CSES   anugoyal998 — ◐ ➔

CSES Problem Set

Nearest Smaller Values

TASK │ SUBMIT │ RESULTS │ STATISTICS

Time limit: 1.00 s   **Memory limit:** 512 MB

Given an array of n integers, your task is to find for each array position the nearest position to its left having a smaller value.

Input

The first input line has an integer n: the size of the array.

The second line has n integers $x_1, x_2, \ldots, x_n$: the array values.

Output

Print n integers: for each array position the nearest position with a smaller value. If there is no such position, print 0.

Constraints

- $1 \le n \le 2 \cdot 10^5$
- $1 \le x_i \le 10^9$

Example

Input:
```
8
2 5 1 4 8 3 2 5
```

Output:
```
0 1 0 3 4 3 3 7
```

Sorting and Searching

...
Reading Books   –
Sum of Three Values   –
Sum of Four Values   –
Nearest Smaller Values   –
Subarray Sums I   –
Subarray Sums II   –
Subarray Divisibility   –
Subarray Distinct Values   –
...

Your submissions