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Multiply Sum Query

? Ask Doubt

Time-Limit: 4 sec

Score: 100.00/100

Difficulty :

Memory: 256 MB

Accepted Submissions: 100

Relevant For:

AZ-201

AZ-202

AZ-301

Description

Given an array of N integers and Q queries. In each query two integers L, R is given, you have to find $(A[L] + A[L+1]*2 + A[L+2]*3 + A[L+3]*4...A[R]*(R-L+1)) \% 10^9+7$.

Input Format

The first line contains two space-separated integers N, Q where $1 \leq N \leq 10^6, 1 \leq Q \leq 10^6$.

Next line contains N space-separated integers $(-1e9 \leq A_i \leq 1e9)$.

Next Q lines contain two space-separated integers L, R where $1 \leq L \leq R \leq N$.

Output Format

For each query print the value of $(A[L] + A[L+1]*2 + A[L+2]*3 + A[L+3]*4...A[R]*(R-L+1)) \% 10^9+7$ in a new line.

Sample Input 1

Copy

```
10 10
12 -23 -123 2345 2345 44 345 -93945 -5353 1
1 5
1 8
1 10
2 2
6 6
4 8
2 9
4 10
3 6
5 9
```

Sample Output 1

Copy

```
20702
999271828
999223661
999999984
44
999538829
```

C++14[GCC] ▾



Submit

1