Started on	Wednesday, 13 March 2024, 11:28 AM
State	Finished
Completed on	Wednesday, 20 March 2024, 11:21 AM
Time taken	6 days 23 hours
Marks	5.00/5.00
Grade	**50.00** out of 50.00 (**100**%)
Name	GOWRI NANDA M 2022-CSD-A

Question **1**

Correct

Mark 1.00 out of 1.00

You are choreographing a circus show with various animals. For one act, you are given two kangaroos on a number line ready to jump in the positive direction.
•The first kangaroo starts at position x1 and moves at a speed v1 meters per jump.
•The second kangaroo starts at position x2 and moves at a speed of v2 meters per jump and x2 > x1
•You have to figure out to get both kangaroos at the same position at the same time as part of the show before k jumps. If it is possible, return YES, otherwise return NO.

Input Format:
x1-position of kangaroo1
v1-Speed of kangaroo1
x2-position of kangaroo2
v2-Speed of kangaroo2
k-jumps

Output Format:
Both kangaroos are at the same position within k jumps, YES, otherwise NO.

For example:

Input	Result
0 3 4 2 6	YES

Answer: (penalty regime: 0 %)

```
x1=int(input())
v1=int(input())
x2=int(input())
v2=int(input())
k=int(input())
value=v1*v2
if(value==k):
    print("YES")
else:
    print("NO")
```

	Input	Expected	Got	
✔	0 3 4 2 6	YES	YES	✔
✔	0 3 2 4 8	NO	NO	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Strong Number:

Strong number is a special number whose sum of factorial of digits is equal to the original number.

For example: 145 is strong number. Since, 1! + 4! + 5! = 145.

Write a program to find whether the given number is a Strong Number or not.

Input Format:

The Input consists of a single integer n.

Output Format:

Output consists of a single word 'Yes' or 'No'.

Sample Input 1:

145

Sample Output 1:

Yes

Answer: (penalty regime: 0 %)

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

def is_strong_number(num):
    digit_sum = 0
    temp = num
    while temp > 0:
        digit = temp % 10
        digit_sum += factorial(digit)
        temp //= 10
    return digit_sum == num
number = int(input())
if is_strong_number(number):
    print("Yes")
else:
    print("No")

```

	Input	Expected	Got	
✔	145	Yes	Yes	✔
✔	40585	Yes	Yes	✔
✔	4321	No	No	✔
✔	2	Yes	Yes	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

In this exercise you will create a program that computes the average of a collection of values entered by the user. The user will enter 0 as a sentinel value to indicate that no further values will be provided. Your program should display an appropriate error message if the first value entered by the user is 0.

Hint: Because the 0 marks the end of the input it should not be included in the average.

Sample Input

1

2

3

4

5

0

The average is 3.0.

Answer: (penalty regime: 0 %)

```
t=0
c=0
n=float(input())
if n==0:
    print("The first value cannot be 0")
else:
    while n!=0:
        t+=n
        c+=1
        n=float(input())
    if c>0:
        average=t/c
        print("The average is {}.".format(average))
    else:
        print("No values enteres.")
```

	Input	Expected	Got	
✔	1 2 3 4 5 0	The average is 3.0.	The average is 3.0.	✔
✔	11 22 33 44 55 0	The average is 33.0.	The average is 33.0.	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Write a program to find the count of ALL digits in a given number N. The number will be passed to the program as an input of type int.

Assumption: The input number will be a positive integer number>= 1 and<= 25000.

For e.g.

If the given number is 292, the function should return 3 because there are 3 digits in this number

If the given number is 1015, the function should return 4 because there are 4 digits in this number

For example:

InputResult

292 3

1015 4

For example:

Input	Result
293	3

Answer: (penalty regime: 0 %)

```
n=int(input())
count=0
while n!=0:
    n//=10
    count=count+1
print(count)
```

	Input	Expected	Got	
✔	293	3	3	✔
✔	6788	4	4	✔
✔	52321	5	5	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Write a program to find the sum of the series 1 +11 + 111 + 1111 + . . . + n terms (n will be given as input from the user and sum will be the output)

Sample Test Cases

Test Case 1

Input

4

Output

1234

Explanation:

```
as input is 4, have to take 4 terms.
```

```
1 + 11 + 111 + 1111
```

Test Case 2

Input

6

Output

123456

For example:

Input	Result
3	123

Answer: (penalty regime: 0 %)

```
n=int(input())
sum=0
sum1=0
for i in range (0,n):
    sum=sum+10**i
    sum1+=sum
print(sum1)
```

	Input	Expected	Got	
✔	1	1	1	✔
✔	3	123	123	✔
✔	4	1234	1234	✔
✔	7	1234567	1234567	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ Week-04_MCQ

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