

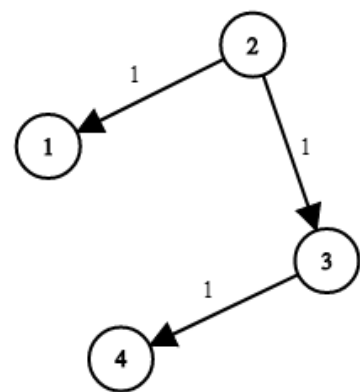
## 743. Network Delay Time

Medium 🏷️ Topics 🏢 Companies 💡 Hint

You are given a network of  $n$  nodes, labeled from  $1$  to  $n$ . You are also given `times`, a list of travel times as directed edges `times[i] = (u, v, w)`, where  $u$  is the source node,  $v$  is the target node, and  $w$  is the time it takes for a signal to travel from  $u$  to  $v$ .

We will send a signal from a given node  $k$ . Return *the **minimum** time it takes for all the  $n$  nodes to receive the signal*. If it is impossible for all nodes to receive the signal, return  $-1$ .

Example 1:



Input: `times = [[2,1,1],[2,3,1],[3,4,1]]`,  $n = 4$ ,  $k = 2$   
Output: `2`

Example 2:

Input: `times = [[1,2,1]]`,  $n = 2$ ,  $k = 1$   
Output: `1`

Example 3:

Input: `times = [[1,2,1]]`,  $n = 2$ ,  $k = 2$   
Output: `-1`

### Constraints:

- $1 \leq k \leq n \leq 100$
- $1 \leq \text{times.length} \leq 6000$
- $\text{times}[i].\text{length} == 3$
- $1 \leq u_i, v_i \leq n$
- $u_i \neq v_i$
- $0 \leq w_i \leq 100$
- All the pairs  $(u_i, v_i)$  are **unique**. (i.e., no multiple edges.)

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

Yes No

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🏷️ Topics

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💡 Hint 1