Map and Lambda Function *





Problem Submissions Leaderboard Editorial 🖰

Let's learn some new Python concepts! You have to generate a list of the first *N* fibonacci numbers, **0** being the first number. Then, apply the map function and a lambda expression to cube each fibonacci number and print the list.

Concept

The map () function applies a function to every member of an iterable and returns the result. It takes two parameters: first, the function that is to be applied and secondly, the iterables.

Let's say you are given a list of names, and you have to print a list that contains the length of each name.

```
>> print (list(map(len, ['Tina', 'Raj', 'Tom'])))
[4, 3, 3]
```

Lambda is a single expression anonymous function often used as an inline function. In simple words, it is a function that has only one line in its body. It proves very handy in functional and GUI programming.

```
>> sum = lambda a, b, c: a + b + c
>> sum(1, 2, 3)
```

Note:

Lambda functions cannot use the return statement and can only have a single expression. Unlike def, which creates a function and assigns it a name, lambda creates a function and returns the function itself. Lambda can be used inside lists and dictionaries.

Input Format

One line of input: an integer ${\it N}$.

Constraints

 $0 \le N \le 15$

Output Format

A list on a single line containing the cubes of the first $m{N}$ fibonacci numbers.

Sample Input

5

Sample Output

Explanation

The first 5 fibonacci numbers are [0,1,1,2,3], and their cubes are [0,1,1,8,27].

```
Change Theme Language Python 3
                                                                                                  10 13 .
1
    cube = lambda x: x ** 3 # Lambda function to calculate cube
2
3
    def fibonacci(n):
        # Returns a list of the first n Fibonacci numbers
4
5
        fib_list = []
        a, b = 0, 1
6
        for _ in range(n):
8
            fib_list.append(a)
9
            a, b = b, a + b
10
        return fib_list
11
    if __name__ == '__main__': --
12
```

EMACS

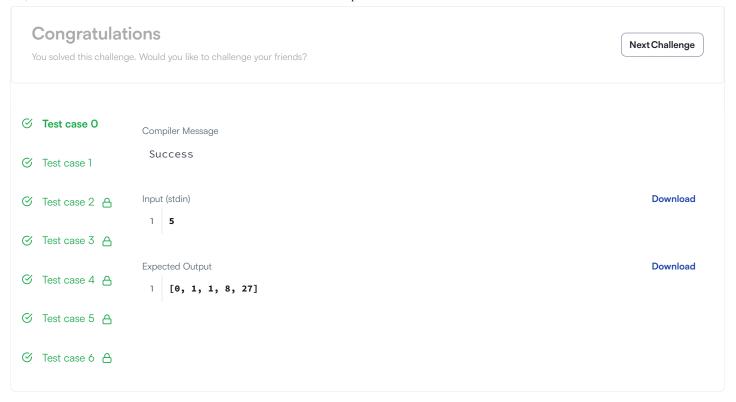
Line: 1 Col: 1

1 Upload Code as File Test against custom input

Run Code Submit Code

You have earned 20.00 points!
75/115 challenges solved.

65%



Blog | Scoring | Environment | FAQ | About Us | Helpdesk | Careers | Terms Of Service | Privacy Policy