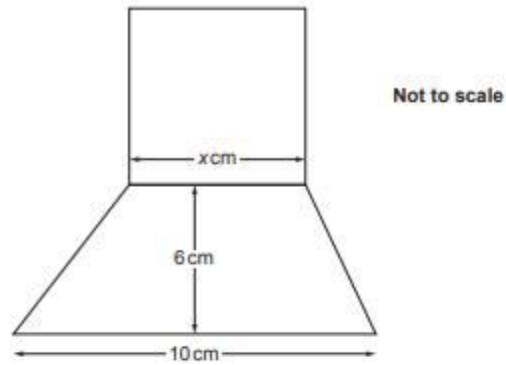**AREA OF COMPOUND SHAPES**

OCR GSCE – Monday 12 November 2018 – Paper 6 (Calculator) Higher Tier

1.

12 In the diagram, the square and the trapezium share a common side of length x cm.

Not to scale
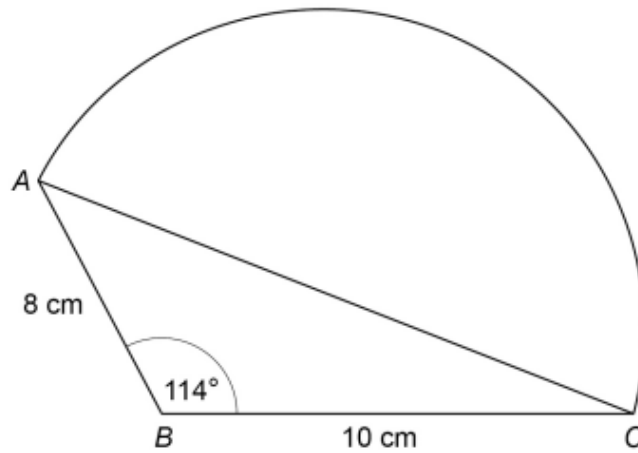
The area of the square is equal to the area of the trapezium.

Work out the value of x.

$x =$ .... [6]

2.

29   A shape is made by joining triangle *ABC* to a semicircle with diameter *AC*.

Not drawn
accurately

A

8 cm

114°

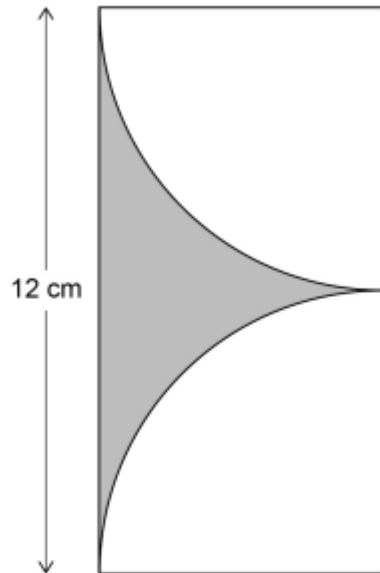*B*   10 cm   *C*

Work out the **total** area of the shape.

[5 marks]

3.

8   Two identical quarter circles are cut from a rectangle as shown.
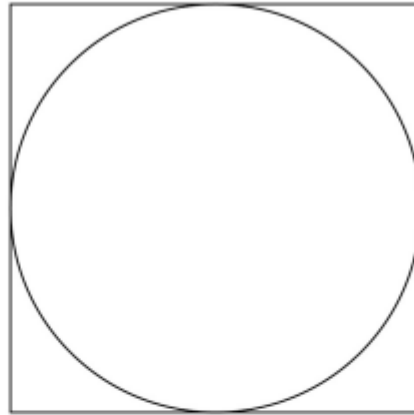

Not drawn
accurately

12 cm

Work out the shaded area.

[4 marks]

Answer _____ cm^2

4.

12   Here is a circle touching a square.

Not drawn
accurately

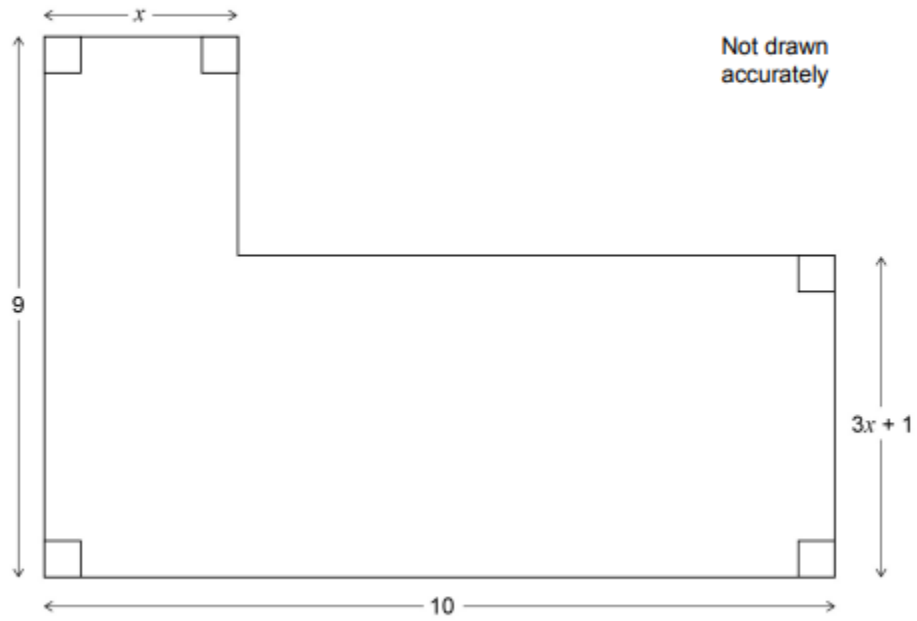The area of the square is 64 cm^2

Work out the area of the circle.

Give your answer in terms of π.

[3 marks]

_____

_____

_____

_____

Answer _____ cm^2

5.

26   Here is an L-shape.

All dimensions are in centimetres.

Not drawn accurately

The area of the L-shape is 65 cm^2

Work out the value of x.

[6 marks]

6.

12   *ABCH* is a square.

       HCFG is a rectangle.

       CDEF is a square.

       They are joined to make an L-shape.
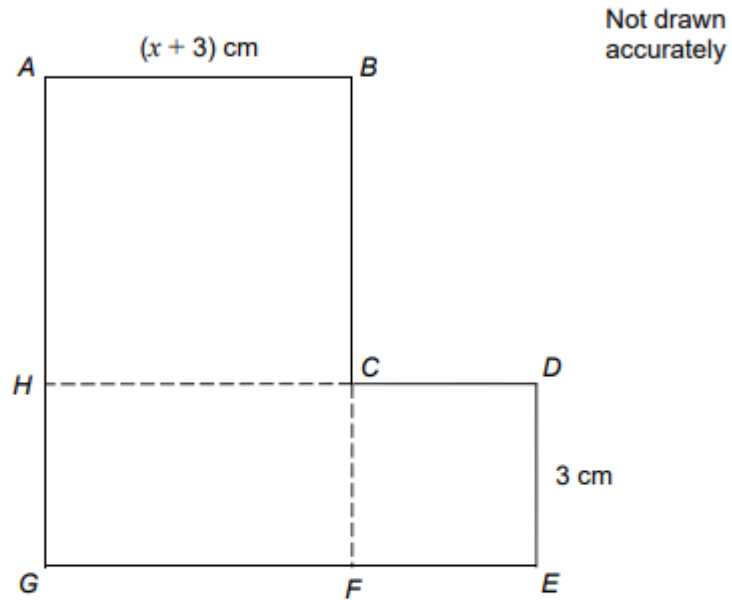
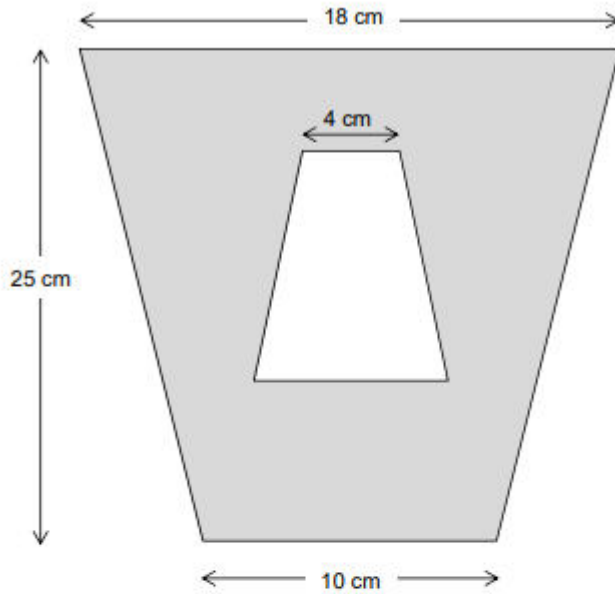Show that the total area of the L-shape, in cm^2, is $x^2 + 9x + 27$

[4 marks]

_____

_____

_____

_____

_____

_____

7.

14 (a)   A pattern is made from two **similar** trapeziums.

Not drawn
accurately

18 cm

4 cm

25 cm

10 cm

Show that the shaded area is 294 cm^2

[4 marks]

_____

_____

_____

_____

_____

_____

_____

_____

_____

14 (b) The pattern has one line of symmetry.

Not drawn accurately

18 cm

x

25 cm

10 cm
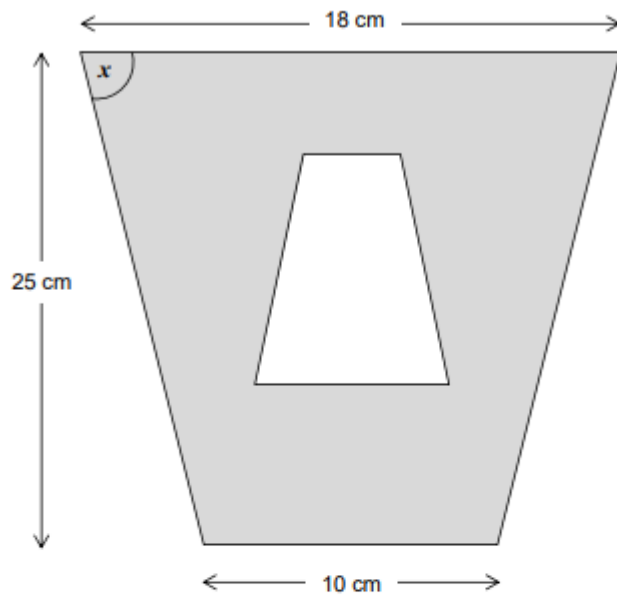
Work out the size of angle *x*.

[3 marks]

_____

_____

_____

_____

_____

Answer _____ degrees