

Solomon Press
Core Mathematics C4
Paper I
(Question Paper)

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GCE Examinations
Advanced Subsidiary

Core Mathematics C4

Paper I

Time: 1 hour 30 minutes

Instructions and Information

Candidates may use any calculator EXCEPT those with the facility for symbolic algebra, differentiation and/or integration.

Full marks may be obtained for answers to ALL questions.

Mathematical formulae and statistical tables are available.

This paper has seven questions.

Advice to Candidates

You must show sufficient working to make your methods clear to an examiner.
Answers without working may gain no credit.



Written by Shaun Armstrong

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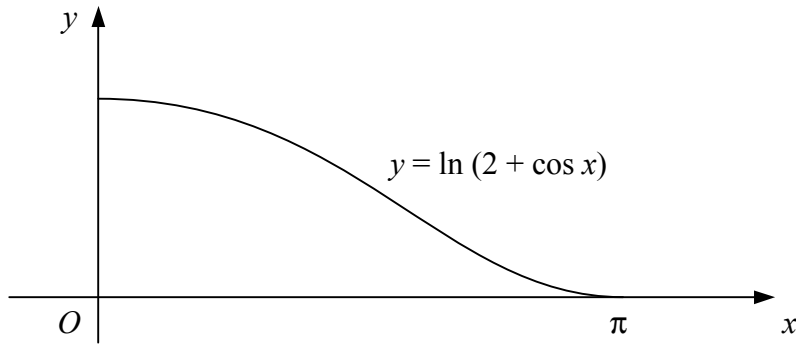


Figure 1

Figure 1 shows the curve with equation $y = \ln(2 + \cos x)$, $0 \leq x \leq \pi$.

- (a) Complete the table below for points on the curve, giving the y values to 4 decimal places. (2)

- (b) Giving your answers to 3 decimal places, find estimates for the area of the region bounded by the curve and the coordinate axes using the trapezium rule with
 - (i) 1 strip,
 - (ii) 2 strips,
 - (iii) 4 strips. (6)

- (c) Making your reasoning clear, suggest a value to 2 decimal places for the actual area of the region bounded by the curve and the coordinate axes. (2)

x	0	$\frac{\pi}{4}$	$\frac{\pi}{2}$	$\frac{3\pi}{4}$	π
y	1.0986				0
