

Chapter 1: Building with Bricks

NCERT · Class 4 · Maths

Chapter activities

Question 1



Which Pattern is made in a circle?

Solution

Ans:

By observing the above given patterns, I observe that pattern J is made in a circle.

In which pattern can you show mirror halves?

Ans:

Mirror halves objects are those in which the objects are the same in both sides of the symmetry line.

Hence draw the symmetry line through the center of the object and see if we obtain mirror halves.

Hence the mirror halves can be shown in 5 patterns. They are A, B, H, I, J.

The line can be drawn to show the mirror halves as shown below:



Question 2



How many faces does a brick have?

Solution

Ans:

Generally the brick will be in the shape of a cuboid. So every brick has 6 faces.

Is any face a square?

Ans:

We know that the brick is of cuboid shape.

The cuboid is formed of six rectangular faces.

So there is no square face in cuboid.

Draw the smallest face of the brick.

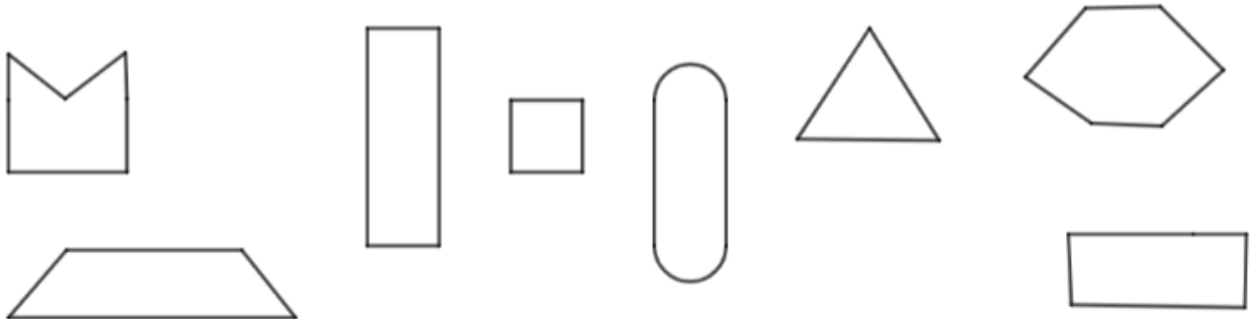
Ans:

The smallest side of the brick is the side with a breadth and height and it can be drawn as follows:



Question 3

Which are the faces of a brick? Mark a ().



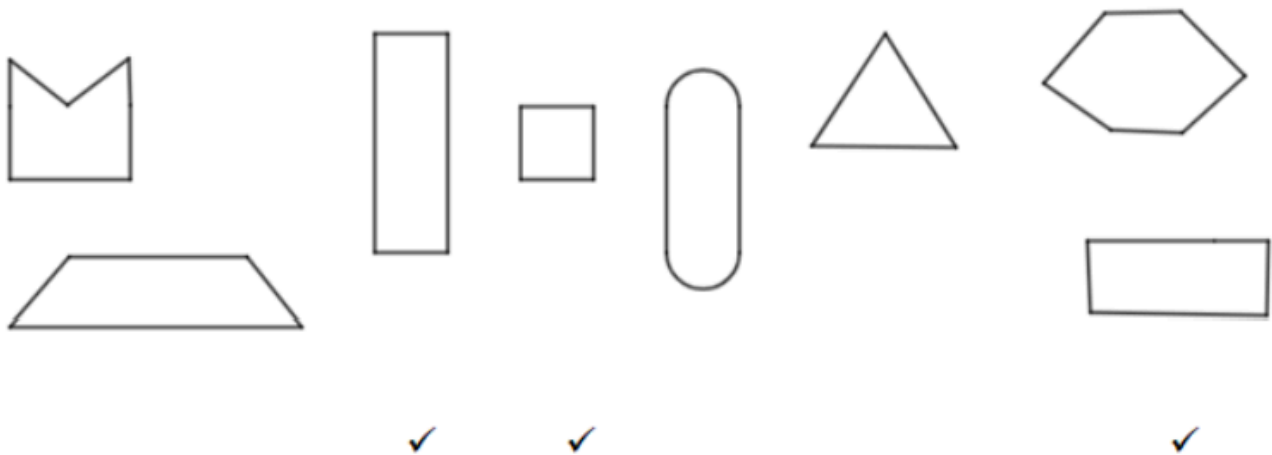
Solution

Ans:

A brick is of the shape of a cuboid or cube.

Thus the shape of the brick consists of a rectangle and square.

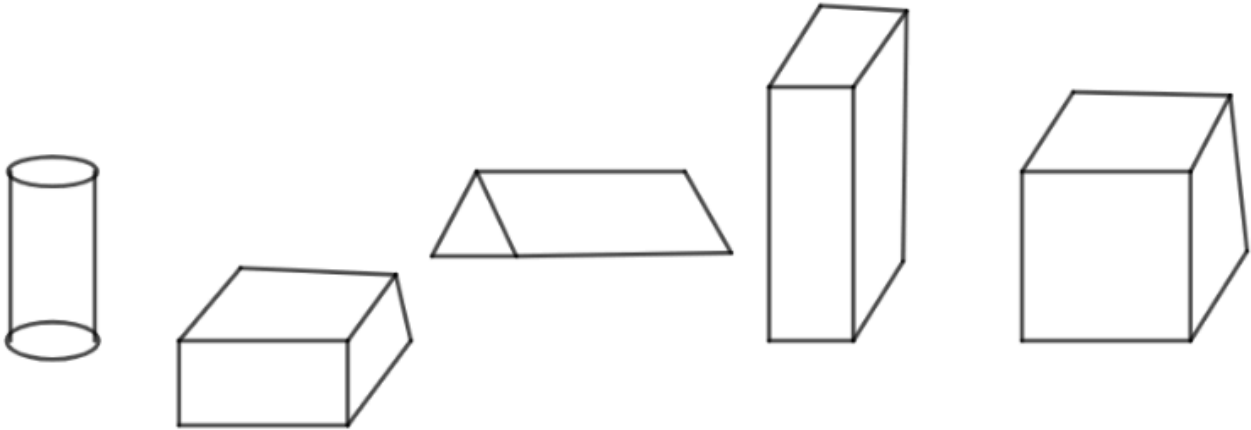
So insert the () symbol in the shape of rectangle and square.



These are the shapes of squares and rectangles which can make the faces of bricks.

Question 4

Which of these is a drawing of a brick? Mark a (\$\$).

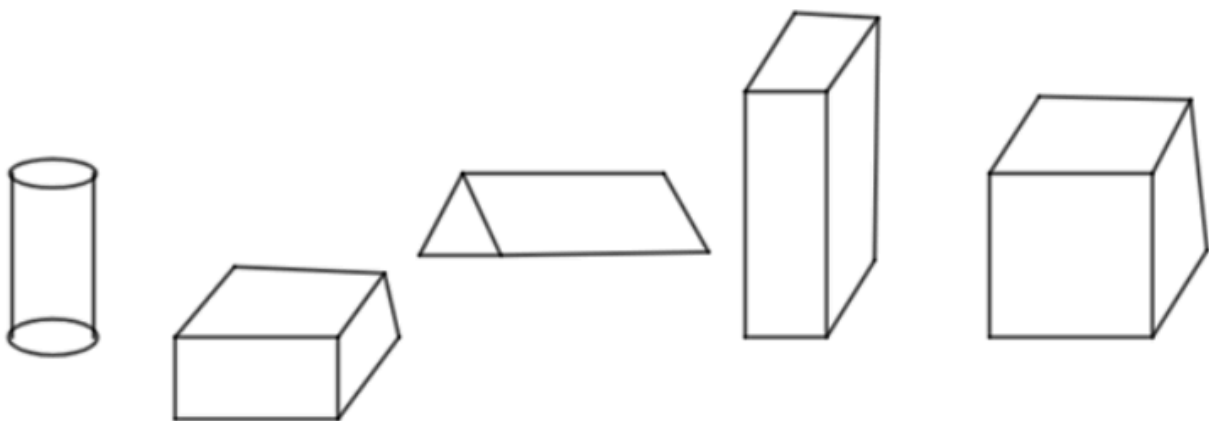


Solution

Ans:

The brick is in the shape of a cuboid.

So from the diagram, the shape of the cuboid is found.



Hence the shape of the cuboid has been ticked.

Question 5

Make a drawing of this box to show three of its faces.



Solution

Ans:

To draw the box with three faces, just flip the box and we obtain the box with three faces.



Hence this box diagram with three faces has been drawn.

Question 6

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

Solution

Ans:

The brick is a 3D shape of cuboid.

And so it is impossible to show the 4 faces of the brick in a sheet of paper.

Missing Question 3:

What do you think? Which wall will be stronger?

Ans:

Zainab did not interlock the brick pattern.

But Muniya places her bricks in an interlocking pattern.

So the walls of Muniya will be stronger since her bricks are tightly packed with each other.

Question 7

Different Wall patterns:

Here are photos of three kinds of brick walls. Can you see the difference in the way the bricks are placed?



Solution

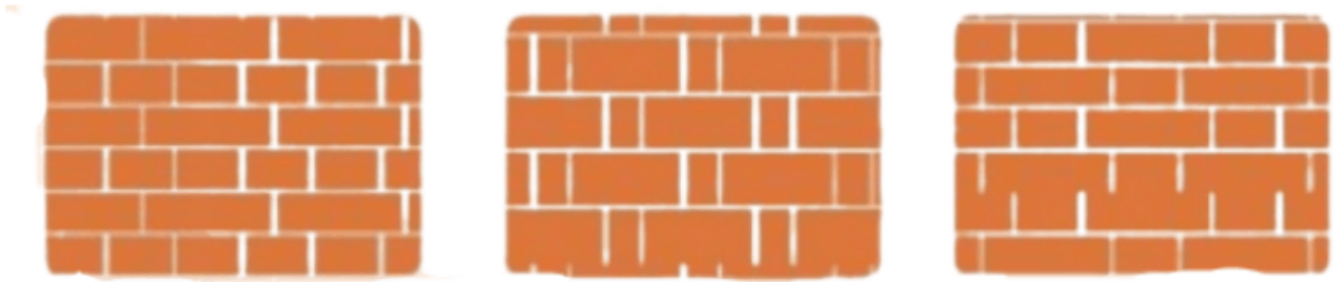
Ans:

Observe the patterns.

The brick in the first picture has one brick horizontally placed between the two vertical placed bricks.

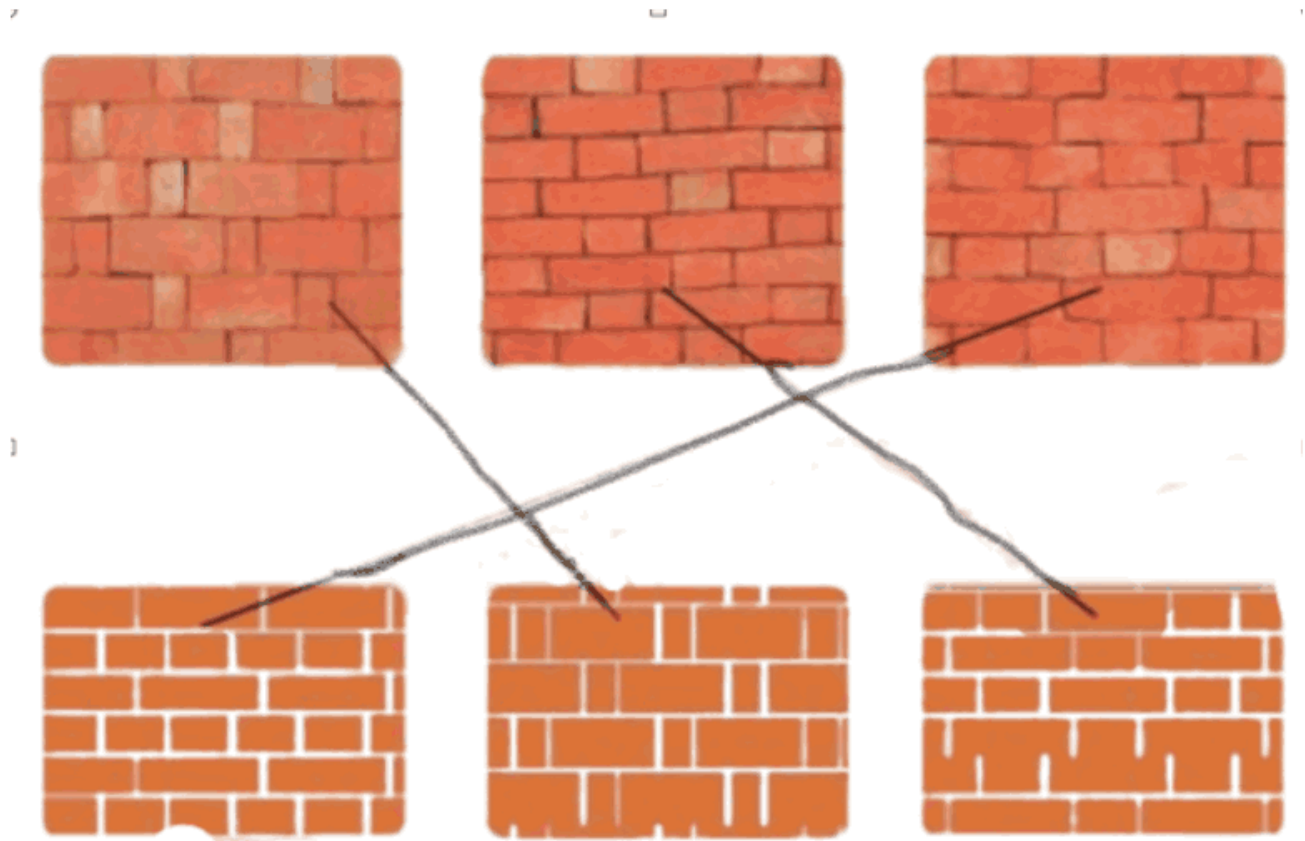
The bricks in the third picture are more tightly packed than that of bricks in the second picture.

Now match the photo of each wall with the correct drawing below:



Ans:

As described in the above question, match the bricks with the interlocking patterns in the patterns given in this question.



Hence the bricks have been matched with its pattern.

Question 8

How many different 'jaali' patterns can you see in these two photos?



Solution

Ans:

The above building seems to have five different 'Jaali' patterns.

The pillar is made of one pattern.

The walls of building made of one pattern,

The upper layer of the balcony is made of one pattern.

The balcony layer with designs made of one pattern.

And the above floor with design on both sides made of one pattern.

So five patterns of "Jaali" are there in the above building.

Question 9

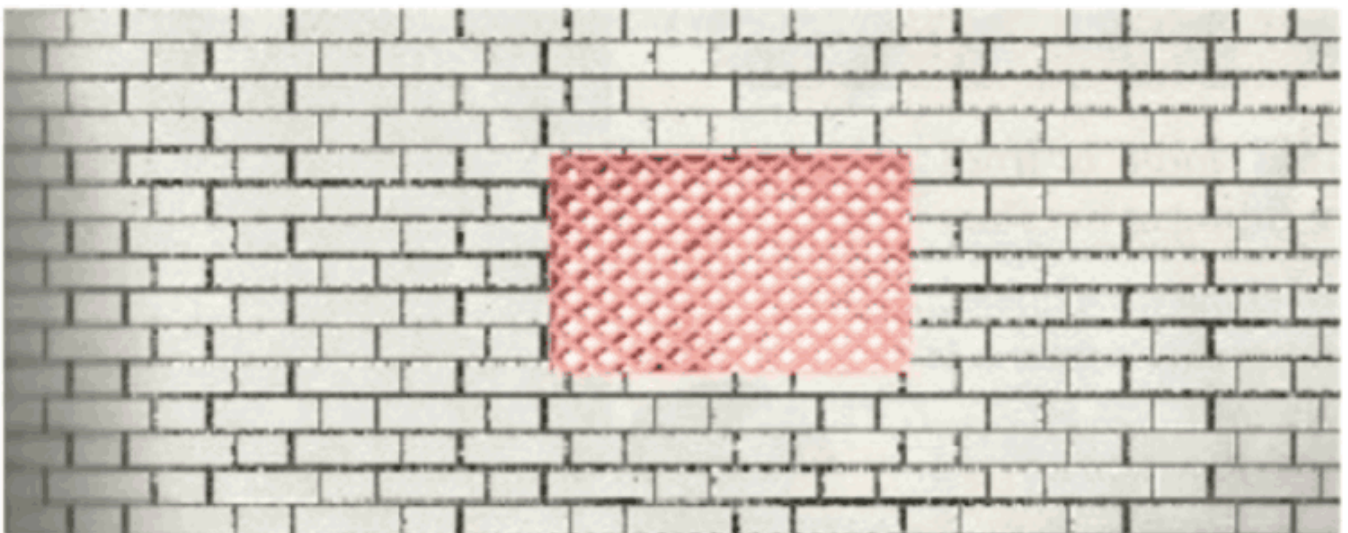
Now color some bricks red and make your own 'jaali' patterns in the wall drawn below.



Solution

Ans:

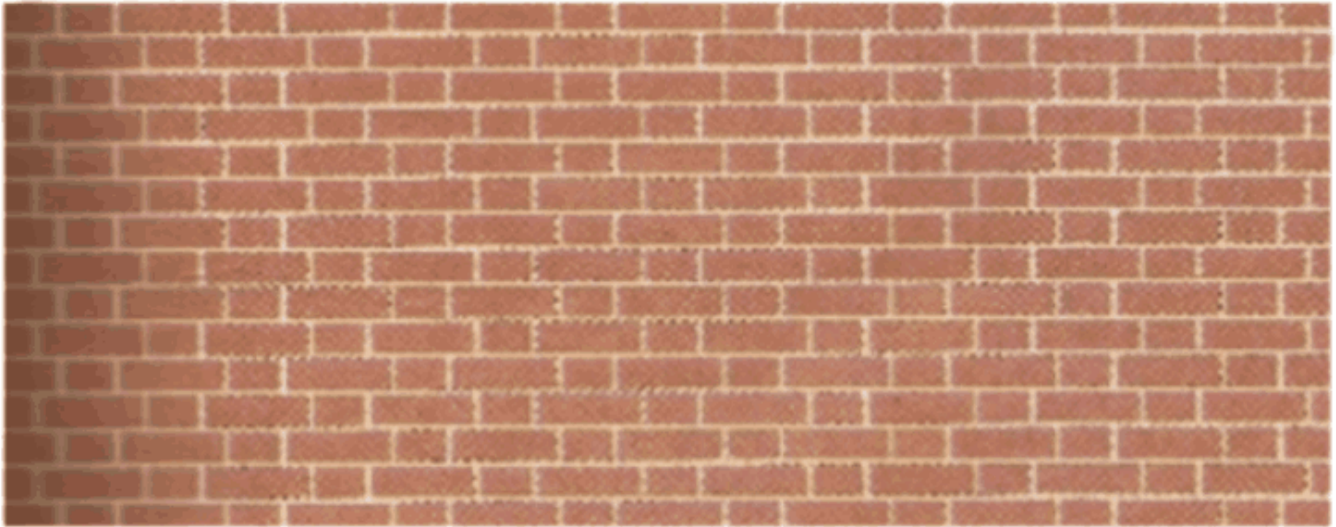
To make our own 'jaali' pattern, we can choose any side of the above given 'jaali' pattern.



Our 'jaali' pattern is made in the center with some designs on the wall.

Question 10

Now draw some jharokha patterns on the wall here. You can shade it black.



Solution

Ans:

The Jharoka is a stone window that is projecting from the wall of the building.

To draw the jharokha pattern and shade them in black:



Hence the wall with jharokha pattern has been drawn.

Question 11

Where else have you see an arch?-----

Solution

Ans:

An arch is a typically curved structure that will function as an opening and provide structural support.

It can be seen in many places.

But I have seen the arch in the bridges, the rainbow and so on.

Question 12

Which of these bricks have curved edges?



Solution

Ans:

Curved edges refer to the edges that are rounded in the edges.

So observe the rounded edge of the bricks from the diagram.

The bricks in the left corner have the curved edge and the image of that brick is given:



How many do you see of the longest brick?

Ans:

The longest brick is in the front side.

Only two of six faces are observed by me.

Thus only two faces of the longest brick are seen.

Is there any brick which has more than six faces?

Ans:

Generally bricks are of cuboid shape and consist of only six faces.

So bricks cannot have more than six faces.

Question 13

Take one brick and measure it.

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

(b) How wide is it?

(c) How high is it?

Solution

Ans:

Take a brick.

Measure the length of the brick with the ruler.

The length of the brick is about 20 cm.

Ans:

Take a brick.

Measure the width of the brick with the ruler.

The width of the brick is about 8 cm.

Ans:

Take a brick.

Measure the height of the brick with the ruler.

The height of the brick is about 1 cm.

Question 14

Muniya wants to make a wall 1 meter long. How many bricks will she need to put in a line?

Solution

Ans:

Consider the length of the brick to be 20 cm

Muniya needs to build a wall of 1 m

We know that 1 m=100 cm

We need n number of bricks of 20 cm to build a 100 cm wall.

Thus, $20n = 100$

$$n = \frac{100}{20}$$

$$n = 5$$

Hence 5 bricks are required to build a wall of 1m in a line.

Question 15

Can you guess how high the chimney is here? Is it:

- (a) about 5 meters
- (b) about 15 meters
- (c) about 50 meters



Solution

Ans:

We know that the length of the brick is about 20 cm.

From the height of the chimney, we know that the height of the chimney is very high.

So we can conclude that the chimney is about 50 meters tall.

Question 16

Here are four pictures from the brick kiln. These pictures are jumbled up. Look at them carefully. Write the correct order.



Solution

Ans:

The bricks are made from the following process,

- Collecting the mud
- Made mud into small parts.
- Separate the mud leaving some spaces between them.
- Finally arranging them one above the other.

The order given above follows.

C.



D.

B**A.**

Thus the correct sequence of the picture form brick is C, D, B, A

Question 17

Mental Math: Bhajan buys Bricks. Bhajan went to buy bricks. The price was given for one thousand bricks. The prices were also different for different types of bricks.

Old bricks	Rs 1200 for one thousand bricks
New bricks form Intapur	Rs 1800 for one thousand bricks
New bricks from Brickabad	Rs 2000 for one thousand bricks

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

Solution

Ans:

Since Bhajan decided to buy bricks from Brickabad,

Cost of one thousand bricks = $Rs.2000$

Cost of 3thousand bricks = 3×2000

= $Rs.6000$

The cost of three thousand bricks from Brickabad is $Rs.6000$

Guess what he will pay if he buys 500 bricks.

Ans:

Bhajan buys 500 old bricks in this case.

Cost of 1000bricks = $Rs.1200$

$$\text{Cost of 500 bricks} = \frac{1200}{2}$$

$$= Rs.600$$

Thus the cost of 500 old bricks is *Rs.600*.
