Homework 7

Computer Programming (II)
Spring Semester, 2024
(Time limit: 1 second)

We are given integers a_0, a_1, …, a_{n-1}, k_0, k_1, …, k_{m-1}. For $0 \le i < n-1$, $a_i \le a_{i+1}$. For each $0 \le i \le m-1$, please determine whether $k_i \in \{a_0, a_1, \dots, a_{n-1}\}$.

Input format

The first line is n. The second line consists of a_0, a_1, …, a_{n-1}, in that order. Then the third line is m, and the fourth line consists of k_0, k_1, …, k_{m-1}, in that order. Any two consecutive integers in a line are separated by a space.

Output format

For each $0 \le i \le m-1$, output "yes" if $k_i \in \{a_0, a_1, \dots, a_{n-1}\}$ and "no" otherwise. Each "yes" or "no" should be in a separate line.

Technical specification

- $0 < n \le 100000$.
- $0 < m \le 100000$.
- $0 \le a_0, a_1, \dots, a_{n-1}, k_0, k_1, \dots, k_{m-1} \le 200000$.

Sample input

10
1 2 2 3 5 6 7 7 7 8
10
2 7 0 9 3 6 0 6 2 6

Sample output

yes
yes
no
no
yes
yes
no

yes

yes

yes

Additional requirement

The only header to include is <iostream>.