**Functions-Assignments**

1. Write a function in R that takes two parameters (a and b) and returns their sum.

2.Write a function in R called multiplyByTwo that takes a numeric input x and returns its double.

3.Create a function named calculateBMI that takes two parameters, weight (in kilograms) and height (in meters), and calculates the Body Mass Index (BMI). The formula for BMI is weight / height^2.

4.Define a function greet that takes a parameter name and a default parameter greeting = "Hello". The function should print the greeting along with the name.

5.Develop a function squareElements that takes a numeric vector as input and returns a vector with each element squared. Use vectorized operations for efficiency.

6.Create a function calculateArea that calculates the area of a rectangle. The function should take parameters length and width, but users can provide them in any order using named arguments.

7. Define a function power that takes two parameters (base and exponent) and calculates the power of base raised to the exponent. Set a default value of 2 for the exponent.

8.Write a function called sumOfThree that takes three numeric parameters (a, b, and c) and returns their sum.

9.Write a function called outerFunction that takes a parameter x. Inside outerFunction, define a nested function called innerFunction that squares its input. Have outerFunction call innerFunction with the input x and return the result.

10.Create a function calculateDistance that takes two parameters (x1, x2). Inside this function, define a nested function square that squares its input. Use the square function to calculate the squared distance between x1 and x2.