

Problem C: Neighbors

Description

There is a graph G with the vertex set V and edge set E . A neighbor of a vertex v is a vertex that is connected to v by an edge.

For each vertex v in V , print all neighbors of v .

Input

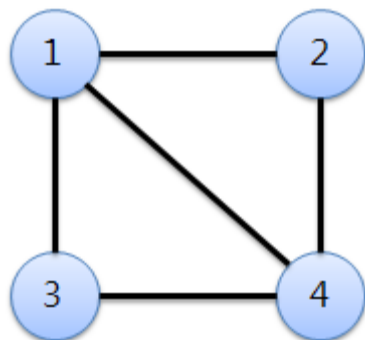
Your program is to read from standard input. In the first line of input you are given two numbers, the number of vertices N and the number of edges M , each separated by a space ($1 \leq N, M \leq 1000$). On each of the following lines, an edge is given by its two adjacent vertices' labels, each separated by a space.

Output

Your program is to write to standard output. In v th line, print all the neighbors of v in the increasing order of their labels, each separated by a space.

Sample

Input	Output
4 5 1 2 3 4 1 3 4 1 3 4	2 3 4 1 4 1 4 1 2 3



In sample input, the neighbors
of 1 are 2, 3, and 4
of 2 are 1 and 4
of 3 are 1 and 4
of 4 are 1, 2, and 4