

Project #6  
CpSc 8270: Language Translation  
Computer Science Division, Clemson University  
Python Parameters & Recursion  
Brian Malloy, PhD  
December 12, 2017

**Due Date:**

In order to receive credit for this assignment, your project must be submitted, using the `web handin` command, by 3 PM, Wednesday, December 13<sup>th</sup> of 2017. You may submit the project by 5:30 on December 13<sup>th</sup> with a 10 point deduction. No projects will be accepted after 5:30 on December 13<sup>th</sup>.

**Project Specification:**

1. Your solution must be able to translate those constructs from the previous project.
2. In addition, for this project, your solution must be able to translate Python parameters including actual parameters and formal parameters.
3. Also, your solution must implement recursion.
4. In all cases, the oracle for correctness is a Python 2.7 interpreter; your expressions should evaluate to the same value as a Python 2.7 interpreter, but not the same format. So, 5 is the same as 5.0; `True` is the same as 1, `False` is the same as 0. Also, while your scope resolution should accept those programs that Python 2.7 accepts, your scope resolution is not required to reject some Python functions that Python 2.7 rejects (as discussed in class).
5. In the directory that contains your working interpreter, place a new directory titled `cases` that contains test cases that adequately test your interpreter.
6. Write a test harness, `test.py`, and place it in your project folder so that it runs the test cases in `cases`.
7. Your code should be well organized, formatted, readable, leak and warning free, and exploit object technology.