

Enough Array

人员

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上周作业检查

https://www.luogu.com.cn/contest/233728

2025-0302周日10:30

报名

编辑比赛

题目数4 | 报名人数14

比赛说明 | 题目列表 | 排行榜

名次	参赛者	总分	A	B	C	D
#1	赵熙羽	400 (10.02d)	100 (1.14h)	100 (1.85h)	100 (6.44d)	100 (3.46d)
#2	夏志赫	400 (14.01d)	100 (30.75min)	100 (1.83h)	100 (6.97d)	100 (6.94d)
#3	程梓豪	300 (9.36h)	100 (2.17h)	100 (2.13h)		100 (5.07h)
#4	杨瑾硕	300 (12.31h)	100 (12.33min)	100 (1.69h)		100 (10.42h)
#5	谢亚锴	300 (6.59d)	100 (13.55min)	100 (2.16h)		100 (6.49d)
#6	郭骐嘉	300 (6.59d)	100 (11.73min)	100 (1.80h)	100 (6.51d)	
#7	隋钰涵	300 (7.07d)	100 (18.33min)	100 (1.48h)		100 (7.00d)
#8	秦显森	300 (8.64d)	100 (9.60min)	100 (4.30d)		100 (4.33d)
#9	高健桓	260 (6.98d)	100 (15.17min)	100 (2.15h)		60 (6.88d)
#10	董浩桢	200 (8.88h)	100 (14.38min)	100 (8.64h)		
#11	武敬哲	200 (6.99d)	100 (19.57min)	100 (6.97d)		
#12	牛同泽	100 (16.95min)	100 (16.95min)			
#13	葛真然	100 (1.68h)		100 (1.68h)		

作业

https://www.luogu.com.cn/contest/235008 (课上讲了 A~D 题, 课后作业是 E 题)

课堂表现

这节课针对之前的二分查找和搜索进行了几个题目的练习, 反映出来相当一部分同学掌握的不熟练, 这部分同学要好好复习。

课堂内容

P1678 烦恼的高考志愿

```
#include <bits/stdc++.h>

using namespace std;

typedef long long LL;
const int maxn = 1e5 + 5;
int w[maxn];

int main()
{
    int m, n; cin >> m >> n;
    for (int i = 1; i <= m; ++i) cin >> w[i];
    sort(w+1, w+m+1);

    LL res = 0;
    for (int i = 1; i <= n; ++i) {
        int x; cin >> x;
        int p1 = lower_bound(w+1, w+m+1, x) - w;
        int p2 = p1-1;
        int minn = 1e9;
        if (p1 <= m) minn = min(minn, w[p1]-x);
        if (p2 >= 1) minn = min(minn, x-w[p2]);
        res += minn;
    }
    cout << res << endl;
    return 0;
}
```

AT_abc130_d [ABC130D] Enough Array

```
#include <bits/stdc++.h>

using namespace std;

typedef long long LL;
const int maxn = 1e5 + 5;
int w[maxn];
LL p[maxn];

int main()
{
    int n; LL k; cin >> n >> k;
    for (int i = 1; i <= n; ++i) {
        cin >> w[i]; p[i] = p[i-1] + w[i];
    }

    LL res = 0;
    for (int i = 1; i <= n; ++i) {
```

```

    int r = lower_bound(p+1, p+n+1, p[i-1]+k) - p;
    res += n-r+1;
}
cout << res << endl;
return 0;
}

```

U537161 paths

```

#include <bits/stdc++.h>

using namespace std;

const int maxn = 2e5 + 5;
const int mod = 1e9 + 7;
vector<int> vec[maxn];
int dis[maxn], f[maxn];

int main()
{
    int n, m; cin >> n >> m;
    while (m -- ) {
        int u, v; cin >> u >> v;
        vec[u].push_back(v), vec[v].push_back(u);
    }

    memset(dis, -1, sizeof(dis));
    queue<int> q; q.push(1); dis[1] = 0; f[1] = 1;
    while (!q.empty()) {
        int u = q.front(); q.pop();
        for (int i : vec[u]) {
            if (dis[i] == -1) q.push(i), dis[i] = dis[u]+1, f[i] = f[u];
            else if (dis[i] == dis[u]+1) f[i] = (f[i] + f[u]) % mod;
        }
    }

    cout << f[n] << endl;
    return 0;
}

```

P5250 【深基17.例5】木材仓库

```

#include <bits/stdc++.h>

using namespace std;

typedef long long LL;
const LL inf = 1e18;

```

```

int main()
{
    set<LL> s;
    s.insert(-inf), s.insert(inf);
    int n; cin >> n;
    while (n -- ) {
        int op; LL x; cin >> op >> x;
        if (op == 1) {
            if (s.count(x)) cout << "Already Exist" << endl;
            else s.insert(x);
        } else {
            if (s.size() == 2) {
                cout << "Empty" << endl;
                continue;
            }
            if (s.count(x)) {
                cout << x << endl; s.erase(x);
            } else {
                auto it = s.lower_bound(x);
                auto it2 = it; it2--;

                LL dx1 = x-*it2, dx2 = *it-x;
                if (dx1 <= dx2) {
                    cout << *it2 << endl; s.erase(*it2);
                } else {
                    cout << *it << endl; s.erase(*it);
                }
            }
        }
    }
    return 0;
}

```

AT_abc235_c [ABC235C] The Kth Time Query

```

#include <bits/stdc++.h>

using namespace std;

int main()
{
    map<int, vector<int>> mp;
    int n, T; cin >> n >> T;
    for (int i = 1; i <= n; ++i) {
        int x; cin >> x; mp[x].push_back(i);
    }

    while (T -- ) {
        int x, k; cin >> x >> k;
        if ((int)mp[x].size() < k) cout << -1 << endl;
    }
}

```

```
        else cout << mp[x][k-1] << endl;  
    }  
    return 0;  
}
```