

# NCERT Solutions for 5th Class Maths Chapter 9-Boxes And Sketches

Class 5: Maths Chapter 9 solutions. Complete Class 5 Maths Chapter 9 Notes.

## NCERT Solutions for 5th Class Maths Chapter 9-Boxes And Sketches

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Sweet Box

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1. Ramya made four more shapes. Each is to be folded along the dotted lines. You have to find out which of these can be made into a box.



**Ans.** Cutouts of (a) and (c) can be folded to make boxes.

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Shapes that Fold into a Cube

(a)Buddha wants to make a paper cube using a squared sheet. He knows that all the faces of a cube are squares.He draws two different Shapes.

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#### 1. How many faces does the cube have?





Ans.A cube has 6 faces.

### 2.Will both these shapes fold into a cube?

Ans.Yes both the shapes can be folded into cubes.

### 3.Draw at least one more shape which can fold into a cube.

Ans.Following is an example of such shapes.

#### 4. What will be the area of each face of the cube?

**Ans**.Area of each face of the cube = Side x Side

#### 5.Draw one shape which will not fold into a cube.

**Ans.**Following is a shape which will not fold into a cube.



#### 6.Look around and discuss which things around you look like a cube. List a few.

Ans.Following objects look like a cube:

Dice, chalk box, Rubik cube, etc.





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#### Shapes for an Open Box



1. Find out which of the other 8 shapes can be folded to make an open box.

Draw more shapes which will not fold to make an open box.

Ans. The 8 shapes which can be folded to make an open box are shown as follow.



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Out of these shapes: 1, 3, 5, 6, 7 and 8 can be folded to make an open box. More shapes are given below which will not fold to make an open box.



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Boxes and Boxes

**1.All boxes are not cubes. Here are some different kinds of boxes. Match the shape below with a box into which it will fold.** 





Ans.(a)-(ii), (b)-(iv), (c)-(i),(d)-(iii)

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#### **Floor Maps**

For making a house a floor map is first made.

Have you ever seen a floor map? Here is a floor map of Vibha's house. It shows where the windows and the doors are in the house.



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## 1.Which is the front side of her house? How many windows are there on the front side?

**Ans.** The side which contains the door is the front side. There are two windows on the front side.

From the floor map we cannot make out what her house really looks like or how high the windows Eire. So we look for a special way of drawing the house which is deep-to show the length, width and height.



Here are four deep drawings of houses.

## 2.Which one is Vibha's house?



**Ans.** Deep drawing (d) is Vilbha's house.

#### 3. Why do the other three deep drawings not match the floor map? Discuss.

**Ans.** Drawing (a) shows a straight back wall. So it does not match the floor map. Drawing (b) shows a ^window on the right side. So it does not match the floor map. Drawing (c) shows all windows of equal size. So it does not match the floor map.

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#### **Practice Time**



1.Look at this floor map of a house. Make doors and windows on the deep drawing of this house.Are there any windows you couldn't show on the deep drawing? Circle them on the floor map.

**Ans.** Yes, there are two windows which cannot be seen on the deep drawing. They are the windows on the left walls.

#### 2.Try to make a floor map of your own house.

Ans. Do it yourself. One example is given here:



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A Deep Drawing of a Cube

Soumitro and his friends made deep drawings of a cube. These are their drawings.



1. Which of the drawings look correct to you? Discuss.

#### Can you add some lines to make drawing (f) into a deep drawing of the cube?



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**Ans.** Drawings (d) and (e) are correct. Yes, drawing (f) can be made into a deep drawing of cube by adding some lines.

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Puzzle



1. Which of these are the correct deep drawings of that cube?

**Ans.** (a), (d) and (e) are the correct deep drawings.

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A Simple Way to Draw a Cube

Chanda wants to make a deep drawing of this cube. She draws the cube like this.





1.In the same way make a deep drawing of a box which looks like this.

Ans. The deep drawing of the box is as follows:



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**Matchbox Play** 

Navin, Bhaskar and Pratigya made this bridge using matchboxes.

1.If you look at the bridge from the top, how will

it look? Choose the right drawing as follow:



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Ans. It will look like the drawing (b)



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Practice Time

1.Make drawings to show how this bridge will look

• From the top • From the front • From the side

Ans. The drawings of a bridge from different views are as follows:



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From the top



From the front

#### 2. How many cubes are needed to make this interesting model?

Ans. 95 cubes are needed to make this model.



$$(5 \times 5 \times 5) - (7 \times 1) - (5 \times 2) - (3 \times 3) - (1 \times 4) = 125 - 7 - 10 - 9 - 4 = 95$$



3.Here are some drawings of the model. Mark the correct top view drawing with T and the correct side view drawing with 'S'.



Ans. Correct top view is 'd'. Correct side view is 'b'.

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