

JavaScript Math Operators Exercises

Working on your computer, create a new directory for these exercises. Create a `script.js` file and an `index.html` file. Connect the two. Work in your `script.js` file to complete these activities.

Exercise 0: Basic Arithmetic Practice

- Declare two variables: `x` with a value of `8` and `y` with a value of `3`.
- Perform and log the results of the following operations:
 - Addition (`x + y`)
 - Subtraction (`x - y`)
 - Multiplication (`x * y`)
 - Division (`x / y`)
- Expected output in the console: You should see four lines of results for each operation.

Exercise 1: Increment and Decrement

- Declare a variable `counter` and set it to `0`.
- Increment it twice using the `++` operator.
- Decrement it once using the `--` operator.
- Print the final value of `counter` to the console.

Exercise 2: Modulo Mystery

- Declare a variable `totalItems` and set it to `17`.
- Declare a variable `itemsPerRow` and set it to `5`.
- Use the modulo operator to calculate how many items won't fit evenly into rows.
- Log the result to the console.
- Hint: This helps you figure out "leftovers."

Exercise 3: Order of Operations

- Write a single expression that evaluates the result of this equation: `8 + 2 * (3 + 1) / 2 - 5`
- Log the result to the console.
- Then break the expression apart and calculate each step separately using variables to understand PEMDAS in action.

Exercise 4: Random Number Generator

- Write code that generates a **random whole number between 1 and 10** (inclusive).
- Store the result in a variable called `randomNumber`.
- Log `randomNumber` to the console.
- Hint: Use `Math.random()`, `Math.floor()`, and some simple math to set the range.