

Contest Duration: 2025-12-20(Sat) 23:00 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20251220T2100&p1=248>) - 2025-12-21(Sun) 00:40 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20251220T2240&p1=248>) (local time) (100 minutes)

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## D - Sum of Differences

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Time Limit: 2 sec / Memory Limit: 1024 MiB

Score : 400 points

### Problem Statement

You are given a length- $N$  sequence of positive integers  $A = (A_1, A_2, \dots, A_N)$  and a length- $M$  sequence of positive integers  $B = (B_1, B_2, \dots, B_M)$ .

Find the value of  $\sum_{i=1}^N \sum_{j=1}^M |A_i - B_j|$ , modulo 998244353.

### Constraints

- $1 \leq N, M \leq 3 \times 10^5$
- $1 \leq A_i, B_j < 998244353$
- All input values are integers.

### Input

The input is given from Standard Input in the following format:

```
N M
A_1 A_2 ⋯ A_N
B_1 B_2 ⋯ B_M
```

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# Output

Output the answer in one line.

## Sample Input 1

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```
4 2
1 6 9 2
3 1
```

Copy

## Sample Output 1

Copy

26

Copy

The answer is  $|1 - 3| + |1 - 1| + |6 - 3| + |6 - 1| + |9 - 3| + |9 - 1| + |2 - 3| + |2 - 1| = 2 + 0 + 3 + 5 + 6 + 8 + 1 + 1 = 26$ .

## Sample Input 2

Copy

```
8 8
185991676 311812083 311812083 84357963 185991676 185991676 724020528 369175631
455049197 387671868 4361724 724020528 724020528 455049197 455049197 724020528
```

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## Sample Output 2

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529117255

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#telegram)

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