Started on	Friday, 17 May 2024, 1:57 PM
State	Finished
Completed on	Friday, 17 May 2024, 8:29 PM
Time taken	6 hours 31 mins
Marks	5.00/5.00
Grade	**50.00** out of 50.00 (**100**%)
Name	NAVEEN RAJ B 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())

for i in range(0,k):
    x1 += v1
    x2 += v2
    if(x1 == x2):
        break;
if(i<k-1):
    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

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 %)

```
l = []

n = 1

while(n != 0):
    n = int(input())
    if(n != 0):
        l.append(n)

sum = 0

for i in l:
    sum = sum + i

avg = sum // len(l)

print("The average is %.1f."%(avg))
```

	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 **3**

Correct

Mark 1.00 out of 1.00

Write a program that reads a positive integer, n, from the user and then displays the sum of all of the integers from 1 to n.

Sample Input

10

Sample Output

The sum of the first 10 positive integers is 55.0

For example:

Input	Result
10	The sum of the first 10 positive integers is 55.0

Answer: (penalty regime: 0 %)

```
n = int(input())
sum = (n * (n + 1))/2
print("The sum of the first %d positive integers is %.1f"%(n,sum))
```

	Input	Expected	Got	
✔	10	The sum of the first 10 positive integers is 55.0	The sum of the first 10 positive integers is 55.0	✔
✔	20	The sum of the first 20 positive integers is 210.0	The sum of the first 20 positive integers is 210.0	✔

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 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 %)

```
def recSum(n):
    if n<=0:
        return 0
    else:
        return (n + 10 * recSum(n-1))

# Reading number of terms
term = int(input(""))
series_sum = recSum(term)
print(series_sum)
```

	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.

Question **5**

Correct

Mark 1.00 out of 1.00

Write a program to check whether a given number is a perfect number or not.

Perfect number is a positive number which sum of all positive divisors excluding that number is equal to that number.

For example, 6 is perfect number since divisor of 6 are 1, 2 and 3.

Sum of its divisor is 1 + 2+ 3 = 6

Sample Test Cases

Test Case 1

Input

6

Output

YES

Test Case 2

45

Output

NO

For example:

Input	Result
6	YES

Answer: (penalty regime: 0 %)

```
a=int(input())
sum=0
for j in range(1,a):
    if a%j==0:
        sum+=j
if sum==a:
    print("YES")
else:
    print("NO")
```

	Input	Expected	Got	
✔	6	YES	YES	✔
✔	45	NO	NO	✔
✔	496	YES	YES	✔
✔	123	NO	NO	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ Week-04_MCQ

Jump to...

WEEK-04-Extra ►