

# 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  $S = s_1 s_2 \cdots s_{|S|}$  and the Light LaTeX string  $T = t_1 t_2 \cdots t_{|T|}$ , 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  $(1, 1, 1, 1)$ ,  $(1, 2, 1, 2)$ ,  $(1, 3, 2, 2)$ ,  $(2, 2, 2, 2)$ ,  $(2, 4, 1, 1)$ ,  $(3, 3, 1, 1)$ ,  $(3, 4, 1, 2)$ ,  $(4, 4, 2, 2)$ .