Assignment 3:

Create a document that describes the design of two modular functions: one that returns the factorial of a number, and another that calculates the nth Fibonacci number. Include pseudocode and a brief explanation of how modularity in programming helps with code reuse and organization.

Fibonacci number:

Start

Print “enter num”

Input n

Call fibonacci(n)

Print fibonacci

function fibonacci(n)

if n <= 1

return n

else

return fibonacci(n - 1) + fibonacci(n - 2)

end

factorial:

start

declear n and fact

call factorial(n)

print factorial

function factorial(n)

if n < 1

return 1

else

n\*factorial(n-1)

Benefits of modularity in programming:

1. Code reusability
2. Increase readability
3. Easy to maintain code
4. Easy to add new functionality without affecting other parts of program