

# Final Day

## 人员

郭栩睿、罗启宸、邹忆航、徐本正、张曦月、李沛都、宋吉相、崔宸赫、温郝冬 到课, 陶汇笙、王恩泽 线上

## 作业检查

上周作业链接: <https://www.luogu.com.cn/contest/222238>

2024-1228周六10:30

报名

编辑比赛

题目数6 | 报名人数15

比赛说明 | 题目列表 | 排行榜

名次	参赛者	总分	A	B	C	D	E	F
#1	陶汇笙	500 (1.05d)	100 (23.75min)	100 (30.50min)	100 (31.78min)	100 (22.54h)	100 (1.28h)	
#2	邹忆航	500 (13.08d)	100 (23.80min)	100 (35.65min)	100 (1.29h)	100 (6.51d)	100 (6.47d)	
#3	宋吉相	412 (13.35d)	100 (29.33min)	100 (45.93min)	100 (4.41d)	12 (4.45d)	100 (4.44d)	
#4	王恩泽	400 (3.08h)	100 (23.77min)	100 (34.63min)	100 (46.17min)		100 (1.34h)	
#5	洪晨栋	400 (3.29h)	100 (23.65min)	100 (32.63min)	100 (1.00h)		100 (1.36h)	
#6	郭栩睿	376 (4.54d)	100 (24.08min)	100 (38.60min)	100 (59.13min)	76 (4.46d)		
#7	张曦月	342 (6.75d)	100 (31.05min)	100 (46.73min)	100 (1.38h)	12 (2.02h)	30 (6.55d)	
#8	洪晨棋	300 (1.94h)	100 (9.00min)	100 (33.82min)	100 (1.22h)			
#9	徐本正	300 (3.29h)	100 (24.77min)	100 (51.45min)	100 (2.02h)			
#10	罗启宸	270 (10.68d)	100 (5.32d)	70 (32.77min)			100 (5.33d)	
#11	崔宸赫	200 (1.54h)	100 (40.40min)	100 (51.87min)				
#12	李沛都	200 (13.89d)	100 (6.94d)	100 (6.95d)				

您正在共享屏幕 结束共享

## 作业

<https://www.luogu.com.cn/contest/223228>

## 课堂表现

今天课上题目比较多, 有些同学课上做题慢一些的, 可能还剩较多题目没有完成, 这些同学课下一定要好好补完没做的题目。

## 课堂内容

P1007 独木桥

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

using namespace std;

int main()
{
    int L, n; cin >> L >> n;
    int res1 = 0, res2 = 0;
    for (int i = 1; i <= n; ++i) {
        int x; cin >> x;
        res1 = max(res1, min(x, L+1-x));
        res2 = max(res2, max(x, L+1-x));
    }

    cout << res1 << " " << res2 << endl;
    return 0;
}
```

### P1478 陶陶摘苹果 (升级版)

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

using namespace std;

struct node {
    int x, y;
};
const int maxn = 5000 + 5;
node w[maxn];

bool cmp(node p, node q) {
    return p.y < q.y;
}

int main()
{
    int n, s; cin >> n >> s;
    int a, b; cin >> a >> b;
    for (int i = 1; i <= n; i++) {
        cin >> w[i].x >> w[i].y;
    }
    sort(w+1, w+n+1, cmp);

    int cnt = 0;
    for (int i = 1; i <= n; i++) {
        if (w[i].x <= a+b && s >= w[i].y) {
            cnt++;
            s -= w[i].y;
        }
    }
}
```

```

    cout << cnt << endl;
    return 0;
}

```

## AT\_abc228\_c Final Day

```

struct node {
    int sum, id;
};

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

for (int i = 1; i <= n; i++) {
    int a, b, c;
    cin >> a >> b >> c;
    a[i].sum = a+b+c;
    a[i].id = i;
}

sort(a+1, a+n+1, cmp);

bool ans[maxn];

for (int i = 1; i <= n; i++) {
    if (a[i].sum+300 >= a[k].sum) {
        ans[a[i].id] = true;
    }
}

```

## AT\_abc230\_c X drawing

```

1. max(1-A, 1-B) <= k <= min(N-A, N-B) -> (A+k, B+k)
2. max(1-A, B-N) <= k <= min(N-A, B-1) -> (A+k, B-k)

bool check(int x, int y) {
    // 点 (x,y) 如果是黑, 返回 true; 如果是白, 返回 false
    int k1 = x-A, k2 = y-B;
    if (k1==k2 && ...<=k1<=...) return true;

    int k3 = ..., k4 = ...;
    if (k3==k4 && ...<=k3<=...) return true;
    return false;
}

for (int i = P; i <= Q; i++) {
    for (int j = R; j <= S; j++) {

```

```
        if (check(i,j)) cout << "#";  
        else cout << ".";  
    }  
    cout << endl;  
}
```