

Recursion Exercises

Solve the following exercises using recursion.

Exercise 1:

Write a recursive method called ***length()*** that calculates and returns the length of a String.

Example: `length("car") → 3`, `length("bake") → 4`, `length("b") → 1`, `length("") → 0`

Exercise 2:

Write a recursive method called ***calculateSum()*** that recursively finds the sum of the first n natural numbers.

Example: `calculateSum(5) → 15`, `calculateSum(10) → 55`

Exercise 3:

Write a recursive method called ***reverseString()*** that will take in a string and returns the string reversed.

Example: `reverseString("value") → eulav`, `reverseString("write") → etirw`

Make sure you define your base cases and your recursive steps.

