Recursion

Example: Summing from \( n \) to \( k \) Let’s write a recursive function that does simple math. Given two integers, \( n \) and \( k \), where \( n \leq k \), find the sum of integers from \( n \) to \( k \), inclusive (e.g., if \( n = 2 \), and \( k = 4 \), our program will add \( 2 + 3 + 4 \))

```c
int mySum (int n, int k) {
    return 0; // Placeholder for the implementation
}
```

Problem 1: Computing the \( n^{th} \) Fibonacci number
Translate the following into a recursive MIPS function.

```c
int fib (int n) {
    if (n <= 1)
        return n;
    else
        return fib (n - 1) + fib (n - 2);
}
```