

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:

- The player with the highest score is ranked number **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 **4th**, **3rd** and **1st**. 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

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

- The player's scores, *player*, are in *ascending* order.

Subtask

For 60% of the maximum score:

- $1 \leq n \leq 200$
- $1 \leq m \leq 200$

Sample Input 0

```
7
100 100 50 40 40 20 10
4
5 25 50 120
```

Sample Output 0

```
6
4
2
1
```

Explanation 0

Alice starts playing with 7 players already on the leaderboard, which looks like this:

Rank	Name	Score
1	Emma	100
1	David	100
2	Caroline	50
3	Ritika	40
3	Tom	40
4	Heraldo	20
5	Riley	10

After Alice finishes game 0, her score is 5 and her ranking is 6:

Rank	Name	Score
1	Emma	100
1	David	100
2	Caroline	50
3	Ritika	40
3	Tom	40
4	Heraldo	20
5	Riley	10
6	Alice	5

After Alice finishes game 1, her score is 25 and her ranking is 4:

Rank	Name	Score
1	Emma	100
1	David	100
2	Caroline	50
3	Ritika	40
3	Tom	40
4	Alice	25
5	Heraldo	20
6	Riley	10

After Alice finishes game **2**, her score is **50** and her ranking is tied with Caroline at **2**:

Rank	Name	Score
1	Emma	100
1	David	100
2	Caroline	50
2	Alice	50
3	Ritika	40
3	Tom	40
4	Heraldo	20
5	Riley	10

After Alice finishes game **3**, her score is **120** and her ranking is **1**:

Rank	Name	Score
1	Alice	120
2	Emma	100
2	David	100
3	Caroline	50
4	Ritika	40
4	Tom	40
5	Heraldo	20
6	Riley	10

Sample Input 1

```
6
100 90 90 80 75 60
5
50 65 77 90 102
```

Sample Output 1

```
6
5
4
```

