Problem D. Odd Topic

Time limit	2000 ms
Code length Limit	80000 B
OS	Linux

Animesh the Cryptographer loves *Odd* things. He taught his two friends Mukul and Suman some topics on cryptography. He taught Mukul for n days and Suman for m days.

He taught a_{i} topic to Mukul on i_{th} day and b_{j} topic to Suman on j_{th} day.

Animesh decided to conduct test on such topics which was taught odd number of times after merging all the topics taught to Mukul from day l_1 to r_1 and to Suman from day l_2 to r_2.

For Example :
a = { $3, 3, 2, 4, 3, 1, 3$ }
b = { $7, 3, 5, 2, 2, 4$ }
He wanted to conduct test for some topics which he taught Mukul from day l_1 = 1 to r_1 = 5 and taught Suman from l_2 = 2 to r_2 = 5.

Topic with odd occurrences in array a from day_1 to day_5 are { $3, 2, 4$ }

Topic with odd occurrences in array b from day_2 to day_5 are { $3, 5$ }

So the topics with odd occurrences are { $2, 4, 5$ } (Note: count of topic number 3 is even after merging total occurrences) .Thus total number of topics with odd occurrences are 3.

Animesh will conduct Q tests only on odd occurrences of the topics after merging the total occurrences.

Input:

- First line contains three integers N, M, Q,the number of days Mukul and Suman were taught and number of queries.
- Second line contains N integers a_1, a_2,. . .,a_{n}.
- Third line contains M integers b_1, b_2,. . .,b_{m}.
- Next Q lines contain four integers l_1, r_1, l_2, r_2.

Output:

Print the number of topics with odd occurrences for the given query in new line.

Constraints

- $1 \leq N, M, Q \leq 10^5$

- $0 \leq a_i , b_i \leq 4 * 10^3$
- $1 \leq l_1 \leq r_1 \leq N$
- $1 \leq l_2 \leq r_2 \leq M$

Subtasks

- 30 points : $1 \leq Q \leq 1000$
- 70 points : $1 \leq Q \leq 10^5$

Sample Input - 1:

```
7 6 1
```

3 3 2 4 3 1 3
7 3 5 2 2 4
1 5 2 5

Sample Output - 1:

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3
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Sample Input - 2:

```
5 5 2
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76 56 34 52 12
10 91 86 10 91
1 5 2 5
2 2 2 5

Sample Output - 2:

7
3