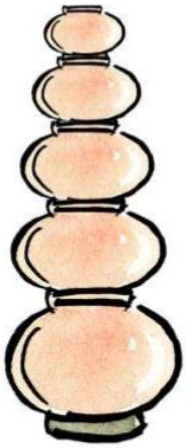


_ _ _ _ _ _ _ _ _ _ _ _ _ _

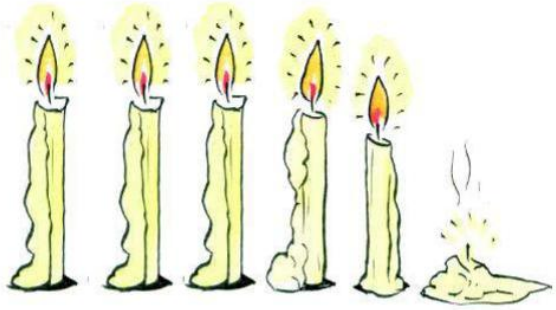
_ _ _ _ _ _ _ _ _ _ _ _ _ _

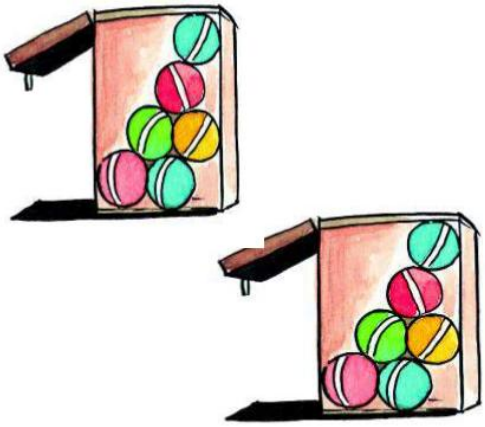
How many pots would be there in 5 rows?

_ _ _ _ _ _ _ _ _ _ _ _ _ _

One candle was put out.

_ _ _ _ _ _ _ _ _ _ _ _ _ _





One box has 6 balls.

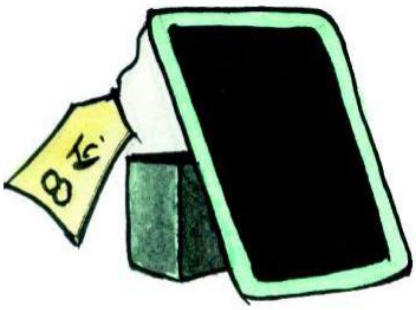
_ _ _ _ _ _ _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _ _ _ _ _

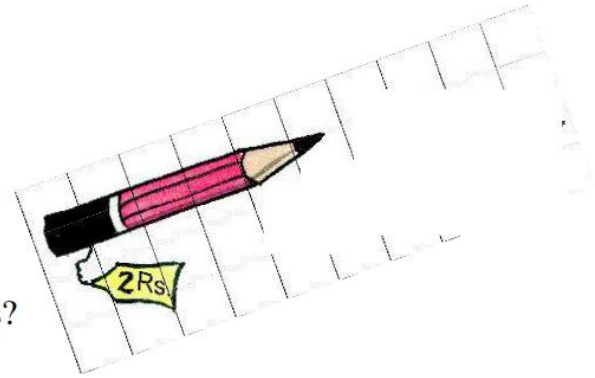
What would be the price of 4 slates?



_ _ _ _ _ _ _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _ _ _ _ _

How many rupees would the shopkeeper return?



_ _ _ _ _ _ _ _ _ _ _ _ _ _

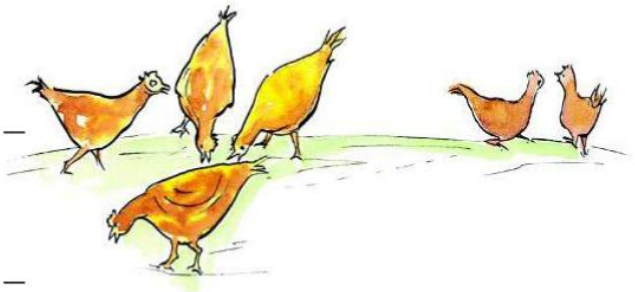
_ _ _ _ _ _ _ _ _ _ _ _ _ _

What would be the price of 5 pencils?

Three children can sit on one bench.

_ _ _ _ _ _ _ _ _ _ _ _ _ _

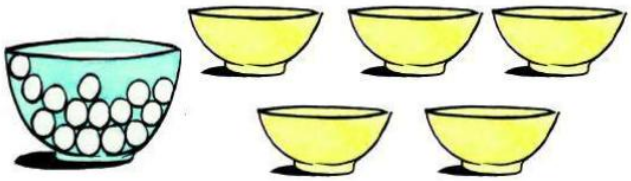
_ _ _ _ _ _ _ _ _ _ _ _ _ _



_ _ _ _ _ _ _ _ _ _ _ _ _ _

Two hens walked away.

_ _ _ _ _ _ _ _ _ _ _ _ _ _



_ _ _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _

How many pebbles would each bowl have?

4 friends bought 12 bananas.

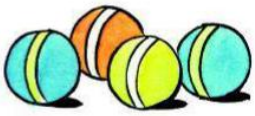
_ _ _ _ _ _ _ _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _

_ _ _ _ 5 books _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _



_ _ _ _ _ _ _ 7 rupees

_ _ _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _

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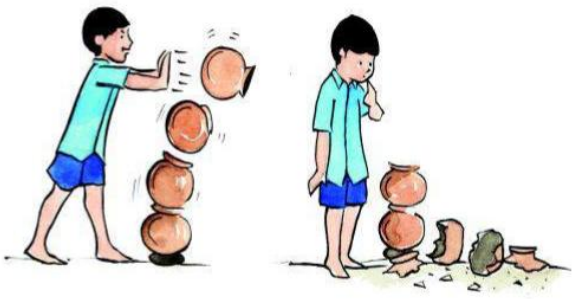


Make statements sums for these:

10 + 2	Ten sparrows and two parrots are sitting on a tree. Write, how many birds are sitting on the tree in all.
21 – 7 = ?	
6 × 5 = ?	
27 ÷ 9 = ?	
13 + 11 = ?	
25 – 9 = ?	
11 ÷ 3 = ?	
6 ÷ 6 = ?	
23 – 5 = ?	

LESSON 7

Fractions

One day Munnu and Rani were having food. Both wanted to finish their food fast and look at the books their father had bought. They were colourful and attractive story books.

They were in such a hurry that their mother scolded them, "Eat slowly and properly."

Munnu said, "I am full, Mother".

"Me too", said Rani promptly.

Mother said, "I know both of you want to go. First, each of you should eat one more ***chapati*** and then you can go."

Saying this, mother put one chapatti in Rani's plate and was about to put another chapati in Munnu's plate.

Munnu said, Mother I will take half of Rani's chapati.

While saying so, he picked up the chapati from Rani's plate. He tore off a small piece and kept in his plate. He put the bigger piece in Rani's plate. He said, "Didi, I have taken one half of the chapati, you eat the other half."

Rani picked up her piece and said angrily, "This is not half, you naughty boy... You kept a smaller piece for yourself, and gave me the bigger one."

Munnu said, "Why are you angry? Since I am younger, my half is also smaller. You are elder. So your half should be bigger, isn't it?"

Rani said, "That is not the way it is done, silly! If you would have cut two pieces of equal size, only then could you say, "First piece is half a chapati and the second piece is also half a chapati.

"Ok, what would we do if wanted to give a share of this *chapati* to mother too?"

"Then we would cut three equal pieces of this chapati."

"So could those pieces also be called halves?" Munnu asked.

"No! Each of those pieces would be called one third of a chapati," said Rani.

"Mother, is Didi saying the correct thing?" asked Munnu.

"Yes child, your sister is absolutely right."

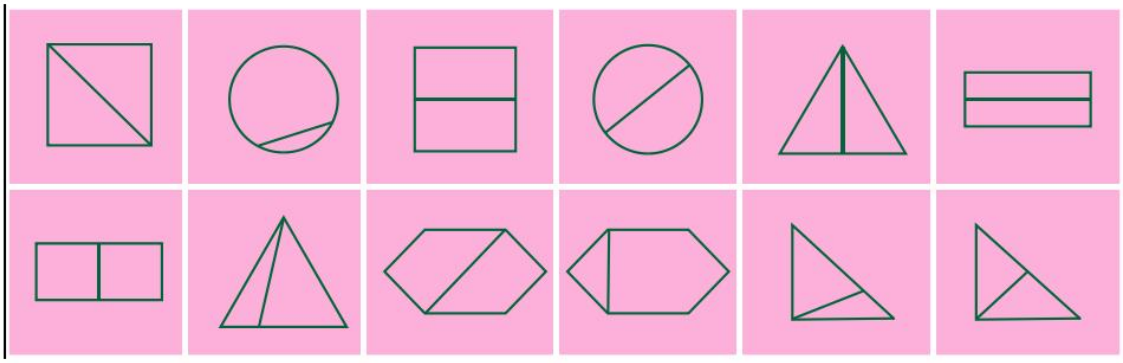
"But how would we know that the pieces are equal?" asked Munnu.

"Hm...m...m, that is a good question you have asked. Finish your food. I will give you some pictures. Look at them and discuss with your sister. Read your story books later on."

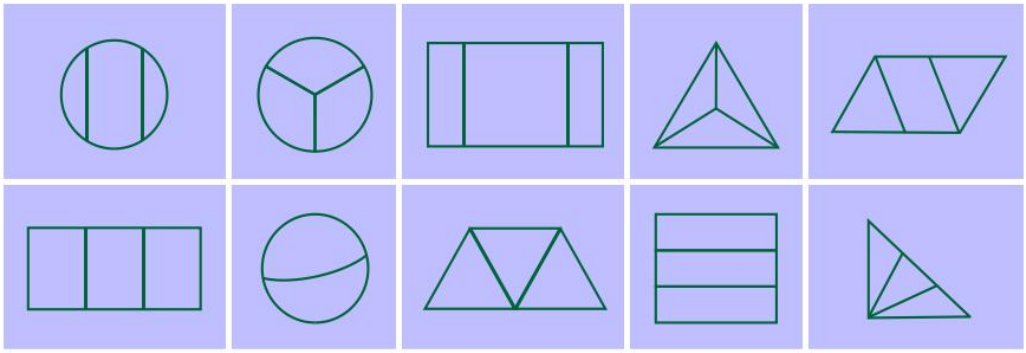
Mother showed the following pictures to Munnu.

You too look at them and identify.

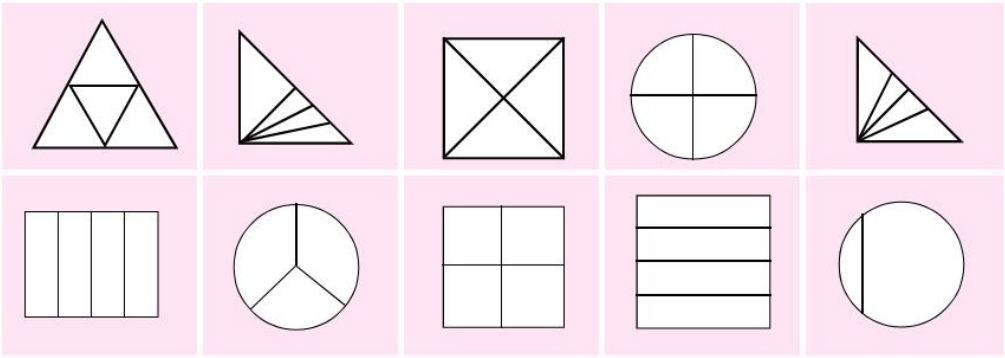
Which picutres are cut into two equal parts? Mark (✓) on them.



Mark (✓) on the pictures which have three equal parts.

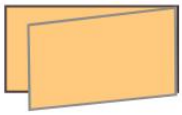


Put a (✓) on the pictures with four equal parts.



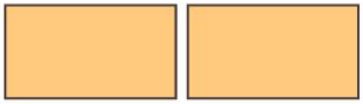
Now, let us make two equal parts of a paper

Take a piece of paper

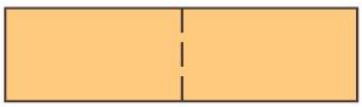


Fold it so that the two ends of the paper meet.

A crease will appear on the paper.



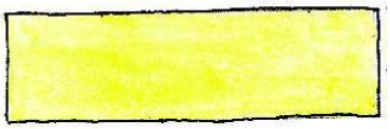
If you cut the paper along that crease, then the paper would be cut into two equal parts, and each part would be half of that paper.



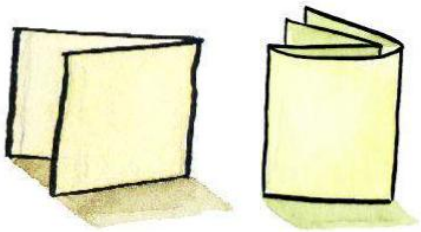
By combining the two halves,
we get a full.

Similarly, when something is divided into two equal parts, each of the parts is called half of that whole thing.

Now let us see how we can make four equal parts of a paper.

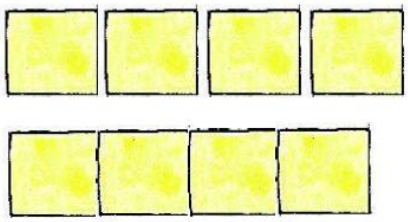


Take a piece of paper



Fold it from the middle by aligning its two ends.

Then fold it once more again as shown in the picture so that both its new ends meet.



Unfold the paper and cut it along the creases.
The paper will be cut into four equal parts.
Each part is one fourth of the paper.
It is also called one quarter of the paper.
If we put four one fourths together, we get a whole.

When someting is divided into four equal parts, each of the parts is called one fourth or one quarter of that whole thing.

one fourth
or quarter

The Coloured part is one fourth of the whole paper.

three fourth or
three quarters

The Coloured part is three fourth of the whole paper.
It is also known as three quarters.

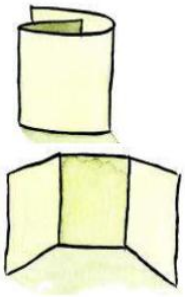
By combining one fourth and three fourth,
we get one whole

When something is divided into four equal parts, and three of the four parts are taken together, then that is called three fourth or three quarters of that whole thing.

Can you make three equal parts of a piece of paper?

Let's do and see:

Take a piece of paper



Fold it in such a way that it gets divided into three equal parts

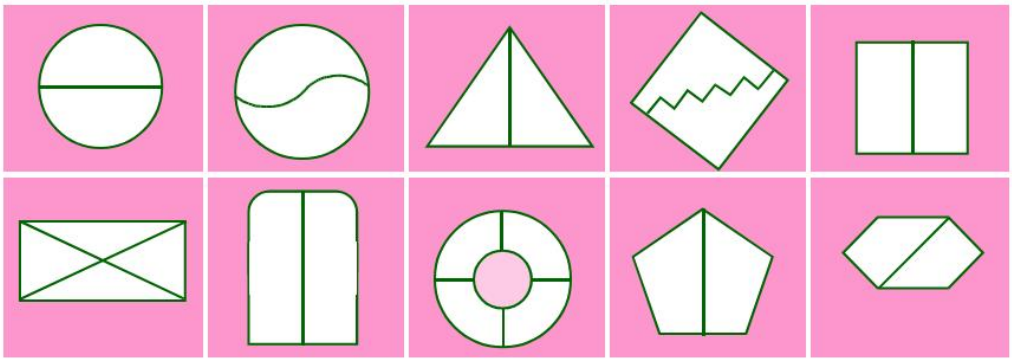
Now open the paper and tear it along the creases.

You will get three equal parts.

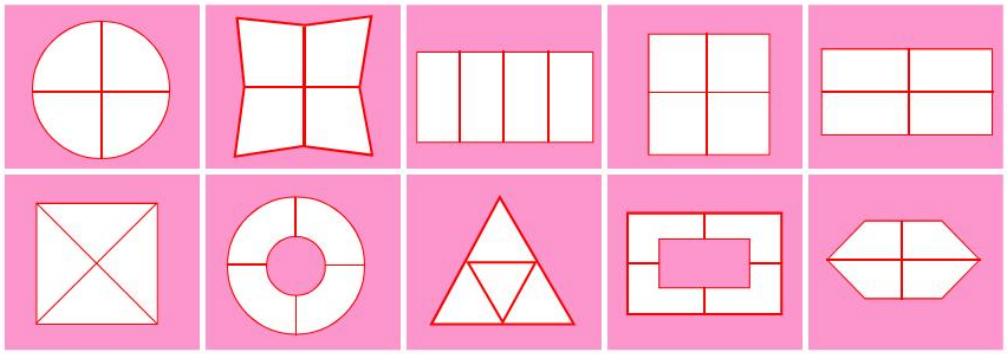
Each part is one third of the whole paper.
If we take three such one third, we get a whole.

When something is divided into three euqal parts, each of the parts is called one third of that whole thing.

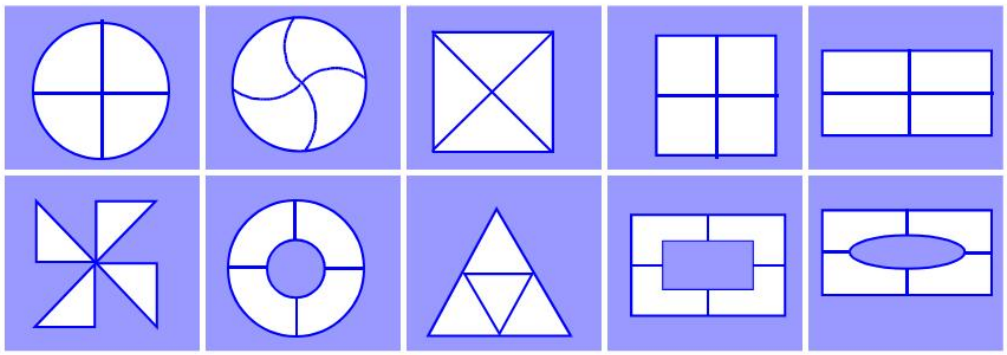
Fill half of each the following figures with colour.



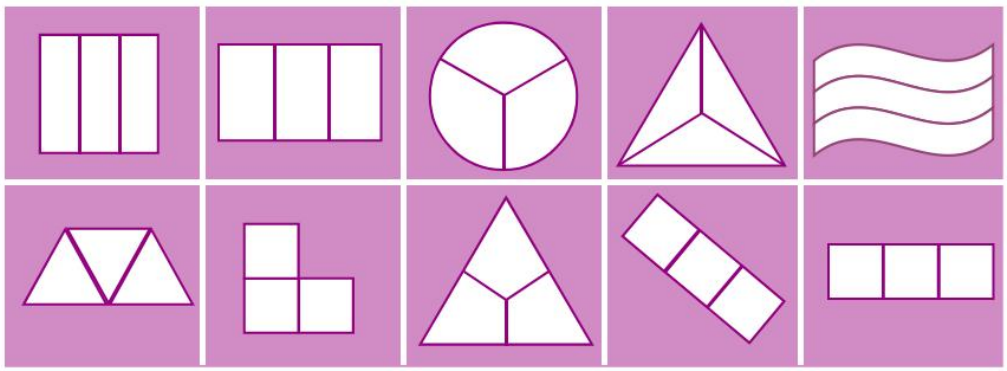
Colour one fourth or a quarter of each of the following figures.



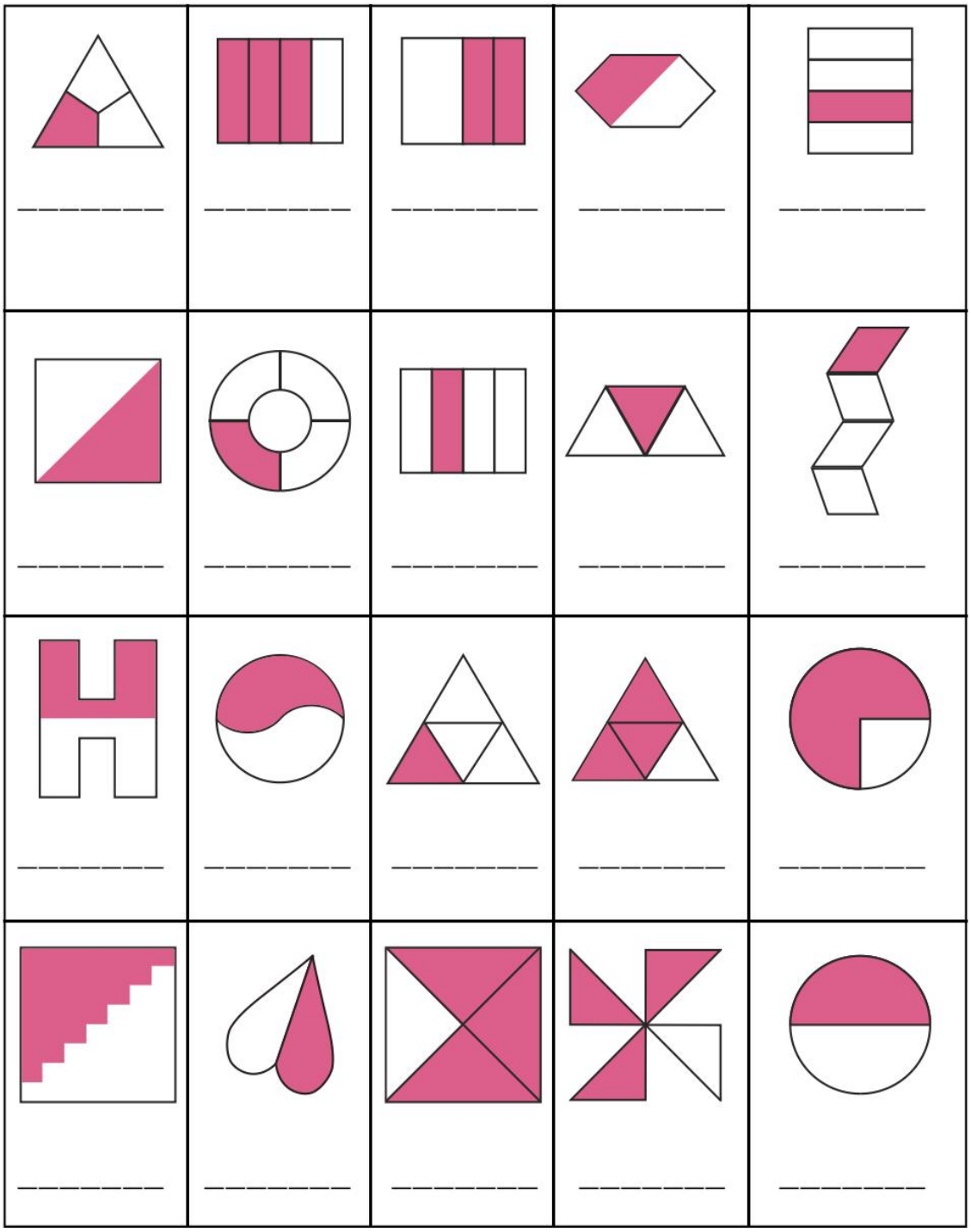
Fill colour in three fourth or three quarters of each of the following figures.



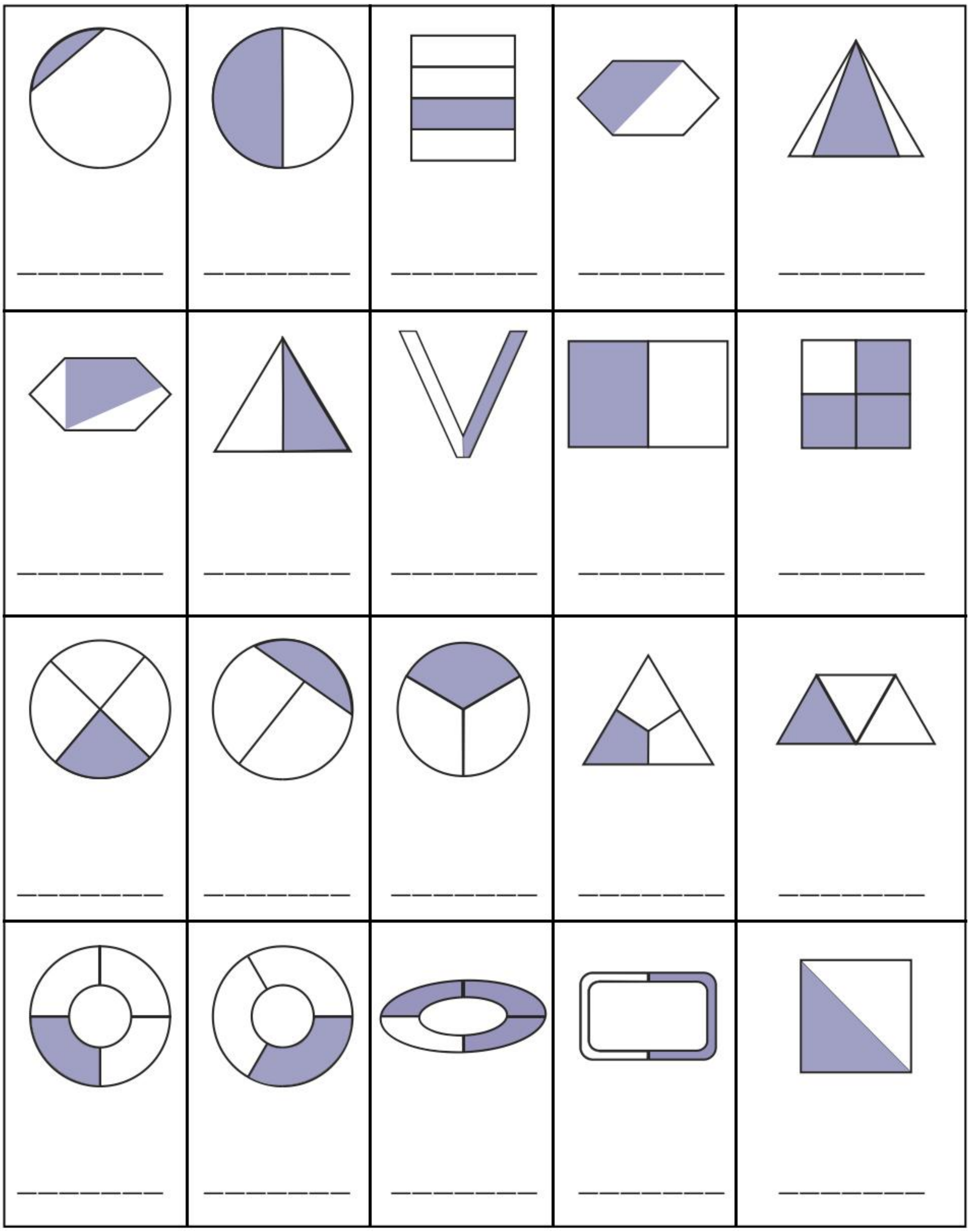
Colour one third of each of the following figures.



What parts of the following figures have been shaded. Is it half or a quarter or three fourth or one third? Write below each figure.



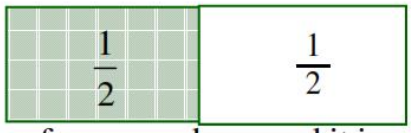
What part of the whole is shaded in the diagrams given below? Identify it and write below each diagram. Put a 'X' below rest of the diagrams.



You have understood what half, quarter, three quarter or one third parts of a whole thing are : Now let us see how we can write it in Mathematical terms. Let us again use a piece of paper to identify the parts.

We know that when the paper is divided into two parts, each part is half of the paper.

Half is written as $\frac{1}{2}$ in numeral form.

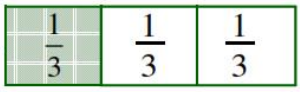


This is one of the two equal parts of a piece of paper and we read it is as one upon two.

When we make 3 equal parts of a paper, each part is one third of the paper.

One third is written as $\frac{1}{3}$ in numeral form.

This is one of the three equal parts of a piece of paper.



Now, can you do this?

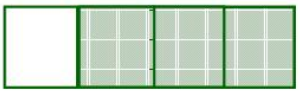
Can you write one fourth and three fourth in numeral form?

Parts created =

Coloured Parts =

We write this as =

We read it as one upon four



Parts made =

Coloured Parts =

We write this as =

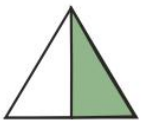
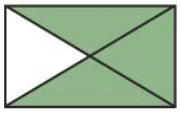
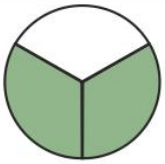
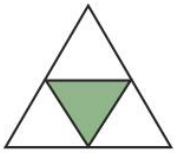
We read it as three upon four

When we write a part of something in numeral form, then it is called a fraction.

The number above the line in a fraction is called numerator and the number below the line is called denominator.

Thus, $\frac{1}{2}$ is a fraction. In this 1 is called numerator and 2 is called denominator.

Write the shaded part of the figures given below in the form of a fraction.

Figure	Total number of equal parts made	Shaded part of the figure	Fraction
			$\frac{1}{4}$
			
			
			
			
			
			
			

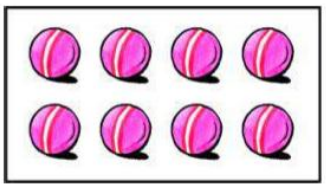
Identify the numerator and the denominator in the fractions given below:

figures	numerator	denominator
$\frac{1}{2}$	1	2
$\frac{1}{3}$		
$\frac{1}{4}$		
$\frac{3}{4}$		

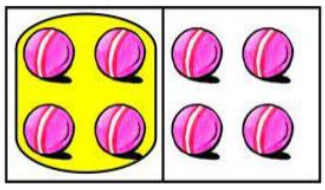
Dividing a collection of things

Now let us take a collection of things and mark its parts:

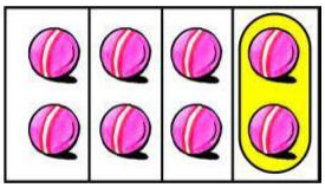
A collection of balls



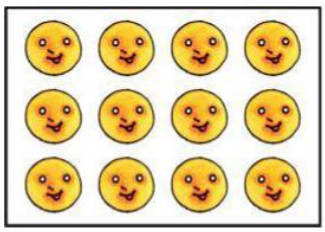
Half of the collection



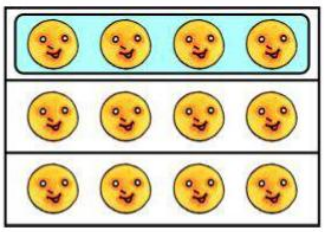
One fourth or quarter of the collection



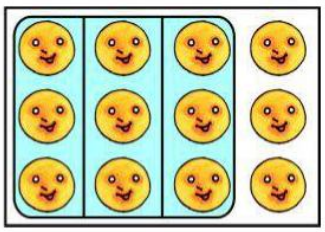
A group of Children



One third of the group

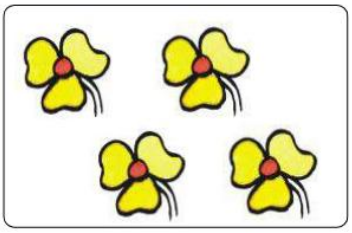
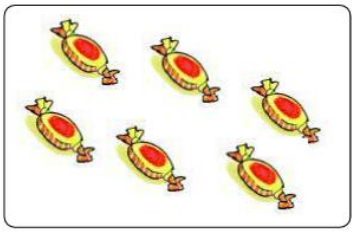
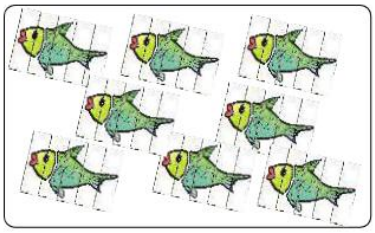


Three fourth of the group

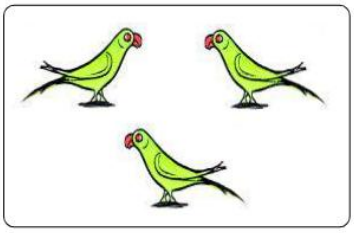
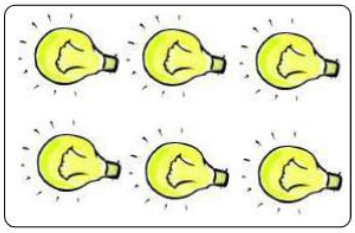
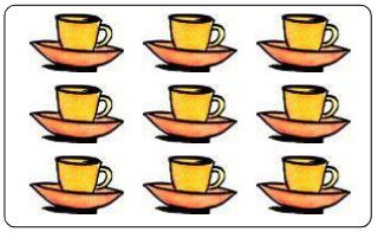


Exercise

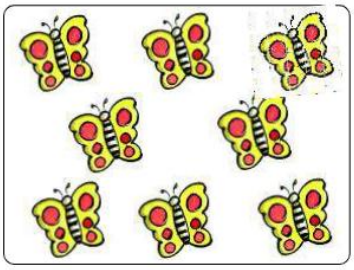
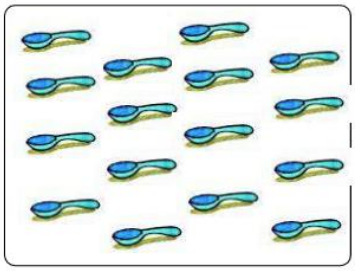
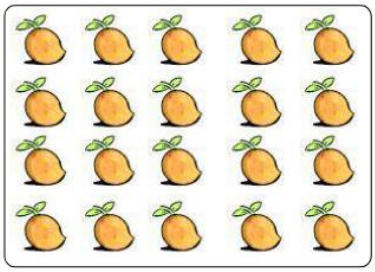
1. Make a ring around half of each of the following collections.

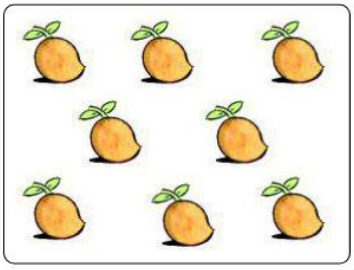
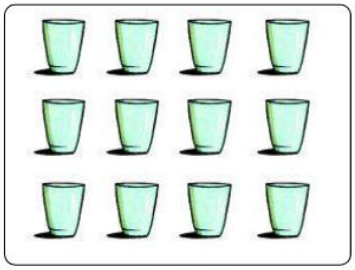
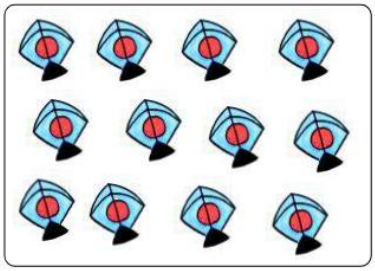
2. Make a ring around one third of each of the following collections:

3. Make a ring around one fourth of each of the following collections.

4. Make a ring around three fourth of each of the collections given below:

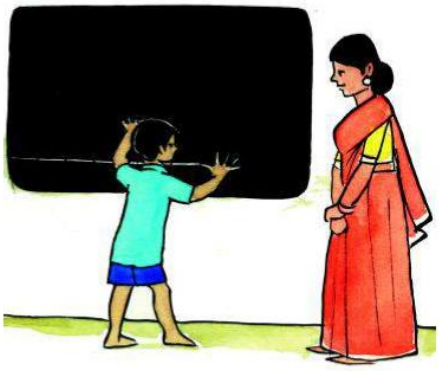
LESSON 8

Measurement

Length

How long is the blackboard?

Measure the blackboard of your class using your handspan. Tell your friends also to measure the length of the blackboard. Then fill in the table below :



Length of the blackboard

I measured	First friend's measurement	Second friend's measurement	Third friend's measurement	Fourth friend's measurement
____ handspans	____ handspans	____ handspans	____ handspans	____ handspans

Have all your friends got the same measurement of the length? ——————————

Why so? _____

What is the length of your class?

Find the length of your class in terms of your steps. Tell your friends to do the same. Fill in the table given below:

Length of the classroom

I measured	First friend's measurement	Second friend's measurement	Third friend's measurement
—— steps	——— steps	——— steps	——— steps

Are the measurements taken by all friends the same? _____

Now make a group of four friends. Take a piece of wood which is straight. Use this piece to find the length of the class and fill in the table.

Length of class

I measured	First friend's measurement	Second friend's measurement	Third friend's measurement	Fourth friend's measurement
_____	_____	_____	_____	_____

Are the measurement taken by all friends the same? ———

Why did that happen? ——————————

Compare the table that you have filled with the tables filled by other groups.

Are the tables of all the groups same? ——————————

Why so? ——————————

Think and write

Suppose, you need to buy a rope for drying clothes in your home. How long a rope would you buy for doing this? What will you tell the shopkeeper ?

When you go to buy cloth, what is used by the shopkeeper to measure the cloth ? ——————————

The instrument used by the shopkeeper is a metal scale. It is called a **'meter scale'**.

All shopkeepers generally use this **meter scale** to measure cloth.

Take the **meter scale** from your teacher and see it yourself. Show it to your friends as well.

There are lines on the meter scale and numbers are written on it starting from 0 to 100. What are these?

These numbers indicate centimeters.

Does the scale in your compass box also have such lines and numbers written on it?

How many centimeters are there on your scale?——————————

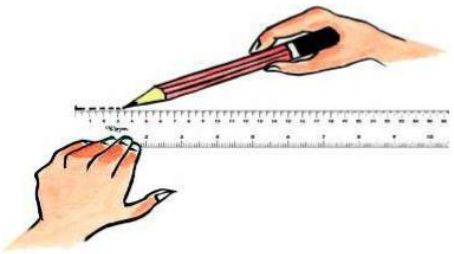
Take another scale, which is bigger than your scale. How many centimeters are there on this bigger scale? ——————————

Are the number of centimeters the same on both the scales?

How many centimeters are there on a meter scale?

1 meter	=	100 centimeter
100 centimeter	=	1 meter

Look at the scale and answer



How many lines are there from 1 to 2?

_____

How many lines are there from 7 to 8?

_____

Is the number of lines in both the cases above same?

_____

These lines show millimeters.

Look at the scale and fill this:

1 to 2 is _____ millimeters

3 to 4 is _____ millimeters

6 to 7 is _____ millimeters

10 millimeters	=	1	centimeter
1 centimeter	=	10	millimeters

Now find the length of the blackboard of your class in centimeters using your small scale. Tell your friends to do the same.

Are the answers of all your friends the same?

1. Can the length of the classroom be also measured with this small scale? Will the answers of all your friends be the same?
2. Using a meter scale, find the measurement of the length of your class, length of the rug (dari), and the length of the playground. Compare your answers with the answers of your friends.

Do this yourself

Take your scale and a pencil and draw a line of 1 c.m. length. Now put 3 cm point of your scale at the beginning of the line and see -

1. Which line on the scale touches the end of the line you drew? Which number does that line indicate on that scale?
2. Now, do the same by putting the starting point of the line you have drawn on 4 c.m., 6 c.m., 8 c.m. marks of the scale.

Now do the same by keeping 4 cm, 6 cm and 8 cm at the starting point and see what you get at the end point.

Now answer these:

When you go to a tailor to get your clothes stitched, how does she take your measurements?

1. Is the tailor's measuring tape similar to the meter scale?
2. What is similar between the meter scale and the tailor's measuring tape?
3. What are the differences between the meter scale and the measuring tape of a tailor?
4. Have you seen such a tape any where else?
5. Can you meausre the legnth of your class using this tape?
6. What else can you measure using this tape?

Make a Meter Scale

Take the tailor's measuring tape and cut out one meter part of it. Stitch it on a piece of card board. You can even nail it if you want. You have a meter scale ready. In case of any problem, ask your teacher.

Do this yourself and Say:

Measure the classrooms of your school using a meter scale and write this:

Length of class 1	Length of class 2	Length of class 3	Length of class 4	Length of class 5

1. Which class is the longest?
2. Which class is the shortest?
3. Which is longer, class 1 or class 2?
4. Which is shorter, class 4 or class 5?
5. Which of the classes are of equal length?

You can similarly find the length of different rooms in your house. Which room is the shortest? Which is the longest?

What is the largest?

1. Together with your friends, make groups of 5 friends each and find the height of all the children. Now answer:

Who is the tallest?

Who is the shortest?

Who all are of the same height?

2. Find the measure of length and breadth of the Kabbadi field and write it. Also find and write the measure of length breadth of the kho-kho field in your school. Now answer:

Length of which field is more?

Which field is wider?

The kabbadi field has a bigger length or breadth?

Which of the two measures is bigger the length of the Kabbadi field or the breadth of the Kabbadi field?

Do this yourself:

Use your scale or meter scale to find the length of the following and write it in the table:

Item	Length
Pencil	
Slate	
Mathematics text book	
Hindi text book	
Enviornmental Sc. text book	
Blackboard	
Window of the class	
Door of the class	
———————	
———————	
———————	

Could you measure lengths of all the items completely?

Statement Sums:

1. Ritu bought 11 meters of cotton cloth, 16 meters of linen cloth and 18 meters of tericott cloth. How much cloth did she buy in all?
2. Nisha had 17 meters of rope and Priya had 12 meters of rope. Compared to Priya, how many more (or less) meters of rope did Nisha have?
3. If we divide a 50 meter measuring tape in two equal parts, What would be the length of each of the two parts?
4. Harish made a 5-meter flag, Manoj made a 6-meter flag and Ashok made a 8-meter flag. How many meter long flag did they make together?

5. One class needs a 16 meter long carpet. So, what length of carpet, would three classes together need?

Weight

Together with your friends, Make a toy balance. Collect some big and small stones and use them as weights. Using this toy-balance and weights, find the weights of pencils, rubbers, scales, duster, books etc. and write them in a table.

Item	Weight
Pencil	————————
Rubber	————————
———————	————————
———————	————————

Compare your table with the table prepared by other groups.

Are all the tables same? ————————

Why are they different?

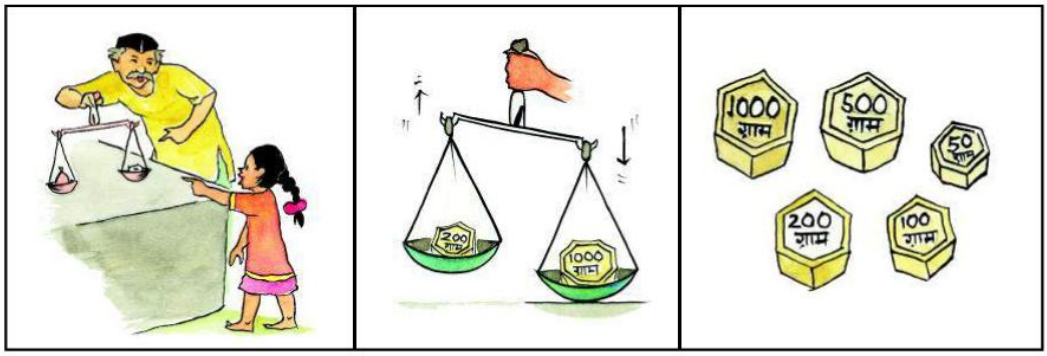
———————————————————————————————————

———————————————————————————————————

———————————————————————————————————

Talk about it with your friends and teachers.

Now look at these pictures.



Write names of the things you can see in the pictures?

Where have you seen these?

Who makes use of these things?

What are they used for?

Just as length is measured in **meters** and **centimeters**, weight is measured using **kilograms** and **grams**.

Tell your teacher to show you a **balance** and **weights**.

What is written on the weights?

On first weight ——————————

On second weight ——————————

On third weight ——————————

On fourth weight ——————————

On fifth weight ——————————

———————— ——————————

———————— ——————————

———————— ——————————

Which is the biggest weight among these?

——————————————————————————————

Which is the smallest weight among these?

——————————————————————————————

Put-up the weighing balance in an open space in your school and put the weight of 1 kilogram in one pan of the balance and that of 200 gram in the other pan.

Which way will the balance tilt? Which pan is lowerd?

————————————

Which weight is heavier?

————————————

Now add one more weight of 200 gram in the pan, that is raised.

Keep adding weights of 200 gms until both the pans are balanced at equal heights.

A weight of 1 Kilogram equals how many weights of 200 grams?

——————————————————————————————

Now keep 1 kilogram weight in one pan and in the other pan, keep putting weights of 100 grams each (see the box below).

A weight of 1 kilogram equals how many weights of 100 grams?

——————————————————————————————

Do the same with weights of 500 gms.

How to make your own weights

If you need more weights of 100 grams and you don't have that many then make some weights of your own. Keep a weight of 100 gms. on one pan of the balance. Take a cloth or a plastic bag and keep it on the other pan of the balance. Keep on putting sand into this bag until both pans of the balance are at balanced at equal height. check the weight until it balances with a 100 gram weight. You can now tie this bag so that the sand does not spill. Now you can use it as a 100 gram weight. You can similarly make as many weights as you wish for 200 grams, 500 gram etc.

Now answer:

When a shopkeeper gives half a kilogram of sugar, what weight does he put on the balance?

To measure a quarter of vegetables, how many weights would be used by a shopkeeper? Which are these weights?

Suggest different ways of using more than one weight for weighing half a kilogram of sugar?

Fill the table

1 kilogram = ———————— gram

Half a kilogram = ———————— gram

Quarter of a kilogram = ———————— gram

Find this:

In a hospital how does a nurse find your weight?

Have you seen some other way of finding weight? Which other ways of weighing have you seen?

Let us do :

1. Deepa bought 500 grams of sugar and 250 grams of tea. What was the total weight of the grocery she bought?
2. Amita bought 2 kilograms of rice and 1 kilogram of pulses. What was the total weight of the items she bought?
3. There are 50 kilograms of rice in the big sack and 25 kilograms of wheat in the smaller sack. How much more does the rice weigh compared to wheat?
4. A packet of salt weighs one kilogram. How much would 7 such packets weigh together?
5. If 25 kilograms of grapes are distributed equally among 5 boxes, how many kilograms would be kept in each box?

Capacity

Do this

Fill a bucket with water with a small cup.To fill the bucket in this way how many cups of water did you pour into the bucket.

Now use a glass to fill the bucket. How many glasses of water were needed to fill it?

Do this again using a jug. Fill the table given below:

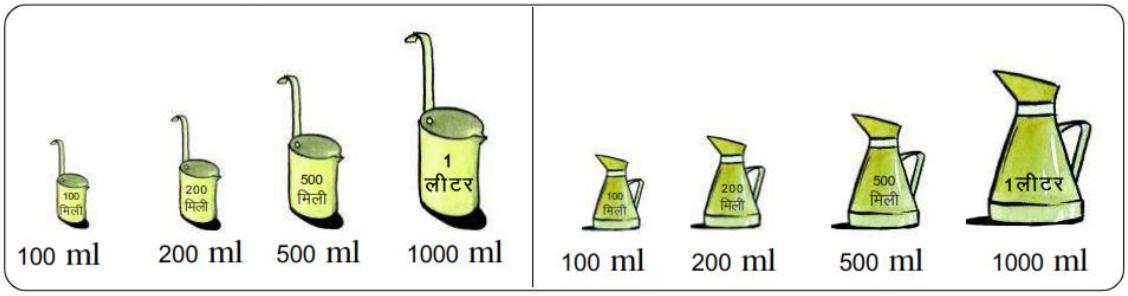
Amount of water in the bucket	——— **cups**	——— **glasses**	——— **jugs**

Was the number of needed to fill the bucket the same as the number of cups needed? Was the number of glasses jugs needed to fill the bucket the same as the number of glasses needed?

If not, why? ——————————

If a bucket gets completely filled by 20 cups of water then we will say that capacity of the bucket is 20 cups of water. Similarly, if 5 jugs of water filled the bucket. Completely, we would say that capacity of the bucket is 5 jugs of water.

Can you say how milk, oil or petrol are measured?



The containers shown in the picture are used to measure capacity.

Who makes use of these containers?

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

———————— ———————— ———————— ————————

———————— ———————— ———————— ————————

———————— ———————— ———————— ————————

Capacity is measured in litres and millilitres.

1 litre	=	1000 millilitres
1000 millilitres	=	1 litre

Find this:

Go to a provision store and see how he measures oil.

Do this:

Take containers of 1 litre, 500 millilitres and 200 millilitres from your teacher.

Fill the 500 millilitre container and pour it in the 1 litre container.

How many times do you have to pour the 500 millilitre container so that the 1 litre container gets completely filled?

In how many times does it get filled?

————————————————————————————————

Similarly, now take a 200 millilitre container and use it to fill the 1 litre container. How many of times did you have to use it to fill the 1 litre container completely?

Do this again with a 100 millilitre container. You have seen two types of containers of 1 litre capacity in the drawing given earlier. When both these types of containers.

Fill a 1 litre container with water. Now pour the water in another container of 1 litre.

Is the second container filled completely? ——————————

Is there some water left in the first container? ——————————

Is the capacity of both containers the same? ——————————

Do a similar exercise with two containers of 500 millilitres capacity.

Similarly, check the capacity of containers of 100 millilitre and 200 millilitres .

Do these:

1. One container has 500 millilitres of milk. If 250 millilitres of milk is added, how much milk will be there in the container?
2. The capacity of a bottle is 500 millilitres. How many times would a container of 50 millilitres have to be used to fill the bottle completely?
3. Meeta took 750 millilitres of water to school in her bottle. After returning from school there was 200 millilitre of water left in the bottle. How much water did Meeta drink at school?
4. You get oil in packets of 2 litres in market. How many such packets would have to be bought to have a total of 10 litres of oil?
5. Itwari Ram sold 2 litres milk to Ankur and 4 litres to Shailu. So how much milk did Ankur and Shailu buy together?

For convenience we write **1 litre** as **ltr**.
For **1 millilitre**, we write it as **1 ml**.

Look at the given picture and say what you see.

Do and Learn:

Collect some small items. Now make a small group with five of your friends. Members of one group will give items to the other group and ask them to estimate the lengths of these items. Write the answer in the list below. Then measure the actual length of the items by using a scale or a meter scale.

The group whose answers are close to the actual measurement is the winner.

Item	Length estimated	Length (actual measure)
Pencil	——— cm	
Book	———	
Pen	———	
Duster	———	
Table	——— m.	
Pieces of ropes	——— m. —— cm	
———	———	
———	———	
———	———	

Make a similar group game to estimate weight and capacity.

Know this too :

1 meter	=	100 centimeter
or 1 m	=	100 cm
1 kilogram	=	1000 gram
or 1 kg	=	1000 gms
1 litre	=	1000 mililitre
or 1 ltr.	=	1000 ml

✦✦✦

LESSON 9

Time

What time is this? .....

What time is this? .....

What time is this? .....

Answer these questions

1. What work do you do in the morning?

_____

_____

2. What time is food served in your school?

_____

_____

3. What time do you play during the day?

_____

_____

4. What work do you do at night?

_____

_____

5. Who arrived first to the school from your class?

_____

_____

6. Who arrived last in your class yesterday?

_____

_____

7. Neeta is younger than Seeta, Can you say who was born first?

_____

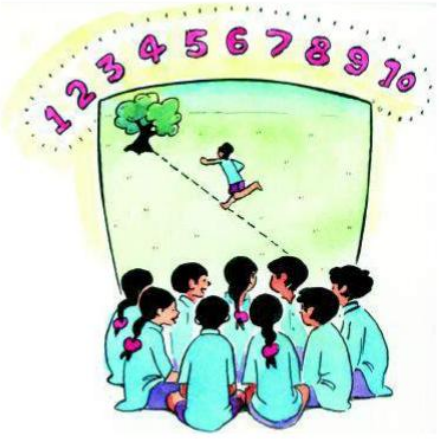
_____

8. Yesterday Golu and Ramu went to Raipur together. If Ramu returned yesterday itself and Golu came today, can you say who spend more time in Raipur?

_____

_____

Let us play a game



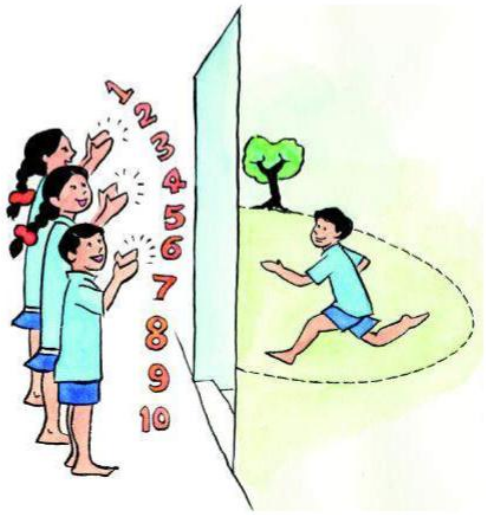
All the students of a class sit in a circle. One child goes and touches a tree and comes back. The rest of the children start counting as he leaves and continue counting untill he comes back.

Till what number did you count when he returned?———

Get another child to get up and go and touch the same tree and come back.

What number did you count upto for this friend? ——————————

Who came back faster?———————



Now one of you should go out of your class, take a round of the ground and then return. As he does this the remaining children should start clapping and count the number of times they clap untill he returns.

How many times did you clap for this? ————————

Now send out another friend to do the same and the rest should count the claps.

How many times did you clap for the second friend?——————————

Now can you say who took less time to go around the play ground and come-back?———————

Answer these:

Do you take longer to come to school or to eat your lunch? ————————

Do you take more time to have a bath or to brush your teeth? ——————————

Do you spend more time studying or playing? ——————————————

Write in order

1. Afternoon, Morning, Night, evening

   ——————————————————————————————

2. Today, yesterday, tomorrow.

   ——————————————————————————————

Observe and answer

What is this picture? ——————————————————

What do we use it for? ——————————————————

What numbers are written on this? ——————————————

What else do you see on the face of this? ——————————

You can see in the picture of the clock that its dial has numbers 1 to 12 written on the face. There are two hands : one long and the other short. The short hand is called the hour hand and the longer hand is called the minute hand.

Observe; read and understand

 The hour hand is on '8' The minute hand is on 12. It is 8 O'clock	 The hour hand is on '3' The minute hand is on 12. It is 3 O'clock
 The hour hand is on '9' The minute hand is on 12. It is 9 O'clock	 The hour hand is on '6' The minute hand is on 12. It is 6 O'clock

Answer these:

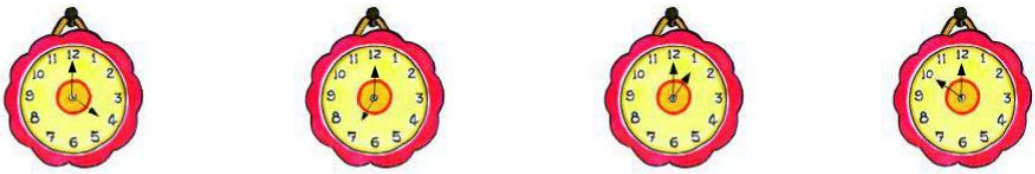
 The Hour hand is at ☐ and minute hand is on ☐

 The Hour hand is at ☐ and minute hand is on ☐

 The Hour hand is at ☐ and m nute hand is on ☐

 The Hour hand is at ☐ and minute hand is on ☐

Look at the pictures and the time shown is the clocks. Match the work you would be doing at the shown times.



Look at the pictures and draw the time at which you would do the work on the clocks given.

Look at

What is the time shown in this clock:

In the shown clock - the hour hand is between 10 and 11, and the minute hand has reached at 6 which is half the dial. The time is read as half past ten.

Observe and answer : What is the time shown in the following clocks?



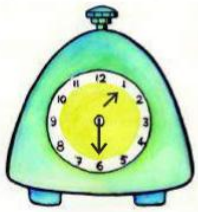

Half past nine			

Draw the hands at the correct position so that the time is read as written below·




Half past eight	Half past three	Half past four	Half past twelve

Try these: What time do you read in these pictures.

Observe and learn:

In the clock, the hour hand has crossed 10 and the minute hand is at 3 the time is quarter past 10.

In the clock the hour hand is close to 11 and the minute hand is at 9. The time is read as quarter to 11.

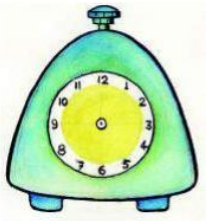
Look at the hands shown in these clocks and write the time.

Draw the correct positions of the hands so that the time is read as given below the pictures.

Quarter to four

Quarter to seven

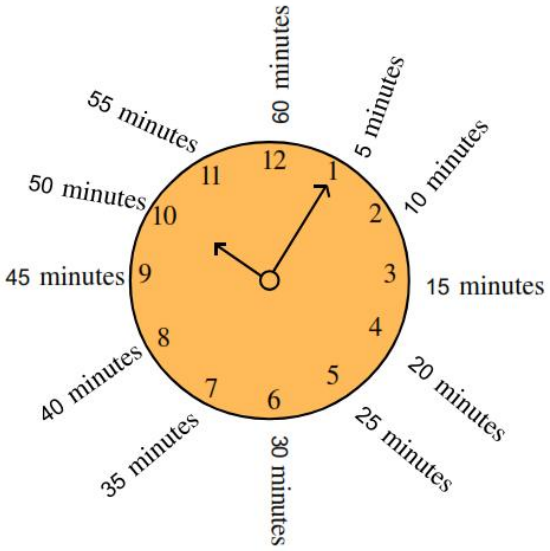
Quarter to nine



Quarter to six

Look at the picture of this clock carefully:

We know at 10 o'clock, the hour hand is at 10 and minute hand on 12. After this, the minute hand moves five small parts and reaches the number 1. To move each small part it takes 1, minute. So to go from 12 to 1 it takes 5 minutes and we say the time is 5 minutes past 10.



To take a full round of the dial, the minute hand takes 60 small parts. Thus it takes 60 minutes to go round the dial once.

Where as the hour hand in the same time moves from one number to the next.

60 minutes = 1 hour or 1 hour = 60 minutes

Now answer these :

The time taken by the minute hand to move from 1 to 2 = ____

The time taken by the minute hand to move from 3 to 4 = ____

The time taken by the minute hand to move from 4 to 6 = ____

The time taken by the minute hand to move from 2 to 3 = ____

The time taken by the minute hand to move from 6 to 7 = ____

The time taken by the minute hand to move from 3 to 6 = ____

The time taken by the minute hand to move from 3 to 6 = ____

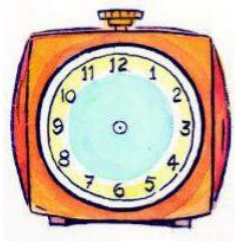
Observe and answer

What is the time

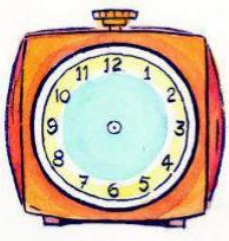
What is the time

Write the time shown in the clock.

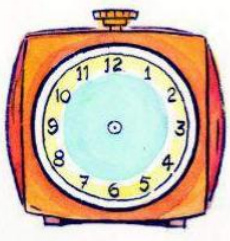
Show the time written below each clock in the given dials.



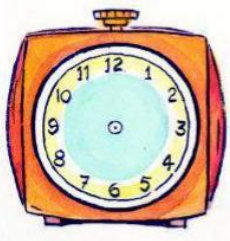
15 to 7



25 past 9



5 to 12



20 past 10

Let us read a Calendar

We can measure time in minutes and hours using a clock. We can also measure time in days and months. For this we make use of a calendar. You know the names of the days and months. Let as see what information can be obtained from a calendar.

September 2006					
Sun		3	10	17	24
Mon		4	11	18	25
Tus		5	12	19	26
Wed		6	13	20	27
Thr		7	14	21	28
Fri	1	8	15	22	29
Sat	2	9	16	23	30

Now answer these:

What day falls on 1st September? ————————————————

How many Sundays are there in this month? ————————————————

How many Wednesdays are there in this month? ————————————————

What is the day on 18th of September? ————————————————

What is the date on the first Friday of this month? ————————————————

Write the date of the first and second Saturdays of this month? ————

What is the difference between these two dates? ————————————————

Write the dates of the second and third Mondays of this month ————

Write the difference between these two dates ————————————————

How many weeks are there in this month?————————————————

Calendar 2010

January

Su	M	Tu	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

February

Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28						

March

Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

April

Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

May

Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

June

Su	M	Tu	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

July

Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

August

Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

September

Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

October

Su	M	Tu	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

November

Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

December

Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Let us make the calendar for January 2011

January 2011					
Sun					
Mon					
Tus	1				
Wed					
Thr					31
Fri					
Sat					

Make the calender for the remaining months of the year 2011

List of date of Births

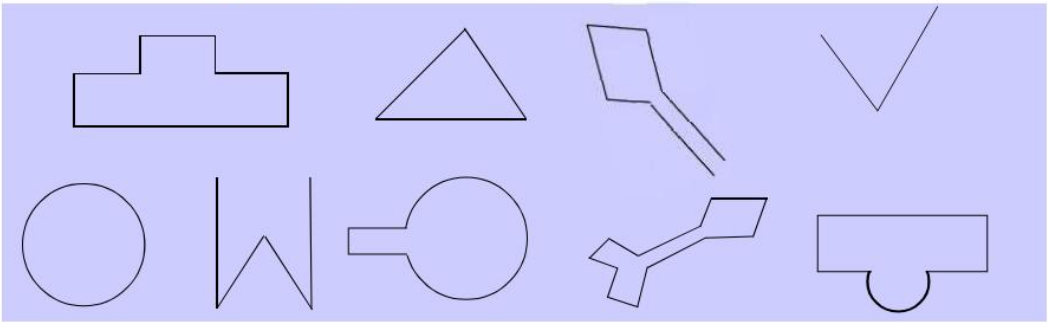
1.	Friend's Name	Date of birth	Month	Year
2.				
3.				
4.				
5.				
6.				
7.				

Make a chart like this and hang it in your classroom, so that you can wish your friends on their birthdays.

LESSON 10 Geometrical Figures

Closed and open figures

Look at the given figures carefully.

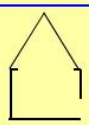


Now take a pencil and trace out the figures. Is there a difference in some of these? If so, what is the difference?

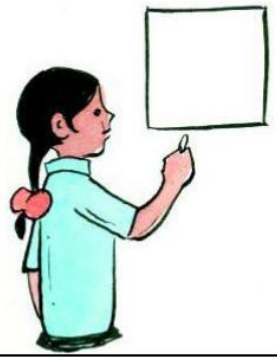
Some of the figures shown are such that when we trace them we reach at the point from where we started with out lifting our pencil these are called closed figures.

However there are some figures in which you cannot reach the place you started from without lifting your pencil. Such figures are called open figures.

Now say whether the following figures are closed or open?

Figure	Open/Closed	Figure	Open/Closed
			
			

Make some closed figures

Make some open figures

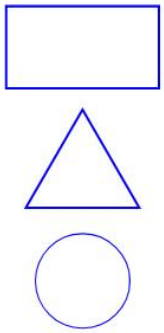
		

Match the figures with their names

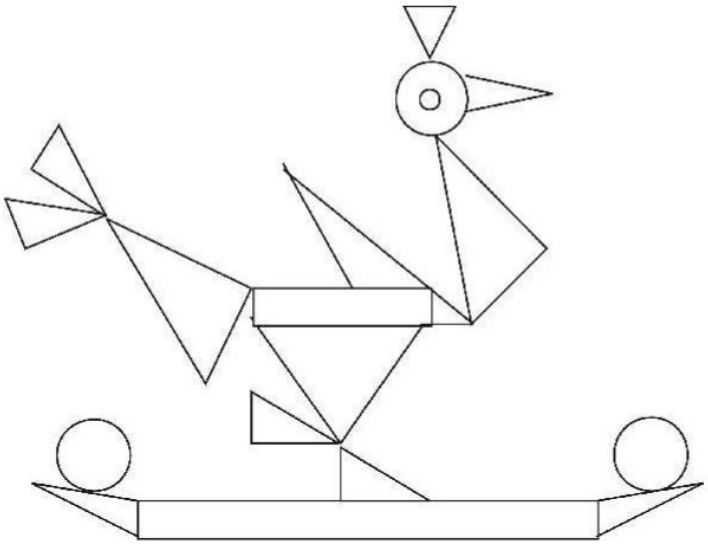
Circle

Quadrilateral

Triangle



Look at the picture given below and count the number of circles, quadrilaterals and triangles and write the number down:



How many ——————————

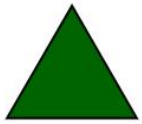
How many ——————————

How many ——————————

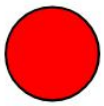
Are circle, quadrilaterals and triangles closed figures?

——————————————————————————————————————

Fill the pictures given below with the colours as shown

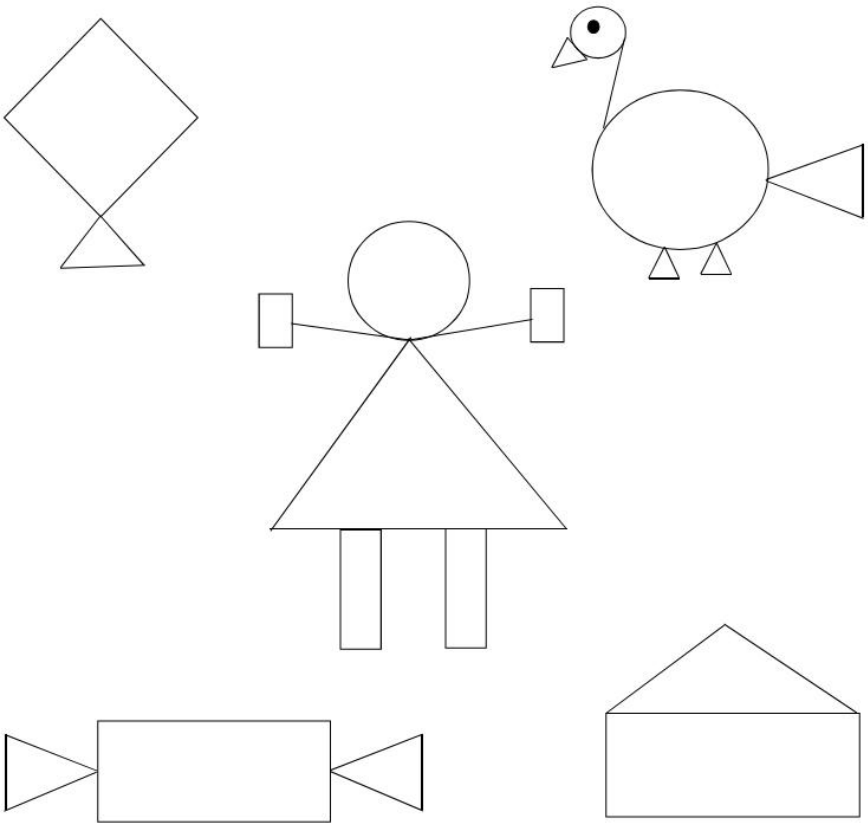


With Green



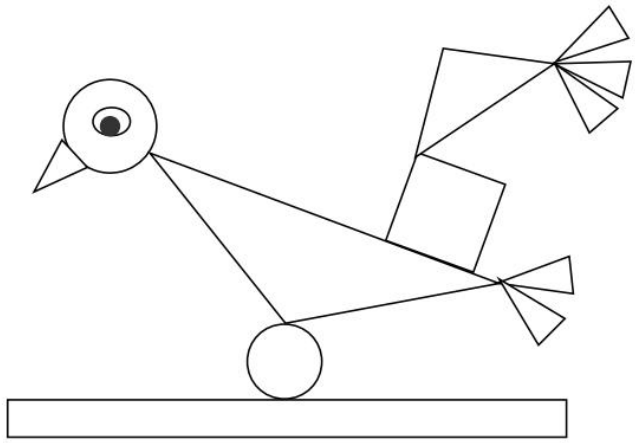
With Red

With Blue

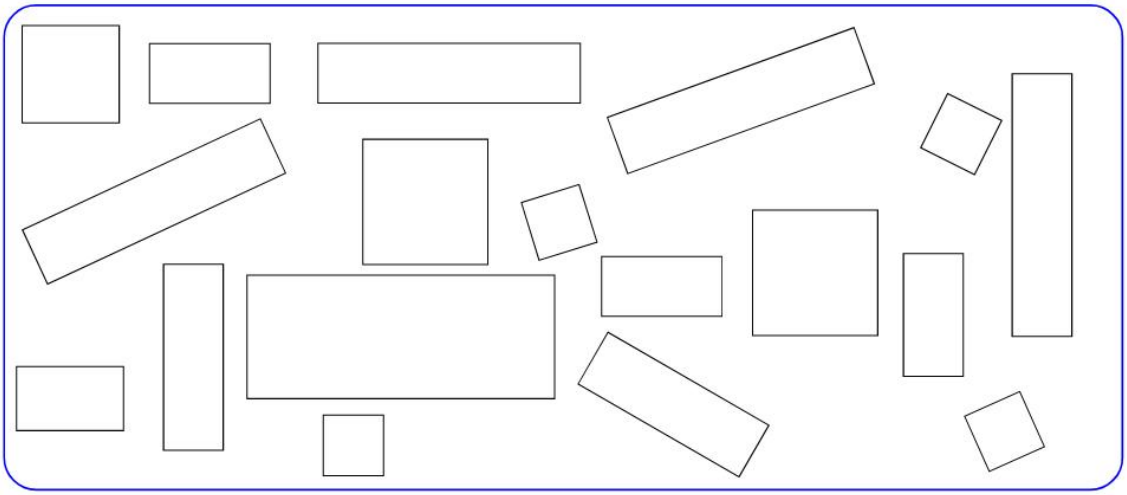


Take different shapes and made more pictures like these and colour them.

Fill in your favourite colours to this figure



Different types of quadilaterals



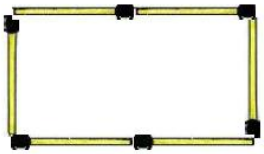
Several quadrilaterals have been drawn above. In all these opposite sides are equal and all angles are right angles. Such quaderilaterals are called rectangles.

A square is a particular type of rectangle

Do this

Collect some match sticks. Try making squares and rectangles on the floor using them.One example of each is shown below:

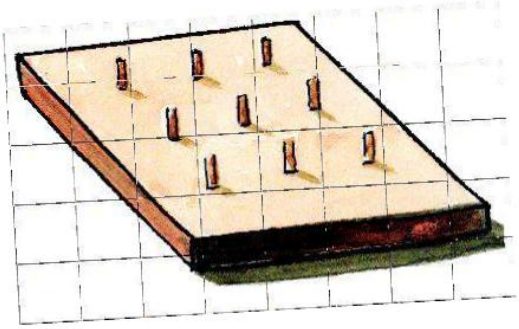
Square



Rectangle

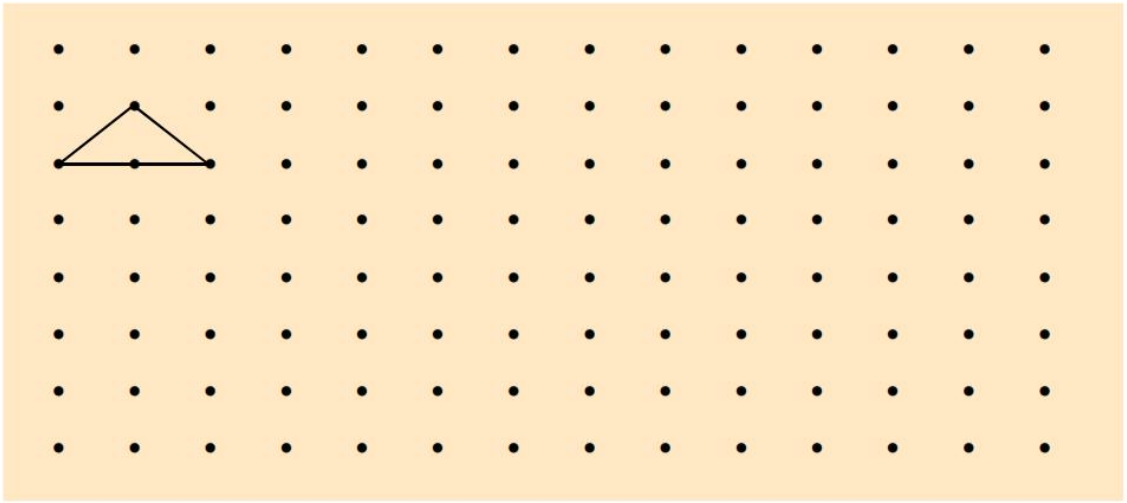
Collect the following items along with your friends: Match box, Shoe box, Cover of a bottle, Glass, Coin, Bangle, Rubber, Set squares from your compass box, Duster etc.

One by one place the item on a paper and run your pencils along the sides of it. You will get quadrilaterals, circles and triangles.

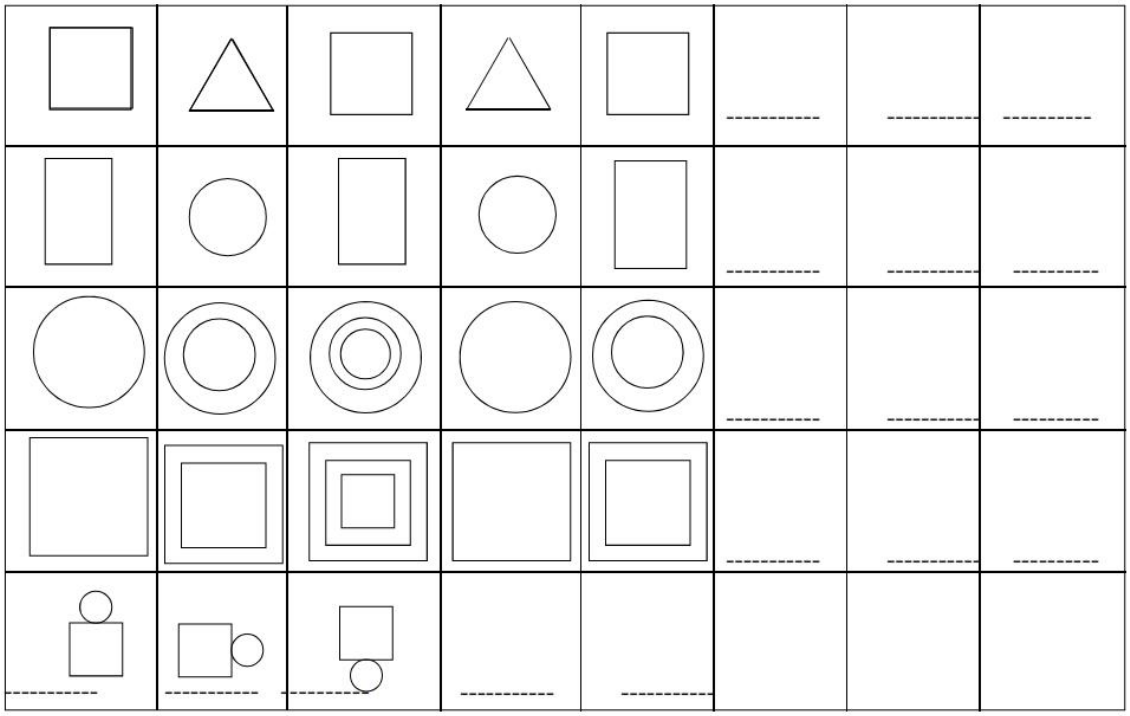


Your school may have a geo board (a wooden board with nails on it at equal intervals). Take this and using thread or rubber bands make the different figures.

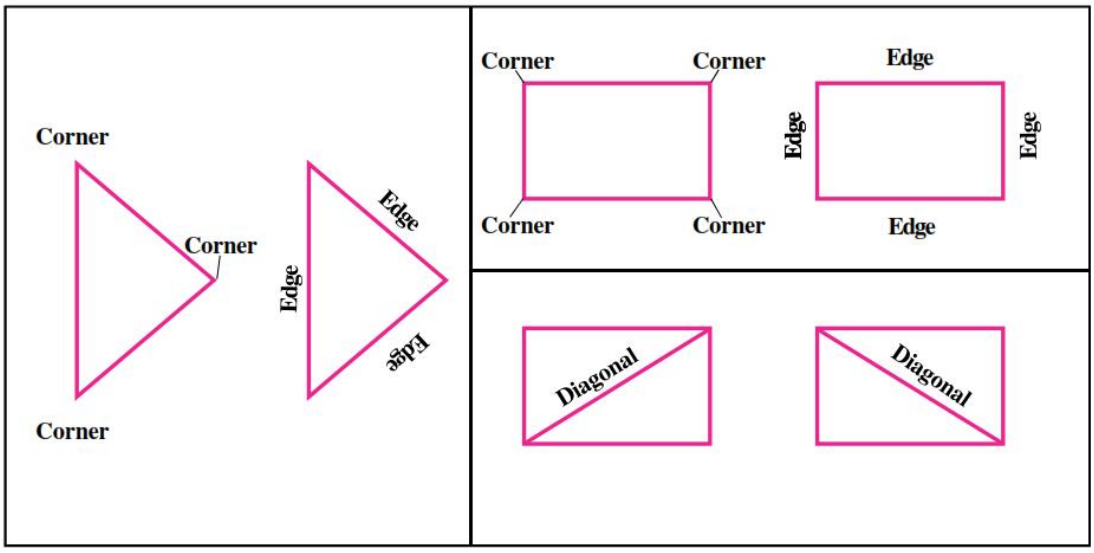
Joint the dots given below and make Triangles, squares and rectangles of different sizes.



Continue the pattern.



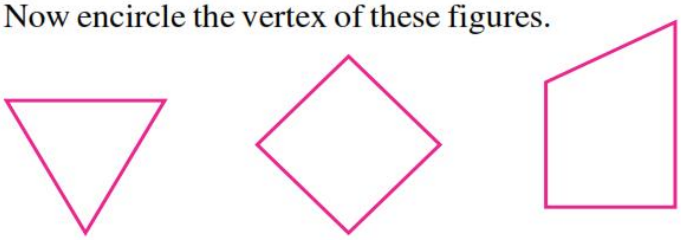
Look and learn



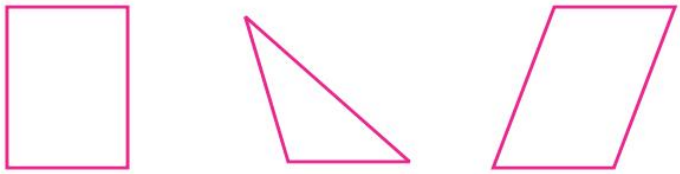
Corners is called vertex

Edge is called side

Now encircle the vertex of these figures.

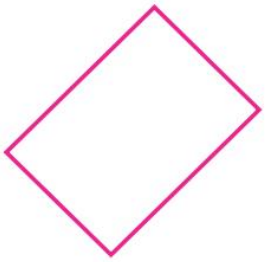
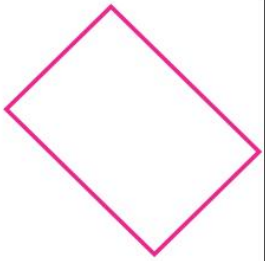


Now put a tick marks (✓) on the sides of these figures. 1



Draw diagonals of these figures.

Complete the table :

figures	No. of vertices (corners)	No. of sides (edges)	No. of diagonals
			
			
			
			

LESSON 11

Money

Do you know all the notes and coins shown above? Are there other notes and coins besides these? Discuss wtih your friends and teacher.

Can you say what these are used for?

Are all the coins alike?

Are all the notes of the same colour?

Is the length of all the notes same?

Is the breadth of all the notes same?

Recognise and write

	1 Rupee 75 paise
	——— Rupee 60 paise
	_____ Rupee _____ paise

When we want to buy some things from a shop, we need to make some quick calculations before giving the money.

Can you answer these questions without using paper and pencil?

One note of Rs.10, one note of Rs.2 and 25 paise would add to give?

Rs. 10 + Rs. 2 + 25 paise = Rs. 12 piase 25.

Similarly,

Rs. 5 + Rs. 20 + 50 paise + 20 paise = Rs. 25 piase 70.

Answer quickly:

Rs. 10 + Rs. 5 + 10 paise + 5 paise = Rs. _____ paise _____

Rs. 20 + Rs. 1 + 25 piase = Rs. _____ paise _____.

Rs. 5 + Rs. 2 + 25 paise + 10 piase =

Rs. 1 + Rs. 10 + 50 piase + 20 paise =

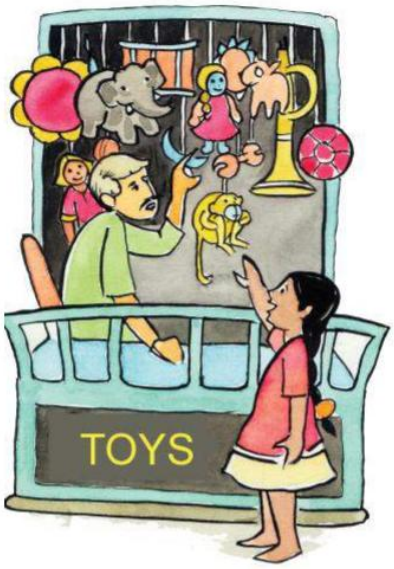
Rs. 50 + Rs. 20 + 20 paise + 10 paise =

Rs. 1 + 25 paise + 20 paise =

Rs. 5 + 20 paise + 5 paise =

Rs. 20 + Rs. 10 + 50 paise + 10 paise =

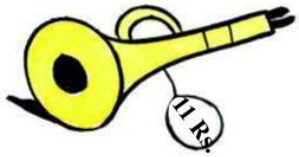
Let us play a game

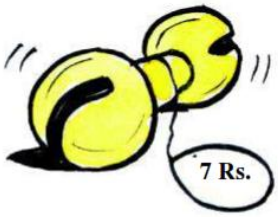


Make notes and coins using paper and different colour is with your friends. All the notes should be different colours and beautiful.

Make 10 notes each of Rs. 1, Rs.2, Rs. 5, Rs. 10, Rs.20, Rs. 50, and Rs. 100.

Collect different items such as toys, paintings, fruits made of plastic or mud etc. and set up a shop. Two children should be made shopkeepers. Put all the collected items in the shop with price tags on them.





Distribute the notes you have made among your friends, go to the shop and buy the items kept there. Calculate the amount you have to pay and you should also know what amount you should get back. You can take the help of your friends or your teacher.

Let us make coins

To make coins take one actual coin keep it under a paper and rub lightly with a pencil, and you will have an exact copy of the coin! similarly make different types of coins. Cut them out carefully using a pair of scissors. If you want you could stick these on a thick sheet.

You can have several coins in this way.

Make coins of 10 paise, 20 paise, 25 paise, 50 paise, Rs. 1, Rs. 2 and Rs. 5. If you don't have all of these, you could borrow those from your parents or teachers and return them after you have made your coins.

Think and answer orally

1. One chocolate is of 50 paise. How many coins of 10 paise would Deepa need to buy it?
2. Meeta wants to buy a pencil which costs 75 paise. How many coins of 25 paise would she give to the shopkeeper?
3. The cost of a copy is Rs. 5. Anil has two notes of Rs. 2. How much more would he need to buy the copy?
4. Priya has one note of Rs. 2 and three coins of Rs. 1. How much money does she have totally?
5. How many Rs. 2 notes would be given for one Rs. 10 notes?
6. Monu has one note of Rs. 20 and two notes of Rs 2. How much more money would be required to make it Rs.25?
7. Sonali has one coin of 50 paise and one coin of 25 paise. How much money does she have in all?
8. How much would three coins of 20 paise and one coin of 25 paise add to give?
9. How many 5 Rs. notes would you get instead of one note of Rs. 20?
10. The cost of a rubber is 80 paise. How many coins of 20 paise would you need to buy this?

Adding to give a total amount

Have you ever thought that when you go to buy any item you can make the payment using notes of different values.

For example if you were to buy a book worth Rs. 8 you can pay in the following ways:

First method

One note of Rs. 5
+ One note of Rs. 2
+ One note of Rs. 1
= Rs. 8

Second Method:

Four notes of Rs. 2 = Rs. 8

Can you think of other ways of giving Rs. 8?

Think and write

Third method

Fourth Method

Now do the following exercise

1. Use two different methods to give Rs. 7.
2. Make Rs. 11 using notes of diffferent values.
3. Make use of different values of notes to give Rs. 18.
4. On buying vegetables worth Rs. 14, in how many ways could you give that amount?
5. If you have purchased things worth Rs. 23. In how many ways could you give Rs.23. Make some more questions like these and ask your friends.

Solve the statement sums

1. Hemwati needs Rs.100 to buy books. She has Rs. 40 with her. How much more money would she need to buy the books?
2. Nisha wants to buy a radio worth Rs. 350. She keeps aside Rs.5 everyday. In how many days would she collect the required amount?
3. Amit bought some sugar worth Rs. 5. He gave the shopkeeper Rs.10. How much money would he get back?
4. Raziya bought a toy worth Rs. 12 and some baloons for Rs. 5. How much money would she have to give the shopkeeper?
5. Shailu bought some items worth Rs. 40. She gave a Rs. 50 note to the shopkeeper, How much money would she get back?
6. The cost of a copy is Rs. 7. How many can you buy if you have Rs. 21?
7. A farmer paid Rs. 140 for sowing and Rs. 85 for weeding as labour. How much money did he give in all?
8. A panchayat spends Rs. 120 on tree plantation, Rs. 80 on class decoration and Rs. 65 on having a class meeting in their school. How much money was spent by the panchayat totally?
9. Omi puts Rs. 3 in his piggy bank every day. How much would he collect in 7 days?
10. The cost of a chair was Rs. 140. It has now increased to Rs. 160. Now tell how much has the price increased?

LESSON 12

Preparing Bills

One day Anjali's mother sent her to a shop to buy some goods. After reaching the shop Anjali asked the shopkeeper the price of some goods. As the shop was crowded the shopkeeper asked her to see the pricelist.

Anjali saw the price list which as follows –

Chhattisgarh grocery shop, Amoda

Price List

S.N.	Item	Price
1	Wheat	Rs. 20 per kg.
2	Sugar	Rs. 40 per kg.
3	pulses	Rs. 70 per kg.
4	Potato	Rs. 10 per kg.
5	Onion	Rs. 10 per kg.
6	Groundnut Oil	Rs. 80 per kg.

Anjali asked the shopkeeper – What is the meaning of wheat Rs. 20 per kg. The shopkeeper said – If means that the price of one kilogram of wheat is Rs. 20. Anjali said – okay. Now she saw the whole price list and bought the things her mother had asked her to buy. The asked the shopkeeper to prepare bill.

The bill given by the shopkeeper was as follow –

Bill

Mobile-987599626

Chhattisgarh grocery shop, Amoda

Sr. No.-03 Date 06.07.2017

Name – Anjali

S.No.	Item	Quantity	Rate (in Rs.)	Amount (in Rs.)
1	Potato	2 Kg	10/-	20/-
2	Onion	1 kg	10/-	10/-
3	Sugar	1 kg	40/-	40/-
			Total	**70/-**

Signature

CG Grocery Shop

Bittu purchased 2 kg wheat and 1 litre oil from the same shop. How would the shopkeeper have prepared the bill for it?

Bill

Chhattisgarh grocery shop, Amoda

Sr. No.- Date

Name –

S.No.	Item	Quantity	Rate (in Rs.)	Amount (in Rs.)

Signature

CG Grocery Shop

Mita also purchase 1 kg potato, 1 kg onion and 1 kg pulses, Prepare a bill for it.

Bill

Chhattisgarh grocery shop, Amoda

Sr. No.- Date

Name –

S.No.	Item	Quantity	Rate (in Rs.)	Amount (in Rs.)

Signature

CG Grocery Shop

When you go to a shop to purchase goods do see the price list and prepare a bill of the purchased goods yourself.

Bill

.....

Sr. No.- Date

Name –

S.No.	Item	Quantity	Rate (in Rs.)	Amount (in Rs.)

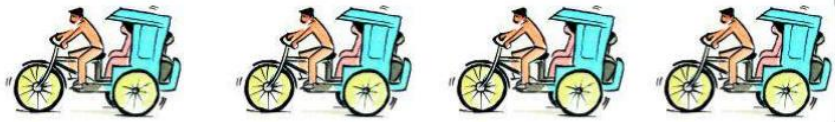
Signature

CG Grocery Shop

LESSON 13

Representing Data by Pictographs

After school Monu was going home walking. She saw several vehicles until she reached home. She wrote down the names of each of vehicle and made a list. She also drew the picture of the vehicle in front of the name:

Cycle	
Cycle-rickshaw	
Scooter	
Bullock-cart	
Jeep	
Bus	
Truck	
Tractor	

Look at the above list and tell :

1. Which vehicles did Monu see? ————————————————
2. Which is more in number, the jeeps or bullock carts? ————————
3. Which vehicles were seen equal in number? ————————————
4. Which vehicles were seen the maximum? ————————————

Monu has shown the number of cars through pictures. This is called a pictograph.

The number of vegetables is Hemwati's kitchen is shown in picture form.

Onions	
Potatoes	
Tomatoes	
Carrots	
Brinjals	
Cauliflowers	

Look at the pictograph and write the number of each vegetable.

1. Cauliflowers ———— 2. ———————— 3. ————————

4. ———————— 5. ———————— 6. ————————

Look at the pots shown below.

Rose

Hibiscus

Marigold

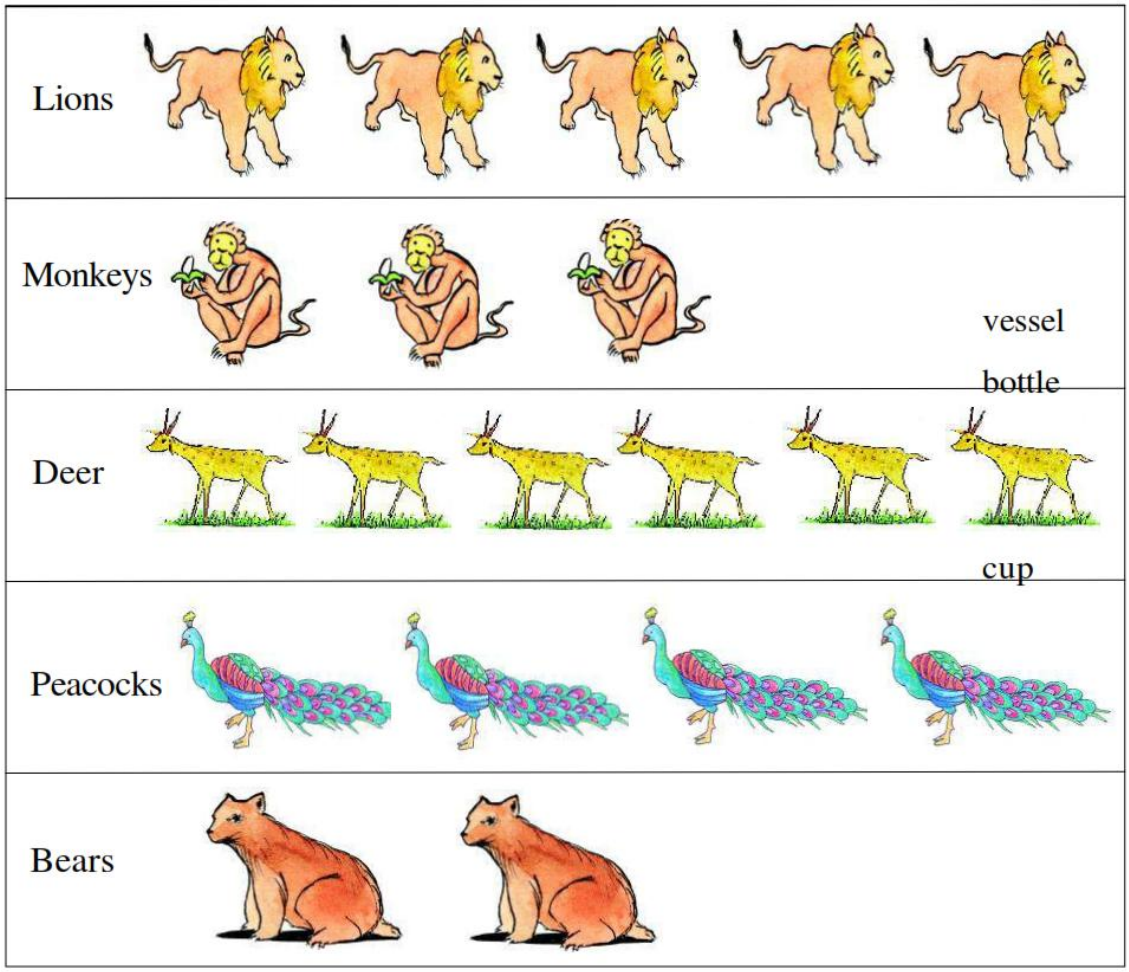
Sevanti

Mogra

Look at the picture and answer the following:

1. How many flowers does the rose plant have? ————————————
2. Which plant has more flowers, the Sevanti or the Mogra?————————
3. Which plant has lesser flowers, the Hibiscus or Marigold? ————————
4. Which plant has maximum flowers? ————————————
5. Which plant has minimum flowers? ————————————
6. Which plants have flowers equal in numbers? ————————————

Minesh has a number of toys in his room which are shown in the following picture:



Answer these:

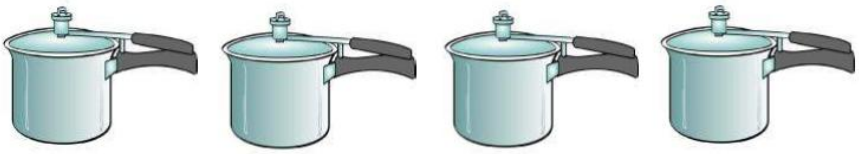
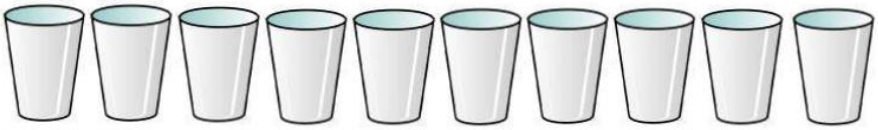
1. What different animals does Minish have as toys? ————————

2. Which type of animals toy is the largest in number? ————————

3. Which type is more, the number of lions or Bears?————————

4. Which type of animal toys are equal in number? ————————

Number of utensils found in Abhishek's kitchen has been shown in the picture.

vessel	
bottle	
cooker	
glass	
cup	

Draw a vertical line for every picture shown above

picture	vertical line	number of lines
vessel	| | |	3
bottle		
cooker		
glass		
cup	| | | | | | | | | | |	11

Do this

1. On a holiday, you can see different types of animals around your house. Write their names on a piece of paper and draw a picture of each animal as you see it.

Look at the table you made and answer these questions :

1. Which type of animals are found the most around your house?
2. Which animal is found the least?
3. Which animal did you not see at all?
4. Are only domestic aniamals found around any house?

LESSON 14

Area

Today all the children of class III have brought an empty match box. Nobody is able to understand why the teacher has asked them to bring empty match box. The teacher comes to class. He asked them to collect their match boxes. He arranged them on the surface of Hindi text book in such a way that the whole surface of the book was covered. Then he discussed it with his students –

- How many match boxes were arranged? .....
- Was there empty space on the surface of the Book? .....

  That means surface of book = ...Surface of matchboxes.

Measurement with bangles –

You have arranged match boxes on the surface of book. Now arrange bangles on the surface of book.

- How many bangles were arranged?
- Was the surface of book fully covered with bangles?
- Was there also empty space in between when matchboxes were arranged on the surface of book?

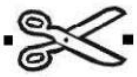
Remove the given box (square pieces) from the book.

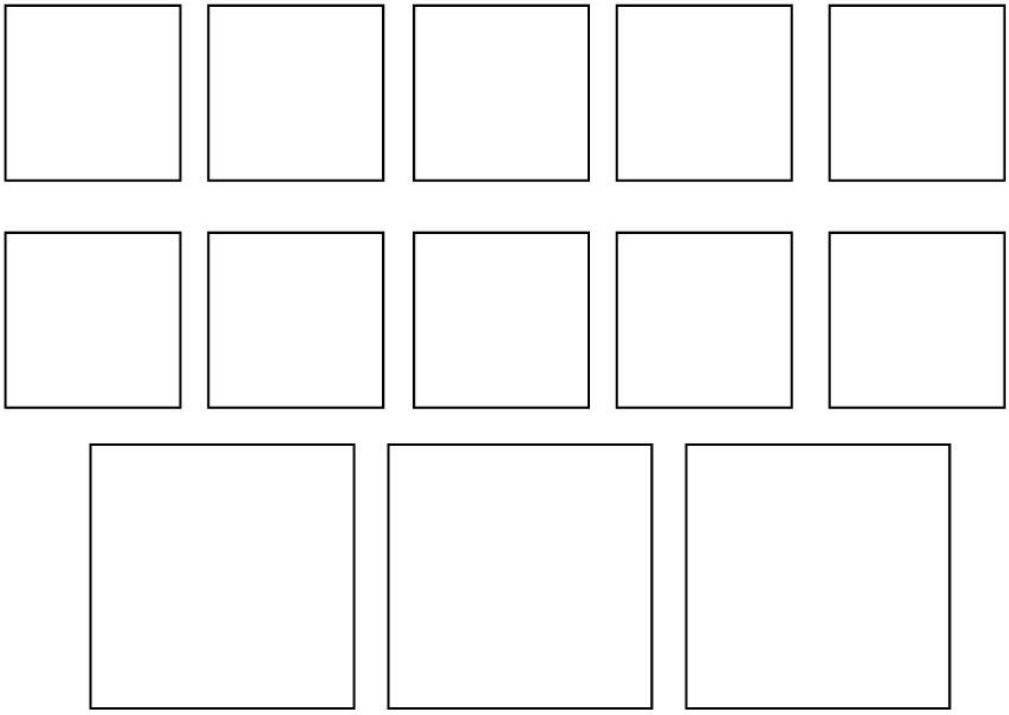
Stick a thick sheet behind it. Cut all the square pieces combine all the pieces of square from your friends too. Now place the bigger square piece serially above your mathematics book's surface. Fill the entire surface. How many pieces completely occupy the book surface?

Surface of book = _____ surface of pieces.

Now repeat the process with the small square pieces.

If there a small portion is remained after placing big square pieces then you can place small square pieces over there.





Our Devanagari Numerals

Introduction and Exercises

Our Numerals

Pihu's grandmother was doing some calculations on the table. Pihu looked her calculation but couldn't understand it, they seem to be some new digit to Pihu. She asked her grandmother about them.

१.	Sugar	१Kg.	३५ Rupees
२.	Potato	३Kg.	६० Rupees
३.	Onion	२ Kg.	२४ Rupees
४.	Soap	१Pieces	१८ Rupees
५.	Oil	१Litter	८५ Rupees
६.	Dal/ Pulses	१/ २Kg.	३८ Rupees
७.	Salt	२Packet	२० Rupees
		Total :	२८० Rupees

Grandmother said that these are also numerals, we learnt mathematics with these numerals. Grandmother also showed Pihu a calendar with these numerals.

Pihu wanted to ask more about the numerals, but grandmother was busy for her work. So, she told Pihu to asked more about them from her teacher.

Next day Pihu asked more about the numerals to her teacher in the class. Teacher said –
"These are the numerals of Devanagari script." These numerals are also used to write numbers.

These digits are like 0, 1, 2, 3, 4, 5, 6, 7, 8, & 9 which are just as to write numbers. In Devanagari digits these are written as ०, १, २, ३, ४, ५, ६, ७ ८ & ९

Numbers

In order to write numbers we make use of numerals such as 0, 1, 2, 3,..... These are known as international numerals . We can also write numbers in the Devanagari numerals. Let us see the numerals as they are written in both the scripts :

International numerals	0	1	2	3	4	5	6	7	8	9
Devanagari numerals	०	१	२	३	४	५	६	७	८	९

The following table has numbers written in figures and in words. Learn to identify each number and read its name :

1	१	एक	26	२६	छब्बीस	51	५१	इक्यावन	76	७६	छिहत्तर
2	२	दो	27	२७	सत्ताईस	52	५२	बावन	77	७७	सतहत्तर
3	३	तीन	28	२८	अट्ठाइस	53	५३	तिरपन	78	७८	अठहत्तर
4	४	चार	29	२९	उनतीस	54	५४	चौवन	79	७९	उन्यासी
5	५	पाँच	30	३०	तीस	55	५५	पचपन	80	८०	अस्सी
6	६	छः	31	३१	इकतीस	56	५६	छप्पन	81	८१	इक्यासी
7	७	सात	32	३२	बत्तीस	57	५७	सत्तावन	82	८२	बयासी
8	८	आठ	33	३३	तैंतीस	58	५८	अट्ठावन	83	८३	तिरासी
9	९	नौ	34	३४	चौंतीस	59	५९	उनसठ	84	८४	चौरासी
10	१०	दस	35	३५	पैंतीस	60	६०	साठ	85	८५	पच्चासी
11	११	ग्यारह	36	३६	छत्तीस	61	६१	इकसठ	86	८६	छियासी
12	१२	बारह	37	३७	सैंतीस	62	६२	बासठ	87	८७	सत्तासी
13	१३	तेरह	38	३८	अड़तीस	63	६३	तिरसठ	88	८८	अठासी
14	१४	चौदह	39	३९	उनचालीस	64	६४	चौंसठ	89	८९	नवासी
15	१५	पंद्रह	40	४०	चालीस	65	६५	पैंसठ	90	९०	नब्बे
16	१६	सोलह	41	४१	इकतालीस	66	६६	छियासठ	91	९१	इक्यानवे
17	१७	सत्रह	42	४२	बयालीस	67	६७	सड़सठ	92	९२	बानवे
18	१८	अठारह	43	४३	तैंतालीस	68	६८	अड़सठ	93	९३	तिरानवे
19	१९	उन्नीस	44	४४	चौवालीस	69	६९	उनहत्तर	94	९४	चौरानवे
20	२०	बीस	45	४५	पैंतालीस	70	७०	सत्तर	95	९५	पंचानवे
21	२१	इक्कीस	46	४६	छियालीस	71	७१	इकहत्तर	96	९६	छियानवे
22	२२	बाईस	47	४७	सैंतालीस	72	७२	बहत्तर	97	९७	सत्तानवे
23	२३	तेईस	48	४८	अड़तालीस	73	७३	तिहत्तर	98	९८	अट्ठानवे
24	२४	चौबीस	49	४९	उनचास	74	७४	चौहत्तर	99	९९	निन्यानवे
25	२५	पच्चीस	50	५०	पचास	75	७५	पचहत्तर	100	१००	सौ

Fill in the blanks

২ hundreds, ৫ tens, ৩ Ones	২৫৩
৫ hundreds, ৩ tens, ১ Ones	
১ hundreds, ০ tens, ৫ Ones	
৫ hundreds, ৩ tens,, ৪ Ones	
৪ hundreds,৪ tens, ৬ Ones	
৫ hundreds, ৫ tens, ৫ Ones	

Read and Understand

One Ones →

Hundreds	Tens	Ones

One Tens →

Hundreds	Tens	Ones

One Hundreds →

Hundreds	Tens	Ones

Write the following numbers in words

২২১	Two hundred and twenty one
৬১৮	
৩৫৮	
৬৬৫	
৮১০	
৯০০	
১২০	
৮৫	
৫১৮	

Encircle ○ the mentioned digit

Hundred's digit	(০) ১ ১	Ten's digit	৪ ৯ ১
One's digit	২ ০ (১)	One's digit	৮ ০ ৮
Ten's digit	৫ (৫) ৫	Hundred's digit	২ ৫ ৫
One's digit	৩ ৫ ৫	Ten's digit	৩ ৫ ৫
Hundred's digit	১ ৫ ০	Hundred's digit	৬ ৮ ৫
Ten's digit	১ ২ ১	One's digit	৫ ৬ ১

Write the expanded forms of the given numbers

३६३ = ३०० + ६० + ३	६३० =..... + ... + ...
४२४ = ... +..... + ...	३३६ =..... + ... + ...
६०५ = ... +..... + ...	४४० =..... + ... + ...
७६६ = ... +..... + ...	३४५ =..... + ... + ...
५५५ = ... +..... + ...	६८७ =..... + ... + ...

२. **The expanded forms of some numbers are given. Write the number that you get by adding them:**

५०० + ७० + ८ = ५७८	७०० + ५० + १ = ...
६०० + ५० + ४ = ...	२०० + ६० = ...
६०० + ७० + ६ = ...	६०० + ६० + ३ = ...
१०० + २० + २ = ...	५०० + ७ = ...
३०० + ६० + ६ = ...	४०० + ३० + ६ = ...

३. **The teacher had written the place values of the digits in the given numbers on cards and placed them next to the number, but some naughty children changed the positions of some cards and erased some of the written place values.**
Fill in the erased place values and then rearrange, write the proper expanded form :

५६१ = [ ] + [५००] + [१] =..... + ... + ...

६८५ = [५] + [ ] + [६००] =..... + ... + ...

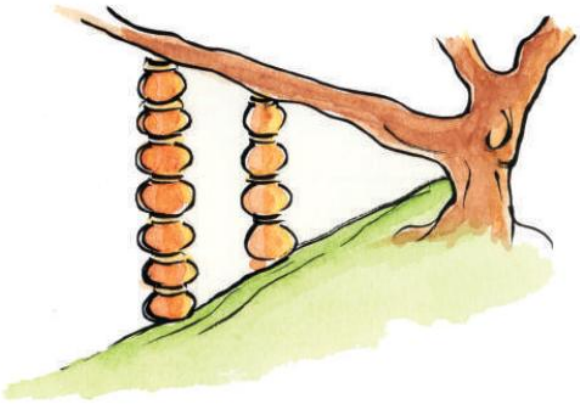
૫૬૬ = ૬ + ☐ + ૬૦ =..... + ... + ...

૮૬૦ = ૦ + ૬૦ + ☐ =..... + ... + ...

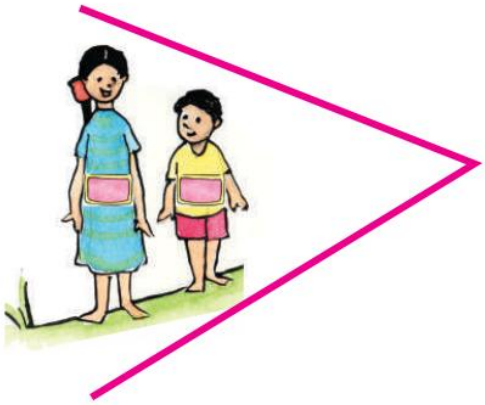
૩૦૫ = ૩૦૦ + ☐ + ૦ =..... + ... + ...

Let us compare

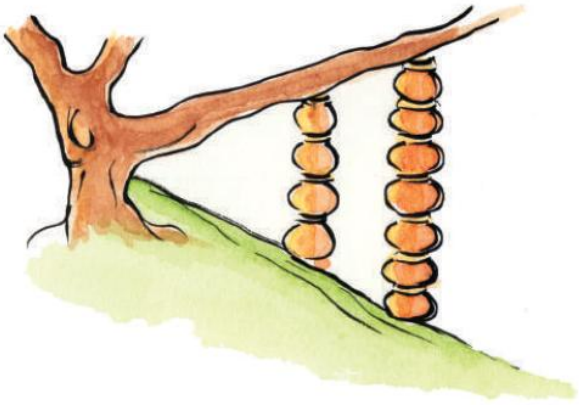
Rani Mangal



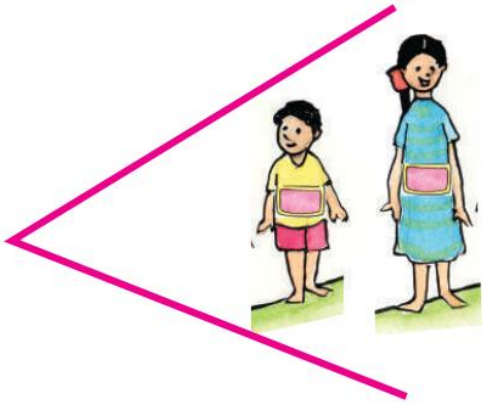
In case of numbers, we say 7 is greater than 4- Written as 7 > 4



Rani is taller than Mangal

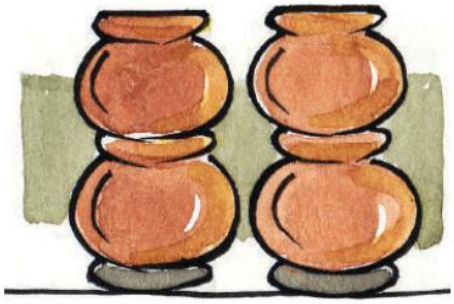


4 is less than 7 Written as 4 < 7



Mangal is smaller than Rani

Consider another situation



In numbers ২ equals ২ which is written as ২ = ২

Raju is as tall as Rani

Read

১২ > ৩

১২ is greater than ৩

১৫৬< ২০১

One hundred ninety six is less than two hundred one

১১৬ > ১১০

One hundred sixteen is greater than one hundred ten

৫৮০ < ৫৫৫

Nine hundred eighty is less than nine hundred ninety nine

< Less than
> Greater than
= Equals to

Exercise

১. Compare the numbers and put the appropriate sign <, > or = in the given boxes.

৫		৩	৪০		২০	৩৫		৫৩
৩১		২১	৬১		৬০	৫৫		১০০
১৫২		২৫২	৩০৬		৩০৬	৪৫৩		৪৫৩
৬৬৬		৫৫৫	৬৫৫		৮০০	৫০৫		৫০৫
৬৫৬		৬৬৫	৪৫০		৫৪০	৬৫		৫৬

೨. Write the given numbers in a decreasing (descending) order .

೮,	೩೪,	೨೬	೩೪,	೨೬,	೮
೫೦,	೧೦,	೪೦	.....,	.....,	.....
೧೨೧,	೧೩೬,	೬೧	.....,	.....,	.....
೧೦೦,	೨೦೬,	೫೧೨	.....,	.....,	.....
೮೦೦,	೨೦೦,	೪೦೦	.....,	.....,	.....

೩. Arrange the given numbers in an increasing (ascending) order.

೮,	೪೫,	೨೧	೮,	೨೧,	೪೫
೪೬೬,	೨೬೬,	೬೬೬	.....,	.....,	.....
೨೧೫,	೩೫೧,	೧೫೧	.....,	.....,	.....
೬೦೧,	೩೦೬,	೮೦೦	.....,	.....,	.....
೧೦೦,	೬೦೦,	೩೦೦	.....,	.....,	.....

೪. Write the next three numbers as shown.

೧೨೮	೧೨೮	೧೨೬	೧೩೦
೪೧೮			
೬೬೮			
೫೮೩			
೮೮೮			

೫. Write the preceding three numbers to the given number as shown.

೧೦೫	೧೦೪	೧೦೩	೧೦೨
೩೬೫			
೨೦೧			
೬೬೮			
೫೦೦			

Let us make numbers

१. If we are given two digits ७ and ३, we could make two numbers using these :

७३ and ३७

२. From १ and ५, the numbers we get are :

१५ and ५१

३. Similarly, if २, ८ and ६ are given, we could get ६ numbers

२८५, २५८, ५२८, ५८२, ८५२, ८२५

Now take nine cards with digits १ to ९ written on them.

Pick any two cards and make the possible two digit numbers (you would get only two). Let your friends try too.

Now take ३ cards at a time and make the different numbers using these. See who made the maximum numbers?

Learn by doing

१. Make numbers using the given digits.

(१) २, ७ --------, --------

(२) ५, २ --------, --------

(३) ८, ३ --------, --------

(४) ३, १ --------, --------

In each pair that you have formed, encircle the number which is greater.

२. Make numbers using the three given digits

(१) ३, ४, १, --------, --------, --------

(२) १, २, ९ --------, --------, --------

(३) ३, ७, ८ --------, --------, --------

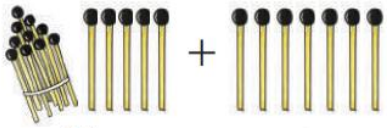
(४) ०, ५, ६ --------, --------, --------

(५) ४, १, ० --------, --------, --------

From the numbers which you formed, encircle the smallest number.

How to Add?

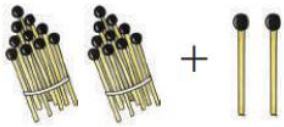
(૧) Addition of ૧૫ and ૭



૧૫ + ૭

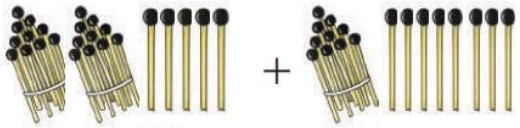
= 

૧૦ + ૧૨

= 

૨૦ + ૨ = ૨૨

(૨) Addition of ૨૫ and ૧૮



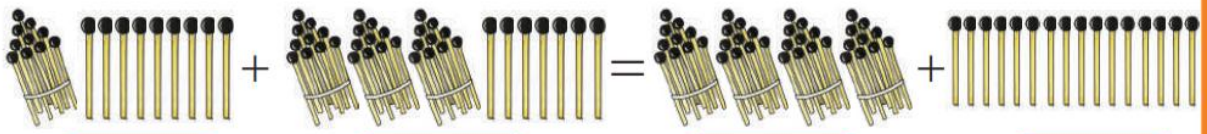
૨૫ + ૧૮

૩૦ + ૧૩

= 

૪૦ + ૩ = ૪૩

Add the bundles and the match sticks

(૧) 

☐ + ☐ = ☐ + ☐

= 

= ☐ + ☐ = ☐

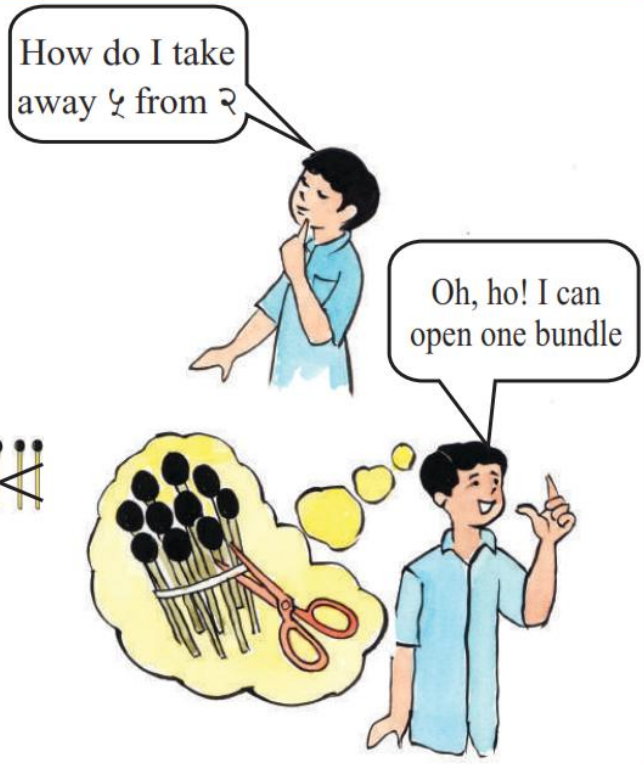
(૨) 

☐ + ☐

= 

= ☐ + ☐ = ☐ + ☐ = ☐

How many are left?



On subtracting २५ from ४२

	४ २
−	२ ५

	३ १२
	४ २
−	२ ५
	१ ७

Solve these

(१) ४१ − २६ =

(२) ५५ − ३६ =

(३) ५६ − ३२ =

(४) ५० + २४ =

(५) १८ + ६ =

(६) ८६ + १५ =

You can use bundles and match sticks to solve the given sums.

Fill in the blanks

(१) १६ + २५ = ...

(२) ३८ − ३८ = ...

(३) ..... − ५० = ३४

(४) ..... + ३४ = ६६

(५) ६४ + ... = ८६

(६) ४४ + २४ = ...

(७) ५२ − ..... = ५०

(८) ७५ − ..... = ०

Addition and Subtraction

You have solved the sums of addition and subtraction in your book. Now you know that we can use Devnagari script also to write the numbers. It is interesting that the process of solving these question not change when we use these numerals.

Read and Understand

Subtract २१७ from ८४६

८ ४ ६	८ ४ ६	८ ४ ६	८ ४ ६
- २ १ ७	- २ १ ७	- २ १ ७	- २ १ ७
	२	३ २	६ ३ २

Hence, ८४६ - २१७ = ६३२

Now Subtract

१. २४४ from ३७५	२. २१५ from ६२५
३. ३०३ from ६३८	४. ६०४ from ६२५
५. ५५६ from ८७६	६. ५ from १६८

Exercise

Solve

(१)

	३	१ ८
+	२	३ ४

(२)

	२	२ ७
+	४	३ ४

(३)

	३	० ६
+	२	६ ६

(४)

	१	६ २
+	२	२ ३

(५)

	३	८ १
+	२	४ ४

(६)

	३	८ ०
+	२	६ ६

(७)

	४	६ ७
+	३	३ ४

(८)

	३	५ ७
+	७	७

(९)

		५ ८
+	२	६ ६

Add the given numbers

(१) ४४६ and १३६

(२) २०७ and ५०५

(३) ३७३ and १६३

(४) ६५७ and २४३

(५) ३०४ and २१७

(६) ७३ and ५६६

Let us Subtract some more

૧૭૪ from ૪૦૦	૩૬ from ૧૦૫	૩૦૫ from ૬૦૦
૭૦ from ૪૦૩	૧૫૪ from૨૫૩	૩૩૬ from ૮૦૪
૩૮૦ from ૭૦૦	૨૭૫ from ૪૧૦	
૨૬૬ from ૮૦૫	૪૭૧ from ૮૦૦	

Take any ૩ digits and make two numbers. Subtract the smaller from the greater number and show to your friends.

Addition –

१. In a cricket match Basant made ५४ runs, Rahul made ३८ runs and Sunil made ४४ runs. How many total runs were made in all?

२. A backyard has १२० roses, १०० mogra and १६० jasmine. How many flowers are there in the backyard.

३. A bus has ५० seats. ६३ people travelled in the bus. How many travelers didn't got the seat?

४. Government Primary School Bhursapar has ३४० students. If १६६ of them are girls. Then calculate the number of boys in the school.

५. Pinky, Tinku and Jagat were playing a throwing game of the ball without dropping it. Pinky throws ४८ times, Tinku throws ६६ times and Jagat throws २४ times without dropping it . How many times they all together throw the ball without dropping it.

Subtraction

६. Harish took ७७५ rupees to market. He bought glasses for ८२ rupees. How much money does he have now?

७. Sunil took ७६६ custard apple to the market. He sold २३६ custard apple. How many custard apple were left with him?

८. Arthi's story book has १३५ pages. She has read ४२ pages. How many more pages she has to read to finish the book?

९. ८० passengers travelled in the bus. ५२ passengers got the seats. Tell how many passengers didn't got the seat?

१०. Anita's father gave ३३७ rupees to Anita. He still has २२४ rupees with him. How much money her father had in the beginning.

Multiplication

Hina and Pakhi were playing. Some hens were playing nearby. Some hens come near verandah. Both of them started counting one, two, three ..... seven. Hina shouted loudly – "Seven hens". Hina's uncle were listening to them and he asked Hina and Pakhi – "Tell now many legs the hens have in total?" Pakhi replied instantly – "fourteen". Hina asked "how? Let me know". She counted and said fourteen.

Hina's uncle asked them to tell the way they calculated the legs. Hina told she added two seven times. This way she got १४ legs of ७ hens.

Then, Pakhi told she multiplied २ × ७ and got १४ legs.

Pakhi's way : २ × ७ = १४

Hina's way : २ + २ + २ + २ + २ + २ + २ = १४

Both of them had their own way and both of them got १४ legs we can say २ + २ + २ + २ + २ + २ + २ = २ × ७ = १४

२ added seven times = २ × ७

Now tell :

५ + ५ + ५ = ५ × ..... = ...

This way we can say that

multiplication is repeated addition of numbers.

Understand the table given below and write the tables of ४, ५, ६ and ७

Table of २	Add	Table of ३	Table of ४	Table of ५	Table of ६	Table of ७
२ + १	→	३ + १	→			
४ + २	→	६ + २	→			
६ + ३	→	९ + ३	→			
८ + ४	→	१२ + ४	→			
१० + ५	→	१५ + ५	→			
१२ + ६	→	१८ + ६	→			
१४ + ७	→	२१ + ७	→			
१६ + ८	→	२४ + ८	→			
१८ + ९	→	२७ + ९	→			
२० + १०	→	३० + १०	→			

Make the tables of ३ and above in your copy. After that complete the multiplication list made below.

Complete the Table

X	१	२	३	४	५
१					
२			२×३=६		
३					
४					
५					

X	१	२	३	४	५
६					
७					
८		१६			
९					
१०					

X	६	७	८	९	१०
६					
७					
८				७२	
९					
१०					

X	७	३	५	२	१
८					
४					
६			३०		
१०					
९					

Exercise

१. Some numbers are written below in the form of being added again and again. Write it in the form of multiplication of two numbers.

(१) ३ + ३ + ३ + ३ = ३ × ४ (२) ६ + ६ + ६ + ६ = ...

(३) ५ + ५ + ५ + ५ + ५ =..... (४) ४ + ४ + ४ + ४ + ४ + ४ + ४ = ...

(५) ५ =..... (६) ० + ० + ० = ...

२. Write the multiplication given below in the form of repeated addition of a number.

(१) ६ × ४ = ६ + ६ + ६ + ६ (२) १० × १ =

(३) ७ × ५ = (४) १२ × ५ =

(५) १५ × १ = (६) ० × ३ =

Lets Make a Table

In the table given below, some numbers are filled. Fill the remaining places:

२	२ × १ = २
२ + २	२ × २ =
२ + २ + २	२ × ३ =
२ + २ + २ + २	२ × ४ =
२ + २ + २ + २ + २	=
२ + २ + २ + २ + २ + २	=
२ + २ + २ + २ + २ + २ + २	=
२ + २ + २ + २ + २ + २ + २ + २	=
२ + २ + २ + २ + २ + २ + २ + २ + २	२ × ६ =
२ + २ + २ + २+ २ + २ + २ + २ + २ + २	२ ×१० = २०

What are Multiplicand, Multiplier and Product?

Let us understand-

A carpenter makes ३ cots in one day.

In ७ days, he can make २१ cots.

You know that we can write this as

३ × ७ = २१

When we write an example related to multiplication in such a manner, it is called a **multipliaction fact**.

Thus ३ × ७ = २१ is a multiplication fact

Here ३ is called a multiplicand

७ is called a multiplier and

२१ is called as their product

Now write the multiplicand, multiplier and product in each of these multiplication facts.

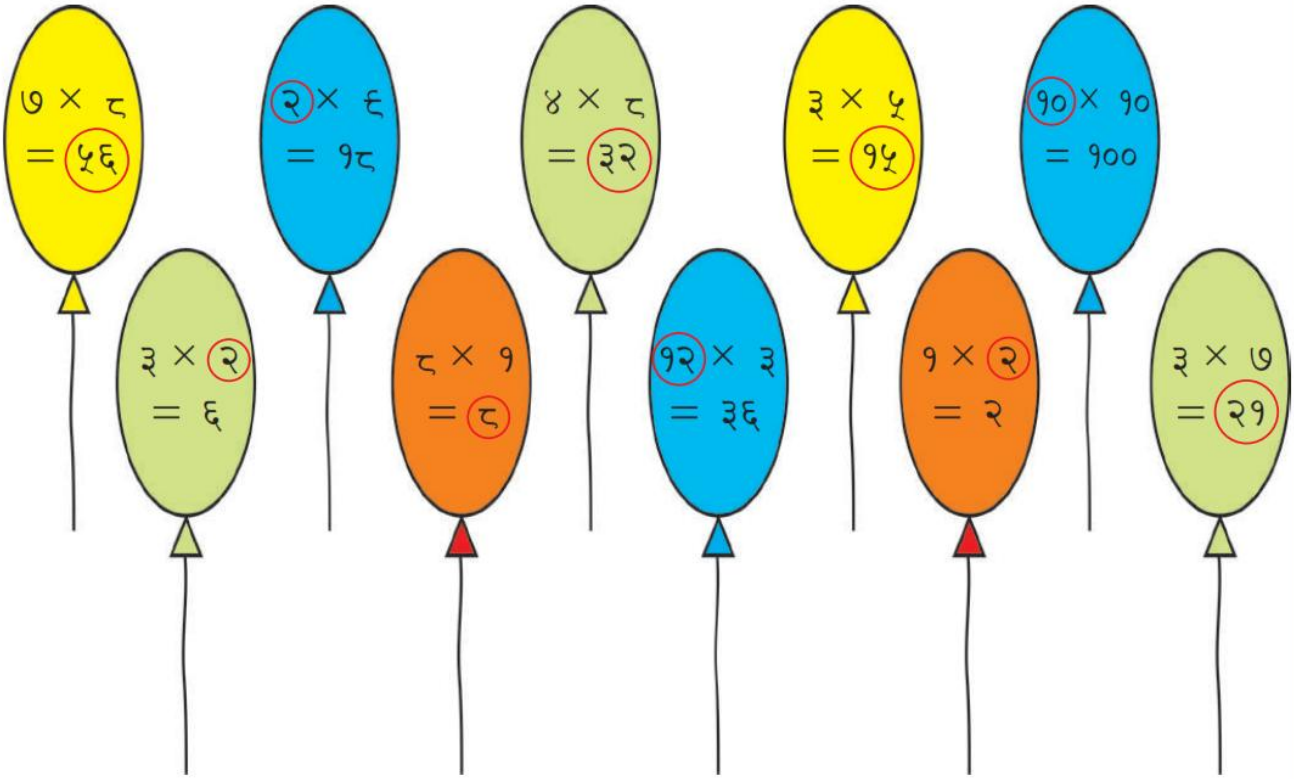
२ × ५ = १०	Multiplicand.....	Multiplier.....	Product.....
६ × ६ = ५४	Multiplicand.....	Product.....	Multiplier.....
८ × ८ = ६४	Multiplier.....	Multiplicand.....	Product.....

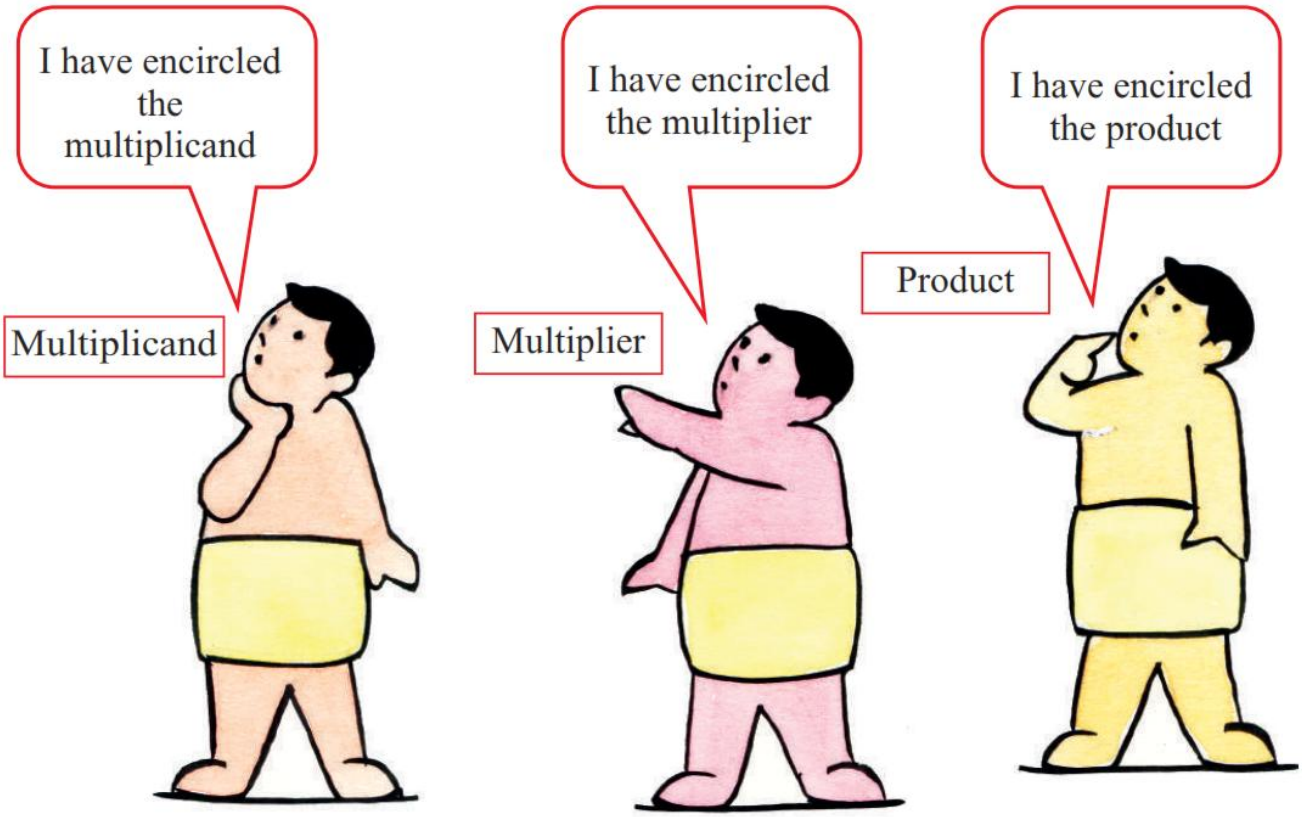
In the following multiplication facts, write what the encircled number is a multiplicand or a multiplier or a product.

In	५ × (४) = २०	४	is a multiplier
In	६ × १२ = (१०८)	.....	is a _____
In	(८) × ३ = २४	.....	is a _____
In	३ × (८) = २४	.....	is a _____
In	४ × २ = (८)	.....	is a _____

Who was holding which of these balloons?

Match with a line





Let us do some more sums

๑. ๔ ๕ × ๗	๒. ๕ ๔ × ๓	๓. ๓ ๗ × ๕
๔. ๖ ๕ × ๔	๕. ๓ ๓ × ๖	๖. ๕ ๗ × ๗
๗. ๓ ๐ × ๕	๘. ๗ ๒ × ๖	๙. ๕ ๕ × ๖

Till now you have done multiplication of a two digit, number by a single digit number. Let us do a multiplication involving a three digit number and a single digit number

Let us understand this by an example - Multiply ๒๔๑ by ๒

๒ ๔ ๑ × ๒ ๒	Multiply ๑ in the units place with ๒ ๑ × ๒=๒ units Write ๒ in the unit's place.
๒ ๔ ๑ × ๒ ๘ ๒	Multiply ๔ in the ten's place with ๒ ๔ × ๒ = ๘ tens write ๘ in the ten's place.
๒ ๔ ๑ × ๒ ๔ ๘ ๒	Now Multiply ๒ of the hundred's place with ๒ ๒ × ๒ = ๔ hundreds Write this in the hundred's place. Thus, we get ๒๔๑ × ๒ = ๔๘๒

Now try some more such sums

१ १ २ × २	२ १ ० × ३	१ १ १ × ५
१ ० १ × ५	२ ० १ × ४	३ १ ० × ३
४ १ ७ × १	१ ० २ × ३	१ १ १ × ६

Number Game

Think of any one number ६	Think of any one number ————
Now double it. ६ × २ = १२	Now double it. ————
Now multiply this by five १२ × ५ = ६०	Now multiply this by five ————
What you got the number.	What you got the number.
Divide it by १० ६० ÷ १० = ६	Divide it by १० ————

Was the number you got the same as the number, you had initially thought of? Now take more numbers and do the same.

Exercise

१. If a Kabaddi team has ७ players, then १२ such teams will have how many players?

२. A house has २४ goats. How many legs they have in all?

३. A prayer is going in a school. If one row has १० kids. Then how many kids are there in ५ rows.

४. If a acre of the farm produces ३५ bags of wheat. Then how many bags of wheat will ७ acres of the farm produces?

५. ३ Vehicles went to the barat, if each vehicle has २५ barati. Then how many people went to the barat?

Division

Varsha saw some flowers in her backyard and thought of making bouquet. She picked some flowers from backyard. She placed the flowers in three glasses filled with water. Varsha had 12 flowers. She equals distributed flowers in all the glasses. She placed one flower in each glass and was left with few flowers. She again placed one more flower in each glass. She again placed the remaining flowers one by one in each glass. This way she made the bouquet.

Now you tell how many flowers are there in each glass?

Let's see

$12 \div 4 = ?$

We have to divide 12 pabbles into four groups. For this take twelve pebbles. Make four circles on the ground. Place one pebble in each circle.

This means we have divided four pabbles and 8 pabbles are remaining. Now place one more pebble in each circle.

We have four more pabbles. Place again one by one pebbles in each circle.

This way we divided 12 into 4 equal parts and each part had 3 pabbles.
Therefore, $12 \div 4 = 3$. Its read "Twelve divided by four equals three."

Now you too make circles, collect stones and do the following divisions.

१. ६ ÷ ३ =

२. १८ ÷ ३ =

३. १० ÷ २ =

४. १२ ÷ ४ =

५. १५ ÷ ५ =

६. १६ ÷ २ =

७. १८ ÷ ६ =

८. १२ ÷ ६ =

९. २५ ÷ ५ =

१०. २१ ÷ ७ =

Which of these questions took a longer time for you to solve? You saw that we can divide things by making circles or drawings. But it takes a longer time.

Now Practise

१. २८ ÷ ७

२. २७ ÷ ३

३. ३६ ÷ ९

Solution:

```
    ४
७ ) २८
  - २८
  ----
    ०
  ----
```

Dividend = २८
Divisor = ७
Quotient = ४

Dividend = ...
Divisor = ...
Quotient = ...

Dividend = ...
Divisor = ...
Divisor = ...

४. ५६ ÷ ७

५. ४० ÷ ५

६. १६ ÷ २

७. ६४ ÷ ८

८. ३२ ÷ ४

९. ३६ ÷ ६

You have seen how to divide by saying tables. Can you do all divisions using this method? Let us divide ८४ x ७ and see.

७) ८४

Let us say the table of ७

Seven ones are seven

Seven twos are -------

Seven threes are -------

Seven tens are seventy.

We have not managed to reach 84 at all and we don't know the tables beyond tens.

Solve and write the dividend, divisor and quotient.

३) ३०	२) ४४	७) ७७	४) ८४
३) ४५	२) ४८	२) ६८	३) ८७
४) ६८	४) ५२	८) ६२	७) ८७

Let us see

६३६ ÷ ३ = ?

```
      २
३ ) ६३६
  - ६
  ---
    ०
```

First we divide the hundred's digit.

३ twos are ६.

In the quotient we write २

Write ६ below ६ and subtract.

```
      २१
३ ) ६३६
  - ६
  ---
    ०३
  - ३
  ---
    ०
```

Now, we take down ३ of the ten's place,

So we write १ in the quotient

Write ३ below ३ and subtract.

Even now we have ६ left with us.

```
      २१३
३ ) ६३६
  - ६
  ---
    ०३
  - ३
  ---
    ०६
  - ६
  ---
    ०
```

So we take down ६

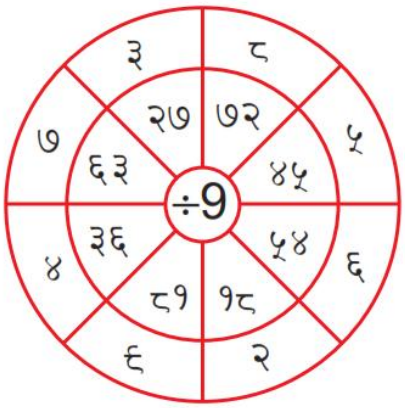
३ threes are ६

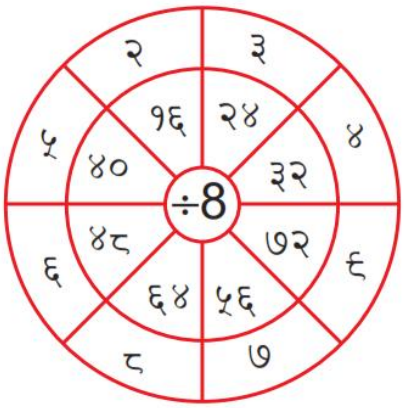
Write ३ in the quotient

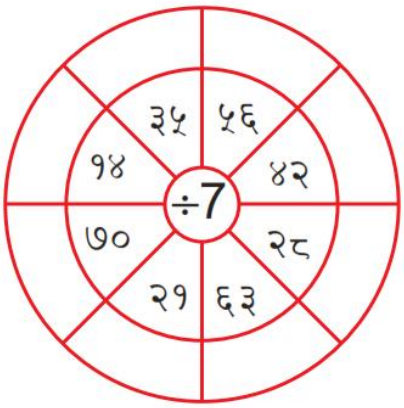
Write a below ६ and subtract

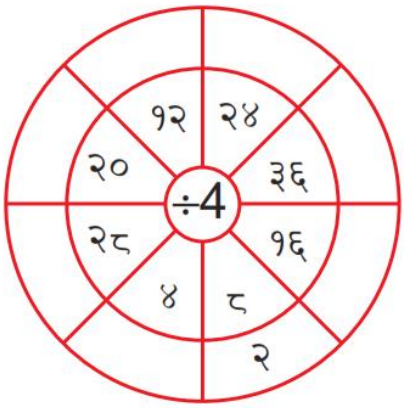
Thus we get २13 as the quotient.

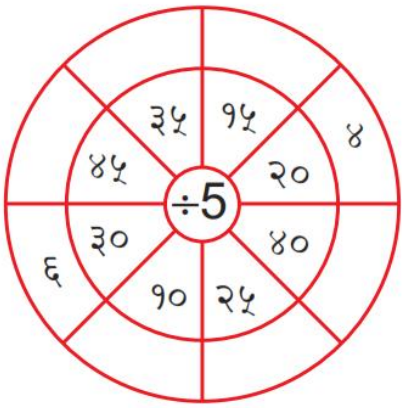
Complete these

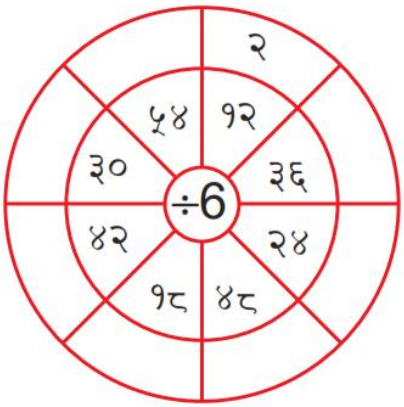












Fill in the blanks

१.

३५	÷	५	=	७
	×	५	=	३५

२.

६	×	८	=	
७२	÷		=	८

३.

	×	६	=	४८
४८	÷		=	

४.

५	×		=	४५
४५	÷		=	

१. A tractor has ६८ bags of urea. If ४ labourers helped to unload equal number of bags. How many bags did each labour unload?

२. Today is sonam's birthday. She brought २४२ chocolate to distribute. If each child get २ chocolate. How many children are there in sonam's school.

३. If one person wants to divide ५२८ rupees equally among his ४ daughters. How much will one daughter get?

४. Naina read a book of ८० pages in १० days. How many pages she read in one day?

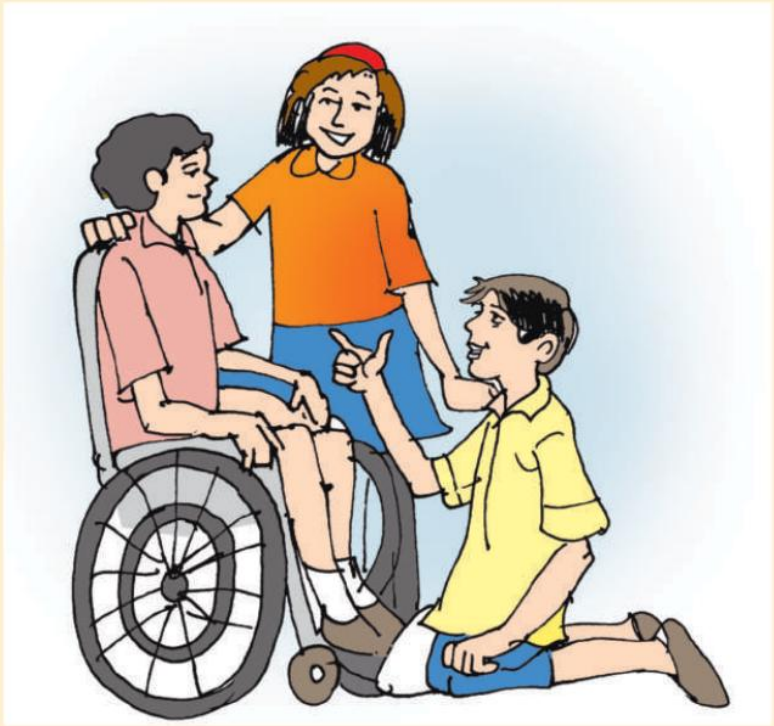
५. In a farm ६ flower bed are made. If ६०० plants are to be planted. How many plant will be there in each flower bed.

If there are mentally challenged students in your class:

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

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

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



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

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