**Counting Prime Factor Pair**

Time Limit: 2 second

Prime factor is A factor that is a prime number. Example: The prime factors of 30 are 2,3 and 5 (because 2×3×5=30, and 2, 3 and 5 are prime numbers).



You are given an array a1,a2,…,ak  of k numbers, find the number of pairs i, j such that i≠j and S(ai) divides  S(aj) and ai divides  aj. where S(n) is the sum of prime factors that divides n.

**Input:**

First line will contain T, number of testcases. Then the testcases follow.

First line of each testcase contains one integer N (2≤n≤1000) number of elements of the array.

Second line of each testcase contains N space-separated integers a1,a2,…,an (2≤ai≤10000).

**Output:**

For each testcase, output in a single line number of pairs that each of it satisfies given conditions.

|  |  |
| --- | --- |
| **Sample Input:**  2  5  2 30 2 4 3  5  2 2 2 2 2 | **Sample Output:**  6  20 |

**Hints:**

S(2)=2, S(30)= 2+3+5=10, S(4)=2, S(3)=3 So, the pairs are (1,2), (1,3), (1,4), (3,1), (3,2), (3,4) and total pair is 6.

Problem Setter: Md. Anwar Hussen Wadud