

My Courses

# 范围查询

## Description

Let  $S$  be a set of  $n$  integral points on the  $x$ -axis. For each given interval  $[a, b]$ , you are asked to count the points lying inside.

## Input

The first line contains two integers:  $n$  (size of  $S$ ) and  $m$  (the number of queries).

The second line enumerates all the  $n$  points in  $S$ .

Each of the following  $m$  lines consists of two integers  $a$  and  $b$  and defines an query interval  $[a, b]$ .

## Output

The number of points in  $S$  lying inside each of the  $m$  query intervals.

## Example

Input

```
5 2
1 3 7 9 11
4 6
7 12
```

Output

```
0
3
```

## Restrictions

$0 \leq n, m \leq 5 * 10^5$

For each query interval  $[a, b]$ , it is guaranteed that  $a \leq b$ .

Points in  $S$  are distinct from each other.

Coordinates of each point as well as the query interval boundaries  $a$  and  $b$  are non-negative integers not greater than  $10^7$ .

Time: 2 sec

Memory: 256 MB

## 描述

数轴上有 $n$ 个点，对于任一闭区间  $[a, b]$ ，试计算落在其内的点数。

## 输入

第一行包括两个整数：点的总数 $n$ ，查询的次数 $m$ 。

第二行包含 $n$ 个数，为各个点的坐标。

以下 $m$ 行，各包含两个整数：查询区间的左、右边界 $a$ 和 $b$ 。

## 输出

对每次查询，输出落在闭区间 $[a, b]$ 内点的个数。

## 样例

见英文题面

## 限制

$$0 \leq n, m \leq 5 \times 10^5$$

对于每次查询的区间 $[a, b]$ ，都有 $a \leq b$

各点的坐标互异

各点的坐标、查询区间的边界 $a$ 、 $b$ ，均为不超过 $10^7$ 的非负整数

时间：2 sec

内存：256 MB

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UI powered by Twitter Bootstrap (<http://getbootstrap.com/>).

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