

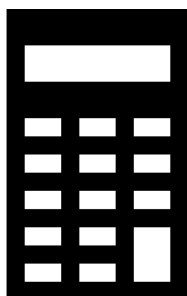
AQA, OCR, Edexcel

GCSE

GCSE Maths

Volumes of 3D Shapes

Name:



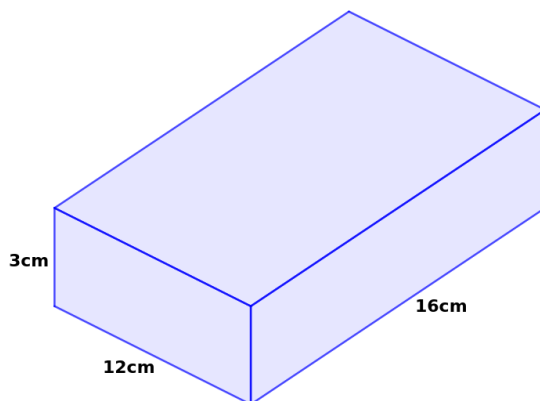
Guidance

1. Read each question carefully.
2. Don't spend too long on each question.
3. Attempt every question.
4. Always show your workings.

Revise GCSE Maths:

www.MathsMadeEasy.co.uk/gcse-maths-revision/

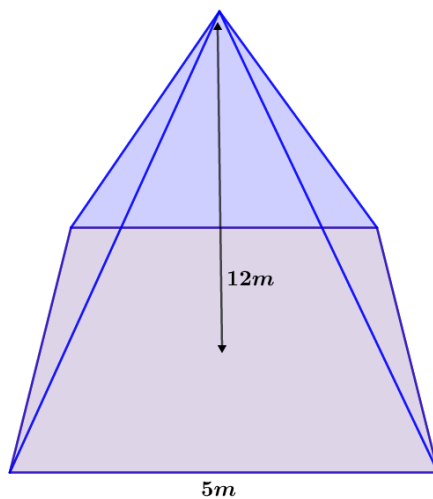
1. Calculate the volume of the cuboid below.



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..... Volume =cm³

(1 mark)

2. Calculate the volume of the square based pyramid below.

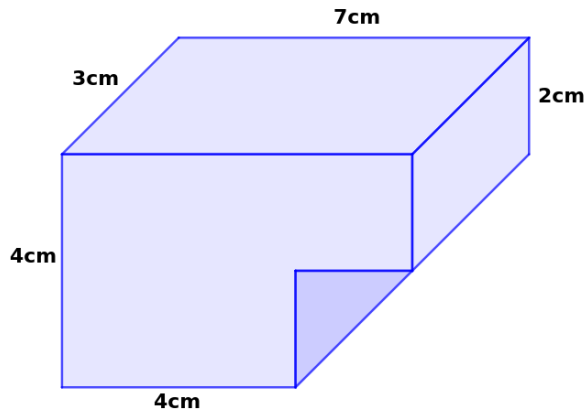


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..... Volume =m³

(1 mark)

3. Which prism has the greater volume?

The shape below, or a cylinder with diameter 9cm and height 2cm.



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(4 marks)

4. Calculate the volume of a sphere with radius 4m.

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..... Volume =m³

(2 marks)

5. 1500ml of water is poured into an open-topped cylinder with diameter 16cm and height 12cm.

How high does the water reach from the base of the cylinder?
Give your answer to 2d.p.

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(3 marks)

6. Typically, when buying an ice cream cone, a sphere of ice cream is pressed into the cone, so a hemi-sphere of ice cream protrudes from the top. The rest of the ice cream is contained within the cone.



In this case the cone is 10cm tall, and the radius of the sphere and cone are both 4cm.

What proportion of the volume of the cone is filled with ice cream? Give your answer as a percentage.

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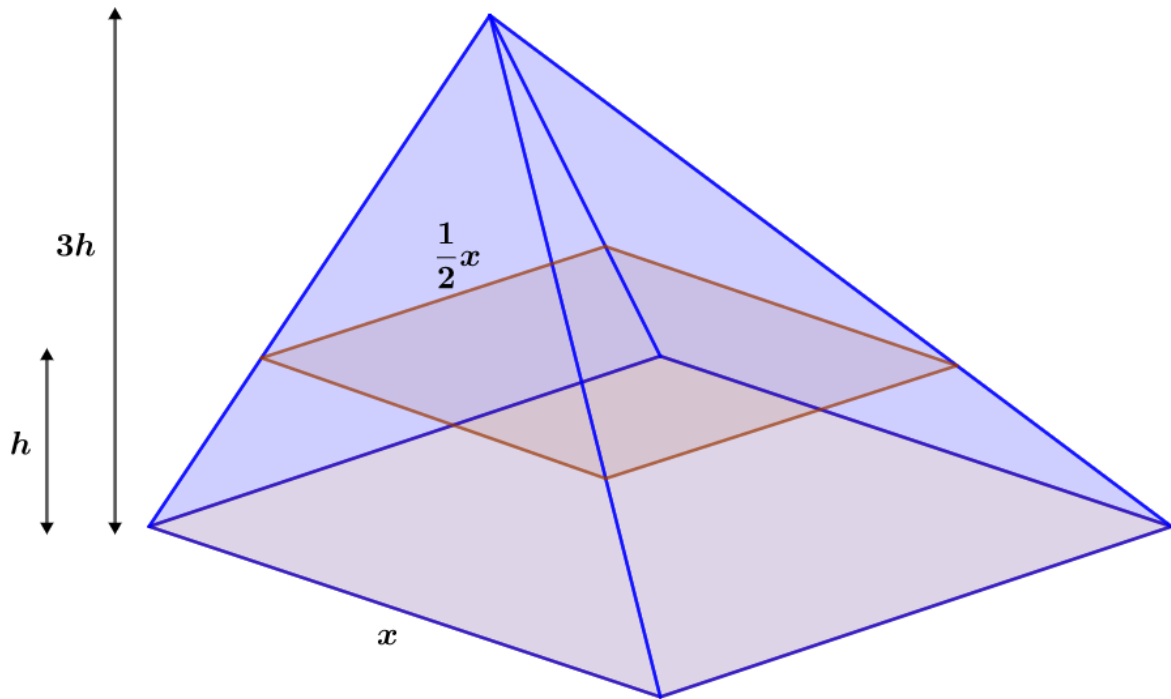
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(3 marks)

7. Water fills a square based pyramid below to a height of h . Calculate the proportion of the pyramid that is filled with water.



Give your answer as a percentage.

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(3 marks)