

1147. Longest Chunked Palindrome Decomposition

Description

You are given a string `text`. You should split it to k substrings $(\text{subtext}_1, \text{subtext}_2, \dots, \text{subtext}_k)$ such that:

- `subtexti` is a **non-empty** string.
- The concatenation of all the substrings is equal to `text` (i.e., $\text{subtext}_1 + \text{subtext}_2 + \dots + \text{subtext}_k == \text{text}$).
- $\text{subtext}_i == \text{subtext}_{k - i + 1}$ for all valid values of i (i.e., $1 \leq i \leq k$).

Return the largest possible value of k .

Example 1:

Input: `text = "ghiabcdefhelloadamhelloabcdefghi"`

Output: 7

Explanation: We can split the string on `"(ghi)(abcdef)(hello)(adam)(hello)(abcdef)(ghi)"`.

Example 2:

Input: `text = "merchant"`

Output: 1

Explanation: We can split the string on `"(merchant)"`.

Example 3:

Input: `text = "antaprezatepzapreanta"`

Output: 11

Explanation: We can split the string on `"(a)(nt)(a)(pre)(za)(tep)(za)(pre)(a)(nt)(a)"`.

Constraints:

- $1 \leq \text{text.length} \leq 1000$
- `text` consists only of lowercase English characters.

