

Braille

December 17, 2019

Task

Braille is a reliefalphabet where the letters (and other symbols) are represented as points on a paper: for each letter, there is a unique combination of points in a 2x3 matrix. Braille is read by gliding over the text with the fingers, feeling the letters. The task here is to convert Braille to normal text. You will first get the coding table used to encode 26 letters of the alphabet. After that, you will get a Braille text which you need to convert to normal alphabet.

Input

The input looks like this:

- Three rows with each 52 symbols, each either a '.' or an 'x'. Those represent the Braille encoding of letters from A to Z
- One row giving the number of test cases
- Per test case, you get three rows which together form a text in Braille, also with two columns per letter

Example input

X.X. XXXXX . XXXXX .X.XX.X. XXXXX . XXXXX .X.XX.X.. XXXXXXX .
 .X....X.XX. XXXXX .XX .X....X.XX. XXXXX .XX .X.XX ...X.X
 X.X.X.X.X.X.X.X.X.X.XX.XX. XXXXXXX

Output

For each test case, you answer with one row of text. This contains the following information, separated by a space::

1. The number of the test case. This starts with 1 and gets increased by one for each following case.
2. The alphabetical text corresponding to the test case.

Example input

1 A
2 VPW