

Problem C1

Static Range Sum

Problem Statement

You are given a non-negative integer sequence $A = (a_0, a_1, \dots, a_{N-1})$ with the length N . Process the following Q queries in order:

- You are given integers l_i and r_i . Print $\sum_{k=l_i}^{r_i-1} a_k$.

Note

The difference between C1 and C2 is only constraints of N and Q .

Input

```
N Q
a0 a1 ... a_{N-1}
l1 r1
⋮
l_Q r_Q
```

- All inputs are integers.
- $1 \leq N \leq 1\,000$
- $1 \leq Q \leq 1\,000$
- $-10^9 \leq a_i \leq 10^9$
- $1 \leq l_i < r_i \leq N$

Sample

Sample Input

```
5 5
1 10 100 1000 10000
2 3
0 3
2 5
3 4
0 5
```

Sample Output

```
100
111
11100
1000
11111
```