Problem APebble Solitaire

Input: standard input
Output: standard output
Time Limit: 1 second

Pebble solitaire is an interesting game. This is a game where you are given a board with an arrangement of small cavities, initially all but one occupied by a pebble each. The aim of the game is to remove as many pebbles as possible from the board. Pebbles disappear from the board as a result of a move. A move is possible if there is a straight line of three adjacent cavities, let us call them **A**, **B**, and **C**, with **B** in the middle, where **A** is vacant, but **B** and **C** each contain a pebble. The move constitutes of moving the pebble from **C** to **A**, and removing the pebble in **B** from the board. You may continue to make moves until no more moves are possible.

In this problem, we look at a simple variant of this game, namely a board with twelve cavities located along a line. In the beginning of each game, some of the cavities are occupied by pebbles. Your mission is to find a sequence of moves such that as few pebbles as possible are left on the board.

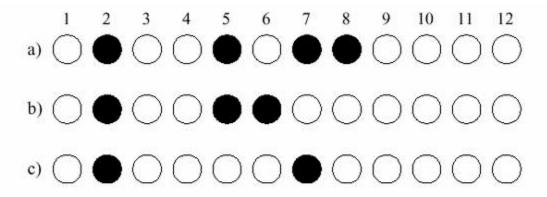


Fig 1. In a) there are two possible moves, namely $8 \rightarrow 6$, or $7 \rightarrow 9$. In b) the result of the $8 \rightarrow 6$ move is depicted, and again there are two possible moves, $5 \rightarrow 7$, or $6 \rightarrow 4$. Making the first of these results in c), from which there are no further moves.

Input

The input begins with a positive integer **n** on a line of its own. Thereafter **n** different games follow. Each game consists of one line of input with exactly twelve characters, describing the twelve cavities of the board in order. Each character is either '-' or 'o' (The fifteenth character of English alphabet in lowercase). A '-' (minus) character denotes an empty cavity, whereas a 'o' character denotes a cavity with a pebble in it. As you will find in the sample that there may be inputs where no moves is possible.

Output

For each of the n games in the input, output the minimum number of pebbles left on the board possible to obtain as a result of moves, on a row of its own.

Sample Input

5	1
00	2
-00-00	3
-0000	12
0000000000	1
0000000000	

Swedish National Contest