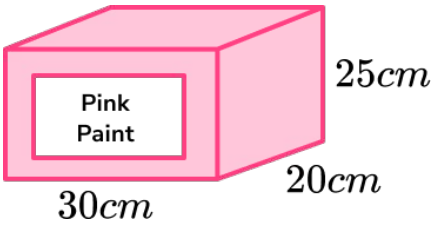
THIRD SPACE LEARNING

GCSE Exam Questions

Volume and Surface Area of Prisms | Geometry & Measure

GCSE Exam Questions: Volume and Surface Area of Prisms

1) (a) Work out the volume of this paint tin.



(2)

(b) Pink paint is made from a mixture of red paint and white paint in the ratio 2:3. Given that $1l = 1000cm^3$, work out how much red paint would be required for the tin of pink paint. Give your answer in l.

(3)

(5 marks)

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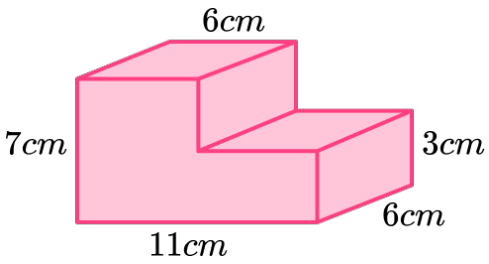
2) (a) Work out the surface area of this prism.



(5)

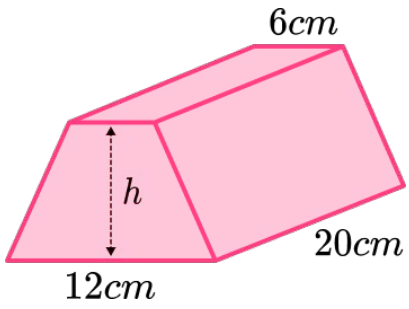
(b) The shape is enlarged by scale factor 2.
Find the surface area of the enlarged shape.

(2)

(7 marks)

GCSE Exam Questions: Volume and Surface Area of Prisms

3) The volume of this prism is 1800 cm^3.



(a) Work out the height, h, of the prism.

(3)

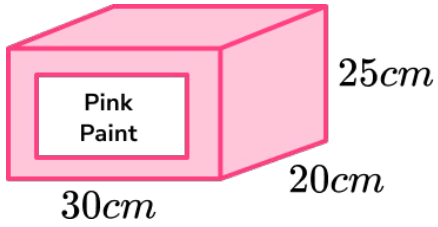
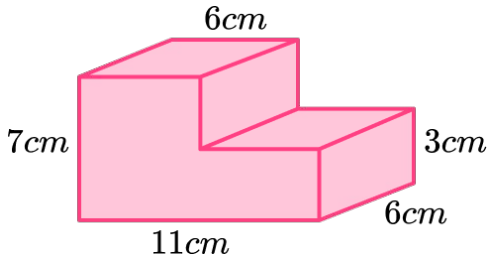
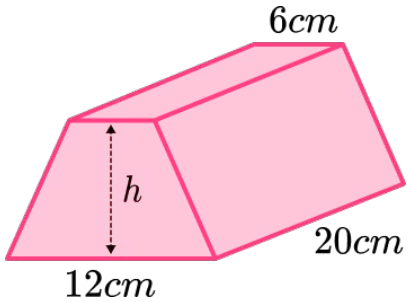
(b) The length of the prism is doubled to $40cm$.

Write down the new volume of the prism.

(1)

(4 marks)

GCSE Exam Questions: Volume and Surface Area of Prisms Answers

	Question	Answer	Marks
1) (a)	Work out the volume of this paint tin. 	**(a)** $30 \times 20 \times 25$ **oe** $15000cm^3$	**(1)** **(1)**
(b)	Pink paint is made from a mixture of red paint and white paint in the ratio 2:3. Given that $1l = 1000cm^3$, work out how much red paint would be required for the tin of pink paint. Give your answer in l.	**(b)** $15000cm^3 = 15l$ $15 \div 5 \times 2$ $6l$	**(1)** **(1)** **(1)**
2) (a)	Work out the surface area of this prism. 	**(a)** (11 x 7) - (5 x 4) **or** $57cm^2$ **seen** (11 + 7) x 2 = 36 **oe** (11 + 7 + 11 + 7) x 6 = $216cm^2$ 216 + 57 + 57 $330cm^2$	**(1)** **(1)** **(1)** **(1)** **(1)**
(b)	The shape is enlarged by scale factor 2. Find the surface area of the enlarged shape.	**(b)** 2^2 **or** 4 **seen** $330 \times 4 = 1320cm^2$	**(1)** **(1)**
3) (a)	The volume of this prism is $1800cm^3$. Work out the height, h, of the prism. 	**(a)** $1800 \div 20 = 90$ $\frac{12 + 6}{2} \times h = 90$ *oe* $h = 10cm$	**(1)** **(1)** **(1)**
(b)	The length of the prism is doubled to $40cm$. Write down the new volume of the prism.	**(b)** $3600cm^3$	**(1)**

Where to go next?

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