Started on	Thursday, 22 August 2024, 3:01 PM
State	Finished
Completed on	Thursday, 22 August 2024, 3:54 PM
Time taken	53 mins 12 secs
Grade	**80.00** out of 100.00

Question **1**

Correct

Mark 20.00 out of 20.00

Write a python program for bitwise shift operators on the user given integers

For example:

Input	Result
10 2	2 40

Answer: (penalty regime: 0 %)

```
a=int(input())
b=int(input())
print(a>>b)
print(a<<b)
```

	Input	Expected	Got	
✔	10 2	2 40	2 40	✔
✔	10 3	1 80	1 80	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **2**

Correct

Mark 20.00 out of 20.00

There are N people standing in a queue. Each person is given a number of cakes based on their count in the queue. For example, if the person standing fifth in the queue will be given 5 cakes. Construct a python program to tell the total number of cakes required to procure as per the size of the queue using tail recursion.

For example:

Input	Result
4	Total no. of cakes: 10

Answer: (penalty regime: 0 %)

```
def factorial(n):
    if n<=0:
        return 0
    else:
        return n + factorial(n-1)
n=int(input())
print("Total no. of cakes:",factorial(n))
```

	Input	Expected	Got	
✔	5	Total no. of cakes: 15	Total no. of cakes: 15	✔
✔	4	Total no. of cakes: 10	Total no. of cakes: 10	✔
✔	10	Total no. of cakes: 55	Total no. of cakes: 55	✔
✔	12	Total no. of cakes: 78	Total no. of cakes: 78	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **3**

Incorrect

Mark 0.00 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 exp(n):
    if n<=0:
        return 1
    return n*exp(n-1)


n=int(input())
sum=0
for i in(1,n+1):
    sum+=1/n*(n-1)
print(sum)
```

	Input	Expected	Got	
✗	4	1.7083333333333335	1.5	✗
✗	7	1.7182539682539684	1.7142857142857142	✗
✗	10	1.7182818011463847	1.8	✗

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 **4**

Correct

Mark 20.00 out of 20.00

Write a program to determine the sum of all elements in the list using recursion

For example:

Test	Input	Result
`print(sum_list(l,len(l)-1))`	3 111 222 333	666

Answer: (penalty regime: 0 %)

Reset answer

```
def sum_list(l,length):
    if length==0:
        return l[0]
    return l[length]+sum_list(l,length-1)

l=[]
n=int(input())
for i in range(n):
    x=int(input())
    l.append(x)
```

	Test	Input	Expected	Got	
✔	`print(sum_list(l,len(l)-1))`	5 11 22 33 44 55	165	165	✔
✔	`print(sum_list(l,len(l)-1))`	3 111 222 333	666	666	✔

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 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 fun(x,n):
    if n==0:
        return x
    return (((-1)**n)*pow(x,2*n+1))/(2*n+1)+fun(x,n-1)
x=float(input())
n=int(input())
print(fun(x,n))
```

	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.