

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)

[Back to Home \(/home\)](#)

[🏠 Top \(/contests/abc438\)](#)

[📋 Tasks \(/contests/abc438/tasks\)](#)

[❓ Clarifications \(/contests/abc438/clarifications\)](#)

[📊 Results ▼](#)

[🏆 Standings \(/contests/abc438/standings\)](#)

[🏆 Virtual Standings \(/contests/abc438/standings/virtual\)](#)

[📖 Editorial \(/contests/abc438/editorial\)](#)

[💬 Discuss \(https://codeforces.com/blog/entry/149567\)](https://codeforces.com/blog/entry/149567)



D - Tail of Snake

[Editorial \(/contests/abc438/tasks/abc438_d/editorial\)](#)



Time Limit: 2 sec / Memory Limit: 1024 MiB

Score : 400 points

Problem Statement

Snuke is observing a snake and is curious about which parts are the head, body, and tail. He divided the snake into N blocks and evaluated the head-likeness, body-likeness, and tail-likeness of each block. Then, he decided to find the division that maximizes the sum of the likeness values.

You are given length- N integer sequences $A = (A_1, A_2, \dots, A_N)$, $B = (B_1, B_2, \dots, B_N)$, and $C = (C_1, C_2, \dots, C_N)$.

Find the maximum possible value of $\sum_{i=1}^x A_i + \sum_{i=x+1}^y B_i + \sum_{i=y+1}^N C_i$ for a pair of integers (x, y) satisfying $1 \leq x < y < N$.

Constraints

- $3 \leq N \leq 3 \times 10^5$
- $1 \leq A_i, B_i, C_i \leq 10^6$
- All input values are integers.

2026-01-02 (Fri)
05:35:22 +11:00

Input

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

```
N
A1 A2 ... AN
B1 B2 ... BN
C1 C2 ... CN
```

Output

Output the answer.

Sample Input 1

[Copy](#)

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

[Copy](#)

Sample Output 1

[Copy](#)

```
16
```

[Copy](#)

With $(x, y) = (2, 3)$, we have $\sum_{i=1}^x A_i + \sum_{i=x+1}^y B_i + \sum_{i=y+1}^N C_i = 1 + 4 + 4 + 4 + 3 = 16$.

Sample Input 2

[Copy](#)

```
3
1 1 1
1 1 1
1 1 1
```

[Copy](#)

Sample Output 2

[Copy](#)

```
3
```

[Copy](#)

Sample Input 3

[Copy](#)

```
6
2 10 7 7 7 11
5 7 9 10 9 12
6 6 7 10 12 7
```

[Copy](#)

Sample Output 3

[Copy](#)

```
50
```

[Copy](#)

#telegram)

url=https%3A%2F%2Fatcoder.jp%2Fcontests%2Fabc438%2Ftasks%2Fabc438_d%3Flang%3Den&title=D%20-

[Rule \(/contests/abc438/rules\)](/contests/abc438/rules) [Glossary \(/contests/abc438/glossary\)](/contests/abc438/glossary)

[Terms of service \(/tos\)](/tos) [Privacy Policy \(/privacy\)](/privacy) [Information Protection Policy \(/personal\)](/personal) [Company \(/company\)](/company)

[FAQ \(/faq\)](/faq) [Contact \(/contact\)](/contact)

Copyright Since 2012 ©AtCoder Inc. (<http://atcoder.co.jp>) All rights reserved.