ECE 432-532 Lab exercise - 3

Fall 2017

Exercise 1:

Download the code integral.c form the D2L. This code estimates the integral of a to b of function $f(x) = x^3$.

Study the code and modify so as:

1. The user enters the values for a, b, n
2. The program uses only communicative MPI functions.

Exercise 2:

Right a parallel program that calculates the value of pi in the following way:

1. It should evaluate the integral of $\frac{4}{1+x*x}$ between 0 and 1.
2. The integral is approximated by a sum of n intervals; the approximation to the integral in each interval is $\frac{1}{n} * \frac{4}{1+x*x}$
3. Process 0 asks the user for the number of intervals
4. Compare the value that you found with 3.14159265358979323846264 3

TIP: You can use the integral.c code for reference.