Lil' Jami

Time limit: 1.4s **Memory limit:** 16M
PyPy 2: 128M
PyPy 3: 128M

Vincent Massey SS - 2014 Senior Contest #1

Lil' Jami is playing with a set of N cups numbered $0, 1, \ldots, N-1$ and an infinite number of stones. Each cup initially has 0 stones in it. Since he has an infinite amount of free time, Lil' Jami plays a game where he repeatedly adds a stone to a cup. He does this k times.

Following this, there will be Q queries $(1 \leq Q \leq 1\,000\,000)$ of the form `a b` $(0 \leq a \leq b < N)$. For each query, find the sum of the stones in cups numbered $a, a+1, \ldots, b-1, b$.

Input Specification

The first line will contain the integers N and K $(1 \leq N, K \leq 1\,000\,000)$ separated by a space.
The next K lines will each contain a single integer k_i $(0 \leq k_i < N)$ meaning to add a stone to the cup with index k_i (for $0 \leq i < N$).
The next line will contain the single integer Q.
The next Q lines will contain two space-separated integers a and b.

Output Specification

For each query, print the sum of the number of stones in each of the cups in the range $[a, b]$, inclusive.

Sample Input

```
5 3
1
1
2
2
0 2
2 4
```

Sample Output

```
3
1
```