2.11 Area and Perimeter: 1-hour Pack

EDEXCEL 1MA1 · Calculator allowed · about 60 minutes

Total Marks

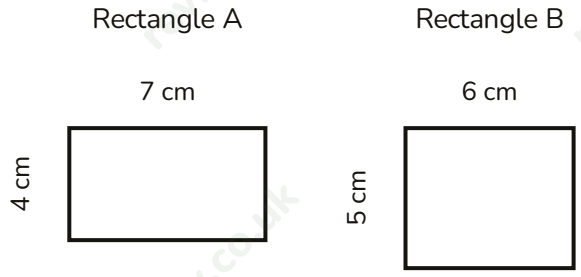
Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Rectangle A has length 7 cm and width 4 cm. Rectangle B has length 6 cm and width 5 cm.

Which rectangle has the greater area? You must show your working.

Diagram NOT accurately drawn



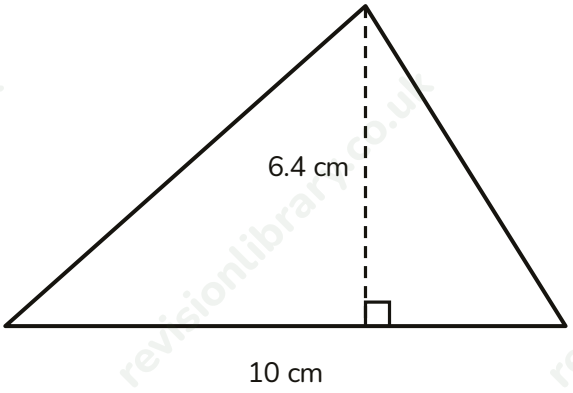
(Total for Question 1 is 3 marks)

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2 A triangle has a base of 10 cm and a perpendicular height of 6.4 cm.

Work out the area of the triangle.

Diagram NOT accurately drawn

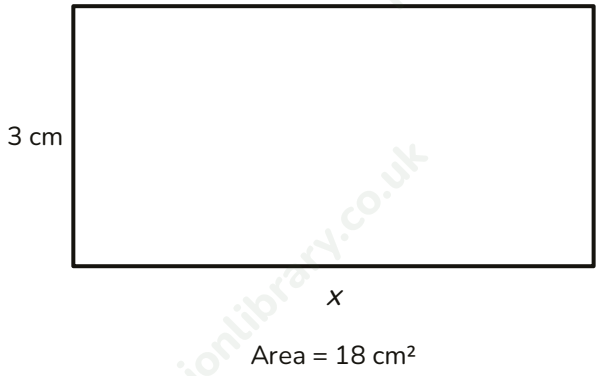


(Total for Question 2 is 2 marks)

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3 A rectangle has an area of 18 cm² and a width of 3 cm. Work out the perimeter of the rectangle.

Diagram NOT accurately drawn

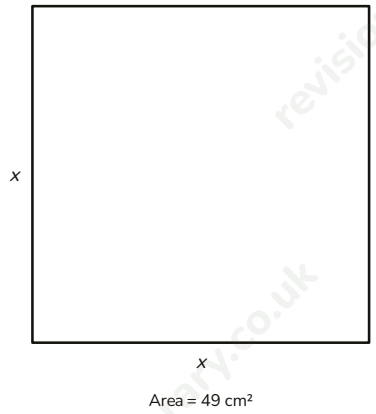


(Total for Question 3 is 3 marks)

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4 A square has an area of 49 cm². Work out the perimeter of the square.

Diagram NOT accurately drawn

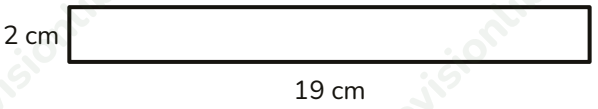


(Total for Question 4 is 3 marks)

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5 A rectangle has length 19 cm and width 2 cm. Work out its area and its perimeter.

Diagram NOT accurately drawn

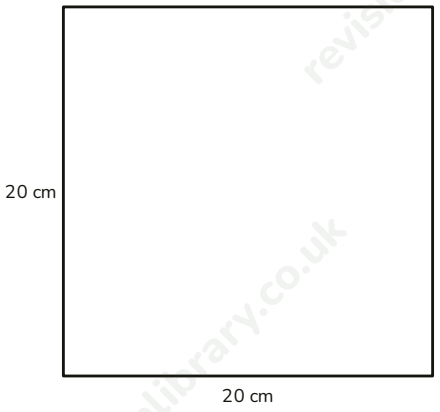


(Total for Question 5 is 3 marks)

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6 A room has a floor 9 m by 7 m. It is covered with square tiles of side 20 cm. Work out how many tiles are needed to cover the floor completely.

Diagram NOT accurately drawn

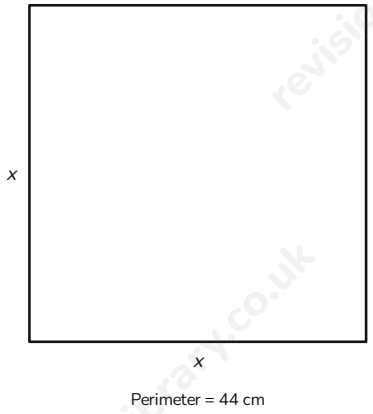


(Total for Question 6 is 3 marks)

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7 A square has a perimeter of 44 cm. Work out the area of the square.

Diagram NOT accurately drawn

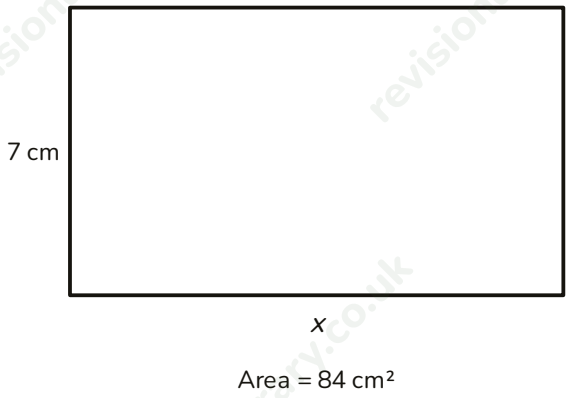


(Total for Question 7 is 3 marks)

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8 A rectangle has an area of 84 cm² and a width of 7 cm. Work out the perimeter of the rectangle.

Diagram NOT accurately drawn

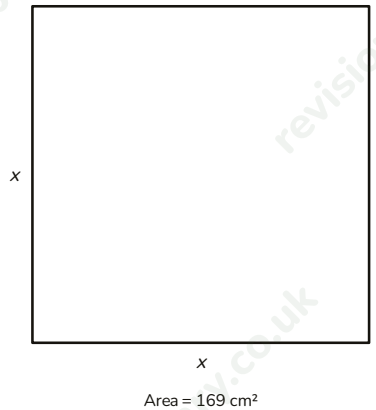


(Total for Question 8 is 3 marks)

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9 A square has an area of 169 cm². Work out the perimeter of the square.

Diagram NOT accurately drawn

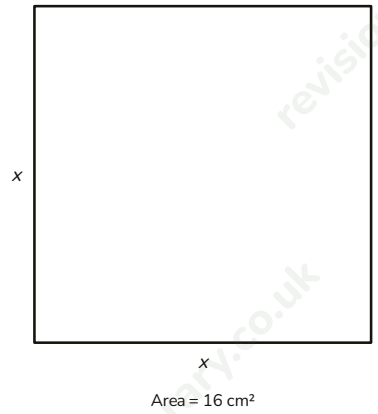


(Total for Question 9 is 3 marks)

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10 A square has an area of 16 cm². Work out the perimeter of the square.

Diagram NOT accurately drawn

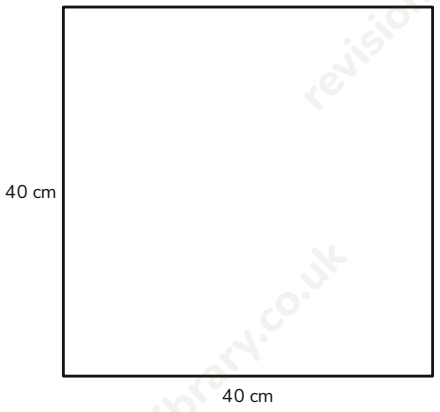


(Total for Question 10 is 3 marks)

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11 A room has a floor 8 m by 8 m. It is covered with square tiles of side 40 cm. Work out how many tiles are needed to cover the floor completely.

Diagram NOT accurately drawn

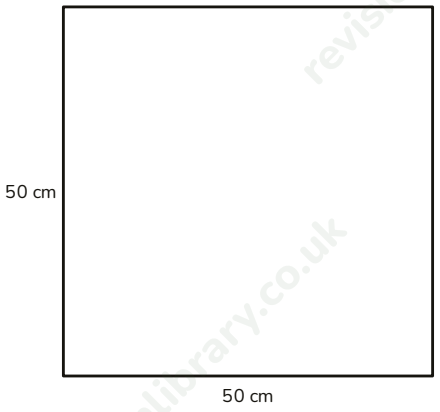


(Total for Question 11 is 3 marks)

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12 A room has a floor 6 m by 6 m. It is covered with square tiles of side 50 cm. Work out how many tiles are needed to cover the floor completely.

Diagram NOT accurately drawn



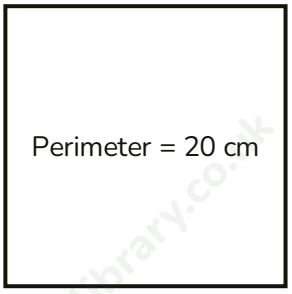
(Total for Question 12 is 3 marks)

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13 A square has a perimeter of 20 cm.

Work out the length of one side of the square.

Diagram NOT accurately drawn

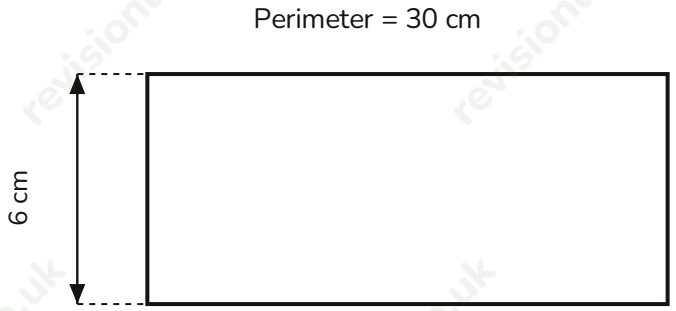


(Total for Question 13 is 2 marks)

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14 A rectangle has a perimeter of 30 cm. The width of the rectangle is 6 cm.

Diagram NOT accurately drawn



(a) Work out the length of the rectangle. **(2)**

.....

(b) Work out the area of the rectangle. **(2)**

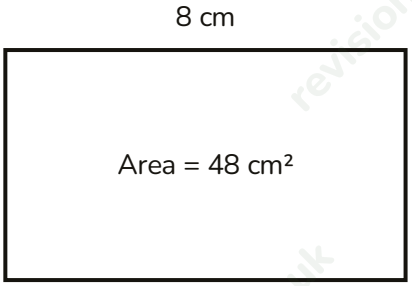
.....

(Total for Question 14 is 4 marks)

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15 A rectangle has an area of 48 cm². The length of the rectangle is 8 cm.

Diagram NOT accurately drawn



(a) Work out the width of the rectangle. **(2)**

.....

(b) Work out the perimeter of the rectangle. **(2)**

.....

(Total for Question 15 is 4 marks)

16 Calculate the area of a rectangular whiteboard measuring 160 cm by 90 cm.

(Total for Question 16 is 1 mark)

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Mark scheme · 2.11 Area and Perimeter: 1-hour Pack

Question 1

7 x 4 = 28	**M1**
6 x 5 = 30	**M1**
Rectangle B, since 30 > 28, dependent on both areas correct	**A1**

Answer: Rectangle B (30 cm^2 compared with 28 cm^2)

Question 2

0.5 x 10 x 6.4 oe	**M1**
32 cao	**A1**

Answer: 32 cm^2

Question 3

18 / 3	**M1**
2 x (6 + 3)	**M1**
18 cm cao	**A1**

Answer: 18 cm

Question 4

$\sqrt{49}$	**M1**
4 x 7	**M1**
28 cm cao	**A1**

Answer: 28 cm

Question 5

19 x 2	**M1**
area 38 cm²	**A1**
perimeter 42 cm	**A1**

Answer: area 38 cm^2, perimeter 42 cm

Question 6

converts to cm or tile area 400 cm² or 0.04 m²	**M1**
divides floor area by tile area	**M1**
1575 cao	**A1**

Answer: 1575

Question 7

44 / 4	**M1**
11 x 11	**M1**
121 cm² cao	**A1**

Answer: 121 cm^2

Question 8

84 / 7	**M1**
2 x (12 + 7)	**M1**
38 cm cao	**A1**

Answer: 38 cm

Question 9

$\sqrt{169}$	**M1**
4 x 13	**M1**
52 cm cao	**A1**

Answer: 52 cm

Question 10

$\sqrt{16}$	**M1**
4 x 4	**M1**
16 cm cao	**A1**

Answer: 16 cm

Question 11

converts to cm or tile area 1600 cm² or 0.16 m²	**M1**
divides floor area by tile area	**M1**
400 cao	**A1**

Answer: 400

Question 12

converts to cm or tile area 2500 cm² or 0.25 m²	**M1**
divides floor area by tile area	**M1**
144 cao	**A1**

Answer: 144

Question 13

20 / 4 oe	**M1**
5 cao	**A1**

Answer: 5 cm

Question 14

(a) (30 / 2) - 6 oe	**M1**
(a) 9 cao	**A1**

(a) Answer: 9 cm

(b) 9 x 6, ft their (a)	**M1**
(b) 54 cao	**A1**

(b) Answer: 54 cm^2

Question 15

(a) 48 / 8	**M1**
(a) 6 cao	**A1**

(a) Answer: 6 cm

(b) 2(8 + 6), ft their (a)	**M1**
(b) 28 cao	**A1**

(b) Answer: 28 cm

Question 16

Area = 160 x 90 = 14400 cm² cao	**B1**

Answer: 14400 cm^2

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