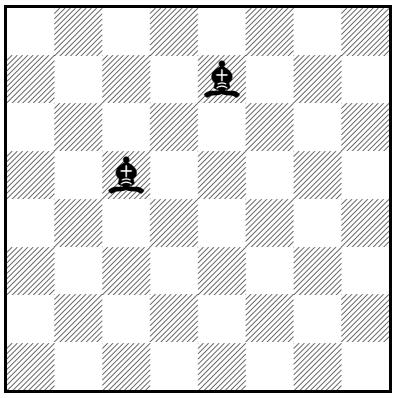
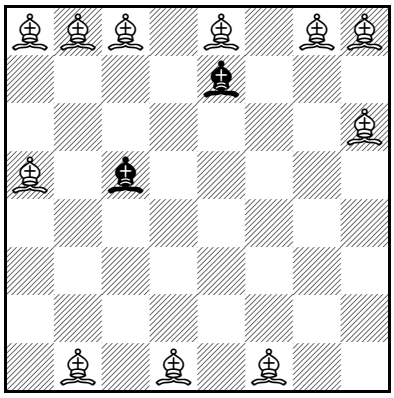
Bishops P93682_en

Quinzè Concurs de Programació de la UPC - Final (2017-09-13)

You are given an $n \times n$ chess board, with some black bishops on it. Please place as many white bishops as possible is such a way that no white bishop threatens another bishop, either black or white.

For instance, for the board to the left a possible solution is shown on the board to the right.





Input

Input consists of several cases, each with n followed by n lines, each one with n characters: '`B`' for black bishops, and '`.`' for empty cells. Assume $1 \leq n \leq 1000$.

Output

For every case, print any possible solution using '`W`' for white bishops, followed by a line with 20 dashes. Follow exactly the format of the sample output.

Sample input

```
8
........
....B...
........
..B.....
........
........
........
........

3
...
...
...
```

Sample output

```
WWW.W.WW
....B...
.......W
W.B.....
........
........
........
.W.W.W..
--------------------
WWW
...
.W.
--------------------
```

Problem information

Author : Felix Miravé
Generation : 2024-05-03 09:14:06