

682. Baseball Game

Description

You are keeping the scores for a baseball game with strange rules. At the beginning of the game, you start with an empty record.

You are given a list of strings `operations`, where `operations[i]` is the `ith` operation you must apply to the record and is one of the following:

- An integer `x`.
 - Record a new score of `x`.
- `'+'`.
 - Record a new score that is the sum of the previous two scores.
- `'D'`.
 - Record a new score that is the double of the previous score.
- `'C'`.
 - Invalidate the previous score, removing it from the record.

Return *the sum of all the scores on the record after applying all the operations*.

The test cases are generated such that the answer and all intermediate calculations fit in a **32-bit** integer and that all operations are valid.

Example 1:

```
Input: ops = ["5","2","C","D","+"]
Output: 30
Explanation:
"5" - Add 5 to the record, record is now [5].
"2" - Add 2 to the record, record is now [5, 2].
"C" - Invalidate and remove the previous score, record is now [5].
"D" - Add 2 * 5 = 10 to the record, record is now [5, 10].
"+" - Add 5 + 10 = 15 to the record, record is now [5, 10, 15].
The total sum is 5 + 10 + 15 = 30.
```

Example 2:

```
Input: ops = ["5","-2","4","C","D","9","+","+"]
Output: 27
Explanation:
"5" - Add 5 to the record, record is now [5].
"-2" - Add -2 to the record, record is now [5, -2].
"4" - Add 4 to the record, record is now [5, -2, 4].
"C" - Invalidate and remove the previous score, record is now [5, -2].
"D" - Add 2 * -2 = -4 to the record, record is now [5, -2, -4].
"9" - Add 9 to the record, record is now [5, -2, -4, 9].
"+" - Add -4 + 9 = 5 to the record, record is now [5, -2, -4, 9, 5].
"+" - Add 9 + 5 = 14 to the record, record is now [5, -2, -4, 9, 5, 14].
The total sum is 5 + -2 + -4 + 9 + 5 + 14 = 27.
```

Example 3:

```
Input: ops = ["1","C"]
Output: 0
Explanation:
"1" - Add 1 to the record, record is now [1].
"C" - Invalidate and remove the previous score, record is now [].
Since the record is empty, the total sum is 0.
```

Constraints:

- `1 <= operations.length <= 1000`
- `operations[i]` is `"C"`, `"D"`, `"+"`, or a string representing an integer in the range `[-3 * 104, 3 * 104]`.
- For operation `"+"`, there will always be at least two previous scores on the record.
- For operations `"C"` and `"D"`, there will always be at least one previous score on the record.

