6. Degree of Sorts

Program Name: Degree.java Input File: degree.dat

Some system analysts believe that one method to determine which sort might be the most efficient is to determine the ratio of the "degree" of the array to be sorted to the number of elements in the array. You are to write a program to determine the "degree" of an array of integers.

The "degree" of an array is found by:

- finding a sub-degree for each element of the array by determining the number of elements in the array with index values higher than that element that contain a value smaller than that element.

Array Index Value	0	1	2	3	4
Element Value	3	2	5	1	6
Element Sub-degree	2	1	1	0	-

- adding the sub-degrees of all the array elements together to get the "degree" of the array

Input
The first line of input will contain a single integer `n` that indicates the number of arrays to follow. Each of the following `n` lines will contain a list of integers that represent the values in the array that are to be sorted, each separated by a single space.

Output
You will output the degree of each array on a line by itself.

Example Input File
```
4
3 2 5 1 6
1 4 6 2 8 3 0 -1 2
4 3 2 1
6 5 4 1 2 3
```

Example Output to Screen
```
4
22
6
12
```