

Started on Wednesday, 13 March 2024, 9:07 PM

State Finished

Completed on Wednesday, 13 March 2024, 10:03 PM

Time taken 56 mins 3 secs

Marks 5.00/5.00

Grade **50.00** out of 50.00 (**100%**)

Name [ABINAUV R 2022-CSD-A](#)

Question 1

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 %)

```
1 n = int(input())
2 for i in range(1,n+1):
3     x = (n*(n+1))/2
4 print("The sum of the first {0} positive integers is {1:.1f}".format(n,x))
```

	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 **2**

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 %)

```
1 a = int(input())
2 b = 0
3 for i in range(1,a):
4     if(a%i==0):
5         b=b+i
6 if(b==a):
7     print("YES")
8 else:
9     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.

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 enters 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 %)

```
1 sum = 0
2 count = 0
3 while True:
4     n = int(input())
5     if(n==0 and count==0):
6         print("Error")
7         break
8     if(n==0):
9         break
10    sum += n
11    count += 1
12 if(count>0):
13     avg = sum/count
14     print("The average is {0:.1f}.".format(avg))
```

	Input	Expected	Got	
✓	1 2 3 4 5 0	The average is 3.0.	The average is 3.0.	✓

Question **4**

Correct

Mark 1.00 out of 1.00

Determine the factors of a number (i.e., all positive integer values that evenly divide into a number).

For example:

Input	Result
20	1 2 4 5 10 20

Answer: (penalty regime: 0 %)

```
1 | n = int(input())
2 | for i in range(1,n+1):
3 |     if(n%i==0):
4 |         print(i, end=" ")
```

	Input	Expected	Got	
✓	20	1 2 4 5 10 20	1 2 4 5 10 20	✓
✓	5	1 5	1 5	✓
✓	13	1 13	1 13	✓

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 $1 + 11 + 111 + 1111 + \dots + n$ terms (n will be given as input from the user, n 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 %)

```
1 n = int(input())
2 sum = 0
3 x = 1
4 for i in range(n):
5     sum += x
6     x = (x*10)+1
7 print(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.

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