New Year's '17 P5 - The Christmas Swap

Time limit: 1.0s **Memory limit:** 256M

ImaxRed and ImaxBlue are preparing for Christmas. They have a row of n Christmas lights, each initially either blue or red. They have enough time to do k swap operations. In each swap operation, a **single** light is switched with an adjacent one. Imaxblue would like to know the length of the longest possible sequence of consecutive blue lights after k or fewer swaps. ImaxRed would like to know the same thing for red lights.

Input Specification

Line 1: Two space separated integers n $(1 \leq n \leq 100\,000)$ and k $(1 \leq k \leq 100\,000)$.
Line 2: n integers, either `1` or `0`, `1` representing a blue light and `0` representing a red light.

Output Specification

Two integers, the maximum number of consecutive blue lights after k swaps, and the maximum number of consecutive red lights after k swaps.

Sample Input

```
8 3
10101110
```

Sample Output

```
5 2
```

Explanation

We swap the following pairs (1-indexed): $(3, 4)$, $(1, 2)$, $(2, 3)$ to get 5 consecutive blue lights. $(3, 4)$ allows us to have 2 consecutive red lights. There is no combination that will result in more consecutive lights.