Description

You are given a connected undirected graph with no self loops or multi edges. Is it possible to erase exactly one edge from this graph and still keep the graph connected? If so, find and print such an edge. (If multiple edges fit this criteria print any one of them)

Input

The first line of input will have two numbers N and M, the number of nodes and edges in the graph. Each of the next M lines will have two numbers U_k and V_k, the endpoints of the k-th edge.

Output

If you can erase an edge without disconnecting the graph:
Print “YES” on the first line. And print the endpoints of that edge on the second line.
Otherwise:
Print “NO” on the first line. No second line needed.

Sample Input	Sample Output
4 4 1 2 2 3 3 4 4 1	YES 4 1
4 3 1 2 1 3 1 4	NO