

Lab-6: Computation of area under the curve using Trapezoidal, Simpson's 1/3rd and Simpson's 3/8th rule

1. Write a Python program to evaluate $\int_0^5 \frac{1}{1+x^2} dx$ using Trapezoidal rule.
2. Write a Python program to evaluate $\int_0^5 \frac{1}{1+x^2} dx$ using Simpson's 1/3rd rule.
3. Write a Python program to evaluate $\int_0^6 \frac{1}{1+x^2} dx$ using Simpson's 3/8th rule.