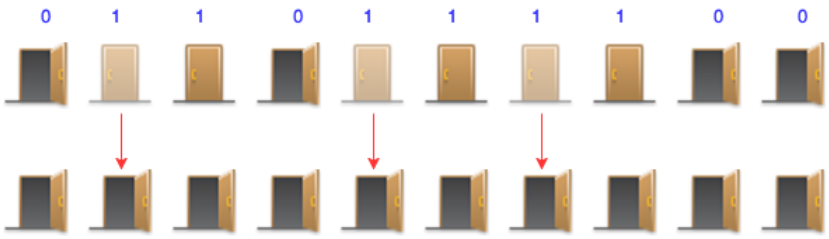
Revised Russian Roulette

In the original version of Russian Roulette, there are active and inactive zones a contestant has to pass through to win, and also a trap door.

You are playing a revised version of the game, where, you have to unlock all doors in a given setting, in a given fashion, to enter the playig area.

- Initially, any door is either locked or unlocked.
- If a door is locked and you unlock it, then
  - if the next consecutive door is locked, it will automatically get unlocked.
  - if the next consecutive door is already unlocked, nothing will happen.
  - there will be no effect on any following door.

For example, if there are 10 doors as shown below, where 0 denotes an `unlocked` door, and 1 denotes a `locked` door, a minimum of 3 operations, will be required to unlock all doors.



Note: You are allowed to unlock the doors in any order you wish.

Complete the function `revisedRussianRoulette` that takes an integer array denoting $locked/unlocked$ status of each door in the array, and return an integer array denoting the minimum and maximum number of unlock operations needed to unlock all the doors.

Input Format

The first line contains a single integer n, denoting the total number of doors.

The next line contains n space separated integers, either 0 or 1. 1 denotes a `locked door` and 0 denotes an `unlocked door`.

Constraints

- $1 \leq n \leq 10000$

Output Format

Print two integers separated by one space, denoting the minimum and maximum number of unlock operations needed respectively.

Sample Input 0

```
10
0 1 1 0 1 1 1 1 0 0
```

Sample Output 0

```
3 6
```

Explanation 0

Door 1 : Already unlocked.
Door 2 : Currently locked, so unlock operation performed to unlock the door.
Door 3 : Was locked, but since door 2 is unlocked, door 3 unlocks automatically.
Door 4 : Already unlocked.
Doors 5,6,7 and 8 are unlocked in the same fashion as doors 2 and 3.
Door 9 : Already unlocked.
Door 10 : Already unlocked.

Hence, a minimum of 3 doors need to be unlocked for all doors to be unlocked (refer diagram in challenge statement).

Similarly, a maximum of 6 doors need to be unlocked for all doors to be unlocked.