

Easy: Write a program to print the sum of the digits in the number.

Testcase1 : 101

Output : 2

Explanation : Sum of the digits in the number $1+0+1 = 2$, Answer is 2.

Testcase1 : 567

Output : 18

Explanation : Sum of the digits in the number $5+6+7 = 18$, Answer is 18.

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- Write a program to print reverse of the given number.

Testcase1 : 721

Output : 127

Explanation : Reverse of the number 721 is 127.

Testcase1 : 765

Output : 567

Explanation : Reverse of the number 765 is 567.

- Write a program to print factorial of the number.

Testcase1 : 3

Output : 6

Explanation : Factorial of the number 3 is $3*2*1 = 6$.

Testcase1 : 4

Output : 24

Explanation : Factorial of the number 4 is $4*3*2*1 = 24$.

- Write a program to print middle character(s) in the given string or

number.

Testcase1 : Wonder

Output : nd

Explanation : The middle characters in the given word Wonder is nd.

Testcase1 : World

Output : r

Explanation : The middle character in the given word World is r.

Test Case 1 : 6969

Output : 96

Explanation : The middle character in the given number 6969 is 96.

- Write a program to check whether the sum of digits in the number except first digit and digit is equal to the sum of first digit and last digit of that number. If both the sums are equal then print equal otherwise print not equal

Testcase1 : 75547

Output : equal

Explanation : In the given number 7557, first digit and last digit sum that is $\text{sum}(7,7)=14$ is equal to sum of remaining numbers that is $\text{sum}(5,5,4) = 14$. So both sums are equal.

Testcase1 : 765

Output : not equal

Explanation : $\text{Sum}(7,5)=12$ and $\text{Sum}(6)=6$, both sums are not equal.

- Write a program to check whether the digits in-between the first and last digit are less than first and last digit, if yes then print true, otherwise print false.

Testcase1 : 1672

Output : false

Explanation : The middle digits 6,7 are not less than first digit 1 and last digit 7 .

Testcase1 : 84719

Output : true

Explanation : The middle digits 4,7,1 are less than first digit 8 and last digit 9 .

- Write a program to print the vowels in the given string in reverse order.

Testcase1 : Helloworld

Output : ooe

Explanation : Vowels in the given string Helloworld are e,o,o . The reverse order of eoo is ooe.

Testcase1 : JackspArrow

Output : oAa

Explanation : Vowels in the given string JackspArrow are a,A,o . The reverse order of aAo is oAa.

- Write a program to print the vowels in the given string and repeated vowel should be printed only single time.

Testcase1 : Helloworld

Output : eo

Explanation : Vowels in the given string Helloworld are e,o,o . The single vowels among them are eo .

Testcase1 : Jacksparrow

Output : ao

Explanation : Vowels in the given string Helloworld are a,a,o . Among them a is repeated more than once, so consider it for one time , result is ao.

- Write a program to print the string after removing the duplicate characters in the string.

Testcase1 : madam

Output : d

Explanation : In the given string madam, the duplicates are m,a. After removing m's and a's from the given string we formed a new string d.

Testcase1 : donkey

Output : donkey

Explanation : In the given string there is no duplicate character.

- Write a program to convert all the upper case letters in the given string to lower case letter and vice versa.

Testcase1 : JohnWick

Output : jOHNwICK

Explanation : All the upper case letters changed to lower case and vice versa.

Testcase1 : Korean

Output : kOREAN

Explanation : All the upper case letters changed to lower case and vice versa.

- Write a program to print all the Upper case letters in the string in reverse order and then followed by the lower case letters .

Testcase1 : NumberOne

Output : ONumberne

Explanation : In the given string NumberOne, Uppercase letters are N,O. The reverse order of them are ON next it is followed by lowe case letters (umberne). So final string is ONumberne.

Testcase1 : ClassLeader

Output : LClasseader

Explanation : In the given string ClassLeader, Uppercase letters are C,L. The reverse order of them are LC next it is followed by lowe case letters (lasseader). So final string is LClasseader.

Array-Based Questions :

- Find the Largest Element in an Array

Problem: Write a function to return the largest number in an array.

Testcase 1:

Input: [3, 1, 4, 1, 5, 9]

Output: 9

Explanation:

In the array [3, 1, 4, 1, 5, 9], the largest number is 9.

- Find the Second Largest Element

Problem: Write a function to return the second largest number in an array.

Testcase 1:

Input: [3, 1, 4, 1, 5, 9]

Output: 5

Explanation:

In the array [3, 1, 4, 1, 5, 9], the second largest number after 9 is 5.

- Sum of All Elements

Problem: Write a function that returns the sum of all elements in an array.

Testcase 1:

Input: [1, 2, 3, 4]

Output: 10

Explanation:

The sum of the elements $1 + 2 + 3 + 4 = 10$.

- Remove Duplicates from an Array

Problem: Write a function to remove duplicate values from an array.

Testcase 1:

Input: [1, 2, 2, 3, 4, 4, 5]

Output: [1, 2, 3, 4, 5]

Explanation:

The duplicates 2 and 4 are removed from the array, leaving [1, 2, 3, 4, 5].

- Check if Array is Sorted

Problem: Write a function to check if an array is sorted in ascending order.

Testcase 1:

Input: [1, 2, 3, 4, 5]

Output: true

Explanation:

The array [1, 2, 3, 4, 5] is sorted in ascending order.

- Reverse an Array

Problem: Write a function to reverse the elements in an array.

Testcase 1:

Input: [1, 2, 3, 4, 5]

Output: [5, 4, 3, 2, 1]

Explanation:

The array [1, 2, 3, 4, 5] is reversed to [5, 4, 3, 2, 1].

- Remove Falsy Values

Problem: Write a function that removes all falsy values from an array.

Falsy values include `false`, `0`, `""`, `null`, `undefined`, and `NaN`.

Testcase 1:

Input: [0, 1, false, 2, "", 3]

Output: [1, 2, 3]

Explanation:

The falsy values 0, **false**, and "" are removed from the array, leaving [1, 2, 3].

- Find Unique Elements

Problem: Write a function to find the unique elements in an array (elements that appear only once).

Testcase 1:

Input: [1, 2, 2, 3, 4, 4, 5]

Output: [1, 3, 5]

Explanation:

The unique elements that appear only once in the array are 1, 3, and 5.

- Sum of Even Numbers

Problem: Write a function that returns the sum of all even numbers in an array.

Testcase 1:

Input: [1, 2, 3, 4, 5]

Output: 6

Explanation:

The even numbers in the array are 2 and 4. Their sum is 6

String-Based Questions

- Reverse a String :

Question: Write a function to reverse a given string.

Testcase: "hello"

Output: "olleh"

Explanation: The reverse of the string "hello" is "olleh". Each character's order is reversed.

- Check if a String is a Palindrome

Question: Write a function to check if a given string is a palindrome.

Testcase: "racecar"

Output: true

Explanation: A palindrome is a string that reads the same forward and backward. Since "racecar" is the same in both directions, the output is **true**.

- Count Vowels in a String

Question: Write a function to count the number of vowels in a given string.

Testcase: "hello world"

Output: 3

Explanation: The vowels in "hello world" are 'e', 'o', and 'o'. Thus, the total count of vowels is 3.

- Remove Vowels from a String

Question: Write a function to remove all vowels from a given string.

Testcase: "hello world"

Output: "hll wrld"

Explanation: After removing the vowels 'e', 'o', and 'o' from "hello world", we are left with "hll wrld".

- Convert String to Title Case

Question: Write a function that converts a string to title case (capitalize the first letter of each word).

Testcase: "hello world"

Output: "Hello World"

Explanation: The first letter of each word is capitalized, resulting in "Hello World".

- Convert String to Number

Question: Write a function to convert a string to a number (without using `parseInt` or `Number`).

Testcase: "123"

Output: 123

Explanation: The string "123" is converted to the number 123.

- Check if String Contains Only Digits

Question: Write a function to check if a string contains only numeric digits.

Testcase: "12345"

Output: true

Explanation: The string "12345" consists only of digits, so the result is true.

- Count Occurrences of a Character

Question: Write a function that counts the occurrences of a specific character in a string.

Testcase: "hello world", "l"

Output: 3

Explanation: The character 'l' appears 3 times in the string "hello world".

Object-Based Questions

- Convert Array to Object

Question: Write a function that converts an array of key-value pairs into an object.

Testcase: `[["name", "Alice"], ["age", 25]]`

Output: `{name: "Alice", age: 25}`

Explanation: The key-value pairs in the array are converted into properties of an object. "name" maps to "Alice", and "age" maps to 25.

- Merge Two Objects

Question: Write a function that merges two objects, giving priority to the properties of the second object in case of conflict.

Testcase: `{a: 1, b: 2}, {b: 3, c: 4}`

Output: `{a: 1, b: 3, c: 4}`

Explanation: The property **b** in the second object overrides the property **b** in the first object, resulting in `{a: 1, b: 3, c: 4}`.

- Count Object Properties

Question: Write a function that returns the number of properties in an object.

Testcase: `{a: 1, b: 2, c: 3}`

Output: 3

Explanation: The object `{a: 1, b: 2, c: 3}` has 3 properties, so the output is 3.

- Get Object Keys

Question: Write a function that returns an array of all the keys in an

object.

Testcase: {a: 1, b: 2, c: 3}

Output: ["a", "b", "c"]

Explanation: The keys of the object are "a", "b", and "c", so the function returns an array of these keys.

- Get Object Values

Question: Write a function that returns an array of all the values in an object.

Testcase: {a: 1, b: 2, c: 3}

Output: [1, 2, 3]

Explanation: The values of the object are 1, 2, and 3, so the function returns an array of these values.

- Check if Object is Empty

Question: Write a function to check if an object is empty (i.e., has no properties).

Testcase: {}

Output: true

Explanation: Since the object has no properties, the function returns true.