

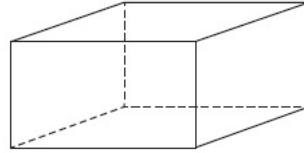
## Volume of Prisms Past Paper Questions



### Questions

Q1.

Here is a cuboid.



The following sentences are about cuboids.

Complete each sentence by writing the correct number in the gap.

- (a) (i) A cuboid has ..... faces.
- (ii) A cuboid has ..... edges.
- (iii) A cuboid has ..... vertices.

(3)

Here is a different cuboid.

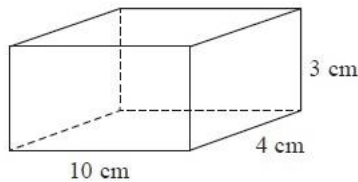


Diagram NOT  
accurately drawn

- (b) Work out the volume of the cuboid.

.....  $\text{cm}^3$

(2)

(Total for Question is 5 marks)



Q2.

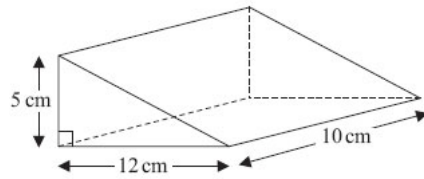


Diagram NOT accurately drawn

Work out the volume of the triangular prism.

..... cm<sup>3</sup>

(Total for Question is 2 marks)

Q3.

The diagram shows a prism.

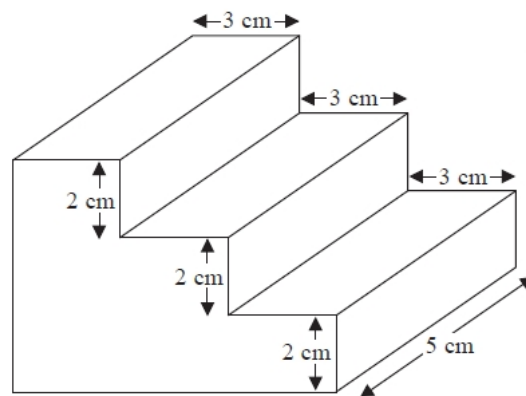


Diagram NOT accurately drawn

All the corners are right angles.

Work out the volume of the prism.

.....cm<sup>3</sup>

(Total for question = 3 marks)



**Q4.**

Here is a solid prism.

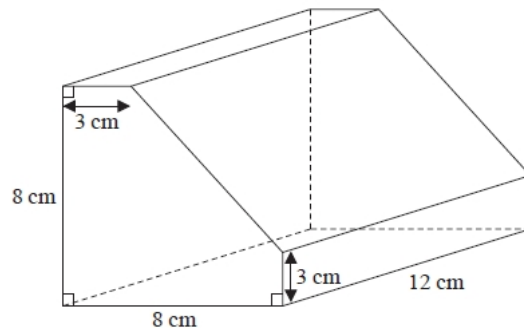


Diagram NOT  
accurately drawn

Work out the volume of the prism.  
You must show all your working.

..... cm<sup>3</sup>

**(Total for question = 4 marks)**



Q5.

Here is a prism.

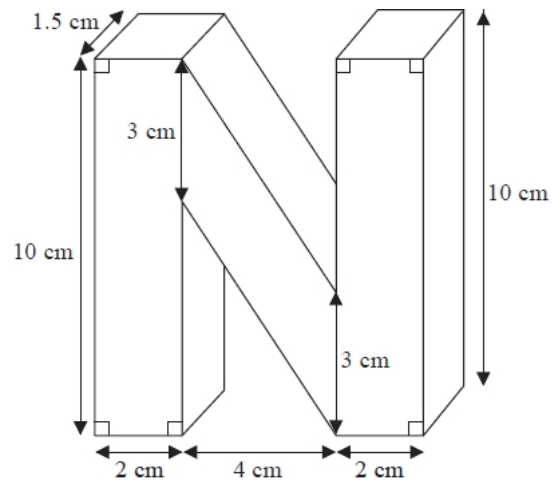


Diagram NOT accurately drawn

Work out the volume of the prism.

.....cm<sup>3</sup>

(Total for question = 4 marks)



**Q6.**

Here is a solid prism.

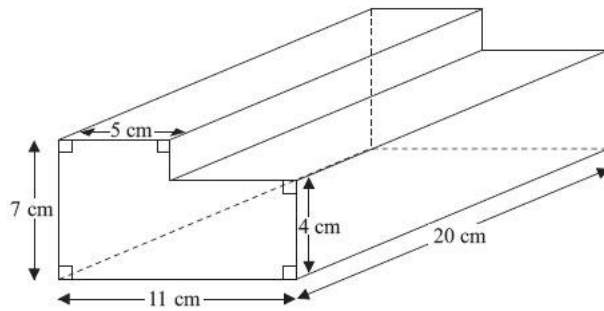


Diagram NOT accurately drawn

Work out the volume of the prism.

..... cm<sup>3</sup>  
(Total for Question is 3 marks)

**Q7.**

The diagram shows a prism.

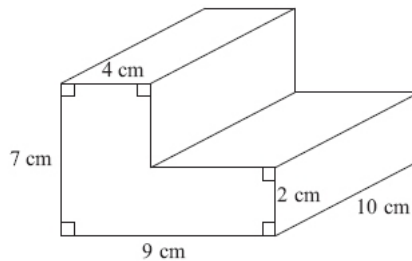


Diagram NOT accurately drawn

Work out the volume of the prism.

.....cm<sup>3</sup>  
(Total for Question is 4 marks)



**Q8.**

The diagram shows the area of each of three faces of a cuboid.

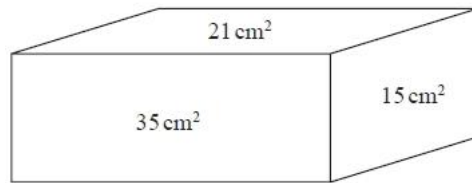


Diagram **NOT**  
accurately drawn

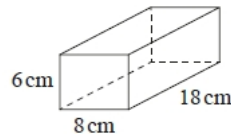
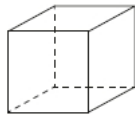
The length of each edge of the cuboid is a whole number of centimetres.

Work out the volume of the cuboid.

.....  
**(Total for question = 4 marks)**

**Q9.**

The diagram shows a cube and a cuboid.



The total surface area of the cube is equal to the total surface area of the cuboid.

Janet says,

"The volume of the cube is equal to the volume of the cuboid."

Is Janet correct?

You must show how you get your answer.

.....  
**(Total for question = 5 marks)**



Q10.

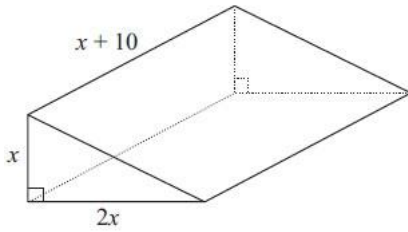


Diagram **NOT** accurately drawn

The diagram shows a solid triangular prism.  
All the measurements are in centimetres.

The volume of the prism is  $V \text{ cm}^3$ .

Find a formula for  $V$  in terms of  $x$ .

Give your answer in simplified form.

(Total for Question is 3 marks)

Q11.

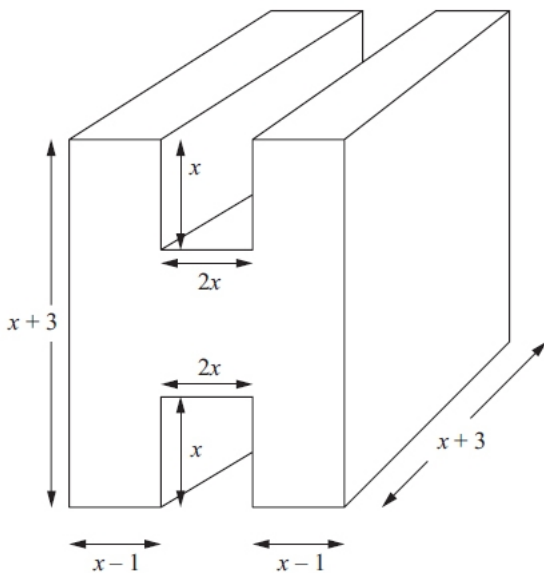


Diagram **NOT** accurately drawn

The diagram shows a prism.

All measurements are in cm.

All corners are right angles.

The volume of the prism is  $V \text{ cm}^3$ .

Find a formula for  $V$ .

$V = \dots\dots\dots$

(Total for Question is 4 marks)



**Q12.**

The diagram shows a prism.

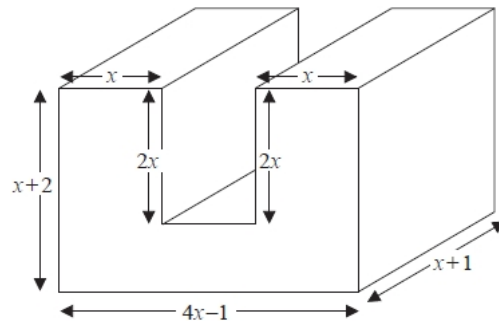


Diagram NOT  
accurately drawn

All measurements are in centimetres.

All corners are right angles.

Find an expression, in terms of  $x$ , for the volume, in  $\text{cm}^3$ , of the prism.

You must show your working.

Give your answer in its simplest form.

.....  
**(Total for question = 4 marks)**