Competitive Programming Checklist

■ Level 0: Fundamentals

CSES – Counting Divisors Infoarena – factori2 (prime factorization up to 10^7) Infoarena – euler (Euler's Totient up to 10^6)

■ Level 0: 1D Dynamic Programming

AtCoder dp_a - Frog 1
AtCoder dp_b - Frog 2
CSES - Minimizing Coins
CSES - Coin Combinations I
Maximum Subarray Sum (Kadane)
Leetcode - House Robber
CSES - Staircase

■ Level 0: Simple Implementation / Ad-Hoc

CF 702A – Maximum Increase CF 1659A – Red Versus Blue

■ Level 1: GCD / LCM & Combinatorics

Kilonova 784 – divizor
Kilonova 772 – numere
CSES – Binomial Coefficients II
Kilonova 1982 – Combination
Kilonova 1981 – divizibilitate
Kilonova 1983 – Common divisors and multiples

■ Level 1: 2D Dynamic Programming (Grid & Basic String)

CSES – Grid Paths
CSES – Grid Paths with Obstacles
Longest Common Substring
AtCoder dp_f – LCS
AtCoder dp_d – 0/1 Knapsack
Subset Sum
Leetcode – Partition Equal Subset Sum
CSES – Edit Distance

■ Level 1: CF Practice – Core Patterns

CF 1626A – Equidistant Letters CF 1363B – Subsequence Hate CF 1485A – Add and Divide

■ Level 2: Sequence & Space-Optimized DP

CSES – LIS O(n²) Leetcode – LIS O(n log n) Optimized 0/1 Knapsack (1D DP) Codeforces EDU – Digit DP

■ Level 2: Graphs & Trees Intro

CSES – Labyrinth Kilonova – Parcurgeri (NOI 2013 p1) Kilonova 533 – keidei (DFS pre-order / BFS) Kilonova 1126 – sumarb (subtree sums) Kilonova 1254 – depth (node depths via DFS)

■ Level 2: CF Practice – Intermediate

CF 1399C – Boats Competition CF 1473B – String LCM CF 1500C – Matrix Sorting

■ Level 3: Advanced Topics

CSES – Subarray Divisors
CSES – Removal Game
Leetcode – Longest Palindromic Subsequence
Leetcode – Palindrome Partitioning II
AtCoder dp_g – Longest Path in DAG
Infoarena – submultime (subset-sum bitset DP)

■ Level 3: CF Practice – Advanced

CF 1705C – Mark and His Unfinished Essay

CF 1132G – Greedy Merchants

Exponential-state DP & Bitmask Tutorial (Video)

Exponential-state DP & Bitmask Tutorial (Blog)

CF 2069C – Bitmask DP Example

CF 2053C – Common Divisors?

CF 2052F

CF 2050E

CF 2050C

CF 2033D

CF 2029C

CF 2028C

CF 2027C CF 2008E CF 2008D CF 1999E CF 1997D CF 1994C CF 1992D CF 1987C CF 1984C1

■ Level 4: Elite Challenges

AtCoder dp_h – TSP with Bitmask AtCoder dp_o – Assignment Problem (bitmask) Sprague–Grundy / Grundy Numbers (theory & small examples)

■ Level 4: CF Practice – Elite

CF 1400E - Clear the Multiset

CF 1499F - Diameter Cuts

CF 2036D

CF 2036C

CF 2034B

CF 2026C

CF 2025C

CF 2020C

CF 2019B

CF 1999D

CF 1993C

CF 1984B

CF 1983B

CF 1980D

CF 1978C