

Dark LaTeX vs. Light LaTeX

Input file: **standard input**
Output file: **standard output**
Time limit: 2 seconds
Memory limit: 512 megabytes

In the not-so-distant future, LaTeX, the venerable typesetting system that had been a staple of academia and publishing for decades, found itself evolving into a couple of derivatives — “Dark LaTeX” and “Light LaTeX”. These derivatives primarily optimize the appearance from different angles to adapt to screenless display technology.

For compatibility trial, the LaTeX lab has obtained two non-empty strings containing only lowercase English letters through analysis — the Dark LaTeX string $S = s_1s_2 \cdots s_{|S|}$ and the Light LaTeX string $T = t_1t_2 \cdots t_{|T|}$, where $|S|$ denotes the length of S , and $|T|$ denotes the length of T . An integer quadruple (p, q, u, v) is considered *transferrable* if and only if $1 \leq p \leq q \leq |S|$, $1 \leq u \leq v \leq |T|$, and $s_p s_{p+1} \cdots s_q t_u t_{u+1} \cdots t_v$ is a square string.

Your task is to help the lab find out the number of transferrable quadruples.

Recall that a square string is a string of even length in which the first half is identical to the second half. For example, “aaaa” and “abcabc” are square strings, while “aaa” and “abcabd” are not.

Input

The input consists of two lines, where the first line contains the Dark LaTeX string S , and the second line contains the Light LaTeX string T .

It is guaranteed that both S and T consist only of lowercase English letters and their lengths do not exceed 5000.

Output

Output an integer in one line, indicating the number of transferrable quadruples.

Examples

standard input	standard output
abab ab	8
abab abaaab	29

Note

In the first sample case, the transferrable quadruples are $(1, 1, 1, 1)$, $(1, 2, 1, 2)$, $(1, 3, 2, 2)$, $(2, 2, 2, 2)$, $(2, 4, 1, 1)$, $(3, 3, 1, 1)$, $(3, 4, 1, 2)$, $(4, 4, 2, 2)$.