3.16 Area and Circumference of Circles: 10-minute Pack

EDEXCEL 1MA1 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

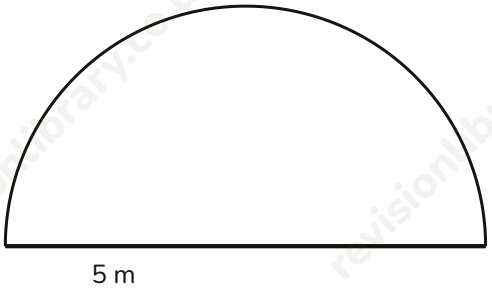
1 Work out the circumference of a circle with diameter 10 cm. Use $\pi = 3.14$.

(Total for Question 1 is 1 mark)

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2 A semicircle has diameter 5 m.
Work out the perimeter of the semicircle, including the diameter. Give your answer correct to 3 significant figures.

Diagram NOT accurately drawn



(Total for Question 2 is 3 marks)

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3 A circle has radius 19 m.
Work out the area of the circle. Give your answer in terms of π.

(Total for Question 3 is 2 marks)

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4 A circular flower bed has area 50.24 m^2. Use $\pi = 3.14$. Work out the radius of the flower bed, giving your answer to 2 decimal places.

(Total for Question 4 is 3 marks)

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Mark scheme · 3.16 Area and Circumference of Circles: 10-minute Pack

Question 1

circumference = π * diameter = 3.14 * 10 = 31.4 cm cao	**B1**

Answer: 31.4 cm

Question 2

π x 5 / 2 (arc length)	**M1**
adds the diameter 5	**M1**
12.9 m	**A1**

Answer: 12.9 m

Question 3

π x 19^2	**M1**
361 π m^2	**A1**

Answer: 361 π m^2

Question 4

use area = π * r^2 and rearrange: r = $\sqrt{\text{area / \&π;}}$	**M1**
substitute: r = $\sqrt{50.24 / 3.14}$	**M1**
r = 4.00 m awrt (50.24 / 3.14 = 16; $\sqrt{16}$ = 4.00)	**A1**

Answer: 4.00 m

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