666. Path Sum IV

Description

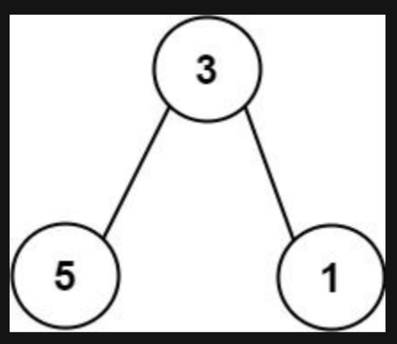
If the depth of a tree is smaller than `5`, then this tree can be represented by an array of three-digit integers. For each integer in this array:

- The hundreds digit represents the depth `d` of this node where `1 <= d <= 4`.
- The tens digit represents the position `p` of this node in the level it belongs to where `1 <= p <= 8`. The position is the same as that in a full binary tree.
- The units digit represents the value `v` of this node where `0 <= v <= 9`.

Given an array of **ascending** three-digit integers `nums` representing a binary tree with a depth smaller than `5`, return *the sum of all paths from the root towards the leaves*.

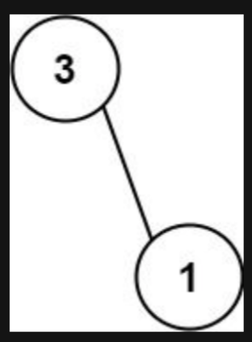
It is **guaranteed** that the given array represents a valid connected binary tree.

Example 1:




```
Input: nums = [113,215,221]
Output: 12
Explanation: The tree that the list represents is shown.
The path sum is (3 + 5) + (3 + 1) = 12.
```

Example 2:




```
Input: nums = [113,221]
Output: 4
Explanation: The tree that the list represents is shown.
The path sum is (3 + 1) = 4.
```

Constraints:

- `1 <= nums.length <= 15`
- `110 <= nums[i] <= 489`
- `nums` represents a valid binary tree with depth less than `5`.