

# Bipartite

Can the vertices of a given graph be assigned one of two colors in such a way that no edge connects vertices of the same color ? which is equivalent to this question: Is the graph bipartite ? Write a program to find that a graph is two-colorable (bipartite)

## **Input Format :**

First line of input contains number of Vertices.

Second line of input contains number of Edges.

From third line onwards, each line contains two vertices separated by space, which are to be connected in Undirected Graph.

## **Output Format:**

Either Graph is bipartite or Graph is not a bipartite