2.11 Perimeter, Area and Volume: 30-minute Pack

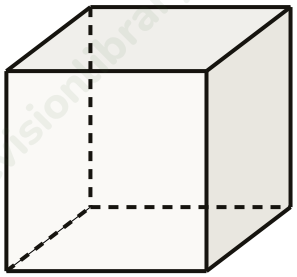
GL ASSESSMENT GL · Calculators not allowed · about 30 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 A cube has edges of length 4 cm. Calculate the volume of the cube.

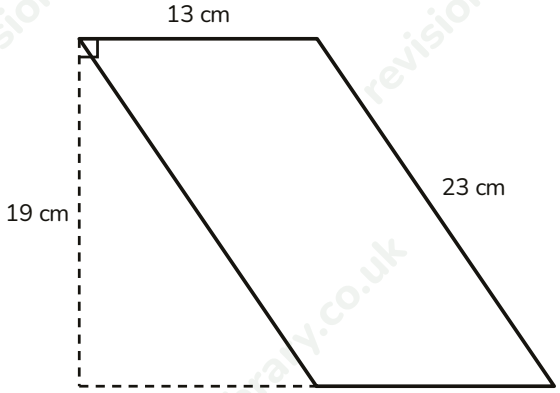


4 cm

(2)

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2 A parallelogram has a base of 13 cm, a sloping side of 23 cm and a perpendicular height of 19 cm. What is its area?



- ☐ A) 299 cm²
- ☐ B) 72 cm²
- ☐ C) 123.5 cm²
- ☐ D) 5,681 cm²
- ☐ E) 247 cm²

---

3 A rectangular garden is 39 m long and 22 m wide. What is its perimeter?

- ☐ A) 122 m
- ☐ B) 61 m
- ☐ C) 100 m
- ☐ D) 1,716 m
- ☐ E) 858 m

---

4 A floor measures 2 m by 3 m. It is covered with square tiles of side 20 cm. How many tiles are needed?

- ☐ A) 149
- ☐ B) 150
- ☐ C) 25
- ☐ D) 6
- ☐ E) 30

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5 A rectangular allotment has a perimeter of 108 m. Its length is 31 m. What is its width?

- [ ] A) 54 m
- [ ] B) 77 m
- [ ] C) 46 m
- [ ] D) 23 m
- [ ] E) 22 m

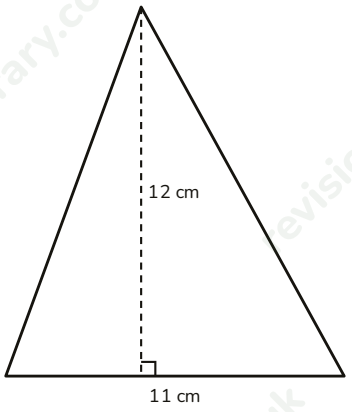
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6 A floor measures 5 m by 2 m. It is covered with square tiles of side 50 cm. How many tiles are needed?

- [ ] A) 80
- [ ] B) 14
- [ ] C) 40
- [ ] D) 10
- [ ] E) 39

---

7 A triangle has a base of 11 cm and a perpendicular height of 12 cm. What is its area?



- [ ] A) 33 cm^2
- [ ] B) 11.5 cm^2
- [ ] C) 132 cm^2
- [ ] D) 66 cm^2
- [ ] E) 23 cm^2

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8 A rectangular allotment has a perimeter of 94 m. Its length is 25 m. What is its width?

- ☐ A) 21 m
- ☐ B) 69 m
- ☐ C) 44 m
- ☐ D) 24 m
- ☐ E) 22 m

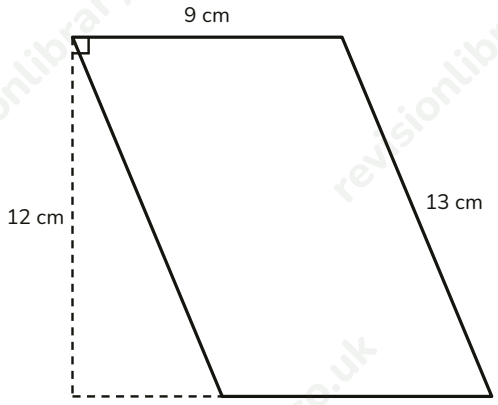
---

9 A floor measures 6 m by 3 m. It is covered with square tiles of side 25 cm. How many tiles are needed?

- ☐ A) 288
- ☐ B) 287
- ☐ C) 576
- ☐ D) 36
- ☐ E) 18

---

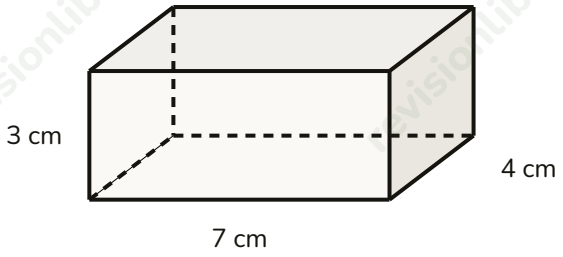
10 A parallelogram has a base of 9 cm, a sloping side of 13 cm and a perpendicular height of 12 cm. What is its area?



- ☐ A) 117 cm²
- ☐ B) 44 cm²
- ☐ C) 108 cm²
- ☐ D) 54 cm²
- ☐ E) 21 cm²

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11 A cuboid has length 7 cm, width 4 cm and height 3 cm. Calculate the volume of the cuboid.



(3)

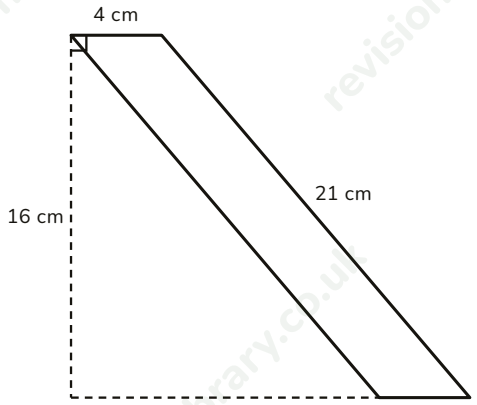
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12 A rectangular allotment measures 26 m by 10 m. What is its area?

- ☐ A) 72 m²
- ☐ B) 676 m²
- ☐ C) 260 m²
- ☐ D) 131 m²
- ☐ E) 36 m²

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13 A parallelogram has a base of 4 cm, a sloping side of 21 cm and a perpendicular height of 16 cm. What is its area?



- ☐ A) 63 cm²
- ☐ B) 32 cm²
- ☐ C) 20 cm²
- ☐ D) 84 cm²
- ☐ E) 64 cm²

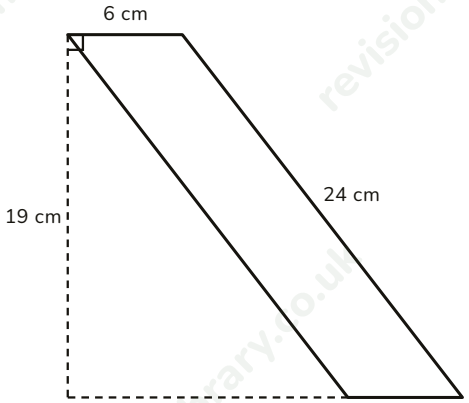
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14 A rectangular allotment is 26 m long and 8 m wide. What is its perimeter?

- ☐ A) 68 m
- ☐ B) 208 m
- ☐ C) 34 m
- ☐ D) 60 m
- ☐ E) 416 m

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15 A parallelogram has a base of 6 cm, a sloping side of 24 cm and a perpendicular height of 19 cm. What is its area?



- ☐ A) 57 cm²
- ☐ B) 114 cm²
- ☐ C) 144 cm²
- ☐ D) 2,736 cm²
- ☐ E) 25 cm²

---

16 A rectangular patio is 39 m long and 21 m wide. What is its perimeter?

- ☐ A) 81 m
- ☐ B) 120 m
- ☐ C) 819 m
- ☐ D) 99 m
- ☐ E) 60 m

---

17 A rectangular playground has an area of 54 square metres and is 18 m long. How wide is it?

- ☐ A) 27 m
- ☐ B) 972 m
- ☐ C) 36 m
- ☐ D) 4 m
- ☐ E) 3 m

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18 A rectangular floor is 7 m long and 2 m wide. What is its perimeter?

- ☐ A) 18 m
- ☐ B) 9 m
- ☐ C) 11 m
- ☐ D) 17 m
- ☐ E) 14 m

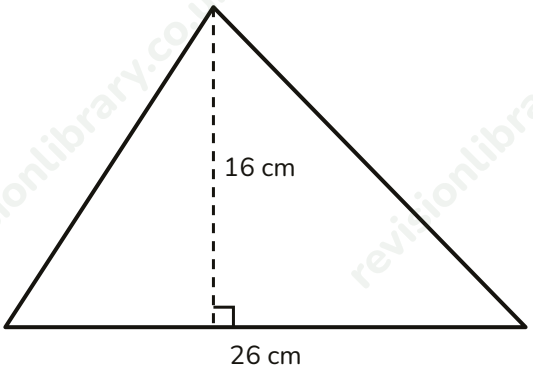
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19 A rectangular patio measures 25 m by 27 m. What is its area?

- ☐ A) 1,350 m²
- ☐ B) 52 m²
- ☐ C) 675 m²
- ☐ D) 104 m²
- ☐ E) 625 m²

---

20 A triangle has a base of 26 cm and a perpendicular height of 16 cm. What is its area?



- ☐ A) 209 cm²
- ☐ B) 416 cm²
- ☐ C) 208 cm²
- ☐ D) 42 cm²
- ☐ E) 207 cm²

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21 A rectangular classroom floor is 10 m long and 5 m wide. What is its perimeter?

- ☐ A) 15 m
- ☐ B) 30 m
- ☐ C) 20 m
- ☐ D) 31 m
- ☐ E) 50 m

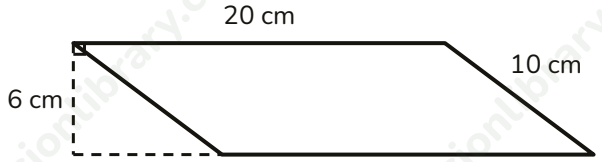
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22 A rectangular allotment measures 57 m by 24 m. What is its area?

- ☐ A) 162 m²
- ☐ B) 81 m²
- ☐ C) 1,369 m²
- ☐ D) 685 m²
- ☐ E) 1,368 m²

---

23 A parallelogram has a base of 20 cm, a sloping side of 10 cm and a perpendicular height of 6 cm. What is its area?



- ☐ A) 60 cm²
- ☐ B) 200 cm²
- ☐ C) 119 cm²
- ☐ D) 120 cm²
- ☐ E) 1,200 cm²

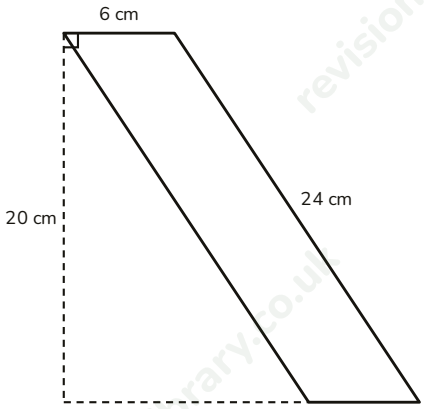
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24 A rectangular patio has an area of 621 square metres and is 27 m long. How wide is it?

- ☐ A) 22 m
- ☐ B) 23 m
- ☐ C) 21 m
- ☐ D) 16,767 m
- ☐ E) 594 m

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25 A parallelogram has a base of 6 cm, a sloping side of 24 cm and a perpendicular height of 20 cm. What is its area?



- ☐ A) 2,880 cm²
- ☐ B) 26 cm²
- ☐ C) 120 cm²
- ☐ D) 144 cm²
- ☐ E) 60 cm²

---

26 A rectangular garden measures 15 m by 9 m. Fencing costs £4.50 per metre.

(a) Calculate the perimeter of the garden. **(2)**

.....

(b) Calculate the total cost of fencing the whole perimeter of the garden. **(2)**

.....

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Mark scheme · 2.11 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

4 x 4 x 4 seen (or 4^3) **M1**

64 cm³ cao **A1**

Answer: 64 cm³

Question 2

correct option E (247 cm²) cao **B1**

Answer: E) 247 cm²

Question 3

correct option A (122 m) cao **B1**

Answer: A) 122 m

Question 4

correct option B (150) cao **B1**

Answer: B) 150

Question 5

correct option D (23 m) cao **B1**

Answer: D) 23 m

Question 6

correct option C (40) cao **B1**

Answer: C) 40

Question 7

correct option D (66 cm²) cao **B1**

Answer: D) 66 cm²

Question 8

correct option E (22 m) cao **B1**

Answer: E) 22 m

Question 9

correct option A (288) cao **B1**

Answer: A) 288

Question 10

correct option C (108 cm²) cao **B1**

Answer: C) 108 cm²

Question 11

correct substitution into V = l x w x h **M1**

7 x 4 = 28 (or equivalent correct intermediate step) **M1**

84 cm³ cao **A1**

Answer: 84 cm³

Question 12

correct option C (260 m²) cao **B1**

Answer: C) 260 m²

Question 13

correct option E (64 cm²) cao **B1**

Answer: E) 64 cm²

Question 14

correct option A (68 m) cao **B1**

Answer: A) 68 m

Question 15

correct option B (114 cm²) cao **B1**

Answer: B) 114 cm²

Question 16

correct option B (120 m) cao **B1**

Answer: B) 120 m

Question 17

correct option E (3 m) cao **B1**

Answer: E) 3 m

Question 18

correct option A (18 m) cao **B1**

Answer: A) 18 m

Question 19

correct option C (675 m²) cao **B1**

Answer: C) 675 m²

Question 20

correct option C (208 cm²) cao **B1**

Answer: C) 208 cm²

Question 21

correct option B (30 m) cao **B1**

Answer: B) 30 m

Question 22

correct option E (1,368 m²) cao **B1**

Answer: E) 1,368 m²

Question 23

correct option D (120 cm²) cao **B1**

Answer: D) 120 cm²

Question 24

correct option B (23 m) cao **B1**

Answer: B) 23 m

Question 25

correct option C (120 cm²) cao **B1**

Answer: C) 120 cm²

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Question 26

(a) 2 x (15 + 9) seen **M1**

(a) 48 m cao **A1**

(a) Answer: 48 m

(b) their (a) x 4.50 (ft) **M1**

(b) £216 cao **A1**

(b) Answer: £216

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