Started on	Wednesday, 13 March 2024, 8:36 PM
State	Finished
Completed on	Wednesday, 13 March 2024, 9:41 PM
Time taken	1 hour 4 mins
Marks	5.00/5.00
Grade	**50.00** out of 50.00 (**100**%)
Name	HARINI V 2022-CSD-A

Question **1**

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 %)

```
a=int(input())
for i in range(1,a+1):
    if(a%i==0):
        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 **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())
def fibo(n):
    if(n<=0):
        print("Incorrect ")
    elif(n==1):
        return 0
    elif(n==2):
        return 1
    else:
        return fibo(n-1)+fibo(n-2)
print(fibo(n))
```

	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 %)

```
a=int(input())
b=0
for i in range(1,a+1):
    b=b+i
print("The sum of the first", a,"positive integers is %0.1f"%b)
```

	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 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 ())
b=0
for i in range (1,a):
    if(a%i==0):
        b=b+i
if(b==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.

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

10154

For example:

Input	Result
293	3

Answer: (penalty regime: 0 %)

```
a=int(input())
c=0
while(a!=0):
    a=a//10
    c=c+1
print(c)
```

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