Number of cuts

Time Limit 1 sec/Memory Limit 256 MB

In graph theory, a cut of a graph is a vertex that will make the graph disconnected if being removed.

You are given a **connected, undirected simple graph** G.

Calculate the number of vertex cuts in G. And output the index of vertex cuts in increasing order.

Input Format

- The first line contains 2 integers n and m, which mean the number of vertices and the number of edges.
- The next m lines all contain 2 integers, u_i and v_i, which imply that there is an edge connection between vertex u_i and vertex v_i.

Output format

- Output two lines
- The first line output one integer, implying the number of cuts in G
- The second line output the index of cuts in increasing order

Constraints

- $1 \leq n, m \leq 100000$

sample input #1	sample output #1
8 8 1 2 1 5 2 3 2 4 3 6 4 5 5 7 5 8	3 2 3 5

sample input #2	sample output #2
8 7 1 2 1 6 2 3 3 4 4 5 4 8 5 7	5 1 2 3 4 5

sample input #3	sample output #3
8 8 1 2 2 3 2 7 2 4 3 4 4 5 5 6 7 8	4 2 4 5 7