**982. Triples with Bitwise AND Equal To Zero**

Hard

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Given an array of integers A, find the number of triples of indices (i, j, k) such that:

* 0 <= i < A.length
* 0 <= j < A.length
* 0 <= k < A.length
* A[i] & A[j] & A[k] == 0, where & represents the bitwise-AND operator.

**Example 1:**

**Input:** [2,1,3]

**Output:** 12

**Explanation:** We could choose the following i, j, k triples:

(i=0, j=0, k=1) : 2 & 2 & 1

(i=0, j=1, k=0) : 2 & 1 & 2

(i=0, j=1, k=1) : 2 & 1 & 1

(i=0, j=1, k=2) : 2 & 1 & 3

(i=0, j=2, k=1) : 2 & 3 & 1

(i=1, j=0, k=0) : 1 & 2 & 2

(i=1, j=0, k=1) : 1 & 2 & 1

(i=1, j=0, k=2) : 1 & 2 & 3

(i=1, j=1, k=0) : 1 & 1 & 2

(i=1, j=2, k=0) : 1 & 3 & 2

(i=2, j=0, k=1) : 3 & 2 & 1

(i=2, j=1, k=0) : 3 & 1 & 2

**Note:**

1. 1 <= A.length <= 1000
2. 0 <= A[i] < 2^16

Accepted

9,796

Submissions

17,379