#include <iostream>

#include <vector>

int xorSumSubsets(std::vector<int>& nums) {

int n = nums.size();

int xorSum = 0;

// Calculate the XOR sum for every subset

for (int i = 0; i < (1 << n); i++) {

int subsetXor = 0;

for (int j = 0; j < n; j++) {

if (i & (1 << j)) {

subsetXor ^= nums[j];

}

}

xorSum += subsetXor;

}

return xorSum;

}

int main() {

int n;

std::cout << "Enter the number of elements in the array: ";

std::cin >> n;

std::vector<int> nums(n);

std::cout << "Enter the elements of the array: ";

for (int i = 0; i < n; i++) {

std::cin >> nums[i];

}

int result = xorSumSubsets(nums);

std::cout << "Sum of XOR totals for every subset: " << result << std::endl;

return 0;

}