Problem B. Pocket Cube

Time limit: 1s

Color of balloons: blue

The Pocket Cube, also known as the Mini Cube or the Ice Cube, is the $2 \times 2 \times 2$ equivalence of a Rubik's Cube. The cube consists of 8 pieces, all corners.

Each piece is labeled by a three dimensional coordinate (h, k, l) where $h, k, l \in \{0, 1\}$. Each of the six faces owns four small faces filled with a positive integer.

For each step, you can choose a certain face and turn the face ninety degrees clockwise or counterclockwise.

You should judge that if one can restore the pocket cube in one step. We say a pocket cube has been restored if each face owns four same integers.

Input

The first line of input contains one integer $N(N \leq 30)$ which is the number of test cases.

For each test case, the first line describes the top face of the pocket cube, which is the common 2×2 face of pieces labelled by $(0, 0, 1), (0, 1, 1), (1, 0, 1), (1, 1, 1)$. Four integers are given corresponding to the above pieces.

The second line describes the front face, the common face of $(1, 0, 1), (1, 1, 1), (1, 0, 0), (1, 1, 0)$. Four integers are given corresponding to the above pieces.

The third line describes the bottom face, the common face of $(1, 0, 0), (1, 1, 0), (0, 0, 0), (0, 1, 0)$. Four integers are given corresponding to the above pieces.

The fourth line describes the back face, the common face of $(0, 0, 0), (0, 1, 0), (0, 0, 1), (0, 1, 1)$. Four integers are given corresponding to the above pieces.

The fifth line describes the left face, the common face of $(0, 0, 0), (0, 0, 1), (1, 0, 0), (1, 0, 1)$. Four integers are given corresponding to the above pieces.

The six line describes the right face, the common face of $(0, 1, 1), (0, 1, 0), (1, 1, 1), (1, 1, 0)$. Four integers are given corresponding to the above pieces.

In other words, each test case contains 24 integers a, b, c to x. You can flat the surface to get the surface development as follows.

```
+-+-+-+-+-+-+
|q|r|a|b|u|v|
+-+-+-+-+-+-+
|s|t|c|d|w|x|
+-+-+-+-+-+-+
    |e|f|
    +-+-+
    |g|h|
    +-+-+
    |i|j|
    +-+-+
    |k|l|
    +-+-+
    |m|n|
    +-+-+
    |o|p|
    +-+-+
```

Output

For each test case, output YES if can be restored in one step, otherwise output NO.

Sample

standard input	standard output
4 1 1 1 1 2 2 2 2 3 3 3 3 4 4 4 4 5 5 5 5 6 6 6 6 6 6 6 6 1 1 1 1 2 2 2 2 3 3 3 3 5 5 5 5 4 4 4 4 1 4 1 4 2 1 2 1 3 2 3 2 4 3 4 3 5 5 5 5 6 6 6 6 1 3 1 3 2 4 2 4 3 1 3 1 4 2 4 2 5 5 5 5 6 6 6 6	YES YES YES NO