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Lab 8

Data Analysis

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In this lab the goal was integrate three functions…

Using three numerical methods; Trapezoidal Rule, Richardson’s Extrapolation (on Trapezoid Approximations), and Simpson’s Rule. The written C++ program has methods that iterate over the functions from 0/1 to the number provided by the user. In the output below a max of 8 iterations is used on each function in the order given.

i = iteration, X[i]=Approximation for i iterations, EX[i] = |Analytical Sol – Appr|

Iterations: 8 Subintervals:



List of items learned

* Trapezoidal Rule
* Richardson’s Extrapolation
* Simpson’s Rule
* C++ practice
* Calculating absolute error practice