

A. Compression

Time Limit: 1 second

Points: 100

Mariam has a picture of size $3m$ by $3n$ pixels, where each pixel is either black or white. She has been asked to compress the picture to size m by n . The desired method of compression is to divide the original image into mn square tiles of side length three pixels, and colour the corresponding pixel of the new image by whichever colour is more prevalent in the tile.

Input

The first line of input consists of two integers, m and n , representing the number of rows and columns respectively of the *final* image. $3m$ lines follow, the i th of which consists of a string $s_i = s_{i,1}s_{i,2}\dots s_{i,3n}$, where the j th character is either '.' or '*', denoting a white or black pixel respectively in the original image.

Constraints

All input will satisfy the following constraints:

- $1 \leq m, n \leq 1,000$.

Output

Output m lines, the i th of which consists of a string $t_i = t_{i,1}t_{i,2}\dots t_{i,n}$, where the j th character is either '.' or '*', denoting a white or black pixel respectively in the final image.

Sample Input 1

```
1 2
***...
*.*.*.
***...
```

Sample Output 1

```
*.
```

Sample Input 2

```
2 3
*.*.*.*
*.*.*.*
*.*.*.*
```

```
.***.*.*.  
*.*...*..  
***..*.*
```

Sample Output 2

```
.*.  
*..
```

Explanations

In sample 1, there are 8 black pixels in the first 3 by 3 square, and 8 white pixels in the second 3 by 3 square. Hence these are compressed into one black pixel and one white pixel respectively.

In sample 2, from left-to-right top-to-bottom the number of black pixels respectively are 4, 5, 4, 7, 3, 4. Therefore, the corresponding compressed pixels are white, black, white, black, white, and white.