Bishops Online Tutoring

Education Consultancy

Edexcel GCSE Mathematics

AREA OF COMPOUND SHAPES

Materials Required:

- Pen
- HB Pencil
- Ruler (in centimetres and millimetres)
- Protractor
- Compass

Instructions:

- Use a black ink pen to answer all questions
- Fill your name in the section below
- Answer the questions in the spaces provided
- Show your working out for all answers

Information:

- The marks allocated for each question are displayed within brackets – utilise this information to gauge the appropriate amount of time to dedicate to each question
- Questions marked with an asterisk (*) will assess your written communication; be careful of spelling, punctuation and grammar with these questions

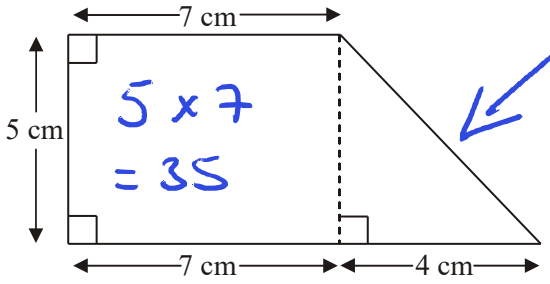
Advice:

- Carefully read the question before attempting to answer it
- Be vary of time and try to answer every question
- If you have enough time in the end, go back and check your answers. A good way to check your answers is to retry the question with the hope of getting the same answer as before without looking at your working out from before

NO CALCULATOR ALLOWED

NAME:	

1.



$\frac{1}{2} \times 4 \times 5 = 10$

$5 \times 7 = 35$

Diagram **NOT** accurately drawn

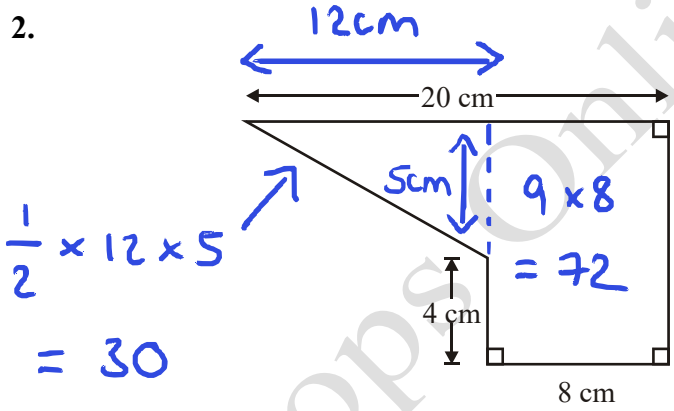
Work out the area of the shape.

$35 + 10 = 45$

..... 45 ..... cm^2

(Total 3 marks)

2.



$\frac{1}{2} \times 12 \times 5 = 30$

$9 \times 8 = 72$

Diagram **NOT** accurately drawn

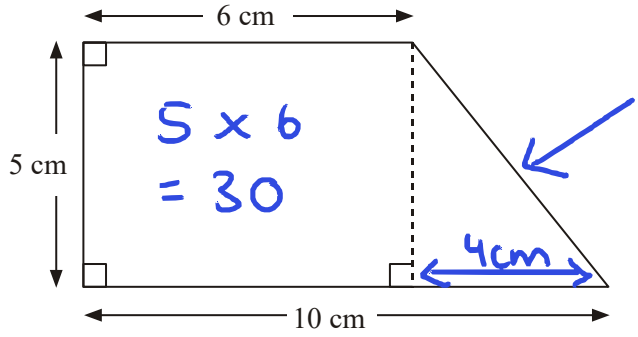
The diagram shows a shape.
Work out the area of the shape.

$30 + 72 = 102$

..... 102 ..... cm^2

(Total 4 marks)

3. Here is a trapezium.



5 x 6
= 30

$\frac{1}{2}$ x 4 x 5
= 10

Diagram **NOT** accurately drawn

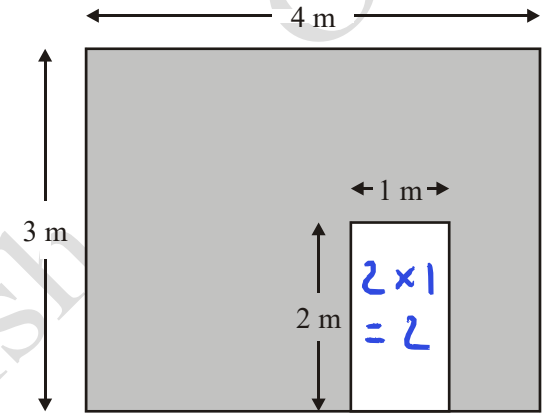
Work out the area of the trapezium.

30 + 10 = 40

40 ..... cm^2

(Total 2 marks)

4. The diagram shows a wall with a door in it.



2 x 1
= 2

Diagram **NOT** accurately drawn

Work out the shaded area.

Area of whole shape = 4 x 3 = 12

12 - 2 = 10

10 ..... m^2

(3)

(Total 3 marks)

5.

The diagram shows a 6-sided shape made from a rectangle and a right-angled triangle.

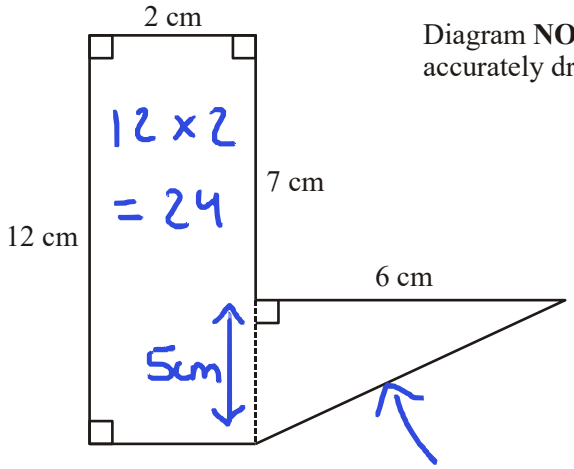


Diagram **NOT** accurately drawn

Work out the total area of the 6-sided shape.

$\frac{1}{2} \times 5 \times 6$

$= 15$

$24 + 15 = 39$

39 .....cm^2

(Total 3 marks)

6.

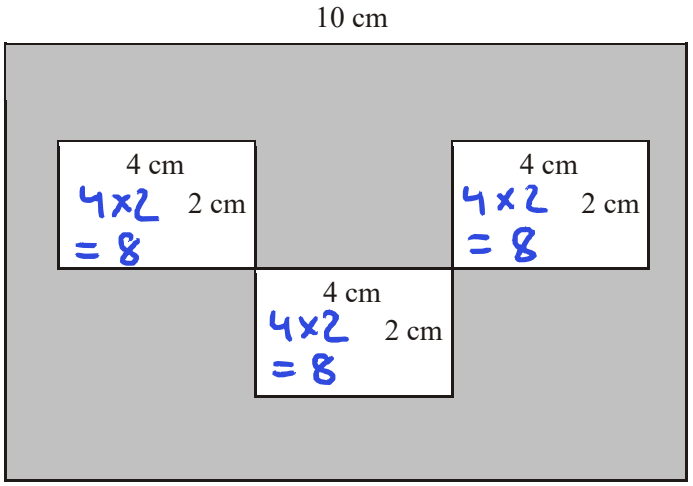


Diagram **NOT** accurately drawn

The diagram shows 3 small rectangles inside a large rectangle.
The large rectangle is 10 cm by 8 cm.
Each of the 3 small rectangles is 4 cm by 2 cm.

Work out the area of the region shown shaded in the diagram.

Total area of shape = 10 × 8 = 80

Total area of the 3 white boxes = 8 + 8 + 8 = 24

80 − 24 = 56

56 ..... cm^2

(Total 3 marks)

7.

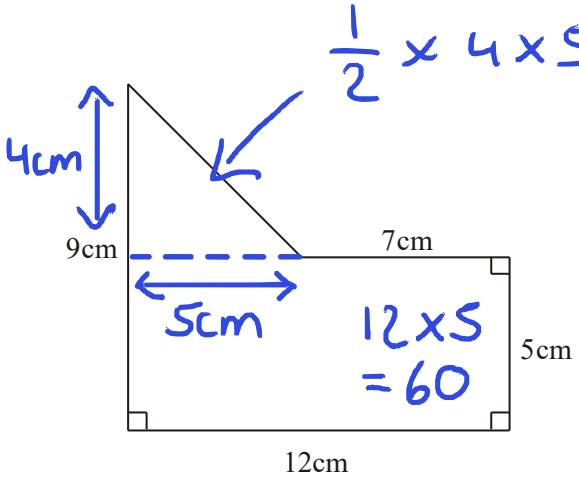


Diagram **NOT** accurately drawn

Work out the area of the shape.

70

..... cm^2

(Total 4 marks)

8.

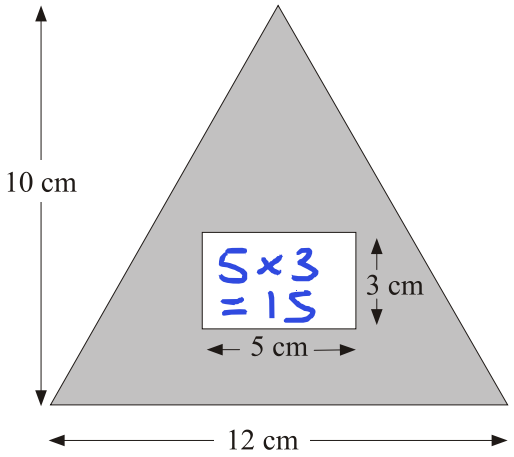


Diagram **NOT** accurately drawn

The diagram shows a rectangle inside a triangle.

The triangle has a base of 12 cm and a height of 10 cm.
The rectangle is 5 cm by 3 cm.

Work out the area of the region shown shaded in the diagram.

Area of whole triangle $= \frac{1}{2} \times 10 \times 12$

$= 60$

$60 - 15 = 45$

45 ..... cm^2

(Total 3 marks)

9.

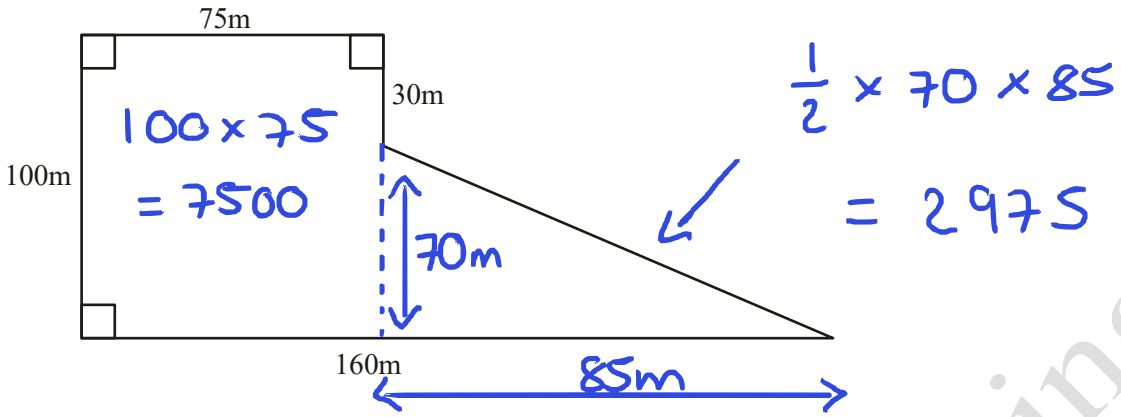


Diagram **NOT** accurately drawn

The diagram shows the plan of a field.
The farmer sells the field for £3 per square metre.

Work out the total amount of money the farmer should get.

7500 + 2975 = 10475

£3 × 10475 = £31425

£ 31425

(Total 5 marks)