CCCHK '08 J4 - Tic-tac-toe

Time limit: 1.0s   **Memory limit:** 64M

The game tic-tac-toe is played on a 3×3 grid. Two players place *cross* (X) and *nought* (O) alternatively. The game ends whenever a player can make a line of 3 of their mark vertically, horizontally, or diagonally; or all slots are occupied.

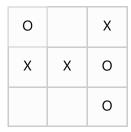| O		X
X	X	O
		O

Figure 1: A snapshot of a game.

In this problem, you are given a snapshot of a game and you need to verify if it is valid. You can assume that the first mark to be placed is always a cross.

Input Specification

The first input is a number T specifying the number of test cases $(1 \leq T \leq 20\,000)$. For each test case, 9 characters on each line are used to denote a snapshot, each containing only . (period, representing an empty slot), X , and O . The first 3 characters are the contents of the first row, the next 3 are for the second row, etc. For example, the snapshot of the example is represented as follows:

```
O.XXXO..O
```

Output Specification

For each test case, output yes if the snapshot is valid; no , otherwise.

Sample Input

```
4
.........
..O...X..
..OO..X..
OOOXXX...
```

Sample Output

```
yes
yes
no
no
```