

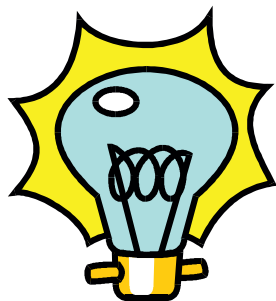
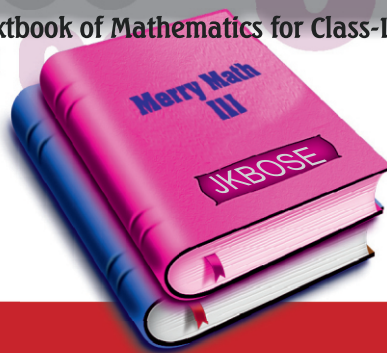
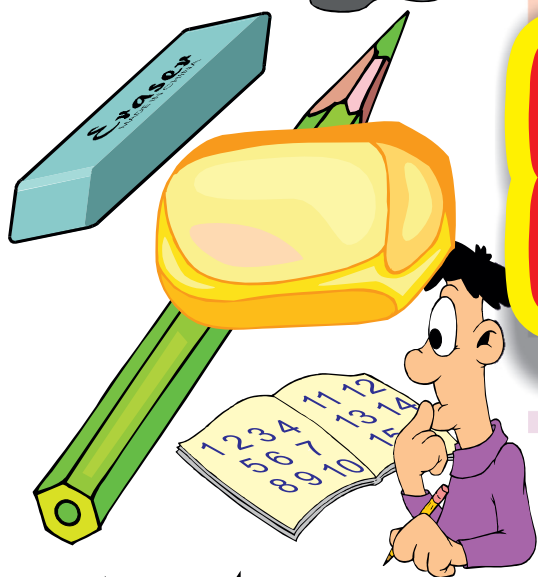
Merry Math - III

Mathematics for Class 3^d



Merry Math-III

A Textbook of Mathematics for Class-III



**THE JAMMU & KASHMIR
BOARD OF SCHOOL EDUCATION**

Published by

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Foreword

The world of Mathematics is fascinating and it constitutes a gateway to logic, reason and development of analytical skills and appreciations of harmony in nature. Children bring various mathematical skills from their surrounding and culture into the classroom which is the basic of learning mathematics. Teaching and learning in the early years must emphasize both higher goals and context specific goals as both are interdependent and interconnected. In the initial years children learn mathematical vocabulary e.g. matching, sorting, pairing, ordering, pattern, one to one correspondence and mathematical concepts related to numbers, shapes & measures. Some of the special features of *Merry Math* textbook series are as:-

- Attractive illustrations that will engage the child's attention.
- Do and learn to promote activity-based learning.
- The material is created in a way that allows children to observe patterns to generalise them, and to develop their own patterns.
- The contents have been developed in five very natural streams flowing from Class I to Class V, which overlap very often, not only with each other but also with the themes developed in other subjects that are being learnt simultaneously.
- Weightage has been provided to the areas like shapes, spatial understanding patterns measurement and data handling.
- To deal with the problems, the text books have several situations with multiple correct solutions to make the children aware that there can be several strategies for handling a problem.

The Jammu and Kashmir Board of School Education (JKBOSE) is always committed to initiate the process of review and revision of school curriculum, and framing guidelines based on the recommendations of National Education Policy (NEP) While determining the Contents of this textbook titled ***Merry Math III*** a conscious attempt has been made to correlate Mathematics to the situations which the children experience outside the class room. Sincere efforts have been made to present the contents of the book to the students in appealing and play-way manner so as to eliminate the fears/panic usually associated with learning of Mathematics. As recommended by NEP, the textbook aims at making departure from traditional methods of rote learning and adopt to the practical methods of meaningful and associative learning by encouraging the children to pursue imaginative activities. The teachers are earnestly advised to improve upon their dependence on traditional methods of teaching and solely relying on the textbooks; they should not ignore the other modern resources and means of learning. I gratefully acknowledge the textbook on Mathematics titled ***Math Magic*** published by NCERT, New Delhi that has set the benchmark for the development of this textbook. In the end, I appreciate the sincere efforts of Ms. Manisha Sarin (JKAS), Secretary, JKBOSE, Prof. (Dr.) Sudhir Singh, Director Academics JKBOSE, and the Academic Division of JKBOSE for their contribution in bringing out the reprint edition of the textbook.

The process of reform and continuous improvement in the quality of the textbook is our top most priority. JKBOSE always welcomes comments and suggestions that will enable us to undertake revisions and refinement as and when necessitated.

Prof. (Dr.) Parikshat Singh Manhas
Chairman, JKBOSE

Acknowledgement

The Jammu and Kashmir Board of School Education is grateful to all the following experts of Textbook Development Committee of National Council of Educational Research and Training (NCERT), for development of this Textbook of Mathematics.

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I express my gratitude to Director NCERT for allowing us to use their textual material. **Prof. (Dr.) Parikshat Singh Manhas**, Chairman has been a beacon of support to us in bringing about this reprint edition. I am grateful for his confidence in the team of experts and Academic Division, which has enabled us to work to our potential and contribute towards the benefit of student. I am also thankful to Ms. Manisha Sarin (JKAS), Secretary JKBOSE, and the Curriculum Development Wing of JKBOSE.

Prof. (Dr.) Sudhir Singh
Director Academics



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1 Where to Look From



Our teacher told us to draw a picture of a car. We all drew the car differently. Next day, when we showed our pictures to each other, we were very excited. But Anshul started laughing. He was looking at Dheeraj's drawing of a car.

Anshul said — it looks like a small box kept in a bigger one. Then Anshul showed his drawing to Dheeraj.

Both of them drew the picture of the same car. But the drawings look different.

Dheeraj said he had looked at the car from the terrace. Do you think his funny drawing is right?

☆ Have you looked at things from different sides?

Do they look the same or different?

☆ Look at the pictures drawn here. How does the table look from the side? Which picture is from the top?



Some pictures are drawn below. Imagine how these things will look if seen from the top.

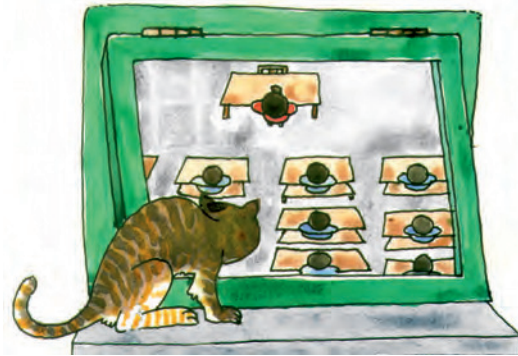


Will they look like this?

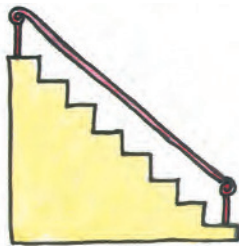


Practice Time

- A. A cat is peeping into a classroom.
Can you help her find out where the teacher is?



- B. Here are some pictures. Find out from where you have to look to see the things this way.



Staircase



Staircase



Table



Chair



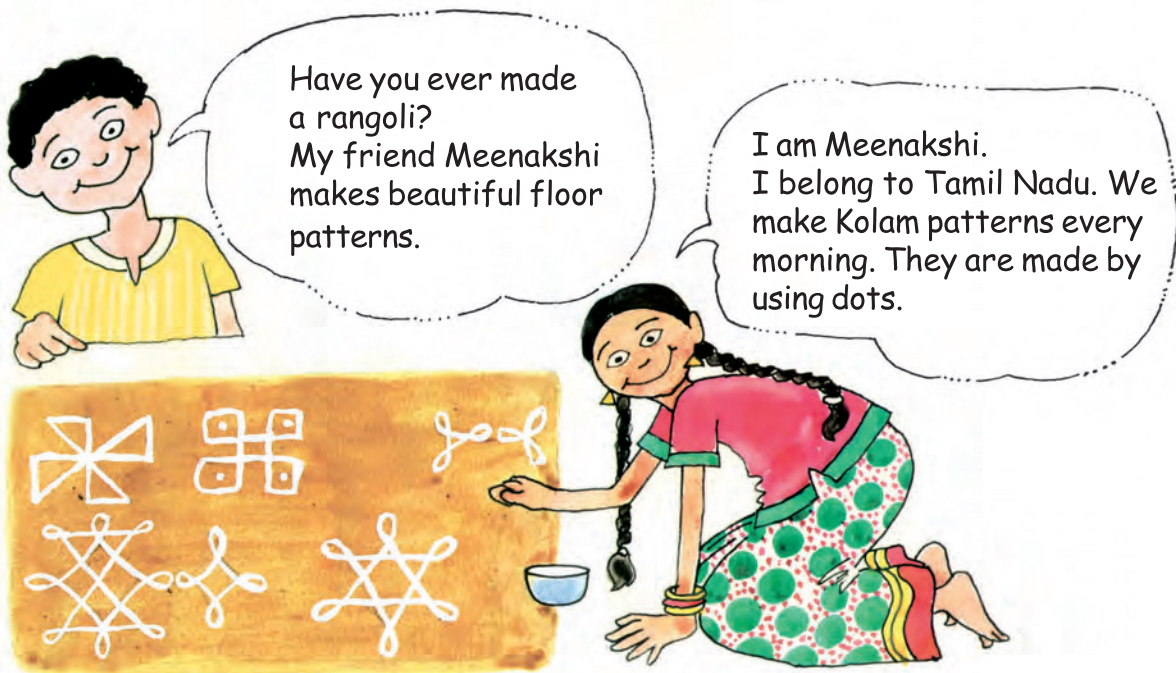
Pencil



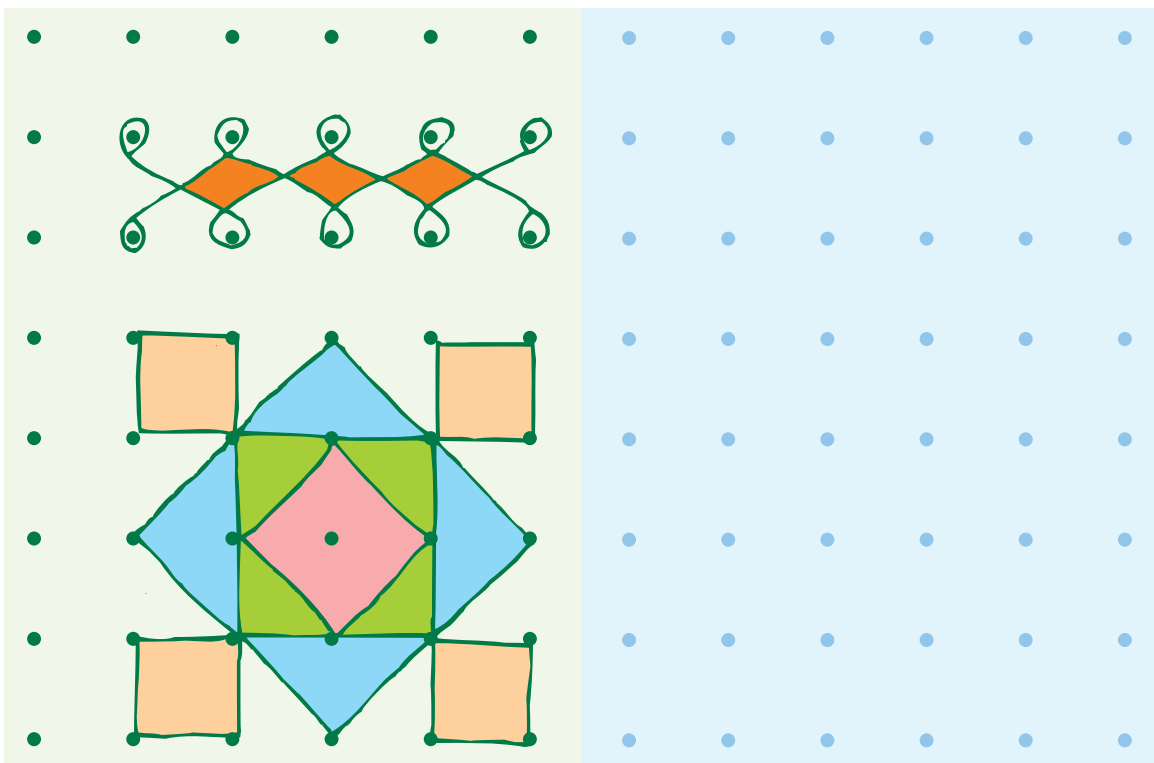
Bus

- C. Draw top views of a few things and ask your friends to guess what they are.

Rangoli

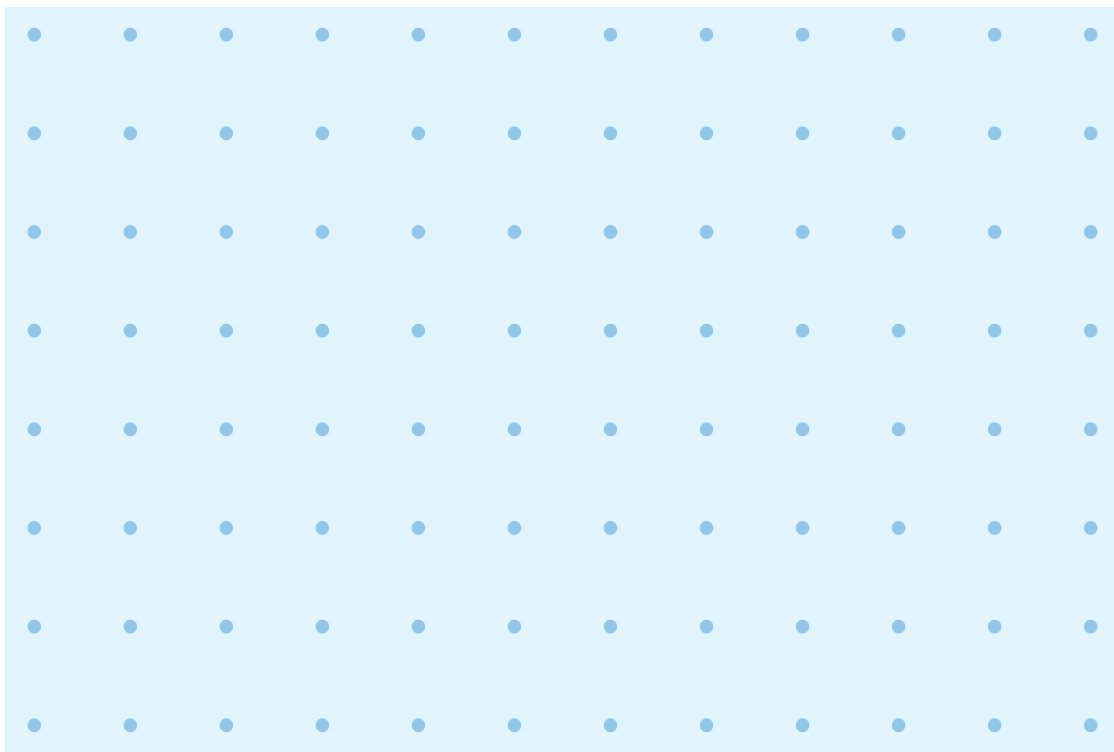
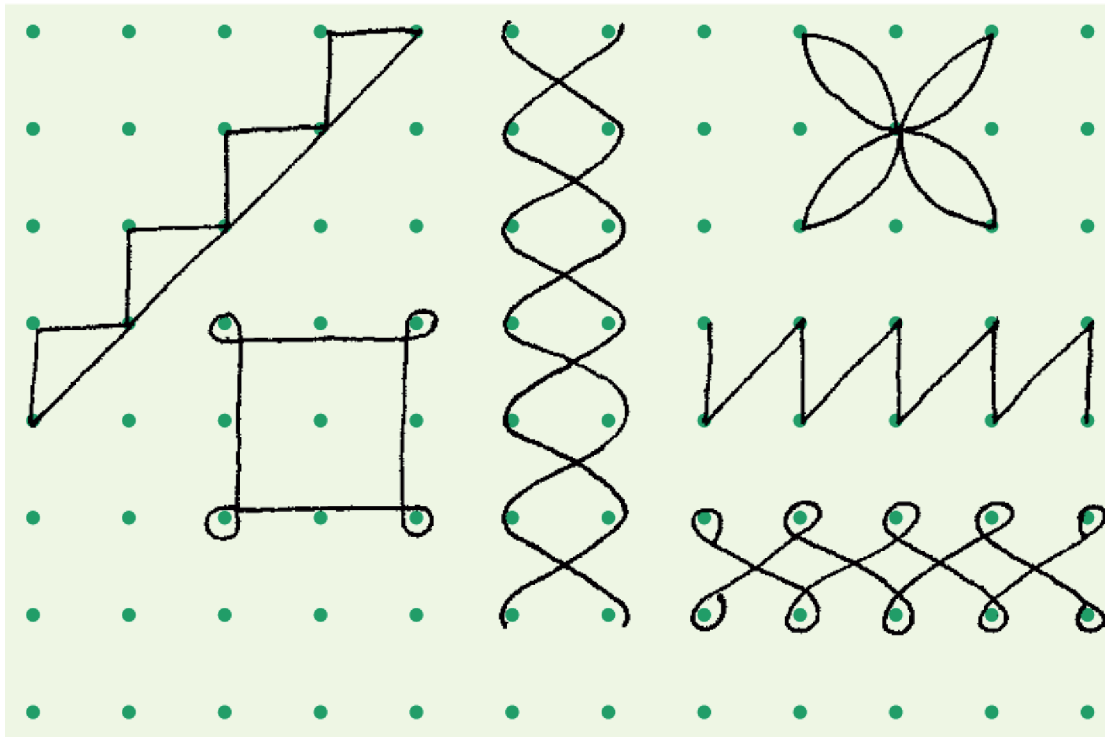


You can also try and use the dots given below to make patterns. Two examples have been drawn here.

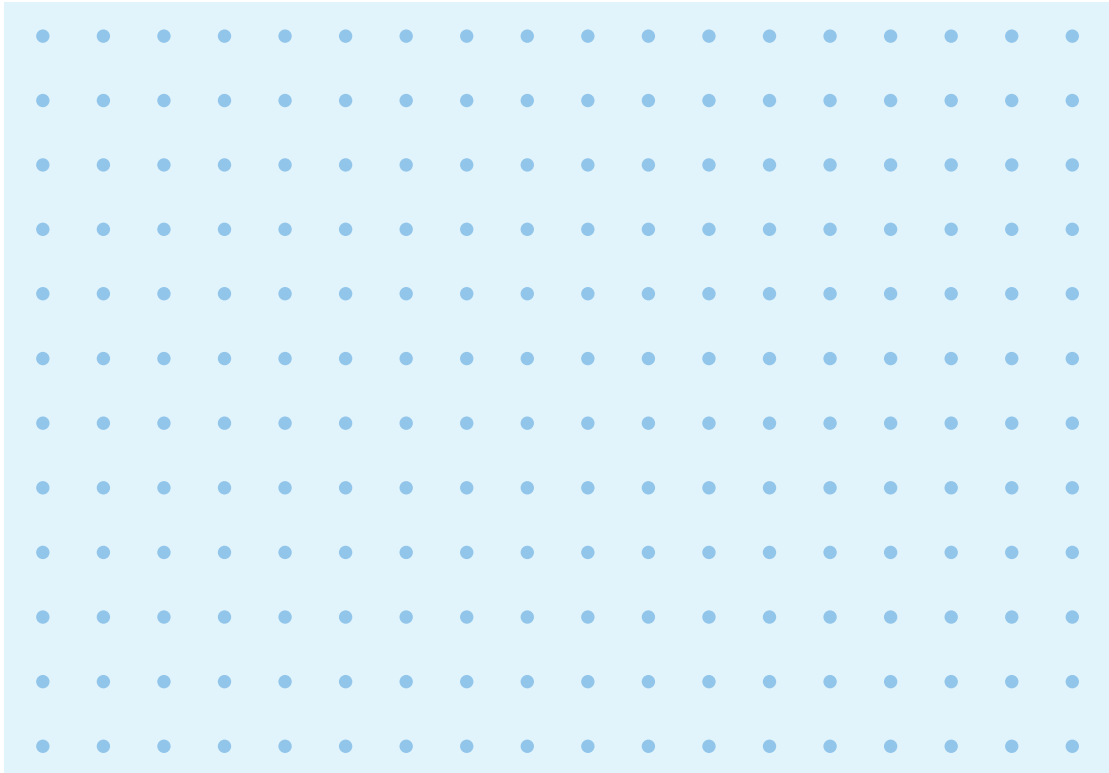


Make Other Patterns Yourself

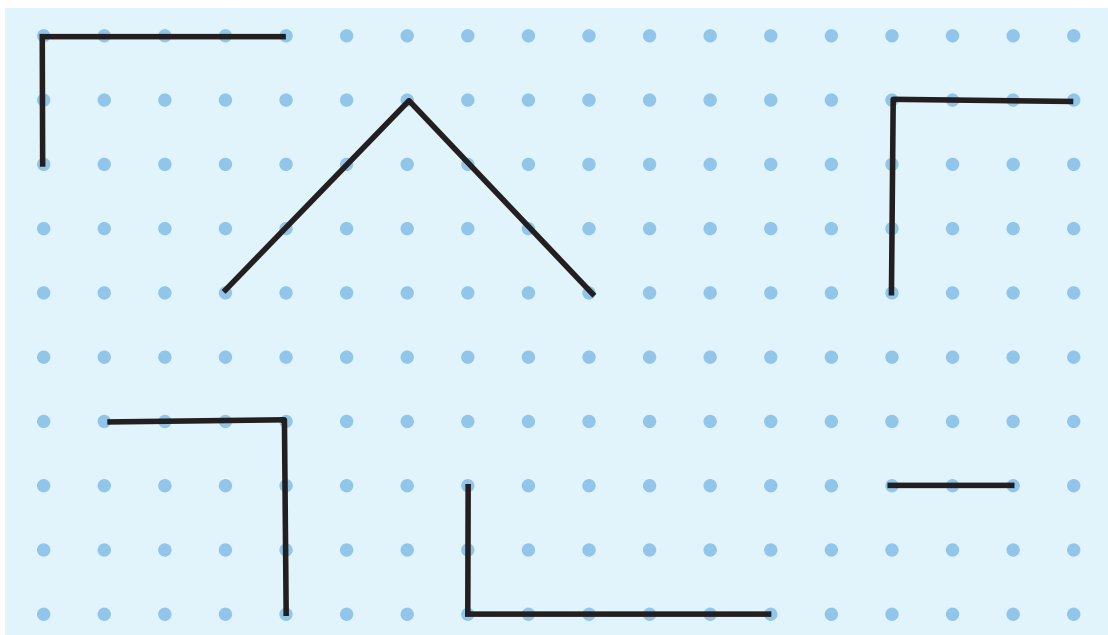
1. Copy these shapes on the dot grid. Note that some lines in the shapes are straight and some are not.

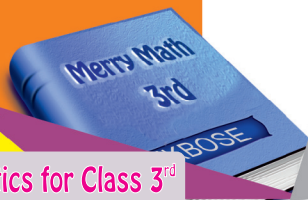


2. Use the dot grid given below to draw your own designs and shapes.



3. Complete these figures to make squares and rectangles.





$$\begin{array}{l} 2 \times 1 = 2 \\ 2 \times 5 = 10 \\ 2 \times 10 = 20 \end{array}$$



4. On the dot grid given below, draw the following:

a) a kite

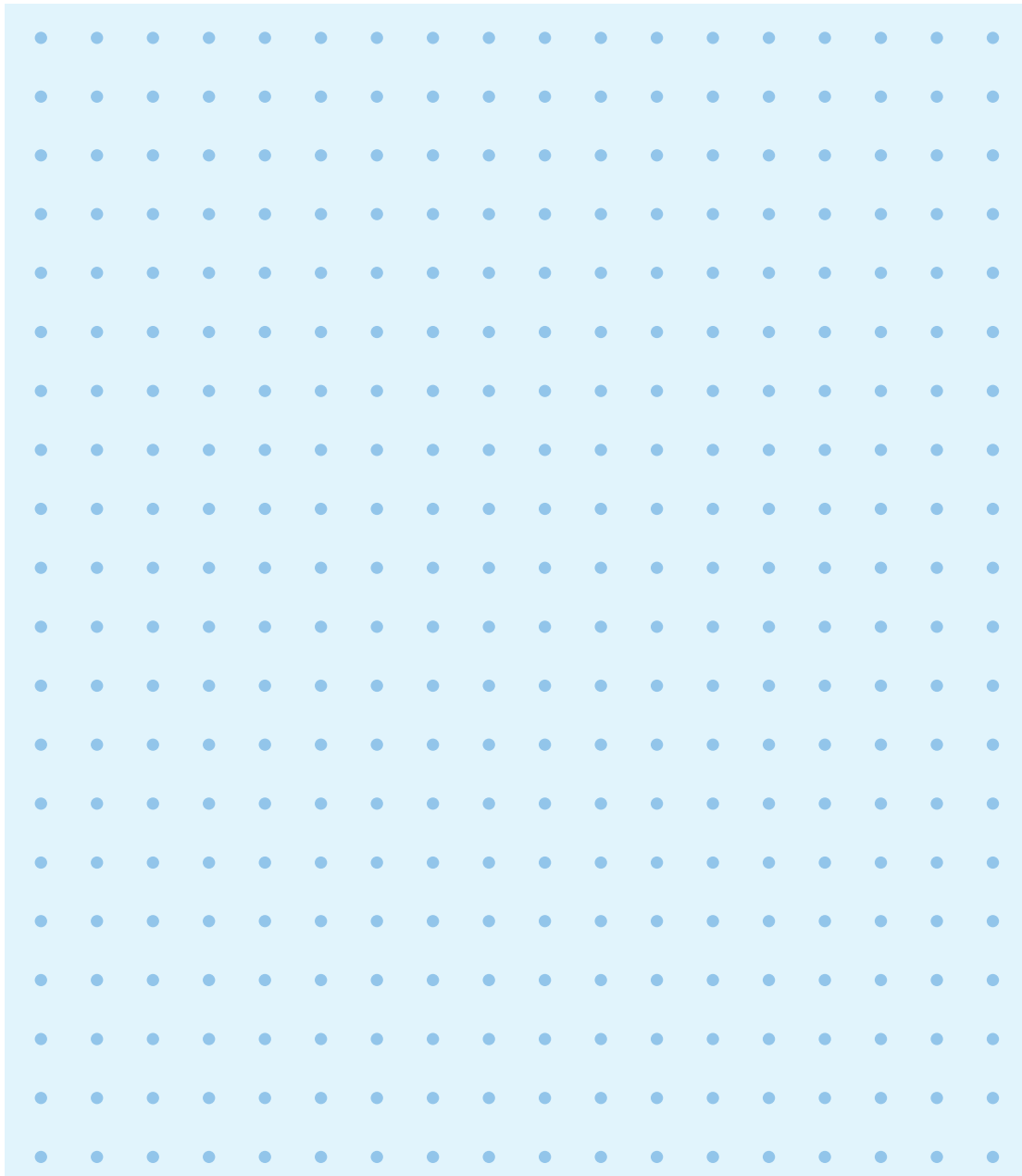
b) a leaf

c) a flower

d) a boat

e) a star

f) a pot



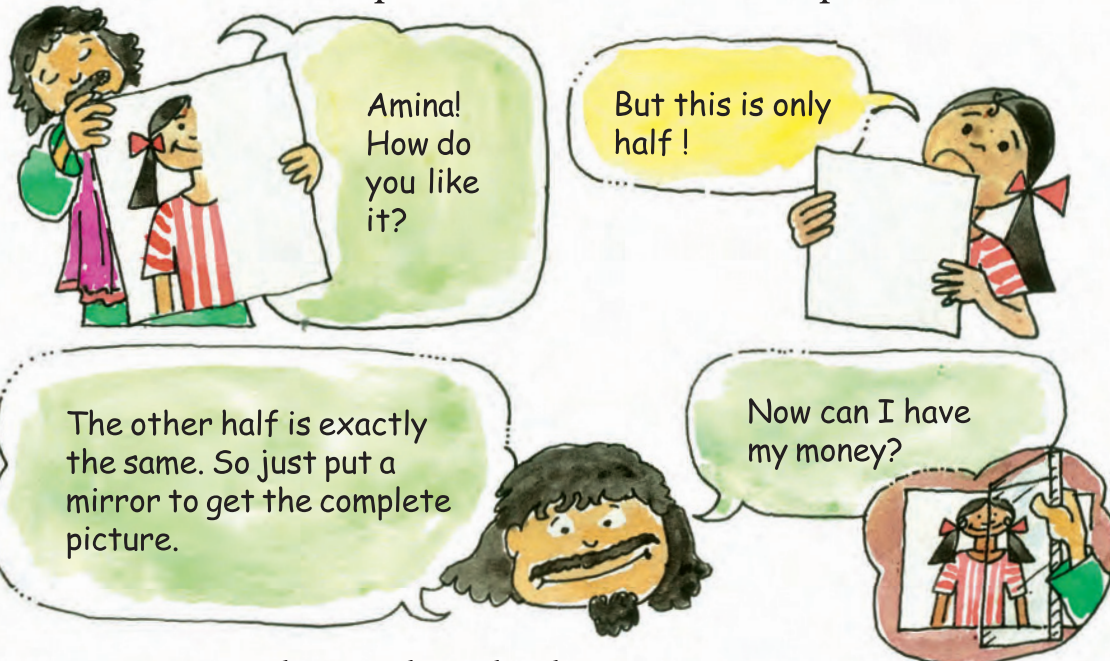
Note for teachers and parents: Free play with shapes on a dot grid can help develop children's understanding of shapes and symmetries. The chapter begins with activities to show how 2-dimensional pictures can represent 3-dimensional objects as seen from different perspectives. This is related to symmetries, an important aspect of shapes further developed in Chapter 5.

Tit for Tat

One day Amina met a painter.



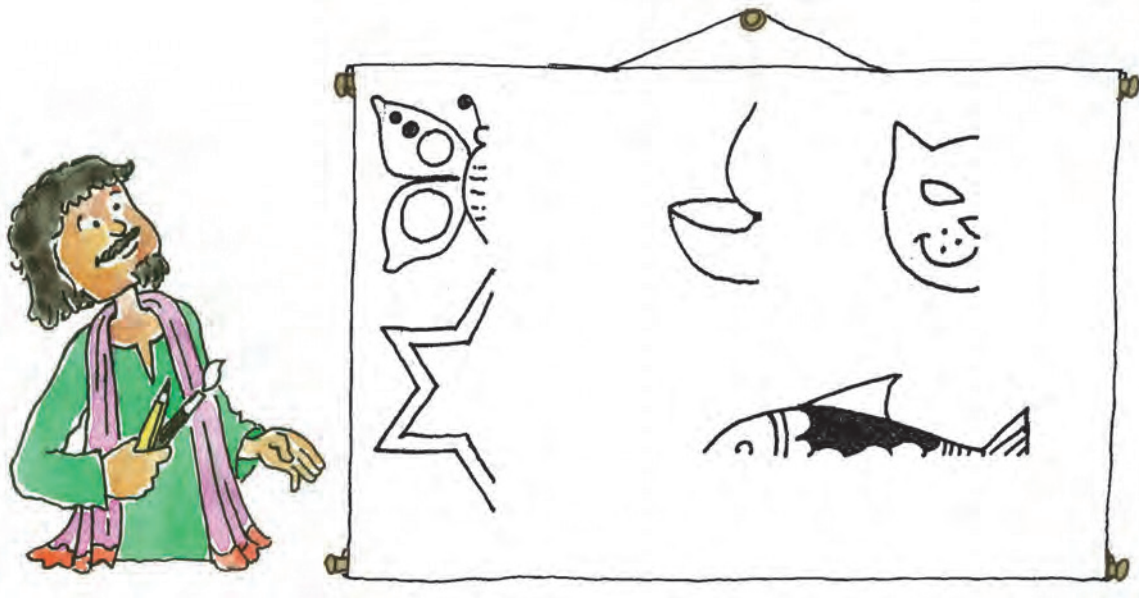
After a while the painter showed her the picture.



Amina gave him a hundred-rupee note.



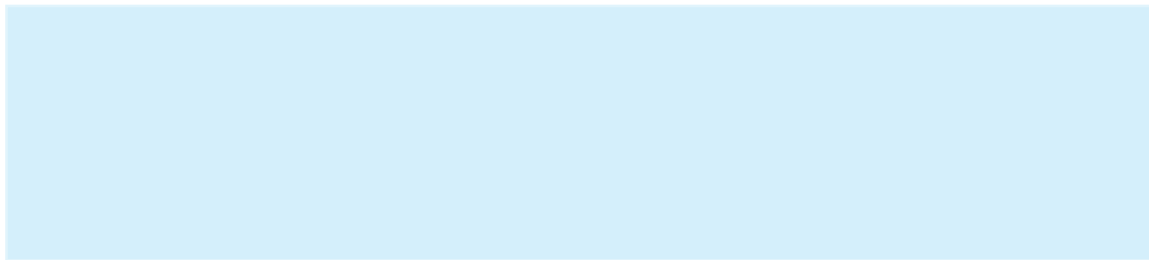
The painter had made many such pictures in which he drew only one half of the things. Draw the other half of these pictures and find out what these things are. Try doing it with a mirror.



Can we repeat the painter's trick, while drawing pictures of the following?

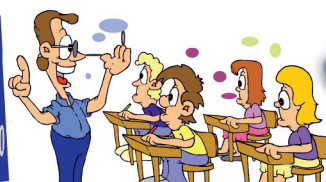


If you ask the painter to draw things which cannot be divided into two similar mirror halves, then he cannot play the trick. Draw three more such things which do not have similar mirror halves.



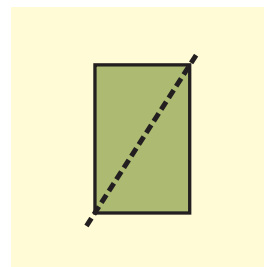
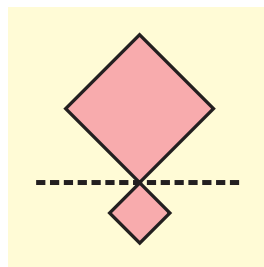
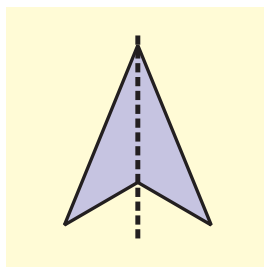
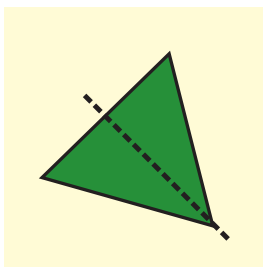
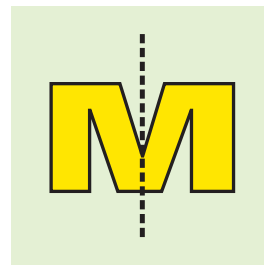
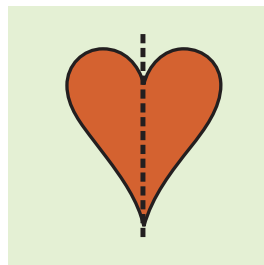
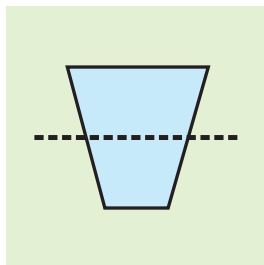
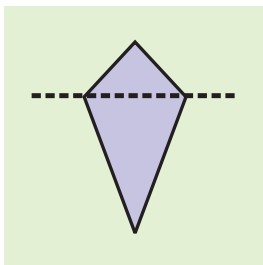
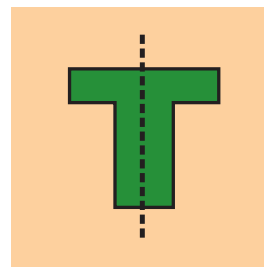
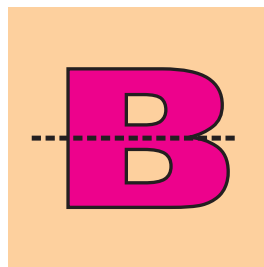
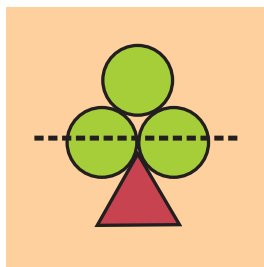
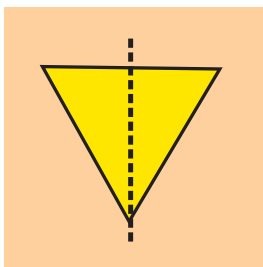
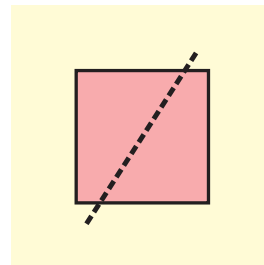
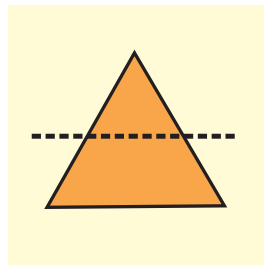
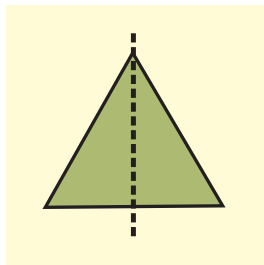
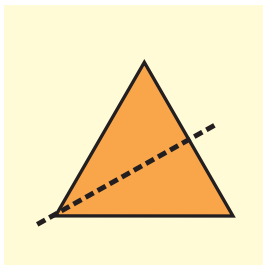


$$\begin{array}{l} 2 \times 1 = 2 \\ 2 \times 5 = 10 \\ 2 \times 10 = 20 \end{array}$$

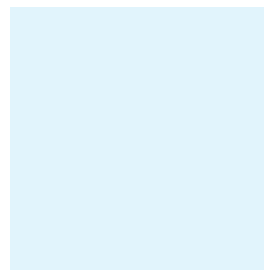
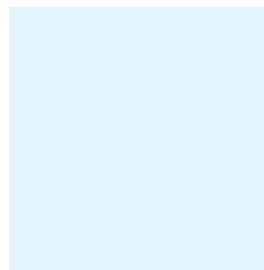
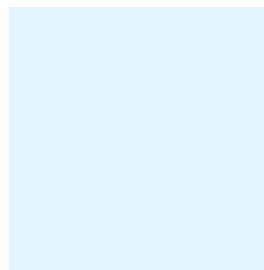
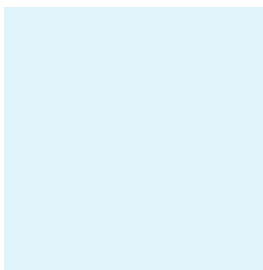


Mirror Halves

Look at the pictures given below. Does the dotted line divide each picture into two similar mirror halves?



Give some more examples.



In two rectangles above, the dotted line cuts each into identical halves, but note that they are not mirror halves?



Mathematics for Class 3rd

$2 \times 1 = 2$
 $2 \times 5 = 10$
 $2 \times 10 = 20$



Merry Math - III

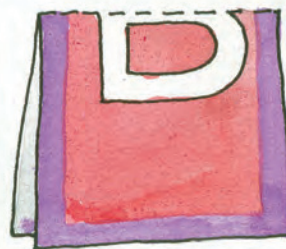
Using a dotted line, can you divide the following pictures into two similar halves?



$$\begin{array}{l} 2 \times 1 = 2 \\ 2 \times 5 = 10 \\ 2 \times 10 = 20 \end{array}$$



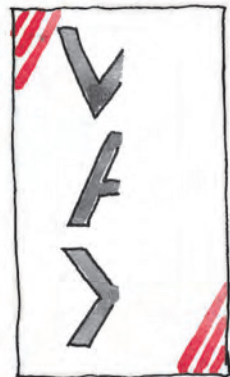
Can you guess these letters from their halves?



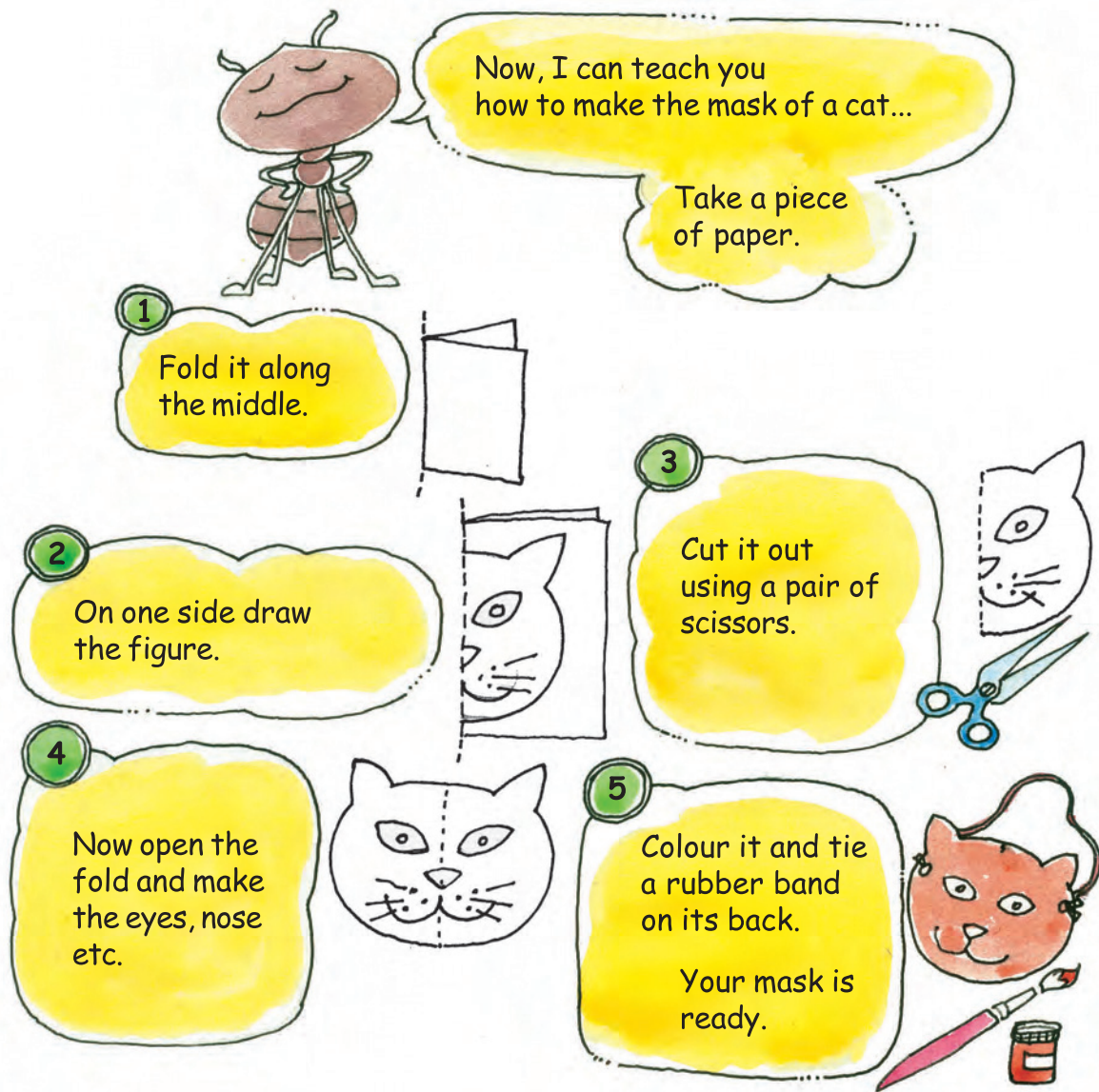
Using such letters we can also make words which have similar halves.



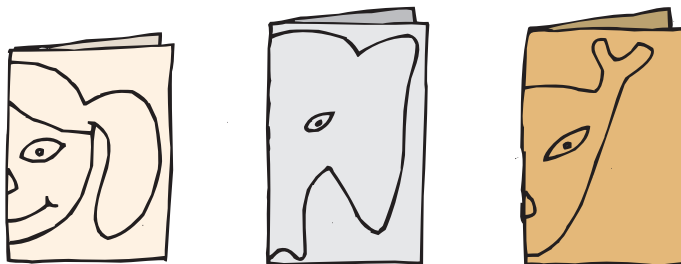
Guess the words by looking at their halves.



Making A Mask



You can make more such masks by taking help from the following pictures.





2

Fun with Numbers

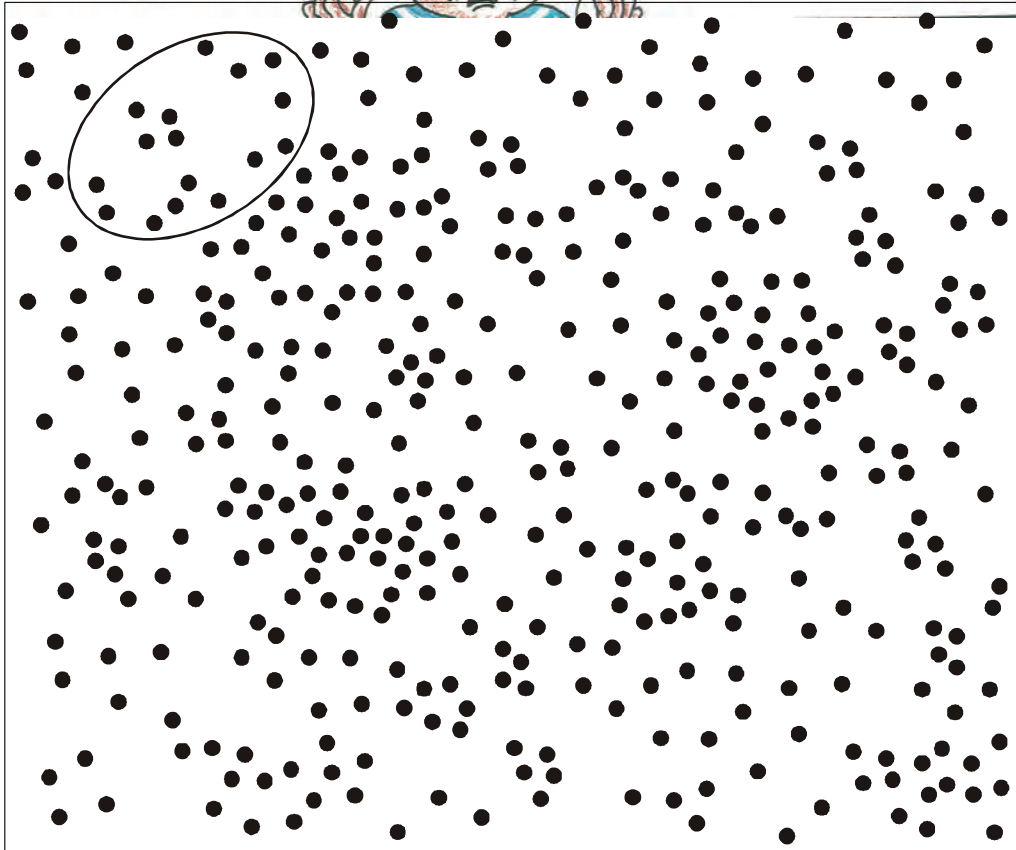
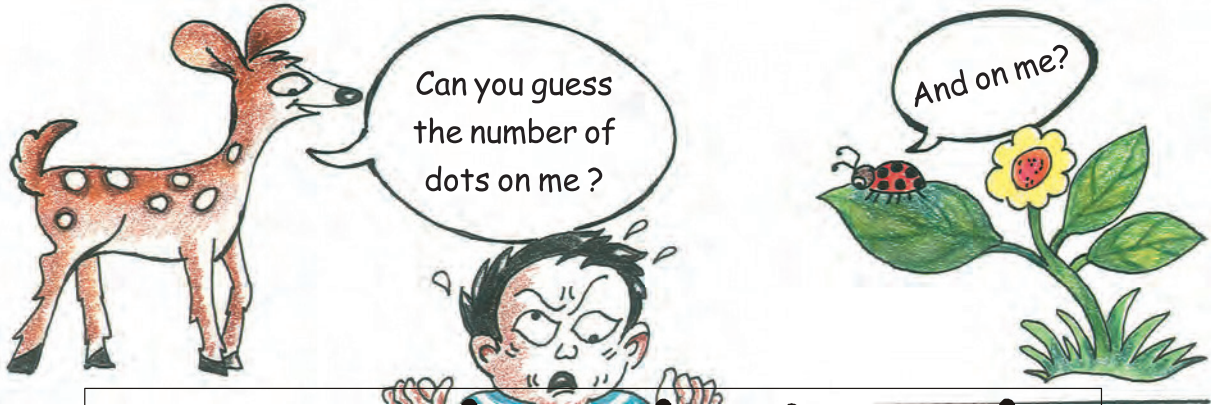


Salma, Aamina, Aslam, Maria and Ali were collecting Imli (tamarind) seeds.

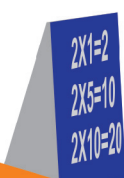
- ❖ _____ collected the most seeds.
- ❖ Ali will collect _____ more seeds to be equal to Aslam.
- ❖ If Salma gets 6 more seeds, she will have _____.
- ❖ How many children have more than 40 seeds? _____
- ❖ _____ needs 3 more seeds to have 50.
- ❖ Ali has 2 seeds less than 40 and _____ has 2 seeds more than 40.

Dot Game

Guess the number of dots in the circle. Now count and check your guess. Play this game with your friends by making circles. See who can guess best.

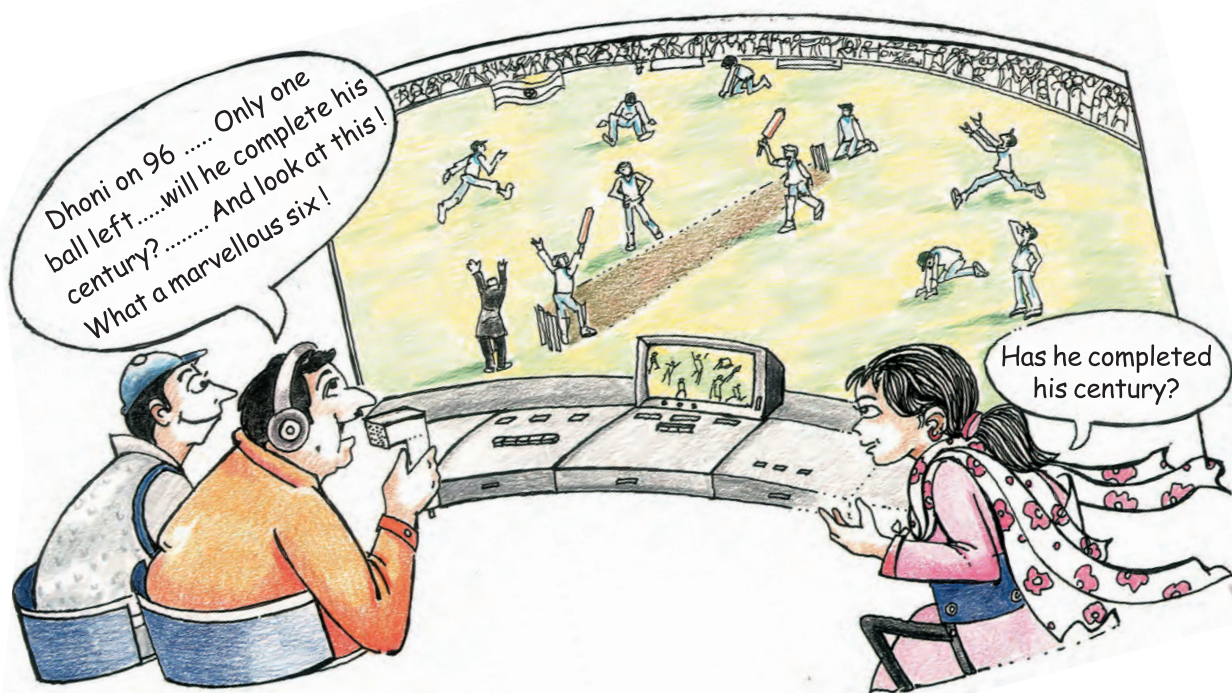


Children need interesting exercises to help them with visual estimation of numbers – of things arranged randomly and in symmetrical groups. Teachers could use other instances, such as bundles of leaves sold in the market, the school assembly, designs on mats, etc. to make them guess and estimate different numbers. In this book an ant has been used to show the child that a guess or estimate has to be made.



Dhoni's Century

One-day match between India and South Africa in Guwahati....., India batting first.....



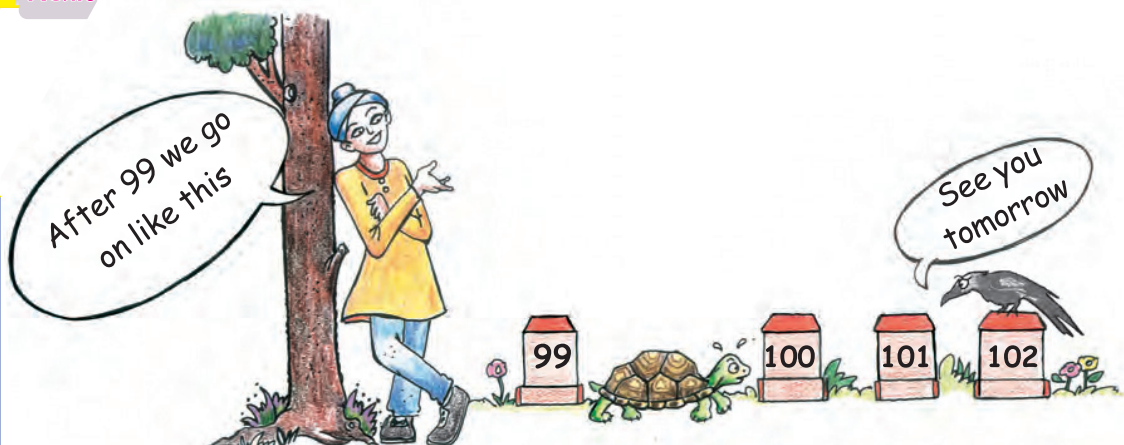
Fill in the blanks:

Dhoni scored $96 + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$ runs.

How many runs do these players need to complete a century?

	Runs scored	Runs needed to complete a century
Player 1	93	<u> </u>
Player 2	97	<u> </u>
Player 3	89	<u> </u>
Player 4	99	<u> </u>

Numbers are understood not by reciting them in order but by making associations in familiar contexts. Here the idea of a "century" of runs is used. Teachers could add other examples from children's lives to think about 3-digit numbers. Encourage them to speak about large numbers even if they cannot read or write them.



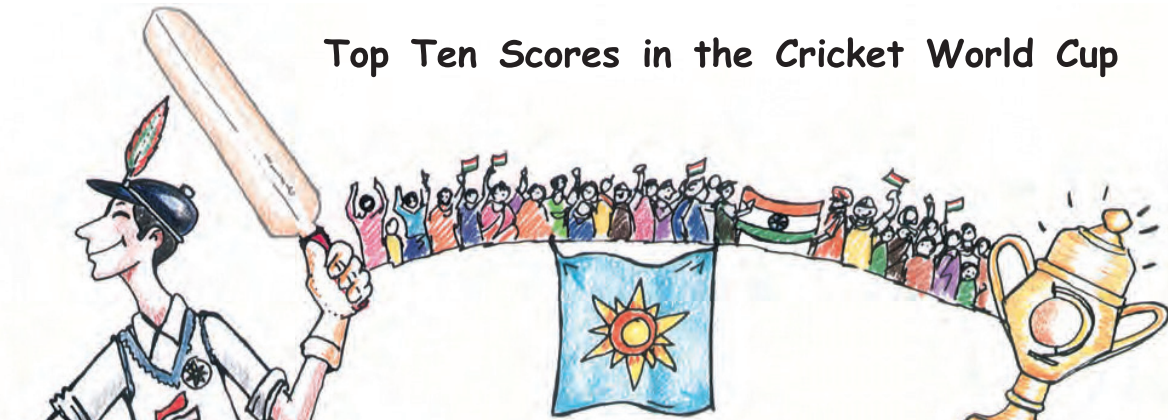
Fill in the Blanks:

99-112		195-206	
Number (in figures)	Number (in words)	Number (in figures)	Number (in words)
99	Ninety-nine	195	One hundred ninety-five
100	One hundred	196	One hundred ninety-six
101	One hundred one	197	One hundred ninety-seven
102	_____	198	One hundred ninety-eight
103	One hundred three	_____	One hundred ninety-nine
104	One hundred four	200	Two hundred
_____	One hundred five	201	Two hundred one
106	One hundred six	_____	_____
107	_____	203	Two hundred three
_____	One hundred eight	_____	Two hundred four
109	One hundred nine	205	Two hundred five
110	One hundred ten	206	_____
111	One hundred eleven		
_____	One hundred twelve		

Oh! 206! Guess how many more to make a triple century?



Top Ten Scores in the Cricket World Cup



Player	Score	Player	Score
A.P.J.	128	M.D.	178
A.S.	100	P.K.	105
C.K.	99	S.T.	141
D.M.	162	T.P.K.	112
K.S.P.	152	V.V.S.	127



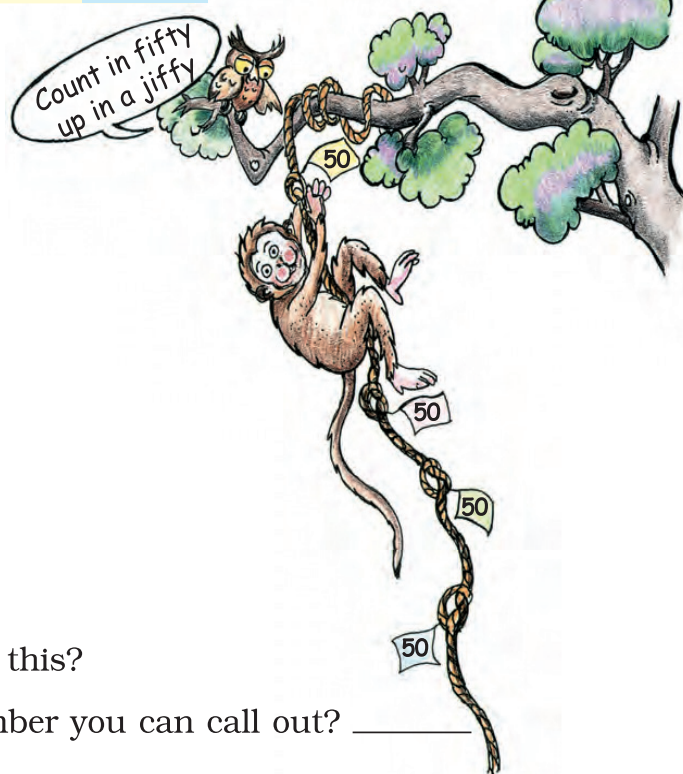
- ✱ C.K. just missed his century. How many runs did he need to make a century? _____
- ✱ _____ and _____ scored almost equal runs.
- ✱ _____ scored a complete century, no less, no more.
- ✱ Most runs scored by any batsman are _____.
- ✱ _____ and _____ have a difference of just 1 run between them.
- ✱ _____ scored 2 more than one and a half century.

Counting in 10's

10	110	310	_____
20	_____	_____	720
30	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	780
_____	190	_____	_____
100	200	400	_____

Counting in 50's

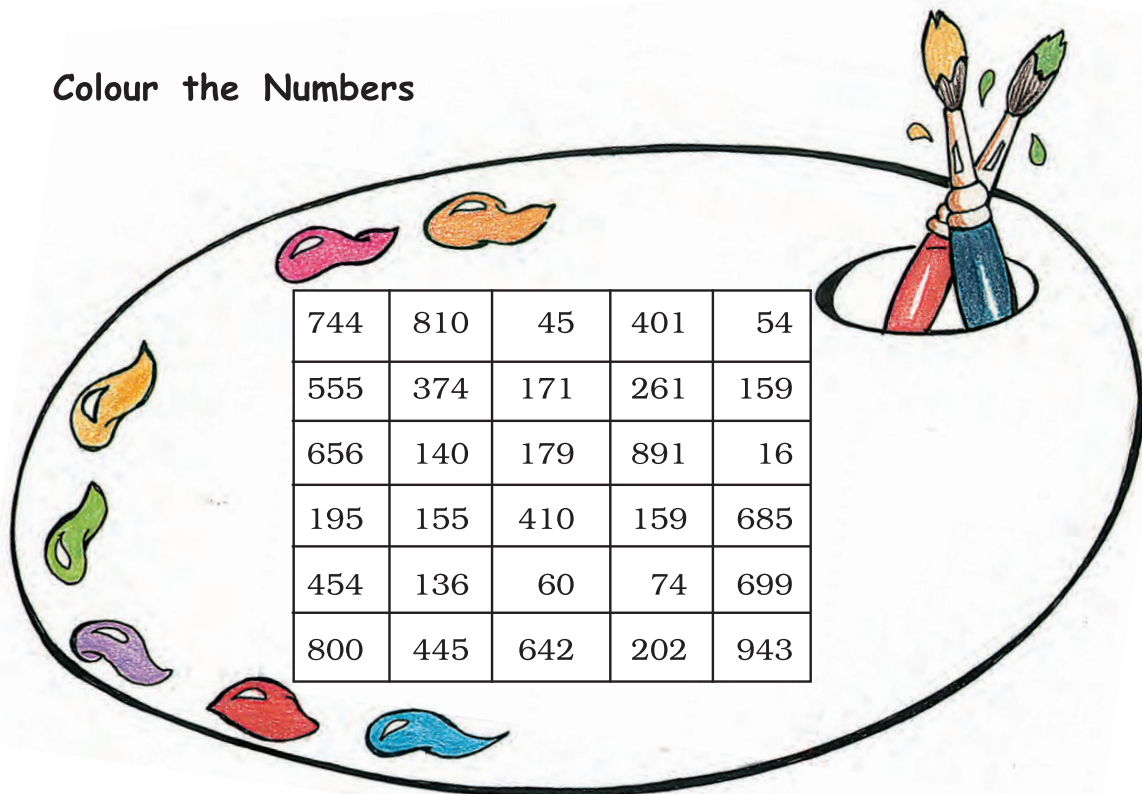
200	550
250	_____
_____	650
350	_____
_____	750
_____	_____
500	850



How far can you go like this?

What is the biggest number you can call out? _____

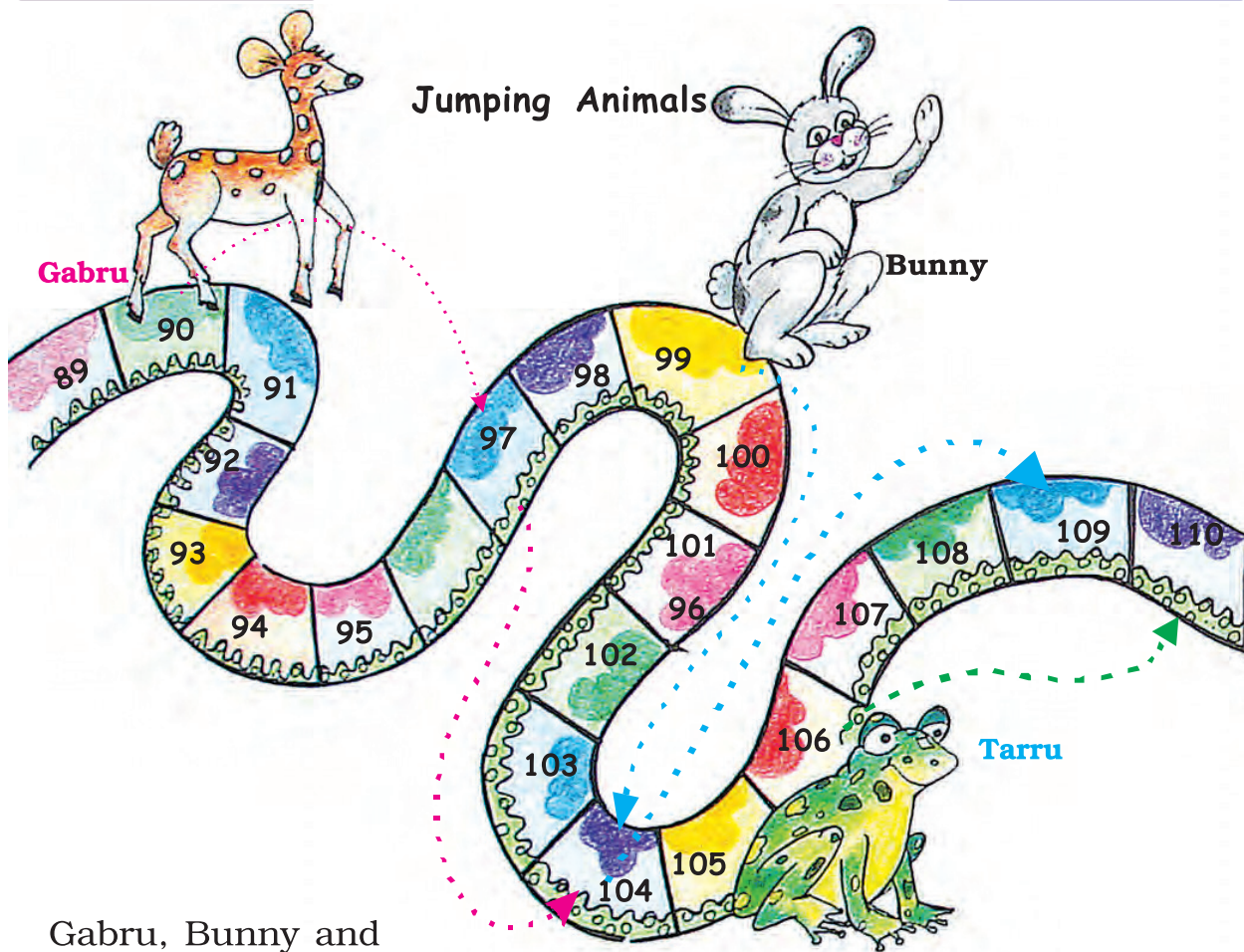
Colour the Numbers



Find these numbers in the above chart. Colour them.

 Green	 Red	 Yellow
One hundred forty	Fifty-four	Four hundred forty-five
Two hundred two	Sixty	Sixteen
Two hundred sixty-one	One hundred ninety-five	One hundred fifty-nine
Eight hundred	Five hundred fifty-five	Six hundred eighty-five
$300 + 70 + 4$	$600 + 40 + 2$	$600 + 90 + 9$
$600 + 50 + 6$	$100 + 70 + 9$	$70 + 4$
$5 + 50 + 100$	$800 + 10$	$1 + 90 + 80$

Jumping Animals



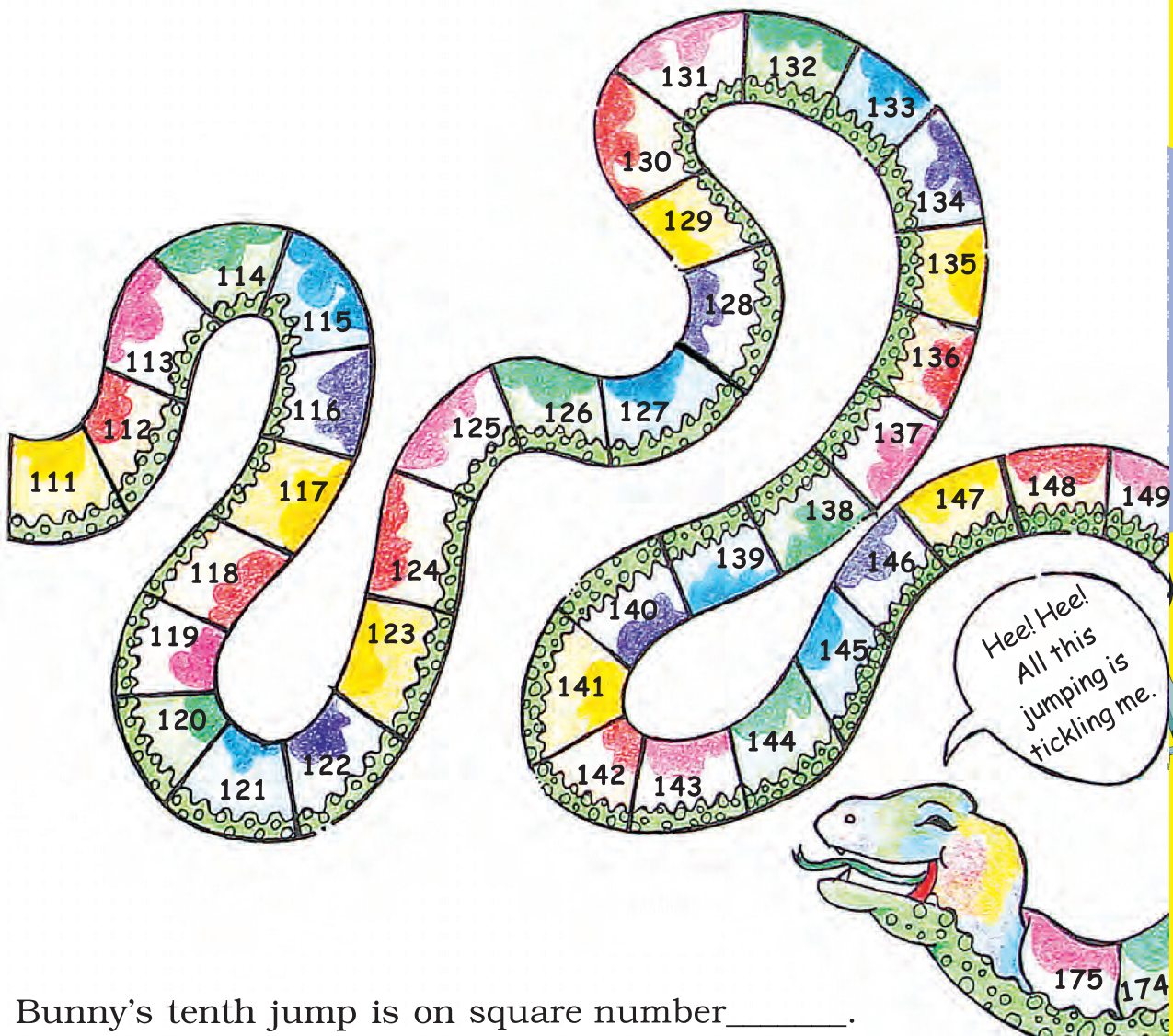
Gabru, Bunny and Tarru are jumping all the way. Gabru jumps on every 7th square, Bunny on every 5th square, Tarru on every 4th square,

Gabru starts jumping from number 90.

Bunny starts jumping from number 99.

Tarru starts jumping from number 106.





Bunny's tenth jump is on square number_____.

Tarru's tenth jump is on square number_____.

Gabru's tenth jump will be on square number_____.

Gabru and Bunny both jump on squares 104 ,_____ and _____.

Find out:

- ❖ Tarru and Bunny jump on squares_____, _____, _____ and _____.
- ❖ Is there any square where all three of them jump? _____
- ❖ Guess who will finish in the least jumps? _____ In how many jumps?_____

Class, Jump!



Jump 2 steps forward:

104, 106, 108, _____, _____, _____, _____.

Jump 2 steps backward:

262, 260, 258, _____, _____, _____, _____.

Jump 10 steps forward:

110, 120, 130, _____, _____, _____, _____.

Jump 10 steps backward:

200, 190, 180, _____, _____, _____, _____.

Continue the pattern:

550, 560, 570, _____, _____, _____, _____.

910, 920, 930, 940, _____, _____, _____, _____.

209, 207, 205, _____, _____, _____, _____.

401, 402, 403, _____, _____, _____, _____.



Lazy Crazy Shop

This is the jungle shop. Lazy Crazy gives things only in packets of tens, hundreds and loose items.



Find out how many packets of tens, hundreds and loose items each animal will take. Fill in the blanks.

		Packets of 100	Packets of 10	Loose items
	 143			
	 210	_____	_____	_____
	 242	_____	_____	_____
	 552	_____	_____	_____

Lazy Crazy also has a crazy way of taking money. He takes only in  notes,  notes and  coins. Now find out how they will pay him for what they have taken.



Rs 420



Rs 143



Rs 242



Rs 55

Who am I? Match with the number.

- a) I come between 40 and 50 and there is a 5 in my name.
- b) I have 9 in my name and am very close to 90.
- c) If you hit a 4 after me, you score a century.
- d) I am equal to ten notes of 10.
- e) I am century + half century
- f) I am exactly in between 77 and 97.

96

150

45

89

87

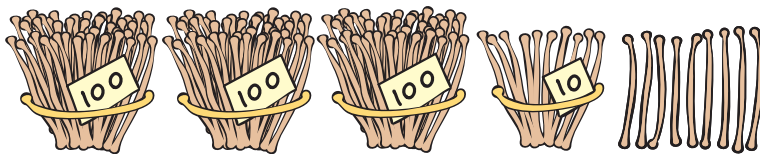
100

In this chapter several stories and exercises are used to help children understand the decimal number system. The term 'place value', which often confuses children, has not been used at all. Teachers could also find out about other locally used number systems, if any, especially while working in tribal communities.

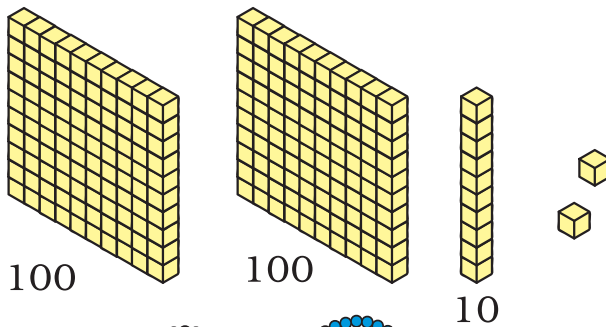
How Many are these?



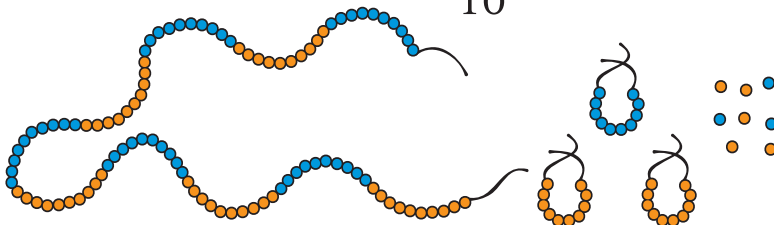
_____ rupees



_____ sticks



_____ blocks



_____ beads



_____ rupees

Who am I?

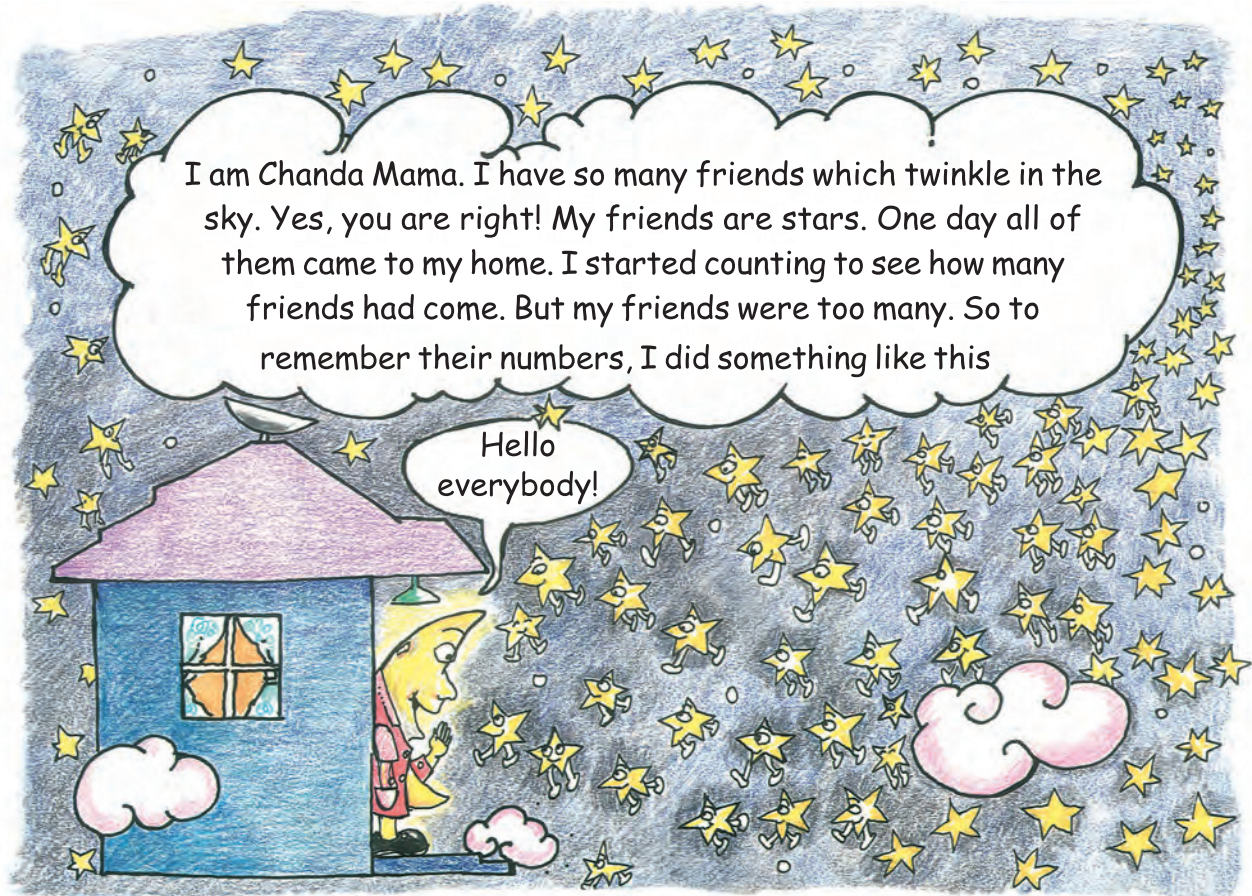
There is no biggest number

Take any you can find

Add me to get the next one

To count, keep me in mind.





Moon Mama Counts his Starry Friends

I counted one star and kept one **1** card in my pocket.

1 for one star. **1** **1** for 2 stars.

1 **1** **1** **1** **1** for how many stars? _____

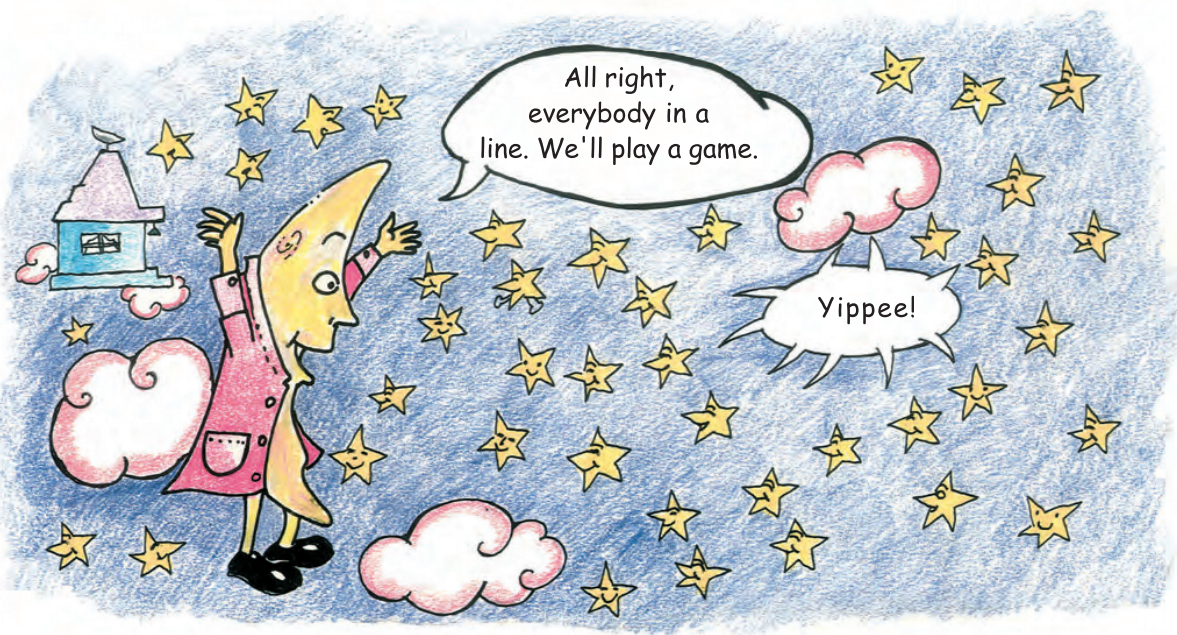
When I had 10 **1** cards, I changed it with this card **10**.

1 **1** **1** **1** **1** **1** **1** **1** **1** **1** → **10**

But my friends kept coming. So I had to count more stars. My pockets were getting full. So when I had 10 cards like this **10** I changed it with a **100** card.

10 **10** **10** **10** **10**
10 **10** **10** **10** **10** → **100**

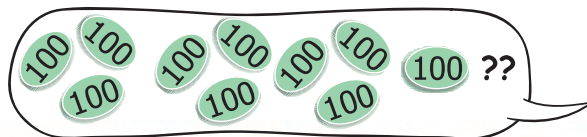
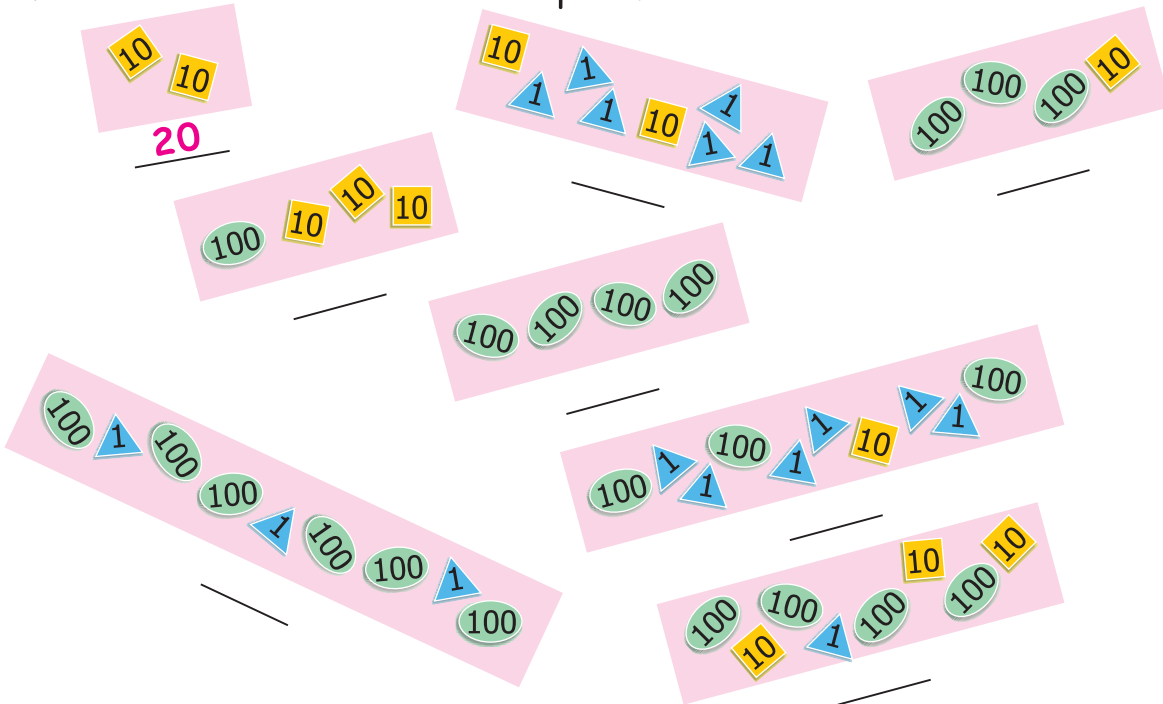
But I have so many, many, friends that my pockets kept getting full. Just see how many cards I had.



Which cards will I have in my pocket if I have counted up to...

- a. 19 →
- b. 21 →
- c. 95 →
- d. 201 →
- e. 260 →
- f. 300 →
- g. 306 →
- h. 344 →
- i. 350 →
- j. 400 →

When I had 10 10 cards in my pocket, I knew I had counted 20 stars. Now you tell me the number of stars counted in each case. Write the answer in the blank space.



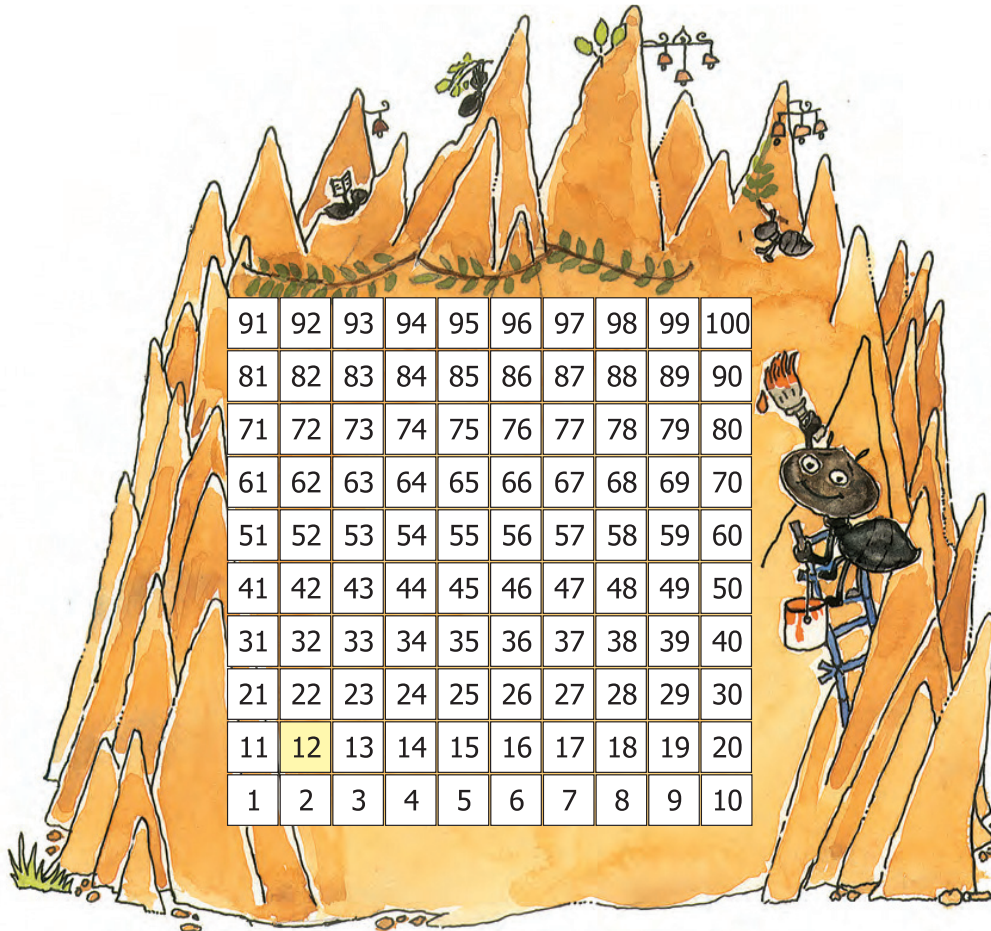
Guess how many starry friends I have in all... !!!

3

Give and Take



I am Kittu. This is my home. Isn't it huge? It has 100 rooms. Help me in painting some of the rooms.



- ★ I start from room 2. I add 10 to 2 to reach room 12 and paint it. To add 10 to 2, we can go all the way to the right to 10. Then up to 11, and one step right to 12. This is one way to go from 2 to 12. Is there a shortcut? Of course! Follow me. We can jump up one row. A jump from 2 to 12 is like taking _____ steps.

★ Now try one jump up from 14.

$$14 + 10 = \underline{24}$$

Colour this room.



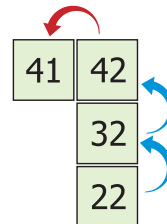
★ How will I go from 22 to 41? Jump from 22 to 42.

Then one step left. We can write it like this.

$$22 + 20 = 42$$

$$42 - 1 = 41$$

How many steps did I go in all? _____



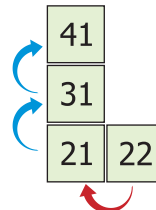
You could also go this way:

From 22 take one step left to 21.

Then two jumps up to 41.

$$22 - 1 = 21$$

$$21 + 20 = 41$$



Try these on Kittu's home:

a) 10 less than 34 is _____.

b) $53 - 20 =$ _____

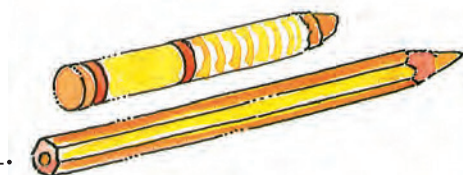
c) 11 more than 31 is _____.

d) 11 less than 66 is _____.

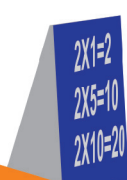
e) $62 + 13 =$ _____

f) 23 less than 89 is _____.

g) 10 and 40 more is _____.



The 10×10 number grid is a useful aid for adding and subtracting two-digit numbers. Children should be encouraged to try these operations mentally using the grid as often as possible.



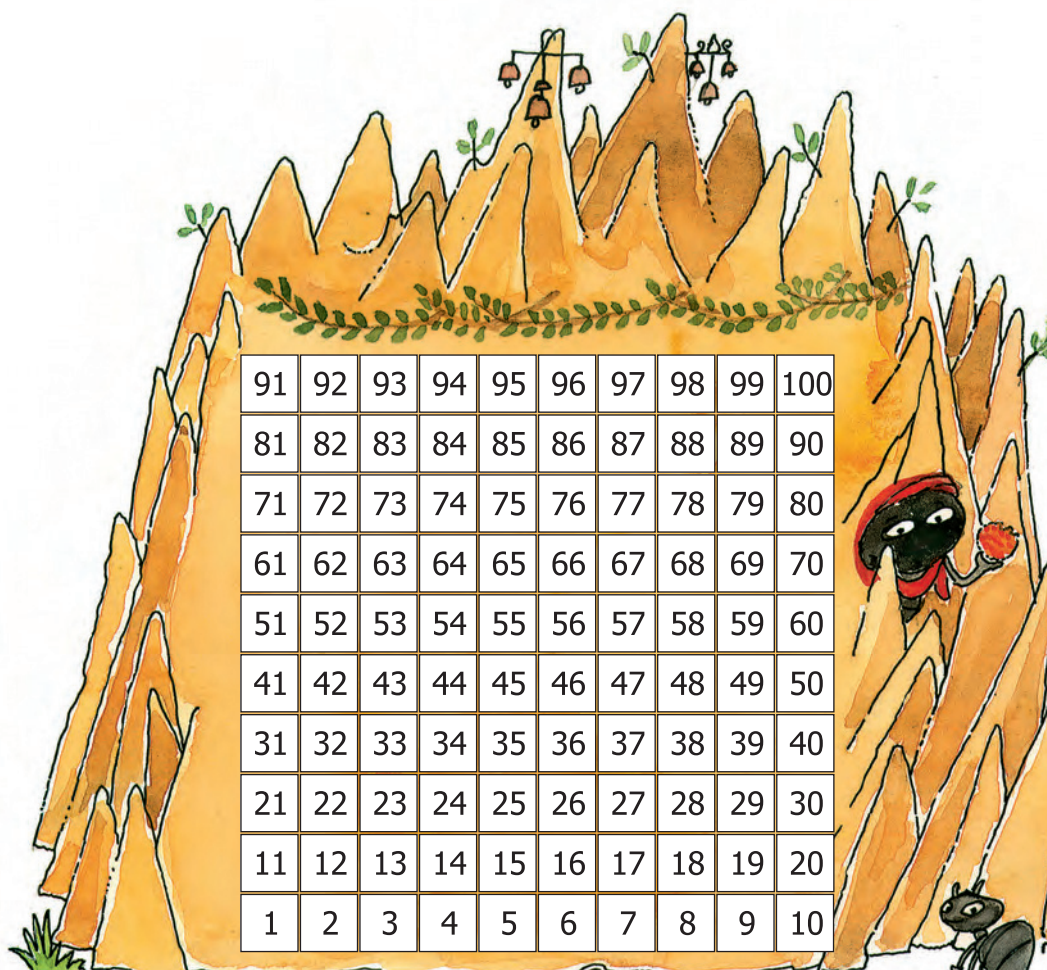
- h) 9 added to 28 gives _____.
- i) The sum of 9 and 44 is _____.
- j) Reducing 98 by 34 gives _____.
- k) 4 and 37 more is _____.
- l) Take 35 away from 83. We get _____.

Find My Food

Hey! I have something more interesting for you.

Ma told me, there are sweets to eat in some rooms.

Help me find those room numbers. Mark them in my home.
See what you get!



E.g., $47 = 37 + 10$

$37 + 9 =$

Is there a shortcut to do this?



$62 + 30 =$



Will it be easier to go to $46 + 30$ first?

$= 46 + 28$

Similarly how will you do this?



$= 87 - 14$

$62 -$ $= 43$

$36 =$ $+ 9$

$45 +$ $= 99$

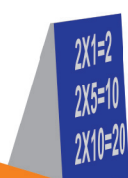
$40 +$ $= 74$

$+ 26 = 75$

$100 =$ $+ 50$

$- 21 = 35$

$57 -$ $= 20$



Adding Made Easy



Jyoti bought apples for 37 rupees. Raja bought bananas for 21 rupees. The woman selling fruits said:

37 is 30 and 7

21 is 20 and 1

So 37 and 21 make 58.



The first two,
I can do.

How did she
add 37 and 21
so fast?



☆ Let us also try. Look at this sum.

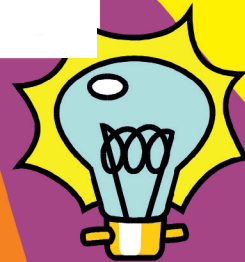
26	+	43				
20	+	6	+	40	+	3
20	+	40	+	6	+	3
60	+	9				
69						

The answer is 69.

We break 26 into $20 + 6$
and 43 into $40 + 3$.



Then it's easy:
we add $20 + 40$ and
 $3 + 6$!





$$56 + 21 = \square + \square + \square + \square$$

$$= \square + \square + \square$$

$$= \square + \square = \square$$

$56 + 21 = 56 + 20 + 1$
 $= 57 + 20$
 $= 77$
 Aha!
 I can do it this way also!



Now work out the steps in your mind.
Write the answers directly in the boxes.

$33 + 42 = \square \quad \square = 33 + 27 \quad 55 + 25 = \square$

$19 + 61 = \square \quad \square = 34 + 63 \quad 67 + 25 = \square$

$\square = 48 + 42 \quad \square = 53 + 64 \quad 72 + 56 = \square$

Let Me Tell You a Story.....

Once a baby lion lost his way in the jungle. He started crying and called out for his mother. An old deer took pity on him. He took him to his place. But the other deer got really scared. So did their other friends — rabbits, squirrels and birds. A lion among us! Oh, no! He will eat up our babies. The old deer said — don't worry. I will warn him about this. In the morning the baby lion thanked every one and started to leave. But a rabbit said — wait, he cannot go like this! Let us count to see if he has done any mischief. We should be 240 in all. Let's count.



Tillu counted rabbits and deer.

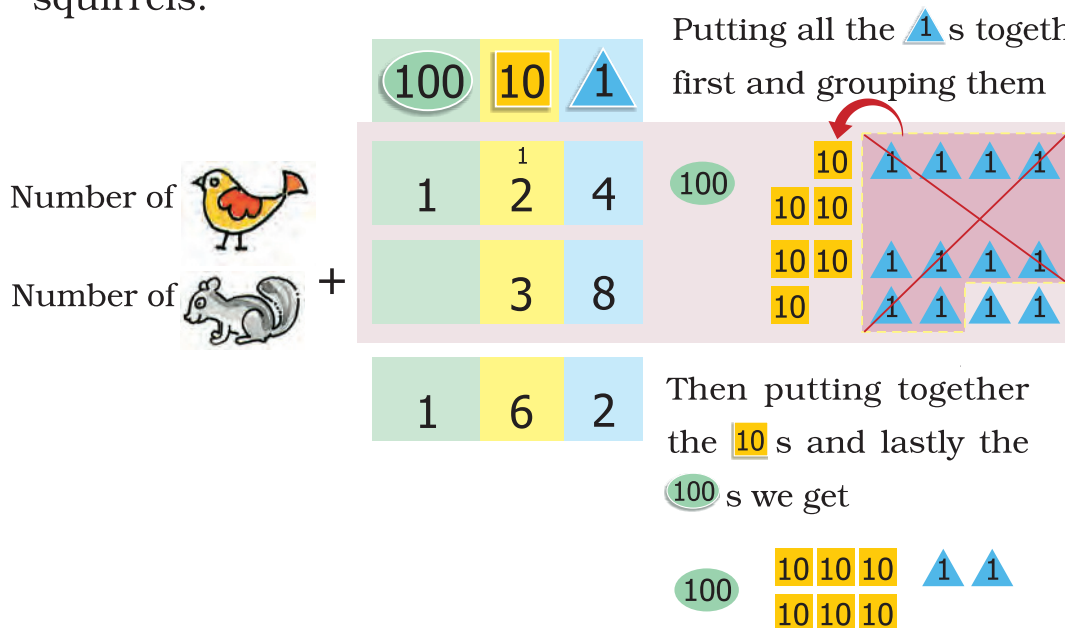
There were 27  and 48 

The old deer counted birds and squirrels.

There were 124  and 38 

In the chapter Fun with Numbers, children would have made token cards. The same token cards should be used for exercises in addition before children do written sums.

★ Similarly we add the number of birds and number of squirrels.



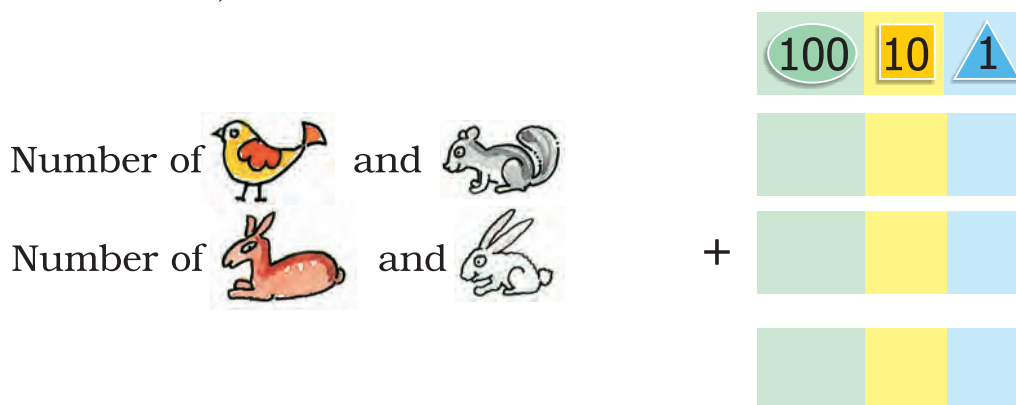
So together birds and squirrels were 162, and deer and rabbits were 75.

The old deer said — we were 240 in number, now how many are we in all?

Can you guess now,
if the baby lion will go back home?
Has the baby lion eaten up any animal?



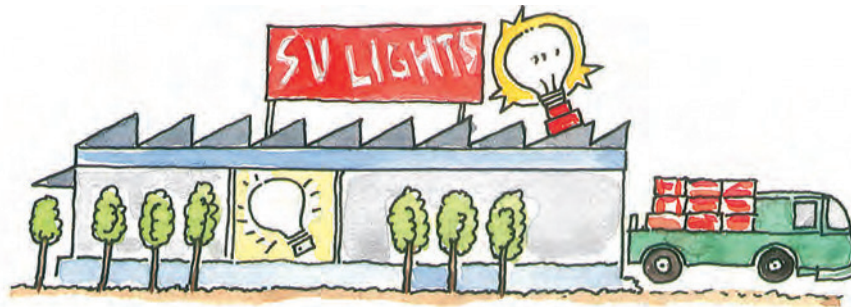
To find out, do the addition in the box below:



How Many Bulbs?

1. A factory made 270 bulbs on the first day.
On the second day it made 123 bulbs.

How many bulbs did the factory make altogether?



First day - 270 bulbs



Second day - 123 bulbs



$$270 + 123$$

Is the sum more than 350
or less than 350?

I think..

270 and 100 is 370?
The sum is more than 350.

How many
altogether?



Solution:

Bulbs made
on first day

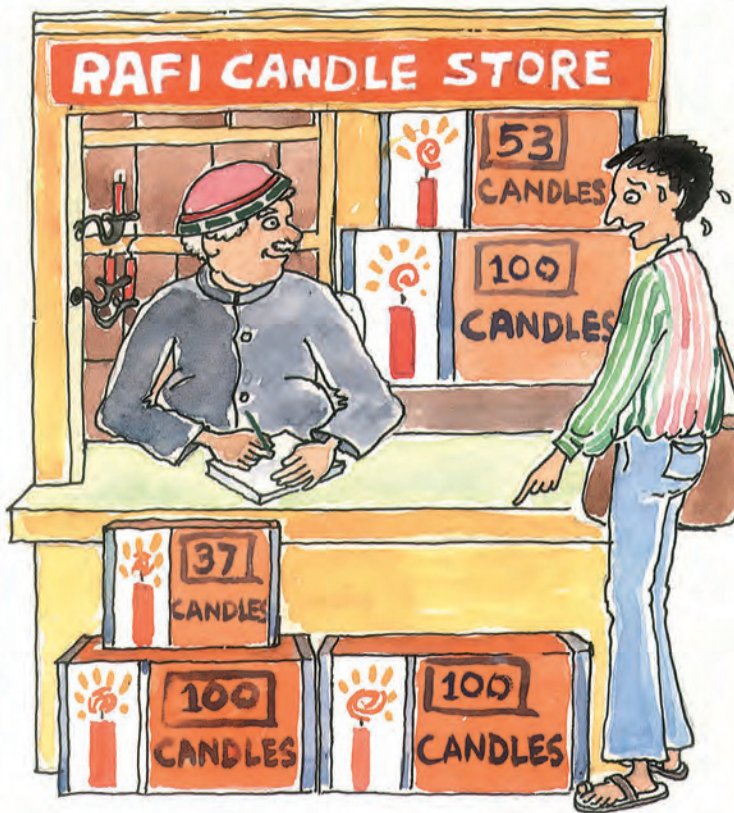
Bulbs made on
second day

+

Sum

100	10	1
2	7	0
1	2	3
3	9	3

2. A shopkeeper Rafi had 153 candles. Paras gave him 237 more candles. How many candles does Rafi have now?



$$237 + 153 = ?$$

Is the sum more than 400
or less than 400?



Solution:

100	10	1
2	3	7
+	1	5
		3
Sum		

Work out the following story problems in the same way.

Read each problem and say it in your words.

Guess the answer before writing it.

- A. A train compartment is carrying 132 people. Another compartment is carrying 129 people. In all, how many people are there in both the compartments?



- B. Shanu found 138 pebbles.
Karim found 44 pebbles.
How many pebbles did they find in all?

$$\begin{array}{r}
 \begin{array}{|c|c|c|} \hline 100 & 10 & 1 \\ \hline 1 & 3 & 8 \\ \hline + & 4 & 4 \\ \hline & & \\ \hline \end{array} \\
 \end{array}$$



- C. A teacher kept a note of which fruits students like in her school. This is what she found:

Students	Oranges	Mangoes	Total
Girls	136	240	
Boys	128	243	
Total			



Find out:

- How many students in the school like oranges? 
- How many students in the school like mangoes? 
- Altogether, how many students are there in the school?
- Is the number of girls more than 350 or less than 350?



Practice Time



A. (i) $345 + 52$

(iv) $643 + 345$

(ii) $492 + 29$

(v) $750 + 219$

(iii) $245 + 93$

B. 319

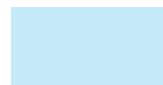
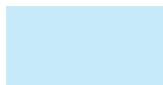
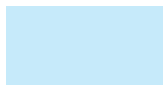
804

363

$+ 823$

$+ 406$

$+ 456$

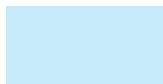
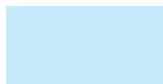


427

684

$+ 248$

$+ 232$



Puzzle



Addition is my best friend
We never have a fight
When I am done
Call out to him
And check if I am right



MIND BUS GAME :

Two friends play this game. You look at the bus. Some people come in (+) and some leave (-) at each bus stop. How many are there in all? Solve in your MIND! Discuss your answer. The friend who gets the right answer first wins some points. List down your points. Add to find who wins the most!



Work out four different ways to write the numbers.



If you add all the numbers in the first box, you will always get 59.

59
50 + 9
30 + 29
19 + 40
59 + 0

78
+
+
30 +
+

83
+
+ 43
+
+

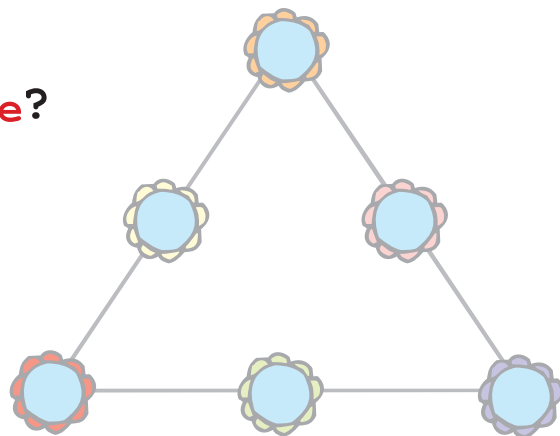
99
+
+ 39
+
+

102
+
+
+
+ 50

168
+
+
+ 68
+

Can You Solve this **PuZZle**?

Write the numbers 1, 2, 3, 4, 5, 6 in the circles, so that the sum of the numbers on each side of the figure is 12.



Find Mithoo's Bag

Do all the sums mentally:



a) $75 + 20 =$

95

g) $670 + 120 =$

b) $90 + 60 =$

150

h) $380 + 210 =$

c) $25 + 30 + 3 =$

i) $205 + 650 =$

d) $9 + 40 + 31 =$

j) $128 + 600 =$

e) $500 + 200 =$

k) $150 + 69 =$

f) $400 + 350 =$

l) $37 + 46 + 3 =$

Find Mithoo's bag and check your answers.

Draw a line through the numbers which are answers written in the boxes above.

95	150	73	428	59
80	58	590	855	615
700	750	790	728	155
341	212	93	219	47
100	99	120	86	200

Card Game

One day Bubbly and Gopu were playing. Bubbly gave three number cards to Gopu. He arranged the cards in two ways.

Can you arrange these cards other than these two ways?



Bubbly arranged them this way:

$$\begin{array}{ccccc} 120 & + & 30 & = & 150 \\ 30 & + & 120 & = & 150 \end{array}$$

Isn't it interesting?

You can also play it. Here are the cards for you. Work out the combination. Place the cards in the right boxes.

a)

50		70		20
	+		=	
	+		=	

50		20		70
	-		=	
	-		=	

b)

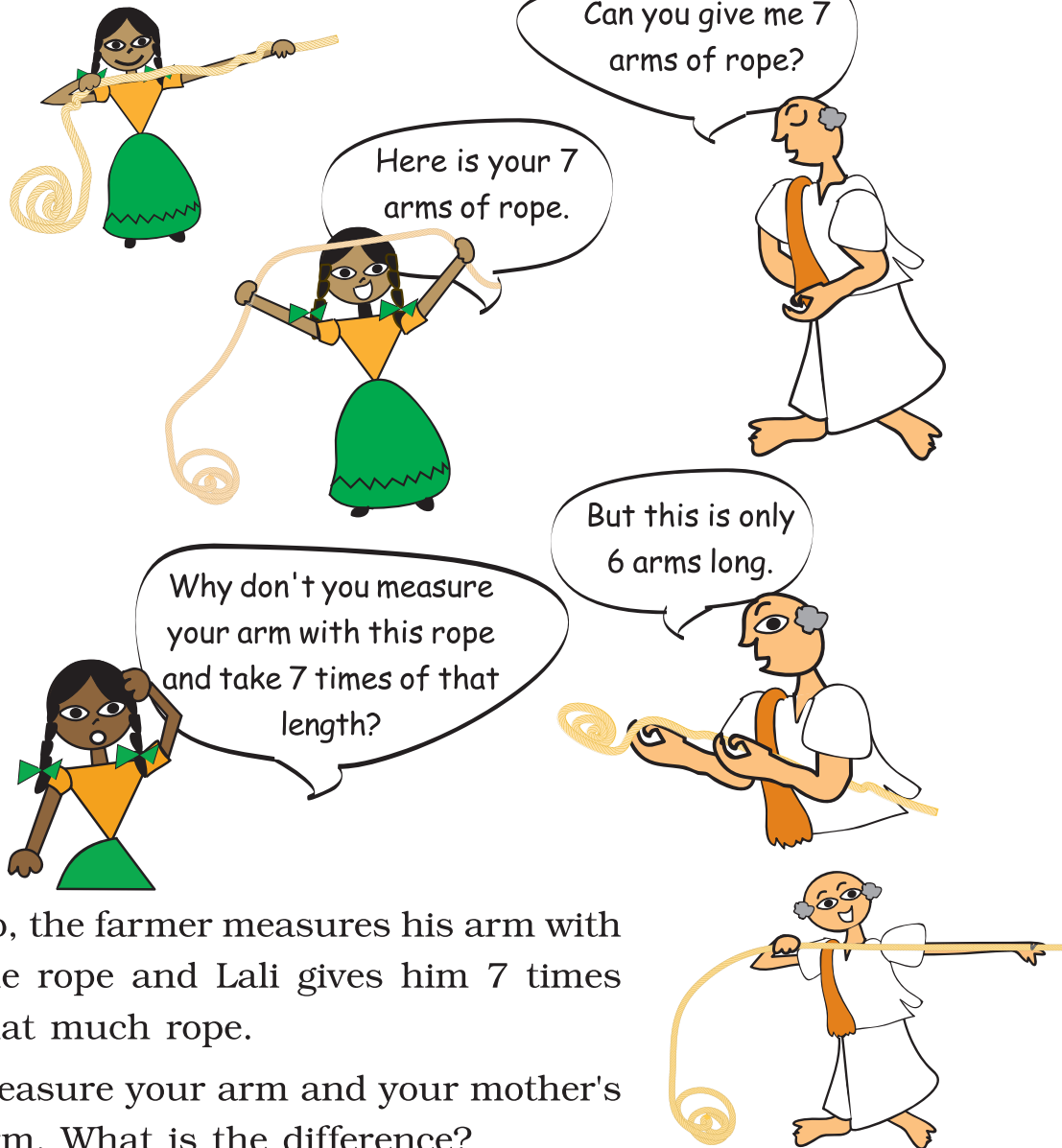
30		42		12
	+		=	
	+		=	

30		42		12
	-		=	
	-		=	

4 Long and Short



Lali is selling things at her father's shop.
A farmer comes to buy rope.

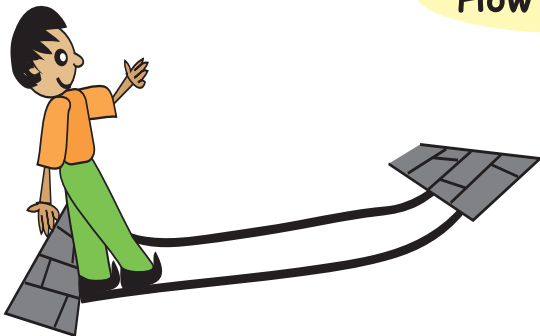


So, the farmer measures his arm with the rope and Lali gives him 7 times that much rope.

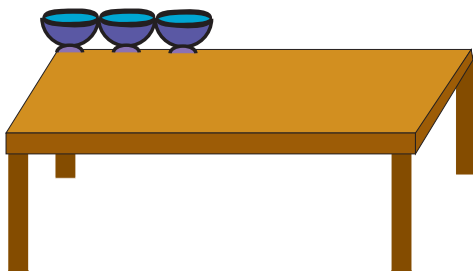
Measure your arm and your mother's arm. What is the difference?

Children should be encouraged to look around and see how lengths of different things are measured in different ways using local or non-standard units. For example, rope, garlands or cloth may be sold by the cubit, handspan, fingers, etc. They also need to do activities of measuring lengths (and distances) with their own body parts.

How Many?

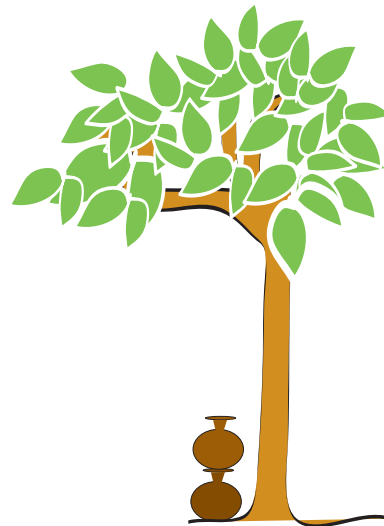


* In how many steps will Dorji cross the road?

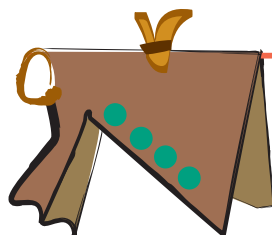


* How many cups can be placed in a line on this table?

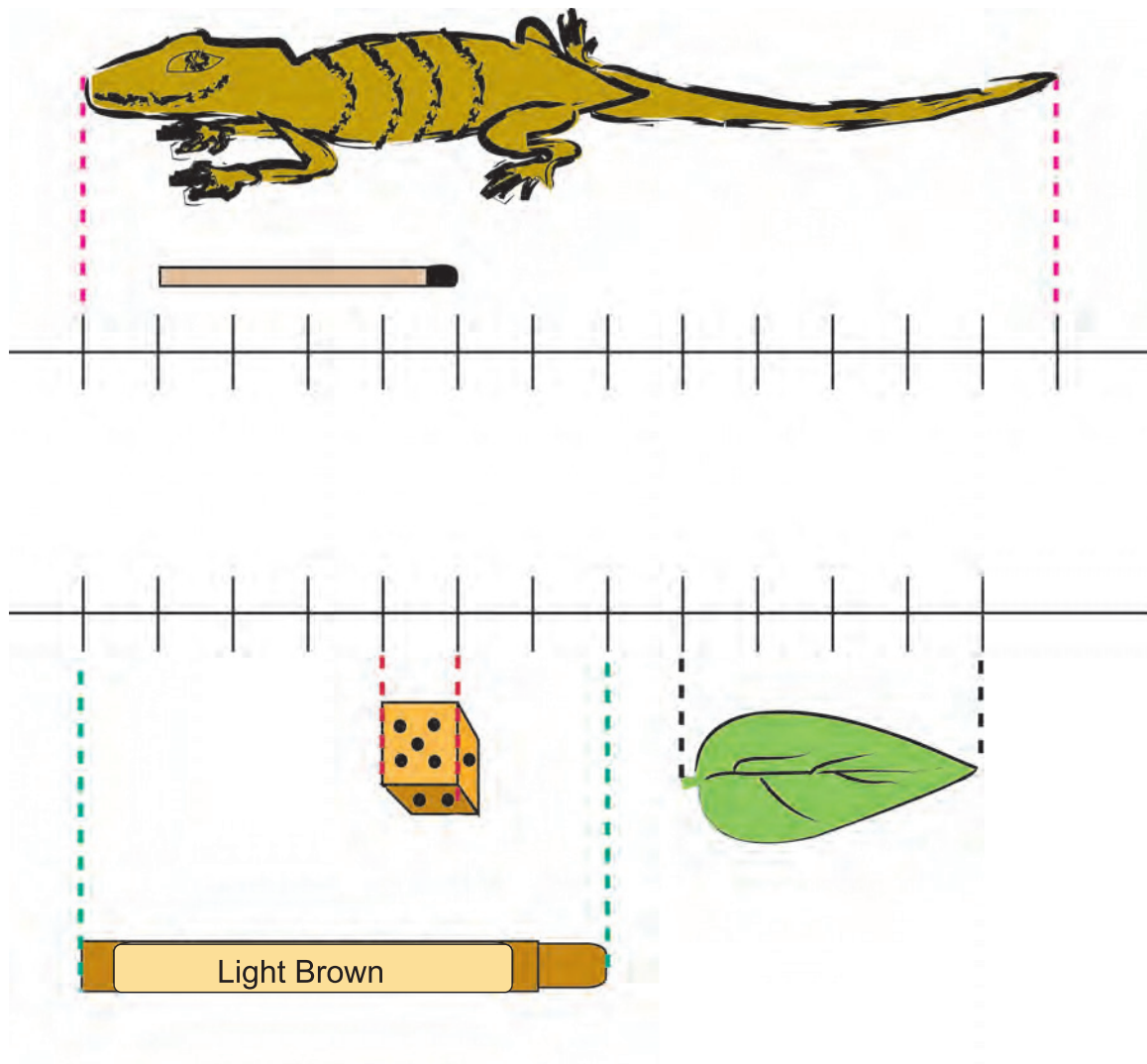
* How many pots can be placed to reach the tree branch?



* How many shirts can be hung on this wire?



How Much is a Centimetre (cm)?



The matchstick is 4 centimetres long.

The die is 1 centimetre from every side.

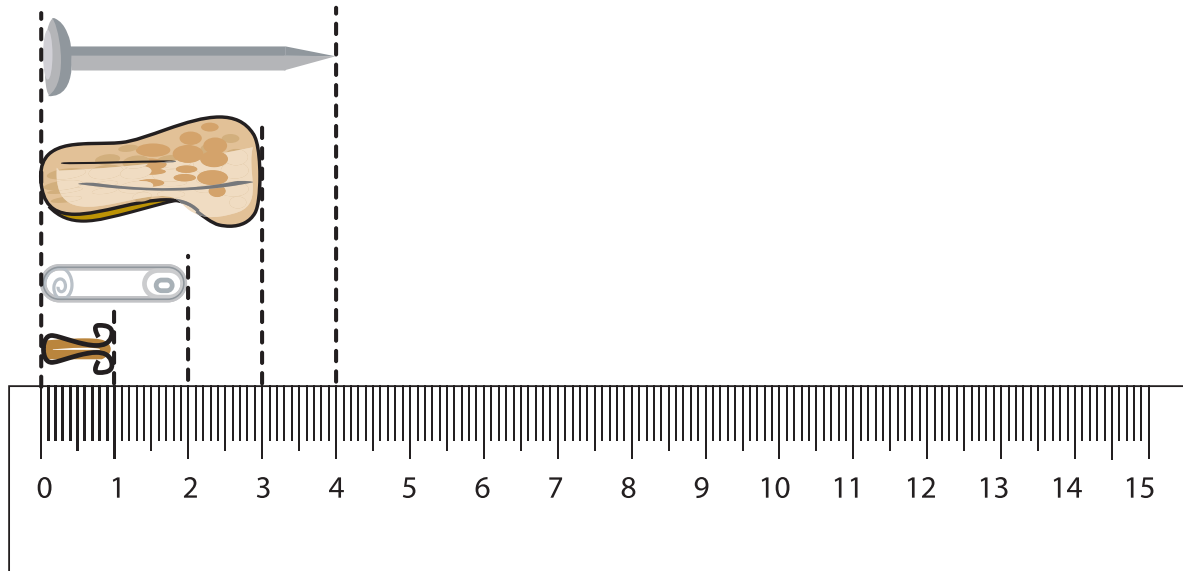
The lizard is 13 centimetres long.

The leaf is _____ centimetres long.

The wax colour is _____ centimetres long.

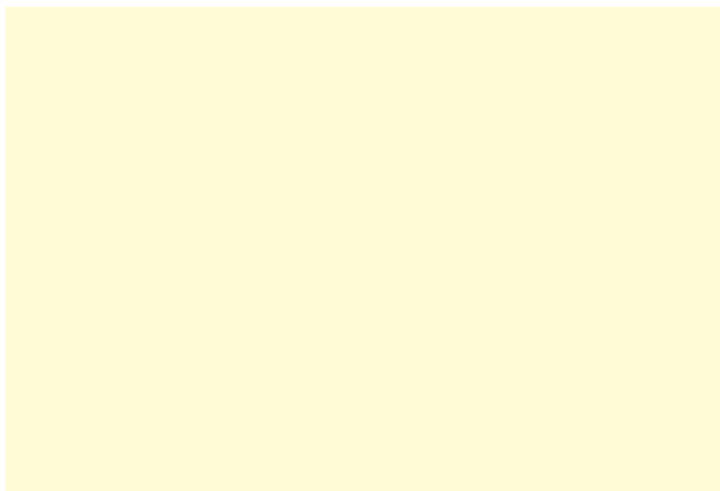
Now, look at a scale that you find in a geometry box. How many centimetres does it have? _____

The small scale that you mostly use in school is like this one.

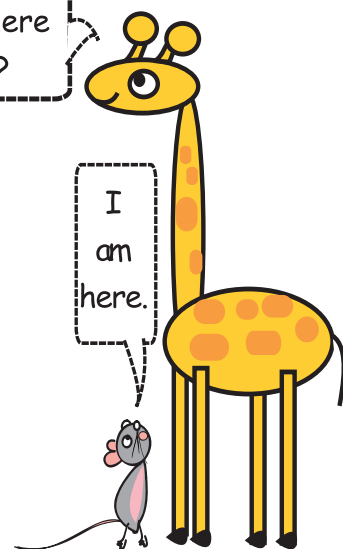


Is it easier to start measuring from the 0 mark? Look at the things drawn near the scale and find out their lengths.

- * What are the little lines on the scale used for?
- * Look for things that are
 - * About 10 centimetres long
 - * Between 10 and 20 centimetres long
 - * Less than 1 cm long.
- * Draw some of them here.



Mouse! Where are you?



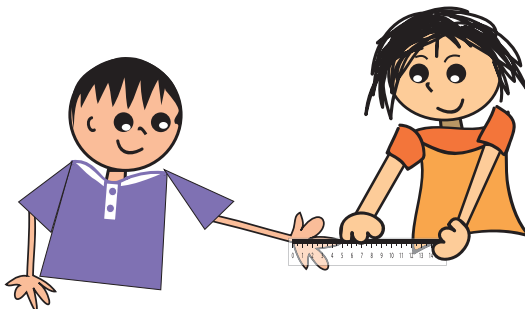
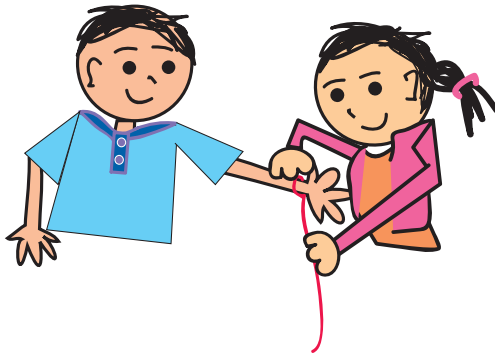
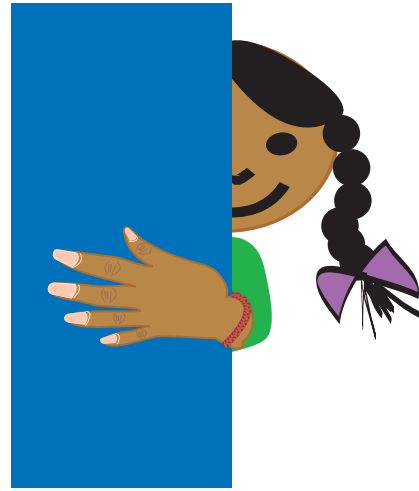
How Big is My Hand?

Measure the length of your thumb and your little finger. Use the scale on this page.

Which is longer? Thumb or little finger?

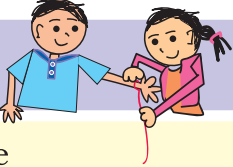
Bring a measuring-tape to your class.

Guess the length of different parts of your body and check if your guess is correct. You can use a scale, string, measuring-tape etc.



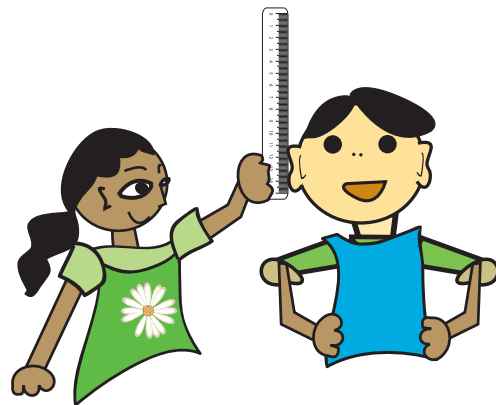
Think

– How will you know the number of centimetres if you measure with a rope, shoe-string, thread etc.?

	My measurement	My friend's measurement
Nose	_____ centimetres	_____ centimetres
Around the wrist	_____ centimetres	_____ centimetres
Around the head	_____ centimetres	_____ centimetres
Ear	_____ centimetres	_____ centimetres
Hand (tip of middle finger to wrist)	_____ centimetres	_____ centimetres

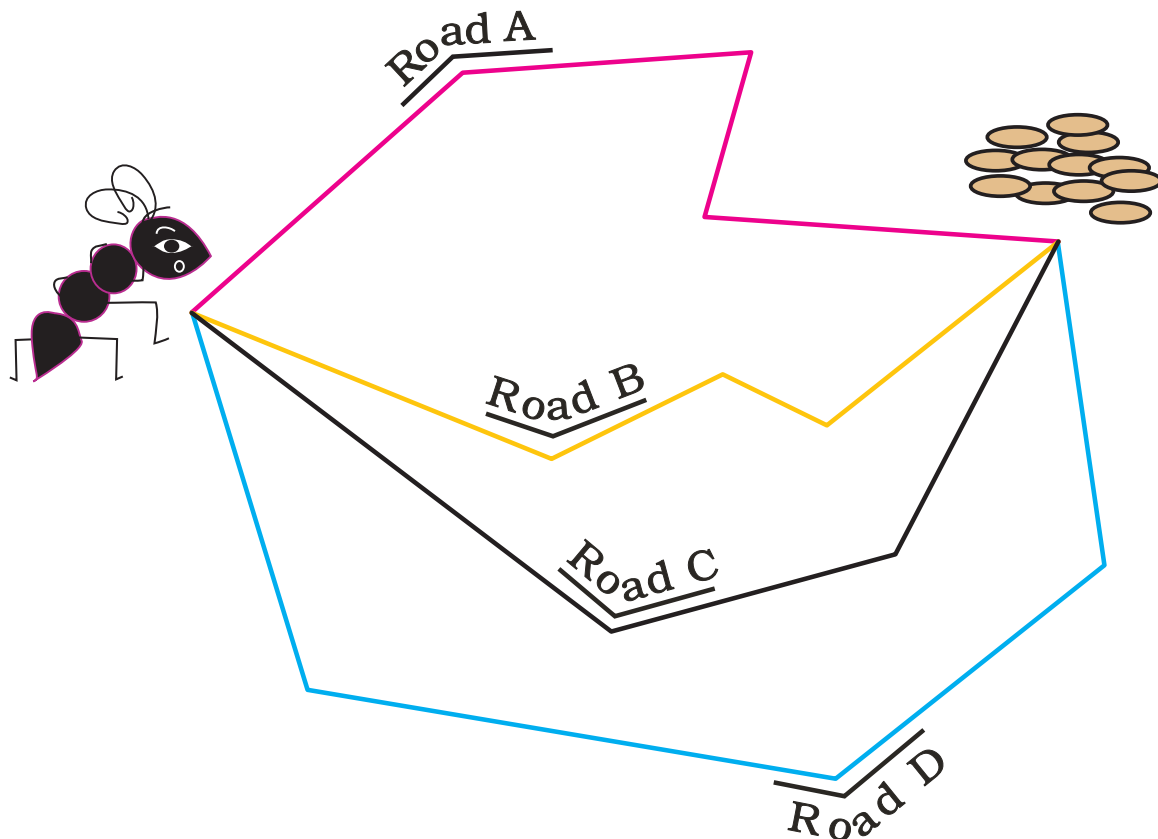
Compare your measurement with your friends'.

- Who has the biggest head and who has the smallest head? _____, _____
- Who has the longest hand (from middle finger to wrist)? _____
- Which is longer? Your ear or your nose? _____
- Is any of your nails more than 1 centimetre long? _____



Gibli and the Grains

Ant Gibli has to reach the grains. She is looking for the shortest road. Can you tell her which is the shortest?

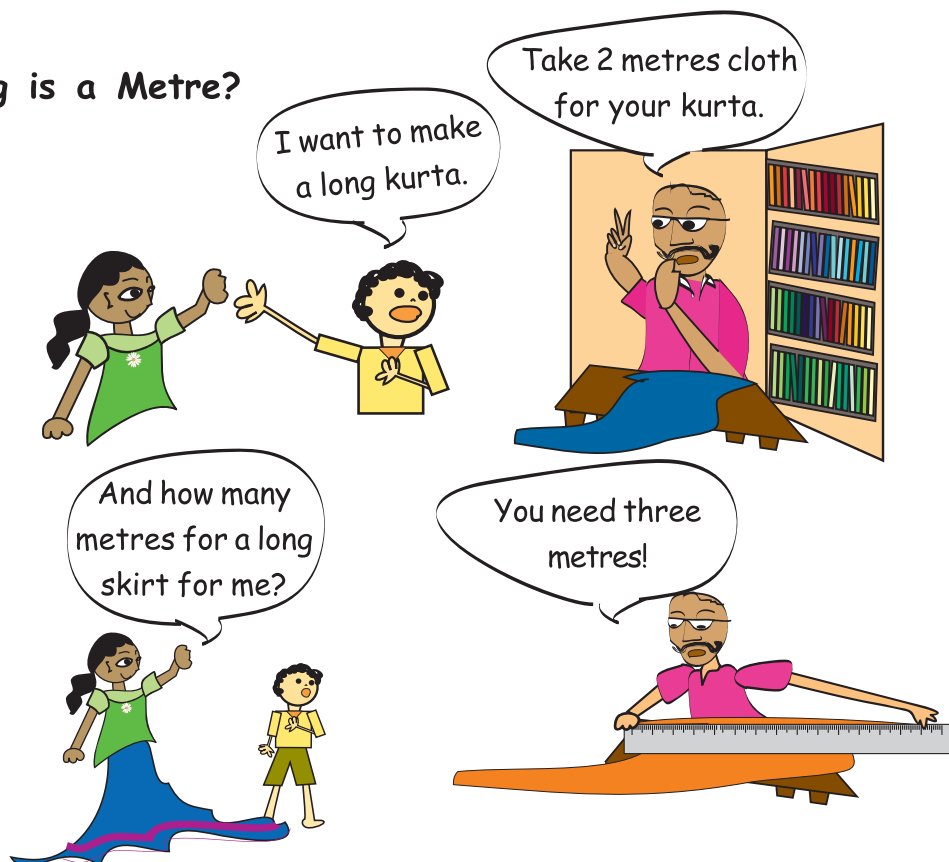


Can you draw a road shorter than these? What is the length of that road? _____

It is more important for children to be able to get an estimate of a metre as related to known things, such as, their own heights, rather than do tedious exercises of converting metres to centimetres, etc. Children at this stage may not be able to perceive of bigger units such as a kilometre. They must be encouraged to speak of a kilometre in the context of a story or narrative. The Map of Agra is an exercise with a narrative involving children, with familiar images (icons) to help the initial understanding of mapping in 2 dimensions.

How Long is a Metre?

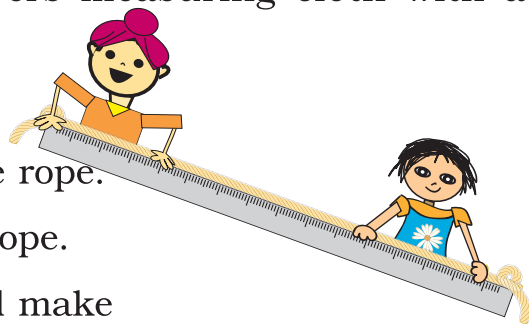
A metre is equal to 100 centimetres



Let Us Make a Metre-rope

You must have seen shopkeepers measuring cloth with a metre rod.

- ❖ Use a metre rod and a rope.
- ❖ Make a knot at one end of the rope.
- ❖ Keep the metre rod with the rope.
- ❖ Mark 1 metre on the rope and make a knot there.
- ❖ Now the length between the two knots is 1 metre. This is your metre-rope.



If you don't get a metre rod use a measuring-tape and mark 100 centimetres on the rope. 100 centimetres are equal to a metre, so you get the metre-rope.

Guess and Check



Activity 1

- ✧ Find some things that look 1 metre long.
- ✧ Use your metre-rope to find which of these things are more or less than 1 metre.

Name of the thing	More than 1 metre	Less than 1 metre
Length of table	—	—
Width of table	—	—
Width of door	—	—
Length of door	—	—
	—	—
	—	—
	—	—

Activity 2

Some Class III children have marked a 1 metre height on the wall of their class.

You can also mark 1 metre on your class wall.





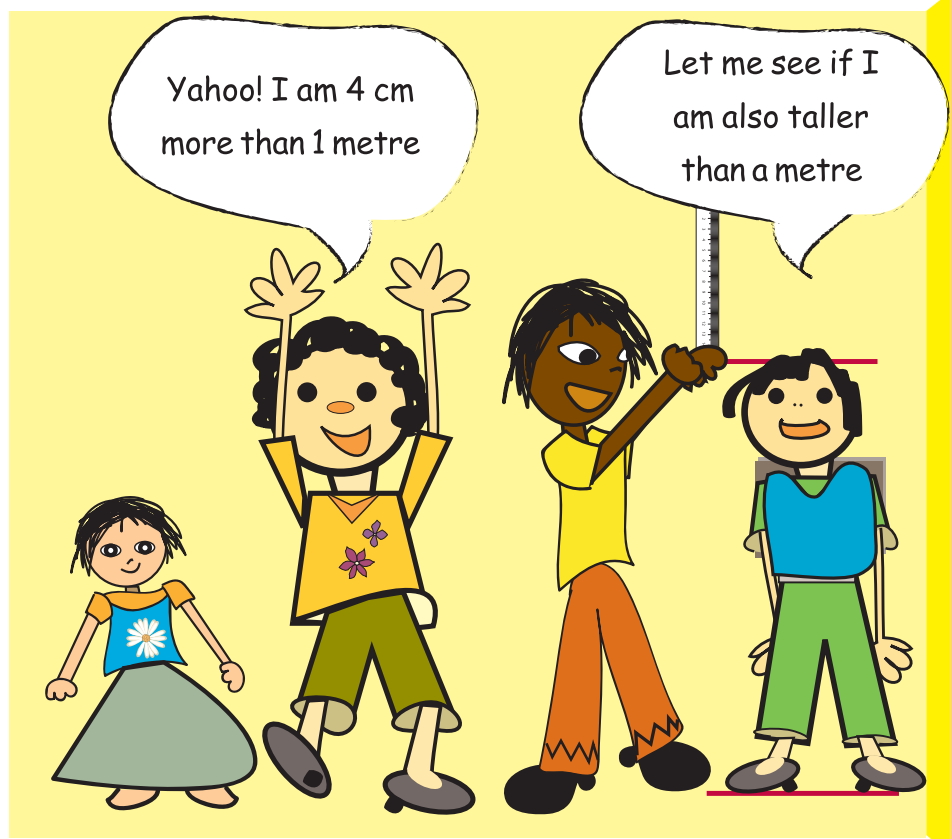
$2 \times 1 = 2$
 $2 \times 5 = 10$
 $2 \times 10 = 20$



Now make a chart of the heights of your friends.

To measure the centimetres, you can use your small scale.

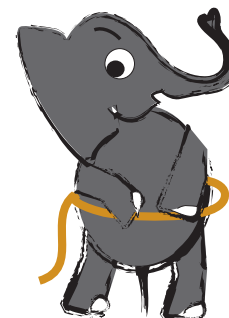
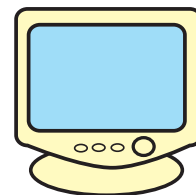
Name	Taller/Shorter/Equal to 1 metre	How many centimetres more or less than a metre
Shambhu	Taller	4 centimetres
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____



Centimetres or Metres?

Which of these will be in centimetres and which will be in metres?

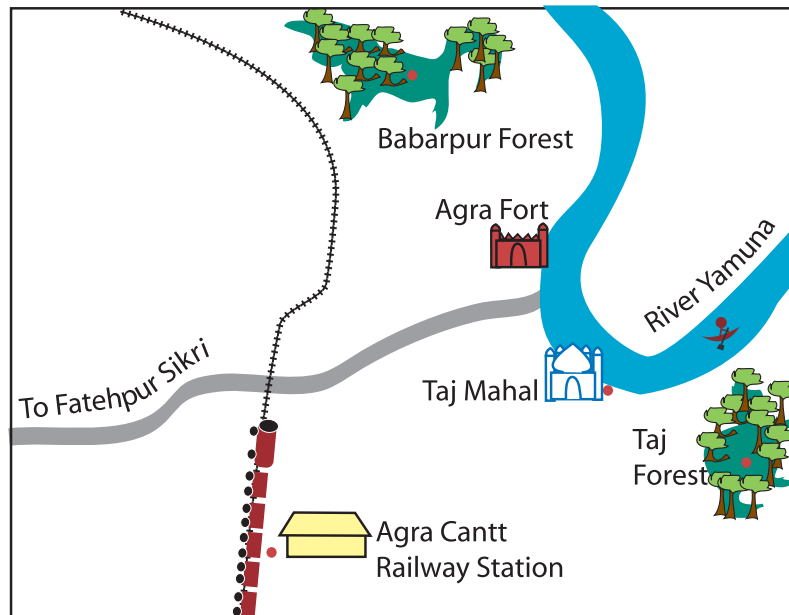
- * Width of a computer screen
- * Length of a Pagdi worn by Sikhs
- * Height of a 1-year old child
- * Length of a banana
- * Waist of an elephant
- * Height of a sugarcane
- * Depth of a well
- * Height of your mother
- * Distance from classroom to school gate
- * Length of your father's arm.



Trip to Agra

Marie and Baichung are going with their family to Agra. They get down at Agra Cantt. Railway Station and take a rickshaw to Taj Mahal. After 3 hours, they start for Agra Fort, again in a rickshaw. In the afternoon they take a bus to go to Fatehpur Sikri.

MAP OF AGRA



Now look at the distances between these places (for kilometres we write km).

- ❖ Agra Cantt. Railway Station to Taj Mahal – 5 km
- ❖ Taj Mahal to Agra Fort – 2 km
- ❖ Agra Fort to Fatehpur Sikri – 40 km

Now find from the map

- ❖ Which is farther from Agra Cantt. Railway Station — Taj Mahal or Fatehpur Sikri?

||||| shows the railway line.

Which of these is nearer to the railway line:

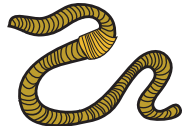
- ❖ Babarpur forest or Taj forest?
- ❖ Agra Fort or Taj Mahal?

Which is closer to the river Yamuna:

- ❖ Taj Mahal or the Railway Station?

Match the Correct Length

Draw lines to match each picture with how long it can be.



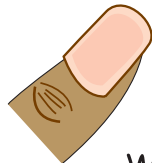
Length of an earthworm

2 kilometres



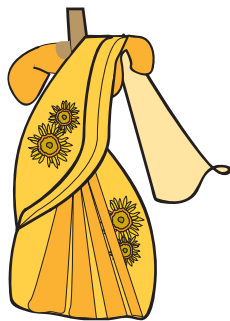
Height of a child

5 metres



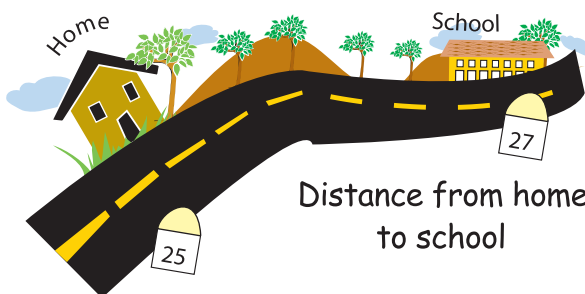
Width of a finger nail

10 centimetres



Length of a Sari

1 centimetre

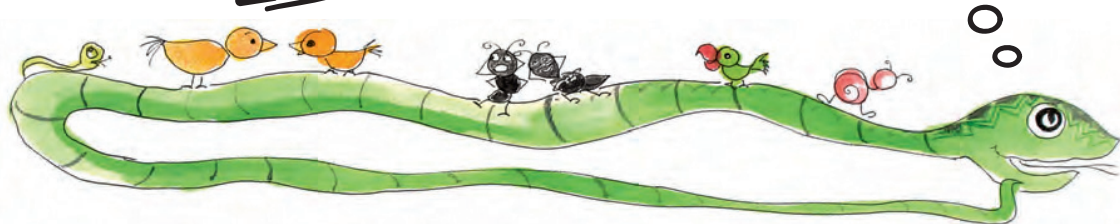
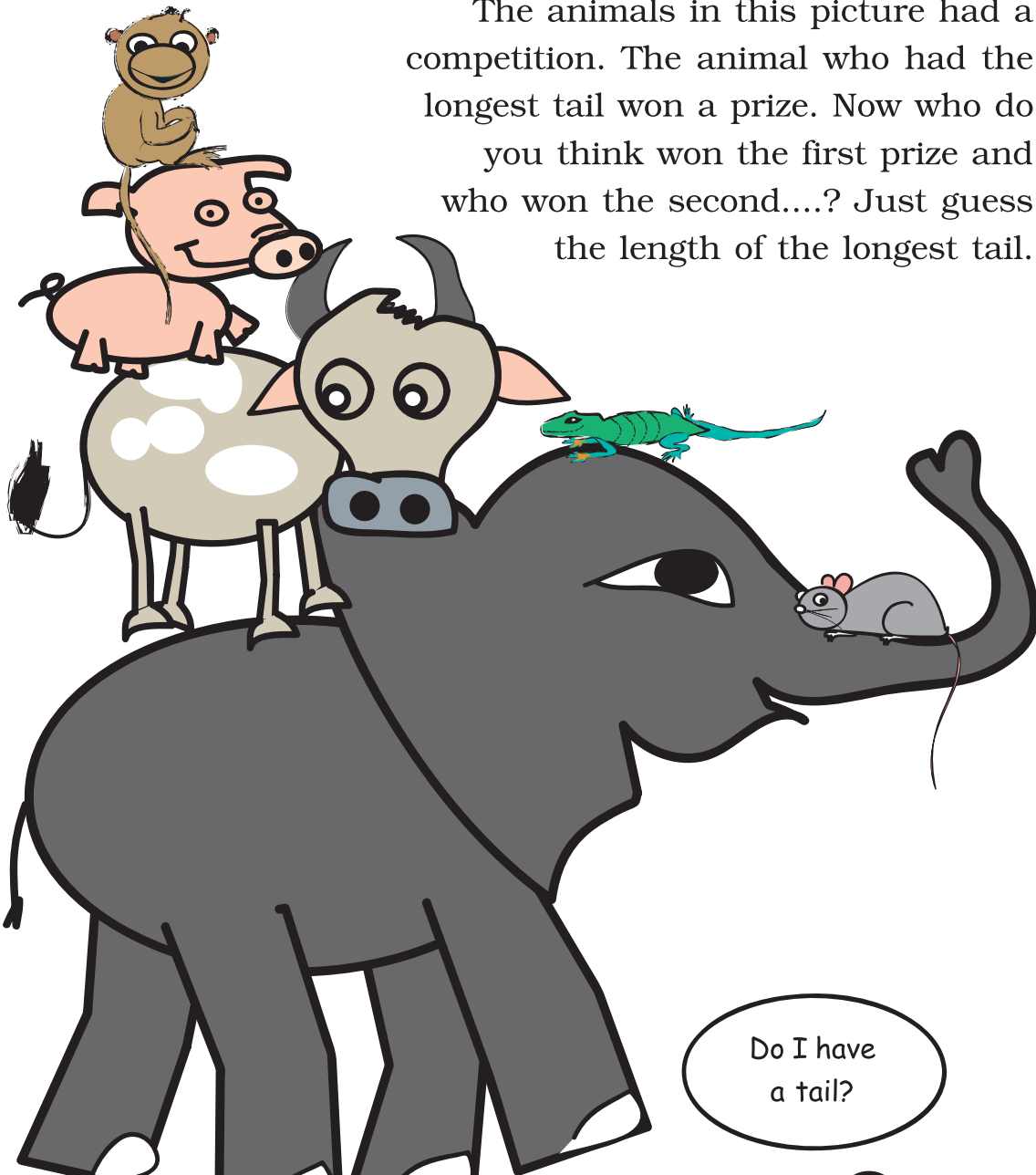


Distance from home to school

1 metre

The Long Tail Competition

The animals in this picture had a competition. The animal who had the longest tail won a prize. Now who do you think won the first prize and who won the second....? Just guess the length of the longest tail.

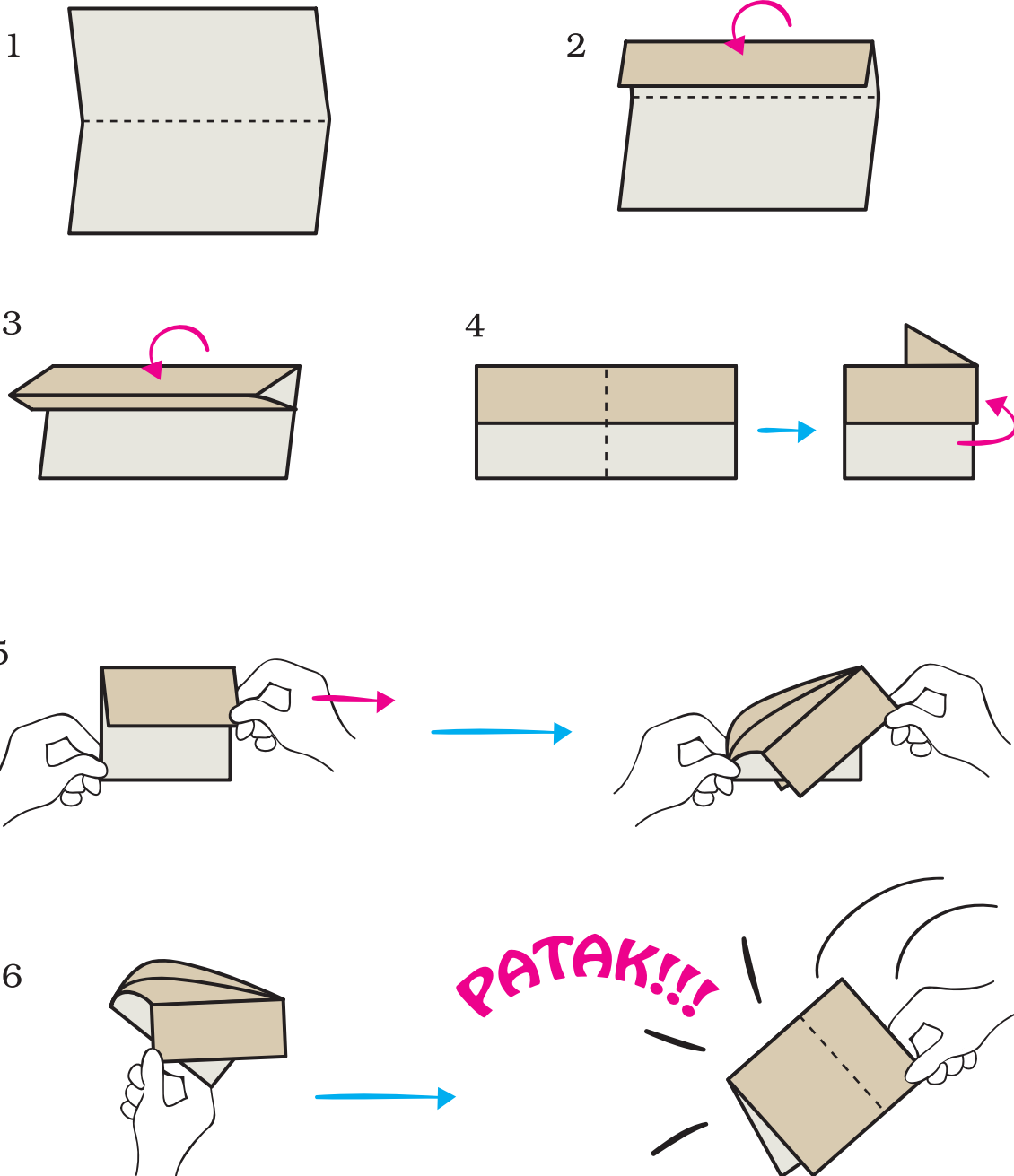


5

Shapes and Designs



Make a Clapper





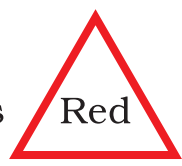
$2 \times 1 = 2$
 $2 \times 5 = 10$
 $2 \times 10 = 20$



Have Fun with Shapes

Colour the clown following the directions given below :

Triangles



Red

Squares



Yellow

Rectangles

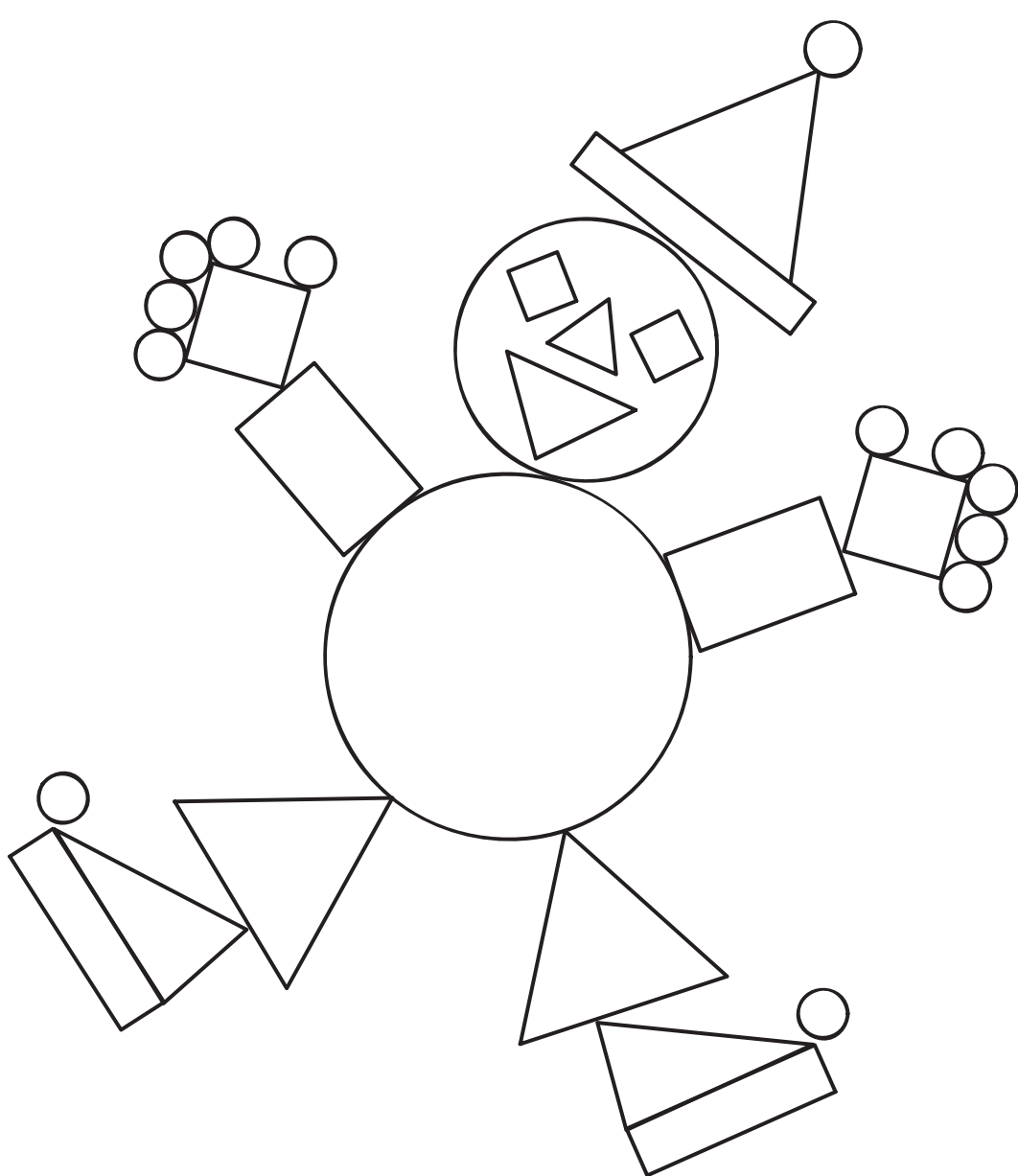


Blue

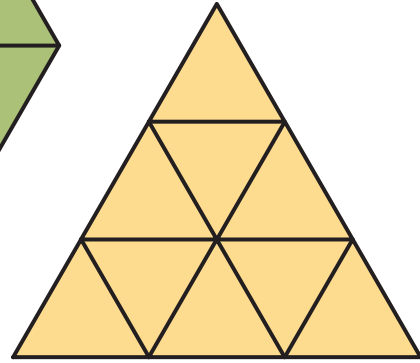
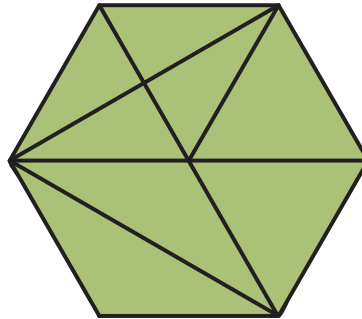
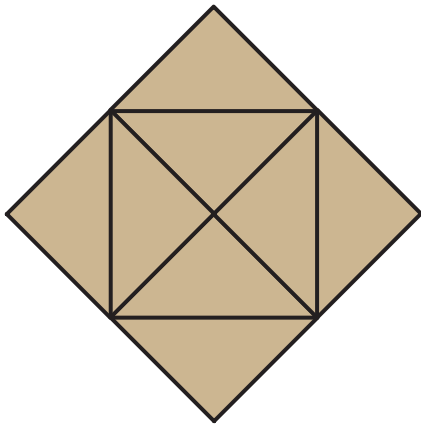
Circles



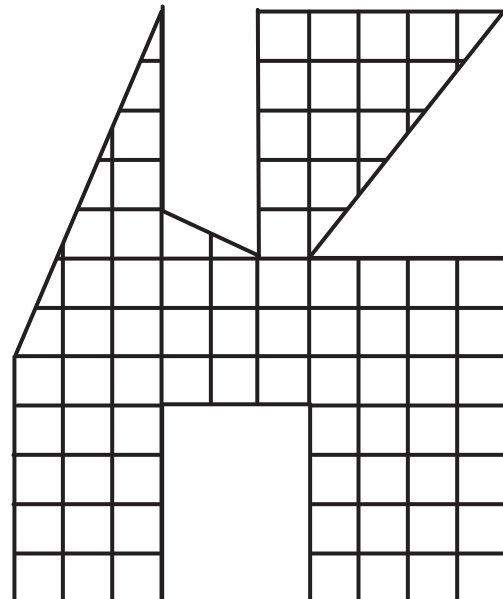
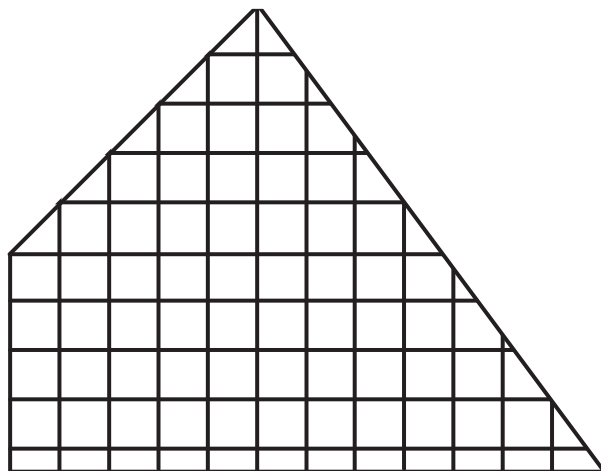
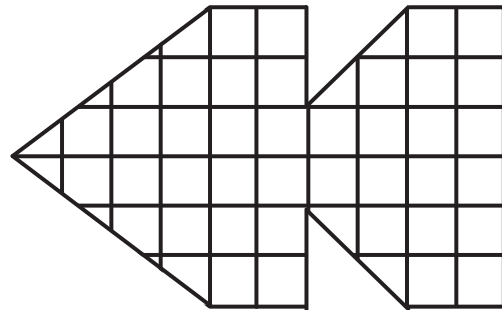
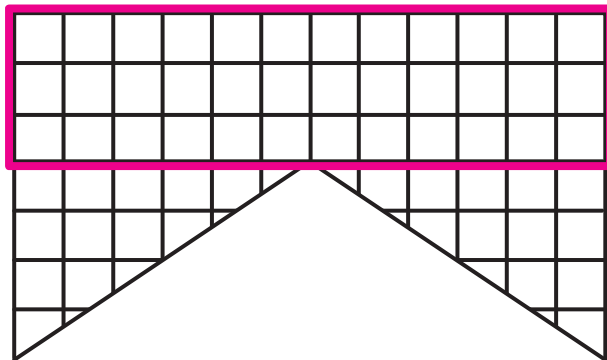
Green



How many triangles are there in the following figures?

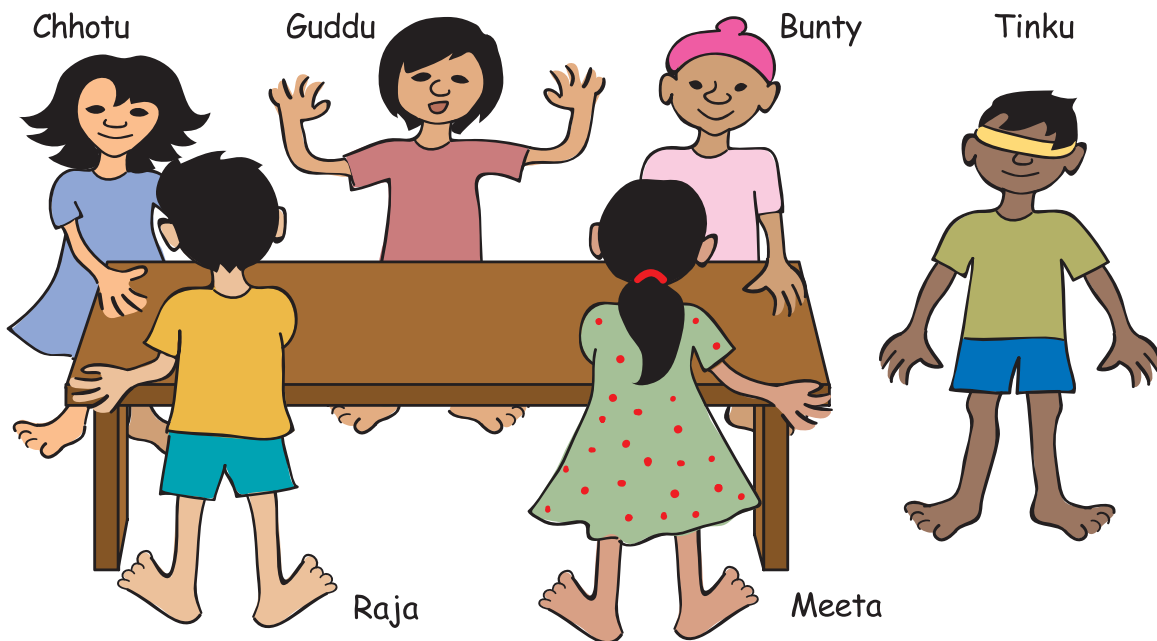


Find the biggest rectangle in the figures given below.



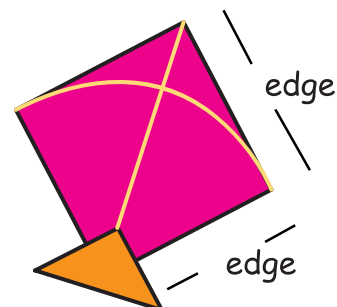
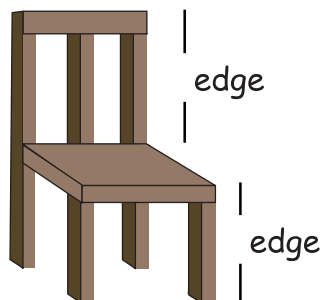
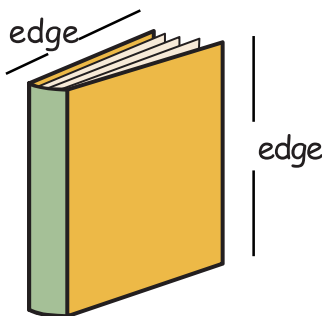
Edges and Corners

Meeta and her 5 friends were playing a game. Tinku was blindfolded and asked to keep clapping as long as he wished while the others would move round a table. The moment Tinku stopped clapping, everybody would stop wherever they were. The child who was not at a corner would be out. Then she would be blindfolded.

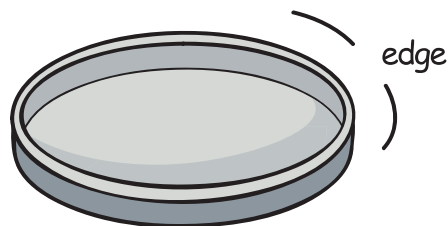
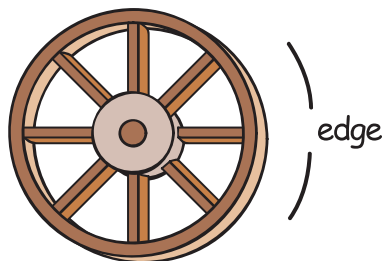


- Looking at the picture given above, can you tell who is out?
- Where is Guddu standing?
- Can this game be played around a round table? Why?

Many things around us have **straight** edges. For example:



Other things have **curved** edges. For example:



- Look around you and identify things with straight and curved edges.
- Do the things with straight edges have corners?
- Do the things with curved edges have corners?
- Try to find things which have both straight and curved edges.

Activity Time

- Take a rectangular sheet of paper.
- Count its corners.
- Now fold one of its corners.
 - How many corners does it have now?
 - How many corners will you get by folding
 - 2 corners
 - 3 corners
 - 4 corners
- Can you fold this paper in such a way that it has only three corners? You are allowed only two folds.

What shape will you get?

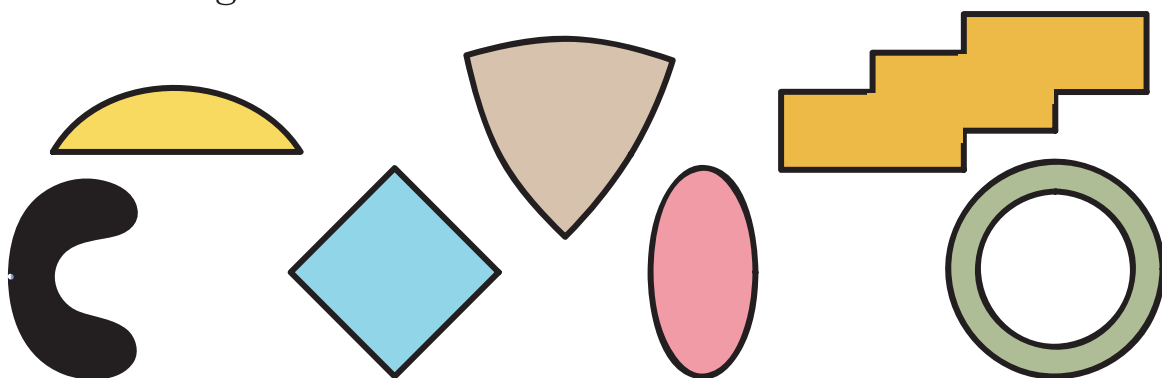
- Repeat the activity with a square sheet of paper.

5. Can you fold all the corners of the square sheet in such a way that the number of corners remains unchanged?

Look at the following table and tick (✓) the names of things that have corners. Also count the number of edges and corners in each of them.

Name of thing	Whether it has corners	Number of edges	Number of corners
Die 	Yes		8
Ball			
Eraser			
Egg			
Sheet of paper			

In the following figures, tick (✓) those which have corners.
Do these figures have curved lines?



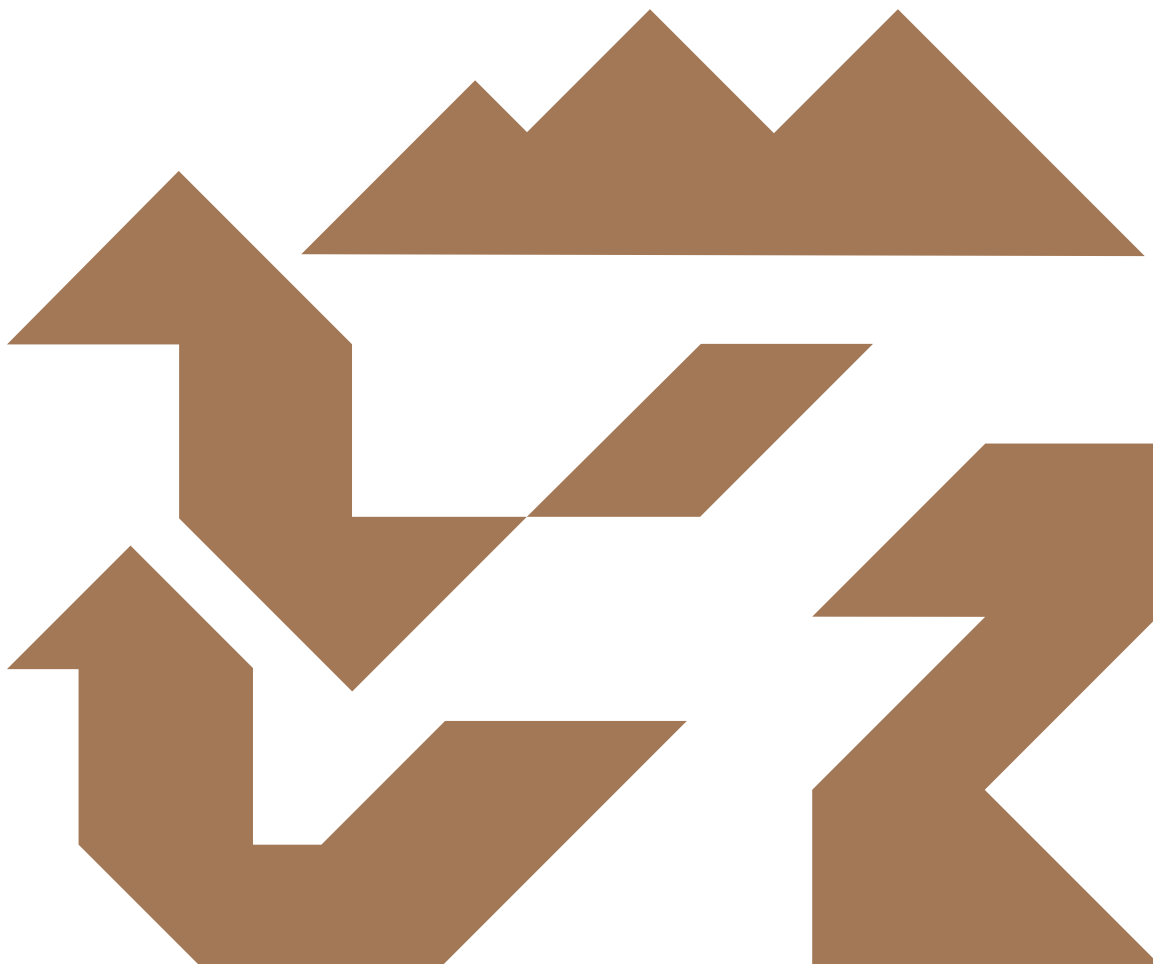
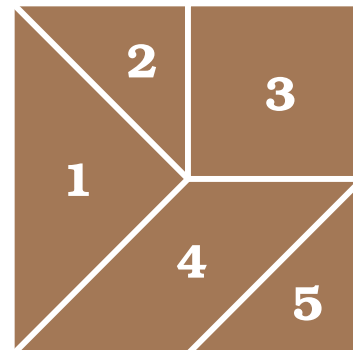
Using only straight lines, can you draw a figure which has no corners?

Tangram

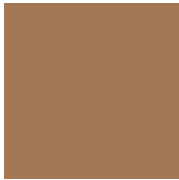
The tangram is an old Chinese puzzle. From the pieces of the tangram, we can make many shapes of animals, people and things.

At the back of the book you will find a square like the one in this figure. Cut it out carefully and cut the pieces. This set of five pieces is called the 5-piece tangram.

Use these five pieces to make the following figures:



1. How many triangles do you have in your set? Are all of them equal in size? Find out.
2. Use the two small triangles in the tangram set to get the following shapes:



(1)



(2)



(3)

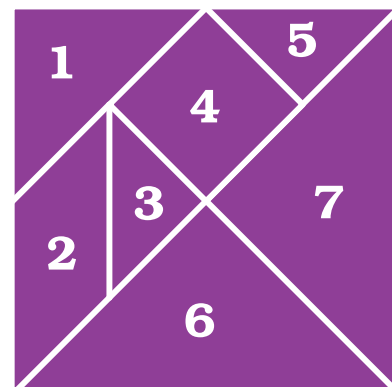
3. Which two pieces of the tangram set are exactly same? Find out.
4. Take pieces 4 and 5 from the set and find out on which side of the triangle you can join the other piece.
5. Find matching sides among the following pairs of pieces.
 - a) Pieces 1 and 2
 - b) Pieces 2 and 4
 - c) Pieces 1 and 5
 - d) Pieces 2 and 5

(See figure on page 66)

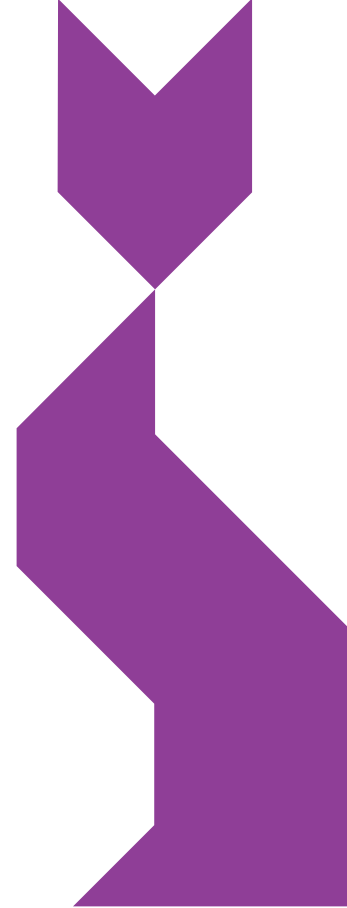
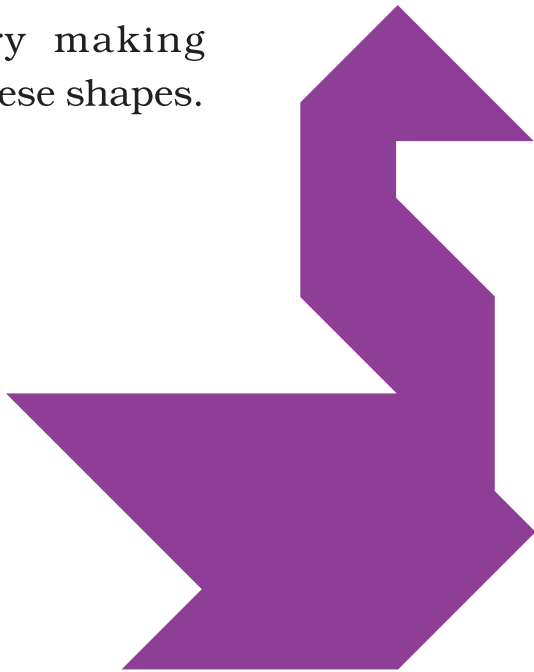
The 7piece tangram

Here is the picture of a seven-piece tangram.

You can cut out these pieces and put them together in different ways to make some very interesting shapes.



Try making these shapes.



Now try making the following shapes using only the pieces written here:

i) Use only triangles



ii) Use pieces 1, 2, 3 and 5



iii) Use only two triangles

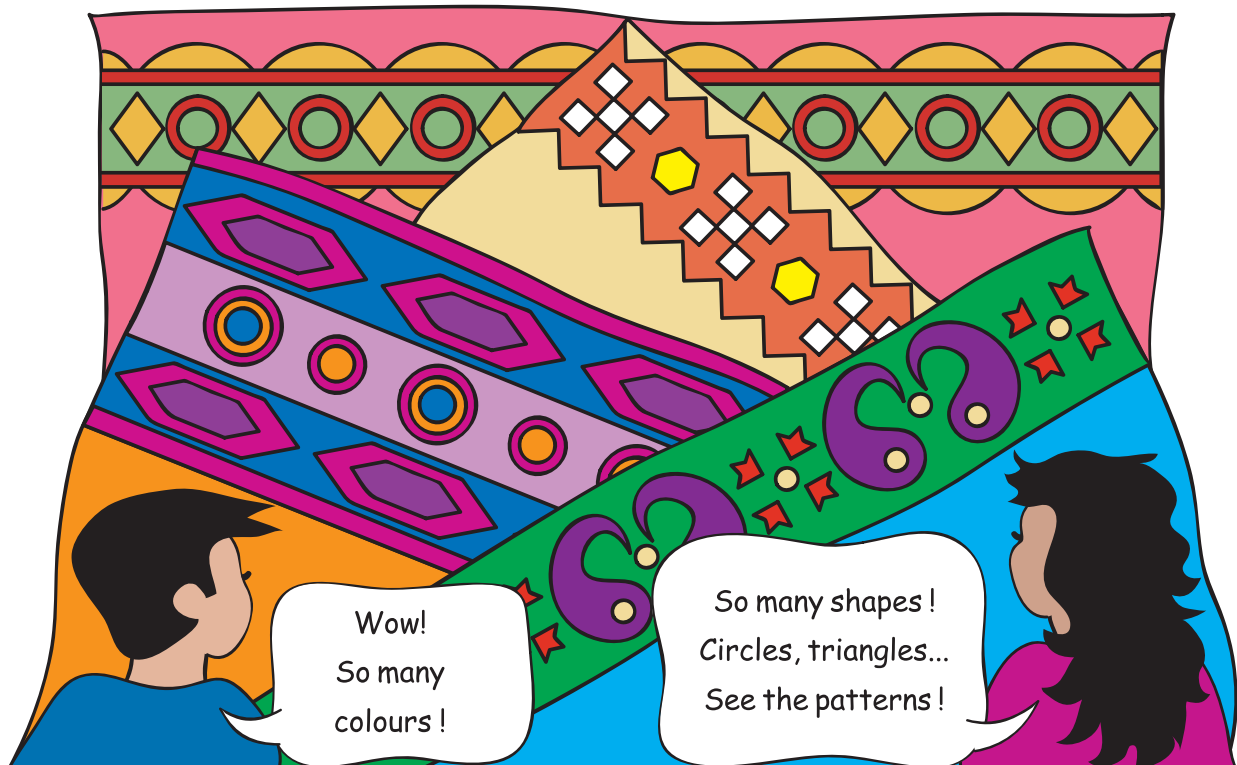


iv) Use pieces 1, 2, 3, 4 and 5



Weaving Patterns

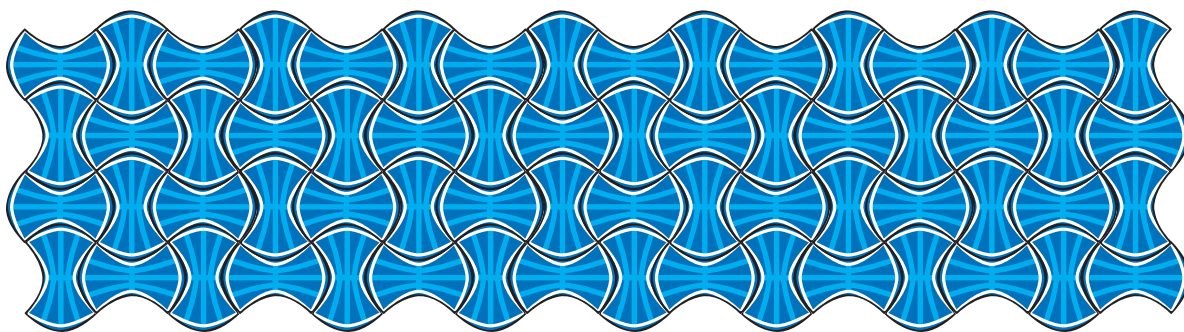
Golu and Binu went to the market with their aunt. They saw many rugs (durries).



- * Which geometrical shapes can you identify in these borders? Draw them in your notebook.
- * Is any shape repeating in a particular pattern? Which ones?
- * Are the shapes made of
 - (i) Curved lines
 - (ii) Straight lines
 - (iii) Both curved and straight lines.
- * Look at your clothes, your mother's saris/shawls, rugs and mats. Can you identify some patterns? Draw them in your notebook.

Floor Patterns

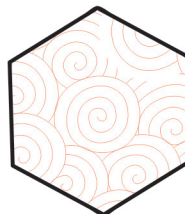
Have you ever seen a floor which has designs?



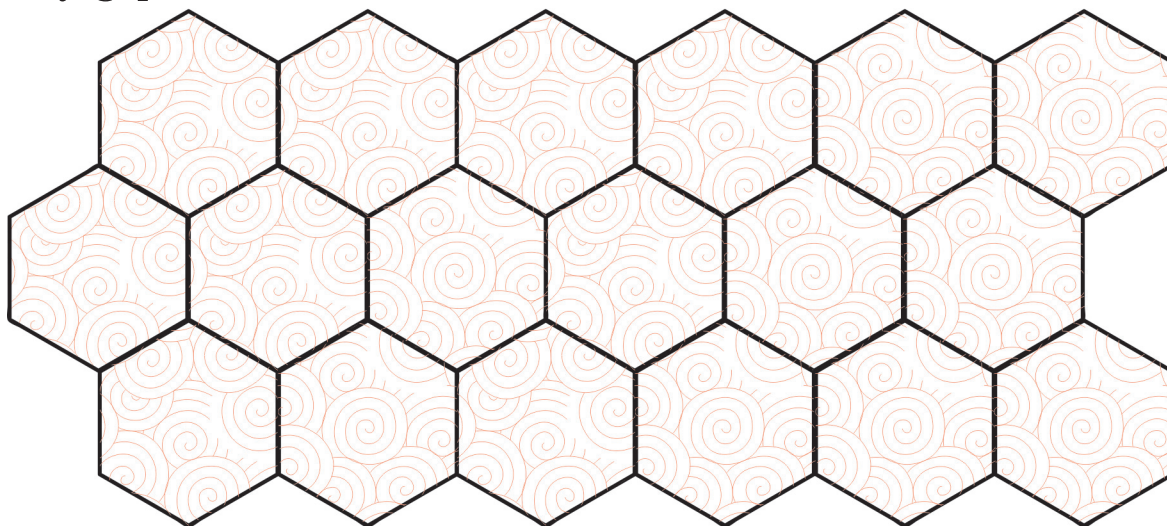
Do you know how these designs are made? These designs are made by covering the floor completely with small tiles that fit into each other without any gaps.. For example look at the shape of this tile and see how it fits.



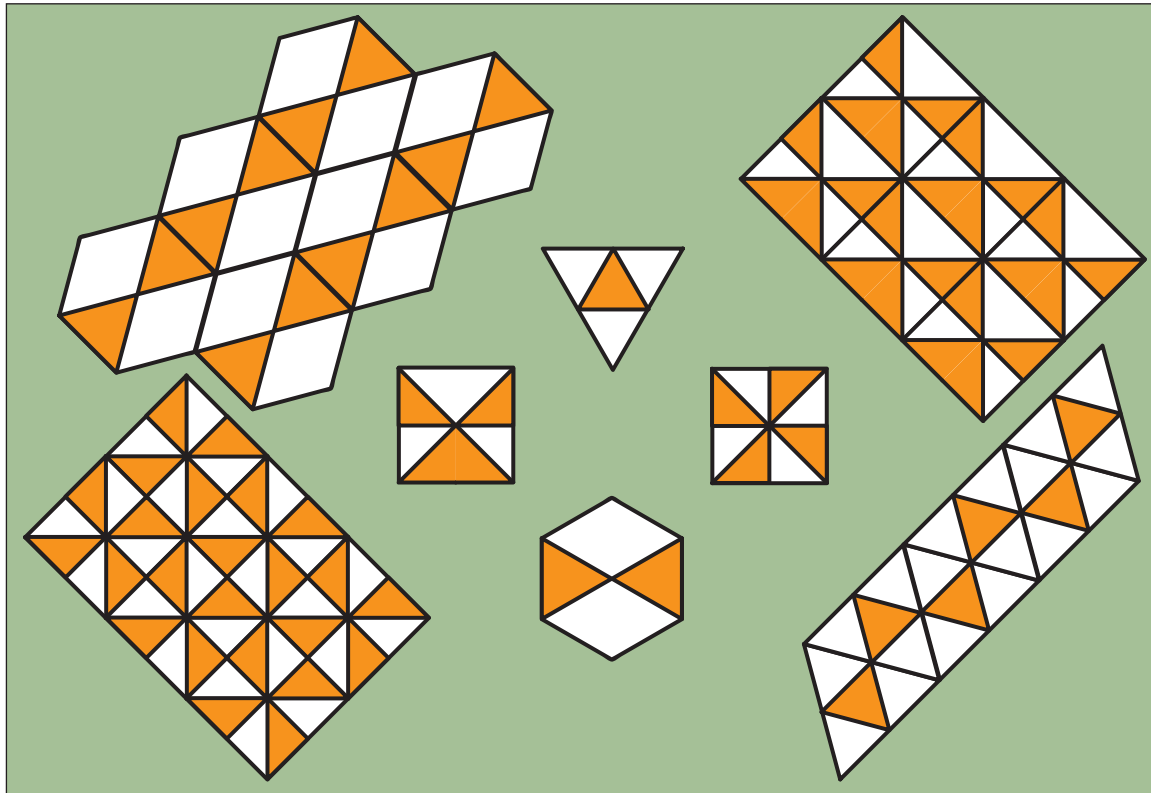
Now look at this tile with six sides.



See how tiles of this shape can cover the floor completely without any gaps.

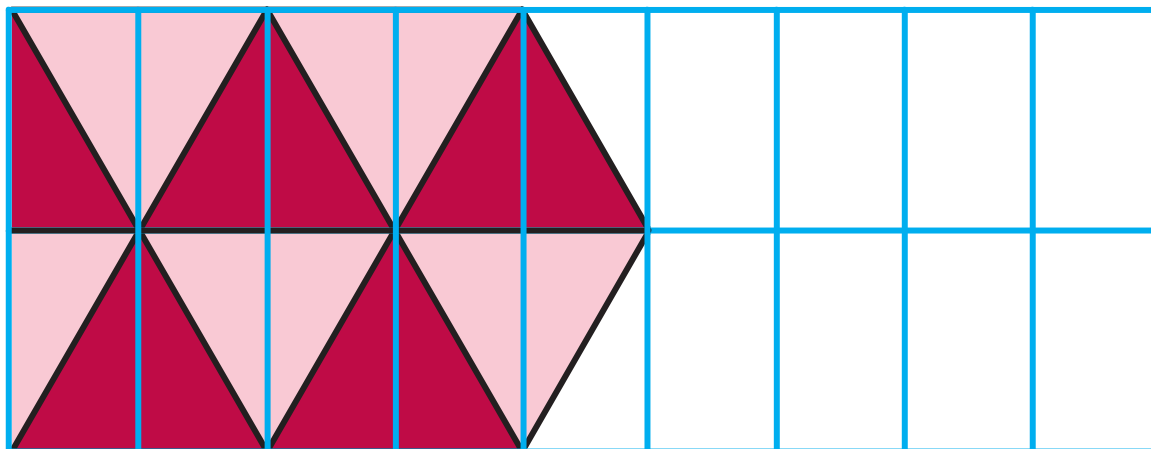


1. Among the following, can you match the tiles with the designs that they will make on the floor? Draw lines to match.

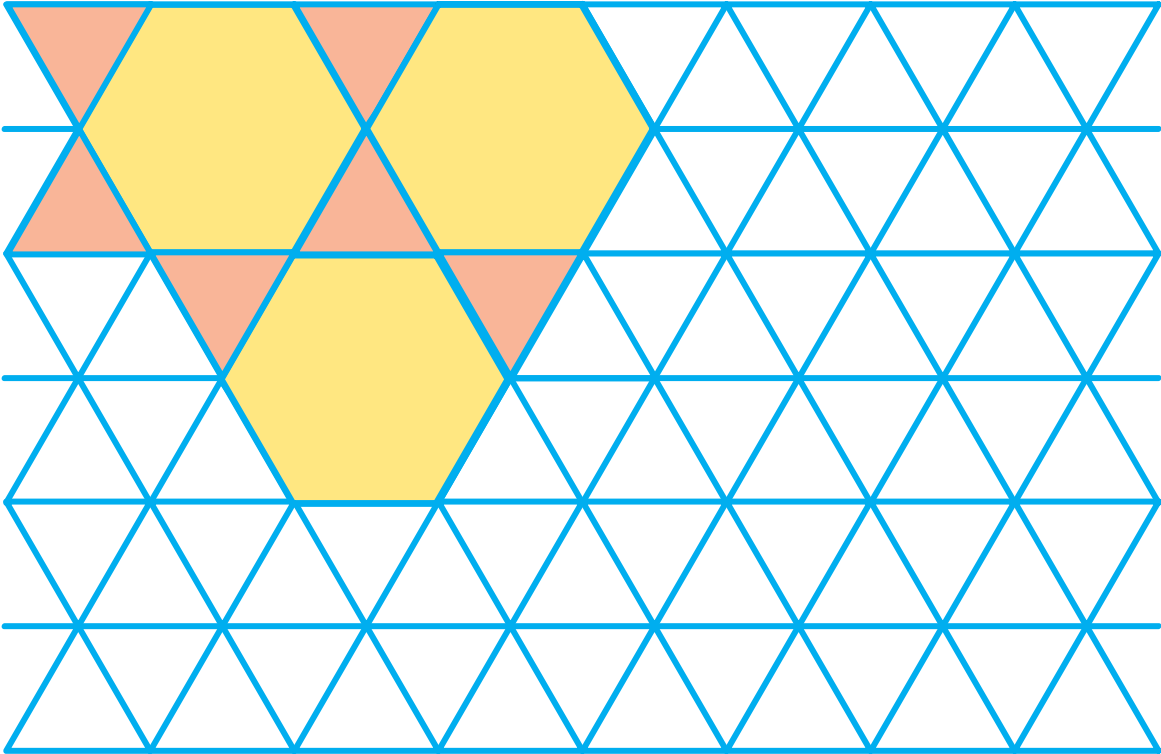


You can also make your own tiles and use them to make your own tiling patterns. You will find some such tiles at the end of the book that you can cut out, trace and colour.

2. Complete the following tiling pattern.

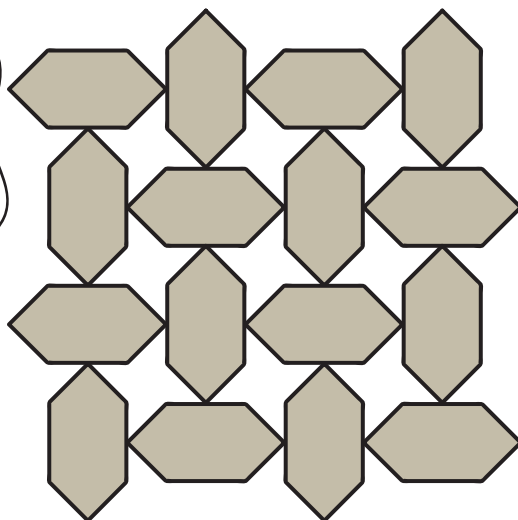
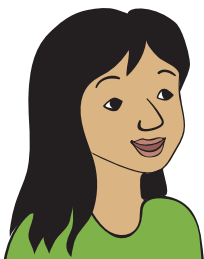


3. Complete this pattern. Compare it with the pattern on page 70 which also uses six sided shapes. What is the difference between the two?



4. Khushboo and Hariz live in Agra. One day they went to see the Taj Mahal. The floor had the pattern shown below:

I can see two different tiles in this pattern.



I think only one type of tile has been used.

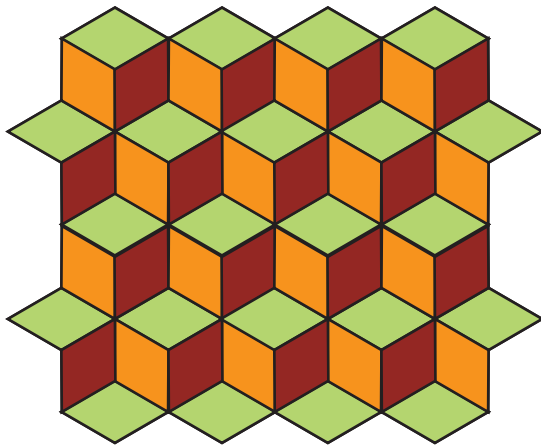


What do you think? Discuss with your friends.

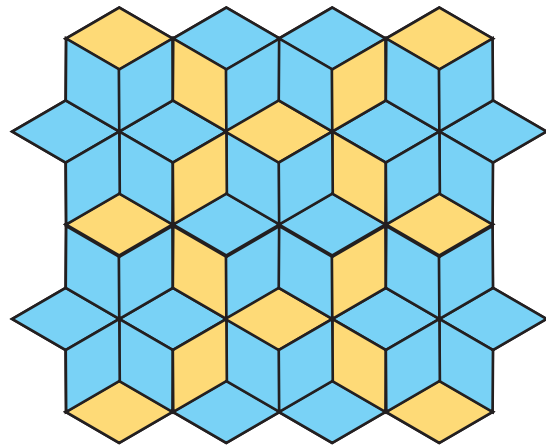
Tiling Time

The patterns below are made from this tile. 

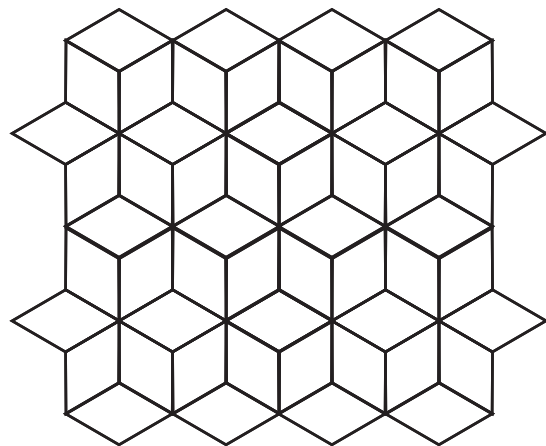
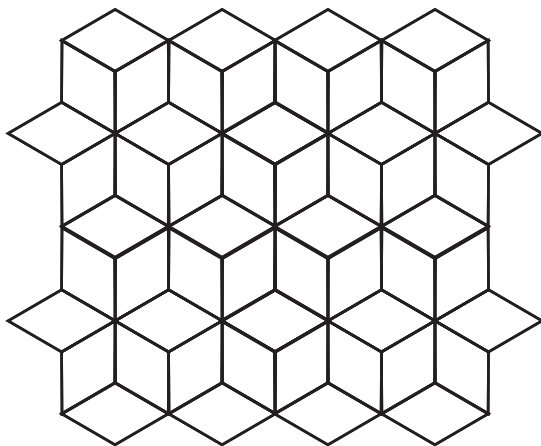
In this pattern three colours have been used to make it look like steps.



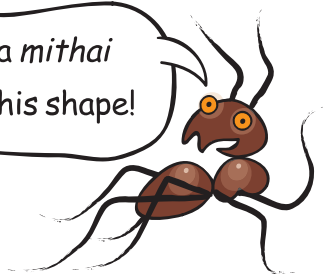
By using two colours it becomes a different pattern of blue and yellow flowers.



Use different colour combinations to make your own patterns.



I've seen a *mithai* (sweet) of this shape!



Have you seen this shape in any other design — on a wall, a dress, on a basket, a mat etc.?

Treasure Hunt

Franke and Juhi's mummy has hidden a surprise gift for both of them. But she wants them to find out through a treasure hunt. She has written some instructions here. Can you help Juhi and Franke in finding their gift?

- a) Start from the tallest tree.
- b) Go forward on the pathway.
- c) From the sixth tile, turn left.
- d) After moving a few steps again you will find a plant on your right hand side.
- e) Colour the dress of the child playing closest to this plant.
- f) Start moving again from the plant.
- g) On the fourth tile, turn left again.
- h) On the way, you will find the corner of the fourth tile is broken.
- i) You will find a bat and a ball lying on the ground. Don't pick them up, just circle them.
- j) Move ahead and turn right.
- k) You will find a mango tree. A few mangoes can be seen on the tree. Colour 11 mangoes on the tree.
- l) Also draw some grass near the mango tree and start moving again on the pathway.
- m) When you go straight, you will find a house.
- n) Behind that house there is a bag. Open it and you will find something sweet in it! Can you tell what their mother has kept in the bag?



$$\begin{array}{l} 2 \times 1 = 2 \\ 2 \times 5 = 10 \\ 2 \times 10 = 20 \end{array}$$



Understanding of space will be facilitated if the treasure hunt worksheet is done in the class. This task will enhance skills of children in identifying positions (up, down, front, behind), distance (near, far), size (tall, small), corners and shapes. It will help if more such treasure hunts are given to children as an activity.

6

Fun with Give and Take

Cricket Match

In a cricket match, Sri Lanka made 235 runs.

India has made 123 runs. How many more runs does India need to win?

To win India must make 236 runs.

Runs India needs to win:

$$236 - 123 = ?$$

Guess...

To win India needs

(a) more than 100 runs

(b) less than 100 runs



Let's subtract by first taking away $\triangle$ s from $\triangle$ s

Runs to win

100	10	1
-----	----	---

2	3	6
---	---	---

Runs by India

1	2	3
---	---	---

Runs needed

1	1	3
---	---	---

100	10	10	1	1	1	1	1
100	10		1				

100	10	10	1	1	1
----------------	----	----	---	---	---

So we are left with

100	10	1	1	1
-----	----	---	---	---

To win India must make 113 runs

Try it Yourself

Geeta had Rs 368 in her purse.

She bought a book for Rs 123.

How much money is left in her purse?

Money left in her purse is Rs $368 - \text{Rs } 123 = ?$



Guess...

Money left in Geeta's purse is

(a) more than 200

(b) less than 200



Money in
Geeta's purse

Cost of book

	100	10	1	
Money in Geeta's purse	3	6	8	100 100 100 10 10 10 10 10 10 1 1 1 1
Cost of book	1	2	3	100 10 10 1 1 1

The teacher should discuss with students which number is to be placed above and why.

Can You Help Nabeela?

Nabeela's mother sent her to the market to buy some things. She gave her Rs 245. Nabeela bought 1 kg ghee for Rs 127. The shopkeeper gave her back Rs 98.

(Kilogram is written as kg.)

Did the shopkeeper give her the right amount?

Let's find out.



Money
Nabeela had

100	10	1
-----	----	---

2	4	5
---	---	---

Cost of
Ghee

—

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

—

100	10	10	1	1	1	1	1
100	10	10					

100	10	10	1	1	1	1	1
			1	1			

We cannot take seven 1 s from five 1 s
So borrow 10

10 is 1 1 1 1 1
1 1 1 1 1

Now we have fifteen 1 s

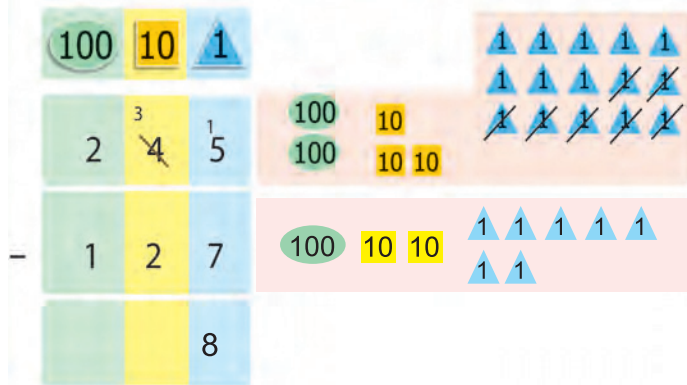
100	10	1
-----	----	---

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

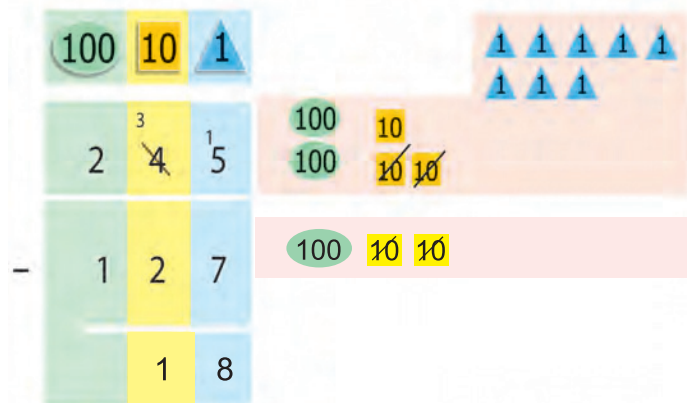
1	2	7
---	---	---

100	10	10	1	1	1	1	1
100	10	10					

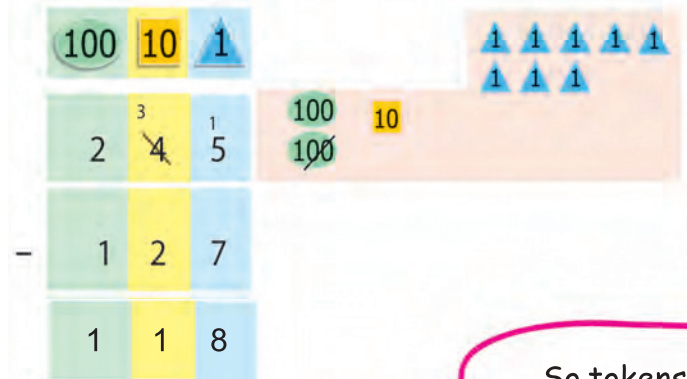
100	10	10	1	1	1	1	1
			1	1			



From fifteen $\triangle$ s take away seven $\triangle$ s. Only eight $\triangle$ s left.



Now take away $\square$ s. Only one $\square$ left.



Now take away $\bigcirc$ s. Only one $\bigcirc$ left.



So tokens left are



The shopkeeper had to give Nabeela Rs 118.

How much more money should the shopkeeper give Nabeela?

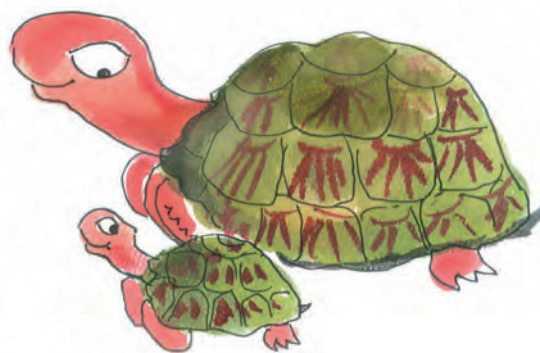
Practice Time

1. Baby tortoise is 33 years old. Mummy tortoise is 150 years old. How much younger is Baby tortoise than Mummy tortoise?

Age of Mummy tortoise: 150 years

Age of Baby tortoise: 33 years

100	10	1
1	⁴ 5	¹ 0
—	3	3
1	1	7



Baby tortoise is 117 years younger than Mummy tortoise.

2. Arvind has read 69 pages of a story book. Gouri has read 95 pages of that story book. Who has read more pages and how many more?



10	1
9	5
6	9
—	

Teachers should motivate students to decide which operation they have to use to solve a problem. More such exercises can be given where students decide the appropriate operation.

3. Reena noted the electricity meter readings of her house. Last month's reading was 118 units. This month's reading is 193 units. How much electricity did she use in one month?

This month's reading _____

Last month's reading _____

100	10	1
1	9	3
1	1	8



She used _____ units of electricity.

4. Khushboo bought a shirt for Rs 125 and trousers for Rs 165. How much money did she spend altogether?

Bought a shirt for Rs _____

Bought trousers for Rs _____

100	10	1
1	6	5
1	2	5



She spent Rs _____ altogether.

5. Solve the following:

$$\begin{array}{r} 17 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 14 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 39 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ + 24 \\ \hline \end{array}$$

$$\begin{array}{r} 86 \\ - 58 \\ \hline \end{array}$$



$$\begin{array}{r} 139 \\ - 110 \\ \hline \end{array}$$

$$\begin{array}{r} 237 \\ + 213 \\ \hline \end{array}$$

$$\begin{array}{r} 325 \\ - 204 \\ \hline \end{array}$$

$$\begin{array}{r} 474 \\ - 136 \\ \hline \end{array}$$

$$\begin{array}{r} 642 \\ - 413 \\ \hline \end{array}$$

$$\begin{array}{r} 49 \\ + 20 \\ \hline \end{array}$$

$$\begin{array}{r} 135 \\ + 146 \\ \hline \end{array}$$

6. Check your answers yourself:

$$\begin{array}{r} 236 \\ - 114 \\ \hline 122 \end{array}$$

$$\begin{array}{r} 122 \\ + 114 \\ \hline 236 \end{array}$$

$$\begin{array}{r} 340 \\ - 28 \\ \hline 312 \end{array}$$

$$\begin{array}{r} 312 \\ + 28 \\ \hline 340 \end{array}$$



Check Rashi's subtraction using addition. Give her a ✓ for every right answer.

$$\begin{array}{r} 384 \\ - 243 \\ \hline 141 \end{array}$$

$$\begin{array}{r} 141 \\ + 243 \\ \hline 384 \end{array}$$

✓

$$\begin{array}{r} 468 \\ - 139 \\ \hline 221 \end{array}$$

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

$$\begin{array}{r} 356 \\ - 247 \\ \hline 119 \end{array}$$

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

$$\begin{array}{r} 468 \\ - 139 \\ \hline 221 \end{array}$$

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

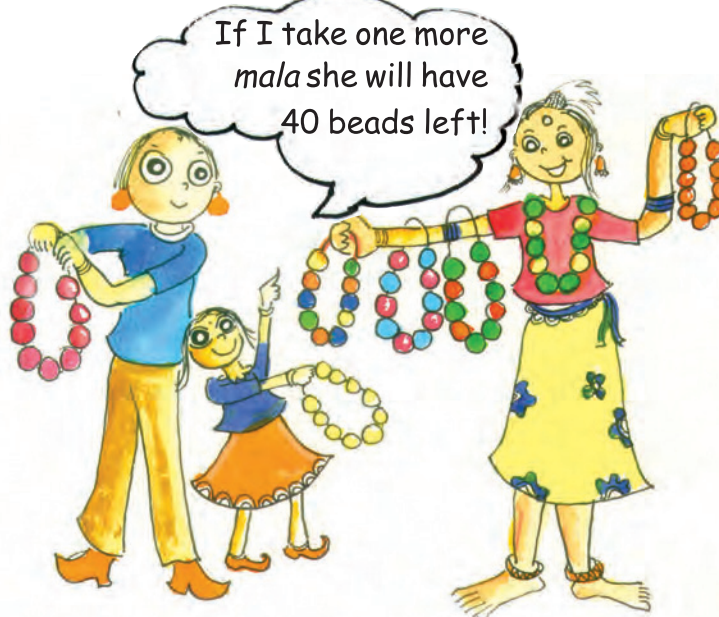
7. Fill in the missing numbers in the coloured boxes.

$$\begin{array}{r} 78 \\ - 3 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 21 \\ - 17 \\ \hline 32 \end{array}$$

$$\begin{array}{r} 6 \\ - 3 \\ \hline 60 \end{array}$$

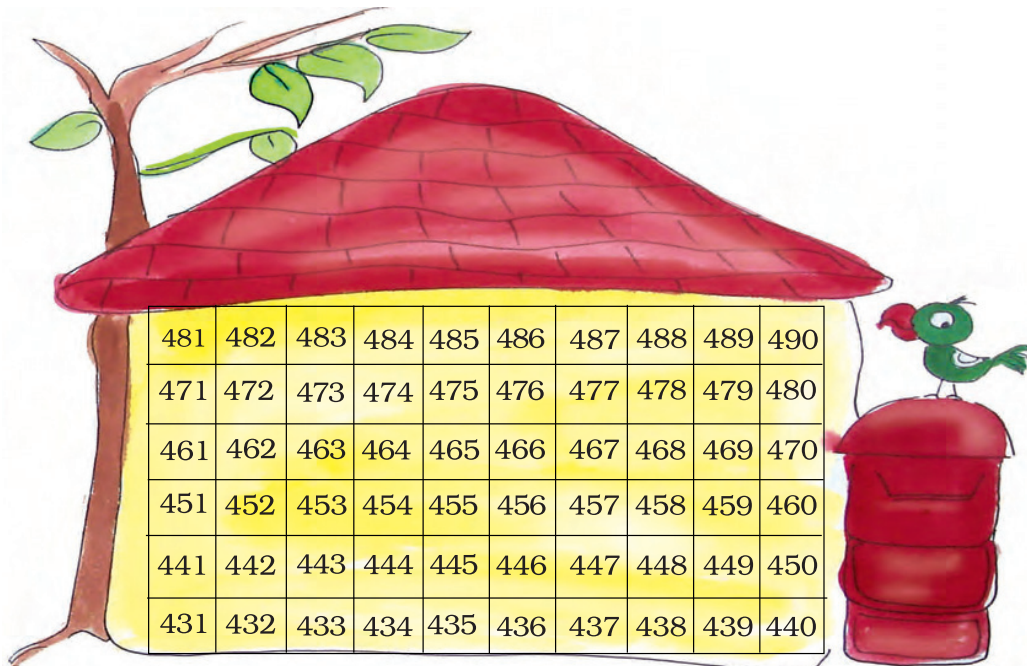
$$\begin{array}{r} 44 \\ - 238 \\ \hline 2 \end{array}$$



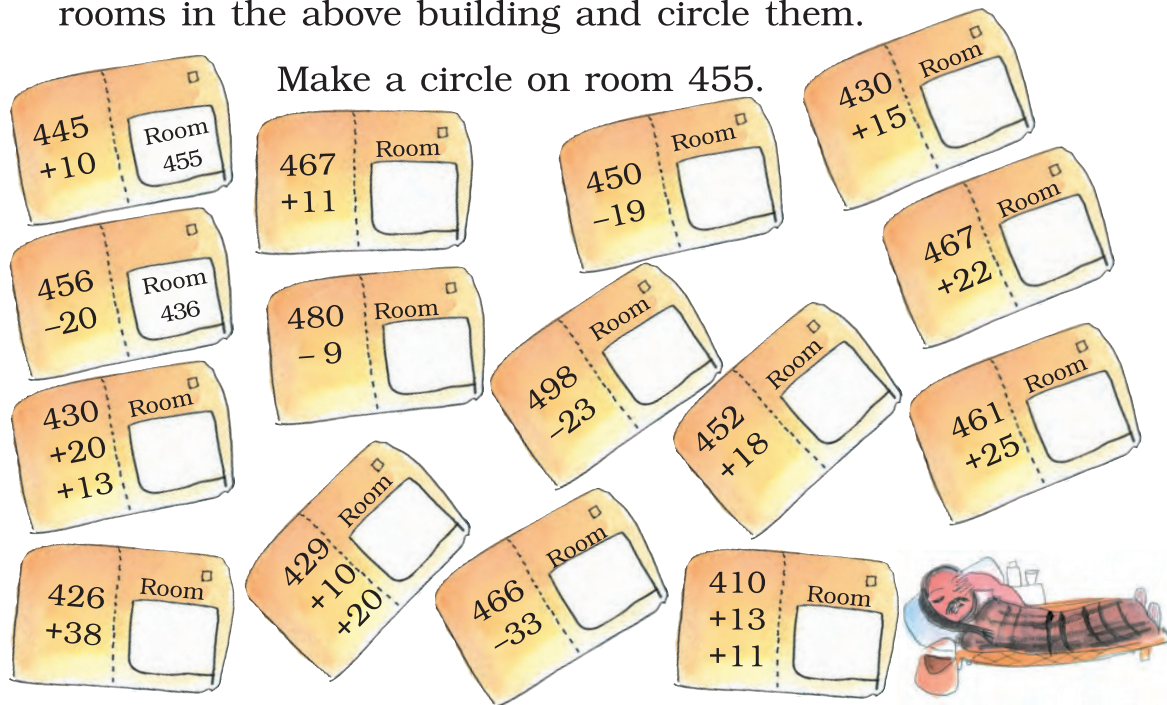
The teacher should encourage students to discuss and correct the wrong answers. Children love to correct others' mistakes (for a change!) and also learn from this process.

Let's Deliver Letters

Postman Uncle is ill today. Let's deliver the letters for him.



Write the correct room numbers on the letters. Then find the rooms in the above building and circle them.



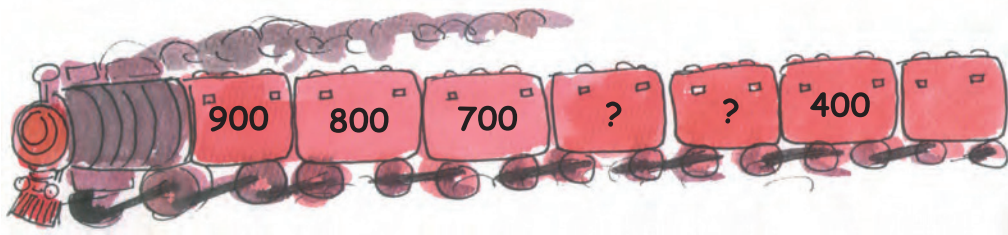
The teacher should encourage students to solve the problems mentally using the above chart.

Find the Missing Numbers

Look at the number patterns. Write the missing numbers.

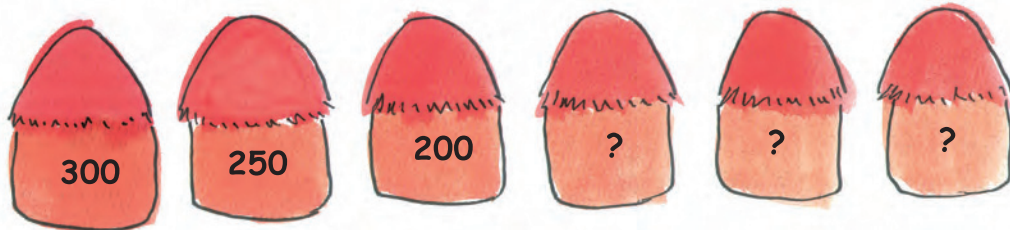
- a) 100, 200, 300, _____, _____, 600, _____

b)

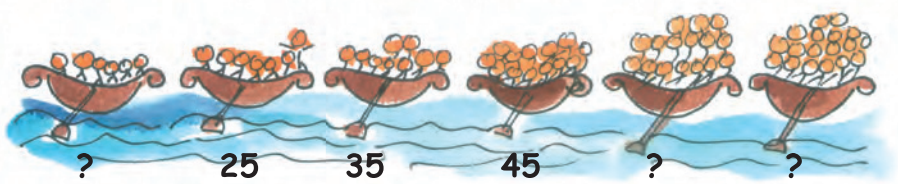


- c) 50, 100, 150, 200, _____, _____, _____, _____

d)



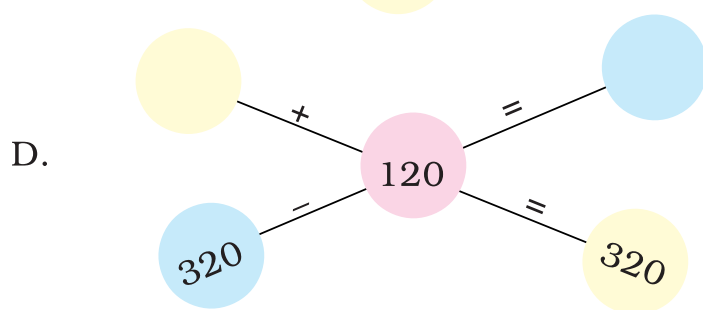
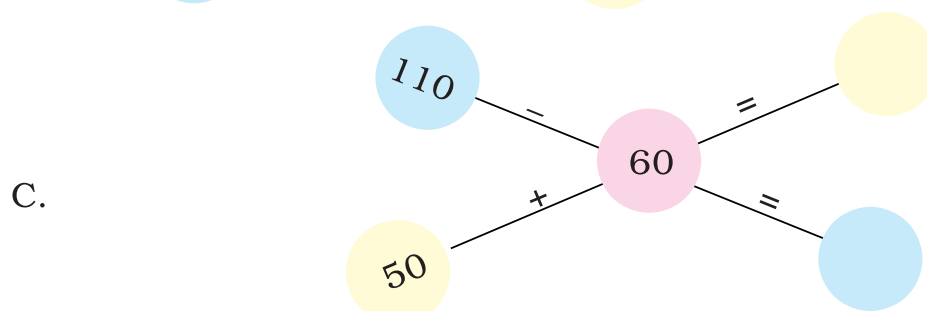
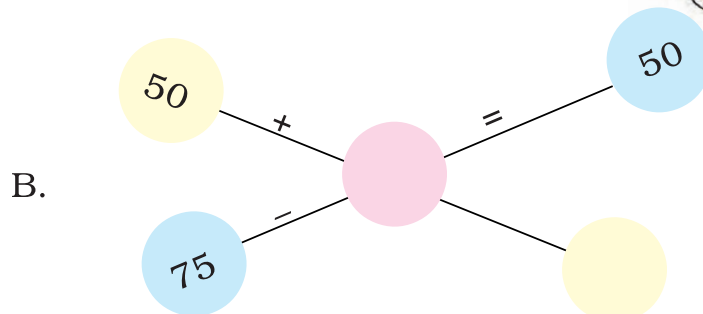
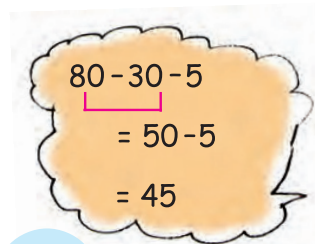
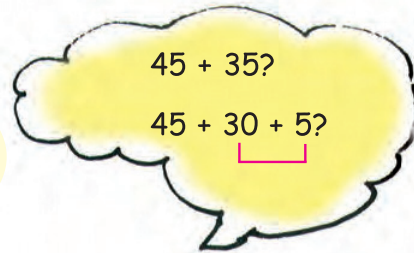
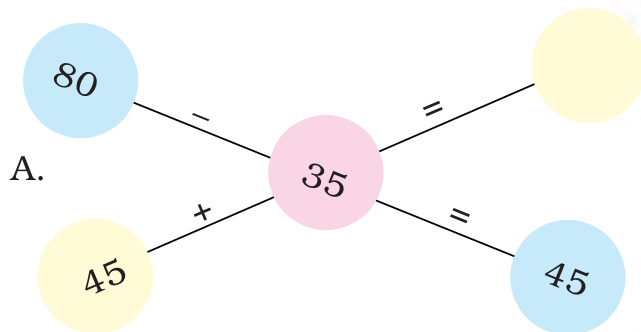
e)



- f) 280, 260, 240, _____, _____, _____, _____

- g) 125, 150, 175, 200, _____, 250, _____, _____

Mental Maths



Practice Time



- Indu's pencil is 15 cm long.
Jyoti's pencil is 8 cm long.
Whose pencil is longer?
How much longer?

- Ask your Papa or Mummy
Price of 1 kilo salt –
Price of 1 kilo sugar –
Which one is more costly?
How much more does it cost?

- Raja cooked *chapatis* in 25 minutes. Then he made *daal* in 15 minutes. How much time did he take to cook both things?



- Rifat sells school sweaters. In 2 days she sold some red, blue and grey coloured sweaters.

	Red	Blue	Grey
Sweaters sold on first day	38	66	74
Sweaters sold on second day	40	23	89

Look at the above and answer the following:

- How many grey sweaters did Chanchal sell in 2 days?
- Did she sell more red sweaters than blue sweaters in 2 days?

- (c) How many red and grey sweaters did she sell on the first day — more than 120 or less than 120? Tick (✓) the right answer.

more than 120 ☐ less than 120 ☐

- (d) How many sweaters in all did she sell on the second day — more than 140 or less than 140? Tick (✓) the right answer.

more than 140 ☐ less than 140 ☐

5. Is Lucy right?

Lucy went to the market with her grandpa.



She looked at the prices and said to her grandpa —

- (a) Ghee is Rs 102 rupees costlier than biscuits. ☐
- (b) Price of oil and ghee altogether is more than Rs 200. ☐
- (c) Price of ghee and 10 kg rice is less than Rs 300. ☐
- (d) Oil costs Rs 40 more than a pack of biscuits. ☐

Is Sangeeta right? Mark (✓) or (×) in the box.

Can you find this without using paper and pencil?

Story Problems

Nisha and Sonu were making story problems. Nisha said — 13 boys and 14 girls in a class. Sonu, can you make a problem on it?

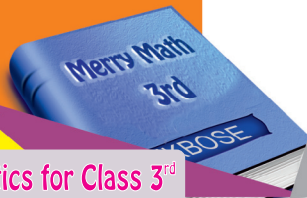
Sonu wrote

There are 13 boys and 14 girls in a class.
How many students are there altogether?

You can also make story problems with your friends. Look at each picture and the words next to it. Write your problem below it.

- A. 36 men and 52 women
waiting for their turn





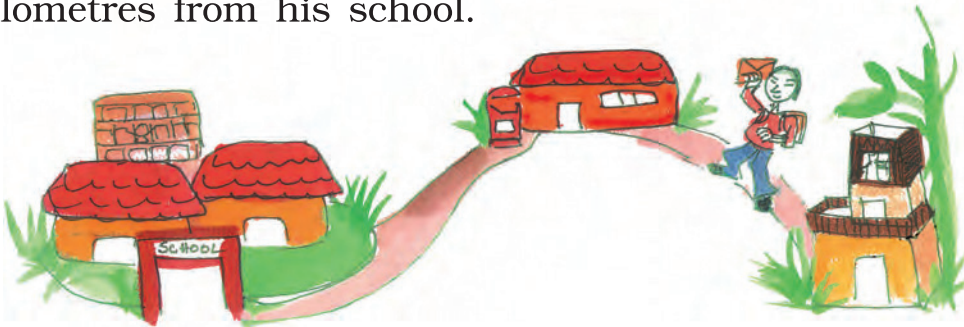
$$\begin{array}{l} 2 \times 1 = 2 \\ 2 \times 5 = 10 \\ 2 \times 10 = 20 \end{array}$$



B. We have our mid-day meal in 20 minutes and play for 15 minutes.



C. The post office is 1 kilometre from Shahid's home and 2 kilometres from his school.



D. Bunty has read 27 books and Babli has read 34 books.

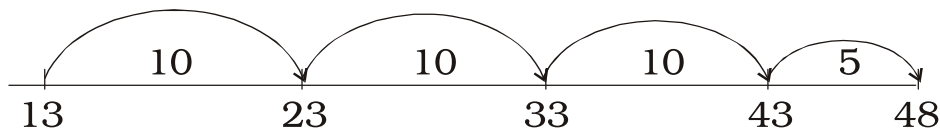


Count to Subtract!

Dolma bought 4 dozen (48) bananas and gave one to each of her friends. 13 bananas were left. How many friends got a banana?

As you know, this can be found by counting forward from 13. It is easier to count in jumps of 10. You can also use Kittu's home shown on page 29 to solve these problems.

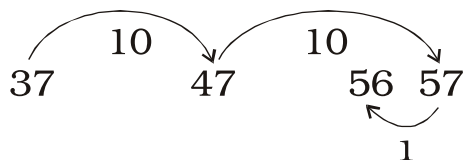
$$48 - 13$$



$$10 + 10 + 10 + 5 = \underline{35}$$

$$\text{So } 48 - 13 = \boxed{35}$$

A. $56 - 37 = \boxed{?}$



$$10 + 10 - 1 = \underline{\quad}$$

$$\text{So } 56 - 37 = \boxed{\quad}$$



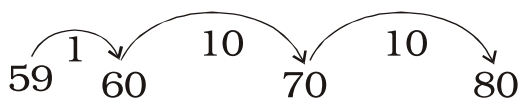
B. $60 - 45 = ?$



$$5 + 10 = \underline{\quad}$$

$$\text{So } 60 - 45 = \boxed{\quad}$$

C. $80 - 59$



$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \boxed{\quad}$$

$$\text{So } 80 - 59 = \boxed{\quad}$$

D. $85 - 63 = \boxed{\quad}$

E. $84 - 69 = \boxed{\quad}$

F. $60 - 20 = \boxed{\quad}$

G. $90 - 50 = \boxed{\quad}$

All the King's Horses....

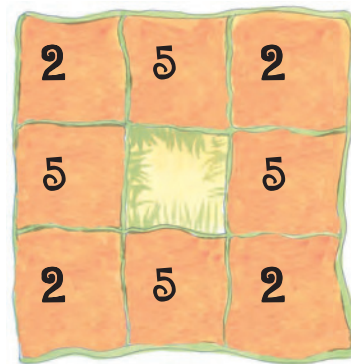
Once there was a king who could count only up to 9. Up to what number can you count?

The king loved horses. But he could never count all of them. He kept them in such a way that he needed to count only up to 9 from each side.



How many horses in all did the king have? _____

One day a visitor with 4 horses came there. It was getting dark so he wanted to stay there at night. But the horse-keeper was scared. If the king saw these extra horses he would be very angry! The visitor said — do not worry. The king will never know. So he arranged the horses like this:



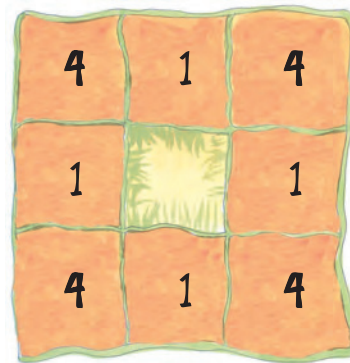
How many horses are there now? _____



At night the king came to count the horses. Along each side he counted 9 horses. Ah! That's fine – he said. Then he happily went to sleep.

In the morning the clever visitor tried another trick. He took out his own 4 horses. But he also ran away with some of the king's horses. He left the king's horses standing in this way.

The silly king did not find any horse missing. Can you help him?



How many horses are now left? _____

How many of the king's horses were taken away?

(Based on a Tamil folk story from the book "Numeracy Counts!")



PuZZle

What numbers are we?

If you add us both you get 100.

The difference between us is also 100.

