

# Fraction pairs with sum 1

Given a list of  $N$  fractions, represented as two lists **numerator** and **denominator**, the task is to determine the count of pairs of fractions whose sum equals 1.

## Example 1:

### Input:

$N = 4$

`numerator = [1, 2, 2, 8]`

`denominator = [2, 4, 6, 12]`

### Output:

2

### Explanation:

Fractions  $1/2$  and  $2/4$  sum to 1. Similarly fractions  $2/6$  and  $8/12$  sum to 1. So there are 2 pairs of fractions which sum to 1.

## Example 2:

### Input:

$N = 5$

`numerator = [3, 1, 12, 81, 2]`

`denominator = [9, 10, 18, 90, 5]`

### Output:

2

### Explanation:

Fractions  $3/9$  and  $12/18$  sum to 1. Similarly fractions  $1/10$  and  $81/90$  sum to 1. So there are 2 pairs of fractions which sum to 1.

## Your task:

You don't need to read input or print anything. Your task is to complete the function **countFractions()** which take integer  $N$  and arrays **numerator** and **denominator** of size  $N$  as arguments, and returns an integer.

**Expected Time Complexity:**  $O(N \cdot \log(N))$

**Expected Auxiliary Space:**  $O(N)$

**Constraints:**

$1 \leq N \leq 10^5$

$1 \leq \text{numerator}[i] \leq \text{denominator}[i] \leq 10^9$