B. Queries about less or equal elements

time limit per test: 2 seconds

memory limit per test: 256 megabytes

You are given two arrays of integers a and b. For each element of the second array b_j you should find the number of elements in array a that are less than or equal to the value b_j.

Input

The first line contains two integers n, m ($1 \leq n, m \leq 2 \cdot 10^5$) — the sizes of arrays a and b.

The second line contains n integers — the elements of array a ($-10^9 \leq a_i \leq 10^9$).

The third line contains m integers — the elements of array b ($-10^9 \leq b_j \leq 10^9$).

Output

Print m integers, separated by spaces: the j-th of which is equal to the number of such elements in array a that are less than or equal to the value b_j.

Examples

input
```
5 4
1 3 5 7 9
6 4 2 8
```
output
```
3 2 1 4
```

input
```
5 5
1 2 1 2 5
3 1 4 1 5
```
output
```
4 2 4 2 5
```

Educational Codeforces Round 2

Finished

Practice

⭐

→ Virtual participation ⌄

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

[Start virtual contest]

→ Clone Contest to Mashup ⌄

You can clone this contest to a mashup.

[Clone Contest]

→ Submit?

Language: GNU G++20 13.2 (64 bit, win ▾)

Choose file: [Choose File] No file chosen

[Submit]

→ Last submissions

Submission	Time	Verdict
256859124	Apr/16/2024 05:26	Accepted

→ Problem tags

binary search | data structures | sortings | two pointers | *1300

No tag edit access

→ Contest materials

- Announcement (en)   ✕
- Editorial (en)   ✕

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