



# Dynamic Programming Problem Set

Must Do DP Problems covering all DP Concepts and difficulty levels.

[ If you have less time, want to get a taste of different types of DP, checkout the AtCoder Problem Section in the course end of Dynamic Programming Master Course]

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

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

### Contest Link

[Tasks - Educational DP Contest](#)

