Day 06 - JS Fundamentals Practice Exercises

1. Write a program that takes an age and checks if they are eligible to vote (age 18 or older). If they are eligible, check if they are also eligible to run for president (age 35 or older in the U.S.).
2. Write a program that calculates the sum of all numbers from 1 to 100 using a `for` loop.
3. Write a program that generates and displays the multiplication table for a number. The table should show multiplication from 1 to 10.
4. Write a program that prints all the even and odd numbers from 1 to 50 using a `for` loop. Use an `if-else` statement inside the loop to check whether the number is even or odd.
5. Write a program that acts as a simple calculator. Assign variables for two numbers and an operation (add, subtract, multiply, divide). The program then performs the selected operation and displays the result.
6. Write a program that prints the numbers from 1 to 100. But for multiples of 3, print "Fizz" instead of the number, and for multiples of 5, print "Buzz". For numbers that are multiples of both 3 and 5, print "FizzBuzz".
7. Write a program that simulates rolling a 6-sided die. Use a `do...while` loop to roll the die until a 6 is rolled. Display each roll and how many attempts it took to roll a 6.
8. Write a program that generates the first 10 numbers in the Fibonacci sequence using a `while` loop. Display the sequence after the loop completes.

Bonus exercises:

1. Write a function called `calculateRectangleArea` that takes two parameters: `width` and `height`. The function should return the area of the rectangle. Call the function with different values and display the results.
2. Write a function called `reverseString` that takes one parameter: `str`. The function should return the reverse of the given string.

3. **Hard exercise to challenge yourself**: Write a function called `factorial` that takes one parameter: `n`. The function should return the factorial of the number `n` (i.e., `n * (n-1) * (n-2) * ... * 1`). Call the function with different values and display the results.

   hint: This can be solved by using either a for loop or a recursive function. Recursive function is preferred