

Menu

Jojo is going to a restaurant. There are N foods listed in the menu, and the items are sorted increasingly based on its price. Now Jojo is wondering how many foods are there with price P. As the number of food in the menu can be a lot, Jojo will need your help to answer his questions. Jojo knows you can count really fast, so he will give you M questions.

Format Input

Input begins with integer N and M, the number of food in the menu, and the number of query. The next line will consist of N integers, the prices of food in the menu sorted increasingly. Then followed by M lines, where each line consist an integer, the price of i-th query.

Format Output

The output consists of M lines, where each line is the answer to the i-th query, the number of food with price P_i .

Constraints

1 <= N <= 100 000 1 <= M <= 100 000 1 <= x_i <= 1 000 000 000

Sample Input (standard input)	Sample Output (standard output)
4 3	1
1 2 2 3	2
1	0
2	
5	