



# MATHS

## BOOKS - MBD

### VISUALISING SOLID SHAPES

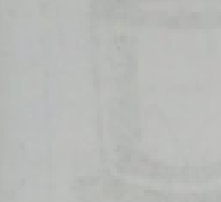
#### Example

1. Match the following pictures(objects) with their shapes:

Identify the following pictures (objects) with

**Picture (object)**

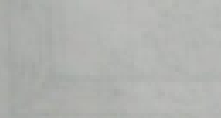
(i) An agricultural field



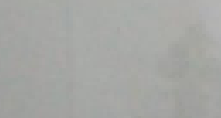
(ii) A groove



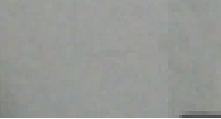
(iii) A toy



(iv) A circular park



(v) A cross path



**Shape**

Two rectangular cross paths inside a rectangular park

A circular path around a circular ground.

A triangular field adjoining a square field.

A cone taken out of a cylinder.

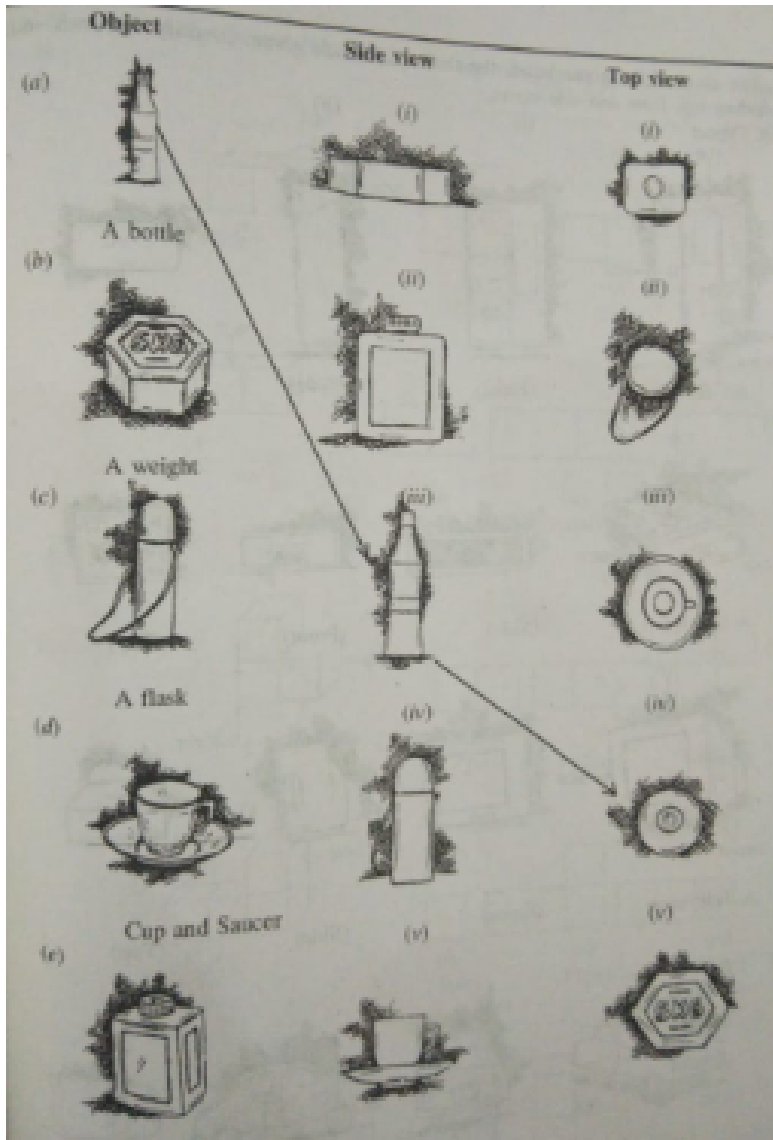
A hemisphere surmounted on a cone.



**Watch Video Solution**

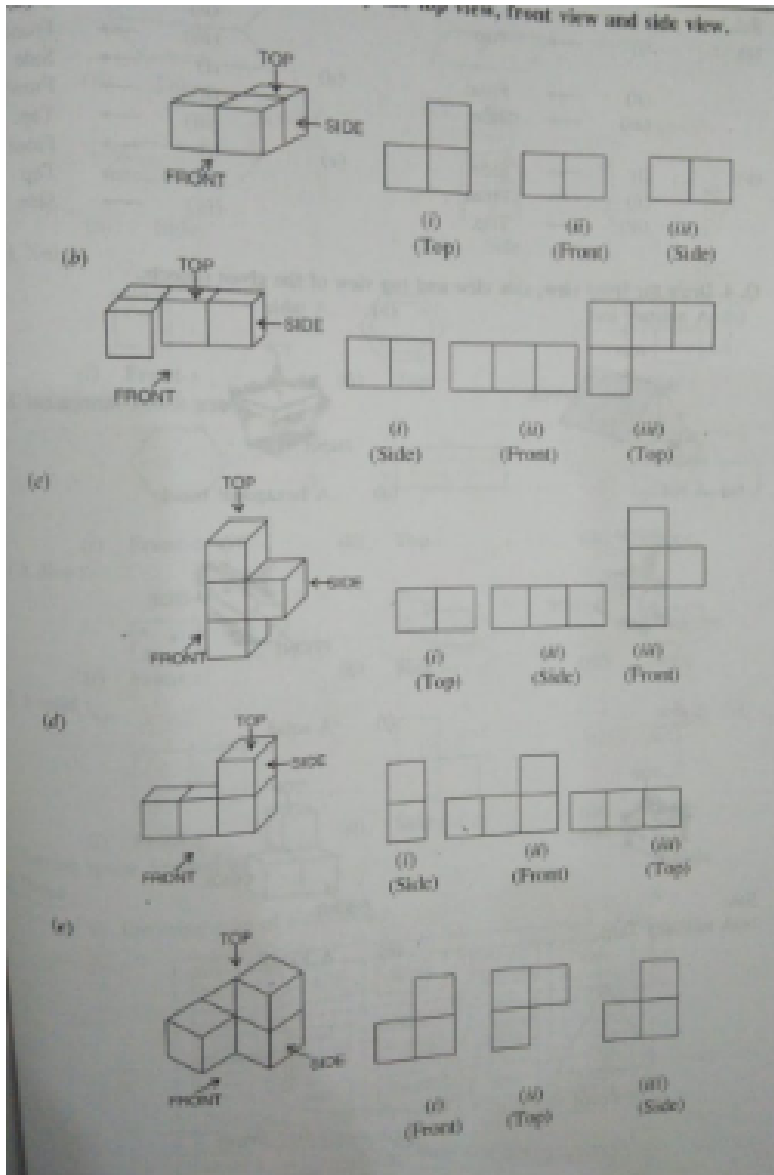
2. For each of the given solid, the two views are given. Match for each solid the corresponding top and front views. The first one is done for

you.



Watch Video Solution

3. For each of the given solid, identify the top view, front view and side view.

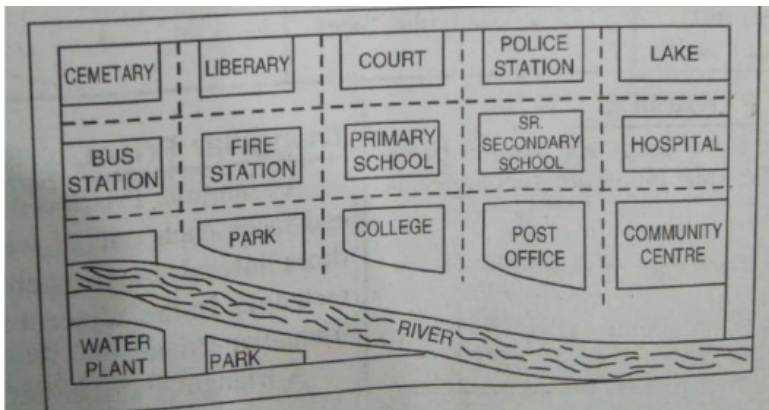




Watch Video Solution

4. Look at the following map of a city(Fig.)

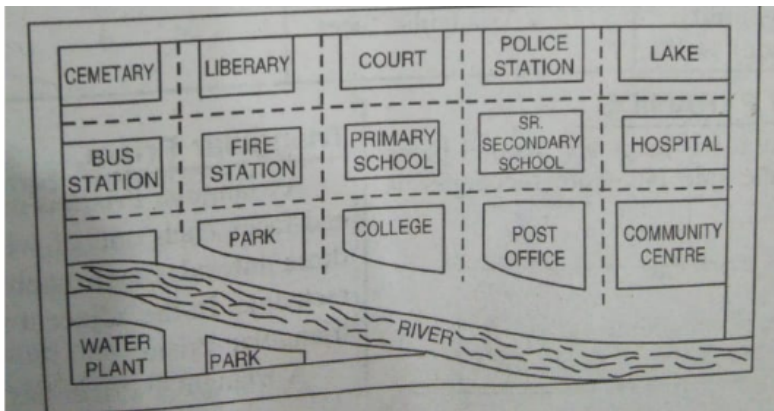
Colour the map as follows:Blue-water,Red-fire station,Orange-Library,Yellow-schools,Green-Parks,Pinko-Community Centre,Purple-Hospital.



Watch Video Solution

5. Look at the following map of a city(Fig.)

In magenta colour,draw a short street route from the college to the lake.



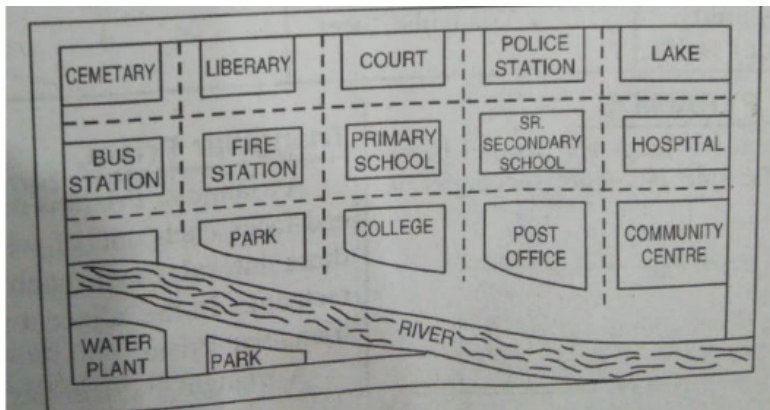
[Watch Video Solution](#)

6. Look at the following map of a city(Fig.)

Colour the map as follows:Blue-water,Red-fire

station, Orange-Library, Yellow-schools, Green-

Parks, Pinko-Community Centre, Purple-Hospital.



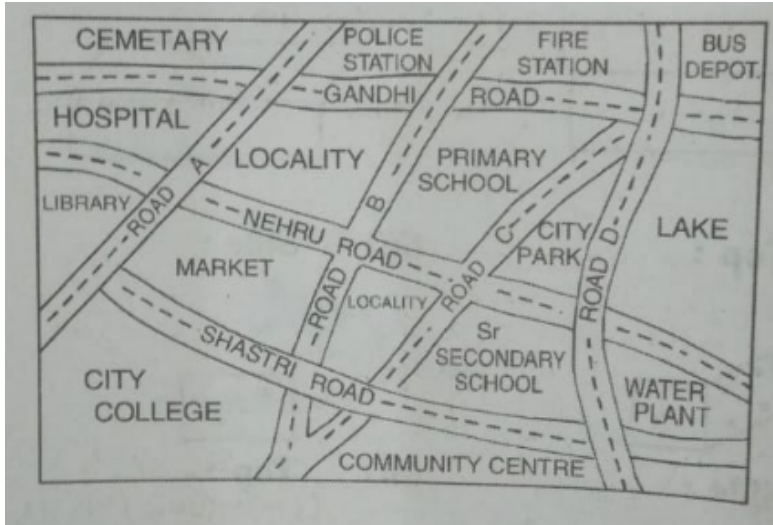
**Watch Video Solution**

7. Look at the given map of a city. Answer the following:

Which is further east, the city park or the



market?

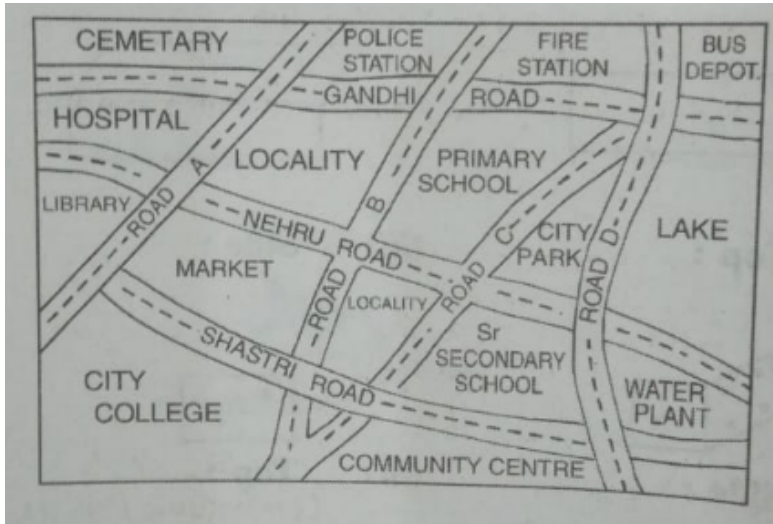


[Watch Video Solution](#)

8. Look at the given map of a city. Answer the following:

Which is further South, the primary school or

the Sr.Secondary School?



[Watch Video Solution](#)

9. Draw a map of your school compound using proper scale and symbols for various features like play ground main building, garden etc.



 [Watch Video Solution](#)

**10.** Draw a map giving instructions to your friend so that she reaches your house without any difficulty.



[Watch Video Solution](#)

**11.** Draw a map of your class room using proper scale and symbol for different objects.



[Watch Video Solution](#)

**12.** Can a polyhedron have for its faces: 3 triangles?



**Watch Video Solution**

**13.** Can a polyhedron have for its faces: 4 triangles?



**Watch Video Solution**

**14.** Can a polyhedron have for its faces: a square and four triangles?



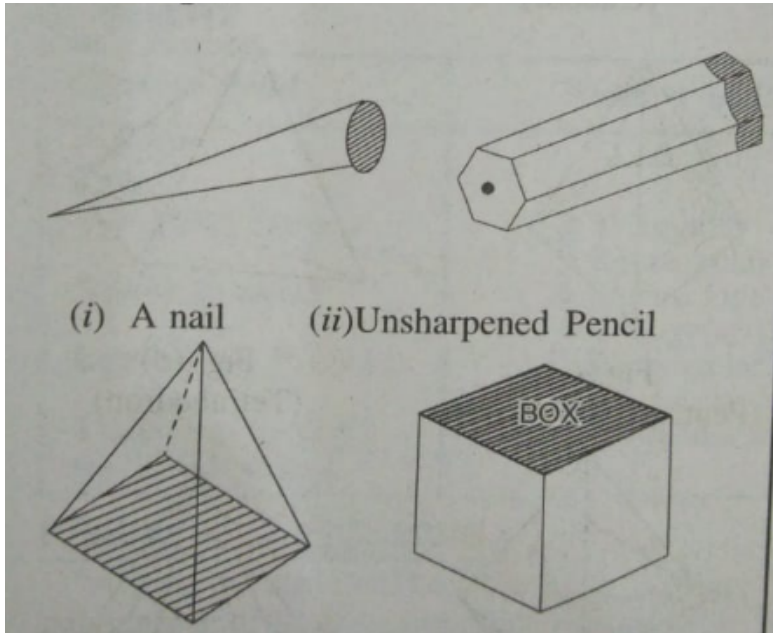
**Watch Video Solution**

**15.** Is it possible to have a polyhedron with any given number of faces? (Hint: Think of a pyramid).



**Watch Video Solution**

16. Which are Prism's among the following :



 [Watch Video Solution](#)

17. How are prisms and cylinders alike?

 [Watch Video Solution](#)

**18.** How are pyramids and cones alike?



**Watch Video Solution**

**19.** Is a square prism same as a cube? Explain.



**Watch Video Solution**

**20.** verify Euler's formula for these solids:





[Watch Video Solution](#)

21. Using Euler's formula, find the unknown:

Faces	?	5	20
Vertices	6	?	12
Edges	12	9	?



[Watch Video Solution](#)

22. Can a polyhedron have 10 faces, 20 edges and 15 vertices?

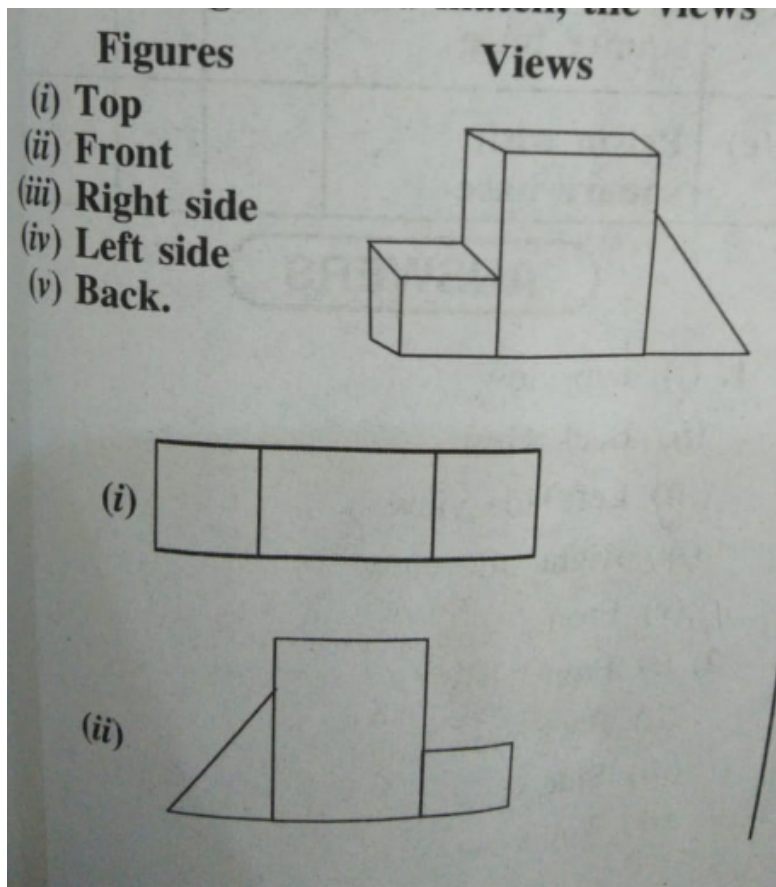




[Watch Video Solution](#)

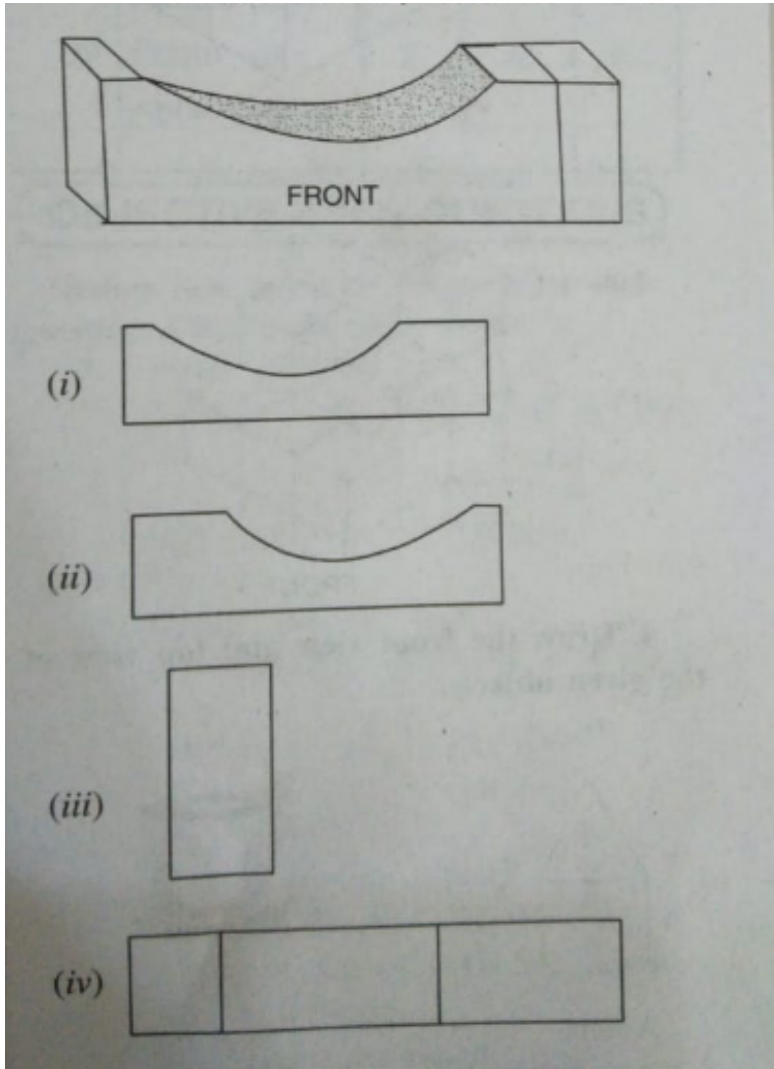
**Exercise**

1. For a given solid match, the views

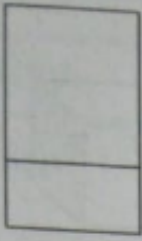


Watch Video Solution

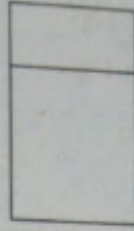
2. For the given solids, match the views:



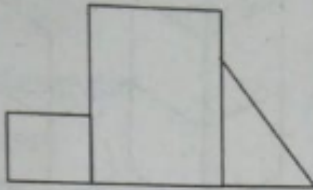
(iii)



(iv)

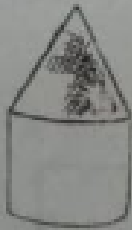


(v)

[Watch Video Solution](#)

3. Draw the front view and top view of the given objects.

(a)



A tent

A cone surmounted  
on a cylinder

(b)



A tin

A cylindrical shell

(c)



Softy (ice-cream)

A cone surmounted  
by a hemisphere

(d)



A photoframe

A rectangular path



Watch Video Solution

4. Draw a map of your drawing room using proper scale and symbols for different objects.



**Watch Video Solution**

5. Draw a map of your class room using proper scale and symbol for different objects.



**Watch Video Solution**

6. Tabulate the number of faces, edges and vertices for the following polyhedrons.

	Solid	F	V	E
(a)	Cuboid			
(b)	Triangular Pyramid			
(c)	Triangular prism			
(d)	Pyramid with square base			
(e)	Prism with square base			



[Watch Video Solution](#)

7. Plane shapes have ..... measurements. Blank space is filled by

A. Two

B. Three

C. Four

D. Five.

**Answer:**



**Watch Video Solution**



8. Solid shapes have ...measurements. Blank space is filled by:

A. Two

B. Three

C. Four

D. Five.

**Answer:**



**Watch Video Solution**

9. Plane shapes are called:

A. 2-D Shapes

B. 3-D |Sahpes

C. 4-D Shapes

D. 5-D Shapes.

**Answer:**



**Watch Video Solution**

10. Which of the following shapes is 2-D shape?

A. Rectangle

B. Cone

C. Cube

D. Cylinder

**Answer:**



**Watch Video Solution**

11. Which of the following shapes is 3-D Shape?

A. Rectangle

B. Square

C. Sphere

D. Triangle.

**Answer:**



**Watch Video Solution**

12. Which of the following is the Euler's Formula?

A.  $F+V=E+2$

B.  $F-V=E+2$

C.  $F+V=E-2$

D.  $F-V=E-2$ .

**Answer:**



**Watch Video Solution**

**13.** The number of faces of a cuboid are:

A. 3

B. 4

C. 6

D. 5

**Answer:**



**Watch Video Solution**

14. The number vertices of a triangular pyramid are:

A. 1

B. 2

C. 3

D. 4

**Answer:**



**Watch Video Solution**

15. The number of faces of a pentagonal pyramid are:

A. 2

B. 4

C. 6

D. 5

**Answer:**



**Watch Video Solution**



**16.** The number of verices of a octahedron are :

A. 3

B. 4

C. 5

D. 6

**Answer:**



**Watch Video Solution**