Christmas gift   P74421_en

It is December 24th evening. An absent minded farmer has just realized that he did not buy any gift for his wife. The farmer is on a path in the woods, and he can only think about picking up all the mushrooms on the way back home, praying that that will soften a bit the cries awaiting him. Suppose the path divided into n segments 1, 2, ...n, and that in each one there are a certain number of mushrooms m_i. The farmer is at the segment f, and his home is at the segment h. The farmer will pick up all the mushrooms in the segments between f and h. How many mushrooms will it be?

Input

Input consists of several cases. Every case begins with n, followed by the n quantities of mushrooms m_i. Follow the number of queries q about this case, assuming different positions of the farmer and his home. Each query consists of f and h, both between 1 and n. Suppose $1 \leq n \leq 10^5$, $0 \leq m_i \leq 1000$, and $q > 0$.

Output

For every case, print its number. For every query of every case, print the sum of the numbers between f and h, the extrems inclusive.

Sample input 1

```
4    7 0 20 105
3
1 4
3 3
4 3
1    1000
1
1 1
```

Sample output 1

```
#1
132
20
125
#2
1000
```

Problem information

Author: Salvador Roura
Translator: Salvador Roura

Generation: 2026-01-25T11:47:06.481Z