

# Ada and Trees

Ada the Ladybug is a farmer. She has a long furrow in which she grows trees. Each tree has some weight. The task is simple, she wants to know the biggest tree on some part of the furrow which is not greater than some height  $H$ . As Ada asks for this very often, she asked you to write a program for this.

## Input

The first line will contain two integer  $1 \leq N$ ,  $Q \leq 3 \cdot 10^5$ , the number trees and the number of questions.

The next line will contain  $N$  integers  $0 \leq A_i \leq 10^6$ , the heights of trees.

The sum next  $Q$  will contain three integers:  $0 \leq l \leq r < N$ , the segment of furrow she is interested in and  $0 \leq H \leq 10^6$

## Output

For each query output either the size of highest tree lesser/equal to  $H$  or output  $0$  if such tree doesn't grow on given segment.

## Example Input

```
9 8
1 5 9 11 9 7 6 2 1
1 6 4
1 6 10
0 8 97
0 8 4
1 4 5
2 6 8
2 8 5
3 3 12
```

## Example Output

```
0
9
11
2
5
7
2
11
```