



THIRD SPACE
LEARNING

GCSE Exam Questions

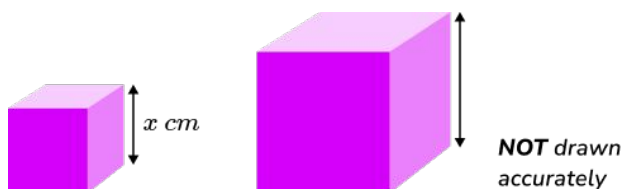
Ratio Scale | Ratio & Proportion

GCSE Exam Questions: Ratio Scale

- 1) A map has a scale of 1 : 50 000. The distance between two points on the map is 15cm.
Work out the real distance between the two points. Give your answer in kilometres.

(3 marks)

- 2) A delivery company uses two mathematically similar cardboard boxes for packaging.



The height of the smaller cuboid box is x .

The ratio of the volume of the smaller box to the larger box is 1 : 8.

Find the height of the larger box. Give your answer in terms of x .

(4 marks)

GCSE Exam Questions: Ratio Scale

3) A and B are similar solid cuboids.

Cross sectional area A : cross sectional area B = 9 : 25

Complete the following ratios.

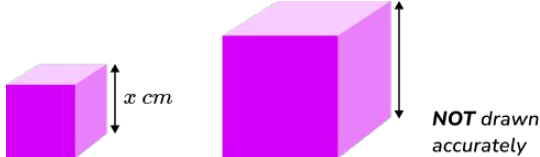
(a) Length of cuboid A : Length of cuboid B

(2)

(b) Volume of cuboid A : Volume of cuboid B

(3)
(5 marks)

GCSE Exam Questions: Ratio Scale Answers

	Question	Answer	Marks
1)	A map has a scale of 1 : 50 000. The distance between two points on the map is 15cm. Work out the real distance between the two points. Give your answer in kilometres.	$50\,000 \times 15 = 750\,000 \text{ cm}$ $750\,000 \div 100 \div 1\,000$ 7.5km	(1) (1) (1)
2)	A delivery company uses two mathematically similar cardboard boxes for packaging. <div style="text-align: center; margin: 10px 0;">  </div> The height of the smaller cuboid box is x . The ratio of the volume of the smaller box to the larger box is 1 : 8. Find the height of the larger box. Give your answer in terms of x .	$\sqrt[3]{1} = 1$ $\sqrt[3]{8} = 2$ $1 : 2$ or $x : 2x$ $2x$	(1) (1) (1) (1)
3)	A and B are similar solid cuboids. Cross sectional area A : cross sectional area B = 9 : 25		
(a)	Complete these ratios. Length of cuboid A : Length of cuboid B	(a) $\sqrt{9} = 3$ or $\sqrt{25} = 5$ $3 : 5$	(1) (1)
(b)	Volume of cuboid A : Volume of cuboid B	(b) $3^3 = 27$ $5^3 = 125$ $27 : 125$	(1) (1) (1)

Where to go next?

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