Problem D. Reconnaissance 2

Time limit 2000 ms
Mem limit 262144 kB

n soldiers stand in a circle. For each soldier his height a_i is known. A reconnaissance unit can be made of such two **neighbouring** soldiers, whose heights difference is minimal, i.e. $|a_i - a_j|$ is minimal. So each of them will be less noticeable with the other. Output any pair of soldiers that can form a reconnaissance unit.

Input

The first line contains integer n ($2 \le n \le 100$) — amount of soldiers. Then follow the heights of the soldiers in their order in the circle — n space-separated integers $a_1, a_2, ..., a_n$ ($1 \le a_i \le 1000$). The soldier heights are given in clockwise or counterclockwise direction.

Output

Output two integers — indexes of **neighbouring** soldiers, who should form a reconnaissance unit. If there are many optimum solutions, output any of them. Remember, that the soldiers stand in a circle.

Sample 1

Input	Output
5 10 12 13 15 10	5 1

Sample 2

Input	Output
4 10 20 30 40	1 2