Computer Science

1. It’s a bad Idea to use recursion to find the Fibonacci of a number because the time taken for computing nth Fibonacci number is exponential for a recursive algorithm while the time taken is linear for an iterative algorithm. Due to this exponential time, it’s expensive to use recursion to solve Fibonacci, both in terms of cost and time. Unless the language being used to implement the Fibonacci guarantees tail recursion elimination and automatic memorization, then recursion can be implemented with little or no loss in efficiency although sometimes this efficiency may come at the expense of readability due to the need to abstract the code to optimize efficiency hence it’s imperative that using recursion might not be the best idea to solve Fibonacci since Iteration exists