

442. Find All Duplicates in an Array

Given an integer array `nums` of length `n` where all the integers of `nums` are in the range `[1, n]` and each integer appears at most twice, return an array of all the integers that appears twice.

You must write an algorithm that runs in $O(n)$ time and uses only constant auxiliary space, excluding the space needed to store the output

Example 1:

- **Input:** `nums = [4,3,2,7,8,2,3,1]`
- **Output:** `[2,3]`

Example 2:

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

Example 3:

- **Input:** `nums = [1]`
- **Output:** `[]`

Constraints:

- `n == nums.length`
- `1 <= n <= 105`
- `1 <= nums[i] <= n`
- Each element in `nums` appears once or twice.