1945. Sum of Digits of String After Convert

Solved ●

Easy Topics Companies Hint

You are given a string `s` consisting of lowercase English letters, and an integer `k`.

First, **convert** `s` into an integer by replacing each letter with its position in the alphabet (i.e., replace `'a'` with `1`, `'b'` with `2`, ..., `'z'` with `26`). Then, **transform** the integer by replacing it with the **sum of its digits**. Repeat the **transform** operation `k` **times** in total.

For example, if `s = "zbax"` and `k = 2`, then the resulting integer would be `8` by the following operations:

- **Convert**: `"zbax" → "(26)(2)(1)(24)" → "262124" → 262124`
- **Transform #1**: `262124 → 2 + 6 + 2 + 1 + 2 + 4 → 17`
- **Transform #2**: `17 → 1 + 7 → 8`

Return *the resulting integer after performing the operations described above.*

Example 1:

> **Input:** s = "iiii", k = 1
> **Output:** 36
> **Explanation:** The operations are as follows:
> - Convert: "iiii" → "(9)(9)(9)(9)" → "9999" → 9999
> - Transform #1: 9999 → 9 + 9 + 9 + 9 → 36
> Thus the resulting integer is 36.

Example 2:

> **Input:** s = "leetcode", k = 2
> **Output:** 6
> **Explanation:** The operations are as follows:
> - Convert: "leetcode" → "(12)(5)(5)(20)(3)(15)(4)(5)" → "12552031545" → 12552031545
> - Transform #1: 12552031545 → 1 + 2 + 5 + 5 + 2 + 0 + 3 + 1 + 5 + 4 + 5 → 33
> - Transform #2: 33 → 3 + 3 → 6
> Thus the resulting integer is 6.

Example 3:

> **Input:** s = "zbax", k = 2
> **Output:** 8

Constraints:

- `1 <= s.length <= 100`
- `1 <= k <= 10`
- `s` consists of lowercase English letters.

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Yes No

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Hint 1

Hint 2

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