



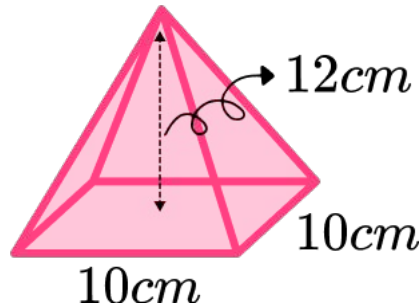
THIRD SPACE
LEARNING

GCSE Exam Questions

How to Calculate Volume |
Geometry & Measure

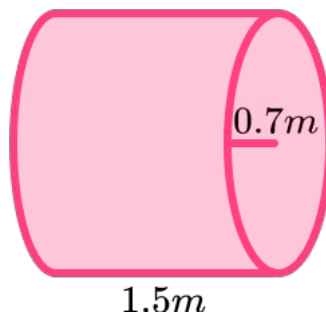
GCSE Exam Questions: How to Calculate Volume

- 1) Work out the volume of the pyramid



(2 marks)

- 2) (a) An oil tank is in the shape of a cylinder.



The tank currently has 300 litres of oil in it. How many more litres of oil will fit in the tank? ($1m^3 = 1000L$)

(4)

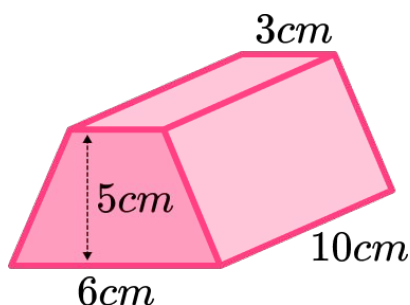
- (b) Oil costs 45p per litre. How much will it cost to fill the rest of the tank?

(1)

(5 marks)

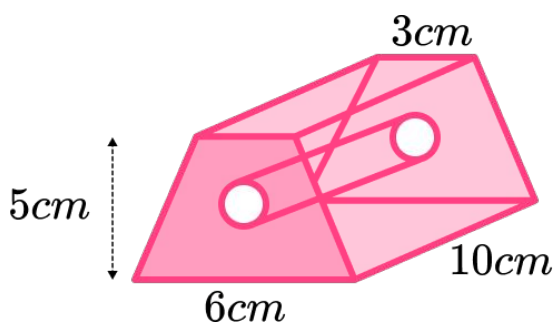
GCSE Exam Questions: How to Calculate Volume

- 3) (a) Work out the volume of the prism



(2)

- (b) A circular hole of diameter 1.6cm is drilled through the centre of the prism. Find the volume of the shape that remains.

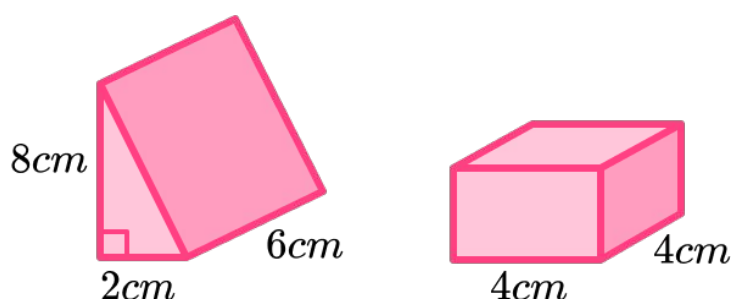


(3)

(5 marks)

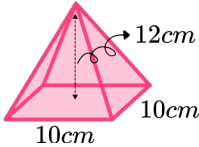
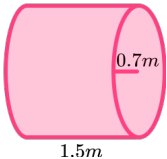
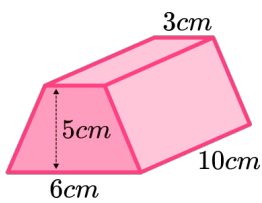
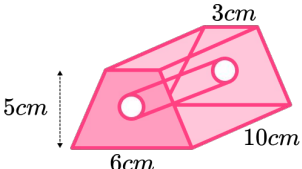
GCSE Exam Questions: How to Calculate Volume

- 4) These two shapes have the same volume. Work out the height of the cuboid.

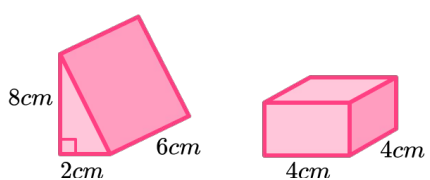


(4 marks)

GCSE Exam Questions: How to Calculate Volume Answers

	Question	Answer	Marks
1)	Work out the volume of the pyramid 	$10 \times 10 = 100$ $\frac{1}{3} \times 100 \times 12 = 400\text{cm}^3$	(1) (1)
2) (a)	An oil tank is in the shape of a cylinder.  The tank currently has 300 litres of oil in it. How many more litres of oil will fit in the tank? Give your answer to the nearest litre. ($1\text{m}^3 = 1000\text{L}$)	$\pi \times 0.7^2 \times 1.5$ 2.309m^3 $2.309\text{m}^3 = 2309 \text{ litres}$ $2309 - 300 = 2009 \text{ litres}$	(1) (1) (1) (1)
(b)	Oil costs 45p per litre. How much will it cost to fill the rest of the tank?	$2009 \times 0.45 = \text{£}904.05$	(1)
3) (a)	Work out the volume of the prism 	$\frac{1}{2} (3 + 6) \times 5 = 22.5$ $22.5 \times 10 = 225\text{cm}^3$	(1) (1)
(b)	A circular hole of diameter 1.6cm is drilled through the centre of the prism. Find the volume of the shape that remains. 	$\pi \times 0.8^2 \times 10$ 20.11cm^3 $225 - 20.11 = 204.9\text{cm}^3$	(1) (1) (1)

GCSE Exam Questions: How to Calculate Volume Answers

	Question	Answer	Marks
4)	These two shapes have the same volume. Work out the height of the cuboid. 	$\frac{1}{2} \times 2 \times 8 = 8$ $8 \times 6 = 48$ $4 \times 4 \times h = 48 \text{ oe}$ $h = 3\text{cm}$	(1) (1) (1) (1)

Where to go next?

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