



Dynamic Programming Problem Set

Must Do DP Problems covering all DP Concepts and difficulty levels

Code	Problem Link	Concepts Problem Tags
A	Frog 1	Bottom-up DP
B	Frog 2	Bottom-up DP, 2D DP
C	Vacation	Bottom-up DP, 2D DP
D	Knapsack 1	Classical DP
E	Knapsack 2	Bottom-up DP, 2D DP, Variation of classical DP
F	LCS	Classical DP, Top-down DP
G	Longest Path	DP on Graphs
H	Grid 1	Grid DP, 2D DP
I	Coins	Probability DP, 2D DP
J	Sushi	Probability, Expected value DP, math
K	Stones	Game Theory, DP
L	Deque	Multidimensional DP, Game theory
M	Candies	Multidimensional DP and DP optimizations, Prefix sums
N	Slimes	DP on intervals
O	Matching	DP with bitmasking
P	Independent Set	DP on trees
Q	Flowers	DP, DP optimization, segment tree, maps

R	Walk	DP on graphs, Matrix exponentiation
S	Digit Sum	Digit DP, Modular arithmetic
T	Permutation	Multidimensional DP, DP Optimizations, Prefix and Suffix sums
U	Grouping	DP with Bitmasking, Bit Masking concepts and Bit manipulation
V	Subtree	DP on trees, Optimization with Prefix and Suffix arrays
W	Intervals	DP optimization, Segment tree, Lazy propagation
X	Tower	Exchange Argument DP, Sorting
Y	Grid 2	Grid DP, Math, Combinatorics, Modular arithmetic, Implementation
Z	Frog 3	DP optimization using Convex Hull Trick, Introduction to Convex Hull Trick, math

Contest Link

[Tasks - Educational DP Contest](#)

Concept & Solution Videos

<http://cb.lk/atcoder>

