JavaScript Proficiency Test

Beginner Level

Description:
This 90-minute JavaScript proficiency test is designed to assess your foundational knowledge of web development using JavaScript. The test covers essential concepts including variables, loops, functions, operators, and basic DOM manipulation.

Test Structure:
The test consists of five exercises that progressively test your understanding of JavaScript.

Exercise 1: Variable Declaration and Manipulation
Task: Work with variables, perform arithmetic operations, and display results.

Exercise 2: Looping and Array Manipulation
Task: Utilize loops to manipulate an array of numbers.

Exercise 3: Function Implementation
Task: Create and use JavaScript functions to perform specific tasks.

Exercise 4: Conditional Statements
Task: Apply conditional statements to make decisions based on user input.

Exercise 5: Basic DOM Manipulation
Task: Interact with the Document Object Model (DOM) to modify a webpage.

Note:
You are expected to write JavaScript code for each exercise.
The exercises are designed to challenge your JavaScript skills while still being suitable for those with basic knowledge.
You will be evaluated on code correctness, efficiency, and adherence to the provided tasks.
This test is an opportunity to demonstrate your ability to work with JavaScript, a fundamental language in web development.

Best of luck!

Exercise 1: Variable Declaration and Manipulation

Task: Declare two variables, num1 and num2, and assign them numeric values. Calculate the sum, difference, product, and quotient of these two numbers. Display the results on the console.

Exercise 2: Looping and Array Manipulation

Task: Create an array of numbers. Write a loop to find and display the largest number in the array. Additionally, write another loop to calculate the sum of all the numbers in the array.

Exercise 3: Function Implementation

Task: Write a JavaScript function named calculateArea that takes two parameters, length and width, and returns the area of a rectangle. Call this function with different sets of length and width values to calculate and display the areas.

Exercise 4: Conditional Statements

Task: Create a program that asks the user to enter their age. Using conditional statements, check if the age is greater than or equal to 18. If it is, display a message saying "You are an adult," otherwise, display "You are a minor."

Exercise 5: Basic DOM Manipulation

Task: Build an HTML page with a button and an empty paragraph element. Using JavaScript, add an event listener to the button so that when it is clicked, the paragraph element displays the text "Hello, World!" Then, add another button that, when clicked, clears the text from the paragraph.