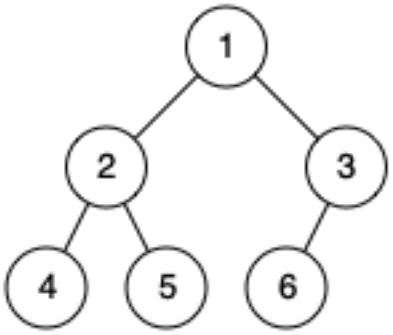
@LeetCode

Given a binary tree, determine if it is a *complete binary tree*.

Definition of a complete binary tree from Wikipedia:

In a complete binary tree every level, except possibly the last, is completely filled, and all nodes in the last level are as far left as possible. It can have between 1 and 2^h nodes inclusive at the last level h.

Example 1:

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Input: [1,2,3,4,5,6]

Output: true

Explanation: Every level before the last is full (ie. levels with node-values {1} and
{2, 3}), and all nodes in the last level ({4, 5, 6}) are as far left as possible.
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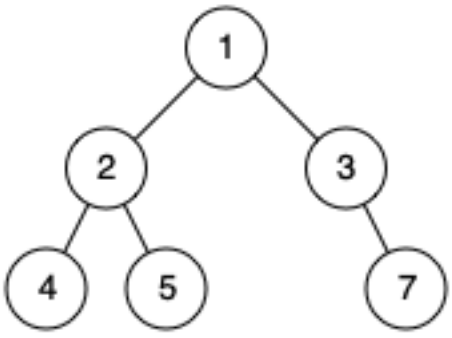
Example 2:

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Input: [1,2,3,4,5,null,7]
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Output: false

Explanation: The node with value 7 isn't as far left as possible.
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Note:

1. The tree will have between 1 and 100 nodes.