Sum of Subset XOR

The **XOR total** of an array is defined as the bitwise XOR of **all its elements**, or 0 if the array is **empty**. For example, the XOR total of:

- [2,5,6] is 2 XOR 5 XOR 6 = 1
- [4, 1, 3] is 4 XOR 1 XOR 3 = 6
- [1] is 1

Given an array nums, return *the **sum** of all **XOR totals** for every **subset** of* nums.

Note: Subsets with the **same** elements should be counted **multiple** times.

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.

Input:

- First line contains an integer n $(1 \leq n \leq 12)$, the number of elements in nums;
- Second line contains n numbers, the array `nums` $(1 <= nums_i \leq 20)$.

Output:

- A single integer with the answer to the problem.

Samples:

Input	Output
2 1 3	6
3 5 1 6	28
6 3 4 5 6 7 8	480

Explanation:

Input: [1,3]
Output: 6
Explanation: The 4 subsets of [1,3] are:
- The empty subset has an XOR total of 0.
- [1] has an XOR total of 1.
- [3] has an XOR total of 3.
- [1,3] has an XOR total of 1 XOR 3 = 2.
0 + 1 + 3 + 2 = 6

Input: [5,1,6]
Output: 28
Explanation: The 8 subsets of [5,1,6] are:
- The empty subset has an XOR total of 0.
- [5] has an XOR total of 5.
- [1] has an XOR total of 1.

- [6] has an XOR total of 6.
- [5,1] has an XOR total of 5 XOR 1 = 4.
- [5,6] has an XOR total of 5 XOR 6 = 3.
- [1,6] has an XOR total of 1 XOR 6 = 7.
- [5,1,6] has an XOR total of 5 XOR 1 XOR 6 = 2.
0 + 5 + 1 + 6 + 4 + 3 + 7 + 2 = 28