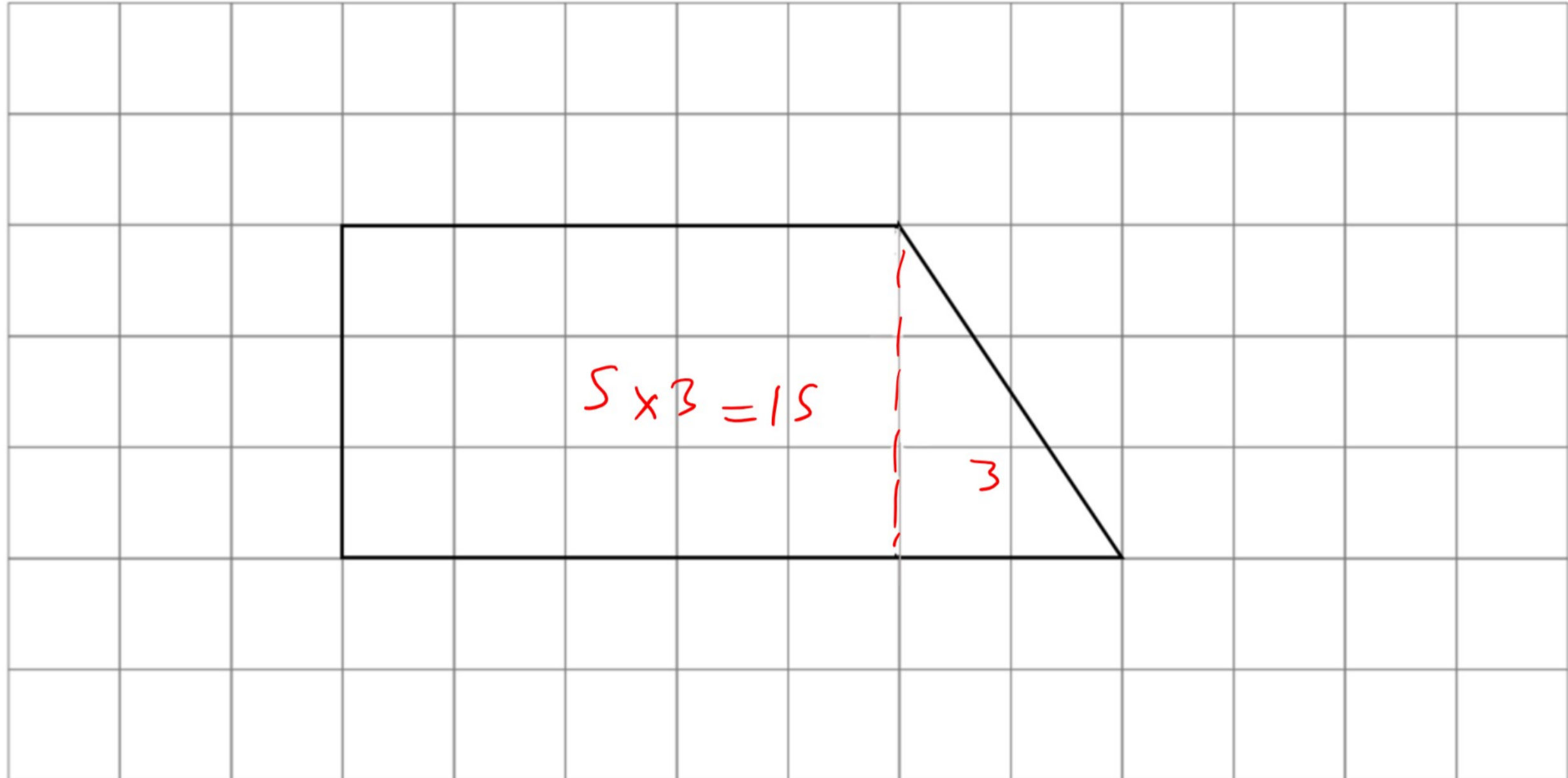


Area and Perimeter Exam Practice



Q1. Each square in the grid has side length 1 cm. Find the area of the shape below, stating the units.



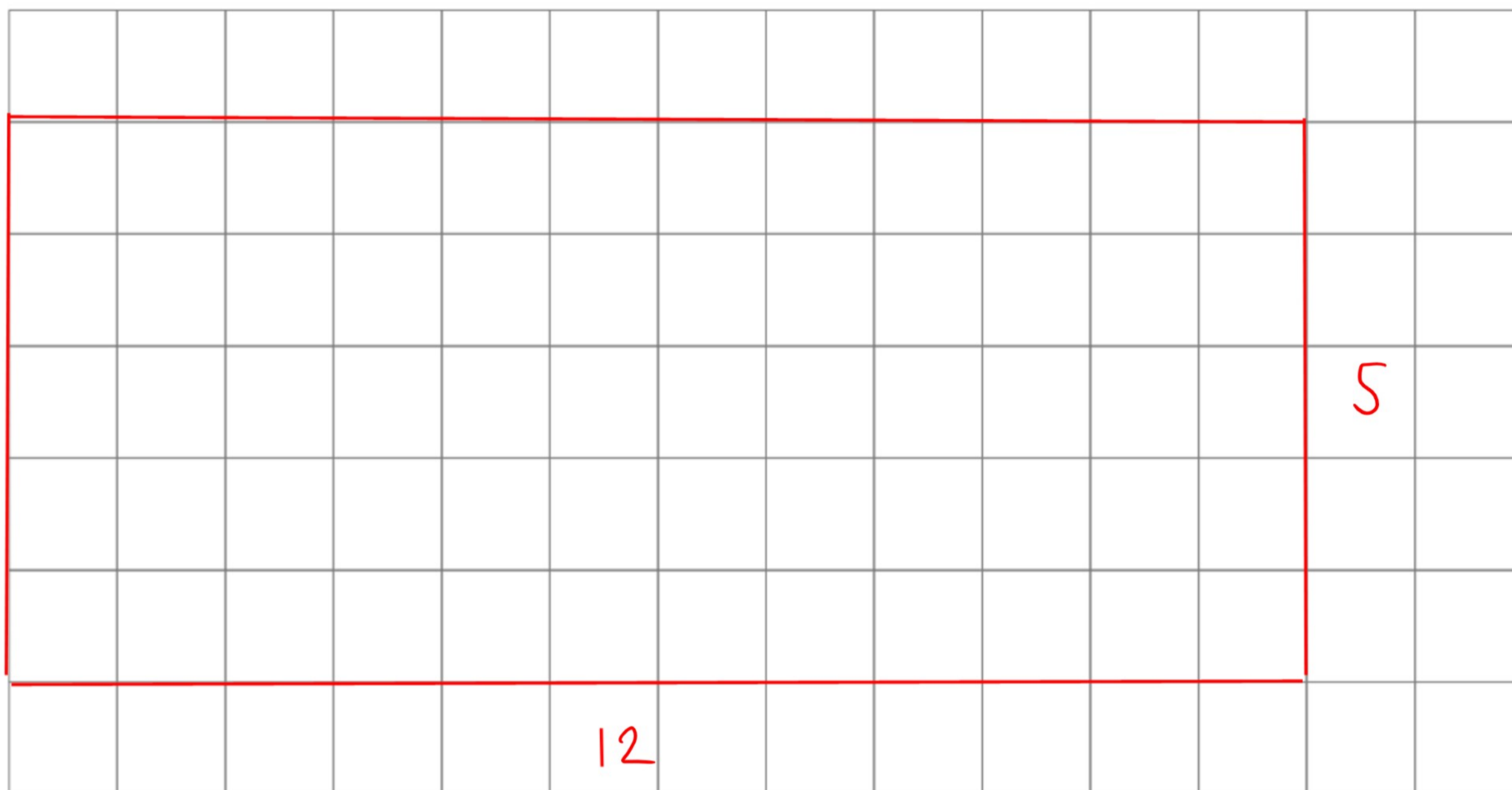
$$15 + 3 = 18 \text{ cm}^2$$

Answer: 18 cm²
(2 marks)



Q2. On the grid below, draw a rectangle so that:

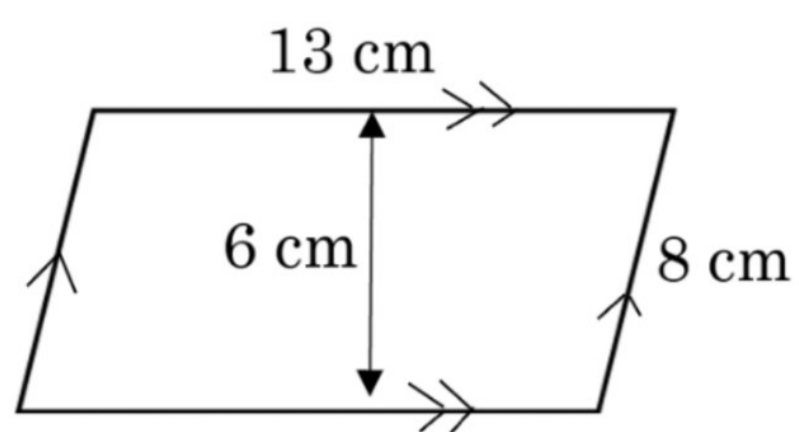
- the width of the rectangle is 7 units less than the length of the rectangle
- the area of the rectangle is 60 cm^2 .



Answer: _____
(2 marks)



Q3. Here is a shape.



(i) Find the perimeter of the shape shown

$$13 + 8 + 13 + 8 = 42 \text{ cm}$$

Answer: 42 cm
(2 marks)

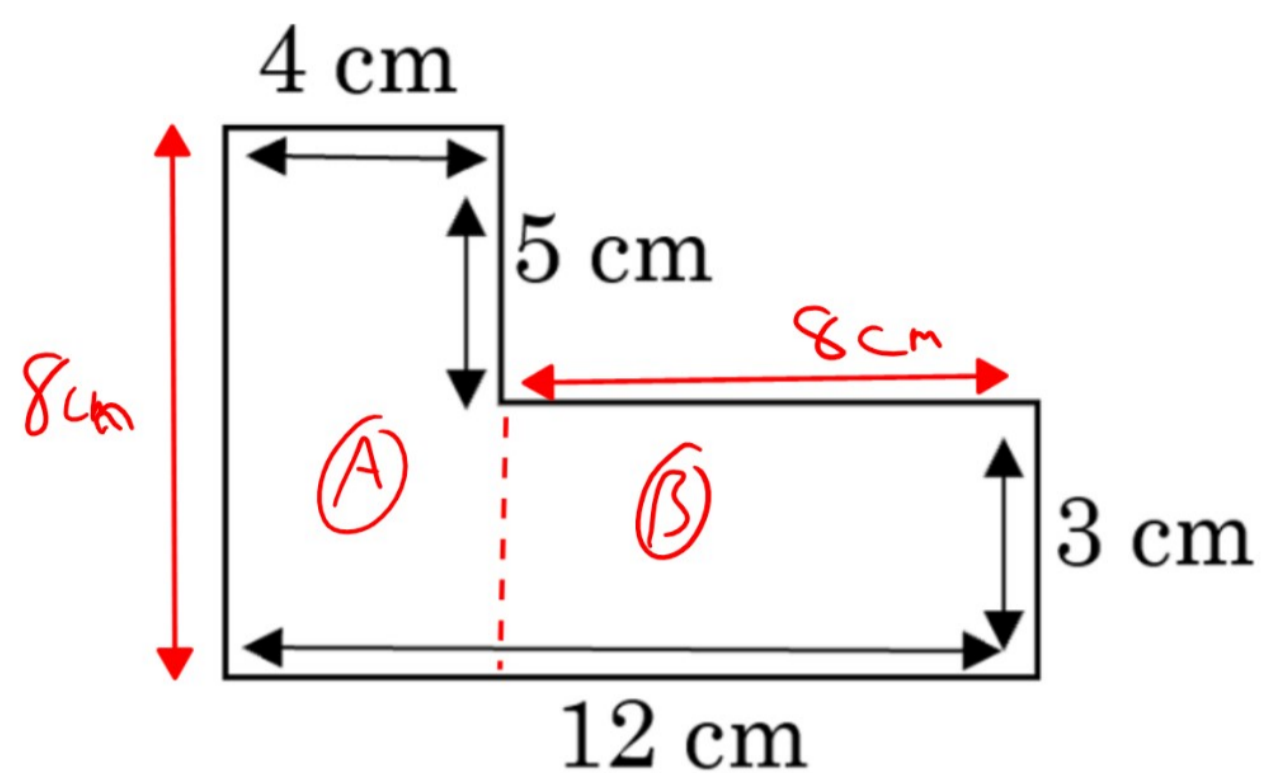
(ii) Find the area of the shape shown.

$$\begin{aligned} \text{Area} &= 13 \times 6 \\ &= 78 \text{ cm}^2 \end{aligned}$$

Answer: 78 cm²
(2 marks)



Q4.



(i) Find the perimeter of the shape shown

$$8 + 4 + 5 + 8 + 3 + 12 = 40$$

Answer: 40 cm
(2 marks)

(ii) Find the area of the shape shown.

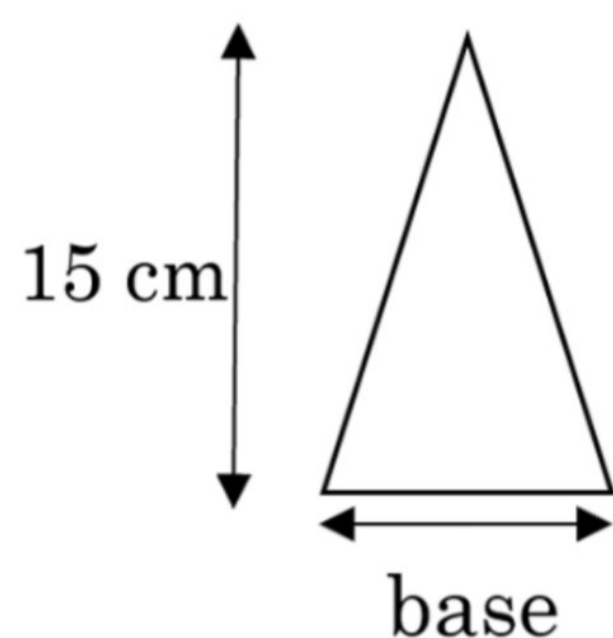
$$\text{(A)} \quad 8 \times 4 = 32 \quad \text{(B)} \quad 3 \times 8 = 24$$

$$\text{Total} = 56$$

Answer: 56 cm²
(2 marks)



Q5. The area of the shape below is 120 cm^2 , and the perpendicular height is 15 cm . Find the value of the base.



$$\frac{1}{2}(b \times 15) = 120$$

$$b \times 15 = 240$$

$$b = 16$$

Answer: 16 cm
(2 marks)



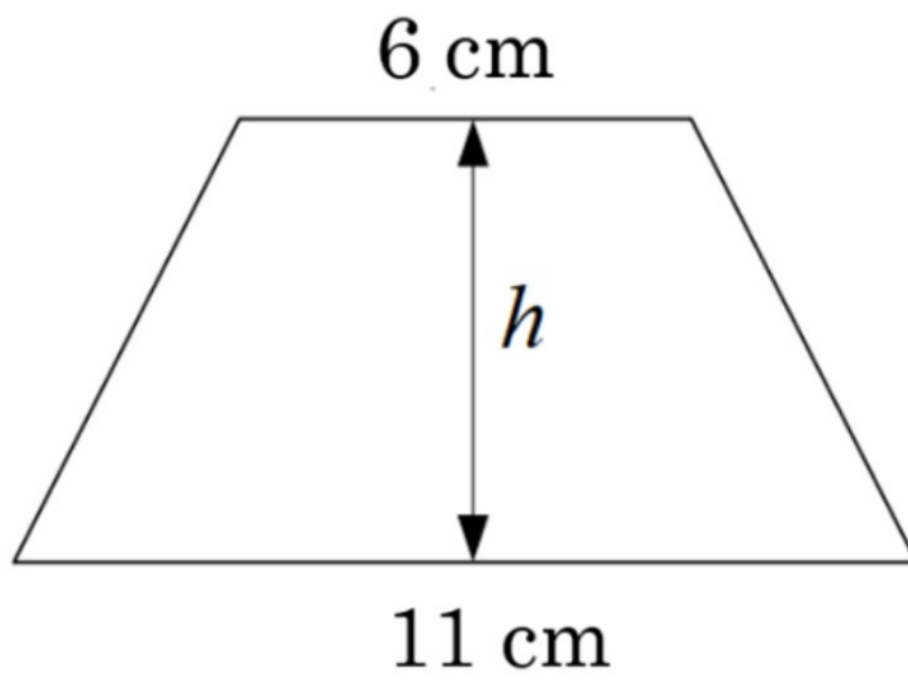
Q6. A square has area 81 cm^2 . Find the perimeter of the square.

• $\sqrt{81} = 9$ side length

• perimeter = 4×9
= 36

Answer: 36 cm
(2 marks)

Q7. The area of the shape below is 68 cm^2 . Find the value of the height h .



$$\text{Area} = \frac{1}{2} \times (a+b) \times h$$

$$\frac{1}{2} \times (6 + 11) \times h = 68$$

$$\frac{1}{2} (17h) = 68$$

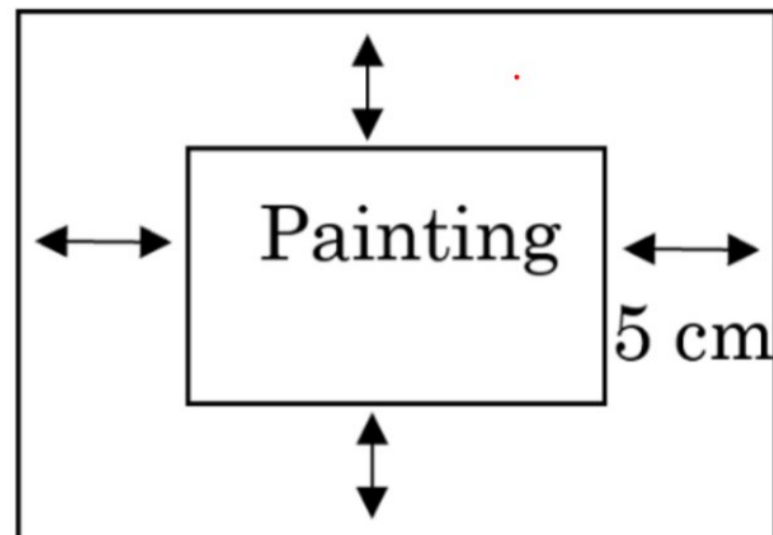
$$17h = 136$$

$$h = 8$$

Answer: 8 cm
(3 marks)



- Q8. Below is a picture frame which fits around a rectangular painting, which measures 20 cm by 32 cm. There is a border of 5 cm all around the painting. The frame is to be decorated by painting it in gold paint. Each pot of paint can cover an area of 300 cm^2 . If gold paint costs £12.30 per pot, work out the cost of decorating the painting.



- Total area : $20 \times 32 = 640 \text{ cm}^2$
- painting has dimensions $32 - 5 - 5 = 22$ by $20 - 5 - 5 = 10$
- painting has area : $22 \times 10 = 220 \text{ cm}^2$
- frame has area : $640 - 220 = 440 \text{ cm}^2$
→ need $2 \times \text{£}12.30$ pots
 $= \text{£}24.60$

Answer: £24.60
(4 marks)