Election rigging

It's increasingly common for elections to store votes digitally in order to process them. Of course, some shady characters are always trying to break into these databases to manipulate the votes. Unfortunately, this has happened many times in the municipal elections of Saint-Louis-du-Ha! Ha! The good news is that the criminals who alter the votes are greedy: they dont't just change enough votes for their preferred candidate to win, they change a majority of the votes to their preferred candidate. With multiple candidates, it is very unlikely for any one candidate to receive more than half of the votes.

The mayor of Saint-Louis-du-Ha! Ha! has asked for your help in quickly checking who these lazy scammers are trying to get elected. Design an algorithm that finds which candidate has the majority of the votes.

Input

The input consists of two lines. The first line is the number of votes in the election, which is $\leq 5 \cdot 10^4$. The second line consists of integers n, where $0 \leq n \leq 10^9$, separated by a space. Each integer represents a vote for candidate n.

Output

Output the candidate who received the majority of the votes. Note that the majority is defined as a number m where m is strictly greater than half the number of total votes. Every input is guaranteed to have a candidate who received the majority of the votes.

Examples

Input	**Output**
5 11 4 11 11 16	11
12 99 4 12 4 4 45 4 54 4 4 71 4	4