

1945. Sum of Digits of String After Convert

Description

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.

