

Area of Rectangles, Triangles, Parallelograms and Trapezia

For AQA GCSE Mathematics (8300) • Foundation tier

Name _____

Total marks: **24**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

- 1** A triangle has base 8 cm and perpendicular height 5 cm.
Circle the area of the triangle.

[1 mark]

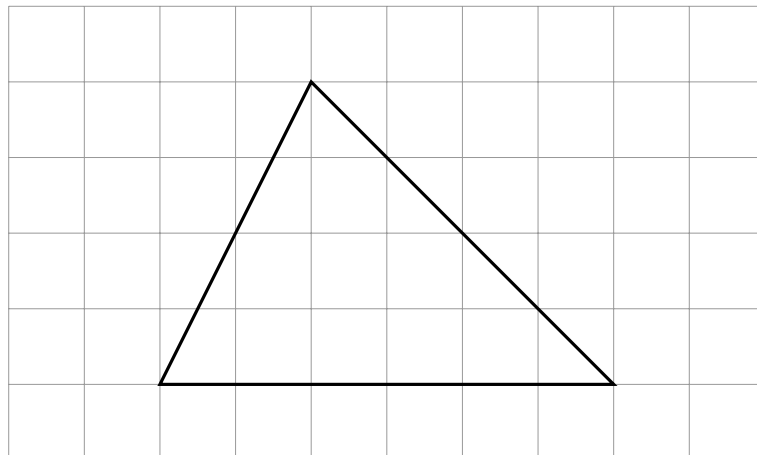
13 cm²

20 cm²

40 cm²

80 cm²

- 2** A triangle is drawn on a centimetre grid.

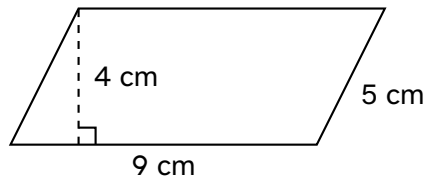


Work out the area of the triangle.

[2 marks]

Answer _____ cm²

- 3 Here is a parallelogram.



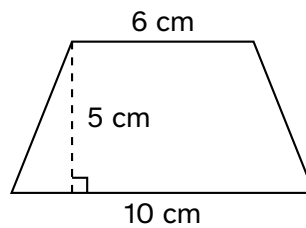
Not drawn accurately

Work out the area of the parallelogram.

[2 marks]

Answer _____ cm^2

- 4 Here is a trapezium.



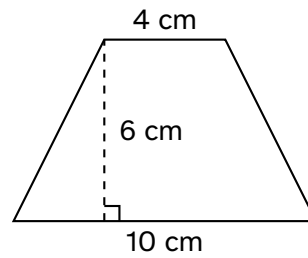
Not drawn accurately

Work out the area of the trapezium.

[2 marks]

Answer _____ cm^2

- 5 Ellis wants to find the area of this trapezium.



Not drawn accurately

- (a) Ellis writes

$$\frac{1}{2} \times 4 + 10 \times 6 = 62 \text{ cm}^2$$

Explain the mistake that Ellis has made.

[1 mark]

- (b) Work out the correct area of the trapezium.

[1 mark]

Answer _____ cm^2

- 6 A square has sides of length 6 cm.
A rectangle has the same area as the square.
The length of the rectangle is 9 cm.
Work out the width of the rectangle.

[2 marks]

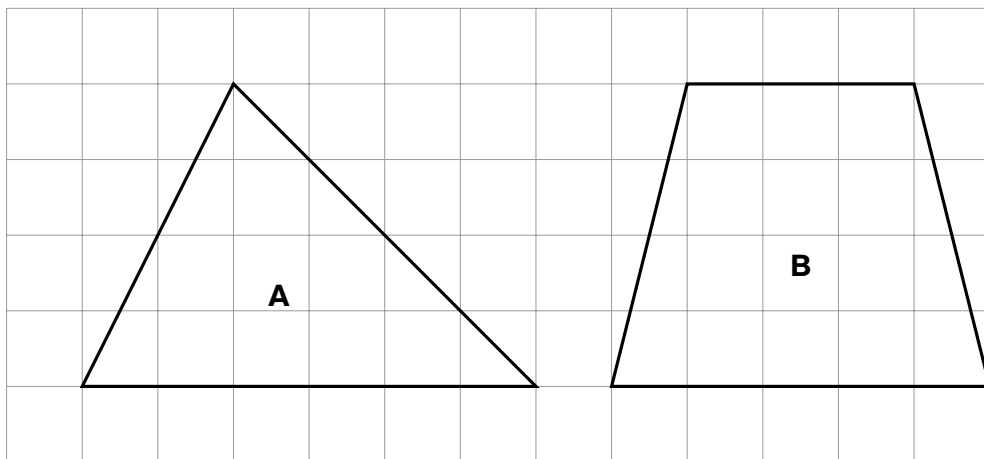
Answer _____ cm

- 7 A rectangular garden is 12 m long and 7 m wide.
A path 1 m wide runs along the whole of one of the 12 m sides.
The rest of the garden is lawn.
Work out the area of the lawn.

[2 marks]

Answer _____ m²

- 8 Shape A and shape B are drawn on a centimetre grid.



Kim says,

‘The area of shape B is double the area of shape A.’

Is Kim correct?

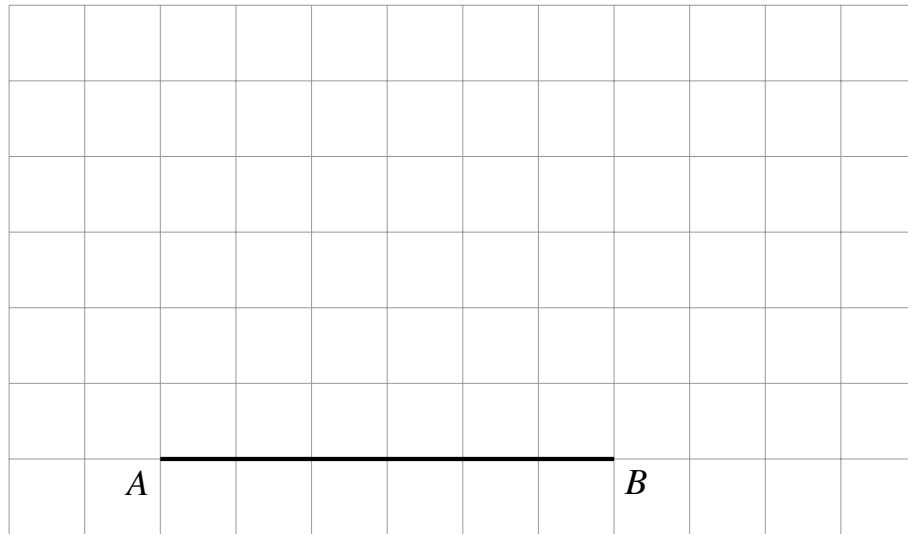
You must show your working.

[3 marks]

☐ Yes

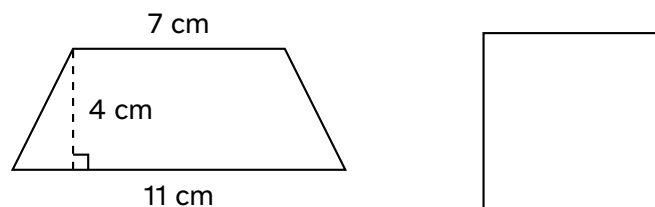
☐ No

- 9 The line AB is one of the parallel sides of a trapezium.
The trapezium has perpendicular height 4 cm and area 20 cm^2
Complete the trapezium on the centimetre grid.



[2 marks]

- 10 The diagram shows a trapezium and a square.



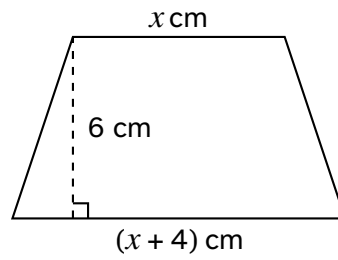
Not drawn accurately

The square has the same area as the trapezium.
Work out the perimeter of the square.

[3 marks]

Answer _____ cm

- 11 Here is a trapezium.



Not drawn accurately

The area of the trapezium is 54 cm^2
Work out the value of x .

[3 marks]

Answer $x =$ _____