JavaScript Moderate-Level Practice Questions

# Introduction

* Write a script that prints all numbers from 1–100, but for multiples of 3 print 'Fizz', for multiples of 5 print 'Buzz', and for multiples of both print 'FizzBuzz'.
* Create a script that asks for the user’s name (via prompt) and displays a personalized greeting in the console.

# JavaScript Variables

* Create a program that stores your full name in one variable and then prints:  
  - First name  
  - Last name  
  (Hint: use split(" ")).
* Demonstrate block scoping by creating a variable inside an if block using let and try accessing it outside the block.

# Operators

* Build a simple calculator that asks for two numbers and an operator (+, -, \*, /) from the user, then prints the result.
* Write a program that checks if a number is divisible by both 3 and 7 using logical operators.

# Conditionals

* Write a program that takes 3 numbers and prints the largest one.
* Create a grade calculator:  
  - 90–100 → A  
  - 75–89 → B  
  - 50–74 → C  
  - Below 50 → F

# Loops

* Print the multiplication table of a given number (1–10).
* Write a program that finds the sum of digits of a number (e.g., 123 → 6).
* Create a program that prints the first 10 numbers in the Fibonacci sequence.

# Built-in Types

* Take a string '123.45' and:  
  - Convert it to a number.  
  - Round it to the nearest integer.  
  - Convert it back to a string with $ prefix.
* Write a program that checks whether a given value is an array, object, or primitive.

# Arrays

* Create an array of student marks and calculate the average.
* Write a program that removes duplicate values from an array.
* Rotate an array by 2 positions to the right (without using built-in methods like splice).

# Regular Expressions

* Validate if a password meets all these conditions:  
  - At least 8 characters  
  - Contains at least one uppercase, one lowercase, one digit, and one special character
* Extract all numbers from the string 'The order numbers are 123, 456, and 789.'.
* Replace all vowels in a string with \*.

# Creating a Function

* Write a function that takes an array of numbers and returns a new array with only the even numbers.
* Create a function that accepts a string and returns the reversed string.
* Write a function factorial(n) that returns the factorial of a number.

# Function Expressions

* Write a function expression to find the maximum number in an array.
* Create a function expression that counts how many vowels are in a given string.
* Store an arrow function in a variable that checks whether a number is prime.

# Function Hoisting

* Show that a function declaration can be called before it is defined.
* Show that a function expression (or arrow function) cannot be called before being assigned.