时间限制：C/C++/Rust/Pascal 4秒，其他语言8秒
空间限制：C/C++/Rust/Pascal 512 M，其他语言1024 M
Special Judge, 64bit IO Format: %lld

题目描述

In his homework, Sean ran into this problem:

--- How many different shapes of triangles are there in a 2D-plane, with lengths of its sides in $\{1, 2, \ldots, s\}$ and perimeter no longer than l ? Two triangles are considered to be in the same shape if they can completely overlap using only translation and rotation. Note that **flips are not allowed**. So for ΔABC and $\Delta A'B'C'$ (A, B, C and A', B', C' are listed anti-clockwise.), if $AB = 2, BC = 3, CA = 4$ and $A'B' = 2, A'C' = 4, C'A' = 3$, they are **not** considered to be in the same shape.

Sean likes to consider problems in the binary system, so he uses the binary representation of numbers. He iterated over all possible (a, b, c) trying to find the answer, so what he wanted is the number of triplets (a, b, c) such that:

- $1 \le a, b, c \le s$ and are all integers.
- $a + b > c, a + c > b, b + c > a$
- $a + b + c \le l$

Then, he chose from these triplets such that each triplet chosen represents a different triangle. However, Sean was so bad at math that when he calculated $a + b + c$, he totally forgot about the carries, and therefore got the result of $a \oplus b \oplus c$, which is **the bitwise exclusive OR (XOR) sum** of a, b and c .

Despite this mistake, Sean wants to know if he makes other mistakes, so he asks you about the answer if the third condition is $a \oplus b \oplus c \le l$ rather than $a + b + c \le l$. Can you help him out with this?

Since the answer can be enormous, output it modulo $998\,244\,353$.

输入描述:

Each test contains multiple test cases. The first line contains the number of test cases T $(1 \le T \le 10^4)$.

Each test case consists of a single line. The line contains 2 strings s_l, s_s $(|s_l| \le 10^5, |s_s| \le 10^5)$, the binary representation of the integers l and s . It is guaranteed that $l > 0$ and $s > 0$, and the first character of string s_s and s_l is always 1 .

It is guaranteed that $\sum |s_l|$ over all test cases in one test will not exceed 5×10^5 and $\sum |s_s|$ over all test cases in one test will not exceed 5×10^5.