Basic JavaScript Exercises

Boolean Expressions Exercises

In the following exercises declare all your variables with `const` unless you are told otherwise

1. **True or False** Create two boolean variables: `isSunny` with a value of `true` and `isWeekend` with a value of `false`. Use `console.log` to print the result of `isSunny && isWeekend`.

2. **Checking Conditions** Create two variables: `age` with a value of 20 and `license` with a value of `true`. Use `console.log` to determine if the person is over 18 and has a driving license by evaluating these conditions.

3. **Either Or Scenario** Create two variables: `knowsJavaScript` with a value of `false` and `knowsPython` with a value of `true`. Use `console.log` to print whether the person knows either JavaScript or Python using the `||` operator.

4. **Negating a Boolean** Create a boolean variable `isRaining` with a value of `true`. Use `console.log` to print the value of `!isRaining`.

5. **Complex Logical Expression**

    - Create a boolean variable `likesMusic` and assign it a value.
    - Create another boolean variable `playsGuitar` and assign it a value.
    - Create a third boolean variable `hasTime` and assign it a value.
    - Use these variables to form a complex Boolean expression that evaluates whether a person likes music and either plays guitar or has time to learn. Write this expression using the logical operators `&&` and `||`.
    - Use `console.log` to print the result of your expression.

6. **Age Comparison**

- Create a variable `personAge` and assign it a value (e.g., `personAge = 25`).
- Use `console.log` to check and print whether `personAge` is greater than 18.

7. **Temperature Check**

   - Create a variable `currentTemperature` and assign it a value (e.g., `currentTemperature = 30`).
   - Use `console.log` to determine if the temperature is less than 20 or greater than 30 and print the result.

8. **Equality Check**

   - Create two variables, `firstNumber` with the value of `10` and `secondNumber` with the value of `'10'`.
   - Use `console.log` to check if `firstNumber` is equal to `secondNumber` using the `==` operator and print the result.
   - Repeat using the `===` operator and compare the outcome.

9. **Budget Limit**

   - Create a variable `budget` and set it to a numeric value (e.g., `budget = 500`).
   - Create another variable `expense` and set it to another numeric value (e.g., `expense = 450`).
   - Use `console.log` to print whether the expense is less than or equal to the budget.

10. **Height Comparison**

    - Create two variables, `person1Height` and `person2Height`, and assign them values representing their heights in centimeters (e.g., `person1Height = 170`, `person2Height = 165`).
    - Use `console.log` to print if `person1Height` is greater than, less than, or equal to `person2Height`.