
11. Rank Arrays

Program Name: Rank.java

Input File: rank.dat

The rank of an element in an array of integers can be determined by its position in the array and the value of the other elements in the array. The rank of an element e in an array of size n is determined by adding the position p , $1 \leq p \leq n$, of the element in the array to the number of array elements to the left of e that are less than e .

For example, consider the array containing the integers: 6 9 3 8 2 10 1. The rank of the target element 8 is 6 because its position is 4 and there are 2 elements in the array to the left of 8 that are less than 8.

You are to determine the rank of a target element in a given array.

Input

The first line of input will contain a single integer n that indicates the number of lines to follow. Each the following n lines will contain a list of m integers separated by a single space. The first $m-1$ integers in the list are unique elements of an array. The last integer in the list is the target element. The target element will be contained in the array.

Output

For each array, you will print the rank of the target element.

Example Input File

```
3
6 9 3 8 2 10 1 8
14 -3 4 6 9 10 -2 7 0 9
5 11 21 8 7 -2 -7 -3 1 9 30 3 -5 4 -4 6 9
```

Example Output to Screen

```
6
8
17
```