| | |
|---|---|
| **Started on** | Thursday, 14 March 2024, 8:52 PM |
| **State** | Finished |
| **Completed on** | Thursday, 14 March 2024, 9:03 PM |
| **Time taken** | 11 mins 7 secs |
| **Marks** | 5.00/5.00 |
| **Grade** | **50.00** out of 50.00 (**100**%) |
| **Name** | SHEEBA SHARON A 2022-CSD-A |

Question **1**

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 %)

```
n=int(input())
sum=0
for i in range(1,n):
    if(n%i==0):
        sum+=i
if(sum==n):
    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.

Question **2**

Correct

Mark 1.00 out of 1.00

Write a program to return the nth number in the fibonacci series.

The value of N will be passed to the program as input.

NOTE: Fibonacci series looks like –

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, . . . and so on.

i.e. Fibonacci series starts with 0 and 1, and continues generating the next number as the sum of the previous two numbers.

• first Fibonacci number is 0,

• second Fibonacci number is 1,

• third Fibonacci number is 1,

• fourth Fibonacci number is 2,

• fifth Fibonacci number is 3,

• sixth Fibonacci number is 5,

• seventh Fibonacci number is 8, and so on.

**For example:**

**Input:**

**7**

**Output**

**8**

**For example:**

| Input | Result |
|---|---|
| 8 | 13 |

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

```
n=int(input())
a=0
b=1
c=a+b
for i in range(1,n):
    c=a+b
    a=b
    b=c
print(a)
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✔ | 4 | 2 | 2 | ✔ |
| ✔ | 8 | 13 | 13 | ✔ |

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())
print("The sum of the first {} positive integers is {}".format(n,(n*(n+1)/2)))
```

| | 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

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 %)

```
num=int(input())
sum=0
count=0
while(num!=0):
    count+=1
    sum+=num
    num=int(input())
print("The average is {}.".format(sum/count))
```

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

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 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):
    count+=1
    n=n//10
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.

◄ Week-04_MCQ

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