**Q1**

def fibonacci\_recursive(n):

if n <= 0:

return []

elif n == 1:

return [0]

elif n == 2:

return [0, 1]

else:

fib\_sequence = fibonacci\_recursive(n - 1)

fib\_sequence.append(fib\_sequence[-1] + fib\_sequence[-2])

return fib\_sequence

Q2

def factorial\_recursive(n):

if n == 0 or n == 1:

return 1

else:

return n \* factorial\_recursive(n - 1)

Q3

def calculate\_bmi(weight, height):

# BMI formula: weight (kg) / (height (m) squared)

bmi = weight / (height \*\* 2)

return bmi

Q4

import math

def calculate\_natural\_logarithm(number):

if number <= 0:

return "Invalid input. Please enter a positive number."

natural\_log = math.log(number)

return natural\_log

Q5

def cube\_sum\_of\_natural\_numbers(n):

cube\_sum = sum(i\*\*3 for i in range(1, n+1))

return cube\_sum