TeamsCode Spring 2019 MIHS Programming Contest Judges Data

Problems:

0. Sample Problem

Input File: practice.txt

Input:

```
4
5 5 5 5 5
1 2 3 2 1
0 0 0 0 0 0 0 0
5 6 7 2 9 3 2 1
```

Output:

```
25
9
0
35
```

1. Owl

Input File: owl.txt

Input:

None.

Output:

```
 /_____/\
| (o) __(o)|
|      \/   |
/"""""""""""\
.............
\........../
/___   __   _\
    \\    \\
```

2. French Pronunciation
Input File: french.txt

Input:

```
5
Do you like the pizza because we really do
Hi he is a fleur and le chef but he is not helping us
La vie en rose is the seal of France
Je veux que tu gagnes
Avec is a french word
```

Output:

```
D yo lik th pizz becaus w reall d
H h i a fleur an l chef bu h i no elpin u
L vi e ros i th seal f Franc
J veu qu t gagne
Avec i a frenc wor
```

3. Note Length
Input File: notelength.txt

Example Input:

```
4
qqhqwqqhqwwwwqqhh
hwhhwhqqqhqqq
hhhqwhhqwhqwhqwwww
wqwqwqwqwq
```

Example Output:

```
36
24
46
25
```

4. Reverse Words
Input File: reverse.txt

Input:

```
3
The death of a salesman was a bad book
yadoT si ym yadhtrib
m'I gniog ot niw siht noititepmoc
```

Output:

```
ehT htaed fo a namselas saw a dab koob
Today is my birthday
I'm going to win this competition
```

5. Right or Not?
File Input: right.txt

Example Input:

```
5
12 5 13
4 4 5
505 404 303
6 77 100
10600 7072 7896
```

Example Output:

```
right
not right
right
not right
right
```

6. Secret Letter Strings
File Input: sletters.txt

Example Input:

```
4
bctahdbaancbk.dydodud.faoar.baabtctecabnddianabcg
abtcdcdchias.iacsd.tcdhae.acdrightb.baacdnsdwcaecr
aalwaays.bbrush.your.teeth.aafter.ddrinking.soddaa
bpabiczczcaa.is.cabtcabhcabecab.bbacdbebcstd.madebaalb
```

Example Output:

```
thank you for attending
this is the right answer
always brush your teeth after drinking soda
pizza is the best meal
```

7. Box Pyramid
Input File: box.txt

Input:

```
5
4  8
3  4
2  1
245  17421
50000  1243279100
```

Output:

```
3
2
1
87
46328
```

8. ASCII Art
Input File: aart.txt

Input:

5
39 16 18 38 53 18 38 53 28 30 40 53 2 53 32 18 10 6 10 53 30 12 53 2 36 40 54 53 3 42
40 53 24 10 40 53 26 10 53 10 48 32 24 2 18 28 55 53 29 42 36 53 20 42 8 14 10 38 53
26 42 38 40 53 6 16 10 6 22 53 10 44 10 36 50 53
38 18 28 14 24 10 53 6 16 2 36 2 6 40 10 36 53 2 28 8 53 40 16 2 40 53 18 38 53 20 42
38 40 53 42 28 40 10 28 2 4 24 10 53 46 16 10 28 53 50 30 42 53 32 30 38 40 53 2 53
14 18 14 2 28 40 18 6 53 32 18 6 40 42 36 10 53
18 28 40 30 53 40 16 10 53 6 30 28 38 30 24 10 54 53 17 53 46 2 28 40 10 8 53 40 30
53 14 30 53 46 18 40 16 53 2 53 32 2 18 28 40 18 28 14 53 30 12 53 25 30 28 2 53 23
18 38 2 53 46 16 18 6 16 53 46 2 38 53
38 10 44 10 36 2 24 53 40 16 30 42 38 2 28 8 38 53 30 12 53 6 16 2 36 2 6 40 10 36 38
54 53 39 30 53 42 38 10 53 2 24 24 53 40 16 10 53 6 16 2 36 2 6 40 10 36 38 53 16 10
36 10 53 2 36 10 53 38 30 26 10 53
1 38 40 10 36 18 22 38 55 53 56 56 56 56 56

Output:

This is not a piece of art. But let me explain: Our judges must check every
single character and that is just untenable when you post a gigantic picture
into the console. I wanted to go with a painting of Mona Lisa which was
several thousands of characters. To use all the characters here are some
Asteriks: *****

9. Wo-word-rd
Input File: wowordrd.txt

Input:

```
17
are
bohr
rutherford
einstein
around
really
real
all
dance
knows
now
how
and
to
too
party
when
EirealreallreknowhotpwheBoaRutherararoundefordndhrnartyowsallyylynstein
```

Output:

Einstein really really really knows how to party when Bohr and Rutherford are around

10. Shoe Scramble
Input File: shoe.txt

Input:

```
4
15
a c
c b
b d
d a
e f
f e
g g
h i
i j
j h
k l
m n
n k
l o
o m
2
a a
b b
4
a c
c a
b d
d b
5
a b
b c
c d
d e
e a
```

Output:

```
10
0
2
4
```

11. Tunnels
Input File: tunnel.txt

Input:

```
3
4 4
12.s
...2
.33.
X1..
8 8
6.....6
..3..4..
..5.....
........
s.4....x
3.....1
..6..5..
61......
16 3
1..5...4...6..3.
...2...sx..1....
5.3.....2..6..4.
```

Output:

```
3
7
1
```

12. Matching Up
Input File: match.txt

Input:

```
4
20
a b
a c
a d
a e
b a
b c
b d
b e
c a
c c
c d
c e
d a
d b
d c
d e
e a
e b
e c
e d
12
a b
b c
b d
b e
b h
c d
d e
d h
e f
e g
e h
g h
9
a b
a c
```

```
a d
a e
a f
a g
a h
a i
a j
3
a b
c a
d c
```

Output:

```
No Match
Match
No Match
Match
```

13. Crumbling Structure
Input File: structure.txt

Input:

```
6
56......11111.....1111122...
.615555555555515551.....2333
...1.........3....2.......3
...1.........333331345678154
...1.........3....2.......3.
222222222222222222212222222222
1
```
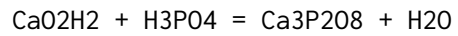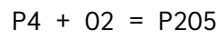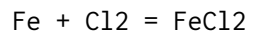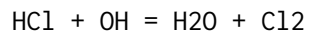
Output:

```
33
```

14. Balancing the Chemical Equation
Input File: chemequation.txt

Input:

```
4
HCl + OH = H2O + Cl2
Fe + Cl2 = FeCl2
P4 + O2 = P2O5
CaO2H2 + H3PO4 = Ca3P2O8 + H2O
```

Output:

```
2 2 2 1
1 1 1
1 5 2
3 2 1 6
```

15. Flooding an Anthill
File Input: anthill.txt

Input:

```
6
1 2
..
3 3
xxx
x.x
xxx
10 10
xxxxxxxxxx
x...xxxxxx
x...x...xx
x.xx.xxxxx
x.xxxx.xx
xxxxxxxxxx
......xx.x
xxxxxxxxxx
xx..xxxxxx
xxxxxxxxxx
5 5
xxxxx
xxx.x
xx.xx
x.xxx
xxxxx
9 9
xxxxxxxxx
x.......x
x.xxxxx.x
x.x...x.x
x.x.x.x.x
x.x...x.x
x.xxxxx.x
x.......x
xxxxxxxxx
20 20
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
```

```
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
```

Output:

```
0
1
4
2
2
0
```