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.