Problem 4: Count Prime Numbers

Problem Statement:
You are given an array a of size n (1 ≤ n ≤ 10^3). Your task is to determine the total number of prime numbers in the array using a divide-and-conquer algorithm.

Input:
The first line contains an integer n.
The second line contains n integers a[1],a[2],...,a[n] (1≤a[i]≤10^6).
Output:
Print a single integer, the total number of prime numbers in the array.

Examples:
Input:
5
2 3 4 5 6
Output:
3

Input:
4
1 8 10 11
Output:
1