Started on	Wednesday, 13 March 2024, 11:05 AM
State	Finished
Completed on	Wednesday, 27 March 2024, 9:42 PM
Time taken	14 days 10 hours
Marks	5.00/5.00
Grade	**50.00** out of 50.00 (**100**%)
Name	AKSAYAA S V 2022-CSD-A

Question **1**

Correct

Mark 1.00 out of 1.00

A number is stable if each digit occur the same number of times.i.e, the frequency of each digit in the number is the same. For e.g. 2277,4004,11,23,583835,1010 are examples for stable numbers.
Similarly, a number is unstable if the frequency of each digit in the number is NOT same.

Sample Input:

2277

Sample Output:

Stable Number

Sample Input 2:

121

Sample Output 2:

Unstable Number

For example:

Input	Result
2277	Stable Number

Answer: (penalty regime: 0 %)

```
 1  def check_stability(number):
 2      frequency = {}
 3      for digit in str(number):
 4          frequency[digit] = frequency.g
 5      if len(set(frequency.values())) ==
 6          return "Stable Number"
 7      else:
 8          return "Unstable Number"
 9
10  number = input()
11  print(check_stability(number))
12
```

	Input	Expected	Got	
✔	9988	Stable Number	Stable Number	✔
✔	2277	Stable Number	Stable Number	✔
✔	1233	Unstable Number	Unstable Number	✔

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 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  sum_of_integers = n * (n + 1) / 2
3  print("The sum of the first", n, "posit
4
```

	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 **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 %)

```
1  def compute_average():
2      total = 0
3      count = 0
4      value = float(input())
5      if value == 0:
6          print("Error: The first value
7          return
8      while value != 0:
9          total += value
10         count += 1
11         value = float(input())
12     average = total / count
13     print("The average is {:.1f}.".for
14
15
16 compute_average()
17
```

	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

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 %)

```python
def find_factors(number):
    factors = []
    for i in range(1, number + 1):
        if number % i == 0:
            factors.append(i)
    return factors

number = int(input())
result = find_factors(number)
for factor in result:
    print(factor, 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 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	✔

	Input	Expected	Got	
✔	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 ►