Code Clash Official Problem #8
'Search'

Problem statement

Word searches are puzzles in which the player is tasked with finding a list of words hidden within the grid of letters. Word searches are typically played on a rectangular board, but this word search will be played on a diamond-shaped board for added difficulty. In this diamond-shaped puzzle, words can be spelled forwards and backwards, horizontally and diagonally (but not vertically). Multiple words could share the same letter in the puzzle. Given a list of words and a diamond word search puzzle, transform the puzzle to reveal all the words hidden within.

The first line of input will contain two integers separated by a space. The first integer will be the number of search words and the second integer will be the total height and number of rows in the puzzle. The word search puzzle will follow. The first and last rows of the puzzle will only have one letter, and the number of letters per row increases as you approach the middle row. There will only be puzzles with an odd number of rows. A space separates letters that are on the same line, but there are no leading spaces to center/align the columns. Your program should output the solution to the puzzle, showing the search words in their original position and replacing all letters that are not part of a search word with hyphens (-).

Sample test case

Sample input and output for this problem:

Input	Output
3 9 CODE CLASH PHS A B H D S F G A I J K L S H P C Q R S O U V D X E	- - H - S - - A - - - L S H P C - - - O - - D - E