University Interscholastic League

Computer Science Competition

2014 Regional Programming

JUDGES PACKET - CONFIDENTIAL

I. Instructions

1. The attached printouts of the judge test data are provided for the reference of the contest director and programming judges. Additional copies may be made if needed for this purpose.

2. This packet must remain CONFIDENTIAL. Additional copies may be made and returned to schools when other confidential contest material is returned.

II. Table of Contents

1. Alphabet

```
==> alphabet.dat <==
11
AZ
ZA
CCXX
BMYN
ABCDEFGHIJKLMNOPQRSTUVWXYZ
ZYXWVUTSRQPONMLKJIHGFEDCBA
AABYZZ
ABCDZYXW
AAAAAA
MLKJIHGFEDCBAZYXWVUTSRQPON
AZCZA

==> alphabet.out <==
YES
YES
YES
NO
YES
YES
YES
NO
NO
YES
NO
```

2. Average

```
==> average.dat <==
10
10.12 13.423 12.2134 33.1 44.2
2.2 3.3 4.4
3.547 6.816 8.453 3.218 7.159 9.032 3.118
0.500 0.910 0.737 0.585 0.891 0.660 0.819
0.223 0.996 0.826
0.770 0.241 0.892 0.875 0.768 0.439 0.570 0.717
0.857 0.787 0.138 0.228 0.304 0.893 0.044 0.045 0.702 0.822
0.017 0.077
0.327 0.894 0.559 0.413 0.900
0.381 0.884

==> average.out <==
26.386
3.420
6.363
0.743
0.758
0.692
0.591
0.056
0.663
0.681
```

3. Convert Me

```
==> convertme.dat <==
13
4 8
10 25
1 35
42 68
10 25
70 25
79 59
63 65
6 46
82 28
62 92
96 43
28 37

==> convertme.out <==
2
3
-1
3
3
-1
-1
-1
8
-1
4
-1
-1
```

4. Descendants

```
==> descendants.dat <==
20
chrome 23 34
ps 2 1
sublime 4 34
awesome 34 1
eclipse 56 34
gdb 91 56
man 102 91
cd 901 712
textWrangler 712 314
banana 31 91
pie 314 11
closet 92 11
guitar 165 11
sock 12 91
fortyTwo 11 34
nailPolish 8912 56
fingers 98 72
fish 6 34
computer 2179 6
joey 72 31

==> descendants.out <==
root
-awesome
--chrome
--eclipse
---gdb
----banana
-----joey
------fingers
----man
----sock
---nailPolish
--fish
---computer
--fortyTwo
---closet
---guitar
---pie
----textWrangler
-----cd
--sublime
-ps
```

5. Fantasy

```
==> fantasy.dat <==
4
Lebron Durant 1
15 22 2 5 1 33 7 3 4 0 8
10 22 7 10 1 28 8 3 2 0 5
Lebron Durant 1
12 20 9 9 1 34 3 3 0 0 3
12 23 5 5 4 33 7 5 2 0 3
Josh Elynn 5
36 63 26 29 13 110 38 11 3 0 8
27 47 13 17 9 76 7 7 0 0 4
43 91 14 19 0 100 39 10 1 3 9
27 49 11 14 0 65 29 6 5 1 11
17 33 2 3 11 47 18 14 4 1 9
24 44 19 22 7 74 23 4 6 4 6
26 44 20 27 1 73 28 10 8 4 8
26 62 16 19 2 70 26 9 4 4 8
20 42 6 7 9 55 8 22 5 0 4
21 50 4 5 6 52 19 14 5 1 7
Paolo John 7
29 58 23 25 12 93 18 8 7 2 9
29 65 9 13 7 74 15 40 6 2 11
14 27 3 3 1 32 22 15 7 1 0
21 55 22 23 4 68 25 8 5 0 4
23 39 10 21 0 56 43 6 2 9 10
9 26 5 6 2 25 28 10 0 6 5
10 23 2 4 5 27 8 31 5 1 11
10 35 25 28 2 47 17 35 6 0 4
20 40 2 2 5 47 9 3 5 0 2
12 27 4 5 5 33 18 12 2 6 8
22 54 6 7 11 61 8 3 2 0 3
33 72 7 13 2 75 28 12 2 6 11
31 69 22 24 0 84 16 13 0 2 11
15 41 16 19 1 47 12 14 3 1 7

==> fantasy.out <==
Tie.
Durant wins!
Elynn wins!
Paolo wins!
```

6. Hash

```
==> hash.dat <==
6
3 3
a
b
c
5 4
afd
ba
ccs
eee
5 4
afd
ba
ccs
dee
4 7
uadcw
lwnh
uvxwo
dij
le
lfhru
r
12 6
rsluiekxu
vxzoho
jdele
icrshgwml
x
afqsji
5 12
yapbl
jxxavmdw
gnole
jciiojy
hzikfj
xqrmrss
ibllauo
rtljeoumi
sezendsnn
nlgt
dpbzcwky
md

==> hash.out <==
0
0
1
3
0
7
```

7. Monte Carlo

```
==> mc.dat <==
11 15
0.925 9.011
8.786 0.314
1.303 2.945
3.236 -2.899
-8.134 3.362
-0.342 -7.365
-4.892 4.378
-1.612 4.985
9.372 -6.558
4.042 -0.529
4.704 7.047
6 -4.715 5.868
11 0.589 4.445
4 -0.518 -4.626
2 -2.520 1.546
7 6.772 -0.035
7 4.708 -2.733
10 3.354 -4.346
6 -6.081 0.047
5 0.963 -6.185
11 1.902 -0.444
6 -4.446 -2.126
7 -5.645 2.262
4 3.523 -3.125
7 1.222 5.902
8 3.378 -2.270

==> mc.out <==
0.925 9.011
6.266 1.860
1.303 2.945
6.241 -10.650
-7.171 -2.823
-15.584 -3.576
-2.543 12.507
-1.612 4.985
9.372 -6.558
7.396 -4.875
7.195 11.048
```

8. Probe

```
==> probe.dat <==
6
5
1 1 1 1 1
1 5 1 1 1
1 1 1 1 1
1 1 1 2 1
1 1 1 1 2
6
9 9 9 1 1 1
9 9 9 1 1 1
9 9 9 8 8 1
1 1 8 8 8 1
1 1 8 8 8 1
1 1 1 1 1 1
3
71105 65174 20598
95472 42030 101
75078 51649 42778
6
85453 60135 63327 65334 14668 61299
46202 88990 89972 37077 99152 85386
84487 79877 49223 32448 65774 76693
44465 76066 24693 7156 18381 68967
21527 73243 94173 82628 74845 97431
20110 70291 41682 6297 95817 97137
10
88466 45410 2897 82946 79445 7417 3464 65640 85913 20673
5728 77155 17718 99256 98619 31078 4498 10552 39220 92905
394 5393 91748 42146 11581 66537 39636 22532 19851 8982
45917 49033 98981 86811 12249 75639 72326 35571 40121 66245
39822 6640 29117 52478 10514 30585 56620 6943 12766 80233
70906 8099 18439 90962 95316 23886 9652 35692 85033 95182
37112 45088 99972 57361 67554 9715 57386 98410 94494 170
6004 15492 91272 93676 19887 98313 18276 1187 44631 37316
57281 47730 41173 27429 34989 70558 63153 14025 15140 64583
72652 6715 83976 22675 46096 68753 27390 89565 47194 75065
20
85171 7684 87460 46737 48113 85347 13176 76180 51223 79680 25237 45017
29136 3028 72435 55815 61968 57852 44123 82586
88397 36178 99569 40765 85739 58567 9917 55607 48592 20336 39502 14186
48138 64052 26573 32735 95274 64188 97394 83296
62493 92382 62254 1482 41809 29851 97085 40571 28997 7303 10189 46304
28033 82088 30007 1391 63861 7321 26903 29111
76477 8396 99626 51340 44805 58532 15396 67899 54960 36933 91504 61355
84217 60631 45855 34216 19392 4230 24058 53928
66304 60564 31479 15159 35611 49638 60088 28573 9568 53268 1982 10607 4078
38476 84155 79753 40940 33955 42365 61392
36275 40819 75894 65470 92881 91392 89535 29111 56603 17885 34326 9727
59805 56640 4338 73285 28649 92973 33264 47058
75123 46681 61598 96567 29606 8916 12873 42335 95268 67420 25725 53695
21714 98975 37478 44053 1997 65479 4490 44907
94522 23161 74691 54294 59322 43269 98522 39510 76813 46909 75932 23576
86386 76768 89125 309 42016 64080 63431 3790
32620 473 31981 4600 55934 91225 53779 17427 66497 48973 49323 82433 40614
85079 73112 26296 14227 69598 38150 17839
```

```
53192 60228 44012 7944 9709 45593 37074 83734 3537 8907 49184 72968 42071
94282 19359 6201 59520 49887 2010 81436
12127 29656 4754 78847 13746 58387 79045 41611 34089 3860 7668 72946 10561
53984 94531 99189 43833 67009 64298 14063
57181 48467 22017 50238 90 9812 6260 20874 67757 80578 93158 36063 89846
78430 73322 26870 14209 89610 28767 3188
74312 76046 82798 30662 82655 4805 82205 36654 36779 90576 98201 45579
59271 52504 184 99845 18683 13000 64720 44274
94399 8008 31064 39042 55211 35746 4098 19027 18737 44102 35713 35911
46788 45584 86501 3460 10439 53188 81020 16115
27746 50491 21946 26359 36956 44992 21134 47277 18536 4935 38863 93318
20436 46787 96505 84470 72784 23030 42387 16885
523 58094 5805 46460 55534 94015 69933 40947 93374 36803 30815 30893 14001
39514 86658 30019 70732 18684 19346 1626
27161 77027 88364 19174 7869 97223 56277 6419 45516 79106 4438 45292 74245
15748 77787 8180 57343 42666 18400 5352
65690 48795 8865 37967 42778 7893 48636 12448 1960 74664 29161 2952 2040
91190 56900 45251 38474 66122 97277 7554
69146 21626 77149 11613 66079 51208 88556 70939 47424 95329 82314 72012
97653 21084 26460 49089 28172 87288 31557 93547
65387 86897 12614 94647 78770 85012 65611 30188 77575 12592 85586 12742
11595 33492 42778 49971 8724 75647 63491 95993

==> probe.out <==
23
145
463985
1196325
1202680
1244248
```

9. Shirts

```
==> shirts.dat <==
4
2
1 R M
2 O S
5
8 G M
12 G S
5 R M
15 Y L
6 Y L
10
0 R M
1 O S
2 G L
3 G M
4 O M
5 G L
6 Y M
7 O M
8 O S
9 Y L
20
0 R S
1 O L
2 B M
3 Y S
4 R M
5 R M
6 R S
7 O L
8 Y L
9 O L
10 R S
11 Y L
12 G M
13 O S
14 G L
15 O S
16 O S
17 O S
18 R S
19 Y S

==> shirts.out <==
1 2
5 6 15 12 8
0 1 8 4 7 6 9 3 2 5
0 6 10 18 4 5 13 15 16 17 1 7 9 3 19 8 11 12 14 2
```

10. Volcano

```
==> volcano.dat <==
7
5 5
WWS.T
..T.C
.....
.W...
.VWW.
3 10
WWWCTTT...
WWW.TTT...
S...TTV...
1 6
VWC.TS
1 6
VTC.TS
1 6
VTC.WS
20 20
CW.................V
....................
....................
....................
....................
....................
....................
....................
....................
....................
....................
....................
....................
....................
....................
....................
....................
....................
S...................
20 20
CV.................
....................
....................
....................
....................
....................
....................
....................
....................
....................
....................
....................
....................
....................
....................
WW.................
```

```
..W..............
...W.............
....W............
S....W...........

==> volcano.out <==
NO
YES
NO
YES
NO
NO
NO
```

11. Wall-D

```
==> walld.dat <==
6
3 8
1 3 4
2 5 6
1 2 4
3 9
2 4 6
4 6 2
6 2 4
4 5
1 1 1 1
1 1 1 1
1 1 1 1
1 1 1 1
5 43
3 18 6 9 21
3 9 12 12 15
3 3 6 3 3
6 9 12 21 9
3 6 9 21 12
4 123
2 7 3 11
5 13 4 9
2 2 2 2
4 13 17 19
3 5
1 1 1
1 1 2
1 1 1

==> walld.out <==
1
-1
4
-1
8
3
```

12. X, O and R

```
==> xor.dat <==
12
3
2 2 1
9
2 3 3 4 3 4 3 2 2
5
2 3 5 2 5
5
9 9 6 6 8
7
10 8 5 6 8 6 10
5
2 2 9 4 4
7
2 10 10 4 10 2 4
5
5 3 3 1 1
11
7 4 1 2 7 4 2 9 1 1 1
11
9 7 8 4 10 8 9 9 4 7 10
5
8 5 5 1 8
7
6 6 6 6 2 5 5

==> xor.out <==
1
2
3
8
5
9
10
5
9
9
1
2
```