

5410. Course Schedule IV

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There are a total of n courses you have to take, labeled from 0 to $n-1$.

Some courses may have direct prerequisites, for example, to take course 0 you have first to take course 1 , which is expressed as a pair: $[1, 0]$

Given the total number of courses n , a list of direct prerequisite **pairs** and a list of queries **pairs**.

You should answer for each $queries[i]$ whether the course $queries[i][0]$ is a prerequisite of the course $queries[i][1]$ or not.

Return a *list of boolean*, the answers to the given *queries*.

Please note that 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**.

User Accepted:	1420
User Tried:	2537
Total Accepted:	1449
Total Submissions:	4809
Difficulty:	Medium

Example 1:



Input: $n = 2$, $prerequisites = [[1, 0]]$, $queries = [[0, 1], [1, 0]]$

Output: $[false, true]$

Explanation: course 0 is not a prerequisite of course 1 but the opposite is true.

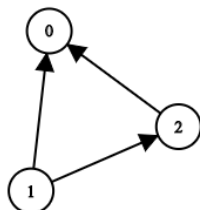
Example 2:

Input: $n = 2$, $\text{prerequisites} = []$, $\text{queries} = [[1,0],[0,1]]$

Output: $[\text{false}, \text{false}]$

Explanation: There are no prerequisites and each course is independent.

Example 3:



Input: $n = 3$, $\text{prerequisites} = [[1,2],[1,0],[2,0]]$, $\text{queries} = [[1,0],[1,2]]$

Output: $[\text{true}, \text{true}]$

Example 4:

Input: $n = 3$, $\text{prerequisites} = [[1,0],[2,0]]$, $\text{queries} = [[0,1],[2,0]]$

Output: $[\text{false}, \text{true}]$

Example 5:

Input: $n = 5$, $\text{prerequisites} = [[0,1],[1,2],[2,3],[3,4]]$, $\text{queries} = [[0,4],[4,0],[1,3],[3,0]]$

Output: $[\text{true}, \text{false}, \text{true}, \text{false}]$

Constraints:

- $2 \leq n \leq 100$
- $0 \leq \text{prerequisite.length} \leq (n * (n - 1) / 2)$
- $0 \leq \text{prerequisite}[i][0], \text{prerequisite}[i][1] < n$
- $\text{prerequisite}[i][0] \neq \text{prerequisite}[i][1]$
- The prerequisites graph has no cycles.
- The prerequisites graph has no repeated edges.
- $1 \leq \text{queries.length} \leq 10^4$
- $\text{queries}[i][0] \neq \text{queries}[i][1]$

JavaScript



```
1 ▾ /**
2   * @param {number} n
3   * @param {number[][]} prerequisites
4   * @param {number[][]} queries
5   * @return {boolean[]}
6   */
7 ▾ var checkIfPrerequisite = function(n, prerequisites, queries) {
8
9   };
```

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