

## 2359. Find Closest Node to Given Two Nodes

Medium

🏷️ Topics

🏢 Companies

💡 Hint

You are given a **directed** graph of  $n$  nodes numbered from  $0$  to  $n - 1$ , where each node has **at most one** outgoing edge.

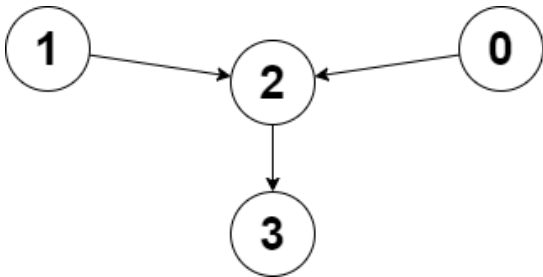
The graph is represented with a given **0-indexed** array `edges` of size  $n$ , indicating that there is a directed edge from node  $i$  to node `edges[i]` if `edges[i] >= 0`. If `edges[i] == -1`, there is no outgoing edge from node  $i$ .

You are also given two integers `node1` and `node2`.

Return the **index** of the node that can be reached from both `node1` and `node2`, such that the **maximum** between the distance from `node1` to that node and the distance from `node2` to that node is **minimized**.

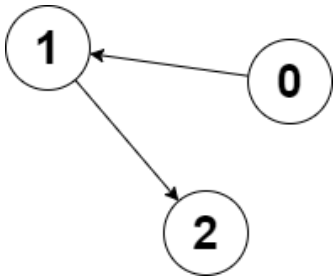
Note that `edges` may contain cycles.

### Example 1:



**Input:** `edges = [2,2,3,-1]`, `node1 = 0`, `node2 = 1`  
**Output:** `2`  
**Explanation:** The distance from node `0` to node `2` is `1`, and the distance from node `1` to node `2` is `1`. The maximum of those two distances is `1`. It can be proven that we cannot get a node with a smaller maximum distance.

### Example 2:



**Input:** `edges = [1,2,-1]`, `node1 = 0`, `node2 = 2`  
**Output:** `2`  
**Explanation:** The distance from node `0` to node `2` is `2`, and the distance from node `2` to itself is `0`. The maximum of those two distances is `2`. It can be proven that we cannot get a node with a smaller maximum distance.

### Constraints:

- $n == \text{edges.length}$
- $2 \leq n \leq 10^5$
- $-1 \leq \text{edges}[i] < n$
- $\text{edges}[i] \neq i$
- $0 \leq \text{node1}, \text{node2} < n$

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

Yes No

Accepted 74.2K Submissions 162.8K Acceptance Rate 45.6%

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