# 18. 4Sum

## Description

Given an array nums of n integers, return an array of all the unique quadruplets [nums[a], nums[b], nums[c], nums[d]] such that:

- 0 <= a, b, c, d < n
- a, b, c, and d are distinct.
- nums[a] + nums[b] + nums[c] + nums[d] == target

You may return the answer in any order.

### Example 1:

```
Input: nums = [1,0,-1,0,-2,2], target = 0
Output: [[-2,-1,1,2],[-2,0,0,2],[-1,0,0,1]]
```

#### **Example 2:**

```
Input: nums = [2,2,2,2,2], target = 8
Output: [[2,2,2,2]]
```

### **Constraints:**

- 1 <= nums.length <= 200
- $-10^9 <= nums[i] <= 10^9$
- $-10^9$  <= target <=  $10^9$