Problem K. Minimum Loss

OS Linux

Lauren has a chart of distinct projected prices for a house over the next several years. She must buy the house in one year and sell it in another, and she must do so at a loss. She wants to minimize her financial loss.

Example
$price = [20, 15, 8, 2, 12]$

Her minimum loss is incurred by purchasing in year 2 at $price[1] = 15$ and reselling in year 5 at $price[4] = 12$. Return $15 - 12 = 3$.

Function Description

Complete the *minimumLoss* function in the editor below.

minimumLoss has the following parameter(s):

- *int price[n]:* home prices at each year

Returns

- *int:* the minimum loss possible

Input Format

The first line contains an integer n, the number of years of house data.
The second line contains n space-separated long integers that describe each $price[i]$.

Constraints

- $2 \leq n \leq 2 \times 10^5$
- $1 \leq price[i] \leq 10^{16}$
- All the prices are distinct.
- A valid answer exists.

Subtasks

- $2 \leq n \leq 1000$ for 50% of the maximum score.

Input	Output
3 5 10 3	2

Explanation 0

Lauren buys the house in year 1 at $price[0] = 5$ and sells it in year 3 at $price[2] = 3$ for a minimal loss of $5 - 3 = 2$.

Input	Output
5 20 7 8 2 5	2

Explanation 1

Lauren buys the house in year 2 at $price[1] = 7$ and sells it in year 5 at $price[4] = 5$ for a minimal loss of $7 - 5 = 2$.