Problem K
KIT Finding
Time limit: 2 seconds



CC BY-SA 4.0 by Uoaei1 on Wikimedia Commons

"*Find the Fox*" is a recent book that contains 200 pages of word search puzzles comprising only the letters '`F`', '`O`' and '`X`'. The special feature of the book is that there is only a single occurrence of the word "`FOX`" throughout all of its pages.

Recall that in a word search the goal is to find hidden words (only one hidden word in this case) in a grid of letters. The words can occur horizontally or vertically or diagonally, as well as forwards or backwards, allowing for a total of 8 different reading directions.

For this year's NWERC, we want to create a baby version of "*Find the Fox*". Your goal in this problem, therefore, is to create a word search grid with given dimensions and containing each of the letters '`K`', '`I`' and '`T`' a given number of times. Similar to the original book, this grid should contain exactly one occurrence of the word "`KIT`".

I K I I T
K K T K T
I T I T I
K T T K I

Figure K.1: Illustration of Sample Output 1. Flip page for the solution.

Input

The input consists of:

- One line with five integers h, w, k, i, and t ($3 \leq h, w \leq 100$, $k, i, t \geq 1$, $k+i+t = h \cdot w$), where h and w are the height and width the word search grid should have, and k, i, and t specify the required number of occurrences of '`K`', '`I`' and '`T`', respectively.

Output

Output a word search grid according to the given rules. It can be shown that such a word search grid always exists.

If there are multiple valid solutions, you may output any one of them.

Sample Input 1	Sample Output 1
4 5 6 7 7	IKIIT KKTKT ITITI KTTKI

Sample Input 2	Sample Output 2
3 3 1 7 1	III KIT III

