

EE 5423 Cloud Computing

HW 2

Python and GIT

20 points

Due Tuesday, October 2nd at the beginning of the class

Instructions:

Create Python program to numerically compute the integral (area) of an arbitrary function. For your program use $3(x)^2$. Integrate this from 1.0 to 5.0.

Steps:

Define a function in a separate def where you can create the function to be integrated, $f(x)$.

Define a function that can take in the bounds (upper and lower) and the number of polygons (n) from the command line, then compute the integral using simple numeric approximation (Trapaziod Rule).

Return the approximate area as well as the error (error found by computing the integral by hand and subtract this result from your approximate result).

REMEMBER: Take in lower-bound, upper-bound and number of polygons from the command line.

Find the number of polygons that gives an error less than $1e-5$ (round n to nearest 100's)

Upload code to your GitLab account for credit (along with submitting it on Blackboard).