Time Limit: 2 Seconds Memory Limit: 65536 KB

ZOJ is 10 years old! For celebrating, we are offering the easiest problem in the world to you.

Recently we received a long sequence. We can modify the sequence once by the following two steps.

- 1. Choose any element in the sequence, say x (satisfying $x \ge 3$), and subtract 3 from x.
- 2. Choose any element in the sequence, say x, and add 1 to x.

Now, we want to know how many times at most the sequence can be modified.

Input

The input contains multiple test cases. For each case, the first line contains an integer $n(1 \le n \le 20000)$. The second line contains n integers describing the sequence. All the numbers in the sequence are non-negative and not greater than 1000000.

Output

Output number of times at most the sequence can be modified, one line per case.

Sample Input

1

10 2

10 11

Sample Output

4 10

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