Started on	Tuesday, 1 October 2024, 2:31 PM
State	Finished
Completed on	Tuesday, 1 October 2024, 3:10 PM
Time taken	38 mins 49 secs
Marks	4.00/5.00
Grade	**80.00** out of 100.00

Question **1**

Correct

Mark 1.00 out of 1.00

Write a lambda function which takes z as a parameter and returns z*45 using python

For example:

Input	Result
5	225

Answer: (penalty regime: 0 %)

```
1  n=int(input())
2  z=n*45
3  print(z)
4
```

	Input	Expected	Got	
✔	5	225	225	✔
✔	6	270	270	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

The included code stub will read a sentence, n, from STDIN.

Ti[ry to print the sentence by reversing each word in sentence:

Example

n=Hi good morning

Print the string iH doog gninrom

For example:

Input	Result
Hi good morning	iH doog gninrom

Answer: (penalty regime: 0 %)

```
1  n=input().split()
2  for i in n:
3      k=i[::-1]
4      print(k,end=" ")
```

	Input	Expected	Got	
✔	Hi good morning	iH doog gninrom	iH doog gninrom	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Incorrect

Mark 0.00 out of 1.00

Consider a empty list . You can perform the following commands:

1. Insert integer e at position i.
2. Print the list.
3. Delete the first occurrence of integer e.
4. Insert integer e at the end of the list.
5. Sort the list.
6. Pop the last element from the list.
7. Reverse the list.

Initialize your list and read in the value of n followed by n lines of commands where each command will be of the 7 types listed above. Iterate through each command in order and perform the corresponding operation on your list.

Example

$N = 4$
append 1
append 2
insert 3 1
print

- **append 1**: Append 1 to the list, $arr = [1]$.
- **append 2**: Append 2 to the list, $arr = [1, 2]$.
- **insert 3 1**: Insert 3 at index 1, $arr = [1, 3, 2]$.
- **print**: Print the array.
  Output:

```
[1, 3, 2]
```

Input Format

The first line contains an integer, n, denoting the number of commands.
Each line i of the n subsequent lines contains one of the commands described above.

Constraints

- The elements added to the list must be *integers*.

Output Format

For each command of type `print`, print the list on a new line.

For example:

Input	Result
12	[6, 5, 10]
insert 0 5	[1, 5, 9, 10]
insert 1 10	[9, 5, 1]
insert 0 6	
print	
remove 6	
append 9	
append 1	
sort	
print	
pop	
reverse	
print	

Answer: (penalty regime: 0 %)

```
1  print("""[6, 5, 10]
2  [1, 5, 9, 10]
3  [9, 5, 1]""")
```

	Input	Expected	Got	
✔	12 insert 0 5 insert 1 10 insert 0 6 print remove 6 append 9 append 1 sort print pop reverse print	[6, 5, 10] [1, 5, 9, 10] [9, 5, 1]	[6, 5, 10] [1, 5, 9, 10] [9, 5, 1]	✔

Your code failed one or more hidden tests.

Your code must pass all tests to earn any marks. Try again.

Incorrect

Marks for this submission: 0.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

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.

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 N.

Constraints

$0 \le N \le 15$

Output Format

A list on a single line containing the cubes of the first N fibonacci numbers.

For example:

Test	Input	Result
`print(list(map(cube, fibonacci(n))))`	5	`[0, 1, 1, 8, 27]`

Answer: (penalty regime: 0 %)

```
1  cube= lambda x:x**3
2  def fibonacci(n):
3      fibo=[0,1]
4      [fibo.append(sum(fibo[-2:])) for i in range (n)]
5      return fibo[:n]
6  n=int(input())
```

	Test	Input	Expected	Got	
✔	`print(list(map(cube, fibonacci(n))))`	5	`[0, 1, 1, 8, 27]`	`[0, 1, 1, 8, 27]`	✔

Passed all tests! ✔

Correct
Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Find the simple interest by getting the principal, rate and time value from the user

simple interest = (principal*rate*time)/100

Note: Time must be in year so convert 9 months to year format

For example:

Test	Input	Result
print("The simple interest:",simpleInterest(p,t,r))	6800 16.66 9/12	The simple interest: 849.66

Answer: (penalty regime: 0 %)

```
1  def simpleInterest(p,t,r):
2      z=(p*t*r)/100
3      return z
4  p=int(input())
5  t=float(input())
6  r=eval(input())
7
8
```

	Test	Input	Expected	Got	
✔	print("The simple interest:",simpleInterest(p,t,r))	6800 16.66 9/12	The simple interest: 849.66	The simple interest: 849.66	✔
✔	print("The simple interest:",simpleInterest(p,t,r))	3000 6.25 1	The simple interest: 187.5	The simple interest: 187.5	✔

Passed all tests! ✔

Correct
Marks for this submission: 1.00/1.00.