

682. Baseball Game

EasyTopicsCompanies

- 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 i^{th} 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:

- $1 \leq \text{operations.length} \leq 1000$
- `operations[i]` is "C", "D", "+", or a string representing an integer in the range $[-3 * 10^4, 3 * 10^4]$.
- For operation "+", there will always be at least two previous scores on the record.