

# Building with Blocks

Little John enjoys playing with blocks. He builds constructions along an imaginary straight line in such a way that we can describe his work by means of an integer  $N$ , the length of the line, and a list of  $N$  non-negative integers, the height of the building at each horizontal position.

Today he would like to build a skyscraper. But, before that, he needs to make sure there are  $K$  consecutive positions of the same height, in order to use that section as a base for the skyscraper.

You are to write a program that finds a section such that the number of block addition/removal operations needed to achieve such a flat base is minimized.

You may assume Little John has an infinite number of blocks at his disposal.

## Input

Input starts with two space separated integers: the length of the line ( $1 \leq N \leq 1000000$ ) and the length of the required base ( $1 \leq K \leq N$ ).  $N$  space-separated non-negative integers follow, representing the height of the current building at each horizontal position ( $0 \leq H_i \leq 1000000$ ).

## Output

Output two space-separated integers  $O$  and  $P$  on a single line. The first one must correspond to the number of operations needed to make the base in the section starting at position  $P$  (the leftmost position is  $0$  and the rightmost is  $N-1$ ).  $P$  must be as small as possible.

## Example

**Input:**

```
6 4  
0 4 2 4 5 8
```

**Output:**

```
3 1
```