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Your score   not attempted

Spoilers

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solved by **29** / 36

dynamic programming: combinatorics

math: number theory

Top users by time

#	User	Time
1	Retr0Foxx	21 ms
2	bagasangga	23 ms
3	frennn	34 ms
4	mhasan01	42 ms
5	YukiSaki	43 ms

Top users by memory

#	User	Memory
1	Retr0Foxx	1096 KB
2	hitsuuj	1452 KB
3	Raphela	1656 KB
4	YukiSaki	2124 KB
5	ftri	2316 KB

Arkavidia 9.0 - Penyisihan CP > M

Submission #4521208

Arkavidia 9.0 - Penyisihan CP / M. Main GCD

Accepted • **Retr0Foxx** • C++20 • October 21, 2025 at 20:27:00

▶ Sample Test Data Results   🟩

▶ Test Data Results   🟢

```cpp
#include <iostream>
#include <vector>

#define MOD (int)(998244353)
#define MAXN 200005

int sieve[MAXN];
int freq[MAXN];

#define ll long long
#define printf

ll powmod(ll x, ll p)
{
    ll res = 1;
    ll a = x;
    while (p)
    {
        if (p & 1) res = (res * a) % (ll)MOD;
        a = (a*a) % (ll)MOD;
        p /= 2;
    }
    return res;
}

void setat(int i)
{
    sieve[i/32] |= (1 << (i % 32));
}

int getat(int i)
{
    return !!(sieve[i/32] & (1 << (i % 32)));
}

signed main()
{
    std::ios_base::sync_with_stdio(false);
    std::cin.tie(nullptr);
    std::cout.tie(nullptr);

    int n;
    std::cin >> n;

    for (int i = 1; i <= n; ++i)
    {
        int current;
        std::cin >> current;
        freq[current]++;
    }
    int res = 1;
    for (int i = 2; i*i <= 200000; ++i)
    {
        if (getat(i)) continue;
        for (int j = i*i; j <= 200000; j += i)
            setat(j);
    }
    for (int i = 2; i <= 200000; ++i)
    {
        if (getat(i)) continue;
        ll total = 0;
        //printf("%i\n", i);
        for (ll j = i; j <= 200000; j*=i)
        {
            int current = 0;
            for (int k = j; k <= 200000; k += j)
            {
                // base = j, hmm = k[i]
                current += freq[k];
            }
            total += (ll)current*(ll)(current-1)/2;
            if (current) printf("at %i, current=%i\n", i, current);
        }
        res = (((ll)res) * powmod(i, total)) % (ll)MOD;
    }
    std::cout << res << "\n";
    return 0;
}
```