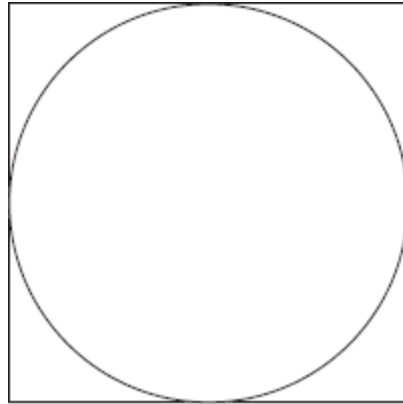


Q1.

The area of this square is 36 cm^2

Not drawn accurately



Work out the circumference of the circle.

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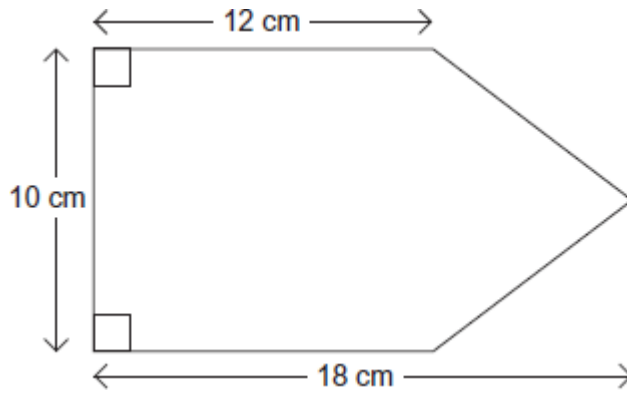
Answer cm

(Total 3 marks)

Q2.

Work out the area of this pentagon.

Not drawn accurately



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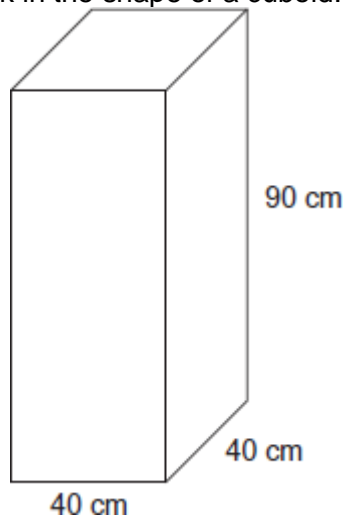
.....

Answer cm²

(Total 3 marks)

Q3.

The diagram shows a water tank in the shape of a cuboid.



The tank is full of water.

1 litre = 1000 cm³

How many gallons of water are in the tank?

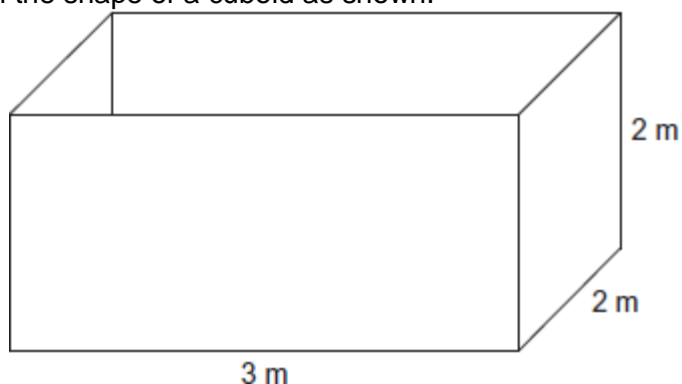
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Answer gallons

(Total 4 marks)

Q4.

An empty tank is in the shape of a cuboid as shown.



The tank is to be filled with water at 1.25 litres per second.

1 m³ = 1000 litres

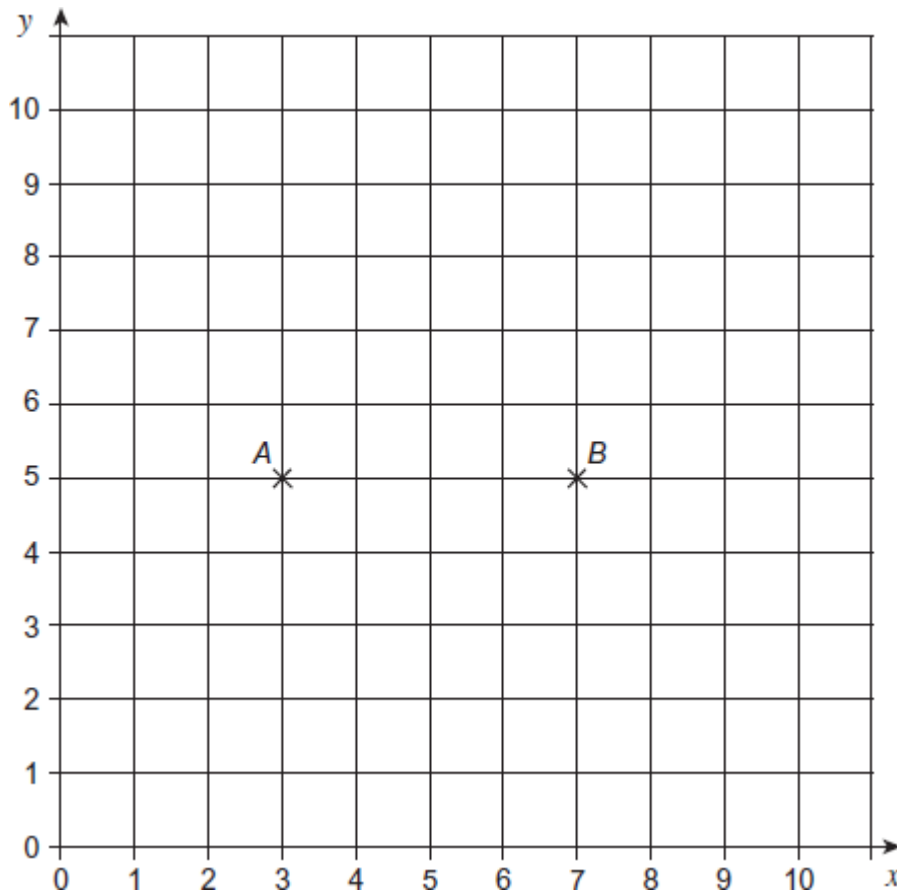
Work out the time taken to fill the tank.
Give your answer in hours and minutes.

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Answer hours minutes

(Total 5 marks)

Q5. Points *A* and *B* are shown on the centimetre grid.



(a) Draw a rectangle *ABCD* on the grid with area 12 cm^2 .

(2)

(b) Write down the coordinates of point *C* and point *D*.

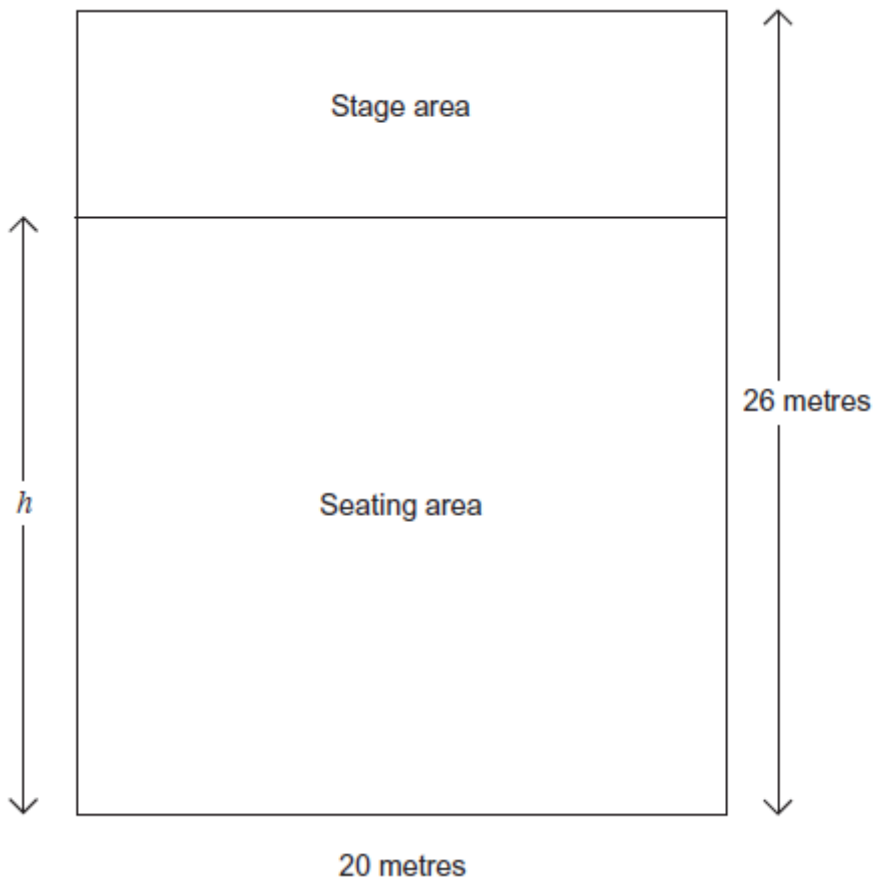
Answer *C* (..... ,) and *D* (..... ,)

(2)

(Total 4 marks)

Q6. The diagram shows a plan of a rectangular school hall.

Not drawn accurately



- (a) The stage area is one-quarter of the area of the school hall.

Work out the length h

.....

Answermetres

(3)

- (b) In the seating area

the maximum number of rows allowed is 13
 the maximum number of seats allowed in a row is 16.

There are the same number of seats in each row.
 Altogether there are 168 seats.

Work out the number of rows and the number of seats in each row.
 You **must** show your working.

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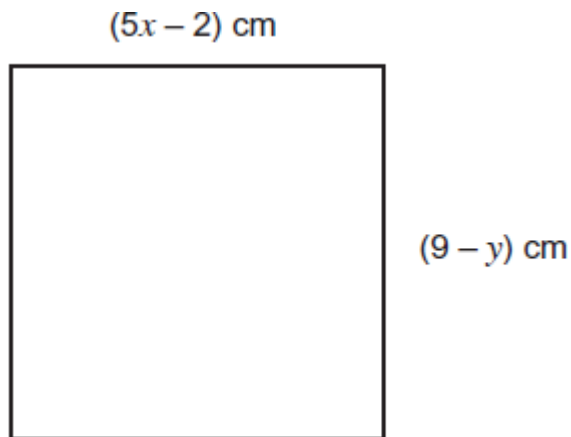
Number of rows

Number of seats in each row

(3)
(Total 6 marks)

Q7. The diagram shows a square with area 64 cm^2 .

Not drawn accurately



Work out the values of x and y .

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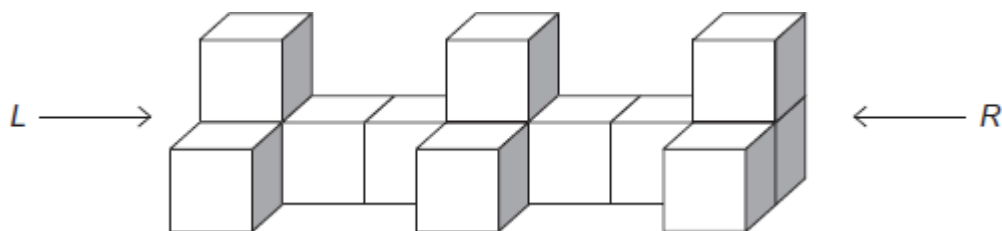
.....

$x =$

$y =$

(Total 4 marks)

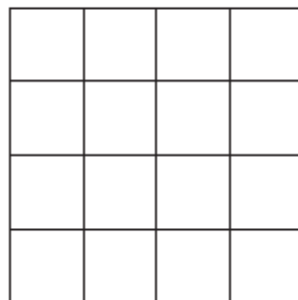
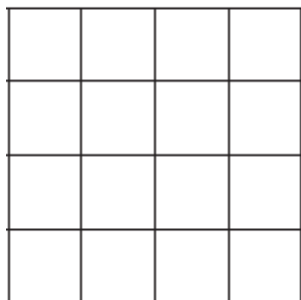
Q8. This solid shape is made from identical cubes.



(a) On the grids draw the side elevations *L* and *R*.

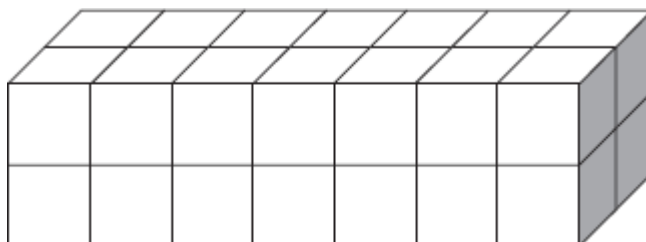
L

R



(2)

(b) How many cubes must be **added** to the shape to make this cuboid?



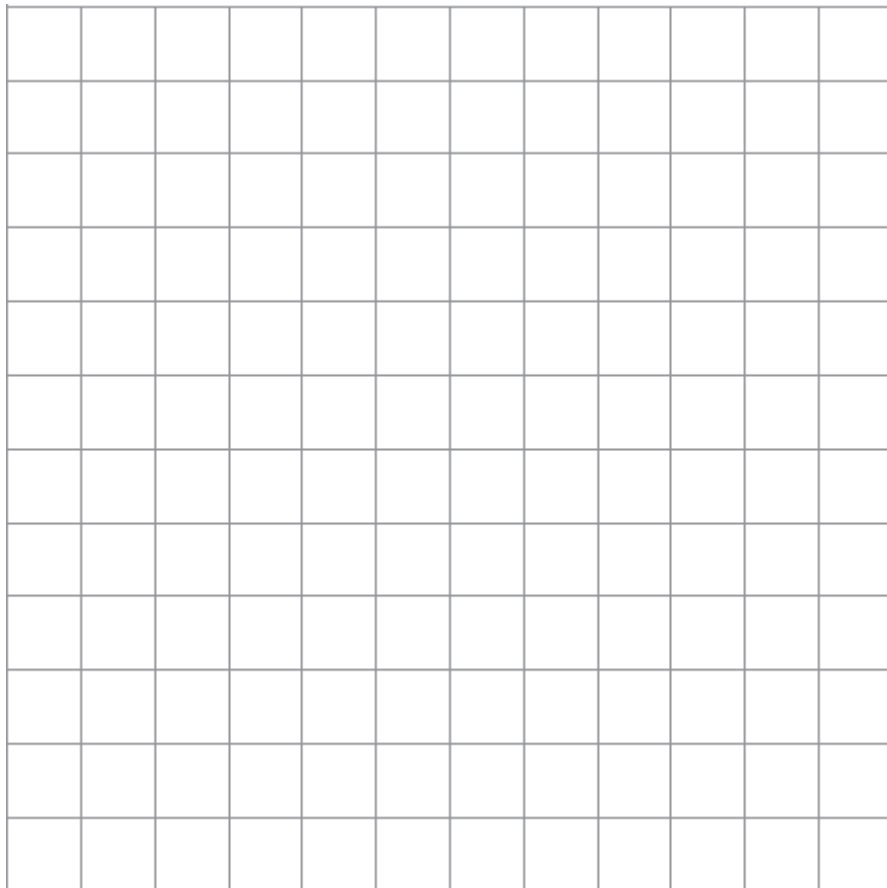
.....
Answer

(2)
(Total 4 marks)

Q9. On this centimetre grid, draw **one** rectangle with

Perimeter = 20 cm

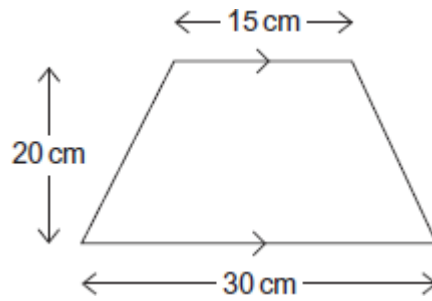
and Area = 24 cm²



(Total 2 marks)

Q10. The diagram shows a trapezium.

Not drawn accurately



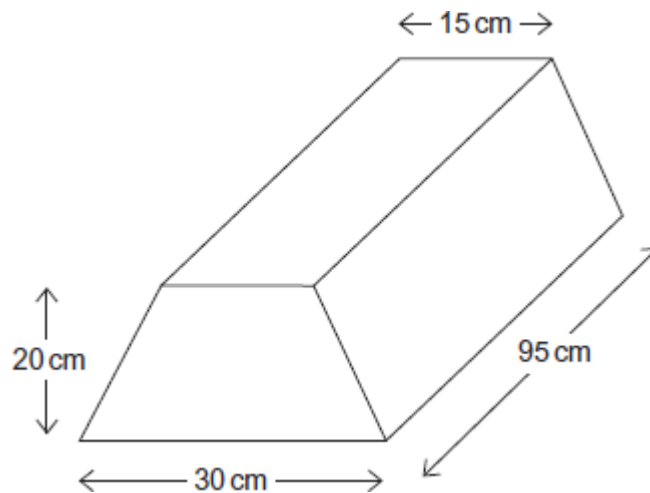
(a) Work out the area of the trapezium.

.....

Answercm²

(2)

(b) The trapezium is the cross-section of this prism.



Work out the volume of the prism.

.....

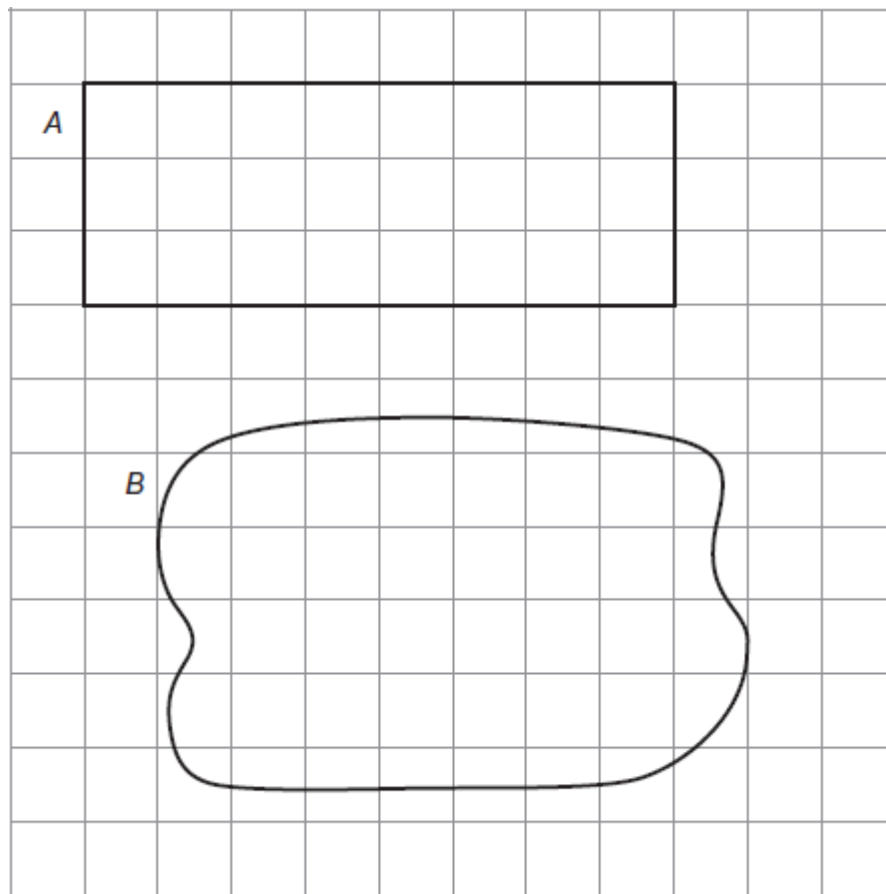
Answercm³

(2)

(Total 4 marks)

Q11.

Two shapes, *A* and *B*, are drawn on a centimetre grid.



Which of the two shapes has the greater area?
 You **must** show your working.

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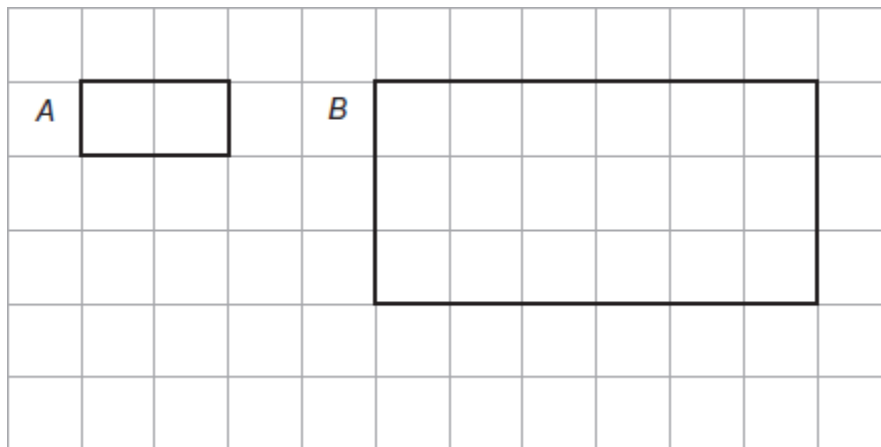
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(Total 3 marks)

Q12.

Rectangles *A* and *B* are drawn on a centimetre grid.



(a) *B* is an enlargement of *A*.

What is the scale factor of the enlargement?

.....

Answer

(1)

(b) How many times larger is the area of *B* than the area of *A*?

.....

.....

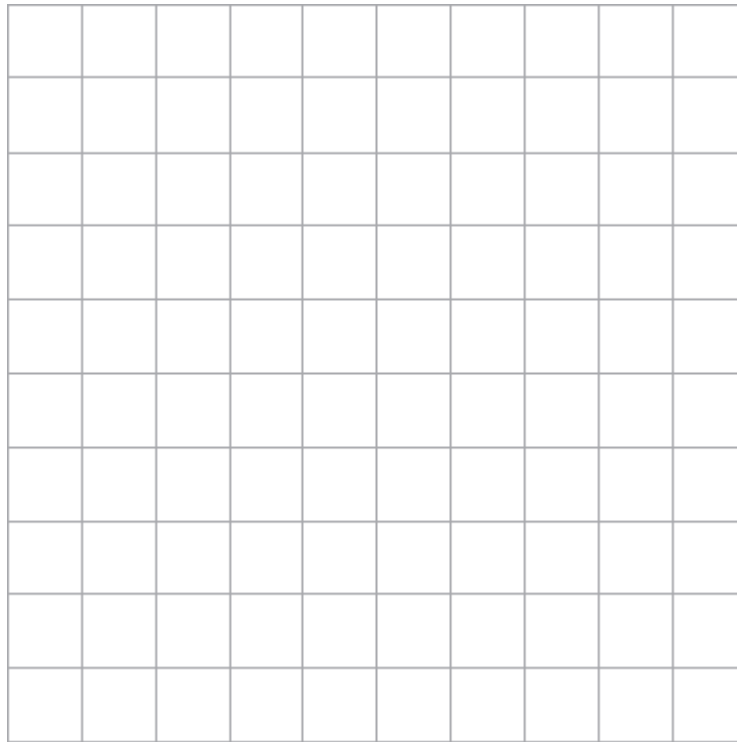
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(2)

(Total 3 marks)

Q13.

Here is a centimetre grid.



On the grid, draw a rectangle with

Perimeter = 18 cm

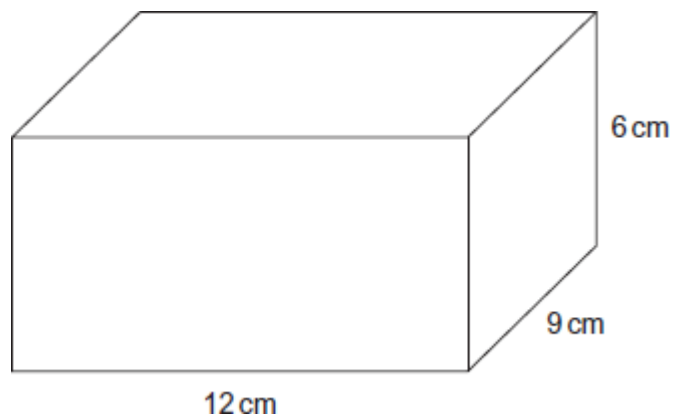
and

Area = 20 cm²

(Total 2 marks)

Q14.

Here is a cuboid.



- (a) Work out the volume of the cuboid.
State the units of your answer.

Answer

(3)

- (b) The cuboid is completely filled with identical cubes.
The length of each cube is a whole number of centimetres **greater than 1**

How many cubes are used?

.....
.....
.....
.....

Answer

(3)

(Total 6 marks)