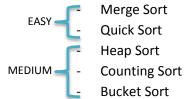
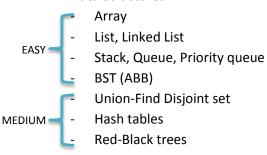
Search



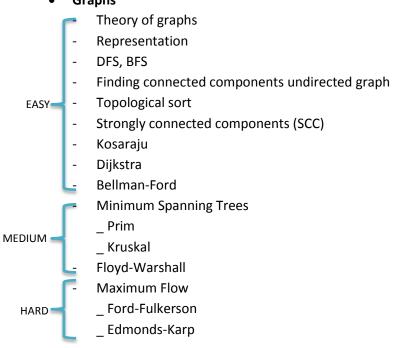
Sorting



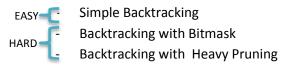
Data Structures



Graphs



• Backtracking



• Number Theory

- Fibonacci (DP)
- Binomial coefficients
- Catalan numbers
- Factorial
- Modulo arithmetic
- Primality test
- All the prime factors of a number
- Sieve of erathostenes
- GCD (Euclid Algorithm)
- LCD
- Number of divisors of an integer
- Factorization
- Euler function
- BigInteger
- Representation of integers and reals
- Evaluations of polynomial functions
- Fast exponentiation (Divide and Conquer)

• Dynamic Programming (DP)

Maximum independent sets (MIS)

- Rod cutting - Knapsack

HARD •

EASY =

Sequence alignment

- Longest common subsequence

- Longest increasing subsequence

- Matrix-Chain multiplication

Optimal binary search

Coin change

Traveling salesman problem

• Greedy

An activity selection problem

Managing task

Find more

EASY

Processing Strings

Class String, Class StrinkTokeneizer, Class StringBuilder

Next permutation
Regular Expressions
Frequencies
String Matching
Knuth-Morris-Pratt (KMP)
Boyer-Moore
DNA String

• Divide and Conquer

EASY
- Counting Inversions
- Maximum-Subarray
- Karatsuba
- Multiplication of Stranssen
- Fast exponentiation
- Fibonacci
- Closets Pair

Other

- Min Cost Max Flow
- Josephus Problem
- Find More