Maths-it Podcast F-16

Foundation GCSE Revision

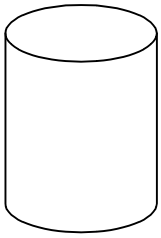
2-D and 3-D shapes

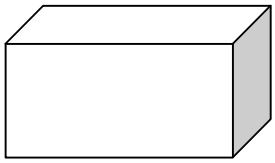
Topics

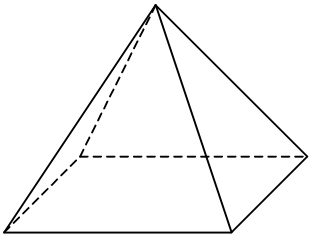
Naming 3-D shapes – Nets – Elevations – Parallel and perpendicular

Questions

1. Write down the mathematical name for each of these three different 3-D shapes.



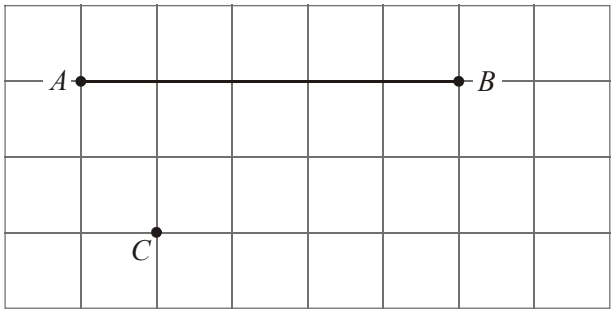




(i) …… (ii) …… (iii) ……..

(Total 3 marks)

2.



(a) On the grid, draw a line from the point *C* perpendicular to the line *AB*.

(1)

(b) Sketch a cylinder in the space below.

(1)

(Total 2 marks)

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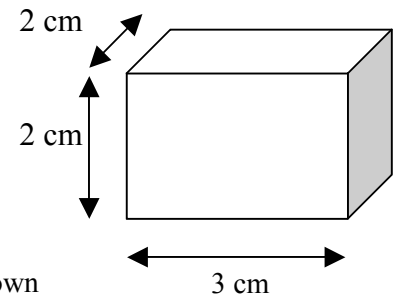
3. Here is a solid cuboid of sides 2 cm, 2 cm and 3 cm.



(a) Write down

(i) the number of faces of the cuboid, ……..

(ii) the number of vertices of the cuboid, ……..

(iii) the number of edges of the cuboid. ……..

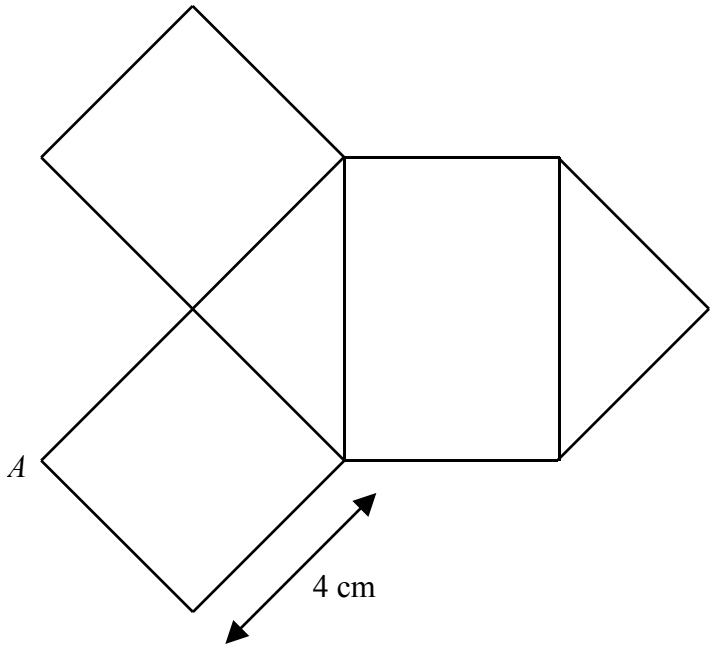
(3)

(b) Draw an accurate net of this cuboid.

(3)

(Total 6 marks)

4. Here is a net of a triangular prism.



The net is folded to make the prism.
Two other vertices meet at *A*.

(a) Mark each of them with the letter *A*.

(2)

Two of the faces are square, with length 4 cm.
Two of the faces are **right-angled** triangles, the other face is a rectangle.

(b) Work out the volume of the prism.

.....cm^3

(2)
(Total 4 marks)

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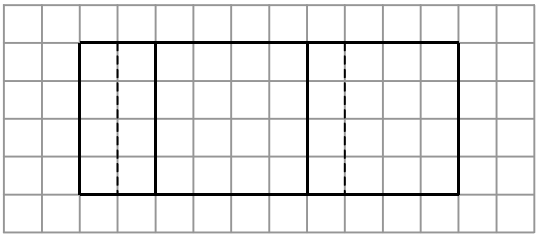
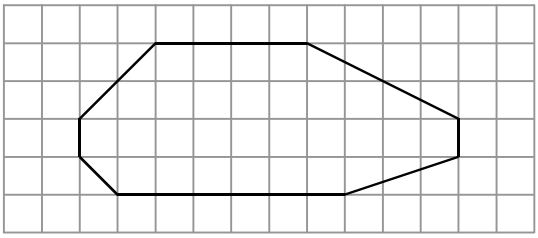
5. Here are the plan and front elevation of a prism.
The front elevation shows the cross section of the prism.

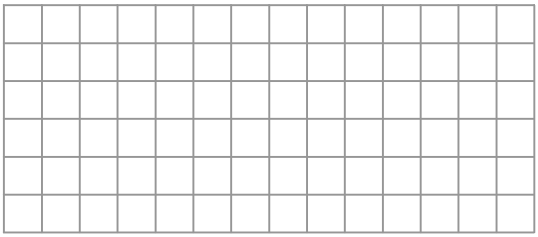
Plan



Front elevation



(a) On the grid below, draw a side elevation of the prism.



(3)

(b) In the space below, draw a 3-D sketch of the prism.

(2)
(Total 5 marks)

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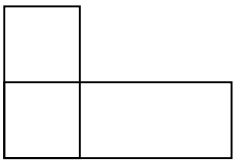
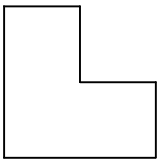
6. Here are the plan, front elevation and side elevation of a 3-D shape made from joining five cubes.

Plan 

Front 

Side 

In the space below, draw a sketch of the 3-D shape.

(Total 2 marks)

7. Draw an accurate drawing of a parallelogram with sides 7 cm and 10cm in the space below.

(Total 2 marks)