1. Benford's Law: Who's Number One?

Program Name: Benford.java   Input File: benford.dat

Judges Input File
```
9
36
661 59 1452 1338 1438
2923 3796 4796 1 2781
1742 20 626 2230 7553
42 2113 7450 5034 3516
5381 31 5665 101 19
11100 4028 2 6336 4683
35 8975 2908 3177 49
389111
40
76 4319 6859 286 172811
8442 32530 29 4170 2890
61 1044 4478 28310 1619
5093 2500 68 5939 5
55 6105 2841 1207 5
4207 12 2248 1967 124715
13 1613 7391 45 4855
60 4949 28 5488 1755
9
1 22 333 4444 55555
678 713 80200 9000
8
9 111 123 151 200
500000 200202 48192
14
3599 6722 2792 5291 6490
4655 5335 2568 1892 4886
1868 2971 1250 3761
2
1812732 98
23
14905 14081 15397 14310 11
18498 17479 16588 11695 11797
13219 17603 19033 16324 16511
18755 16474 19596 15858 11421
18912 17043 17162
1
1999992
45
204 8538 5609 546 1289
8528 537 605 261 233
9346 9695 9028 1525 1093
1375 9539 7566 4303 3683
6346 494 6019 6710 4349
6739 1768 1887 4951 3466
2741 8400 272 692 4147
4923 8094 3581 5057 2169
1946 7915 6946 9333 84
```

Judges Output to Screen
```
CONFIRMS
DOES NOT CONFIRM
CONFIRMS
DOES NOT CONFIRM
CONFIRMS
DOES NOT CONFIRM
CONFIRMS
CONFIRMS
DOES NOT CONFIRM
```

2. Code

Program Name: Code.java   Input File: code.dat

Judges Input File
```
8
Ntlnofu*oiltttn*wmgohht*ieoceer*sfooaiy*todmir.*hrmedc**eaetoo**
SnydhradadohlNrloelaeelaynmsadacicis
Malfaa*alalss*rimews*ytbehn*htIcio*altetw*deswe**
HddctdellahlyeeteeDDTaf*iihni*ddedd*
Lep*itl*cyi*kSt*
OaIt0ulLe0riSi9gstn*oUa2*
A
ACBD
```

Judges Output to Screen
```
Nowisthetimeforallgoodmentocometotheaidoftheircountry.**********
SallyandNancyaremiddleschoolairheads
MaryhadalittlelambItsfleecewaswhiteassnow********
HeyDiddleDiddleThecatandthefiddle***
LicketySplit****
OurgoalisUILStatein2009**
A
ABCD
```

3. Diamond

Judges Input File

There is no input for this problem.

Judges Output to Screen

```
* * * * * * * * * * * * * * * * * * * * * * * *
* * * * * * * * * * *     * * * * * * * * * * *
* * * * * * * * *     *     * * * * * * * * *
* * * * * * * *     * * *     * * * * * * * *
* * * * * * *     * * * * *     * * * * * * *
* * * * * *     * * * * * * *     * * * * * *
* * * * *     * * * * * * * * *     * * * * *
* * * *     * * * * * * * * * * *     * * * *
* * *     * * * * * * * * * * * * *     * * *
* *     * * * * * * * * * * * * * * *     * *
*     * * * * * * * * * * * * * * * * *     *
* *     * * * * * * * * * * * * * * *     * *
* * *     * * * * * * * * * * * * *     * * *
* * * *     * * * * * * * * * * *     * * * *
* * * * *     * * * * * * * * *     * * * * *
* * * * * *     * * * * * * *     * * * * * *
* * * * * * *     * * * * *     * * * * * * *
* * * * * * * *     * * *     * * * * * * * *
* * * * * * * * *     *     * * * * * * * * *
* * * * * * * * * * *     * * * * * * * * * * *
* * * * * * * * * * * * * * * * * * * * * * * *
```

4. IP Addresses

Program Name: IP.java   **Input File: ip.dat**

Judges Input File
```
8
11111111111111111111111111111111
00000011100000001111111111111111
11110000101010100101010100000111
10101010101010101010101010101010
10010010010011111110010111111111
11001011100001001110010110000000
01010000000100000000000000000001
00000000000000000000000000000000
```

Judges Output to Screen
```
255.255.255.255
3.128.255.255
240.170.85.7
170.170.170.170
146.79.229.255
203.132.229.128
80.16.0.1
0.0.0.0
```

5. Max-out

Program Name: Max.java   Input File: max.dat

Judges Input File
```
3
78 78 11 55 20 11
98 54 81 43 39 97
12 15 79 99 58 10
13 79 83 65 34 17
85 59 61 12 58 97
40 63 97 85 66 90
60 11 55 17 51 75
94 39 69 24 93 41
16 41 57 74 51 79
78 41 38 82 19 62
52 92 81 99 11 27
43 79 88 44 54 48
12 34 67 99 79 10
56 87 87 79 89 67
17 98 99 97 67 88
82 20 87 89 87 99
89 10 45 67 65 56
96 99 88 45 99 38
```

Judges Output to Screen
```
683
681
814
```

6. Semester Average

Judges Input File
```
8
123456 90 90 90 90
543216 70 80 80 70
345326 65 65 65 70
435366 80 80 80 90
564789 65 75 85 80
987654 50 77 78 70
765432 77 82 85 80
454545 100 100 100 90
```

Judges Output to Screen
```
123456 90
345326 90
435366 130
454545 50
543216 44
564789 100
765432 75
987654 77
```