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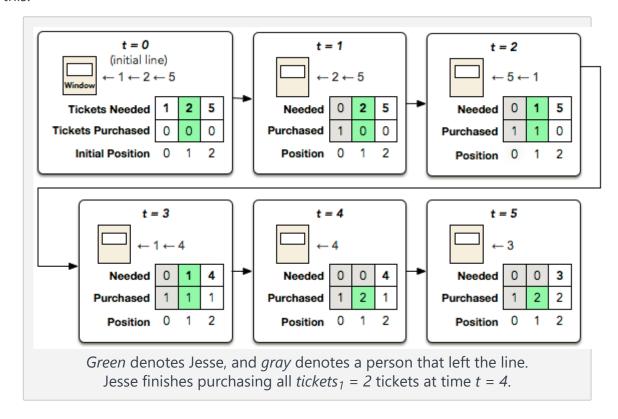
# ☆ Buying Show Tickets

There are *n* people standing in line to buy show tickets. Due to high demand, the venue sells tickets according to the following rules:

- The person at the head of the line can buy exactly 1 ticket and must then exit the line
- If a person needs to purchase additional tickets, they must re-enter the *end* of the line and wait to be sold their next ticket (assume exit and re-entry takes zero seconds).
- Each ticket sale takes exactly 1 second.

We express the initial line of n people as an array,  $tickets = [tickets_0, tickets_1, ..., tickets_{n-1}]$ , where each  $tickets_i$  denotes the number of tickets that person i wishes to buy. If Jesse is located at position p, how many seconds will it take for him to purchase  $tickets_p$  tickets?

For example, if tickets = [1, 2, 5] and p = 1, the first five seconds of ticket sales look like this:



Complete the waiting Time function in the editor below. It has two parameters:

- 1. An array, tickets, of n positive integers describing the initial sequence of people standing in line. Each  $tickets_i$  describes the number of tickets that the person waiting at initial position i needs to purchase.
- 2. An integer, *p*, denoting Jesse's position in *tickets*.

The function must return an integer denoting the number of seconds it takes for Jesse to finish purchasing exactly  $tickets_p$  tickets.



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#### function:

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The first line contains an integer, *n*, denoting the number of elements in *tickets*.

Each line *i* of the *n* subsequent lines contains an integer describing *tickets<sub>i</sub>*.

The last line contains an integer, p.

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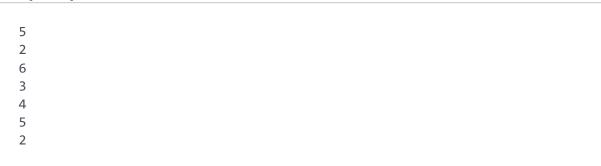
#### **Constraints**

- $1 \le n \le 10^5$
- $1 \le tickets[i] \le 10^9$ , where  $0 \le i < n$ .
- $0 \le p < n$

#### **Output Format**

Return an integer denoting the number of seconds it takes for Jesse to finish purchasing exactly  $tickets_D$  tickets.

#### Sample Input 0



## Sample Output 0

12

# **Explanation 0**

Given tickets = [2, 6, 3, 4, 5], Jesse's wait time looks like this:

- 0. window  $\leftarrow$  2  $\leftarrow$  6  $\leftarrow$  3  $\leftarrow$  4  $\leftarrow$  5
- 1. window  $\leftarrow 6 \leftarrow 3 \leftarrow 4 \leftarrow 5 \leftarrow 1$
- 2. window  $\leftarrow$  **3**  $\leftarrow$  4  $\leftarrow$  5  $\leftarrow$  1  $\leftarrow$  5
- 3. window  $\leftarrow 4 \leftarrow 5 \leftarrow 1 \leftarrow 5 \leftarrow 2$
- 4. window  $\leftarrow 5 \leftarrow 1 \leftarrow 5 \leftarrow 2 \leftarrow 3$
- 5. window  $\leftarrow 1 \leftarrow 5 \leftarrow 2 \leftarrow 3 \leftarrow 4$
- 6.  $window \leftarrow 5 \leftarrow 2 \leftarrow 3 \leftarrow 4$  (the person at the head of the line in the previous step purchased their last ticket and does not re-enter the line)
- 7. window  $\leftarrow$  **2**  $\leftarrow$  3  $\leftarrow$  4  $\leftarrow$  4
- 8. window  $\leftarrow$  3  $\leftarrow$  4  $\leftarrow$  4  $\leftarrow$  1
- 9. window  $\leftarrow 4 \leftarrow 4 \leftarrow 1 \leftarrow 2$
- 10. window  $\leftarrow 4 \leftarrow 1 \leftarrow 2 \leftarrow 3$
- 11. window  $\leftarrow$  **1**  $\leftarrow$  2  $\leftarrow$  3  $\leftarrow$  3
- 12.  $window \leftarrow 2 \leftarrow 3 \leftarrow 3$  (Jesse purchased his last ticket and does not re-enter the line)















































ල ල Sample Input 1

4		
1		
1		
1		
1		
0		

**Sample Output 1** 

```
1
```

**Explanation 1** 

Given *tickets* = [1, 1, 1, 1], Jesse's wait time looks like this:

- 0. window  $\leftarrow$  **1**  $\leftarrow$  1  $\leftarrow$  1  $\leftarrow$  1
- 1.  $window \leftarrow 1 \leftarrow 1 \leftarrow 1$  (Jesse purchased his ticket and does not re-enter the line) Because it took a total of one second for Jesse to purchase  $tickets_0 = 1$  ticket, we return 1.

Sample Input 2

4			
5			
5			
2			
3			
3			

**Sample Output 2** 

```
11
```

Given tickets = [5, 5, 2, 3], Jesse's wait time looks like this:

- 0. window  $\leftarrow 5 \leftarrow 5 \leftarrow 2 \leftarrow 3$
- 1. window  $\leftarrow 5 \leftarrow 2 \leftarrow 3 \leftarrow 4$
- 2. window  $\leftarrow$  2  $\leftarrow$  3  $\leftarrow$  4  $\leftarrow$  4
- 3. window  $\leftarrow$  **3**  $\leftarrow$  **4**  $\leftarrow$  **4**  $\leftarrow$  **1**
- 4. window  $\leftarrow 4 \leftarrow 4 \leftarrow 1 \leftarrow 2$
- 5. window  $\leftarrow 4 \leftarrow 1 \leftarrow 2 \leftarrow 3$
- 6. window  $\leftarrow 1 \leftarrow 2 \leftarrow 3 \leftarrow 3$
- 7.  $window \leftarrow 2 \leftarrow 3 \leftarrow 3$  (the person at the head of the line in the previous step purchased their last ticket and does not re-enter the line)

Notepad to edit them on windows.

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