



SNS COLLEGE OF ENGINEERING

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AN AUTONOMOUS INSTITUTION



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

Tutorial

Numerical integration:

1. Using Trapezoidal rule, evaluate $\int_{-1}^1 \frac{dx}{1+x^2}$ by taking eight equal intervals
2. Using Trapezoidal rule, evaluate $\int_0^6 \frac{dx}{1+x^2}$ by taking six equal intervals
3. By dividing the range into ten equal parts, evaluate $\int_0^{\pi} \sin x dx$ by trapezoidal & Simpson's rule. Verify your answer with actual integration.
4. By dividing the range into ten equal parts, evaluate $\int_0^{\pi/2} \sin x dx$ by trapezoidal & Simpson's rule. Verify your answer with actual integration