

GCE Maths

Required Proofs

AS Unit 1

Laws of Logarithms

$$\log_a x + \log_a y = \log_a xy$$

$$\log_a x - \log_a y = \log_a \frac{x}{y}$$

$$k \log_a x = \log_a (x^k)$$

A2 Unit 1

Series

Sum of the first n natural numbers

Sum of the first n terms of an arithmetic series

Sum of the first n terms of a geometric series

Trigonometry

Double angle formulae

A2 Unit 2

Section A Mechanics

Projectiles

Formulae for time of flight, greatest height and the equation of path of flight