

2073. Time Needed to Buy Tickets

Description

There are n people in a line queuing to buy tickets, where the 0^{th} person is at the **front** of the line and the $(n - 1)^{\text{th}}$ person is at the **back** of the line.

You are given a **0-indexed** integer array `tickets` of length n where the number of tickets that the i^{th} person would like to buy is `tickets[i]`.

Each person takes **exactly 1 second** to buy a ticket. A person can only buy **1 ticket at a time** and has to go back to **the end** of the line (which happens **instantaneously**) in order to buy more tickets. If a person does not have any tickets left to buy, the person will **leave** the line.

Return *the time taken for the person at position k (0-indexed) to finish buying tickets*.

Example 1:

Input: `tickets = [2,3,2]`, `k = 2`

Output: 6

Explanation:

- In the first pass, everyone in the line buys a ticket and the line becomes [1, 2, 1].
 - In the second pass, everyone in the line buys a ticket and the line becomes [0, 1, 0].
- The person at position 2 has successfully bought 2 tickets and it took $3 + 3 = 6$ seconds.

Example 2:

Input: `tickets = [5,1,1,1]`, `k = 0`

Output: 8

Explanation:

- In the first pass, everyone in the line buys a ticket and the line becomes [4, 0, 0, 0].
 - In the next 4 passes, only the person in position 0 is buying tickets.
- The person at position 0 has successfully bought 5 tickets and it took $4 + 1 + 1 + 1 + 1 = 8$ seconds.

Constraints:

- $n == \text{tickets.length}$
- $1 \leq n \leq 100$
- $1 \leq \text{tickets}[i] \leq 100$
- $0 \leq k < n$

