Altitude

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	512 megabytes

In a new computer game "Take Them All" the player controls a drone that flies forward and has to pass through all the checkpoints on its way. Each checkpoint is located at some altitude (possibly negative), and the player has to adjust the altitude of the drone in order to pass through this checkpoint.

You are given a sequence of n **distinct** integers $a_1, a_2, \ldots, a_n$. The i-th checkpoint is located at altitude a_i. The level is cyclic: the checkpoint with index n is followed by the checkpoint with index 1 again. The triple of indices (not necessarily distinct) i, j and k is *tricky* if $a_i < a_j > a_k$.

The *length* of the triple i, j and k is defined as the minimum number of segments between neighbouring checkpoints that the drone needs to fly through to get from i to j and then from j to k. Formally, we denote d_1 as $j - i$ if $j > i$ and $n - (i - j)$ if $j \le i$ and d_2 as $k - j$ if $k > j$ and $n - (j - k)$ if $k \le j$. Then, the length of the triple i, j and k is equal to $d_1 + d_2$.

The goal of this task is to find a tricky triple of the minimum possible length.

Input

The first line of input contains a single integer n ($2 \le n \le 100\,000$) — the number of checkpoints.

The second line contains the sequence of checkpoint altitudes $a_1, a_2, \ldots, a_n$ ($-10^9 \le a_i \le 10^9$). It is guaranteed that all values a_i are distinct.

Output

Output three integers i, j and k ($1 \le i, j, k \le n$) that define the tricky triple of the minimum possible length. If there are several optimal answers, print any of them.

Examples

standard input	standard output
2 20 16	2 1 2
4 2 0 1 6	3 4 1
5 16 10 20 1 6	2 3 4

Note

Please note that triple 1, 4, 3 is not a correct answer for the second sample. This triple is tricky, but its length is bigger than the length of the triple 3, 4, 1.