

Fair Elections

Input file: *standard input*
Output file: *standard output*
Time limit: 4 seconds
Memory limit: 1024 mebibytes

In the City of Truth, an election started. There are three candidates running for president, numbered from 1 to 3. Also, there are n voters. Every voter has their own list of preferences, set by a permutation of numbers 1, 2, 3. For example, permutation (2, 3, 1) means that this voter prefers candidate 2 the most, then they prefer candidate 3, and candidate 1 is the least preferable for them. Lists of preferences are known to everyone.

Voters will vote (that is, choose one candidate) one by one in fixed order, from the first voter to the last voter. Moreover, after a person votes, they will immediately and honestly tell how they voted.

The candidate who was chosen by most voters will be the president. If several candidates have the most votes, the winner is the candidate with the lowest number (for example, if the candidates 1 and 2 both have the most votes, then candidate 1 wins).

Who will win if every person votes optimally?

Input

The first line contains a single integer n : the number of voters ($1 \leq n \leq 10\,000$).

Then n lines follow. The i -th of these lines contains a permutation of numbers 1, 2, and 3: the preferences of the i -th voter.

Output

Output a single integer from 1 to 3: the number of the candidate who will win the election.

Example

<i>standard input</i>	<i>standard output</i>
3 3 2 1 1 2 3 2 1 3	2