**ITMO Academy: pilot course** » **Suffix Array** » **Step 5** » **Practice**

# E. Refrain

time limit per test: 2 seconds❓

memory limit per test: 512 megabytes

Consider an array of $n$ integers from $1$ to $m$. A subsequence of consecutive elements of this array is called *refrain* if the product of its length and the number of occurrences in the array is maximum possible.

Given an array, your task is to find its refrain.

### Input

First line contains two integers: $n$ and $m$ ($1 \leq n \leq 150\,000, 1 \leq m \leq 10$).

Second line contains $n$ integers from $1$ to $m$.

### Output

In the first line of print the maximal product of refrain length and the number of its occurrences in array.

In the second line print its length.

In the third line print the refrain itself.

### Examples

| input | Copy |
|---|---|
| 8 3<br>1 2 1 2 1 1 2 1 | |
| **output** | Copy |
| 9<br>3<br>1 2 1 | |

| input | Copy |
|---|---|
| 1 1<br>1 | |
| **output** | Copy |
| 1<br>1<br>1 | |

| input | Copy |
|---|---|
| 6 2<br>1 2 1 2 1 2 | |
| **output** | Copy |
| 8<br>4<br>1 2 1 2 | |

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

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