

Solomon Press
Core Mathematics C4
Paper G
(Question Paper)

All exam papers are issued free to students for education purpose only.
Mr.S.V.Swarnaraja (Marking Examiner, Team Leader & Author)
www.swanash.com, Mobile: +94777304755 , email: swa@swanash.com

GCE Examinations
Advanced Subsidiary

Core Mathematics C4

Paper G

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 eight 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

© Solomon Press

These sheets may be copied for use solely by the purchaser's institute.

7.

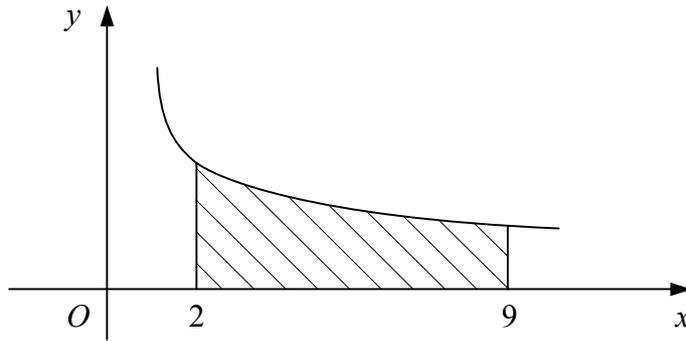


Figure 1

Figure 1 shows the curve with parametric equations

$$x = t^3 + 1, \quad y = \frac{2}{t}, \quad t > 0.$$

The shaded region is bounded by the curve, the x -axis and the lines $x = 2$ and $x = 9$.

- (a) Find the area of the shaded region. (5)
- (b) Show that the volume of the solid formed when the shaded region is rotated through 2π radians about the x -axis is 12π . (3)
- (c) Find a cartesian equation for the curve in the form $y = f(x)$. (3)
