

ISBIPARTITE

Algorithm:

- 1) For every outgoing edge, E , of graph G ,:
 1. Place vertex A , of E in a partition X
 2. Place vertex B , of E in partition Y .
 3. Recursively call the DFS with partition X and Y swapped.
- 2) Graph G is bipartite if all vertices in X and Y are unique, that is, there exists no vertex in partition X that is in partition Y .