7.9 Perimeter, Area and Volume: 30-minute Pack

Calculators not allowed · about 30 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

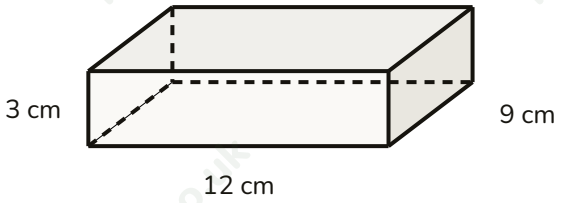
Answer ALL questions. Show all your working.

1 A cuboid measures 12 cm by 9 cm by 3 cm.

What is its volume in cubic centimetres?

Answer: ___ cm cubed

Diagram NOT accurately drawn



(2)

2 A rectangle is 13 m long and 19 m wide.

What is its area in square metres?

Answer: ___

(1)

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3 A bottle holds 1,050 ml of squash. Bella fills glasses that each hold 150 ml.

How many glasses can be filled?

Answer: ___

(1)

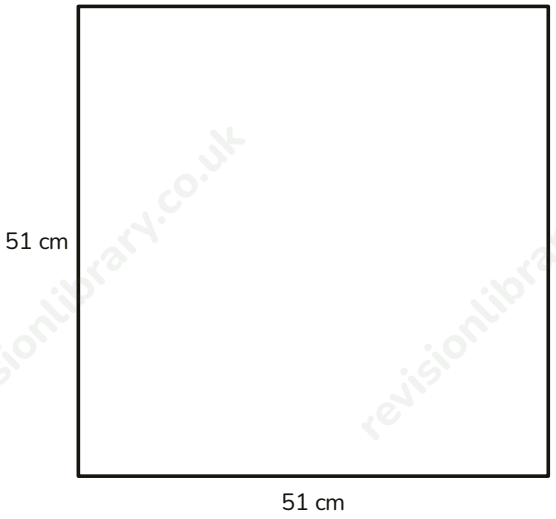
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4 A square has sides of length 51 cm.

What is its perimeter?

Answer: ___ cm

Diagram NOT accurately drawn



(1)

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5 Mateo buys a bag of potatoes weighing 1.8 kg and a bag of carrots weighing 184 g.

What is the total mass in kg?

Answer: ___ kg

(2)

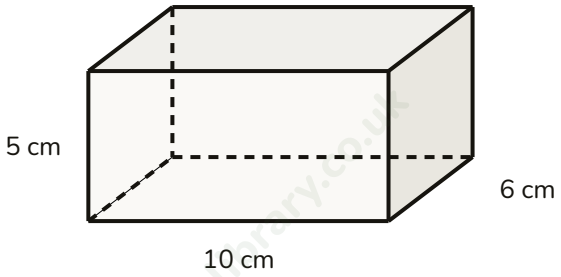
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6 A cuboid measures 10 cm by 6 cm by 5 cm.

What is its volume in cubic centimetres?

Answer: ___ cm cubed

Diagram NOT accurately drawn



(2)

---

7 A bottle holds 500 ml of squash. Bella fills glasses that each hold 125 ml.

How many glasses can be filled?

Answer: ___

(1)

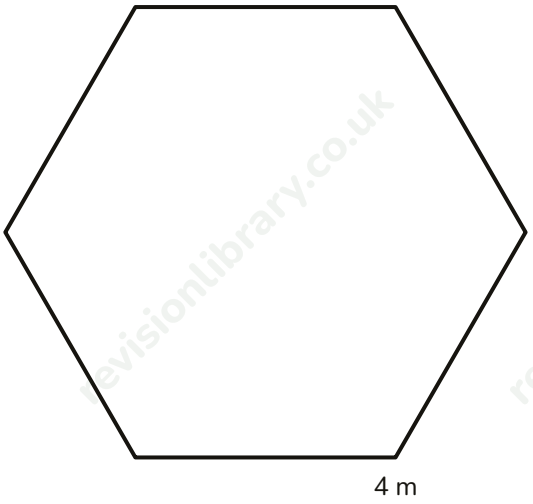
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8 A regular hexagon has sides of length 4 m.

What is its perimeter?

Answer: ___ m

Diagram NOT accurately drawn



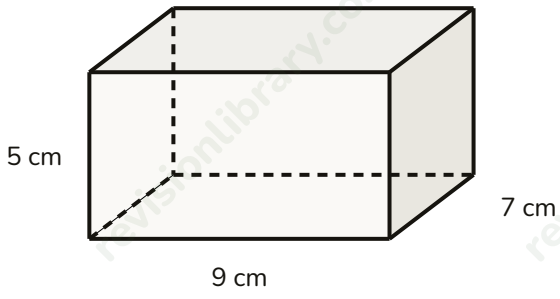
(1)

9 A box is 9 cm long, 7 cm wide and 5 cm high. It is filled with 1 cm cubes.

How many cubes are needed to fill the box?

Answer: ___

Diagram NOT accurately drawn



(2)

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10 A jug holds 5 litres of juice. Layla pours it into glasses that each hold 200 ml.

How many glasses can be filled?

Answer: ___

(2)

---

11 A rectangle has an area of 256 square centimetres. Its length is 16 cm.

What is its width?

Answer: ___ cm

Diagram NOT accurately drawn



16 cm

Area = 256 cm²

(1)

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12 A rectangle has an area of 26 square metres. Its length is 13 m.

What is its width?

Answer: ___ m

Diagram NOT accurately drawn



13 m

Area = 26 square metres

(2)

---

13 A fish tank is 60 cm long and 25 cm wide. The base is filled with a layer of stones 5 cm deep made from small cubes of size 5 cm. How many small cubes are needed to make the layer?

Diagram NOT accurately drawn



(2)

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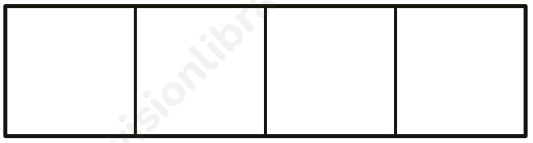
14 A garden bed is a rectangle 250 cm long and 120 cm wide. What is the area in square centimetres?

(2)

---

15 Four identical squares, each with sides of 3 cm, are joined edge to edge in a row to make one long rectangle.

Diagram NOT accurately drawn



(a) Work out the perimeter of the long rectangle. **(1)**

(b) Pete says: 'The perimeter of the long rectangle is 48 cm, because each square has a perimeter of 12 cm and 4 x 12 = 48.' Explain why Pete is wrong. **(1)**

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Mark scheme · 7.9 Perimeter, Area and Volume: 30-minute Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

multiplies two dimensions **M1**
324 cm cubed cao **A1**
Answer: **324 cm cubed**

Question 2

247 square metres cao **B1**
Answer: **247 square metres**

Question 3

7 cao **B1**
Answer: **7**

Question 4

204 cm cao **B1**
Answer: **204 cm**

Question 5

184 g = 0.184 kg seen **M1**
1.984 kg cao **A1**
Answer: **1.984 kg**

Question 6

multiplies two dimensions **M1**
300 cm cubed cao **A1**
Answer: **300 cm cubed**

Question 7

4 cao **B1**
Answer: **4**

Question 8

24 m cao **B1**
Answer: **24 m**

Question 9

volume formula seen **M1**
315 cao **A1**
Answer: **315**

Question 10

5 litres = 5,000 ml seen **M1**
25 cao **A1**
Answer: **25**

Question 11

16 cm cao **B1**
Answer: **16 cm**

Question 12

divides area by length **M1**
2 m cao **A1**
Answer: **2 m**

Question 13

Compute number across length 60/5 = 12, across width 25/5 = 5, and depth 5/5 = 1 then multiply 12 x 5 x 1 **M1**
60 cao **B1**
Answer: **60**

Question 14

Multiply 250 x 120 or show correct method **M1**
30,000 cm² cao **B1**
Answer: **30000 cm²**

Question 15

(a) 30 cm cao **B1**
(a) Answer: **30 cm**
(b) explains that the edges where the squares are joined are inside the rectangle, not on the outside, so they are not part of the perimeter (oe) **B1**
(b) Answer: **The joined edges are inside the rectangle, so they are not part of the perimeter**

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