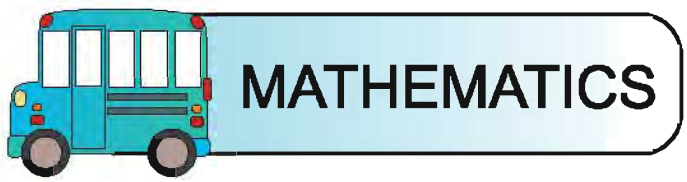
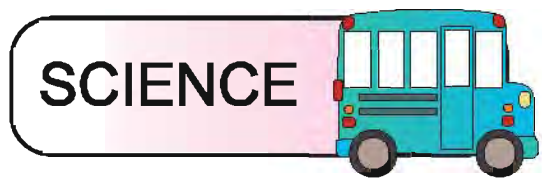
Government of Tamilnadu

STANDARD FIVE

TERM III

VOLUME 2





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MATHEMATICS

STANDARD FIVE

TERM III

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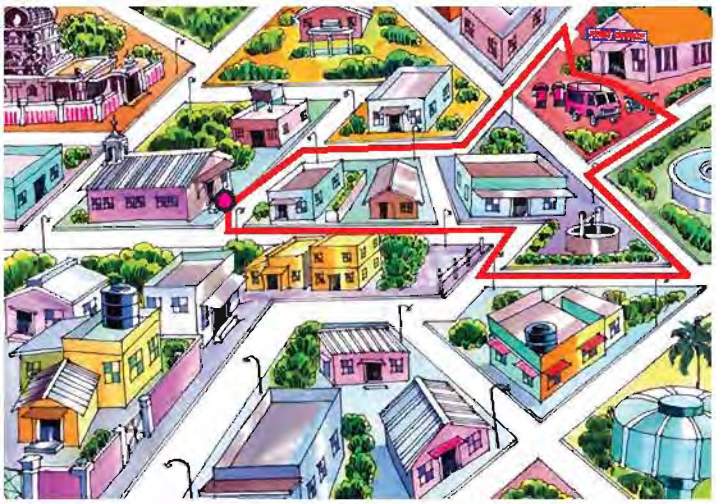
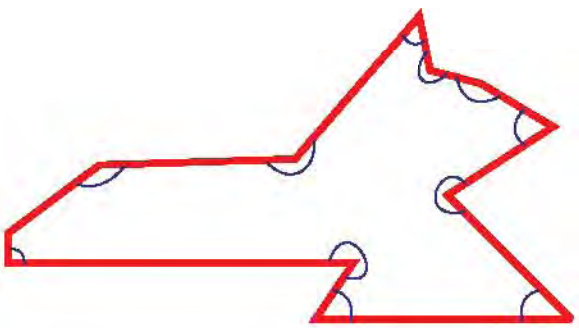
1 Angles

Tracing the way

John went to the post office to post letters. Tracing the way, he walked back (Red line on the street plan) and we get a shape like this.





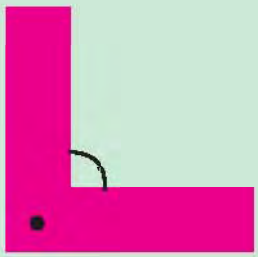
A shape is made up of lines which are called the sides of the figure. Two sides meet at a vertex, where they make an angle. Mark those angles by drawing "◝" this way.

Activity

Trace two other ways to reach the post office from any of the two houses. You may get closed shapes again. Mark the angles.

Activity **Make your own angle tester.**

Cut two strips from a chart paper. Keep one strip over the other and fix a drawing pin in one corner so that both the strips can move around easily. Now, angle tester is ready to use.

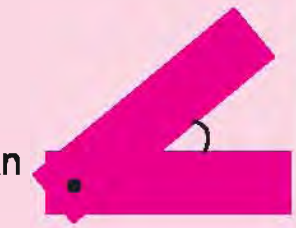


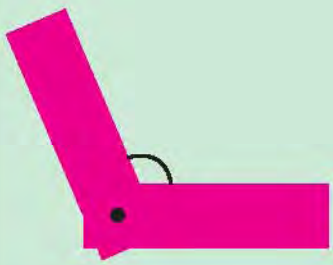
Keep the two strips as shown like the English alphabet "L".

Can you see the angle formed between two strips? What is it called? This is a **Right angle**.

Fix the two strips like this

Here, one strip is bent towards the other. Again a different angle is formed which is less than a right angle. It is called an **Acute angle**.





Keep the two strips as shown in the diagram

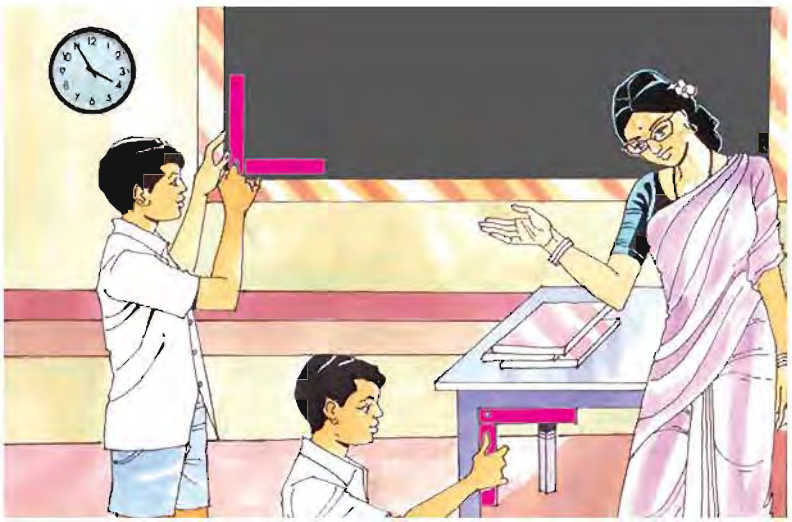
What can you observe?

One strip is bent away from the other. Again a different angle is formed which is more than a right angle and it is called an **Obtuse angle**.

Activity

By using angle tester go around your class room and look for right angle, angles less than right angle and more than right angle.

Two positions are shown for you. Find the other positions and fill the table.



Position Placed	Angle Tester	Type of Angle
Corner of the Black Board		Right Angle
Hands of the clock		Obtuse Angle

Paper Folding Activity

Step : 1
Take a square sheet of paper.

Step : 2
Fold it in half.

Step : 3
Fold it once more and press it.

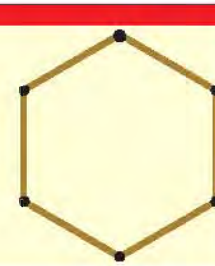
Step : 4
Open the last fold so that the sheet is folded in half.

Step : 5
Take one corner and fold it to meet the dotted line.

On the paper you will find lines making a right angle, an angle less than a right angle and an angle more than a right angle. Look for each of the angles and mark them with different colours.

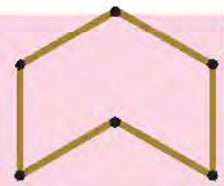
Group Activity

The teacher calls six students from the class to come with their skipping ropes. She then asks them to form a shape like this



She calls one student to move to the centre.

The shape changes like this.

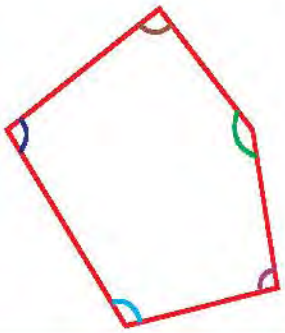


She calls for another student to move to the centre.
Another new shape is formed.

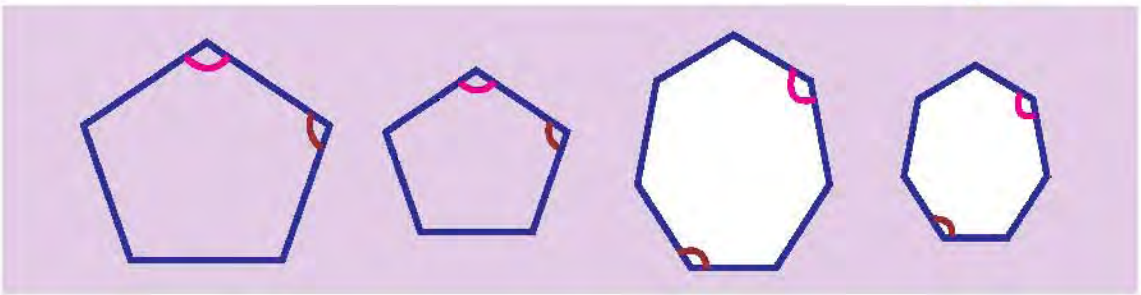
When the angle changes, the shape also changes.

Practice Time

❖ Look at the shape and answer.



The angle marked in ..... colour is the most obtuse angle.



❖ Look at the above shape and put the tick (✓) mark for the correct answer.

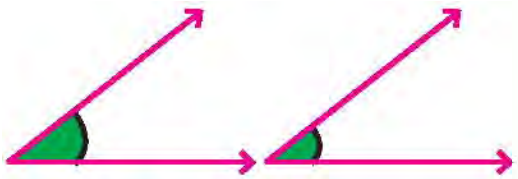
Are the angles marked in pink colour equal? (Yes / No)

Are the angles marked in brown colour equal? (Yes / No)

❖ Compare the two angles in the following diagrams.
Take your angle tester ( ) and measure both the angles.

Are the two angles given in the diagrams equal?

Say Yes / No? and discuss.



Group Activity

Using the bunches containing 3, 4, 5, 6, 7 & 8 sticks of same length, try to form different shapes by changing angle between the sticks in each of the closed shapes.

Angle and time

In the clocks given below draw the hands of the clock which makes right angle.




3:00 | | | |

Draw the hands of the clock when they make an angle which is less than right angle. Also write the time.




5:35 | | | |

Draw the hands of the clock when they make an angle which is more than right angle. Also write the time.




10:35 | | | |

Write what kind of angle is made by the hands of the clock as shown in the picture. Also write the time.

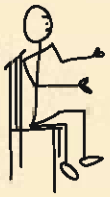



Acute Angle | | | |

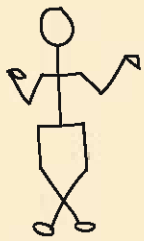
4:05 | | | |

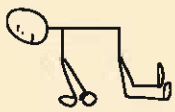
Angle and posture

Observe the angles in the following stick figures and form these angles:



- A right angle with your leg
- An angle less than right angle with your hand
- An angle more than right angle with your leg
- An angle more than right angle using both the hands
- Try all possible postures draw them using stick figures and enjoy.





Angles in alphabets

In the name MANOHAR

12 right angles, 13 acute angles and 5 obtuse angles are shown to you.

Practice Time

- Write your name, father's name and mother's name using straight line and count the angles.

Name	Number of Right Angles	Number of Acute Angles	Number of Obtuse Angles

❖ In the picture of the park, there are many angles.

Use colour pencils to mark

(i) Right angles with red colour.

(ii) Angles which are more than right angle with blue.

(iii) Angles which are less than right angle with green.

❖ Look at the angles in the picture and put a tick (✓) mark in the corresponding column.

Picture	Right Angle	Obtuse Angle	Acute Angle
			
			
			
			
			
			

Project work

Collect ten other pictures and stick them in your note book. Mark the angles and write the types.

Worksheet

Choose the correct answer:

1. An angle which measures less than a Right angle is _____

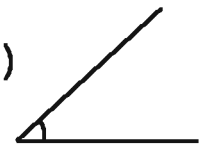
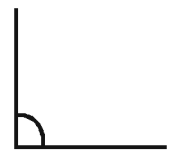
   i) a acute angle ii) a obtuse angle
   iii) a straight angle iv) a right angle

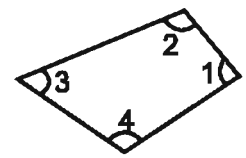
2. An angle which measures greater than right angle is
   i) an acute angle ii) an obtuse angle
   iii) right angle iv) zero angle

3. Select the clock that shows the angle less than the right angle _____

   i) 
   ii) 
   iii) 
   iv) 

4. The acute angle among the four given below is _____

   i) 
   ii) 
   iii) 
   iv) 

5. The obtuse angles in the figure are _____ 

   i) 1 and 2 ii) 1 and 3 iii) 2 and 4 iv) 2 and 3

Activity

Draw the object which makes angles that are located in your neighbourhood. For each picture write the type of angle.

(Ex.) (i) Electric Post (ii) Branches of Tree

2 Estimation

Mala called, Rani! come here. See this. Our father brought two banana *thars* from the garden.

Is it? Rani came running.

Mala asked Rani, 'Can you say, how many bananas are there in each *thar*'?

Rani observed the *thars* keenly and said that approximately in the first *thar* there are 80 bananas and in the second there are 90. So, altogether there are 170.

Then they decided to count the number of bananas.

They counted the bananas by putting a mark on the bananas.

The actual number of bananas in the first *thar* is **75**.
The approximated number is **80**.
The difference is **5**.

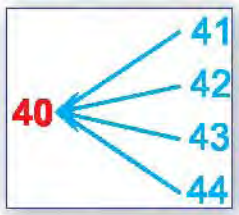
The actual number of bananas in the second *thar* is **92**.
The approximated number is **90**.
The difference is **2**.

The actual total number of bananas in two *thars* is **167**.
The approximated total is **170**.
The difference is **3**.

Mala appreciated Rani for guessing the total number which is very near to the exact number.

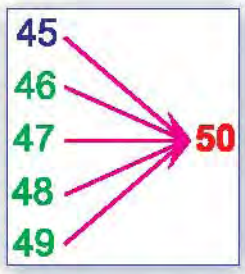
Observe the following number line.

The number line has numbers from 40, 41, 42, 43, 44, 45, 46, 47, 48, 49 and 50.



The numbers 41, 42, 43, 44, are closer to 40 than 50. So, they can be rounded off to 40, corrects to its nearest lowest tens.

The numbers 46, 47, 48, 49, are closer to 50 than 40. So, they can be rounded off to 50, correct it to its nearest highest tens.



Since 45 is in the middle of the number line, it is a common practice to round it off to 50.

To round off a number to the nearest ten, we round it off to the multiple of ten nearest to it. A number which is in the midway is always rounded off to the nearest highest tens.

Round off the following numbers to their nearest tens.

(i) 22, (ii) 64, (iii) 73, (iv) 86, (v) 35

i) 22 can be rounded off to = 20

ii) 64 can be rounded off to = 60

iii) 73 can be rounded off to = 70

iv) 86 can be rounded off to = 90

v) 35 can be rounded off to = 40

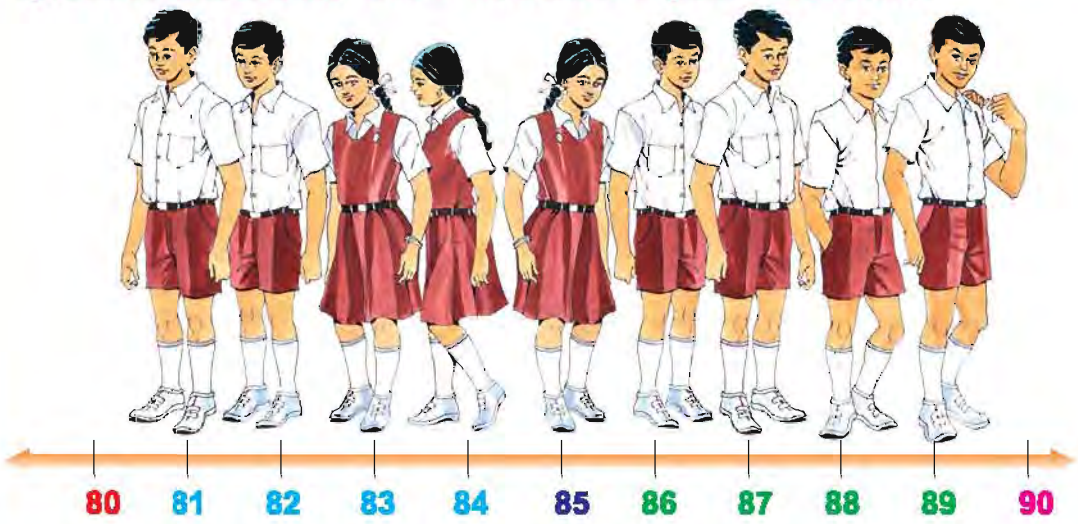
Try these

Round off the following numbers to their nearest tens

i) 74, ii) 81, iii) 37, iv) 26, v) 18, vi) 15.

Activity

1. Round off all the two digit numbers to their nearest tens.
2. Draw a number line with numbers from 80 to 90. Make 9 students to stand over the number as shown below. The students from 81 to 84 face towards 80 and 85 to 89 towards 90. Observe the round off process and create similar activities in your classroom.



Estimating the sum

Round off the following numbers to their nearest tens. Calculate the actual answer of the given two numbers. Find whether the estimated/actual is more or they are equal.

Numbers	Estimated	Actual	Difference	Which is more
i) 37 + 22	40 + 20 = 60	37 + 22 = 59	1	Estimated / Actual / Equal
ii) 44 + 33				Estimated / Actual / Equal
iii)19 + 54				Estimated / Actual / Equal
Iv) 66 + 28				Estimated / Actual / Equal

Numbers	Estimated	Actual	Difference	Which is more
i) 62 – 27	60 – 30 = 30	62 – 27 = 35	5	Estimated / Actual / Equal
ii) 94 – 31				Estimated / Actual / Equal
iii)75 – 44				Estimated / Actual / Equal
Iv) 53 – 18				Estimated / Actual / Equal

Numbers	Estimated	Actual	Difference	Which is more
i) 44 × 29	40 × 30 = 1200	44 × 29 = 1276	76	Estimated / Actual / Equal
ii) 26 × 17				Estimated / Actual / Equal
iii) 34 × 43				Estimated / Actual / Equal
iv) 57 × 62				Estimated / Actual / Equal

Numbers	Estimated	Actual	Difference	Which is more
i) 64 ÷ 28	60 ÷ 30 = 2	64 ÷ 28 = 2	0	Estimated / Actual / Equal
ii) 81 ÷ 22				Estimated / Actual / Equal
iii) 93 ÷ 26				Estimated / Actual / Equal
Iv) 89 ÷ 36				Estimated / Actual / Equal

Addition

In a school, V standard 'A' section has 44 students, V standard 'B' section has 48 students. Find the estimated number of question papers required for both the sections, the actual number of question papers and also find its difference between the estimated value and the actual value.

Estimated number of question paper for V 'A' = 40
(Rounded off to its nearest tens)

Estimated number of question papers for V 'B' = 50
(Rounded off to its nearest tens)

Total number of estimated question papers = 40 + 50 = 90

Actual number of question paper for V 'A' and V 'B' = 44 + 48 = 92

Their difference = 92 – 90 = 2

Which is more = Actual

Estimated number may be less than the actual number in some cases.

Subtraction

A students' hostel has 75kg of Dhal in the beginning of the week. It was estimated that 65 kg of dhal would be used in a week. Calculate the difference between the estimated balance and the actual balance of dhal at the end of the week.

Estimated Amount of Dhal in the beginning of the week = 80 kg
(Rounded off to its nearest tens)

Estimated amount of Dhal to be used in the week = 70 kg
(Rounded off to its nearest tens)

Estimated balance at the end of the week = 80 – 70
= 10 kg

Actual balance at the end of the week = 75 – 65
= 10 kg

Difference = 0

Which is more = Equal

Multiplication

For a construction work 65 persons were involved in 1 day. The work went on for 44 days. Find the estimated number of persons who might get the wages and also find the actual number of persons employed for the work. Compare both the answers.

Estimated number of persons per day (Rounded off to its nearest tens) = 70 persons

Estimated number of days worked (Rounded off to its nearest tens) = 40 days

Estimated number of persons to get the wages = 70 x 40
= 2800 persons

Actual number of persons to get the wages = 65 x 44
= 2860 persons

Difference = 2860 – 2800
= 60 persons

Which is more = Actual

Division

In a coconut farm, there are 96 coconut trees. Each day coconuts are plucked from 24 trees. In how many days coconuts can be plucked from all the 96 trees. Find the estimated number of days and the actual number of days and compare the answers.

Estimated number of trees in the farm (Rounded off to its nearest tens) = 100

Estimated number of trees in which coconuts are plucked (Rounded off to its nearest tens) = 20

Estimated number of days required to pluck coconuts from all the trees = 100 ÷ 20 = 5 days

Actual number of days requires = 96 ÷ 24 = 4 days

Difference = 5 – 4 = 1 day

Which is more = Estimated

Practice Time

1) 64 candidates were expected to attend a seminar on the first day and 73 candidates were expected on the second day. Find the total number of persons estimated and the actual turned out. To prepare food for both the days. Is the estimated value more or less than the actual value? Find its difference.

2) 84 students took up an examination. If 76 students were promoted, find the estimated and the actual number of students failed. Is the estimated value more or less than the actual value? Find its difference.

3) A computer course is conducted for 24 days. Each day 48 persons attended the course. To prepare a day wise work done sheet for all 24 days, find the estimated and the actual number of persons attended the course. Is the estimated value more or less than the actual value? Find its difference.

4) An oil barrel can hold 72 litres of oil. If each tin can hold 24 litres of oil, how many tins are required? Find the estimated number and the actual number. Is the estimated value more or less than the actual value? Find its difference.

FUN TIME

Continue the pattern and find out the difference between their sums:

1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10 = 55

11 + 12 + 13 + 14 + 15 + 16 + 17 + 18 + 19 + 20 = 155

21 + 22 + 23 + 24 + 25 + 26 + 27 + 28 + 29 + 30 = 255

31 + 32 + 33 + 34 + 35 + 36 + 37 + 38 + 39 + 40 = 355

41 + 42 + 43 + 44 + 45 + 46 + 47 + 48 + 49 + 50 = 455

_____ = ____

_____ = ____

_____ = ____

_____ = ____

_____ = ____

Activity

1) 14 + 17 6) 35 + 35
2) 16 + 18 7) 44 + 45
3) 27 + 22 8) 45 + 46
4) 26 + 25 9) 54 + 59
5) 31 + 38

1) Find the actual value.
2) Estimate the number into nearest ten and then find the answer.
3) Circle both the answers in the following box

0	31	46	21	110	35	89
					5	1
3	34	8	49	70		90
88					6	80
	51	50		91		94
98	69		2	40	60	5
		30				77
64			4		113	
41		100		85		141

1) 84 ÷ 12
2) 26 ÷ 13
3) 60 ÷ 15
4) 99 ÷ 11
5) 56 ÷ 14
6) 80 ÷ 16

1) Find the actual value.
2) Estimate the number into nearest ten and then find the answer.
3) Circle both the answers in the following box

10	8	3
92		
	36	6
47		
		58
99	5	
		69
15		
	74	
23	9	
		81
7	4	2

1) 11 × 11 10) 52 × 56
2) 16 × 14 11) 57 × 57
3) 24 × 23 12) 69 × 64
4) 25 × 23 13) 68 × 67
5) 25 × 25 14) 75 × 25
6) 32 × 35 15) 75 × 74
7) 36 × 39 16) 79 × 89
8) 44 × 45 17) 89 × 87
9) 46 × 46

1) Find the actual value.
2) Estimate the number into nearest ten and then find the answer.
3) Find out the difference between the actual and estimated values.
3) Circle the difference in the following box

222			85		90
	152	76		384	
565	88	21	53	216	42
123		20	24		344
		357		25	111
		6		525	
673	351		50		
		67		169	404
			80		
333	196	543		275	45

Colour the circles. What do you get? _____

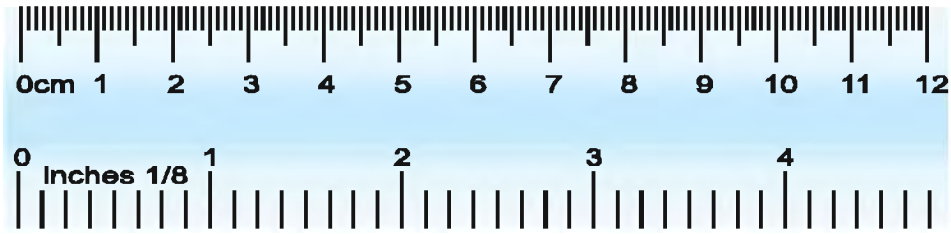
Activity

I) Pile up any one of the items like tamarind seeds, marbles and beads. Take a small quantity in your hand. Show it to your friend. Ask him to tell the number approximately. Remember the answer given by your friend. Then find the exact number by actually counting it. Approximate the two numbers to the nearest tens. Appreciate your friend if both the numbers are the same. Continue to do this activity.

ii) Take a small bunch of neem leaves in your hand and ask the approximate number of leaves in it. Then find the exact number by actually counting it. Approximate both numbers to the nearest tens. Observe whether both the numbers are the same.

iii) In the library find the approximate number of books arranged in a shelf. Then count the actual number of books. Approximate both numbers to the nearest tens. Compare both the numbers.

3 Length



In the scale given above, we find that each 1cm length is further divided equally into ten parts. The length of each of the smaller division is mm. So,

1 cm = 10 mm

The shopkeeper measures cloth with a metre stick in metres (m) and centimetres (cm).

1 m = 100 cm

The length of telephone wires, electric wires and cable wires are measured in metres. Railway tracks, roads, rivers,trains etc. are measured in kilometres.

1 km = 1000 m

From the above units of length, let us compare the units.

Kilometre(km) is more than metre.
Metre (m) is the standard unit of length.
Centimetre (cm) and Millimetre (mm) are less than metre.

Convert centimetres into millimetres

The length of the chocolate bar is _____cm

The length of the same chocolate bar is _____mm

1 cm = 10 mm

To convert centimetres into millimetres, multiply the given centimetre by 10.

Observe the example and complete the following.

i) 4 cm = 4 × 10 mm = 40 mm

ii) 7 cm = 7 × 10 mm = 70 mm

iii) 10 cm = 10 × __ mm = __ mm

iv) 12 cm = 12 × __ mm = __ mm

Convert the following into millimetres

i) 6 cm ii) 9 cm iii) 5 cm

iv) 15 cm v) 20 cm vi) 35 cm

Convert metres into millimetres

1 m = 1000 mm

To convert metres into millimetres multiply the given metre by 1000.

Observe the example and complete the following.

i) 6 m = 6 × 1000 = 6000 mm

ii) 8 m = 8 × _____ = 8000 mm

iii) 10 m = 10 × 1000 = 10000 mm

iv) 13 m = 13 × _____ = _____mm

v) 19 m = 19 × _____ = _____mm

Try these

Convert the following measurements into millimetres

i) 5 cm ii) 8 cm iii) 9 cm

iv) 14 m v) 18 m vi) 32 m

Convert millimetres into centimetres.

If your little finger measures 40 millimetres, what will be its measure expressed in centimetres.

Since, 10 mm = 1 cm, 40 mm = (40÷10)cm= 4 cm

Remember

10 mm = 1 cm

To convert millimetre into centimetre divide the given millimetre by 10

Observe the example and complete the following.

i) 20 mm = 20 ÷ 10 cm = 2 cm

ii) 110 mm = 110 ÷ 10 cm = 11 cm

iii) 170 mm = 170 ÷ ___ = _____ cm

iv) 500 mm = 500 ÷ ___ = _____ cm

Convert kilometres into metres

1 km = 1000 m

To convert kilometres into metres multiply the given kilometre by 1000.

Observe the example and complete the following.

i) 4 km = 4 × 1000 m = 4000 m

ii) 7 km = 7 × ___ = ___ m

iii) 12 km = 12 × 1000 m = 12000 m

iv) 14 km = 14 x ___ = ___ m

v) 8 km 400m = 8 × 1000m + 400m

= 8000m + 400m = 8400m

vi) 15km 500m = 15 × ___ + 500m = ___ + ___ = ___ m

vii) 18km 50m = 18 × ___ + 050m = ___ + ___ = ___ m

viii) 20km 5m = 20 × ___ + 005m = ___ + ___ = ___ m

Convert the following measurements into metres.

i) 5 km ii) 10 km iii) 15 km

iv) 45 km v) 6km 500m vi) 9km 600 m

vii) 10km50m viii) 13km5m ix) 21km 500m

Addition

Add : 8m 50cm and 6m 70cm

	m	cm
	1	
	8	50
+	6	70
	15m	20cm

Add the centimetres
50 + 70 = 120 cm
Convert it into metres.
120 cm = 1m 20 cm
Add the metres
1+8+6 = 15 m

Try these

Find the sum of the following.

i) 20 m 35 cm + 30 m 32 cm

ii) 16m 35 cm + 25 m 35 cm

iii) 4 km 600 m + 5 km 500 m

iv) 7 km 800 m + 3 km 400 m

Gopal's father bought 2 m 50 cm of cloth for a shirt for him and 1 m 50 cm for Gopal. What is the total length of cloth he bought?

Length of cloth bought for father =
Length of cloth bought for Gopal =
Total =

	m	cm
	1	
	2	50
+	1	50
	4m	00cm

Total length of cloth is 4m.

The distance between Chennai and Trichy is 320 km and Trichy and Madurai is 120 km. What is the total distance between Chennai and Madurai?

		Km
Distance between Chennai and Trichy	=	320
Distance between Trichy and Madurai	=	+120
Total distance	=	440 km

Total distance between Chennai and Madurai is 440 km

To teacher: Similarly, more statement sums can be assigned to students for practice.

Subtraction

Subtract 35m 40cm from 40 m 35cm

	m	cm
	39	135
	~~40~~	~~35~~
–	35	40
	4m	95cm

To subtract 40 cm from 35 cm,
Convert 1 m into cm and add it with the cm and then subtract

40 - 1 = 39 m
100 + 35 = 135 cm
135 - 40 = 95 cm

Subtract 35m from 39 m

39 - 35 = 4 m

(1) Subtract the following

i) 15 m 25 cm – 10 m 85 cm
ii) 28 m 30 cm – 25 m 55 cm
iii) 50 km 300 m – 20 km 600 cm
iv) 75 km 300 m – 38 km 750 m

(2) Subtract 860 km 750 m from 900 km 300 m

In a school, the distance between the gate and the Principal's office is 400 m 75 cm. A boy has walked 200 m 50 cm. What distance does he have to walk further?

		m	cm
Distance between the gate and the Principal's office	=	400	75
Distance walked by the boy	= −	200	50
Distance still to be covered	=	200m	25cm

Mother bought a roll of ribbon measuring 10m. If she cuts a piece of ribbon measuring 2m 50cm, what is the remaining length of the ribbon?

		m	cm
		9	100
Total length of ribbon	=	~~10~~	~~00~~
The length of ribbon cut	= −	2	50
		7 m	50 cm

The remaining length of the ribbon is 7 m 50 cm.

To teacher: Similarly, more statement sums can be assigned to students for practice.

Multiplication

Multiply 30m 40cm by 6

m	cm
2	
30	40
x	6
182m	40cm

Multiply the centimetre

$40 \times 6 = 240$ cm

Convert 240 cm into metre

$240 \div 100 = 2$ m 40 cm

Multiply the metres and then add

$30 \times 6 = 180$

$180 + 2 = 182$ m

Try these

Multiply the following

i) 3 m 12 cm x 9
ii) 5 m 20 cm x 6
iii) 20 km 300 m x 8
iv) 31 km 210 m x 7
v) 48 km 600 m x 4
vi) 20 km 700 m x 8

Mother bought a nylon rope measuring 10 m 20 cm length to dry the clothes. What will be the length of 6 such ropes?

Length of 1 rope = 10 m 20 cm
Length of 6 ropes = 10 m 20 cm × 6
= 61 m 20 cm

m	cm
1	
10	20
×	6
61m	20cm

The length of 6 such ropes is 61 m 20 cm

Note

To teacher: Similarly, more statement sums can be assigned to students for practice.

Division

Divide 10m 50cm by 3

10 m 50 cm ÷ 3
3 m 50 cm

Divide the metres:
10 ÷ 3 = 3m, remainder = 1m
convert 1m into centimetres and add to the centimetres.
1m = 100 cm.
So, 100 + 50 = 150 cm
Divide 150 cm by 3
150 ÷ 3 = 50 cm

Try these

Divide the following

i) 7 m 11 cm ÷ 3
ii) 15 m 60 cm ÷ 4
iii) 4 km 550 m ÷ 5
iv) 27 m 48 cm ÷ 6
v) 10 km 48 m ÷ 8
vi) 108 km 81 m ÷ 9

If the total length of 8 tracks of equal length is 16km 32m. What is the length of 1 track?

Length of 8 tracks = 16km 32 m

Length of 1 track = 16km 32 m ÷ 8

= 2 km 04 m

The length of 1 track is 2 km 04 m

If the total length of 12 bed sheet is 25m 44cm, what is the length of 1 bed sheet?

Total length of 12 bed sheets = 25m 44cm

Length of 1 bed sheet = 25m 44cm ÷ 12

= 2m 12cm

The length of 1 bed sheet is 2m 12cm.

Note

To teacher:
Similarly, more statement sums can be assigned to students for practice.

Practice Time

(1) Mother bought 2 sarees and the length of 1 saree was 6m 50cm and the other was 5m 50 cm. What is the total length of both the sarees?

(2) Mr. Naveen kumar walked the distance of 200m 50 cm to reach the bank from his house. He returned back to his house. What distance did he walk together?

(3) If the length of 2 roads are 25km 500m and 30 km 400m. What is the total length of both the roads?

(4) A rope is 27m 40 cm long. If 20 m 30cm is cut from it, what is the length of the rope left?

(5) John is 1m 60 cm tall. James is 1m 40cm tall. How much is John taller than James?

(6) A fishing boat covered 7km 400m. A motor boat covered 30 km 500m. What is the difference between the distance covered by the two boats?

(7) Sumanth jogged 8 times around a park that had 500m 10cm long path. What was the total distance jogged by him?

(8) The length of one measuring tape used by a tailor is 1m 50cm. What will be the length of 10 such tapes?

(9) The length of a sports stadium is 1500m, if a sports man runs twice around it, what is the total distance covered by him?

(10) A roll of wire is 8m 90cm long, If I cut it off into 9 pieces of equal length, what will be the length of each piece?

(11) John runs along the boundary of ground covering 7 m 42cm in a week. What is the distance he ran in 1 day?

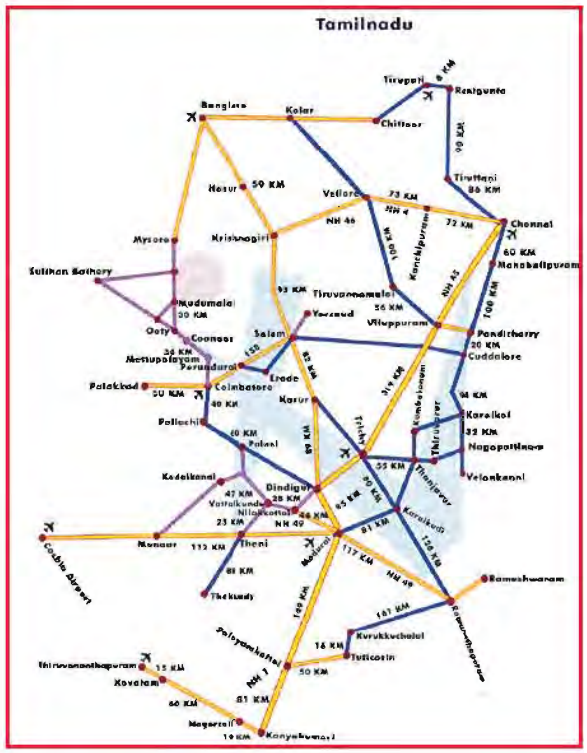
Project Work

Find the heights of your classmates in metres and convert them into cms.

S.No	Name of the student	Height		Height (in cm)
		m	cm	

Activity

i) Take a Tamil Nadu map which contains all details related to distance. Mark the name of two cities in it. Using the map write the distance between two cities in your note book. Like this write the distances between five important cities in your notebook.



ii) Is there any relation between one's height and weight? Collect the information with the help of teachers and parents and record it in your note book.

iii) Measure the length and breadth of the rooms in your house using metre scale and write in your notebook.

iv) Write the measurement needed to stitch a shirt for you, your father and your brothers separately in your notebook.

4 Weight

Sudha is helping her mother in verifying the provision store list.

Urad dhal	-	2 kg 500 g	Garlic	-	200 g
Black gram	-	1 kg 250 g	Cardamom	-	5 g
Green gram	-	750 g	Fenugreek	-	50 g
Ground nut	-	500g	Chilli power	-	100 g
Salt	-	2 kg	Clove	-	10 g

From this table Sudha wants to collect some information.
Please help her.

1. The heaviest item from the given list is _____ and its weight is _____.
2. The item with least weight is _____ and its weight is _____.
3. The items which are bought only in grams are _____

   _____.
4. The items which are bought only in kg is _____.

Conversion

Sudha's father asked the following question to Sudha:

"Sudha, on your birthday I will give you 1kg of sweet. How will you distribute it to 10 of your friends, in equal measure?

Do this as a mental sum and give your answer quickly.

Sudha said, "Daddy, will you give a hint to distribute 1kg of sweets among 10 of them".

Daddy gave the hint, *"convert 1 kg into grams"*.

She replied quickly "I will give 100 g to each friend".

He appreciated her for quick response.

Remember

1	kg	=	1000 g
$\frac{1}{2}$	kg	=	500 g
$\frac{1}{4}$	kg	=	250 g
$\frac{3}{4}$	kg	=	750 g

Conversion of kilogram(Kg) into gram(g)

To convert kg into g, multiply kg by 1000

Observe the example and complete the table.

1 kg	=	1 × 1000	=	1000 grams
2 kg	=		=	
5 kg	=		=	
6 kg	=		=	

To convert a unit which has both kg and g, multiply kg by 1000 and add the gram unit with the product.

Observe the example and complete the table:

i) 2 kg 300 g = 2 × 1000 + 300 = 2000 + 300 = 2300 g

ii) 9 kg 600 g = =

iii) 3 kg 60 g = =

iv) 7 kg 5 g = =

v) 75 kg 8 g = =

Try these

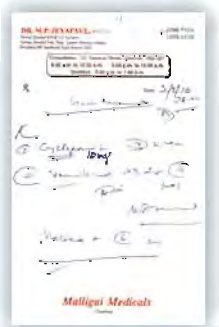
Convert the following into gram

i) 8 Kg ii) 11 kg iii) 3 kg 200 gm iv) 4 kg 50 gm

v) 5 kg 70 gm vi) 10 kg 5 gm

Smaller Units

Again Sudha was keenly looking at the medical prescription, which a doctor had given for her brother. She could identify only 100mg and 50mg in the prescription.



Since she was not able to understand the meaning of it, she asked her father to help her out. Her father replied her that mg is the abbreviation for milligram and it is the measurement to measure very small things.

She took one 100mg tablet in her hand and she could feel the weight of it. If a 100mg tablet is lesser in weight, how a 1 mg weight will be? She could feel that the weight of one milligram will be still smaller.

Activity

Take one 100mg tablet or 50mg tablet and feel the weight of it. Think how a 1 mg weight would be like.

Milligram is the least unit of measurement for common usage.

Project Work

Go to chemistry lab and physics lab, collect information about the usage of mg.

Know this

1 g = 1000 mg

To convert g into mg, multiply gram by 1000

Observe the example and complete the table:

i)	1 g	=	1 × 1000	=	1000 milligram
ii)	5 g	=		=	
iii)	7 g	=		=	
iv)	9 g	=		=	
v)	11 g	=		=	
vi)	16 g	=		=	

To convert a unit which has both g and mg, multiply the g by 1000 and add the mg with the product.

Observe the example and complete the table.

i) 3 g 400 mg = 3 x 1000 + 400 = 3000 mg + 400mg = 3400 mg

ii) 7g 700 mg =

iii) 6 g 500 mg =

iv) 16 g 75 mg =

v) 3 g 20 mg =

vi) 19 g 5 mg =

Try these

Convert the following into mg

i) 4g ii) 12 g iii) 5 g 700 mg iv) 2 g 70 mg v) 15 g 5 mg

Group Activity

From the provision list, list out the weight of the items and convert into its lower unit.

Read the following measurement:

15,000 g, 25,000 g

Looks so easy when you convert this into kg as **15 kg** and **25 kg**.

Convert g into kg

To convert g into kg, divide gram by 1000

Observe the example and complete the table.

i)	1,000 g	=	1,000 ÷ 1,000	=	1 kg
ii)	12,000 g	=			
iii)	2,700 g	=	2,700 ÷ 1,000	=	2 kg 700 g
iv)	9,300 g	=			
v)	3,030 g	=			
vi)	7,005 g	=			

$$\begin{array}{r} 2 \\ 1000\overline{)2700} \\ 2000 \\ \hline 700 \end{array}$$

Try these

Convert the following measurement into kg

i) 6,550 g ii) 7,350 g iii) 10,625 g

iv) 10,090 g v) 11,050 g vi) 12,005 g

To convert mg into g, divide mg by 1,000

Observe the example and complete the table.

i)	1,000 mg	=	1,000 ÷ 1,000 = 1 g
ii)	3,000 mg	=	
iii)	7,000 mg	=	
iv)	4,750 mg	=	4,750 ÷ 1,000 = 4 g 750 mg
v)	8,730 mg	=	
vi)	9,655 mg	=	

$$\begin{array}{r} 4 \\ 1000\overline{)4750} \\ 4000 \\ \hline 750 \end{array}$$

Try these

(1) Convert the following measurement into g

i) 5,000 mg ii) 6,500 mg iii) 7,300 mg

iv) 11,600 mg v) 12,075 mg vi) 13,050 mg

(2) The following jewels are given in mg. Convert them into g.

1. Nose stud - 1950 mg
2. Ear stud - 2750 mg

3. Ring - 4350 mg

4. Necklace - 16450 mg

Addition

Example 1

Find the answer: 160 g 920 mg + 75 g 440 mg + 9 g 50 mg.

	g	mg
	1 1	1
	160	920
	75	440
+	9	050
	245g	410 mg

Add the milligrams
920 + 440 + 50 = 1410 mg
Convert the mg into g
1410 ÷ 1000 = 1g 410 mg
Add the grams
9 + 75 + 160 + 1 = 245 g

Try these

Add

i) 76 kg 450 g and 8 kg 300 g.
ii) 6 kg 900 g and 65 kg 50 g.
iii) 50 g 600 mg, 45 g 750 mg and 6 g 300 mg.
iv) 150 g 700 mg, 60 g 500 mg and 75 g 130 mg.
v) 250 g 850 mg, 125 g 150 mg and 35 g 700 mg.

Arul bought 13kg 500g of brinjal, 27 kg 750 g of potato and 15 kg 500 g of carrot for his hotel. Find the total weight of the vegetables.

	kg	g
	11	
Weight of the brinjal =	13	500
Weight of the potato =	27	750
Weight of the carrot =	15	500
Total weight =	56	750

Total weight of the vegetables are 56 kg 750 g

Add the grams
500 + 750 + 500 = 1750 g
Convert the g into kg
1750 ÷ 1000 = 1kg 750 g
Add the kilograms
13 + 27 + 15 + 1 = 56 kg

Note

To teacher:
Similarly, more statement sums can be assigned to students for practice.

Subtraction

Subtract 78 g 550 mg from 175 g 250 mg.

	g	mg
	174	1250
	~~175~~	~~250~~
(–)	78	550
	96g	700 mg

When we subtract 550mg from 250 mg, convert 1g into mg, add with 250 mg and then subtract.
175 - 1 = 174 g
1g = 1000 mg
1000 + 250 = 1250 mg
1250 - 550 = 700 mg
Subtract the grams
174 - 78 = 96 g

Try these

Find the answer.

i) 75 kg 500 g – 55 kg 100 g
ii) 640 kg 400 g – 275 kg 700 g
iii) 15 g 650 mg – 10 g 500 mg
iv) 16 g 250 mg – 12 g 750 mg
v) 84 g 750 mg – 64 g 800 mg

In a shop, the weight of the available tamarind is 275 kg 750 g. He sold 87 kg 800 g. Find the weight of the remaining tamarind?

	Kg	g
	274	1750
Weight of the available tamarind =	~~275~~	~~750~~
Weight of the sold tamarind =	– 87	800
Remaining tamarind =	187	950

Weight of the remaining tamarind is 187 kg 950 g

When we subtract 800 g from 750 g, convert 1 kg into g and add with 750 mg and then subtract.

275 - 1 = 274 kg

1 kg = 1000 g

1000 + 750 = 1750 g

1750 - 800 = 950 g

Subtract the Kilograms

274 - 87 = 187 kg

Multiplication

Multiply 26 g 350 mg by 18.

26 g 350 mg x 18	
474 g 300 mg	

Multiply the mg

350 x 18 = 6300 mg

Convert the 6300 mg into g

6300 ÷ 1000 = 6 g 300 mg

Multiply the grams

26 x 18 = 468 g

Add the grams

468 + 6 = 474 g

Try these

Find the answer:

i) 6 kg 300 g × 3

ii) 3 kg 150 g × 6

iii) 12 g 350 mg × 7

iv) 9 g 500 mg × 12

Weight of a gas cylinder is 16 kg 500 g. A particular house needs 7 cylinders per year. What is the Total weight of gas used in a year?

Weight of 1 gas cylinder =	16 kg 500 g
Weight of 7 gas cylinders =	16 kg 500 g x 7
Total weight =	115 kg 500 g

Total weight of gas used in a year = 115 kg 500g

Multiply the grams

500 × 7 = 3500 g

Convert grams into kg

3500 ÷ 1000 = 3 kg 500g

Multiply the Kilograms

16 × 7 = 112 kg

Add the kilograms

112 + 3 = 115 kg

Division

Divide 95 g 400 mg by 8.

95 g 400 mg ÷ 8

11 g 925 mg

Divide the grams
95 ÷ 8 = Quotient 11 g, Remainder 7 g
Convert the remainder (7g) into mg and add with the mg
7 g = 7 x 1000
= 7000 mg
7000 mg + 400 mg = 7400mg
Divide the milligram
7400 ÷ 8 = 925 mg

Try these

1. Find the answer:
   i) 75 kg 190 g ÷ 5
   ii) 12 kg 240 g ÷ 6
   iii) 45 kg 650 g ÷ 11
   iv) 25 kg 740 g ÷ 12

2. Find the answer:
   i) 48 g 300 mg ÷ 4
   ii) 24 g 800 mg ÷ 8
   iii) 66 g 600 mg ÷ 15
   iv) 33 g 760 mg ÷ 16

Uma distributes 18 kg 750 g sweets equally to 25 persons, how much of sweet will each person get?

Sweets to be distributed to 25 persons = 18 kg 750 g

Each person's share = 18 kg 750g ÷ 25

Each person's share = 750 g

```
      750
25 ) 18750
     175
     ---
      125
      125
      ---
        0
```

When we divide 18 kg by 25,
Convert the kilograms into grams and add with the grams.
18 x 1000 = 18000 g
18000 + 750 g = 18750 g
Divide the grams by 25
18750g ÷ 25 = 750 g

Note

To teacher: Similarly, more statement sums on subtraction, multiplication and division may be given for practice.

Each person's share is 750 g.

Practice Time

(1) A person purchased a gold chain of weight 33 g 300 mg, an ear stud of 3 g 400 mg and a pair of bangles of weight 32 g 200 mg in a jewellery shop. What is the total weight of the jewels?

(2) A fruit shop had 75 kg 750 g grapes. Again, he purchased 25 kg 500 g grapes from the market for his shop. What is the total weight of the grapes in the shop?

(3) A person bought 2kg 500g laddu, 1kg 750g mysoorpa, and 3kg 250g Mixture in a sweet stall. How much of weight did he purchase altogether?

(4) Mohan weighs 45kg and Naveen weighs 20kg. By how much is Mohan heavier than Naveen?

(5) 35 kg Urad dhal was bought for a wedding reception. Out of which 28 kg 600 g was used. Find the weight of the remaining dhal.

(6) A sack contains 100kg of sugar. From that 75kg 500g was sold. How many kilograms of sugar is left?

(7) A bullock cart can hold 525 kg weight. How much weight can 5 bullock carts hold?

(8) One packet of chilli powder weighs 250 g. What is the weight of 25 such packets?

(9) Weight of one bath soap is 90 g. What is the weight of 75 bath soaps?

(10) A sack contains 75 kg of wheat flour. How many bags you need if each bag can fill 5 kg of flour?

(11) 15 kg weight of pickles are filled up in equally 30 bottles. What is the weight of pickles in each bottle?

(12) Weight of 20 tablets is 1 g 200 mg. Find out the weight of each tablet?

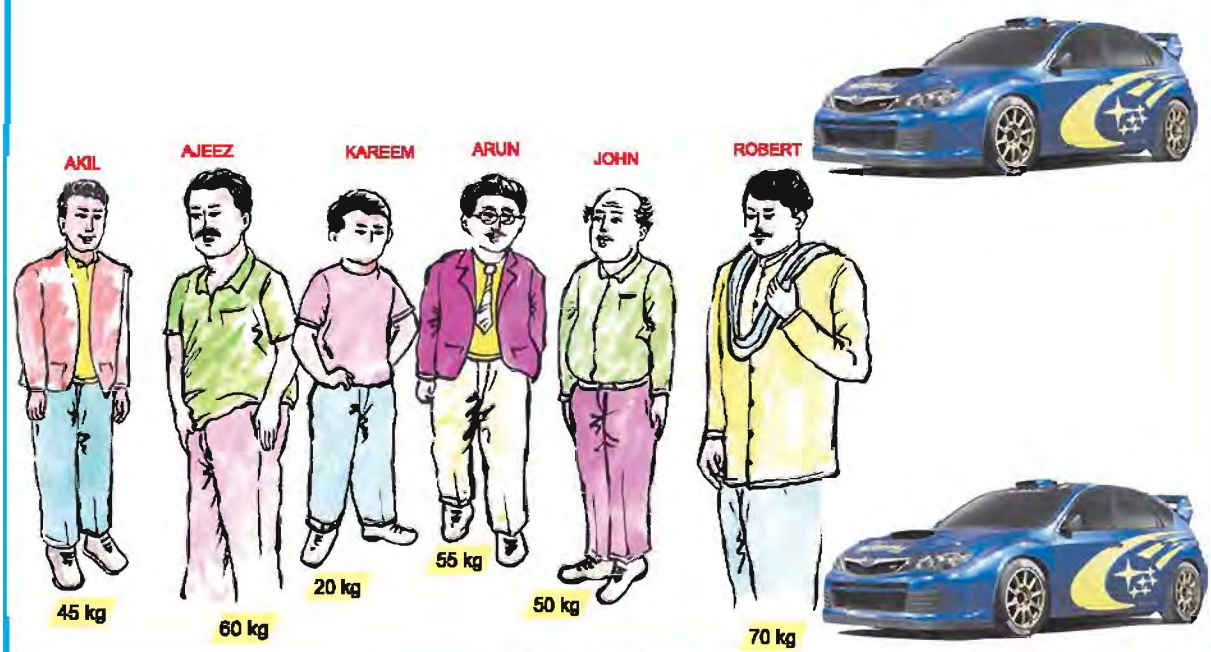
Try these

In what measurements, the following items are bought. Put a (✓) in the correct box.

1.	Fruits	milligram	☐	kilogram	☐
2.	Green chilli	gram	☐	Milligram	☐
3.	Ice-cream	kilogram	☐	gram	☐
4.	Gold bangle	gram	☐	kilogram	☐
5.	Silver anklet	kilogram	☐	gram	☐
6.	Tablet	kilogram	☐	milligram	☐
7.	Firewood	kilogram	☐	gram	☐

Activity

The following six persons want to get into two different cars. Each car can accommodate 3 persons. Weight of 3 persons accommodated in the first car is to be equal to the weight of 3 persons accommodated in the second car. Write the names and weight of each person in the cars.



Project Work

List out the things which are used in our day-to-day life.

Find the weight of each object.

Example: 1. Tooth paste - 100 g

Activity

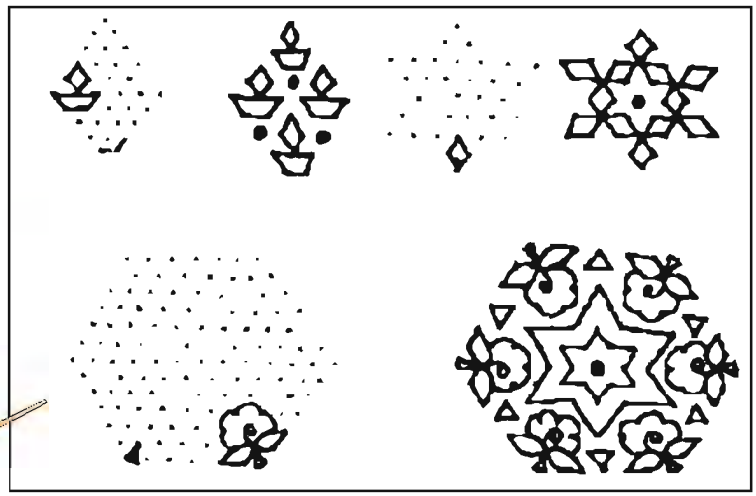
i) Gather information from your teacher regarding the measurement 'Ton'. Observe and note the electronic items which measures in Ton with the help of your teacher. Make a note of all materials that instrument measures in Tons.

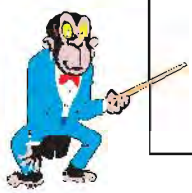
ii) What is the difference between ordinary and electronic weighing machine? Which is better?

5 Patterns

Try these

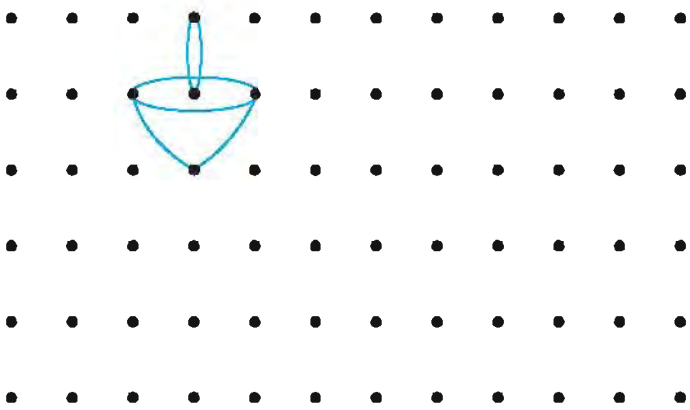
Complete the following rangoli patterns with the help of the dots and colour them.





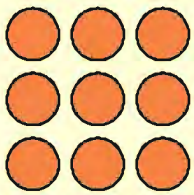
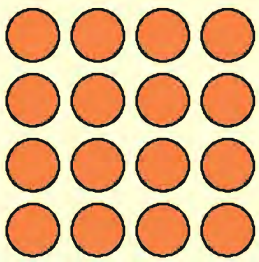
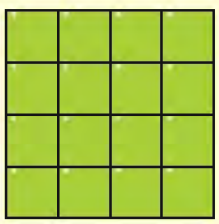
Activity

By using 5 dots, create your own patterns. A model has been given below.



Pattern in square numbers

John collected some pebbles and tried to build up numbers that formed a figure or shape. He started with one pebble and finally obtained a pattern.

		1 is a square number because 1x1=1.
		4 is a square number because 2x2=4.
		9 is a square number because 3x3=9.
		16 is a square number because 4x4=16.

The numbers obtained in the pattern are 1, 4, 9, 16...**and** are named as **square numbers.**

Activity

Continue the above pattern for square numbers 25, 36,49,64,81 and 100.

Square pattern in multiplication table

A multiplication table is an excellent tool for discovering patterns. Look at the multiplication table given below:

Multiplicand →

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

↑ Multiplier

The numbers along the top horizontal row are multiplicands and the numbers along the first vertical column on the left are multipliers. The other numbers in the rows and columns are their products. The products of two numbers that are the same form a pattern. The shaded portion of the table shows the product of 6 by 6. You can see that a square is formed. Since 6 x 6 = 36, we find that 36 is a square number.

The product of any number multiplied by itself is called a square number.

Activity

In the above multiplication table, shade the corresponding rows and columns to form the squares of the following.

i) 3x3 ii) 5x5 iii) 9x9

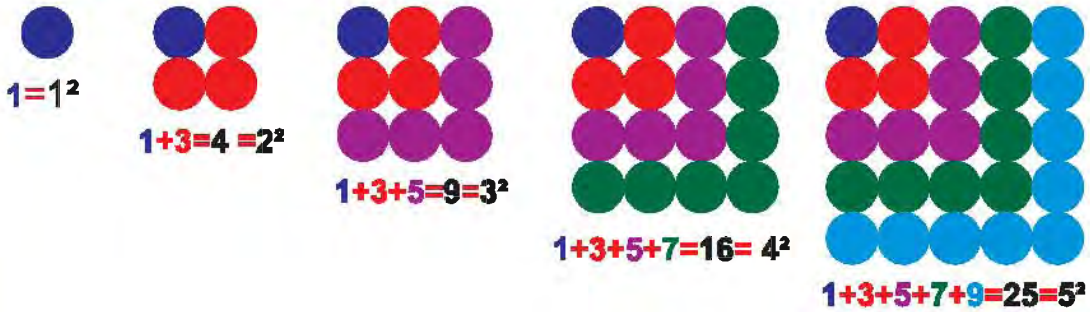
Activity

The multiplication table given below shows all the square numbers upto 144. Encircle the square numbers (9 to 144) in the multiplication table and observe the pattern formed.

X	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

The square numbers form a _____ across the multiplication table.

Adding consecutive odd numbers to get square numbers

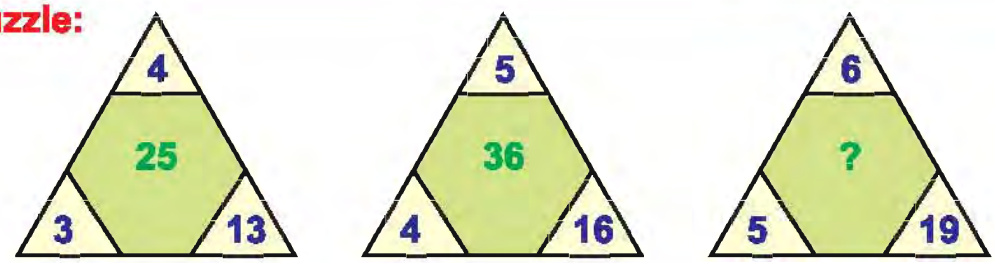


This number pattern shows the relationship between square numbers and odd numbers.

Activity

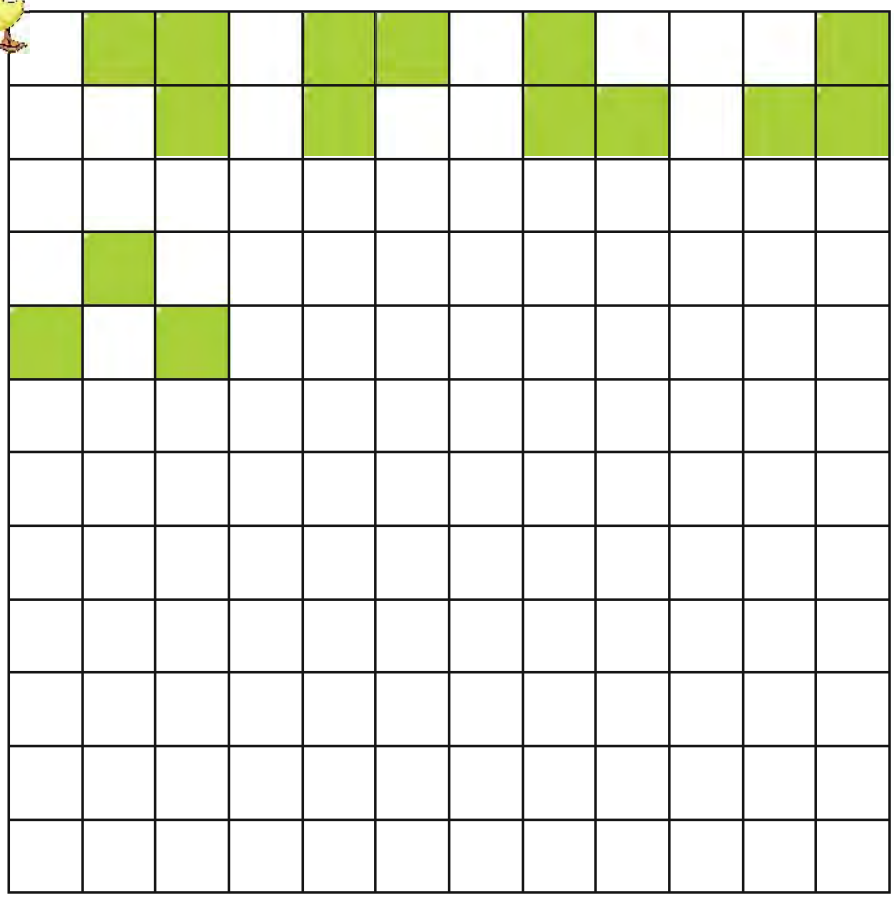
Continue the above pattern to write down all the square numbers up to 100

Puzzle:



Pattern in tiles

Look at the shapes formed by joining the three squares. Try to make more shapes using only 3 squares of the square sheet given below.



Activity

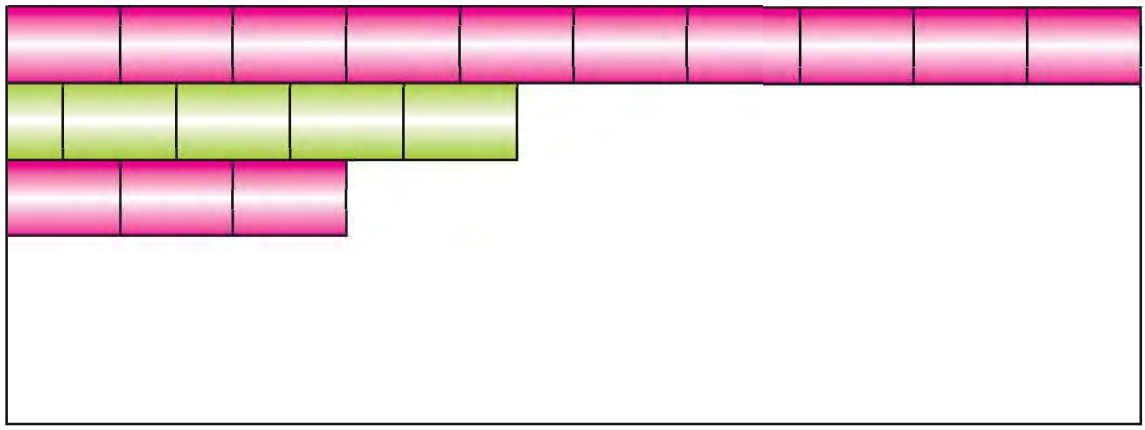
Make your own shapes using five squares.

Several types of patterns are used to tile the flooring in our houses. When we think of the tile patterns, we can commonly find the square or rectangle shaped tiles arranged in a sequence.

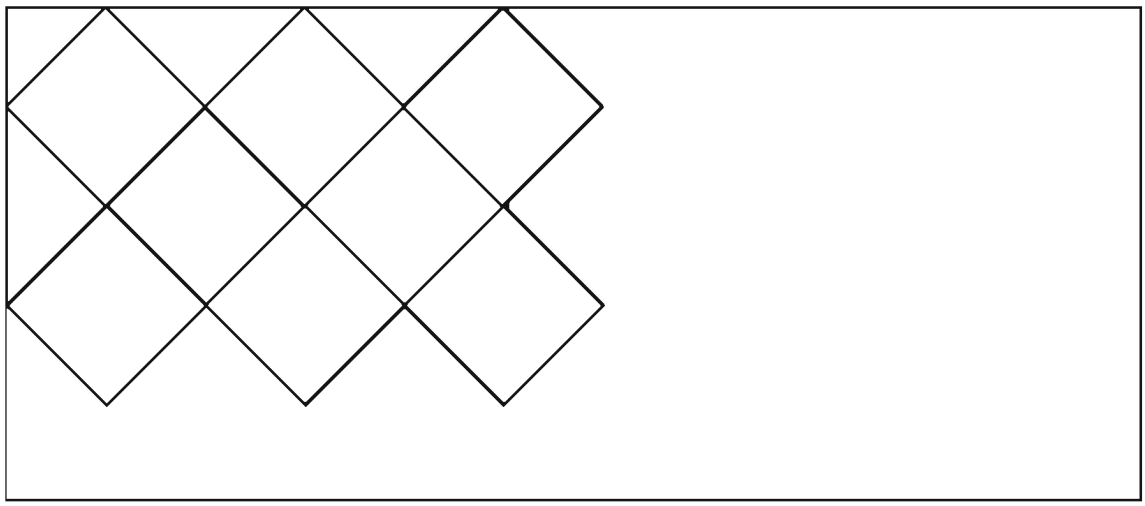
Tiling means covering the area with tiles.

Practice Time

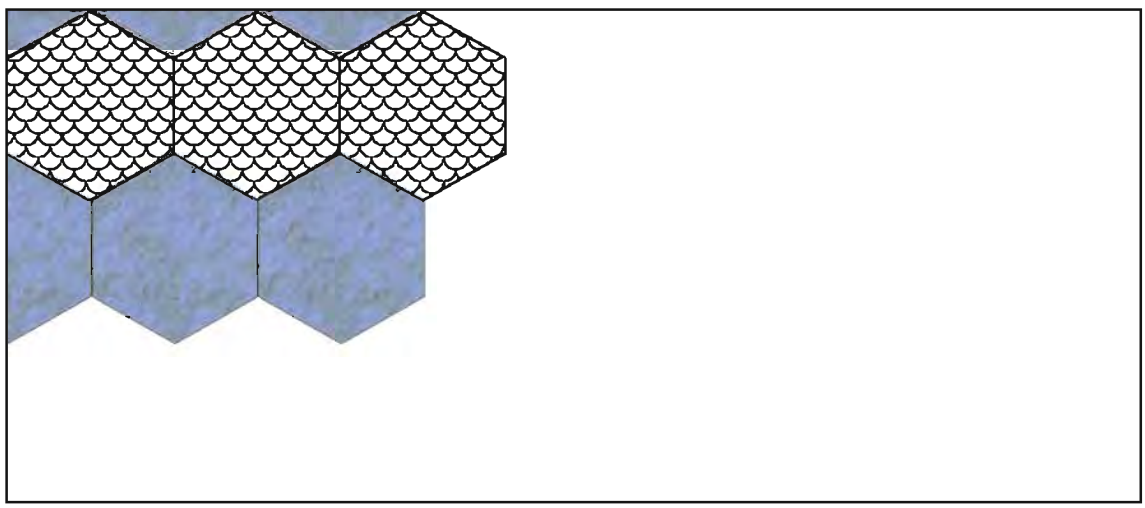
(1) Complete the following pattern tile:



(2)



(3)



Group Activity

Make your own tile pattern.

Materials required:

Cardboard, colour paper, glue, etc.

Method:

- Construct a square of side with 16cm using cardboard.
- Stick some squares with red coloured paper and some with grey. Now the coloured squares will serve as tiles.
- The tile pattern thus formed is given below.

Practice Time

(1) Using square shaped cardboard pieces, form a tile pattern as shown below:

(2) Construct your own tile patterns as shown below:

Activity

Border strip is made by giving half a turn to the Tamil letter 'ம்'. Create simple border strips using the Tamil letters and English alphabets.

Border strips

Now let us have a look at the various type of borders of sarees, shawls etc..,

We can make designs of the borders of sarees, table clothes, bed covers etc.. by repeating a pattern again and again.

Can you see something special in the patterns of these borders?

Yes. There is a relationship between turns and patterns.

(1) Let us use the block  to make patterns giving $\frac{1}{2}$ a turn.

(2) Use the block  to make patterns giving $\frac{1}{4}$ a turn

(3) Use the block  to make patterns giving $\frac{3}{4}$ a turn.

Practice Time

(1) Observe the border pattern and write the turn sequence:

i) 

Turn sequence _____

ii)

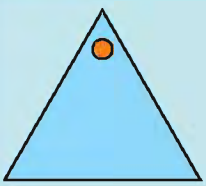
Turn sequence _____

iii)

Turn sequence _____

(2) Construct the border using the following pattern with $\frac{1}{2}$ a turn:

(3) Construct the border using the following pattern with $\frac{1}{4}$ a turn:



(4) Construct the border using the following pattern with $\frac{3}{4}$ a turn:

Border strips in tiles

Border strips are used to add more beauty to the interior of your houses. They can be used as a design on the wall or in between the tile patterns.

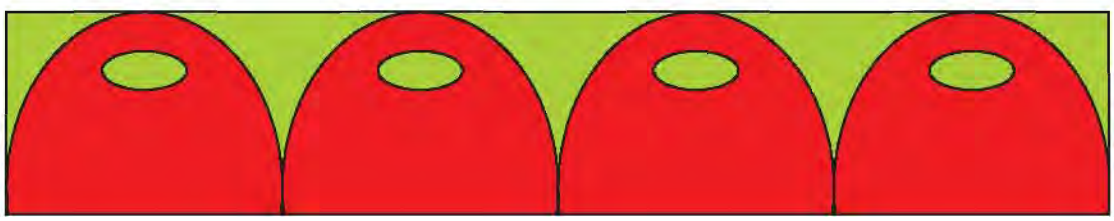
Can you make your own border strips?

Materials required:

Cardboard, red and green coloured papers, glitters, glue, etc.

Method:

- Take a cardboard and cut it into a strip with 60 cm length and 8 cm breadth.
- Cover the cardboard strip with a green coloured paper.
- Cut the red coloured paper into many semicircles of 2 cm diameter and paste them on the cardboard strip.
- Make small patterns on the semicircle using glitters.

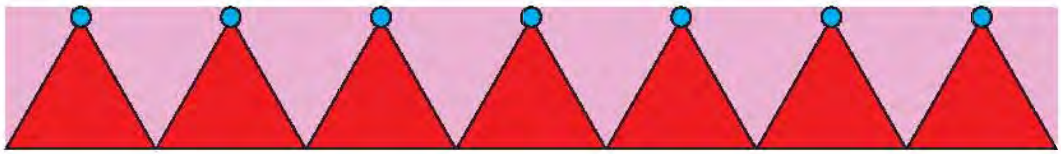


Now this can be used as a border strip.

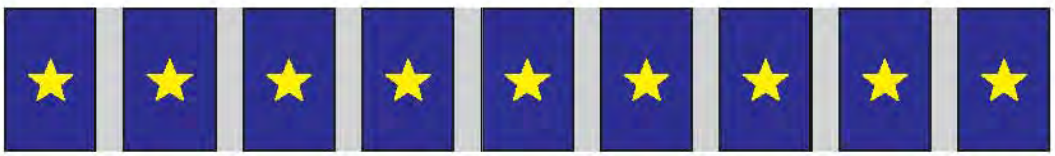
Practice Time

Make your own border strips according to the patterns given below.

(1)



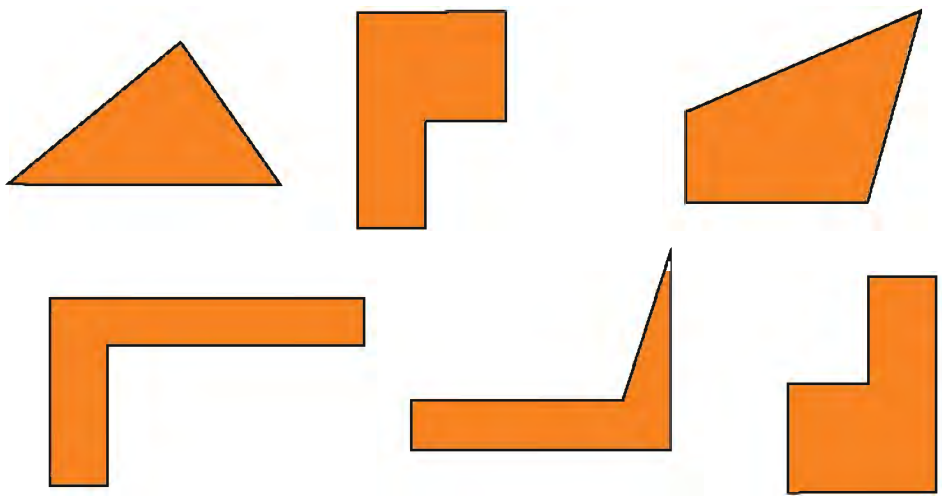
(2)



(3)

Project Work

From the shapes of cardboard pieces given below, select any two shapes and form a square. Now construct your own tile pattern with it.

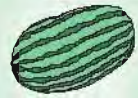


6 Data Handling

Tabling the data

The picture given above shows that the fruits are arranged neatly and in an orderly manner. Since the fruits are well arranged, it is easy to count the number of different kinds of fruits available in the shop.

Ram collected the following information from a fruit shop.

					
25	20	24	30	10	8

The Food we like

One of our basic needs is food. Each one of us may have our own favourite food items.

On Sunday, the grandma made the following table to find out what food item each member liked to prepare breakfast for the family members.

Food Item / family members	Idly	Dosa	Chapathi	Poori	Pongal
Grand-father	●				●
Grand-mother	●		●		●
Father			●	●	
Mother	●		●	●	
Son		●		●	
Daughter		●		●	●

★ _____ of them liked Idli.

★ _____ of them liked both Dosa and Pongal.

★ _____ of them liked chapatti and _____ of them liked poori.

★ Most of the members in the family liked _____.

★ More than half of the family members liked chappathi.

(True / false).

Let us observe the weather

Mary studied the weather chart for the month of September 2009. She classified the weather as sunny, cloudy and rainy and represented them on the calendar using symbols respectively.

September - 2009						
	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				

Look at the chart and help her to prepare the table.

Weather	Days
Sunny	
Cloudy	
Rainy	

Collection of information and arranging the data in a table with numbers, pictures or symbols in rows and columns is called Tabling the Data.

- _____ days in the month of September were sunny.
- The weather was _____ on the maximum number of days.
- The weather was cloudy for _____ days .
- It rained for _____ days.
- In general, the weather for the month of September 2009 was_____.

Indoor games are fun!

It was raining heavily. It was the games period for V standard ' A' section and V standard ' B' section children. So the physical Education teacher decided to engage the children in indoor games. She asked the children which game they liked to play. There were different answers. So she used tally marks to record each answer. For example, if someone said 'dice', she put one line | in front of 'dice'. If someone said 'dice' again, she added another line. So, ||_ represents two times and 𝍸 means 5 times. Totally 19 children said that 'dice' was their favourite game.

Children helped the teacher to complete the table.

Indoor games	Tally marks	Number
Dice 	𝍸 𝍸 𝍸 |	19
Chess 	𝍸 𝍸 𝍸 𝍸 |_	
Billiards 	𝍸 𝍸 𝍸 𝍸 𝍸 |_	
Puzzle 	𝍸 𝍸 𝍸 |	
Carrom	𝍸 𝍸	

Count the tally marks and write the number against each game in the table and also answer the following questions.

- ☆ How many children were there in both sections?
- ☆ Which is the most favoured indoor game in this table?
- ☆ Which game is not much favoured by many children?

Caught in a Heavy Traffic!

After school, Raju and his friends were waiting for their bus to return home. Due to heavy traffic jam on one side of the road, they came to know that their bus will be late by 30 minutes. So, they started counting the vehicles passing by on the opposite side. Raju marked a tally mark for each vehicle. His friends helped him in recording. This exercise helped them in recording the total number of different vehicles passing the road in a given half an hour.

Vehicles	Tally marks	Number
Bicycle 	𝍸	
Car 	𝍸	
Truck 	𝍸	
Two wheeler 	𝍸	
Bus 	𝍸	

Count the tally mark for the different vehicles and fill in the table and answer the following question.

1. How many vehicles did Raju see on the road within half an hour?
2. The number of buses seen is twice the number of cars.

(True / False)

We use tally marks to simultaneously record data of a variety of things with large numbers.

Practice Time

(1) Ask 10 of your friends about their favourite T.V. channels they would like to watch.

T.V. Channels	Number of students
Animal planet	
Cartoon Network	
ESPN	
National Geographic Channel	
Discovery Channel	

(2) Ask 10 of your classmates about their favourite colours and record their responses.

Colours	Number of students
Red	
Blue	
Green	
Yellow	

Pictograph

A pictograph represents the given data through pictures or objects. It helps to answer the questions based on the data just at a glance.

The teacher asked Monisha to make a pictograph which shows the number of absentees in her class of 30 students during the previous week.

Days	Number of absentees	☺ represents 1 absentee
Monday	☺ ☺ ☺ ☺ ☺	
Tuesday	☺ ☺ ☺ ☺	
Wednesday	☺ ☺	
Thursday	☺ ☺ ☺	
Friday		

i) On which day maximum number of students were absent?

ii) On which day all the children were present?

iii) What was the total number of absentees in that week?

Solution:

i) The maximum number of absentees were on Monday. (There are 5 pictures against Monday. On all other days, the number of pictures is less.)

ii) The class had full attendance on Friday. (No picture was found on Friday)

iii) Totally there are 14 pictures. So the total number of absentees in that week was 14.

Mode of Transport

The data about the different modes of transport used by 42 students of class V to commute to school was displayed in the form of a pictograph.

☺ represents- 2 students

Modes of transport	Number of students
Bicycle	☺ ☺ ☺ ☺
Walking	☺ ☺ ☺ ☺ ☺ ☺ ☺ ☺
Public Transport system	☺ ☺ ☺ ☺ ☺
School bus	☺ ☺ ☺ ☺ ☺
Scooter	☺

- The number of students who commute by the public Transport system is _____
- The maximum number of students come to school by _____
- _____ is used by only two students.
- The number of students who come by _____ is half of the number of students who come by _____

Drawing a Pictograph

The teacher asked the students to visit the school canteen and gather the data of number of butter milk packets it had sold during the last five days of the week. The students collected the following information.

Monday: 50 Tuesday : 40 Wednesday : 60

Thursday: 35 Friday: 55

A picture of a 'buttermilk packet' has been chosen to represent the sale of number of buttermilk packets. The students decided to consider one picture as five packets. The teacher accepted the above decision and asked one student to complete the pictograph with the help of others.

 represents 5 packets

Days	Number of buttermilk packets
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

- The sale was the highest on _____
- The sale was the least on _____
- The total number of packets sold throughout the week was _____
- The sale on Wednesday was _____ part of the total sale.

(2) Every year, the Government of Tamilnadu administer Polio Drops for children below 5 years of age. The volunteers of Standard V collected the data from 6 streets near the school and submitted the data in the form of a pictograph.

 repersents 10 Children

Street	Number of Children
Street A	
Street B	
Street C	
Street D	
Street E	
Street F	

- The maximum number of children administered the polio drops are from _____
- The minimum number of children administered the polio drops are from _____
- The total number of children administered polio drops were _____.

Practice Time

(1) The total number of people living in five villages is as follows

Village A : 500 Village B : 800 Village C : 700

Village D : 250 Village E : 600

Prepare a pictograph using the symbol ☺ to represent 100 people and answer the following questions:

i) How many pictures are to the plotted against the village E?

ii) Which village has the maximum number of people?

iii) Which village has the least number of people?

(2) The total number of watches manufactured by a factory in a particular week is given below.

Monday : 600	Tuesday : 800	Wednesday : 700
Thursday : 400	Friday : 500	Saturday : 300

Prepare a pictograph using the symbol  to represent 100 watches and answer the following questions:

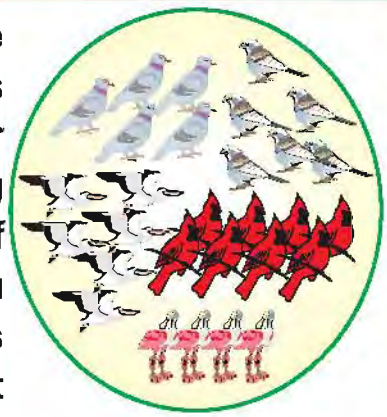
i) On which day the least number of wrist watches were manufactured?

ii) On which day the maximum number of wrist watches were manufactured?

iii) Find out the total number of watches manufactured in that particular week?

Group Activity

Many of us love watching the birds flying back to their homes in the evening to rest. Find out how many kinds of birds you can see in the sky. Do you know their names? Use tally marks to record the number of different kinds of birds you see on a particular evening.



Activity

Make a note of the number of books classified under different categories from the school library stock-book register. Draw a pictograph for the following number of books (i) Short Stories (ii) Poems (iii) Books on Life History (iv) Science books (v) Other books.

Worksheet

Answer the following.

(1) Collection of any information is called_____.

i) dates ii) data iii) dots iv) drawings

(2) Data can be represented in the form of a_____.

i) tape ii) tile iii) table iv) trap

(3) Tally marks are used to represent _____ number of data.

i) large ii) small iii) equal iv) unequal

(4) Arranging the data in a table is called _____ .

i) Collection of information ii) Tabling the data

iii) Informing the result iv) Marking tally marks

(5) Information can be given only in tabular form (True / False)

(6) Information can be given both in tabular form and pictograph. (True / False)

(7) Information can be given only by using pictograph. (True / False)

(8) The pictograph given below shows the different flavours of ice creams sold in a week in a ice cream shop.

Represents 3 Icecreams.

Ice Creams	Number of ice creams
Vanilla	
Pista	
Strawberry	
Mango	
Chocolate	

Fill in the blanks from the pictograph given above.

i) The number of pista icecreams sold was _____.

ii) Chocolate flavoured icecream sold was _____than that of strawberry icecream.

iii) The flavour that was sold the most was_____.

iv) The flavour that was sold the least was_____.

v) Total number of icecreams sold was _____.