Chorus Formation

Problem description

There are n students standing in a row. The music teacher will ask (n-k) of them to step out and the remaining k students will form a chorus.

Chorus formation refers to such a formation: From left to right, suppose k students are numbered as 1, 2... from left to right, their heights are t_1, t_2..., t_k respectively, and their height meets $t_1<t_2<\ldots<t_i, t_i>t_{i+1}>\ldots>t_k(1\leq i \leq k)$.

Your task is, given the height of all the n students, calculate the minimum number of students needed to come out of the line, so that the rest of the students can form a chorus formation.

Input

There are two lines in total.

The first line of the input file is an integer N ($2\leq n \leq 100$), indicating the total number of students.

The second line has n integers, separated by spaces, the i^{th} integer t_i ($130\leq t_i \leq 230$) is the height (cm) of the i^{th} student.

Output

The output file contains a line, which only has one integer, that is, the minimum number of students who need to be out of the column.

Sample Input

8
186 186 150 200 160 130 197 220

Sample Output

4

Data Size

For 50% of data, make sure that $n\leq 20$;
For all data, make sure that $n\leq 100$.