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.

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