Powers of Two

? Ask Doubt

Time-Limit: 1 sec Score: 0/100 Difficulty :

Memory: 256 MB Accepted Submissions: 100

Description

You are given an array A of N integers. Find the number of pairs (i, j) such that i < j and $A_i + A_j$ is a power of 2.

Input Format

The first line of the input contains one integer T - the number of test cases. Then T test cases follow.

The first line of each test case contains one integer N - the length of the array.

The second line of each test case contains N space-separated integers.

Output Format

For each test case, print the number of pairs (i, j) such that i < j and $A_i + A_j$ is a power of 2.

Constraints

$1 \le T \le 10^5$

$1 \le N \le 10^5$

$1 \le A_i \le 2^{30}$

It is guaranteed that the sum of N over all test cases does not exceed 10^5.

Sample Input 1

Copy

```
3
5
1 7 2 3 1
3
1 1 1
3
2 6 14
```

Sample Output 1

Copy

```
5
3
```

C++14[GCC]

Submit

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