2136. Earliest Possible Day of Full Bloom

Hard 1249 71 Add to List Share

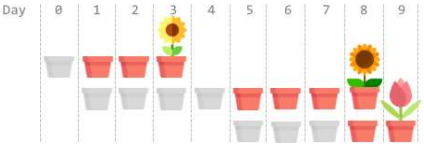
You have `n` flower seeds. Every seed must be planted first before it can begin to grow, then bloom. Planting a seed takes time and so does the growth of a seed. You are given two **0-indexed** integer arrays `plantTime` and `growTime`, of length `n` each:

- `plantTime[i]` is the number of **full days** it takes you to **plant** the i^{th} seed. Every day, you can work on planting exactly one seed. You **do not** have to work on planting the same seed on consecutive days, but the planting of a seed is not complete **until** you have worked `plantTime[i]` days on planting it in total.
- `growTime[i]` is the number of **full days** it takes the i^{th} seed to grow after being completely planted. **After** the last day of its growth, the flower **blooms** and stays bloomed forever.

From the beginning of day `0`, you can plant the seeds in **any** order.

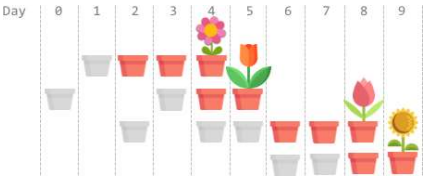
Return *the **earliest** possible day where **all** seeds are blooming.*

Example 1:




```
Input: plantTime = [1,4,3], growTime = [2,3,1]
Output: 9
Explanation: The grayed out pots represent planting days, colored pots represent growing days,
and the flower represents the day it blooms.
One optimal way is:
On day 0, plant the 0th seed. The seed grows for 2 full days and blooms on day 3.
On days 1, 2, 3, and 4, plant the 1st seed. The seed grows for 3 full days and blooms on day 8.
On days 5, 6, and 7, plant the 2nd seed. The seed grows for 1 full day and blooms on day 9.
Thus, on day 9, all the seeds are blooming.
```

Example 2:




```
Input: plantTime = [1,2,3,2], growTime = [2,1,2,1]
Output: 9
Explanation: The grayed out pots represent planting days, colored pots represent growing days,
and the flower represents the day it blooms.
One optimal way is:
On day 1, plant the 0th seed. The seed grows for 2 full days and blooms on day 4.
On days 0 and 3, plant the 1st seed. The seed grows for 1 full day and blooms on day 5.
On days 2, 4, and 5, plant the 2nd seed. The seed grows for 2 full days and blooms on day 8.
On days 6 and 7, plant the 3rd seed. The seed grows for 1 full day and blooms on day 9.
Thus, on day 9, all the seeds are blooming.
```

Example 3:

```
Input: plantTime = [1], growTime = [1]
Output: 2
Explanation: On day 0, plant the 0th seed. The seed grows for 1 full day and blooms on day 2.
Thus, on day 2, all the seeds are blooming.
```

Constraints:

- `n == plantTime.length == growTime.length`
- `1 <= n <= 10^5`
- `1 <= plantTime[i], growTime[i] <= 10^4`

Accepted 42,686 Submissions 56,781

Seen this question in a real interview before? Yes No

Companies

Related Topics

Similar Questions

Show Hint 1

Show Hint 2

Show Hint 3

Show Hint 4

Java Autocomplete

```java
class Solution {
    public int earliestFullBloom(int[] plantTime, int[] growTime) {

    }
}
```