

1462. Course Schedule IV

Description

There are a total of `numCourses` courses you have to take, labeled from `0` to `numCourses - 1`. You are given an array `prerequisites` where `prerequisites[i] = [ai, bi]` indicates that you **must** take course `ai` first if you want to take course `bi`.

- For example, the pair `[0, 1]` indicates that you have to take course `0` before you can take course `1`.

Prerequisites can also be **indirect**. If course `a` is a prerequisite of course `b`, and course `b` is a prerequisite of course `c`, then course `a` is a prerequisite of course `c`.

You are also given an array `queries` where `queries[j] = [uj, vj]`. For the `jth` query, you should answer whether course `uj` is a prerequisite of course `vj` or not.

Return a boolean array `answer`, where `answer[j]` is the answer to the `jth` query.

Example 1:

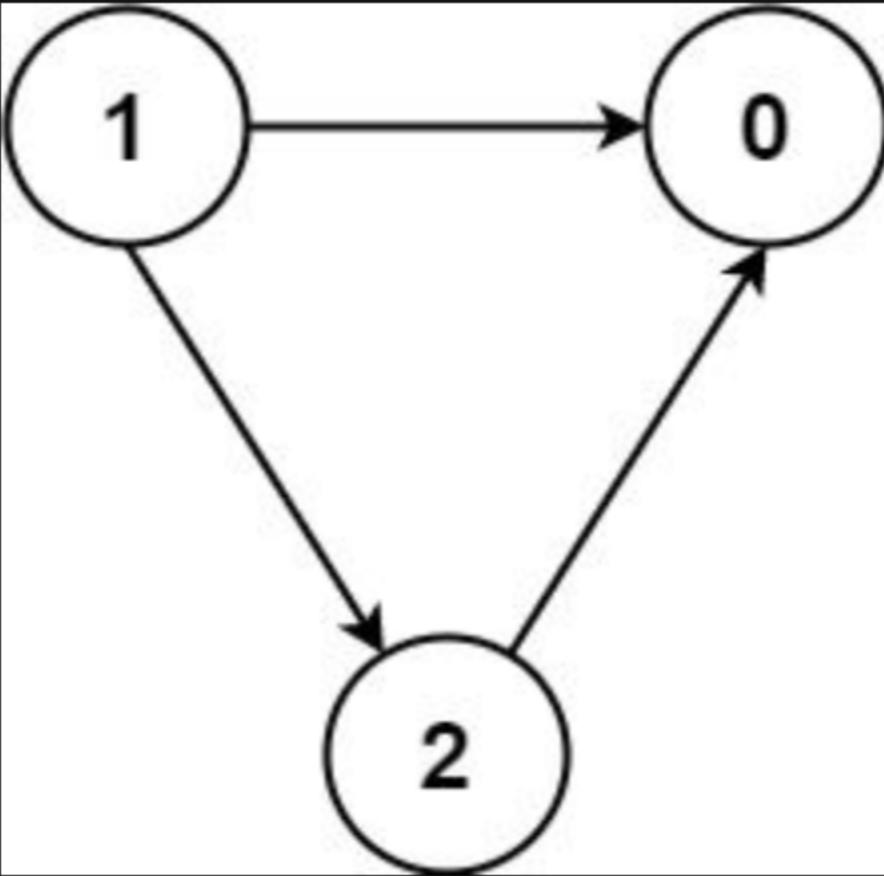


Input: `numCourses = 2, prerequisites = [[1,0]], queries = [[0,1],[1,0]]`
Output: `[false,true]`
Explanation: The pair `[1, 0]` indicates that you have to take course 1 before you can take course 0. Course 0 is not a prerequisite of course 1, but the opposite is true.

Example 2:

Input: `numCourses = 2, prerequisites = [], queries = [[1,0],[0,1]]`
Output: `[false,false]`
Explanation: There are no prerequisites, and each course is independent.

Example 3:



Input: `numCourses = 3, prerequisites = [[1,2],[1,0],[2,0]], queries = [[1,0],[1,2]]`
Output: `[true,true]`

Constraints:

- `2 <= numCourses <= 100`
- `0 <= prerequisites.length <= (numCourses * (numCourses - 1) / 2)`
- `prerequisites[i].length == 2`
- `0 <= ai, bi <= n - 1`
- `ai != bi`
- All the pairs `[ai, bi]` are **unique**.
- The prerequisites graph has no cycles.
- `1 <= queries.length <= 104`
- `0 <= ui, vi <= n - 1`
- `ui != vi`

