

# 377. Combination Sum IV

## Difficulty : Medium

<https://leetcode.com/problems/combination-sum-iv>

Given an array of **distinct** integers `nums` and a target integer `target`, return *the number of possible combinations that add up to* `target`.

The test cases are generated so that the answer can fit in a **32-bit** integer.

### Example 1:

**Input:** `nums = [1,2,3]`, `target = 4`

**Output:** 7

**Explanation:**

The possible combination ways are:

(1, 1, 1, 1)

(1, 1, 2)

(1, 2, 1)

(1, 3)

(2, 1, 1)

(2, 2)

(3, 1)

Note that different sequences are counted as different combinations.

### Example 2:

**Input:** `nums = [9]`, `target = 3`

**Output:** 0

### Constraints:

- `1 <= nums.length <= 200`
- `1 <= nums[i] <= 1000`
- All the elements of `nums` are **unique**.
- `1 <= target <= 1000`

**Follow up:** What if negative numbers are allowed in the given array? How does it change the problem? What limitation we need to add to the question to allow negative numbers?