

## 1462. Course Schedule IV

Solved ●

Medium  Topics  Companies  Hint

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.

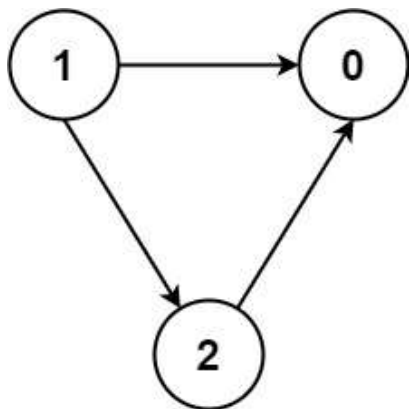
### Example 2:

**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:

- $2 \leq \text{numCourses} \leq 100$
- $0 \leq \text{prerequisites.length} \leq (\text{numCourses} * (\text{numCourses} - 1) / 2)$
- `prerequisites[i].length == 2`
- $0 \leq a_i, b_i \leq n - 1$

- $a_i \neq b_i$
- All the pairs  $[a_i, b_i]$  are **unique**.
- The prerequisites graph has no cycles.
- $1 \leq \text{queries.length} \leq 10^4$
- $0 \leq u_i, v_i \leq n - 1$
- $u_i \neq v_i$

Seen this question in a real interview before? 1/4

Yes No

Accepted 55.6K Submissions 112K Acceptance Rate 49.7%

Topics	▼
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Hint 1	▼
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Discussion (7)	▼