5904. Count Number of Maximum Bitwise-OR Subsets

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Given an integer array `nums`, find the **maximum** possible **bitwise OR** of a subset of `nums` and return *the **number of different non-empty subsets*** with the *maximum bitwise OR*.

An array `a` is a **subset** of an array `b` if `a` can be obtained from `b` by deleting some (possibly zero) elements of `b`. Two subsets are considered **different** if the indices of the elements chosen are different.

The bitwise OR of an array `a` is equal to `a[0] OR a[1] OR ... OR a[a.length − 1]` (**0-indexed**).

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Medium

Example 1:

```
Input: nums = [3,1]
Output: 2
Explanation: The maximum possible bitwise OR of a subset is 3. There are 2 subsets with a bitwise OR of 3:
- [3]
- [3,1]
```

Example 2:

```
Input: nums = [2,2,2]
Output: 7
Explanation: All non-empty subsets of [2,2,2] have a bitwise OR of 2. There are 2^3 − 1 = 7 total subsets.
```

Example 3:

```
Input: nums = [3,2,1,5]
Output: 6
Explanation: The maximum possible bitwise OR of a subset is 7. There are 6 subsets with a bitwise OR of 7:
- [3,5]
- [3,1,5]
- [3,2,5]
- [3,2,1,5]

- [2,5]
- [2,1,5]
```

Constraints:

- `1 <= nums.length <= 16`
- `1 <= nums[i] <= 10^5`

JavaScript ▾   ⟨⟩ ⟳ ⚙

```javascript
 1 ▾ const countMaxOrSubsets = (a) => {
 2       let n = a.length, max = Number.MIN_SAFE_INTEGER;
 3       let m = new Map();
 4 ▾     for (let i = 0; i < 1 << n; i++) {
 5           let data = [], or = 0;
 6 ▾         for (let j = 0; j < n; j++) {
 7 ▾             if (i & (1 << j)) {
 8                   data.push(a[j]);
 9                   or |= a[j];
10               }
11           }
12           if (!m.has(or)) m.set(or, []);
13           m.get(or).push(data);
```

```
 14              max = Math.max(max, or);
 15          }
 16          // pr(m, max);
 17          return m.get(max).length;
 18  };
```

☐ **Custom Testcase**   (Use Example Testcases)

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Submission Result: Accepted (/submissions/detail/572427906/) ❓   (More Details ❯ (/submissions/detail/572427906/))

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