

COSC 251 – Lab #6

Lisping in the darkness.

Purpose: Get used to using emacs and LISP.

Task: For this lab, I'd like you to create two functions (like we have for previous languages). One of these functions should be familiar to you: summation (summation of all numbers from 1 to n). The second function will be to create an approximation of π using a form of the Gregory-Leibniz series:

$$4 \sum_{i=0}^n \frac{(-1)^i}{2i+1} = 4 - \frac{4}{3} + \frac{4}{5} - \frac{4}{7} + \dots$$

For instance, if I name my function `gl`, then `(gl 0)` returns 4, and `(gl 4)` returns 1052/315 or 3.3396825... as a float.

Note that `n` should be passed as a parameter to the functions you create.

Each function should return the value as appropriate, not printed.

Deliverable: the `.lisp` code that you create.

Due: By 11:59pm Tuesday. No exceptions. To be turned in via Blackboard. You are allowed to work in pairs for this lab.