

Mirko has assembled an excellent crossword puzzle and now he wants to frame it. Mirko's crossword puzzle consists of **M** x **N** letters, and the frame around it should be **U** characters wide on top, **L** characters on the left, **R** characters on the right and **D** characters on the bottom side.

The frame consists of characters # (hash) and . (dot) which alternate like fields on a chessboard. These characters should be arranged in a way that, if the frame is expanded to cover the entire crossword puzzle and we treat these characters as a chessboard, the # characters should be placed as the red fields on a chessboard (i.e. the top left field). See the examples below for a better understanding of the task.

INPUT

The first line of input contains two integers **M** and **N** ($1 \leq \mathbf{M}, \mathbf{N} \leq 10$).

The second line of input contains integers **U**, **L**, **R**, **D** ($0 \leq \mathbf{U}, \mathbf{L}, \mathbf{R}, \mathbf{D} \leq 5$).

The following **M** lines of input contains **N** characters – lowercase letters of the English alphabet. These lines represent Mirko's crossword puzzle.

OUTPUT

Output the framed crossword puzzle as stated in the text.

SAMPLE TESTS

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| <pre>input 4 4 2 2 2 2 honi oker nera irak output #.#.#.#. .#.#.#.# #.honi#. .#oker.# #.nera#. .#irak.# #.#.#.#. .#.#.#.#</pre> | <pre>input 2 4 1 0 3 1 rima mama output #.#.#.# rima.#. mama#. .#.#.#.</pre> |
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