

**Written Assignment (20 points)**

**1.1.1** The big-O formula for the total work performed by a call to `fib(n)` for the recursive implementation of the Fibonacci sequence is  $O(2^n)$  because each recursion would call the Fibonacci function twice.

**1.1.2.1.** The big-O formula for the total work performed by a call to `fib(n)` for the memoization implementation of the Fibonacci sequence is  $O(n)$ .

**1.1.2.2.**