

Problem J. Positive String

Input file: *standard input*
Output file: *standard output*
Time limit: 2 seconds
Memory limit: 1024 mebibytes

Grammy had a unique insight about strings. She thinks that a string is *positive* if and only if it is lexicographically larger than its reversal.

Now you are given a string, please find out how many contiguous substrings of it are positive according to Grammy's insight.

Input

The single line contains a string S ($1 \leq |S| \leq 200\,000$), consisting of lowercase English letters only.

Output

Output a single integer denoting the number of positive substrings of S .

Examples

standard input	standard output
jjikkollp	4
pbpbppb	7