

# GCSE MATHEMATICS

AQA | Edexcel | OCR | WJEC

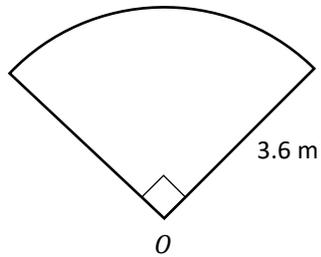
PAULS COACHING

## Circles Sectors and Arcs

PAULS

- 1 Consider the following quarter-circle with centre  $O$ .,  
The radius is 3.6 m.

(Level 4)



Not drawn  
accurately

Find the area of the quarter-circle.  
Give your answer to 2 decimal places.

[3 marks]

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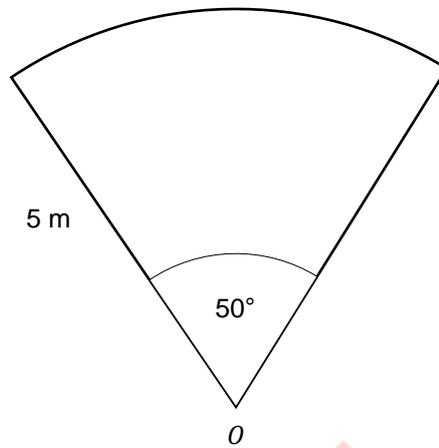
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Answer \_\_\_\_\_

Turn over for next question

2 The diagram shows the sector of a circle with centre  $O$

(Level 4)



Not drawn accurately

The radius of the circle is 5 m and the angle of the sector is  $50^\circ$

Calculate the area of the sector.

Give your answer to one decimal place.

[3 marks]

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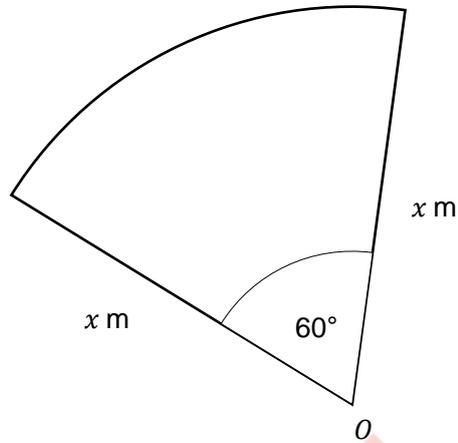
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Answer \_\_\_\_\_

Turn over for next question

- 3 The diagram shows the sector of a circle with centre  $O$ .

(Level 5)



Not drawn accurately

The area of the sector is  $18.4 \text{ m}^2$  to 1 decimal place and the angle is  $60^\circ$

Calculate the radius of the sector.

Give your answer to one decimal place.

[3 marks]

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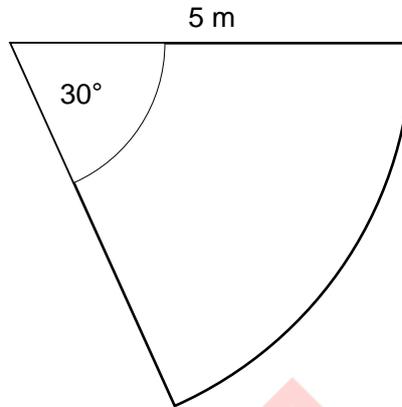
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Answer \_\_\_\_\_ m

- 4 The sector of a circle below has a radius of 5m and the angle at the centre is  $30^\circ$  (Level 5)

Not drawn accurately



- 4(a) Find the area of the sector  
Give your answer to one decimal place.

[2 marks]

\_\_\_\_\_

\_\_\_\_\_

Answer \_\_\_\_\_  $\text{cm}^2$

- 4(b) Find the arc length of the sector.  
Give your answer to one decimal place.

[2 marks]

\_\_\_\_\_

\_\_\_\_\_

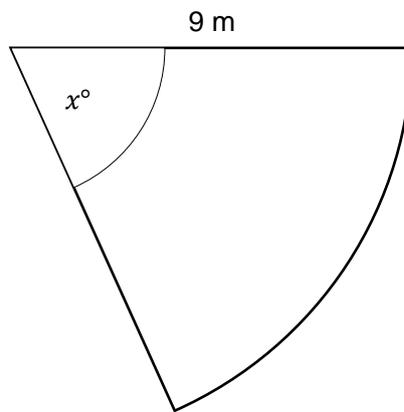
Answer \_\_\_\_\_ cm

Turn over for next question

5

The area of the sector below is  $26.15 \text{ m}^2$ 

(Level 5)



Not drawn accurately

Calculate the value of the angle  $x$ 

Give your answer to one decimal place.

**[2 marks]**

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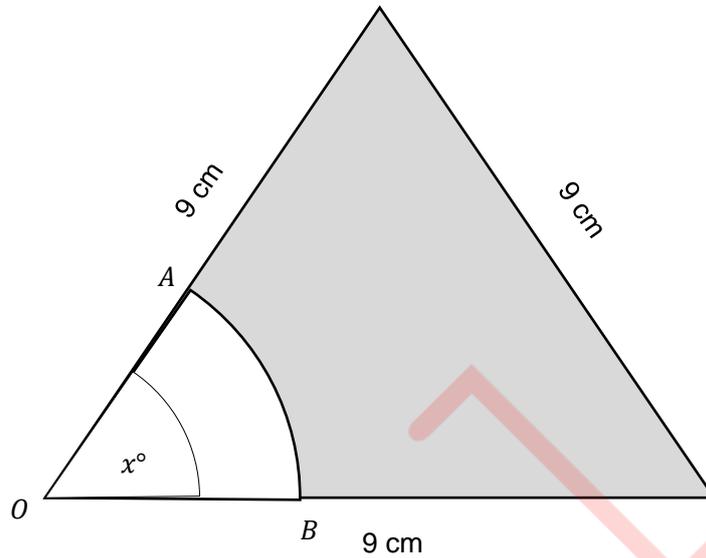
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Answer \_\_\_\_\_

6

The diagram shows an equilateral triangle with side lengths of 9 cm

(Level 6)

Not drawn  
accurately

Given  $O$  is the centre of a circle and  $OAB$  is a sector of that circle where  $OA = 3$  cm

Find the perimeter of the shaded region.

Give your answer to one decimal place.

[3 marks]

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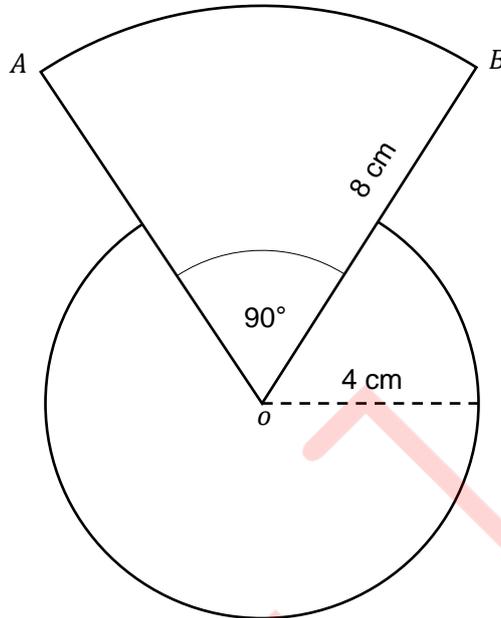
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Answer \_\_\_\_\_

7

 $OAB$  is a circle segment of radius 8 cm

(Level 7)

 $O$  is a circle of radius 4 cmNot drawn  
accurately

Calculate the total area of the shape shown above.

Give your answer to one decimal place.

**[3 marks]**


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Answer \_\_\_\_\_

**End of questions**