Problem B
Binary Image

Time Limit: 3 seconds
Memory Limit: 512 Megabytes

Problem description

In digital image processing, thresholding is the simplest method of segmenting images. From a grayscale image, thresholding can be used to create binary images.

The function transforms a grayscale image to a binary image according to the formula:

$$dest(x,y) = \begin{cases} maxValue & if\ src(x,y) > T(x,y) \\ 0 & otherwise \end{cases}$$

Input

The first line contains three integers n, m ($0 \leqslant n, m < 1024$), the number rows and columns of the image matrix and threshold value t ($0 \leqslant t \leqslant 255$).

The next n lines contain m integer numbers a_{ij} where $0 \leqslant a_{ij} \leqslant 255$ - the grey value of the pixels of the source greyscale image that are separated by spaces ($0 \leqslant i \leqslant n, 0 \leqslant j \leqslant m$).

Output

n lines contain m integer numbers a_{ij} where $0 \leqslant a_{ij} \leqslant 1$ - the binary value of the pixels of the binary image result that are separated by spaces ($0 \leqslant i \leqslant n, 0 \leqslant j \leqslant m$).

Example:

Input	Output
4 3 100 10 10 10 10 10 10 10 10 10 10 10 10	0 0 0 0 0 0 0 0 0 0 0 0

Input	Output
2 3 128 10 30 30 10 140 140	0 0 0 0 1 1

Input	Output
3 2 50 10 100 10 200 100 200	0 1 0 1 1 1