**Run Length IV**

Write a program to find the length of the longest running sequence of even numbers in the given array. Also find the starting index of the longest running sequence of even numbers.

**Example :**

Consider the array ... { 2, 16, 15, 2, 6, 8, 10, 7, 22, 4 , 6}

The 3 even number sequences in this array are {2, 16}, {2, 6, 8, 10} and {22, 4, 6}.

The longest running even number sequence is {2, 6, 8, 10}

The length of the longest running even number sequence is 4 and the starting index is 3.

**Note:**

The array indexing starts from 0.

If there are multiple choices, select the choice where the starting index is minimum.

**Input and Output Format:**

The first line of the input consists of an integer n that corresponds to the number of elements in the array. The next 'n' lines of input consists of a single integer that correspond to the elements in the array.

The first line of the output consists of the length of the longest running even number sequence and the second line of the output consists of the starting index of the longest running even number sequence.

**Sample Input :**

11

2

16

15

2

6

8

10

7

22

4

6

**Sample Output :**

4

3

**Run Length III**

Write a program to find the length of the longest consequtive sequence of any number in the given array. Also find the starting index of the longest such sequence.

**Example :**

Consider the array ... { 3, 5, 6, 6, 6, 6, 7, 7, 2, 1, 8}

6 appears 4 times consequtively in this array.

The length of the ongest consequtive sequence of any number in the given array is 4 and the starting index is 2.

**Note:**

The array indexing starts from 0.

If there are multiple choices, select the choice where the starting index is minimum.

**Input and Output Format:**

The first line of the input consists of an integer n that corresponds to the number of elements in the array. The next 'n' lines of input consists of a single integer that correspond to the elements in the array.

The first line of the output consists of the length of the ongest consequtive sequence of any number in the given array and the second line of the output consists of the starting index of the longest such sequence.

**Sample Input :**

11

3

5

6

6

6

6

7

7

2

1

8

**Sample Output :**

4

2

**Mahirl and Subsets**

Mahirl has started learning about subsets. Her teacher gave her a *simple* task. Given a list of numbers, Mahirl has to choose the subset which gives the maximum product. However as she is a small kid, the teacher asked Mahirl only to submit the maximum product obtained by taking exactly two numbers from the list.

Please help Mahirl in finding out the answer to this assignment.

**Input Format:**

The first line of the input contains an integer *N*, that corresponds to the number of elements in the array.

The next n lines of the input contains *N* integers that corresponds to the elements in the array.

Please note that the array elements can also be negative.

Assume that the maximum size of the array is 20.

**Output Format:**

Output consists of a single integer that corresponds to the maximum product.

**Sample Input 1:**

4

2  
8  
1  
4

**Sample Output 1:**

32

**Sample Input 2:**

4

-2  
-8  
1  
4

**Sample Output 2:**

16