



USACO 2016 DECEMBER CONTEST, SILVER PROBLEM 1. COUNTING HAYBALES

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English (en)

Farmer John has just arranged his N haybales ($1 \leq N \leq 100,000$) at various points along the one-dimensional road running across his farm. To make sure they are spaced out appropriately, please help him answer Q queries ($1 \leq Q \leq 100,000$), each asking for the number of haybales within a specific interval along the road.

INPUT FORMAT (file haybales.in):

The first line contains N and Q .

The next line contains N distinct integers, each in the range $0 \dots 1,000,000,000$, indicating that there is a haybale at each of those locations.

Each of the next Q lines contains two integers A and B ($0 \leq A \leq B \leq 1,000,000,000$) giving a query for the number of haybales between A and B , inclusive.

OUTPUT FORMAT (file haybales.out):

You should write Q lines of output. For each query, output the number of haybales in its respective interval.

SAMPLE INPUT:

```
4 6
3 2 7 5
2 3
2 4
2 5
2 7
4 6
8 10
```

SAMPLE OUTPUT:

```
2
2
3
4
1
0
```

Problem credits: Nick Wu

Contest has ended. No further submissions allowed.