



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: Chapter 3 : Problem Solving Paradigms only

Problem Quality: All

Number of problems shown (initially in CP4 order): 603

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
00165	 Stamps	3.2a, Pre-calculate-able
00167	 The Sultan's Successors	3.2a, Pre-calculate-able
00256	 Quirksom Squares	3.2a, Pre-calculate-able

























Both OJ	Problem Title	CP4
00347	 Run	3.2a, Pre-calculate-able
00750	 8 Queens Chess Problem	3.2a, Pre-calculate-able
00861	 Little Bishops	3.2a, Pre-calculate-able
10128	 Queue	3.2a, Pre-calculate-able
10177	 (2/3/4)-D Sqr/Rects/Cubes/...	3.2a, Pre-calculate-able
10276	 Hanoi Tower Troubles Again...	3.2a, Pre-calculate-able
11085	 Back to the 8-Queens	3.2a, Pre-calculate-able
4thought	 4thought	3.2a, Pre-calculate-able
cardtrick2	 cardtrick2	3.2a, Pre-calculate-able
chocolates	 chocolates	3.2a, Pre-calculate-able
foolingaround	 foolingaround	3.2a, Pre-calculate-able
gridmagic	 gridmagic	3.2a, Pre-calculate-able
lastfactorialdigit	 lastfactorialdigit	3.2a, Pre-calculate-able
luckynumber	 luckynumber	3.2a, Pre-calculate-able
mancala	 mancala	3.2a, Pre-calculate-able
primematrix	 primematrix	3.2a, Pre-calculate-able
sgcoin	 sgcoin	3.2a, Pre-calculate-able
theplank	 theplank	3.2a, Pre-calculate-able
00105	 The Skyline Problem	3.2b, Iterative (Two Loops)
00592	 Island of Logic	3.2b, Iterative (Two Loops)
00617	 Nonstop Travel	3.2b, Iterative (Two Loops)
01260	 Sales	3.2b, Iterative (Two Loops)
01588	 Kickdown	3.2b, Iterative (Two Loops)
10041	 Vito's Family	3.2b, Iterative (Two Loops)

























Both OJ	Problem Title	CP4
10487	 Closest Sums	3.2b, Iterative (Two Loops)
10570	 Meeting with Aliens	3.2b, Iterative (Two Loops)
10670	 Work Reduction	3.2b, Iterative (Two Loops)
10730	 Antiarithmetic?	3.2b, Iterative (Two Loops)
11242	 Tour de France	3.2b, Iterative (Two Loops)
12205	 Happy Telephones	3.2b, Iterative (Two Loops)
12488	 Start Grid	3.2b, Iterative (Two Loops)
12583	 Memory Overflow	3.2b, Iterative (Two Loops)
13018	 Dice Cup	3.2b, Iterative (Two Loops)
8queens	 8queens	3.2b, Iterative (Two Loops)
antiarithmetic	 antiarithmetic	3.2b, Iterative (Two Loops)
bestrelayteam	 bestrelayteam	3.2b, Iterative (Two Loops)
bikegears	 bikegears	3.2b, Iterative (Two Loops)
blackfriday	 blackfriday	3.2b, Iterative (Two Loops)
closestsums	 closestsums	3.2b, Iterative (Two Loops)
codeguessing	 codeguessing	3.2b, Iterative (Two Loops)
golombrulers	 golombrulers	3.2b, Iterative (Two Loops)
kafkaesque	 kafkaesque	3.2b, Iterative (Two Loops)
liga	 liga	3.2b, Iterative (Two Loops)
majstor	 majstor	3.2b, Iterative (Two Loops)
missingnumber	 missingnumber	3.2b, Iterative (Two Loops)
peg	 peg	3.2b, Iterative (Two Loops)
pet	 pet	3.2b, Iterative (Two Loops)
putovanje	 putovanje	3.2b, Iterative (Two Loops)

























Both OJ	Problem Title	CP4
reduction	 reduction	3.2b, Iterative (Two Loops)
register	 register	3.2b, Iterative (Two Loops)
smoothiestand	 smoothiestand	3.2b, Iterative (Two Loops)
summertrip	 summertrip	3.2b, Iterative (Two Loops)
telephones	 telephones	3.2b, Iterative (Two Loops)
tourdefrance	 tourdefrance	3.2b, Iterative (Two Loops)
00154	 Recycling	3.2c, Three+ Nested Loops, E
00441	 Lotto	3.2c, Three+ Nested Loops, E
00626	 Ecosystem	3.2c, Three+ Nested Loops, E
00703	 Triple Ties: The Organizer...	3.2c, Three+ Nested Loops, E
00735	 Dart-a-Mania	3.2c, Three+ Nested Loops, E
10102	 The path in the colored fi...	3.2c, Three+ Nested Loops, E
10662	 The Wedding	3.2c, Three+ Nested Loops, E
11059	 Maximum Product	3.2c, Three+ Nested Loops, E
12498	 Ant's Shopping Mall	3.2c, Three+ Nested Loops, E
12515	 Movie Police	3.2c, Three+ Nested Loops, E
12801	 Grandpa Pepe's Pizza	3.2c, Three+ Nested Loops, E
12844	 Outwitting the Weighing Ma...	3.2c, Three+ Nested Loops, E
cinemaseating	 cinemaseating	3.2c, Three+ Nested Loops, E
cudoviste	 cudoviste	3.2c, Three+ Nested Loops, E
mathhomework	 mathhomework	3.2c, Three+ Nested Loops, E
npuzzle	 npuzzle	3.2c, Three+ Nested Loops, E
patuljci	 patuljci	3.2c, Three+ Nested Loops, E
radir	 radir	3.2c, Three+ Nested Loops, E

























Both OJ	Problem Title	CP4
safehouses	 safehouses	3.2c, Three+ Nested Loops, E
set	 set	3.2c, Three+ Nested Loops, E
triangledrama	 triangledrama	3.2c, Three+ Nested Loops, E
00253	 Cube painting	3.2d, Three+ Nested Loops, H
00296	 Safebreaker	3.2d, Three+ Nested Loops, H
00386	 Perfect Cubes	3.2d, Three+ Nested Loops, H
10360	 Rat Attack	3.2d, Three+ Nested Loops, H
10365	 Blocks	3.2d, Three+ Nested Loops, H
10483	 The Sum Equals the Product	3.2d, Three+ Nested Loops, H
10502	 Counting Rectangles	3.2d, Three+ Nested Loops, H
10660	 Citizen attention offices	3.2d, Three+ Nested Loops, H
10973	 Triangle Counting	3.2d, Three+ Nested Loops, H
11108	 Tautology	3.2d, Three+ Nested Loops, H
11236	 Grocery store	3.2d, Three+ Nested Loops, H
11342	 Three-square	3.2d, Three+ Nested Loops, H
11548	 Blackboard Bonanza	3.2d, Three+ Nested Loops, H
11565	 Simple Equations	3.2d, Three+ Nested Loops, H
11804	 Argentina	3.2d, Three+ Nested Loops, H
11959	 Dice	3.2d, Three+ Nested Loops, H
11975	 Tele-loto	3.2d, Three+ Nested Loops, H
12337	 Bob's Beautiful Balls	3.2d, Three+ Nested Loops, H
calculatingdartscores	 calculatingdartscores	3.2d, Three+ Nested Loops, H
goblingardenguards	 goblingardenguards	3.2d, Three+ Nested Loops, H
lektira	 lektira	3.2d, Three+ Nested Loops, H

























Both OJ	Problem Title	CP4
medals	 medals	3.2d, Three+ Nested Loops, H
misa	 misa	3.2d, Three+ Nested Loops, H
<i>tautology</i>	 tautology	<i>3.2d, Three+ Nested Loops, H</i>
00140	 Bandwidth	3.2e, Iterative (Permutation)
00146	 ID Codes	3.2e, Iterative (Permutation)
<i>00234</i>	 Switching Channels	<i>3.2e, Iterative (Permutation)</i>
00418	 Molecules	3.2e, Iterative (Permutation)
<i>01064</i>	 Network	<i>3.2e, Iterative (Permutation)</i>
01209	 Wordfish	3.2e, Iterative (Permutation)
10997	 Medals	3.2e, Iterative (Permutation)
11412	 Dig the Holes	3.2e, Iterative (Permutation)
<i>11742</i>	 Social Constraints	<i>3.2e, Iterative (Permutation)</i>
<i>12249</i>	 Overlapping Scenes	<i>3.2e, Iterative (Permutation)</i>
classpicture	 classpicture	3.2e, Iterative (Permutation)
<i>dancerecital</i>	 dancerecital	<i>3.2e, Iterative (Permutation)</i>
<i>dreamer</i>	 dreamer	<i>3.2e, Iterative (Permutation)</i>
towering	 towering	3.2e, Iterative (Permutation)
veci	 veci	<i>3.2e, Iterative (Permutation)</i>
victorythroughsynergy	 victorythroughsynergy	3.2e, Iterative (Permutation)
00435	 Block Voting	3.2f, Iterative (Combination)
00517	 Word	3.2f, Iterative (Combination)
<i>00639</i>	 Don't Get Rooked	<i>3.2f, Iterative (Combination)</i>
<i>01047</i>	 Zones	<i>3.2f, Iterative (Combination)</i>
11205	 The broken pedometer	3.2f, Iterative (Combination)

























Both OJ	Problem Title	CP4
11659	 Informants	3.2f, Iterative (Combination)
12346	 Water Gate Management	3.2f, Iterative (Combination)
12348	 Fun Coloring	3.2f, Iterative (Combination)
12406	 Help Dexter	3.2f, Iterative (Combination)
12694	 Meeting Room Arrangement	3.2f, Iterative (Combination)
13103	 Tobby and Seven	3.2f, Iterative (Combination)
buildingboundaries	 buildingboundaries	3.2f, Iterative (Combination)
doubleplusgood	 doubleplusgood	3.2f, Iterative (Combination)
exammanipulation	 exammanipulation	3.2f, Iterative (Combination)
geppetto	 geppetto	3.2f, Iterative (Combination)
perket	 perket	3.2f, Iterative (Combination)
squaredeal	 squaredeal	3.2f, Iterative (Combination)
zgrade	 zgrade	3.2f, Iterative (Combination)
00102	 Ecological Bin Packing	3.2g, Try All Answers
00188	 Perfect Hash	3.2g, Try All Answers
00471	 Magic Numbers	3.2g, Try All Answers
00725	 Division	3.2g, Try All Answers
10908	 Largest Square	3.2g, Try All Answers
communication	 communication	3.2g, Try All Answers
cookingwater	 cookingwater	3.2g, Try All Answers
flexible	 flexible	3.2g, Try All Answers
heirsdilemma	 heirsdilemma	3.2g, Try All Answers
islands	 islands	3.2g, Try All Answers
owlandfox	 owlandfox	3.2g, Try All Answers

























Both OJ	Problem Title	CP4
parking2	 parking2	3.2g, Try All Answers
prinova	 prinova	3.2g, Try All Answers
savingforretirement	 savingforretirement	3.2g, Try All Answers
tabsandspaces	 tabsandspaces	3.2g, Try All Answers
walls	 walls	<i>3.2g, Try All Answers</i>
00100	 The 3n + 1 problem	3.2h, Math Simulation, Easier
00371	 Ackermann Functions	3.2h, Math Simulation, Easier
00382	 Perfection	<i>3.2h, Math Simulation, Easier</i>
00654	 Ratio	3.2h, Math Simulation, Easier
00906	 Rational Neighbor	3.2h, Math Simulation, Easier
01225	 Digit Counting	<i>3.2h, Math Simulation, Easier</i>
01583	 Digit Generator	3.2h, Math Simulation, Easier
10346	 Peter's Smokes	<i>3.2h, Math Simulation, Easier</i>
10370	 Above Average	3.2h, Math Simulation, Easier
10783	 Odd Sum	3.2h, Math Simulation, Easier
10879	 Code Refactoring	3.2h, Math Simulation, Easier
11001	 Necklace	3.2h, Math Simulation, Easier
11150	 Cola	3.2h, Math Simulation, Easier
11247	 Income Tax	3.2h, Math Simulation, Easier
11313	 Gourmet Games	3.2h, Math Simulation, Easier
11689	 Soda Surpler	3.2h, Math Simulation, Easier
11877	 The Coco-Cola Store	3.2h, Math Simulation, Easier
11934	 Magic Formula	3.2h, Math Simulation, Easier
12527	 Different Digits	3.2h, Math Simulation, Easier

























Both OJ	Problem Title	CP4
12938	 Just Another Easy Problem	3.2h, Math Simulation, Easier
13059	 Tennis Championship	3.2h, Math Simulation, Easier
13131	 Divisors	3.2h, Math Simulation, Easier
aboveaverage	 aboveaverage	3.2h, Math Simulation, Easier
damagedequation	 damagedequation	3.2h, Math Simulation, Easier
dicecup	 dicecup	3.2h, Math Simulation, Easier
<i>easiest</i>	 easiest	3.2h, Math Simulation, Easier
<i>growlinggears</i>	 growlinggears	3.2h, Math Simulation, Easier
hailstone2	 hailstone2	3.2h, Math Simulation, Easier
harshadnumbers	 harshadnumbers	3.2h, Math Simulation, Easier
powersof2easy	 powersof2easy	3.2h, Math Simulation, Easier
refrigerator	 refrigerator	3.2h, Math Simulation, Easier
socialrunning	 socialrunning	3.2h, Math Simulation, Easier
sodaslurper	 sodaslurper	3.2h, Math Simulation, Easier
somesum	 somesum	3.2h, Math Simulation, Easier
sumoftheothers	 sumoftheothers	3.2h, Math Simulation, Easier
tri	 tri	3.2h, Math Simulation, Easier
<i>trollhunt</i>	 trollhunt	3.2h, Math Simulation, Easier
<i>videospeedup</i>	 videospeedup	3.2h, Math Simulation, Easier
zamka	 zamka	3.2h, Math Simulation, Easier
00493	 Rational Spiral	3.2i, Math Simulation, Harder
00550	 Multiplying by Rotation	3.2i, Math Simulation, Harder
<i>00616</i>	 Coconuts, Revisited	3.2i, Math Simulation, Harder
00697	 Jack and Jill	3.2i, Math Simulation, Harder

























Both OJ	Problem Title	CP4
00846	 Steps	3.2i, Math Simulation, Harder
10025	 The ? 1 ? 2 ? ... ? n = k ...	3.2i, Math Simulation, Harder
10035	 Primary Arithmetic	3.2i, Math Simulation, Harder
11130	 Billiard bounces	3.2i, Math Simulation, Harder
11254	 Consecutive Integers	3.2i, Math Simulation, Harder
11490	 Just Another Problem	3.2i, Math Simulation, Harder
11968	 In The Airport	3.2i, Math Simulation, Harder
12169	 Disgruntled Judge	3.2i, Math Simulation, Harder
12290	 Counting Game	3.2i, Math Simulation, Harder
12665	 Joking with Fermat's Last ...	3.2i, Math Simulation, Harder
12792	 Shuffled Deck	3.2i, Math Simulation, Harder
12895	 Armstrong Number	3.2i, Math Simulation, Harder
crackingrsa	 crackingrsa	3.2i, Math Simulation, Harder
disgruntledjudge	 disgruntledjudge	3.2i, Math Simulation, Harder
falling	 falling	3.2i, Math Simulation, Harder
houelawn	 houelawn	3.2i, Math Simulation, Harder
lipschitzconstant	 lipschitzconstant	3.2i, Math Simulation, Harder
milestones	 milestones	3.2i, Math Simulation, Harder
repeatingdecimal	 repeatingdecimal	3.2i, Math Simulation, Harder
robotopia	 robotopia	3.2i, Math Simulation, Harder
thanosthehero	 thanosthehero	3.2i, Math Simulation, Harder
00130	 Roman Roulette	3.2j, Josephus Problem
00133	 The Dole Queue	3.2j, Josephus Problem
00151	 Power Crisis	3.2j, Josephus Problem

























Both OJ	Problem Title	CP4
00305	 Joseph	3.2j, Josephus Problem
00402	 M*A*S*H	3.2j, Josephus Problem
00440	 Eeny Meeny Moo	3.2j, Josephus Problem
01176	 A Benevolent Josephus	3.2j, Josephus Problem
10015	 Joseph's Cousin	3.2j, Josephus Problem
10771	 Barbarian tribes	3.2j, Josephus Problem
10774	 Repeated Josephus	3.2j, Josephus Problem
11351	 Last Man Standing	3.2j, Josephus Problem
coconut	 coconut	3.2j, Josephus Problem
eenymeeny	 eenymeeny	3.2j, Josephus Problem
musicalchairs	 musicalchairs	3.2j, Josephus Problem
toys	 toys	3.2j, Josephus Problem
00380	 Call Forwarding	3.2k, Backtracking (Easier)
00487	 Boggle Blitz	3.2k, Backtracking (Easier)
00524	 Prime Ring Problem	3.2k, Backtracking (Easier)
00529	 Addition Chains	3.2k, Backtracking (Easier)
00571	 Jugs	3.2k, Backtracking (Easier)
00598	 Bundling Newspapers	3.2k, Backtracking (Easier)
00628	 Passwords	3.2k, Backtracking (Easier)
00677	 All Walks of length "n" fr...	3.2k, Backtracking (Easier)
00729	 The Hamming Distance Probl...	3.2k, Backtracking (Easier)
00868	 Numerical Maze	3.2k, Backtracking (Easier)
10344	 23 out of 5	3.2k, Backtracking (Easier)
10452	 Marcus	3.2k, Backtracking (Easier)

























Both OJ	Problem Title	CP4
10503	 The dominoes solitaire	3.2k, Backtracking (Easier)
10576	 Y2K Accounting Bug	3.2k, Backtracking (Easier)
10624	 Super Number	3.2k, Backtracking (Easier)
10776	 Determine The Combination	3.2k, Backtracking (Easier)
10950	 Bad Code	3.2k, Backtracking (Easier)
11201	 The problem of the crazy I...	3.2k, Backtracking (Easier)
11961	 DNA	3.2k, Backtracking (Easier)
12840	 The Archery Puzzle	3.2k, Backtracking (Easier)
goodmorning	 goodmorning	3.2k, Backtracking (Easier)
gradecurving	 gradecurving	3.2k, Backtracking (Easier)
natjecanje	 natjecanje	3.2k, Backtracking (Easier)
paintings	 paintings	3.2k, Backtracking (Easier)
00129	 Krypton Factor	3.2l, Backtracking (Harder)
00208	 Firetruck	3.2l, Backtracking (Harder)
00222	 Budget Travel	3.2l, Backtracking (Harder)
00301	 Transportation	3.2l, Backtracking (Harder)
00307	 Sticks	3.2l, Backtracking (Harder)
00331	 Mapping the Swaps	3.2l, Backtracking (Harder)
00416	 LED Test	3.2l, Backtracking (Harder)
00433	 Bank (Not Quite O.C.R.)	3.2l, Backtracking (Harder)
00565	 Pizza Anyone?	3.2l, Backtracking (Harder)
01262	 Password	3.2l, Backtracking (Harder)
10001	 Garden of Eden	3.2l, Backtracking (Harder)
10063	 Knuth's Permutation	3.2l, Backtracking (Harder)

























Both OJ	Problem Title	CP4
10094	 Place the Guards	3.2I, Backtracking (Harder)
10460	 Find the Permuted String	3.2I, Backtracking (Harder)
10475	 Help the Leaders	3.2I, Backtracking (Harder)
10582	 ASCII Labyrinth	3.2I, Backtracking (Harder)
11052	 Economic phone calls	3.2I, Backtracking (Harder)
11753	 Creating Palindrome	3.2I, Backtracking (Harder)
carvet	 carvet	3.2I, Backtracking (Harder)
<i>dobra</i>	 dobra	<i>3.2I, Backtracking (Harder)</i>
<i>fruitbaskets</i>	 fruitbaskets	<i>3.2I, Backtracking (Harder)</i>
<i>pagelayout</i>	 pagelayout	<i>3.2I, Backtracking (Harder)</i>
primes	 primes	3.2I, Backtracking (Harder)
solitaire	 solitaire	3.2I, Backtracking (Harder)
00679	 Dropping Balls	3.3a, Binary Search
00957	 Popes	3.3a, Binary Search
10057	 A mid-summer night's dream...	3.3a, Binary Search
10077	 The Stern-Brocot Number Sy...	3.3a, Binary Search
10474	 Where is the Marble?	3.3a, Binary Search
10567	 Helping Fill Bates	3.3a, Binary Search
10611	 The Playboy Chimp	3.3a, Binary Search
10706	 Number Sequence	3.3a, Binary Search
10742	 The New Rule in Euphomia	3.3a, Binary Search
<i>11057</i>	 Exact Sum	<i>3.3a, Binary Search</i>
<i>11621</i>	 Small Factors	<i>3.3a, Binary Search</i>
11876	 N + NOD (N).	3.3a, Binary Search

























Both OJ	Problem Title	CP4
12192	 Grapevine	3.3a, Binary Search
12965	 Angry Bids	3.3a, Binary Search
firefly	 firefly	3.3a, Binary Search
outofsorts	 outofsorts	3.3a, Binary Search
roompainting	 roompainting	3.3a, Binary Search
synchronizinglists	 synchronizinglists	3.3a, Binary Search
01753	 Need for Speed	3.3b, Bisection and BSTA, E
10341	 Solve It	3.3b, Bisection and BSTA, E
11413	 Fill the Containers	3.3b, Bisection and BSTA, E
11627	 Slalom	3.3b, Bisection and BSTA, E
11881	 Internal Rate of Return	3.3b, Bisection and BSTA, E
11935	 Through the Desert	3.3b, Bisection and BSTA, E
12032	 The Monkey and the Oiled B...	3.3b, Bisection and BSTA, E
12190	 Electric Bill	3.3b, Bisection and BSTA, E
12791	 Lap	3.3b, Bisection and BSTA, E
13142	 Destroy the Moon to Save t...	3.3b, Bisection and BSTA, E
bootstrappingnumber	 bootstrappingnumber	3.3b, Bisection and BSTA, E
carefulascent	 carefulascent	3.3b, Bisection and BSTA, E
financialplanning	 financialplanning	3.3b, Bisection and BSTA, E
freeweights	 freeweights	3.3b, Bisection and BSTA, E
hindex	 hindex	3.3b, Bisection and BSTA, E
htoo	 htoo	3.3b, Bisection and BSTA, E
monk	 monk	3.3b, Bisection and BSTA, E
slalom2	 slalom2	3.3b, Bisection and BSTA, E

Both OJ	Problem Title	CP4
smallschedule	 smallschedule	3.3b, Bisection and BSTA, E
speed	 speed	3.3b, Bisection and BSTA, E
suspensionbridges	 suspensionbridges	<i>3.3b, Bisection and BSTA, E</i>
svada	 svada	3.3b, Bisection and BSTA, E
00183	 Bit Maps	<i>3.3c, Ternary Search & Others</i>
00608	 Counterfeit Dollar	3.3c, Ternary Search & Others
01738	 Ceiling Function	3.3c, Ternary Search & Others
10385	 Duathlon	<i>3.3c, Ternary Search & Others</i>
11147	 KuPellaKeS BST	<i>3.3c, Ternary Search & Others</i>
11701	 Cantor	3.3c, Ternary Search & Others
12893	 Count It	<i>3.3c, Ternary Search & Others</i>
a1paper	 a1paper	<i>3.3c, Ternary Search & Others</i>
cantor	 cantor	3.3c, Ternary Search & Others
ceiling	 ceiling	<i>3.3c, Ternary Search & Others</i>
euclidean tsp	 euclidean tsp	3.3c, Ternary Search & Others
goingtoseed	 goingtoseed	<i>3.3c, Ternary Search & Others</i>
jewelrybox	 jewelrybox	3.3c, Ternary Search & Others
qanat	 qanat	3.3c, Ternary Search & Others
reconnaissance	 reconnaissance	3.3c, Ternary Search & Others
sretan	 sretan	3.3c, Ternary Search & Others
sylvester	 sylvester	3.3c, Ternary Search & Others
tricktreat	 tricktreat	3.3c, Ternary Search & Others
zipline	 zipline	3.3c, Ternary Search & Others
00410	 Station Balance	3.4a, Greedy (Classical)

























Both OJ	Problem Title	CP4
01193	 Radar Installation	3.4a, Greedy (Classical)
10020	 Minimal coverage	3.4a, Greedy (Classical)
10249	 The Grand Dinner	3.4a, Greedy (Classical)
10382	 Watering Grass	3.4a, Greedy (Classical)
11264	 Coin Collector	3.4a, Greedy (Classical)
11292	 Dragon of Loowater	3.4a, Greedy (Classical)
11389	 The Bus Driver Problem	3.4a, Greedy (Classical)
12210	 A Match Making Problem	3.4a, Greedy (Classical)
12321	 Gas Stations	3.4a, Greedy (Classical)
12405	 Scarecrow	3.4a, Greedy (Classical)
avoidland	 avoidland	3.4a, Greedy (Classical)
classrooms	 classrooms	3.4a, Greedy (Classical)
color	 color	3.4a, Greedy (Classical)
distributingseats	 distributingseats	3.4a, Greedy (Classical)
fishmongers	 fishmongers	3.4a, Greedy (Classical)
froshweek2	 froshweek2	3.4a, Greedy (Classical)
grass	 grass	3.4a, Greedy (Classical)
inflation	 inflation	3.4a, Greedy (Classical)
intervalcover	 intervalcover	3.4a, Greedy (Classical)
intervalscheduling	 intervalscheduling	3.4a, Greedy (Classical)
loowater	 loowater	3.4a, Greedy (Classical)
messages	 messages	3.4a, Greedy (Classical)
squarepegs	 squarepegs	3.4a, Greedy (Classical)
10763	 Foreign Exchange	3.4b, Involving Sorting, E

























Both OJ	Problem Title	CP4
10785	 The Mad Numerologist	3.4b, Involving Sorting, E
11269	 Setting Problems	3.4b, Involving Sorting, E
11369	 Shopaholic	3.4b, Involving Sorting, E
11729	 Commando War	3.4b, Involving Sorting, E
11900	 Boiled Eggs	3.4b, Involving Sorting, E
12485	 Perfect Choir	3.4b, Involving Sorting, E
13031	 Geek Power Inc.	3.4b, Involving Sorting, E
13109	 Elephants	3.4b, Involving Sorting, E
acm2	 acm2	3.4b, Involving Sorting, E
akcija	 akcija	3.4b, Involving Sorting, E
aprizenoonecanwin	 aprizenoonecanwin	3.4b, Involving Sorting, E
fallingapart	 fallingapart	3.4b, Involving Sorting, E
fridge	 fridge	3.4b, Involving Sorting, E
gettowork	 gettowork	3.4b, Involving Sorting, E
help	 help	3.4b, Involving Sorting, E
hotsprings	 hotsprings	3.4b, Involving Sorting, E
icpcteamselection	 icpcteamselection	3.4b, Involving Sorting, E
minimumscalar	 minimumscalar	3.4b, Involving Sorting, E
pikemaneasy	 pikemaneasy	3.4b, Involving Sorting, E
planetaris	 planetaris	3.4b, Involving Sorting, E
plantingtrees	 plantingtrees	3.4b, Involving Sorting, E
redistribution	 redistribution	3.4b, Involving Sorting, E
shopaholic	 shopaholic	3.4b, Involving Sorting, E
standings	 standings	3.4b, Involving Sorting, E

























Both OJ	Problem Title	CP4
textmessaging	 textmessaging	3.4b, Involving Sorting, E
toflur	 toflur	3.4b, Involving Sorting, E
universityzoning	 universityzoning	3.4b, Involving Sorting, E
woodcutting	 woodcutting	3.4b, Involving Sorting, E
10026	 Shoemaker's Problem	3.4c, Involving Sorting, H
10037	 Bridge	3.4c, Involving Sorting, H
11100	 The Trip, 2007	3.4c, Involving Sorting, H
11103	 WFF 'N PROOF	3.4c, Involving Sorting, H
12673	 Football	3.4c, Involving Sorting, H
12834	 Extreme Terror	3.4c, Involving Sorting, H
13054	 Hippo Circus	3.4c, Involving Sorting, H
airconditioned	 airconditioned	3.4c, Involving Sorting, H
andrewant	 andrewant	3.4c, Involving Sorting, H
birds	 birds	3.4c, Involving Sorting, H
ceremony	 ceremony	3.4c, Involving Sorting, H
dasort	 dasort	3.4c, Involving Sorting, H
delivery	 delivery	3.4c, Involving Sorting, H
fairdivision	 fairdivision	3.4c, Involving Sorting, H
intergalacticbidding	 intergalacticbidding	3.4c, Involving Sorting, H
keepitcool	 keepitcool	3.4c, Involving Sorting, H
trip2007	 trip2007	3.4c, Involving Sorting, H
wffnproof	 wffnproof	3.4c, Involving Sorting, H
01153	 Keep the Customer Satisfie...	3.4d, Involving PQ
10954	 Add All	3.4d, Involving PQ

























Both OJ	Problem Title	CP4
12390	 Distributing Ballot Boxes	3.4d, Involving PQ
13177	 Orchestral scores	3.4d, Involving PQ
ballotboxes	 ballotboxes	3.4d, Involving PQ
canvas	 canvas	3.4d, Involving PQ
entertainmentbox	 entertainmentbox	3.4d, Involving PQ
vegetables	 vegetables	3.4d, Involving PQ
workstations	 workstations	3.4d, Involving PQ
10152	 ShellSort	3.4e, Non Classical, Easier
10340	 All in All	3.4e, Non Classical, Easier
10440	 Ferry Loading II	3.4e, Non Classical, Easier
10602	 Editor Nottoobad	3.4e, Non Classical, Easier
10656	 Maximum Sum (II)	3.4e, Non Classical, Easier
10672	 Marbles on a tree	3.4e, Non Classical, Easier
10700	 Camel trading	3.4e, Non Classical, Easier
10714	 Ants	3.4e, Non Classical, Easier
11054	 Wine trading in Gergovia	3.4e, Non Classical, Easier
11520	 Fill the Square	3.4e, Non Classical, Easier
11532	 Simple Adjacency Maximizat...	3.4e, Non Classical, Easier
12482	 Short Story Competition	3.4e, Non Classical, Easier
ants	 ants	3.4e, Non Classical, Easier
applesack	 applesack	3.4e, Non Classical, Easier
bank	 bank	3.4e, Non Classical, Easier
driver	 driver	3.4e, Non Classical, Easier
horrorfilmnight	 horrorfilmnight	3.4e, Non Classical, Easier

Both OJ	Problem Title	CP4
knitpicking	 knitpicking	3.4e, Non Classical, Easier
<i>marblestree</i>	 marblestree	3.4e, Non Classical, Easier
pripreme	 pripreme	3.4e, Non Classical, Easier
simplicity	 simplicity	3.4e, Non Classical, Easier
skocimis	 skocimis	3.4e, Non Classical, Easier
teacherevaluation	 teacherevaluation	3.4e, Non Classical, Easier
00311	 Packets	3.4f, Non Classical, Harder
00668	 Parliament	3.4f, Non Classical, Harder
10718	 Bit Mask	3.4f, Non Classical, Harder
<i>10821</i>	 Constructing BST	3.4f, Non Classical, Harder
10982	 Troublemakers	3.4f, Non Classical, Harder
11157	 Dynamic Frog	3.4f, Non Classical, Harder
11230	 Annoying painting tool	3.4f, Non Classical, Harder
11240	 Antimonotonicity	3.4f, Non Classical, Harder
11330	 Andy's Shoes	3.4f, Non Classical, Harder
11335	 Discrete Pursuit	3.4f, Non Classical, Harder
<i>11491</i>	 Erasing and Winning	3.4f, Non Classical, Harder
11567	 Moliu Number Generator	3.4f, Non Classical, Harder
<i>11583</i>	 Alien DNA	3.4f, Non Classical, Harder
<i>11890</i>	 Calculus Simplified	3.4f, Non Classical, Harder
12124	 Assemble	3.4f, Non Classical, Harder
12516	 Cinema-cola	3.4f, Non Classical, Harder
13082	 High School Assembly	3.4f, Non Classical, Harder
cardtrading	 cardtrading	3.4f, Non Classical, Harder





Both OJ	Problem Title	CP4
<i>dvds</i>	 dvds	<i>3.4f, Non Classical, Harder</i>
logland	 logland	3.4f, Non Classical, Harder
playground	 playground	3.4f, Non Classical, Harder
<i>stockbroker</i>	 stockbroker	<i>3.4f, Non Classical, Harder</i>
<i>virus</i>	 virus	<i>3.4f, Non Classical, Harder</i>
00108	 Maximum Sum	3.5a, Max 1D/2D Range Sum
00507	 Jill Rides Again	3.5a, Max 1D/2D Range Sum
<i>00787</i>	 Maximum Sub-sequence Produ...	<i>3.5a, Max 1D/2D Range Sum</i>
00836	 Largest Submatrix	3.5a, Max 1D/2D Range Sum
00983	 Localized Summing for Blur...	3.5a, Max 1D/2D Range Sum
<i>01105</i>	 Coffee Central	<i>3.5a, Max 1D/2D Range Sum</i>
10074	 Take the Land	3.5a, Max 1D/2D Range Sum
10667	 Largest Block	3.5a, Max 1D/2D Range Sum
<i>10684</i>	 The jackpot	<i>3.5a, Max 1D/2D Range Sum</i>
<i>10755</i>	 Garbage Heap	<i>3.5a, Max 1D/2D Range Sum</i>
10827	 Maximum sum on a torus	3.5a, Max 1D/2D Range Sum
11951	 Area	3.5a, Max 1D/2D Range Sum
12640	 Largest Sum Game	3.5a, Max 1D/2D Range Sum
13095	 Tobby and Query	3.5a, Max 1D/2D Range Sum
alicedigital	 alicedigital	3.5a, Max 1D/2D Range Sum
<i>commercials</i>	 commercials	<i>3.5a, Max 1D/2D Range Sum</i>
fieldtrip	 fieldtrip	3.5a, Max 1D/2D Range Sum
foldedmap	 foldedmap	3.5a, Max 1D/2D Range Sum
nered	 nered	3.5a, Max 1D/2D Range Sum

Both OJ	Problem Title	CP4
<i>prozor</i>	 <u>prozor</u>	<i>3.5a, Max 1D/2D Range Sum</i>
<i>purplerain</i>	 <u>purplerain</u>	<i>3.5a, Max 1D/2D Range Sum</i>
<i>sellingspatulas</i>	 <u>sellingspatulas</u>	<i>3.5a, Max 1D/2D Range Sum</i>
<i>shortsell</i>	 <u>shortsell</u>	<i>3.5a, Max 1D/2D Range Sum</i>
<i>00111</i>	 <u>History Grading</u>	<i>3.5b, LIS</i>
<i>00231</i>	 <u>Testing the CATCHER</u>	<i>3.5b, LIS</i>
<i>00437</i>	 <u>The Tower of Babylon</u>	<i>3.5b, LIS</i>
<i>00481</i>	 <u>What Goes Up</u>	<i>3.5b, LIS</i>
<i>00497</i>	 <u>Strategic Defense Initiati...</u>	<i>3.5b, LIS</i>
<i>01196</i>	 <u>Tiling Up Blocks</u>	<i>3.5b, LIS</i>
<i>10131</i>	 <u>Is Bigger Smarter?</u>	<i>3.5b, LIS</i>
<i>10154</i>	 <u>Weights and Measures</u>	<i>3.5b, LIS</i>
<i>10534</i>	 <u>Wavio Sequence</u>	<i>3.5b, LIS</i>
<i>11368</i>	 <u>Nested Dolls</u>	<i>3.5b, LIS</i>
<i>11456</i>	 <u>Trainsorting</u>	<i>3.5b, LIS</i>
<i>11790</i>	 <u>Murcia's Skyline</u>	<i>3.5b, LIS</i>
<i>alphabet</i>	 <u>alphabet</u>	<i>3.5b, LIS</i>
<i>increasingsubsequence</i>	 <u>increasingsubsequence</u>	<i>3.5b, LIS</i>
<i>longincsubseq</i>	 <u>longincsubseq</u>	<i>3.5b, LIS</i>
<i>manhattanmornings</i>	 <u>manhattanmornings</u>	<i>3.5b, LIS</i>
<i>nsteddoll</i>	 <u>nsteddoll</u>	<i>3.5b, LIS</i>
<i>trainsorting</i>	 <u>trainsorting</u>	<i>3.5b, LIS</i>
<i>00431</i>	 <u>Trial of the Millennium</u>	<i>3.5c, 0-1 KNAPSACK</i>
<i>00562</i>	 <u>Dividing coins</u>	<i>3.5c, 0-1 KNAPSACK</i>

Both OJ	Problem Title	CP4
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
00674	 Coin Change	3.5d, COIN-CHANGE

Both OJ	Problem Title	CP4
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
<i>bagoftiles</i>	 bagoftiles	3.5d, COIN-CHANGE
<i>canonical</i>	 canonical	3.5d, COIN-CHANGE
<i>exactchange2</i>	 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
<i>beepers</i>	 beepers	3.5e, TSP
<i>bustour</i>	 bustour	3.5e, TSP
<i>cycleseasy</i>	 cycleseasy	3.5e, TSP
<i>errands</i>	 errands	3.5e, TSP
<i>maximizingyourpay</i>	 maximizingyourpay	3.5e, TSP
<i>pokemongogo</i>	 pokemongogo	3.5e, TSP
<i>race</i>	 race	3.5e, TSP
00116	 Unidirectional TSP	3.5f, DP level 1
00196	 Spreadsheet	3.5f, DP level 1
00215	 Spreadsheet Calculator	3.5f, DP level 1
01261	 String Popping	3.5f, DP level 1

Both OJ	Problem Title	CP4
10003	 Cutting Sticks	3.5f, DP level 1
10036	 Divisibility	3.5f, DP level 1
10086	 Test the Rods	3.5f, DP level 1
10337	 Flight Planner	3.5f, DP level 1
10446	 The Marriage Interview :-)	3.5f, DP level 1
10520	 Determine it	3.5f, DP level 1
10721	 Bar Codes	3.5f, DP level 1
10910	 Marks Distribution	3.5f, DP level 1
10912	 Simple Minded Hashing.	3.5f, DP level 1
10943	 How do you add?	3.5f, DP level 1
10980	 Lowest Price in Town	3.5f, DP level 1
11026	 A Grouping Problem	3.5f, DP level 1
11407	 Squares	3.5f, DP level 1
11420	 Chest of Drawers	3.5f, DP level 1
11450	 Wedding shopping	3.5f, DP level 1
11703	 sqrt log sin	3.5f, DP level 1
12654	 Patches	3.5f, DP level 1
12951	 Stock Market	3.5f, DP level 1
13141	 Growing Trees	3.5f, DP level 1
keyboardconcert	 keyboardconcert	3.5f, DP level 1
nikola	 nikola	3.5f, DP level 1
permutationdescent	 permutationdescent	3.5f, DP level 1
spiderman	 spiderman	3.5f, DP level 1
ticketpricing	 ticketpricing.	3.5f, DP level 1

Both OJ	Problem Title	CP4
weightofwords	 weightofwords	3.5f, DP level 1
wordclouds	 wordclouds	3.5f, DP level 1
00662	 Fast Food	3.5g, DP level 2
10039	 Railroads	3.5g, DP level 2
10069	 Distinct Subsequences	3.5g, DP level 2
10081	 Tight Words	3.5g, DP level 2
10120	 Gift?!	3.5g, DP level 2
10164	 Number Game	3.5g, DP level 2
10239	 The Book-shelver's Problem	3.5g, DP level 2
10400	 Game Show Math	3.5g, DP level 2
10465	 Homer Simpson	3.5g, DP level 2
10651	 Pebble Solitaire	3.5g, DP level 2
11485	 Extreme Discrete Summation	3.5g, DP level 2
11514	 Batman	3.5g, DP level 2
11908	 Skyscraper	3.5g, DP level 2
12324	 Philip J. Fry Problem	3.5g, DP level 2
12862	 Intrepid climber	3.5g, DP level 2
12955	 Factorial	3.5g, DP level 2
debugging	 debugging	3.5g, DP level 2
drivinglanes	 drivinglanes	3.5g, DP level 2
kutevi	 kutevi	3.5g, DP level 2
tight	 tight	3.5g, DP level 2
walrusweights	 walrusweights	3.5g, DP level 2
watersheds	 watersheds	3.5g, DP level 2

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