7.10 Measurement: Units, Perimeter, Area and Volume: 1-hour Pack

Calculators not allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 A jug holds 3.5 litres of juice. Hassan pours it into glasses that each hold 50 ml.

How many glasses can be filled?

Answer: ___

(2)

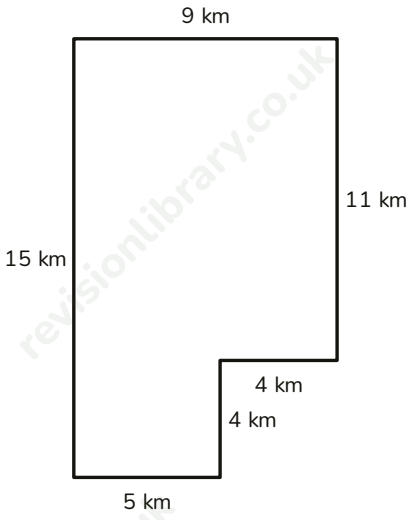
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2 An L-shaped floor has these sides in order around the shape: 9 km, 11 km, 4 km, 4 km, 5 km, 15 km.

What is the perimeter of the floor?

Answer: ___ km

Diagram NOT accurately drawn



(2)

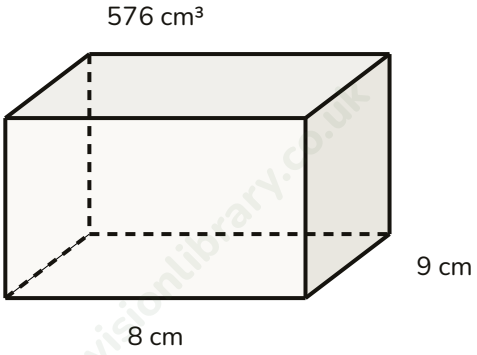
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3 A cuboid has a volume of 576 cm cubed. Its length is 8 cm and its width is 9 cm.

What is its height?

Answer: ___ cm

Diagram NOT accurately drawn



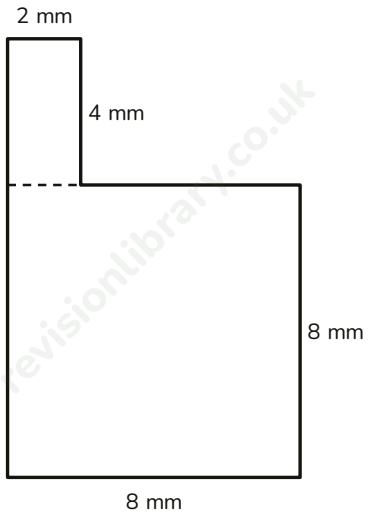
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4 An L-shape is made from two rectangles joined together. The first rectangle is 8 mm by 8 mm. The second is 2 mm by 4 mm.

What is the total area of the L-shape in square millimetres?

Answer: ___



(2)

---

5 A parallelogram has a base of 19 cm and a perpendicular height of 2 cm.

What is its area in square centimetres?

Answer: ___

Diagram NOT accurately drawn



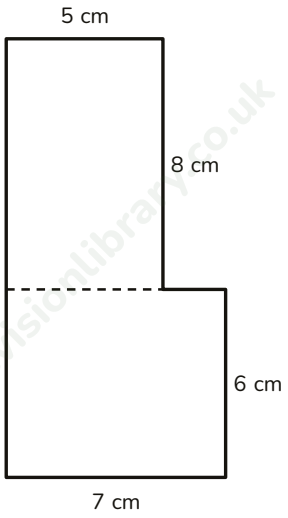
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6 An L-shape is made from two rectangles joined together. The first rectangle is 5 cm by 8 cm. The second is 7 cm by 6 cm.

What is the total area of the L-shape in square centimetres?

Answer: ___



(2)

---

7 A tank is 10 cm long, 10 cm wide and 20 cm high.

How many litres of water does it hold when full? (1 litre = 1,000 cm cubed.)

Answer: ___ litres

(2)

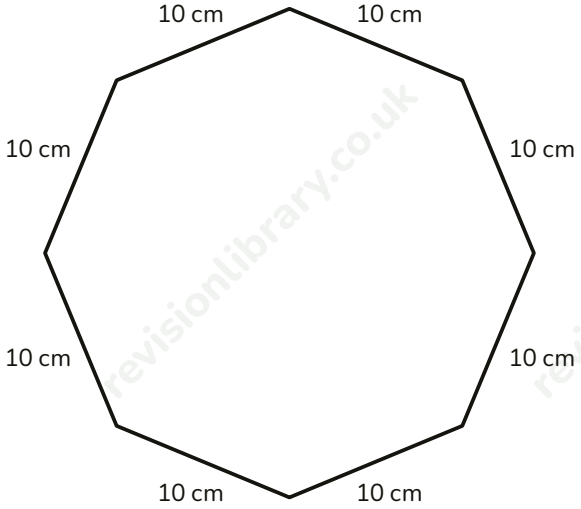
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8 A regular octagon has sides of length 10 cm.

What is its perimeter?

Answer: ___ cm

Diagram NOT accurately drawn

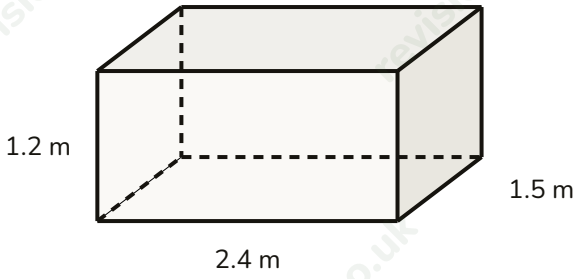


(2)

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9 A water tank is a cuboid with length 2.4 m, width 1.5 m and height 1.2 m. A pump removes 540 litres. How much water remains in the tank in litres? (1 m^3 = 1000 litres)

Diagram NOT accurately drawn



(3)

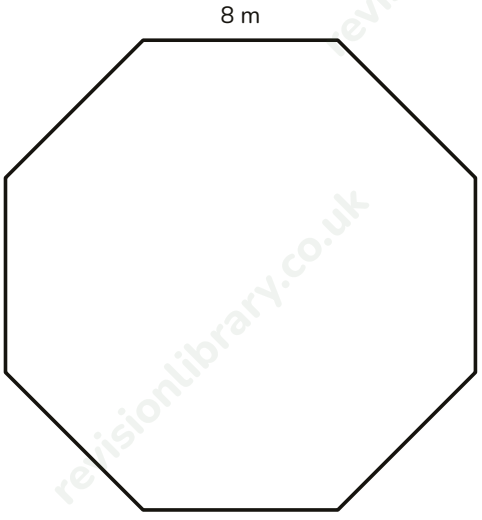
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10 A regular octagon has sides of length 8 m.

What is its perimeter?

Answer: ___ m

Diagram NOT accurately drawn



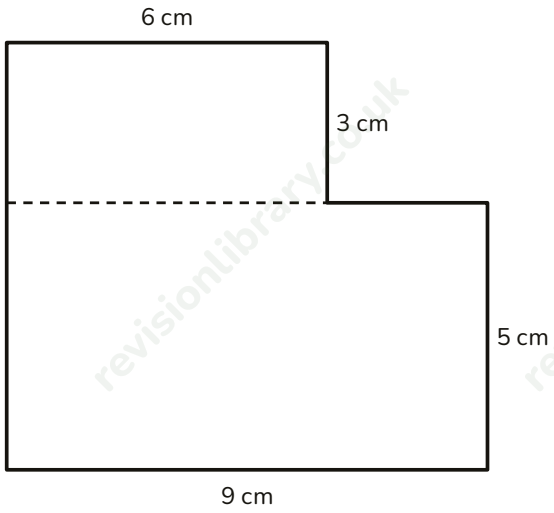
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11 An L-shape is made from two rectangles joined together. The first rectangle is 9 cm by 5 cm. The second is 6 cm by 3 cm.

What is the total area of the L-shape in square centimetres?

Answer: ___



(2)

---

12 Convert 47,200 g to kg.

Answer: ___ kg

(1)

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13 2 identical circles are drawn in a straight row, touching each other. Each circle has a radius of 37 cm.

How long is the whole row?

Answer: ___ cm

(2)

---

14 Convert 35 km to m.

Answer: ___ m

(1)

---

15 Convert 2,870 g to kg.

Answer: ___ kg

(1)

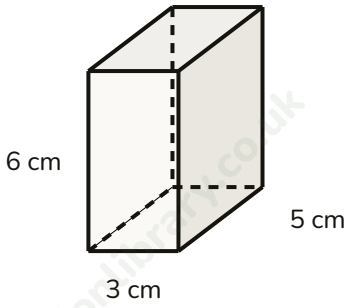
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16 A box is 3 cm long, 5 cm wide and 6 cm high. It is filled with 1 cm cubes.

How many cubes are needed to fill the box?

Answer: ___

Diagram NOT accurately drawn



(2)

---

17 A school field is a rectangle 120 m by 85 m. A path 2 m wide goes all around the edge inside the field. What is the area of the path in square metres?

(2)

---

18 3 identical circles are drawn in a straight row, touching each other. Each circle has a radius of 6 cm.

How long is the whole row?

Answer: ___ cm

(2)

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19 Use 1 foot = 30 cm.

A strip of card is 10 feet long. How long is it in cm?

Answer: ___ cm

(2)

---

20 A rectangle is 10 mm long and 7 mm wide.

What is its area in square millimetres?

Answer: ___

(1)

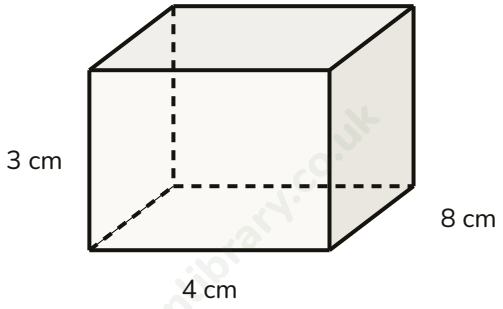
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21 A box is 4 cm long, 8 cm wide and 3 cm high. It is filled with 1 cm cubes.

How many cubes are needed to fill the box?

Answer: ___

Diagram NOT accurately drawn



(1)

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22 A circle has a radius of 2 cm. What is its diameter?

Answer: ___ cm

(1)

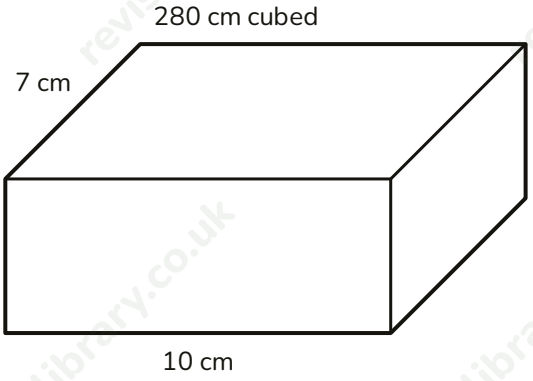
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23 A cuboid has a volume of 280 cm cubed. Its length is 10 cm and its width is 7 cm.

What is its height?

Answer: ___ cm

Diagram NOT accurately drawn



(2)

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24 Convert 64.9 m to cm.

Answer: ___ cm

(1)

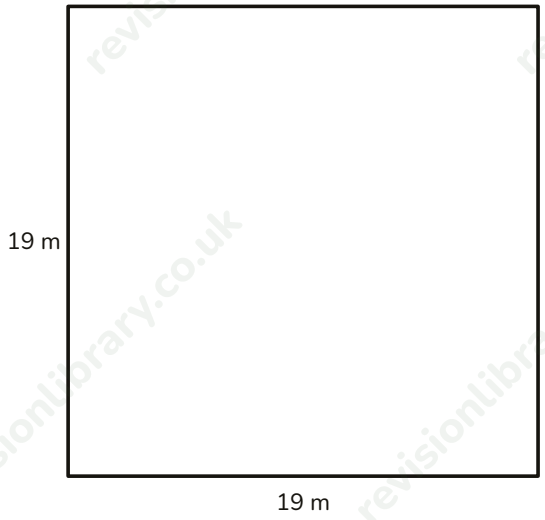
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25 A square has sides of length 19 m.

What is its area in square metres?

Answer: ___

Diagram NOT accurately drawn



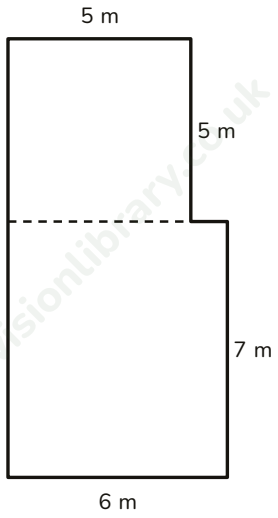
(1)

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26 An L-shape is made from two rectangles joined together. The first rectangle is 6 m by 7 m. The second is 5 m by 5 m.

What is the total area of the L-shape in square metres?

Answer: ___

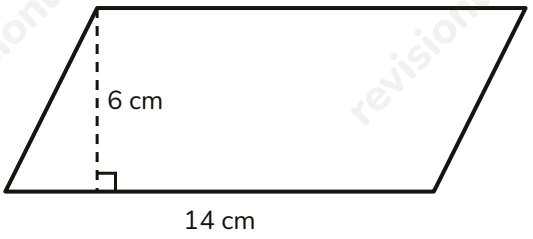


(3)

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27 A parallelogram has base 14 cm and height 6 cm. Calculate its area in square centimetres.

Diagram NOT accurately drawn



(2)

---

28 A scale in ml has big marks every 20 ml, with 10 equal small divisions between each big mark. The first big mark is 20. The pointer is 4 small divisions after the second big mark.

What is the reading?

Answer: ___ ml

(2)

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Mark scheme · 7.10 Measurement: Units, Perimeter, Area and Volume: 1-hour Pack

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

Question 1

3.5 litres = 3,500 ml seen	M1
70 cao	A1

Answer: **70**

Question 2

adds all six sides	M1
48 km cao	A1

Answer: **48 km**

Question 3

8 x 9 = 72 seen	M1
8 cm cao	A1

Answer: **8 cm**

Question 4

finds the area of each rectangle	M1
72 square millimetres cao	A1

Answer: **72 square millimetres**

Question 5

38 square centimetres cao	B1

Answer: **38 square centimetres**

Question 6

finds the area of each rectangle	M1
82 square centimetres cao	A1

Answer: **82 square centimetres**

Question 7

2,000 cm cubed seen	M1
2 litres cao	A1

Answer: **2 litres**

Question 8

8 x 10	M1
80 cm cao	A1

Answer: **80 cm**

Question 9

calculate volume in m3: 2.4 x 1.5 x 1.2	M1
convert to litres by x1000 then subtract 540	M1
3,780 cao	B1

Answer: **3780**

Question 10

8 x 8	M1
64 m cao	A1

Answer: **64 m**

Question 11

finds the area of each rectangle	M1
63 square centimetres cao	A1

Answer: **63 square centimetres**

Question 12

47.2 kg cao	B1

Answer: **47.2 kg**

Question 13

diameter 74 seen	M1
148 cm cao	A1

Answer: **148 cm**

Question 14

35,000 m cao	B1

Answer: **35,000 m**

Question 15

2.87 kg cao	B1

Answer: **2.87 kg**

Question 16

volume formula seen	M1
90 cao	A1

Answer: **90**

Question 17

subtract inner rectangle area from outer: (120 x 85) - (116 x 81) or equivalent	M1
804 cao	B1

Answer: **804**

Question 18

diameter 12 seen	M1
36 cm cao	A1

Answer: **36 cm**

Question 19

multiplies by the conversion	M1
300 cm cao	A1

Answer: **300 cm**

Question 20

70 square millimetres cao	B1

Answer: **70 square millimetres**

Question 21

96 cao	B1

Answer: **96**

Question 22

4 cm cao	B1

Answer: **4 cm**

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Question 23

10 x 7 = 70 seen	**M1**
4 cm cao	**A1**

Answer: **4 cm**

Question 24

6,490 cm cao	**B1**

Answer: **6,490 cm**

Question 25

361 square metres cao	**B1**

Answer: **361 square metres**

Question 26

finds the area of each rectangle	**M1**
adds the two areas	**M1**
67 square metres cao	**A1**

Answer: **67 square metres**

Question 27

use area = base x height	**M1**
84 cao	**B1**

Answer: **84**

Question 28

size of a small division found	**M1**
48 ml cao	**A1**

Answer: **48 ml**

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