

# 1636. Sort Array by Increasing Frequency

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Given an array of integers `nums`, sort the array in **increasing** order based on the frequency of the values. If multiple values have the same frequency, sort them in **decreasing** order.

Return the *sorted array*.

## Example 1:

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

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

**Explanation:** '3' has a frequency of 1, '1' has a frequency of 2, and '2' has a frequency of 3.

## Example 2:

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

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

**Explanation:** '2' and '3' both have a frequency of 2, so they are sorted in decreasing order.

## Example 3:

**Input:** `nums = [-1,1,-6,4,5,-6,1,4,1]`

**Output:** `[5,-1,4,4,-6,-6,1,1,1]`

```
def frequencySort(self, nums: List[int]) -> List[int]:
    cnt = collections.Counter(nums)
    cnt = sorted(cnt.items(), key=lambda x: (x[1], -x[0]))
    res = []
    for num, freq in cnt:
        res = res + [num] * freq
    return res
```