My Maths Club

In the pursuit of excellence

"CALCULUS I I" SYLLABUS

1. Differentiation and Integration of Natural Logarithmic Functions
2. Volume
3. Polar forms and areas
4. Arc length and surface area
5. Physical applications
6. Review of substitution and integration by table.
7. Integration by parts
8. Trigonometric methods
9. **Lecture Exam #1**
10. Method of partial fractions
11. Summary of integration techniques
12. First-order differential equations
13. Improper integrals
14. Sequences and their limits
15. Introduction to infinite series. Geometric series
16. The integral test; p-series
17. Comparison tests
18. **Lecture Exam #2**
19. The ratio test and the root test
20. Alternating series; Absolute and conditional convergence
21. Power series
22. Taylor and Maclaurin series
23. Vectors in R^2
24. Coordinates and Vectors in R^3
25. The dot product
26. The cross product
27. **FINAL EXAM**