

2024-04-06 - Handout – Permutation Combination

Q1. Permutations

Link: <https://leetcode.com/problems/permutations/>

Given an array `nums` of distinct integers, return *all the possible permutations*. You can return the answer in **any order**.

Constraints:

- `1 <= nums.length <= 6`
- `-10 <= nums[i] <= 10`
- All the numbers of `nums` are unique

Example 1:

Input: `nums = [1]`

Output: `[[1]]`

Example 2:

Input: `nums = [1,2,3]`

Output: `[[1,2,3], [1,3,2], [2,1,3], [2,3,1], [3,1,2], [3,2,1]]`

Q2. Permutations II

Link: <https://leetcode.com/problems/permutations-ii/>

Given a collection of numbers, `nums`, that might contain duplicates, return all possible unique permutations in any order.

Constraints:

- `1 <= nums.length <= 8`
- `-10 <= nums[i] <= 10`

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Input: `nums = [1,1,2]`

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Q3. Subsets

Link: <https://leetcode.com/problems/subsets/description/>

Given an integer array `nums` of unique elements, return all possible subsets (the power set). The solution set must not contain duplicate subsets. Return the solution in any order.

Constraints:

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- $1 \leq \text{nums.length} \leq 10$
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- All the numbers of nums are unique

Example 1:

Input: `nums = [1,2,3]`

Output: `[[],[1],[2],[1,2],[3],[1,3],[2,3],[1,2,3]]`

Example 2:

Input: `nums = [0]`

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Q4. Subsets II

Link: <https://leetcode.com/problems/subsets-ii/>

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