

495. Teemo Attacking

Description

Our hero Teemo is attacking an enemy Ashe with poison attacks! When Teemo attacks Ashe, Ashe gets poisoned for a exactly `duration` seconds. More formally, an attack at second `t` will mean Ashe is poisoned during the **inclusive** time interval `[t, t + duration - 1]`. If Teemo attacks again **before** the poison effect ends, the timer for it is **reset**, and the poison effect will end `duration` seconds after the new attack.

You are given a **non-decreasing** integer array `timeSeries`, where `timeSeries[i]` denotes that Teemo attacks Ashe at second `timeSeries[i]`, and an integer `duration`.

Return *the total number of seconds that Ashe is poisoned*.

Example 1:

Input: `timeSeries = [1,4]`, `duration = 2`

Output: 4

Explanation: Teemo's attacks on Ashe go as follows:

- At second 1, Teemo attacks, and Ashe is poisoned for seconds 1 and 2.
- At second 4, Teemo attacks, and Ashe is poisoned for seconds 4 and 5.

Ashe is poisoned for seconds 1, 2, 4, and 5, which is 4 seconds in total.

Example 2:

Input: `timeSeries = [1,2]`, `duration = 2`

Output: 3

Explanation: Teemo's attacks on Ashe go as follows:

- At second 1, Teemo attacks, and Ashe is poisoned for seconds 1 and 2.
- At second 2 however, Teemo attacks again and resets the poison timer. Ashe is poisoned for seconds 2 and 3.

Ashe is poisoned for seconds 1, 2, and 3, which is 3 seconds in total.

Constraints:

- `1 <= timeSeries.length <= 104`
- `0 <= timeSeries[i]`, `duration <= 107`
- `timeSeries` is sorted in **non-decreasing** order.

