Average

Description

Given a list of numbers, compute the median and the mean.

- Median - When the list is sorted, the median is the middle number. If the length of the list is even, the median is halfway between the two middle numbers.
- Mean - The arithmetic mean is the sum divided by the length of the list.

Input

The first line is the N, the length of the list of numbers ($1 <= N <= 100$). The next N lines are integers between 1 and 1000 inclusive.

Output

On the first line, print the median. On the second line, print the mean. Your answer must be accurate within three decimal places.

Input
5
1
2
3
4
5

Output
3
3

Input
4
3
11
4
3

Output
3.5
5.25