100 JavaScript Logic-Building Problems (Arrays, Strings, and Logic)

Beginner Logic Warmup (1-30)

1. Print 'Hello, World!'.
2. Check if a number is even or odd.
3. Find the sum of the first N natural numbers.
4. Reverse a number without using string conversion.
5. Check if a number is prime.
6. Print all even numbers between 1-100.
7. Find factorial of a number using a loop.
8. Find factorial using recursion.
9. Find the greatest of three numbers.
10. Check if a character is vowel or consonant.
11. Find sum of digits of a number.
12. Count digits in a number.
13. Check if a number is palindrome.
14. Print Fibonacci series up to N terms.
15. Find power of a number without Math.pow.
16. Swap two variables without third variable.
17. Count how many times a number occurs in an array.
18. Find average of array elements.
19. Find largest element in an array.
20. Find smallest element in an array.
21. Count even and odd numbers in an array.
22. Find sum of all array elements.
23. Print array elements in reverse order.
24. Find the index of a given number in an array.
25. Check if a given number exists in an array.
26. Remove duplicates from an array manually.
27. Merge two arrays manually.
28. Find second largest number in an array.
29. Rotate an array to the left by one position.
30. Rotate an array to the right by one position.

Arrays and Strings Logic (31-70)

31. Find missing number in an array of 1 to N.
32. Find intersection of two arrays.
33. Find union of two arrays.
34. Count frequency of each element in array.
35. Sort array manually (bubble sort).
36. Reverse array without .reverse().
37. Find pair of numbers whose sum equals a target value.
38. Check if array is sorted.
39. Move all zeros to end of array.
40. Find difference between max and min in array.
41. Remove falsy values from an array.
42. Flatten a nested array.
43. Find all duplicate elements in array.
44. Find unique elements from two arrays.
45. Count number of strings starting with 'A' in array.
46. Convert array of strings into a single string.
47. Check if two strings are anagrams.
48. Reverse words in a sentence.
49. Count vowels and consonants in a string.
50. Find longest word in a sentence.
51. Remove spaces from string.
52. Replace all vowels in string with '*'.
53. Find first non-repeating character in string.
54. Find frequency of each character in a string.
55. Check if string is palindrome.
56. Convert string to title case.
57. Find substring manually (without includes).
58. Remove duplicates from a string.
59. Find all substrings of a given string.
60. Find common characters between two strings.
61. Count words in a string without split().
62. Find lexicographically largest substring.

63. Compare two strings without using == or ===.
64. Find the index of first repeating character.
65. Check if string has all unique characters.
66. Reverse each word in a sentence.
67. Replace a given word in string manually.
68. Count capital letters in a string.
69. Convert lowercase to uppercase manually.
70. Remove numbers from alphanumeric string.

Logical and Tricky (71-100)

71. Find all pairs in array with difference equal to K.
72. Find triplets with sum = 0.
73. Move negative numbers to one side of array.
74. Find equilibrium index (sum of left = sum of right).
75. Find longest consecutive sequence in array.
76. Check if array elements form an arithmetic progression.
77. Find maximum product of two integers in array.
78. Shuffle an array randomly.
79. Implement custom map() function.
80. Implement custom filter() function.
81. Implement custom reduce() function.
82. Count frequency of words in a paragraph.
83. Reverse string using recursion.
84. Find factorial using reduce().
85. Find sum of digits using recursion.
86. Count nested object keys.
87. Merge two sorted arrays into one sorted array.
88. Find the longest substring without repeating characters.
89. Find first repeating element in array.
90. Check if two arrays are equal (same elements in any order).
91. Group array elements by frequency.
92. Find elements appearing more than once.
93. Find majority element (> n/2 times).

94. Implement binary search manually.

95. Implement linear search manually.

96. Find common prefix among array of strings.

97. Print array diagonals (2D array).

98. Rotate matrix (2D array) 90 degrees.

99. Transpose matrix manually.

100. Implement string compression (aabbccc -> a2b2c3).