Aberdare Community School

Mathematics Department

WJEC GCSE

Foundation – Non Calculator

Shape

Volume

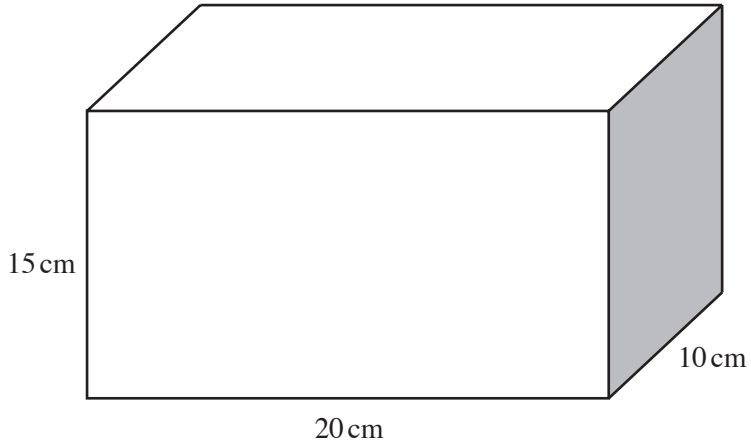
Name: .....

Set: .....

Date: .....

Teacher: .....

14. *(a)*



A rectangular container, full of water, measures 20 cm by 15 cm by 10 cm.
Calculate the volume of water in the container.

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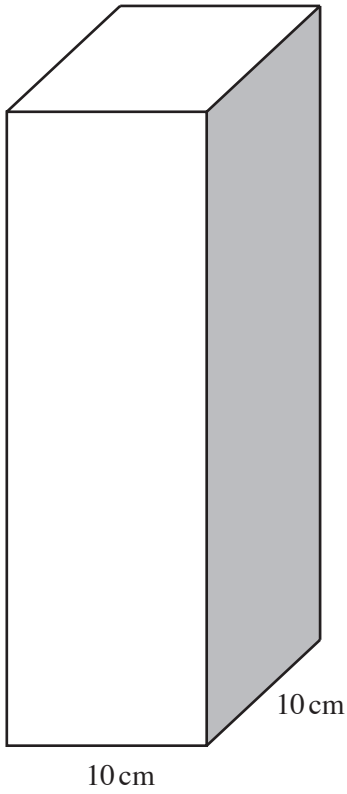
[2]

(b) All of the water is poured into a second container with a square base of side 10 cm.



Calculate the depth of the water in this container.

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[2]

(b) A water tank has the shape of a cube with side of length 30 cm.
Calculate the volume of the tank.

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[2]

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(b) A container has the shape of a cuboid with a base of length 30 cm and width 20 cm. Find the depth of water when 2400 cm^3 of water is poured into the container.

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[2]

Examiner only

21. *(a)* A hose pipe is used to fill a bucket and a tank.
The flow of water remains the same for filling the bucket and the tank.
The bucket has a volume of 6 litres.
It takes 40 seconds to fill the bucket.
It takes 3 minutes to fill the tank.

(i) Find the volume of the tank in litres.

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[3]

(ii) Write down the volume of the tank in cm^3.

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[1]

Examiner only

12. *(a)* Two cubes, each with sides 3 cm, are stuck together by matching up two complete faces to form a cuboid.
Draw a sketch of the cuboid.

[2]

(b) Find the volume of the cuboid.

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[2]

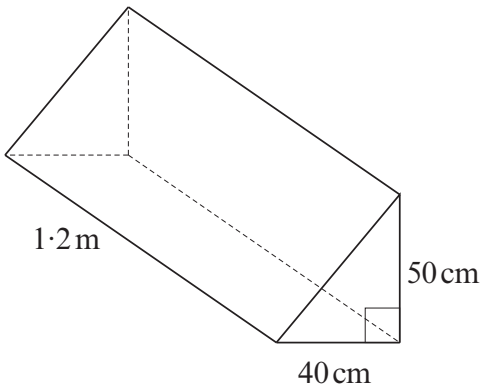

Diagram not drawn to scale

Calculate the volume of the triangular prism, giving your answer in cm^3.

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[4]

Examiner only

8. *(a)* The diagram shows a number of cubes of side 1 cm forming a solid shape.

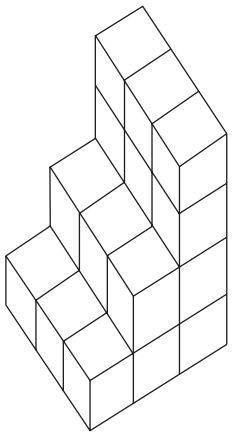

Diagram not drawn to scale

Find, by counting the cubes, the volume of the shape and state the units of your answer.

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Volume of the shape = ...

[2]

Examiner only

(c) Calculate the height of a cuboid of length 4 cm, width 3 cm and volume 84 cm^3.

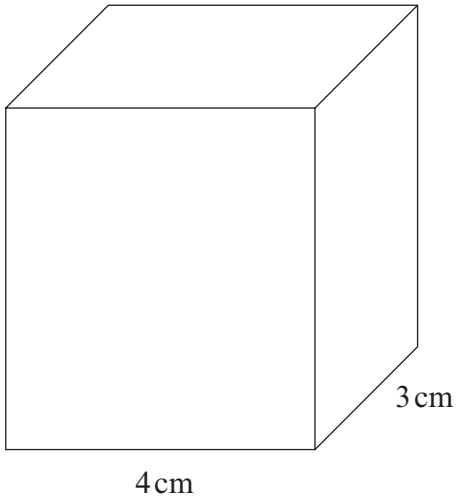

Diagram not drawn to scale

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[2]

Examiner only

(c) Two litres of water are poured into an empty rectangular tank of length 25 cm and width 20 cm.
The water completely fills the tank, without it overflowing.
Calculate the depth of the tank.

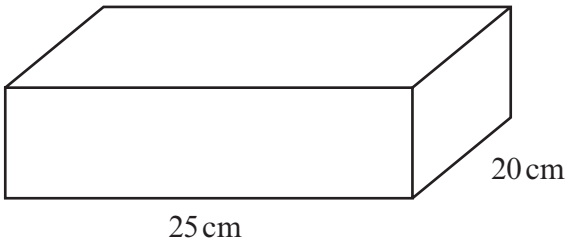

Diagram not drawn to scale

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[4]

Examiner only

9. A rectangular tank has a length of 20 cm, a width of 15 cm and a height of 10 cm.
Water is poured into the tank until it is half full.
Calculate the volume of the water in **litres**. [4]

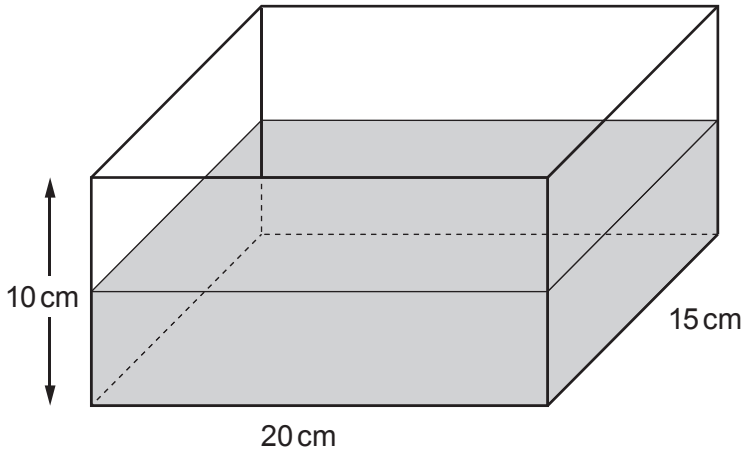

Diagram not drawn to scale

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Turn over.