CODEFORCES β
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PROBLEMS   SUBMIT   STATUS   STANDINGS   CUSTOM TEST

D. Pair of Numbers

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

Simon has an array $a_1, a_2, ..., a_n$, consisting of n positive integers. Today Simon asked you to find a pair of integers l, r $(1 \le l \le r \le n)$, such that the following conditions hold:

1. there is integer j $(l \le j \le r)$, such that all integers $a_l, a_{l+1}, ..., a_r$ are divisible by a_j;
2. value $r - l$ takes the maximum value among all pairs for which condition 1 is true;

Help Simon, find the required pair of numbers (l, r). If there are multiple required pairs find all of them.

Input

The first line contains integer n $(1 \le n \le 3 \cdot 10^5)$.

The second line contains n space-separated integers $a_1, a_2, ..., a_n$ $(1 \le a_i \le 10^6)$.

Output

Print two integers in the first line — the number of required pairs and the maximum value of $r - l$. On the following line print all l values from optimal pairs in increasing order.

Examples

input

```
5
4 6 9 3 6
```

output

```
1 3
2
```

input

```
5
1 3 5 7 9
```

output

```
1 4
1
```

input

```
5
2 3 5 7 11
```

output

```
5 0
1 2 3 4 5
```

Note

In the first sample the pair of numbers is right, as numbers $6, 9, 3$ are divisible by 3.

In the second sample all numbers are divisible by number 1.

→ Virtual participation

Codeforces Round #209 (Div. 2)

Finished

Practice

⭐

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

[Start virtual contest]

→ Submit?

Language: GNU G++11 5.1.0   ▼

Choose file: [Choose File] No file chosen

Be careful: there is 50 points penalty for submission which fails the pretests or resubmission (except failure on the first test, denial of judgement or similar verdicts). "Passed pretests" submission verdict doesn't guarantee that the solution is absolutely correct and it will pass system tests.

[Submit]

→ Problem tags

binary search   brute force
data structures   math   two pointers
No tag edit access

→ Contest materials

- Announcement   ✕
- Tutorial   ✕

In the third sample all numbers are prime, so conditions 1 and 2 are true only for pairs of numbers $(1, 1), (2, 2), (3, 3), (4, 4), (5, 5)$.