



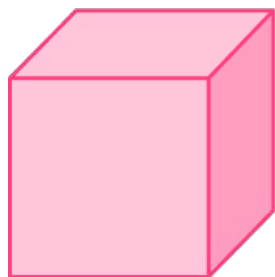
THIRD SPACE
LEARNING

GCSE Exam Questions

Volume and Surface Area of a
Cube | Geometry & Measure

GCSE Exam Questions: Volume and Surface Area of a Cube

- 1) Here is a cube.



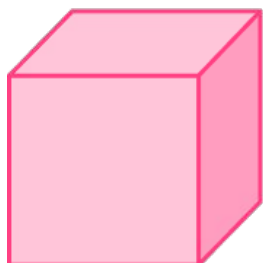
$3.5m$

What is the total surface area of the cube?

State the units with your answer.

(3 marks)

- 2) The diagram shows a cube of side length $3cm$.



$3cm$

Luke says

“The volume of any solid made with six of these cubes is $54cm^3$ ”

Is Luke correct?

You must show your working.

(3 marks)

GCSE Exam Questions: Volume and Surface Area of a Cube

- 3) A cube has an edge length of 0.8 metres.
Work out the total surface area of the cube.
Give your answer in square centimetres.

(4 marks)

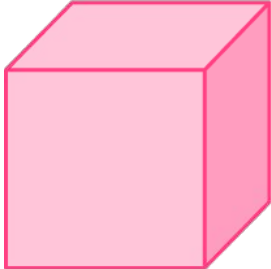
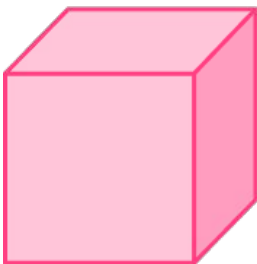
- 4) (a) The volume of a cube is $343m^3$.
What is the length of the sides of the cube?

(2)

- (b) Calculate the total surface area of the cube.

(2)
(4 marks)

GCSE Exam Questions: Volume and Surface Area of a Cube Answers

	Question	Answer	Marks
1)	Here is a cube.  3.5m What is the total surface area of the cube? State the units with your answer.	$3.5 \times 3.5 (= 12.25)$ $12.25 \times 6 (= 73.5)$ $73.5m^2$	(1) (1) (1)
2)	The diagram shows a cube of side length $3cm$.  3cm Luke says “The volume of any solid made with six of these cubes is $54cm^3$” Is Luke correct? You must show your working.	$3 \times 3 \times 3 = 27$ $27 \times 6 = 162$ No (with workings)	(1) (1) (1)
3)	A cube has an edge length of 0.8 metres. Work out the total surface area of the cube. Give your answer in square centimetres.	$0.8 \times 0.8 (= 0.64)$ $0.64 \times 6 (= 3.84)$ 3.84×100^2 $38400 cm^2$ Alternatively $0.8 \times 100 (= 80)$ $80 \times 80 (= 6400)$ 6400×6 $38400 cm^2$	(1) (1) (1) (1) (1) (1) (1) (1)

GCSE Exam Questions: Volume and Surface Area of a Cube Answers

	Question	Answer	Marks
4) (a)	The volume of a cube is $343m^3$.	(a) $\sqrt[3]{343}$	(1)
	What is the length of the sides of the cube?	$7m$	(1)
(b)	Calculate the total surface area of the cube.	(b) $7 \times 7 \times 6$ $294cm^2$	(1) (1)

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