

# 排座椅

## 人员

夏志赫、武敬哲、程梓豪、牛同泽、隋钰涵、李青默、赵熙羽、秦显森、郭骐嘉、董浩桢、杨瑾硕、夏硕承、陈兆晟 到课

## 作业检查

上周作业链接: <https://www.luogu.com.cn/contest/223457>

2025-0105周日10:30

报名

编辑比赛

题目数

3

报名人数

13

比赛说明

题目列表

排行榜

名次	参赛者	总分	A	B	C
#1	赵熙羽	300 (4.79h)	100 (1.03h)	100 (1.72h)	100 (2.04h)
#2	隋钰涵	300 (3.51d)	100 (1.01h)	100 (1.83h)	100 (3.39d)
#3	秦显森	300 (7.01d)	100 (17.43min)	100 (1.89h)	100 (6.92d)
#4	牛同泽	300 (12.67d)	100 (6.23d)	100 (2.01h)	100 (6.36d)
#5	牟茗	300 (19.64d)	100 (6.32d)	100 (6.47d)	100 (6.85d)
#6	高健恒	200 (2.30h)	100 (8.88min)	100 (2.15h)	
#7	夏志赫	200 (4.24h)	100 (1.88h)	100 (2.36h)	
#8	武敬哲	200 (6.40d)	100 (1.58h)	100 (6.34d)	
#9	李青默	170 (3.51h)	100 (1.52h)	70 (1.99h)	
#10	董浩桢	100 (6.10d)	100 (6.10d)		
#11	程梓豪	100 (6.29d)			100 (6.29d)

## 作业

<https://www.luogu.com.cn/contest/224470> (课上讲了 A B C D 4 个题目, D 题大部分同学课上都没写完, 课后作业是 D E 2 个题目)

## 课堂表现

同学们上课听讲都很认真, 今天的 C D 两道题目比较复杂一些, 同学们课下一定要再好好研究一下这两道题目。

## 课堂内容

P1146 硬币翻转

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

using namespace std;

const int maxn = 100 + 5;
char s[maxn];

int main()
{
    int n; cin >> n;
    for (int i = 1; i <= n; ++i) s[i] = '0';

    cout << n << endl;
    for (int i = 1; i <= n; ++i) {
        for (int j = 1; j <= n; ++j) {
            if (j == i) continue;
            if (s[j] == '0') s[j] = '1';
            else s[j] = '0';
        }
        cout << (s+1) << endl;
    }
    return 0;
}
```

## P1181 数列分段 Section I

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

using namespace std;

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

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

    int res = 0, sum = 0;
    for (int i = 1; i <= n; ++i) {
        if (sum + w[i] <= m) sum += w[i];
        else {
            sum = w[i], res++;
        }
    }

    cout << res+1 << endl;
    return 0;
}
```

**P1056 [NOIP2008 普及组] 排座椅**

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

using namespace std;

const int maxn = 1000 + 5;
struct node {
    int id, cnt;
} row[maxn], col[maxn];

bool cmp(node p, node q) {
    return p.cnt > q.cnt;
}

bool cmp2(node p, node q) {
    return p.id < q.id;
}

int main()
{
    int m, n, K, L, D; cin >> m >> n >> K >> L >> D;
    for (int i = 1; i <= m; ++i) row[i] = {i, 0};
    for (int i = 1; i <= n; ++i) col[i] = {i, 0};

    while (D -- ) {
        int x1, y1, x2, y2; cin >> x1 >> y1 >> x2 >> y2;
        if (x1 == x2) col[min(y1,y2)].cnt++;
        else row[min(x1,x2)].cnt++;
    }

    sort(row+1, row+m+1, cmp);
    sort(col+1, col+n+1, cmp);

    // 前 K 行按 id 从小到大排
    sort(row+1, row+K+1, cmp2);
    sort(col+1, col+L+1, cmp2);

    for (int i = 1; i <= K; ++i) cout << row[i].id << " ";
    cout << endl;
    for (int i = 1; i <= L; ++i) cout << col[i].id << " ";
    cout << endl;
    return 0;
}
```

**P4552 [Poetize6] IncDec Sequence**

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

using namespace std;
```

```
typedef long long LL;
const int maxn = 1e5 + 5;
LL a[maxn], s[maxn];

int main()
{
    int n; cin >> n;
    for (int i = 1; i <= n; ++i) cin >> a[i];
    for (int i = 2; i <= n; ++i) s[i] = a[i] - a[i-1];

    LL sum1 = 0, sum2 = 0;
    for (int i = 2; i <= n; ++i) {
        if (s[i] > 0) sum1 += s[i];
        else sum2 -= s[i];
    }

    cout << max(sum1, sum2) << endl;
    cout << abs(sum1-sum2)+1 << endl;
    return 0;
}
```