



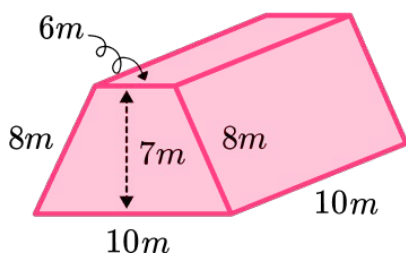
THIRD SPACE  
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# GCSE Exam Questions

Surface Area of Prisms |  
Geometry & Measure

## GCSE Exam Questions: Surface Area of Prisms

- 1) (a) Work out the surface area of this trapezoidal prism.

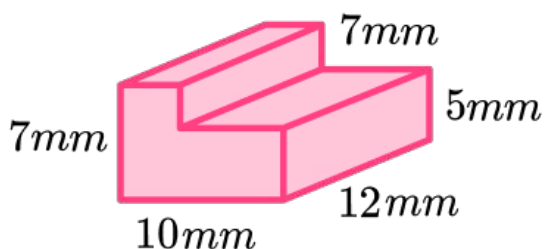


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(3)

- (b) Convert the surface area is (a) to  $\text{cm}^2$ .

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(2)  
(5 marks)

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



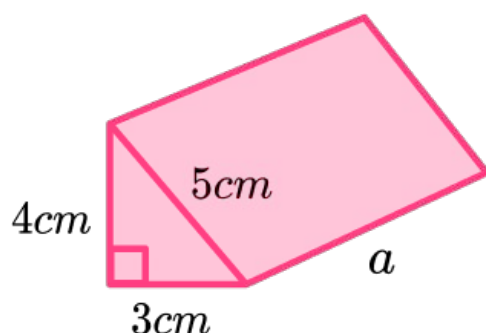
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(4)

- (b) If the shape in (a) is enlarged by a scale factor of 2, what is the new surface area?

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(2)  
(6 marks)

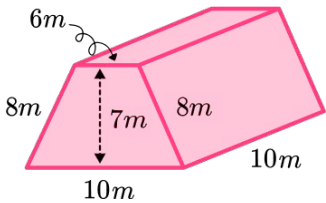
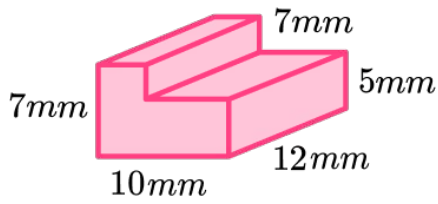
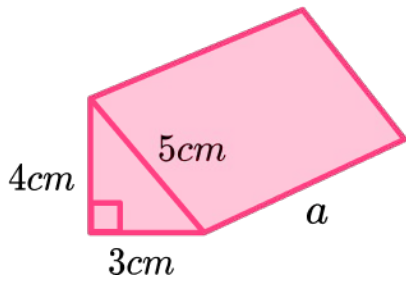
## GCSE Exam Questions: Surface Area of Prisms

- 3) The surface area of the prism below is  $120\text{cm}^2$ .  
Calculate the value of  $a$ .



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(4 marks)

# GCSE Exam Questions: Surface Area of Prisms Answers

	Question	Answer	Marks
1) (a)	<p>Work out the surface area of this trapezoidal prism.</p> 	<p>(a) Area of trapezium = <math>\frac{1}{2}(7)(6 + 10)(2)</math>  <math>= 112m^2</math> (1)</p> <p><math>SA = (8)(10) + (6)(10) + (8)(10) + (10)(10) + 112</math>  <math>SA = 432m^2</math></p>	(1) (1) (1)
(b)	Convert the surface area is (a) to $cm^2$ .	<p>(b) <math>432 \times 100^2</math>  <math>4320000cm^2</math></p>	(1) (1)
2) (a)	<p>Work out the surface area of this prism.</p> 	<p>(a) Area of L Shape = <math>(7)(5) + (7)(3)</math>  Area of L Shape = <math>56mm^2 \times 2</math>  Area of L Shapes = <math>112mm^2</math></p> <p><math>SA = 112 + (10)(12) + (5)(12) + (7)(12) + (2)(12) + (3)(12) + (7)(12)</math>  <math>SA = 520mm^2</math></p>	(1) (1) (1) (1)
(b)	If the shape in (a) is enlarged by a scale factor of 2, what is the new surface area?	<p>(b) <math>SF^2 = 4</math>  <math>520 \times 4 = 2080mm^2</math></p>	(1) (1)
3)	<p>The surface area of the prism below is <math>120cm^2</math>. Calculate the value of <math>a</math>.</p> 	<p>Area of Triangles = <math>2(4 + 3) \div 2</math>  Area of Triangles = <math>12cm^2</math>  <math>120 - 12 = 108</math></p> <p><math>12a = 108</math>  <math>a = 9cm</math></p>	(1) (1) (1) (1)

# Where to go next?

For more diagnostic questions, and GCSE maths revision resources and worksheets to support students in fixing any misconceptions take a look at the free Third Space Learning [GCSE maths revision](#) pages.

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