Climbing the Leaderboard



An arcade game player wants to climb to the top of the leaderboard and track their ranking. The game uses Dense Ranking, so its leaderboard works like this:

- ullet The player with the highest score is ranked number $oldsymbol{1}$ on the leaderboard.
- Players who have equal scores receive the same ranking number, and the next player(s) receive the immediately following ranking number.

Example

$$ranked = [100, 90, 90, 80]$$

 $player = [70, 80, 105]$

The ranked players will have ranks 1, 2, 2, and 3, respectively. If the player's scores are 70, 80 and 105, their rankings after each game are 4^{th} , 3^{rd} and 1^{st} . Return [4,3,1].

Function Description

Complete the *climbingLeaderboard* function in the editor below.

climbingLeaderboard has the following parameter(s):

- int ranked[n]: the leaderboard scores
- int player[m]: the player's scores

Returns

• int[m]: the player's rank after each new score

Input Format

The first line contains an integer n, the number of players on the leaderboard.

The next line contains n space-separated integers ranked[i], the leaderboard scores in decreasing order.

The next line contains an integer, m, the number games the player plays.

The last line contains m space-separated integers player[j], the game scores.

Constraints

- $1 < n < 2 \times 10^5$
- $1 < m < 2 \times 10^5$
- $0 \leq ranked[i] \leq 10^9$ for $0 \leq i < n$
- $0 \le player[j] \le 10^9$ for $0 \le j < m$
- The existing leaderboard, ranked, is in descending order.

ullet The player's scores, player, are in ascending order.

Subtask

For 60% of the maximum score:

- $1 \le n \le 200$
- $1 \le m \le 200$