



Competitive Programming



Methods to Solve (2000-present)

Use these filters to narrow down your next problem to solve:

OJ: , Topic: , Quality:

Online Judge shown: Both

Problem topics shown: NUS CS4234 : Optimisation Algorithms level: Complete Search (small instances), DP (esp Pseudo-Polynomial versions), NP-hard Problems, Max Flow, Graph Matching (+Weighted MCBM), Linear Programming

Problem Quality: All

Number of problems shown (initially in CP4 order): 182

Information is up to date as of 10 February 2022

You can now sort these problems based on Distinct ACcepted Users (DACU) column.

Generally, problems with high DACU are the easier problems.

Note that we only update DACU column manually (not a live data).

Note: Column Point is only relevant for Kattis online judge.

Show entries

Search:

Both OJ

Problem Title

























CP4

























00431



















































[Trial of the Millennium](#)

























3.5c, 0-1 KNAPSACK

























Both OJ	Problem Title	CP4
00562	 Dividing coins	3.5c, 0-1 KNAPSACK
00990	 Diving for Gold	3.5c, 0-1 KNAPSACK
01213	 Sum of Different Primes	3.5c, 0-1 KNAPSACK
10130	 SuperSale	3.5c, 0-1 KNAPSACK
10261	 Ferry Loading	3.5c, 0-1 KNAPSACK
10616	 Divisible Group Sums	3.5c, 0-1 KNAPSACK
10664	 Luggage	3.5c, 0-1 KNAPSACK
10690	 Expression Again	3.5c, 0-1 KNAPSACK
10819	 Trouble of 13-Dots	3.5c, 0-1 KNAPSACK
11003	 Boxes	3.5c, 0-1 KNAPSACK
11341	 Term Strategy	3.5c, 0-1 KNAPSACK
11566	 Let's Yum Cha!	3.5c, 0-1 KNAPSACK
11658	 Best Coalitions	3.5c, 0-1 KNAPSACK
11832	 Account Book	3.5c, 0-1 KNAPSACK
12621	 On a Diet	3.5c, 0-1 KNAPSACK
knapsack	 knapsack	3.5c, 0-1 KNAPSACK
muzicari	 muzicari	3.5c, 0-1 KNAPSACK
ninepacks	 ninepacks	3.5c, 0-1 KNAPSACK
orders	 orders	3.5c, 0-1 KNAPSACK
presidentialelections	 presidentialelections	3.5c, 0-1 KNAPSACK
00147	 Dollars	3.5d, COIN-CHANGE
00166	 Making Change	3.5d, COIN-CHANGE
00242	 Stamps and Envelope Size	3.5d, COIN-CHANGE
00357	 Let Me Count The Ways	3.5d, COIN-CHANGE

























Both OJ	Problem Title	CP4
00674	 Coin Change	3.5d, COIN-CHANGE
10313	 Pay the Price	3.5d, COIN-CHANGE
10448	 Unique World	3.5d, COIN-CHANGE
11137	 Ingenuous Cubrency	3.5d, COIN-CHANGE
11259	 Coin Changing Again	3.5d, COIN-CHANGE
11517	 Exact Change	3.5d, COIN-CHANGE
bagoftiles	 bagoftiles	3.5d, COIN-CHANGE
canonical	 canonical	3.5d, COIN-CHANGE
exactchange2	 exactchange2	3.5d, COIN-CHANGE
00216	 Getting in Line	3.5e, TSP
01281	 Bus Tour	3.5e, TSP
10496	 Collecting Beepers	3.5e, TSP
11795	 Mega Man's Mission	3.5e, TSP
12841	 In Puzzleland (III)	3.5e, TSP
beepers	 beepers	3.5e, TSP
bustour	 bustour	3.5e, TSP
cycleseasy	 cycleseasy	3.5e, TSP
errands	 errands	3.5e, TSP
maximizingyourpay	 maximizingyourpay	3.5e, TSP
pokemongogo	 pokemongogo	3.5e, TSP
race	 race	3.5e, TSP
00663	 Sorting Slides	4.6e, Bipartite Graph
00670	 The dog task	4.6e, Bipartite Graph
00753	 A Plug for UNIX	4.6e, Bipartite Graph














Both OJ	Problem Title	CP4
10080	 Gopher II	4.6e, Bipartite Graph
11138	 Nuts and Bolts	4.6e, Bipartite Graph
12644	 Vocabulary	4.6e, Bipartite Graph
12668	 Attacking rooks	4.6e, Bipartite Graph
absurdistan3	 absurdistan3	4.6e, Bipartite Graph
bookclub	 bookclub	4.6e, Bipartite Graph
elementarymath	 elementarymath	4.6e, Bipartite Graph
escapeplan	 escapeplan	4.6e, Bipartite Graph
flippingcards	 flippingcards	4.6e, Bipartite Graph
gopher2	 gopher2	4.6e, Bipartite Graph
paintball	 paintball	4.6e, Bipartite Graph
pianolessons	 pianolessons	4.6e, Bipartite Graph
00259	 Software Allocation	8.4a, Network Flow, Standard
00820	 Internet Bandwidth	8.4a, Network Flow, Standard
10092	 The Problem with the Probl...	8.4a, Network Flow, Standard
10511	 Councilling	8.4a, Network Flow, Standard
10779	 Collectors Problem	8.4a, Network Flow, Standard
11045	 My T-shirt suits me	8.4a, Network Flow, Standard
11082	 Matrix Decompressing	8.4a, Network Flow, Standard
11167	 Monkeys in the Emei Mounta...	8.4a, Network Flow, Standard
11418	 Clever Naming Patterns	8.4a, Network Flow, Standard
12873	 The Programmers	8.4a, Network Flow, Standard
councilling	 councilling	8.4a, Network Flow, Standard
dutyscheduler	 dutyscheduler	8.4a, Network Flow, Standard

Both OJ	Problem Title	CP4
jupiter	 jupiter	8.4a, Network Flow, Standard
maxflow	 maxflow	8.4a, Network Flow, Standard
mazemovement	 mazemovement	8.4a, Network Flow, Standard
mincut	 mincut	8.4a, Network Flow, Standard
piano	 piano	8.4a, Network Flow, Standard
tomography	 tomography	8.4a, Network Flow, Standard
waif	 waif	8.4a, Network Flow, Standard
water	 water	8.4a, Network Flow, Standard
00563	 Crimewave	8.4b, Network Flow, Variants
01242	 Necklace	8.4b, Network Flow, Variants
10330	 Power Transmission	8.4b, Network Flow, Variants
10480	 Sabotage	8.4b, Network Flow, Variants
11380	 Down Went The Titanic	8.4b, Network Flow, Variants
11506	 Angry Programmer	8.4b, Network Flow, Variants
11757	 Winger Trial	8.4b, Network Flow, Variants
11765	 Component Placement	8.4b, Network Flow, Variants
12125	 March of the Penguins	8.4b, Network Flow, Variants
avoidingtheapocalypse	 avoidingtheapocalypse	8.4b, Network Flow, Variants
budget	 budget	8.4b, Network Flow, Variants
chesscompetition	 chesscompetition	8.4b, Network Flow, Variants
congest	 congest	8.4b, Network Flow, Variants
conveyorbelts	 conveyorbelts	8.4b, Network Flow, Variants
copsandrobbers	 copsandrobbers	8.4b, Network Flow, Variants
darkness	 darkness	8.4b, Network Flow, Variants

Both OJ	Problem Title	CP4
floodingfields	 floodingfields	8.4b, Network Flow, Variants
landscaping	 landscaping	8.4b, Network Flow, Variants
marchofpenguins	 marchofpenguins	8.4b, Network Flow, Variants
neutralground	 neutralground	8.4b, Network Flow, Variants
<i>thekingofthenorth</i>	 thekingofthenorth	<i>8.4b, Network Flow, Variants</i>
<i>transportation</i>	 transportation	<i>8.4b, Network Flow, Variants</i>
unfairplay	 unfairplay	8.4b, Network Flow, Variants
00193	 Graph Coloring	8.6a, NP-hard/C, small, E
00539	 The Settlers of Catan	8.6a, NP-hard/C, small, E
00574	 Sum It Up	8.6a, NP-hard/C, small, E
00624	 CD	8.6a, NP-hard/C, small, E
00775	 Hamiltonian Cycle	8.6a, NP-hard/C, small, E
<i>00989</i>	 Su Doku	<i>8.6a, NP-hard/C, small, E</i>
10957	 So Doku Checker	8.6a, NP-hard/C, small, E
<i>11088</i>	 End up with More Teams	<i>8.6a, NP-hard/C, small, E</i>
<i>12455</i>	 Bars	<i>8.6a, NP-hard/C, small, E</i>
balanceddiet	 balanceddiet	8.6a, NP-hard/C, small, E
<i>equalsumseasy</i>	 equalsumseasy	<i>8.6a, NP-hard/C, small, E</i>
<i>flowfree</i>	 flowfree	<i>8.6a, NP-hard/C, small, E</i>
<i>font</i>	 font	<i>8.6a, NP-hard/C, small, E</i>
satisfiability	 satisfiability	8.6a, NP-hard/C, small, E
<i>socialadvertising</i>	 socialadvertising	<i>8.6a, NP-hard/C, small, E</i>
tightfitsudoku	 tightfitsudoku	8.6a, NP-hard/C, small, E
vivoparc	 vivoparc	8.6a, NP-hard/C, small, E

Both OJ	Problem Title	CP4
01098	 Robots on Ice	8.6b, NP-hard/C, small, H
01217	 Route Planning	8.6b, NP-hard/C, small, H
10032	 Tug of War	8.6b, NP-hard/C, small, H
10125	 Sumsets	8.6b, NP-hard/C, small, H
10160	 Servicing Stations	8.6b, NP-hard/C, small, H
10571	 Products	8.6b, NP-hard/C, small, H
11065	 A Gentlemen's Agreement	8.6b, NP-hard/C, small, H
11095	 Tabriz City	8.6b, NP-hard/C, small, H
12911	 Subset sum	8.6b, NP-hard/C, small, H
beanbag	 beanbag	8.6b, NP-hard/C, small, H
busplanning	 busplanning	8.6b, NP-hard/C, small, H
coloring	 coloring	8.6b, NP-hard/C, small, H
mapcolouring	 mapcolouring	8.6b, NP-hard/C, small, H
programmingteamselection	 programmingteamselection	8.6b, NP-hard/C, small, H
01194	 Machine Schedule	8.6c, NP-hard/C, special, E
01347	 Tour	8.6c, NP-hard/C, special, E
10243	 Fire! Fire!! Fire!!!	8.6c, NP-hard/C, special, E
10349	 Antenna Placement	8.6c, NP-hard/C, special, E
10859	 Placing Lampposts	8.6c, NP-hard/C, special, E
11159	 Factors and Multiples	8.6c, NP-hard/C, special, E
11357	 Ensuring Truth	8.6c, NP-hard/C, special, E
11419	 SAM I AM	8.6c, NP-hard/C, special, E
12083	 Guardian of Decency	8.6c, NP-hard/C, special, E
12168	 Cat vs. Dog	8.6c, NP-hard/C, special, E

Both OJ	Problem Title	CP4
13115	 Sudoku	8.6c, NP-hard/C, special, E
antennaplacement	 antennaplacement	8.6c, NP-hard/C, special, E
<i>bilateral</i>	 bilateral	<i>8.6c, NP-hard/C, special, E</i>
bookcircle	 bookcircle	8.6c, NP-hard/C, special, E
catvsdog	 catvsdog	8.6c, NP-hard/C, special, E
citrusintern	 citrusintern	8.6c, NP-hard/C, special, E
countingclauses	 countingclauses	8.6c, NP-hard/C, special, E
<i>europeantrip</i>	 europeantrip	<i>8.6c, NP-hard/C, special, E</i>
guardianofdecency	 guardianofdecency	8.6c, NP-hard/C, special, E
<i>reactivity</i>	 reactivity	<i>8.6c, NP-hard/C, special, E</i>
<i>01086</i>	 The Ministers' Major Mess	<i>8.6d, NP-hard/C, special, H</i>
<i>01096</i>	 The Islands	<i>8.6d, NP-hard/C, special, H</i>
<i>01184</i>	 Air Raid	<i>8.6d, NP-hard/C, special, H</i>
01201	 Taxi Cab Scheme	8.6d, NP-hard/C, special, H
<i>01212</i>	 Duopoly	<i>8.6d, NP-hard/C, special, H</i>
01220	 Party at Hali-Bula	8.6d, NP-hard/C, special, H
10319	 Manhattan	8.6d, NP-hard/C, special, H
11294	 Wedding	8.6d, NP-hard/C, special, H
airports	 airports	8.6d, NP-hard/C, special, H
eastereggs	 eastereggs	8.6d, NP-hard/C, special, H
ironcoal	 ironcoal	8.6d, NP-hard/C, special, H
itcanbearranged	 itcanbearranged	8.6d, NP-hard/C, special, H
<i>jailbreak</i>	 jailbreak	<i>8.6d, NP-hard/C, special, H</i>
joggers	 joggers	8.6d, NP-hard/C, special, H

Both OJ	Problem Title	CP4
mafija	 mafija	8.6d, NP-hard/C, special, H
ridofcoins	 ridofcoins	8.6d, NP-hard/C, special, H
taxicab	 taxicab	8.6d, NP-hard/C, special, H
wedding	 wedding	8.6d, NP-hard/C, special, H
01045	 The Great Wall Game	9.kuhn, Kuhn-Munkres
10746	 Crime Wave - The Sequel	9.kuhn, Kuhn-Munkres
10888	 Warehouse	9.kuhn, Kuhn-Munkres
11553	 Grid Game	9.kuhn, Kuhn-Munkres
aqueducts	 aqueducts	9.kuhn, Kuhn-Munkres
cheatingatwar	 cheatingatwar	9.kuhn, Kuhn-Munkres
engaging	 engaging	9.kuhn, Kuhn-Munkres
cheeseifyouplease	 cheeseifyouplease	9.line, Linear Programming
maximumrent	 maximumrent	9.line, Linear Programming

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