

Contest Duration: 2025-12-27(Sat) 23:00 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20251227T2100&p1=248>) - 2025-12-28(Sun) 00:40 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20251227T2240&p1=248>) (local time) (100 minutes)

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## G - Sum of Min

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Time Limit: 2 sec / Memory Limit: 1024 MiB

Score : 575 points

### Problem Statement

You are given integers  $N, M, K$ , a length- $N$  integer sequence  $A = (A_0, A_1, \dots, A_{N-1})$ , and a length- $M$  integer sequence  $B = (B_0, B_1, \dots, B_{M-1})$ . Note that the indices start from 0.

Find  $\sum_{i=0}^{K-1} \min(A_{i \bmod N}, B_{i \bmod M})$ , modulo 998244353.

### Constraints

- $1 \leq N, M \leq 2 \times 10^5$
- $1 \leq K \leq 10^{18}$
- $1 \leq A_i, B_i \leq 10^9$
- All input values are integers.

### Input

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

2026-01-02 (Fri)  
05:35:34 +11:00

$N$	$M$	$K$	
$A_0$	$A_1$	$\dots$	$A_{N-1}$
$B_0$	$B_1$	$\dots$	$B_{M-1}$

## Output

Output  $\sum_{i=0}^{K-1} \min(A_{i \bmod N}, B_{i \bmod M})$ , modulo 998244353.

## Sample Input 1

Copy

```
3 2 5
3 1 4
1 5
```

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## Sample Output 1

Copy

```
7
```

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The desired value is  $\min(3, 1) + \min(1, 5) + \min(4, 1) + \min(3, 5) + \min(1, 1) = 7$ .

## Sample Input 2

Copy

```
4 4 27
6 1 10 42
87 6 21 33
```

Copy

## Sample Output 2

Copy

```
317
```

Copy

## Sample Input 3

Copy

```
5 7 583272014892537201
763832259 547096173 408327452 685495693 212251318
850800766 845647066 240229336 648345577 691868483 740301913 740485849
```

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# Sample Output 3

[Copy](#)

931208848

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Compute modulo 998244353.

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