A. The Text Splitting

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

You are given the string s of length n and the numbers p, q. Split the string s to pieces of length p and q.

For example, the string "Hello" for $p = 2, q = 3$ can be split to the two strings "Hel" and "lo" or to the two strings "He" and "llo".

Note it is allowed to split the string s to the strings only of length p or to the strings only of length q (see the second sample test).

Input

The first line contains three positive integers n, p, q ($1 \le p, q \le n \le 100$).

The second line contains the string s consists of lowercase and uppercase latin letters and digits.

Output

If it's impossible to split the string s to the strings of length p and q print the only number "-1".

Otherwise in the first line print integer k — the number of strings in partition of s.

Each of the next k lines should contain the strings in partition. Each string should be of the length p or q. The string should be in order of their appearing in string s — from left to right.

If there are several solutions print any of them.

Examples

input
5 2 3 Hello

output
2 He llo

input
10 9 5 Codeforces

output
2 Codef orces

input
6 4 5 Privet

output
-1

input

```
8 1 1
abacabac
```

output

```
8
a
b
a
c
a
b
a
c
```