



THIRD SPACE
LEARNING

GCSE Exam Questions

Volume and Surface Area of
Pyramids | Geometry & Measure

GCSE Exam Questions: Volume and Surface Area of Pyramids

- 1) A square based pyramid has a base with side 15cm .
The perpendicular height is 23cm .
Calculate the volume of the pyramid.

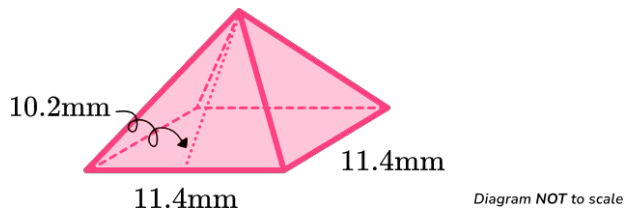
----- cm^3
(2 marks)

- 2) A pyramid has volume 340cm^3 and a base 100cm^2 .
Find the height of the pyramid.
Circle the correct answer:

9.4cm 9.8cm 10.2cm 10.6cm

(1 mark)

- 3) (a) Here is a pyramid.



- Calculate its surface area.
Give your answer correct to 3 significant figures.

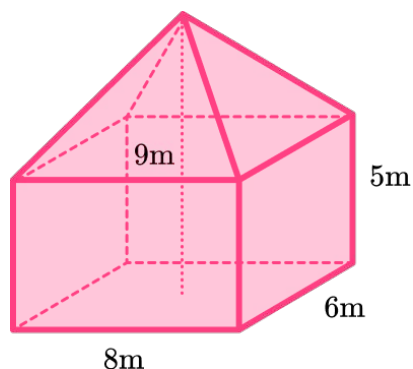
(3)

- (b) State the correct units for the surface area for part (a).

(1)
(4 marks)

GCSE Exam Questions: Volume and Surface Area of Pyramids

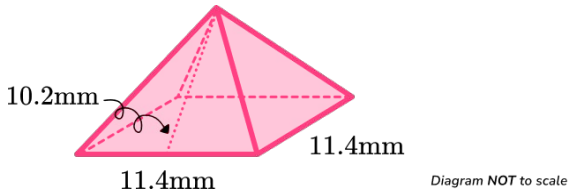
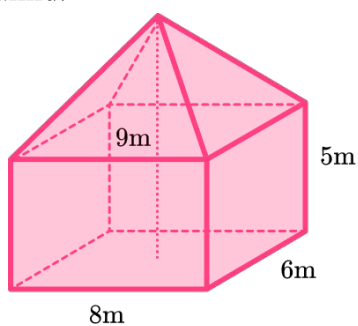
- 4) The diagram shows a solid made of a cuboid and a pyramid.



Calculate the volume of the solid.

----- m^3
(3 marks)

GCSE Exam Questions: Volume and Surface Area of Pyramids Answers

	Question	Answer	Marks
1)	A square based pyramid has a base with side 15cm . The perpendicular height is 23cm . Calculate the volume of the pyramid.	$\frac{1}{3} \times 15^2 \times 23$ 1725cm^3	(1) (1)
2)	A pyramid has volume 340cm^3 and a base 100cm^2 . Find the height of the pyramid. Circle the correct answer: 9.4cm 9.8cm 10.2cm 10.6cm	10.2cm	(1)
3) (a)	Here is a pyramid.  Calculate its surface area. Give your answer correct to 3 significant figures.	(a) $\frac{1}{2} \times 11.4 \times 10.2 = 58.14$ $11.4^2 + 4 \times 58.14$ $= 362.52 = 363 \text{ (3 sf)}$	(1) (1) (1)
(b)	State the correct units for the surface area for part (a).	(b) mm^2	(1)
4)	The diagram shows a solid made of a cuboid and a pyramid.  Calculate the volume of the solid.	$8 \times 6 \times 5 = 240$ $\frac{1}{3} \times (8 \times 6) \times 4 = 64$ $240 + 64 = 304 \text{ m}^3$	(1) (1) (1)

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