Name: Mohd Zaid

Usn: 22BTRAD025

Ques.

The "MathUtils" object contains the factorial method. This method calculates the factorial of a given number using recursion. If the number is 0 or 1, it returns 1. Otherwise, it recursively calls itself with n - 1 and multiplies the result by n. The "Main" object contains the main method where you can test the factorial method. In this example, it calculates the factorial of the number 4 and 10 and prints the result.

object MathUtils {

def factorial(n: Int): BigInt = {

if (n == 0 || n == 1) {

1

} else {

n \* factorial(n - 1)

}

}

}

object Main {

def main(args: Array[String]): Unit = {   
val number1 = 4

val result1 = MathUtils.factorial(number1)

println(s"The factorial of $number1 is: $result1")

val number2 = 10

val result2 = MathUtils.factorial(number2)

println(s"The factorial of $number2 is: $result2") } }

