In the 2SAT problem, you are given a set of clauses, where each clause is the disjunction of two literals (a literal is a Boolean variable or the negation of a Boolean variable). You are looking for a way to assign a value "true" or "false" to each of the variables so that all clauses are satisfied --- that is, there is at least one true literal in each clause. For this problem, design an algorithm that determines whether or not a given 2SAT instance has a satisfying assignment. (Your algorithm does not need to exhibit a satisfying assignment, just decide whether or not one exists.) Your algorithm should run in O(m+n) time, where m and n are the number of clauses and variables, respectively. [Hint: strongly connected components.]