MATH-MAGIC

What is inside this book?

CHAPTER – 1

Page No.: 3
Date:
YOUVA

BUILDING WITH BRICS

Textbook questions

Q1 Which floor pattern do you like the most.
I liked the pattern in Pic-1

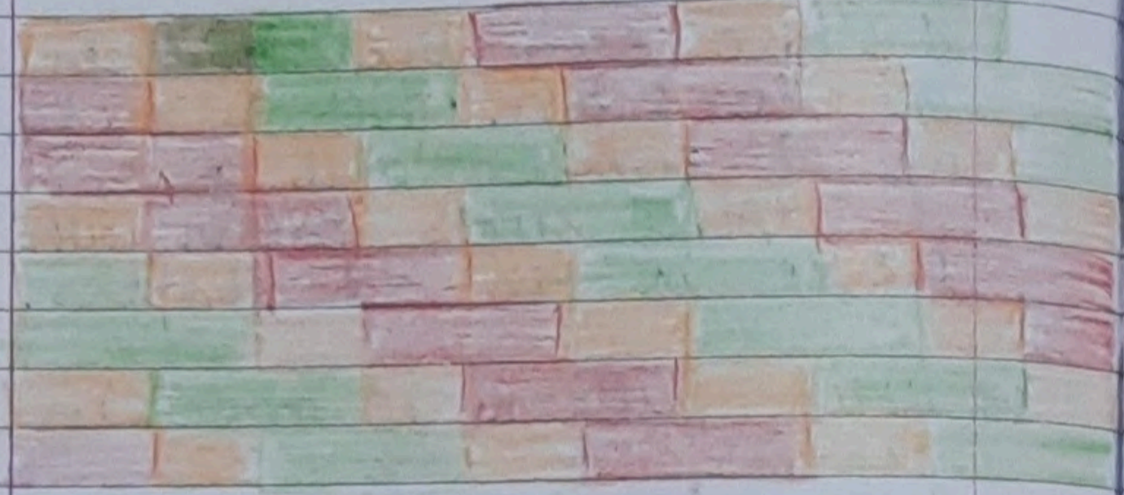
Q2 Have you seen such pattern anywhere?
I have seen such pattern on hand fan. which is made up of bamboo and grass.
Also such pattern with bricks is in old temples.

Q3 Which pattern is made in circles.
Pattern in Picture-I is made in circle.

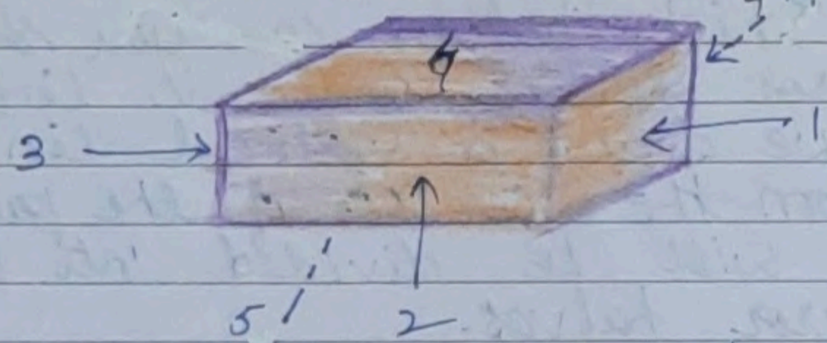
Q4 In which pattern can you show mirror halves. Draw a line
If we draw a vertical line from the centre of the pattern it will be divided into two mirror halves.
now, we can show mirrors

tabres in Pic - A, B, C, D, E
F, G, H, I, and K.
We cannot show middle
half in picture J.

Q5 Now you draw some floor
patterns.



Q6 How many faces in all does
a brick have

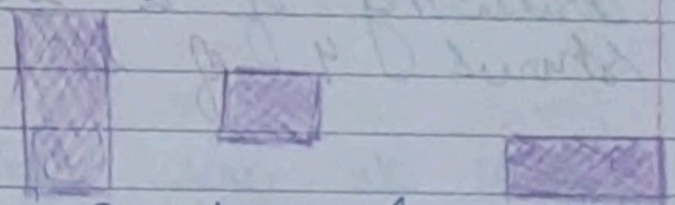


A brick has 6 faces.

Q7 Is any face a square?
"A brick is a cuboidal
structure. Its faces will be
rectangle"
So, No face is square.

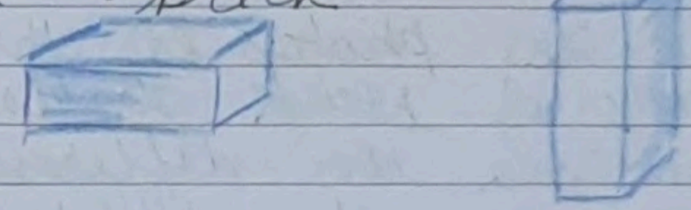
Q8 Draw the smallest face of the
brick?
The one's on the horizontal side

Q9 Which of these are faces of the
brick?

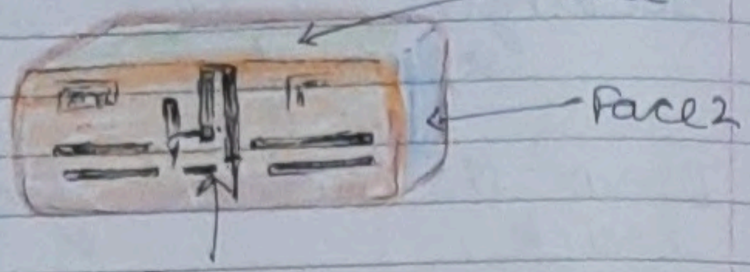


Explanation:-
Only the rectangular shapes
will be faces of a brick.

Q10 Which of these is a drawing
of a brick?



Q11 Make a drawing of this box to show 3 of its faces.

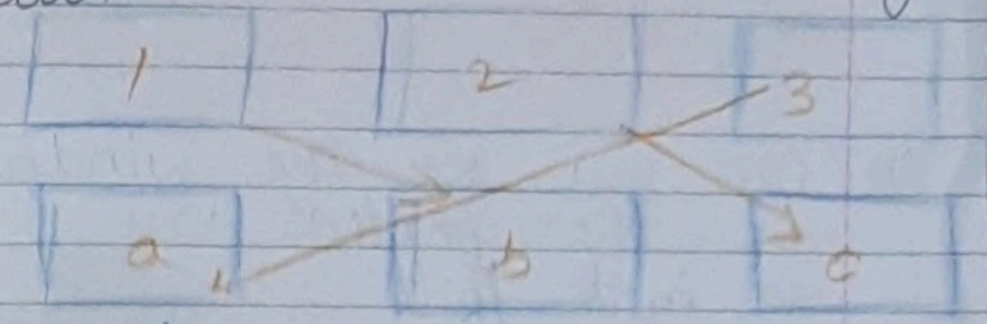


Q12 Can you make a drawing of a brick which shows 4 of its faces?
NO I cannot make a drawing of a brick which shows 4 of its faces.

Q13 What do you think which wall will be stronger.
The wall made by Zainab will be stronger. Because of Interlock design.

Q14 Here are photos of three kinds of brick walls, can you see the difference in the way the bricks are placed?
Yes, there is difference in the pattern of laying bricks.

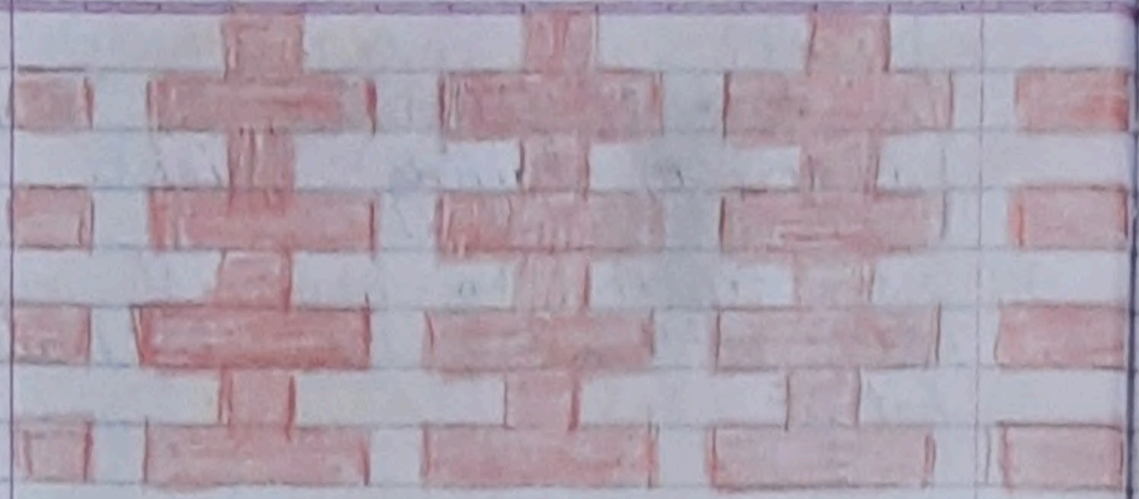
Q15 Now match the photo of each wall with the correct drawing below.



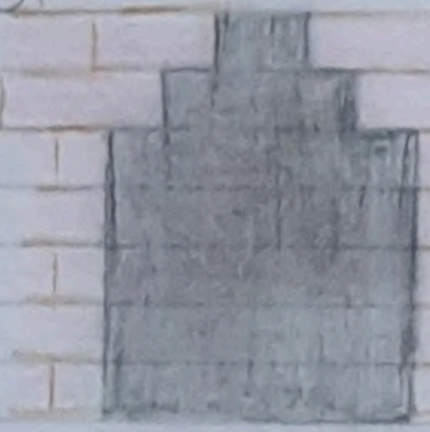
1 → b
2 — c
3 — a

Q16 How many different jali patterns can you see in these two pictures?
There are five Jali patterns in the given two photographs.

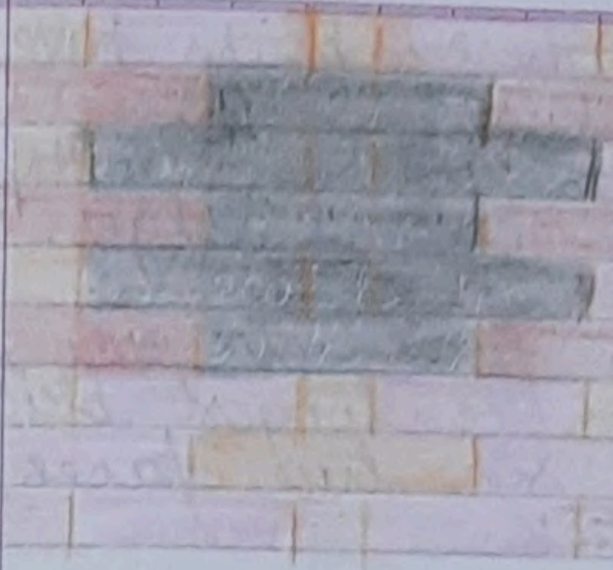
Q17 Now colour some bricks red and make your own "jaali" patterns on the wall drawn below.



Q18 Can you see the window in the photo?
yes, in the photo the dark area is window.



Q19 Now draw some Thorokha patterns on the wall here. You can shade it black.
My Tarokha design is as- shaded in black.



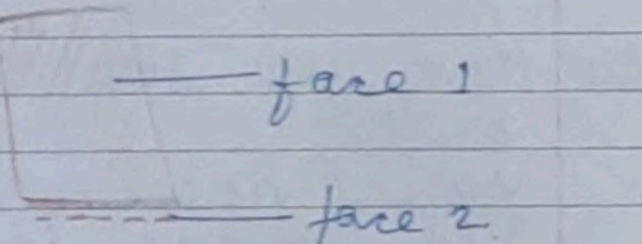
Q20 Have you seen arches in a bridge?
yes, I have seen arches in old bridge in my area

Q21 Where else have you seen an arch?
I have seen an arch in museum building and mosque.

Q22 Have you seen thin bricks
yes, i have seen thin bricks these are used to create partition on upboard, railing on staircase.

Q23 Which of these bricks have curved edges?
First two bricks from top left have curved edges.

Q24 How many faces do you see of the longest brick.
We can see two faces of the brick.



Q25 Is there any brick which has more than six faces?
yes, Brick 3 from the top left is broken and has more than six faces now.

Q26 Take one brick to measure it.
How long is it : 9 inches
How wide is it : 4 inches
How high is it : 3 inches

Q27 Muniya wants to make a wall 1 metre long. How many bricks she need to put in a line?
We know 1m = 39.37 inches.

$$9 \times \boxed{?} = 39.37$$

$$? = \frac{39.37}{9}$$

$$= 4.37$$

So muniya needs 4 and a half bricks (approx)

Q28 Can you guess how high is chimney there?
About 50 mts.

Q29 correct the order.
C, D, B, A.

Q30 Have you seen a brick kiln? Did to try to guess the number of bricks kept there.
100000 (approx)

Q31 Ask your friend where they have heard of a lakh? cost of his mobile phone.

Q32 How many bricks they can carry in one truck.
40000 bricks (approx)

Q32 Bajan decided to buy the new bricks from Brickabad. He bought three thousand bricks. How much did he pay?

old bricks Rs 1200 / 1000
new bricks I Rs 1800 / 1000
New B. Brickabad Rs 2000 / 1000

∴ Rs 2000 for 1000 bricks
for 3 (Rs 2000 for 1000 bricks)
Rs 6000 for 1000 bricks.

alternate method

cost of 1000 bricks = 2000
1 brick = $\frac{2000}{1000}$
= Rs 2

cost of 3000 bricks = 2 × 3000
= Rs 6000/-

Q33 Guess what he will pay if he buys 500 old bricks.

old bricks = Rs 1200 for 1000

cost of 1000 old bricks = Rs 1200.
Cost of 1 old brick = $\frac{1200}{1000}$
= Rs 1.2.
cost of 500 old brick = 500 × 1.2
= 600
= Rs 600/-

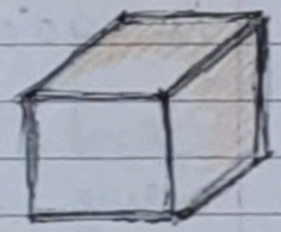
EXTRA IMPORTANT QUES

1 A Brick has.

edges = 12
faces = 6
Vertices or corners = 8.

What is the shape of a brick - cuboid

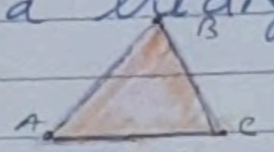
2. A square has
edges 12
faces 6
corners 8



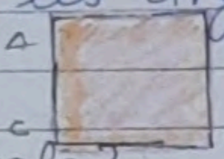
what is the shape of a dice - cube

TWO DIMENSIONAL SHAPES

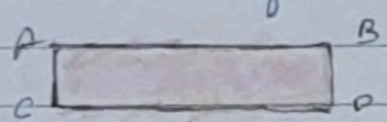
3 Define Triangle.
Triangle is a shape having 3 corners. The sum of all the angles of a triangle is 180°.



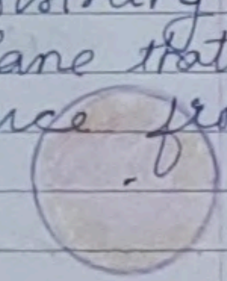
4 What is a square?
A geometrical shape having 4 equal side is called Square.
The measure of its angles is 90°c.



5 What is a rectangle?
Rectangle is a shape having opposite two sides equal.
The measure of its angles is 90°c

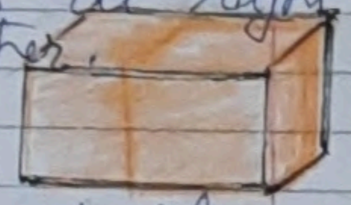


6. What is a circle?
circle is a shape consisting of all points in a plane that are at a given distance from a given point.

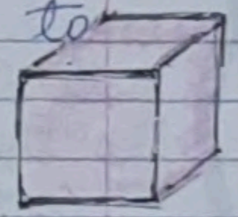


THREE DIMENSIONAL SHAPES.

7 What is a cuboid?
It is a 3D shape with six rectangular faces at right angles to each other.

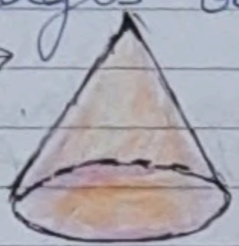


8 What is a cube?
It is a Three dimensional shape with six squares faces at right angles to each other.

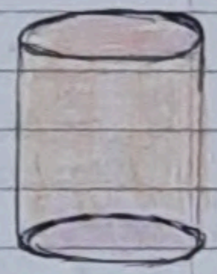


9 What is a cylinder?
A cylinder is a 3D shape with two identical, circular (round) shapes at either ends and one curved side no edges or vertices.

cone →



cylinder →



10 What is a cone?
A cone is a three dimensional shape with length width and height A cone has a round base at the bottom and curved sides that lead up to a narrow point,

NUMERICALS

If cost of 1000 bricks is Rs 6000 then find the cost of 500 bricks.

cost of 1000 bricks = Rs 6000

1 brick = $\frac{6000}{1000}$

= Rs 6.

∴ Cost of 500 bricks = 500 × 6

= 3000

If 2000 bricks cost 8000 (Rs). Find the cost of 1000 bricks.

cost of 2000 bricks = Rs 8000

1 brick = $\frac{8000}{2000}$

= Rs 4

∴ cost of 1000 bricks = 1000 × 4

= Rs 4000/—

If the cost of 1000 bricks is Rs 1000. find the cost of 5000 bricks.

cost of 1000 bricks = Rs 1000

1 brick = $\frac{1000}{1000}$

= Rs 1

∴ 5000 bricks cost = 5000 × 1 = 5000/—

If the cost of 1000 bricks is Rs 2000. Find the cost of 4000 bricks?

1000 bricks cost = 2000

1 brick cost = $\frac{2000}{1000}$

= Rs 2.

∴ Cost of 4000 bricks = 2 × 4000

= 8000/—

Cost of 1 brick is Rs 1, what will be cost of 500 bricks

cost of one brick = Rs 1

cost of 500 bricks = 500 × 1

= 500

∴ The cost of 500 bricks will be Rs 500.

If a brick cost Rs 5, what will be cost of 2000 bricks.

cost of one brick = Rs 5

cost of 2000 bricks = Rs 2000 × 5

= Rs 10,000

Cost of 1 Brick is 50 paisa. 100 Bricks

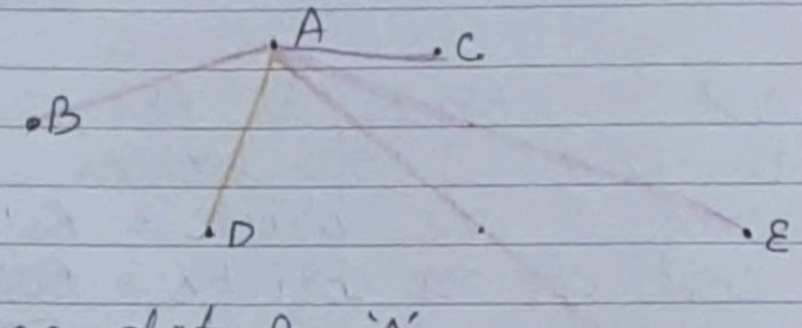
cost of 1 brick = .50

100 brick = $\frac{100 \times 50}{100}$ = Rs 50.

LONG AND SHORT

Q1 Textbook questions.

Guess the distance between any two dots. How many centimeters is it? Now measure it with the help of a scale. Did you guess right?



let one dot Be 'A'.

A to B - 3.5 cm
A to D - 2.5 cm
A to C - 2 cm
A to E - 8 cm
A to H - 10 cm

my guess for A to B was 4cm but actual distance is 3.5 cm.
for rest of them my guess was correct.

Q2 Which two dots do you think are farthest from each other? Check your answer?

Dots A and H are farthest from each other.

Q3 Which two dots are nearest to each other? check your answer

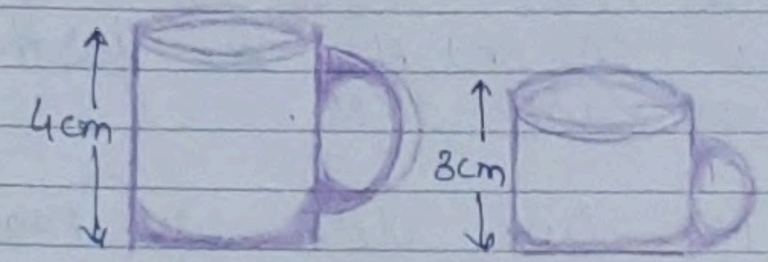
Dot A and D are nearest to each other.

Q4 How Birbal made Akbars line shorter?

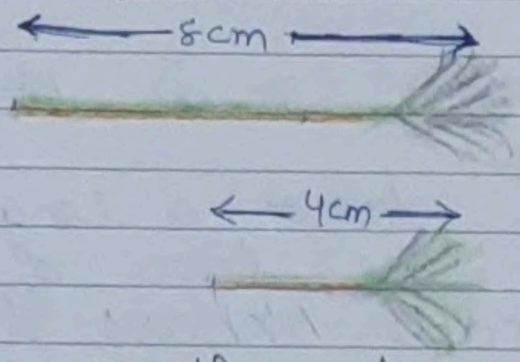
Birbal drew a longer line below the line of Akbar. this made Akbar's line shorter

Q5 Make her right arm 1 cm longer than the left arm.

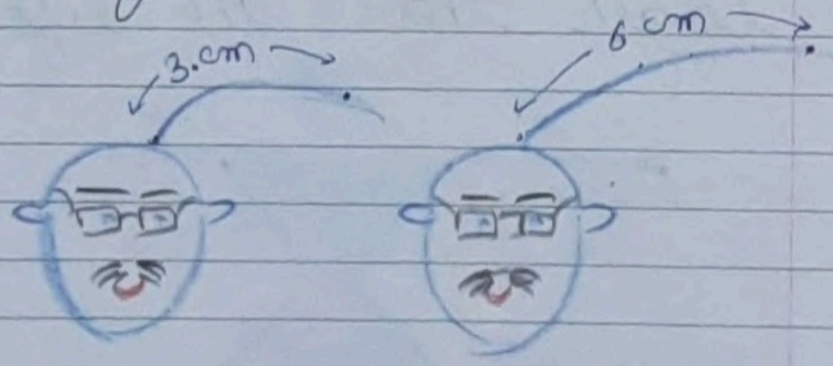
Q6 Draw a cup 1cm shorter than this cup.



Q7 Draw a broom half as long as this broom.



Q8 Draw another hair double the length.



Q9 Do you remember that in class 3 you measured your height?
yes, my height was 3.5 feet

Q10 Do you think you have grown taller?
yes, I have grown taller

Q11 How much?
My height today is 4 feet.
4 feet - 3.5 feet = $\frac{1}{2}$ feet.
I have grown by 6 inches.

Q12 Find out and fill the table below.

Friends name	Last year Ht	This year Ht.	How many cm grown.
Kartik	80 cm	100 cm	20 cm
Rohan	90 cm	110 cm	20 cm
Mukesh	100 cm	130 cm	30 cm
Sohan	110 cm	140 cm	30 cm

Q13 Thumpa once read a list of tallest people in the world. one of them was 272 cm tall! That is just double of Thumpa's height. How tall is Thumpa?
Height of that person = 272 cm.
Height of Tumpa $= \frac{272}{2} = 136$ cm.
Tumpa = 136 cm.

Q14 Could that person pass through the door of your classroom without bending.
NO he cannot. Reason.
Height of gate = 8 feet
= 243 cm
Height of Person = 272 cm.
difference: 29 cm.
The person is 29 cm taller than the classroom gate.

Q15 Will his head touch the roof of your house if he stands straight.
NO, it will not touch the

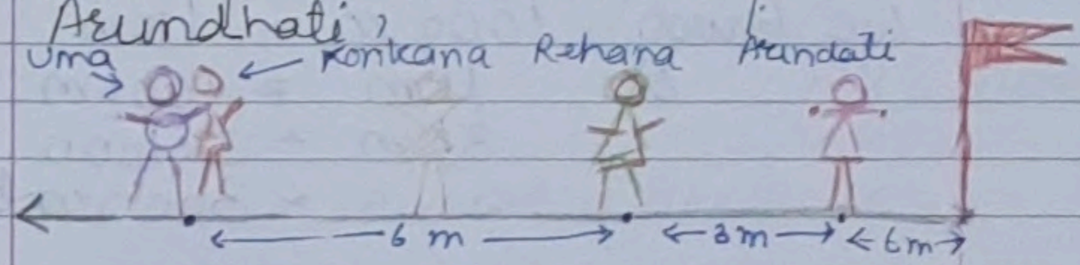
roof of my house, because the height of my room is 10 feet = 304 cm.
which is 32 cm more than the height of the person.

Q16 Who is the tallest in your family?
My grandfather.

Q17 Who is the shortest in your family?
I am shortest in my family.

Q18 What is the difference between their heights?
grand father height : 182 cm
my height : 121 cm
difference : 61 cm

Q19 How far is Rehana from Arundhati?



3 m Ans.

b) How far ahead is Rehana from Konkana and Uma
6 mts. Ans

c) How far are Konkana and Uma from the finishing line?
15 mts (6m + 3m + 6m).

Q20 Have you heard about a 1500 m or 3000m race? You remember that 1000 meter make 1 kilometer and 500 mts make half a kilometer.

a) In a 1500 metre race people run
1000 m + 500 m = 1500 mts

b) In a 3000 metre race people run
we know 1000 m = 1km
or 1km = 1000m
3km = 3 × 1000
= 3000 mts.

3 km Ans.

Q22 Have you heard about marathon races in which people have to run about 40 Kilometre? People run marathons on roads because the track of a stadium is only 400mts.

(a) 10 rounds of a stadium track = 4 km.
(400m × 10 = 4000m or 4km)

(b) So, If you run a marathon on a stadium track, you will have to complete
one stadium round = 400 m.
OR
= 0.400 Km
for 40 Km how many rounds?
one round × number of rounds = 40 km
⇒ .400 Km × Number of rounds = 40 km
N = $\frac{40}{.400} \times 1000$
number of rounds = 100

Q23 Dhanu has the longest jump of 3 metres 40 cm. Gurjeet is second. His jump is 20 cm less than Dhanu's, Gopi comes third. His jump is only 5 cm less than Gurjeet's jump.

a) How long are Gurjeet's and Gopi's jumps?

a) Dhanu's jump = 3.40 mts.
b) Gurjeet jump = 3.40 - .20 (20 cm less) = 3.20 mts.
c) Gopi jump = 3.20 - .05 (5 cm less Gurjeet) = 3.15 mts.

b) Try an see how far can you jump.
2 mts.

c) How far can you throw a ball? 20 mts

d) Look for a big ball. like a football or volleyball How far you kick it?
30 mts.

Q24

Sports	World record	Indian
High Jump (Men)	Javier S 2m 45 cm	Chandrapal 2m 17 cm
Long Jump (Men)	Mike P 8m 95 cm	Amrit 8m 8 cm
High jump (Women)	Stefka K 2m 9 cm	Bobby 1m 91 cm
Long Jump (Women)	Galina C 7m 52 cm.	Anju 6m 83 cm

(a) How many centimetres more should Chandra Pal jump to equal the mens world record for high jump?

world record = 2.45 mts
Indian record = 2.17 mts
difference = 0.28 mts
or 28 cm.

(b) How many cm higher should Bobby A. Jump to reach 2 mts.

Bobby A jump = 1.91 mts
Target = 2.00 mts
2.00 - 1.91 = .09 mts
or 9 cm.

thus, Boby A should jump 9 cm higher to reach 2 mts.

c) Galina's long jump is nearly
a) 7 metre
b) 7 ½ mts ✓
c) 8 mts.

d) Look at the women's world records. What is the difference between the longest jump and the highest jump.
Womens world record = 2.09 cm
Record H. jump = 7.52 cm
difference:
7.52
− 2.09
= 5.43 mts
or 5 mts 43 cm.

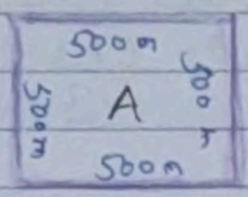
e) If Mike P. could jump ____ cm longer his jump would be full 9 mts.
Mike Jump = 8.95 mts
Target = 9.00 mts
difference = .05 mts

or 5 cm.

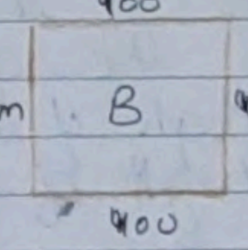
f) whose high jump is very close to two and half mts.
Javier s high jump.

Q25 How many rounds of the park must Devi Prasad Run to complete 2km?

1 round of park A
is 500 + 500 + 500 + 500
= 2000 mts.
or 2 km.



1 round of park B
is 100 + 100 + 100 + 100
400 mts



2km = 2000 mts.
∴ 400 mts × number of rounds = 2000
no of rounds = $\frac{2000}{400}$ = 5

for park B devi prased = 5
needs to take 5 rounds.

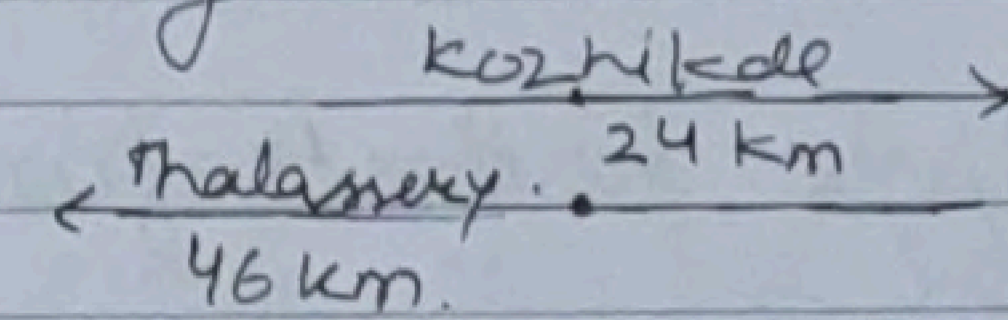
Q26 That day he ran ______ km. and ______ meters.
He ran 8 rounds.
1 round = 400 mts
8 Round = 400 x 8
= 3200 mts
or 3 km 200 mts.

Q27 About how many mts high is your class room?
3 mts. high.

Q23 Guess how many rooms, one on top of the other, will be equal to the qutab minar.
High of the qutub minar = 72 mts
high of the class room = 3 mts
class room x number of times = 72 mts
3 mts x number of times = 72 mts
number = 72/3
= 24 mts

24 times.

Q24 How far is kozhikde from Thalassery.



Thalassery + kozhiked =
46 km + 24 km = 70 km

Q25 How far is your home from school.
5 km or 5000 mts.

Q26 How much does Mamun walk everyday to reach school.
400 + 150 + 350 + 40 = 940 m

Q27 Find out how far your friends live from school and fill the table. write in mts or km

Friends name	Distance
Rohan	5 km
Mohan	3 km
Rita	10 km
Gita	8 km.

Q28 who among you lives nearest

to the school?
Mohan 3km.

Q29 Who lives farthest from the school?
Rita 10km.

Q30 how many children lives less than 1 km away from your school?
no one

Q31 Is there anyone who lives more than 5 km away from the school?
Rita (10km) & Gita (8km)

Q32 How do you come to school
By school Bus.

Q32 How long is the thread in a reel.
400 mts.

Q33 How long is the string of a kite reel? Can it be more

than a kilometre long?
Yes, 1000 mts.

Q34 If a handkerchief is made out of a single thread. how long would that thread be?
may be 2000 mts

Q35 which is the highest building that you have seen? About how many rooms high was it?
The highest building i have seen is qutub minar 72 mts high
It was about 24 rooms high.

Q36 How high can a kite go can it go higher than the qutab minar?
yes, I can fly it higher

Q37 How high can a plane fly can it fly higher than mount everest which is about

9 km high?
yes. it can fly higher.

Q35 Have you ever seen clouds below you?
✓ i have seen clouds below me in Shimla.

Important Questions

1 Which is the better unit to measure following.
a) Length of a pin - cm
b) Height of a house - mts
c) Distance from Kashmir to Kanyakumari km
d) Length of a park - mts or (m)
e) length of pen - cm
f) your height - cm
g) length of 500 Rs note - cm

h) length of a toy car cm
i) Height of qutub minar - m (or mts)
j) Distance from your school to your house km.
k) The length of goods train m

2 Addition and subtraction of unit of measurments:
Add 5 m 75 cm to 6 m 25 cm.
Step 1) converting m to cm
5m - 500 cm (1m = 100cm)
6m = 600 cm. (∵ 5m = 500cm)
Step 2) Add 500 cm + 75 cm
= 575 cm
600 cm + 25 cm
= 625 cm.
Step 3) Add the expression
575 cm
+ 625 cm
1200 cm
Step 4) Convert to metre =
100 cm = 1 m
1 cm = $\frac{1}{100}$ m

$1200\,cm = \frac{1200}{100}\,m$

$= 12.00\,m.$

3 Add 10 km to 12 km 550 m.
Convert km to m. (1km = 1000m)
10 km = 10000 m.
12 km = 12000 m.
Add.

$$\begin{array}{r} 10000 \\ +\ 12550 \\ \hline 22550\ m \end{array}$$

Convert to km & m.
22.550 KM
or
22 km 55 m

4 Subtract 5km 180m from 18km
Convert km to m.
5km = 5000 m
18km = 18000 m
Sub.

$$\begin{array}{r} 18000 \\ -\ 5180 \\ \hline 12820\ m \end{array}$$

OR
12.820 km or 12km 820m

5 Add 6km 175 m & 12km 500 m
Convert km to m.
6 km = 6000 m
12 km = 500 m.
Add

$$\begin{array}{r} 6175\ m \\ +\ 12500\ m \\ \hline 18675\ m \end{array}$$

or
18.675 km
or
18 km 675 m

6 Add 70 mts 86 cm to 195 mts 40 cm.
Convert m to cm. (1m = 100cm)
70 m = 7000
195 m = 19500
Add

$$\begin{array}{r} 7086\ cm \\ +\ 19540\ cm \\ \hline 26626\ cm \end{array}$$

or
266.26 cm
or
266m 26 cm.

7 Subtract 15m 75cm from 20m 30cm.
Converting m to cm.
15 m = 1500 cm
20 m = 2000 cm.
subtract
2030 cm
− 1575 cm
455 cm
or
4.55 m
or
4m 55 cm.

8 Subtract 72 km. from 102 km 825m
Converting km to m
72 km = 72000
102 km = 102000
sub.
102 825 m
− 72 000 m
30 825 m
or 30.825 km
or 30 km 825 m

×1000 ×100 ×10
km → m → cm → mm
÷1000 ÷100 ÷10

9 Subtract 2m 50cm from 8m 90cm
Converting m to cm
2m = 200 cm
8m = 800 cm
subtract. 890 cm.
− 250 cm
640 cm
or
6.40 m
or
6 m 40 cm.

Points to remember.
12 inches in = 1 foot ft
1 meter m = 100 cm
1 km = 1000 m
1 kg = 1000 gm
1 litre = 1000 ml.
convert m to kilometer
2000 m ⇒ $\frac{2000}{1000}$ km ⇒ 2 km
smaller unit to larger unit divide
convert km to m
13 km ⇒ 13 × 1000 m ⇒ 13000 m
Larger unit to smaller unit multiply

A TRIP TO BHIMBETKA

Textbook questions.

Q1 Let us see how many children are going.

CLASS	NO OF CHILDREN
I	33
II	32
III	42
IV	50
V	53
Add	210

How many children are going. 210

Q2 If there are 4 buses how many children will get seats?
No of seats in a bus = 50
No of seats in 4 buses = 50 × 4
= 200.
So, 200 children will get seats.

Q3 Will there be any children left without seats?
Yes, Total seats = 200
Total children = 210
without seats = 10 children.

Q4. Each mini bus can take 35 students How many mini buses are needed?
Total number of children = 210.
mini bus capicity = 35
equation
$35 \times \text{number} = 210$
$\text{number} = \frac{210}{35}$.
number = 6.
Hence, Total mini buses needed are 6.

Q5. If we don't stop anywhere, we should reach there in 2 hours. That is around.
Start time = 9:0 clock
Add 2 hours = 2
11 0' clock.

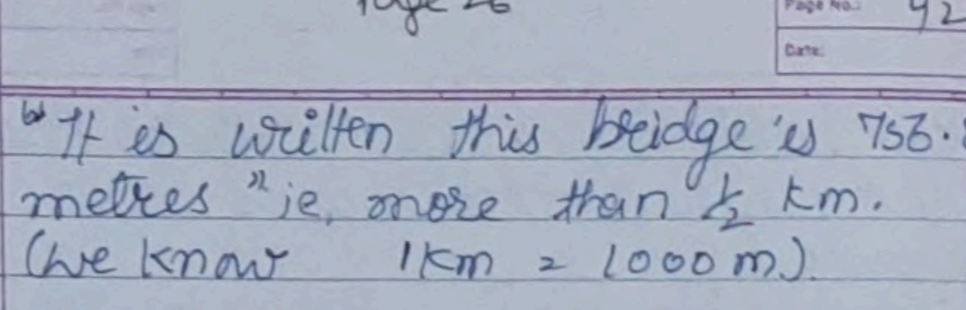
Q6 If they go to Bhimbetka, they will reach there.
Between 10'o clock and 11'o clock.

Q1 Was victoria right?
Yes, victoria was right, because

"It is written this bridge is 756.82 metres" ie. more than ½ km.
(We know 1km = 1000m).

Q8 Have you ever crossed a long bridge? About how many metres long was it?
20 m

Q9 What is the difference between the water level of the Narmada in the rainy season and now?



Difference between water level
Today 40 m
Rainy 15 m
— 25 m
This difference is 25 m.

Q10 Each bus takes about 15 min to refill and there are two

buses to be refilled. So they stop there for about 30 minutes. which means they are late by about 30 minutes.
To Refill one bus it takes: 15 min
To refill two buses it takes: 15×2
= 30 min

Q11 Look in the picture and find the price of 1 lt of diesel.
Total quantity of diesel filled = 100 lts
Total cost = Rs 3500/-
equation.
100 lts of diesel = Rs 3500
1 lt of diesel = 3500/100
= Rs 35
Hence, the cost of 1 lt of diesel is Rs. 35 (Thirty five)

Q12 How much time did Aman take to come out of toilet?
Time taken by Aman = 15 min.

Q13 How many more door are there than Bison (big ox)?

No of deer = 117
No of bison = 37
sub = 80
Hence, there are 80 more deer than bisons.

Q14 How many people must Banomala have counted?
Total number of animals
(deer + bison) = 117
+ 37
154
given, her count is less than 200.
So the number is in between 154 and 200. ie 177
214 / 154 / 134 / 177

Q15 They have spent 1 hour there. What time is it?
given that, they reach about 11 o'clock at Bhimbetka.

It is 11 o'clock
+ 1 hour
12 o'clock

Q16 They are now moving towards Bhopal. They should reach there in less than 1 hour at 'about'.
They started at 12 o'clock
They will reach in less than one hour lets say between 12.30 to 1 pm (approx).

Q17 How many oranges, biscuits and bananas are distributed?
total number of children = 210
No of orange distributed = 210 × 1
= 210
No of biscuits distributed = 210 × 5
= 1050
No of banana distributed = 210 − 38
(38 children don't take) = 172
Hence.
No of orange distributed = 210
No of Biscuits distributed = 1050
No of banana distributed = 172

Q18 I gave four toffees each to four of my friends and three toffees are left

With me. How many toffees did i have?
No of toffees I gave to my friends - 4×4
= 16
After giving the toffees mubed of toffees left with me = 3.

Total number of toffess with me = No of toffess given + left with me
⇒ 16
+ 3
19
Number of toffees I have = 19.

Q19 What number can you make using 3,5 and 7? You can make 357 and 537 - ...
357, 375, 537, 573.

735, 753

Q20 A number becomes double if it is increased by 8.

what is the number?
let the number be x.
NOW, it is increased by 8 and it becomes double
$x + 8 = 2x$
$8 = 2x - x$
$8 = x(2-1)$
$8 = x(1)$
hence the number is 8. $8 = x$.

Q21 Think of a number which can be divided by 2,3,5 and come between 25 & 50.
Divisible by 2 —
26, 28, 30, 32, 34, 36, 38, 40 42, 46, and 48.
Divisible by 3 —
27, 30, 33, 36, 39, 42, 45 and 48
Divisible by 5 —
30, 35, 40, 45.

The smallest number between 25 and 50 that can be divided by 2,3,5 is 30.

Q22 A small ant climbs 3cm in 1 minute but slips down 2 cm How much time will it take to climb to 2 cm.?
The small ant climbs 3 cm in 1 min and slips down 2 cm.
So, Distance covered by the ant in 1 min = 3 cm - 2 cm
= 1 cm
Hence, the and will take 2 minute to cover a distance of 2 cm.

Q23 Javed went twice for boating He paid a total of Rs 40 and boated for 50 minutes which two books he take?
From the table we find that Javed took the Paddle boat and motor boat.

paddle boat -	Rs 15	30 min
motor boat =	Rs 25	20 min
	Rs 40	50 min

Name of boat	Ticket	Time
Double decker	Rs 30	45 min
Paddle boat	Rs 15	30 min
motor boat	Rs 25	20 min
Boat with oars	Rs 15	45 min

Q24 Indra and Bhanu first went in the motor-boat and then took the oar boat.
How much did they pay for both the boats? Rs
Indra for motor boat 25
Bhanu for motor boat 25
Indra for oar boat 15
Bhanu for oar boat 15
Total paid Rs 80

Q25 How much time did they get for both rides?
Time of motor boat ride - 20 min
Time of oar boat ride - 45 min
Total time = 65 min

Q26. One group of children went for the double-decker trip. They paid Rs 450 in total. How many children went for the double-decker trip.

Money speend by group of children for trip Rs 450.
Ticket cost / child Rs 30
equation

Rs 30 × (number of children) = Rs 450

Number = $\frac{450}{30}$ = 15

15 children went for double decker trip.

Q27 Which boat makes two trips in 1 hour?

1 hour = 60 min

The boat that has trip time 30 minutes. ie paddle boat.

Q28 Which boat takes less than half an hour to complete a trip?

½ hour = 30 min.

From the table above we can see motor boat takes 20 min. ie less than ½ hour.

Q29. Which boat gives them the most time taking the least money?

oar boat takes Rs 15 and trip time 45 minutes.

This gives them most time taking the least money.

Q30 Children enjoy different boat rides till 4 o'clock. It is time to return. now they will not stop anywhere and reach back in 2 hours. So, they should reach Hoshangabad by o'clock.

start time + journey = Reaching time
4 o'clock + 2 hours = 6 o'clock

Q31 Have you ever been on a school trip? How many

children were there in all?
How did you go and how far?
How much time did it take.
Try to find out the cost of travel for each child?
Yes, I had been on a school trip.
There were 50 children (my class mates)
We went by bus
It was 70 km away from school.
It took us 2 hours.
cost of travel was Rs 100 per student.

Q32 There are four very old cave painting. Mark the oldest.
(c) 8500 years old.

Q33 One bus can carry 48 children
How many children can three buses carry? About.
$48 \times 3 = 144$
(c) 150.

Q34 Which pair of numbers add to make more than 500?

$$\begin{array}{r} 321 \\ 192 \\ \hline 513 \end{array}$$

(b)

Q35 What happened at what time

a) Crossed the Narmada Bridge — 3:00 pm
b) Looked at Bhimbetka paintings. — 6:00 pm
c) At the petrol pump — 9:10 am
d) Boating in the lake — 12:30 pm
e) Had lunch — 11:30 am
f) Returned to Hoshangabad — 9:30 pm

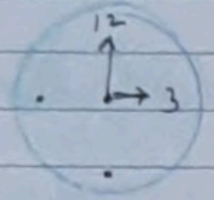
CHAPTER – 4

TICK TICK TICK

Textbook questions

Q1 Three friends read time from a clock. who is right?

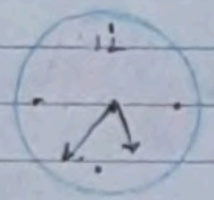
Cheeku Bittu Pinki



12:03

12:15

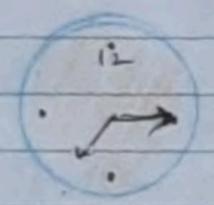
3:00



7:25

5:07

5:35



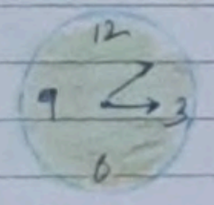
3:35

7:03

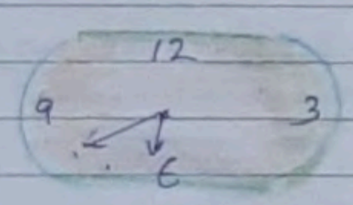
7:15

Pinki is right.

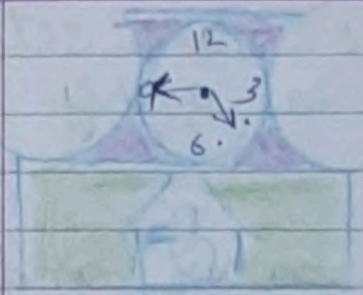
Q2 Show the following times in the clock:



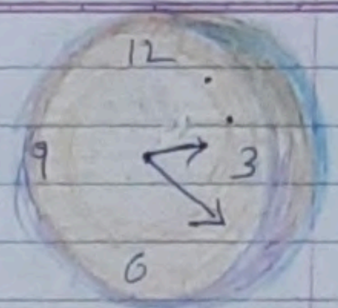
3:10



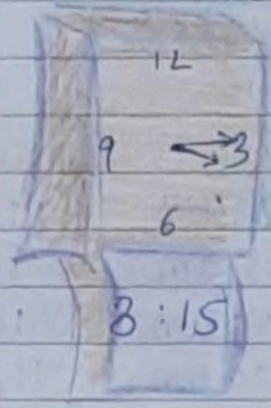
6:40



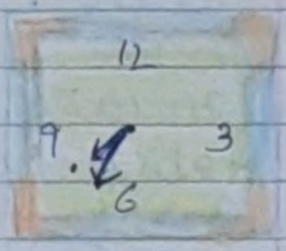
4:45



2:20



8:15

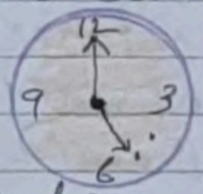


7:35

Q3 Do you like sky watching? If yes, then this one should interest you:

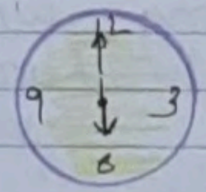
(a) At what time does the sun rise at your place?

5 o'clock



(b) When does the sun set?

6 o'clock



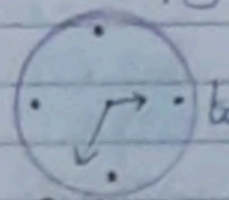
Q4 Does the sun rise and sets at the same times every day. No.

Q5 Look at the newspaper and see the time of sunrise and sunset in different months.

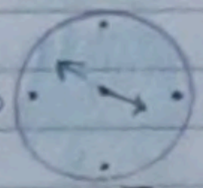
Month	Date	sunrise	sunset.
January	15th	7:20am	6.40
Februdry	15th	7:15 am	6.50
March	15th	7:00 am	7:00
April	15th	6:50 am	7:20
May	15th	6:40 am	7:30
June	15th	6:30 am	8:00
July	15th	6:20 am	7:50
August	15th	6:25 am	7:40
September	15th	6:40 am	7:30
october	15th	6:50 am	7:20
November	15th	7:05 am	7:00
December.	15th	7:10 am	6:30

Q6 How long will it take the minute hand to move from.

(a) 15 minutes to

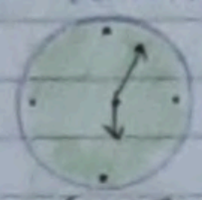


8:35

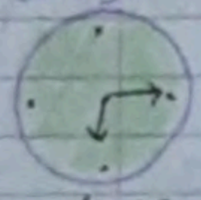


8:50

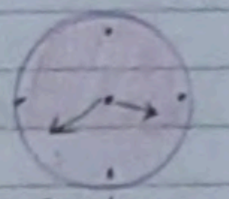
10 minutes



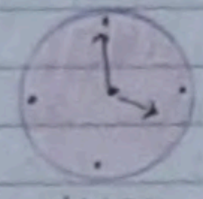
6:05



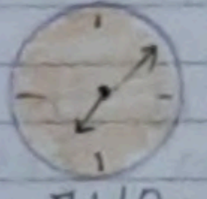
6:15



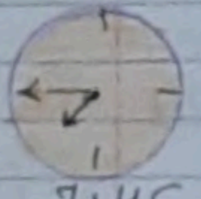
8:40



4:00



7:10



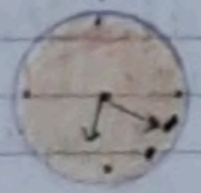
7:45

80 minutes

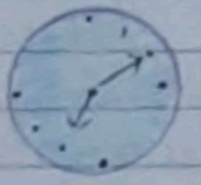
35 minutes

Q7 Draw where the hands will be

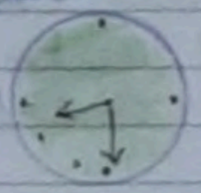
20 min after 6o'clock



10 minutes after 7o'clock



30 minutes after 5 o'clock



15 min after 5 o'clock.

Q8 How long does school assembly take?

30 minutes

Q9 How long is your lunch break? 30 minutes.

Q10 How long is your games period? 60 minutes.

Q11 Is it the same as all the other periods? no other periods are 45 minutes.

Q12 The games period and lunch break seem very short! Aren't they?
Yes lunch break should be 60 minutes.
Games period should be 2 hours.

Q13 How many minutes can these activities take? make a guess and then check at home.
Boiling 1lt of milk 5 min.
Filling a bucket 10 min.
Sweeping your room 30 min.

Q14 In one minute, how many times can you
a) Snap your finger 35 times
b) Skip a rope 50 times
c) Jump up and down 20 times
d) Kicking pillow 30 times
e) Rubbing hands 70 times.

Q15 Here is another challenge for you, How long can you -
a) Speak non-stop. 5 min
b) Stand on one leg. 4 min
c) Sing 'Aaaaa...' 10 min.

Q6 How long do you take to -
a) Run a 50 metre race 5 min.
b) Collect 50 pebbles from the ground 10 min
c) Count 1 to 100 2 min

Q7 Let's look at a clock again solve this one -
a) The minute hand started from '2'. How many minutes will it take to come back to 2 again. 60 minutes

(b) What happens to the hour hand? Does it also move? How long will it take to move from one number to the next. 60 minutes.

Q8 Look around you and list the activities that take about one hour to complete.
1) cooking food.
2) Doing maths home work
3) watching cartoon episode.
4) Gardening & walking
5) Getting ready for school.
6) cleaning the room.
7) playing cricket match.

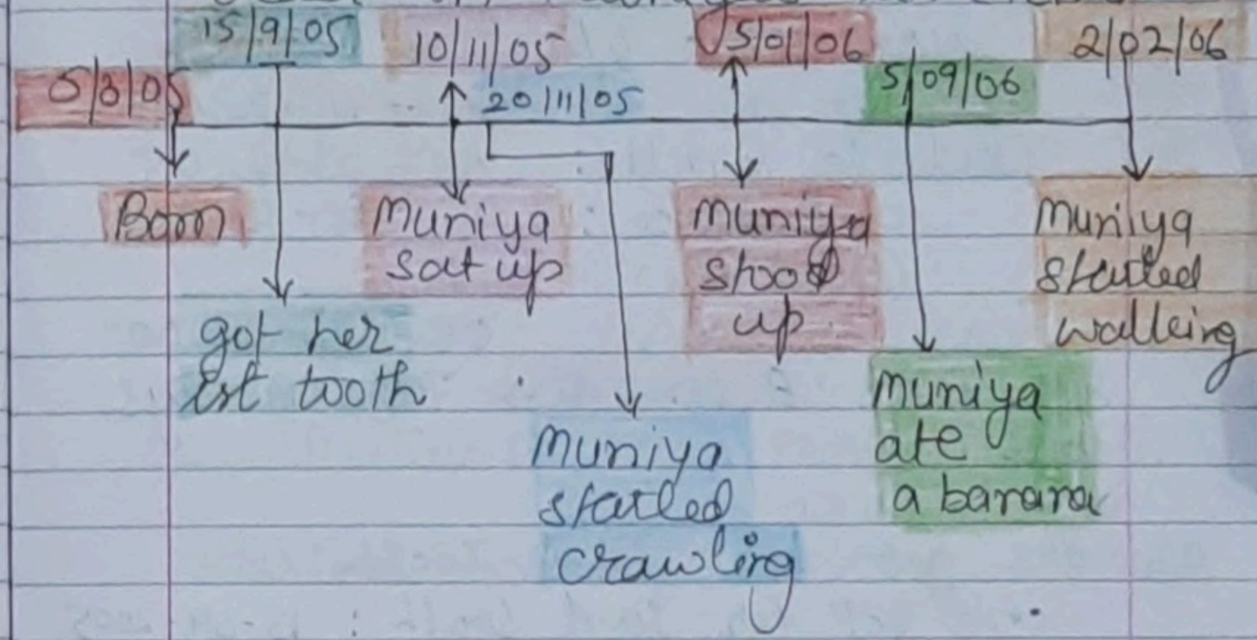
Q9 How long does it take to cook dinner at home?
more than an hour.

Q10 Ask your father if he can cook as fast as your mother does.
yes.

Q11 which games takes less than an hour to finish. Ludo.

Q12 How long does a football match take?
90 minutes and short break of 15 minutes.

Q13. Mark these in the correct order on Muniya's time line.



Q14 Muniya got her first tooth in September. How many months old was she then? How many months have passed from march to september?

Date of Birth : 05-03-2005
First tooth : 15-09-2005
difference :

15-09-2005
05-03-2005
(10-06-0000) +1

She was 6 months and 11 (10+1) days old
6 months have passed from march to sep.

Q15 How old was muniya, when she first sat up?

sat up on : 10-11-2005
Date of Birth: 05-03-2005
difference : 05-08-0000
(add one) +1
06-08-0000

She was 6 months 7 (6+1) days old.

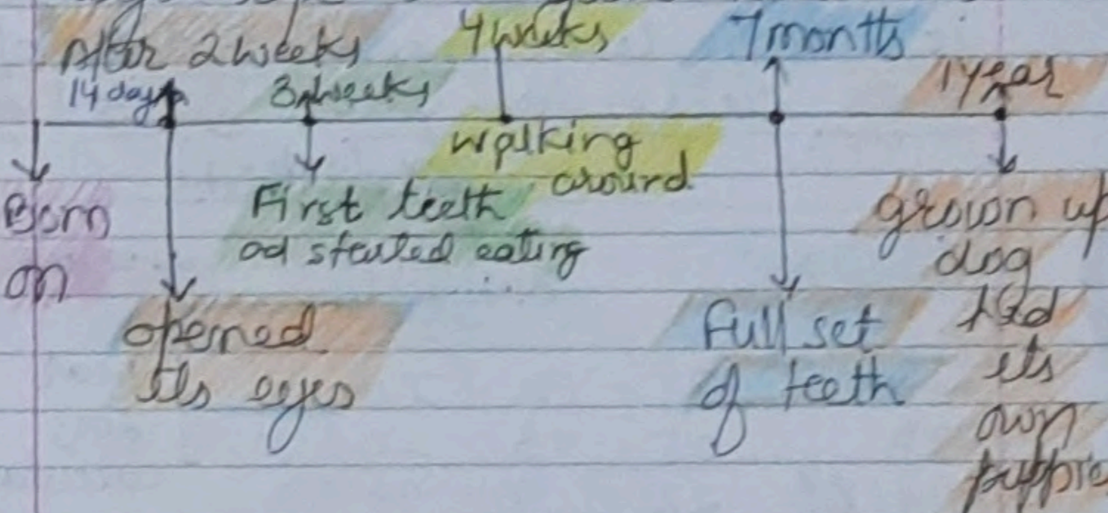
Q16 She got her first tooth.

she got her first tooth : 15-09-2005
Date of birth : 05-03-2005
difference : 10-06-0000

She was 6 months old

Q17 What did she do first.
1) Walking / eating a banana?
2) crawling / standing?

Q18 Now make a time line of this dog's life in your notebook.

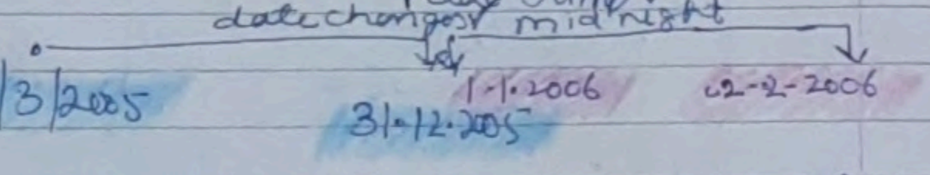


Q19 Note the difference between Muniya and Rani's puppy.

Positions	Muniya's Puppy age	age
Started walking	29 days 10 months	28 days
Ate food for the first time	1 year 6 months 1 day	21 days
Got the first tooth	6 months 11 days	21 days

Started walking :-

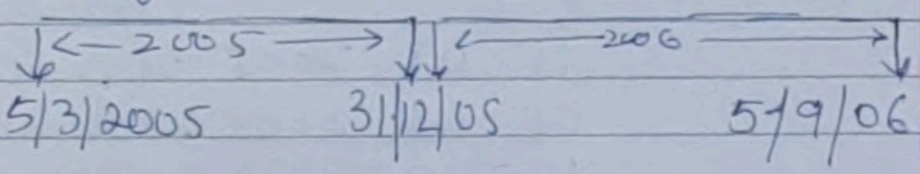
Note:- As per my Neet book (Reprinted December 2018) Muniya started walking on 2-02-2006.
Muniya's DOB 5-03-2005.
We have to calculate the age ie time here months & day of two callender year 2005 & 2006



2005 Ends. 31 - 12 - 2005
DOB. 05 - 03 - 2005
diff 26 - 9 - 0000] Year 2005 calculation
(Add 1) +1 ie 27 days - 9 months
Walking date 02 - 02 - 2006
New Year 01 - 01 - 2006] Year 2006 calculation
(Add one) +1 - 1 - 0000 ie 2 days 1 month
Add day & 9 months.
(1+26) - 9 - 0000
(1+1) - 1 - 0000
29 - 10 - 0000

Muniya started walking when she was 10 months and 29 days old.

Abc food :-
We have to calculate the time duration in months & days in two callender year 2005 & 2006
Muniya ate food on : 5-9-2006
Muniya Date of Birth : 5-3-2005



31 - 12 - 2005
DOB 05 - 03 - 2005
26 - 9 - 0000
Add one) +1
27 - 9 - 0000 for 2005.

Ate food 05 - 09 - 2006
01 - 07 - 2006
4 - 08 - 0000
Add one +1
5 - 8 - 0000 for 2006.

(Adding) total days and months
27 - 9 -
5 - 8 -
32 - 17 months 1 - 18 months
or 1 - 6 - 1 year.

Got the first tooth
we have to calculate the
time period between 5-3-05
to 15-09-2005.

15-09-2005
↓ ← ? →
5/3/05

15-09-2005
05-03-2005
10 - 6 - 0000
Add one +1
11 - 6 - 0000

Age = 6 months 11 days. for
1st tooth.

Note the differences.

29 days	(28 days)	29 day
10 months	✓(4 week = 1 month)	9 months
1 year	(21 days)	1 year
6 months	✓1 week	5 months
1 day		1 week
		1 Day
6 months	(2 days)	5 months
11 days	3 weeks.	1 week
		11 days

Q20 Do all animals grow at the same speed?
No, all animals donot grow at some speed.

Q21 Find about the growth of
a) A hen
b) A cow
c) A bird.
growth in ascending order
bird, hen, cow.

Q22 Draw pictures of the baby animals and the big animals?

Q23 Here are the pictures of grandfathers posting for a photograph who looks the eldest to you?

Page No.: 68 Date: YOUVA

Ramis grand father looks older to me, but actually Appis grandfather is oldest.

Q24 How much older is Appis grand father than Rami's grand father.

Appis grand father = 95 years
Rami's grand father = 70 years
difference = 25 years

Q25 Will chuchoo's grand father ever grow as old as Appis grand father?

No, the average life of a rat is so chuchoo's grand father will never grow as old as Appis grandfather.

Also in size also a rat can never grow as big as elephants.

Q26 How much younger is chuchoo rat's grand father than Rami's grand father?

Page No.: 69 Date: YOUVA

Rami's grandfather is 70 years.
chuchoo's grand father 2 years.
difference - 68 years
So, chuchoo's grand father is 2 years younger than Rami's grand father?

Q27 Now, write which dates these board for -

5/5/06	5 May 2006
20/5/06	20 May 2006
7/6/06	7 June 2006
1/1/07	1 January 2007

Q28 Write these dates in numbers.

1 June 2006	1-6-2006
30 May 2006	30-5-2006
10 Aug 2007	10-8-2007

Q29 How long did it take the letter to reach from Ajmer to Nagpur?

writing date 1-5-2006
receiving date 6-5-2006
difference = 5-0-0000
Add 1
6 days.

Explanation

Why have we added 1 to the difference (as a general Rule) ~~is~~ to include the date of writing in transportation.

further explanation. (Days)

Day 1 letter written on 1st. Reached NO
Day 2 letter in transit Reached NO
Day 3 letter in transit Reached NO
Day 4 letter in transit Reached NO
day 5 letter in transit Reached NO
Day 6 letter reached Reached yes.

So the letter actually took
6 days
" 1 writing day plus 5 transit day." however 5 days is also correct if writing date is considered.

Q30 How many days will Atif spend at his nani's place?
going to nani's place : 5-5-06
Back on : 20-5-06
difference 15.

5 6 7 8 9 10 11 12 13 14 15
1 2 3 4 5 16 17 18 19 20

15 days.

Q31 Fill in the table:

	(from)	(to)	(Days)
Shabana's holidays	1/6/06	10/8/06	70
Atif's holidays	1/5/06	30/6/06	

(a) 10 - 8 - 06
1 - 6 - 06
9 - 2 - 00
+1
10 day 2 months or 70 days
(considering one month has 30 days)

(b) 30 - 6 - 06
1 - 5 - 06
29 - 1 - 00
+1
30 - 1 - 00 or 60 days

Q32 Who has got longer holidays. Shabana or Atif.
Shabana school was closed for 70 days. 10/8 to 1/6
Atif school was closed for 60 days.
Hence, Shabana got longer holidays.

Explanation.

reopen	10 - 8 - 2006
close	1 - 6 - 2006
diff	9 - 2 - 0
Add one	1
	10 - 2 - 0

thus, 10 days 2 months.
or
10 day + 60 days = 70 days

Alif.

reopen	30 - 6 - 2006
close	1 - 5 - 2006
diff	29 1 0
add one	1
	30 - 1 - 0

thus 30 days one month
or
30 days + 30 days = 60 days

Q33 Which long holidays do you get in school.

Summer	2 June	2 July	31 days
Autumn	10 Oct	19 Oct	10 days
Winter	25 Dec	30 Jan	38 days
Exam holidays	5 Mar	20 Mar	16 days

Q34 In which month was butter packed?
The butter was packed in the month of January 15, 2006

which month will it be 180 days after 15-01-2006.
180 days is 6 months.
adding 6 moths to the date.

15 - 01 - 2006
+ 06
15 - 07 - 2006

July month.

Q35 can chandra eat it on 15th May 2006
yes, may comes befor July it is safe.

Q36 Do you ever check the date of packing of things you buy.
yes, I check date of packing of things i buy.

Q37 Have you seen medicines

Page No.: 74
Date:
YOUVA

Q38 Which have expiry date written on it?
yes, I have seen medicines which have expiry date written on them.

Q39 Which are the other things that come with an expiry date?
Noodles, Biscuit, waffers etc.

Q40 What month and year is written as 07/05?
July / 2005
Would it be safe to take the cough syrup in September 2005?
No, it would not be safe to take

Q41 Can you guess why they missed the train?
yes, possible reason is they did not check if it is 5:30 in morning or 5:30 in evening.

Q42 Look at this chart. It tells the difference between your watch and a 24 hour clock. Try to complete it.

Time by your watch 12 hour	Time by a 24 hour clock.
1o'clock afternoon	13:00 hours
2o'clock afternoon	14:00 hours
3o'clock afternoon	15:00 hours
3:30 in the afternoon	15:30 hours
6:0' clock in the ve	18:00 hours
9:0' clock evening	21:00 hours
12:0'clock midnight	24:00 hours

Q43 Now can you tell why a 24 hour clock is called so.
A 24-hours clock show the time for whole day which is of 24 hours. Hence, It is called so.

Q44 Suppose a train leaves at 8:30 at night. The time written on the Railway ticket would be ____

The time for 8:30 night would be written on a railway ticket as 8:30 pm.
12:00
20:30.

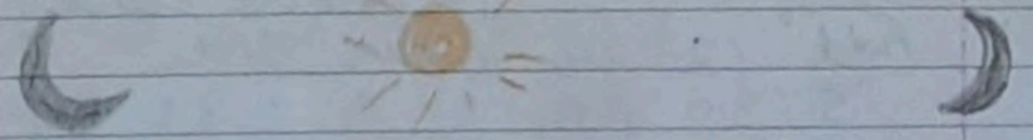
Q45 You must have noted the time of sunrise and sunset. Write here using am & pm.
Time of sunrise 6:00 am
Time of sunset 7:00 Pm.

Q46 Where have you seen a 24-hour clock being used?
Railway station
Air. port
Army hospital

Important Ques

1 hour	60 minutes = 3600 seconds
1 minute	60 seconds
1 day	24 hours
1 week	7 days
1 year	52 weeks, 12 months, 365 days
1 decade	10 year
1 leap year	366 days
1 leap month	29 days.

Half past 5 - 30 minutes passed by 5
Quarter past - 15 minutes passed by 2
quarter to 1 - 15 minutes to 1.



12:00 AM — 3:00 AM — 12:00 (PM noon) — 3:00 PM — 9:00 PM — 12:00 AM
← am — Pm →
late night to morning — noon to night — (mid night)

6:30 in morning 6:30 am
12:10 in afternoon 12:10 pm
3 hour before 2:00 Pm 11:00 am
2:00 in the afternoon 2:00 pm
2 hours after 3:00 Pm 5:00 pm

CONVERSION TIME

5:15 am remains as it is in 24 hours clock.
5:15 am — 5:15 hours.

12 hour clock (am or pm)	24 hour clock (hours no am or pm)

Conversion in 12 hour clock to 24 hours clock (for time in PM)

5:30 PM. (12 hour clock)

? (24 hour clock)

Add 12 in hour side.

5:30 pm 5 : 30

+12

17 : 30 hours

Examples

a) 5 : 15 p.m. 17 : 15 hours (5+12)

b) 8 : 30 pm 20 : 30 hours (8+12)

c) 01 : 20 pm. 13 : 20 hours (1+12)

d) 10 : 30 pm 22 : 30 hours (10+12)

e) 4 : 45 pm 16 : 45 hours (4+12)

f) 12 : 10 pm 24 : 10 hours (12+12) NIGHT

g) 5 : 15 am 5 : 15 hours

h) 10 : 30 am 10 : 30 hours

i) 12 : 10 am 00 : 10 hours. NOON

ADD & SUB of TIME

10:40 AM − 3:30 AM

When we are adding or subtracting time always convert the figures to 24 hour clock first.

(eg 1) 10:40 AM ✓ am

− 3:30 AM ✓ am

7 : 10 (Seven hours 10 min)

(eg 2) 2:50 PM − 11:30 am

→ convert it into 24 hour clock By adding 12

2:50 PM = 2:50PM = 14:50 hour

+12

14:50 hours

Now, we can do it further

14 : 50 hours

11 : 30 hours

3 : 20 (Three hours 20 min)

(eg 3) 11:20 AM − 9:50 AM

10 11 : 20 → Because 20 < 50 so borrow one hour from 11.

9 : 50 The hour will decrease by 1 hour and minutes be increased by 60.

so 10 : 80

9 : 50

1 : 30 min

eg 4) 2:10 PM 14:10

− 10:00 AM 10:10

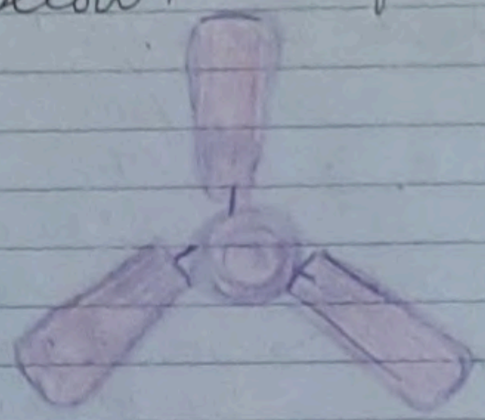
4:10 hours.

CHAPTER 5

THE WAY THE WORLD LOOKS

Textbook Questions

Q1 Draw how the fan looks from below.



Q2 Can you think why Gappu could see the cheese on the jug but chinky could not?

Gappu was looking from the top and chinky was looking from the floor. The cheese was placed on the top of jug, so he could see the cheese and chinky could not.

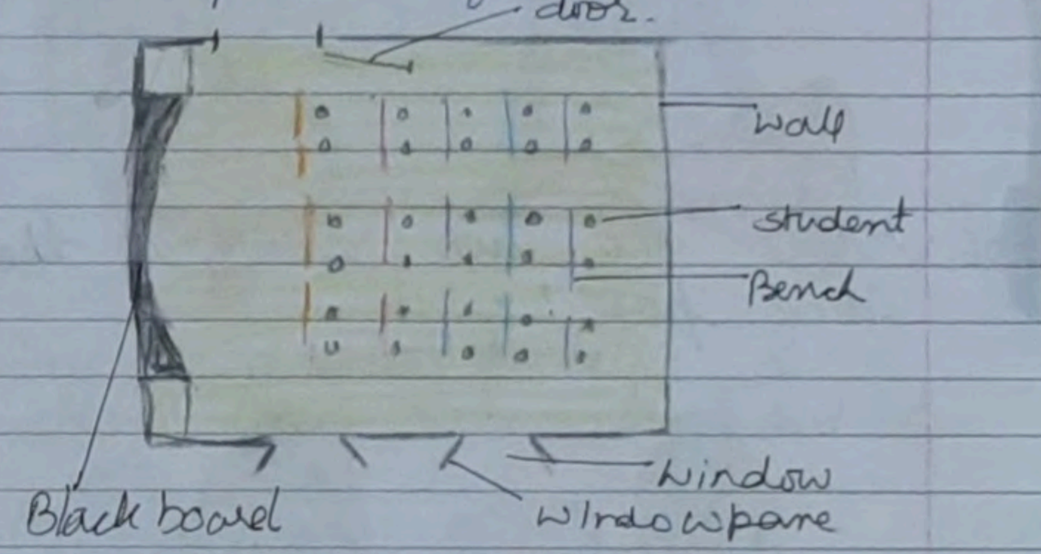
Q3 When I ran around in my house, It looked so big but from here, It looks small

how is that?

object look smaller from a distance. Gappu was seeing the house from some height so the house looked small to him.

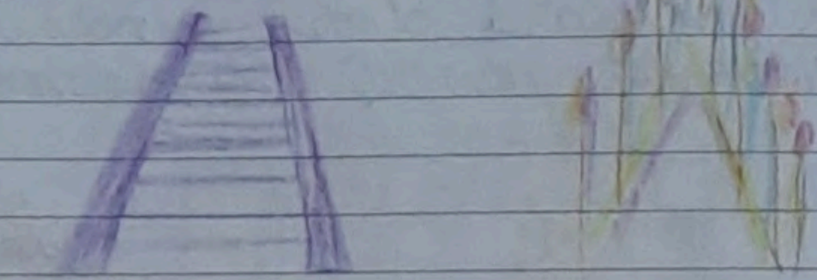
Q4 Imagine how your classroom looks from above. Try to draw it and mark the benches, blackboard, doors, windows etc.

The top view of classroom.

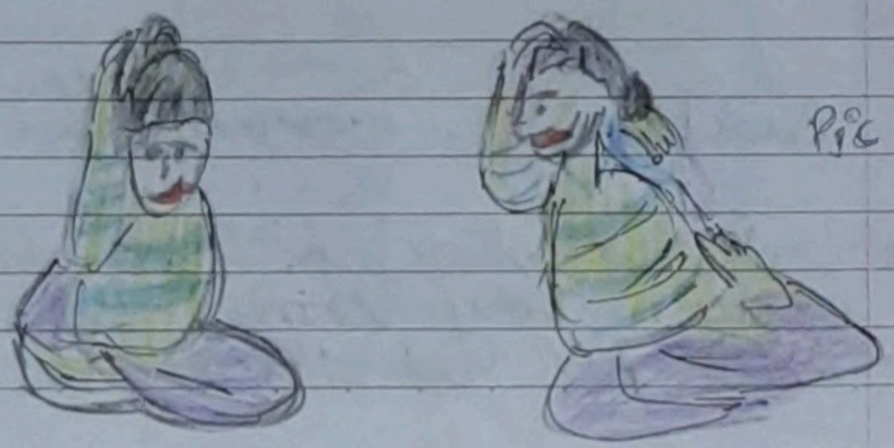


Q5 Look at these pictures and discuss why things look wide and big at this end but

narrow and small at the other end.
we know that things look different when we look at them from different views and distances.
The side which is nearer to us look wider and which is farther to us looks narrow and smaller.

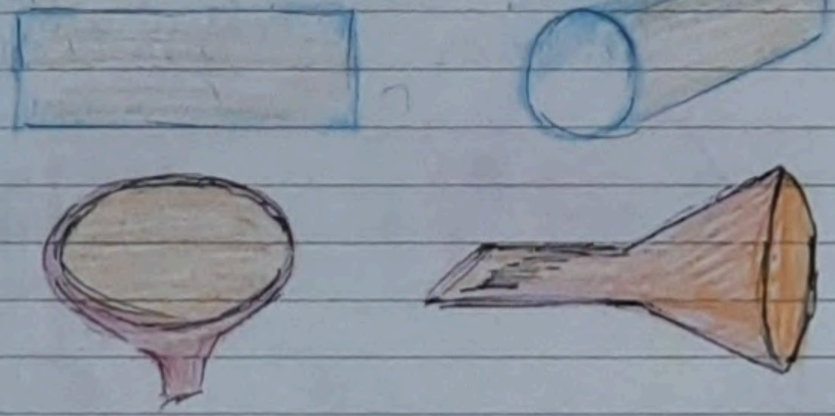


Q6 Match the two views of the same pose!

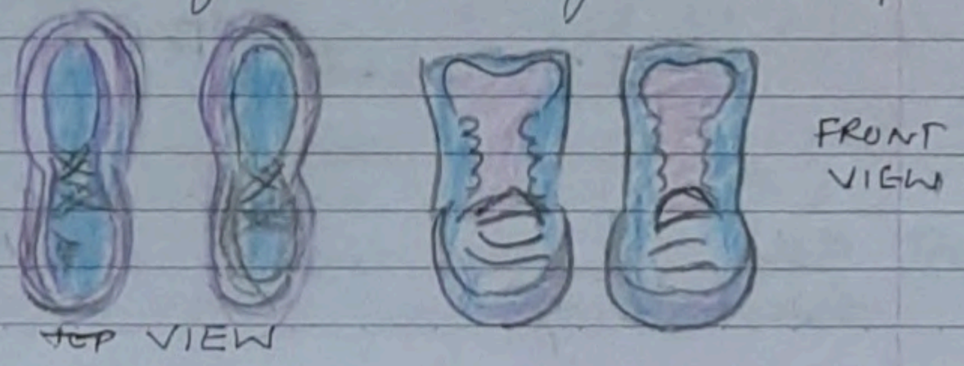


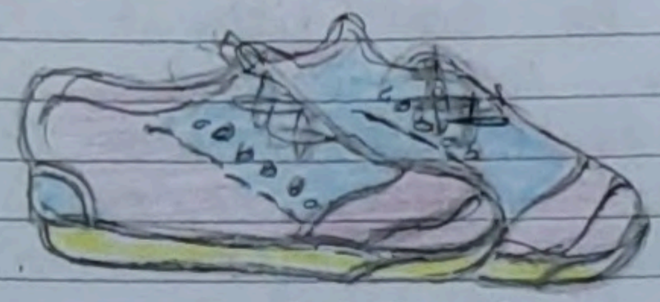
Q7 These are two different views of the same bowls.
In which photo are the bowls upside down?
In photo 2 the bowls are upside down.

Q8 Draw lines to match the side view with the top view of A pipe, A funnel.



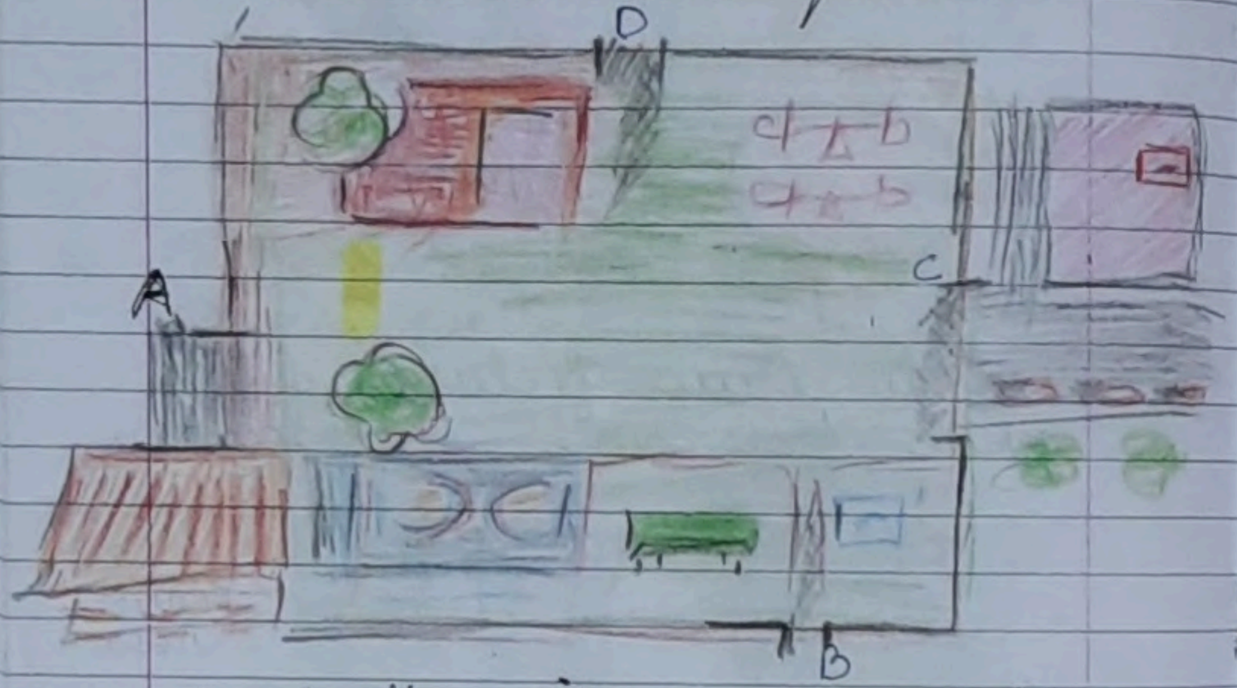
Q9 Try to draw picture of a shoe from side, front and top.





SIDE VIEW

Q10 Do you remember the park behind Gappu's house? Here is a bigger picture of that park. Look at it carefully and answer the questions



Mark the gate nearest to the sweet shop?

Ans 'A'

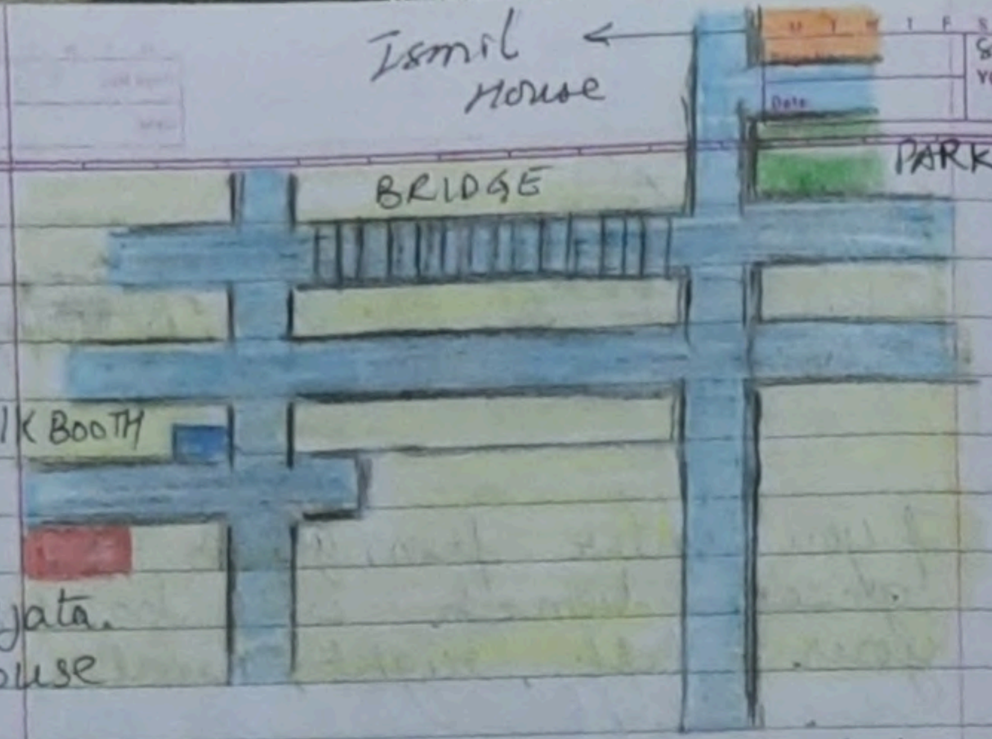
Which gate is nearest to Gappu's house?
Ans 'C'

If you enter from gate B the green bench will be to your left, right, Front.
Ans Left

When Sukanya entered the park, the flower bed was to her right, which gate did she enter from.
Ans D.

Which of these is nearest to you if you enter from gate C.
Ans (d) see-saw.

Q11 On the phone Ismail told Srijata the route to his house from her house. The route map is shown here.



This is what Ismail told srijata. From your house reach the milk booth and then take a left turn. From the second crossing take a right turn and go over the bridge. From there keep walking straight the take the first ~~(left)~~ Right turn. Keep walking after some time you will see a park on your right hand side. Post crossing this park you will see a side lane.

Mine is first house in this lane.

Did Ismail go wrong somewhere? Can you correct him?
yes, srijata has to take left turn after crossing the bridge!

Show where srijata will reach if she takes the route he told her.
If srijata takes the route as told by Ismail, then she will reach somewhere in the opposite direction to that Ismail's house.

Write the directions for going from Ismail's house to srijata's house.
walk through the side lane come to the main road. Take the first right turn and cross the bridge. After crossing the bridge take the left turn. Take the

second right turn, which is after milk booth. Keep walking on your left you will see a red coloured house this is mine.

Q12 Can you guess what that box like thing was?
The box was a dice.

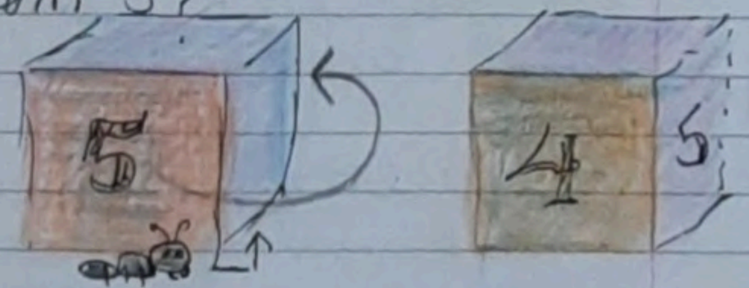
Q13 Which number was on the opposite side of 5?
Two.
Because given that opposite faces of the box add upto 7.
equation:

$$5 + \boxed{x} = 7$$
$$\boxed{x} = 7 - 5$$
$$\boxed{x} = 2. \text{ Ans}$$

Q14 In the picture, which number will be at the bottom?
on the top the number is 1, Hence, on the bottom the number $= 7 - 1 = 6$.

Q15 Which number will Gible see if she again turns left from 5?

Ans → 3



Exploration.
If she takes left from 5 she will reach opposite of number 4.

$$4 + \boxed{?} = 7$$
$$\boxed{?} = 7 - 4$$
$$? = 3$$

The number opposite to 4 is 3.

Q16 What will this box look like if you opened it up? Mark the correct picture.

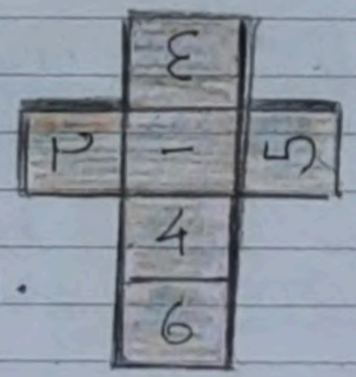


Fig-A.

Page No. 90
Date:
YOUVA

Important questions

1) Things will appear large if we look at them from a height (False)

2) A balloon with air is light (True)

3) The face of a cube is rectangle (False)
It is square.

4) If you are travelling in a train then distant trees will move in opposite direction (False)

5) If railway track looks wide front near then it will look narrow from distance

6) Things will look big what are nearer to eye.

7) The candle look big from near and small from distance

Page No. 91
Date:
YOUVA

Draw the view for following.

HUT :-

SIDE VIEW

FRONT VIEW

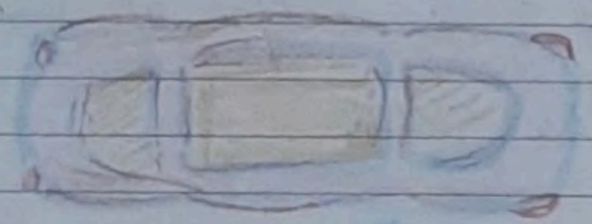
TABLE :

SIDE VIEW

FRONT VIEW

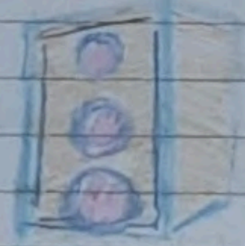
CAR :

SIDE VIEW



TOP VIEW

SPEAKER



SIDE VIEW

FRONT VIEW

THE JUNK SELLER

Textbook questions.

Q1 What about you do you also find maths difficult?
Yes.

Q2 What is the most difficult thing in your maths book?
Tide Tick Tick

Q3 What do you think is the easiest lesson?
The way the whole world look.

Q4 Find out: how much for a cup of tea?
Ask people and find out the cost of a cup of tea.

at a tea stall Rs 20
at a hotel Rs 100

Q5 If the person who runs a tea stall earns Rs 30 in a day? how much money he learns in 10 days.

And in a month?
Earning in a day = Rs 30
Earning in 10 days = Rs 30 × 10
= Rs. 300
Earning in 30 days = Rs 30 × 30
= Rs 900

Q6 Have you ever heard of someone taking a loan?
for what?
My father has taken a loan.
for car purchase.

Q7 How much money was taken?
Rs Eight lac. (800000/-)

Q8 How much money was paid back?
Rs Ten Lac (10,00000)

Q9 Hariya and Babu want to buy a handcart for Rs 300/-
Who has to pay back more Hariya or Babu? Babu

Explaration :-
Loan taken by Hariya: Rs 300
for 6 months.
Hariya will pay Rs 51: 51×6
for 6 months Rs 306

Babu has taken loan : Rs 300
After six months
will pay back : Rs 360.
we know
R306 < Rs 360.
Hence, Babu will have
to pay back more money.

Q10 How much does Kiran earn from 9 Rickshaws in a day?
For 1 Rickshaw gets Rs 20/day
For 9 Rickshaw will get Rs 20×9
Rs 180/-
Kiran will earn Rs 180 per day

Q11 In a week how much does Kiran earn from one rickshaw?
There are 7 days in a week
1 day earning - Rs 20

∠ 7 days earning . Rs 20×7
= Rs. 140

Q12 Do it mentally and write the ans.
2×6 = 12 4×80 = 320
20×6 = 120 4×81 = 324
2×60 = 120 9×25 = 225
3×42 = 126 31×9 = 279

Q13 How much will Kiran pay for 31 kg newspaper?
cost 1kg newspaper = Rs 5
" 31kg " = Rs 5×31
= Rs 155

Q14 How much will Kiran pay for 42 kg newspaper?
Kiran pays for 1kg = Rs 5
42kg = Rs 5×42
= Rs 210

Q15 Also, find cost of :-
22kg of plastic
cost of 1kg plastic = Rs 10
" 22kg " = Rs 10×22
= Rs 220

23 kg of waste paper
Rate of 1 kg of waste p = Rs 4
23 kg of = Rs 4 × 23
= Rs. 92

12 kg of iron.
Rate of 1 kg of iron = Rs 12
12 kg of = Rs 12 × 12
= Rs. 144

Q16 Guess the total money Kiran will pay to the junk collectors.
Will it be more than 600?
less than 600?
The total money Kiran will pay to the junk collectors
The cost of 42 kg newspaper Rs 210
cost of 22 kg of plastic = Rs 220
cost of 23 kg of waste p = Rs 92
cost of 12 kg of Iron = Rs 144
cost of all junk Total = Rs 666

Hence, Kiran will pay more than Rs 600.

Q17 Kiran bought 1 kg plastic for Rs 10, but sold 1 kg plastic for Rs 12, How much money does she earn on selling 1 kg plastic?
Buying price 1 kg plastic - Rs 10
selling " " - Rs 12
(Rs 12 - Rs 10) difference - Rs 2

So, how much money does she earn for 63 kg?
earning by selling 1 kg plastic = Rs 2
earning by selling 63 kg plastic = Rs 63
= Rs 126

Q18 How much money will Dinu pay for 32 kg Iron?
selling price 1 kg plastic - Rs 14
" " 32 kg " = Rs 14 × 32
= Rs 448

Hence, the money paid by Dinu for 32 kg of plastic is Rs 448.

Q19 Kiran buys 1 kg. Iron for Rs 12

Page No. 98 | Date: | YOUVA

, but sells it for Rs 14. How much does she earn when she sells 32 kg Iron?

Earning by selling 1kg of Iron is Rs 2.

Earning by selling 32 kg of Iron is 32×2
$= Rs\ 64.$

Rs 14
- Rs 12
Rs 2

Bhatia's Method.

	30	2	
2	60	4	= 64
	(30×2)	(2×2)	

Q20 What will Dinu pay for 152 kg of newspaper?

Buying price 1kg NP = Rs 5
selling price 1kg NP = Rs 6
Profit or Earning = Rs 1

Profit or Earning by selling 152kg of NP = 1×152
$= Rs\ 152$

Hence, She earns Rs 152 by selling 152 kg of newspaper.

Page No. 99 | Date: | YOUVA

Q21 What does Dinu pay for brass? How much money will Dinu pay for 41kg brass.

Rate of 1kg brass = Rs 180.
∴ " for 41kg " = 180×4
$= Rs\ 720$

Bhatia's Method.

100	80	
4	400	320 = 720.

Q22 First guess the answer and then calculate.

$37 \times 18 = 666$ $142 \times 5 = 710$
$45 \times 24 = 1080$ $382 \times 3 = 1146$
$69 \times 52 = 3588$ $2 \times 175 = 350$
$77 \times 55 = 4235$ $4 \times 206 = 824$

Q23 Now you make a record in her diary. 18 march, 2007

Money she paid Rs 919
Money she get from Dinu
Rs 108×5 = Rs 500
Rs 50×1 = Rs 50
Rs 20×9 = Rs 180
Rs 10×18 = Rs 180
Rs 5×28 = Rs 140

Total money she got = Rs 1050
Money she earned = Received - Paid
= 1050
- 919
Rs 131

Important questions
Find the value of notes
1) 5 notes of Rs 200 = 5 × 200
= Rs 1000
2) 14 notes of 2000 = Rs 28,000

How many
a) 50 rupees notes are needed to make Rs 200

50) 200 (4
200
×

b) 20 rupees nots are needed to make Rs 100

20) 100 (5
100
×

10 Rs notes are needed 910

10) 910 (91
90
10
10
×

Multiply Bhatis method, spit method or column method.

25 × 98

	20	5
90	1800	450
8	160	40

1800
450
160
40
2450

131 × 61

	100	30	1
60	6000	1800	60
1	100	30	1

6000
1800
60
100
30
1
7991

Calculate the intrest paid.

SNO	Amount	Amount With Intrest		INTREST
1	Rs 600	Rs 680	680	80
2	Rs 5000	Rs 5500	-600 / 5500 / -5000	500

Calculate the Profit & Loss.
sold (selling price) > Buying price.
you make Profit

sold (selling price) < Bought (Buying price)
you make loss.

Page 70, 71, 72

CHAPTER - 7

JUGS AND MUGS

Textbook questions.

Q1 The giraffe is drinking 25 litres (less than Elephant) Because giraffe is smaller than elephant

Q2 The cow is drinking 15 litres of kheer (less than giraffe) because giraffe is smaller than elephant.

Q3 The donkey looked confused and asked - Ten glasses of 100 ml each. How much is that?
Ten glasses of 100ml
= 10 x 100 ml.
= 1000 ml
= 1 litre.

Q4 Each ant drinks 1000 x 1 ml.
1000 x 1 ml = 1000 ml
= 1 lt

Q5 How much kheer can you have

I can have only 300 ml of kheer.

Q6 Do you like kheer? What do you call it at home
yes I like kheer. I also call it Pisem.

Q7 can you drink 1L water at one time? at a time.
yes, I can drink 1lt of water.

Q8 Help him to complete the chart.

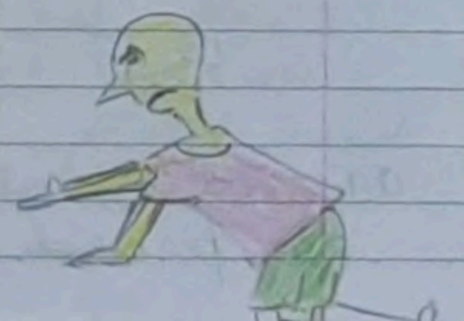
400 ml
350 ml
250 ml

550 ml
450 ml

800ml 200ml one litre 500 ml. 500ml

100 ml
200 ml
300 ml
400 ml

100 ml
150 ml
700 ml



Q9. Look at these pictures. Now look for some other things we get in packets or bottles like these. Make your own list.

Packet	How many ml/lL
Milk	500 ml
oil	2L
water	1L
Glue	100 ml
Juice	200 ml
Nasal drop	10 ml.

Q10 Have you seen a one-litre water bottle?
Yes, I have seen 1L water bottle

Bottles	My guess (Times)	My measure
Bottle 1 (100ml)	100	10ml x 100 = 1000ml
Bottle 2 (200ml)	5	200ml x 5 = 1000ml
Bottle 3 (500ml)	2	500 ml x 3 = 1500 ml
Bottle 4 (250 ml)	4	250 ml x 4 = 1000ml

We know 1Lt = 1000 ml.

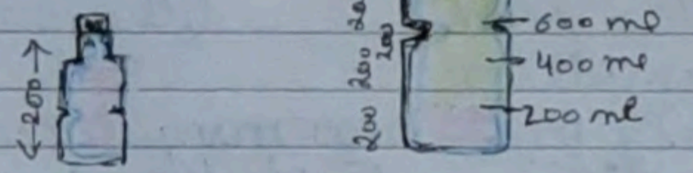
Q11 Look what Nithyan is saying
I poured Two small bottles

of water to fill this 1 lt bottle
How much water does his small bottle hold. 500 ml.

Q12 To fill the 1 lt bottle I need to pour water 5 times from my small bottle.
Then how much water does Leela's bottle hold? (1Lt = 1000ml)
equation
quantity: ml how many times = 1 lt
quantity x 5 (given) = 1000ml
quantity = $\frac{1000}{5}$ = 200
∴ Leela's bottle hold 200 ml of water.

Q13 Find your own way to make a bottle which can measure 200 mL, 400mL, 600mL, 800 mL and 1 Litre. Discuss with your friends and teacher how you made them.
Take a 200 ml small water bottle.

and take a 1L water bottle.
step 1> pour 200 ml of water in the 1 Lt bottle
step 2> make a mark. write 200 ml.
repeat it 5 times.



Q14 Look at the buckets, mugs glasses and other things in your house. Guess how much water each can hold. check if your guess is right by using measuring bt.

vessel	My guess	My measure
mug	1000 ml	1000 ml
glass	200 ml	200 ml
pot	250 ml	250 ml
spoon	10 ml	5 ml
Bucket	9500 ml	10,000 ml
kettle	2000 ml	2000 ml

Q15 Neetu has to take 3 injections in a day for 5 days. How much medicine will she need for one day?
an injection contains 5 ml
she needs 3 injections 5×3
= 15 ml
She will need 15 ml of medicine in one day.

Q16 How much medicine in all for 5 days?
medicine in 1 day = 15 ml
" " 5 days = 15×5
= 75 ml
She will need 75 ml of medicine in 5 days.

Q17 How much do we use at a time?

	we use at a time
Eye drops	.5 ml
Injection	2 ml
Tea/Coffee	100 ml
water	200 ml
milk	500 ml

Page No. 108 Date: YOUVA

Q18 List things we use more than one litre at a time.
water for taking bath.
water for taking bath.
water for washing clothes.
water for cooking food.
water for flushing toilet
water for washing utensils.
water for gardening
water for playing 'holi'

Q19 Amina's water bottle holds one litre of water. She drank 250 ml of water and her friend Govind drank 150 ml. How much water is left in her house.
Total water = 1000 ml
Amina drank = 250 ml.
Govind drank = 150 ml.
equation.
Water left = Total water - water used
= 1000 ml - 250 + 150
= 1000 - 400
= 600 ml

Page No. 109 Date: YOUVA

Q20 Yusuf runs a tea shop. For making a glass of tea, he uses 20 ml of milk. Yesterday he made 100 glasses of tea. How milk did he use?
Milk used for 1 glass Tea = 20 ml
For making 100 glass " = 20 x 100
= 2000 ml
He uses 2000 ml or 2 lt of milk.

Q21 Radha's grandma was ill. The doctor gave her a bottle with 200 ml of medicine. She has to take the medicine every morning for 10 days.
Total medicine in bottle = 200 ml
She has to take the med. for 10 days
∴ we need to equally divide the medicine for 10 days.

$$10\overline{)200}(20$$
$$\underline{20}$$

She has to take 20 ml of medicines

Page No.: 110 | Date: | YOUVA

Q22 The table shows the water used in one day by a family of 5 people they live in goodallur village.

Activity	water in lt.
Cooking & drinking	30L
washing clothes	40L
cleaning pots, pans	20L
Bathing	75L
Total water used -	165 Lt

Q23 How many lt of water your family use in a day?

Activity	water (buckets)	water in litres
Cooking & drinking	2	20
washing clothes	5	50
cleaning pots	2	20
Bathing	10	100
floor cleaning	1	10
Total		200 Lts

my family uses 200 Lts of water in a day.

Page No.: 111 | Date: | YOUVA

Q24 Is there any tap in your school or home which is leaking? Yes, in school
NO, in home.

Q25 How much water do you think we waste through a leaking tap?

After one hour check how much water is in the bottle.
After one hour water collected in the bottle = 100 ml.
Find out how much water is wasted in a day (24 hours)
1 hour wastage = 100 ml
(1 day) 24 hours wastage = 2400 ml.
(7 days) 1 Week " = 2400 × 7
= 16800 ml.
(30 days) 1 month " = 2400 × 30
(4 weeks) = 72000 ml
(365 day) 1 year " = 2400
× 365
12000
14400×
72000××
876000 ml.

(1 Lt = 1000 ml)

ml	Lts
∴ 1 day 2400	2.4 Lts
1 week 16800	16.8 Lts
1 month 72000	72 Lts
1 year 876000	876 Lts

Q26 Chelannur village has a milk society. Geetha and Mini went there to buy 4 litres of milk. But the man could not find the one litre measure. He had only a 3 litre and a 5 litre bottle with him. But he gave them exactly 4 litres of milk. Explain how he did this

The milkman will fill the 5 litre bottle at first then he will pour its content into 3 litre bottle

Now, the quantity of milk that is left behind in the 5 litre

bottle will be 2 litres

He will pour 2 litre of milk into the bottle of Geeta. — Geeta gets 2 Lts.

Fill 5 Lt, Again pouring its content in 3L bottle. The 5 Lt bottle will be left with 2 Lts of milk.

He will pour this 2 litre of milk into the bottle of Geeta. — Geeta gets 2 Lts

We can see Geeta gets 2 litre of milk twice so she gets 4 Lts of milk.

Important questions

How many ml in Lt = 1000

How many ml is 1 Lt = 1000 ml.

Conversion ml to Lt, put a decimal point after hundred place before place.
eg. 5000 ml = 5.0 Lts, 170000 ml = 170 Lts

conversion Lts to ml, add three zeros before number. 5 Lts = 5000 ml
18 Lts = 18000 ml.
zeros 3 2 1

CHAPTER 8

CARTS AND WHEELS.

Textbook questions.

Q1 you must have seen many such round things, around you. List some more in your notebook,

Round things around me.

Bangles	coins
Lid of Pot	Plate
Bowl	sun
flying Disk	moon
Bun.	Ball.

Q2 Have you ever gone to a bangle shop?

yes I have gone to a bangle shop.

Q3 Guess which of these bangles is of your size.

The biggest bangle is of my size.

Q4 Take a wire and make a bangle for yourself. can your madam or mother

wear this bangle?

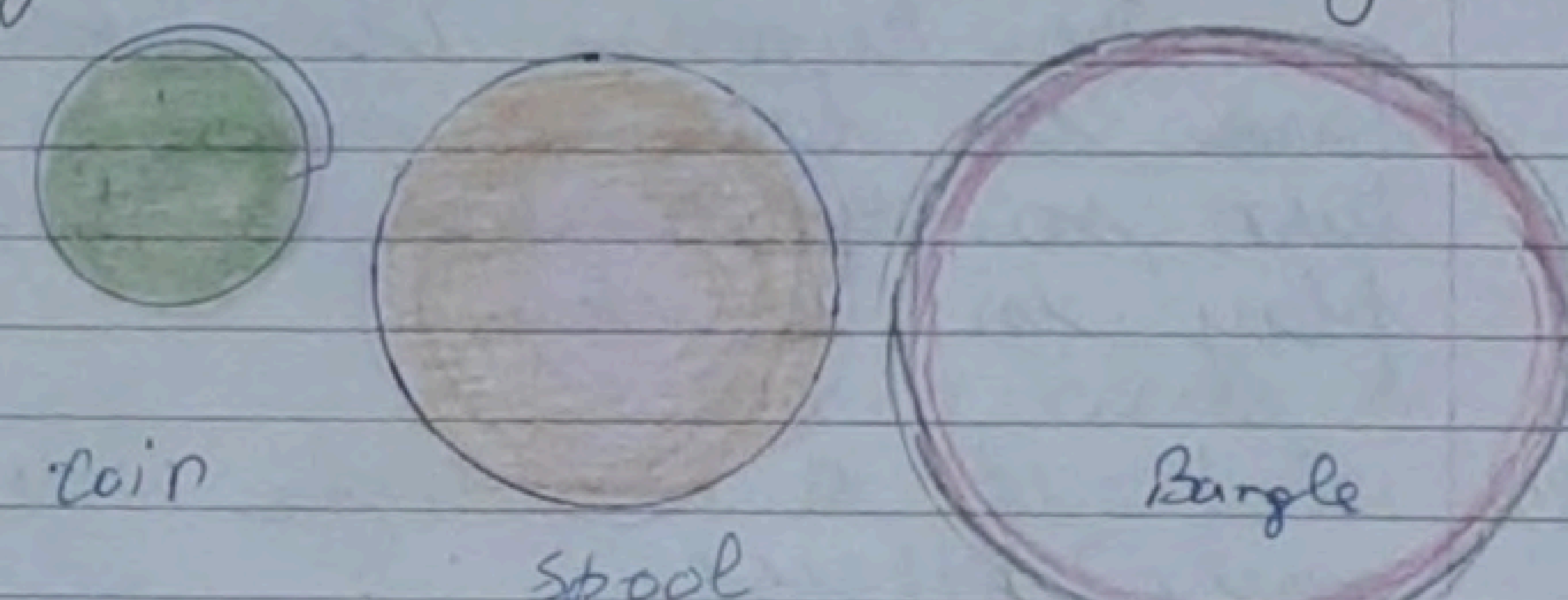
I made a bangle with empty ball point pen refill.

It is very small They cannot wear it.

Q5 A bangle can be used to trace a circle. What are the other things around you that you can use to trace a circle?

other things could be lid. bowl plate, flying disk etc

Q6 Trace a circle with the help of some of these in your notebook or on the ground.



Q7 Which things make the smallest coin.

8 which thing makes the biggest circle?
Bangle

Q9 Do you play these games?
I do play these games.

Q10 which song do you sing when you play these?
Goda badam Khaye ———
Game 1
Ko Klache Pake jorre ———

Q11 Why do we make circle in each of these games?
It is eazy to form a circle and start playing.
The runner does not have to take a sharp turn, so relatively safer to play in circle.

Q12 What if a rectangle was made? Discuss?
The circular shape has many benefits.

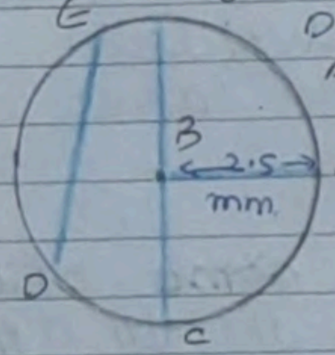
1) Every player is equidistant from the center.
2) Sharp turns while running can be avoided.
3) easy to take circular position.

Q13 Think of some other games you play by making circles.
Cricket is a game played in a circular field. so the boundry is equidestant from the batsman.
Passing a parcel and musical chair are some games played in circle.

Q14 Is any of these a good drawing of a circle?
no, they are not.

Q15 Can you draw a circle on the floor with a chalk try.
yes, I usually draw a circle while making a rangoli.

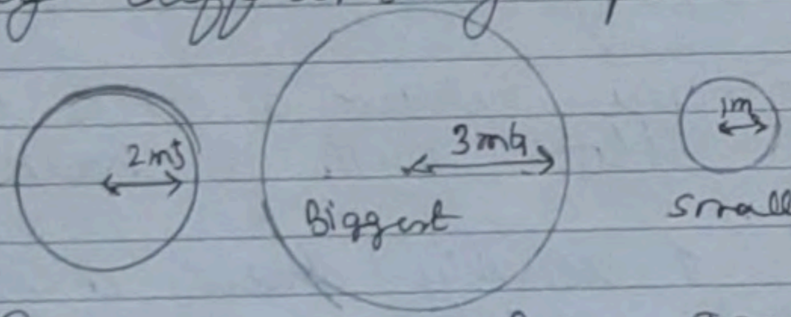
Q16 Also draw a circle in your notebook using a pencil.



AB = BC = BN = radius
DE is chord.
AC is diameter.
Circle with 2.5 mm radius.

Q17 Look at the circles drawn by your friends. Who has drawn the best circle? I have drawn the best circle using a compass.

Q18 Do the activity in small groups. Each group should take a rope of a different length see the circles made by different groups.



Team A Team B Team C.

Q19 Which rope made the smallest circle?
Team C made the smallest circle.

Q20 How long was the rope.
The rope was 1m in length.

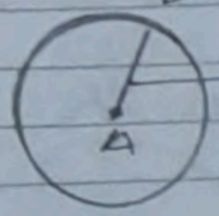
Q21 Does the longer rope make a bigger circle?
Yes, the longer rope made a bigger circle.

Q22 Why is it so.
The length of the rope corresponds to the radius of the circle. longer the rope is longer the circle.

Q23 What is the radius of the smallest circle?
1 meter.

Q24 Draw the radius of this bangle using a ruler measure the length of the

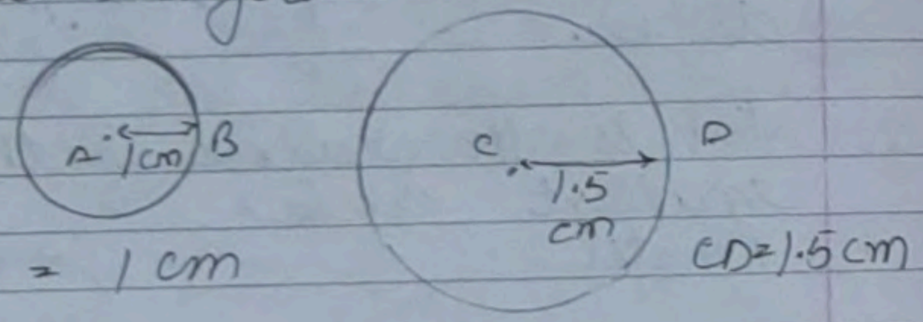
Radius?



-radius. OB
1.5cm (length)

Q25 Now see what your friends have drawn. Discuss the length of the radius they measured. Is it the same as yours?
yes, it is same, the radius is 1cm.

Q26 Draw the radius of these circles.
Guess which circle has the longer radius.



AB = 1 cm CD=1.5 cm

Q27 Measure the radius of the wheels of a bicycle or a bullock-cart. You can use a thread or a measuring tape.
The radius of the wheels of a bicycle is 30 cm.
The radius of the wheels of a bullock cart is 50 cm.

Q28 Are the wheels of a bicycle or a bullock cart of the same radius?
no, they are not of same radius.

Q29 Have you seen tractor or a road roller?
yes, I have seen.

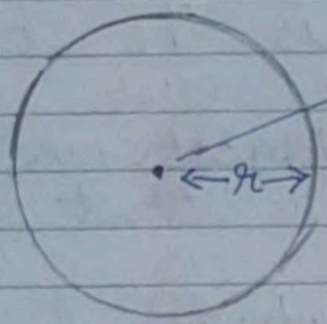
Q30 Which is the biggest wheel you have ever seen?
The biggest wheel I have seen is that of a 'Tonga'.

Q31 Are all wheels of a tractor or road roller of the same radius.
No, These are special utility vehicles, they are designed

differently.
Their back wheels are bigger than the front wheels.

Q32 Lali and Kali are tied to a pole with ropes. Kali has a longer rope, who can look for more grass to eat?
Kali.

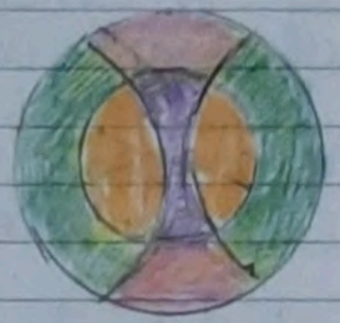
Q33 Do you get a circle? Look for the mark where you had kept the tip of the compass.
Yes,



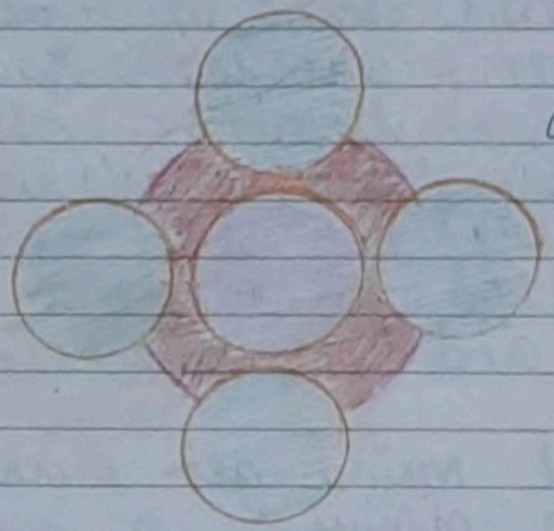
Q34 Is the circle better than the one you made earlier without a compass? Draw the radius of this circle

and measure it.
This this circle is better and clear.
The radius of this (above) circle is 2cm

Q35 Now you can make your own designs like Daljit had made. How many did you make?

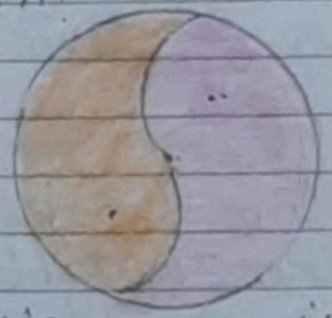


one design with two circles
$r_1 = 1$ cm
$r_2 = 2$ cm



another design with
6 circles
5 circles $r_1 = 1$cm
1 circle $r_2 = 2$cm.

Q36 Guess how the design has been made, use a compass to make it?



This design is made with the help of 3 circles
Draw a circle with radius 2cm.
Draw the diameter and divide it into 4 equal parts.
With mid point of radius draw an ark with radius 1cm. with mid point on other side by radius draw arc. (if a circle is drawn leave the part that joins center and circumference).

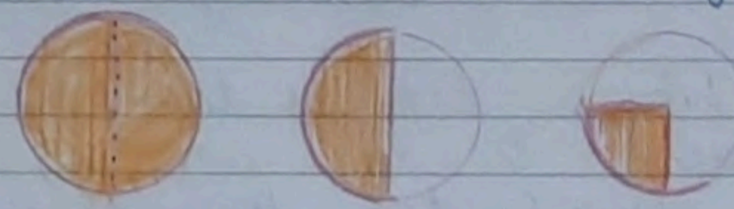
Q37 Why did Naina get such a drawing? Discuss.
Naina changed the center

point of circle next time (when she came back).
So she got distorted circle.

Q38 Did any one of you ever get a shape like Naina's?
Yes, when I was not aware that the circle has only one centre.

Q39 Can a circle have more than one centre?
No, a circle has only one centre.

Q40. Now you trace a circle on a paper using a bangle. cut it, Then find its centre like Sameera did.
Trace a circle with bangle



Fold in centre. Fold '1' (So get half) Fold '2' (So you get 1/4)

Q41 Can you balance a plate on your finger.
Yes, with practice only.

Q42 You also try to balance a plate on a round lid on your finger. Where does it balance?
It balances at its centre.

Q43 Whose top will not spin at all?
Zakir and Naina

Q44 Whose top will spin a little
Guddo's top will spin a little.

Q45 Whose top will spin the best?
Appu's top will spin best.

Q49 In whose top is the stick nearest to the centre?
In Appu's top the stick is nearest to the centre.

Q50 To make the top spin well, where will you make the hole?
At the centre.

Important questions.

The radius is half of the diameter
diameter = 10 cm then radius = 5 cm

The longest chord of a circle is called diameter.

The distance around the circle is called circumference.

The diameter of a circle always passes through its centre

The diameter divides the circle into two equal parts.

The distance from the centre of the circle to the boundry in any direction is called radius

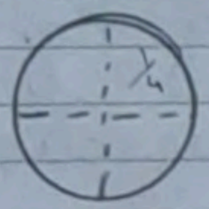
A circle always have one centre

MARBLES AND QUARTERS

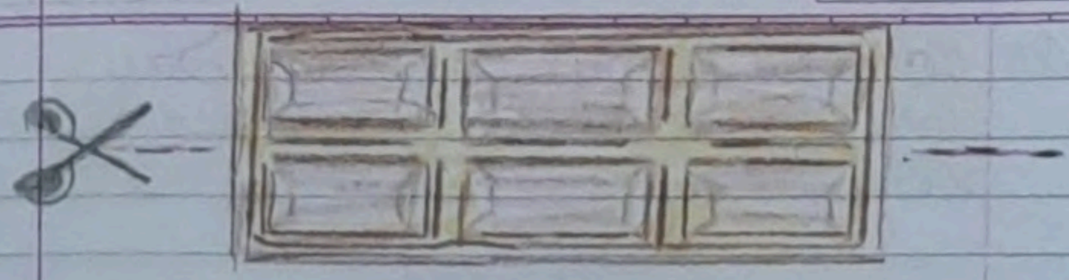
Text book questions

Q1 If the cats ask you to divide the chapati equally how will you divide it?
I will fold the chapati and cut it into two equal halves.

Q2 If two more cats come for food, how will you divide one chapati equally for four cats?
1st I will fold it into two halves, then again fold it in to further two halves. Then I will tear the chapati from the creased line.



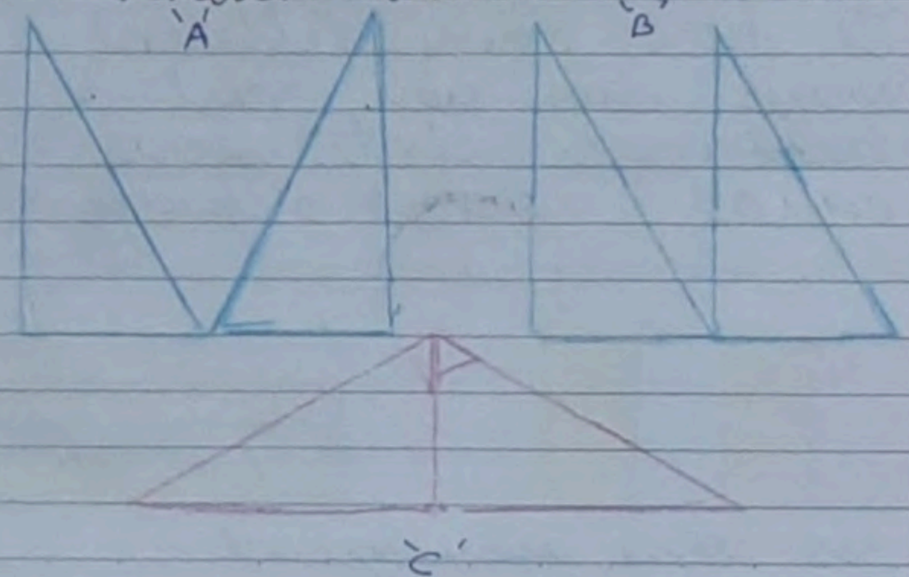
Q3 Circle the portion that Reena got.



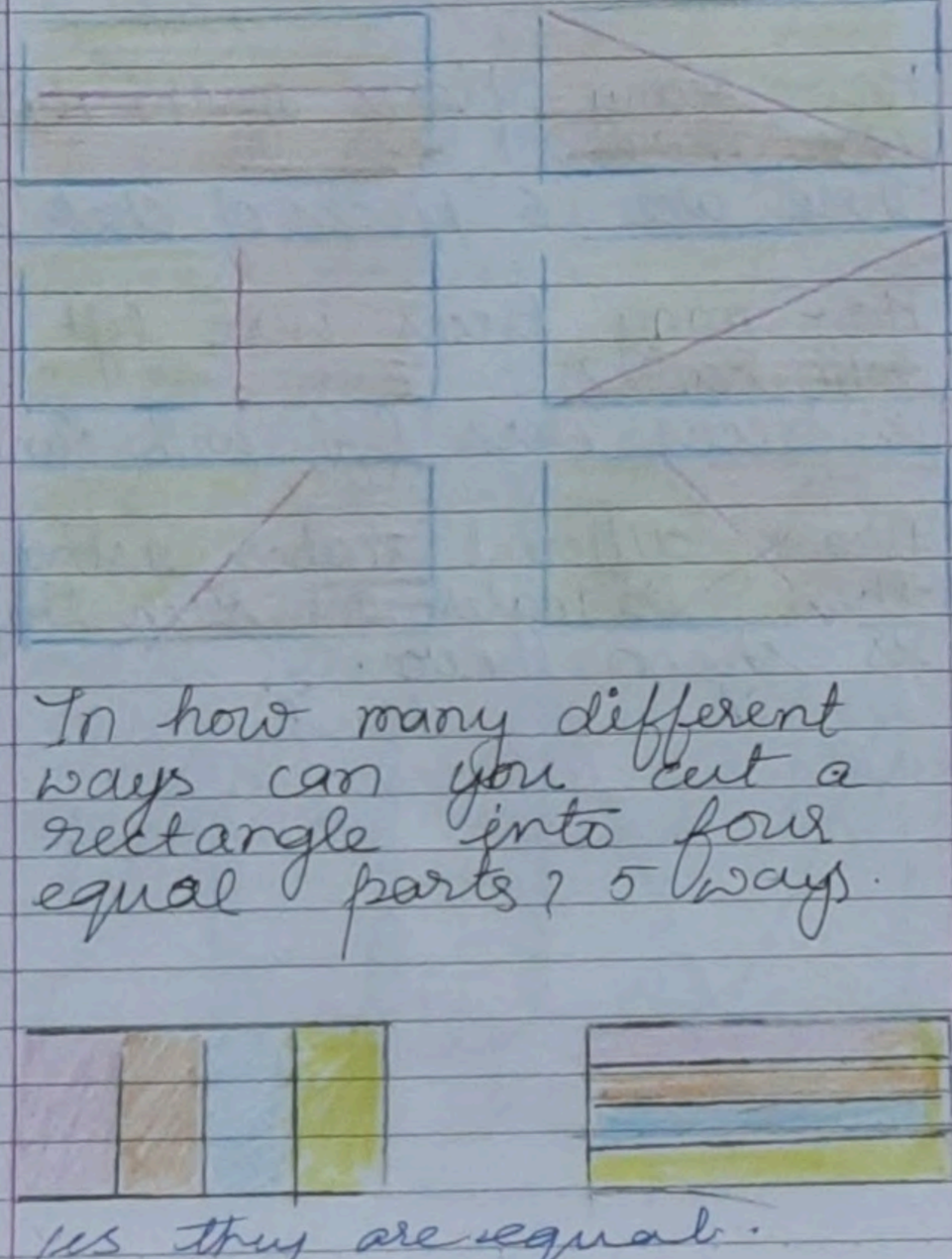
Q4 How many pieces of chocolate are there?
There are 6 pieces of chocolate

Q5 How many pieces were left with Rani?
3 pieces were left with Rani.

Q6 Draw different shapes using these triangles. One such shape is shown here.

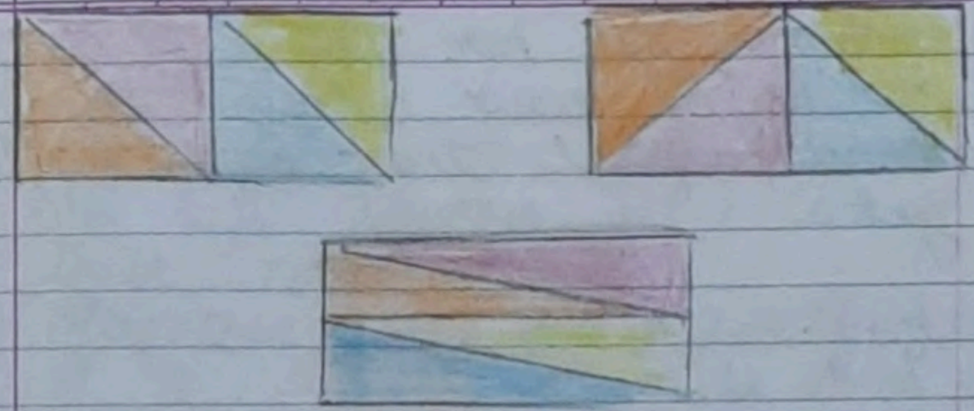


Q7 In how many different ways can you cut a rectangle into half?

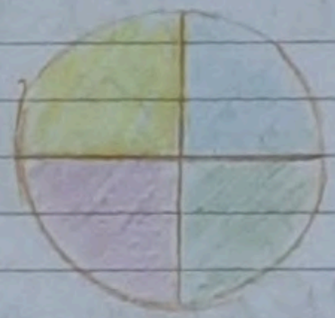


Q8 In how many different ways can you cut a rectangle into four equal parts? 5 ways.

yes they are equal.



Q9. Rajni's father brought a cake. She divided the cake into four equal parts, for herself, her brother raju, her mother and father.



colour each share of cake with different colour.
each share is coloured above.

Q10 How much does each get quarter, $\frac{1}{4}$.

Q11 Mother gave her share of cake to Rajni now colour the total part that Rajni will get.

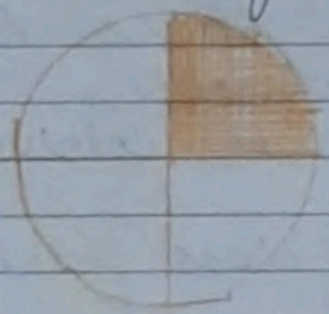
$\frac{1}{4} + \frac{1}{4}$.

$= \frac{1+1}{4} = \frac{2}{4}$

or $\frac{1}{2}$ of the cake as coloured above

Q12 out of 4 parts Rajni will get 2 parts which is equal to half of the cake.
so she can write it as.
$\frac{2}{4}$ or $\frac{1}{2}$.

Q13 colour the share Raju got.

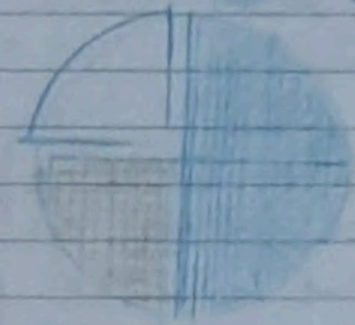


The transaction happened between Rajni and Mother, Father & Raju

share remained the same ($\frac{1}{4}$).

Q14 How much of the cake do Rajni and Raju together get? colour their total share.
Altogether they get 3 parts out of 4, so we can write it as $\frac{3}{4}$.
Rajni got 2 pieces $\frac{1}{4} + \frac{1}{4} = \frac{2}{4} \Rightarrow \frac{1}{2}$.
Raju gets $\frac{1}{4}$.

$\Rightarrow \frac{1}{2} + \frac{1}{4} \Rightarrow \frac{4+2}{8} \Rightarrow \frac{6}{8} = \frac{3}{4}$



Q15 This full pumpkin will cost Rs ____
cost of $\frac{1}{2}$ of pumpkin = Rs 10
cost of $\frac{2}{2}$ the full pumpkin = 2×10
Rs. 20
Hence, the full pumpkin will cost Rs 20.

Q16

Item	Price/Kg.
Tomato	8
Potato	12
onion	10
carrot	16
Pumpkin	4

How much does ½ kg of tomatoes cost?
Cost of 1 Kg tomatoes = Rs 8
Cost of ½ Kg tomatoes = ½ × 8
= Rs 4.

Q17 Which costs more - ½ kg of onion or ¼ kg of carrots?
cost of 1 Kg onion = Rs 10 —
" " ½ Kg " = Rs 10/2
= Rs 5
cost of 1 kg carrot = Rs 16
" " ½ kg " = Rs 16/2
= Rs 5

Q18 What is the price of 3/4 kg.

of potatoes?
Cost of 1 Kg potatoes = Rs 12
" 3/4 Kg " = 12 × 3/4
= 36/4 + 9
= 9
Hence, cost of 3/4 kg of potatoes is Rs 9.

Q19 Keerthi is going for shopping. She has only Rs 20 with her. Can she buy all this in her shoping list?
Potato ½ kg
Pumpkin 2 kg
Carrot ½ kg
lets find the cost first.
Cost of 1 kg potato = Rs 12
" ½ kg " = 12/2
= 6

Cost of 1 kg Pumpkin = Rs 4
" 2 kg " = 4 × 2
= Rs 8

Q cost of 1kg carrot = Rs 16
cost of $\frac{1}{4}$ kg " $= \frac{1}{4} \times 16$

$= \frac{16}{4}$

$= Rs\ 4$

$\frac{1}{2}$ kg potato = Rs 6
2kg Pumpkin = Rs 8
$\frac{1}{4}$ carrot = Rs 4
Total cost = Rs 18

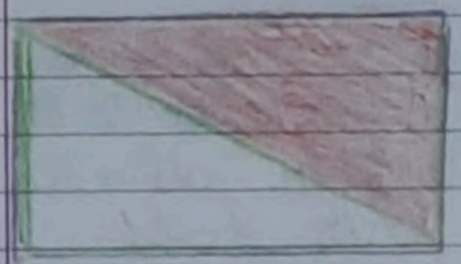
Yes, Keerti can buy all the vegetables of her shopping list and Rs. 2 will be left with her.

Q20 Make two questions yourself from the price list.
What is cost of 100gms of Tomato.
1000 gms of tomato = Rs 8
1 gm of " $= \frac{8}{1000}$
100 gms of " $= \frac{8}{1000} \times 100$
$= 8/10$ or .80

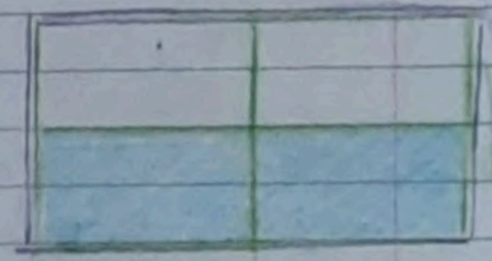
Hence the cost of 100 gms of Tomato is Rs 0.80
or 80 paisa

What is the cost of 100 kg of onion?
Cost of 1kg onion = Rs 10
" " 100 kg " $= 10 \times 100$
$= Rs\ 1000$
Hence the cost of 100kg onion will be Rs 1000/-

Q21 what part of whole is coloured. write below each shape.



Total part = 2
coloured = 1
$\frac{\text{coloured}}{\text{Total}} = \frac{1}{2}$



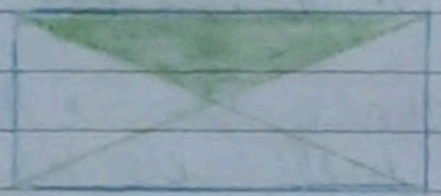
Total parts = 4
coloured = 2
$\frac{\text{Coloured}}{\text{Total}} = \frac{2}{4}$ or $\frac{1}{2}$

Q22 Colour that part of the shape which is written below.

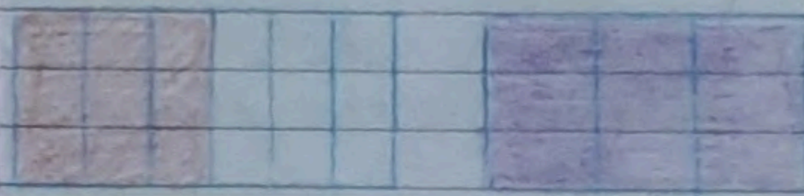
$\frac{1}{2}$

$\frac{3}{4}$

$\frac{3}{4}$

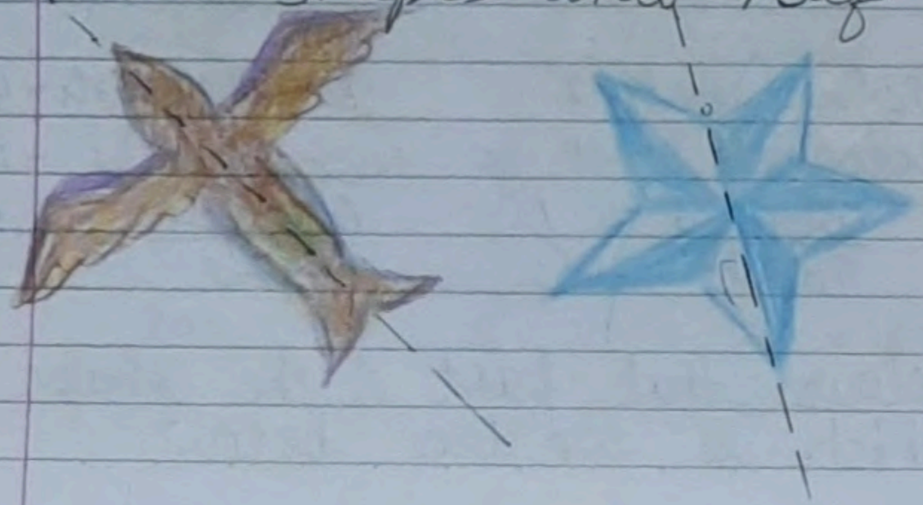


$\frac{1}{4}$

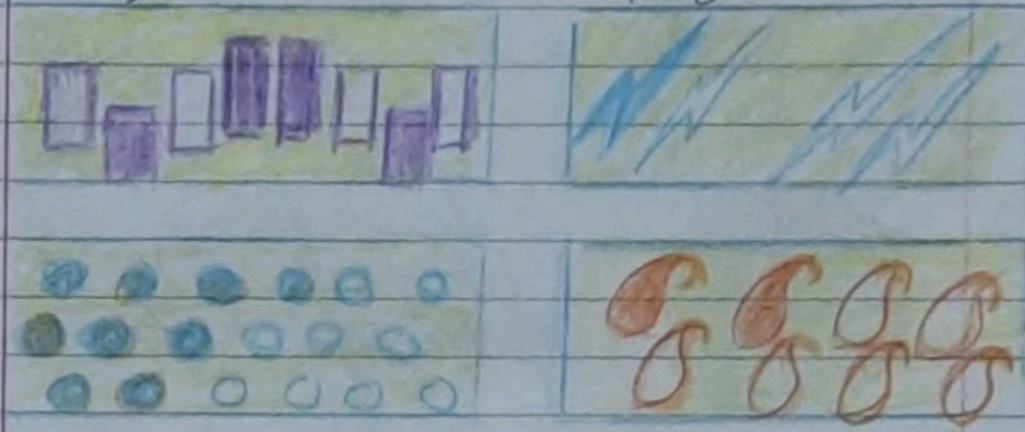


$\frac{1}{2}$ $\frac{3}{4}$

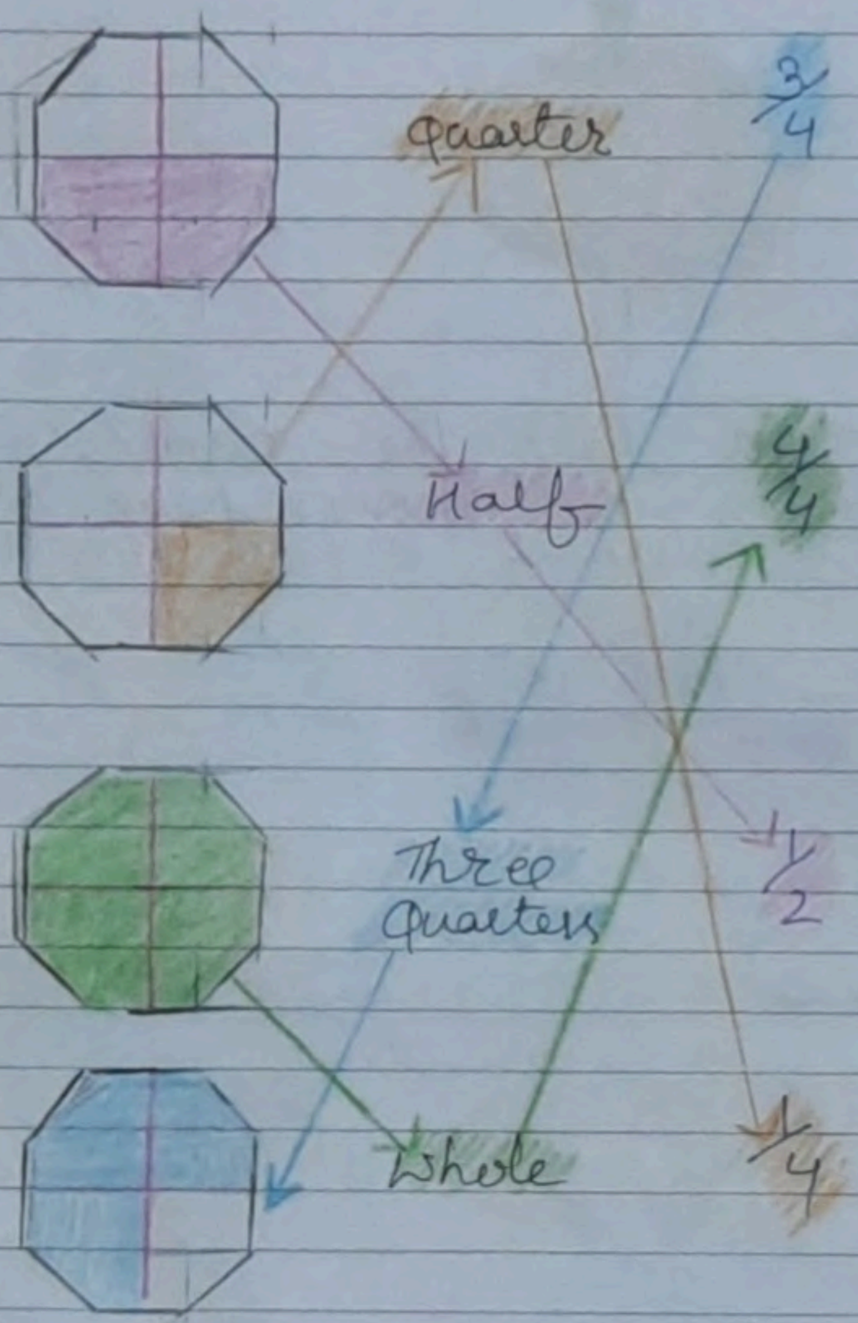
Q23 Draw a line which divides these shapes into half.



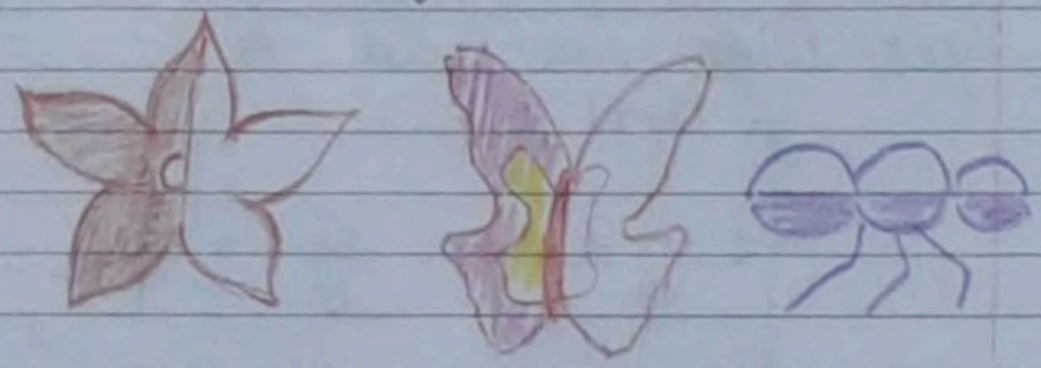
Q24 Colour half the number of shapes as shown here and (a) $\frac{1}{2}$ coloured (c) $\frac{1}{4}$ of these shapes



Q25 Match the coloured part as shown.



Q26 ½ of the picture is drawn here can you complete the picture by drawing the other half?



Q27 This is a quarter of a picture can you complete it? How many more quarters will you draw to complete it.

we need to draw 3 more quarters.

Q28 Using your metre scale. Cut a string of one metre

¼, ½, ¾, 4/4 . . . . . .

¼ ½ ¾ 4/4

$\frac{1}{2}$ metre = 50 cm $\quad 100/2$

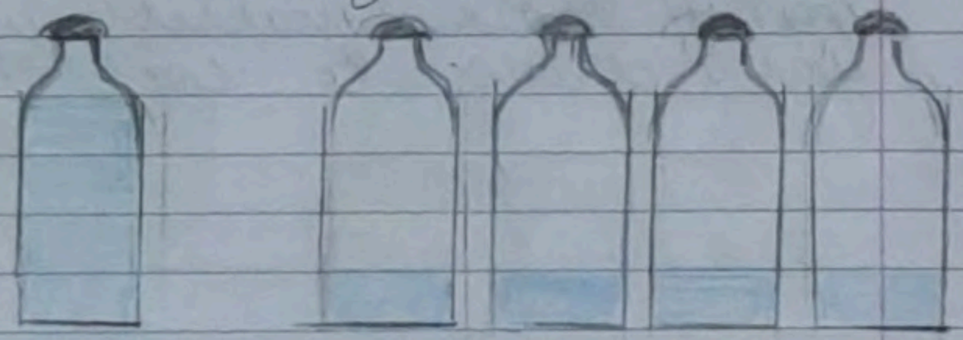
$\frac{1}{4}$ metre = 25 cm $\quad 100/4$

$\frac{3}{4}$ metre = 75 cm $\quad 300/4$

yes, when we add $\frac{1}{2}$ and $\frac{1}{4}$

$$\frac{4+2}{8} = \frac{6}{8} = \frac{3}{4}$$

Q29. Shade the bottles to show the level of milk in each.



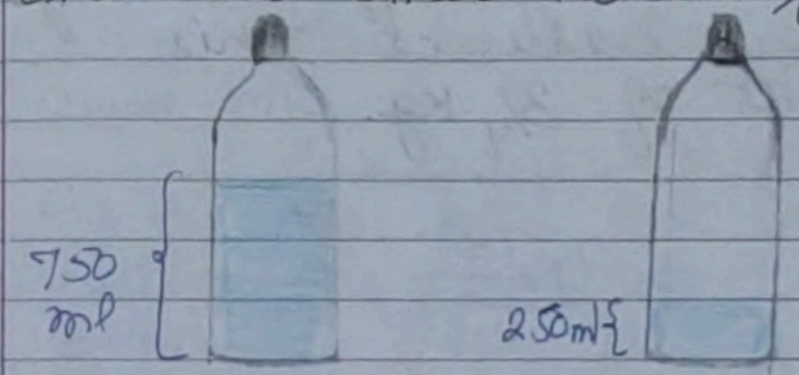
Q30 How many millilitres of milk does each bottle have?

Each bottle has 250 ml of milk

1000 ml = 1 Lts

250 ml + 250 ml + 250 ml + 250 ml = 1 L

Q31 Shan poured 1 litre of milk into two bottles so that the first bottle holds $\frac{3}{4}$ litre and the other holds $\frac{1}{4}$ litre.



Q32 Choose from the weights above to make the two pans equal. In how many ways can you do it?

This can be done in many ways. Some of them are as:

2kg = 1kg + 500gm + 500gm

2kg = 500gm + 250gm + 250gm + 1kg

2kg = 1kg + 500 + 250 + 200 + 100

2kg = 1kg + 250 + 250 + 250 + 200 + 50gm

2kg = 1kg + 200gm + 200gm + 100gm + 500gm.

Q33 Draw the weights in the empty pan.

To balance the pan I put

Page No. 144
Date:
YOUVA

1 kg and 500 gm and 500 gm of weights in empty pan.

Q34 In how many different ways can you balance this weight of 3/4 kg.

$\frac{3}{4}$ kg = $1000 \times \frac{3}{4}$

$= \frac{3000}{4}$ (750)

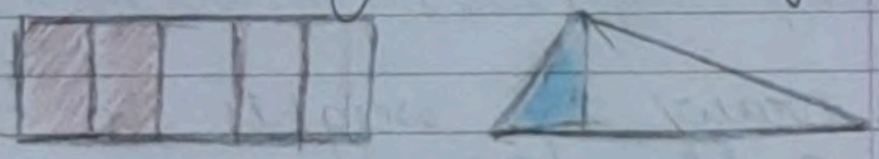
= 750 gm

750 gm = 250 gm + 250 gm + 250 gm

750 gm = 250 + 250 + 200 + 50

750 gm = 500 + 250 gm.

Q35 Kanan shaded some parts as shown but his friend mini says that it is wrong Explain why is it wrong?



(A) (B)

Fig 'A' has total - 5 parts
coloured parts - 2 parts.
∴ fraction is $\frac{\text{Coloured}}{\text{Total}} = \frac{2}{5}$

Hence correct fraction is 2/5 and not 1/4.

Fig 'B' has total two unequal parts one part is coloured. Even if there are two parts this is not a fraction 1/2, because the parts are unequal.

The formal condition of fraction is that the parts should be equal. So, this is incorrect.

Q36 There are 60 mangoes 1/2 of them are ripe. How many mangoes are ripe?

Total mangoes = 60

1/2 of mangoes = $\frac{1}{2} \times 60$

= 30.

So ripe mangoes = 30.

37 There are 32 children. ½ Of them are girls. How many children are boys.

Total children = 32

½ of them means = ½ x 32
(girls)

= 16

Hence, 16 children are boys.

Q38 There are 20 stars. A quarter of them are red. How many stars are red.

Total stars = 20

Quarter of star = ¼ x 20

= 5

Here 5 stars are red.

Total - Red = not red

Q39 20 - 5 = 15

How many are not red.

Hence 15 stars are not red.

Q40 Ravi wants a pencil. It costs Rs 2, He gives a one-rupee coin, one half-rupee coin

and one quarter-rupee coin is it enough?

Cost of pencil = Rs 2

Money he gives = one Rupee coin
½ Rupee coin
¼ Rupee coin.

lets add.

100 (one rupee)
50 (½ of rupee)
25 (¼ of Rupee)
175

conversion 175 paisa to Rs.

we know,

100 paisa = 1 Rupee

1 paisa = 1/100 Rs.

175 paisa = 1/100 x 175

= 175/100

= 1.75 Rs.

Hence, The money is not enough cost of pencil (is Rs 2 he has Rs 1.75.

He needs quarter of Rupee more (25 paisa) to make it 2 Rs.

Important Questions

1 What is a fraction?
Fraction is part of a whole.
eg. $\frac{1}{2} = \frac{N}{D}$ N means Numerator, D means Denominator.
This means 1 part of 2 equal parts
eg
$\frac{1}{4}$ is a fraction it denotes 1 part of 4 equal parts.
eg
$3/8$ is a fraction. It denotes 3 parts of 8 equal parts.

2 Find the following?
N=2, D=7 fraction is?
$\frac{N}{D} = \frac{2}{7}$
N=20, D=30 fraction is?
$\frac{N}{D} = \frac{20}{30}$ or $\frac{2}{3}$

3 Find the following
$\frac{1}{2}$ of 36 $= \frac{1}{2} \times 36$
$= 18$.

$\frac{2}{7}$ of 49 $= \frac{2}{7} \times 49$ | of means '×'
$= 14$

4 Find the value of following.
6 times $\frac{4}{6} = 6 \times \frac{4}{6} = \frac{24}{6} = 4$
8 times $\frac{12}{16} = 8 \times \frac{12}{16} = \frac{96}{16} = 6$

5 Write next equivalent fraction.
$\frac{3}{5} = \frac{6}{10}, \frac{9}{15}, \frac{12}{20}, \frac{15}{25}$
working. $\frac{N}{D} \frac{\times 2}{\times 2}$ = 1st eq. fraction
Same number is multiplied with N+D.
$\frac{N}{D} \frac{\times 3}{\times 3}$ = IInd eq fraction
$\frac{N}{D} \times \frac{4}{4}$ = IIIrd equivalent fraction.

6 Write the fractions of following.
two-sixths : 2/6, Two tenths $\frac{2}{10}$
eight-ninths 8/9, Ten Fifteenths 10/15.

7 Write words of the following.
$\frac{2}{3}$ = Two thirds. $\frac{7}{9}$ seven Nineth
$\frac{5}{15}$ = Five fifteenth, $\frac{3}{11}$ Three Eleventh.

9 write the following in ascending order.

$\frac{6}{7}, \frac{4}{7}, \frac{8}{7}, \frac{2}{7}$.

The denominator should be same. smaller N first

$\frac{2}{7}, \frac{4}{7}, \frac{6}{7}, \frac{8}{7}$

$\frac{7}{16}, \frac{3}{16}, \frac{15}{16}, \frac{18}{16}$

$\frac{3}{16}, \frac{7}{16}, \frac{15}{16}, \frac{18}{16}$.

write the following fractions in decending order.

$\frac{10}{11}, \frac{6}{11}, \frac{4}{11}, \frac{11}{11}$ $\frac{1}{11}$ is whole or 1

$\frac{11}{11}, \frac{10}{11}, \frac{6}{11}, \frac{4}{11}$

$\frac{82}{35}$ $\frac{41}{35}$ $\frac{72}{35}$ $\frac{102}{35}$

$\frac{102}{35}, \frac{82}{35}, \frac{72}{35}, \frac{41}{35}$.

Always decide with Numerator. if the numerator is big the fraction is big if numerator is small fraction is small.

$= \frac{2}{6s}$

Q1. Reen bought 8 chocolates for party at the end of the party 3 chocolates were left what fraction of the chocolates were eaten.

Total chocolates = 8

No of chocolates eaten = 8-3 = 5.

Hence the fraction = 5/8

2 Raman read 6/15 pages of his books on tuesday and 5/15 pages on wednesday. How much of the book he read in two days?

Tuesday he read = 6/15.

Wednesday he read = 5/15.

In two days he read

$\frac{6}{15} + \frac{5}{15}$

$= \frac{6+5}{15}$

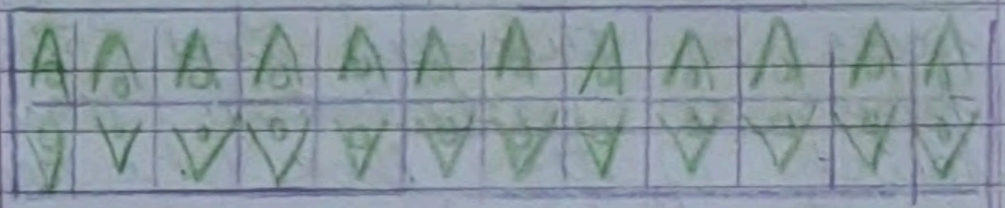
$= \frac{11}{15}$, Hence he read 11 pages from book in two days.

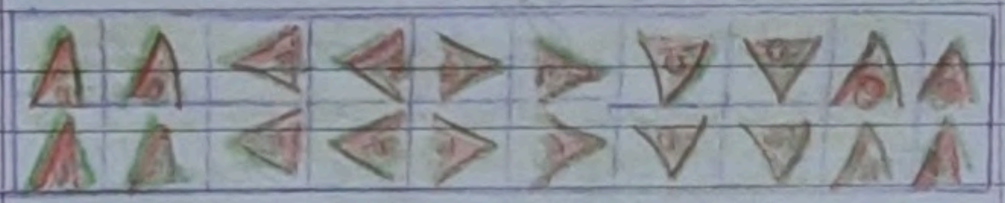
CHAPTER. 1B

PLAY WITH PATTERNS

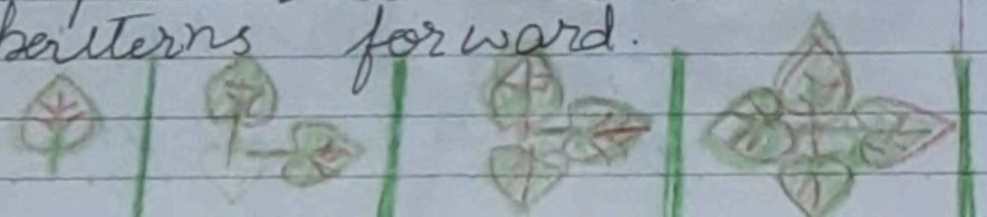
Text book questions

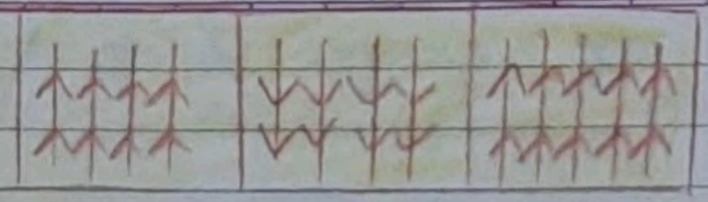
Q1 Can you see how Tinu has made different patterns using the same block? Now you too make 3 different patterns using ▽

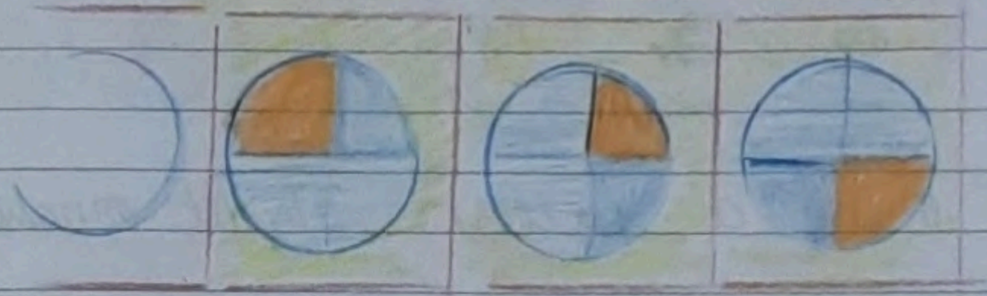




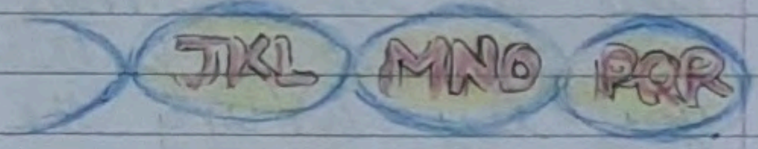
Q2 Yamini has used her blocks to make a few patterns. Help her to take these patterns forward.

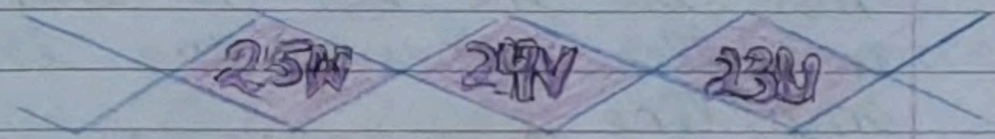


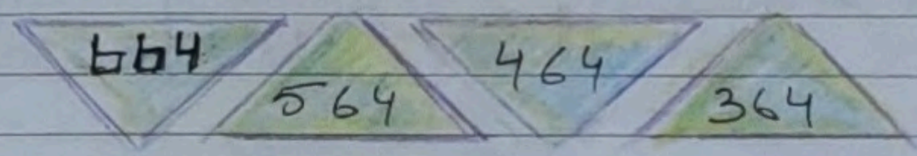


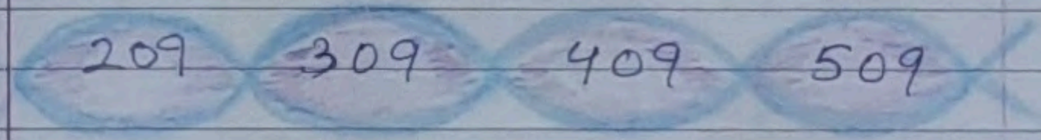


Q3 We can also make patterns with numbers and letters! Below







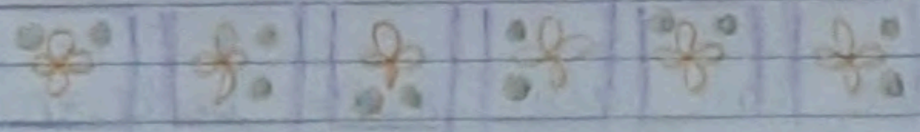


Q4 Now write your own number patterns.

11	3	5	7	9	11

0	2	4	6	8	10

Q5 Make a pattern without numbers.

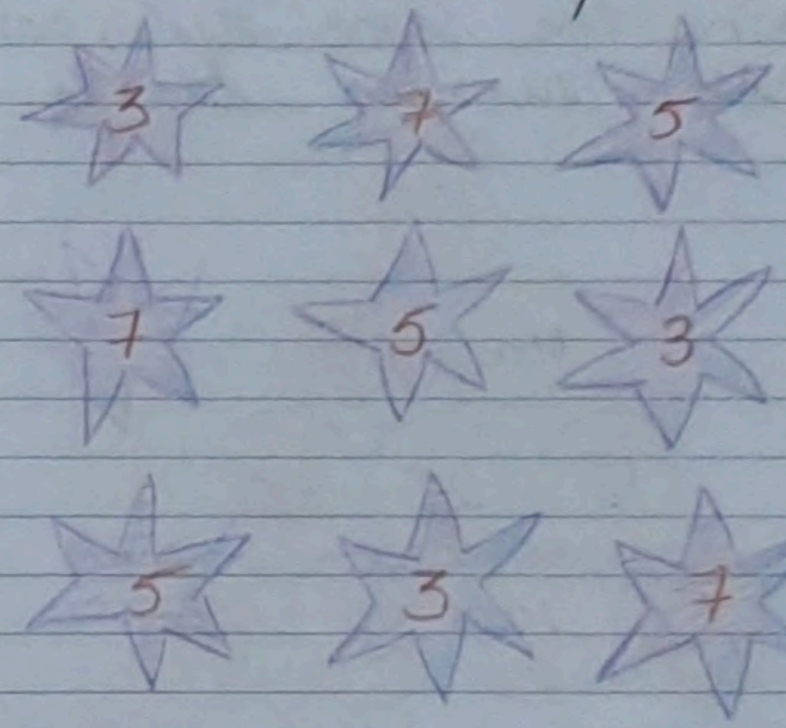


Q6 Look at the number box. can you see a pattern. Now you try writing the letters ABC in the box so that no letter comes twice in any line.

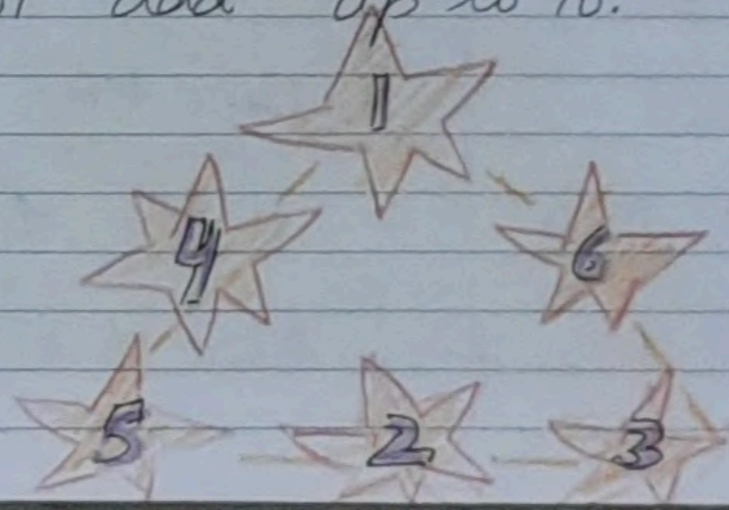
A	B	C
C	A	B
B	C	A

Q7 Now you fill these stars. use numbers 1-9 and the

rule that the numbers on each line add up to 15.

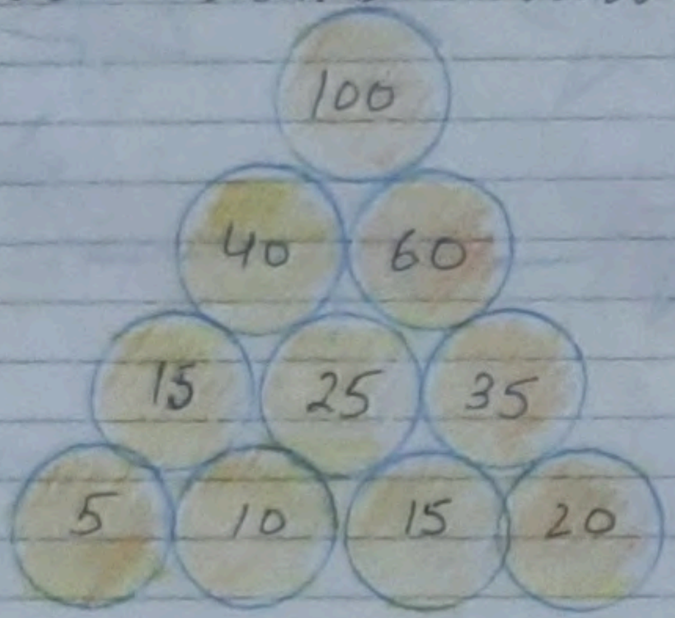


Q8 Now use numbers 1-6 to make your own magic triangle Rule: Numbers on each side must add up to 10.



Page No. 156
Date
YOUVA

Q9 Numbers can be arranged as a tower.
using the same rule, complete these number towers.



		48	
	20		28
8		12	16
3	5	7	9
1	2	3	4	5

Page 113

Page No. 157
Date
YOUVA

Q10 Now you write any number and the three numbers after that. Make a pattern using the rule.

10	11	12	13

10	+	13	=	23
11	+	12	=	23

Yes, we get the same sum

Q11 Now, you try to make such a pattern with 5 numbers in order.

1	2	3	4	5	=	15
2	3	4	5	6	=	20
3	4	5	6	7	=	25
4	5	6	7	8	=	30
5	6	7	8	9	=	35

Q12 Does the sum grow by 5 each time?
yes.

Q13 Complete this list of letters and numbers to help you.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
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

Q14 Teenu wants to write to his friend 'Good Morning' what will he write by using the same rule?

G O O D M O R N I N G
7 15 15 4 13 15 18 14 9 14 7

Q15 If we change the rule and write 1 in place of 'B', 3 in place of 'D' and so on. then how will we write LET US DANCE.

L E T U S D A N C E
12 5 20 21 19 4 1 14 4 5

Q16 What was Kahuli's secret message?

A B C D E F G H I
B C D E F G H I J

J K L M N O P Q R
K L M N O P Q R S

S T U V W X Y Z
T U V W X Y Z A

With respect to new arrangement of letters.
XF BSF GSJFOET will be
WE AXE FRIENDS

Q17 What did shabbu and Jaggu write?

IFMMP!	HELLO
IPX BSF	HOW ARE
ZPV?	YOU

GJOF FINE
UIBOL THANK
ZPV YOU

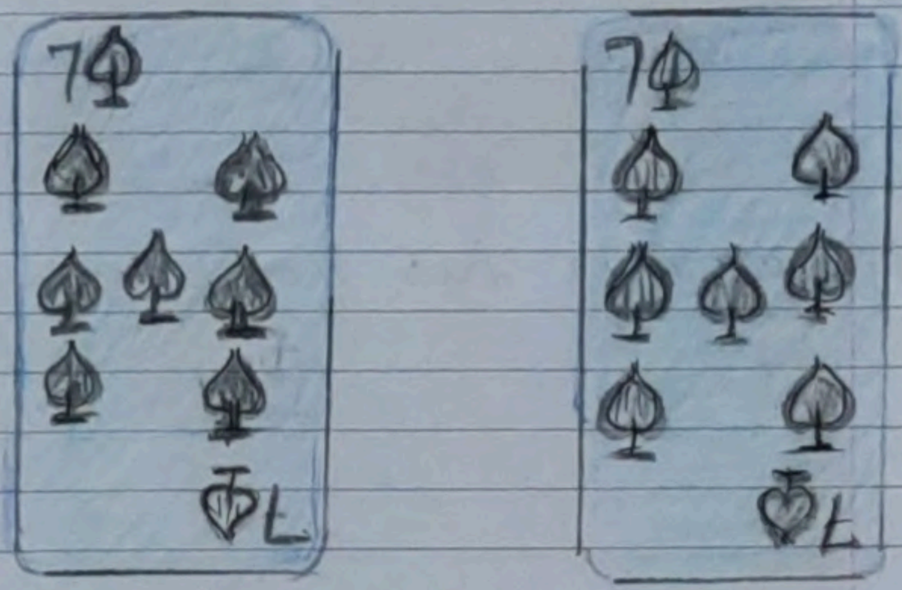
Q18 Use the same rule to write 'MEET ME ON THE MOON'.
NFFU NF PO UIF NPPO

Q19 Make different rules and ask your friends to crack the secret message.

A	B	C	D	E	F
AA	BB	CC	DD	EE	FF
G	H	I	J	K	L
GG	HH	II	JJ	KK	LL
M	N	O	P	Q	R
MM	NN	OO	PP	QQ	RR
S	T	U	V	W	X
SS	TT	UU	VV	WW	XX
Y	Z				
YY	ZZ				

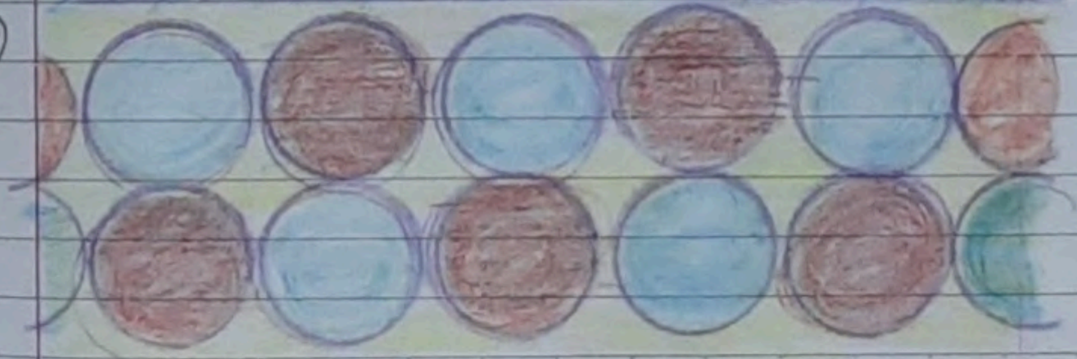
SSCCHHOOOLLVVAALLLYY.CCOOMM
SCHOOLVALLY.COM

Q20 Draw what it will look like when upside down.

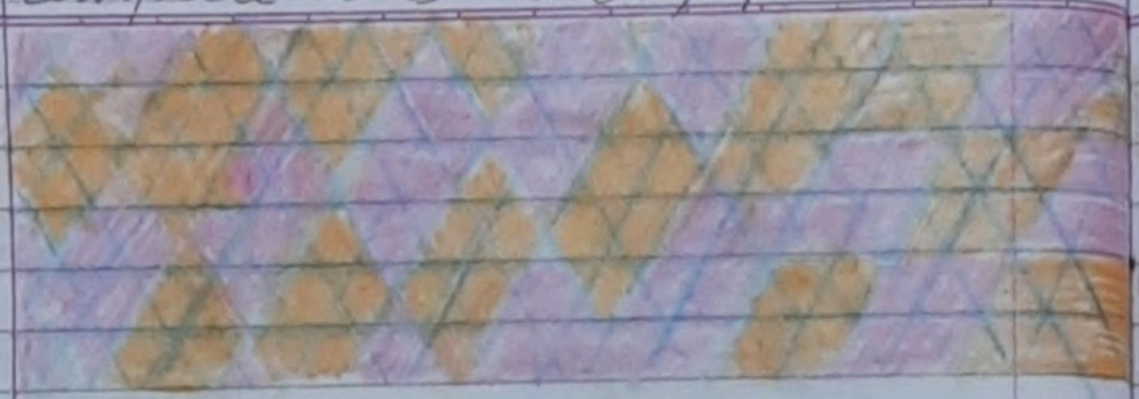


Q21 NOW you cover this floor
(a) with this tile.

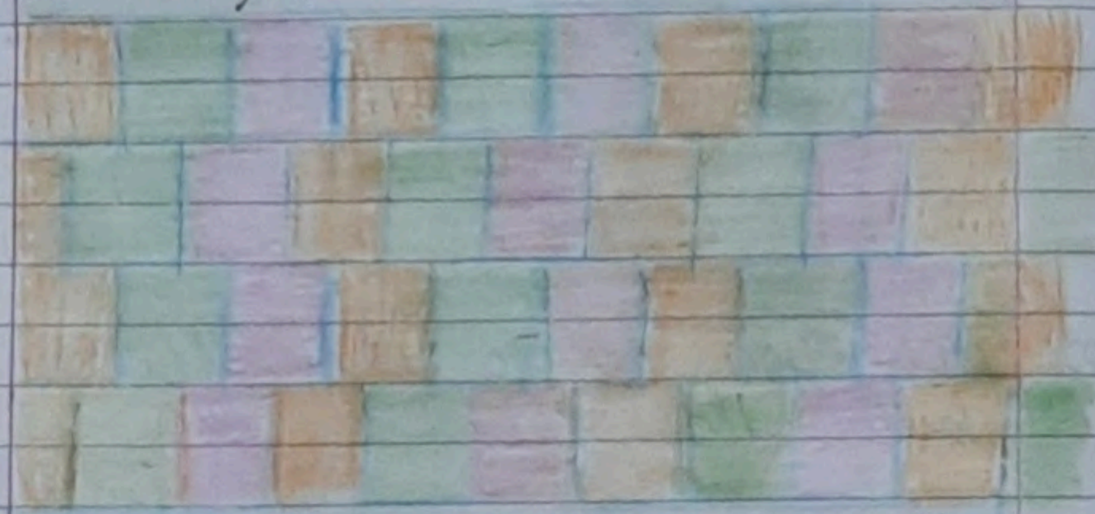
(b)



c) complete this tiling pattern.



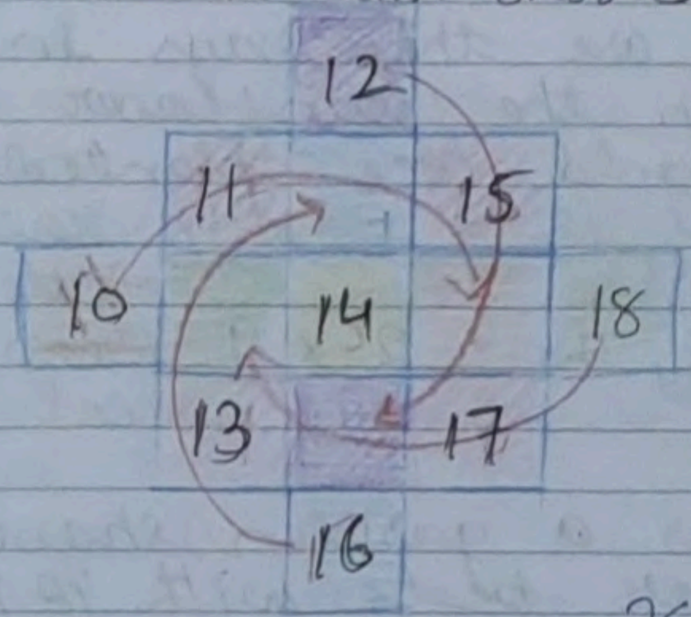
d) Ramaiya has made a wall---



e) Renu Began to paint wall---

Important questions

Make a magic square, using number 11 to 18 The sum should be 42.



42

11	16	15	42
18	14	10	42
13	12	17	42
42	42	42	42

By this method we can make magic square for any given numbers without repeating them. The sum will be same vertically, horizontally & diagonally.

CHAPTER - 11

TABLES AND SHARES

Textbook questions.

Q1 What are the ways in which the sunflower and marigold are planted.

Sun flower 18 = 1 x 18 row-1 col: 18

Mari gold 18 = 2 x 9 row-2 col: 9

Q2 Draw a garden, showing flower beds with 48 plants. There can be multiple arrangements for 48 plants.

a) rows 6
column 8
Total 6 x 8 = 48 plants
six rows with 8 plants

b) rows 8
column 6
Total 8 x 6 = 48 plants
8 rows with 6 plants.

c) rows 12
column 4
Total 12 x 4 = 48 plants

Twelve rows with 4 plants.

d) rows 4
column 12
Total 4 x 12 = 48 plants
four rows with 12 plants.

Q3 Can you think of other ways to make a shelf to keep 30 jars?

other ways would be.

rows 3
column 10
Total 3 x 10 = 30 jars.
three rows with 10 jars.

rows 10
column 3
total 10 x 3 = 30 jars.
Ten rows with 3 jars.

rows 6
columns 5
total 6 x 5 = 30 jars
6 rows with 5 jars

rows 5
column 6
total 5 x 6
5 rows with 6 jars.

Q4 Have your friends drawn it in different ways?
No,

Q5 Help Bunty to make the table of 7, using tables of 4 and 3.
Multiplication tables of 4, 3. and 7.

4	3	4+3	7
8	6	8+6	14
12	9	12+9	21
16	12	16+12	26
20	15	20+15	35
24	18	24+18	42
28	21	28+21	49
32	24	32+24	56
36	27	36+27	63
40	30	40+30	70.

Hence, we can make the table of 7 by adding table of 4 and 3.

Q6 which two tables will you use for writing the table of 12?
we will use table of

4	and 8	wrote table of 12	
4	8	4+8	12
8	16	8+16	24
12	24	12+24	36
16	32	16+32	48
20	40	20+40	60
24	48	24+48	72
28	56	28+56	84
32	64	32+64	96
36	72	36+72	108
40	80.	40+80	120

Q7 Billo has kept his chickens in a box. He counted 28 legs. How many chickens are there?
We know, A chicken has 2 legs. So, we will club 28 legs in a group of 2.

$2\overline{)28}(14$
$\frac{2}{8}$
$\frac{8}{}$

So there are 14 chickens.

Page 123

Q8 Leela has not gone to school for 21 days. For how many weeks was she away from school.

There are 7 days in a week so we will arrange 21 days in group of 7.

7) 21 (3
21
x

Hence, 28 days mean 3 weeks.

Q9 She counted 28 legs. How many cats are there in the box?

We know. a cat has 4 legs. so we will club 28 legs in groups of 4.

4) 28 (7
28
x

Hence, 28 legs mean 7 cats.

Q10 A Frog jumps 3 steps at a time starting from 0. count the jumps he takes

to reach 27

One jump = 3 steps
How many jumps = 27 steps
equation
3 steps × number = 27
number = $\frac{27}{3}$

27 ÷ 3

3) 27 (9
27
x

So, frog has taken 9 Jumps.

Q11 He has taken ___ jumps if he is at 36.

3 steps × number of Jumps = 36
Number = 36/3
∴ frog has taken 12 jumps.

Q12 If he is at 42, he has taken ___ jumps.

3 steps × number of steps = 42
∴ Number = 42/3
= 14

3) 42 (14
3
12

∴ he has taken 14 jumps.

Q13 Starting from 0, a rabbit jumps 5 steps at a time

a) In how many jumps does he reach 25?

5 steps × Number of steps = 25

Num = 25/5 = 5

Hence, he jumps 5 steps to reach 25.

b) He reaches 40 after taking 8 Jumps.

one jump = 5 steps.

steps × number = reached

5 × 8 = reached

40 = reached

Hence, he reaches 40 after taking 8 jumps.

c) He needs ___ jumps to reach 55.

steps × number = reached

5 × Number = 55

Number = 55/5

= 11

he needs 11 jumps to reach 55.

Q14 Practice time

28 ÷ 2 = 14 56 ÷ 7 = 8

48 ÷ 4 = 12 66 ÷ 6 = 11

96 ÷ 8 = 12 110 ÷ 10 = 11

Q15 How many shells are left now?

Shells left with him = 84 − 28

= 84 − 28 = 56

Then he took shells agin

Q16 How many shells was left with him now.

Shells left with him = 56 − 28

56 − 28 = 28

So he was left with 28 shells.

Q17 How many necklaces can Dhruv make from 112 shells?

___ ?

Total shells = 112
beeds per necklace = 28.
So we need to distribute 112 beeds in the group of 28 each.

$$28\overline{)112}\,(4$$
$$\underline{112}$$
$$\times$$

Another way

28 beeds × how many = 112
times

$$28 \times \text{number} = 112$$
$$\text{number} = \frac{112}{28}$$
$$= 4.$$

Hence, He can make 4 necklaces

Q18 Are the shells enough for making necklaces for all his friends?
He can make 4 necklaces.
He has 3 friends
so, the shells are sufficient to make necklaces for all of his three friends.

Q19 Kannu made a necklace of 17 sea-shells. How many such necklaces can be made using 100 sea-shells.
So we need to distribute 100 sea-shells in group of 17.

$$17\overline{)100}\,(5$$
$$\underline{85}$$
$$15$$

Another way.

17 Sea shells × number = 100
$$\text{number} = \frac{100}{17}$$

$$17\overline{)100}\,(5$$
$$\underline{85}$$
$$15.$$

5 Necklace can be made using 100 sea shells and after making necklaces 15 Sea shells will be left with Kannu.

17 3
×5
85
417
×6
102

Q20 One carton can hold 85 soap bars. Shelly wants to

pack 338 soap bars. How many cartons does she need for packing all of them?

one carton = 85 soap
Total soaps = 338

here we need to make groups of 338 soap taking 85 at a time.

$85 \overline{)338}(3$
$\underline{255}$
83

85 × 4 = 340
85 × 3 = 255

she can fill 3 cartons fully and one carton with 83 soaps (soap for 2 will be left)
Hence, she needs 4 cartons.

Q21 Manpreet wants 1500 sacks of cement for making a house. A truck carries 250 sacks at a time. How many trips will the truck make?

Total sacks needed 1500
truck capacity 250
equation will be to make

groups from 1500 sacks taking 250 at a time.

$250 \overline{)1500}(6$
$\underline{1500}$
×

250 × 5 = 1250
250 × 6 = 1500

Truck will make 6 trips

Q22 A driver charges Rs. 500 for a trip. How much will Manpreet pay the driver for all the trips?

one trip charge = Rs 500
6 trip charges = 500×6
= 3000

Hence, Manpreet will pay Rs 3000 to the driver for all the trips.

Q23. Are the sweets in the tray enough to pack 23 small boxes?

Total laddos in tray = 80
laddoos in a box pack = 4
one box packing = 4
23 box packed = 23×4
= 92

No, 80 laddoos are not enough to pack 23 small boxes.

Q24 How many more sweets are needed.

To Pack 23 boxes we need laddoos = 92 (pieces)

Laddoos avilable in tray = 80.

defference = 92 − 80 = 12

Hence, 12 more laddoos are required.

Q25 Gangu also has a bigger box in which he packs 12 laddoos. How many boxes does he need for packing 60 laddoos.

total laddoos = 60

packing size = 12

boxes required = ?

Here 60 things need to be

distributed in a group of 12 each.

12) 60 (5
60
×

Hence, he needs 5 boxes.

Another way

pack size × Number of Boxes = Total laddoos (laddoos)

$12 \times N = 60$

$N = \frac{60}{12}$

$= 5$

Q26 Neelu brought 15 storybooks to her class. Today 45 students are present. How many children will need to share one book.

Total number of storybooks = 15

Total number of students = 45

Number of students share 1 book = 45 ÷ 15

15) 45 (3
45
×

Hence, 3 students need to share one story book.

Q27 A family of 8 people needs 60 kg wheat for a month. How much wheat does this family need for a week?

One month need = 60 kg
or 4 weeks need = 60 kg
1 week need = $\frac{60}{4}$ kg

$4\overline{)60}(15$
$\frac{4}{20}$
$\frac{20}{x}$

$= 15$ kg

Q28 Razia wants change for Rs 500. How many notes will she get if she wants in return

a) All 100 Rs notes.

$100 \times$ Number of Notes $= 500$
Number $= \frac{500}{100}$
$= 5$

Hence, 5 notes.

b) all 50 Rupee notes?

Rs. $\times$ Number of Notes $= 500$
Number of Notes $= \frac{500}{50}$
$= 10$

Hence, 10 notes.

c) All 20 Rupee notes?

$20 \times$ Number of Notes $= 500$
Number of Notes $= \frac{500}{20}$
$= 25$

$\frac{25}{20\overline{)500}}$
$\frac{x}{}$

Hence, 25 notes.

d) All 5 rupee notes?

$5 \times$ Number of Notes $= 500$
Number of Notes $= \frac{500}{5}$
$= 100$

Hence, 100 notes.

Q29 You have to distribute 72 tomatoes equally in 3 baskets. How many tomatoes will there be in each?

Page No. 180 | YOUVA | Date

Total number of tomato = 72
Distribution in 3 basket.

$$3\overline{)72}\,(24$$
$$\underline{6}$$
$$12$$
$$\underline{12}$$
$$\times$$

Hence, there will be 24 tomatoes in each basket.

Q30 There are 350 bricks in a hard cart. Binod found the weight of a brick to be 2 kg. what will be weight of all the bricks?
Total bricks = 350
Weight 1 brick = 2kg.
weight of 350 briks
$= 2 \times 350$
$= 700$ kg.

Children and their grend father —

Page No. 181 | YOUVA | Date

Q31 Mridul and Lokesh are trying $70 \div 5$ in a different way.
let us give Rs 14 to each first.
Rashi Seema Mridul Rohit Lokesh Total
14 14 14 14 14 = 70
we are left with (70-70) = 10.

let us give Rs 1 to each.
1 1 1 1 1 = 5
we are left win (10-5) = 5

let us again give Rs 1 to each
1 1 1 1 1 = 5
We have distributed all money each person will get
12+1+1 = Rs 14
12+1+1 = Rs 14
12+1+1 = Rs 14
12+1+1 = Rs 14
12+1+1 = Rs 14
Can you start with Rs 15 .... NO.

Q32 Try doing these
(a) $5\overline{)65}\,(13$ (b) $2\overline{)84}\,(42$
$\underline{5}$ $\underline{8}$
15 4
$\underline{15}$ $\underline{4}$
$\times$ $\times$

(c) 3)69(23
6
9
9
x

(d) 6)90(15
6
30
30
x

(e) 4)72(18
4
32
32
x

(f) 9)108(12
9
18
18
x

(g) 2)232(116
2
3
2
12
12
x

(h) 2)428(214
4
2
2
8
8
x

Q33 Meera made 204 candles to sell in the market she makes packets of 6. How many packets will she make?
If she packs them in

packets of 12, then how many packets will she make?
Total number of candles = 204
1 packet contains = 6
Number of boxs = $\frac{204}{6}$

6)204(34
18
24
24
x

She will make 34 packets of 6

(b) Total number of candles = 204
1 packet contains = 12
no of boxes = $\frac{204}{12}$

12)204(17
12
84
84
x

She will make 17 packets of 12.

Q34 on sports day, 161 children are in the school playground.

They are standing in 7 equal rows. How many children are there in each row?
Total number of children = 161
No of rows = 7
No of student in each row
= 161 ÷ 7

7) 161 (23
14
21
21
x

Q35 There are 3 crates. Each crate has 24 bottles in it. How many bottles are there in all?
One crate = 24 bottles
3 crates = 24 x 3 bottles
= 72.
So, in all there are 72 bottles in three crates.

Q36 There are 8 packets of Rakhies Each packet has 6 rakhies

in it.
My qiestion: How many rakhies are there in all.
Total packets of Rakhies = 8
Each packet has Rakhis = 6
Total number of rakhies
= 8 x 6
= 48 rakhies.

Q37 There are 10 packets of sugar Saurabh paid 110 rupees for all the packets.
My qustion: What is the cost of 1 packet.
Total packets = 10
Total cost = 110
cost of 10 packets = 110
1 packet = 110/10
= 11
cost of 1 packet = Rs 11.

Q38 There are 35 students in 7 rows Each row has the same number of students.
My qustion: How many children

are there in each row?
Total number of students
= 35
total number of rows
= 7.
We know Row × column = Total
7 × column = 35
colum = $\frac{35}{7}$
= 5.
so there are 5 students is 7 rows.

Q39 Hari, seema, chinku and laxmi are going to Guwahati The cost of one rail ticket is Rs 62.
My qustion what is the cost of all 3 tickets,
one rail ticket = Rs 62
3 rail ticket = 62 × 3
= 186.

Q40. one metre of cloth costs Rs 20. Lalbiak bought some cloth and paid Rs 140

My question: How much cloth did Lalbiak got?
one metre cost = Rs 20.
amount paid total = Rs 140.

cloth purchased × cost = Rs 140
(of one mt)
cloth purchased = $\frac{140}{20}$
cloth purchased = 7 mts.

Important questions
a) 12 × 5 × ____ = 60; 12 × 5 × 1 = 60
b) 128 ÷ ____ = 1; 128 ÷ 128 = 1
c) 108 × ____ = 0; 108 × 0 = 0
Explanation:
a) Multiplication with 1 does not change the value the number remains unaffected.
b) When a number is divided with the same number it self the answer is 1.
c) A number becomes Zero it becomes zero.

HOW HEAVY HOW LIGHT

Text book questions

Q1 Find out the total weight they had loaded on the cart.

Things loaded	wt	Items	T.Wt.
Wheat	100 Kg	5	100×5=500
Rice	35 kg	3	35×3=105
Water tank	50 kg	1	1×50=50
Almirah	70 kg	1	1×70=70
A table	10 kg	3	3×10=30
A Chair	5 kg	4	4×5=20
A Mattress	20 kg	2	2×20=40
Bamboo ladder	10 kg	1	1×10=10
Pots & Pans	10 kg		10
		Total wt.	835

Hence, the total wt is 835 kg.

Q2 Which things should be removed so that the weight of the load is not more than 700 kg?

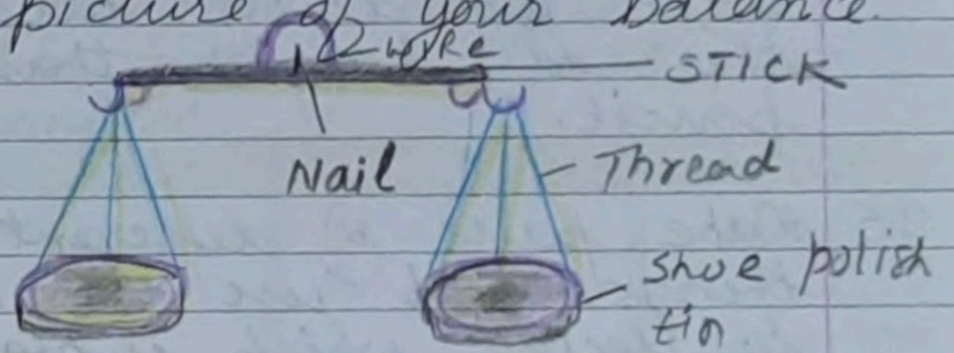
current weight = 855 kg
Target weight = 700 kg

∴ difference = 155 kg
Hence we need to remove 155 kg of weight. Items that we may remove are.

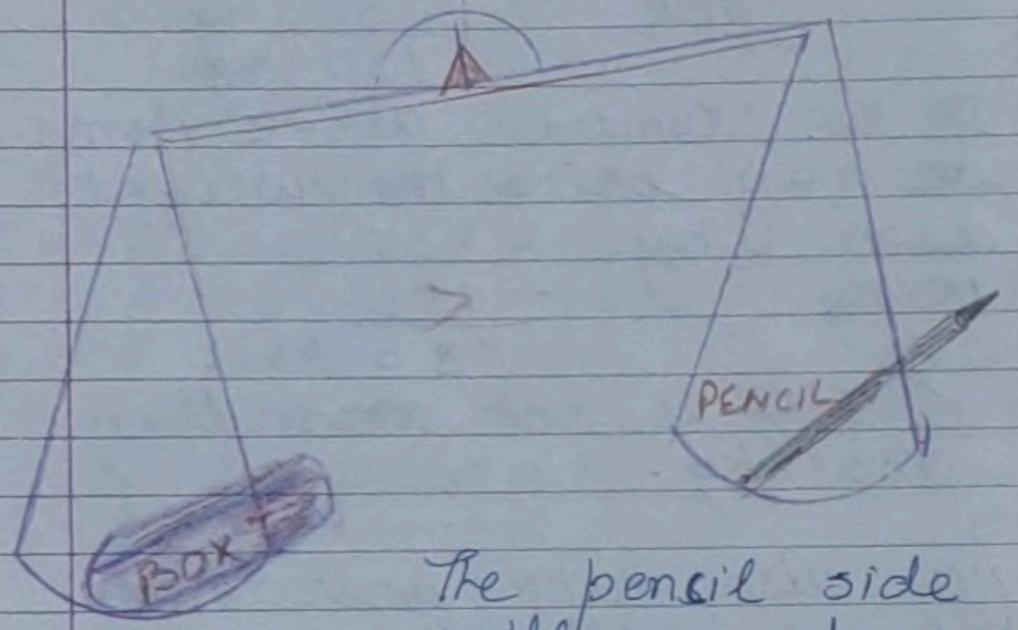
3 tables = 30 kg
1 Almirah = 70 kg
1 Tank = 50 kg
150 kg

If we remove above items we may bring the weight down by 835
150 kg − 150
ie 685 kg.
685 kg is not more than 700 kg.

Q3 Now also make your own balance. Write down how you made it. Also draw a picture of your balance.



Q4 Mannu and Jaiju put a pencil and geometry box in the two pans of the balance. which pan will go down? why? Draw a picture to show it.



The pencil side will go up and geometry box side pan will go down. because this is heavier than pencil.

Q5 Make pairs of different things and use the balance to decide which is heavier

First guess which thing will take the pan down and then check with your balance.

(a) pen and pencil
guess - equal, actual - equal
(b) Lunch box and geometry box
guess - lunch box is heavier - True
(c) Hankerchief and socks pair
guess - equal; actual socks heavy
(d) Note book and maths book
guess Maths book is heavier, true.

Q6 Make groups of three things for example - Eraser, ball and paper. use the balance to arrange them in order of weight the lighest, the one with in-between weight the heaviest. complete the table with at least five examples.

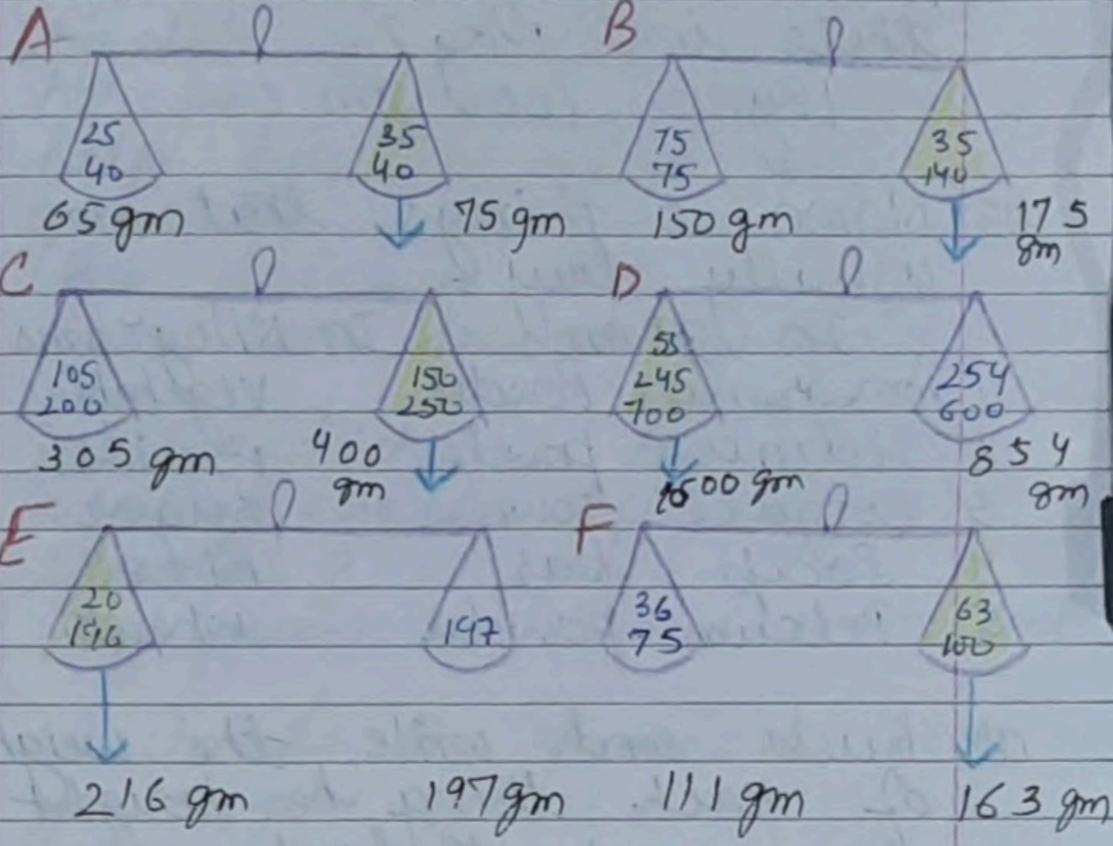
Lightest	In between weight	Heaviest
Paper	Eraser	Ball
Notebook	Pencil box	Maths book
pencil	glue stick	scissors

Q7 Can you find your own weight using this balance?
No, this balance is small for this.

Q8 Get a new cake of soap. The packet will have the weight written on it. You can use this soap to make your own different weights.
The soap weigh 100 gms.

Q9 Take a small plastic packet put it in one pan of the balance. Put the soap in the other pan.
Slowly add sand to the packet till the pans are balanced.
Close the packet with a rubber band or string. Now stick a strip of paper and write 100 g on it.
If you put the soap and the weight you just made together in a pan, how many grams will both these weigh?
200 gms.

Q10 Which pan of the balance will go down? Show by drawing an arrow.



Q11 Is the weight on any of the pans equal to 1 kg. mark it.

Yes, figure D.
Left pan, weigh
55 gm
245 gm
700 gm
1000 gm

Q12 How many grams are there in 1kg?
1kg = 1000 gm

Q13 Name 5 things that we usually buy

	In Grams	In Kilograms
1	Pomegranate Powder	Vegetables
2	Turmeric powder	Fruits
3	Colgate powder	sugar
4	Soap bar	Rice
5	Telcum powder	Wheat.

Q14 Guess and write the weight of each thing he bought in gm or Kilogram

Items	Weight
Rice	5 Kg
Sugar	1 Kg

Mustard Seeds	10	gms
Wheat	3	kg
Dal	500	gms
Tea	250	gms
Pepper	25	gms

Q15 Ritu is weighing her toys. She wants to know if her tractor is heavier than her car. How would you help her to find out quickly?
By using a pan balance this can be done easily

Guess which is the heaviest a real car, a bus or a tractor?
My guess is a bus is heaviest

Which is the heaviest thing you have seen?
An Aeroplane.

Q16 Now imagine what happened next and complete the story

Now, she has two marks on the boak.
Mark 1 without elephant
Mark 2 with elephant.

she filled the boat with sand after taking the elephant out of the boat.

The boat started sinking with the weight of the sand. she kept filling the sand till she reacted mark 2 agian.

The weight of the eleplant is equal to the weight of the sand, which can be easily weighed.

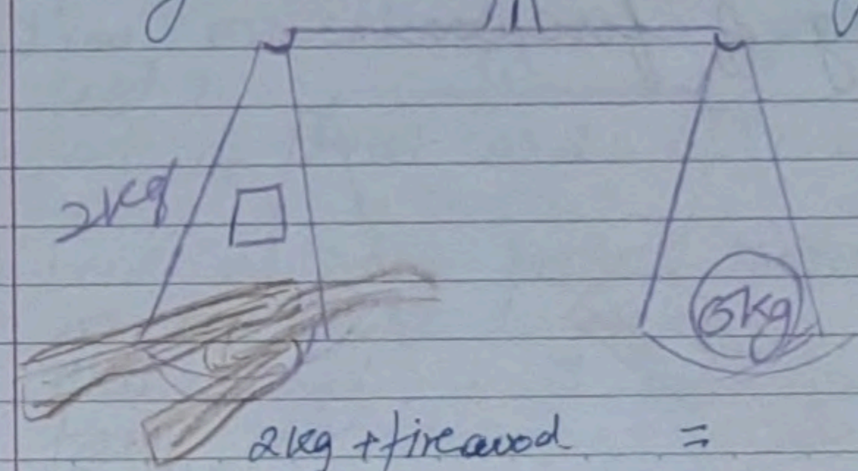
The greedy king was left with no choice but to give the reward to Dr Kavdika.

Q17 Anamika wants to weigh

this chair using the weighing machine. can you suggest a way for doing this?
yes, she should weigh herself ist. lets say her weight is A kg. Now she should hold the chair and weigh herself again, say the weight is B kg this time

weight of chair = B kg − A kg

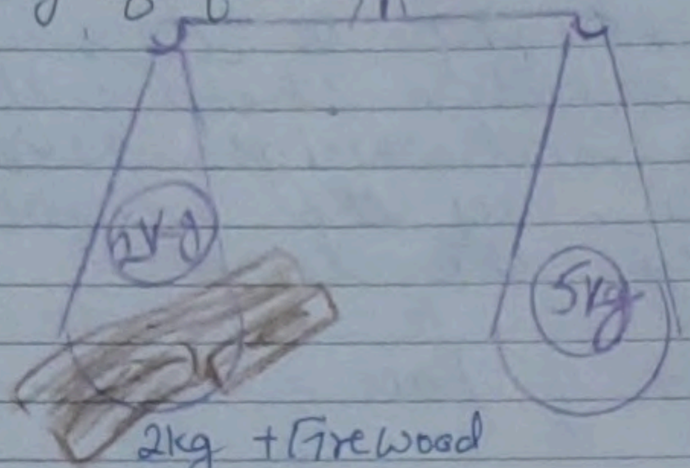
Q18 Now you show how Abdu will use these stone pieces to weigh.
4 kg of firewood
weights abdu has 2kg, 5kg, 6kg



2kg + firewood = 6kg

2kg + Firewood = 6kg
Firewood = 6kg - 2kg
Firewood = 4kg

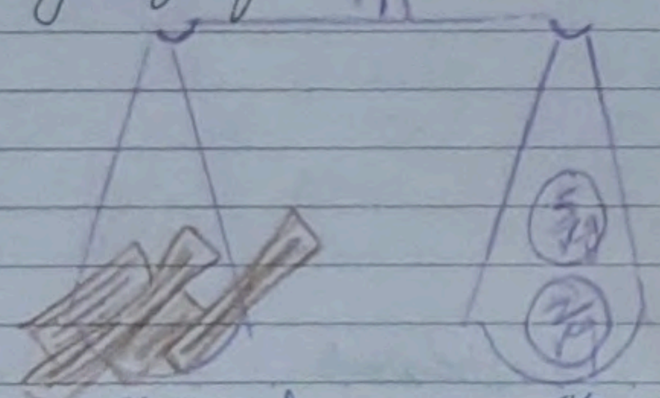
(b) 3kg of firewood.



2kg + Firewood 5kg

2kg + Firewood = 5kg
Firewood = 5kg - 2kg
Firewood = 3kg

(c) 7 kg of firewood.



Firewood 5kg + 2kg = 7kg

Q19 Have you ever been to a post office?
yes.

What different things do people go there for.
To send/post letters parcels
Telegram.
money order
To purchase envelopes.
post cards
stamps
Inland letters

Q20 How much does an Inland letter cost?
Cost of Inland letter = Rs 2.50.

How much does a post card cost?
Cost of post card = 6.00.

Q21 Look at the postal rates given in the chart.
How much will you have to pay for stamps on a letter

Weighing 50 grams?
Let's break 50 grams as
50gm = (20 + 20 + 10) gm

Stamps = Rs 5 + Rs 2 + Rs 2
= Rs 9

Q22 Akash wants to send a parcel of the math magic textbook to his friend Rani in Chennai. The book weighs 200g see the chart to find the cost of posting the book.
Let us break 200 gm
200 gm = 50 gm + 50 gm → 50gm → 50 gm
Stamps = Rs 5 + Rs 3 → Rs 3 + Rs 3
= Rs 14.

Q23 Read the weight shown in the picture. Find out the cost of sending a parcel of that weight.
Parcel weight = 230 gm
Let us break 230 gm
230 gm =

230gm = 50g + 50g + 50g + 50g + 30g
= Rs 5 + Rs 3 + Rs 3 + Rs 3 + Rs 3
= Rs 17

Q24 Rahul needs stamps of Rupees 25 for his parcel. He went to the post office. only stamps of Rs 1, Rs 2, Rs 5 and Rs 10 were there at that time. using those stamps in how many different ways can he make Rs 25.
1) 25 Rs 1 stamps
2) Two stamps Rs 10 and one stamp Rs 5
3) Five stamps of Rs 5
4) Ten stamps of Rs 2 and 5 Rs stamp
5) Twelve stamps of Rs 2 and Rs 1 stamp
6) One Rs 10 stamp and Three Rs 5 stamp
7) One Rs 10 stamp, Five stamps of Rs 2 and one Rs 5 stamp. etc.

Q25 What happened after that? So what was the answer the crow wanted to give? After that the crow was again to give the answer

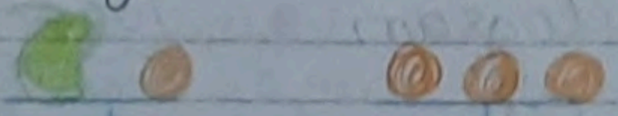
he opened his mouth and the frog jumped out from his mouth.
The answer crow wanted to give was.

650 gm
145 gm
+ 795 gm.

Q26 Now, you also fill the table by finding out the age height and weight of any five friends.

Name	Age	Height feet/inches	Weight
Ankush	11	4.5	45
Gorav	10	4.3	40
Monit	9	4.0	38
Rahul	10	4.1	42
Gopal	9	3.8	37

Q27 How many oranges balance the weight in the third?

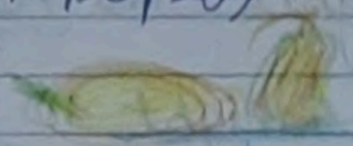


3 oranges balances one mango and orange.
So one mango = 2 oranges eq (1)

Q28

2 papaya balances two oranges and one mango.
also with ref to eq (1)
2 papaya = 2 mangoes — (2)
1 papaya = 1 mango — (3)

How many oranges



using eq 1 and eq (2) and eq (3)
1 papaya = 1 mango = 2 orange
1 mango = 2 oranges
Hence
1 papaya, 1 mangoes balances 4 oranges

Important questions

one kilogram = 1000 gms

half kilogram = 500 gms

The heavier one among 100g and 10kg is 10 kg.

2 kg = 10 × 200 gms

5 gms not equal 5 kg

5 kg = 5000 gms.

3kg 300gm = 3300 gms

my friend weights 25 kg

A sac of rice weight 50 kg

A packet of biscut 100 gms

A tube of glue is 10 ml

Which is heavier one pencil or

2 pencils two pencils.

You have weight 1kg 500g, 200g 100g and 50 gm How will you wt.

900 gms ⇒ 500gm + 200gm + 200gm

1 kg 750 gm = 1kg + 500gm + 200gm + 50gm

3kg 300gm = 1kg + 1kg + 1kg + 200gm + 100gm

150 gm = 100 gm + 50 gm

Add 13 K. 750 gm & 24 kg 500 gm

column method.

	kg	gm
	13	750
+	24	500
	38 kg	250 gm.

5kg 5g and 7kg 17g.

	kg	gm
	5	005
−	7	017
	12 kg	022 gm.

4kg, 10kg, 200 gm

kg	gm
4	000
10	000
00	200
14 kg	200 gm

subtraction (column method)

38 kg 500 gm from 45 kg 250 gm

kg		gm
45	borrow	1250
38		500
06 kg		750 gms

79 kg 759 gm from 91 kg 60 gm

kg		gm
91	borrow →	1060
79		759
11 kg		301 gm

Problem solving (statement questions)

Rita has 2 kg of Haldi. She wants put it into small packets of 200 gm. How many packets will she get.

Weight of Haldi = 2 kg

= 2000 gm

distribute packet = 200 gm

No of packets = $\frac{2000}{200}$

= 10

Hence, 10 packets.

A vegetable seller has 100 kg of Tomatoes, He sells 250 kg of them How much is left with them.

kg	gm
100	1000
− 00	250
99 kg	750 gm

convert 1 kg in gram

10 kg = ? gm

1 kg = 1000 gm

∴ 10 kg = 10,000 gm

22 kg = ? gm

1 kg = 1000 gm

22 kg = 22000 gm

Convert gm in kg

2000 gm = ? kg

1 gm = $\frac{1}{1000}$ kg

1 kg = 1000 gm
1000 gm = 1 kg
1 gm = $\frac{1}{1000}$ kg

2000 gm = $\frac{2000}{1000}$ kg = 2 kg

2250 gm = ? kg

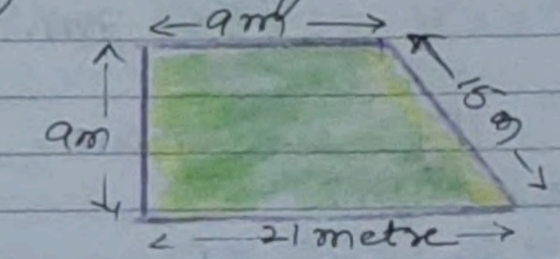
1 gm = $\frac{1}{1000}$ kg

2250 gm = $\frac{2250}{1000}$ kg = 2.250 kg.

FIELDS AND FENCES

Questions - Textbook.

Q1. Rahmat needs to find the length of the boundary of the field.

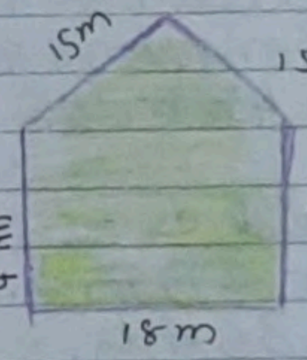


Length of boundary
= 9m + 9m + 15m + 21m
= 54 mts

Q2 Rehmat bought a roll of 70 m wire for the fence. How much wire did Rahmat give to ganpat?
Total length = 70m
wire used = 54 m
difference = 16m
so, Rahmat gave 16m wire to Gapat.

Q3 Ganpat thanked Rahmat and started fencing his own field.

Q4 How long is the boundary of Ganpat's field?



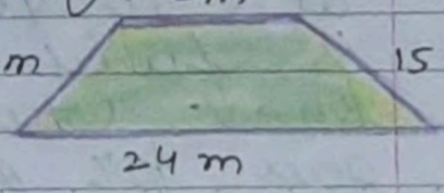
9m + 15m + 15m
9m + 18m
= 66m

Q5 How much more wire will Ganpat need for his field?
Ganpat field length = 66m
Rehmat gave wire = 16 m
wire needed = 66
−16
50 m.

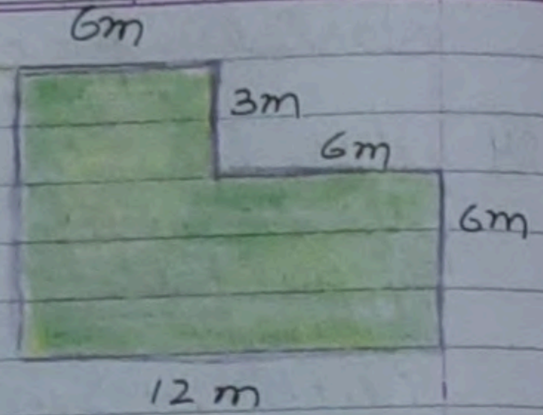
Hence, Ganpat will require 50 m wire for his field.

Q6 Here are pictures of some more fields. Find out which one has the longest boundary

Field 'A' =
15m + 6m + 15m + 24m = 60mts.

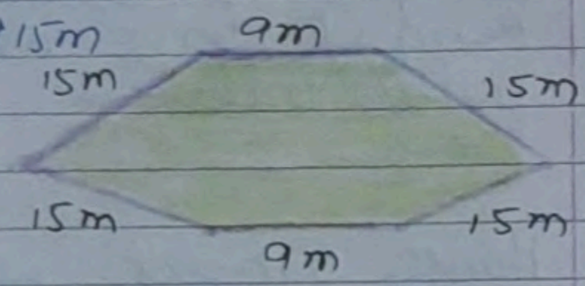


Field B =
6m + 3m + 6m
+ 6m + 12m + 9m
= 42 mts.



Field C =
9m + 12m + 15m
= 36 mts.

Field D =
9m + 15m + 15m
+ 9m + 15m + 15m
= 78 mts.

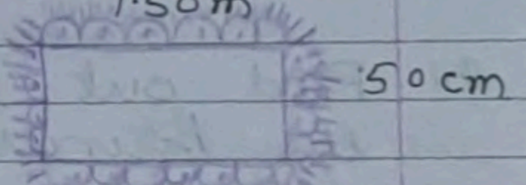


Hence Field D has the longest boundry.

Q7. Chandu's father is called the young old man in the village at 70 years of age he is fully fit. Do you know his secret? He goes for a walk around

the field every morning. Every day he takes four rounds of chandu's field.
What is the total distance he covers?
Length of boundry of chandu's field.
100m + 150m + 100m + 150m
= 500m.
The distance covered by young old man = 4 x 500 m
= 2000 m
= 2 km.

Q8 Ganpati's wife works in a tailor's shop. She has to fix lace around a table cloth.
She bought a 100 metre roll of lace.
How much lace is used for one table cloth
length that needs to be laced



1m 50m + 50cm + 1m 50m + 50cm.

By: Column method

	1	50
	0	50
	1	50
+	0	50
	4m	00 cm

Lace used for 1 table cloth is 4m.

Q9 How much lace will be used in 3 such table clothes

Lace required for 1 cloth = 4m

lace required for 3 cloth = 4x3 = 12m.

Q10 How much lace will be left in the roll?

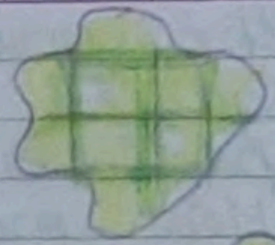
Total lace = 100m.

Lace used for 3 clothes = 12m.

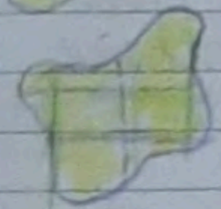
Lace left = 100m − 12m = 88m.

Q11 Find out the length of the boundry of these shapes?

A 

B 

C 

D. 

Q12 How many square are there in each shape?

Fig A complete sq = 1

Fig B complete sq = 2

Fig C complete sq = 3

Fig D complete sq = 2

Q13 Which shape covers the least number of squares?

Figure A covers the least number of square.

Q14. Which shape covers the most number of squares?

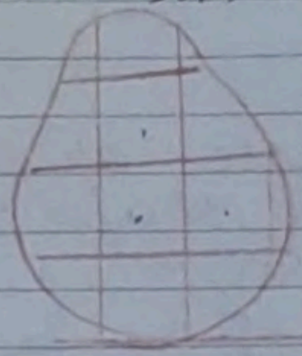
Figure c covers the most number of square.

Q15 Take 20 cm long thread. Make different shapes by joining

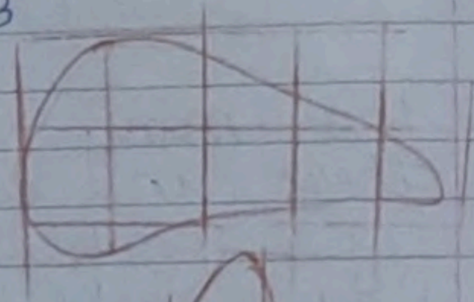
the ends. Place on the squared sheet on the next page find out:

Q16 How many squares are there in each shape?

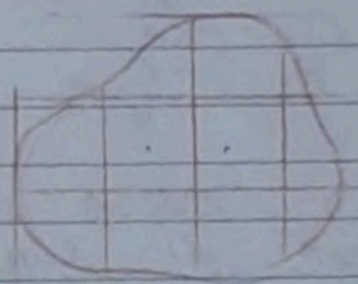
A



B



C



D

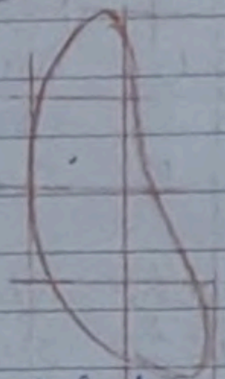


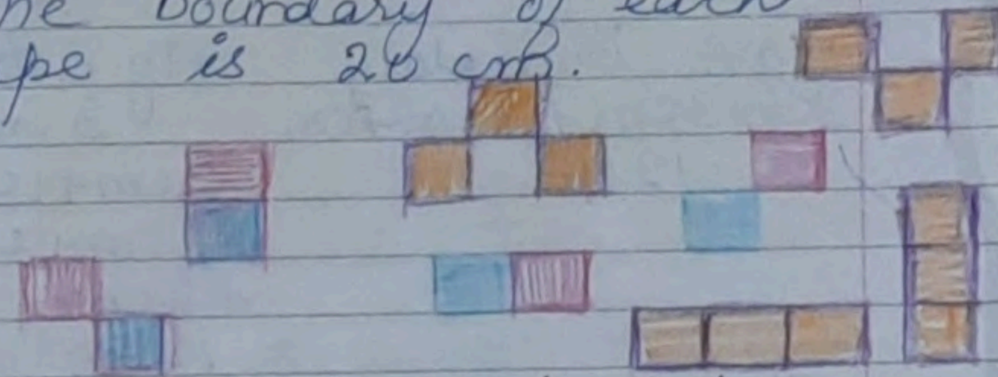
Fig A has 3 complete sq.
Fig B has 1 complete sq.
Fig C has 2 complete sq.
Fig D has 0 complete sq.

Q17 Which is the biggest shape?
Figure A is the biggest shape.

Q18 Which is the smallest shape
Fig D is the smallest shape.

Q19 How long is the boundary of each shape?
The boundary of each shape is 26 cm.

Q20



How many different shapes can you make by joining Two square and Three squares
4 different shapes. (pink blue)
4 different shapes Three sq (orange)

Q21 A sq has a boundary of 12 cm.
From the corner of this square a small square of side 1 cm is cut off. will the boundary of B be less or more? Find its length.

The boundary will remain same.

Fig A

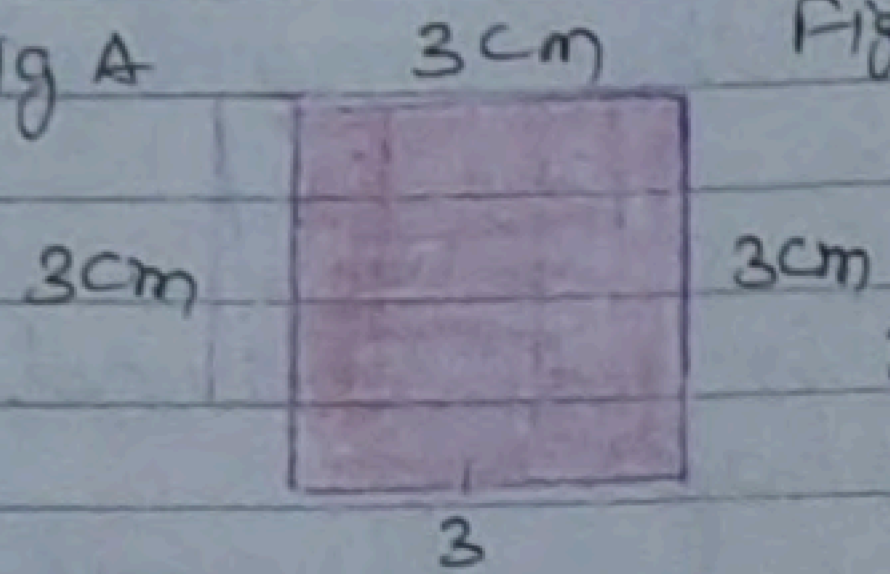


Fig B

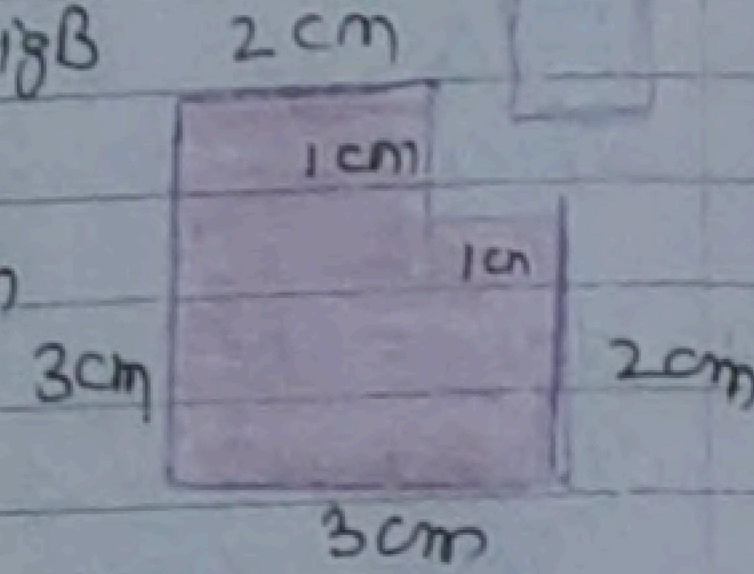
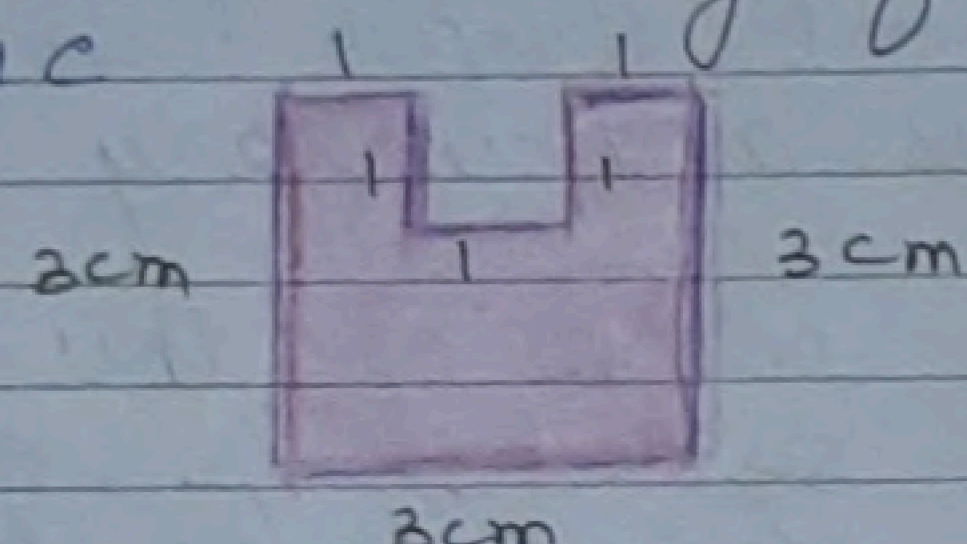


Fig A Boundary
3cm + 3cm + 3cm + 3cm
= 12cm

Fig B Boundary
3 cm +
2cm + 1cm
+ 1 cm + 2cm
+ 3cm
= 12cm

Q22 If you cut a 1cm square to get shape C. What will be the length of the boundary of C?

Fig C



3cm + 1cm + 1cm + 1cm + 1cm + 1cm
+ 3cm + 3cm = 14cm

Here the boundary of shape C will be equal to 14cm. which is more.

Q23 Find the length of the boundary of square D.

Fig D

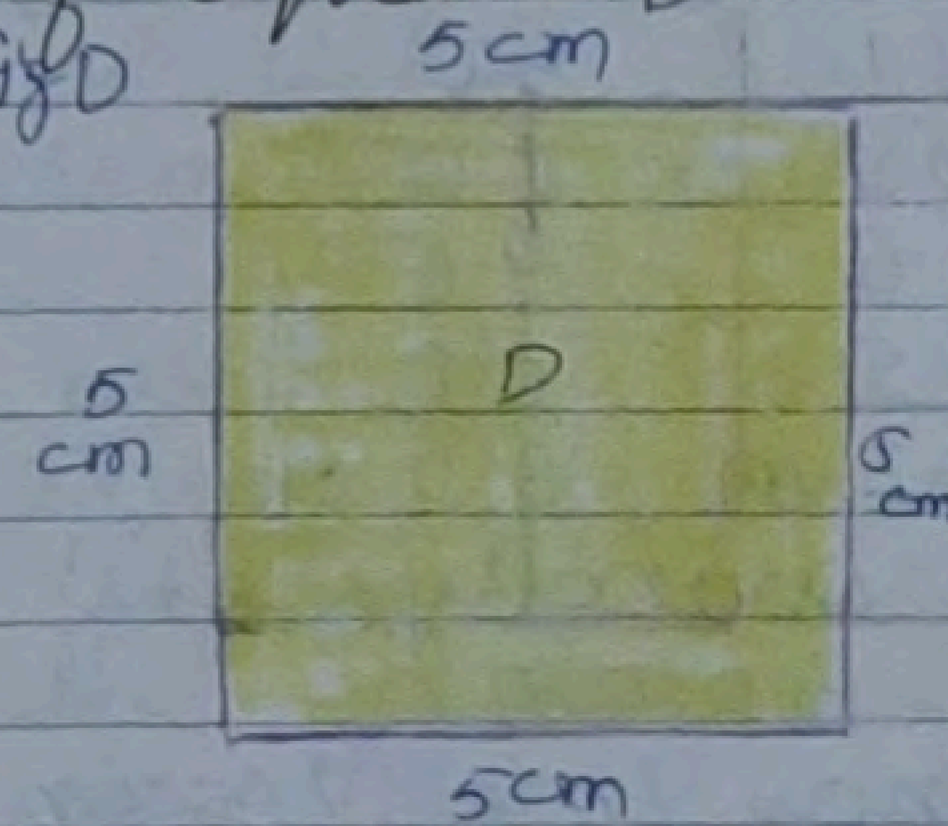
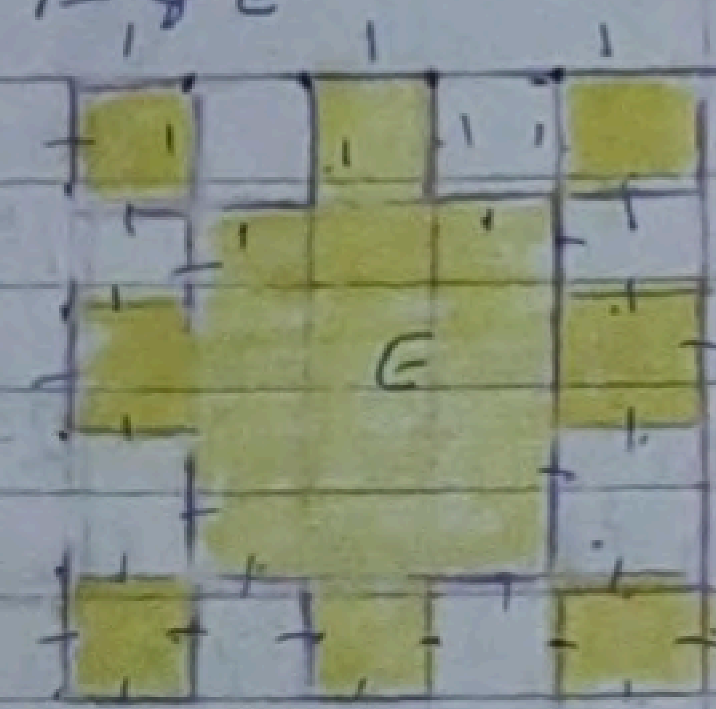


Fig E



Boundary of square D = 20cm.

Q24 What is the boundary of shape E.
Boundary of shape E
1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1
+ 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1
+ 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1.
= 36 cm.

Q25 The boundary of this □ is
1 + 1 + 1 + 1
can we also say the boundary is 4 x 1 cm? yes.

26 A Hockey field is 91 metres 40 cm long and 55 metre wide How long is the boundary of the field?

Boundary = (column method)

91	40
55	00
91	40
55	00
292 m	80 cm

Hence the boundry is
292 m 80 cm
or We know 1m = 100 cm
1m = 100 cm
292 m = 29200 cm
ie 292 m 80 cm
= 29200
.80
29280 cm

Q27 Usha and valsamma are running a race. Usha is running on the inner circle valsamma is running on the outer circle.

valsamma runs faster than usha. But still she loses the race. can you guess why? Yes. Because inner circle has a smaller boundry so usha has to run smaller destance.

Q28 Have you seen any race where runners start from different places. like in this picture. Guess why? Yes, they do so to make the track equal for every body.

Q29 How will Neetu find out if the two gardens are equally big?
She can do so by calculating the boundries of two park.
She will walk around the boundry wall and count her steps.
First, for ParkA and then

for park B.
since, the number of steps are equal hence parks are equal.

Activity.
write your guess here _8 books
Now check if your guess was right.
yes my guess was right.
What is the difference between your guess and the actual number of books there is no defference.

a) Is the table bigger than the last table.
yes, this table (teachers table) is bigger than the table.

Make a guess how many Math magic books can be kept on this table 15

check if your guess was correct.

How many Math magic books could you keep? 15.

The difference between the sizes of the two Tables is Nil.

c How many Math magic books can be covered with one sheet of newspaper?
4 books

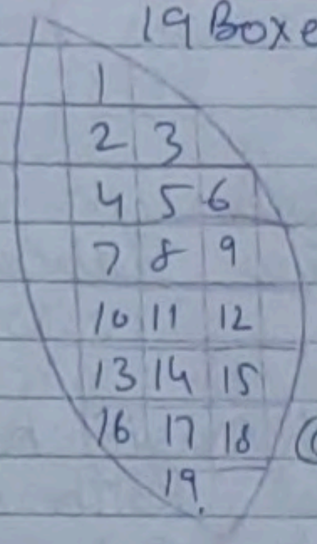
d Try covering your math-magic book with half a sheet of newspaper?
yes it could be done.

e Can you cover your book with a smaller sheet?
NO, can't do it now.

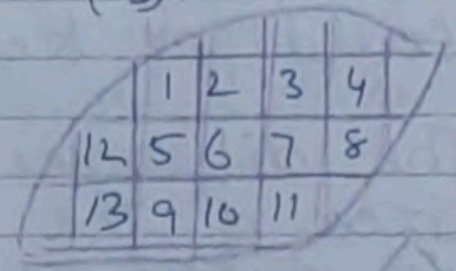
f Find the smallest sheet which can cover your book. Check if your friend.
could not be covered with sheet less than half of News paper.

Page No. 222
Date:
YOUVA

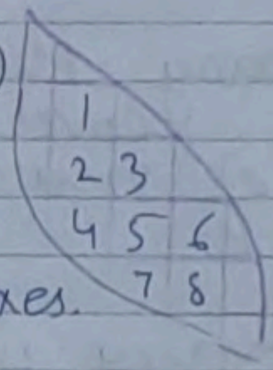
(A) 19 Boxes



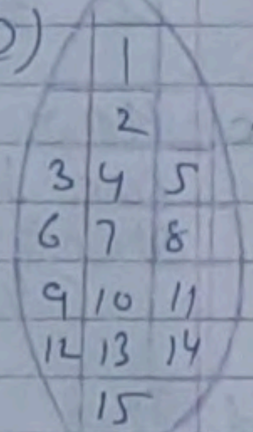
(B) 13 boxes



(C)



(D)

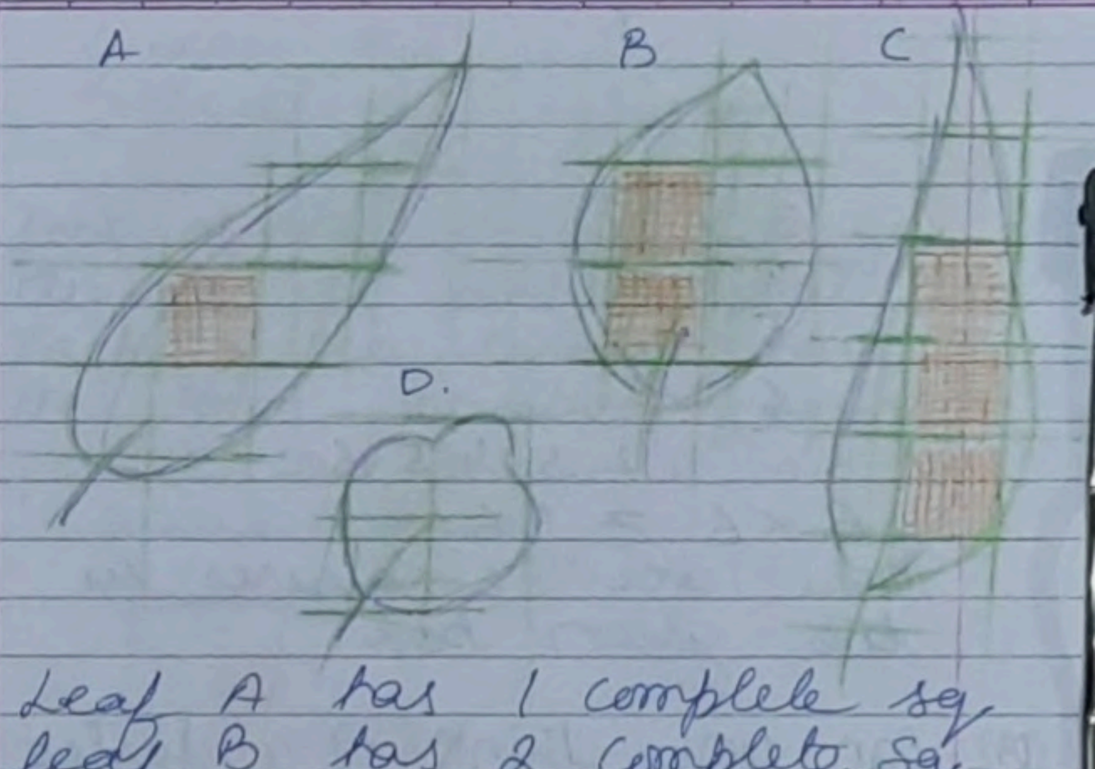


Which is the biggest leaf in the picture. 15 boxes
Leaf A with complete 19 Boxes

Q30 Collect some leaves from the garden. Place each of them here on this squared sheet. Trace out their edges and check how many squares there are in each leaf.

Page No. 223
Date:
YOUVA

(a)

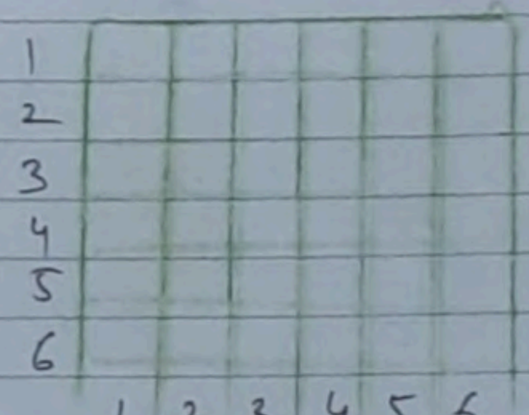


Leaf A has 1 complete sq.
Leaf B has 2 complete sq.
Leaf C has 3 complete sq.
Leaf D has 0 complete sq.

(b) Which is the biggest leaf.
Leaf C is biggest.

(c) Which is the smallest?
D is the smallest.

Q31 How many small square of size 1 cm² are there in this big green square?



$6 \times 6 = 36$.

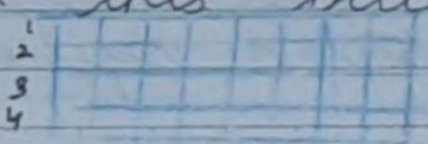
There are 36 squares in the green box.

Q32 Can you think of a faster way to know the total number of small squares without counting each

Yes, we can multiply number of rows and columns

6 rows × 6 columns = number of square.

Q33 Guess how many squares of one centimetre can fill this blue rectangle



guess - 32

actual - 32 squares.

Q34 Look at the picture. Can you divide it into 4 equal pieces? Each piece should have the same number of squares.

yes, we can divide it into 4 equal pieces.

$4\overline{)12}(3$

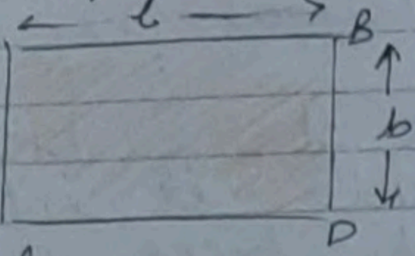
$\frac{12}{\times}$

Puzzle: A house and the well

In the above picture we have divided the land equally among four children so that each one get one house and is able to use the well without entering other's land.

Important questions.

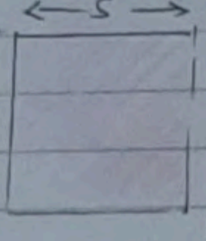
Rectangle opposite sides equal & parallel



$AB = CD = l$
$AC = BD = b$

area = $l \times b$. [Length × Breadth]
perimetre = $2(l+b)$

Square opposite side parallel all sides equal.



$AC = AB = CD = BD$

area = $side^2$
perimeter = $4 \times side$

Find area & perimeter of sq/rt.

5 cm
ar = 5×5
$= 25\ cm^2$
pr = 4×5
$= 20$ cm

7 cm
ar = 7×7
$= 49\ cm^2$
pr = 4×7
$= 28$ cm

length = 5, breadth = 7 for rectangle
ar: $5 \times 7 = 35\ cm^2$
pr: $2(5+7) = 2(12) = 24$ cm

1. A square has a four equal side
2. The opp sides of a rectangle are of the same length.
3. A circle has no corner.
4. The total length of all sides of any shape is called its boundary.
5. The length of 3 sides of a triangle is 8 cm each. The perimeter is (8 cm + 8 cm + 8 cm) = 24 cm.
6. Total length of sides of a square is 40 cm. The length of each side is $4 \times side$ = perimeter
$4 \times side = 40$
$side = 10$ cm.

Find the cost of fencing a sq park side 175 m at the rate of Rs 30 per metre.
$4 \times side$ = boundary
$4 \times 175 = 700$ mts.
cost of fencing $- 700 \times 30 = 21000$ Rs.

SMART CHARTS

Text book questions.

Q1 How many hours?

* Note the time you spend in front of a TV or radio everyday. Do this for one week. The time spent in a week is 7 hours.

So in a month you spend about $30 \times 7 = 270$ hours.

* Find out from your friends the time they spend in a week.

More than 6H	5
Six hours	7
Five hours	4
Four hours	10
Three hours	12
Two hours	15
one hour	8
Zero hour	1

Watching TV/ Listening to the radio...

5 children spend more than 6 hours in a week.
1 children spends no time at all.
Most children spend 2 hours in a week.
6 children spend more than 3 hours. (5+7+4+10+12+15+8)

Q2 Ask people in your family to name one programe they like and one programme they dislike. Make a table

Family member	Programme they like	Programe they dislike.
Mother	Songs	SERIALS
Father	Songs	NEWS
Brother	Songs	MOVIES
		MOVIES
		SPORTS
		MOVIES
		DISCOVERY

The kind of programme most family members like.
songs.

The kind of programme most family members dislike.
Nil.

Q3 Find out from 20 friends the programmes they like and dislike and write in table.

Kind of programme	Number of children liking it	Number of children dislike
News	1	19
Serials	2	18
cartoons	10	10
Comedy	5	15
Sports.	2	18

Which kind of programme is liked by most children?
cartoons

Which kind of programme is disliked by the least number of children.
cartoons.

How many children like sports programmes?
two.

Is there any kind of programme not liked by any one?
Yes/NO If yes, which one? NO.
NO.

Q4 Which word comes most often in the poem?
The word which comes most often in the poem is I.

Q5 Which letter has been used most?
The letter 'E' has been used most in the poem.

Q6 Which letter comes the least?
The letter 'Q', 'X', 'J', 'P', 'Z'.
not used in poem
letter 'b' and 'v' appears only once.

Q7 Take a paragraph you like from your language textbook Read carefully and find out.
" Hiawatha was a red Indian boy, who lived with his grand mother". His grandmother is old.

which word comes most often.
word 'his' - twice
grandmother - twice
which word comes least often.
All the words comes only once except 'his' and 'grand mother'.

The letter used most often is.
letter 'a', 'd' and I.

The letter used least often.
lets draw the table

A	6 times	L	1
B	1	M	2
C	0	O	3
D	6	P	0
E	5	Q	0
F	0	R	3
G	2	S	0
H	5	T	3
I	6	U	0
J	0	V	0
K	0	W	3
		X	0, 4-1, 2-0

letters C, F, J, K, O, P, Q, S
U, V, X, Z are not
been used at all used
least. (not used least)
However letter B, L, Y have
been used once.
used least - B, L, Y.

Q8 Find out from your classmates and fill the table:

Main food	Num of persons
Rice	10
Wheat	30
Maize	10
Barley	5
Ragi	5
Millets	5
Gram	5

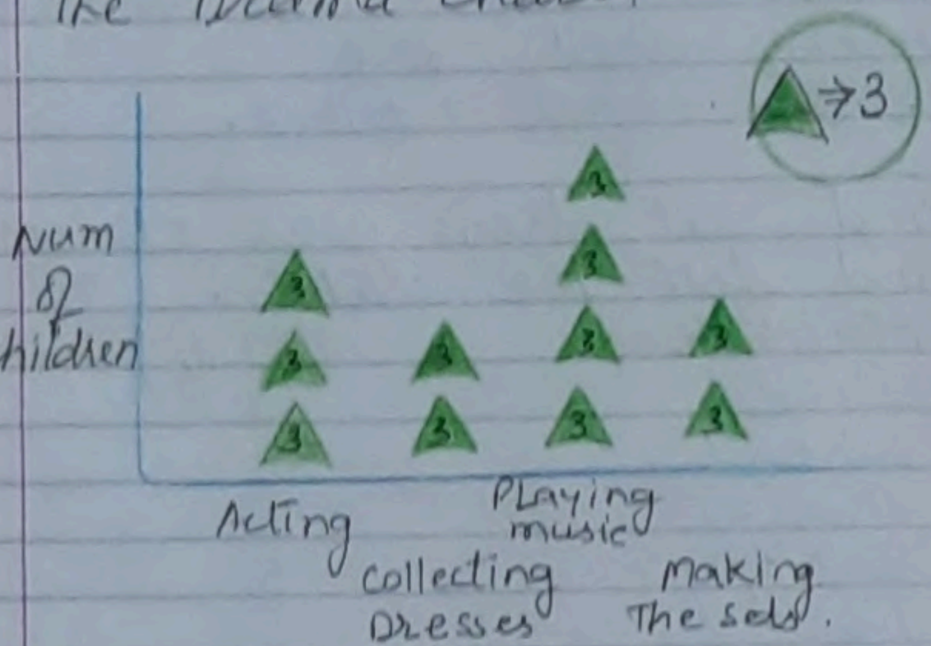
Most children eat food made from wheat.

compared to children who eat rice, those who eat wheat are more / less / equal

Page No. 234
Date
YOUVA

compared to those who eat wheat. children eating ragi are more / less ✓

Q9 The Drama chart.

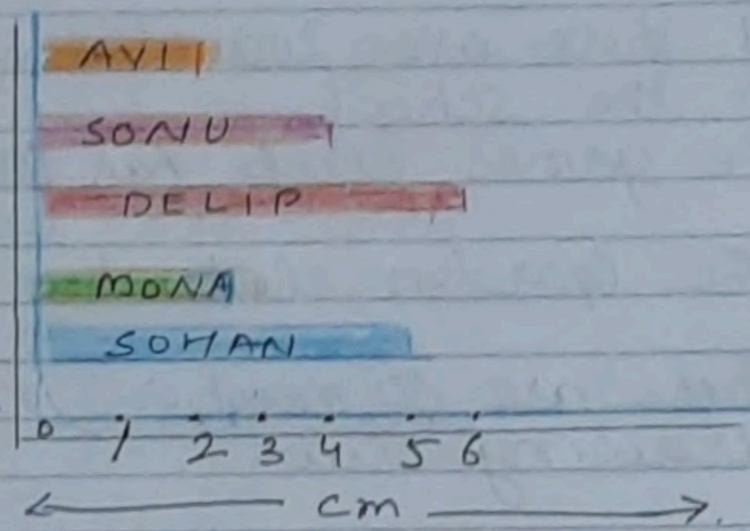


How many children are acting in the drama?
9 children

Which are more - children making the sets or those acting?
acting; because only 6 are making sets but 9 are acting.

What is being done by most of the children?
Playing music by 12 children.

How many children are collecting dresses?
6 children are collecting dress.



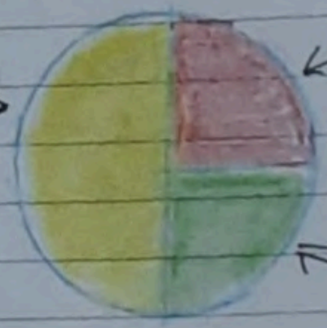
The length of the longest strip is 6 cm.

So Delip is the biggest heat

The smallest strip is 2.5 cm long. It belongs to AVI.

Page No: 236
Date:
YOUVA

Q10 Half the children in the class take part in the Games club.....



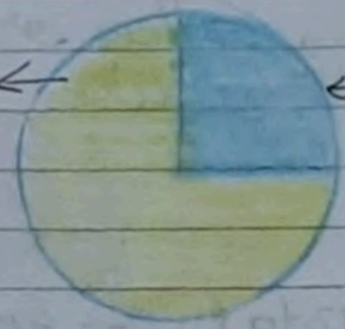
(a) If there are 200 students in the school
The games club has 100 members

(b) The Garden club has 50 members

(c) There are 50 members in the drawing club.

Q11 How many children like to get wet in the rain?
(a) Half (b) one-fourth (c) Three-fourth.

How many children do not like to get wet in the rain?
(b) one-fourth



If the number of children in the class is 28, Then tell the number of children.

who like to get wet in the rain.
Total = 28
Like rain = 3/4
$\therefore 28 \times \frac{3}{4} = 21$

who do not like to get wet in the rain.
Total = 28.
do not like rain = 1/4
$28 \times \frac{1}{4}$
$= 7$

Q12 Some children were asked which of these they liked

most - Tea, coffee or milk.

The drink they like	Number
Milk	20
coffee	10
Tea	10

Total — 40.

(a) children who like milk are $\frac{1}{2}$ / $\frac{1}{4}$ of the total children.

(b) children who like coffee are $\frac{1}{2}$ / $\frac{1}{4}$ of the total children.

Show the liking for Tea. coffee or milk in a chapati chart.

Important questions.

Tally marks.

Draw the tally marks for the following.

III	= 3	IIII	= 11
IIII	= 5	IIII II	= 7
IIII III	= 8	IIII IIII IIII	= 15

7	IIII II	9	IIII IIII
13	IIII IIII III	21	IIII IIII IIII IIII I
19	IIII IIII IIII IIII	26	IIII IIII IIII IIII IIII I

Addition in tally mark.

IIII III + IIII II

= IIII IIII IIII

IIII IIII and IIII IIII IIII IIII

= IIII IIII IIII IIII IIII IIII

Subtraction in tally mark

III from IIII II

II

IIII IIII II from IIII IIII II

NIL (there is no tally mark for Zero)

ROMAN to TALLY MARK

I	I	V	IIII	IX	IIII IIII
II	II	VI	IIII I	X	IIII IIII
III	III	VII	IIII II	XI	IIII IIII I
IV	IIII	VIII	IIII III	XII	IIII IIII II