

A. Levko and Table

time limit per test

1 second

memory limit per test

256 megabytes

input

standard input

output

standard output

Levko loves tables that consist of n rows and n columns very much. He especially loves beautiful tables. A table is *beautiful* to Levko if the sum of elements in each row and column of the table equals k .

Unfortunately, he doesn't know any such table. Your task is to help him to find at least one of them.

Input

The single line contains two integers, n and k ($1 \leq n \leq 100$, $1 \leq k \leq 1000$).

Output

Print any beautiful table. Levko doesn't like too big numbers, so all elements of the table mustn't exceed 1000 in their absolute value.

If there are multiple suitable tables, you are allowed to print any of them.

Examples

input

Copy

2 4

output

1 3

3 1

input

Copy

4 7

output

2 1 0 4

4 0 2 1

1 3 3 0

0 3 2 2

Note

In the first sample the sum in the first row is $1 + 3 = 4$, in the second row — $3 + 1 = 4$, in the first column — $1 + 3 = 4$ and in the second column — $3 + 1 = 4$. There are other beautiful tables for this sample.

In the second sample the sum of elements in each row and each column equals 7. Besides, there are other tables that meet the statement requirements.