

(1) MAJORITY ELEMENT 2

```
def majorityelement(nums):
    if not nums:
        return []

    candidate1, candidate2 = None, None
    count1, count2 = 0, 0

    for num in nums:
        if num == candidate1:
            count1 += 1
        elif num == candidate2:
            count2 += 1
        elif count1 == 0:
            candidate1, count1 = num, 1
        elif count2 == 0:
            candidate2, count2 = num, 1
        else:
            count1 -= 1
            count2 -= 1

    result = []
    for candidate in [candidate1, candidate2]:
        if nums.count(candidate) > len(nums) // 3:
            result.append(candidate)

    return result

print(majorityelement([1, 2, 3, 2, 2, 2, 5, 2]))
```