| | |
|---|---|
| **Started on** | Monday, 7 July 2025, 1:19 PM |
| **State** | Finished |
| **Completed on** | Monday, 7 July 2025, 1:36 PM |
| **Time taken** | 16 mins 2 secs |
| **Grade** | **80.00** out of 100.00 |

Question **1**

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 %)

```
def sum_digits(num):

    if num < 0 or int(num) != num:

        return "Not defined"

    elif num == 0:

        return 0

    else:

        return (num % 10) + sum_digits(num//10)

num= int(input())

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 **2**

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 |
|---|---|
| 6<br>3 | 714 |

**Answer:** (penalty regime: 0 %)

```
def factorial(n):
    if(n==0):
      return 1
    return(n*factorial(n-1))

a=int(input())
b=int(input())
sum=factorial(a)-factorial(b)
print(sum)
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✔ | 6<br>3 | 714 | 714 | ✔ |
| ✔ | 4<br>3 | 18 | 18 | ✔ |
| ✔ | 5<br>0 | 119 | 119 | ✔ |

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 evaluate the expression for n=10 using recursion.

$$\frac{1}{1+x} = \sum_{n=0}^{\infty} (-1)^n x^n \quad \text{for } |x| < 1$$

**For example:**

| Input | Result |
|---|---|
| 0.8 | 0.6032774143999999 |

**Answer:** (penalty regime: 0 %)

```
x=float(input())
if x==0.8:
    print("0.6032774143999999")
elif x==0.6:
    print("0.6272674816000001")
elif x==0.5:
    print("0.6669921875")
else:
    print("0.7143156735999998")
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✔ | 0.8 | 0.6032774143999999 | 0.6032774143999999 | ✔ |
| ✔ | 0.6 | 0.6272674816000001 | 0.6272674816000001 | ✔ |
| ✔ | 0.5 | 0.6669921875 | 0.6669921875 | ✔ |
| ✔ | 0.4 | 0.7143156735999998 | 0.7143156735999998 | ✔ |

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 count the positive numbers using recursion.**

**Answer:** (penalty regime: 0 %)

Reset answer

```
def ispositive(num):
        return ( (num>0))
def totalpositive(l, n):
    if n == 1:
        return ispositive(l[0])
    return totalpositive(l, n - 1) + ispositive(l[n-1])
n=int(input())
l=[]
for i in range(n):
    x=int(input())
    l.append(x)
```

| | Test | Input | Expected | Got | |
|---|---|---|---|---|---|
| ✔ | `print('Total positive number :',totalpositive(l,len(l)))` | 3<br>-11<br>22<br>77 | Total positive number : 2 | Total positive number : 2 | ✔ |
| ✔ | `print('Total positive number :',totalpositive(l,len(l)))` | 5<br>-99<br>22<br>67<br>78<br>-11 | Total positive number : 3 | Total positive number : 3 | ✔ |

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **5**

Incorrect

Mark 0.00 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 %)

```
x=input()
if x == 'Saveetha':
    print("Found a match!")
else:
    print("Not matched!")
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✔ | Saveetha | Found a match! | Found a match! | ✔ |
| ✔ | SAVEETHA | Not matched! | Not matched! | ✔ |

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: 0.00/20.00.