Problem G. Word Search

Source file name:	Word.c, Word.cpp, Word.java, Word.py
Input:	Standard
Output:	Standard

Find parts of a 2d grid matching a 2d word.

Input

- One line containing the number of rows and columns in the search key, r_k and c_k ($1 \leq r, c \leq 2000$).

- r_k further lines, each containing c_k Latin characters comprising a row of the search key.

- One line containing the number of rows and columns in the haystack, r_h and c_h ($r_k \leq r_h \leq 2000$, $c_k \leq c_h \leq 2000$).

- r_h further lines, each containing c_h Latin characters comprising a row of the search key.

Output

Illustrate the matching areas of the haystack by printing a grid of the same size. In locations that are part of at least one match, print the original character from the haystack. In other cases, print a full-stop "." character.

Example

Input	Output
3 3 ghi lmn qrs 5 5 abcde fghij klmno pqrst uvwxy	..... .ghi. .lmn. .qrs. .....
1 2 ab 6 4 abba baab abba baab abba baab	ab.. ..ab ab.. ..ab ab.. ..ab
4 1 n a n a 7 6 ananan nanana ananan nanana ananan nanana batman	.n.n.n nanana ananan nanana ananan .a.ana ....a.
2 2 oo oo 5 5 xoooo oxooo ooxoo oooxo oooox	..ooo ..ooo oo.oo ooo.. ooo..