

Bubu's bookshelf is in a mess! Help him!

There are  $n$  books on his bookshelf. We define the mess value to be the number of segments of **consecutive equal-height books**. For example, if the book heights are 30, 30, 31, 31, 32, the mess value is 3, that of 30, 32, 32, 31 is also 3, but the mess value of 31, 32, 31, 32, 31 is 5 — it's indeed in a mess!

Bubu wants to reduce the mess value as much as possible, but he's a little bit tired, so he decided to take out at most  $k$  books, then put them back somewhere in the shelf. Could you help him?

## Input

There will be at most 20 test cases. Each case begins with two positive integers  $n$  and  $k$  ( $1 \leq k \leq n \leq 100$ ), the total number of books, and the maximum number of books to take out. The next line contains  $n$  integers, the heights of each book, from left to right. Each height is an integer between 25 and 32, inclusive. The last test case is followed by  $n = k = 0$ , which should not be processed.

## Output

For each test case, print the case number and the minimal final mess value.

Print a blank line after the output of each test case.

## Sample Input

```
5 2
25 25 32 32 25
5 1
25 26 25 26 25
0 0
```

## Sample Output

Case 1: 2

Case 2: 3