

B. Closest to the Left

time limit per test: 2 seconds

memory limit per test: 512 megabytes

Given an array of n numbers, sorted in non-decreasing order, and k queries. For each query, print the maximum index of an array element not greater than the given one.

Input

The first line of the input contains integers n and k ($0 < n, k \leq 10^5$), the length of the array and the number of queries. The second line contains n elements of the array, sorted in non-decreasing order. The third line contains k queries. All array elements and queries are integers, each of which does not exceed $2 \cdot 10^9$ in absolute value.

Output

For each of the k queries, print the maximum index of an array element not greater than the given one. If there are none, print 0.

Example

input	Copy
5 5 3 3 5 8 9 2 4 8 1 10	
output	Copy
0 2 4 0 5	

→ Submit?

Language: GNU G++17 7.3.0

Choose file: No file chosen
