Problem 2544: Alternating Digit Sum

Problem Information

Difficulty: Easy
Acceptance Rate: 68.80%
Paid Only: No
Tags: Math

Problem Description

You are given a positive integer `n`. Each digit of `n` has a sign according to the following rules:

* The **most significant digit** is assigned a **positive** sign. * Each other digit has an opposite sign to its adjacent digits.

Return _the sum of all digits with their corresponding sign_.

Example 1:

Input: n = 521 **Output:** 4 **Explanation:** (+5) + (-2) + (+1) = 4.

Example 2:

Input: n = 111 **Output:** 1 **Explanation:** (+1) + (-1) + (+1) = 1.

Example 3:

Input: n = 886996 **Output:** 0 **Explanation:** (+8) + (-8) + (+6) + (-9) + (+9) + (-6) = 0.

Constraints:

* `1 <= n <= 109`

Code Snippets

C++:

```
class Solution {
public:
int alternateDigitSum(int n) {

}
};
```

Java:

```
class Solution {
public int alternateDigitSum(int n) {

}
}
```

Python3:

```
class Solution:
def alternateDigitSum(self, n: int) -> int:
```