2223. Sum of Scores of Built Strings

Description

You are **building** a string s of length n **one** character at a time, **prepending** each new character to the **front** of the string. The strings are labeled from 1 to n, where the string with length i is labeled s_i.

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• For example, for s = "abaca", s_1 == "a", s_2 == "ca", s_3 == "aca", etc.
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The score of s_i is the length of the longest common prefix between s_i and s_n (Note that $s_i = s_n$).

Given the final string s, return the sum of the score of every si.

Example 1:

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Input: s = "babab"
Output: 9
Explanation:
For s 1 == "b", the longest common prefix is "b" which has a score of 1.
For s 2 == "ab", there is no common prefix so the score is 0.
For s 3 == "bab", the longest common prefix is "bab" which has a score of 3.
For s 4 == "abab", there is no common prefix so the score is 0.
For s 5 == "babab", the longest common prefix is "babab" which has a score of 5.
The sum of the scores is 1 + 0 + 3 + 0 + 5 = 9, so we return 9.
```

Example 2:

```
Input: s = "azbazbzaz"
Output: 14
Explanation:
For s<sub>2</sub> == "az", the longest common prefix is "az" which has a score of 2.
For s<sub>6</sub> == "azbzaz", the longest common prefix is "azb" which has a score of 3.
For s<sub>9</sub> == "azbazbzaz", the longest common prefix is "azbazbzaz" which has a score of 9.
For all other s<sub>i</sub>, the score is 0.
The sum of the scores is 2 + 3 + 9 = 14, so we return 14.
```

Constraints:

- 1 <= s.length <= 10^{5}
- s consists of lowercase English letters.