Mathematics in R Programming – Solutions

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Exercise 1: Addition

Write a function to perform the addition of two given numbers.

Addition<- function(a, b) { return(a+b)

}

# Test the function

result <\_addition(5,7)

print(result) #Output: 12

Exercise 2: Subtraction

Write a function to perform the subtraction of two given numbers.

Subtraction <- function(a,b) {

Return(a-b)

}

#Test the function

Result <-subtraction(10,3)

print(result)# Output:7

Exercise 3: Multiplication

Write a function to perform the multiplication of two given numbers.

Multiplication<-function(a, b) {

return(a\*b)

#Test the function

Result<-multiplication(4,6)

print(result) # Output: 24

Exercise 4: Division

Write a function to perform the division of two given numbers.

Division<-function(a,b) {

If (b!=0) {

Return(a/b)

} else {

Stop(“Cannot divide by Zero”)

}

}

#Test the function

Result<- division(15,3)

Print(result) # Output:5

Exercise 5: Exponentiation

Write a function to calculate the exponentiation of a given base and exponent.

Exponentiation<-function(base, exponent) {

Return(base^ exponent)

}

# Test the function

Result<- exponentiation(2,4)

Print(result) #Output:16

Exercise 6: Modulus

Write a function to calculate the modulus of two given numbers.

Modulus<- function(a,b) {

If (b!=0) {

Return (a%%b)

} else {

Stop(“Cannot perform modulus with zero divisor”)

}

}

#Test the function

Result<modulus(10,3)

Print(results) #Output:1