Minimum Number of Chairs in a Waiting Room - LeetCode

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3168. Minimum Number of Chairs in a Waiting Room

You are given a string `s`. Simulate events at each second `i`:

- If `s[i] == 'E'`, a person enters the waiting room and takes one of the chairs in it.
- If `s[i] == 'L'`, a person leaves the waiting room, freeing up a chair.

Return the **minimum** number of chairs needed so that a chair is available for every person who enters the waiting room given that it is initially **empty**.

Example 1:

> **Input:** s = "EEEEEEE"
>
> **Output:** 7
>
> **Explanation:**
>
> After each second, a person enters the waiting room and no person leaves it. Therefore, a minimum of 7 chairs is needed.

Example 2:

> **Input:** s = "ELELEEL"
>
> **Output:** 2
>
> **Explanation:**
>
> Let's consider that there are 2 chairs in the waiting room. The table below shows the state of the waiting room at each second.

Second	Event	People in the Waiting Room	Available Chairs
0	Enter	1	1
1	Leave	0	2
2	Enter	1	1
3	Leave	0	2
4	Enter	1	1
5	Enter	2	0
6	Leave	1	1

Example 3:

> **Input:** s = "ELEELEELLL"
>
> **Output:** 3
>
> **Explanation:**
>
> Let's consider that there are 3 chairs in the waiting room. The table below shows the state of the waiting room at each second.

Second	Event	People in the Waiting Room	Available Chairs
0	Enter	1	2
1	Leave	0	3
2	Enter	1	2
3	Enter	2	1

4	Leave	1	2
5	Enter	2	1
6	Enter	3	0
7	Leave	2	1
8	Leave	1	2
9	Leave	0	3

Constraints:

- `1 <= s.length <= 50`
- `s` consists only of the letters `'E'` and `'L'`.
- `s` represents a valid sequence of entries and exits.