☆ Stock market prediction

In this prediction game, the first player gives the second player some stock market data for some consecutive days. The data contains a company's stock price on each day. The rule for the game is quite simple:

- Player *1* will tell player *2* a day number and player *2* has to find the nearest day on which stock price is smaller than the given day,
- If there are two results, then player *2* has to find the day number which is smaller and if no such day exists, then the correct answer would be *-1*.

For example, the image below shows the stock market data for *10* consecutive days. The horizontal axis represents the day number and the vertical axis represents the stock price on that day.

Player *2* needs to answer every query of Player *1* correctly. Given the stock price for *n* consecutive days, can player 2 win the game?

Function Description

Complete the *predictAnswer* function in the editor below. The function must return an array of *q* integers denoting the answer to each query.

predictAnswer has *2* parameters:

stockData: An array of *n* integers, where the value of each element *stockData[i]* is the stock price on the $i+1^{th}$ day (where $0 \le i < n$).

queries: An array of q integers, where the value of each element *queries[i]* is the day number given in the query (where $0 \le i < q$).

Constraints

- $1 \le n \le 10^5$
- $1 \le stockData[i] \le 10^9$
- $1 \le q \le 10^5$
- $1 \le queries[i] \le 10^9$

Input Format For Custom Testing

Locked stub code in the editor reads the following input from stdin and passes it to the function.

The first line contains an integer, *n*, denoting the number of elements in *stockData*.
Each line i^{th} of the *n* subsequent lines contains an integer describing *stockData[i]* , which represents the stock price of $i+1^{th}$ day.
Next line contains an integer, *q*, denoting the number of elements in *queries*.
Each line i^{th} of the *q* subsequent lines contains an integer describing *queries[i]* , which represents the day number on i^{th} query.

Sample Case 0

Sample Input 0

```
10
5
6
8
```

```
3
6
4
3
3
1
8
```

Sample Output 0

```
2
4
-1
```

Explanation 0

- If the day number is *3*, then Player *2* needs to say *2*. This is because day *2* and *4* are both equally near to day *3* and have smaller stock prices than day *3* (*6* and *4* respectively). The right answer is *2*, since *2* is smaller than *4*.
- If the day number is *1*, then Player *2* needs to say *4*. This is because day *4* is the nearest day that has stock price smaller than day *1*. The right answer is *4*.
- If the day number is *8*, then Player *2* needs to say *-1*. This is because no other day on the list has a smaller stock price than day *8*.

YOUR ANSWER

We recommend you take a quick tour of our editor before you proceed. The timer will pause up to 90 seconds for the tour. Start tour

View Code Diff | Java 8

```
1   import java.io.*;…
14
15  class Result {
16
17      /*
18       * Complete the 'predictAnswer' function below.
19       *
20       * The function is expected to return an INTEGER_ARRAY.
21       * The function accepts following parameters:
22       *  1. INTEGER_ARRAY stockData
23       *  2. INTEGER_ARRAY queries
24       */
25
26      public static List<Integer> predictAnswer(List<Integer> stockData, List<Integer> queries) {
27      // Write your code here
28
29      }
30
31  }
32
33  public class Solution {…
```

Line: 14 Col: 1

Test against custom input

Run Code | Submit code & Continue

(You can submit any number of times)

Download sample test cases *The input/output files have Unix line endings. Do not use Notepad to edit them on windows.*

1
2
3
4
5
6