Given a list of **N** integers, consisting of **unique** positive values. Find the position of a chosen value after sorting the list.

After creation of the list, sort the list in increasing order. For example, if the list was {1, 3, 5, 2, 4} after sorting it becomes {1, 2, 3, 4, 5}. Before the sorting, the **chosen value** was on **K**-th position in the list.

Your task is to find the position of the **chosen value** in the sorted list.

Input

The first line of the input contains an integer **T** denoting the number of test cases. The description of **T** test cases follows.
The first line of each test case contains one integer **N** denoting the length of the list. The second line contains **N** space-separated integers A_1, A_2, ..., A_N denoting the values contained within the list. The third line contains the only integer **K** - the value whose position needs to be found.

Output

For each test case, output a single line containing the position of the chosen value in the sorted list.

Constraints

$1 \le T \le 1000$
$1 \le K \le N \le 100$
$1 \le A_i \le 10^9$

Sample

Input:	Output:
3 4 1 3 4 2 2 5 1 2 3 9 4 5 5 1 2 3 9 4 1	3 4 1

Explanation:

In the example test there are **T**=3 test cases.

Test case 1

In the first test case **N** equals to 4, **K** equals to 2, **A** equals to {1, 3, 4, 2}. The answer is **3**, because {1, 3, 4, 2} -> {1, 2, 3, 4}. $\mathbf{A_2}$ now is on the **3**-rd position.

Test case 2

In the second test case **N** equals to 5, **K** equals to 5, **A** equals to {1, 2, 3, 9, 4}. The answer is **4**, because {1, 2, 3, 9, 4} -> {1, 2, 3, 4, 9}. $\mathbf{A_5}$ now is on the **4**-th position.

Test case 3

In the third test case **N** equals to 5, **K** equals to 1, **A** equals to {1, 2, 3, 9, 4}. The answer is **1**, because {1, 2, 3, 9, 4} -> {1, 2, 3, 4, 9}. $\mathbf{A_1}$ stays on the **1**-th position.