

WHERE TO LOOK FROM

Textbook questions

Have you looked at things from different sides?

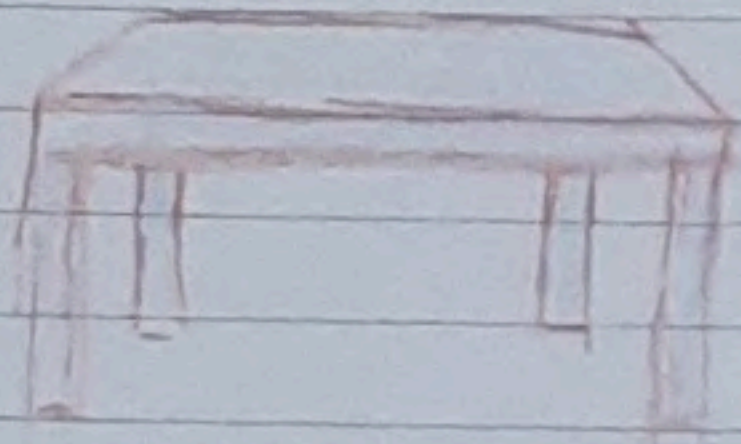
Do they look the same or different?

Yes, I have looked.

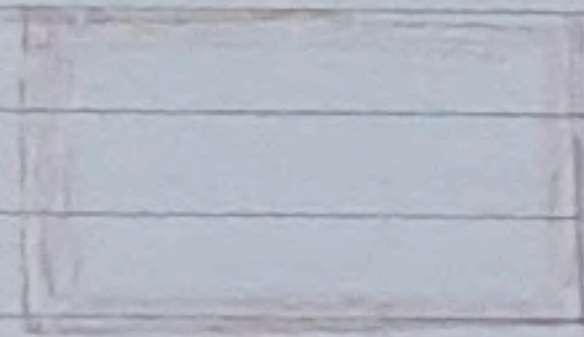
They look different.

Look at the pictures drawn here. How does the table look from the side?

Which picture is from the top?

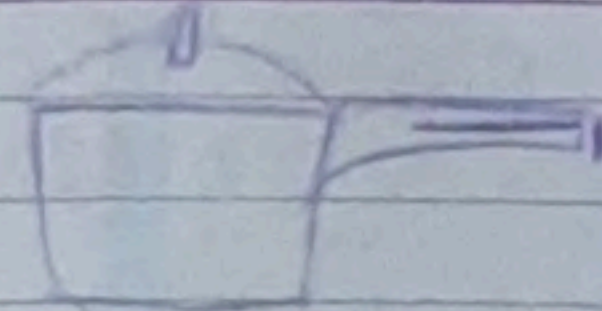


Side view

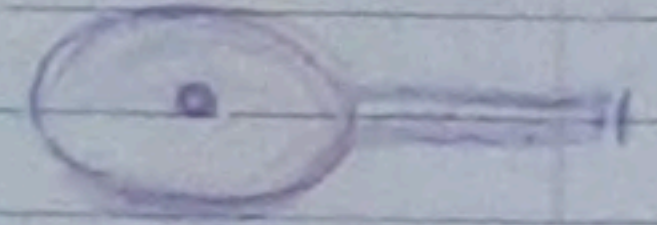


Top view

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



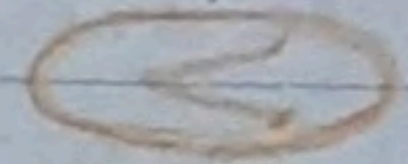
Side view



Top view



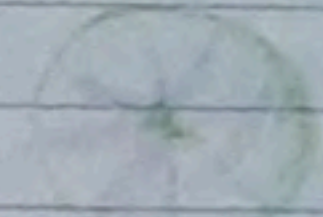
Side view



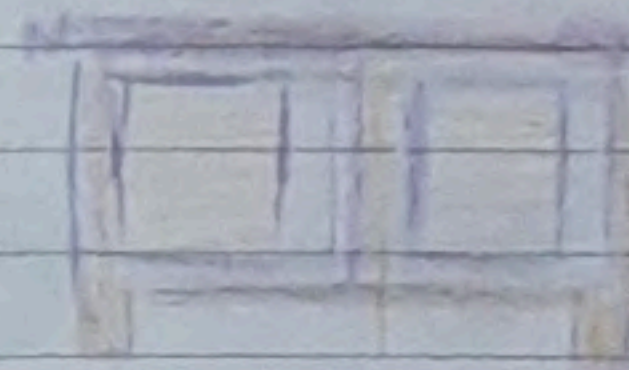
Top view



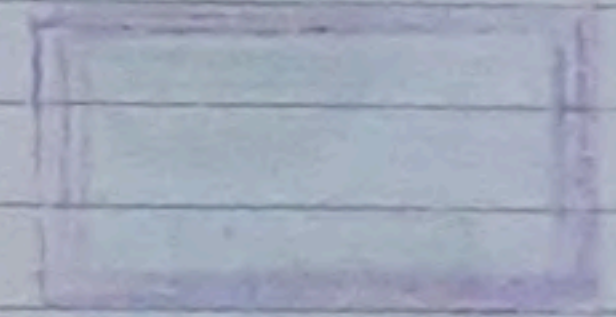
side view



Top view



side view

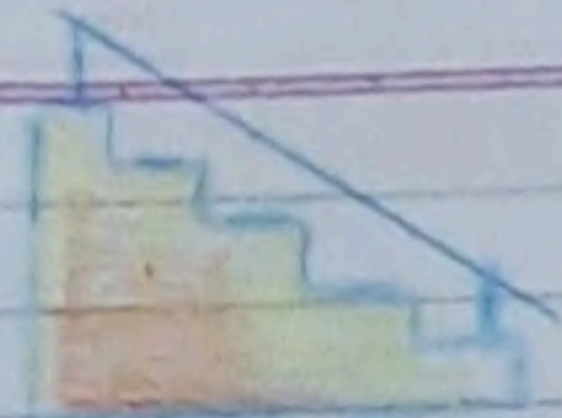


Top view

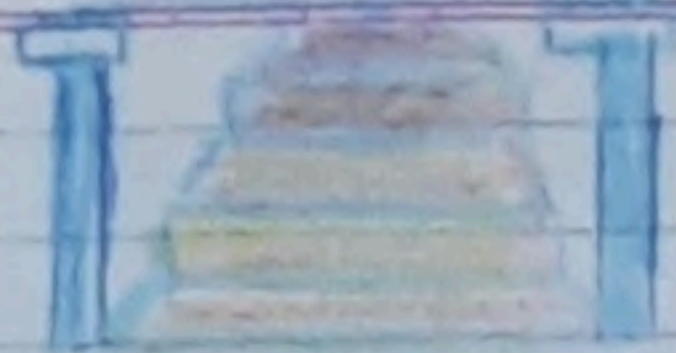
A cat is peeping into a classroom. Can you help her find out where the teacher is?

Yes, the teacher is sitting on the chair opposite to children.

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



Stair case
Side view



Stair case
front view



Table
Top view



Chair
side view



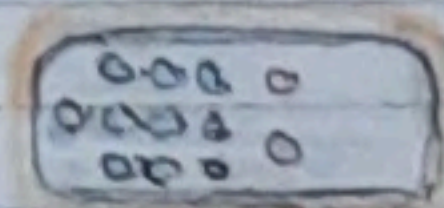
Pencil
Top view



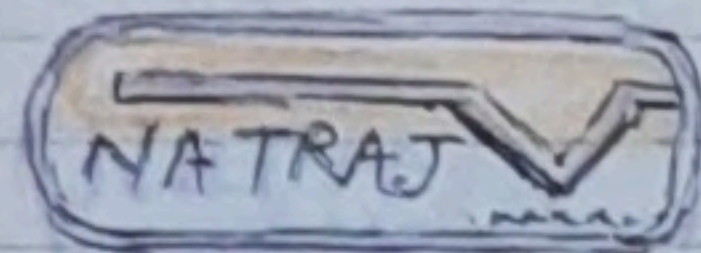
Bus
side view

Draw top views of a few things and ask your friends to guess.

TOP VIEW:



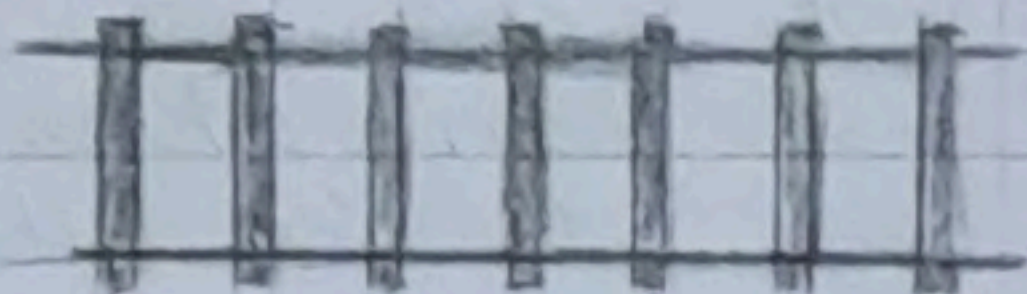
MOBILE



GEOMETRY BOX



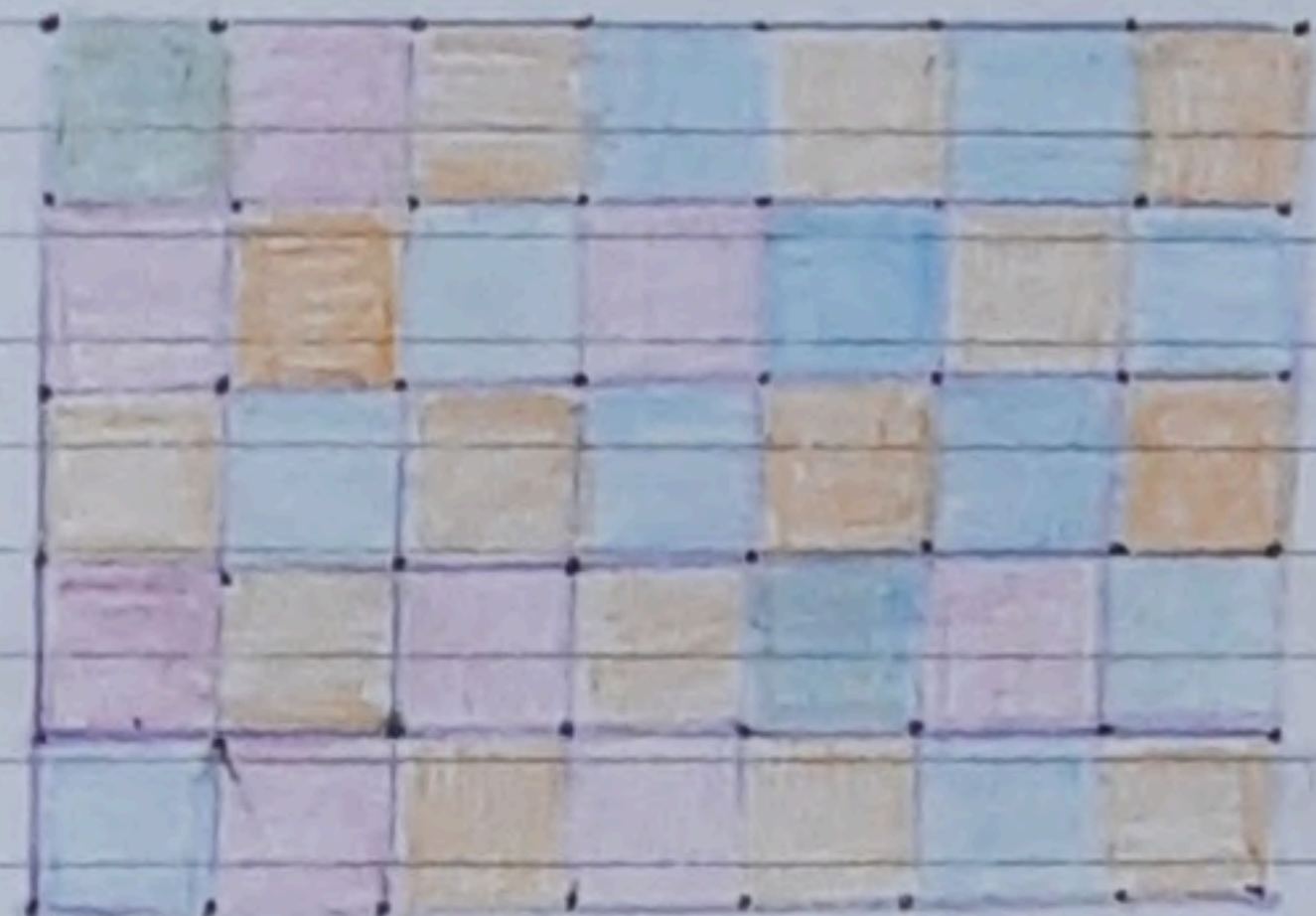
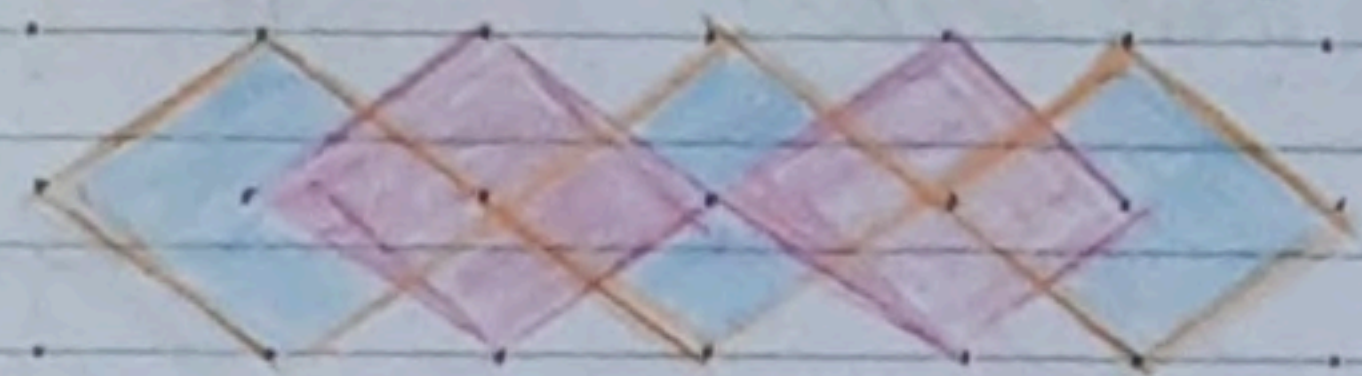
Boy



Railway Track

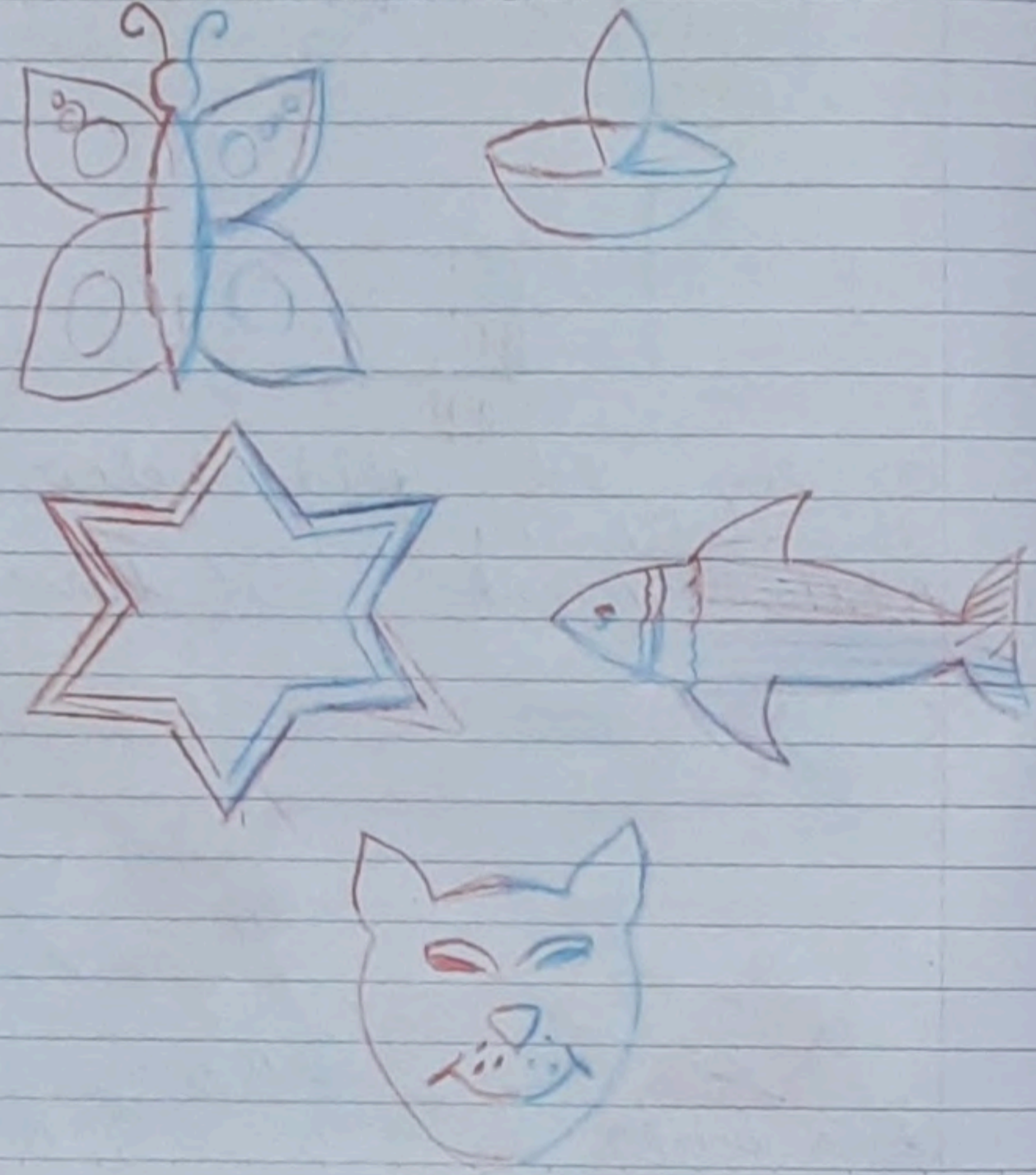
Have you ever made a rangoli? Yes, on diwali we make rangoli.

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

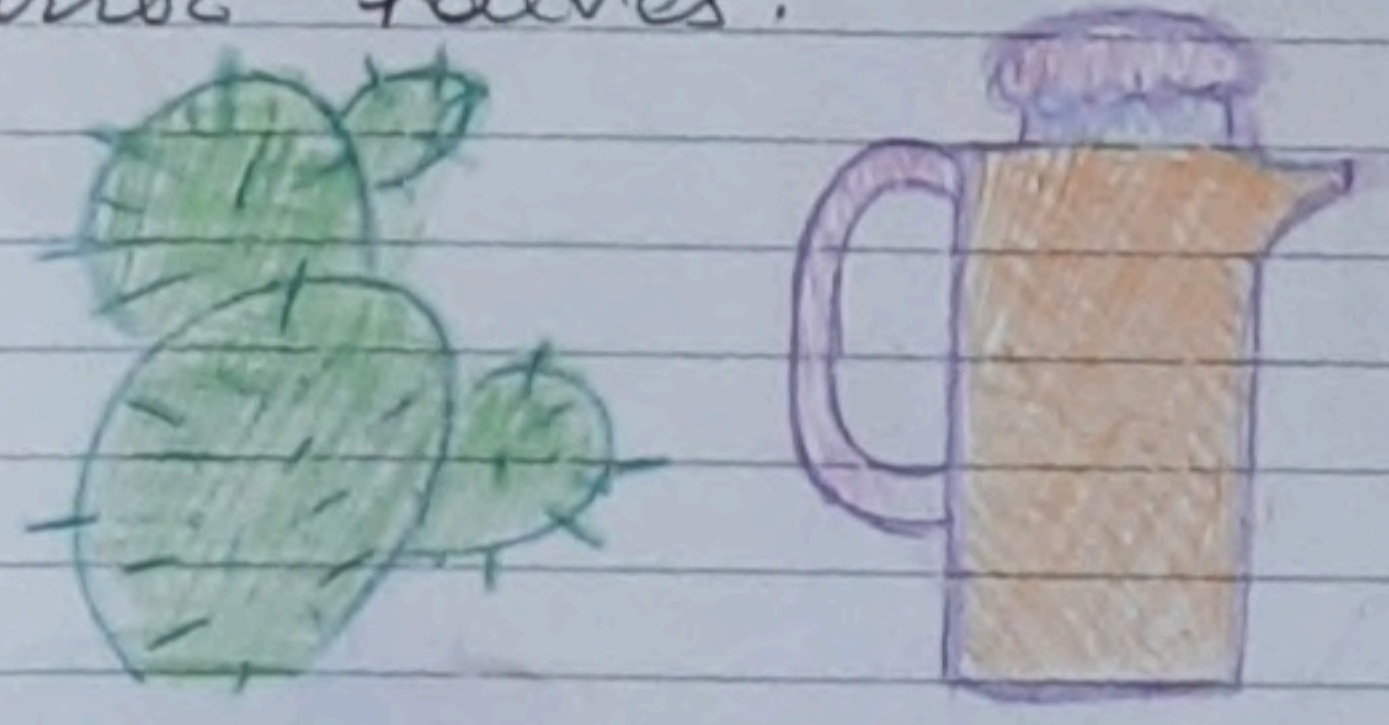


2 Use the dot grid given below to draw your own design and shapes.

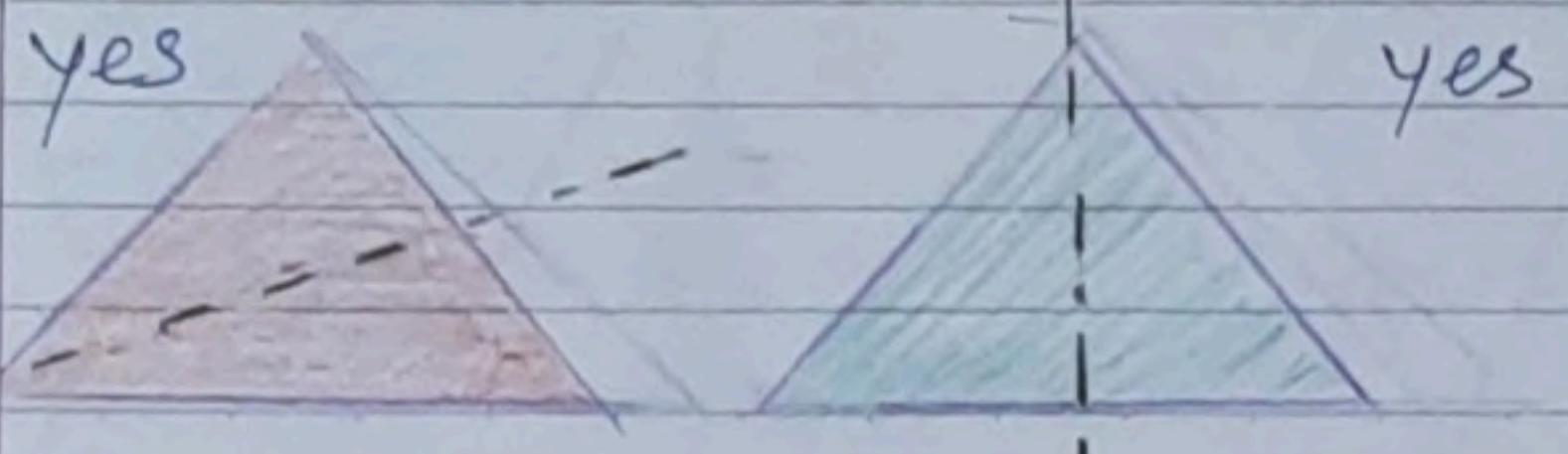
The painter had made many such pictures in which he draw only half of the things. Draw the other half of these pictures and find out what these things are. Try doing it with mirror.



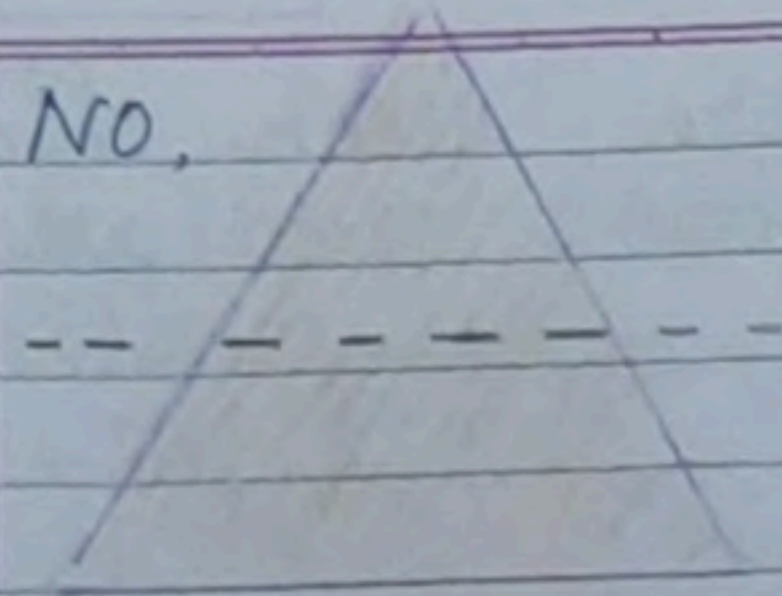
Draw three more such things which do not have similar mirror halves.



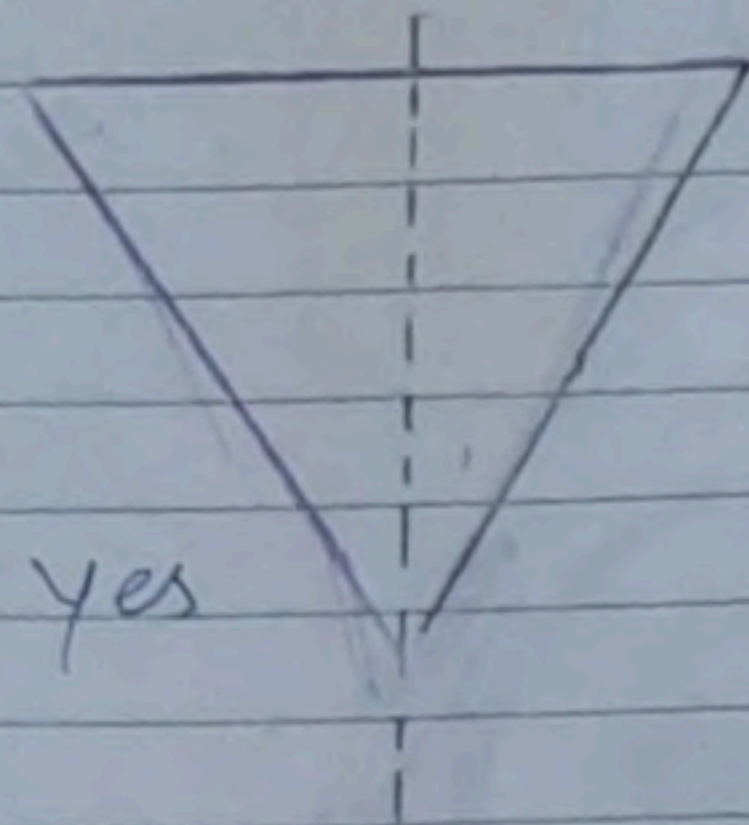
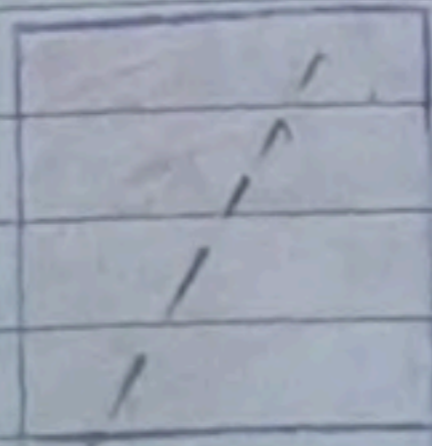
Mirror halves.
Look at the picture given below. Does the dotted line divide each picture into two similar mirror halves?



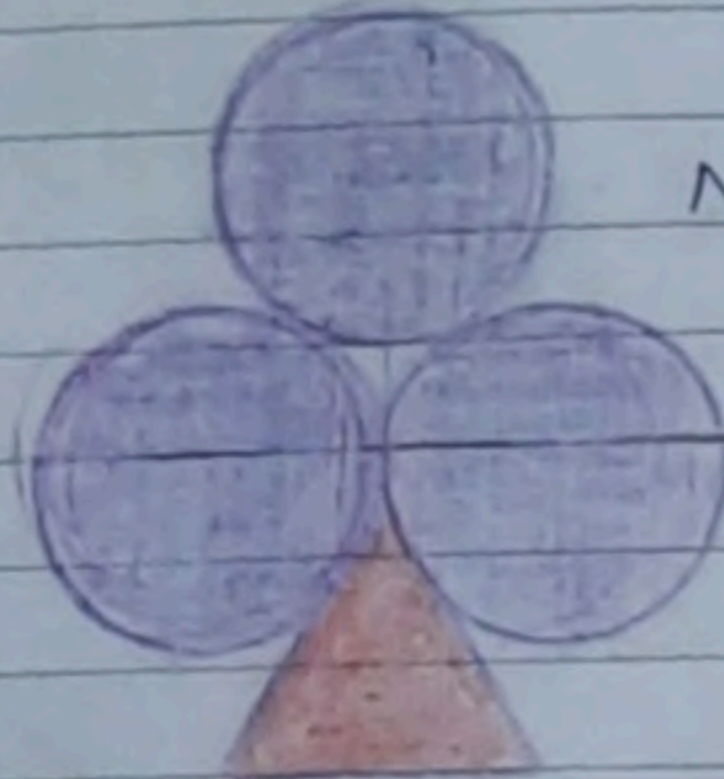
NO,



NO,

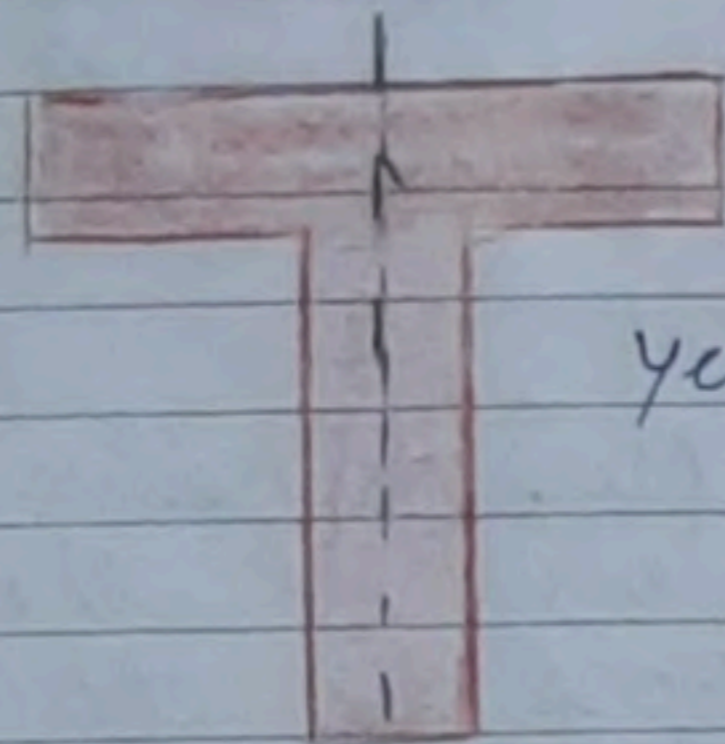
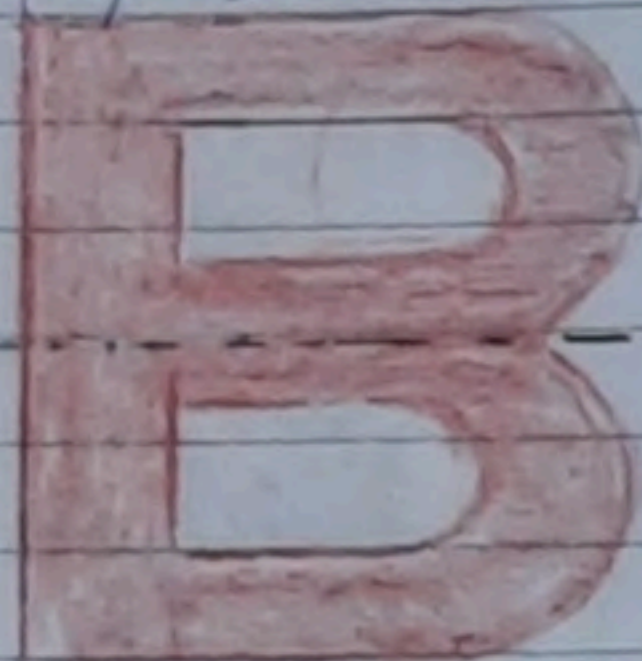


yes



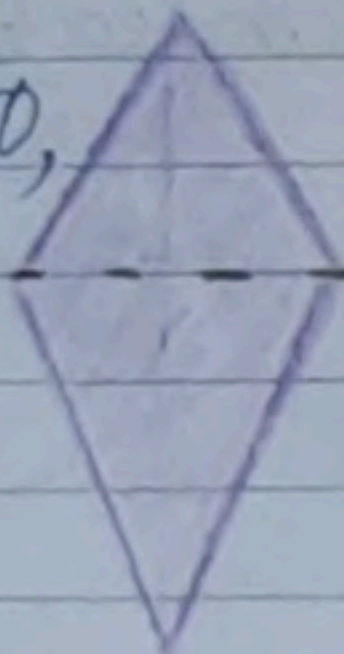
NO

yes

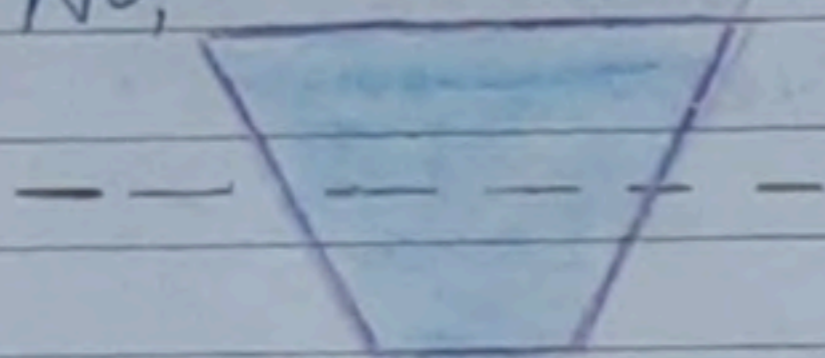


yes

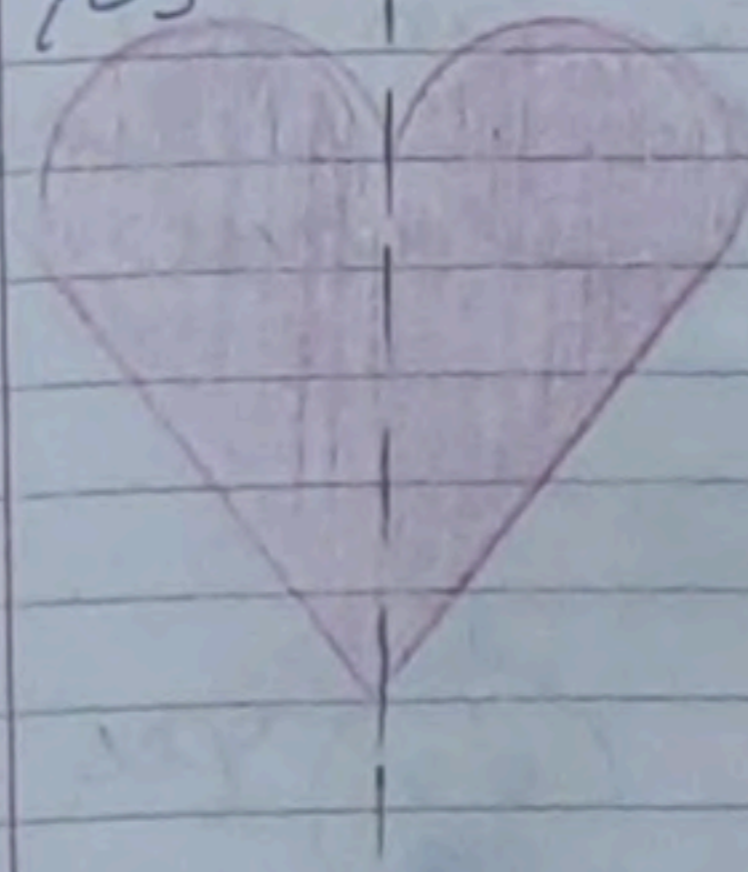
NO,



NO,



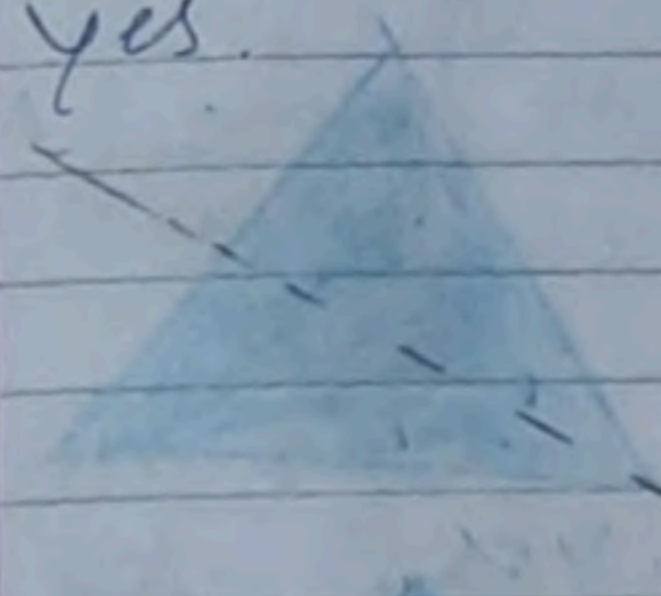
yes



yes



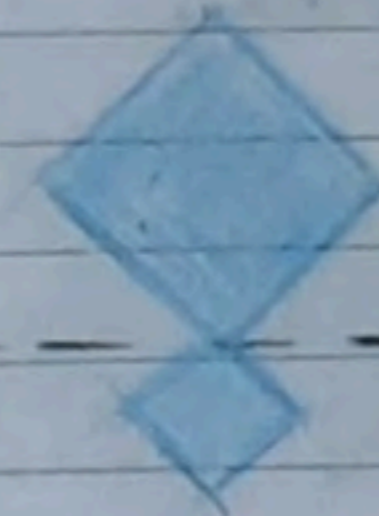
yes



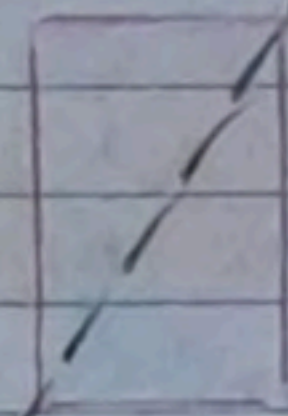
yes



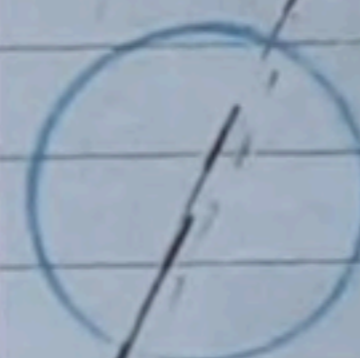
NO,



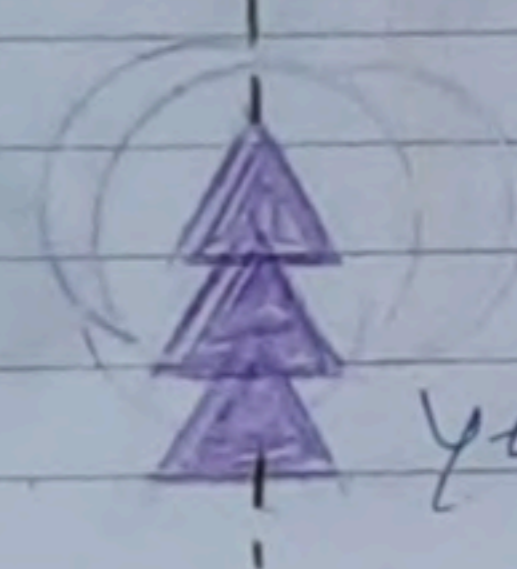
NO,



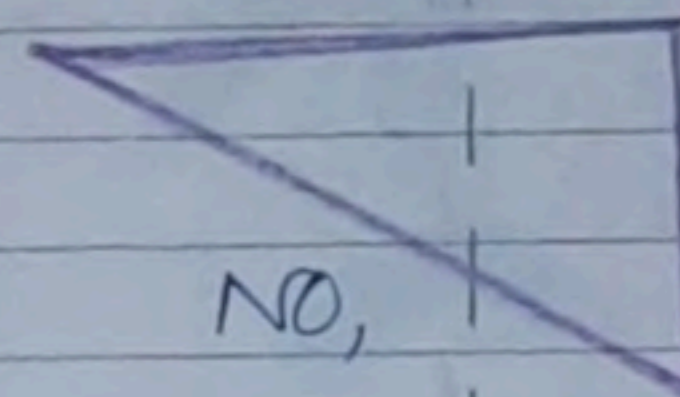
Give some more examples



yes



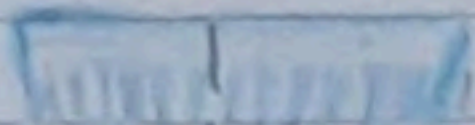
yes




NO,

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

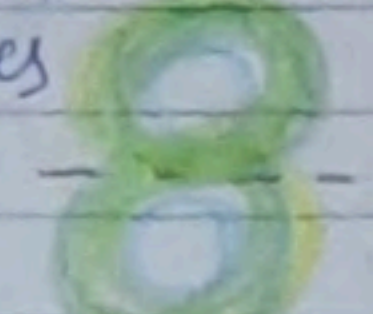
yes



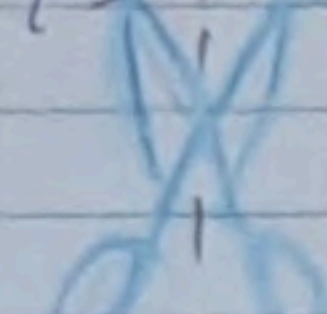
yes




yes




yes




yes



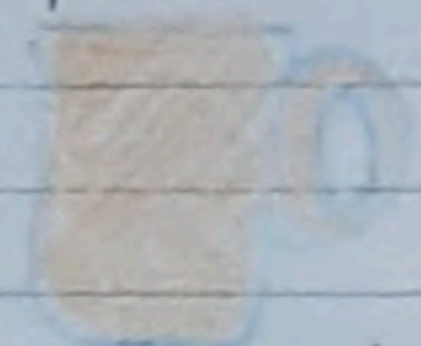
NO,




yes




NO



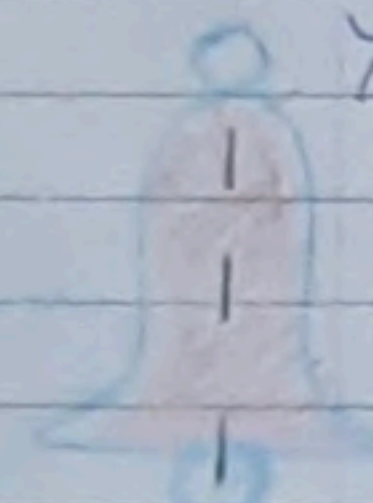
yes



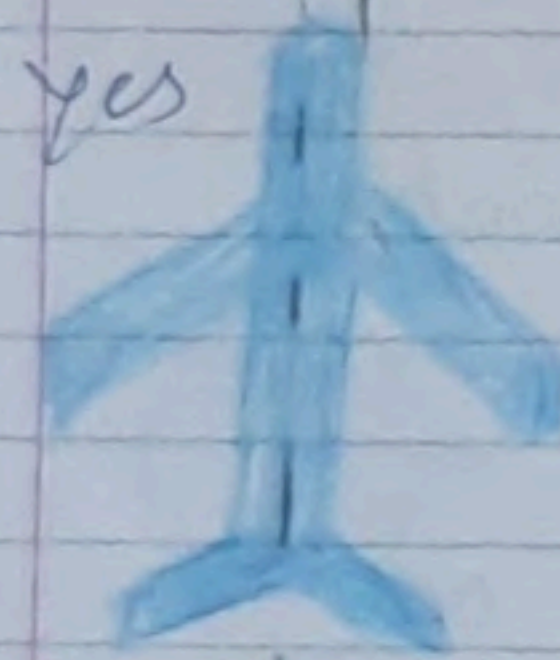
yes



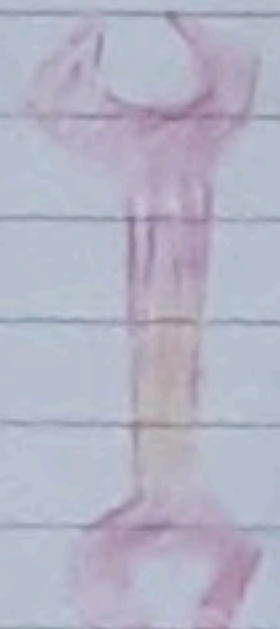
yes



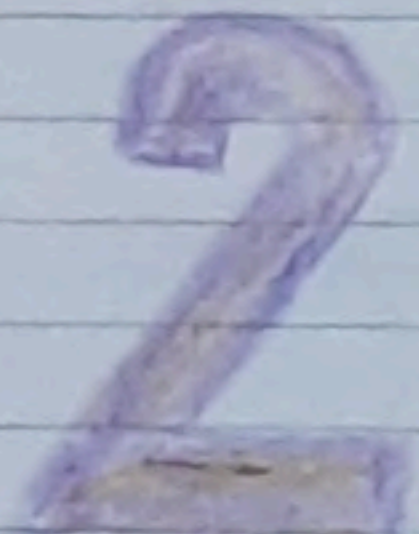
yes



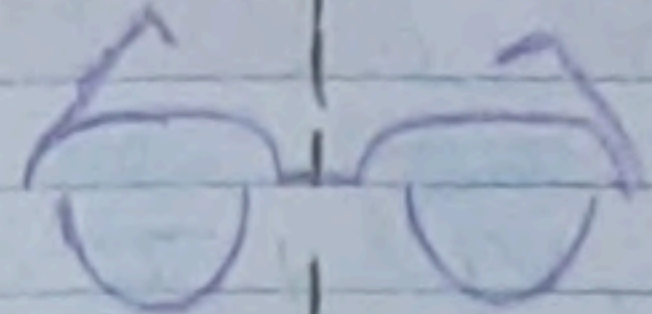
NO,




NO




yes




yes



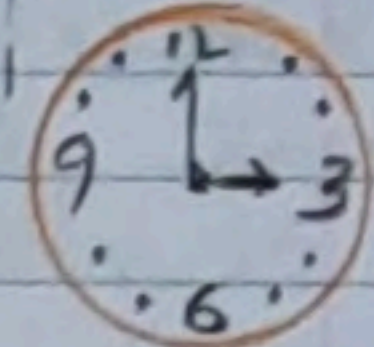
NO



NO



NO



can you guess these letters from their halves?
 Yes. A, C, H, U, B, K

Guess the words by looking at their halves!
 HOW, WAX, COOKED, RICE

Extra questions

write	counting	1 to 20 in words
one	seven	fourteen
Two	Eight	Fifteen
Three	nine	sixteen
four	Ten	seventeen
Five	Eleven	Eighteen
Six	Twelve	nineteen
	Thirteen	Twenty.

FUN WITH NUMBERS

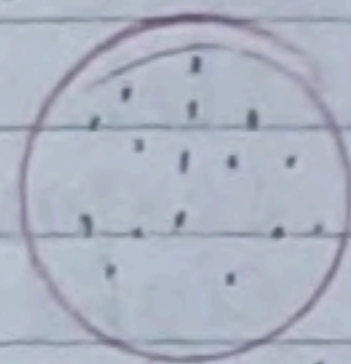
Radhika, Gauri, Vicky, Indra and Sunil were collecting Imli (Tamarind) seeds.

Radhika	24
Gauri	47
Sunil	38
Indra	54
Vicky	42

- 1) Indra collected the most seeds.
- 2) Sunil will collect four more seeds to be equal to Vicky.
- 3) If Radhika gets 6 more seeds, she will have thirty seeds.
- 4) How many children have more than 40 seeds Three.
- 5) Gauri needs 3 more seeds to have 50.
- 6) Sunil has 2 seeds less than

40 and Vicky has 2 seeds more than forty.

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



guess - 15
counted - 16

Dhoni's century
Dhoni scored $96 + 6 = 102$ runs

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

	Runs scored	runs required
Player 1	93	$93 + 7 = 100$
Player 2	97	$97 + 3 = 100$
Player 3	89	$89 + 11 = 100$
Player 4	99	$99 + 01 = 100$

Fill in the blanks —

99-112

Number in figures	Number in words
99	Ninety-nine
100	one hundred
101	one hundred one
102	one hundred two
103	one hundred three
104	one hundred four
105	one hundred five
106	one hundred six
107	one hundred seven
108	one hundred eight
109	one hundred nine
110	one hundred ten
111	one hundred eleven
112	one hundred twelve
195	one hundred ninety-five
196	one hundred ninety-six
197	one hundred ninety-seven
198	one hundred ninety-eight
199	one hundred ninety-nine
200	Two hundred
201	Two hundred one
202	Two hundred two
203	Two hundred three
204	Two hundred four

205 Two hundred five
 206 Two hundred six

oh 206! Guess how many more
 to make a triple century?
 Triple century = 300
 $\therefore 300 - 206 = 94$ Answer.

Top ten scores in the cricket
 world cup.

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

CK just missed his century
 How many runs did he
 need to make a century
 $100 - 99 = 1$

A.S and C.K scored almost
 equal runs.

A.S scored a complete century

no less, no more.

most runs scored by any batsman are M.D

A.S and C.K have a difference of just 1 run between them.

K.S.P scored 2 more than one and a half century.

Counting in 10's

10	110	310	710
20	120	320	720
30	130	330	730
40	140	340	740
50	150	350	750
60	160	360	760
70	170	370	770
80	180	380	780
90	190	390	790
100	200	400	800

Counting in 50's
 200 550
 250 600

300	650
350	700
400	750
450	800
500	850

How far can you go like this?
 we can go on to infinity
 there is no end to these numbers.

What is the biggest number you can call out?
 since, the count will not end so we cannot call that number.

Colour the numbers.

744	810	45	401	54
555	374	171	261	159
656	140	179	891	16
195	155	410	159	685
454	136	60	74	699
800	445	642	202	943

Jumping animals.

Bunny's tenth jump is on number

Bunny jumps every 5th box.
Tenth jump will be $5 \times 10 = 50$,

Bunny starts from = 99.

Tenth jump added = $99 + 50$
= 149.

Tarrus's tenth jump is on num.

Tarrus jumps every 4th box.

Tenth jumps means = $4 \times 10 = 40$
start point = 106.

Tenth jump will be on = $106 + 40$
= 146.

Gabru and bunny both jump
on numbers 104, 139 and 174

Gabru jump every 7th box.

starting from = 90.

Jump 1 = $90 + 7 = 97$

2 = $97 + 7 = 104$

3 = $104 + 7 = 111$

4 = $111 + 7 = 118$

5 = $118 + 7 = 125$

6 = $125 + 7 = 132$

7 = $132 + 7 = 139$

8 = $139 + 7 = 146$

9 = $146 + 7 = 153$

$$10 = 153 + 7 = 160$$

$$11 = 160 + 7 = 167$$

$$12 = 167 + 7 = 174$$

$$13 = 174 + 7 = 181$$

$$14 = 181 + 7 = 188$$

$$15 = 188 + 7 = 195$$

Bunny jumps every 5th (step) box.
starting from 99

Jump 1 = $99 + 5 = 104$

2 = $104 + 5 = 109$

3 = $109 + 5 = 114$

4 = $114 + 5 = 119$

5 = $119 + 5 = 124$

6 = $124 + 5 = 129$

7 = $129 + 5 = 134$

8 = $134 + 5 = 139$

9 = $139 + 5 = 144$

10 = $144 + 5 = 149$

11 = $149 + 5 = 154$

12 = $154 + 5 = 159$

13 = $159 + 5 = 164$

14 = $164 + 5 = 169$

15 = $169 + 5 = 174$

Box where Gabru + bunny meet
are 104, 139, 174 etc.

Gabru's tenth jump will be on number

Gabru jumps every = 7th Box
 10th jump means = $10 \times 7 = 70$
 start point = 90
 Tenth jump will be on = $90 + 70$
 = 160

Find out.

Taru and Bunny jump on numbers. (Taru jumps every 4th Box)

Taru: start 106.

$$\text{1st jump } 106 + 4 = 110$$

$$110 + 4 = 114$$

$$114 + 4 = 118$$

$$118 + 4 = 122$$

$$122 + 4 = 126$$

$$126 + 4 = 130$$

$$130 + 4 = 134$$

$$134 + 4 = 138$$

$$138 + 4 = 142$$

$$142 + 4 = 146$$

Taru jumps on Boxes

106, 110, 114, 118, 122, 126, 130, 134

138, 142, 146, 150, 154, 158, 162, 170, 174

Bunny jumps

99, 104, 109, 114, 119, 124, 129, 134, 139

144, 149, 154, 159, 164, 169, 174

Is there any number where all three of them jump? 174.

Taru

106, 110, 114, 118, 122, 126, 130

134, 138, 142, 146, 150, 154, 158, 162

170, 174.

Bunny

99, 104, 109, 114, 119, 124, 129,

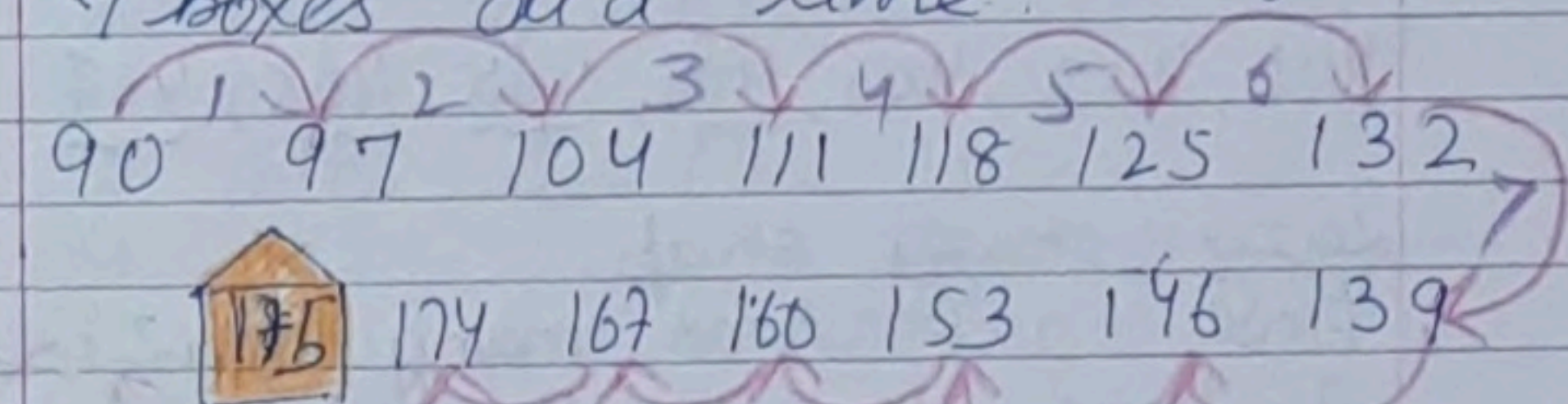
134, 139, 144, 149, 154, 159, 164, 169, 174.

Gabru

90, 97, 104, 111, 118, 125, 132, 139, 146, 153

160, 167, 174, 181, 188, 195.

Guess who will finish in the least jumps? How many jumps?
 Gabru will finish in least jumps as he is jumping 7 boxes at a time.



In 12 jumps (12) 11 10 9 8

class Jump

Jump 2 steps forward: (+2)
 104, 106, 108, 110, 112, 114, 116.

Jump 2 steps backward: (-2)
 262, 260, 258, 256, 254, 252, 250.

Jump 10 steps forward: (+10)
 110, 120, 130, 140, 150, 160, 170.

Jump 10 steps backward.
 200, 190, 180, 170, 160, 150, 140.

Continue the pattern.
 550, 560, 570, 580, 590, 600, 610

910, 920, 930, 940, 950, 960, 970, 980

209, 207, 205, 203, 201, 199, 197

401, 402, 403, 404, 405, 406, 407

Lazy crazy shop.

Find out how many packets of tens, hundreds and loose items each animal will

take. Fill in the blanks.

143	Packets of 100.	Pac of 10	Loose items.
143	one	four	Three
210.	Two	one	none
242	Two	four	Two
552	Five	Five	Two

Now, find out how they will pay him for what they have taken.

Rs 420:

4 notes of Rs 100 (4x100 = 400)

2 notes of Rs 10 (2x10 = 20)

Rs 143:

1 note of Rs 100

4 notes of Rs 10

3 coins of Rs 1

Rs 242

2 note of Rs 100

4 notes of Rs 10

2 coins of Rs 1

Rs 55

5 notes of Rs 10

5 coins of Rs 1

Who am I? match with the number.

(a) I come between 40 and 50 and there is a 5 in my name : 45

(b) I have 9 in my name and am very close to 90 : 89

(c) If you hit a 4 after me, you score a century : 96

(d) I am equal to 10 notes of 10 : 100

(e) I am century + half century : 150

(f) I am exactly in between 77 and 97 : 87

How many are there?

- (b) $200 + 40 = 240$
 (c) $100 + 100 + 100 + 10 + 9 = 319$ sticks
 (e) $100 + 100 + 10 + 2 = 212$ blocks
 (a) $100 + 10 + 10 + 10 + 8 = 138$ beads

(e) $100 + 100 + 100 + 10 + 10 = 320$ Rs.

Moon Mama counts his starry friends.

$\triangle \triangle \triangle \triangle \triangle$ how many stars are 5 stars.

Which cards will I have in my pocket if I have counted upto

(a) 19 \rightarrow 10 $\triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle \triangle$

(b) 21 \rightarrow 10 | 10 \triangle

(c) 95 \rightarrow 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | $\triangle \triangle \triangle \triangle$

(d) 201 \rightarrow 100 | 100 | \triangle

(e) 260 \rightarrow 100 | 100 | 10 | 10 | 10 | 10 | 10 | 10

(f) 300 \rightarrow 100 | 100 | 100

(g) 306 \rightarrow 100 | 100 | 100 $\triangle \triangle \triangle \triangle \triangle \triangle$

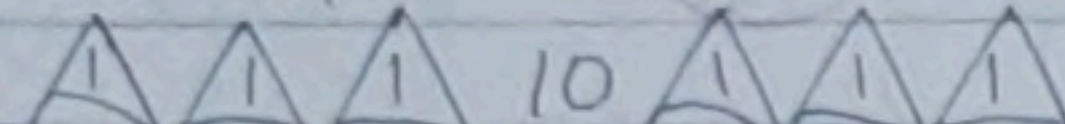
(h) 344 \rightarrow 100 | 100 | 100 | 10 | 10 | 10 | 10 | $\triangle \triangle \triangle \triangle$

(i) 350 → 100 | 100 | 100 | 10 | 10 | 10 | 10 | 10

(ii) 400 → 100 | 100 | 100 | 100

Now, you tell me the number of stars counted in each case write the answer in the blank space.

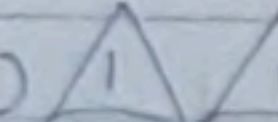
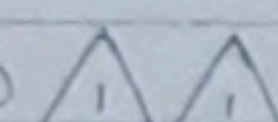
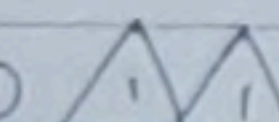
10 | 10 : 20

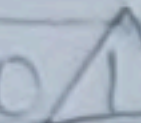
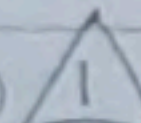

10  : 26


100 | 100 | 100 | 100 : 310

100 | 10 | 10 | 10 : 130

100 | 100 | 100 | 100 : 400

100  100  10  100 : 316

100  100 100  100 100  100 : 603

100 | 10 | 100  100 | 10 | 100 | 10 : 431

100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 : 1000

Extra questions

What is the place value

(a) H T O

6 5 5 6 hundred of 600

(b) TH H T O

2 3 9 8 2 Thousand of 2000

(c) H T O

0 3 2 3 Tens of 30

(d) T O

0 3 3 ones of 3

Smallest 4 digit numeral formed by the digits 8, 0, 6, 7.
 6078

Smallest 5 digit number 40168
 10468

The sum of the place value and face value of 5 in 2548 is
 Place value TH H T O
 500 2 5 4 8
 face value of 5 is 5
 Sum = 500 + 5 = 505

Which number doesnot have predecessor.
 Zero '0'.

GIVE AND TAKE

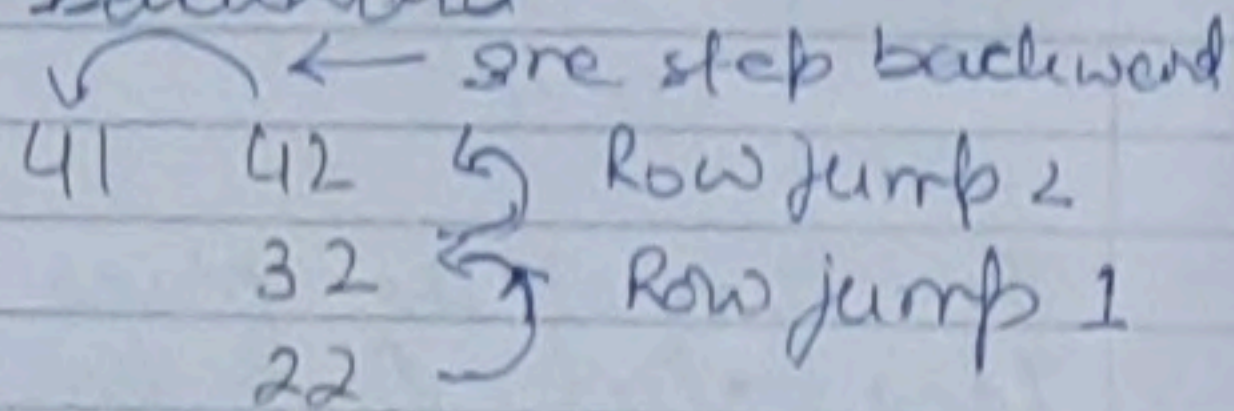
A Jump from 2 to 12 is like taking 10 steps

Note: We were jumping a row not a box. A row has 10 steps. here for kiltu one jump is 10 steps

How many steps did I go in all?

19 steps

Explanation. Kiltu has jumped two rows and then walked a step backward



∴ we know 1 row = 10 steps.

2 Row = 20 steps

1 step backward = 20 - 1

= 19 steps.

Find my food

Try these on kiltu's home,

(a) 10 less than 34 is $(34 - 10) = 24$

(b) $53 - 20 = 33$

(c) 11 more than 31 is = 42

(d) 11 less than 66 is 55

(e) $62 + 13 = 75$

(f) 23 less than 89 is = 66

(g) 10 and 40 more is = 50

(h) 9 added to 28 gives = 37

(i) The sum of 9 and 44 is = 53

(j) Reducing 98 by 34 gives = 64

(k) 4 and 37 more is = 41

(l) Take 35 away from 83. we get

$$\begin{array}{r} 83 \\ - 35 \\ \hline 48 \end{array}$$

48 Answer

Note

less than, Reducing, away, take, take away, these are used to show SUBTRACTION.

more than, added, sum, more, give, these are used to show ADDITION.

$$37 + 9 = \boxed{46}$$

(Here: both the integers are on one side of equation we will solve simply)
How to make integer in equations.

$$66 - \boxed{x} = 11$$

$$- \boxed{x} = 11 - 66$$

$$- \boxed{x} = -55$$

$$\boxed{x} = 55$$

$$36 = \boxed{x} + 9$$

$$36 - 9 = \boxed{x}$$

$$27 = \boxed{x}$$

Here there are two integers +36 & -9 we know + and -

We subtract, but keep the sign of greater value, here it is 36. i.e.

Note

number or digit moves with sign
Remember

$$+ + = +$$

$$+ - =$$

Do minus take sign of the greater number.

$$- + = \text{Add}$$

numbers keep = sign

$$1) \quad 37 + 9 = 46 \quad 45 + 54 = 99$$

$$2) \quad 65 - 30 = 35 \quad 40 + 36 = 76$$

$$3) \quad 67 = 46 + 21 \quad 49 + 26 = 75$$

$$4) \quad 57 = 87 - 30 \quad 98 = 48 + 50$$

$$5) \quad 66 - 55 = 11 \quad 56 - 21 = 35$$

$$6) \quad 36 = 27 + 9 \quad 57 - 37 = 20$$

Adding made Easy

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

$$37 \text{ is } 30 \text{ and } 7$$

$$21 \text{ is } 20 \text{ and } 1$$

So 37 and 21 makes 58

Method used

$$37 + 21$$

$$30 + 7 + 20 + 1$$

$$\underline{30 + 20} + \underline{7 + 1}$$

$$50 + 8$$

$$= 58$$

Note

Easier to count in 10's and single digit

can you do it another way.

$$\begin{aligned} 37 + 22 &= 30 + 7 + 20 + 2 \\ &= 30 + 20 + 7 + 2 \\ &= 50 + 9 \\ &= 59 \end{aligned}$$

$$\begin{aligned} 33 + 56 &= 30 + 3 + 50 + 6 \\ &= 30 + 50 + 3 + 6 \\ &= 80 + 9 \\ &= 89 \end{aligned}$$

$$\begin{aligned} 73 + 24 &= 70 + 3 + 20 + 4 \\ &= 70 + 20 + 3 + 4 \\ &= 90 + 7 \\ &= 97 \end{aligned}$$

mango chilli game

$$\begin{aligned} 56 + 21 &= 50 + 6 + 20 + 1 \\ &= 50 + 20 + 6 + 1 \\ &= 70 + 7 \\ &= 77 \end{aligned}$$

$$\begin{aligned} 33 + 42 &= 30 + 3 + 40 + 2 \\ &= 70 + 5 \\ &= 75 \end{aligned}$$

$$\begin{aligned} 19 + 61 &= 10 + 9 + 60 + 1 \\ &= 70 + 10 \\ &= 80 \end{aligned}$$

$$\begin{aligned} 33 + 27 &= 30 + 3 + 20 + 7 \\ &= 50 + 10 \\ &= 60 \end{aligned}$$

$$\begin{aligned} 55 + 25 &= 50 + 5 + 20 + 5 \\ &= 70 + 10 \\ &= 80 \end{aligned}$$

$$\begin{aligned} 34 + 63 &= 30 + 4 + 60 + 3 \\ &= 90 + 7 \\ &= 97 \end{aligned}$$

$$\begin{aligned} 48 + 42 &= 40 + 8 + 40 + 2 \\ &= 80 + 10 \\ &= 90 \end{aligned}$$

$$\begin{aligned} 53 + 64 &= 50 + 3 + 60 + 4 \\ &= 110 + 7 \\ &= 117 \end{aligned}$$

$$\begin{aligned} 72 + 56 &= 70 + 2 + 50 + 6 \\ &= 120 + 8 \\ &= 128 \end{aligned}$$

let me tell you a story.

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

If the baby lion will go back home?

Has the baby lion eaten up

any animal?

$$\text{Birds + squirrel} = 162$$

$$\text{Deer + rabbits} = 75$$

$$\text{Adding} = \underline{237}$$

$$\text{Total animals were} = 240$$

$$\text{Total animals now} = \underline{237}$$

$$\text{less} = \underline{03}$$

So, the baby lion cannot go home, he has eaten 3 animals.

How many bulbs.

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

How many bulbs did the factory made altogether?

$$\text{Bulbs made 1st day} = 270$$

$$\text{Bulbs made 2nd day} = 123$$

$$\text{Total} = \underline{393}$$

2 A shopkeeper Rafi had 153 candles

Paras gave him 237 more candles. How many candles does Rafi have now?

Rafi had candles and gave him

more candles, we will add.

$$\text{Rafi had} = 153$$

$$\text{Paras gave} = \underline{237}$$

$$\text{The sum is less than } \underline{390}.$$

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

$$\text{people in compartment} = 132$$

$$\text{Another compartment} = \underline{129}$$

$$\text{Total people} = \underline{261}$$

B Shanu found 138 pebbles. Karim found 44 pebbles.

How many pebbles did they find in all?

$$\text{Shanu found pebbles} = 138$$

$$\text{Karim gave him} = \underline{44}$$

$$\text{Total pebbles} = \underline{182}$$

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

Students	Oranges	Mangoes	Total
Girls	138	240	376
Boys	128	243	371
Total	264	483	747

How many students in the school like oranges?
264

How many students in the school like mangoes?
483

Altogether, how many students are there in the school?
747

Is the number of girls more than 350 or less than 350.

$$\begin{aligned} \text{Number of girls} &= 138 + 240 \\ &= 376 \end{aligned}$$

Thus, the number of girls is more than 350.

Practice time

$$\begin{aligned} 345 + 52 &= 300 + 40 + 5 + 50 + 2 \\ &= 390 + 7 \\ &= 397 \end{aligned}$$

$$\begin{aligned} 492 + 29 &= 400 + 90 + 2 + 20 + 9 \\ &= 510 + 11 \\ &= 521 \end{aligned}$$

$$\begin{aligned} 245 + 93 &= 200 + 40 + 5 + 90 + 3 \\ &= 330 + 8 \\ &= 338 \end{aligned}$$

$$\begin{aligned} 643 + 345 &= 600 + 40 + 3 + 300 + 40 + 5 \\ &= 900 + 80 + 8 \\ &= 988 \end{aligned}$$

$$\begin{aligned} 750 + 219 &= 700 + 50 + 200 + 10 + 9 \\ &= 900 + 60 + 9 \\ &= 969 \end{aligned}$$

B.	$\begin{array}{r} 319 \\ 323 \\ \hline 642 \end{array}$	$\begin{array}{r} 304 \\ 406 \\ \hline 710 \end{array}$	$\begin{array}{r} 363 \\ 456 \\ \hline 819 \end{array}$
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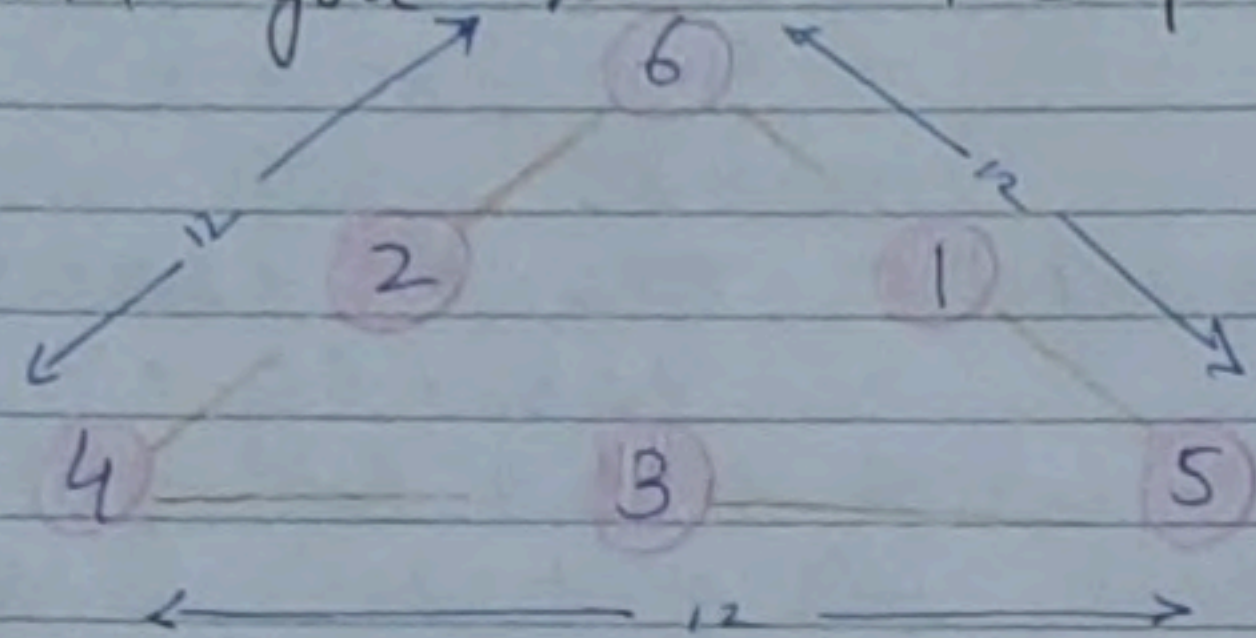
$\begin{array}{r} 427 \\ 248 \\ \hline 675 \end{array}$	$\begin{array}{r} 684 \\ 232 \\ \hline 916 \end{array}$
---	---

Win 5 points.

59	78	83
50 + 9	70 + 8	80 + 3
30 + 29	40 + 38	40 + 43
19 + 40	30 + 48	53 + 30
59 + 0	78 + 0	83 + 0

90	102	168
$90 + 9$	$100 + 2$	$50 + 118$
$60 + 39$	$32 + 70$	$167 + 1$
$70 + 29$	$50 + 52$	$100 + 68$
$69 + 30$	$62 + 50$	$158 + 10$

Can you solve the puzzle?



Find mithun's bag
Do all the sums mentally.

$$75 + 20 = 95$$

$$90 + 60 = 150$$

$$25 + 30 + 3 = 58$$

$$9 + 40 + 31 = 80$$

$$500 + 200 = 700$$

$$400 + 350 = 750$$

$$670 + 120 = 790$$

$$380 + 210 = 590$$

$$205 + 650 = 855$$

$$128 + 600 = 728$$

$$150 + 069 = 219$$

$$87 + 46 + 03 = 86$$

card game.

Place the cards in the right boxes.

50	70	20	50	20	70
$50 + 20 = 70$	$70 - 50 = 20$				
$20 + 50 = 70$	$70 - 20 = 50$				

80	42	12	30	42	12
$30 + 12 = 42$	$42 - 12 = 30$				
$12 + 30 = 42$	$42 - 30 = 12$				

Extra questions

What is an integer?

All positive and negative number including zero is called integer. eg +1, -1, +23, -29, 100 etc. Zero, is an integer which is neither positive nor negative.

What is transposition?

Transposition means shifting of one term from one side of an equation to another side with a change in sign.

LONG AND SHORT

Measure your arm and your mother's arm. What is the difference?
My mother's arm is 5 inches longer than mine.

How many
In how many steps will Dorji cross the road?
Dorji will cross road in five steps.

How many cups can be placed in a line on this table?
I guess, 9 cups can be placed

How many pots can be placed to reach the tree's branch?
Five pots.

How many shirts can be hung on this wire?
Three shirts can be hung.

How much in centimetre (cm)?
The matchstick is 4 cm long.
The die is 1 cm from every side.
The lizard is 13 cm long.
The leaf is 4 cm long.

The wax colour is 7 cm long.

Now, look at a scale that you find in a geometry box. How many cm does it have?
It is 15 cm in length.

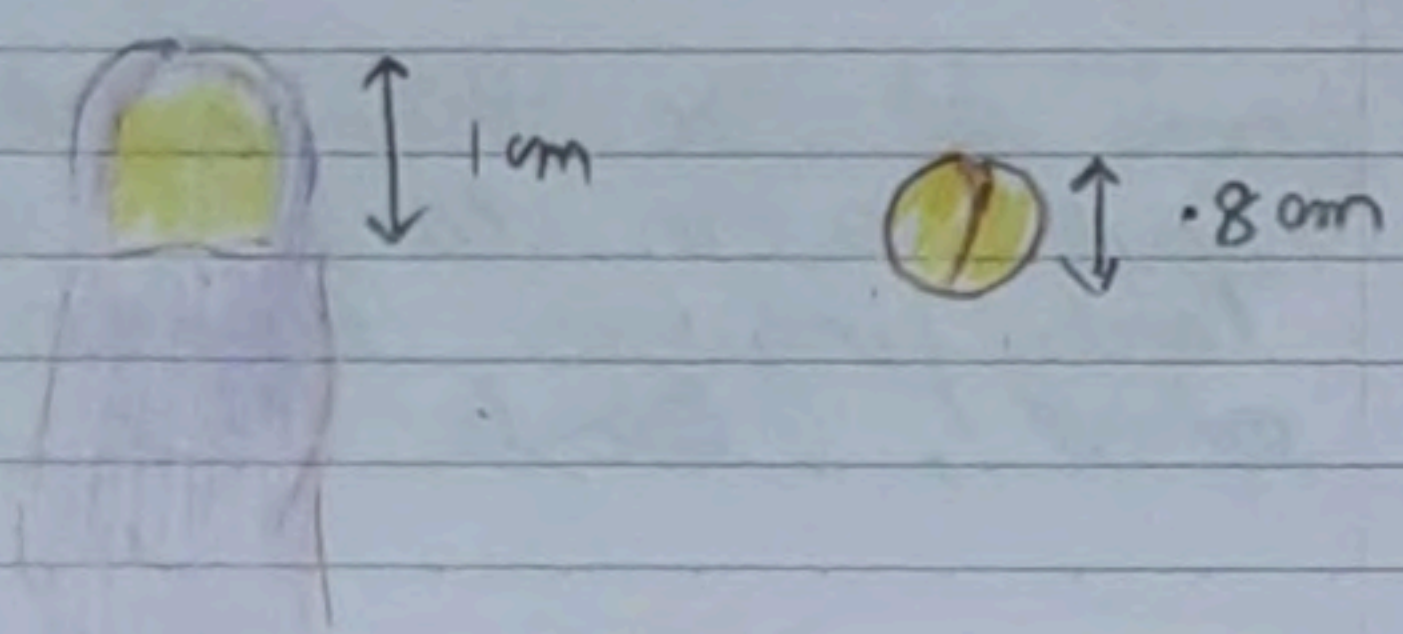
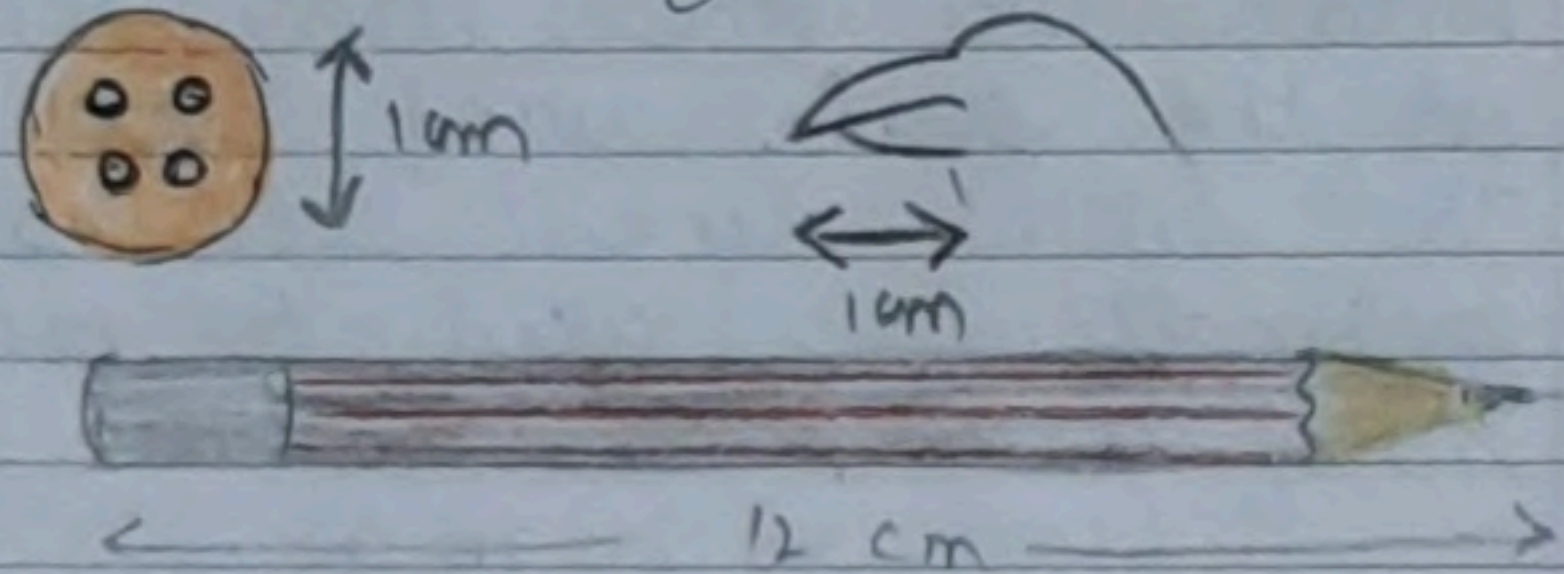
What are the little lines on the scale used for?
The little lines are called millimetre and are used to measure $\frac{1}{10}$ of a cm.
 $1 \text{ cm} = 10 \text{ mm}$

Look at the things that are about 10 cm long.
Lady finger, spoon, mobile glass, table clock etc.

Between 10 and 20 cm long
 Geometry box
 lunch box
 note book
 new pencil
 water bottle etc.

less than 1 cm long
 nail
 chick pea
 Beak of sparrow
 Button etc.

Draw some of them here.



How big is my hand?
 Which is longer? thumb or little finger?
 my little finger is longer.

Guess the length of different parts of your body and check your guess is correct

	my measurement	my friends measurement
Nose	4 cm	5 cm
Around wrist	10 cm	14 cm
Around head	35 cm	34 cm
Ear	4 cm	7 cm
Hand	12 cm	15 cm

Compare your measurement with your friends'.
 Who has the biggest head and who has the smallest head?

Rahul Kapoor has the biggest head. Shiv Khurana has the smallest head in class.

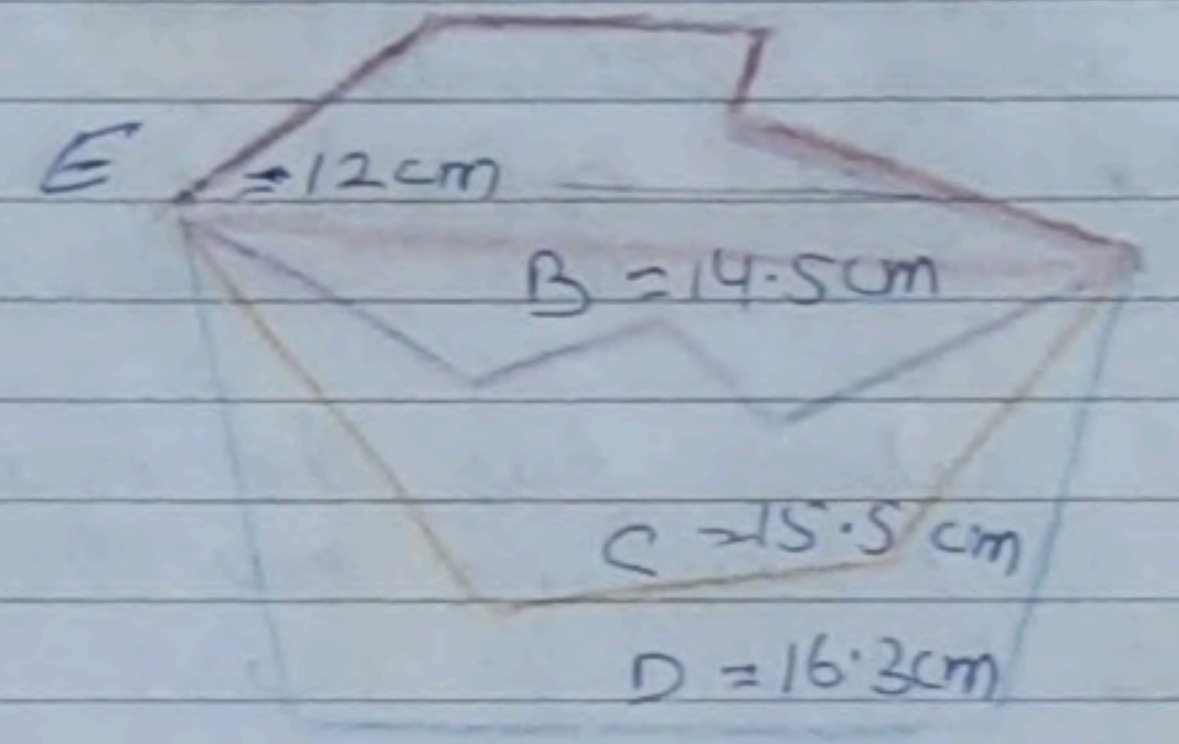
Who has the longest hand
 Shreenivas has the longest

hand 15.5 cm.

Which is longer? your ear or your nose?
 They are equal

Is any of your nails more than 1 cm long?
 No.

Gibli and the Grains.
 Ant Gibli has to reach the grains. She is looking for the shortest road. Can you tell her which is the shortest?
 A = 17 cm on book



Road B is shortest, measured with scale on book.

Can you draw a road shorter than these? What is the length of that road?
 Yes the road E I have drawn is the shortest the length is 12 cm.

How long is a metre?
 A metre is 100 cm.

Find some things that look 1 metre long.
 Table, Gas stove, Almirah

Use your metre-rupe to find which of these things are more or less than 1 metre.

Name of the Thing	more than 1 metre	less than 1 metre
1) Length of table	✓	
2) Width of table		✓
3) Width of door		✓
4) Length of door	✓	
5) Length of room	✓	
6) Length of sofa	✓	
7) Length of chair		✓

Activity 2

Now make a chart of the heights of your friends.

Name	Taller/Shorter Equal to 1m.	How many cm more or less
Rahul	Shorter	1 cm
Mohan	Shorter	2 cm
Gopal	Taller	5 cm
Sankalp	Taller	10 cm
Gotham	Taller	8 cm
Lokesh	Taller	2 cm

Centimetres or metres?

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

Width of a computer screen.
In cm.

Length of a ragdi worn by
silk
metres

Height of 1 year old child
in centimetres.

Length of banana.
In centimetres.

Waist of an elephant.
In metres.

Height of a sugar cane.
In metres.

Depth of a well.
In metres.

Height of your mother
In metres.

Distance from classroom to
school gate
In metres.

Length of your father's arm.
centimeters.

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

Agra Cantt. Railway station
 to Taj Mahal - 5 km.
 Taj Mahal to Fatehpur Sikri
 - 40 km.

1) Now find from the map,
 which is farther from
 Agra Cantt. Railway station -
 Taj Mahal or Fatehpur Sikri?
 ##### shows the railway
 line.

Fatehpur Sikri is farther
 from Agra Cantt. Railway
 station than Taj Mahal.

2 Which of these is nearer to
 the railway line:

- a) Babarpur Forest is nearer
 to the railway line.
- b) Agra Fort is nearer to the
 railway line.

Which of these is closer to
 the river Yamuna?
 Taj Mahal is nearer to the
 river Yamuna.

Match the correct length

Length of earthworm: 2 kilometres

Height of a child: 5 metres

Width of a finger nail: 1 centimetre

Length of a sari: 1 metre

Distance from home to school: 10 centimetres

The long tail competition 1st prize
Just guess the length of the
longest tail.

The monkey would have got
the first prize.

The second prize
would have been won by
the cow.

The length of monkey
might be somewhere around
65-70 cm.

Extra question.

Conversion.

① $5\text{ m} = \underline{\hspace{2cm}}\text{ cm}$

We know $1\text{ m} = 100\text{ cm}$

To convert metre to cm
multiply with 100

To convert cm to metre
divide metre with 100.

$\therefore 5\text{ m} = 500\text{ cm}$

② $13\text{ m} = \underline{\hspace{2cm}}\text{ cm}$
 $13\text{ m} = 1300\text{ cm}$

③ $1200\text{ cm} = \underline{12}\text{ m}$

④ $724\text{ cm} = \underline{\hspace{1cm}}\text{ m} \underline{\hspace{1cm}}\text{ cm}$

Trick T.O face value is cm.
T.H face value is m.

$\therefore 724\text{ cm} = 7\text{ m } 24\text{ cm}$

$\swarrow \quad \downarrow$
 $\text{m} \quad \text{cm}$

⑤ $5\text{ m } 34\text{ cm} = 534\text{ cm}$

Working, $5\text{ m} = 500\text{ cm}$
 $34\text{ cm} = 34\text{ cm}$
Add = 534 cm

⑥ $1780\text{ cm} = 17\text{ m } 80\text{ cm}$

⑦ $1303\text{ cm} = 13\text{ m } 3\text{ cm}$

Add m and cm subtraction of cm

⑧ $38\text{ m } 26\text{ cm} + 26\text{ m } 24\text{ cm}$

Note we will use column method.

$$\begin{array}{r} 38\text{ m} \quad 26\text{ cm} \\ + 26\text{ m} \quad 24\text{ cm} \\ \hline 64\text{ m} \quad 50\text{ cm} \end{array}$$

Note in subtraction
we can borrow
from meter column.

⑨ ADD: $1\text{ m } 1\text{ cm}$

$$\begin{array}{r} 26 \\ + 25 \\ \hline 51 \end{array}$$

Note carry from
cm column will
go to m column

⑩ $52\text{ m } 30\text{ cm}$

⑪ SUB: $6^5 \rightarrow 1^5$

$$\begin{array}{r} 610 \\ - 3 \\ \hline 607 \end{array}$$

$$\begin{array}{r} 279 \\ - 159 \\ \hline 120 \end{array}$$

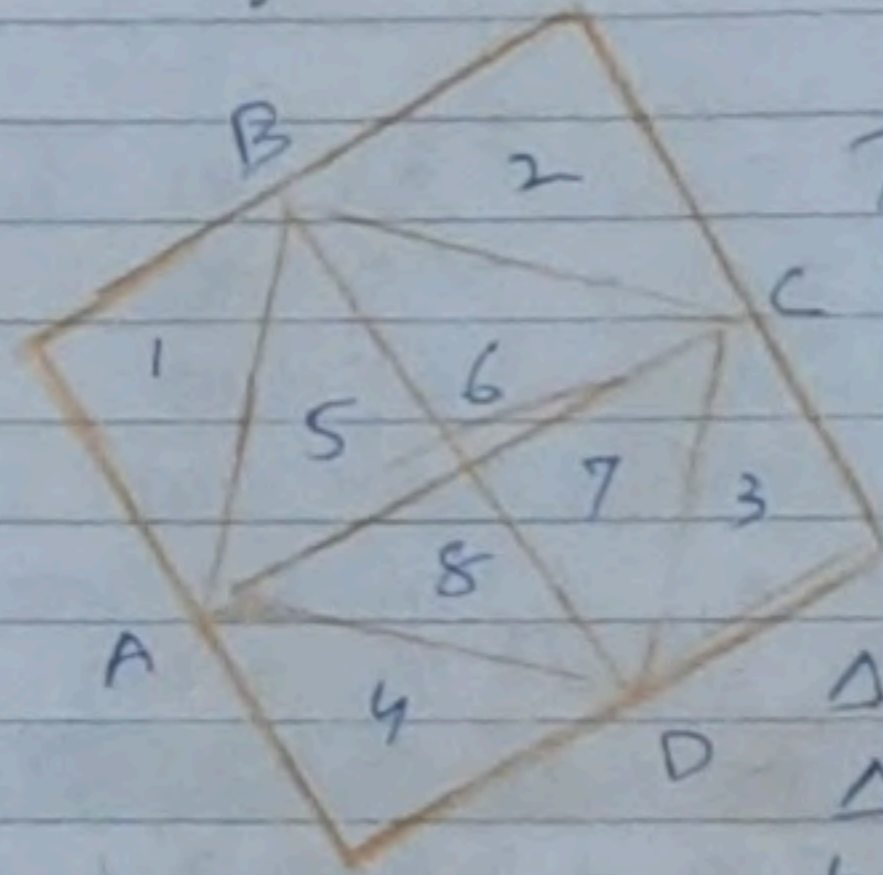
$$\begin{array}{r} 413 \\ - 79 \\ \hline 334 \end{array}$$

$2\text{ m } 88\text{ cm} \quad | \quad 19\text{ m } 64\text{ cm}$

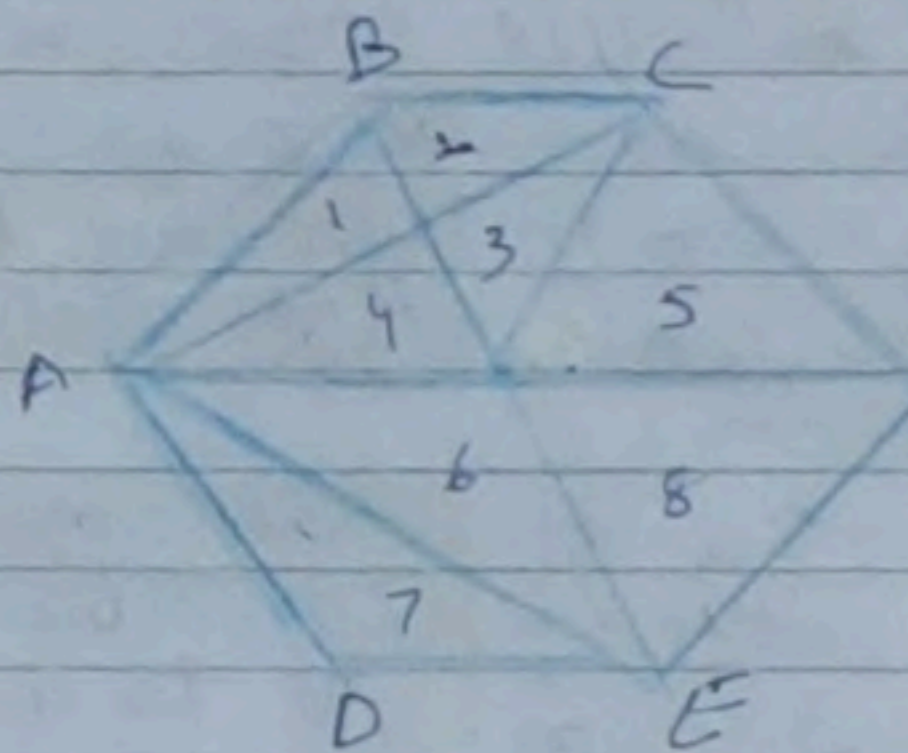
SHAPES AND DESIGN

Textbook questions.

How many triangles are there in the following figures?

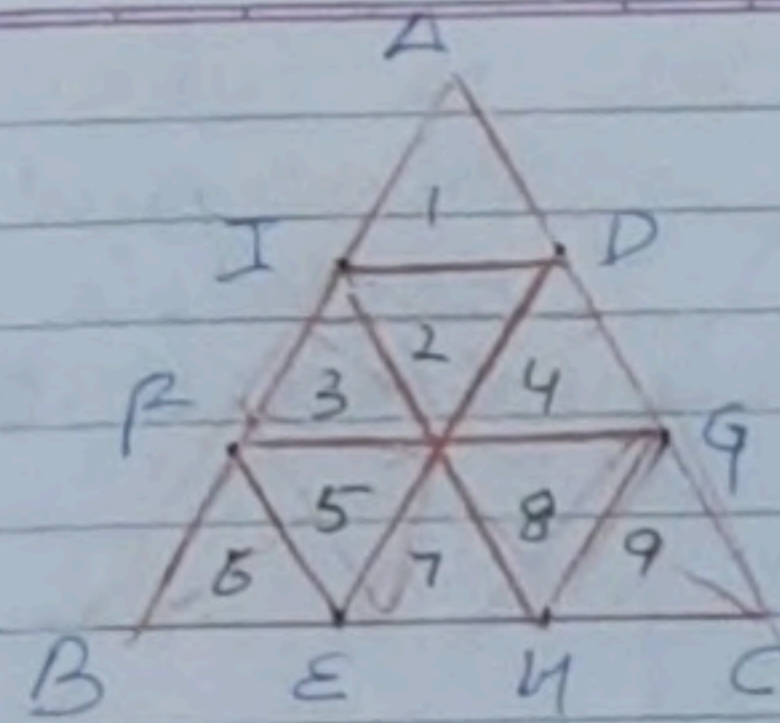


There are 8 triangles in the figure and ΔABC , ΔBCD , ΔCDA , ΔDAB , so total 12 triangle



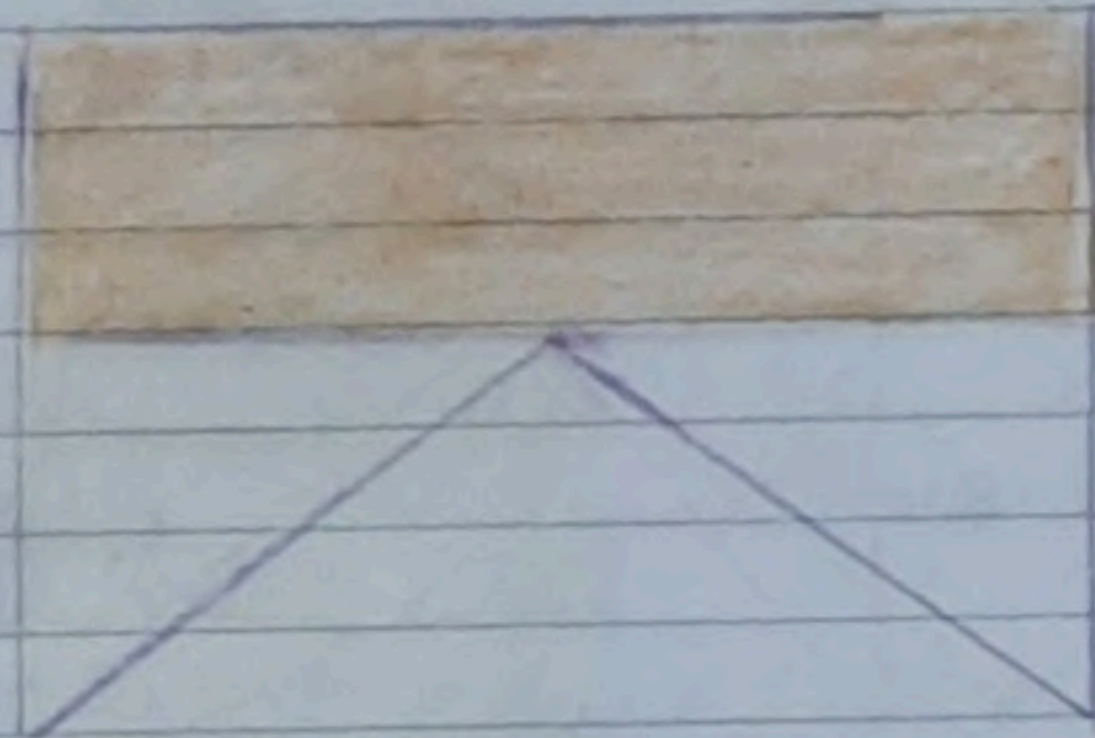
There are 8 triangles as numbered ΔABC , ΔANC , ΔABE and

Total Δ are $8 + 3 = 11$

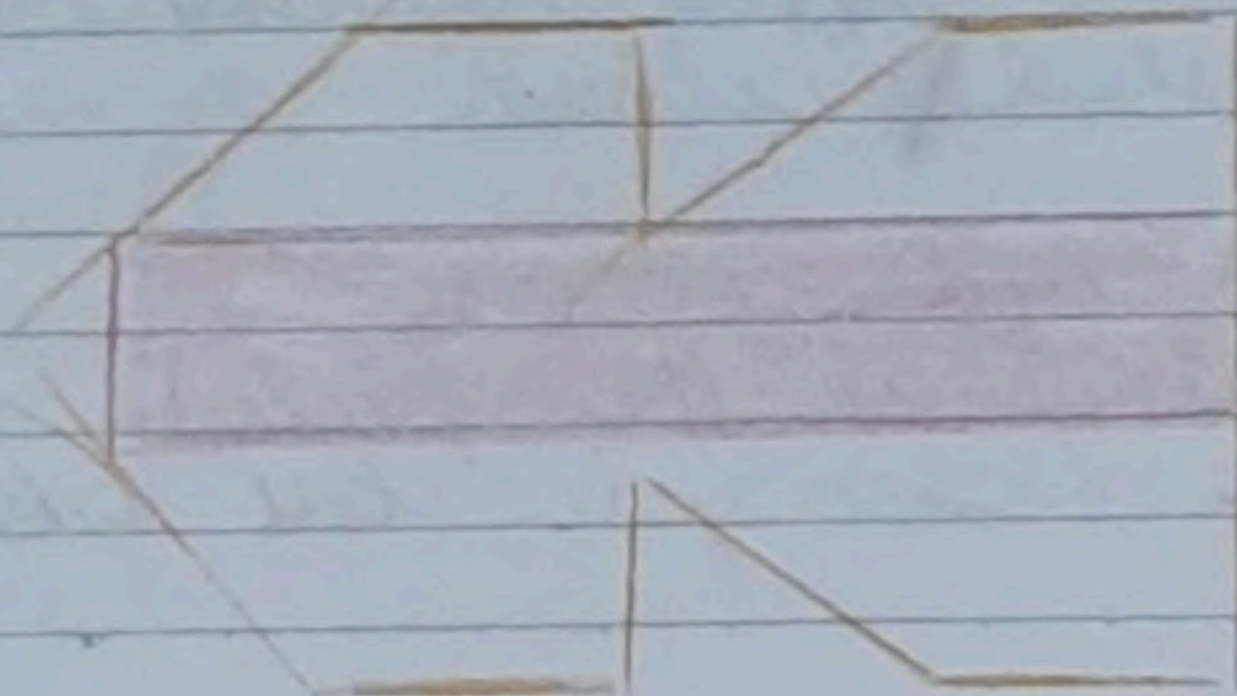


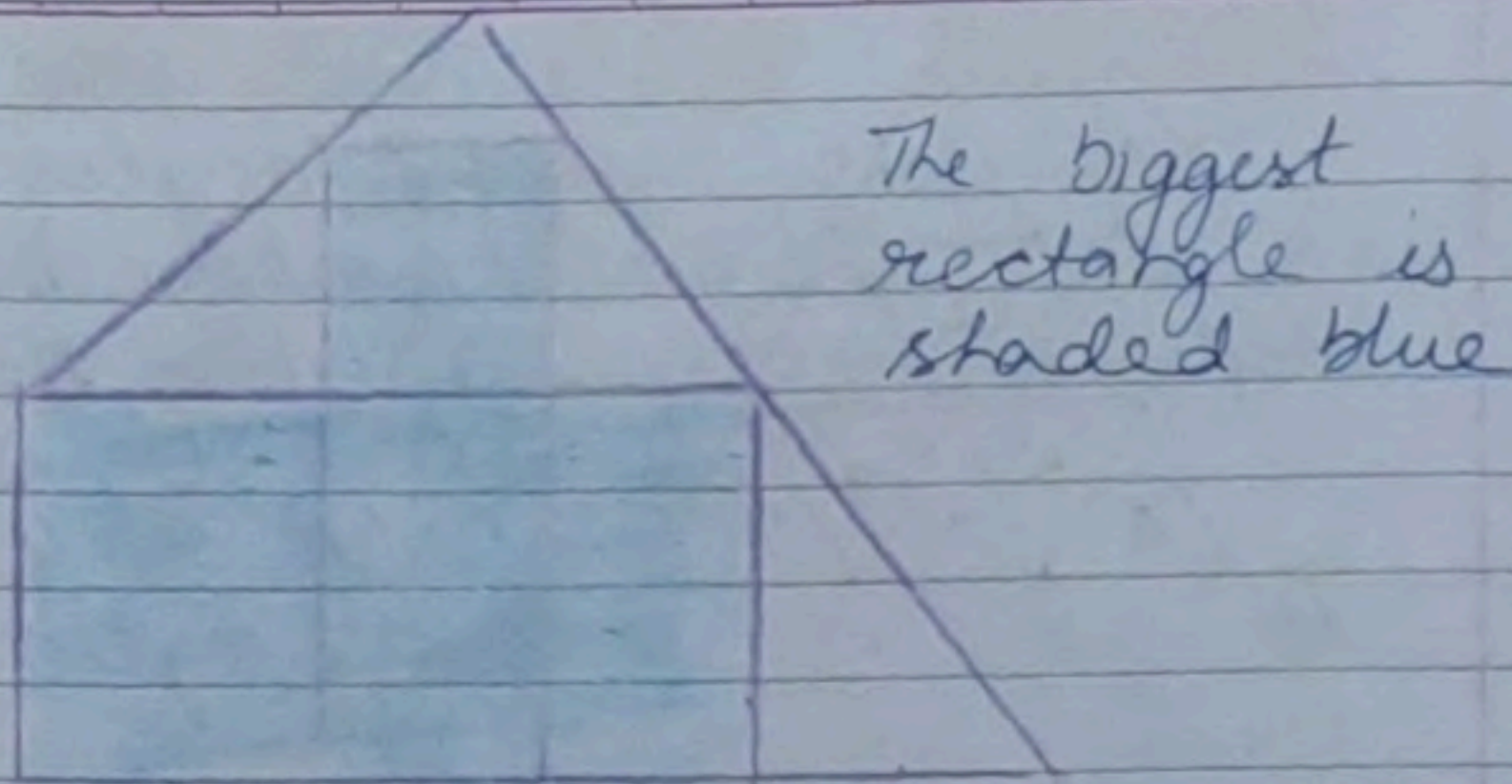
There are 9 Triangles as numbered and ΔAFG , ΔBHI , ΔECD , ΔABC . Total $9 + 4 = 13$ triangles

Find the biggest rectangle in the figures given below.

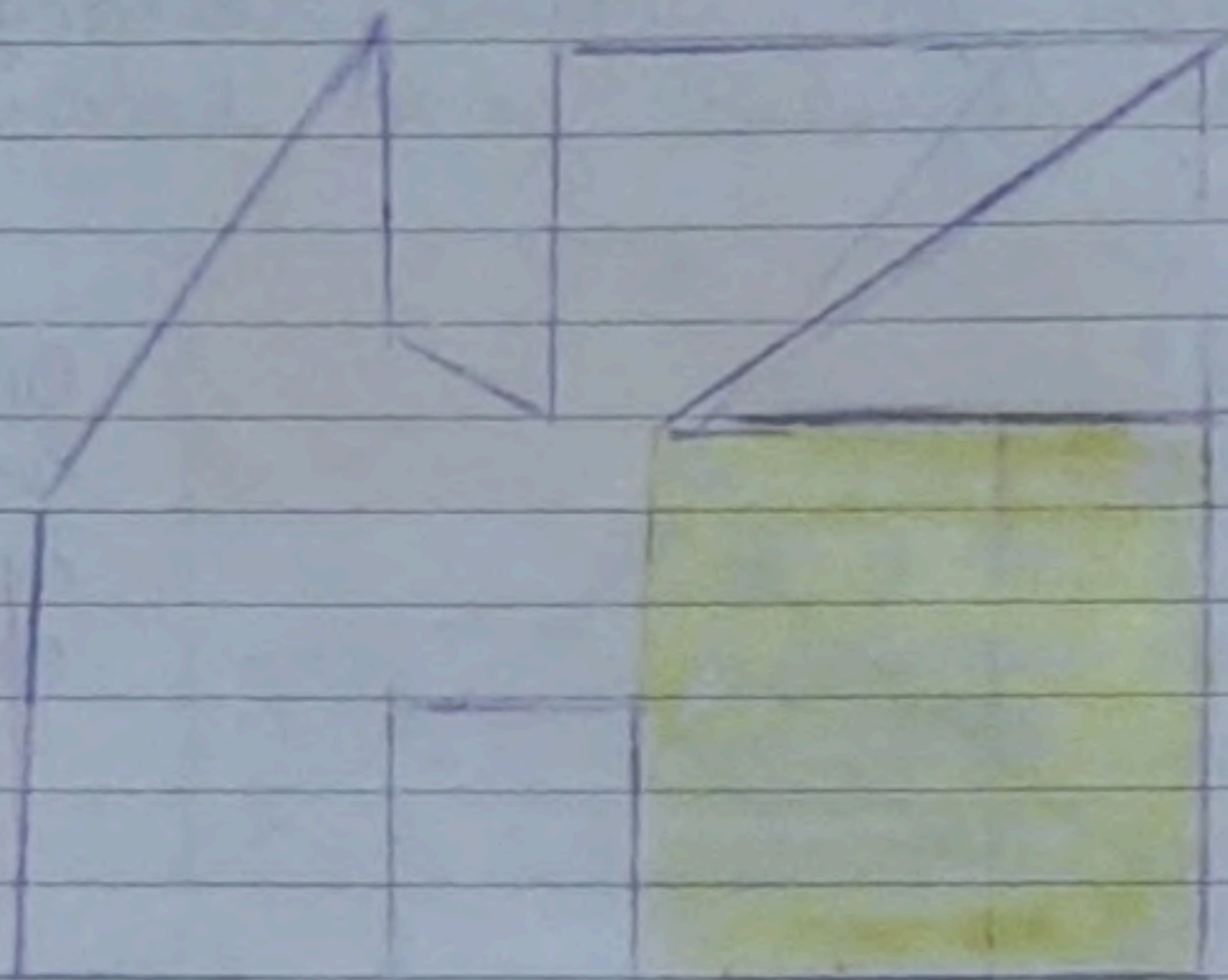


Biggest Rectangle is shaded orange





The biggest rectangle is shaded blue



The biggest rectangle is shaded yellow.

Edges and corners.

- ① Looking at the picture given above can you tell who is out.

Guddu is out as he is not occupying any corner.

Where is Guddu standing?
Guddu is standing in the middle of the side of table.

Can this game be played around a round table? why?
No, this cannot be played around a round table because round table does not have any corner.

Look around you and identify things with straight and curved edges.

straight edges: shoe box, Table, book, geometry box, C.P.U, Wall.

Curved edges: football, lemon, orange, onion, egg, bowl, balls. - etc.

Do the things with straight edges have corners?
Yes,

Do the things with curved edges have corners?
 No,

- (d) Try to find things which have both straight and curved edges.
 Bucket, sofa, Pen.

Activity time

2 count its corners.
 There are four corners.

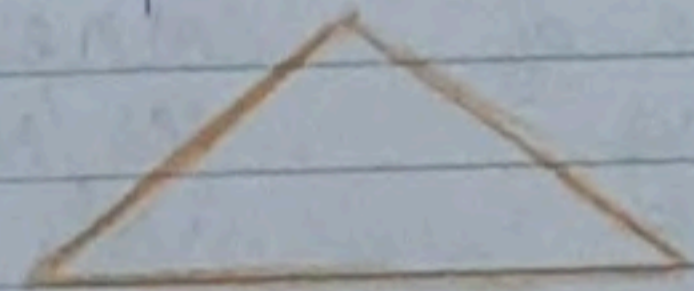
3 Now fold one of its corners
 How many corners does it have now?
 5 corners.

How many corners will you get by folding

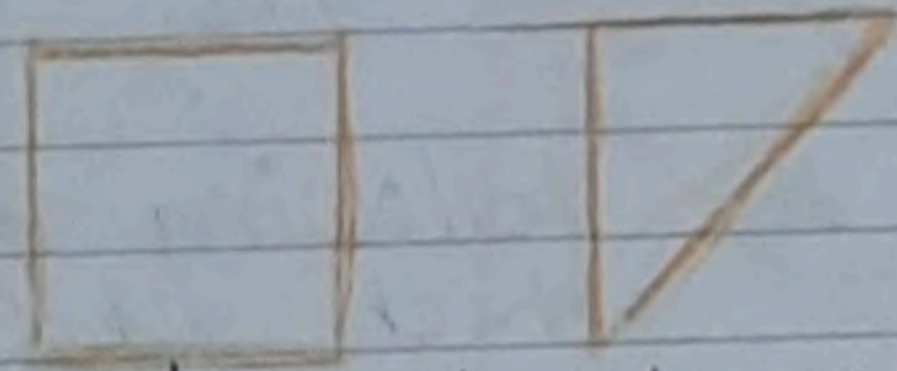
2 corners :	6 corners
3 corners :	7 corners
4 corners :	8 corners

can you fold this paper in such a way that

it has only three corners?
 you are allowed only two folds. what shape you get?
 Yes, we can fold it as triangle.



Repeat the activity with a square sheet of paper.



can you fold all the corners of the square sheet in such a way that the number of corners remains unchanged?
 Yes, the corners of the square can be folded in such a way that the number of corners remain unchanged i.e. 4.

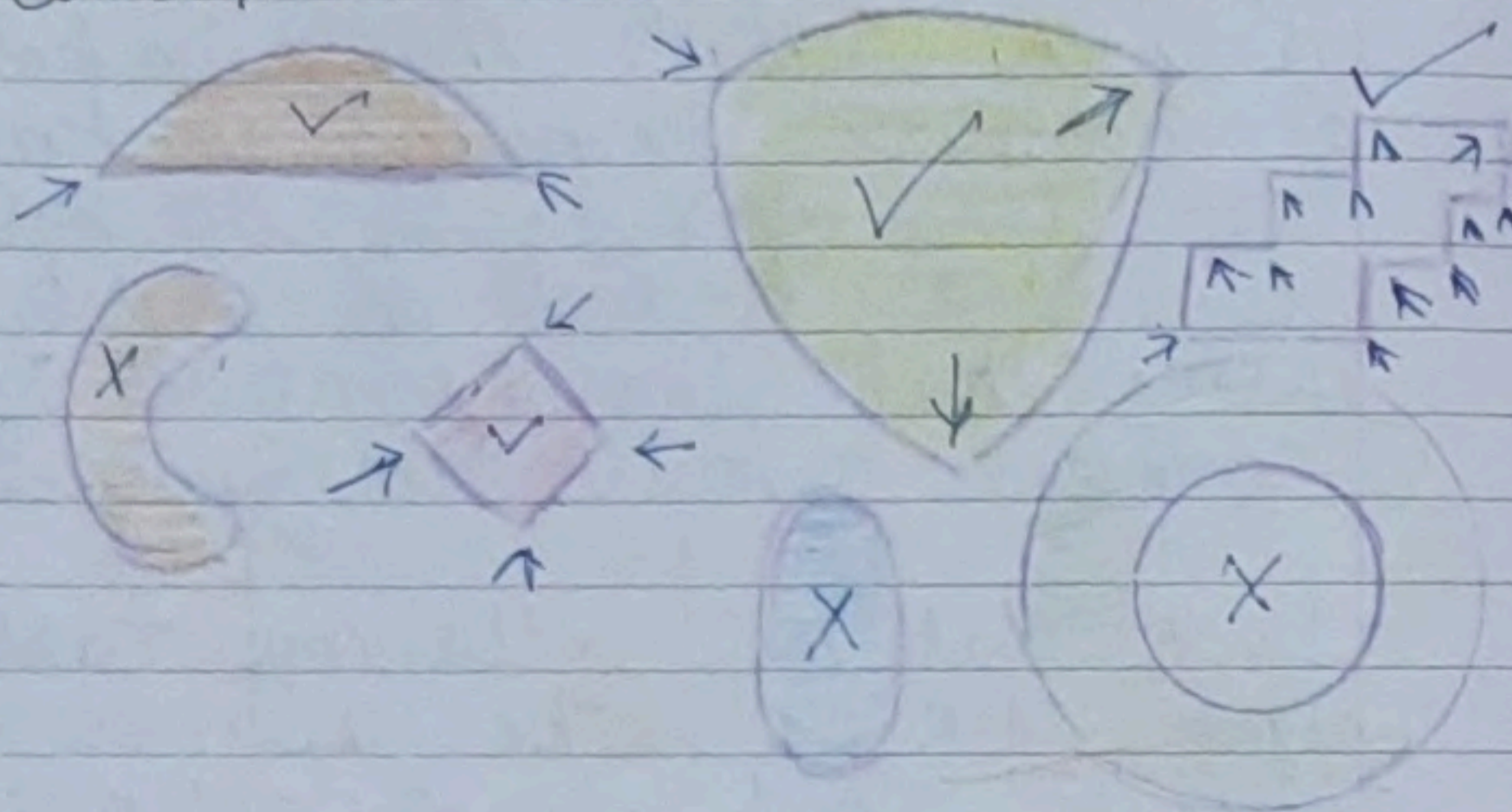
Look at the following table and tick (✓) the names of things that have corners

Also count the number of edges and corners in each of them.

Name of thing	corners Yes/NO	edges	Num of corners
Die	Yes	12	8
Ball	NO	NIL	NIL
Eraser	Yes	12	8
Egg	NO	NIL	NIL
paper	Yes.	4	4

In the following figures tick (✓) those which have corners.

Do these figures have curved lines?

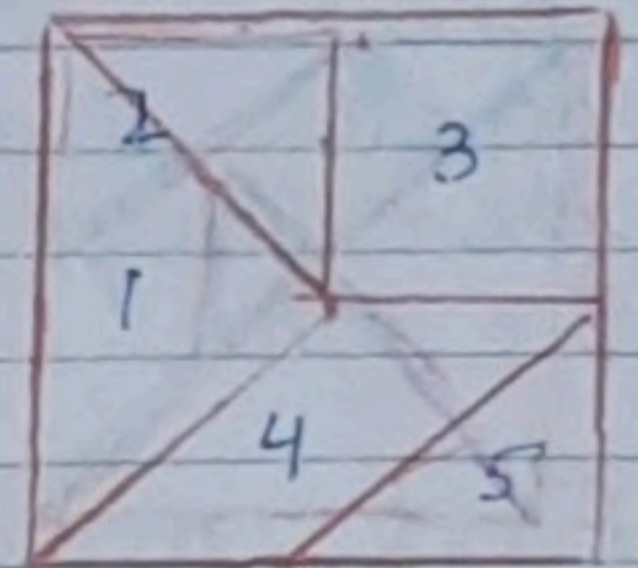


Using only straight lines, can you draw a figure which has no corners?
 No, I can't draw.

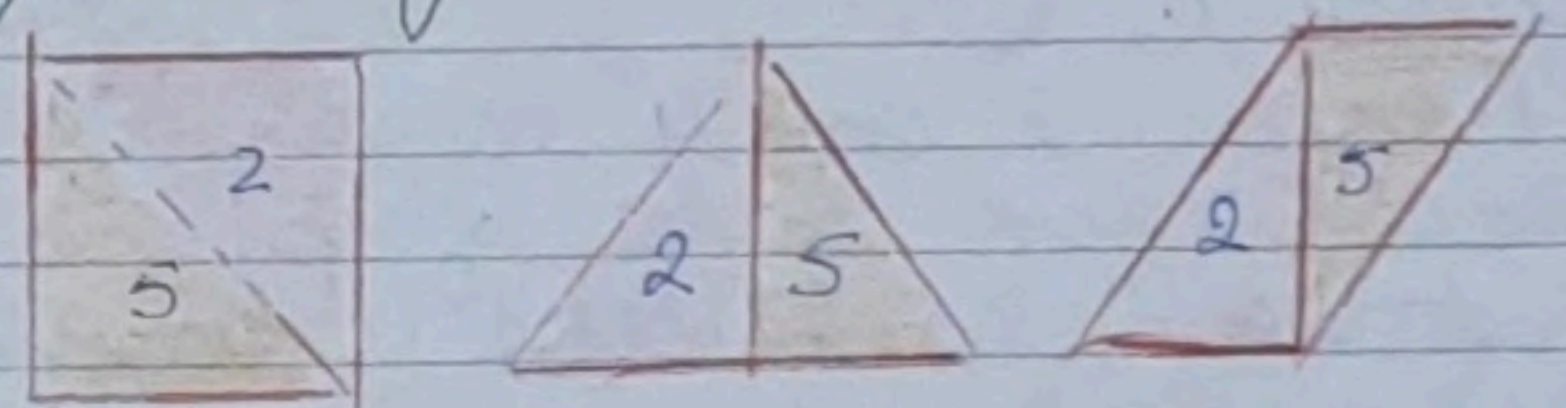
Tangram

How many triangles do you have in your set? Are all of them equal in size? There are 3 triangles in the given set.

The triangles are numbered 1, 2 & 5. No all of them are not equal in size.



Use the two small triangles in the tangram set to get the following shapes:



3 Which two pieces of the tangram set are exactly same? find out.
 The triangles 2 and 5 are exactly same.

Take pieces 4 and 5 from the set and find out on which side of the triangle you can join the other piece.
 on the hypotenuse side of the triangle we can join the other piece.

Find matching sides among the following pairs of pieces.

Pieces 1 and 2

The longest side of piece 2 matches with the side of piece 1.

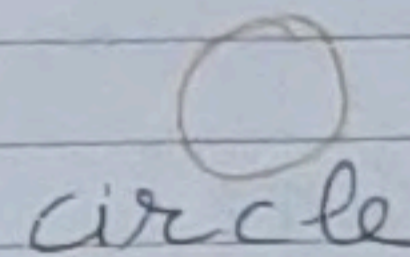
Pieces 2 and 4

The longest side of piece 2 matches with the longest side of 4.

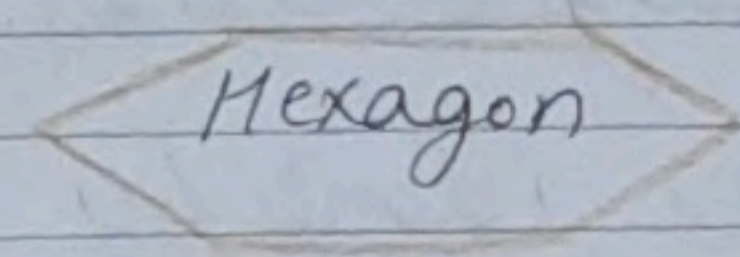
Pieces 1 and 5
 The longest side of piece 5 matches with one of the sides of piece 1.
 Pieces 2 and 5.
 The longest sides matches with the longest side and short side matches with the short side of 5.

Weaving patterns

1 Which geometrical shapes can you identify in these borders?



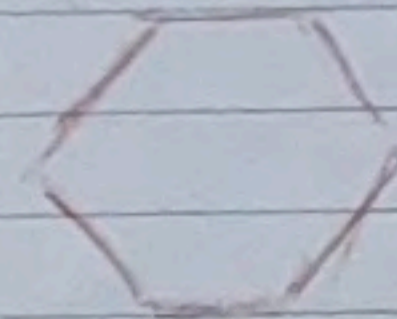
circle



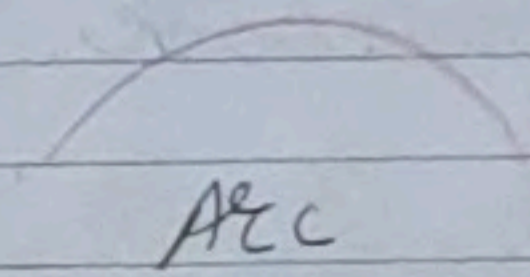
Hexagon



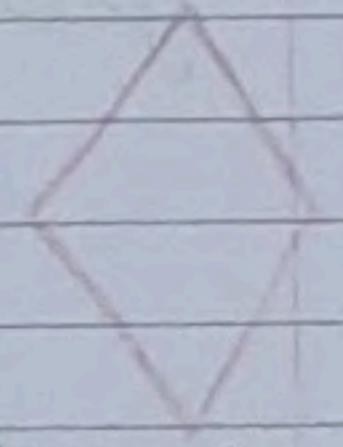
square



Regular hexagon



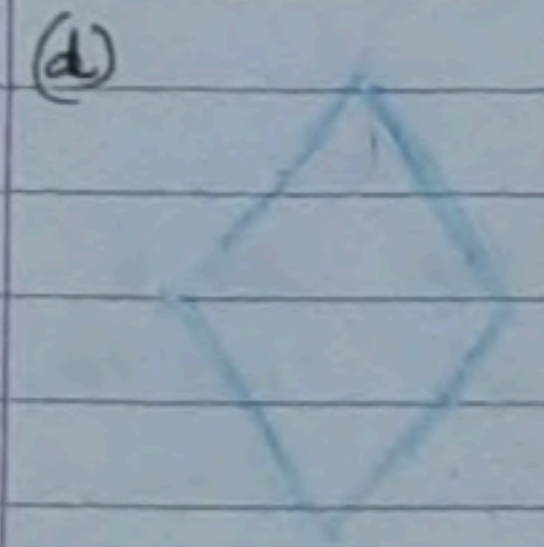
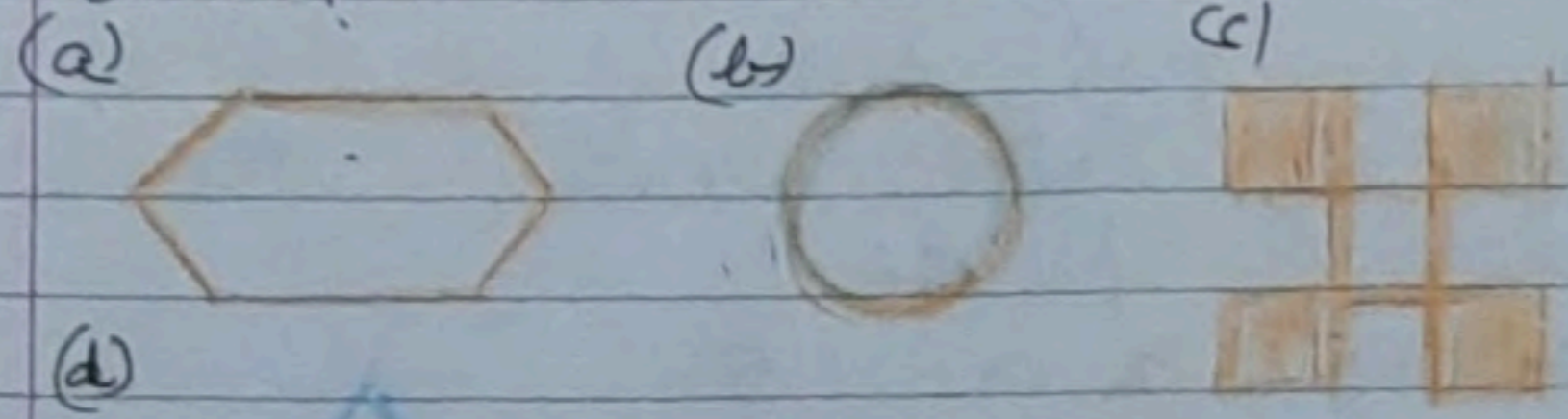
ARC



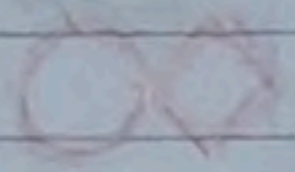
Rhombus

2 Is any shape repeating in a particular pattern? which

ones?



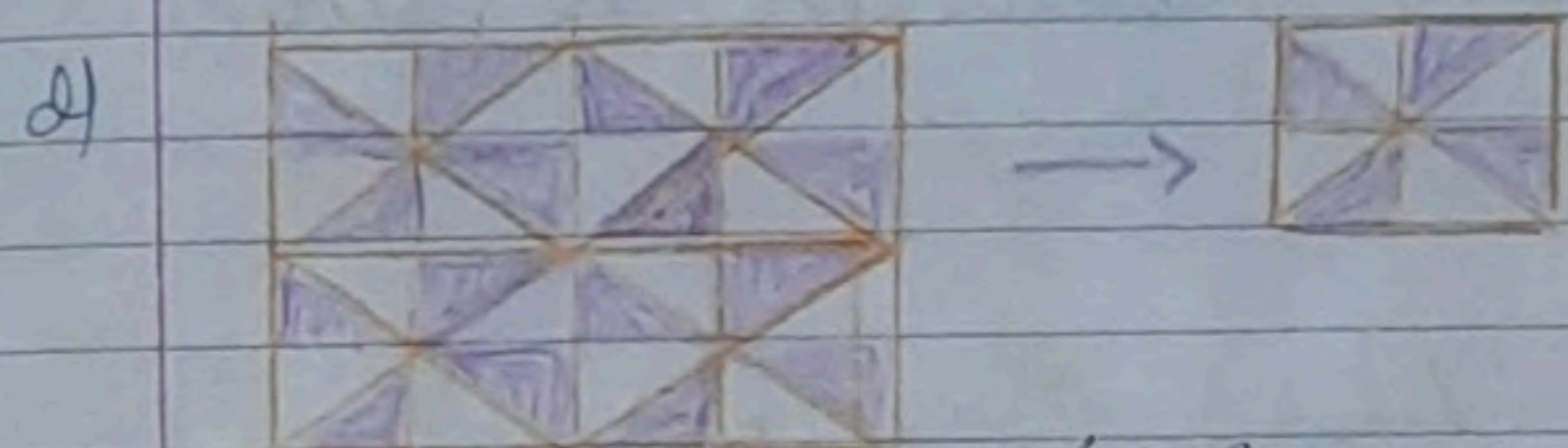
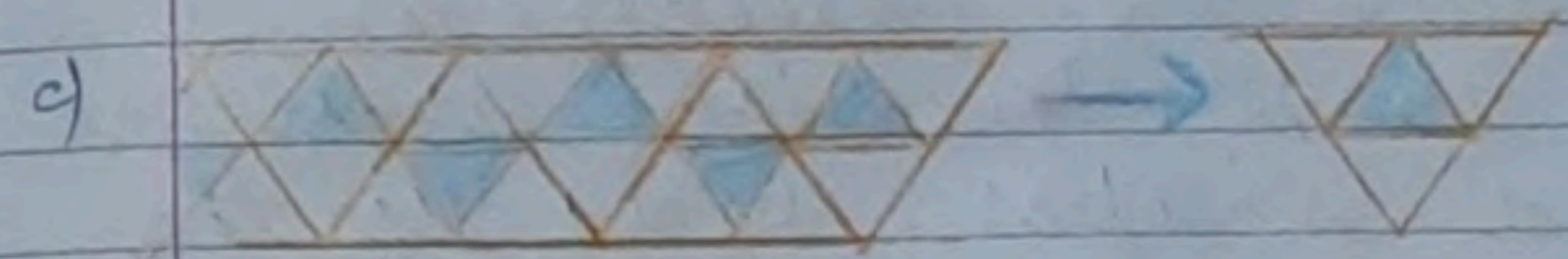
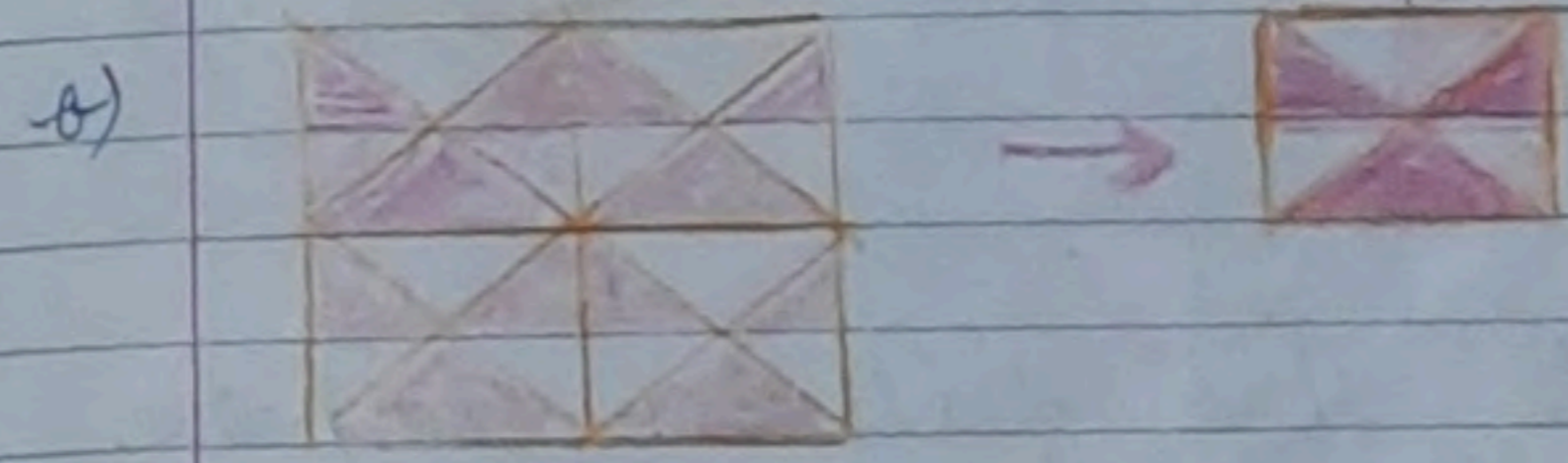
Are the shapes made of
 (i) curved lines Yes
 (ii) straight lines Yes
 (iii) Both curved and straight lines.



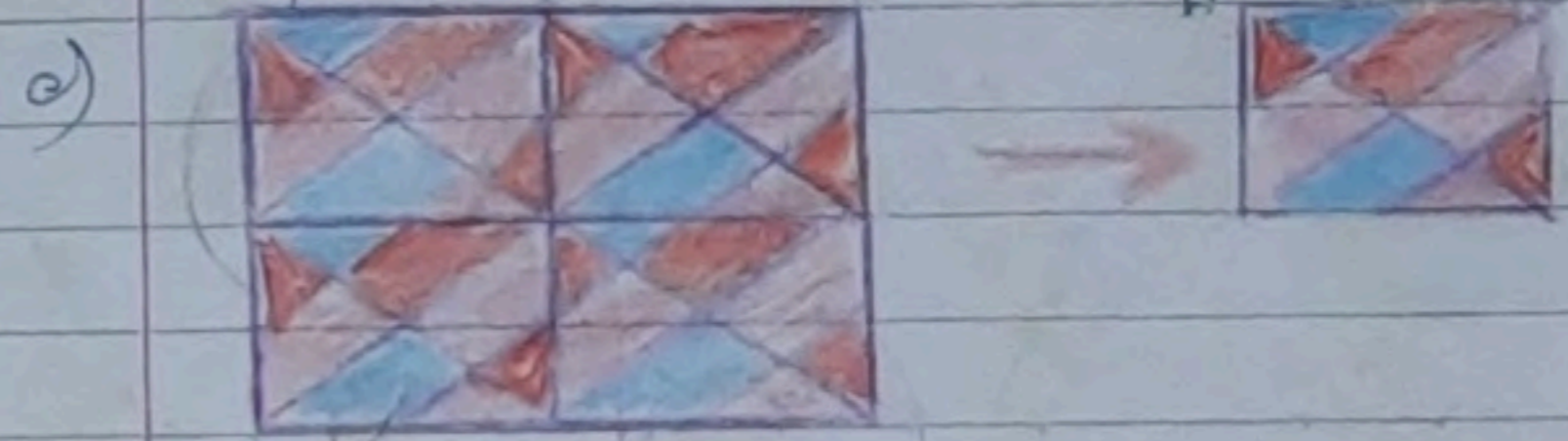
Can you identify some patterns? draw them in your notebook.



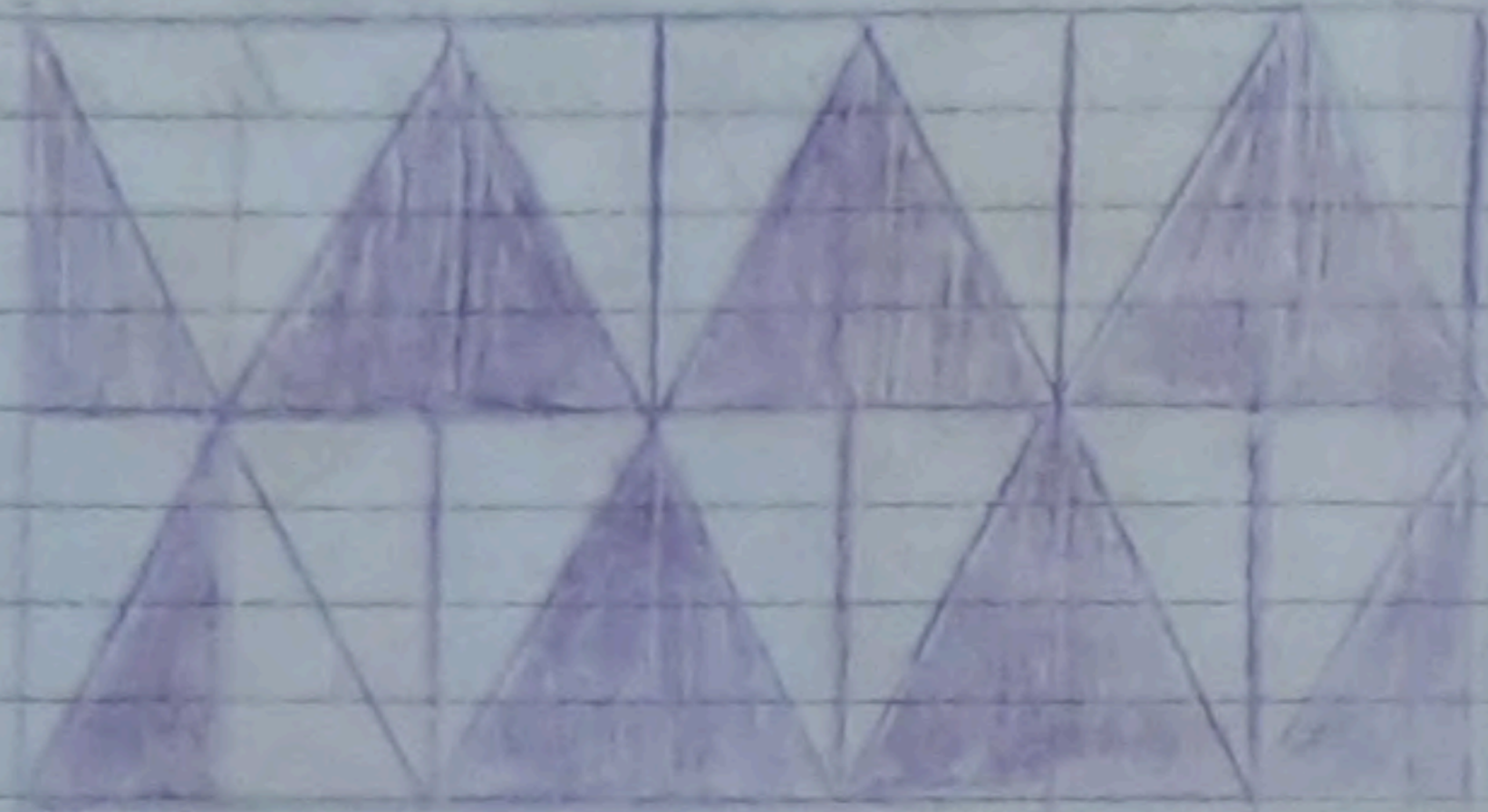
Among the following, can you match the tiles with the designs that they will make on the floor? Draw lines to match.



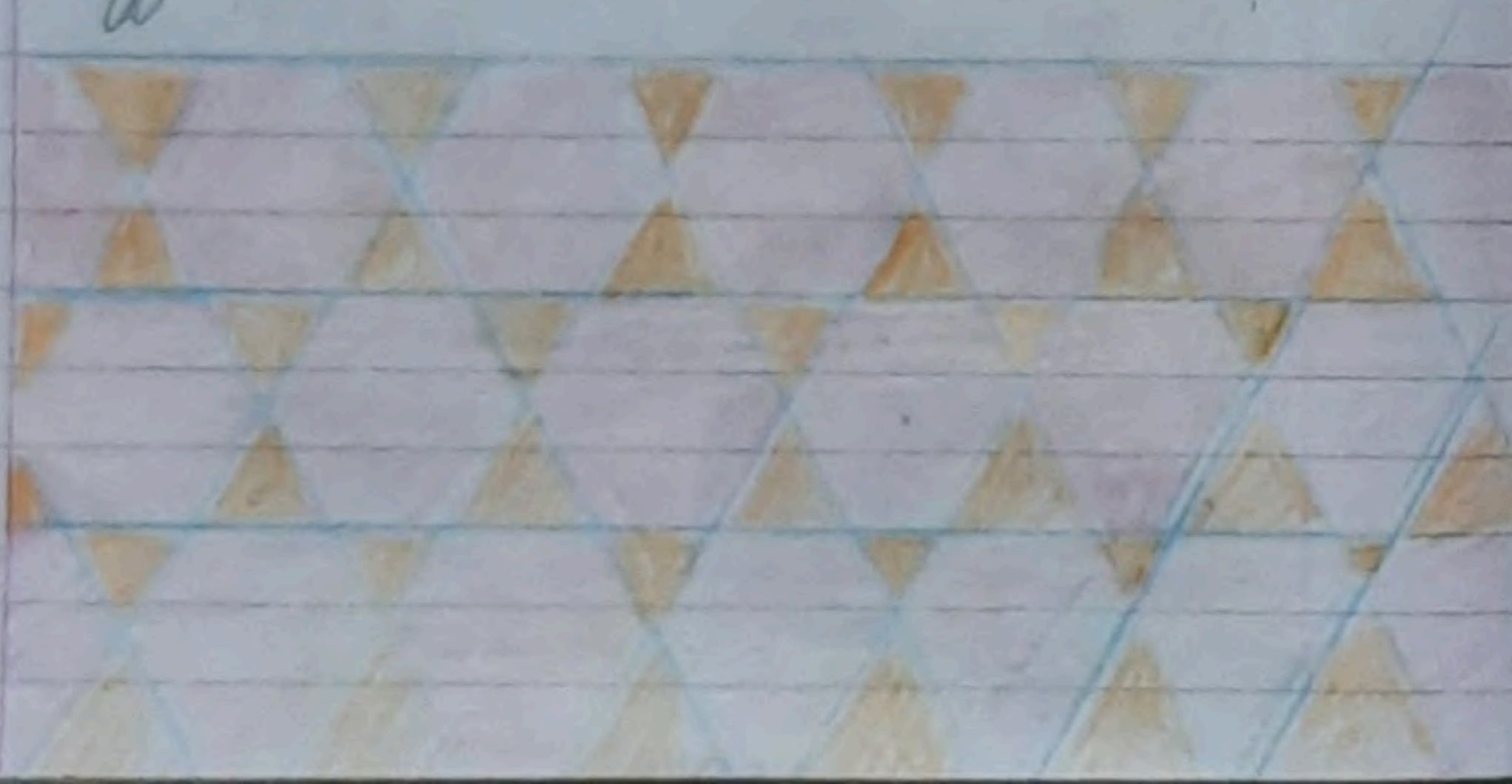
my own tile design



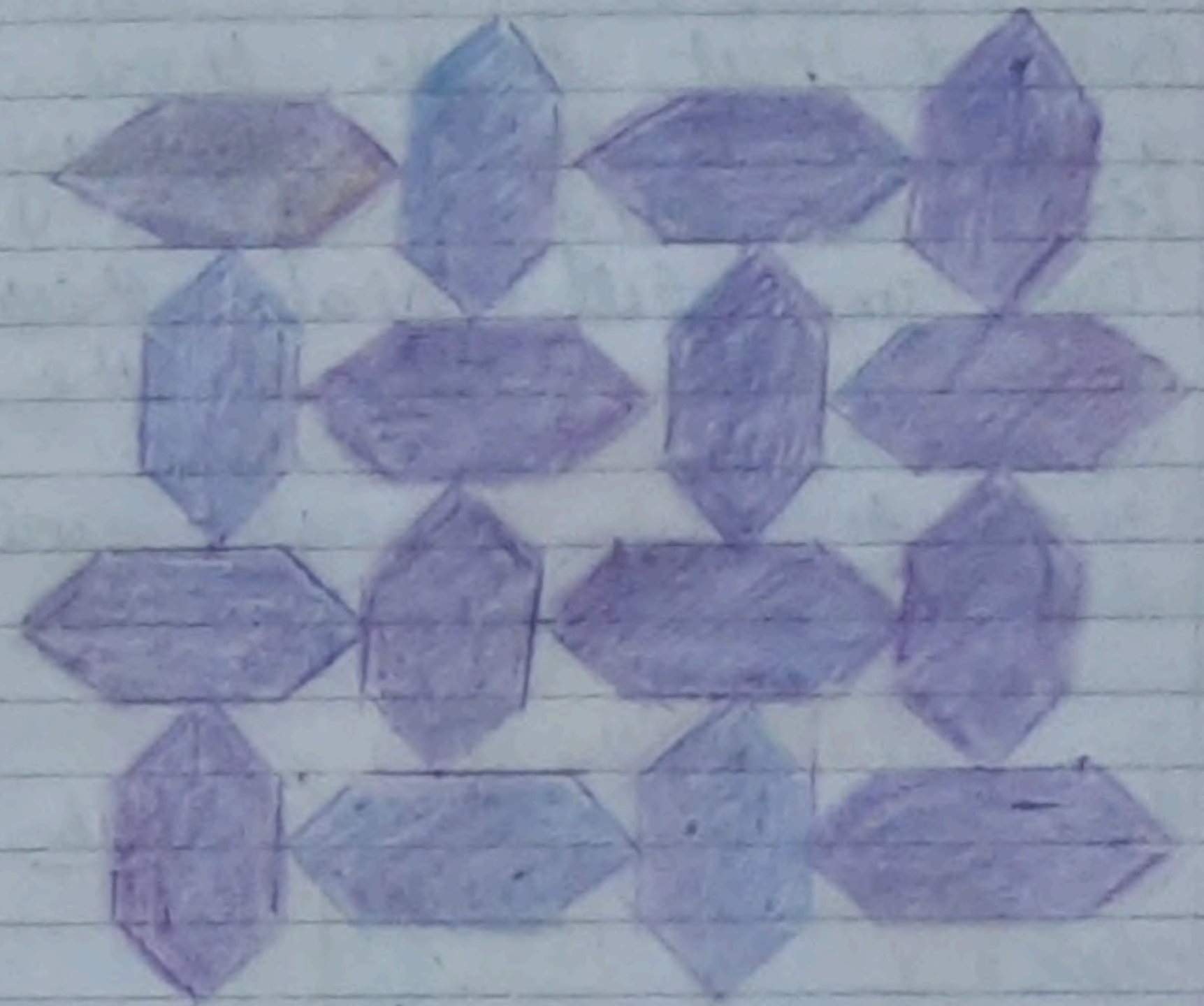
complete the following tiling pattern.



complete this pattern compare it with the pattern on page 70 which also uses six sided shapes. what is the difference between the two?



4 Khushboo and Hariz live in Agra, one day they went to see the Taj Mahal. The floor had the pattern shown below what do you think? Discuss with your friends.



I think the same type of tile is used in the floor pattern in two directions. one tile in horizontal direction and one in vertical direction.

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

Yes, I have seen this design in bed sheet.

Behind that house there is a bag, open it and you will find something sweet in it!

Can you tell what their mother has kept in the bag?
Yes, mother has picked sweet and ripe mangoes and kept them in bag.

Extra questions

How many edges does a cube has?

edges = 12

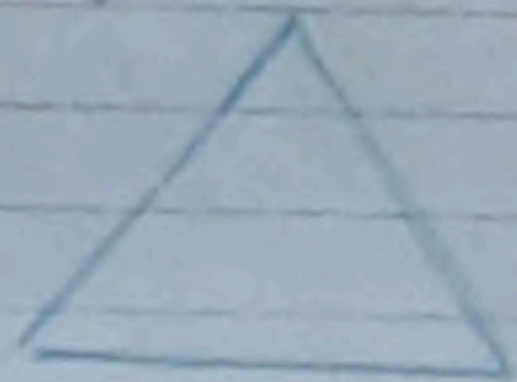
Face = 6

Corner = 8



Sides = 3

Corner = 3



How many curved and flat faces does a cylinder has?
A cylinder has 1 curved and 2 flat faces



Give one examples of following shapes from your daily life.

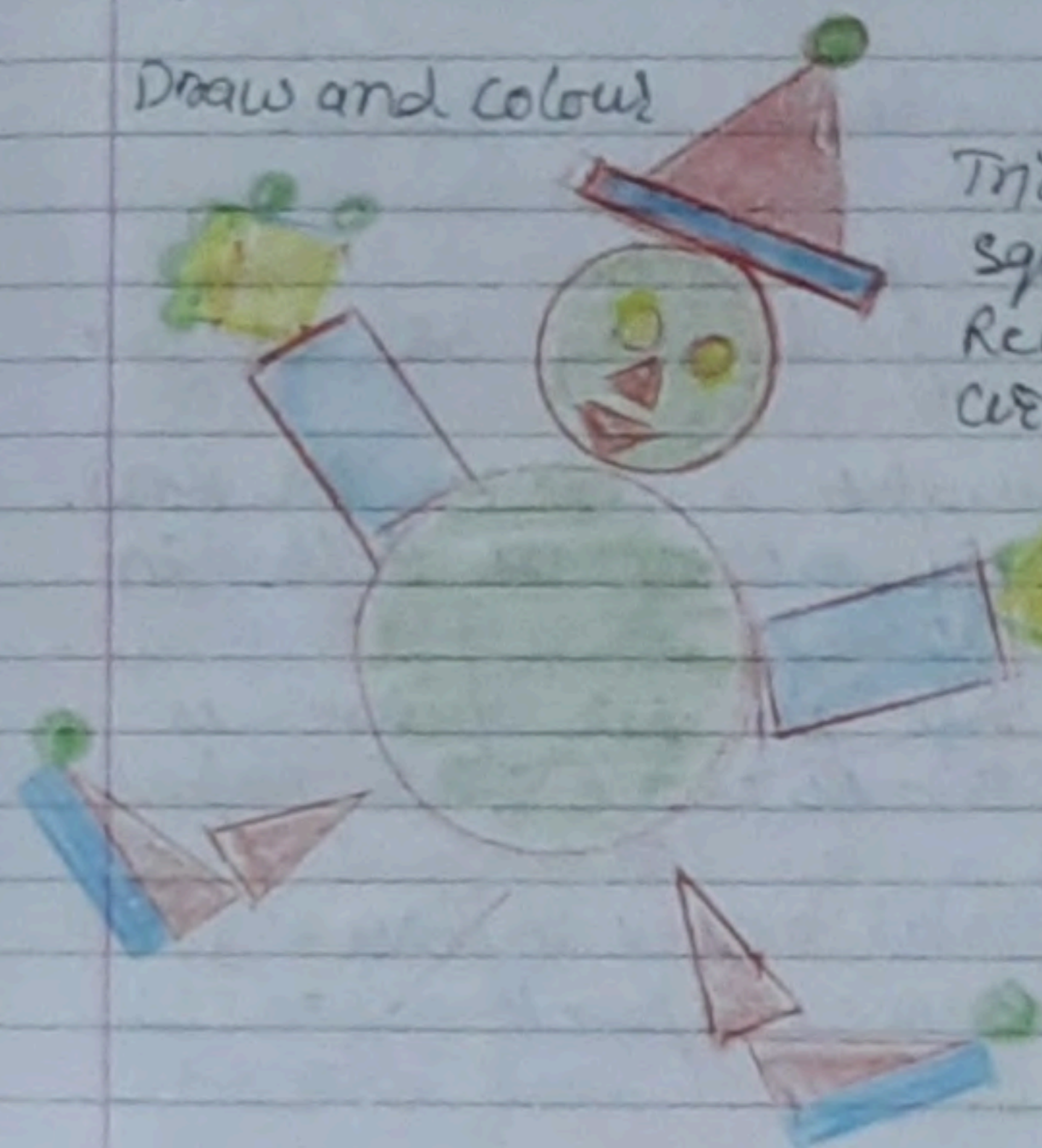
cube: book

cylinder: water bottle

cone: Ticker's cap

sphere: ball

Draw and colour



Triangles: Red
Squares: Yellow
Rectangle: Blue
Circles: Green

FUN WITH NUMBERS

In a cricket match, Sri Lanka made 235 runs.

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

Given information:

Sri Lanka made 235 runs.

India made 123 runs.

difference = 112 runs

∴ India needs 112 runs

Try it yourself.

Greta had Rs 368 in her purse.

She bought a book for Rs 123. How many money is left in her purse?

Money left in her purse is
 $\text{Rs } 368 - \text{Rs } 123 = 245 \text{ Rupees}$.

Working

Total money in purse =	368
money spent =	123
	<u>245</u>

Can you help Nabeela?

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

Did the shopkeeper give her the right amount?

Money with Nabeela =	Rs 245
money spent =	Rs 127
	<u>Rs 118</u>

The shopkeeper had to give Nabeela Rs 118.

Did the shopkeeper give her the right amount?

No, the shop gave her less amount. Shopkeeper had to give Rs 118. He gave Rs 98.

How much more money should the shopkeeper give Nabeela?

should give =	118
actually gave =	98
Should give more =	<u>20 Rupees</u>

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

Gouri has read = 95 pages.
 Arvind has read = 69 pages.
 Gouri has read more 26 pages more than Arvind.

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

This month's reading = 193
 Last month's reading = 118
 difference = 75
 She used 75 units of electricity.

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

Sol) Bought a shirt for Rs 125
 Bought trousers for Rs 165

Money spend in all = 125
 + 165
 290

∴ She spent Rs 290 altogether.

Solve the following

17	14	39	12
- 3	+ 3	- 10	+ 24
<u>14</u>	<u>17</u>	<u>29</u>	<u>36</u>
816	139	237	325
- 58	- 110	+ 213	- 204
<u>758</u>	<u>229</u>	<u>450</u>	<u>121</u>
474	642	49	135
- 136	- 413	+ 20	+ 146
<u>338</u>	<u>229</u>	<u>69</u>	<u>281</u>

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

$$\begin{array}{r} 468 \\ - 139 \\ \hline 221 \end{array} \quad \text{check} \quad \begin{array}{r} 221 \\ 139 \\ \hline 360 \end{array}$$

$$\begin{array}{r} 356 \\ - 247 \\ \hline 119 \end{array} \quad \text{check} \quad \begin{array}{r} 247 \\ 119 \\ \hline 366 \end{array}$$

$$\begin{array}{r} 468 \\ - 139 \\ \hline 221 \end{array} \quad \text{check} \quad \begin{array}{r} 139 \\ 221 \\ \hline 360 \end{array}$$

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

$$\begin{array}{r} 78 \\ - 33 \\ \hline 45 \end{array} \quad \begin{array}{r} 219 \\ - 187 \\ \hline 032 \end{array}$$

$$\begin{array}{r} 96 \\ - 36 \\ \hline 60 \end{array} \quad \begin{array}{r} 444 \\ - 238 \\ \hline 206 \end{array}$$

Lets deliver letter
 Write the correct numbers on the
 letters then find the rooms in
 the above building and circle

them.

$$\begin{array}{r} 445 \\ + 10 \\ \hline \end{array} \quad \text{Room NO} \quad 455$$

$$\begin{array}{r} 467 \\ + 11 \\ \hline \end{array} \quad \text{Room NO} \quad 478$$

$$\begin{array}{r} 450 \\ - 19 \\ \hline \end{array} \quad \text{Room NO} \quad 431$$

$$\begin{array}{r} 430 \\ + 15 \\ \hline \end{array} \quad \text{Room NO} \quad 445$$

$$\begin{array}{r} 456 \\ - 20 \\ \hline \end{array} \quad \text{Room NO} \quad 436$$

$$\begin{array}{r} 480 \\ - 9 \\ \hline \end{array} \quad \text{Room NO} \quad 471$$

$$\begin{array}{r} 498 \\ - 23 \\ \hline \end{array} \quad \text{Room NO} \quad 475$$

$$\begin{array}{r} 452 \\ + 18 \\ \hline \end{array} \quad \text{Room NO} \quad 470$$

$$\begin{array}{r} 461 \\ + 25 \\ \hline \end{array} \quad \begin{array}{l} \text{Room No} \\ 486 \end{array}$$

$$\begin{array}{r} 426 \\ + 38 \\ \hline \end{array} \quad \begin{array}{l} \text{Room No} \\ 464 \end{array}$$

$$\begin{array}{r} 429 \\ + 10 \\ + 20 \\ \hline \end{array} \quad \begin{array}{l} \text{Room No} \\ 459 \end{array}$$

$$\begin{array}{r} 466 \\ + 33 \\ \hline \end{array} \quad \begin{array}{l} \text{Room No} \\ 499 \end{array}$$

$$\begin{array}{r} 410 \\ + 13 \\ + 11 \\ \hline \end{array} \quad \begin{array}{l} \text{Room No} \\ 434 \end{array}$$

Find the missing numbers
 Look at the number patterns
 Write the missing numbers.

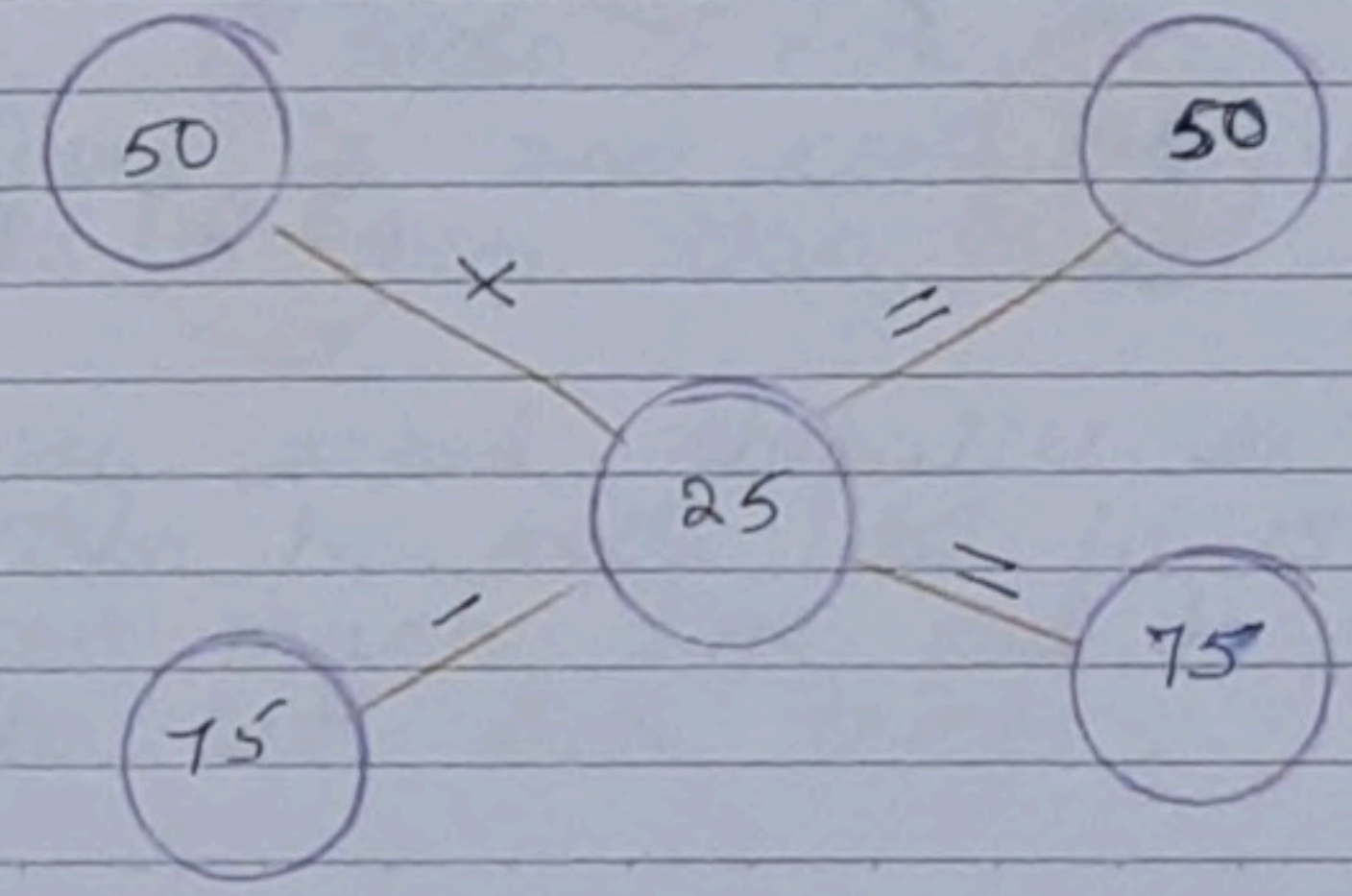
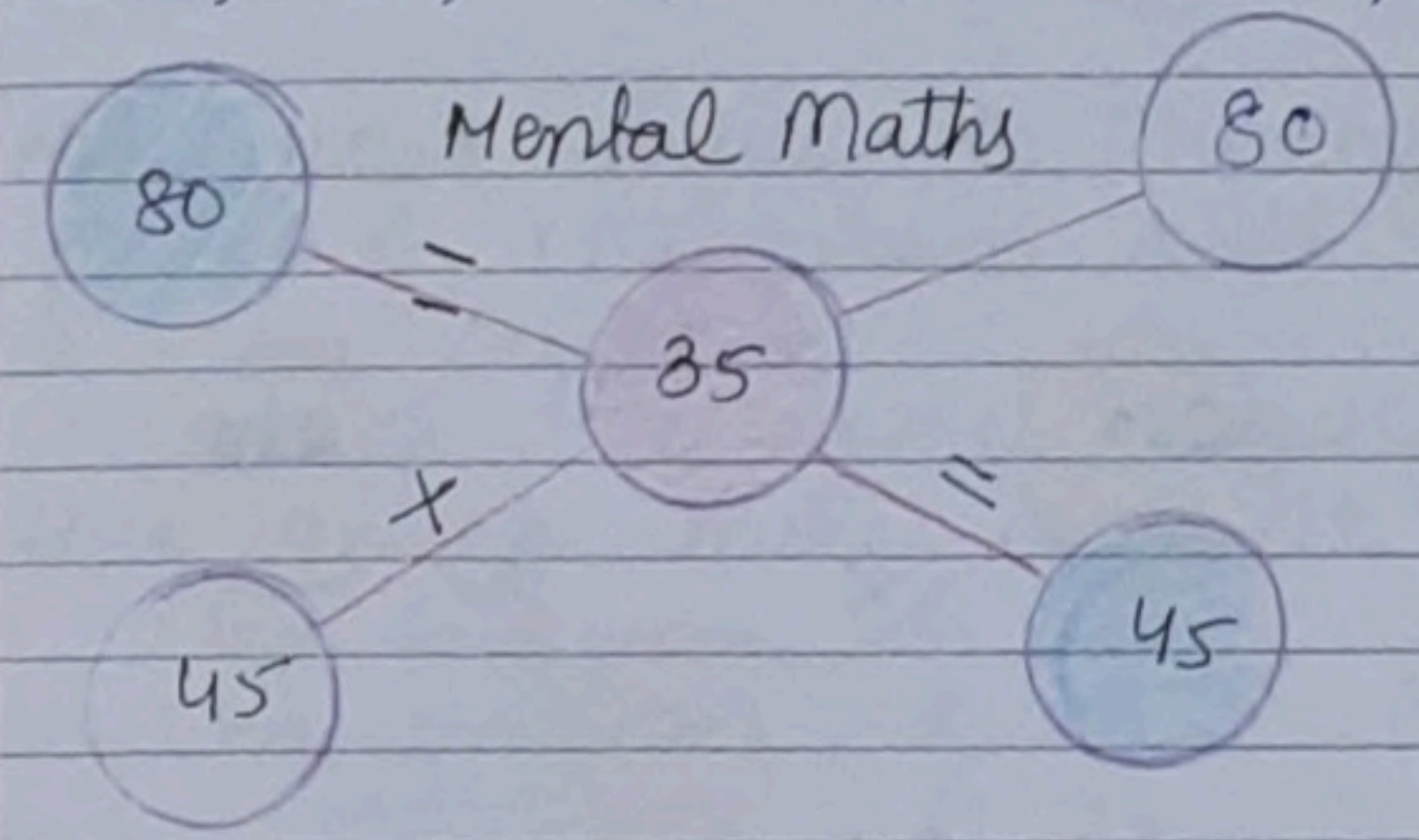
- (a) 100, 200, 300, 400, 500, 600, 700
- (b) 900, 800, 700, 600, 500, 400, 300
- (c) 50, 100, 150, 200, 250, 300, 350, 400

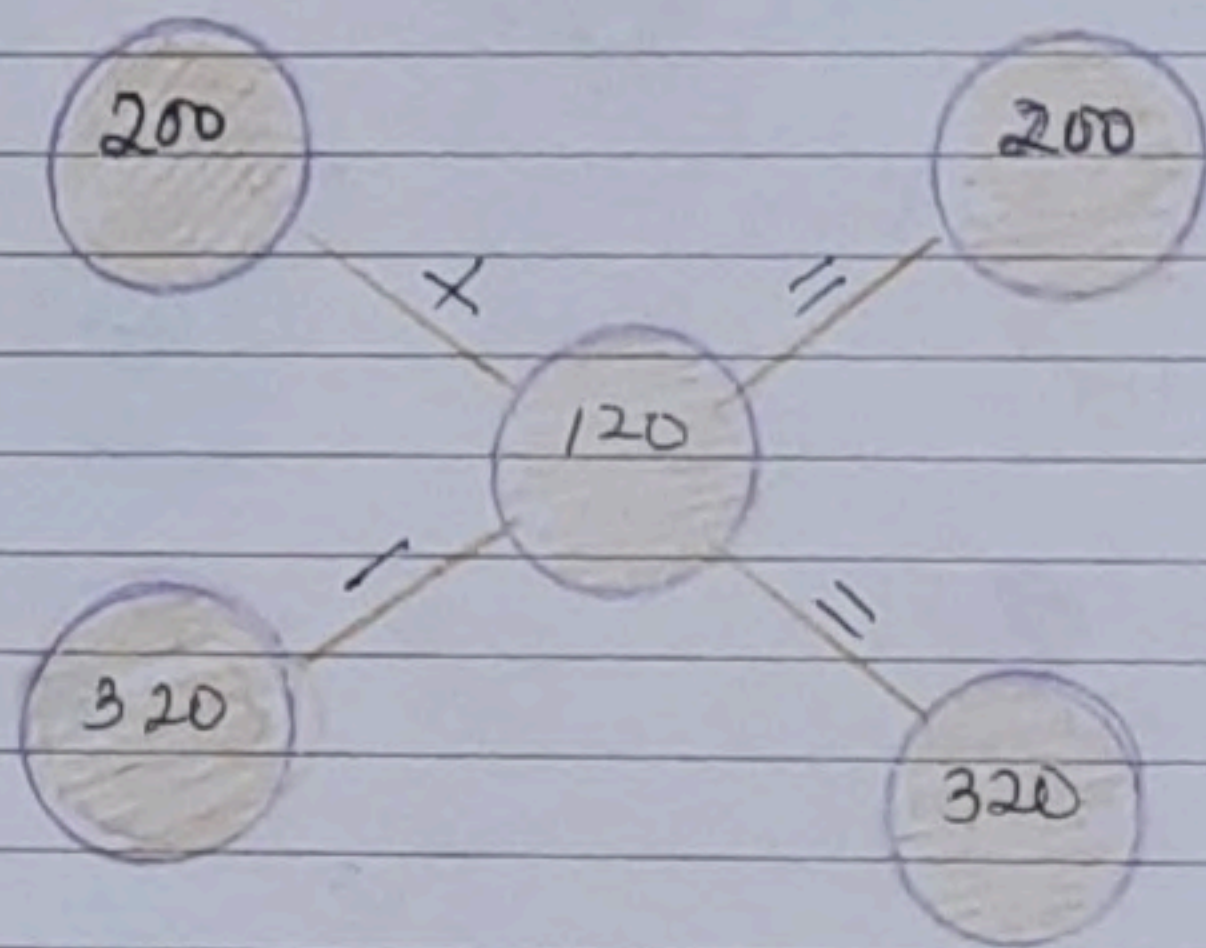
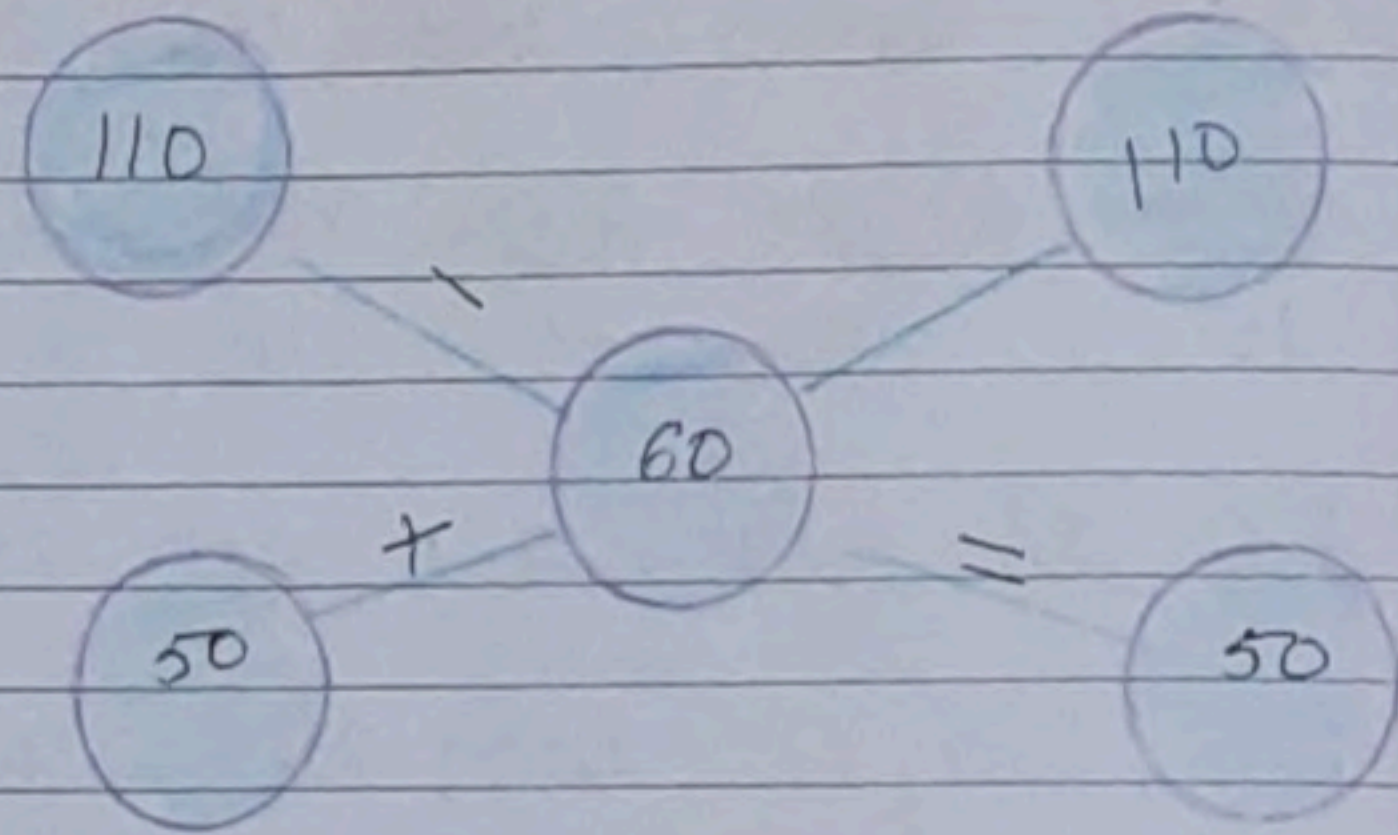
(d) $300, 250, 200, 150, 100, 50$

(e) $15, 25, 35, 45, 55, 65$

(f) $280, 260, 240, 220, 200, 180, 160$

(g) $125, 150, 175, 200, 225, 250, 275, 300$





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

Indu's pencil = 15 cm
 Jyoti's pencil = 8 cm

$$15 \text{ cm} > 8 \text{ cm}$$

So, Indu's pencil is longer.

Ask your Papa or Mummy
 price of 1 kilogram salt = Price
 of 1 kg sugar.

which is more costly?

How much more does it cost?

1 kg sugar = Rs. 60

1 kg salt = Rs. 20

difference = Rs. 40

$$\text{Rs } 60 > \text{Rs } 20$$

Sugar is more costly and costs
 Rs 40 more than salt.

Ajay cooked chapatis in 25 min
 Then he made dal in 15 minutes
 How much time did he take
 to cook both things?

Time taken for Chapatias = 25 min
 Time taken for dal : 15 Min
 To cook both (time taken): 40 min

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

	R	B	G
sweaters sold on first day	38	66	79
sweaters sold on second day	40	23	89

4 Chanchal sells school sweaters.
 of grey in 2 days:

$$\begin{array}{r} 79 \\ 89 \\ \hline 163 \end{array}$$

Did she sell more red sweaters
 than blue sweaters in 2 days?

Red sweaters sold in 2 days =

$$\begin{array}{r} 38 \\ 40 \\ \hline 78 \end{array}$$

Blue sweaters sold in 2 days:

$$\begin{array}{r} 66 \\ 23 \\ \hline 89 \end{array}$$

blue sweaters (89) > red (78)

No, she did not sell more
 red sweaters.

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

$$\begin{array}{r} \text{Red sweater} : 38 \\ \text{grey sweater} : 74 \\ \hline 112 \end{array}$$

$$112 < 120,$$

Hence, she sold less than 120.

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

more than 140 : ✓
 less than 140 :

number of red, blue, green sweaters

Sold on second day = 40
 23
89
 152

$152 > 140.$

So, collectively she sold more than 140. ✓

Is Sangeeta right

Sangeeta went to the market with her grandpa.

She looked at the prices and said to her grandpa -

(a) Ghee is Rs 102 Rs costlier than biscuits ✓

Cost of Ghee = 127

Cost of biscuits = 25

difference = 102

(b) Price of oil and ghee altogether is more than Rs 200. ✗

Cost of oil : 70

Cost of ghee : 127

197

(c) Price of ghee and 10 kg -

rice is less than Rs 300 ✓

Cost of ghee : 127

Cost of 10kg rice : 150

277

$277 < 300$

(d) oil costs Rs 40 more than a pack of biscuits. ✓

Cost of oil = 70

Cost of Biscuit = 25

45

∴ Oil costs Rs 45 more than a pack of biscuits.

Can you find this without using paper and pencil?

Yes, I can find this without using paper and pencil.

Story problems

36 men and 52 women

waiting for their turn can you make a problem.

36 men and 52 women are waiting for their turn how many people are waiting altogether.

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

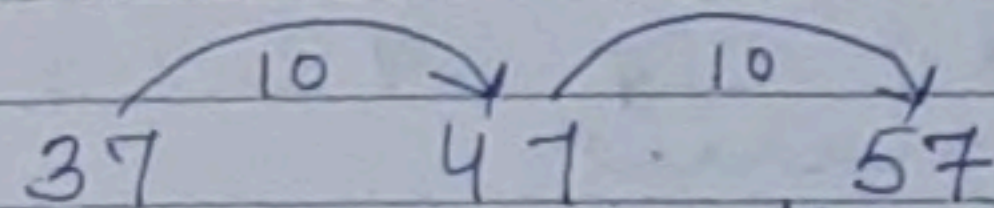
How much time students have to give for play and lunch (mid day meal) in school?

(c) The post office is 1 kilometre from Shahid's home and 2 kilometres from his school. Which is nearer to Shahid's home post office or school. If post office is 1 km, from his home and 2 km from his school?

(D) Bunty has read 27 books and Babli has read 34 books. Bunty has read 27 books and Babli has read 34 books. Who has read more books and by how much?

Count to subtract.

(A) $56 - 37 =$



$\Rightarrow 10 + 10 - 1 = 19$
 so $56 - 37 = 19$

(B) $60 - 45 =$
 45 55 $5-65$

 $10 + 10 - 5 = 15$

(c) $80 - 59 =$
 59 69 79 $+1$

 $10 + 10 + 1 = 21$

OR

 $1 + 10 + 10 = 21$

(D) $85 - 63 =$
 63 73 83 85

 $10 + 10 + 2 = 22$

(E) $84 - 69 =$
 $69 \quad 79 \quad +5 \quad 84$
 (A bracket under 69 and 79 with an arrow pointing to 84)
 $10 + 5 = 15$

OR
 $69 \quad 70 \quad 80 \quad 84$
 (A bracket from 69 to 70 with '+1', a bracket from 70 to 80 with '+10', and a bracket from 80 to 84 with '+4')
 $1 + 10 + 4 = 15$

(F) $60 - 20 =$
 $20 \quad 30 \quad 40 \quad 50 \quad 60$
 (Four brackets of length 10 each, starting from 20 and ending at 30, 40, 50, 60)
 $10 + 10 + 10 + 10 = 40$

(G) $90 - 50 =$
 $50 \quad 60 \quad 70 \quad 80 \quad 90$
 (Four brackets of length 10 each, starting from 50 and ending at 60, 70, 80, 90)
 $10 + 10 + 10 + 10 = 40$

All the King's Horses...
 up to what number can
 you count?
 I can count upto 200.

How many horses in all did

the king have?
 $3 \times 8 = 24$ horses.

How many horses are there
 now?

There are
 28 horses

2	5	2	$2 + 5 + 2$
5		5	$5 + 5$
2	5	2	$2 + 5 + 2 = 28$

How many horses are now
 left?

How many of the King's horses
 were taken away?
 20 horses are

left now.

4	1	4
1		1
4	1	4

King had 24 horses
 horses left 20
 difference $(24 - 20) = 4$

4 horses were taken away.

Puzzle

What numbers are we?

The numbers are 0 and 100.

$100 + 0 = 100$

$100 - 0 = 100$

Extra questions

Write following in words.
 103 one hundred three
 121 one hundred twenty one
 419 Four hundred nineteen
 501 Five hundred one.

Write words to numbers
 one hundred five 105
 Five hundred seventy one 571
 seven hundred six 706
 Eight hundred eighty four 884

Write numbers by expanding them
 $142 = 100 + 40 + 2$
 $654 = 600 + 50 + 4$
 $998 = 900 + 90 + 8$
 $450 = 400 + 50$

Arrange the numbers in ascending
 134 254 36 105 200
 36, 105, 134, 200, 254

 87 74 2 936 2834
 2, 74, 87, 936, 2834.

Arrange the following number in descending order

14 551 87 234 684
 684, 551, 234, 87, 14

19 23 98 892 1084
 1084, 892, 98, 23, 19

Find missing number?

$$489 + \underline{\quad?} = 692$$

$$\underline{\quad?} = 692 - 489$$

$$= 203 \text{ Answer}$$

$$232 \div \underline{\quad?} = 200$$

$$- \underline{\quad?} = 200 \times 232$$

$$+ \underline{\quad?} = +39 \text{ Answer}$$

$$= 32$$

- ① Note when transposition is done signs change i.e. - becomes + and + becomes -
- ② If there is - sign on both the sides we will cancel on both the side.

TIME GOES ON ...

This is a story with topsy turvy time.

As the sun sets rises sumana wakes up. What a lovely evening! morning she washes her face fast in 2 hours 2 minutes and runs out. she goes straight to the bird's nest. she has been watching the eggs for the last few months days she was waiting for the baby birds to come out. But before she can blink her eyes in a week moment a can jumps on to the tree. The mother birds cries loudly and sumana rushes to shoo away the cat. As the cat jumps it hits the big green mango plum! ... In two days seconds it is on the ground! Oh

how sad! The mango is still not fully ripe. It needed one more year week to become sweet. Suddenly sumana's sister calls out - Are you still not hungry? Has your stomach clock gone to sleep? Come and eat hot upma for dinner breakfast.

How long does it takes?
Have you seen someone knitting?
Yes, I have seen my grand mother knitting a sweater.

Someone weaving a cloth?
Yes, I have seen weavers weaving a cloth on TV.

Do try to find out from a potter how long it takes to make a pot.
It takes one week.

Also tell us if you take hours or minutes to have your

bath. I take 5 minutes to take bath.

Think of many different things that can take different times

	Takes min	Takes hours	Takes - days
①	A bath	to stitch a shirt	to knit a sweater
②	To boil milk	To set curd	to weave a sari
③	To sharpen pencil	to cook food	to ripe mangoes
④	To eat an apple	cleaning school ground	To prepare for exams
⑤	To wear uniform.	To reach school.	to do holidays home work
⑥	To wash car.	To repair car.	to travel to America.
⑦	To start T.V.	To watch a movie	For all episodes of serial to finish
⑧	To eat an apple	To make murabba of apple	For murabba to spoil

Think of some other things. some faster and some slower. Make a long list.

Takes to snap to gulp seconds my fingers my medicine

Some faster things Some slower things

- | | |
|------------------------|--|
| ① To eat an apple | To grow mango tree till it gives fruits. |
| ② To change clothes | Season change from summer to winter. |
| ③ To start new chapter | To get promoted to new class. |
| ④ To untie sweater | To weave a sweater. |
| ⑤ cutting nails | nails to grow. |

How many times can you clap before you catch the stone? 5 times.

How many of you can speak and stamp at the same time?

Most of us, can speak and stamp at the same time.

How old are we?
 Irfan's mother is twice as old as him. she is also 20 years older than him. Guess the ages of Irfan and his mother.

let age of Irfan be 'x'.
 as per given data.

(1) Irfan's mother is twice as old as him

(2) she is also 20 years older than him.

$$\begin{aligned} \therefore 2x &= x + 20 \\ 2x - x &= 20 \\ x(2-1) &= 20 \\ x &= 20 \end{aligned}$$

How many full moons have passed since you were born?

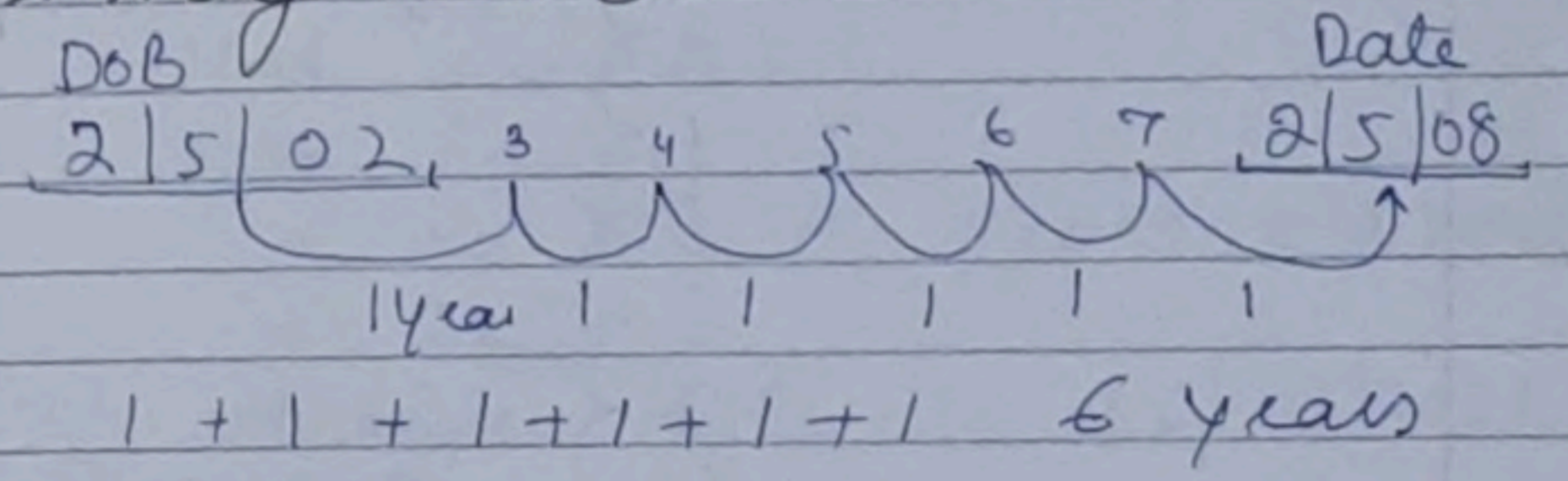
Full moon in a month = 1
 Full moon in 12 months = 12

my age 10 years.
 \therefore full moons passed since I was born = 10x

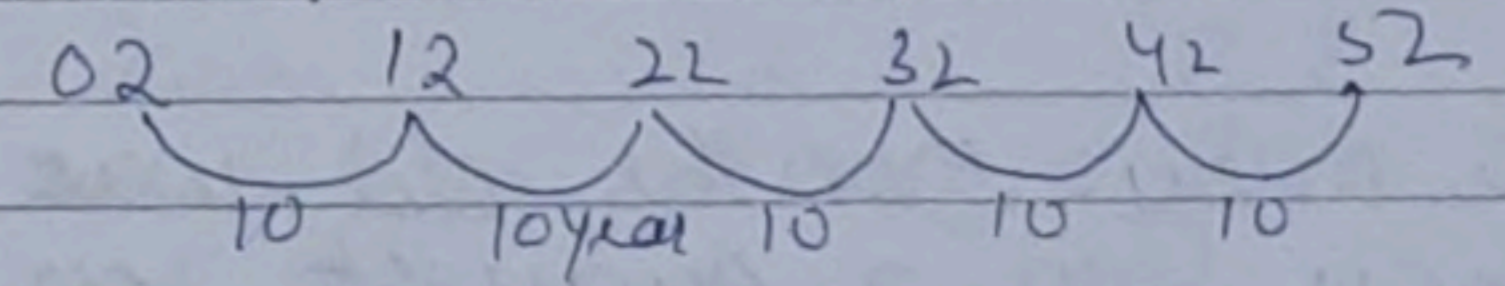
Birth certificate

(1) 2/5/2002 shows that Bincy was born on 2nd of may in the year 2002.

(2) How old will Bincy be on 2 may 2008?



(3) How old will she be in the year 2052.



counting in 10's (years jumped 10)
 10 + 10 + 10 + 10 + 10 = 50 years.
 alternate method
 year 2052 - year 2002 = $\frac{2052 - 2002}{10} = 50$

(4) on what date will she be eight years old. write the number.

DOB = 2002

Adding years 8

2010

So, date of Birth will remain same.

∴ 02/05/2010

OR

02/5/2002 } → 1 year completed

3 } → 2 "

4 } → 3 "

5 } → 4 "

6 } → 5 "

7 } → 6 "

8 } → 7 "

9 } → 8 "

10 } → 8 1/2 years completed

(5) How many months old was Bincy on 2 August 2002

DOB = 02 - May - 2002

02 - June - 2002

02 - July - 2002

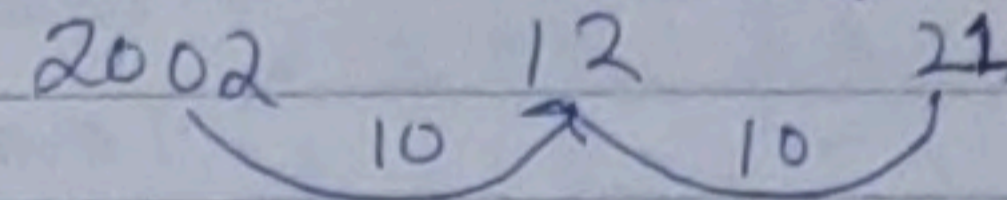
02 - Aug - 2002

1+1+1 = 3 months

6 How many years old is Bincy now?

DOB = 02/5/2002

Today date 02/5/2021



So, 10 + 10 - 1 = 19 years old now.

year 2021

year 2002

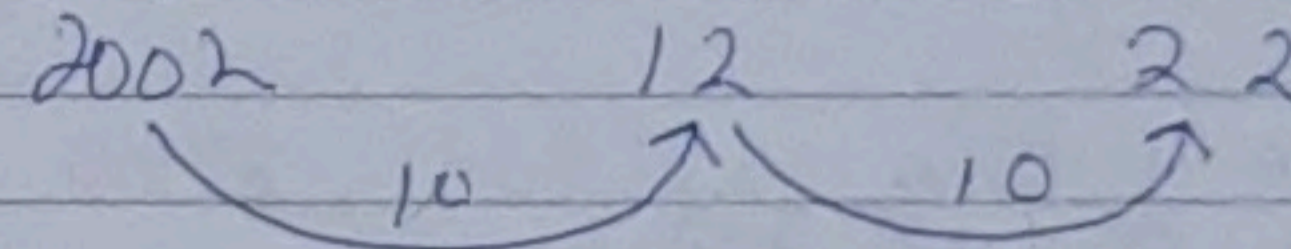
00/19 years old now

OR

If today's date is 02/05/2022

DOB = 02/5/2002

Today's date = 02/5/2022



So, 10 + 10 = 20 years old

7 After how many months of her birth was the certificate

7 After how many months of her birth was the certificate issued.

DOB : 02/05/2002

Date of issue : 05/08/2002

	02/05/2002	} 1 month,
	02/06/2002	
	02/07/2002	
	02/08/2002	
1 Day	03/08/2002	} 1 month.
1 Day	04/08/2002	
1 Day	05/08/2002	

We calculated months = 3
 Date (02 to 05) days = 3

∴ The birth certificate was issued after 3 months 3 days.

CR

DOB = 02/05/2002

Date of issue : 05/08/2002

	months	days
	08	05
	-05	02
	<u>3</u>	<u>3</u>
	3 months	3 days.

8) What is registration num? 815/02

The registration num. - 815/02

When were you born?

1 July, 2011.

Write your date of Birth in numbers.

1 | 07 | 2011.

Do you have a birth certificate
Birth certificate.

Name : MOHAMED
 Sex : MALE
 Date of Birth : 1 | 07 | 2011
 Place of Birth : NEW DELHI
 Name of Father : AKRAM
 Name of Mother : SARA
 Date of Registration : 1 | 07 | 2011

Registration Number : 123 X Y Z

Date 1/08/2011 Signature &

CALENDAR - 2018

Let us look at the calendar for the year 2018.

How many months which have

30 days.
 April, June, September, November.

How many months does a year have?
 12 months.

List the months which have 31 days.
 January, March, May, July, August, October, December.

How many days does the month of February have?
 28 days.
 28 day usually this calendar year is 2018.

How many days makes a week?
 7 days.

How many weeks are there in July?

4 weeks.
 Is it true for all the months?
 Yes. It is true for all the months.

In which month did you come to class III?
 I came to class 3 in April.

make a circle on these dates in the calendar.
 26th January - Republic Day.
 14th November - Children day.
 31st December - New year day.

JANUARY

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

NOVEMBER

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

DECEMBER

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

Fill in the blanks with the correct year: Taking this to 2019

- i) Which year was it two years back — 2017
- 2) In which year were you in class II — 2018
- 3) Which year will come after 3 years? — 2022

Which festival comes first?

Festival	Date	Day
Diwali	Nov 7	Wed
Pongal	Jan 14	Sun
Raksha Bandan	Aug 26	Sun
Gandhi Jayanti	Oct 2	Tue
Milad-ul-nabi	Nov 21	Wed
Onam	Aug 25	Sat
Guru Nanak's Bday	Nov 23	Fri

Guru Ravidas B-day Jan 31 Wed
 Christmas day Dec 25 Tue
 Bihu April 15 Sun

Arrange the festivals in the order in which they come in the year.

- 1) Pongal Jan 14
- 2) Guru Ravidas Birthday " 31
- 3) Bihu Apr 15
- 4) Onam Aug 25
- 5) Raksha bandan Aug 26
- 6) Gandhi Jayanti Oct 2
- 7) Diwali Nov 7
- 8) Milad-ul-nabi Nov 21
- 9) Gurus Nanak Birthday Nov 23
- 10) Christmas Day Dec 25

Which festival comes in the beginning of the year?

Pongal

Which festival comes at the end of the year?
 Christmas day

Calendar magic

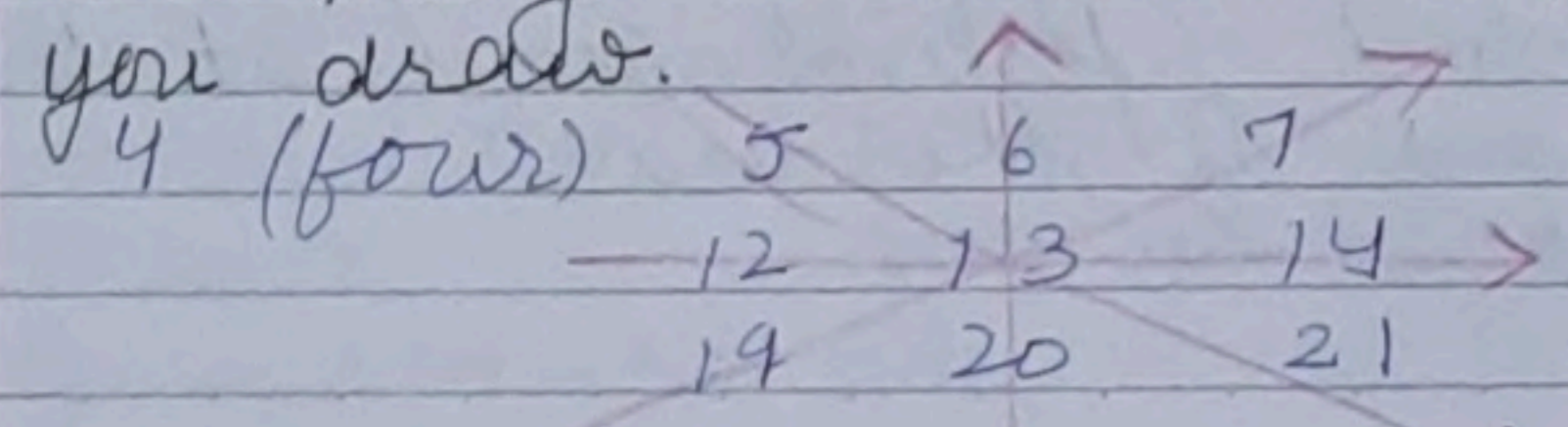
Here is the calendar for the month of February 2019. Let us mark a square on the calendar and see some magic.

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

Which is the number in the centre of the square?
 Number 13

Join three numbers by drawing a line. The line must pass through the number at the centre.

How many such lines can you draw?



Add the three numbers on each of these lines. What do you notice?

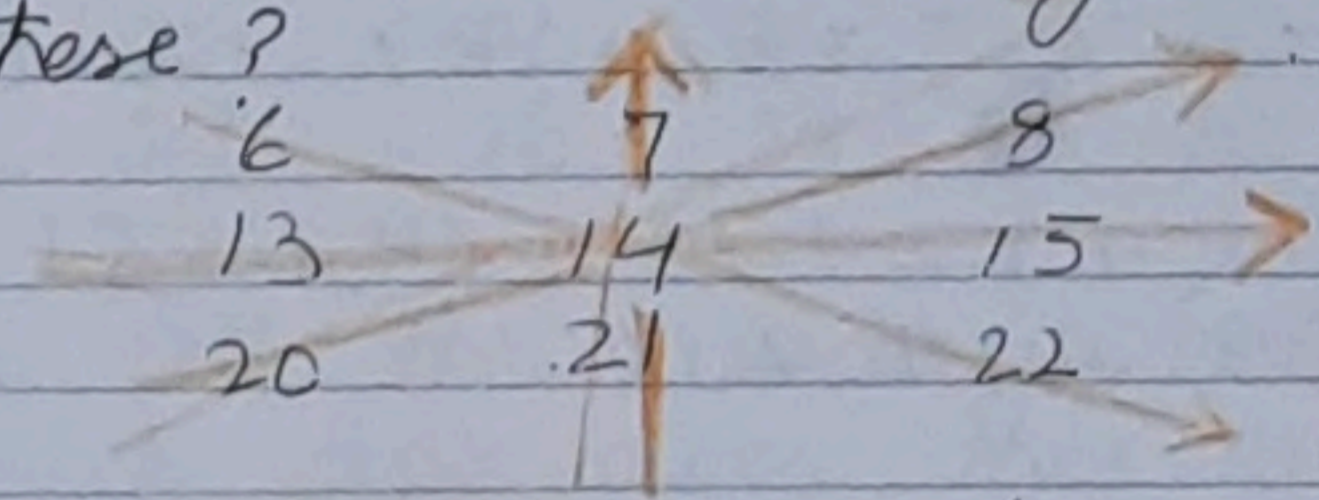
$$5 + 13 + 21 = 39$$

$$6 + 13 + 20 = 39$$

$$19 + 13 + 7 = 39$$

$$12 + 13 + 14 = 39$$

Now look at the calendar of 2006. Also look for the present month and draw any similar square in your notebook. Does the magic work for these?



$$7 + 14 + 21 = 42$$

$$6 + 14 + 22 = 42$$

$$13 + 14 + 15 = 42$$

$$20 + 14 + 8 = 42$$

Is this magic possible on a 10x10 number chart? Go to the chapter 'Fun with Numbers'

and check.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$$1 + 12 + 23 + 34 + 45 + 56 + 67 + 78 + 89 + 100 = \underline{\underline{505}}$$

$$91 + 82 + 73 + 64 + 55 + 46 + 37 + 28 + 19 + 10 = 505$$

The two horizontal lines add to 505.

1	2	3	$2 + 12 + 22 = 36$
11	12	13	$1 + 12 + 23 = 36$
21	22	23	$11 + 12 + 13 = 36$
			$21 + 12 + 3 = 36$

31	32	33
41	42	43
51	52	53

$$31 + 32 + 33 = 66$$

$$41 + 42 + 43 = 66$$

$$51 + 52 + 53 = 66$$

$$32 + 42 + 52 = 66$$

Complete the calendar

Sun	Mon	T	W	TH	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

- Colour all the sundays in red.
- on which day does this month end: **Friday**
- write the number of days in this month - **31 days**
- What day is it on 13th Aug-**ust** - **Monday**
- What is the date on the second saturday. **11th**

⑥ Is the 21st a Sunday?
 NO, it is Tuesday.

⑦ What is the day on the 29th? What will be the date on the same day next week?
 29th is Wednesday.
 5th.

⑧ How many Thursdays are there in this month?
 5 Thursdays.

Find out!
 Which months in the calendar (2018) have 5 Sundays?
 April, July
 September, December.

Is there any other day in any month which comes 5 times?

① Monday, Tuesday, Wednesday comes 5 times in January.

② Thursday, Friday, Saturday in March.

③ Sunday, Monday in April.

④ Tuesday, Wednesday, Thursday in May.

⑤ Friday, Saturday in June.

⑥ Sunday, Monday, Tuesday in the month of July.

⑦ Wednesday, Thursday, Friday in the month of August.

⑧ Sunday and Saturday in the month of September.

⑨ Monday, Tuesday, Wednesday in the month of October.

⑩ Thursday, Friday in the month of November.

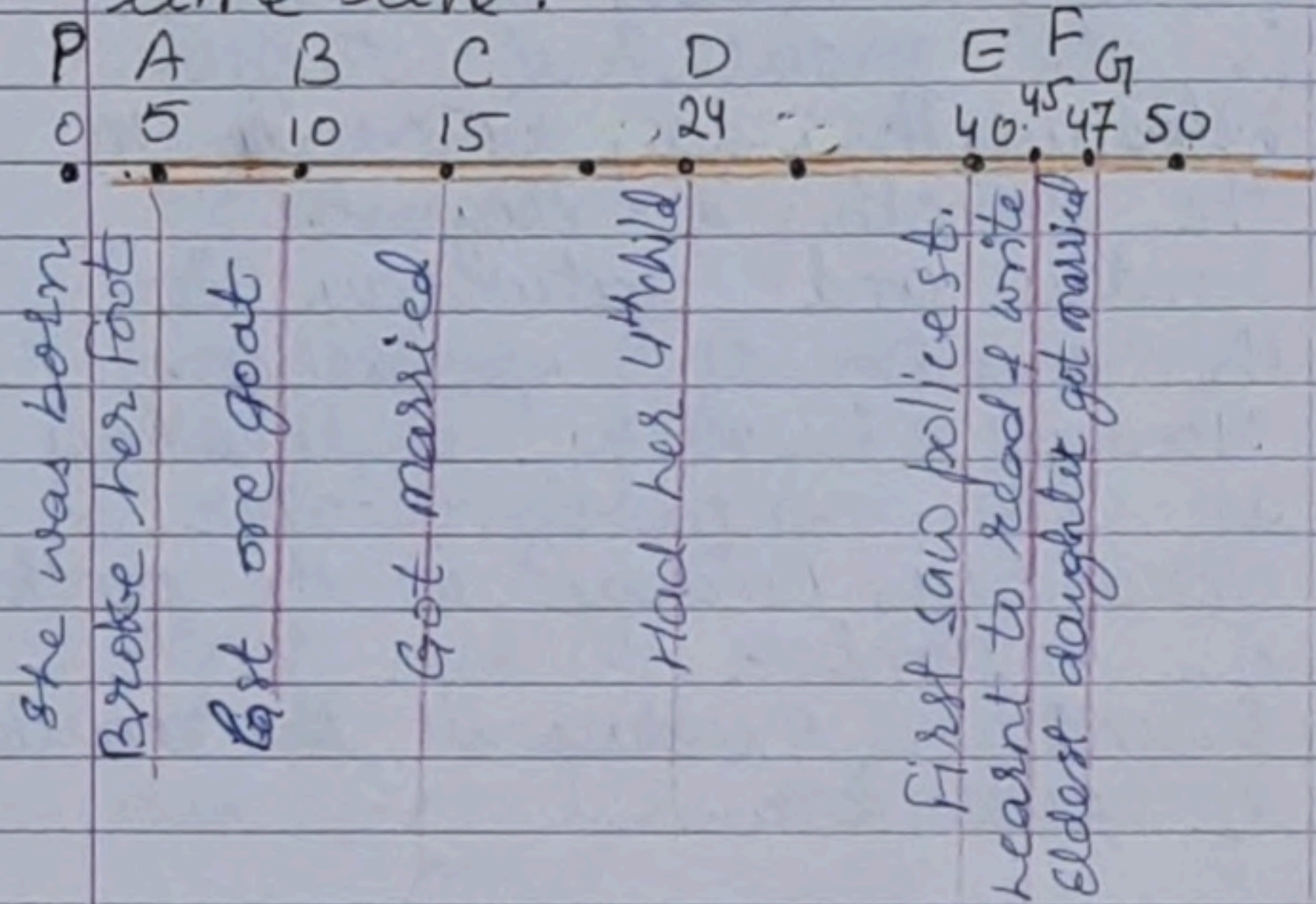
⑪ Sunday, Monday in the month of December.

Can there be 6 Sundays in a month? Why?

NO, because there are usually 4 weeks and some times 5 weeks in a month. Since there are no 6 weeks in month so there are no 6 Sundays in a week.

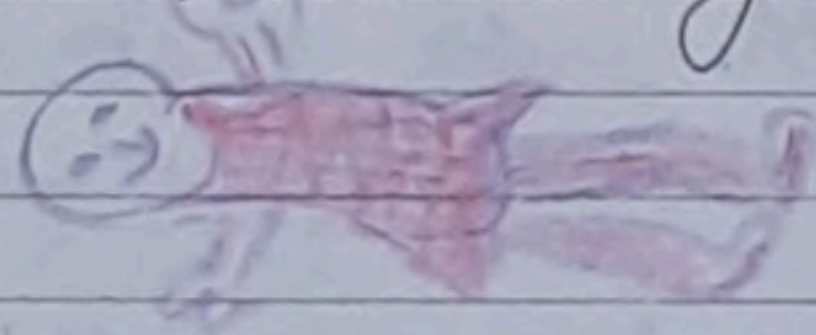
The True story of Pelli Devi.

Some things that happened in her life are given below. Mark these on her time line.

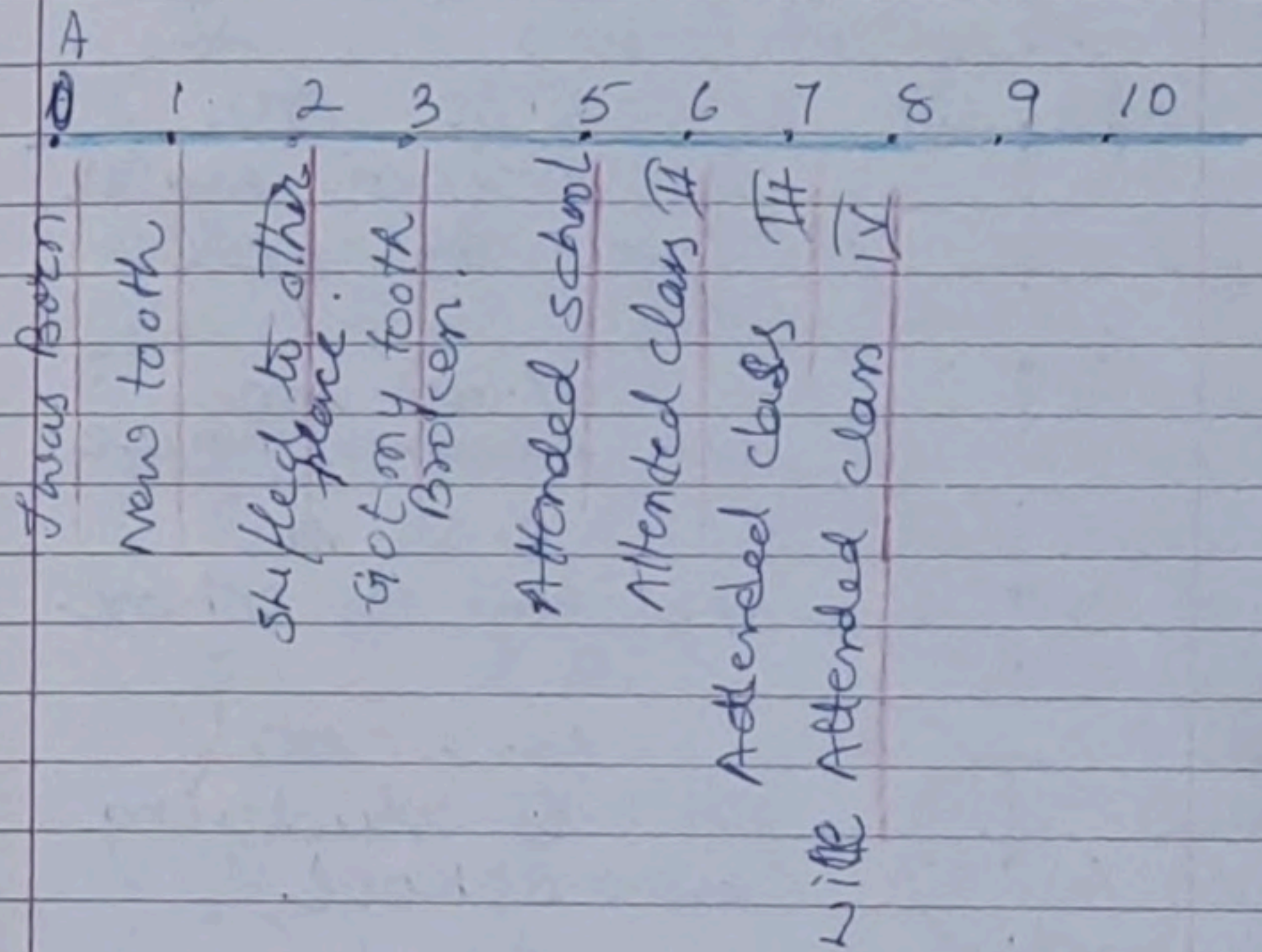


Mark on the time line when she was born. Marked as P on line.

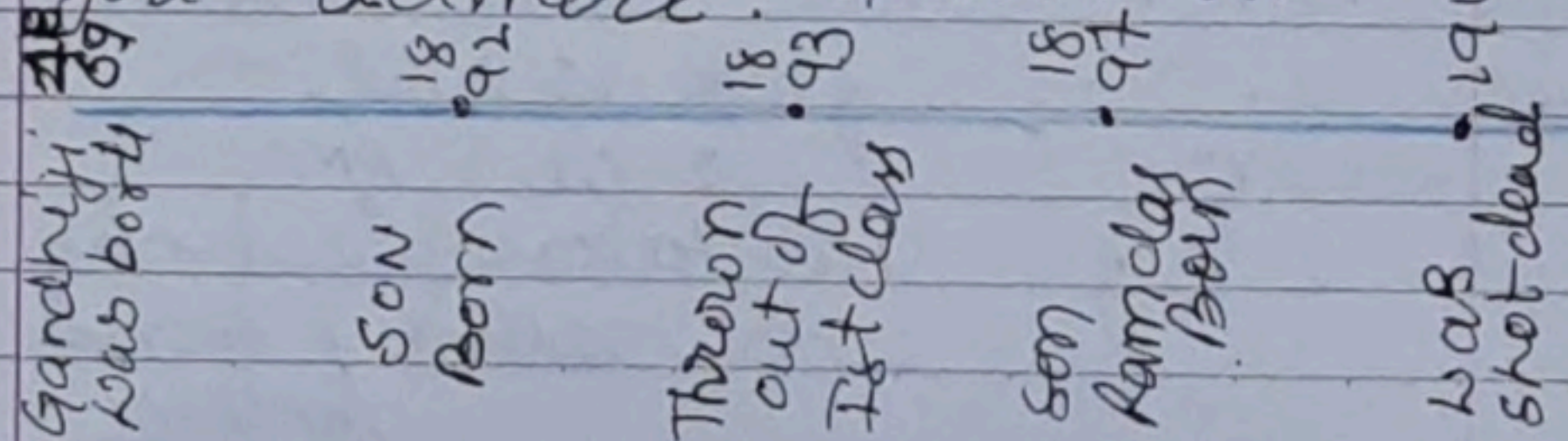
Draw the picture of Pedki as a new born baby.



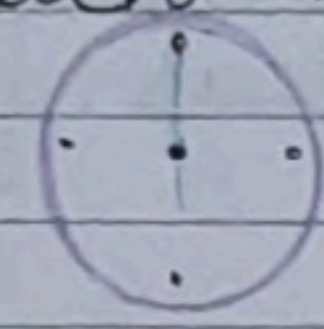
Make your own time line. Ask people around you and mark at least one thing that happened in each year of your life.



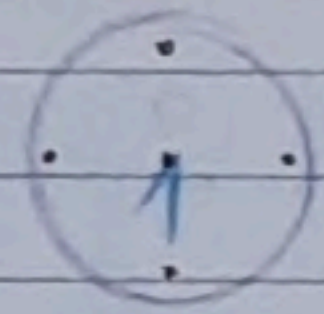
Make time line of people you admire. Gandhi Ji.



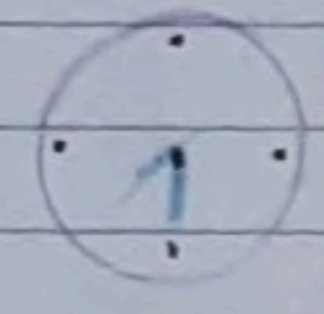
one day in the life of kusum.
 write down the time for
 each picture.



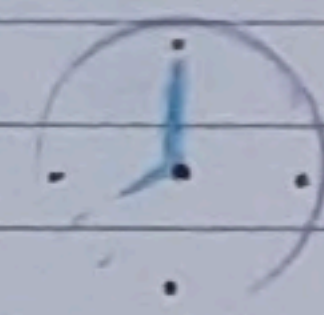
6:0' clock am
 Kusum gets up early
 in the morning



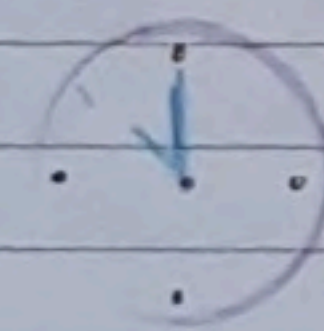
6:30 am
 She brings water
 from the well.



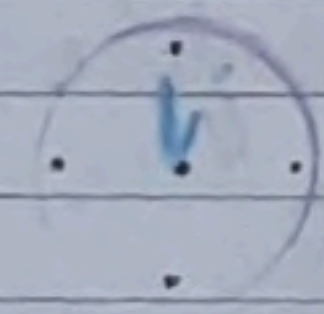
7:30 am
 she cleans house



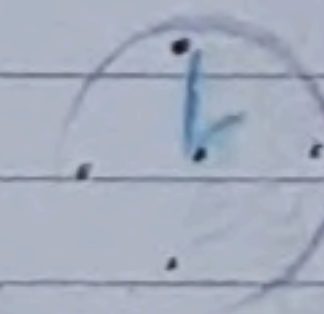
8:00 am
 She goes to school.



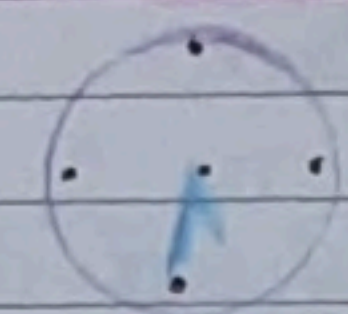
10:0 am
 she is studying
 in school.



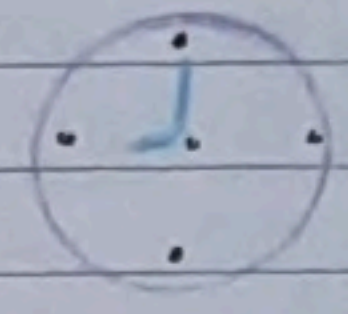
1:0 clock (1:0 PM)
 she comes back
 from school.



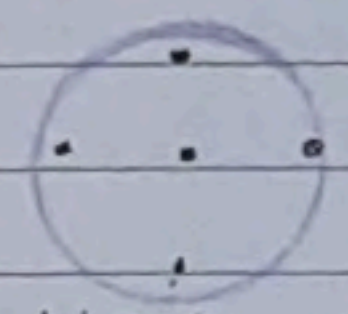
2:00 PM
 she takes lunch
 with brother & grand
 mother.



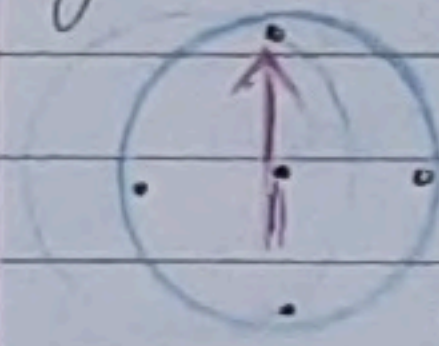
5:30 PM
 she plays with her
 friends.



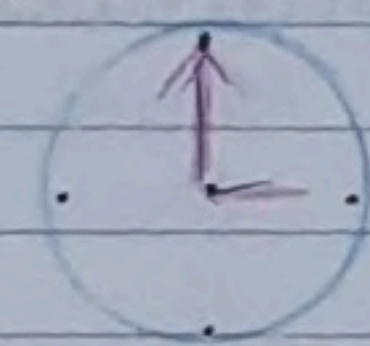
9:0' clock PM
 She listens to a
 story from her
 grand mother
 before she sleeps.



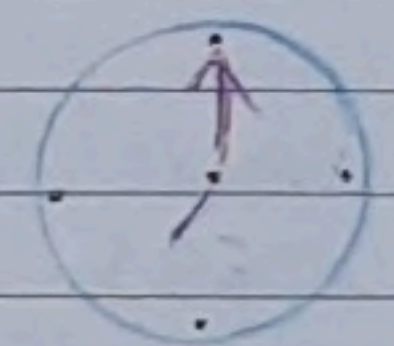
Now prepare a chart showing
 your own daily routine.



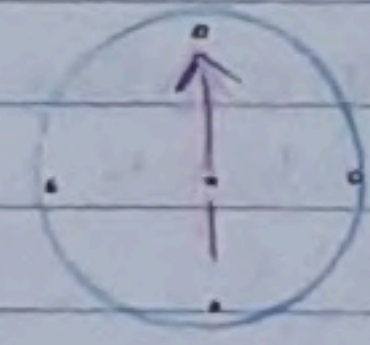
6:0' clock
 I wake
 up and
 get ready
 I leave



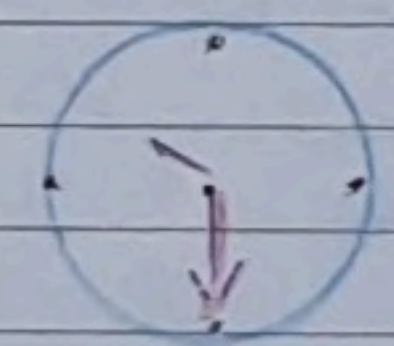
3:0' clock
 in evening
 I login
 for on-
 line tuition



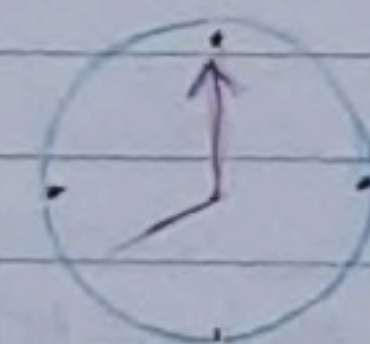
7:0' clock
 my home
 for school



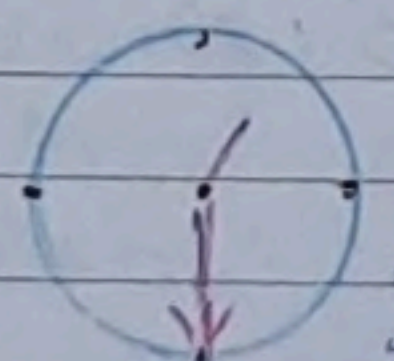
6:0' clock
 I leave
 for play
 ground



10:30 am
 I eat
 lunch



8:0' clock
 I sleep
 in my
 room.



1:20 PM
 I leave
 school for
 home.

Extra questions

What time it will be?

1 hour after 10:30

HOUR	:	MINUTES
10	:	30
+ 1	:	00
11	:	30

15 minutes after 3:30.

HOUR	:	MINUTES
03	:	30
0	:	15
03	:	45

10 minutes after 1:20

HOUR	:	MINUTES
1	:	20
0	:	10
1	:	30

20 minutes after 5:00.

HOUR	:	MINUTES
5	:	00
	:	20
5	:	20

20 minutes before 5:00

4:55	:	00
	:	20
4	:	40

- ① 1 hour = 60 minutes
- ② 5 minutes pass as the minute hand passes from one number to another.
- ③ Hour hand is smaller than the minute hand.
- ④ At noon and midnight both hands point to 12.
- ⑤ There are 24 hours in a day.
- ⑥ At quarter past four the minute hand is at 3.
- ⑦ At 9:30 the minute hand is at 6.
- ⑧ At 10:45 the minute hand points at 9.
- ⑨ At 20 minutes past six the minute hand points at 4.
- ⑩ 2 hours after 11:10 will be 1:10.
- ⑪ The time 15 minutes after 1 will be 1:15.
- ⑫ Midnight is 00 hours.
- ⑬ Clock has 3 hands, longest seconds hand, smaller minutes hand and smallest is hour hand.

WHO IS HEAVIER

Are the groundnuts really more than the jaggery (gur) in weight or do they just look more?

① 1 Kg popcorn corn or 1 Kg sugar?
No, they only look more.

② 1 Kg peas or 1 Kg potatoes.
No, they are equal in weight. It only looks like that.

Now guess for which of these you need a bigger bag?

We need a bigger bag for 1 Kg popcorn and 1 Kg peas.

How many small tomatoes do you think could lift the pumpkin up?
Forty.

How many big mangoes can balance the pumpkin?
20 (Twenty)

How many big mangoes can balance the pumpkin.
20 (Twenty)

How many pumpkins can balance you on the see-saw?
5 pumpkins

Name some of your classmates who you think weigh

(a) Almost the same as you?
Ganesh, Rohit, Bala.

(b) more than you.
Bomik, sumit

(c) less than you.
Anit, Aslam, Rohit.

How many books can you lift on one hand keeping

your arm straight?
 Three books.

Double her weight
 Now, guess her weight and
 the amount of sweets her
 parents distribute every
 Independence Day.

Kumjamma's age.	weight	Amount of sweets
At Birth	3 Kg	$3+3=6$ Kg
1 year old	9 Kg	$9+9=18$ Kg
2 year old	13 Kg	$13+13=26$ Kg
3 year old	17 Kg	$17+17=34$ Kg
4 year old	21 Kg	$21+21=42$ Kg
5 year old.	28 Kg	$28+28=56$ Kg

You can ask your parents
 how much a 2-year old
 or 4-year old child could
 weigh.

2 year	32 Kg
4 year	38 Kg

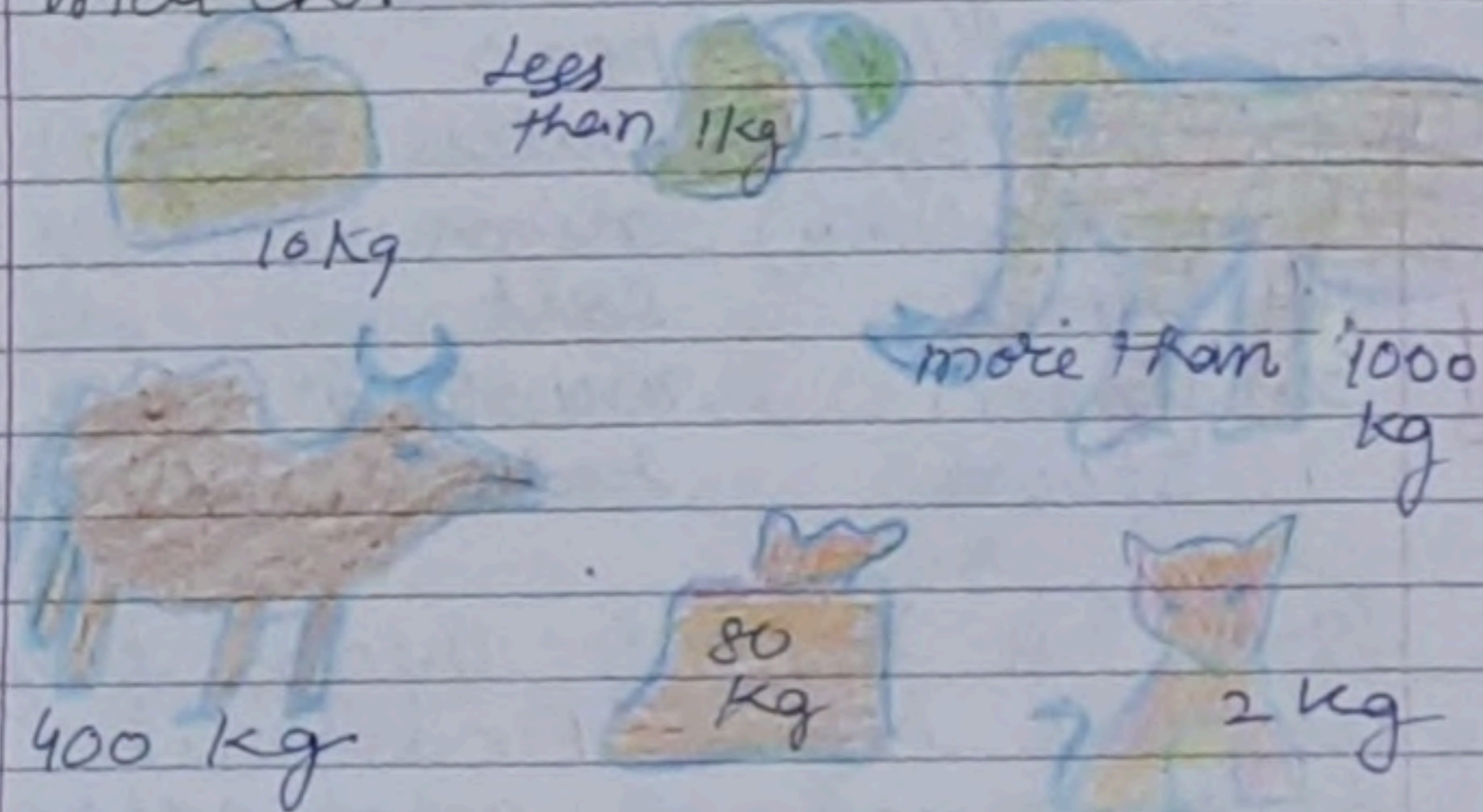
Help him to match the things
 with their right amounts!

1 1/2 kg	Rice
Half kg	dal
100 gms (1 bowl)	peas
100 ml (8 glasses)	water
1000 gms (1 kg)	onions
2 pinch	salt
2 spoon	mustard seeds
1 spoon	red chilli powder

Make a list of things bought
 at your home. Find out
 how much of each thing
 is bought at one time.
 These things can be rice,
 oil, chilli powder, sugar,
 milk, onions, ginger, etc.

Name of thing	How much bought
Rice	10 Kg
oil	5 lbs
chilli powder	500 gms
sugar	2 Kg
milk powder	1 kg
onions	5 Kg
ginger	1 kg
Tada	2 Kg
Ghee	2 lbs

B Guess their weights and match.



Guess which of the following things weight more than 1 kg which ones will weigh less than 1 kg (kg)

- 1) your school bag - more than 1 kg
- 2) Geometry box - less than 1 kg
- 3) A brick - more than 1 kg
- 4) A big pumpkin - more than 1 kg
- 5) your pair of slippers: less than 1 kg

Bring a balance and a 1 kg weight to class. check if your guess was right. yes.

D Use your balance to find which of the following is heavier.

- (1) A water bottle or a cricket ball - water bottle is heavier
- (2) Your shoe or your pencil box - shoe is heavier.
- (3) your Maths book or Hindi book - maths book is heavier
- (4) your bag or your friend's bag - friend's bag is heavier

E Weigh 1 kg of mud or sand Divide it equally into 2 bags. use the balance to check if both the bags have equal weight.
yes both the bags have equal weight.

Each bag of mud is your half kg weight. use it to weight some other things around you.

Two lunch box - weigh half kg
3 Maths books - weigh half kg.

Make a list of things weighing less than half kg.
 Pencil box, maths book, chalk box, duster, colour box

Things weighing more than half kg.
 School bag, water bottle, dustbin, Madam's Purse.

Look for weights and balances.

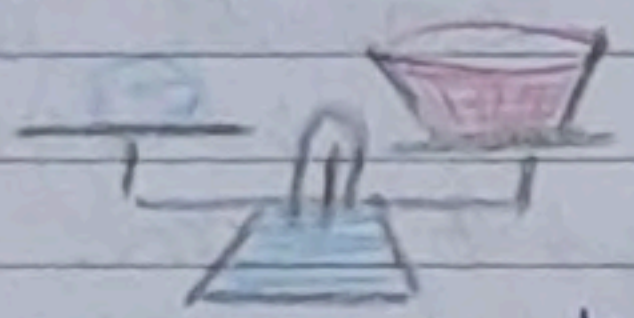
a) Who uses the biggest wt?
 Junk seller.

b) Who uses the smallest wt?
 grocery shop.

Have you seen any of these balances?



no, not seen



yes seen in shop.

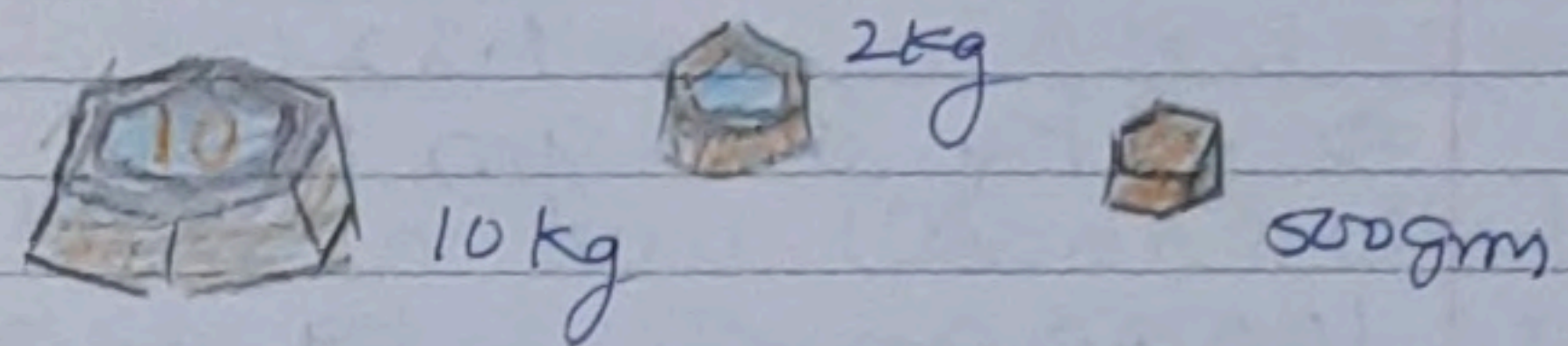


yes, seen in sweet shop



yes, seen in vegetable shop.

In which shop would you find the following types of weights. Discuss with your friends.



In vegetable shop and grocery shop.

Extra questions
 Balance the scale

$$\begin{aligned} & \rightarrow 1 \text{ kg} = 500 \text{ gm} + \square \\ & \square + 500 \text{ gm} = 1000 \text{ gm} \\ & \square = 1000 - 500 \\ & = 500 \end{aligned}$$

Conversion of units weights.

$9820\text{g} = \underline{\quad} \text{kg} \underline{\quad} \text{gm}$
 We know $1\text{kg} = 1000\text{gm}$
 $\therefore \frac{1}{1000} \text{kg} = 1\text{gm}$

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

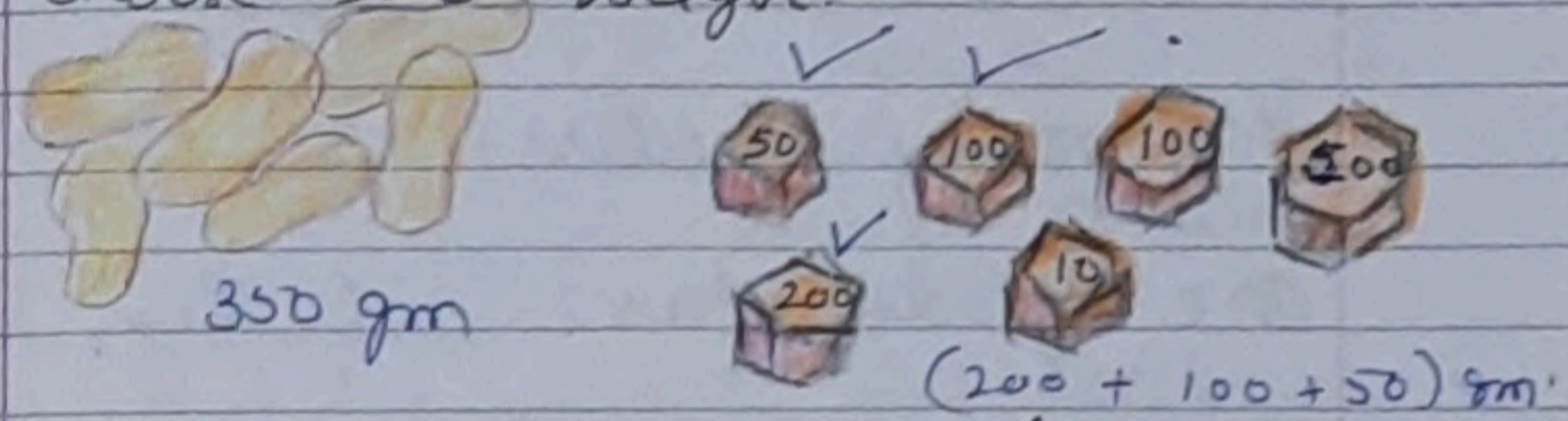
$\therefore 9820\text{gm} = \frac{1}{1000} \times 9820\text{gm}$
 $= \frac{9820}{1000}$
 $= 9.820$
 $\Rightarrow 9\text{kg } 820\text{gm}$

$10030\text{gm} = \underline{\quad} \text{kg} \underline{\quad} \text{gm}$
 $1\text{gm} = \frac{1}{1000} \text{kg}$

$\therefore 10030\text{gm} = \frac{10030}{1000} \text{kg}$
 $= 10.030 \text{kg}$
 $\Rightarrow 10\text{kg } 30\text{gm}$

$4\text{kg } 900\text{gm} = \underline{\quad} \text{gm}$
 $1\text{kg} = 1000\text{gm}$
 $4\text{kg} = 4000\text{gm}$
 $4000\text{gm} + 900\text{gm}$
 4900gm

Choose the weigh.



Addition with units (column method)

2	.	50 gm	+	20 gm		10	.	200 + 2	500 gm
		kg		gm				kg	gm
		2		50				10	800
		+ 0		20				2	500
		<u>2 kg</u>		<u>70 gm</u>				<u>13 kg</u>	<u>300 gm</u>

Subtraction with (column method)

10	.	800	-	2	.	500		10	.	500	-	1	.	800
		kg		gm		kg		kg		gm		kg		gm
		10		800				10		500		10		1500
		- 2		500				1		800		8		700
		<u>8 kg</u>		<u>300 gm</u>				<u>8 kg</u>		<u>700 gm</u>				

Which is heavier

11 kg		1 gm
200 gm	✓	2000 gm
5.200 gm	✓	8.900 gm
0.3 gm	✓	0.1 gm

HOW MANY TIMES

How many spiders? 3

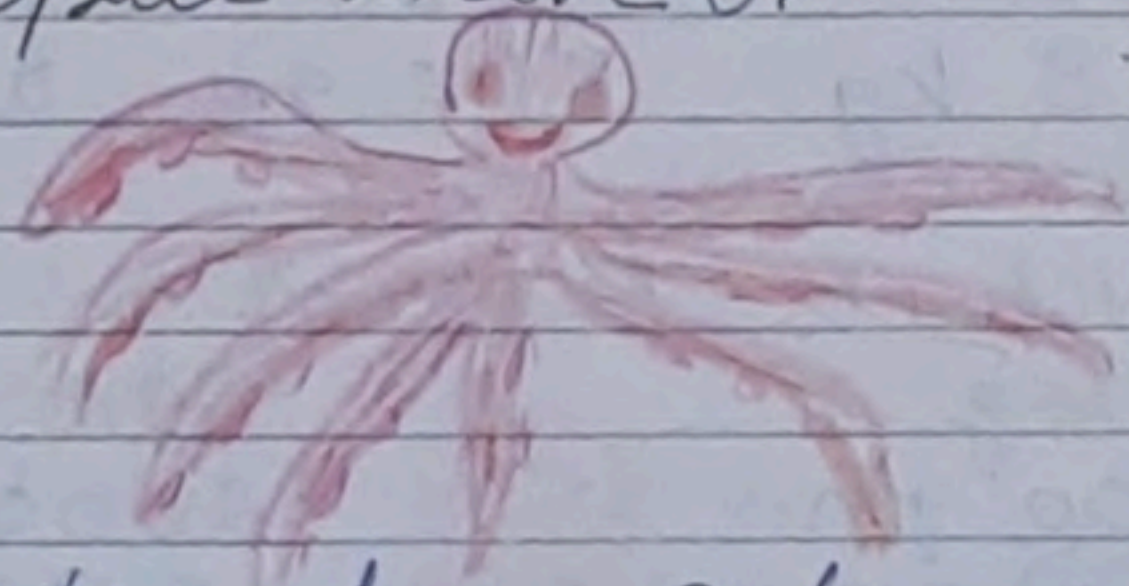
one spider has? 6 legs

In all, spider legs are 3 times 6 or

6 legs one spider
 + 6 legs of 2nd spider
 + 6 legs of 3rd spider.
18 legs or

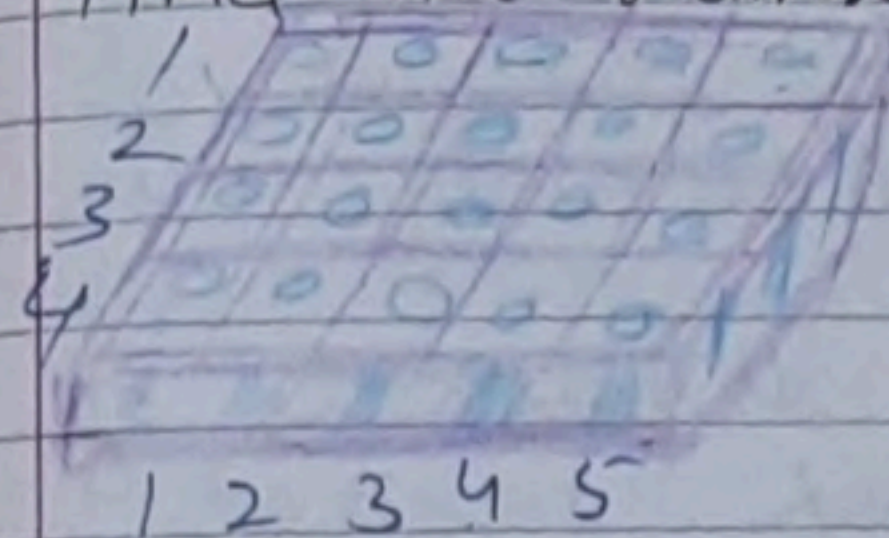
$$3 \times 6 = 18$$

How many legs altogether do 5 octopus have?



one octopus has 8 legs
 5 octopus has 5×8 legs
 $= 40$ legs

Find the numbers without counting



Row = 4

column = 5

Rows \times column

$$4 \times 5$$

= 20 bottles

How many eggs?

$$6 \text{ times } 5 = 30 \text{ eggs}$$

Practice time.

A) Rewrite using the + sign.

$$2 \times 5 \text{ is } 2 \text{ times } 5 \text{ or } 5 + 5$$

$$4 \times 18 \text{ is } 4 \text{ times } 18 \text{ or } 18 + 18 + 18 + 18$$

$$3 \times 20 \text{ is } 3 \text{ times } 20 \text{ or } 20 + 20 + 20$$

$$8 \times 9 \text{ is } 8 \text{ times } 9 \text{ or } 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9$$

B) Tell how many times

$$9 + 9 + 9 + 9 + 9 + 9 = 6 \times 9 = 54$$

$$4 + 4 + 4 + 4 + 4 = 5 \times 4 = 20$$

$$8 + 8 + 8 = 3 \times 8 = 24$$

$$3 + 3 + 3 + 3 + 3 = 5 \times 3 = 15$$

$$30 + 30 + 30 = 3 \times 30 = 90$$

$$7 + 7 + 7 + 7 + 7 + 7 = 6 \times 7 = 42$$

$$12 + 12 + 12 + 12 = 4 \times 12 = 48$$

$$6 + 6 + 6 = 3 \times 6 = 18$$

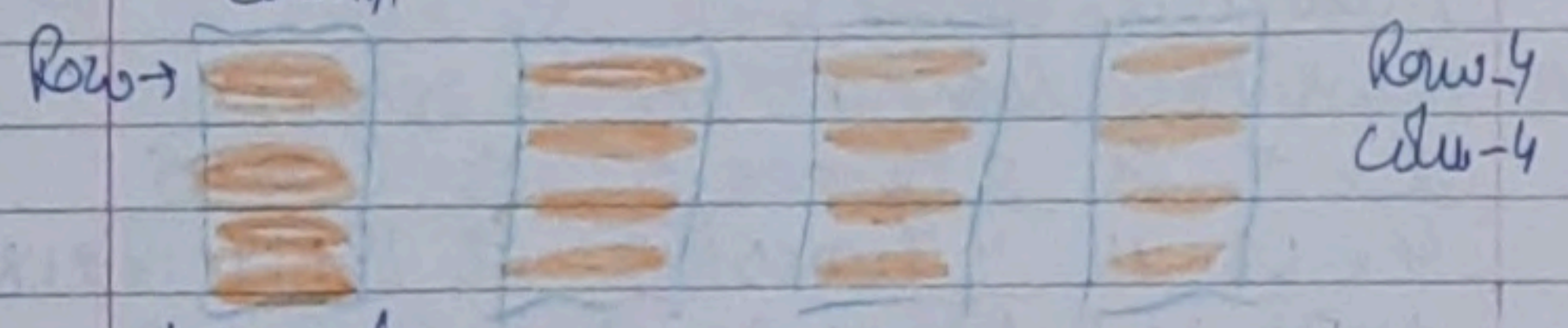
$$10 + 10 + 10 + 10 = 4 \times 10 = 40$$

$$2 + 2 + 2 + 2 + 2 = 5 \times 2 = 10$$

$$6 + 6 + 6 + 6 + 6 + 6 + 6 = 7 \times 6 = 42$$

c Ramu bought 4 packets of biscuits. Each packet has 4 biscuits. How many biscuits did Ramu buy?

Ramu bought Biscuits = 4 packets
 one packet has = 4 Biscuits



1 pack
 4 Biscuit
 Ramu Buy = 4×4 biscuits.
 $= 16$ biscuits.

d There are 12 desks in a classroom. Each desk has 4 legs. What is the total number of legs of the desks?

Desks = 12
 1 Desk legs = 4
 Total legs = $12 \times 4 \Rightarrow 48$ legs

Sabiha brought home 3 bunches of flowers. Each bunch has 4 flowers.

How many flowers were there?
 Bunches = 3
 one bunch has = 4 flowers.
 Total flower = $3 \times 4 = 12$ flowers

One rail coach has 8 wheels. How many wheels in all in 6 coaches?

1 Rail coach = 8 wheels
 6 coaches = 8×6 wheels
 $= 48$ wheels.

How many times 2.

1 time 2 is 2	or	$1 \times 2 = 2$
2 time 2 is 4	or	$2 \times 2 = 4$
3 time 2 is 6	or	$3 \times 2 = 6$
4 time 2 is 8	or	$4 \times 2 = 8$
5 time 2 is 10	or	$5 \times 2 = 10$
6 time 2 is 12	or	$6 \times 2 = 12$
7 time 2 is 14	or	$7 \times 2 = 14$
8 time 2 is 16	or	$8 \times 2 = 16$
9 time 2 is 18	or	$9 \times 2 = 18$
10 time 2 is 20	or	$10 \times 2 = 20$

Jump with Me.
Tarru frog jumps 3 steps
each time.
Which numbers will tarru
touch?

$1 \times 3 = 3$	Jump 1
$2 \times 3 = 6$	Jump 2
$3 \times 3 = 9$	Jump 3
$4 \times 3 = 12$	Jump 4
$5 \times 3 = 15$	Jump 5
$6 \times 3 = 18$	Jump 6
$7 \times 3 = 21$	Jump 7
$8 \times 3 = 24$	Jump 8
$9 \times 3 = 27$	Jump 9
$10 \times 3 = 30$	Jump 10
$11 \times 3 = 33$	Jump 11
$12 \times 3 = 36$	Jump 12
$13 \times 3 = 39$	Jump 13
$14 \times 3 = 42$	Jump 14
$15 \times 3 = 45$	Jump 15

Show jumps with 4 steps.

$1 \times 4 = 4$	Jump 1
$2 \times 4 = 8$	Jump 2
$3 \times 4 = 12$	Jump 3
$4 \times 4 = 16$	Jump 4

$5 \times 4 = 20$
$6 \times 4 = 24$
$7 \times 4 = 28$
$8 \times 4 = 32$
$9 \times 4 = 36$
$10 \times 4 = 40$
$11 \times 4 = 44$
$12 \times 4 = 48$
$13 \times 4 = 52$
$14 \times 4 = 56$
$15 \times 4 = 60$

- Jump 5
- Jump 6
- Jump 7
- Jump 8
- Jump 9
- Jump 10
- Jump 11
- Jump 12
- Jump 13
- Jump 14
- Jump 15.

Try jumps with seven steps.

$1 \times 7 = 7$
$2 \times 7 = 14$
$3 \times 7 = 21$
$4 \times 7 = 28$
$5 \times 7 = 35$
$6 \times 7 = 42$
$7 \times 7 = 49$
$8 \times 7 = 56$
$9 \times 7 = 63$
$10 \times 7 = 70$
$11 \times 7 = 77$
$12 \times 7 = 84$
$13 \times 7 = 91$
$14 \times 7 = 98$
$15 \times 7 = 105$

- Jump 1
- Jump 2
- Jump 3
- Jump 4
- Jump 5
- Jump 6
- Jump 7
- Jump 8
- Jump 9
- Jump 10
- Jump 11
- Jump 12
- Jump 13
- Jump 14
- Jump 15

Stick play

Two times table with sticks:

$1 \times 2 = 2$

$2 \times 2 = 4$

$3 \times 2 = 6$

$4 \times 2 = 8$

$5 \times 2 = 10$

$6 \times 2 = 12$

$7 \times 2 = 14$

$8 \times 2 = 16$

$9 \times 2 = 18$

$10 \times 2 = 20$

$11 \times 2 = 22$

$12 \times 2 = 24$

Now draw sticks to make
the multiplication table of 6.

$1 \times 6 = 6$

$2 \times 6 = 12$

$3 \times 6 = 18$

$4 \times 6 = 24$

$5 \times 6 = 30$

$6 \times 6 = 36$

$7 \times 6 = 42$

$8 \times 6 = 48$

$9 \times 6 = 54$

Shopping with tables

How much do these things cost?

4 bottles cost 8 rupees

$4 \times 2 = 8$

3 pencil boxes cost 30 rupees10 pencil boxes cost 100 rupees9 balloons cost 45 rupees.5 toys cost 20 rupees.7 face marks cost 21 rupees.

Practice time.

Complete the following:

$2 \times 7 = 14$

$3 \times 9 = 18$

$4 \times 9 = 36$

$5 \times 2 = 10$

$5 \times 8 = 48$

$3 \times 10 = 30$

$10 \times 6 = 60$

$2 \times 8 = 18$

$5 \times 9 = 45$

$10 \times 8 = 80$

Look at the patterns and
complete them.

3, 6, 9, 12, 15, 18

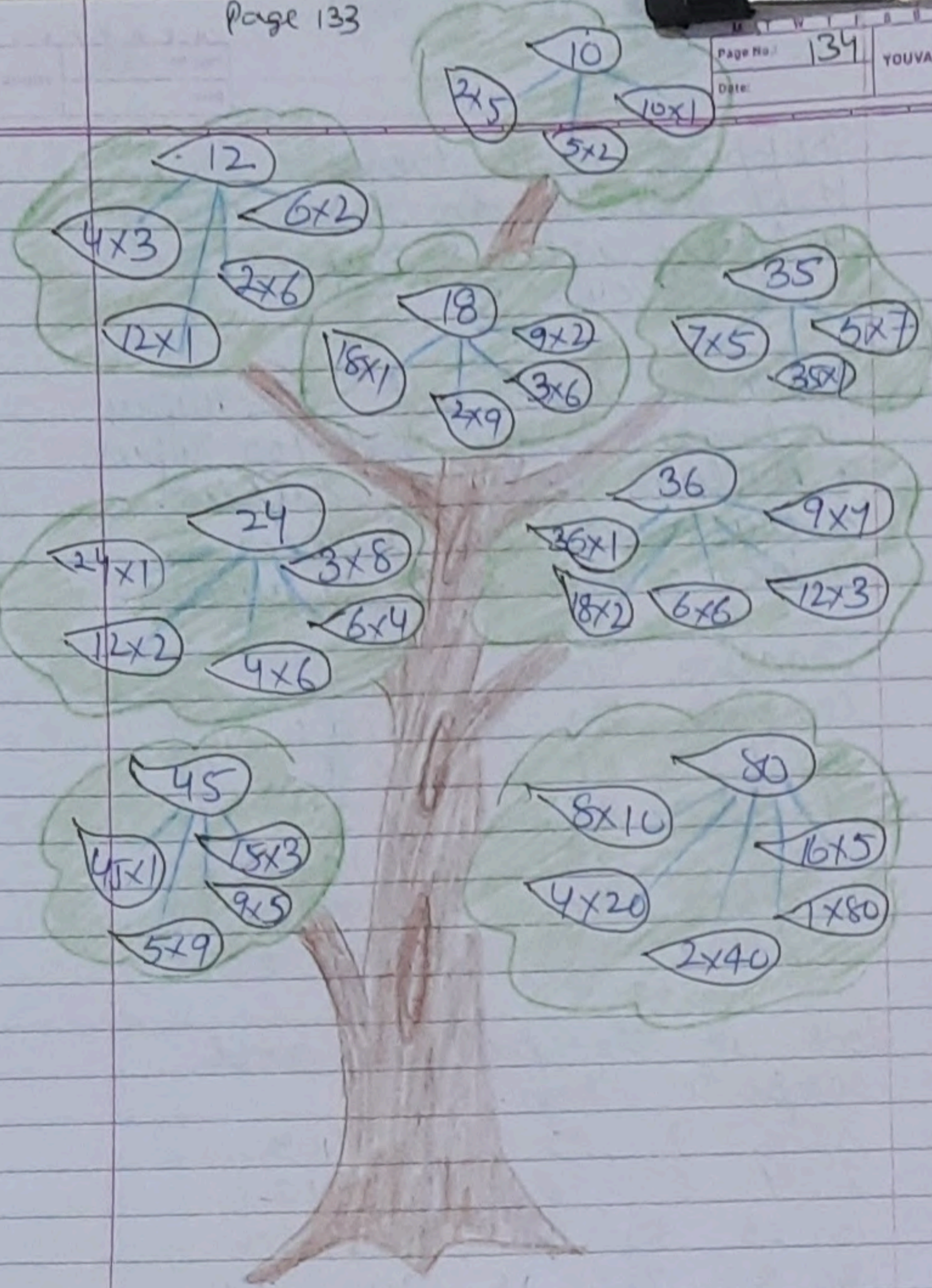
2, 4, 6, 8, 10, 12

10, 20, 30, 40, 50, 60

4, 8, 12, 16, 20, 24

5, 10, 15, 20, 25, 30

30, 60, 90, 120, 150, 180



complete the multiplication tree.

How many in all?
 The almirah has 4 shelves
 There are 5 books in each shelf. How many books are in the almirah?
 almirah has shelves = 4
 one shelf has books = 5
 Books in almirah = 4×5
 = 20 books.

A shirt has 5 buttons. How many buttons would 3 shirts have?
 one shirt has buttons = 5
 3 shirts has buttons = 3×5
 = 15.

There are four fans each fan has 3 blades. what is the total number of blades in all?
 No of fans = 4
 one fan has = 3 blades
 Total number of blades = 4×3
 = 12 blades.

A box contains 6 apples. How many apples in all will seven boxes have?

A box contains apples = 6
 7 boxes contain apples = 6×7
 = 42

How many corners would 4 triangles have?

one triangle has = 3 corners
 4 triangles have = 4×3 corners
 = 12 corners

Some multiplication facts:

$8 \times 3 = 24$ $5 \times 7 = 35$
 $3 \times 3 = 9$ $6 \times 6 = 36$
 $6 \times 7 = 42$ $10 \times 4 = 40$
 $5 \times 8 = 40$ $4 \times 9 = 36$
 $9 \times 6 = 54$ $4 \times 7 = 28$

Multiplication Table of 1.

one time one is $1 \times 1 = 1$
 two times one is $2 \times 1 = 2$
 three times one is $3 \times 1 = 3$
 four times one is $4 \times 1 = 4$
 five times one is $5 \times 1 = 5$
 six times one is $6 \times 1 = 6$

Seven times one is $7 \times 1 = 7$
 Eight times one is $8 \times 1 = 8$

Multiplying Big Numbers.

Two toffees were given to each student in the class. If there were 34 students. How many toffees were given in all?

Total students present = 34
 Each student gets toffees = 2
 Total number of toffees given = 68
 Bharti method

	30	4
$\Rightarrow 2$	60	8
\Rightarrow	$60 + 8$	$= 68$

In a picnic 4 fruits were given to every student. The number of students was 23. Find out the total number of fruits given. Number of students in the picnic = 23
 Fruits given to each student = 4

Total number of fruits given

$$= 23 \times 4$$

$$= 92$$

$$\begin{array}{r} 20 + 13 \\ 4 \overline{) 20 + 13} \\ \underline{4 + 12} \\ 92 \end{array}$$

Practice Time

Multiply:

$$22 \times 3 = 66 \quad 43 \times 2 = 86$$

$$21 \times 4 = 84 \quad 24 \times 2 = 48$$

$$11 \times 5 = 55 \quad 30 \times 5 = 150$$

$$20 \times 4 = 80 \quad 23 \times 9 = 207$$

$$26 \times 4 = 104 \quad 38 \times 2 = 76$$

$$25 \times 3 = 75 \quad 24 \times 5 = 120$$

$$35 \times 3 = 105 \quad 48 \times 4 = 192$$

$$32 \times 5 = 160 \quad 58 \times 2 = 116$$

First guess the answer and then calculate:

A flower has five petals. A bunch of flowers has 13 flowers. How many petals are there in the bunch?

Flower has petals = 5

bunch of flowers has = 13 flower

Petals in the bunch = 5×13

$$= 65 \text{ petals.}$$

A book has 64 pages. What will be the total number of pages in 8 such books?

$$\text{Pages in book} = 64$$

$$\text{No of books} = 8$$

$$\text{Total pages} = 64 \times 8$$

$$= 512 \text{ pages}$$

Students stand in rows in the assembly. There are six rows of students. Each row has 17 students. How many students are there?

$$\text{No of rows} = 6$$

$$\text{Each row has students} = 17$$

$$\text{Total students} = 17$$

$$\times 6$$

$$\underline{102 \text{ students}}$$

A design has 3 flowers in it. A piece of cloth has 17 such designs. How many flowers will be on the cloth design, has = 3 flowers

$$\text{no of design} = 17$$

$$\text{Total number of flower} = 3 \times 17 = 51$$

How many in 23 dozen?

1 dozen = 12.

23 dozen = 12×23 .

	<u>20 + 3</u>	200
10	200 30	30
2	40 6	40
		6
		<u>276</u>

Practice time.

	<u>40 2</u>	800
20	800 40	40
3	120 6	6
		<u>966</u>

966 Answer

	<u>50 1</u>	500
10	500 10	150
3	150 3	3
		10

663 Answer

	<u>20 5</u>	600
30	600 150	120
6	120 30	150
		30

900 Answer

	<u>70 3</u>	700
10	700 30	70
1	70 3	30
		3

	<u>50 4</u>	500
10	500 40	100
2	100 8	40
		8

648

	<u>10 2</u>	100
10	100 20	40
4	40 8	20
		8

168

Multiplication Patterns.

$$9 \times 1 = 9$$

$$9 \times 2 = 18 \quad 1 + 8 = 9$$

$$9 \times 3 = 27 \quad 2 + 7 = 9$$

$$9 \times 4 = 36 \quad 3 + 6 = 9$$

$$9 \times 5 = 45 \quad 4 + 5 = 9$$

$$9 \times 6 = 54 \quad 5 + 4 = 9$$

$$9 \times 7 = 63 \quad 6 + 3 = 9$$

$$9 \times 8 = 72 \quad 7 + 2 = 9$$

Did you see the pattern in the 9 times table? What numbers are adding up to 9?

Yes, we see a pattern. The digit sum of the products is always nine.

Complete the grid by multiplying the numbers!

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

Look for other such crosses and copy them in your notebook.

5	9
8 10 12	16 18 20
15	27
$8 + 10 + 12 = 30$	$16 + 18 + 20 = 54$
$5 + 10 + 15 = 30$	$9 + 18 + 27 = 54$

Yes, there are similar squares in the box.

Mark the numbers 1-10 in the same grid in one colour. 12-20 in another colour, 21-30 in a third colour.

Do you see any colour pattern. No, I don't see.

Fill the space with your fav multiplication table.

$$20 \times 1 = 20$$

$$20 \times 2 = 40$$

$$20 \times 3 = 60 \quad 20 \times 9 = 180$$

$$20 \times 4 = 80 \quad 20 \times 10 = 200$$

$$20 \times 5 = 100$$

$$20 \times 6 = 120$$

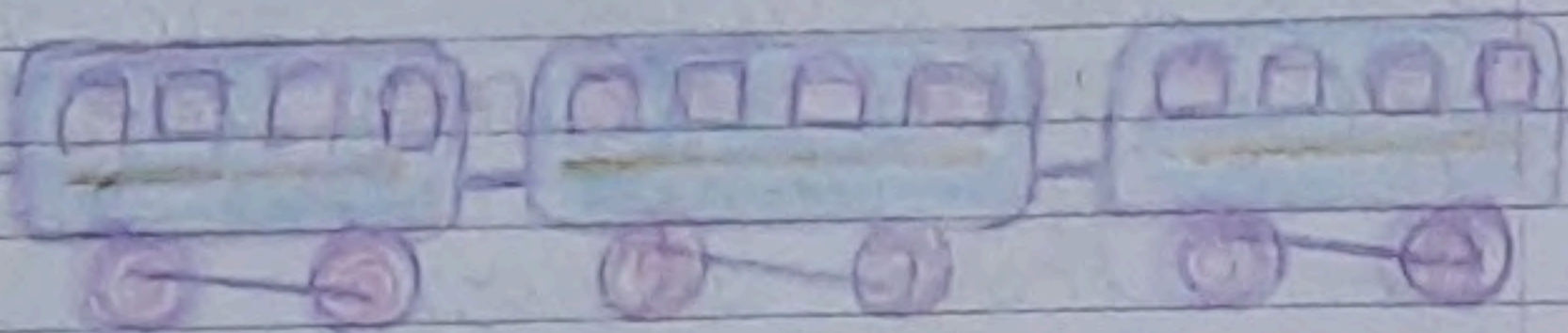
$$20 \times 7 = 140$$

$$20 \times 8 = 160$$

PLAY WITH PATTERNS

Look around you and list three things in which you find some pattern

- ① Bed sheet.
- ② window panes.
- ④ Multistory building.
- ③ Train.



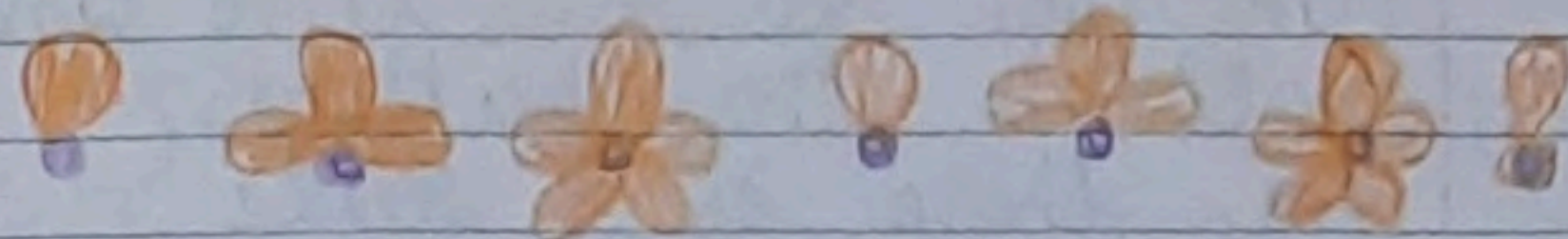
The train has a pattern. There is a coach attached to similar coach and it repeats.

Given below are some patterns.

Figure out the rule for each and continue the pattern. Pot colour Blue-Red alternately.



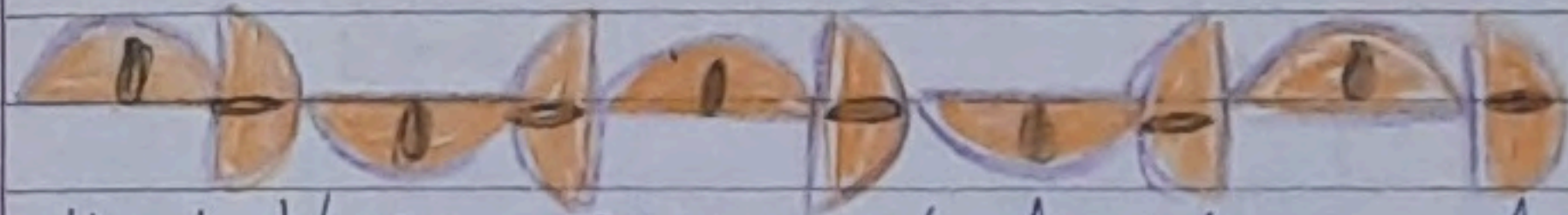
Two times alphabet A followed by B.



flower with one petal then with three petals and then five petals. This pattern is repeated.



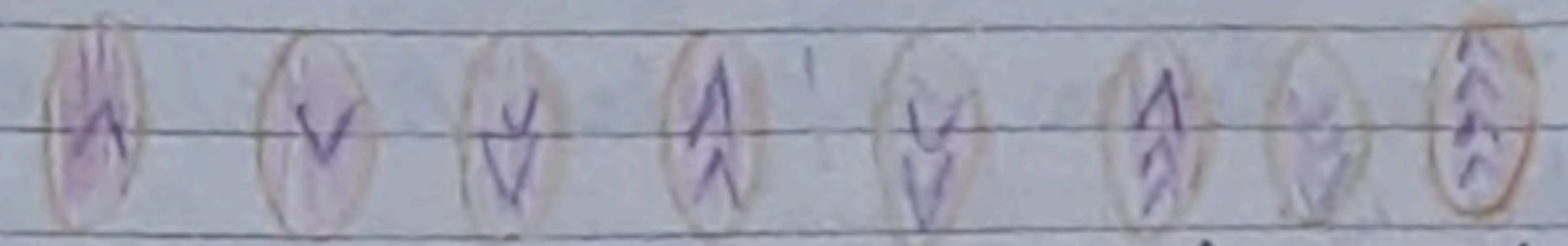
Blue triangle moves anticlockwise.



Hemisphere moves clockwise and takes a horizontal and vertical position.

morning, afternoon, evening, night, morning, afternoon, evening, night. The sequence morning, afternoon

Evening, night repeats and makes a pattern.

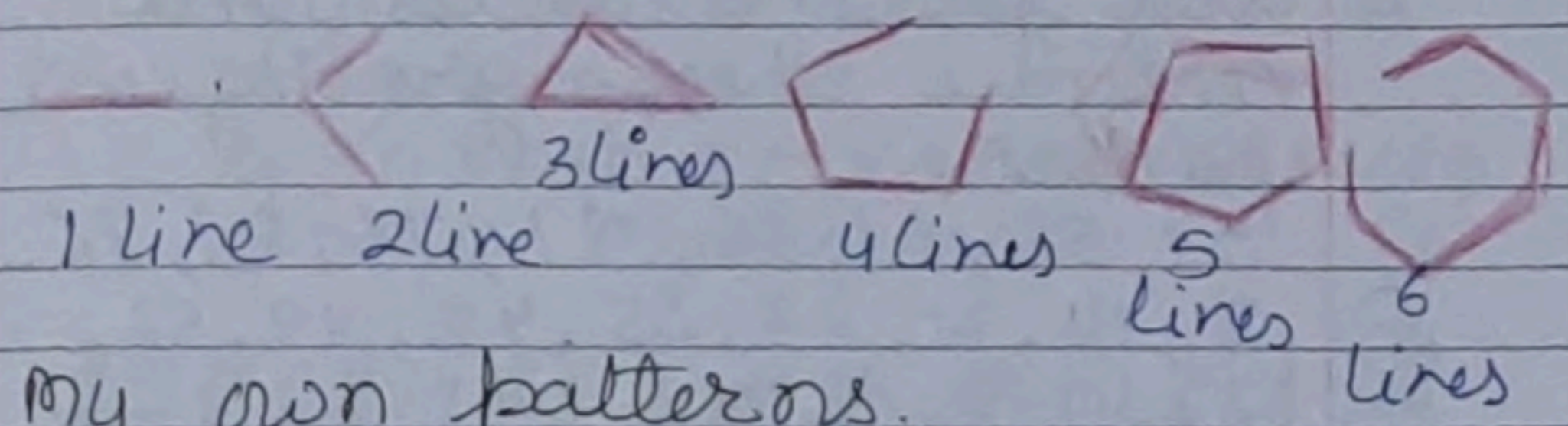
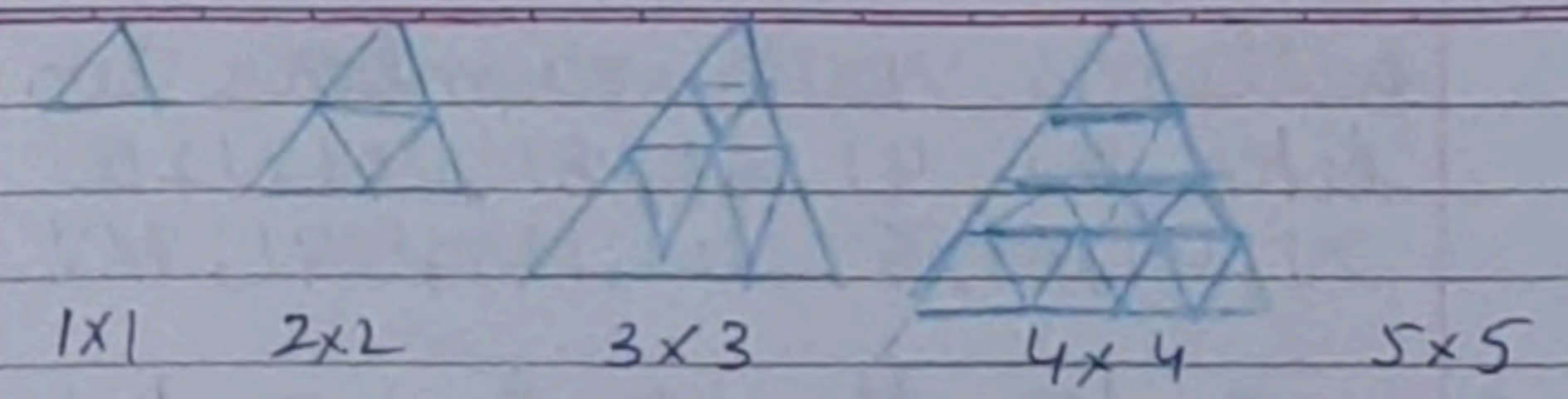
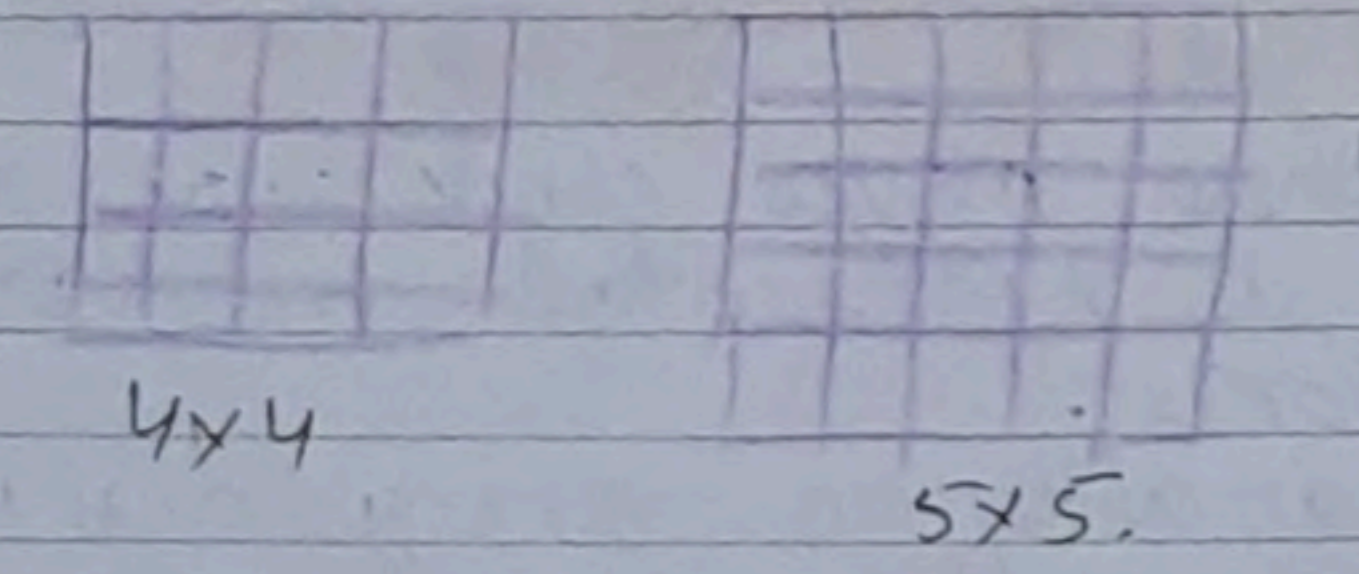
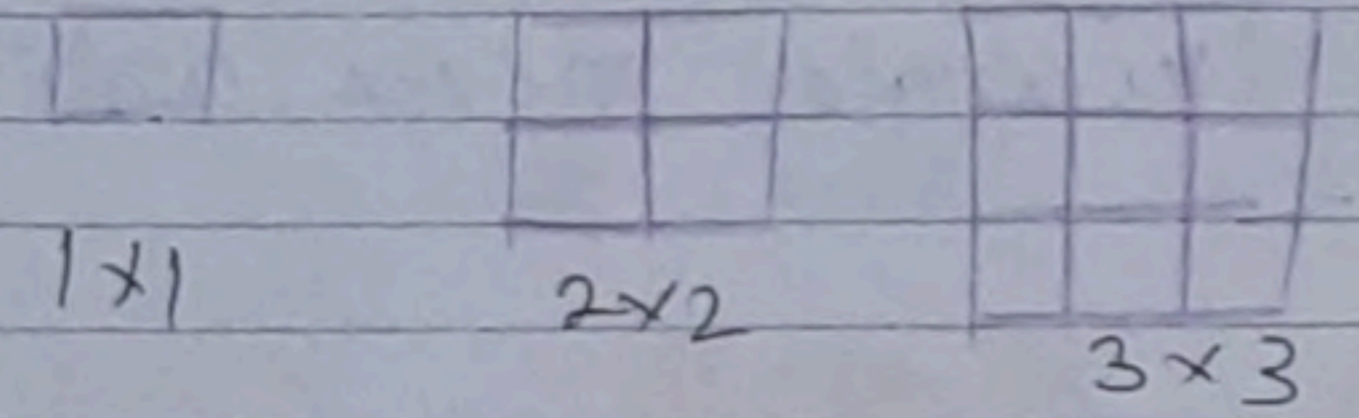


Can you see the rule and continue the pattern?

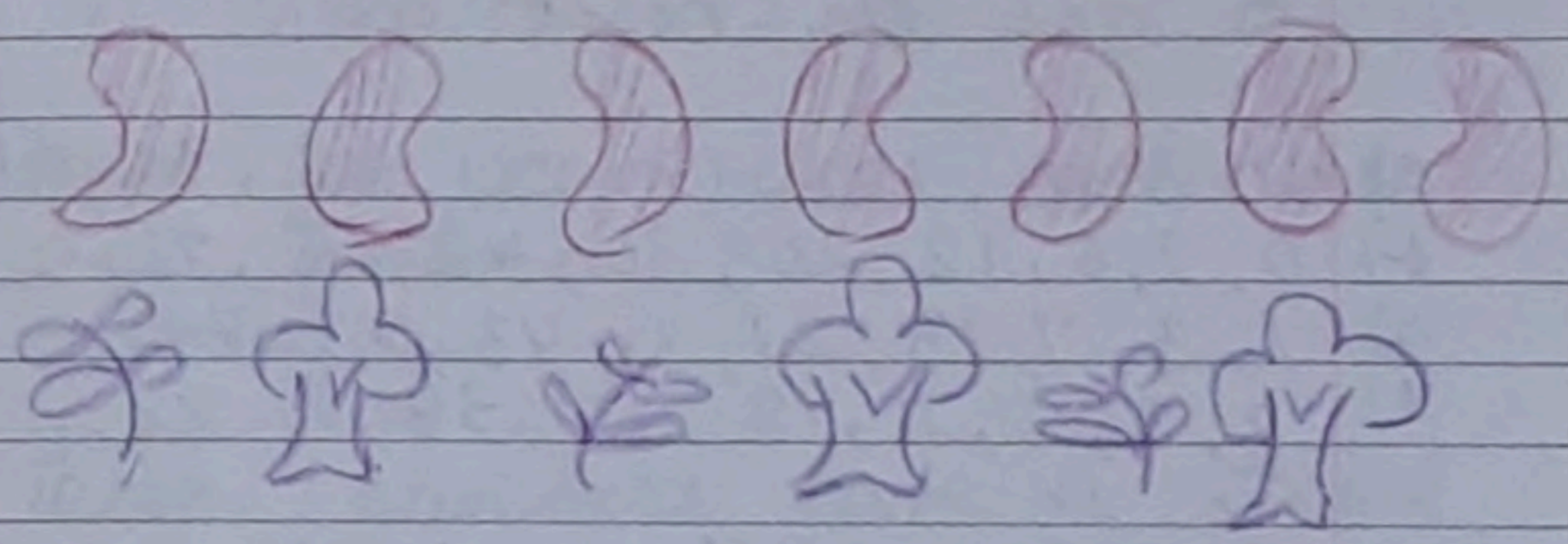
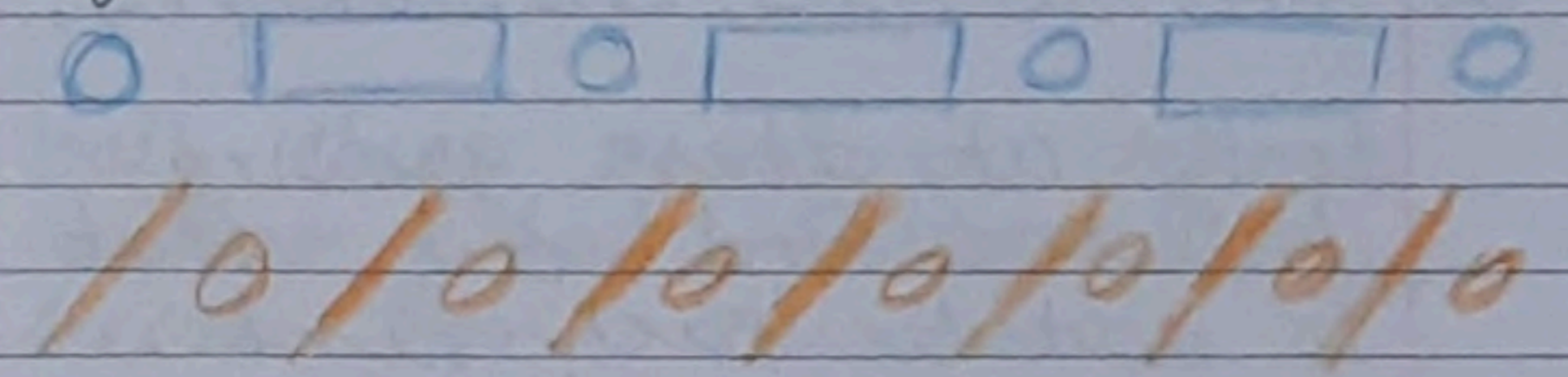
Yes, there is a rule.

- ① Arrows are inverted alternately.
- ② Number of arrows increases by one every two ovals.

Also try these



My own patterns.



Number Patterns
We have made some patterns with pictures. We can make

patterns with numbers too
like 21, 41, 61, 81, 101, 121.
21, 41, 61, 81, 101, 121, 141, 161

A Look for the rules and
continue these growing
patterns.

- a) 51, 56, 61, 66, 71, 76, 81, 86.
- b) 7, 14, 21, 28, 35, 42, 49, 56
- c) 2, 4, 8, 16, 32, 64, 128, 256
- d) 12A, 13B, 14C, 15D, 16F, 17G,

Look at these growing
patterns, Find out what
to add to each number
to get the next one.

- a) 1, 3, 6, 10, 15, 21, 28, 36, 45
- b) 0, 2, 6, 12, 20, 30, 42, 56, 72, -
- c) 1, 3, 7, 13, 21, 31, 43, 57, 73--
- d) 2, 3, 6, 11, 18, 27, 38, 51, 66---

Can you tell what they
are trying to say?
These are two secret msg.
WHERE ARE YOU

IN THE CANTEEN
I LOVE YOU.
THIS BOOK IS FUN.

Now you make your own
secret messages.

G 30 30 30 30 30 M 30 30 R 30 N 30 T 30 N 30 G
GOOD MORNING.

\$ S \$ C \$ H \$ O \$ O \$ L \$ V \$ A \$ L \$ L \$ Y \$
SCHOOL VALLY.

Half these numbers are in
yellow, what patterns do you
see in these numbers?

96, 98, 100, 102, 104, 106, 108, 110

How far can you continue
this pattern
end by

These numbers have a special
name. They are called even
numbers.
Do any of these even numbers
end with 3 or 5?

No, Even numbers do not end with 3 & 5.

What do even numbers end with?
Even numbers end with 0, 2, 4, 6, 8.

Look at the pattern of numbers in blue. Continue and fill in the blanks.

99, 101, 103, 105, 107, 109
111, 113, 115

What do the numbers in blue end with.

They end with -
1, 3, 5, 7 & 9.

All numbers that end with 1, 3, 5, 7, or 9 are called odd numbers. Write all odd numbers between 400 and 410

401, 403, 405, 407, 409

Write all even numbers between 155 and 165
156, 158, 160, 162, 164, 166

If we add 1 to any odd number we get an even/odd number.

If we add 1 to any ^{even} number we get an even/odd number.

What do you get, if you add an even number to an odd number?

$$2 + 3 = 5$$

$$15 + 17 = 32$$

$$1000 + 1001 = 2001$$

We get an odd number.

Adil has to arrange this list so that the names starting with A come first and then comes those with B, C, D and so on, number these names in the order in which they will come.

Sharada	(11)	mahadevan	(8)
Tsering	(12)	Adil	(1)
Gurinder	(4)	Baichung	(2)
Harsha	(5)	Raja	(10)
Narayan	(9)	Kavita	(7)
warsha	(3)	Elvis	(3)
Jalaj	(6)		

Jalaj is proud to have a special name. He says if you read it backwards it is still the same.

JALAJ.
 \leftarrow JALAJ.

Which of the following names have the same pattern? Mark \checkmark .

HARSH \checkmark , ANNA \checkmark
 \leftarrow HARSH, \leftarrow ANNA

KANAK \checkmark , MUNNA \checkmark
 \leftarrow KANAK, \leftarrow MUNNA

ongbi \times
 Ibgno

Extra questions

Fill in the blanks.

- All numbers that end with 0, 2, 4, 6 and 8 are called Even number.
- All numbers that end with 1, 3, 5, 7 and 9 are called odd number.
- If we add 1 to an even number we get an odd number.
- If we add 1 to an odd number we get an even number.
- If we add 1 to an even number we get a odd number.
- The greatest 1 digit even number is eight.
- The greatest 1 digit odd number is one.
- Greatest 2 digit even num 98 & Greatest 2 digit odd number 99.
- Smallest 2 digit even number 10 and 2 digit smallest odd num. 11.

JUGS AND MUGS

Everyone finds the drink very tasty but some small guests like Rat, squirrel cannot finish a full glass. But cat is able to finish his glass. Some others like camel, Deer, Elephant take for more than one glass.

Drank how much	Name of guest
a) less than 1 glass	mice, ant
b) between 1-5 glasses	Foxes, cat, Monkey
c) between 5-10 glasses	Dogs, Deer
d) more than 10 glasses	Elephant, camel

About how many glasses of water do you drink in a day?

Summer day : 10 glasses
 winter day : 2 glasses

Can you guess how much water goes out of you?
 Half of what we drink. Rest is used by the body.

less than 1 litre	more than 1 litre
bowl	Big cooking pot
spoon	bucket
platter	tub
cup	Drum
glass	Pressure cooker

Guess how many litres of water they can hold.
 The bucket can hold 10 lts of water and bigger bucket holds 12 litre and full size bucket holds 15 litre of water.

Bucket	My guess	My measure
Bucket 1	10 lts	10 lts
Bucket 2	12 lts	12 lts
Bucket 3	15 lts	15 lts

Match the Right Pairs.

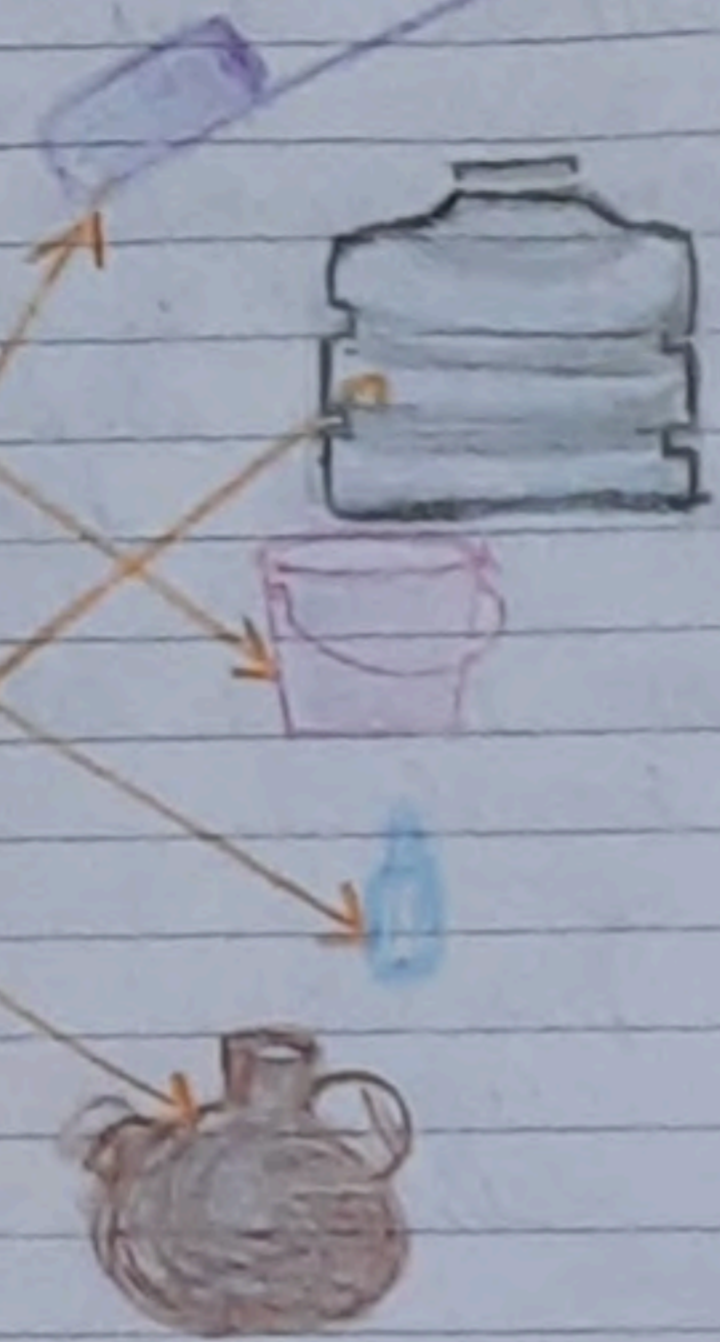
About
12 litres

Less than
 $\frac{1}{2}$ litre

About
5 litres

1000 litres

$\frac{1}{2}$ litre



Whose Jug holds more?
What are Naima and
Teetu doing?

Naima and Teetu are
pouring water in jugs.

What do you think?

I think she is right.
She needs to pour around
3 glasses of water to fill

the jug.

Whose jug holds more water?
Teetu's jug is larger and
can hold more water.

How many glasses of water
do you think Teetu should
pour to fill his jug?
I think Teetu should pour
4 glasses of water.

If Teetu pours one more
glass of water his jug will
be around 50% full

Filling Pots.

Why did Naseem go more
times than Abdul?

Because the bottle of Naseem
is smaller than the
bottle of Abdul.

Naseem's bottle can hold half
as much water as Abdul's
bottle.

How many Glasses?

Pot B holds 11 glassfuls of water. Pot A holds twice as much water as pot B. How many glasses of water are needed to fill Pot A?

Pot B holds 11 glassfuls of water.
Pot A holds twice Pot B.

ie

$$2(\text{Pot B}) = \text{Pot A}$$

$$2(11) = 22 \text{ glasses}$$

Filling Pot holes

Mark A, B, C on the eight hole in the picture.

1st hole from the top is Pit hole A.

The middle hole is B.
end last is C.

Which is the biggest pot hole?
Pot hole B is biggest.

If jugs are used, hole A gets

filled with 5 jugs. How many jugs of pebbles are needed to fill hole B?

Pot hole B needs double the amount of pebbles than Pot A.

$5 \times 2 = 10$ jugs of pebbles are needed to fill hole 'B'.

Extra questions.

Complete the following.

litre	millilitre
1. Half a litre	500 ml
2. Three fourth litre	750 ml
3. one fourth litre	250 ml
4. two litre	2000 ml.
5. Two and a half l.	2500 ml.
6. 3 litre	3000 ml
7. Five and a quarter	5250 ml
8. six litre	6000 ml
9. Seven litres	7000 ml
10. Eight litres	8000 ml.

Addition + subtraction.

	L.	ml		L.	ml
	55	250		55	250
+	33	750		-	33 750
	<u>89 lts 000 ml</u>			<u>21 lts 500 ml</u>	

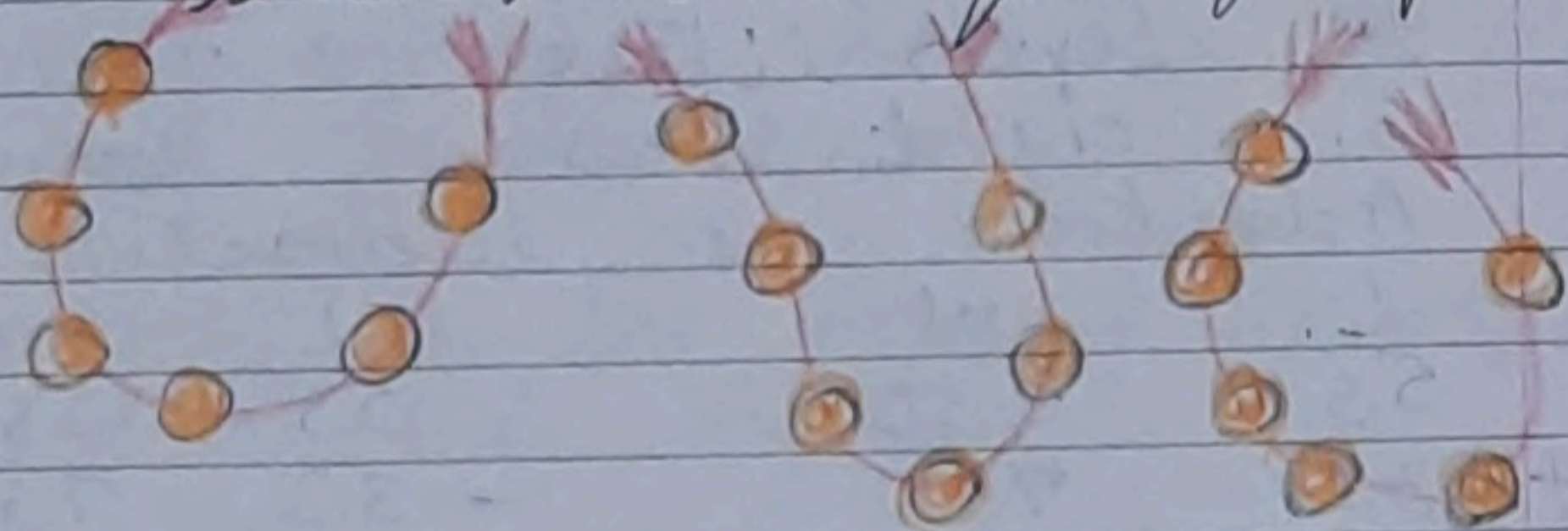
CAN WE SHARE

There are 21 caterpillars.
They are in 3 groups.
There are 7 caterpillars
in each group.

There are 12 ladders.
They are in 4 groups.
There are 3 ladders in
each group.

Draw 18 stars
Put them into 2 equal groups
There are 9 stars in each
group.

Draw 18 beads
Put them into 3 equal groups

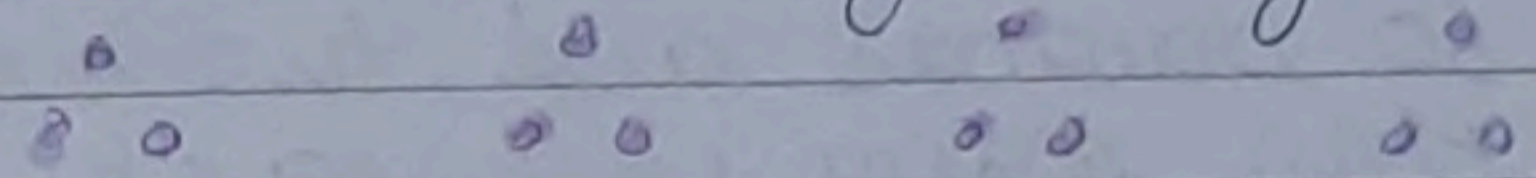


Share the grains.
Mummy bird brings 12 grains
How to distribute equally?
Mummy bird starts by
giving 1 grain to each baby.

Total number grains = 12
Total number of babies = 4.

$$\begin{array}{r} 4 \overline{)12} \quad (3 \\ \underline{12} \\ 0 \end{array}$$

Each bird will get 3 grains.



How many jalebis are there
altogether?
9 Jalebis

How many Jalebis are there
in each plate?
3 Jalebis each plate.

Discuss in the class. How?
I divided. $\frac{\text{Number of Jalebis}}{\text{Num of plates}}$
 $3 \overline{)9} \quad 3$
 $\underline{9}$
 0 so 3 Jalebis.

Sharing them equally
 Here are six bananas
 Here are three monkeys.
 Divide 6 banana among
 3 monkeys

$$\begin{array}{r} 3 \overline{) 6} \quad (2 \\ \underline{6} \\ \times \end{array}$$

Divide 6 bananas among
 2 monkeys

$$\begin{array}{r} 2 \overline{) 6} \quad (3 \\ \underline{6} \\ \times \end{array}$$

60 bananas and two monkeys.
 How many will each
 monkey get?

$$\begin{array}{r} 2 \overline{) 60} \quad (30 \\ \underline{6} \\ 0 \\ \underline{0} \\ \times \end{array}$$

Five friends found 10 five-
 rupee coins on the
 ground.
 They shared them equally
 each friend got.

10 five Rs coins = 10×5
 $= 50$ Rs
 number of friends = 5

$$\begin{array}{r} 5 \overline{) 50} \quad (10 \\ \underline{5} \\ 0 \\ \underline{0} \\ \times \end{array}$$

If there are 16 ten-rupee notes
 and four friends.

16 ten Rs notes = 16×10
 $= 160$ Rs.

Number of friends = 4.

$$\begin{array}{r} 4 \overline{) 160} \quad (40 \\ \underline{16} \\ 0 \\ \underline{0} \\ \times \end{array}$$

Number of friends = 5
 money found = 100
 share equally $5 \overline{) 100} \quad (20$

$$\begin{array}{r} 10 \\ \underline{10} \\ 0 \\ \underline{0} \\ \times \end{array}$$

Hari Prasad has 30 metres of rope. He distribute it equally among his three children.

$$\begin{array}{r} 3 \overline{) 30} \text{ (10 mts)} \\ \underline{3} \\ 0 \\ \underline{0} \\ \times \end{array}$$

Each child gets 10 mts rope
 If there are 36 mts of rope
 How much of rope will each child get?

$$\begin{array}{r} 3 \overline{) 36} \text{ (12 mts)} \\ \underline{3} \\ 6 \\ \underline{6} \\ \times \end{array}$$

Each child will get 12 mts of rope.

And if there are 60 mts of rope. how much will each child get?

$$\begin{array}{r} 3 \overline{) 60} \text{ (20)} \\ \underline{6} \\ 0 \\ \underline{0} \\ \times \end{array}$$

Each child gets 20 mts.

How many shelves?
 I have 20 books I can keep 5 books in one shelf, so how many shelves do I need in my almirah?

Number of books = 20
 one shelf has = 5 books
 How many shelves needed?

$$\begin{array}{r} 5 \overline{) 20} \text{ (4)} \\ \underline{20} \\ \times \end{array}$$

5
5
5
5



So, 4 shelves are needed

If there are 28 buttons, and the tailor puts 7 buttons on each shirt, there will be 4 shirts with buttons.

$$\begin{array}{r} 7 \overline{) 28} \text{ (4)} \\ \underline{28} \\ \times \end{array}$$

Practice time

1. Minku puts her 15 ladous equally into 5 boxes.

(i) How many laddoos will there be in each box?

$$\begin{array}{r} 5 \overline{) 15} \quad (3 \\ \underline{15} \\ \times \end{array} \quad \begin{array}{l} 3 \text{ laddoos} \\ \text{in each box.} \end{array}$$

(ii) If she uses only 3 boxes how many laddoos will there be in each box?

Box = 3, Laddoos = 15

$$\begin{array}{r} 3 \overline{) 15} \quad (5 \\ \underline{15} \\ \times \end{array} \quad \begin{array}{l} 5 \text{ laddoos} \\ \text{in each box.} \end{array}$$

2. Share 25 bananas among 5 monkeys. How many bananas for each monkey?

Number of bananas = 25
Number of monkeys = 5

$$\begin{array}{r} 5 \overline{) 25} \quad (5 \\ \underline{25} \\ \times \end{array}$$

Each monkey has 5 bananas.

3. Share 12 balloons among 3 boys. How many balloons for each boy?

Number of balloons = 12
Number of boys = 3

$$\begin{array}{r} 3 \overline{) 12} \quad (4 \\ \underline{12} \\ \times \end{array}$$

4. There are 21 candles. Put them equally in 3 boxes. How many candles are there in each box?

Number of candles = 21
Number of boxes = 3
How many candles in each box

$$\begin{array}{r} 3 \overline{) 21} \quad (7 \\ \underline{21} \\ \times \end{array}$$

7 candles in each box.

5. There are 18 socks. How many girls can wear these socks?

one girl wears 2 socks.

$$\begin{array}{r} 2 \overline{) 18} \quad (9 \\ \underline{18} \\ \times \end{array}$$

9 girls can wear these.

6. Ray has 36 minutes to make roties. one roti takes 3 minutes. How many roties can be made in this time?

Total time = 36 minutes
one roti takes = 3 minutes

$$\begin{array}{r} 3 \overline{) 36} \quad (12 \\ \underline{3} \\ \underline{6} \\ \underline{6} \\ \times \end{array}$$

He can make 12 roties.

7. These are 24 footmarks of goats. so how many goats were there?

Total footmarks = 24
one goat has footmarks = 4 footmarks

$$\begin{array}{r} 4 \overline{) 24} \quad (6 \\ \underline{24} \\ \times \end{array}$$

so, there are 6 goats.

8. Some girls are playing a game with both their hands. The girls playing have 60 fingers altogether.

How many girls are playing this game?

Total fingers = 60.
one girl has finger = 10

$$\begin{array}{r} 10 \overline{) 60} \quad (6 \\ \underline{60} \\ \times \end{array}$$

so, 6 girls are playing this game.

9. Lakshmi has 27 kg potatoes to sell.

Three men came and bought equal amounts of potatoes. Each man bought 9 kg of potatoes.

Total potatoes = 27 kg
Number of men = 3

$$\begin{array}{r} 3 \overline{) 27} \quad 9 \\ \underline{27} \\ \times \end{array}$$

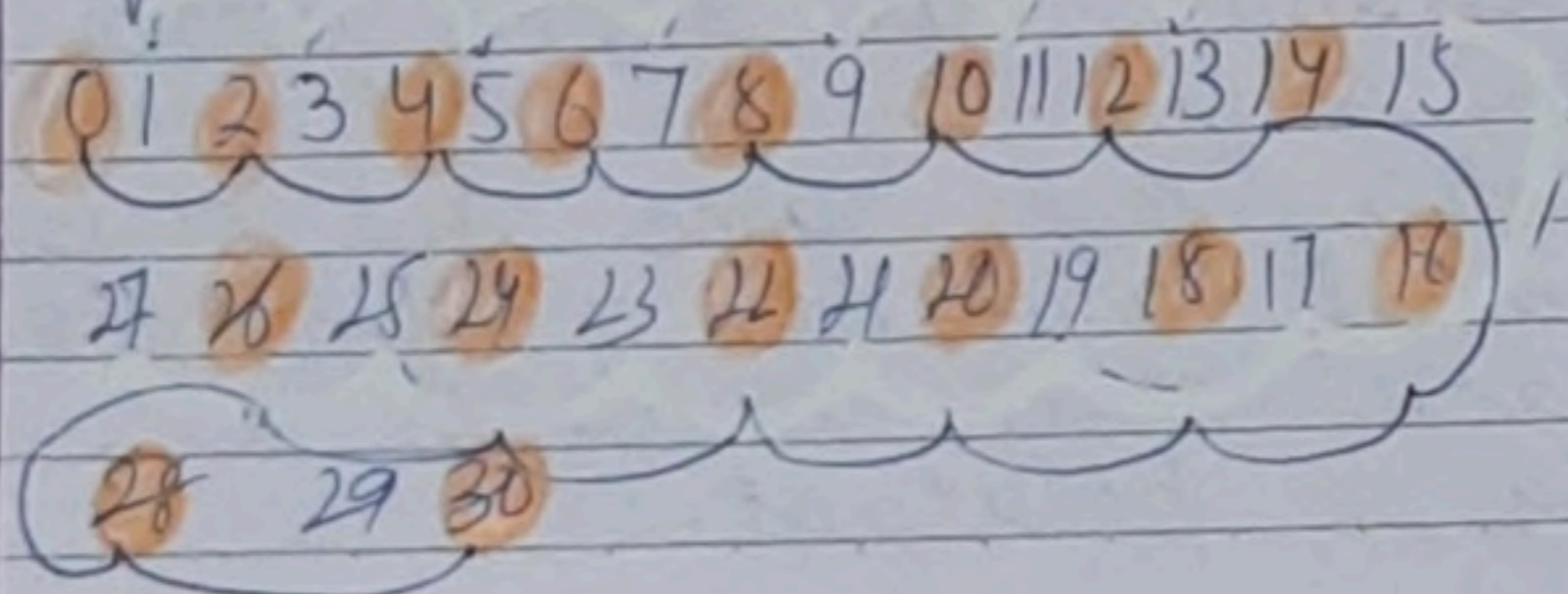
Each man bought 9 kg of potatoes.

Jumpy animals.

Frog jumps = 2 steps
Squirrel jumps = 3 steps
Rabbit jumps = 5 steps
Horse jumps = 15 steps
Kangaroo jumps = 30 steps.

How many jumps will frog reach 30?
 $30 \div 2 = 15$ jumps

Explanation.



2 In how many jumps will the squirrel reach 27?
 $27 \div 3 = 9$ jumps

$$\begin{array}{r} 3 \overline{) 27} \quad 9 \\ \underline{27} \\ \times \end{array}$$

3 Which number will the kangaroo reach in two jumps?
Kangaroo one jump = 30 steps
2 jumps = $30 \times 2 = 60$ steps

4 Who will meet at the number 15?

Frog jumps at following steps :-

0 2 4 6 8 10 12 14 16 ...

Squirrel jumps at -

0 3 6 9 12 15 18 ...

Rabbit jumps at

0 5 10 15 20 25 ...

Horse jumps at

0 15 30 45 ...

Kangaroo jumps at

30 60

\therefore Squirrel, Rabbit and Horse will meet at number 15.

5. Will the rabbit ever be at the number 18?

NO,

Rabbit jumps

0, 5, 10, 15, 20, 25, 30, 35, ...

18

from 15 he will jump on 20
∴ he will never be on 18.

6. How many jumps of the rabbit equal one jump of the horse?

jump of rabbit = 5 steps
jump of horse = 15 steps.

$$\begin{array}{r} 5 \overline{) 15} \quad 3 \\ \underline{15} \\ \times \end{array}$$

∴ 3 jumps of rabbit equal one jump of the horse.

OR

How many jumps of the rabbit equal one jump of the horse?

Jump of rabbit = 5 steps.
Jump of horse = 15 steps.

(Rabbit jump) \times \square = horse jump.

$$\square = \frac{\text{horse jump}}{\text{Rabbit jump}}$$

$$\square = \frac{15}{5}$$

$$\square = 3.$$

7. How many jumps of the horse equals two jumps of the kangaroo?

jump of horse = 15 steps
jump of kangaroo = 30 steps.

$$15 \times \square = 30$$

$$\square = \frac{30}{15}$$

$$\begin{array}{r} 15 \overline{) 30} \quad 2 \\ \underline{30} \\ \times \end{array}$$

so, two steps of horse equals two jumps of the kangaroo.

8. Which is the smallest number where the frog and the

Will meet?

Frog jumps at the following steps -

0 2 4 6 8 10 12 ---

Squirrel jumps at the following steps -

0 3 6 9 12 15 18 ---

So, the smallest number where the frog and the squirrel meet is 6.

How quick are you
Divide into groups of 2
Using 2 times table.

$18 \div 2 = 9$

$18 \div 9 = 2$

$16 \div 2 = 8$

$20 \div 2 = 10$

$14 \div 2 = 7$

$20 \div 2 = 10$

$8 \div 2 = 4$

$10 \div 2 = 5$

$x \div 2 = 7$

$x = 7 \times 2$

$x = 14$

Divide into groups of 5 using 5 times table.

$10 \div 5 = 2$

$20 \div 5 = 4$

$15 \div 5 = 3$

$40 \div 5 = 8$

$20 \div 5 = 4$

$30 \div 5 = 3$

$25 \div 5 = 5$

$15 \div 5 = 3$

$35 \div 5 = 7$

$10 \div 5 = 2$

Divide into groups of 10 using 10 times table.

$20 \div 10 = 2$

$30 \div 10 = 3$

$40 \div 10 = 4$

$50 \div 10 = 5$

$40 \div 10 = 4$

$80 \div 10 = 8$

$50 \div 10 = 5$

$30 \div 10 = 3$

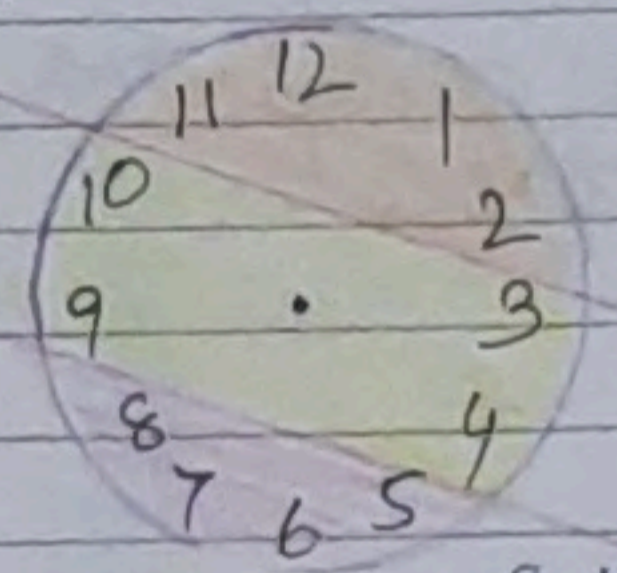
$20 \div 10 = 2$

$60 \div 10 = 6$

Try these.

$4 \div 2 = 2$	$9 \div 3 = 3$
$14 \div 7 = 2$	$18 \div 9 = 2$
$6 \div 3 = 2$	$10 \div 2 = 5$
$14 \div 2 = 7$	$20 \div 5 = 4$
$6 \div 2 = 3$	$12 \div 4 = 3$
$15 \div 3 = 5$	$20 \div 4 = 5$
$8 \div 4 = 2$	$12 \div 6 = 2$
$15 \div 5 = 3$	
$8 \div 2 = 4$	
$16 \div 2 = 8$	

POZZLE



$11 + 12 + 1 + 2 = 26$

$10 + 9 + 3 + 4 = 26$

$8 + 7 + 6 + 5 = 26$

The clock face has been divided into 3 parts, the sum of part is 26.

Extra questions:

Write 2 division facts for the following multiplication facts

$6 \times 3 = 18$	$18 \div 3 = 6$	$18 \div 6 = 3$
$7 \times 4 = 28$	$28 \div 4 = 7$	$28 \div 7 = 4$
$9 \times 5 = 45$	$45 \div 5 = 9$	$45 \div 9 = 5$
$6 \times 8 = 48$	$48 \div 8 = 6$	$48 \div 6 = 8$
$7 \times 9 = 63$	$63 \div 9 = 7$	$63 \div 7 = 9$

$2987856238 \div 2987856238 = 1$

Number = 1
Number

$0 \div 1 = 0$ $0 \div \text{Number} = 0$

$0 \div 9823872 = 0$

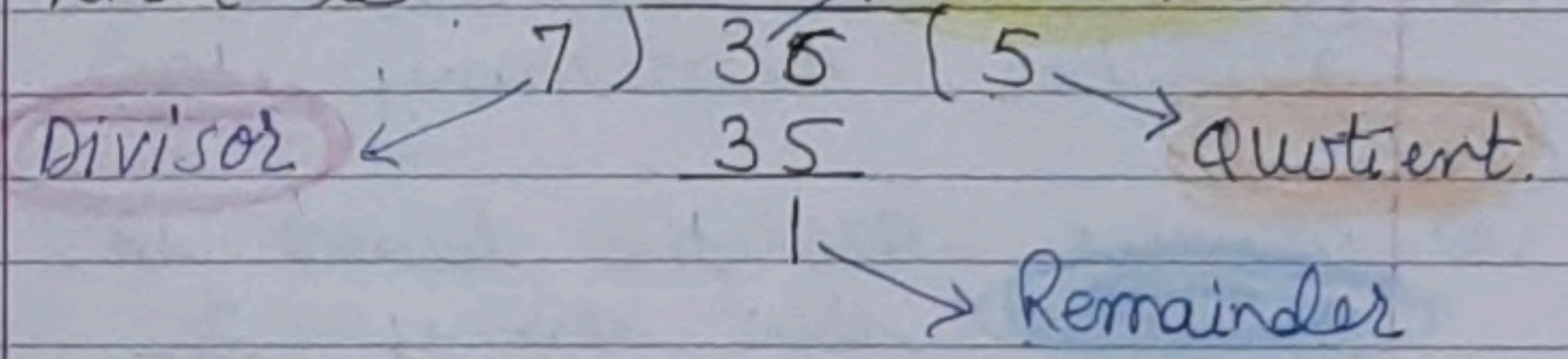
$0 \div 8239560 = 0$

\therefore Zero divided by any number = Zero.

$2 \div 0 = \text{NO meaning}$

any number divided by zero is no meaning

Any number divided by 1, same number $20 \div 1 = 20$, $782 \div 1 = 782$
What is? \rightarrow Divident



SMART CHARTS

Have you been to a park?
Yes, I have been to park.

What coloured flowers did you see?
White Jasmine, Red Roses.

Where most of the flowers yellow in colour?
NO,

Complete the table

Colour of flower	Num of flower
Blue	9
Red	7
Orange	5
Purple	10

(a) Purple are the most in number. How many 10

(b) Orange are the least in number. How many 5

(c) Purple are more than blue.

(d) Red are more than orange.

What do we see on the road?

Way of travel	How many
walking (people)	7
Bicycles	5
scooters	5
Buses	22
car	1
Army bus	4

Answer the following questions.

(a) In the picture which way of travel do you see the most?
Buses.

(b) which way of travel (vehicle) do you see the least?
Bullock-cart.

(c) The number of people walking is more than the number of scooters.

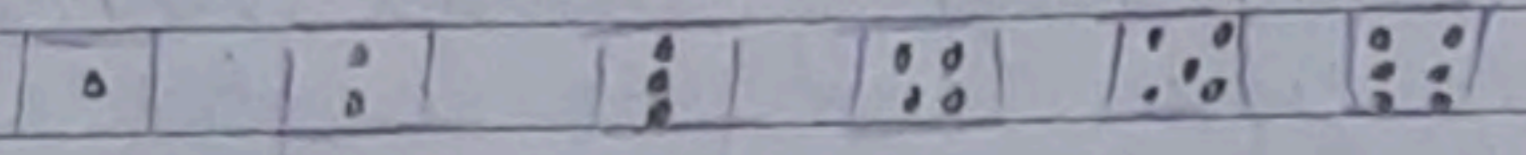
The number of buses is less than the number of people walking.

How many times do you get 6?

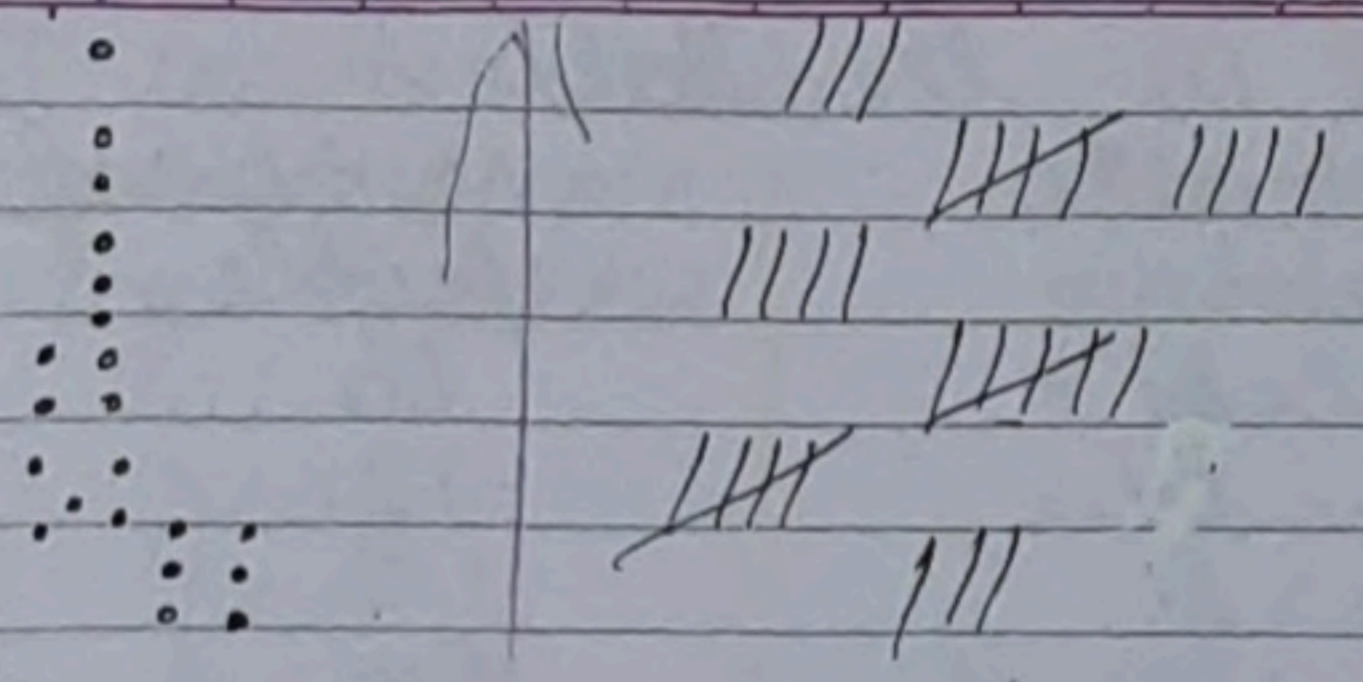
Have you played any games with dice?
Yes, I have played many games with dice?

How many dots are there on the different faces of a dice.

A dice has 6 faces. starting from 1 each face has a incremental increase of 1 dot.
1, 2, 3, 4, 5, 6



Now fill in the table.
Face of the die Number of times 1 for each throw



- (a) Which face of the die did you get the most number of times? 2.
- (b) How many times did 6 come up? 3.
- (c) 4 came up more number of times than 5, 1, 3, 6.
- (d) Compare your table with that of the student sitting next to you, do you find any difference in the two tables? Yes, his table is different.

Find out from people around you.

1. Fill in the table.

Favourite sweet.	Number of people.
Talebi	10
Laddu	12
Barfi	7
Kaju Katli	9
Gulab jamun	5

Most favourite sweet.
Laddu

Least favourite sweet
Gulab jamun.

Kaju Katli is liked more than Gulab jamun.

Laddu is liked more than Talebi.

Barfi is liked more than Gulab jamun.

Kaju Katli is liked more than Gulab jamun.

2. Fill in the table.

Number of people living together	How many families
1 alone	6
2 people	4
3 people	5
4 people	6
5 people	8
6 people	9
7 people	6
8 people	4
9 people	10

(a) Most families have 9 people living in their homes

(b) The smallest number of people living in a home is 1

(c) The number of families having 4 people is 6

(d) What have your classmates brought for lunch today? Find out and note down.

<u>Food item</u>	<u>Number of students.</u>
Roti sabzi	15
Maggi	7
Parantha	10
Poori sabzi	6
Bread Jam	7

(a) Food item brought for lunch by the biggest number of students Roti sabzi.

(b) Food item brought by the smallest number of students is Poori sabzi.

(c) Getting smart with charts

class	NO of st.	present	absent
Class I	27	25	2
class II	23	22	1
class III	24	21	3
Class IV	22	18	4
class V	25	23	2
Total	121	109	12

How many children in all are there in the school?
121.

How many children in all are absent on that day? 12

In the chart show the absent students of class V.

(a) The class with the highest number of absent students is class IV.

(b) The class with the least number of absent students. class II.

(c) The class with 3 students absent is class III.

(d) The number of students absent in class IV and class V are 4 and 2.

How long is your hand?

Look at the picture and fill in the blanks.

← length of hand →

ROHAN
8 cm

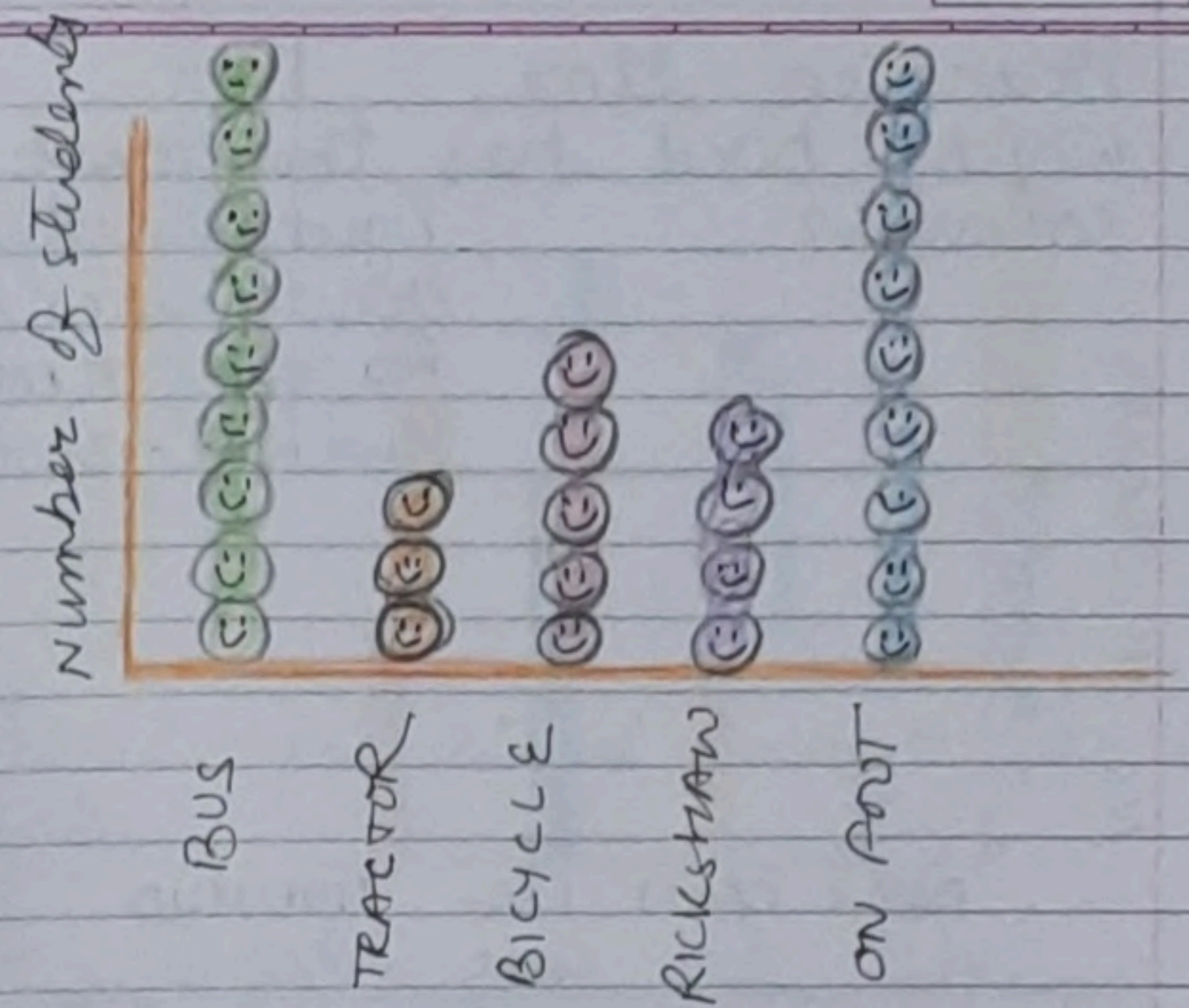
GEETA
9 cm

JACOB
10 cm

- (a) The length of Jacob's hand is more than Geeta's hand.
- (b) The length of Geeta's hand is more than Rohan's hand.
- (c) Jacob has the longest hand.
- (d) Rohan has the shortest hand.

Children coming to school.

way of coming	Tractor	Bus	cycle	scooter	car
Number of students	3	9	5	2	9
		Rickshaw			
		5			



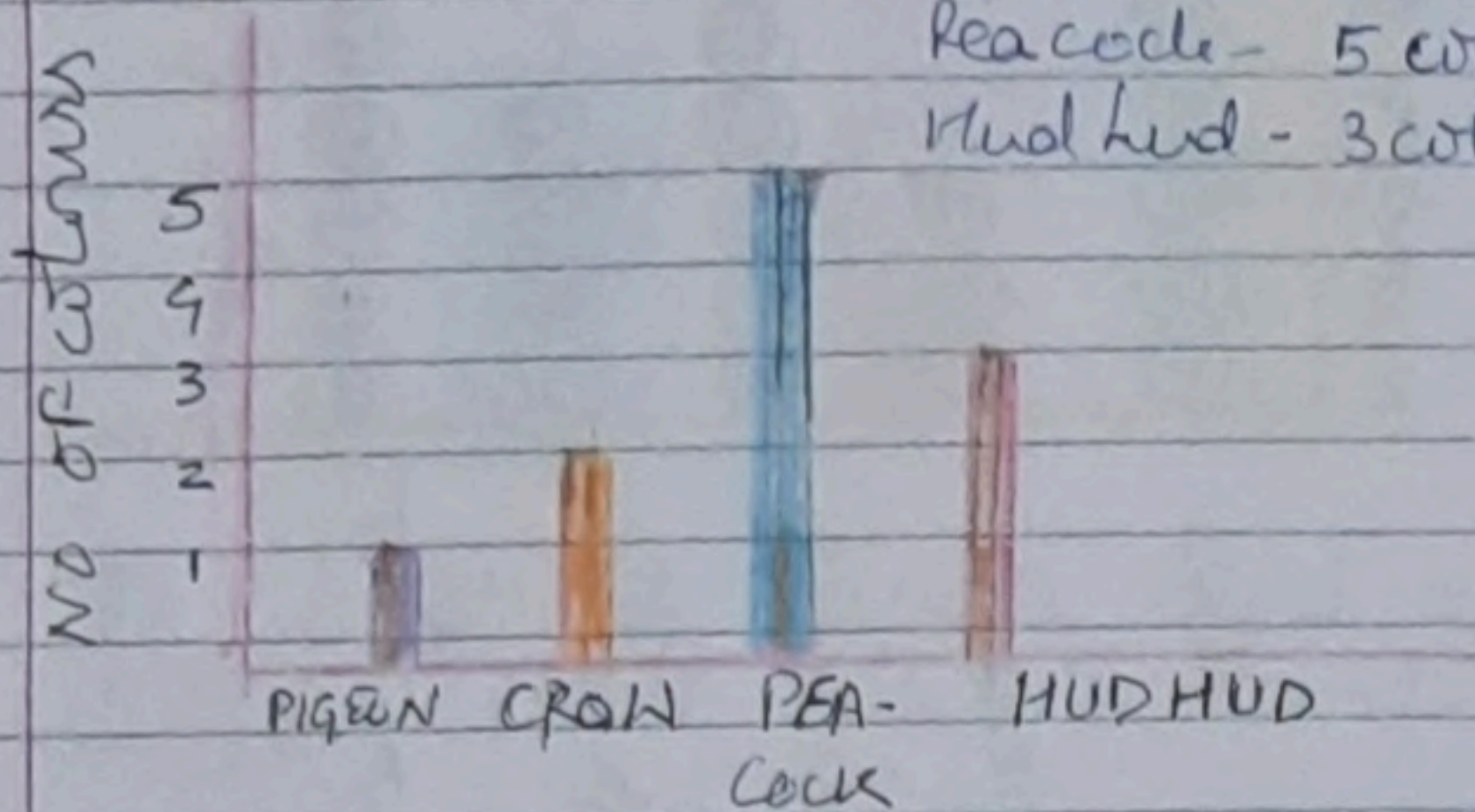
Fill in the blanks.

- (a) The most students come to school by Bus.
- (b) The number of students walking to school is more than the students coming on bicycle.
- (c) The least students come to school by scooter.
- (d) students come to school on foot = 9

Practice time.

Which bird has the most colours?

Pigeon - 1 colour
 crow - 2 colours
 Peacock - 5 colours
 Hudhud - 3 colours



Peacock has the most colour.

Which is the animal which is liked most as a pet.

Name of animal	Liked by people
Dog	2
Pigeon	1
Peacock	4
Parrot	5
Eagle	3

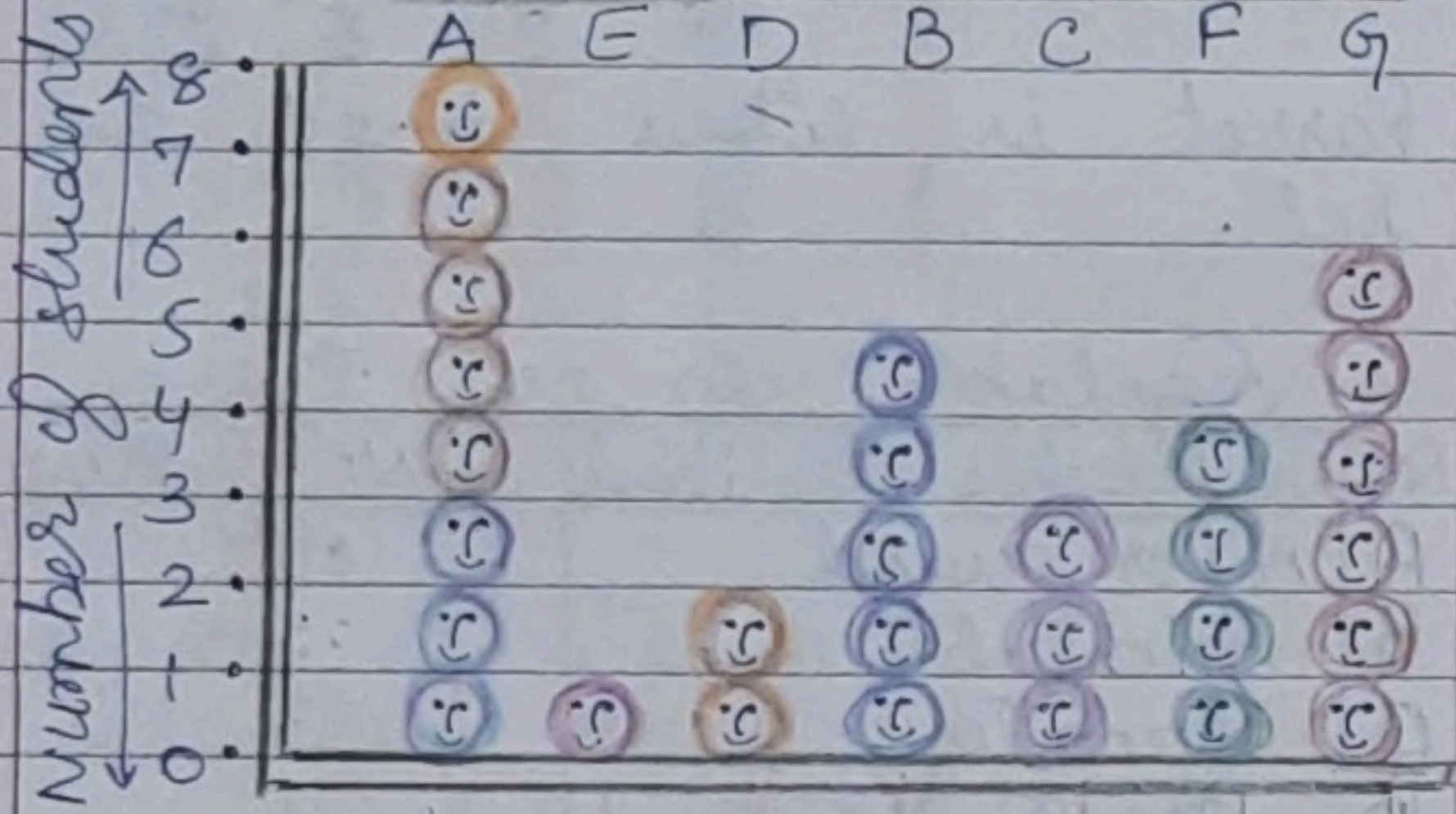
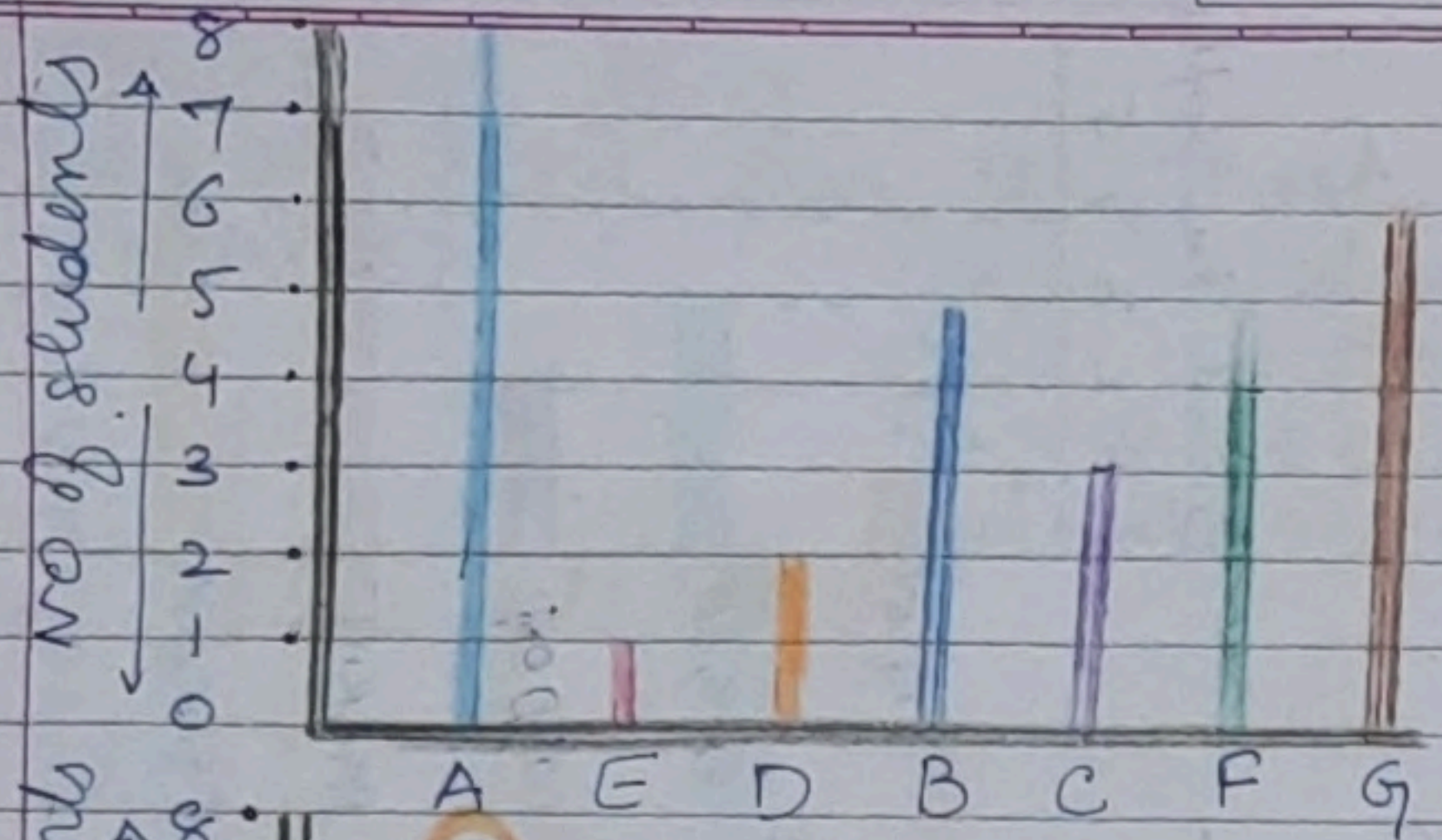


Parrot is liked most as a pet.

A vegetable do not like!

SN/No	vegetable disliked	No of students
A	Bitter guard	8
B	Brinjal	5
C	Tomato	3
D	onion	2
E	Potato	1
F	lady finger	4
G	cauli flower	6

Use this table to draw faces in the chart below. Draw ☺ for each child on top of the vegetable disliked.



Bitter guard
 Potato
 Onion
 Bhrajjal
 Tomato
 Lady finger
 Cauliflower

← VEGETABLES DISLIKED →

The most disliked vegetable is Bitter guard.

The vegetable disliked by very few children is Potato.

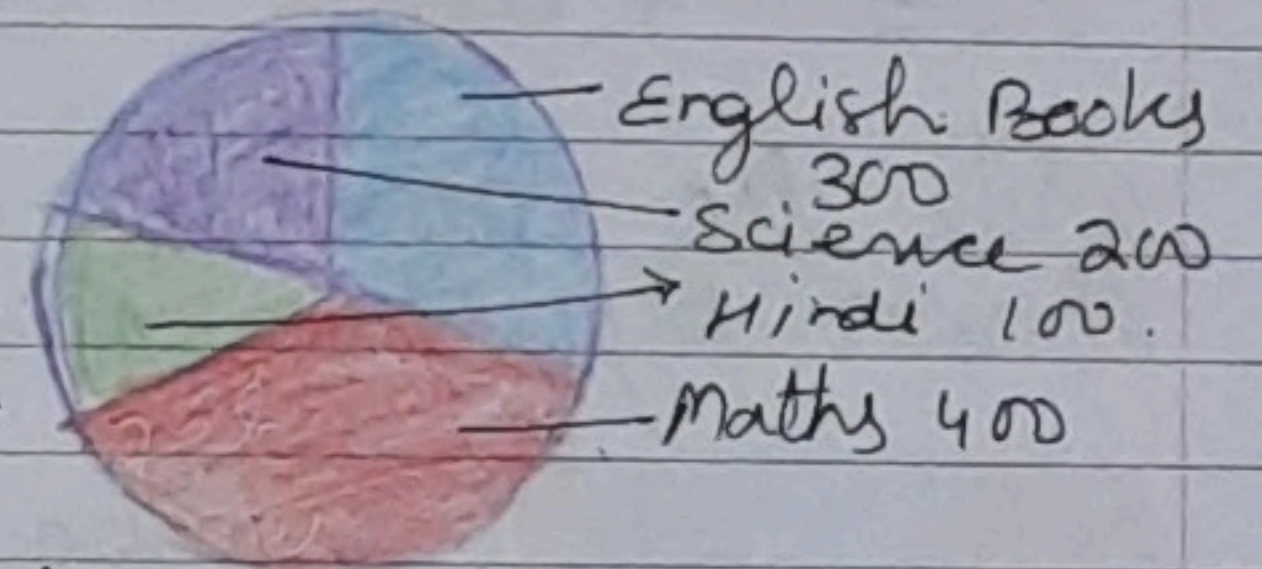
Extra questions

Which vegetable is liked most Potato. (as disliked least)

Which vegetable is disliked by half of the students.
 Lady finger

Explanation: * Total students = 8
 * half of 8 = 4.

Observe the pie chart and answer

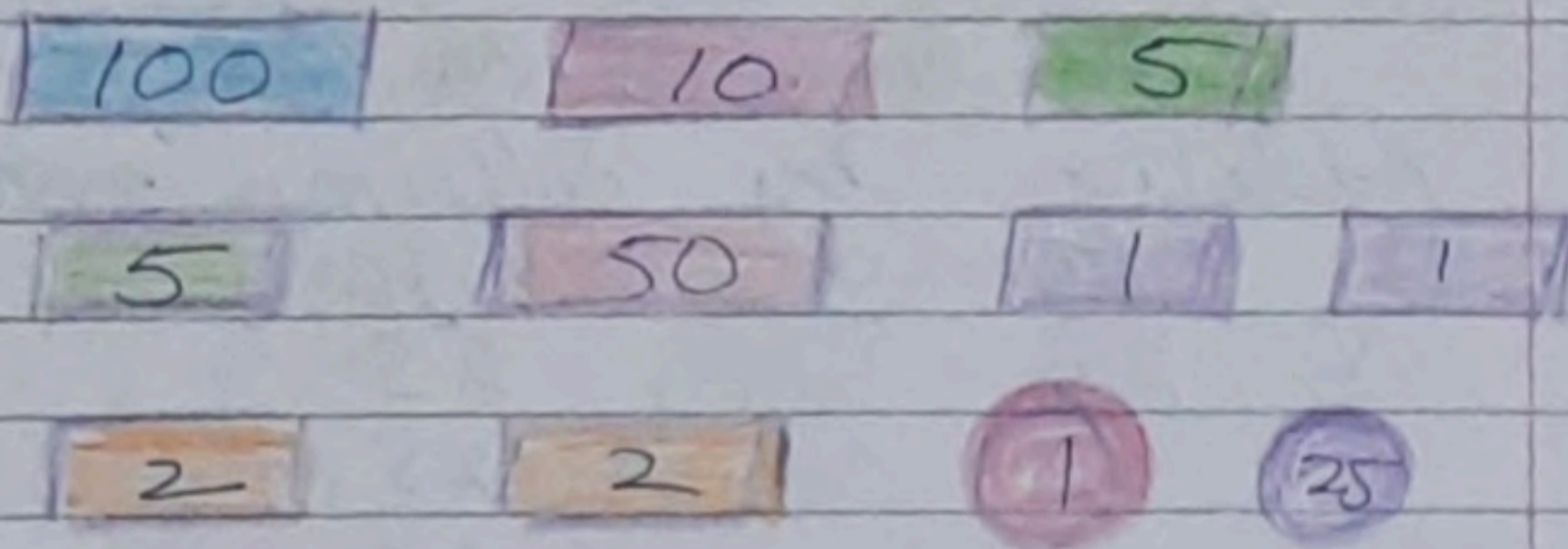


Total number of books: ?
 $300 + 200 + 100 + 400 = 1000$ books

Total number of math books: ?
 maximum - 400.

Minimum books: Hindi.

Six hundred eighty four rupees and twenty five paise.



one hundred seventy seven rupees and twenty five paise.

Shopping

- 1) one ball and one toy car
Rs. 22 (Twenty two)
- 2) one notebook and two pencils
Rs. 10 (Ten)
- 3) Two bananas and a glass of milk Rs. 6.50 (Six rupees and fifty paise)
- 4) one doll and a ball
Rs. 15 (fifteen rupees)

- 5) one glass of lemon juice and a packet of biscuits.
Rs. 7.50 (seven rupees and fifty paise)

Find out the total cost of:
one toy giraffe, one copy and a glass of lemon juice.
Rs. 14.50.

Fourteen rupees and fifty paise.

one glass of milk, one packet of biscuits and a banana
Rs. 9.50.

Nine rupees and fifty paise.

one notebook, two pencils and two erasers Rs. 12.
Twelve rupees.

Two tops, three toffees and two bananas Rs. 8.50.
Eight rupees and fifty paise.

What can you buy if you have a twenty-rupee note?

- ① 1-toy car, 1-lemon juice, 1-banana
- ② 2-balls, 1-packet of bis, 1-eraser
- ③ 1-toy car, 1-pencil, 4 toffees
- ④ 3-glasses of milk, 3-bananas
1-notebook.
- ⑤ 5-tops, 1-doll, 2-erasers
- ⑥ 2-giraffe, 1-notebook, 2-eraser.
- ⑦ 1-dozen banana, 2-eraser.
- ⑧ 2-glass milk, 1-doll, 1-notebook
- ⑨ 2-notebook, 4-pencil
- ⑩ 2-notebook, 2-pencil, 5-eraser.

Check the cash memos and correct them if you find a mistake.

CASH MEMO
SELF SERVICE STORE

ITEM	RATE	RS.	P
1. Ball	7	7	00
3 Pencils	2.50	7	50
5 Toffees	0.50	2	50
Total		17	00

The memo is correct.

2 - Incorrect. memo

CASH MEMO

SELF SERVICE STORE

1 Toy car	15	15	00
3 Glass milk	8.50	10	50
4 Note book	5	20	50

It should be ← 45 00
46.00 Rs.

3 - Incorrect. Memo

CASH MEMO

SELF SERVICE STORE

ITEM.	RATE	RS	P
1 TOY car	6.50	6	50
3 Pencils	2.50	7	50
7 Toffees	.50	3	50
1 Bisuit	4.50	4	50
		22	00

The total is incorrect it should be 22 Rs.

Add the following?

(a)	Rs	P.	(b)	Rs	P.	(c)	Rs	P.
	12	.50		55	.50		30	.00
	13	.00		14	.00		31	.50
	<u>25</u>	<u>.50</u>		<u>69</u>	<u>.50</u>		<u>61</u>	<u>.50</u>

subtract the following:

(a)	Rs	P.	(b)	Rs	P.	(c)	Rs	P.
	25	.50		103	.50		19	.50
	11	.50		62	.00		7	.00
	<u>14</u>	<u>.00</u>		<u>41</u>	<u>.50</u>		<u>12</u>	<u>.50</u>

(E) You have 30 Rupees with you. Find out how much money will be left after buying the following items!

(i)	one ball	:	7.00
	one doll	:	8.00
	one toy graffe.	:	<u>6.50</u>
	Total	:	<u>21.50</u>

$$\text{Total money} = 30.00$$

$$\text{money spent} = \underline{21.50}$$

$$\text{money left} = \underline{8.50}$$

Rs 8 & 50 paise.

(2)	Two bananas @ 1.50:	3.00
	one pac. biscuits @ 4.50:	4.50
	2 glasses Juice @ 3.00:	<u>6.00</u>
		<u>13.50</u>

$$\text{Total money} = 30.00$$

$$\text{money spent} = \underline{13.50}$$

$$\text{money left} = \underline{16.50}$$

Rs. 16 & 50 paise

(3)	Three notebooks @ 5	:	15.00
	Two pencils @ 2.50	:	5.00
	two erasers @ 1	:	<u>2.00</u>
	Total	:	<u>22.00</u>

$$\text{Total money} = 30.00$$

$$\text{money spent} = \underline{22.00}$$

$$\text{money left} = \underline{08.00}$$

Practice Time

A. Three friends wanted to buy a cricket bat and ball. Bina had Rs 48.50, Raman had Rs 55.50 and venu had Rs. 38.00. How much money did they have in all?

	Rs	P
Bina had :	48	50
Raman had :	55	50
Venu had :	38	00
Total money	142	00

Rs 142 and 00 paise.

B' Hari booked a railway ticket for Rs 62.50. He gave a 100-rupee note. How much money will he get back with the ticket?

Hari gave:	Rs	P
for ticket:	100	00
Ticket cost:	62	50
left bal:	37	50

He will get back Rs 37 and 50 paise with the ticket.

c' Gita and her friends went shopping. She bought things for Rs 58, Rs 37 and Rs 22. Gita had a hundred-rupee note. How much money

should she borrow from her friends to pay the bill?

Item one	=	58.00
Item Two	=	37.00
Item Three	=	22.00
Total money	=	117.00

she had Rs 100 < money spent 117 so she will have to borrow.

117.00
100.00
<u>17.00</u>

she has to borrow Rs 17.00

How much money the factory tries to save?

older worker gets	-	Rs 573 a day
child gets	-	Rs 80 a day
factory owner saves	=	Rs 433 a day

By paying less to 10 persons the factory saves

=	Rs 433 x 10
=	Rs 4330 a day.

Find out
In your area are there shops

of factories where young children are made to work? yes, there are shops and factories but no children work there.

Train journey
 The cost of a rail ticket to different stations is given in the table.

Distance from New Jalpaiguri Station in km	Station	Fare (in Rs)
57	New Mal	12.50
175	Alipurduar	28.00
366	Goalpara	40.50
495	Guwahati	62.50

Find the distances

- From New Mal to Guwahati
 $495 \text{ km} - 57 \text{ km} = 438 \text{ km}$
- Between new Mal and Goalpara
 $366 \text{ km} - 57 \text{ km} = 309 \text{ km}$
- From Alipurduar to Guwahati
 $495 \text{ km} - 175 \text{ km} = 320 \text{ km}$
- Between new Mal and Alipurduar.

$175 \text{ km} - 57 \text{ km} = 118 \text{ km}$
 c) From Goalpara to Guwahati
 $495 \text{ km} - 366 \text{ km} = 129 \text{ km}$

Find the cost of tickets.

- New Jalpaiguri to Alipurduar
 Rs 28.
- new Jalpaiguri to Goalpara.
 Rs 49.50.
- Debu, Shoma and Gobind are going from new Jalpaiguri to new Mal. What amount will they pay for three tickets?
 Ticket cost of one person = 12.50
 cost of ticket for 3 = 12.50

$$\begin{array}{r} 12.50 \\ \times 3 \\ \hline \end{array}$$

 Rs 37.50 p.

They gave a Rs 50 note for the tickets. How much money will they get back?

Money given = 50.00
 Ticket cost = 37.50
 Balance return = 12.50

They will get back. Rs 12 + 50 paise.