Problem F. The Lazy Author

Time limit	1000 ms
Mem limit	262144 kB
OS	Windows

Since the author of this problem is too lazy to write a problem statement, he will provide you with the problem sketch only.

You're given an array a of length n consisting of zeros and ones, and an integer k.

You can perform no more than n operations. In one operation, you take a range of length exactly k and flip its values, making every 0 a 1 and every 1 a 0.

More formally, in each operation you can choose a value l ($1 \leq l \leq n - k + 1$) then do the assignment $a_i := 1 - a_i$ for every i such that $l \leq i \leq l + k - 1$

Your task is to modify the array so that it contains no more than $\lfloor \frac{k}{2} \rfloor$ zeros.

Print the sequence of operations. If there are multiple answers, print any.

Input

The first line contains two integers, n and k, where $(1 \leq k \leq n \leq 10^6)$.

The second line contains n integers, a_i, where $(0 \leq a_i \leq 1)$.

Output

The first line contains a number, m, which represents the number of operations.

The second line contains m integers, which represent the left side of each range.

If there are multiple answers, you can print any.

Sample 1

Input	Output
3 2 1 0 1	0

Sample 2

Input	Output
4 2 0 0 0 0	2 1 3

Note

in the first test you don't need to do any operations.

in the second test you can just do operations in [1,2] and [3,4].