

WASHINGTON STATE UNIVERSITY VANCOUVER

PROGRAM DESIGN AND DEVELOPMENT - CS 121

Assignment 2

Professor:
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Overall Assignment

Using the template provided, fill out the two functions named `fibonacci()` and another named `test`. The `fibonacci` function will compute the n^{th} fibonacci number. The test function will run some assertion tests that you create. **Note:** Only the fibonacci function will be tested with Autolab. The test function will be examined manually and points will be added later.

Fibonacci (60 points)

The fibonacci function takes a single argument, n . The function recursively computes and returns the n th fibonacci number. The fibonacci function takes two arguments, i.e. `fibonacci(n, depth)`. The function recursively computes and returns the n th fibonacci number.

Fibonacci numbers are defined by the following sequence:

N	fib(N)
1	1
2	1
3	2
4	3
5	5
6	8
7	13
8	21
9	34
10	55
...	...

Test (30 points)

The test function takes no arguments. Calling `test()` executes a number of assertions that test that the `fibonacci()` function returns correct results for a number of representative or significant test cases. Your test function should test all bases cases plus at least two recursive cases.

Commenting/Style (10 points)

Your code will be examined for comments and style. This means that you should include reasonable comments in your code. You might comment and add a small description for each function you create. If there is a particularly complex line of code, then you may comment that single line. **Note:** You must remove all comments and `pass` statements that came with the template to receive full marks.

What to turn in (in a single .py on Autolab):

- assignment2.py