

[CS 11] Prac 5f – Partial Sums

Problem Statement

Given a sequence of integers, compute its list of *partial sums*. This list is longer than the input sequence by exactly one element, and its element at index i is the sum of the first i elements.

Task Details

Implement a function called `partial_sums` :

```
def partial_sums(seq):
```

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- `seq` — `tuple` of `int`s

Return a `list` of `int`s.

Restrictions

For this problem:

- Loops and lists are allowed.
- Additional functions are **disallowed**.
- Recursion is **disallowed**. (The recursion limit has been greatly reduced.)
- Comprehensions are **disallowed**.
- The following names are now allowed: `range`, `list`, `print`, `append`, `pop`, `extend`, `remove`, `sort`, `insert`, `clear`, `reverse`.
- The source code limit is 350.

Example Calls

Example 1 Function Call

```
partial_sums((3, 1, 4, 1))
```

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Example 1 Return Value

```
[0, 3, 4, 8, 9]
```

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Constraints

- The function `partial_sums` will be called at most 50,000 times.
- The total length of `seq` across all inputs will be at most 200,000.
- `seq` will have at most 100,000 elements.
- Each element of `seq` will have an absolute value of at most 10^{10} .

Scoring

- You get 80 🍷 points if you solve all test cases where:
 - `seq` will have at most 4,000 elements.
 - the total length of `seq` across all inputs will be at most 8,000.
- You get 40 🍷 points if you solve all test cases.

Clarifications

No clarifications have been made at this time.

Report an issue

Submit solution

[CS 11]

Practice 5

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✔ **Points:** 120 (partial!)

🕒 **Time limit:** 6.0s

📄 **Memory limit:** 1G

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➤ **Problem type**

▼ **Allowed languages**
NONE, py3