import java.util.Scanner;

public class FibonacciCalculator {

// Recursive method to find the nth Fibonacci number

public static int fibonacciRecursive(int n) {

if (n <= 1) {

return n;

} else {

return fibonacciRecursive(n - 1) + fibonacciRecursive(n - 2);

}

}

// Non-recursive (iterative) method to find the nth Fibonacci number

public static int fibonacciIterative(int n) {

if (n <= 1) {

return n;

}

int a = 0, b = 1, fib = 1;

for (int i = 2; i <= n; i++) {

fib = a + b;

a = b;

b = fib;

}

return fib;

}

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter the position of the Fibonacci sequence (n): ");

int n = scanner.nextInt();

System.out.println("Fibonacci (Recursive) at position " + n + " is: " + fibonacciRecursive(n));

System.out.println("Fibonacci (Iterative) at position " + n + " is: " + fibonacciIterative(n));

scanner.close();

}

}