



HOMEWORK

There are n children standing in a line. Each child is assigned a rating value given in the integer array *ratings*. You are giving candies to these children subjected to the following requirements:

- Each child must have at least one candy.
- Children with a higher rating get more candies than their neighbors.

Return the minimum number of candies you need to have to distribute the candies to the children.

Example 1: **Input:** ratings = [1,0,2]

Output: 5

Explanation: You can allocate to the first, second and third child with 2, 1, 2 candies respectively.

Example 2: **Input:** ratings = [1,2,2]

Output: 4

Explanation: You can allocate to the first, second and third child with 1, 2, 1 candies respectively. The third child gets 1 candy because it satisfies the above two conditions.

- Constraints:
- $n == \text{ratings.length}$
 - $1 \leq n \leq 2 * 10^4$
 - $0 \leq \text{ratings}[i] \leq 2 * 10^4$