

MATH-MAGIC CLASS - 4 (2020-21)
BOOK - N.C.E.R.T.
BUILDING WITH BRICKS CHAPTER - 1

Page - NO - 2

(a) Which floor pattern do you like the most?

Ans - I like the pattern 2 most.

(b) Have you seen such patterns anywhere?

Ans - I have seen pattern 2 in my hometown.

Page NO - 3

(a) Which pattern is made in a circle?

Ans - Pattern J is made in a circle.

(b) In which pattern can you show mirror halves? Draw a line.

Ans - In pattern B, H, I we can show mirror halves.

(c) Now you draw some new floor patterns.

Ans - Some new floor patterns are given below!

Page no - 4

(a) How many faces in all does a brick have?

Ans - A brick have six faces.

(b) Is any face a square?

Ans - No, face of a brick is a square.

(c) Can you make a drawing of a brick which shows 4 of its faces?

Ans - No, we cannot make a drawing of a brick showing 4 of its faces.

(a) What do you think? which wall will be stronger

Ans - Zainab's wall will be stronger than that of moniya.

(b) Here are photos of three kinds of brick walls. can you see the difference in the way the bricks are placed?

Ans - There is the difference in the bricks, some bricks are placed vertically some are placed horizontally.

Now match the photo of each wall

(a) How many different 'Jaali' patterns can you see in these two photos?

Ans - There are five different 'Jaali' patterns can be seen in these two photos.

(a) Where else have you seen an arch?

Ans - ~~yes~~ I have seen an arch in my neighbors home.

(b) Isn't the 'Jaali' of this window beautiful? it is made of thin bricks. Have you ever seen thin bricks? Look around.

Ans - Yes, the Jaali of ~~the~~ this window looks beautiful. yes, I have seen the thin brick in some very old buildings in my village.

(a) Which of these bricks have curved edges?

Ans - Bricks 1 and 2. From the top ~~left~~ left have curved edges.

(b) How many faces do you see of the longest brick?

Ans - Two faces are seen in the longest brick.

(c) Is there any brick which has more than six faces?

Ans - No, A brick cannot have more than six faces.

Q Find out: The size of a Brick

(d) Q → Have you seen bricks of different sizes?

(a) ~~How~~ How long is it?

Ans - → It is 10 inch in length.

(b) How wide is it?

Ans - → It is 5 Inch is wide.

(c) How high is it?

Ans - It is 3 inch high.

(e) ~~Muniya~~ Muniya wants to make a wall 1 meter long. How many bricks will she need to put in a line

Ans - → four bricks.

(f) ~~Can~~ Can you guess how high is the chimney here? is it?

Ans - The chimney's height is about 50 meters.

(a) Here are four pictures from the brick kiln. These pictures are jumbled up. Look at them carefully.

Write the correct order.

Ans - The correct order in which a brick is made out of soil dug from the earth is C, D, B and A.

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

Ans - Yes, I have seen a brick kiln. There may be more than ten thousand bricks kept in a brick kiln.

(b) Can you try to write one lakh?

Ans - It is written as 1,00,000.

(c) Look at these photos and guess how many bricks are carried by this truck.

Ans - It is carrying around five to ten thousand bricks.

(d) Also, find out from a truck driver how many bricks they can carry in one truck.

Ans - A truck driver tells that he carries nearly five thousand bricks in his truck or in the bigger truck they can carry around ten thousand bricks.

(e) Bhagan decided to buy the new bricks from Brickabad. He bought three thousand bricks. How many did he pay?

Ans → Cost of new bricks from brickabad is 2000 for one thousand bricks.

cost of one brick = RS 2.

cost of three thousand bricks = $2 \times 3000 = 6000$

He pays RS 6000.

(f) Guess what he will pay if he buys 500 old bricks.

Ans - For 500 old bricks, he will pay RS 600.

MATH-MAGIC CLASS-4

LONG AND SHORT CHAPTER-2

Page no - 13

(a) Guess the distance between any two dots. How many centimetres is it?

Now measure it with the help of a scale. Did you guess right?

Ans - The guessed ~~be~~ distances between two dots are:

A and B = 2.5 cm, A and C = 3 cm

A and D = 5.5 cm, A and E = 3.9 cm

A and F = 4.6 cm, A and G = 4.5 cm

B and E = 4.5 cm, B and F = 8.5 cm

O and D = 0.8 cm, E and H = 3.6 cm

on actual ~~no~~ measurement, we find ~~to~~ the distances between the dots as under:

A and B = 3 cm, A and C = 3 cm

A and D = 4.4 cm, A and E = 3.5 cm

A and F = 4.6 cm, A and G = 6.3 cm

B and E = 5cm B and F = 7.2cm

O and D = 1cm E and H = 9.6cm

(b) Which two dots do you think are farthest from each other?

Ans → Dots ~~O and D~~ O and M are farthest from each other.

(c) Which two dots are nearest to each other?

Ans → Both D and O dots and F and M dots are nearest to each other.

Page no-15

(a) Do you remember that in Class 3 you measured your height?

Ans → Yes, I remember that I measured my height when I was in 3rd class.

(b) Do you think you have grown taller?

Ans → Yes

(c) How much?

Ans → 5cm

(d) Have your friends also grown taller?
yes

(e) Find out and fill the table below.

Friend's name	Last year's height (in cm)
Sohan	87 cm
Mohan	90 cm
Munna	92 cm
Haarish	95 cm

This year's height (in cm)	How many cm have they grown?
93 cm	6 cm
95 cm	5 cm
98 cm	6 cm
1 m	5 cm

(F) Could that person pass through the door of your classroom without bending?

Ans He cannot pass through the door without bending.

(G) Will his head touch the roof of your house if he stands straight?

Ans → Yes, his head will touch the roof of my house.

(h) Who is the tallest in your family?

Ans → my father is the tallest person in my family.

(i) Who is the shortest in your family?

Ans → my brother is the shortest person in my family.

(J) What is the difference between their ~~high~~ heights?

Ans → The difference between their heights is 55 cm.

(a) How far is Rehana from Arundati?

Ans → Rehana is 3 meter from Arundati.

(b) How far ahead is Rehana from Konkana and Uma?

Ans → Rehana is 8 ~~meter~~ meter from Konkana and Uma.

(c) How far ~~to~~ are Konkana and Uma from the finishing line?

Ans → 15 meter.

So you can say -

(a) In a 1500 ~~meter~~ metres race people run

Ans → one and half km

(b) In a 3000 metres race people run.

Ans → Three km

(a) Have you heard about marathon races in which people have to run about 40 kilometres?

People run marathons on roads because the track of a stadium is only 400 metres.

10 rounds of a stadium track = Km

Sol. 10 rounds of a stadium track = 400×10 meter

$$= 4000 \text{ meter}$$

$$= \frac{4000}{1000} = 4 \text{ Km}$$

4 Km Ans

(b) So, if you run a marathon on a stadium track, you will have to complete _____ rounds!

Ans - 100 rounds.

(c) How long are Gurseet's and Chopi's jumps?
Ans →

Gurseet's long jump = Dhanu's long jump - 20cm

= 3m 40cm - 20cm

~~35cm~~ = 3m 20cm Ans

Chopi's long jump = Gurseet's long jump - 5cm

= 3m 20cm - 5cm

= 3m 15cm Ans

(d) How far can you throw a ball?

Ans → I can throw the ball to a distance 6 meters

(e) Look for a big ball, like a football or volleyball. How far can you kick it?

Ans → I can kick a ball to a distance 12 meter.

Here are the Indian records and world records for some jumps.

Sports	World Record	Indian Record
High Jump (Men)	Javiers. (2m 45cm)	chandra pal (2m 17cm)
Long Jump (men)	Mike P. (8m 95cm)	Amrit pal (8m 8cm)
High Jump (woman)	stefka k. (2m 9cm)	Bobby A. (1m 91cm)
Long Jump (women)	Galina c. (7m 52cm)	Anju B. (6m 83cm)

Find out from the table -

- How many centimetres more should chandra pal jump to equal the men's world Record for high jump?

Sol -

High jump (men) world Record = 2m 45cm

High jump (men) India Record = 2m 17cm

Number of centimeters more required by chandra pal to equal men's world Record

$$= 2m\ 45cm - 2m\ 17cm$$

$$= 28cm \quad \text{Ans}$$

- How many centimetres should Bobby A. jump to reach 2 metres?

- Galina's long jump is nearly
Ans \rightarrow 7 and a half metres.

- Look at the woman's world Records. What is the difference between the longest jump?

Sol \rightarrow The difference between the highest jump and the longest jump

$$= 7m\ 52cm - 2m\ 9cm$$

$$= 5m\ 43cm \quad \text{Ans}$$

5. If Mike P. could jump _____ centimeters longer, his jump would be full 9 metres.

Sol - If Mike P. jumps 5cm longer than his jump would be full ~~9~~ 9 metres.

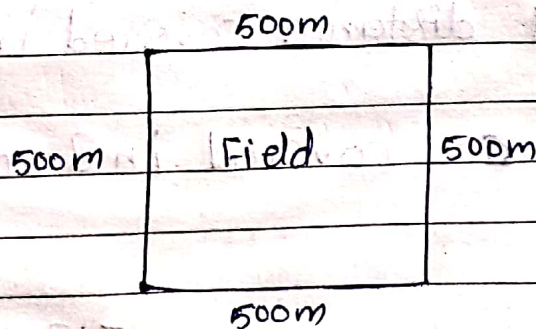
6. Whose high jump is very close to two and half metres?

- (a) Stefka K. (b) Chandra Pal
(c) Javier S. (d) ~~Bob~~ Bobby A.

Ans → Javier S.

Page No - 19

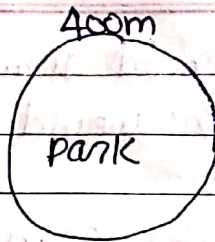
(a) The doctor ~~had~~ ^{has} told Devi Prasad to run 2km every day to stay fit. He took one round of this field. How far did he run?



Sol

He had run $4 \times 500 = 2000\text{m} = 2\text{km}$

(b) The field was very far from his home, so he chose a park nearby. ~~So he chose~~ ~~park~~ The boundary of the park was about 400 metres long.



Q. How many rounds of the park must Devi Prasad run to complete 2 km?

Soln-

Total length of the boundary of park = 400m
 Number of round needed to complete

$$= 2000 \div 400$$

$$= 5 \text{ Round Ans}$$

Q. One day the weather was very good and a cool breeze was blowing. He felt so good that he kept jogging till he got ~~fr~~ tired after 8 rounds. That day he run _____ and _____ metres

Solution - Total distance covered in 1 round = 400m

$$\text{Distance covered in 8 rounds} = 8 \times 400$$

$$= 3200 \text{ m}$$

$$= 3000 \text{ m} + 200 \text{ m}$$

$$= 3 \text{ km } 200 \text{ m Ans}$$

(C) The Qutab minar is 72 metres high. About how many metres high is your classroom?

Solution - The classroom is about 4 metres high

(d) Guess how many rooms, one on top of the other, will be equal to the Qutab minar.

Solution:-

Height of the Qutab minar = 72m

$$\begin{aligned}\text{No. of room} &= 72 \div 4 \\ &= 18 \text{ Ans}\end{aligned}$$

Page No-20

(a) Subodh is going to Kozhikode which is 24km away. Mangani is going to Thalassery which is 46 km away in the opposite direction.

Q How far is Kozhikode from Thalassery?

Solution:- The distance is Kozhikode from Thalassery = $24 + 46 = 70 \text{ km}$ Ans

(b) ~~ma~~ Momun comes to school from very far. He first walks about 400 metres to the pond. With slippers in his hands, he then walks 150 metres through the pond. Next he runs across the 350 metres wide green field. Then he carefully crossed the 40 metres wide road to his school.

Q. How much does ~~the~~ Momun walk every day to reach school? _____
is it more than 1 km? _____

Solution:- Distance walked by Momun to go school

$$= 400 + 150 + 350 + 40 = 940 \text{m}$$

Hence, it is not more than 1km.

page No-21

(a) Find out how far your friends live from school and fill the table. Write in metres or kilometres.

Friends name	Distance of home from school
_____	_____
_____	_____
_____	_____

Q. Who among you lives nearest to the school?

Solution →

Q. Who lives farthest from the school?

Solution →

Q. How many children live less than 1 kilometre away from your school?

Solution →

~~How is a bridge different?~~

Guess and find

1. How long is the thread in a reel?

Solution:- The length of the thread in a reel depends on its size. It may be 100 metres, 150 metres etc.

2. How long is the string of a kite reel? Can it be more than a kilometre long?

Solution:-

3. If a handkerchief is made out of a single thread, how long would that thread be?

Solution:- The length of the string of a kite reel depends upon its

Page No-22

Try to find out:-

1. Which is the highest building that you have seen? About how many rooms high was it?

Solution:- Qutab minar is the highest building

that I have seen. it is about 26 rooms high.

2. How high can you kite go? can it go higher than the Qutab minar?

Solution:- A kite can go to the height of about 30 metres. it cannot go higher than the Qutab minar.

3. How high can a plane fly? can it fly higher than mount Everest which is about 9 km high?

Solution:- A plane can fly to the height of 500 metre. it cannot fly higher than the mount Everest.

4. Have you ever seen clouds below you?

Solution:- No, I have not seen clouds below me.