



HOME TOP CONTESTS GYM PROBLEMSET GROUPS RATING API HELP KOTLIN HEROES Z DASHA CALENDAR

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS HACKS STANDINGS CUSTOM INVOCATION

C. The Number Of Good Substrings

time limit per test: 4 seconds memory limit per test: 256 megabytes input: standard input output: standard output

You are given a binary string s (recall that a string is binary if each character is either 0 or 1).

Let f(t) be the decimal representation of integer t written in binary form (possibly with leading zeroes). For example

$$f(011)=3, f(00101)=5, f(00001)=1, f(10)=2, f(000)=0$$
 and $f(000100)=4.$

The substring $s_l, s_{l+1}, \ldots, s_r$ is good if $r-l+1=f(s_l\ldots s_r)$.

For example string s=1011 has 5 good substrings: $s_1\dots s_1=1,$ $s_3\dots s_3=1,$ $s_4\dots s_4=1,$ $s_1\dots s_2=10$ and $s_2\dots s_4=011.$

Your task is to calculate the number of good substrings of string s.

You have to answer t independent queries.

Input

The first line contains one integer t ($1 \le t \le 1000$) — the number of queries.

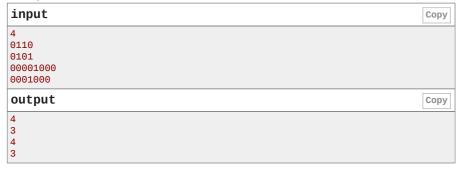
The only line of each query contains string s (1 $\leq |s| \leq 2 \cdot 10^5$), consisting of only digits 0 and 1

It is guaranteed that $\sum\limits_{i=1}^{t}|s_i|\leq 2\cdot 10^5.$

Output

For each query print one integer — the number of good substrings of string s.

Example



Educational Codeforces Round 72 (Rated for Div. 2)

Finished

Practice



→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Practice

You are registered for practice. You can solve problems unofficially. Results can be found in the contest status and in the bottom of standings.

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest





(binary search) (bitmasks) (brute force) *1600 No tag edit access

→ Contest materials

- Announcement #1 (en)
 Announcement #2 (ru)
 Tutorial #1 (en)
- Tutorial #2 (ru)

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2019/9/11 Problem - C - Codeforces



The only programming contests Web 2.0 platform Server time: Sep/11/2019 11:36:22^{UTC+8} (e1).

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