

## 2002. Maximum Product of the Length of Two Palindromic Subsequences

[Medium](#) [🔖](#) [Topics](#) [🏢](#) [Companies](#) [💡](#) [Hint](#)

Given a string  $s$ , find two **disjoint palindromic subsequences** of  $s$  such that the **product** of their lengths is **maximized**. The two subsequences should be **disjoint**, meaning that they do not have any common characters.

Return *the **maximum** possible **product** of the lengths of the two palindromic subsequences*.

A **subsequence** is a string that can be derived from another string by deleting some or no characters without changing the order of the remaining characters.

**Example 1:**

subsequence1:

e t e

s:

l e e t c o d e c o m

subsequence2:

c d c

Input:

s = "leetcodecom"

Output:

9

Explanation:

An optimal solution is to choose "ete" for the 1<sup>st</sup> subsequence and "cdc" for the 2<sup>nd</sup> subsequence. The product of their lengths is: 3 \* 3 = 9.

**Example 2:**

Input:

s = "bb"

Output:

1

Explanation:

An optimal solution is to choose "b" (the first character) for the 1<sup>st</sup> subsequence and "b" (the second character) for the 2<sup>nd</sup> subsequence. The product of their lengths is: 1 \* 1 = 1.

**Example 3:**

Input:

s = "accbcaxxcxx"

Output:

25

Explanation:

An optimal solution is to choose "acca" for the 1<sup>st</sup> subsequence and "xxcxx" for the 2<sup>nd</sup> subsequence. The product of their lengths is: 5 \* 5 = 25.

**Constraints:**

- $2 \leq s.length \leq 12$
- $s$  consists of lowercase English letters only.

Seen this question in a real interview before? 1/4

☒ Yes ☐ No

Accepted **25.8K** Submissions **44.1K** Acceptance Rate **58.5%**

[🔖](#) [Topics](#)

[🏢](#) [Companies](#)

[💡](#) [Hint 1](#)

[💡](#) [Hint 2](#)

[🔖](#) [Similar Questions](#)

[💬](#) [Discussion \(12\)](#)