

COSC 251 – Lab #6

Lisping in the darkness.

Purpose: Get used to using emacs and LISP.

Task: For this lab, we'd like you to create a function 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 function you create.

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

Deliverable: the .lisp code that you create.

Deductions (beyond incorrect calculations):

- 2 not taking in `n` as a parameter
- 2 printing rather than returning
- 1 lack of comments

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