4.2 Geometry: Area, Perimeter and Volume: 30-minute Pack

Calculator allowed · about 30 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

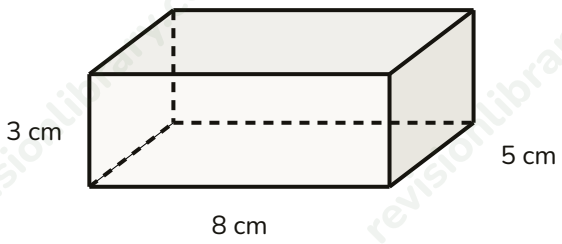
1 A rectangular whiteboard measures 1.8 m by 1.1 m. Calculate the area of the whiteboard.

(2)

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2 A cuboid box has length 8 cm, width 5 cm and height 3 cm. Calculate the volume of the box.

Diagram NOT accurately drawn

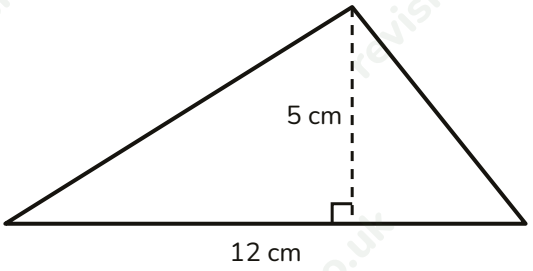


(2)

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3 A triangular sail has a base of 12 cm and a perpendicular height of 5 cm. Calculate the area of the sail.

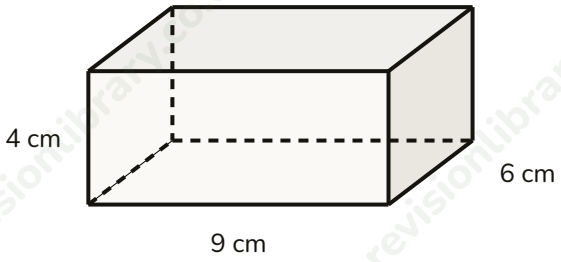
Diagram NOT accurately drawn



(2)

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4 A cuboid box has length 9 cm, width 6 cm and height 4 cm. Calculate the volume of the box.

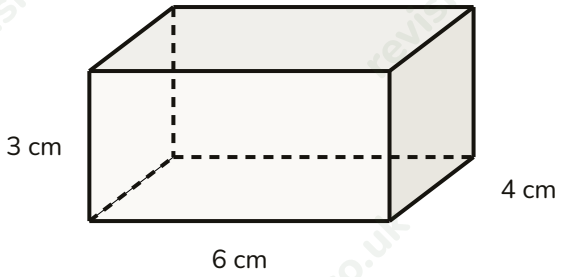


(2)

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5 A cuboid has length 6 cm, width 4 cm and height 3 cm. Calculate the total surface area of the cuboid.

Diagram NOT accurately drawn



(3)

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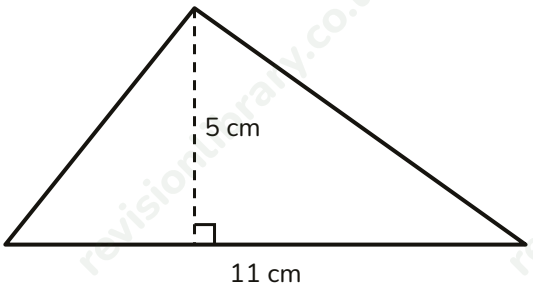
6 A rectangular room measures 4.2 m by 3.5 m. New carpet costs £18.50 per m^2. Calculate the total cost of carpeting the room.

(3)

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7 A triangle has a base of 11 cm and a perpendicular height of 5 cm. Work out its area.

Diagram NOT accurately drawn

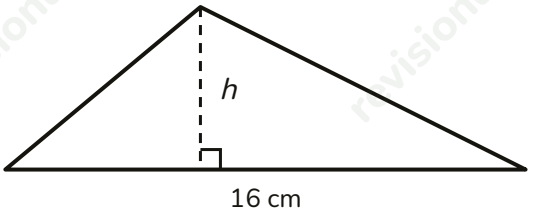


(2)

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8 A triangle has area 72 cm² and a base of 16 cm. Work out its perpendicular height.

Diagram NOT accurately drawn

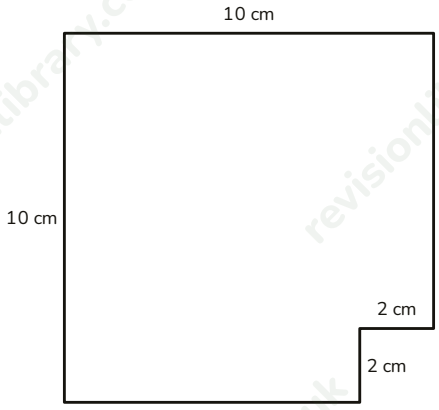


(3)

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9 An L-shape is made by taking a 10 cm by 10 cm rectangle and cutting a 2 cm by 2 cm rectangle out of one corner.
Work out the perimeter of the L-shape.

Diagram NOT accurately drawn



(3)

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10 Convert 2.6 m² to cm^2.

(1)

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Mark scheme · 4.2 Geometry: Area, Perimeter and Volume: 30-minute Pack

Question 1

1.8*1.1 oe	M1
1.98 m² cao	A1

Answer: **1.98 m^2**

Question 2

8*5*3 oe	M1
120 cm³ cao	A1

Answer: **120 cm^3**

Question 3

0.5*12*5 oe	M1
30 cm² cao	A1

Answer: **30 cm^2**

Question 4

9*6*4 oe	M1
216 cm³ cao	A1

Answer: **216 cm^3**

Question 5

three face areas found: 6*4=24, 6*3=18, 4*3=12	M1
sum = 54 oe	A1
108 cm² cao (54 doubled)	A1

Answer: **108 cm^2**

Question 6

4.2*3.5 (=14.7, area of room) oe	M1
14.7*18.50 oe	M1
£271.95 cao	A1

Answer: **£271.95**

Question 7

1/2 x 11 x 5 or 11 x 5 ÷ 2	M1
27.5 cm² cao	A1

Answer: **27.5 cm^2**

Question 8

72 = 1/2 x 16 x h or 72 x 2	M1
144 ÷ 16	M1
9 cm cao	A1

Answer: **9 cm**

Question 9

identifies that the perimeter equals that of the enclosing rectangle	M1
2 x (10 + 10)	M1
40 cm cao	A1

Answer: **40 cm**

Question 10

26000 cm² cao	B1

Answer: **26000 cm^2**

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