

King's Dinner

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 256 megabytes

The King of the Higherlands has organized a big dinner where he invited the whole royal family. The event will take place in a big square hall of $n \times n$ meters, divided into $n \times n$ squares. The king wants to invite as many guests as possible, but for each guest there needs to be space for a table. The tables in question are rectangular with dimensions of 1 meter by 2 meter. According to royal rules, any table should cover any two squares of the hall completely. To have enough room for the guests to sit, tables should not be adjacent. Of course, tables cannot be stacked on top of each other.

Two grid squares are adjacent if they share an edge or a corner. Two tables are adjacent if any of their squares are adjacent.

Input

Each test contains multiple test cases. The first line contains the number of test cases t ($1 \leq t \leq 50$). The description of the test cases follows.

Each test case consists of one line. This line contains a single integer n ($n \leq 100$) — the size of the hall. It is guaranteed that the sum of n^2 over all testcases does not exceed 200 000

Output

For each testcase, print any $n \times n$ grid with the maximum number of tables, that are not stacked on top of each other and are not adjacent. In the grid, print a '#' if the square is covered by a table, and print a '.' if the square is not covered.

Print the $n \times n$ grid on n lines of n characters each. If there are multiple solutions, print any.

Example

standard input	standard output
3	.
1	#.
2	#.
3	#.# #.# ...

Note

In the first sample, the hall is only 1×1 meter, so not even a single table fits.

In the second sample, 1 table can be placed in the hall. It can be proven that 2 tables or more is impossible.

In the third sample, a hall with 2 tables is shown, and that is also optimal.