

Problem 1. Binary Search (timelimit: 1sec)

Problem Statement

We have an element list L and a query list Q .

Write a program that performs binary search of each query $q \in Q$ on the list L .

Input Statement

First line contains t which is the number of testcases.

The first line of each testcase contains n, m , which represents lengths of each element list L and query list Q respectively. ($1 \leq n, m \leq 100,000$)

Next line includes n integers, L_1, \dots, L_n . For any i, j where $i < j$, L_i is smaller than L_j .

Next line includes m integers, Q_1, \dots, Q_m . It is not sorted, and some number can be shown up more than twice.

Output Statement

For each testcase, print how many Q_i s are in L .

The results of each query should be separated by a space.

Input Example

```
3
10 5
1 3 5 7 9 11 13 15 17 19
2 4 6 8 10
5 10
1 2 3 4 5
5 2 4 1 6 8 9 7 10 3
7 7
1 2 3 4 5 6 7
1 1 2 3 5 8 13
```

Output Example

```
0
5
5
```