Advanced Analysis of Algorithms

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1. Problem, parameters, instance, solution, algorithm. (Use sorting).
2. Using C/Pascal to describe algorithms.
3. Need for efficiency. Fibonacci sequence. Recursive algorithm. Study and bound the number of terms computed. Use proof from book. Iterative approach. Time for an instance of size 200. Use table 1.2.
4. We don't count CPU cycles; rather input size. Basic operations. Square root. Uniform cost model, log cost model. (Prime number example).
5. Different types of complexity: every-case, worst-case, average-case, best case (Use book for average case).