

## ONOFF

There are 9 switches labeled 1 through 9. These switches can be turned on or off. If one tries to turn on a switch that is already on, nothing happens. If one tries to turn off a switch that is already off, nothing happens.

All switches start in the “off” state. Count the number of times the switched is turned on when it is already on, and the number of times the switched is turned off when it is already off.

### Input

The first line contains an integer  $N$  ( $1 \leq N \leq 1\,000$ ), the number of actions. Each of the following  $N$  lines contains an integer  $A_i$  ( $-9 \leq A_i \leq -1$  or  $1 \leq A_i \leq 9$ ), denoting an action. If  $A_i$  is positive, it represents turning on the switch  $|A_i|$ . If  $A_i$  is negative, it represents turning off the switch  $|A_i|$ .

### Output

Output the number of times the switched is turned on when it is already on, and the number of times the switched is turned off when it is already off, separated by a space.

### Example

Input	Output
10 -2 3 4 3 -3 4 -3 4 -4 3	3 2

- Actions 4, 6 and 8 turns the switch on when it is already on.
- Actions 1 and 7 turns the switch off when it is already off.