1903 - I2P(II)Yang_Winter_Vacation_Homework_2020

Scoreboard (/contest/scoreboard/1903/)   ✏

(/contest/edit/1903/)

Time

2020/01/20 00:00:00	32days, 08:29:17	2020/02/22 00:00:00

Clarification

# Problem	Asker	Description	Reply	Replier	Reply Time	For all team
			Clarify			

Overview   Problem ▾

12606 - Happy New Year

✏ (/problem/12606/edit/)

Status (/status/?pid=12606) | Limits

Submit (/users/submit/12606)

Description

Chinese New Year is coming.
Bob decides to say "Happy New Year" to his friends.
Bob and his friends reside on the same street.
We can view the street as a straight line, and the position of their houses
as points on the straight line.

Bob is at his home at begining.

He wants to visit each of his friend at least once, and then go back to his home.

Because he is too lazy to move, can you help him to find out the minimun distance he should move?

Input

One integer N on the first line, denoting the number of Bob's friends.

The second line contains $N+1$ distinct number $x_0, x_1, x_2, ..., x_n$

x_0 represents the position of Bob's house.

$x_1, x_2, ..., x_n$ represents the position of Bob's friends.

It's guaranteed that:

- $1 \leq N \leq 2*10^5$
- $0 \leq x_i \leq 10^9$

Output

Print the minimun distance he should move in one line.
Remember '\n' on the end of line.

Sample Input

Download (data:text/plain;charset=utf-8,5%0D%0A2%200%201%203%205%206)

```
5
2 0 1 3 5 6
```

Sample Output

Download (data:text/plain;charset=utf-8,12)

```
12
```

Discuss