

# 129. Sum Root to Leaf Numbers

Medium Topics Companies

You are given the `root` of a binary tree containing digits from `0` to `9` only.

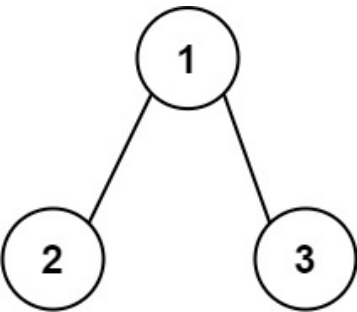
Each root-to-leaf path in the tree represents a number.

- For example, the root-to-leaf path `1 -> 2 -> 3` represents the number `123`.

Return *the total sum of all root-to-leaf numbers*. Test cases are generated so that the answer will fit in a **32-bit** integer.

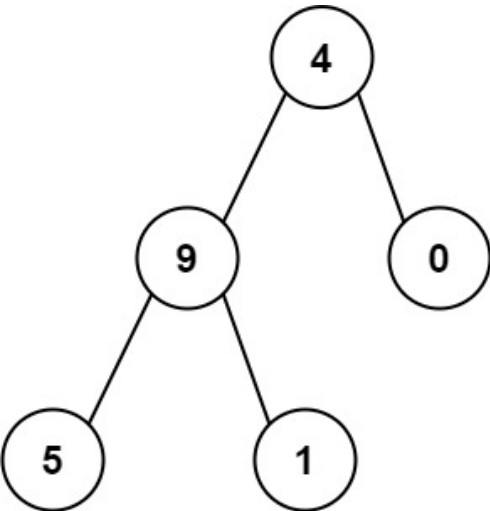
A **leaf** node is a node with no children.

Example 1:



**Input:** `root = [1,2,3]`  
**Output:** `25`  
**Explanation:**  
The root-to-leaf path `1->2` represents the number `12`.  
The root-to-leaf path `1->3` represents the number `13`.  
Therefore, `sum = 12 + 13 = 25`.

Example 2:



**Input:** `root = [4,9,0,5,1]`  
**Output:** `1026`  
**Explanation:**  
The root-to-leaf path `4->9->5` represents the number `495`.  
The root-to-leaf path `4->9->1` represents the number `491`.  
The root-to-leaf path `4->0` represents the number `40`.  
Therefore, `sum = 495 + 491 + 40 = 1026`.

Constraints:

- The number of nodes in the tree is in the range `[1, 1000]`.
- `0 <= Node.val <= 9`
- The depth of the tree will not exceed `10`.