

Dynamic Programming (DP) :

1. Classic Dynamic Programming

a. LCS

Problem: 1. SAMER08D

b. LIS

Problem: 1. Beautiful People

2. MDOLLS

3. MSTICK

4. MCARDS

c. Edit Distance

d. Matrix Chain Multiplication

Problem: 1. Mixtures

e. Knapsack

Problem: 1. Scubadiv

2. Advance DP

a. DP k-th lexicographical string

Problem: 1. z-01 paths

2. z-board

3. Linear Garden (IOI 2008)

b. DP tree

Problem: 1. z-sumpaths

2. River (IOI 2005)

3. z-company

4. Greedy Hydra (CNOI 2002)

5. VOCV

6. PT07F

7. PT07X

8. nagibni

c. DP+ BIT/segment tree

Problem: 1. Salesman (IOI 2009)

2. explosion

3. intervali

4. RENT

5. INCSEQ

6. INCDSEQ

d. DP+ convex hull

- Problem: 1. [Batch Scheduling \(IOI 2002\)](#)
2. [NKLEAVES](#)
3. [Harbingers \(CEOI 2009\)](#)
4. [Commando \(APIO 2010\)](#)

e. DP pre-processing

- Problem: 1. [Oil \(APIO 2009\)](#)
2. [Garden \(IOI 2005\)](#)
3. [Pyramid \(IOI 2006\)](#)

f. DP bitmask

- Problem: 1. [Reklame](#)
2. [Chess](#)
3. [Bond](#)
4. [TRSTAGE](#)
5. [HIST2](#)
6. [LAZYCOWS](#)

g. Problem 1: [Grid \(BOI 2008\)](#)

h. DP matrix multiplication/ DP using recurrence

- Problem 1. [SEQ](#)
2. [SPP](#)
3. [z-funkcija](#)
4. [mit-indiv09-words](#)
5. [Reading \(Balkan 2009\)](#)
6. [Super Climber](#)
7. [z-mario](#)

i. DP+ trie

- Problem 1. [MORSE](#)

j. DP+geometry

- Problem 1. [MPOLY](#)
2. [CVXPOLY](#)
3. [MTRIAREA](#)

k. DP + Binary Search

- Problem 1. Game (IOI 2008, Practice session)

l. DP + Knuth Optimization

- Problem 1. [Breaking Strings](#)

Other Problems in SPOJ can be found [here](#) by [pt1989](#)

Thanks to [pt1989](#)

Here are problems in [acm.sgu.ru](#) [269](#), [273](#), [304](#), [317](#), [356](#), [396](#), [445](#), [447](#), [458](#), [489](#), [494](#)

Thanks to [natalia](#)

Reference:

1. [Topcoder](#)
2. [Codechef](#)