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①Q

A = [1,3,5]
o → 8

A = [2,3]
output → 2

~~Brute~~ Approach

Let ans = 0, arr = input array, n = arr.size()

```
for(i = 0 to i < n)
    for (J = i+1; J < n)
        diff-bits = arr[i] ^ arr[J]
        count = __builtin_popcount(diff-bits);
        ~~ans += count;~~
        ans = (ans + count) % MOD;
return ans * 2;
```

Algo →

Start a loop from i = 0 to n

Start another loop from J = i+1 to n

using xor on arr(i) and arr(J)

we will get 1 on positions

where bit is different among pairs.

using __builtin_popcount we can

get no. of set bits

Th...

return ans * 2

Complexity = $O(n^2)$