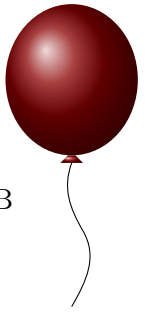


H Wardrobe 3

TIME LIMIT: 2.0s
MEMORY LIMIT: 1024MB



Your friend Valerio has been locked into a wardrobe for the third time. His kidnappers will let him go on a very specific condition. They gave you two integers n and k and asked you to find two distinct integers a and b such that $a - b$ is a multiple of k , both a 's and b 's digits are permutations of n 's digits and neither of them starts with 0. It might also be possible that such a and b do not exist. In that case Valerio will be locked in the wardrobe forever.

INPUT

The first line contains two integers: m and k ($2 \leq m \leq 5 \cdot 10^6$, $2 \leq k \leq 5 \cdot 10^6$, $4 \leq m \cdot k \leq 10^7$).

The second line contains an m -digit integer, n , that does not have leading zeros.

OUTPUT

If it is impossible to find two integers satisfying the conditions, print -1 . Otherwise, print two lines, containing two suitable integers a and b . a and b be permutations of digits of n , they should not have leading zeros and should be different.

SAMPLES

Sample input 1	Sample output 1
6 3 123042	102234 102243

Explanation of sample 1.

The numbers 102 234 and 102 243 are both digit permutations of 123 042. Also, $102\,243 - 102\,234 = 9 = 3 \cdot 3$. There are other possible solutions as well.

Sample input 2	Sample output 2
6 3 111111	-1

Explanation of sample 2.

There is only one unique digit permutation of 111 111. Thus, it is impossible to choose two different numbers.