L3 SOD

***Practical JavaScript Assessment Instructions***

1. ***Folder Setup***
   * *Create a folder named after yourself (e.g., Josef\_Marie).*
   * *Save all your JavaScript programs inside this folder.*
2. ***File Naming***
   * *For each question, create a separate JavaScript file named question1.js, question2.js, ..., question20.js.*
   * *Ensure all files are saved in your main folder.*
3. ***Program Content***
   * *Each program should:*
     + *Declare necessary variables.*
     + *Perform the required operations.*
     + *Output the result using console.log().*
     + ***Include your name at the start of every output line****for identification.*

*Example:*

*const name = "John Doe";*

*console.log(name);*

*//then your code goes bellow that*

1. ***Adding Your Name to Output***
   * *At the start of each program, define a variable name with your full name.*
   * *Prepend your name to every output statement like this:*

*console.log(name);*

1. ***Sample Structure for Each Program***

*const name = "Your Full Name";*

*console.log(name);*

*// Your code here*

*let a = 5;*

*let b = 10;*

*let sum = a + b;*

*console.log(‘The sum of ${a} and ${b} is’ , sum);*

1. ***Running the Programs***
   * *Use your preferred JavaScript environment (browser console, Node.js, etc.) to run each file.*
   * *Verify that the output includes your name at the start of each line.*

**Questions now to be done:**

1. Declare two variables a and b with initial numeric values. Reassign a to the sum of a and b, then log the result.
2. Create a variable name with your name as a string. Log a greeting message using that variable.
3. Declare a boolean variable isStudent and assign it true. Reassign it to false. Log the value after reassignment.
4. Declare a constant PI with value 3.14. Attempt to reassign it and catch the error. Log the error message.
5. Declare a variable x with value 10. Use the increment operator to increase its value by 1, then log x.
6. Declare two string variables str1 and str2. Concatenate them and output the combined string.
7. Declare a variable age with a number value. Use a comparison operator to check if age is greater than 18, log the boolean result.
8. Declare a variable price with value 100. Use the modulus operator to find the remainder when divided by 9 and log the result.
9. Create two variables a and b. Use arithmetic operators to perform addition, subtraction, multiplication, division, and modulus logging each result.
10. Declare a variable isEqual that checks if 5 + 5 equals 10. Log the result.
11. Declare a variable count with initial value 4. Use the += operator to increment it by 5, then log the value.
12. Declare a variable name and assign your name and log your name. Use the typeof operator to log its data type also.
13. Create a boolean variable isActive. Use a logical NOT operator to invert its value, then log the result.
14. Declare variables a and b, assign values, and use the += and -= operators to modify them. Log the results.
15. Create a variable result that holds the result of 3 \* 4 + 5. Log the output.
16. Declare a variable x with value 7. Use the ternary operator to check if x is even or odd, then log 'even' or 'odd'.
17. Use the increment operator (++) on a number variable and log the new value.
18. Use logical AND (&&) operator with two booleans and log the result.
19. Declare a variable as NaN (using division by zero) and log it.
20. Use the strict inequality operator (!==) on two similar values of different types and log the result.

**END**