8.7 Reasoning: Measures and Geometry: 1-hour Pack

Calculators not allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Amira buys a bag of potatoes weighing 3.9 kg and a bag of carrots weighing 921 g.

What is the total mass in kg?

Answer: ___ kg

(2)

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2 An isosceles triangle has two equal angles of 31 degrees each.

What is the third angle?

Answer: ___ degrees

(2)

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3 Four angles meet at a point and add up to 360 degrees. Three of the angles are 79, 51 and 99 degrees.

What is the fourth angle?

Answer: ___ degrees

(2)

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4 Femi buys 3 puzzles at £3.48 each and 3 magnets at £3.04 each. Femi pays with £20.

How much change does Femi get?

Answer: £___

(2)

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5 A rectangle has a perimeter of 28 cm. Its length is 9 cm.

What is its width?

Answer: ___ cm



9 cm

Perimeter = 28 cm

(1)

---

6 A tank is 25 cm long, 20 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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7 A train departs at 09:15 and the journey takes 2 hours 55 minutes. At what time does the train arrive?

(2)

---

8 A scale drawing uses scale 1:250. A pond measures 4 cm on the drawing. What is the actual length of the pond in metres?

(2)

---

9 A rectangle has a perimeter of 44 km. Its length is 15 km.

What is its width?

Answer: ___ km



15 km

Perimeter = 44 km

(2)

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10 A lesson starts at 14:59 and takes 3 hours 21 minutes.

What time does it finish? Write your answer as a 24-hour clock time.

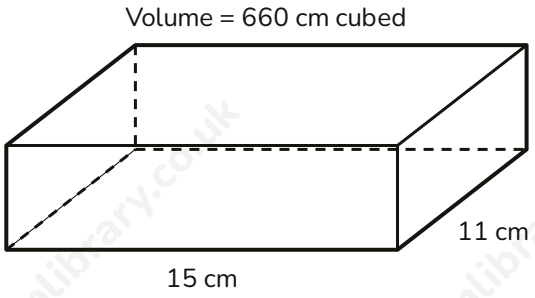
Answer: ___

(2)

11 A cuboid has a volume of 660 cm cubed. Its length is 15 cm and its width is 11 cm.

What is its height?

Answer: ___ cm



(2)

12 Ben buys 5 buns at £1.08 each, 2 T-shirts at £3.01 each and 2 kites at £1.41 each. Ben pays with £15.

How much change does Ben get?

Answer: £___

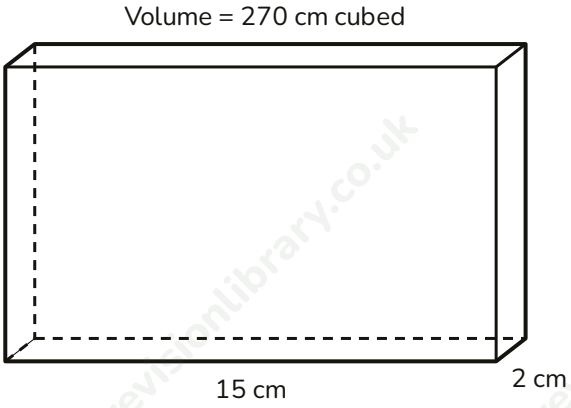
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13 A cuboid has a volume of 270 cm cubed. Its length is 15 cm and its width is 2 cm.

What is its height?

Answer: ___ cm



(2)

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14 Willow buys 1 kite at £1.66 each, 5 posters at £2.48 each and 1 puzzle at £1.64 each. Willow pays with £20.

How much change does Willow get?

Answer: £___

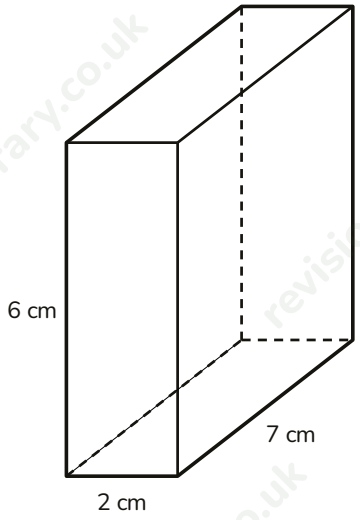
(3)

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15 A cuboid measures 2 cm by 7 cm by 6 cm.

What is its volume in cubic centimetres?

Answer: ___ cm cubed



(2)

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16 A square has sides of length 22 m.

What is its area in square metres?

Answer: ___



(1)

---

17 Point B is at (7, 6). It is reflected in the mirror line x = 4.

What are the coordinates of the image of B?

Answer: (___, ___)

(2)

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18 Dev buys 3 magnets at 59p each, 1 sandwich at £1.42 each and 3 notebooks at £3.81 each. Dev pays with £15.

How much change does Dev get?

Answer: £___

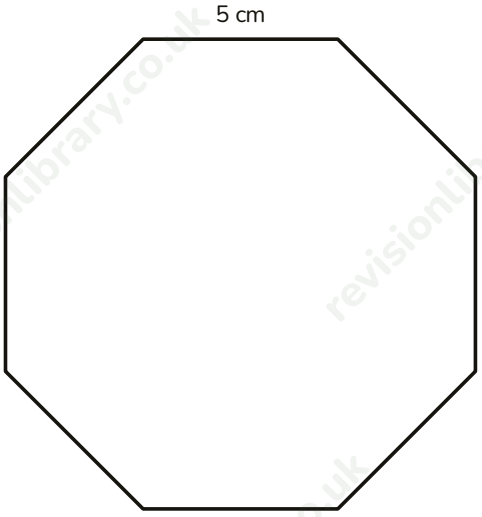
(3)

---

19 A regular octagon has sides of length 5 cm.

What is its perimeter?

Answer: ___ cm



(2)

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20 A train finishes at 13:45 after taking 2 hours 46 minutes.

What time did it start? Write your answer as a 24-hour clock time.

Answer: ___

(2)

---

21 Lily buys 2 T-shirts at £1.23 each, 5 lollies at £2.04 each and 2 comics at 93p each. Lily pays with £15.

How much change does Lily get?

Answer: £___

(3)

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22 Use 1 foot = 30 cm.

A strip of card is 5 feet long. How long is it in cm?

Answer: ___ cm

(2)

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23 Write 2,250 millilitres as litres.

(1)

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24 A garden path is made from tiles each 40 cm long. Four tiles are placed end to end, then a 25 cm stone is added. What is the total length in metres?

(2)

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Mark scheme · 8.7 Reasoning: Measures and Geometry: 1-hour Pack

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

Question 1

921 g = 0.921 kg seen	M1
4.821 kg cao	A1

Answer: **4.821 kg**

Question 2

62 seen	M1
118 degrees cao	A1

Answer: **118 degrees**

Question 3

229 seen	M1
131 degrees cao	A1

Answer: **131 degrees**

Question 4

10.44 seen	M1
£0.44 cao	A1

Answer: **£0.44**

Question 5

5 cm cao	B1

Answer: **5 cm**

Question 6

10,000 cm cubed seen	M1
10 litres cao	A1

Answer: **10 litres**

Question 7

Add 2 hours 55 minutes to 09:15 correctly or convert to minutes 175 and add	M1
12:10 cao	B1

Answer: **12:10**

Question 8

Multiply 4 cm by 250 to get 1000 cm or set up scale 1:250	M1
10 m cao	B1

Answer: **10 m**

Question 9

44 - 30 = 14 seen	M1
7 km cao	A1

Answer: **7 km**

Question 10

adds hours then minutes	M1
18:20 cao	A1

Answer: **18:20**

Question 11

15 x 11 = 165 seen	M1
4 cm cao	A1

Answer: **4 cm**

Question 12

5.40 seen	M1
total 14.24 seen	M1
£0.76 cao	A1

Answer: **£0.76**

Question 13

15 x 2 = 30 seen	M1
9 cm cao	A1

Answer: **9 cm**

Question 14

1.66 seen	M1
total 15.70 seen	M1
£4.30 cao	A1

Answer: **£4.30**

Question 15

multiplies two dimensions	M1
84 cm cubed cao	A1

Answer: **84 cm cubed**

Question 16

484 square metres cao	B1

Answer: **484 square metres**

Question 17

same distance from the mirror line	M1
(1, 6) cao	A1

Answer: **(1, 6)**

Question 18

1.77 seen	M1
total 14.62 seen	M1
£0.38 cao	A1

Answer: **£0.38**

Question 19

8 x 5	M1
40 cm cao	A1

Answer: **40 cm**

Question 20

subtracts hours then minutes	M1
10:59 cao	A1

Answer: **10:59**

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Question 21

2.46 seen	**M1**
total 14.52 seen	**M1**
£0.48 cao	**A1**

Answer: **£0.48**

Question 22

multiplies by the conversion	**M1**
150 cm cao	**A1**

Answer: **150 cm**

Question 23

2.25 L cao	**B1**

Answer: **2.25**

Question 24

Compute 4 x 40 = 160 and add 25 to get 185 cm or equivalent	**M1**
1.85 m cao	**B1**

Answer: **1.85**

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