
Ruins

X18624_en

Recent excavations have revealed an ancient extinct language. Thanks to the ruins found, experts have deduced that there were vowels and consonants, and that all words could be formed, with one sole exception: a word could not have two or more consecutive vowels. For example, with the two vowels a and e, and consonant b, 11 words with three letters could be formed: aba, abb, abe, bab, bba, bbb, bbe, beb, eba, ebb, ebe.

Which words of size n could be formed with m given letters?

Input

Input consists of several cases, each with n and m , followed by m different lowercase letter. It holds that $n \geq 1$, $2 \leq m \leq 26$, and that each case has at least one vowel and one consonant.

Output

For each case, write in lexicographical order all words of length n that can be built with the m given letters. Write a line with 10 hyphens after each case.

Sample input

```
3 3
aeb

1 2
az

3 2
pe
```

Sample output

```
aba
abb
abe
bab
bba
bbb
bbe
beb
eba
ebb
ebe
-----
a
z
-----
epe
epp
pep
ppe
ppp
-----
```

Problem information

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