JavaScript for Teens: Data Types & Variables – Challenge Questions

Here are 10 questions to test your understanding of **data types** and **variable types (`let` and `const`)**:

1. Declare a variable using `let` to store your favorite food, then change it to another food.
2. Declare a variable using `const` for the number of days in a week. Try changing it — what happens?
3. Create a variable `age` with a number value, then check its type using `typeof`.
4. Store your first name in a string variable and use template literals to display `Hello, <name>!`.
5. Declare a boolean variable called `isSunny` and set it to `true`. Then change it to `false`.
6. Create a variable `temperature` and set it to `null`. Explain why you might use `null` instead of `undefined`.
7. Declare a variable without assigning a value. What is its type?
8. Store the result of `10 / 0` in a variable and log it. What value do you see?
9. Use `const` to create a variable for your birth year. Why might `const` be the best choice here?
10. Create a variable `isAdult` that stores the result of checking if your age is greater than or equal to 18.

Extra 10 Advanced Beginner Questions

1. Declare two `let` variables, `x` and `y`, assign them numbers, and store their sum in a third variable.
2. Create a variable `greeting` and assign it a string. Use the `+` operator to join it with another string.
3. Use `let` to declare `a` and `b` with number values, then swap their values using a temporary variable.
4. Declare a variable and assign it the result of `5 * 4 - 2`.
5. Create a variable `modulusResult` that stores the remainder when 17 is divided by 5.
6. Declare a variable `score` with an initial value of 10, then add 5 to it using the `+=` operator.
7. Use `const` to store the value of `3.14159` in a variable called `pi` and multiply it by 2.
8. Create two variables, `firstName` and `lastName`, and combine them into a single variable called `fullName`.
9. Assign a number to a variable and then convert it to a string using the `String()` function.
10. Assign a string containing a number (e.g., "42") to a variable and convert it to a number using `Number()`.

These questions will now cover **data types, let/const, and basic operations with operators and operands**.