

Word Boggle | Practice | GeeksforGeeks

Given a dictionary, a method to do lookup in dictionary and a M x N board where every cell has one character. Find all possible words that can be formed by a sequence of adjacent characters. Note that we can move to any of 8 adjacent characters, but a word should not have multiple instances of same cell.

Example:

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Input: dictionary[] = {"GEEKS", "FOR", "QUIZ", "GO"};
      boggle[][]    = {{ 'G', 'I', 'Z' },
                      { 'U', 'E', 'K' },
                      { 'Q', 'S', 'E' }};
```

Output: Following words of dictionary are present
GEEKS, QUIZ

Input:

The first line of input contains an integer T denoting the no of test cases . Then T test cases follow. Each test case contains an integer x denoting the no of words in the dictionary. Then in the next line are x space separated strings denoting the contents of the dictionary. In the next line are two integers N and M denoting the size of the boggle. The last line of each test case contains NxM space separated values of the boggle.

Output:

For each test case in a new line print the space separated sorted distinct words of the dictionary which could be formed from the boggle. If no word can be formed print -1.

Constraints:

$1 \leq T \leq 10$
 $1 \leq x \leq 10$
 $1 \leq n, m \leq 7$

Example:

Input:

1
4
GEEKS FOR QUIZ GO
3 3
G I Z U E K Q S E

Output:

GEEKS QUIZ

**** For More Input/Output Examples Use '[Expected Output](#)' option ****