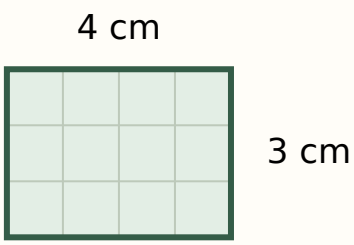
Regular/irregular regions

6 questions | 14 marks

Equivalent correct methods earn the corresponding marks.

1. Find the area of the rectangle. [2 marks]



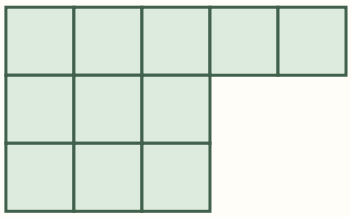
Each grid square has side 1 cm.

There are 4 squares in each of 3 rows.

$4 \times 3 = 12$ cm^2.

Answer: 12 cm^2

2. Find the area of this joined-square region. [2 marks]



Each small square has area 1 cm².

Rows contain 5, 3 and 3 squares.

$5 + 3 + 3 = 11$ cm^2.

Answer: 11 cm^2

3. Two non-overlapping rectangles have areas 14 cm^2 and 9 cm^2. Find the combined area. [2 marks]

$14 + 9 = 23$ cm^2.

Answer: 23 cm^2

4. A rectangle is 7 cm long and 5 cm wide. Find its area. [2 marks]

$7 \times 5 = 35$ cm^2.

Answer: 35 cm^2

5. A 5 cm by 4 cm rectangle has a 2 cm by 1 cm corner removed. Find the area left. [3 marks]

Full area: $5 \times 4 = 20$ cm^2.

Removed area: $2 \times 1 = 2$ cm^2.

$20 - 2 = 18$ cm^2.

Answer: 18 cm^2

6. A student splits a 6 cm by 3 cm rectangle into two pieces and says their areas total 21 cm^2. Explain why this cannot be right. [3 marks]

$6 \times 3 = 18$ cm^2.

Splitting does not change the covered surface.

Answer: The original area is 18 cm^2, so a correct split must also total 18 cm^2. The student may have overlapped or miscalculated pieces.