



MATHS

BOOKS - MTG IIT JEE FOUNDATION

VISUALISING SOLID SHAPES

Illustration

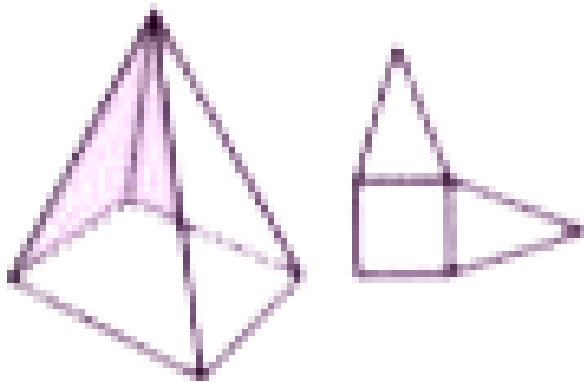
1. Complete the following table:

				
Faces (F)				
Edges (E)				
Vertices (V)				



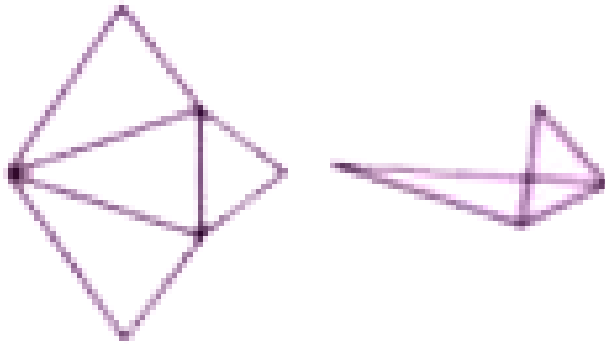
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2. The figure shows a solid and a partially completed net of the solid. Complete the net of the solid.



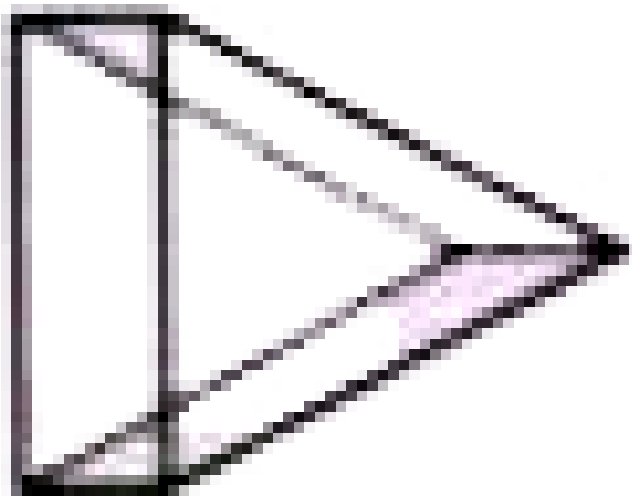
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3. The figure shows a net and a partially completed solid of the net. Complete the solid.



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4. How many faces, edges and vertices does the solid have?



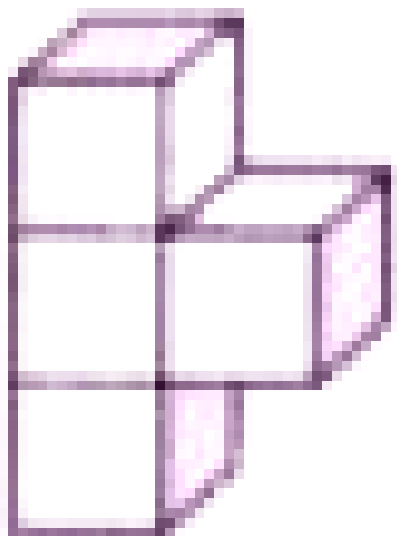
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5. Which 2-D figure would you get, when torch directions, light will fall on a cone from
(a) Top? (b) Side?



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6. Draw views of solid as seen from all the directions.



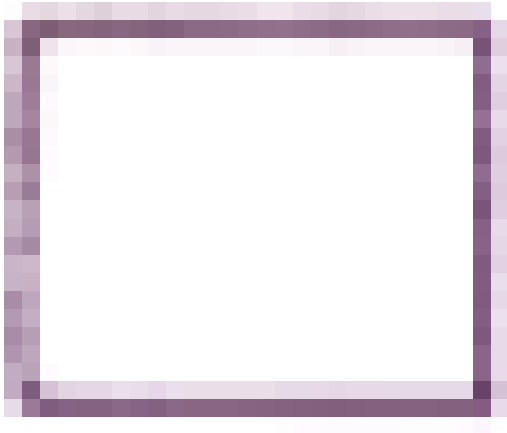
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7. A solid object when seen from one side,

looks

like

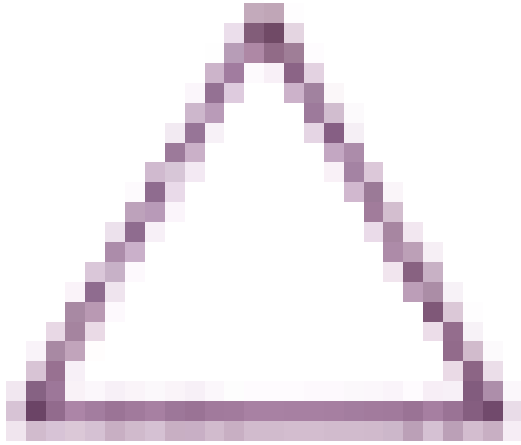
this



.

The

same solid, when seen from top, looks like this



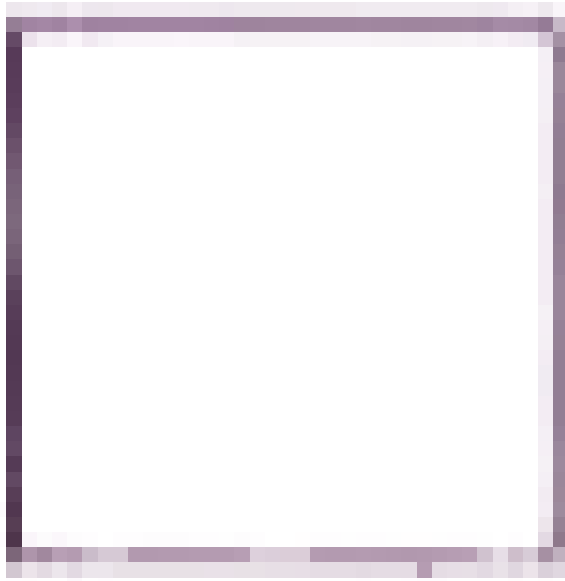
Name

the object.



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8. The front, side and top views of an object is
as shown .



. Identify

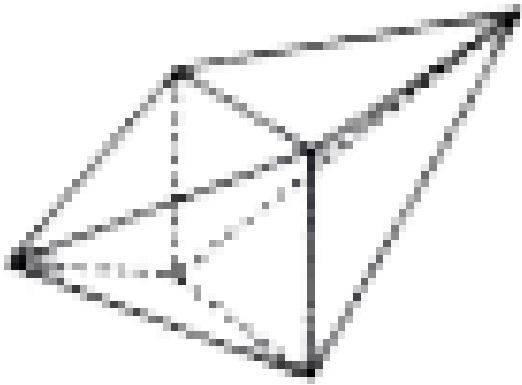
the object.



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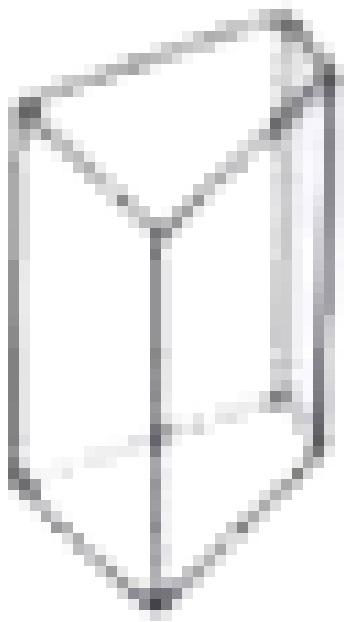
Solved Examples

1. How many faces, edges and vertices does the solid have?



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2. How many faces, edges and vertices does the solid have?



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3. Which of the following solids has the greater number of faces?

(A)

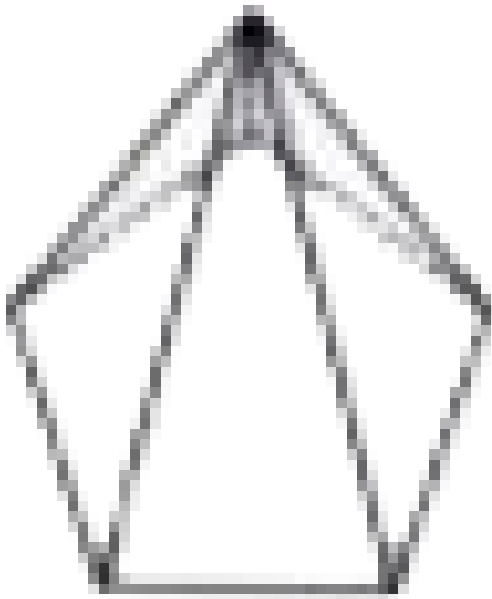


(B)



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4. Draw the net of the given solid.



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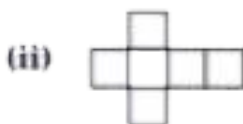
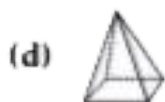
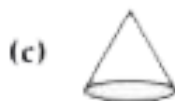
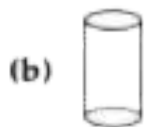
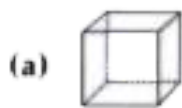
Ncert Section Exercise 14 1

1. Here is an incomplete net for making a cube.
Complete it in at least two different ways.



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2. Match the nets with appropriate solids:



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Ncert Section Exercise 14.3

1. The dimensions of a cuboid are 5 cm, 3 cm and 2 cm. Draw three different isometric sketches of this cuboid.



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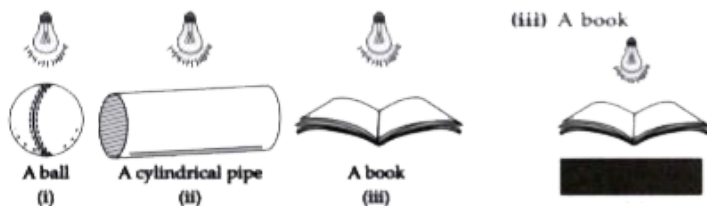
Ncert Section Exercise 14.4

1. Three cubes each with 2 cm edge are placed side by side to form a cuboid. Sketch an oblique or isometric sketch of this cuboid.



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2. A bulb is kept burning just right above the following solids. Name the shape of the shadows obtained in each case. Attempt to give a rough sketch of the shadow.



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1. Examine if the following are true statements:

(i) The cube can cast a shadow in the shape of a rectangle.

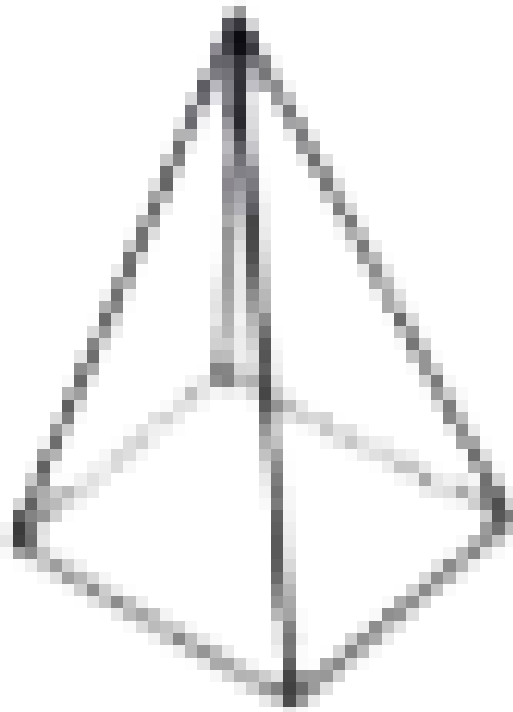
(ii) The cube can cast a shadow in the shape of a hexagon.



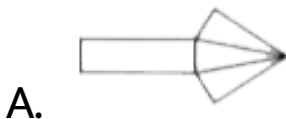
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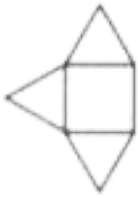
Exercise Multiple Choice Questions

1. The figure shows a solid.

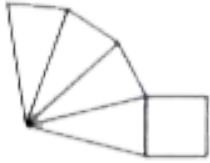


Which of the following is net of the solid?

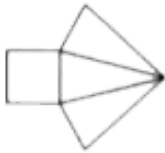




B.



C.



D.

Answer:

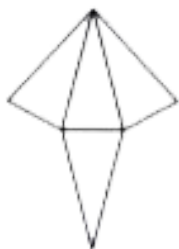


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2. The figure shows a solid.



Which of the following is a net of the solid?

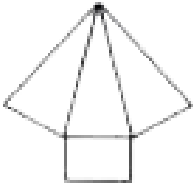


A.



B.

C.



D.

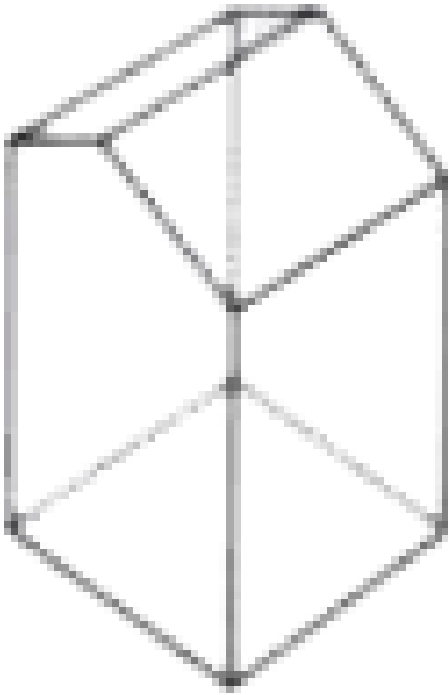


Answer:



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3. How many faces does the solid have?



A. 7

B. 6

C. 8

D. 9

Answer:



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4. How many corners does the following solid have?



A. 12

B. 16

C. 14

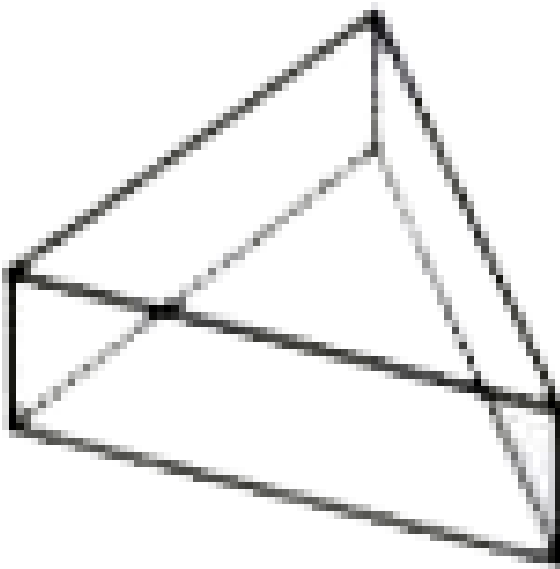
D. 18

Answer:



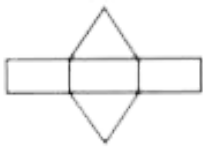
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5. The figure shows a solid.

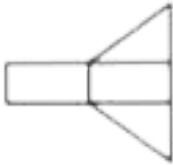


Which of the following is a net of the solid?

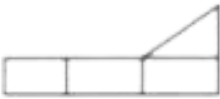
A.



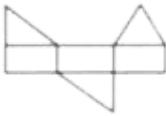
B.



C.



D.



Answer:



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6. A cone, standing on its base, would appear in the top view as a

A. circle

B. triangle

C. rectangle

D. none of these

Answer:



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7. A triangular prism has

- A. 6 faces, 8 corners and 12 edges
- B. 5 faces, 6 corners and 9 edges
- C. 8 faces, 6 corners and 12 edges
- D. 9 faces, 6 corners and 5 edges.

Answer:



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8. A figure which has 4 vertices, 6 edges, and 4 faces is a

A. cube

B. cuboid

C. triangular pyramid

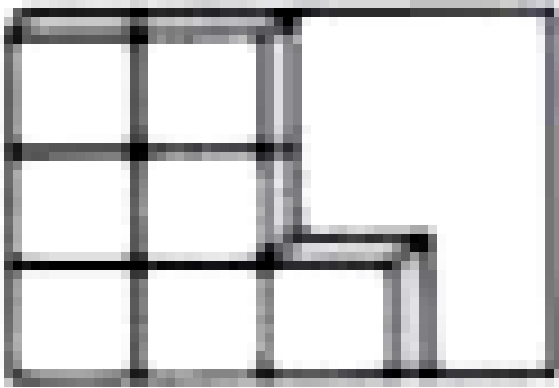
D. triangle

Answer:



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9. How many boxes can be fit in the shelf in the figure?



A. 4

B. 6

C. 5

D. 3

Answer:



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10. A sheet of paper $15 \text{ cm} \times 23 \text{ cm}$ is rolled along the 23 cm edge. The resulting shape will be:

A. sphere

B. cone

C. cylinder

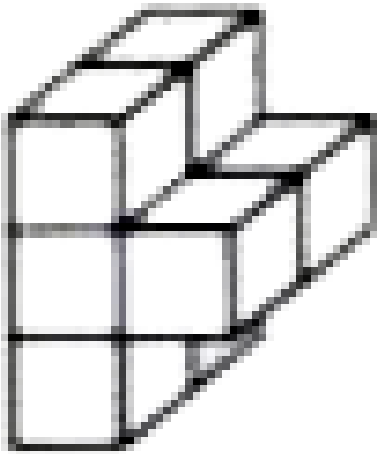
D. None of these

Answer:



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11. How many cubes are used to make the solid shape given below?



A. 4

B. 5

C. 6

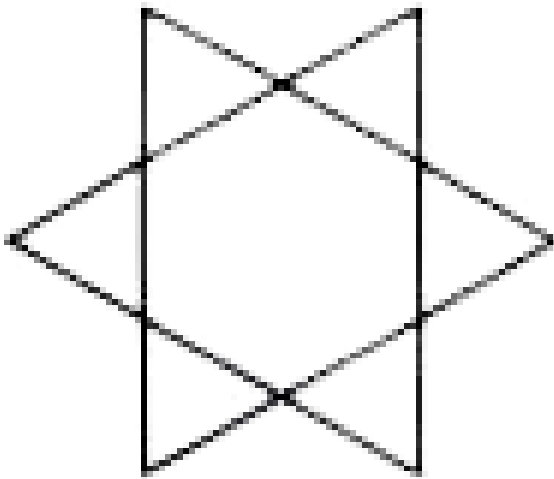
D. 8

Answer:



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12. Which solid shape will be formed from the given net?

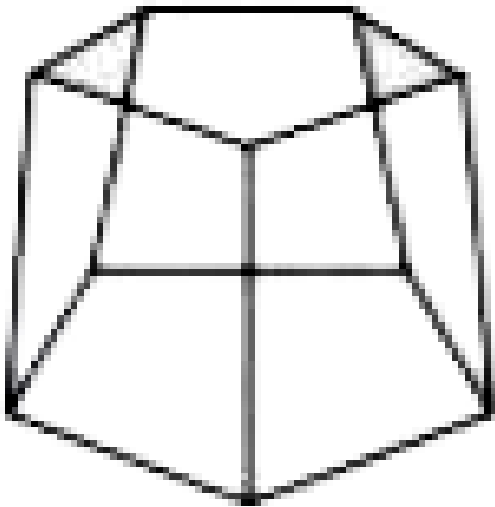


- A. Tetrahedron
- B. Hexagonal prism
- C. Square pyramid
- D. Hexagonal pyramid

Answer:



13. Number of vertices, edges and faces respectively in the given figure are:



A. 10,15,8

B. 15,10,8

C. 10,15,7

D. 10,12,8

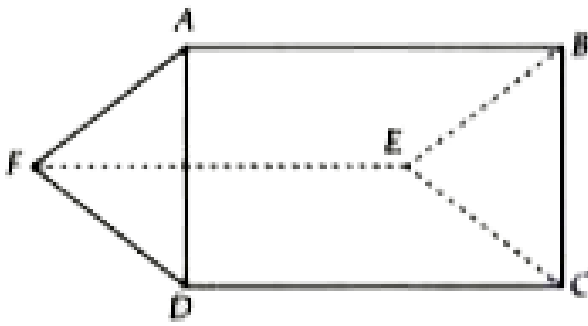
Answer:



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Olympiad Hots Corner

1. How many vertices, edges and faces are hidden in the given figure?



A. 3,1,1

B. 1,3,3

C. 3,3,3

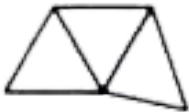
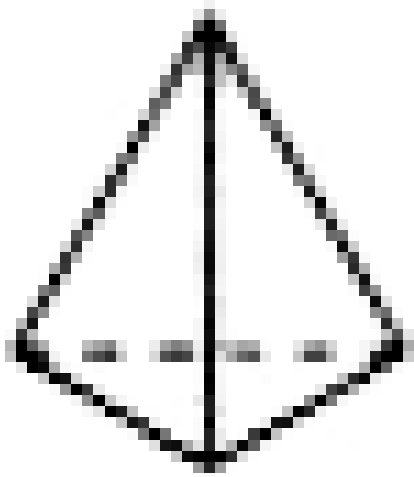
D. 4,2,1

Answer:

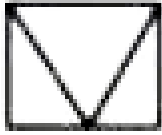


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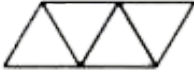
2. Which of the following can be the net of the given solid?



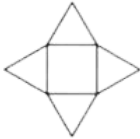
A.



B.



C.



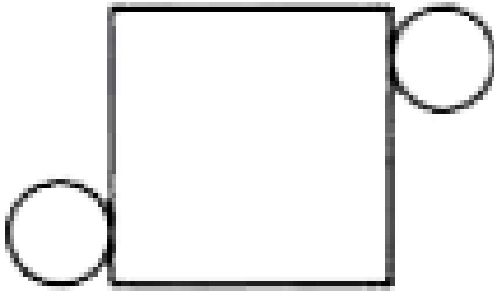
D.

Answer:



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3. Recognise the following net and name the solid formed.



A. Cone

B. Cylinder

C. Cube

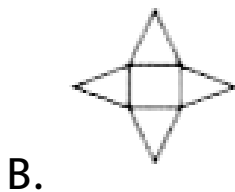
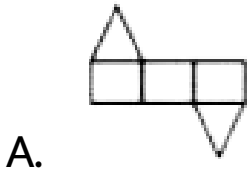
D. Cuboid

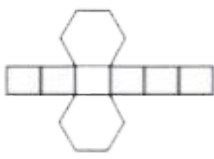
Answer:



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4. Which of the following is the net for a hexagonal prism?





C.

D. None of these

Answer:



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