D. Sea Battle

Galya is playing one-dimensional Sea Battle on a $1 \times n$ grid. In this game a ships are placed on the grid. Each of the ships consists of b consecutive cells. No cell can be part of two ships, however, the ships **can touch** each other.

Galya doesn't know the ships location. She can shoot to some cells and after each shot she is told if that cell was a part of some ship (this case is called "hit") or not (this case is called "miss").

Galya has already made k shots, all of them were misses.

Your task is to calculate the minimum number of cells such that if Galya shoot at all of them, she would hit at least one ship.

It is guaranteed that there is at least one valid ships placement.

Input

The first line contains four positive integers n, a, b, k ($1 \leq n \leq 2 \cdot 10^5$, $1 \leq a, b \leq n$, $0 \leq k \leq n - 1$) — the length of the grid, the number of ships on the grid, the length of each ship and the number of shots Galya has already made.

The second line contains a string of length n, consisting of zeros and ones. If the i-th character is one, Galya has already made a shot to this cell. Otherwise, she hasn't. It is guaranteed that there are exactly k ones in this string.

Output

In the first line print the minimum number of cells such that if Galya shoot at all of them, she would hit at least one ship.

In the second line print the cells Galya should shoot at.

Each cell should be printed exactly once. You can print the cells in arbitrary order. The cells are numbered from 1 to n, starting from the left.

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

Examples

input
5 1 2 1
00100
output
2
4 2

input
13 3 2 3
1000000010001
output
2
7 11

Note

There is one ship in the first sample. It can be either to the left or to the right from the shot Galya has already made (the "1" character). So, it is necessary to make two shots: one at the left part, and one at the right part.