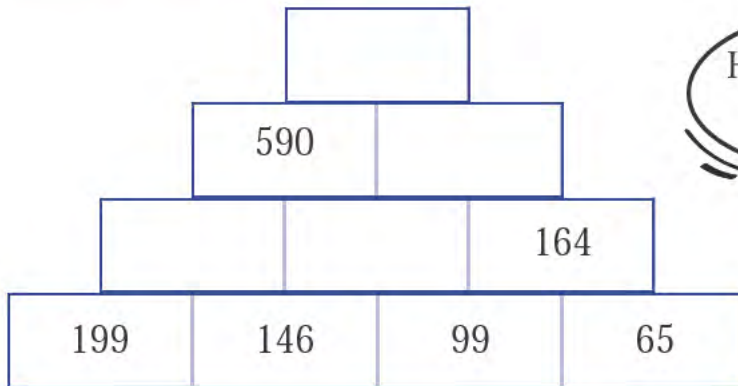

First round :

Second round :

Adding method

Adding method

Find the mighty

How did we get
164 ?



If 1 is added to 199, what will be the change in the mighty one? Say it without any lengthy computation.

If 1 is added to 146, what will be the mighty one then? Say it without any lengthy computation.



Suppose we add 2 to 199. What will be the mighty one then?

If each of the four numbers at the bottom is increased by one, how much would the mighty one increase?



Say how we found out the answers.

Stall - 6

Wonderland of numbers

8	1	6
3		7
	9	2

Add the numbers in the first row. Fill up the other cells so as to get the same sum.

Add the three numbers in each column. Also the three numbers from corner to corner. What is special about the sums?

Magic square

The sums along each row, column and diagonal are all the same.

Complete the magic square using numbers from 23 to 31

	23	
25		
26	31	24

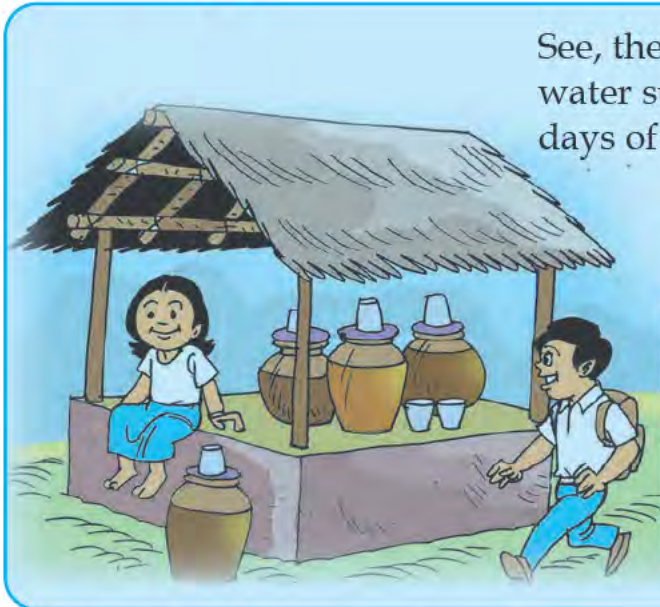
Which do you find easier?

$\begin{array}{r} 26 + \\ 31 \\ \hline \square\square + \\ 24 \\ \hline \square\square \end{array}$	$\begin{array}{r} 26 + \\ 31 + \\ \hline 24 \\ \square\square \end{array}$
---	--

Tell your friend which is the larger sum of each pair.

- | | |
|-------------|-------------|
| ① $56 + 75$ | ② $64 + 58$ |
| $65 + 57$ | $46 + 85$ |

Water supply



See, the amount of drinking water supplied during the four days of math-fest.

Day	Amount (litres)
1	437
2	524
3	581
4	448

- The total amount of water supplied during the first two days is litres
- The total amount of water supplied during the last two days is litres
- How much water was supplied for all the four days?

Mental math

If the amount of water supplied were 440, 520, 580, 450 litres, what would have been the total amount? Can you calculate this in your head?

litres

- 281 kids from Kathirani school and 348 kids from Arani school visited the math-fest. How many in all?

Stall - 7

World of patterns

You can write your own patterns on the walls of the exhibition hall.

Complete the patterns

$111 + 111 = 222$

$222 + 222 = \boxed{}$

$\boxed{} + \boxed{} = \boxed{}$

$\boxed{} + \boxed{} = \boxed{}$

$\boxed{} + \boxed{} = \boxed{}$

$\boxed{} + \boxed{} = \boxed{}$

$\boxed{} + \boxed{} = \boxed{}$

$\boxed{} + \boxed{} = \boxed{}$

$999 + 999 = \boxed{}$

$100 + 10 + 1 = 111$

$200 + 20 + 2 = 222$

$\boxed{} + \boxed{} + \boxed{} = \boxed{}$

$\boxed{} + \boxed{} + \boxed{} = \boxed{}$

$\boxed{} + \boxed{} + \boxed{} = \boxed{}$

$\boxed{} + \boxed{} + \boxed{} = \boxed{}$

$\boxed{} + \boxed{} + \boxed{} = \boxed{}$

$\boxed{} + \boxed{} + \boxed{} = \boxed{}$

$\boxed{} + \boxed{} + \boxed{} = \boxed{}$

Pattern I have made

Go Green !



All visitors to the math-fest are given saplings of fruit trees.

Plant them... and nurture them.



Plants given	First day	Second day	Total
Gooseberry	238	241	
Mango	138	152	
Jack fruit	236	166	
Guava	175	246	

- Which plant was given the most?
- How many mango saplings were given?
- Make a few more questions like this.



Evaluation activities

1. See the number of manchadi seeds the kids in Bibi's school collected for the math-fest.

Class 1	
Division	Number
A	275
B	325

Class 2	
Division	Number
A	300
B	225

Class 3	
Division	Number
A	375
B	215

Class 4	
Division	Number
A	245
B	350

A. Total number of seeds collected by each class.

Class 1 Class 2

Class 3 Class 4

B. Which class collected the most number?

Class Number

C. Write the number of seeds in ascending order.

D. Which two classes must be added to get 1120 ?

+ = 1120

E. The number of seeds collected together by two classes and 5 more makes 1200. Which are the two classes? Tick the right answer.

A. Class 1, Class 2

B. Class 2, Class 3

C. Class 1, Class 4

F. How many more does each class need to make 1000 ?

Class	Number collected	Number needed to make 1000
1		
2		
3		
4		

2. Can you continue the patterns?

- A. 140, 260, 380,,,
- B. 25, 225, 425,,,
- C. 600, 610, 630, 660,,
- D. 200, 310, 430,,,
- E. 0, 115, 230, 345,

Which of these increases by 200 each?

3. Muthani school store got 847 rupees on the first day. The next day they got a 500 rupee, a 100 rupee note, five 50 rupee notes and two 2 rupee coins.

A. On which day they got more?

My guess

My calculations

My answer

B. How much did they get in all for these two days?

My guess is between and .

What I calculated

4. Which of the sums below give 846 ?

- A. $524 + 312$ B. $227 + 519$ C. $546 + 400$ D. $329 + 517$

My answer

5. Do these sums in your head. Tell the method.

- A. $550 + 450 = \dots\dots\dots$ B. $675 + 425 = \dots\dots\dots$
 C. $730 + 520 = \dots\dots\dots$ D. $890 + 460 = \dots\dots\dots$
 E. $436 + 324 = \dots\dots\dots$ F. $253 + 147 = \dots\dots\dots$

5

LET'S MEASURE

Rolling marbles

Allen and friends are playing a game of rolling marbles.



Allen and his friend measured the distance the marble rolled, with their foot. And the measures were different. They solved this problem themselves.

How do you think they did it?

Lengths in a scale

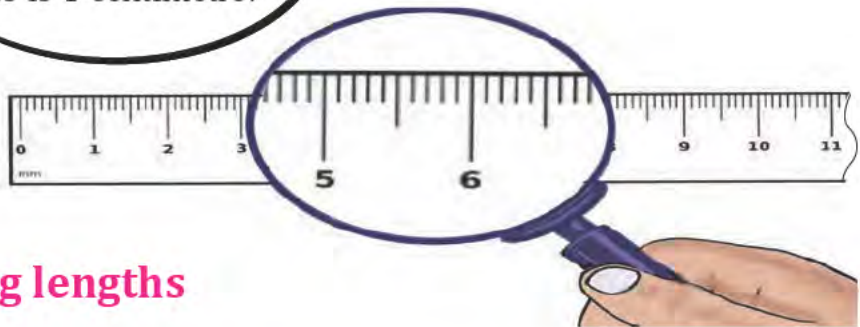
Take out your scale and check. What all things are marked on it?

- short lines
-
-
-
-
-
-





The distance between two consecutive long lines is 1 centimetre.

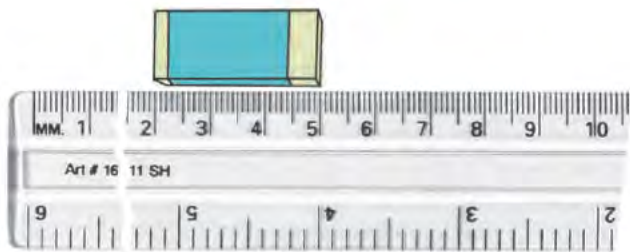


Measuring lengths



Length of pen

Length of pencil



Length of eraser

Look at the longer marks below the centimetre marks. Each of these longer length is called an inch.

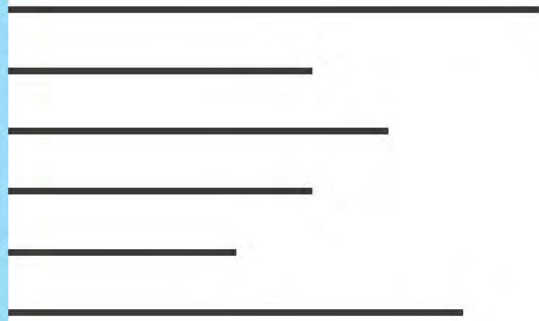


We can shortly write 'cm' instead of centimetre.

Look at the paths of the marbles Allen and his friends rolled. Which line is the longest?

Tick your guess.

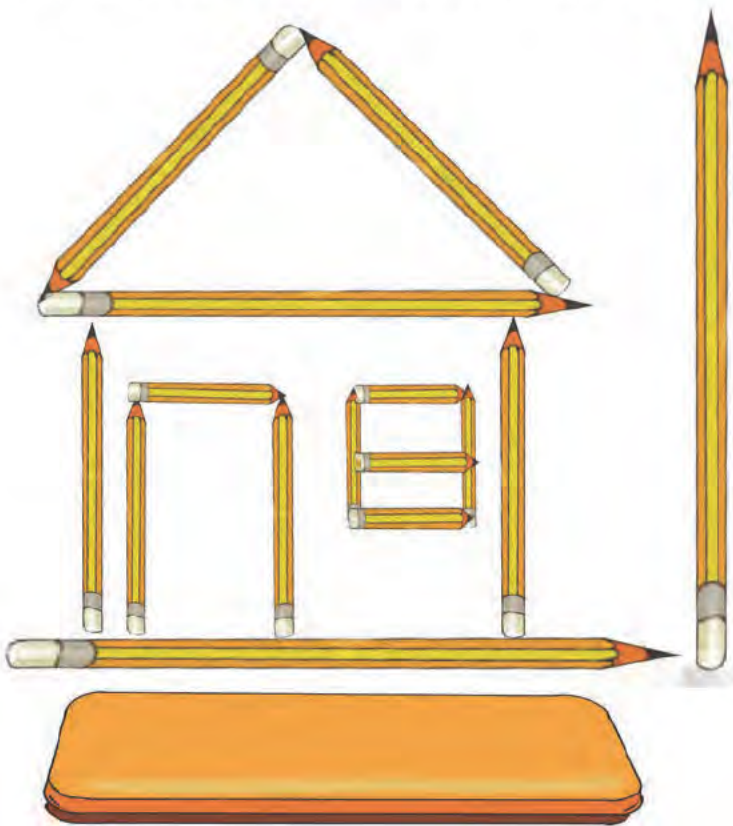
Measure each length and write it on the lines.



Pencil lengths

Look at the picture, Allen made with pencils.

Which of these would fit inside the box below? Tick them.



Don't you like the pencil house? Try to make pictures you like with *eerkil* bits cut to correct lengths.

Making figures

Are some of your *eerkkil* bits of the same length? Write their lengths and number in the table.

Length	Number

End to end

Cut out *eerkkil* bits of lengths 10, 11, 12, 13, 14, 15 centimetres. If they are joined end to end, what would be the total length?

Which pairs make up 25 centimetres?

Measure and note



Which are the things of equal length in my home?

Measure the length of various things in your home and tabulate them.

Name of the object	Guess (cm)	Actual length (cm)

Which are the things of the same length?

Long scale



Isn't it because the scale is short? How about helping Allen?

It was difficult to measure the length of Mom's sari with this scale.



Teacher has given you some paper strips, hasn't she? What is the length of the piece you got?

My guess

cm

Measured length

cm

Make groups of five, each having strips of different lengths. Tabulate the lengths of your strips.

Number	Name	Guess	Length

What would be the total length if all the five paper strips were joined end to end?

Guess

Length



Didn't all groups get 100 centimetres?
100 centimetres is 1 metre.

100 centimetres = 1 metre



Length of classroom

What is the length of your classroom?

Teacher has shown you the metre scale and the 30 centimetre scale, hasn't she?

Guess

Length

And the length of the veranda?

Guess

Length

Guess the length of bench, desk and the blackboard in your classroom. Then actually measure and check. Write them down.

	Guess	Length
Bench		
Desk		
Blackboard		



Stand...and jump

Let's have a jumping contest today. Each must stand on a line and jump forward. Write the name and distance each jumped in the order of performance.

Place	Name	Distance (cm)

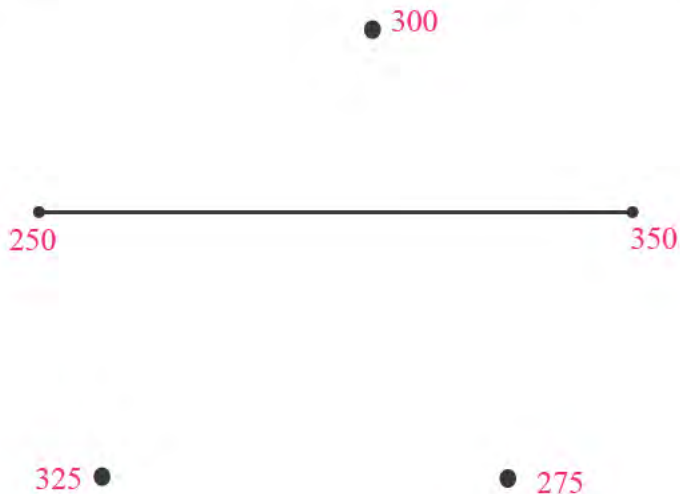
Who among you jumped more than 1 metre?

Gift I got

There's a gift for each of you. To find this out, complete this pattern.

250, 275, 300, . . . , . . .

Join the numbers below in the order of the pattern.



What is the length of the given line?

My guess

On measuring

Are all the lines you've drawn of the same length?

Colour the picture. What's the gift you got?

What's the height?

Look at the picture of the winners of the jumping contest.

Are all at the same height?

Who's at the highest position?



Complete this table.

Heights	Guess	On Measuring
To the blackboard		
To the switchboard		
To the window sill		
Of the door		
Of the table		

What is the height of your class room? How do we measure it?

My guess

On measuring

My height

Which objects you measured are more than 1 metre height?

Write them in metres and centimetres in the table below.

Object	Height	
	Centimetres	Metres and Centimetres

Measure around



How thick is the pillar?
Measure it like this.



What else can be measured around?

Around the water bottle

Around top of the table

Around the arm

Total length

Make a rectangle with *eerkkil* bits. What is the total length of the *eerkkil* bits used?

Make a triangle with *eerkkil* bits. What is the total length of the *eerkkil* bits used?

Make a rectangle with *eerkkil* bits of the same length. What is the total length of the *eerkkil* bits used?

Make a triangle with *eerkkil* bits of the same length. What is the total length of the *eerkkil* bits used?

Play train



How about playing train?



Allen and friends bought a blue ribbon and a red ribbon to play train. Each ribbon is 350 centimetres long.

What is the total length of the ribbons?

They tied together the ribbons, to make a ring and the length was reduced by 20 centimetres.

What is its length now?

What I understood from the question

Facts needed to calculate the answer

My computations

Answer I got

Since all of them couldn't stand within the ring, they bought 6 metres each of blue and red ribbons.

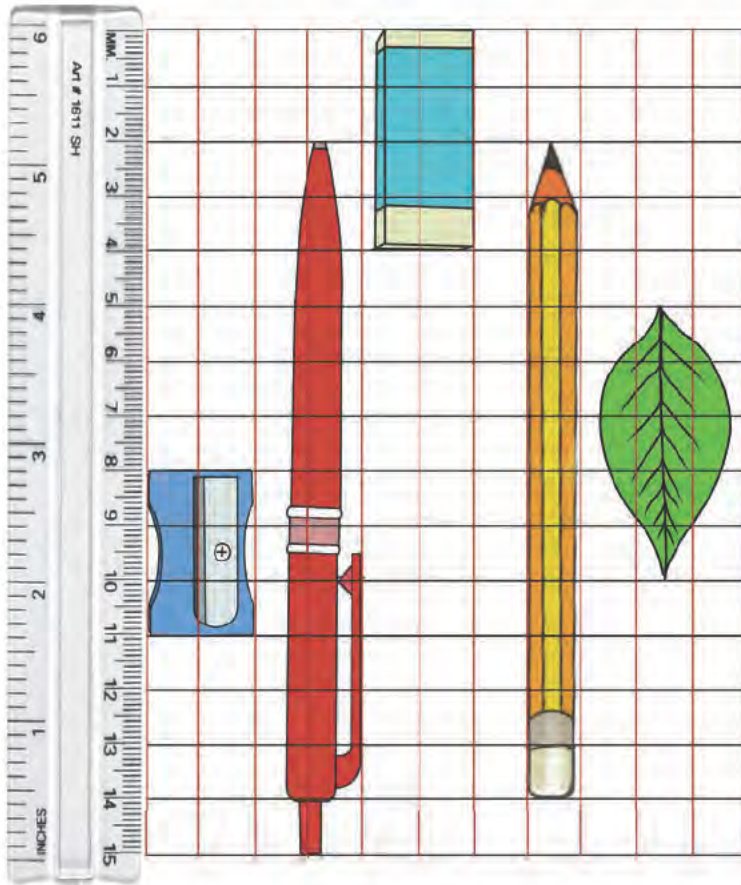
What is the total length of these pieces now?

The price of one metre of ribbon is ten rupees. So, how much did they spend on ribbons?



Evaluation activities

1. The longest



Which is the longest?

What is its length?

Write the names of the objects and their lengths in order

2. A B C D E F G H I J K L M N O P

Which of the following is the longest distance?

i. From A to F

ii. From B to J

iii. From J to N

iv. From E to K

3. Equal lengths

- Cut out *eerkkil* bits to make a rectangle of the same length of your textbook.
- Are there pieces of the same length among them?

Length	Number
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

- What is the total length of all the *eerkkil* bits?

4. Length of sari

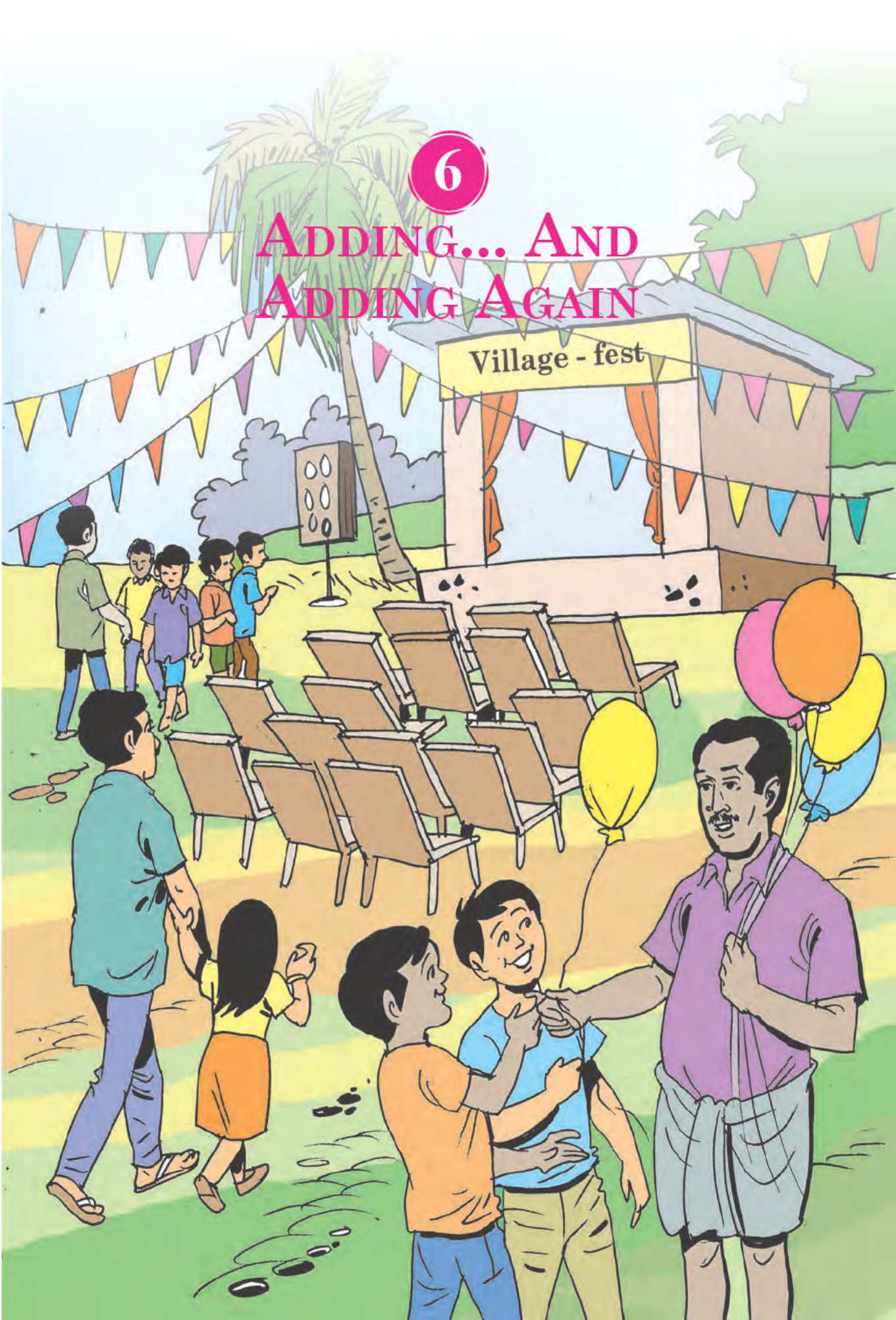
The length of Mom's sari is 6 metres. From this 70 centimetres was cut off for a blouse.

What's the remaining length?

Write in centimetres.

6

ADDING... AND ADDING AGAIN



Village-fest

Village-fest is being held at Nanmamukku. There are all kinds of contests for kids. Anu and Allen are in the leaping contest.



Anu is jumping on alternate rectangles, without stepping on the lines. She gets the gooseberries on the rectangles she covers.

Colour the rectangles Anu has covered.

Allen is competing in the contest for senior kids. In it, one has to skip across four rectangles in every leap. Each such rectangle has 5 gooseberries.

Let's complete this table.

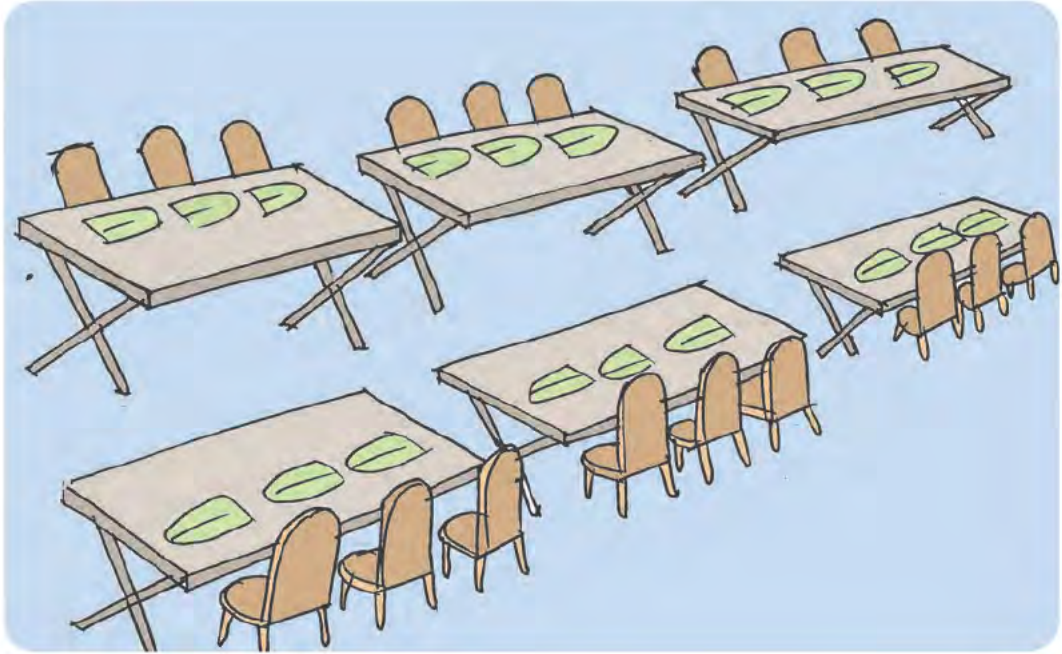
Leap	1	2	3	4	5	6
Gooseberries Anu got	2					
Gooseberries Allen got	5					

Quiz

There are ten teams for the quiz, and each team has two kids.

How many in all?

Lunch



Look at the picture.

How many plantain leaves are set up for lunch?

How did you calculate?

How many leaves are there on a table?

How many tables are there?

How many leaves are there?

With one more table, how many leaves can be set up?




Balloons



See how three balloons of the same colour are tied together.

How many balloons in all?









Look at the picture and write the number of balloons of the same colour in the table.

	$3 + 3$	2×3	6
			
			

How many balloons in all?

How did you calculate?

Complete the table

			1×3	3
	$3 + 3$	2 times 3	2×3	6
				
				
	$3 + 3 + 3 + 3 + 3$	5 times 3	5×3	15
				
				
				

$9 \times 3 =$

$10 \times 3 =$

$11 \times 3 =$

$12 \times 3 =$

$100 \times 3 = 300$

$101 \times 3 = 303$

$102 \times 3 = 306$

$103 \times 3 = \dots\dots\dots$

.....

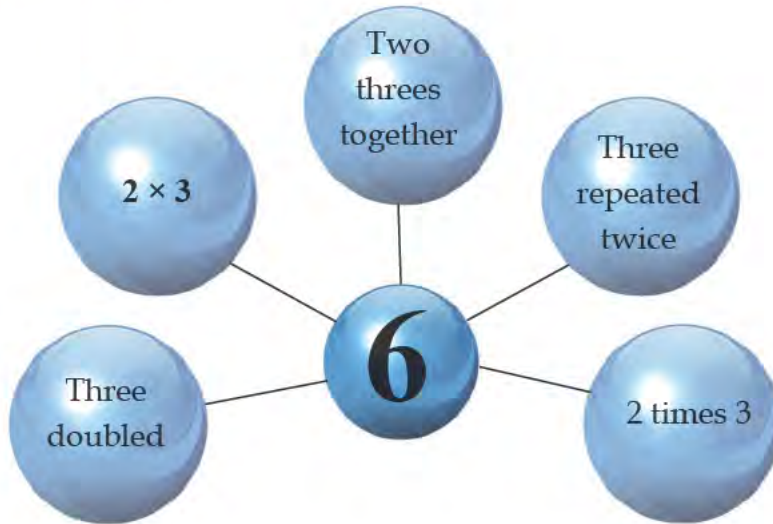
$110 \times 3 = \dots\dots\dots$

$120 \times 3 = \dots\dots\dots$

.....

How I
calculated

Different ways



Doubling

3 doubled	$3 + 3$	2×3	6
4 doubled			
5 doubled			
10 doubled			
20 doubled			
25 doubled			
50 doubled			
100 doubled			

What I understood from the table.

Kudumbashree Stall



Sale!
4 bars of
soap for
Rs.50

After lunch, Anu went to the Kudumbashree stall. They are making packets of soap bars, 4 in each. They want to make 5 packets. How many bars do they need?

What I calculated:

Relay race



4 teams competed in the relay race. Each team has 4 runners. How many in all for the races?

3 fives is equal to how many threes?

Prize Distribution



Those who have come first in the competitions are to be given 4 vegetable seedlings each.

There were 7 competitions. How many seedlings are needed?

Five 4's make	$4 + 4 + 4 + 4 + 4$	$5 \times 4 = 20$
Six 4's make	$4 + 4 + 4 + 4 + 4 + 4$	

Ten 4's make	Twelve 4's make
..... \times = \times =

$14 \times 4 =$

 $16 \times 4 =$

 $18 \times 4 =$

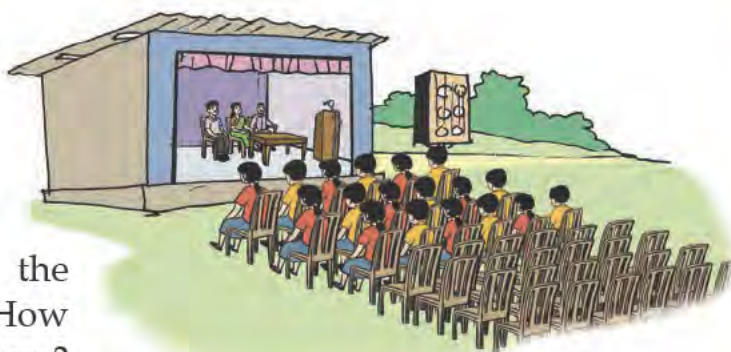
$20 \times 4 =$

 $15 \times 4 =$

 $13 \times 4 =$

Final meeting

See how chairs are arranged for the meeting. There are 6 chairs in each row.



The children sit in the first three rows. How many children are there?

$$6 + 6 + 6 = 3 \times 6 = \boxed{}$$

How many can sit in the next six rows?

$$\boxed{} = \boxed{} = \boxed{}$$

Children sat in these rows too. How many children would be there in all?

How I calculated

Another method

There are 10 more rows to be filled.
How many more can sit there?

What is the total number of people that can sit there?

Multiply and fill up the table

×	1	2	3	4	5	6	7	8	9	10
1										
2						12				
3				12						
4			12							
5										
6		12								

Add or multiply

$$1 + 1 = 2$$

$$1 \times 1 = 1$$

$$2 + 3 = 5$$

$$2 \times 3 = 6$$

$$2 + 3 + 4 = 9$$

$$2 \times 3 \times 4 = 24$$

Here we get different numbers on adding and multiplying. Can you find numbers which give the same answer on adding and multiplying?

Look at each and fill up the rest.

$2 \times 3 = 6$

$2 \times 4 = \dots$

$2 \times 5 = \dots$

$2 \times 6 = \dots$

$4 \times 3 = 12$

$4 \times 4 = \dots$

$4 \times 5 = \dots$

$4 \times 6 = \dots$

$8 \times 3 = 24$

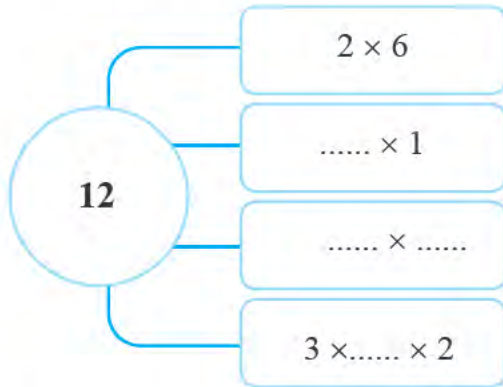
$8 \times 4 = \dots$

$8 \times 5 = \dots$

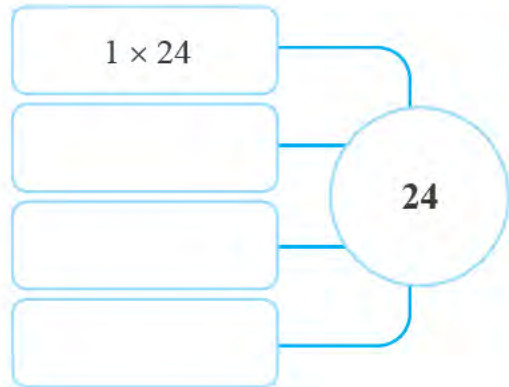
$8 \times 6 = \dots$

What relations can you find out?

What numbers multiplied together give 12 ?

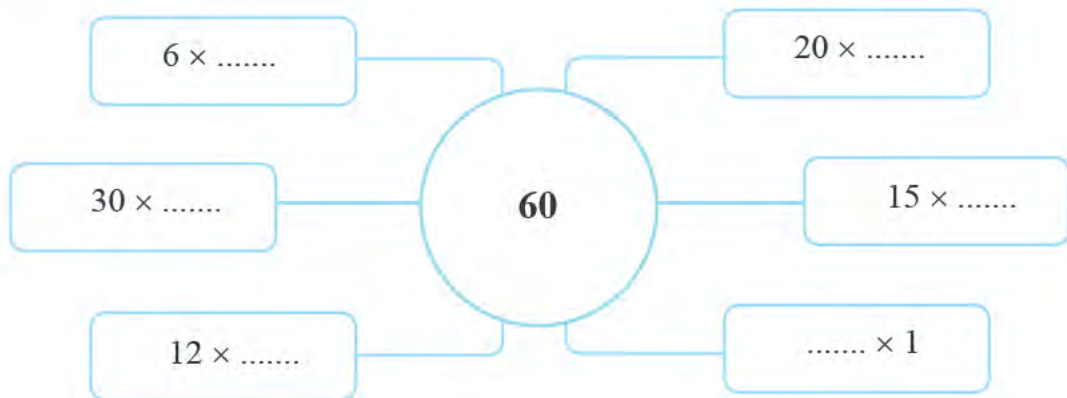


What numbers multiplied together give 24 ?



Can you write 20 like this?

Fill up the cells



Evaluation activities

- Anu went to the supermarket. She wanted five pens. The price of one pen was 6 rupees and the price of a packet of 6 pens was 30 rupees. How much would Anu gain if she bought a packet?

2. Cricket match

A. In a cricket match, one over means bowling six balls. How many balls does a team bowl in a twenty-twenty match?

B. In a one day match, in which each team bowls 50 overs, how many balls are bowled in all?

3. Who got more runs?

The table below shows the runs scored by Allen and his friend in a cricket match.

Allen			Friend		
2 sixers	2×6	12	4 sixers		
5 fours	5×4		3 fours		
4 doubles	4×2		2 doubles		
5 singles	5×1		2 singles		

Who got more runs ?

How many more?

If all the balls in an over are hit for sixers, how many runs will they get?

CONSTITUTION OF INDIA

Part IV A

FUNDAMENTAL DUTIES OF CITIZENS

ARTICLE 51 A

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

- (a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
- (b) to cherish and follow the noble ideals which inspired our national struggle for freedom;
- (c) to uphold and protect the sovereignty, unity and integrity of India;
- (d) to defend the country and render national service when called upon to do so;
- (e) to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;
- (f) to value and preserve the rich heritage of our composite culture;
- (g) to protect and improve the natural environment including forests, lakes, rivers, wild life and to have compassion for living creatures;
- (h) to develop the scientific temper, humanism and the spirit of inquiry and reform;
- (i) to safeguard public property and to abjure violence;
- (j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievements;
- (k) who is a parent or guardian to provide opportunities for education to his child or, as the case may be, ward between age of six and fourteen years.

CHILDREN'S RIGHTS

Dear Children,

*Wouldn't you like to know about your rights? Awareness about your rights will inspire and motivate you to ensure your protection and participation, thereby making social justice a reality. You may know that a commission for child rights is functioning in our state called the **Kerala State Commission for Protection of Child Rights**.*

Let's see what your rights are:

- Right to freedom of speech and expression.
- Right to life and liberty.
- Right to maximum survival and development.
- Right to be respected and accepted regardless of caste, creed and colour.
- Right to protection and care against physical, mental and sexual abuse.
- Right to participation.
- Protection from child labour and hazardous work.
- Protection against child marriage.
- Right to know one's culture and live accordingly.
- Protection against neglect.
- Right to free and compulsory education.
- Right to learn, rest and leisure.
- Right to parental and societal care, and protection.

Major Responsibilities

- Protect school and public facilities.
- Observe punctuality in learning and activities of the school.
- Accept and respect school authorities, teachers, parents and fellow students.
- Readiness to accept and respect others regardless of caste, creed or colour.

Contact Address:



Kerala State Commission for Protection of Child Rights

'Sree Ganesh', T. C. 14/2036, Vanross Junction

Kerala University P. O., Thiruvananthapuram - 34, Phone : 0471 - 2326603

Email: childrights.cpcr@kerala.gov.in, rte.cpcr@kerala.gov.in

Website : www.kescpcr.kerala.gov.in

Child Helpline - 1098, Crime Stopper - 1090, Nirbhaya - 1800 425 1400

Kerala Police Helpline - 0471 - 3243000/44000/45000

Online R. T. E Monitoring : www.nireekshana.org.in