

Surname	
Other Names	
Candidate's Signature	

GCSE 9 - 1 Questions

Circumference and Area

Calculator Allowed

INSTRUCTIONS TO CANDIDATES

Write your name in the space provided.

Write your answers in the spaces provided in this question paper.

Answer ALL questions.

Any working should be clearly shown in the spaces provided since marks may be awarded for partially correct solutions.

Unless otherwise instructed in the question, take π to be 3.142 or use the π button on your calculator

Total Marks :

1)



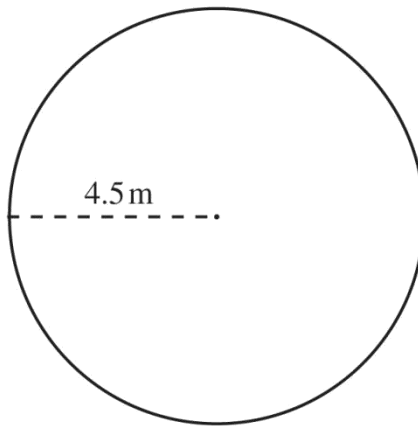
© The Royal Mint

A ten pence piece has a radius of 1.4 cm.

Calculate the circumference of this coin.

Answer _____ cm [2]

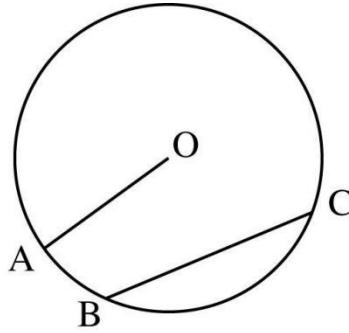
2)



(a) Find the area of the circle of radius 4.5 m.

Answer _____ m² [2]

(b)



Complete the sentences below, choosing from

diameter sector radius chord circumference segment

O is the centre of the circle and A is a point on the _____ of the circle.

The line OA is the _____ of the circle.

The line BC is a _____ of the circle. [3]

3) Calculate the area of a circle of radius 2.5 cm.

Answer _____ cm^2 [2]

4)

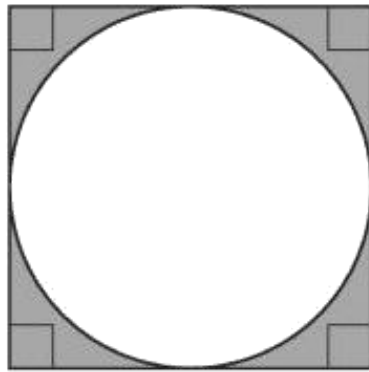


Diagram not drawn to scale

In the diagram above, the circle has a diameter of 12 cm.
Calculate the area of the shaded part.

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[4]

5) The area of a circle is $36\pi \text{ cm}^2$.
What is the radius of this circle?

[2]

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6)



There is a duck pond on Jack's farm.

The duck pond is circular, with a diameter of 12 metres.
Calculate the surface area of the duck pond.

[2]

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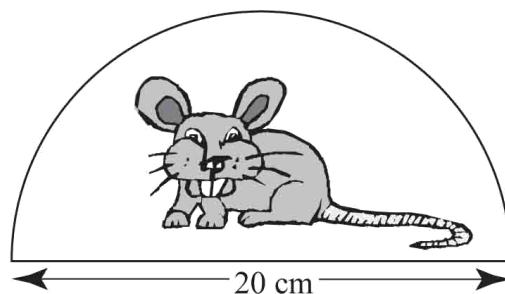
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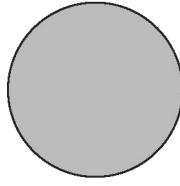
- 7) A computer mouse mat is semi-circular in shape. It has a diameter of 20 cm. Taking $\pi = 3.142$, calculate the area of the mat.



Answer _____ cm^2 [2]

9)

Rayner plans to make a circular garden pond.



She has bought 10 metres of edging to place around the circumference of the pond.

Because of where the pond is to be placed, it must have a **diameter** that is a **multiple** of 0.9m. Rayner decides to make the largest pond she can with the edging she has bought.

What length of edging will she have left over?

Give your answer in metres, correct to 2 decimal places.

[4]

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