Character Patterns (Act 1)

Using two characters: . (dot) and * (asterisk) print a chessboard-like pattern. The first character printed should be * (asterisk).

Input

You are given t < 100 - the number of test cases and for each of the test cases two positive integers: I - the number of lines and c - the number of columns in the pattern (I, c < 100).

Output

For each of the test cases output the requested pattern (please have a look at the example). Use one line break in between successive patterns.

Example

Input:

3

3 1

44

25

Output:

*

^.^. * *

.. * *

..*