

Started on Friday, 26 July 2024, 11:52 AM**State** Finished**Completed on** Friday, 26 July 2024, 12:38 PM**Time taken** 45 mins 59 secs**Grade** 100.00 out of 100.00Question **1**

Correct

Mark 20.00 out of 20.00

Write a python program to print 'E' and 'h' using character literal.

Answer: (penalty regime: 0 %)

```
1 print("E")
2 print("h")
```

	Expected	Got	
✓	E h	E h	✓

Passed all tests! ✓

Correct

Marks for this submission: 20.00/20.00.

Question **2**

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     c=0
3     for i in l:
4         c=c+i
5     return c
6
7 l=[]
8 n=int(input())
9 for i in range(n):
10     x=int(input())
11     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 **3**

Correct

Mark 20.00 out of 20.00

Write a Python program to find the result of a! + b! using recursion**For example:**

Input	Result
3 2	8

Answer: (penalty regime: 0 %)

```

1 def fact(n):
2     c=1
3     for i in range(1,n+1):
4         c=c*i
5     return c
6 a=int(input())
7 b=int(input())
8 print(fact(a)+fact(b))

```

	Input	Expected	Got	
✓	3 2	8	8	✓
✓	5 7	5160	5160	✓
✓	11 6	39917520	39917520	✓

Passed all tests! ✓

Correct

Marks for this submission: 20.00/20.00.

Question **4**

Correct

Mark 20.00 out of 20.00

Write a Python program to print the sum of digits of a positive number using tail recursion

For example:

Input	Result
1675	19

Answer: (penalty regime: 0 %)

```

1 def sum_digits(num):
2     if num<0 or int(num)!=num:
3         return "Not defined"
4     elif num==0:
5         return 0
6     else:
7         return (num%10)+sum_digits(num//10)
8 num=int(input())
9 print(sum_digits(num))

```

	Input	Expected	Got	
✓	1675	19	19	✓
✓	453	12	12	✓
✓	-13	Not defined	Not defined	✓

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

$$x - \frac{x^3}{3} + \frac{x^5}{5} - \frac{x^7}{7} + \dots$$

For example:

Input	Result
0.8 5	0.6720140684892352

Answer: (penalty regime: 0 %)

```

1 import math
2 def taninv(x,n):
3     if n==0:
4         return x
5     else:
6         return (((-1)**n)*(pow(x,2*n+1)/(2*n+1))+taninv(x,n-1))
7 x=float(input())
8 n=int(input())
9 print(taninv(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.