

Little Ivica received N math grades and wants to calculate their average. He knows that the average of two numbers a and b is calculated as $(a + b) / 2$, but he still doesn't know how to do it for multiple numbers. He calculates the average by writing down N grades and repeating the following operations $N - 1$ times:

1. He chooses two numbers and erases them.
2. He writes down the average of the two chosen numbers.

After precisely $N - 1$ steps, the only number written down will be the one representing the average grade to Ivica. It is your task to determine the largest average that can be obtained this way.

INPUT

The first line of input contains the integer N ($1 \leq N \leq 20$), the number from the task. The i^{th} of the following N lines contains the integer X_i ($1 \leq X_i \leq 5$), the i^{th} grade.

OUTPUT

Output the largest possible average from the task. Your solution is allowed to deviate from the official one for 0.000001.

SCORING

In test cases worth 20% of total points, it will hold $N = 3$.

In test cases worth an additional 20% of total points, it will hold $N = 4$.

In test cases worth an additional 20% of total points, it will hold $N = 5$.

SAMPLE TESTS

input

4
2
4
5
2

output

4.000000

input

3
5
5
4

output

4.750000

input

3
1
3
5

output

3.500000

Clarification of the third test case:

Initially, the numbers 1, 3 and 5 are written down.

In the first step, Ivica chooses numbers 1 and 3, erases them and writes down 2. After the first step, 2 and 5 are written down.

In the second step, Ivica chooses the remaining two numbers which average is 3.5.