# Robo Eye

A robot which helps to translate old papers into digital format is being prepared for mass production. But it requires special software to work efficiently. All scans which will be analyzed by the robot use one of the standard fonts: Arial, Courier, or Times New Roman. As the press is not ideal and pages can be rotated, some of the scans will be rotated by some degree. Imperfections of the robot's camera ("eye") can also cause some noise. Uniform noise can be up to 2% of the number of pixels. All analyzed documents are in uppercase English. The total number of letters in the robot's eye ranges from 3 to 6. The matrix in the robot's eye is monochrome and its size is 200x200 pixels.

## Input

*t* – the number of tests [*t* <= 500], then *t* tests follows. Each test consists of 200 rows with 200 chars in each of them. Characters can be '.' and 'X', where '.' means the white color of the page, and 'X' is the black color of words.

The input data was generated using an on-line generator. The generator outputs data in 2 formats:

1) as a picture
2) as text

The datasets used for testing are such that all letters of the word are contained inside the picture.

## Output

For each test output the recognized word in a separate line.

## Score

The number of points you'll receive for each image will be equal to the number of letters of the word, provided that it is correctly recognized.

## Example

**Input:**
2