

```

1  #include<bits/stdc++.h>
2  using namespace std;
3  #define ll long long
4  #define pll pair<ll,ll>
5  #define MOD 1000000007LL
6  #define MOD1 104282401LL
7  #define MOD2 101949191LL
8  #define BASE1 1000117LL
9  #define BASE2 10000103LL
10 #define N 1000005
11 map< pair<ll,ll>, ll>mp[N];
12 ll subset[N];
13 // ll base1[N], base2[N];
14 int main(){
15     //base1[0] = base2[0] = 1LL;
16     for(ll i=1,x=1; i<=1000000; i++){
17         x = (x<<1LL);
18         x %= MOD;
19         subset[i] = x-1LL;
20         if(subset[i]<0) subset[i]+=MOD;
21         subset[i]%=MOD;
22
23         //base1[i] = (base1[i-1]*BASE1)%MOD1;
24         //base2[i] = (base2[i-1]*BASE2)%MOD2;
25     }
26
27     int n; scanf("%d",&n);
28     for(int i=1; i<=n; i++){
29         int m; scanf("%d",&m);
30         ll val1 = 0, val2 = 0;
31         for(int k=1; k<=m; k++){
32             ll x; scanf("%lld",&x);
33
34             //val1 = (val1+x*base1[k-1])%MOD1;
35             val1 = (val1*BASE1+x)%MOD1;
36
37             //val2 = (val2+x*base2[k-1])%MOD2;
38             val2 = (val2*BASE2+x)%MOD2;
39             pll val = make_pair(val1,val2);
40             mp[k][val]++;
41         }
42     }
43     mp[0][make_pair(0,0)] = n;
44
45     int q; scanf("%d",&q);
46     for(int ks=1; ks<=q; ks++){
47         int k; scanf("%d",&k);
48         ll ans = 0;
49         for(auto it: mp[k]){
50             ll cnt = it.second;
51             ans += subset[cnt];
52             ans %= MOD;
53         }
54         printf("Case %d: %lld\n",ks,ans);
55     }
56
57     return 0;
58 }

```