
Ranking

Professor Jojo wants to make ranking for his students. He thinks that each student will take place equal to $1 + (\text{number of students with strictly higher score than his or her})$. So, students with the same score will have the same rank. Help him determine the rank for each student.

Format Input

The input begins with an integer T indicating the number of test cases. In each test case, the first line contains a positive integer N , the number of students. The second line contains N integer A_i , the score of student i .

Format Output

For each test case, output the rank of each student.

Constraints

$1 \leq T \leq 100$

$1 \leq N \leq 1000$

$0 \leq A_i \leq 100$

Sample Input (standard input)	Sample Output (standard output)
2 3 1 3 3 3 1 2 3	Case #1: 3 1 1 Case #2: 3 2 1