[A - Bubble Sort Adhoc](https://vjudge.net/problem/HackerRank-si-bubble-sort" \t "_blank)

Implement Bubble Sort and print the total number of swaps involved to sort the array.

**Input Format**

First line of input contains T - number of test cases. Its followed by 2T lines. First line of each test case contains N - size of the array. The next line contains N integers - elements of the array.

**Constraints**

1 <= T <= 100  
1 <= N <= 100  
-1000 <= ar[i] <= 1000

**Output Format**

For each test case, print the total number of swaps, separated by new line.

**Sample Input 0**

4

8

176 -272 -272 -45 269 -327 -945 176

2

-274 161

7

274 204 -161 481 -606 -767 -351

2

154 -109

**Sample Output 0**

15

0

16

1

**Explanation 0**

Self Explanatory

#include <iostream>

#include <vector>

using namespace *std*;

int bubbleSort(*vector*<int>& arr)

{

int noOfSwaps = 0;

int l = arr.*size*();

for (auto i = 0; i < l - 1; i++)

{

for (auto j = 0; j < l - i - 1; j++)

{

if (arr[j] > arr[j + 1])

{

int temp = arr[j];

arr[j] = arr[j + 1];

arr[j + 1] = temp;

noOfSwaps++;

}

}

}

return noOfSwaps;

}

int main(void)

{

int t; *cin* >> t;

while (t--)

{

int n; *cin* >> n;

*vector*<int> arr;

for (auto i = 0; i < n; i++)

{

int ele; *cin* >> ele;

arr.*push\_back*(ele);

}

*cout* << bubbleSort(arr) << "\n";

}

return 0;

}