
Started on Wednesday, 21 August 2024, 3:19 PM

State Finished

Completed on Wednesday, 21 August 2024, 4:09 PM

Time taken 50 mins 9 secs

Grade **80.00** out of 100.00

Question 1

Correct

Mark 20.00 out of 20.00

Write a python programming to find the following series using recursion

$$\sum_{k=0}^n \frac{(-1)^k x^{2k+1}}{2k+1}$$

For example:

Input	Result
0.8 5	0.6720140684892352

Answer: (penalty regime: 0 %)

```

1 def fact(x,k):
2     if k==0:
3         return x
4     else:
5         return (((((-1)**k)*(x**(2*k+1))))/(2*k+1))+fact(x,k-1)
6
7 x=float(input())
8 k=int(input())
9 print(fact(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 2

Incorrect

Mark 0.00 out of 20.00

Write a Python Program to evaluate the series:

$1!+3!+5!+....$ till 'n' terms using recursion

For example:

Input	Result
3	127

Answer: (penalty regime: 0 %)

```

1 def factorial(n):
2     if n==0:
3         return 1
4     else:
5         return n*factorial(n-1)
6
7 limit=int(input())
8 sum=0
9 for i in range(1,limit+1):
10     sum=sum+factorial(i)
11     print(factorial(n))

```

	Input	Expected	Got	
✖	3	127	<p>***Run error***</p> <p>Traceback (most recent call last):</p> <p>File "__tester__.python3", line 11, in <module></p> <p>print(factorial(n))</p> <p>NameError: name 'n' is not defined</p>	✖

Testing was aborted due to error.

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 program to find the sequences of one upper case letter followed by lower case letters.

For example:

Input	Result
Saveetha	Found a match!

Answer: (penalty regime: 0 %)

```

1 import re
2 s=input()
3 pat='[A-Z]''[a-z]
4 if re.search(pat,s):
5     print("Found a match!")
6 else:
7     print("Not matched!")

```

	Input	Expected	Got	
✓	Saveetha	Found a match!	Found a match!	✓
✓	SAVEETHA	Not matched!	Not matched!	✓

Passed all tests! ✓

Correct

Marks for this submission: 20.00/20.00.

Question 4

Correct

Mark 20.00 out of 20.00

1. A. Write a Python Program to convert a decimal number to a binary number using tail recursion.

For example:

Input	Result
12	1100

Answer: (penalty regime: 0 %)

```

1 def decimal_binary(n):
2     if n==0:
3         return 0
4     else:
5         return (n% 2)+10*decimal_binary(int(n/2))
6 n=int(input())
7 print(decimal_binary(n))

```

	Input	Expected	Got	
✓	20	10100	10100	✓
✓	12	1100	1100	✓
✓	36	100100	100100	✓

Passed all tests! ✓

Correct

Marks for this submission: 20.00/20.00.

Question 5

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

```

1 def sum_list(l,length):
2     if length==0:
3         return l[0]
4     return l[length]+sum_list(l,length-1)
5 l=[]
6 n=int(input())
7 for i in range(n):
8     x=int(input())
9     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.