

## **Problem 2:**

Given an undirected graph, find whether the graph is Eulerian or not. Assume the graph is simple, and it is connected. If the given graph has  $n$  vertices, assume the vertex set is  $\{0, \dots, n-1\}$ . The input graph is given in **adjacency list** format. The first line of the input specifies  $n$ , the number of vertices. The second line onwards, in each line, till we see the character '#', it denotes the neighbors of the first vertex (i.e 0). Assume that the neighbors of vertices are given in sorted format according to the vertex index. After the first '#', from the next line onwards till another '#' is seen, it denotes the neighbors of the second vertex (i.e 1), and so on. If the graph is Eulerian, print true. Else, print false.

### **Sample Input:**

4                    *#Number of vertices*

1

3

#

0

2

#

1

3

#

0

2

#

/\*

An adjacency matrix (0-1 matrix) where, 1 corresponds to presence of an edge, and 0 - absence of the edge)

\*/

### **Sample Output:**

true

(True/False)