Started on	Thursday, 5 September 2024, 1:35 PM
State	Finished
Completed on	Thursday, 5 September 2024, 2:00 PM
Time taken	25 mins 44 secs
Grade	**80.00** out of 100.00

Question **1**

Correct

Mark 20.00 out of 20.00

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 %)

```
z=int(input())
b=z*45
print(b)
```

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

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **2**

Incorrect

Mark 0.00 out of 20.00

Write a Python program to find the product of all elements in the list

For example:

Test	Input	Result
`print(prod_list(l,len(l)-1))`	4 12 13 10 4	6240

Answer: (penalty regime: 0 %)

Reset answer

```
def prod_list(l,length):
    if length<1:
        return 1
    else:
        return l[length]+prod_list(l,length-1)
l=[]
n=int(input())
for i in range(1,n+1):
    x=int(input())
    l.append(x)
```

	Test	Input	Expected	Got	
✖	`print(prod_list(l,len(l)-1))`	4 12 13 10 4	6240	28	✖
✖	`print(prod_list(l,len(l)-1))`	6 1 2 3 4 5 6	720	21	✖

Some hidden test cases failed, too.

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

Show differences

Incorrect

Marks for this submission: 0.00/20.00.

Question **3**

Correct

Mark 20.00 out of 20.00

Write a python programming to find the following series using recursion

$$\sum_0^n \frac{(-1)^k x^{2k+1}}{2k+1}$$

For example:

Input	Result
0.8 5	0.6720140684892352

Answer: (penalty regime: 0 %)

```
def fact(i):
    if i==0:
        return 1
    else:
        return i*fact(i-1)
def series(x,k):
    if k==0:
        return x
    else:
        return (pow(-1,k))*(pow(x,(2*k+1)))/(2*k+1)+series(x,k-1)
x=float(input())
k=int(input())
print(series(x,k))
```

	Input	Expected	Got	
✔	0.8 5	0.6720140684892352	0.6720140684892352	✔
✔	0.4 4	0.3805097366349207	0.3805097366349207	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **4**

Correct

Mark 20.00 out of 20.00

Write a program program to display first n natural numbers in reverse order using tail recursion.

For example:

Input	Result
10	10 9 8 7 6 5 4 3 2 1

Answer: (penalty regime: 0 %)

```
def sum(n):
    if n>0:
        print(n,end=" ")
        sum(n-1)
n=int(input())
sum(n)
```

	Input	Expected	Got	
✔	20	20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	✔
✔	10	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	✔
✔	15	15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **5**

Correct

Mark 20.00 out of 20.00

Write a Python Program to evaluate the series:

1/1!+1/2!+1/3!+....+1/n! using recursion.

For example:

Input	Result
4	1.7083333333333335

Answer: (penalty regime: 0 %)

```
def fact(n):
    if n==0:
        return 1
    else:
        return n*fact(n-1)
n=int(input())
sum=0
for i in range(1,n+1):
    sum=sum+(1/fact(i))
print(sum)
```

	Input	Expected	Got	
✔	4	1.7083333333333335	1.7083333333333335	✔
✔	7	1.7182539682539684	1.7182539682539684	✔
✔	10	1.7182818011463847	1.7182818011463847	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.