C. Hard Process

time limit per test: 1 second

memory limit per test: 256 megabytes

You are given an array a with n elements. Each element of a is either 0 or 1.

Let's denote the length of the longest subsegment of consecutive elements in a, consisting of only numbers one, as $f(a)$. You can change no more than k zeroes to ones to maximize $f(a)$.

Input

The first line contains two integers n and k ($1 \le n \le 3 \cdot 10^5$, $0 \le k \le n$) — the number of elements in a and the parameter k.

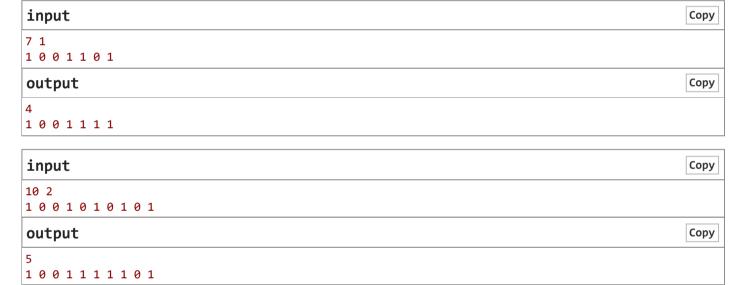The second line contains n integers a_i ($0 \le a_i \le 1$) — the elements of a.

Output

On the first line print a non-negative integer z — the maximal value of $f(a)$ after no more than k changes of zeroes to ones.

On the second line print n integers a_j — the elements of the array a after the changes.

If there are multiple answers, you can print any one of them.

Examples

input
7 1 1 0 0 1 1 0 1

output
4 1 0 0 1 1 1 1

input
10 2 1 0 0 1 0 1 0 1 0 1

output
5 1 0 0 1 1 1 1 1 0 1

Educational Codeforces Round 11

Finished

Practice

⭐

→ Virtual participation ⌄

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Clone Contest to Mashup ⌄

You can clone this contest to a mashup.

Clone Contest

→ Submit?

Language: GNU G++20 13.2 (64 bit, win ⌄

Choose file: Choose File   No file chosen

Submit

→ Last submissions

Submission	Time	Verdict
309666648	Mar/09/2025 22:04	Accepted

→ Problem tags

binary search   dp   two pointers   *1600

No tag edit access

→ Contest materials

- Announcement (en)   ✕
- Tutorial (en)   ✕

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