



# MATHS
















## BOOKS - ASHOK PUBLICATION ASSAM

### Visualising Solid Shapes

#### Example

1. 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

joy.

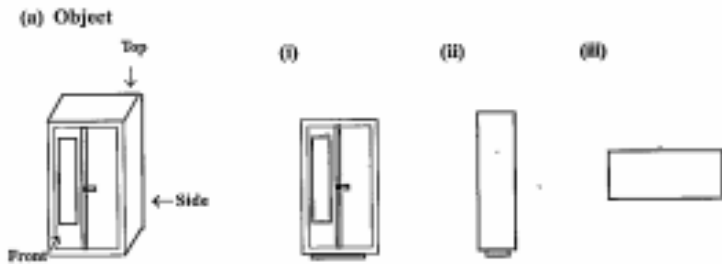
| Object   | Side view   | Top view  |
|--|---|---|
| (a)  A bottle       | (i)    | (i)    |
| (b)  A weight       | (ii)   | (i)    |
| (c)  A flask        | (iii)  | (iii)  |
| (d)  Cup and Saucer | (iii)  | (iii)  |
| (e)  Container      | (iii)  | (iii)  |



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2. For each of the given solid, the two views are given. Match for each solid the

corresponding top and front views.



An almirah



A Match box



A Television

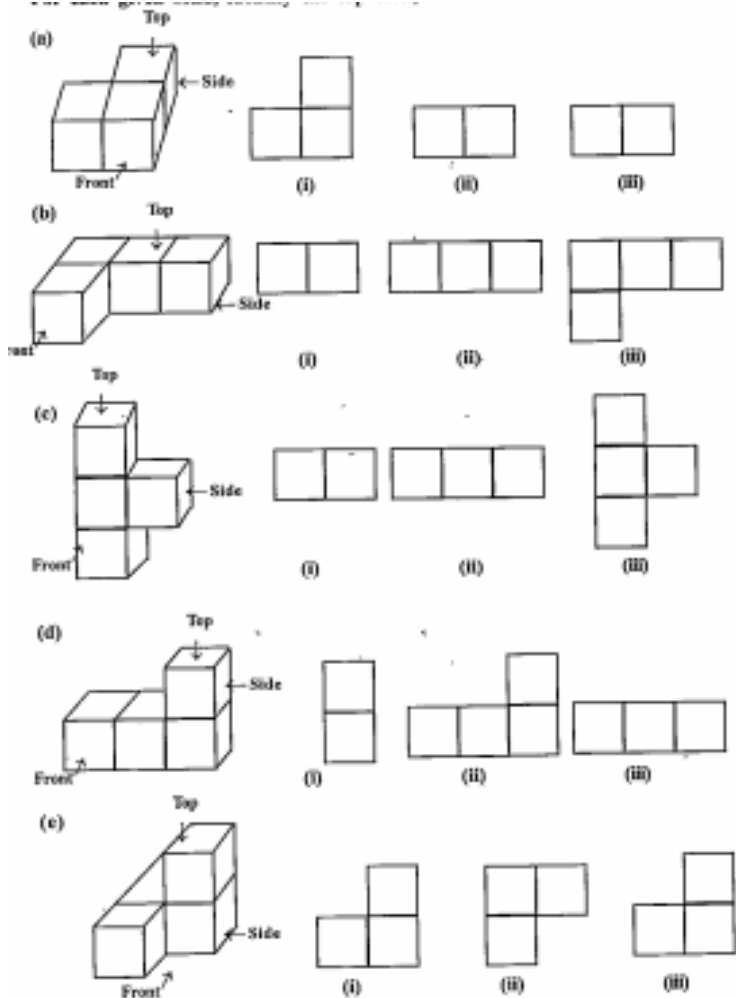


A Car



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

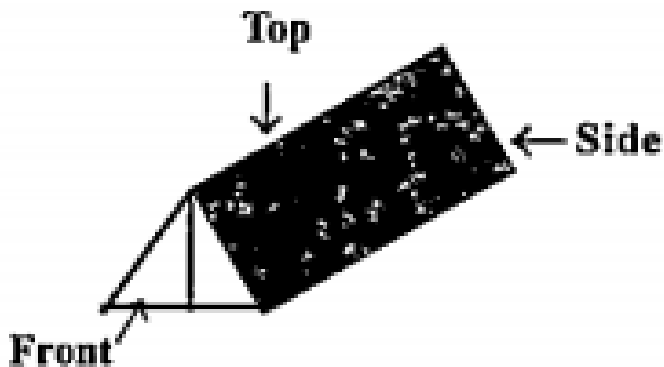


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4. Draw the front view, side view and top view of the given objects

A military tent

**(a) A military tent**

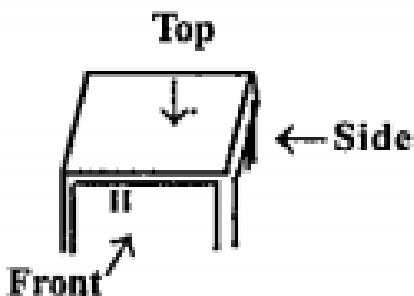


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5. Draw the front view, side view and top view of the given objects

A table

(b) A table



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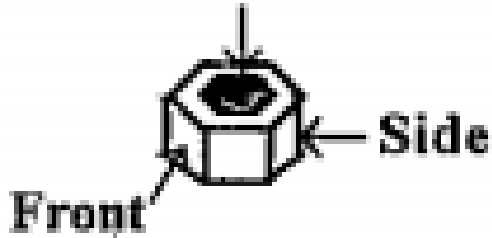
6. Draw the front view, side view and top view of the given objects.

A nut

(c)

A nut

Top



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7. Draw the front view, side view and top view of the given objects.

A hexagonal block

(d) A hexagonal block



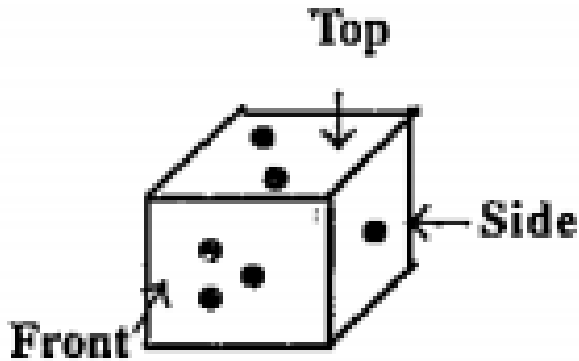
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8. Draw the front view, side view and top view of the given objects.



A dice

**(e) A dice**

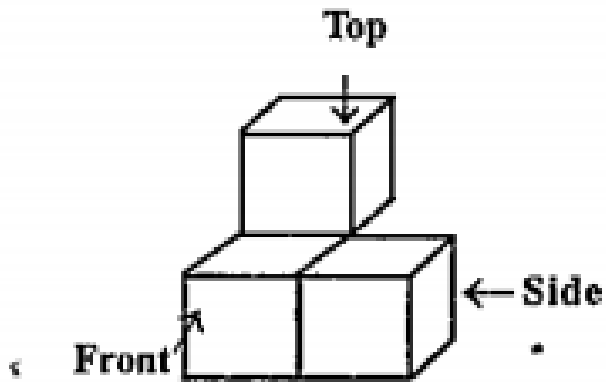


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9. Draw the front view, side view and to view of the given objects.

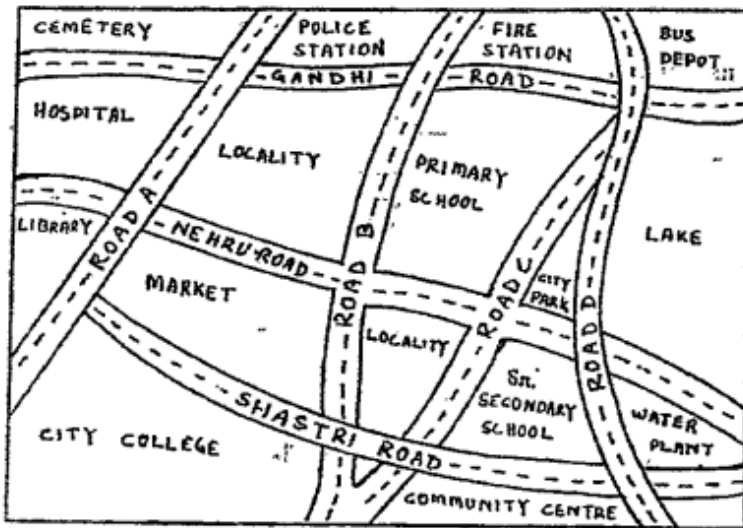
A solid

(f) A solid



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10. Look at the given map of a city.



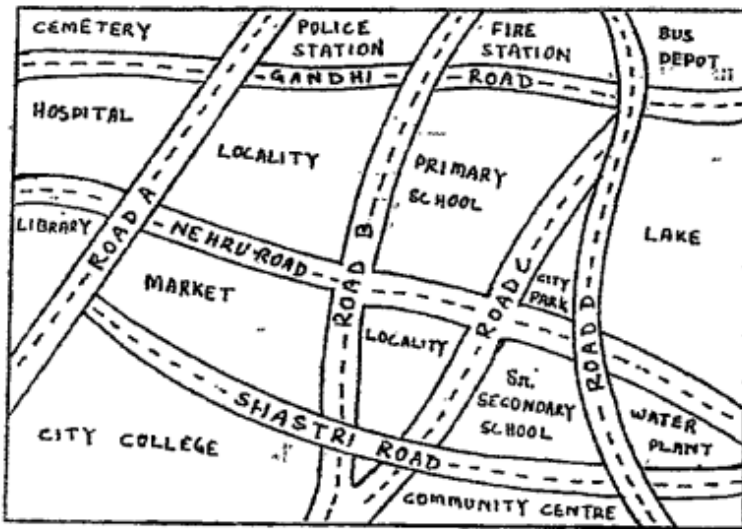
Answer the following

Mark a green 'X' at the intersection of Road 'C' and Nehru Road, Green 'Y' at the intersection of Gandhi Road and Road A.



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11. Look at the given map of a city.



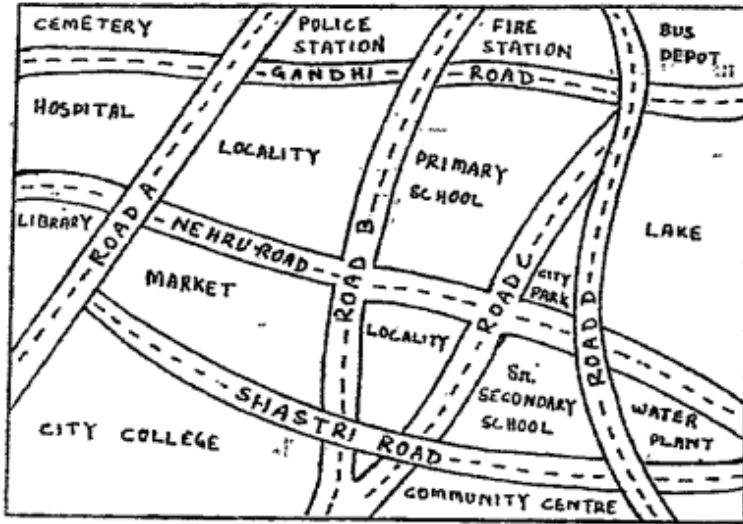
Answer the following

In red, draw a short street route from Library to the bus depot.



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12. Look at the given map of a city.



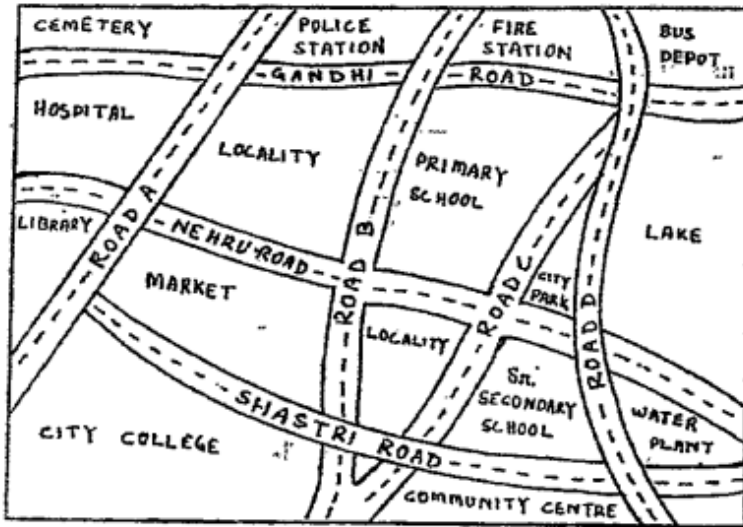
Answer the following

Which is further east, the city park or the market?



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13. Look at the given map of a city.



Answer the following

Which is further south, the primary school or the Sr. Secondary School?



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**14.** Can a polyhedron have for its faces

3 triangles



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**15.** Can a polyhedron have for its faces

4 triangles



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**16.** Can a polyhedron have for its faces

a square and four triangles.



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**17.** Is it possible to have a polyhedron with any given number of faces?



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18. Which are prisms among the following?

(i)



A nail



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19. Which are prisms among the following?

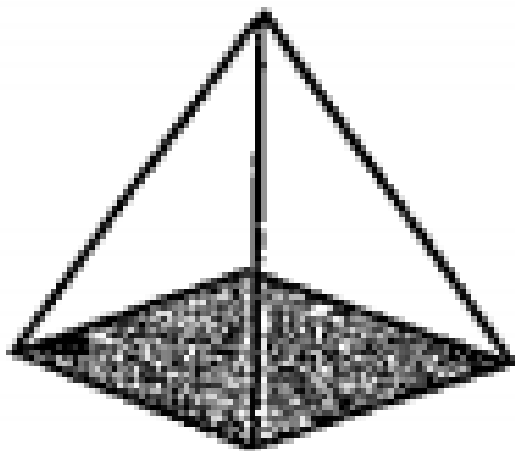


**Unsharpened pencil**



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20. Which are prisms among the following?

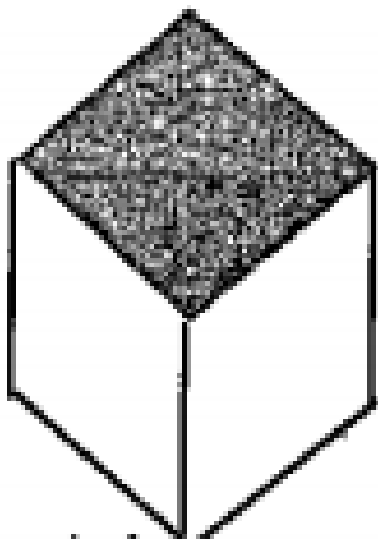


A table weight



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21. Which are prisms among the following?



A box



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**22.** How are prisms and cylinders alike?



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



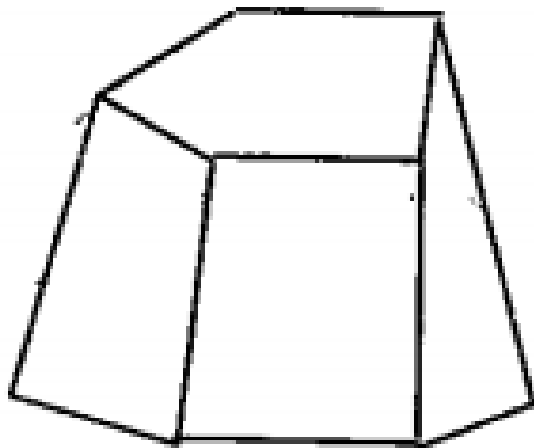
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**24.** Is a square prism same as a cube? Explain.



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25. Verify Euler's formula for these solids.

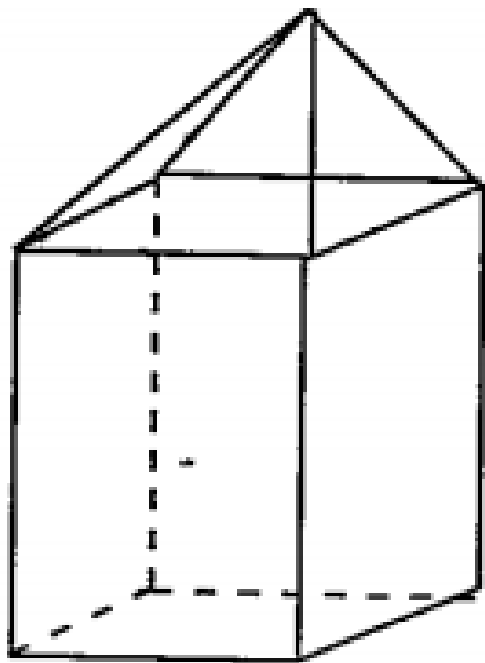


(i)



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26. Verify Euler's formula for these solids.



(ii)



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27. Using Euler's formula find the unknown.

|                 |           |          |           |
|-----------------|-----------|----------|-----------|
| <b>Faces</b>    | <b>?</b>  | <b>5</b> | <b>20</b> |
| <b>Vertices</b> | <b>6</b>  | <b>?</b> | <b>12</b> |
| <b>Edges</b>    | <b>12</b> | <b>9</b> | <b>?</b>  |



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



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