Word Snake

After a long, hard day of Snake Charming, the famous warlock, Draco, is relaxing with a game of Word Snake. The aim of Word Snake is to find as many different words as possible in a matrix of letters. Words are created by starting with any letter in the matrix, and then moving to adjacent cells. No cell may be used twice in a single word.

d	r	a	g	o
f	o	c	g	n
e	k	a	r	t
s	n	a	w	o
w	d	r	d	r

Shown left: a 5 by 5 letter matrix. We are trying to find the words: *dragon*, *draco*, *snake*, *word*, *wart*, *ana*, and *charm*. Only the words *dragon*, *draco*, and *word* can be formed from the matrix (as shown). We can not form the words *snake*, *wart*, or *ana* as we cannot move diagonally.

You will be given integers ***x***, ***y*** and ***n***, followed by an ***x*** by ***y*** matrix of letters, and a list of ***n*** lowercase words. ($4 \leq x\,y \leq 70$) ($4 \leq n \leq 10000$)

Output each of the words from the list that can be made from the matrix, in alphabetical order. No word should be repeated twice.

Sample Input 1:

```
4 4 5
hell
rlwp
ilor
ntdl
hello
print
pod
world
dole
```

Sample Output 1:

```
hello
world
```

Sample Input 2:

```
5 5 7
drago
focgn
ekart
snawo
wdrdr
dragon
draco
snake
word
wart
ana
charm
```

Sample Output 2:

```
draco
dragon
word
```