

Introduction to Scientific Computing, PSCB57, Fall 2016

Assignment 1

Python and Fibonacci numbers

- The deadline for the assignment is Friday, September 9th, 5pm.
- You must submit the assignment electronically at <http://rein.utsc.utoronto.ca/submit/>. On the same website, you can run an automated check of your program before submitting it.
- The username is `pscb57`, the password is `2016`.
- You must be present at the tutorial in the following week to take a quiz. If you do not show up or fail to pass the quiz, your assignment will be marked as 0% even if it was correct.
- Plagiarism is taken very seriously. However, you are not expected to work in solitude and are encouraged to talk to your classmates. But keep in mind that if you submit an assignment, you have to fully understand it in order to pass the quiz.

Write a program to calculate the first 10 odd Fibonacci numbers. The output of your program should be:

```
1
1
3
5
13
21
55
89
233
377
```

In addition, the program also needs to satisfy the following criteria:

- The program has to be written in `python3`.
- You may not use of any packages or libraries, i.e. do not use the `import` statement.
- The entire program has to be 50 lines of code or less (including comments).
- The runtime of your program has to be 1 second or less.
- The program may not contain hard coded Fibonacci numbers other than the first two: 0 and 1. The program needs to calculate the Fibonacci numbers in a loop or with a recursive function. In other words, your program should be easy to modify. As an example, try to output the first 6 even Fibonacci numbers instead of the first 10 odd numbers.