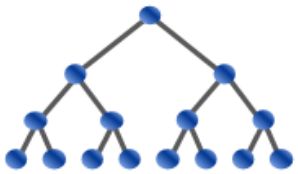

USACO 2015 DECEMBER CONTEST, SILVER
PROBLEM 3. BREED COUNTING

Return to Problem List

Contest has ended.

Log in to allow submissions in analysis mode

English (en)

Farmer John's N cows, conveniently numbered $1 \ldots N$, are all standing in a row (they seem to do so often that it now takes very little prompting from Farmer John to line them up). Each cow has a breed ID: 1 for Holsteins, 2 for Guernseys, and 3 for Jerseys. Farmer John would like your help counting the number of cows of each breed that lie within certain intervals of the ordering.

INPUT FORMAT (file bcount.in):

The first line of input contains N and Q ($1 \leq N \leq 100,000$, $1 \leq Q \leq 100,000$).

The next N lines contain an integer that is either 1, 2, or 3, giving the breed ID of a single cow in the ordering.

The next Q lines describe a query in the form of two integers a, b ($a \leq b$).

OUTPUT FORMAT (file bcount.out):

For each of the Q queries (a, b), print a line containing three numbers: the number of cows numbered $a \ldots b$ that are Holsteins (breed 1), Guernseys (breed 2), and Jerseys (breed 3).

SAMPLE INPUT:

```
6 3
2
1
1
3
2
1
1 6
3 3
2 4
```

SAMPLE OUTPUT:

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

Problem credits: Nick Wu

Contest has ended. No further submissions allowed.