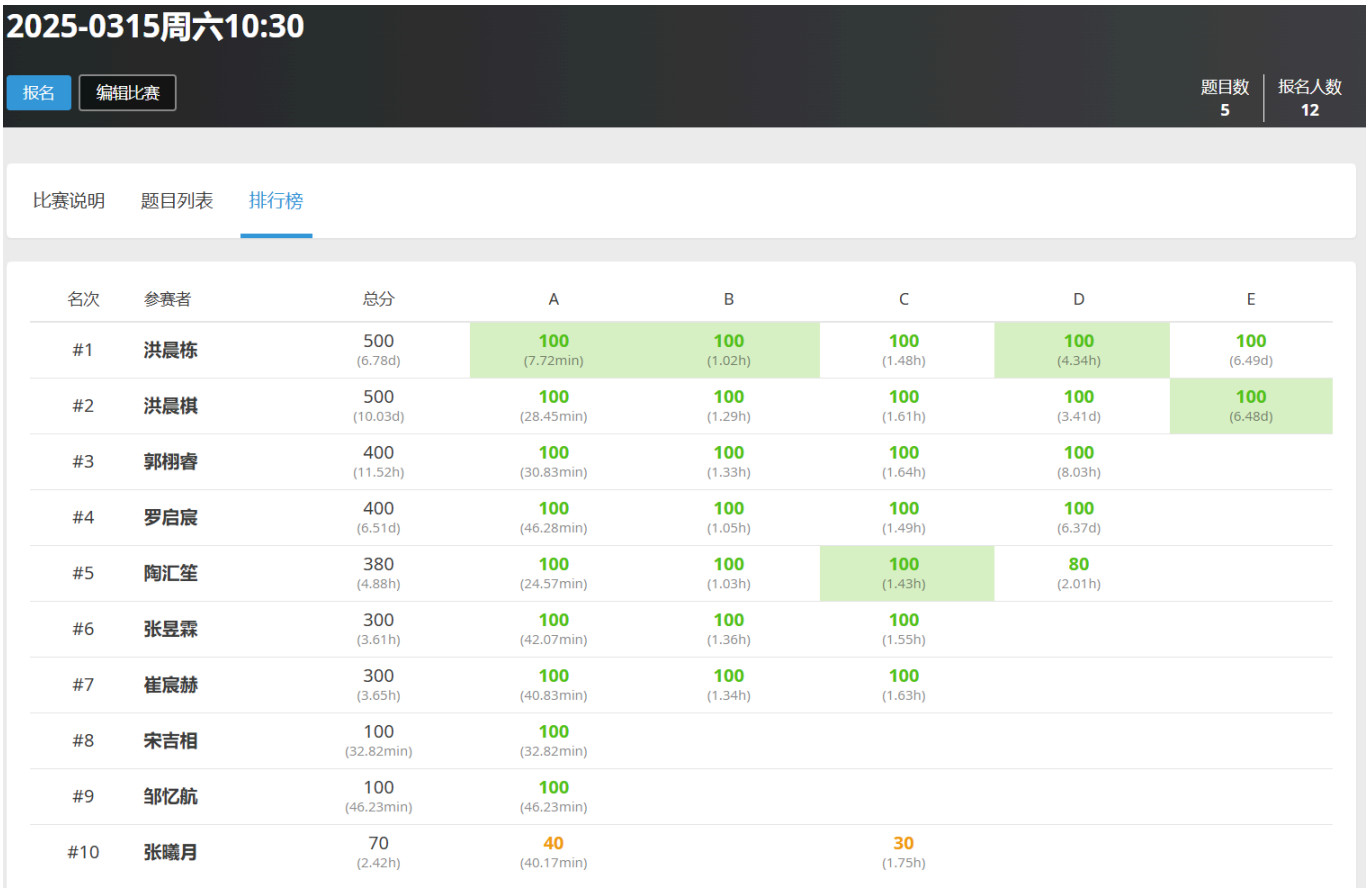
前缀最小/最大值

人员

洪晨栋、洪晨棋、陶汇笙、崔宸赫、罗启宸、郭栩睿 到课

作业检查

上周作业链接: https://www.luogu.com.cn/contest/236094



2025-0315周六10:30

报名 编辑比赛 题目数 5 报名人数 12

比赛说明 题目列表 排行榜

名次	参赛者	总分	A	B	C	D	E
#1	洪晨栋	500 (6.78d)	100 (7.72min)	100 (1.02h)	100 (1.48h)	100 (4.34h)	100 (6.49d)
#2	洪晨棋	500 (10.03d)	100 (28.45min)	100 (1.29h)	100 (1.61h)	100 (3.41d)	100 (6.48d)
#3	郭栩睿	400 (11.52h)	100 (30.83min)	100 (1.33h)	100 (1.64h)	100 (8.03h)	
#4	罗启宸	400 (6.51d)	100 (46.28min)	100 (1.05h)	100 (1.49h)	100 (6.37d)	
#5	陶汇笙	380 (4.88h)	100 (24.57min)	100 (1.03h)	100 (1.43h)	80 (2.01h)	
#6	张昱霖	300 (3.61h)	100 (42.07min)	100 (1.36h)	100 (1.55h)		
#7	崔宸赫	300 (3.65h)	100 (40.83min)	100 (1.34h)	100 (1.63h)		
#8	宋吉相	100 (32.82min)	100 (32.82min)				
#9	邹忆航	100 (46.23min)	100 (46.23min)				
#10	张曦月	70 (2.42h)	40 (40.17min)		30 (1.75h)		

作业

https://www.luogu.com.cn/contest/237595 (课上讲了 A ~ D 这些题, 课后作业是 E F 题)

课堂表现

今天课上的题目有几个同学有许多细节问题处理不到位, 在老师帮助下才完成, 自己没做出来的课下要重新做一遍。

课堂内容

P1318 积水面积

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

```cpp
using namespace std;

const int maxn = 5000 + 5;
int w[maxn];

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

    int res = 0;
    for (int i = 2; i <= n-1; ++i) {
        int lmaxx = 0, rmaxx = 0;
        for (int j = 1; j <= i-1; ++j) lmaxx = max(lmaxx, w[j]);
        for (int j = i+1; j <= n; ++j) rmaxx = max(rmaxx, w[j]);
        res += max(min(lmaxx,rmaxx)-w[i], 0);
    }
    cout << res << endl;
    return 0;
}
```

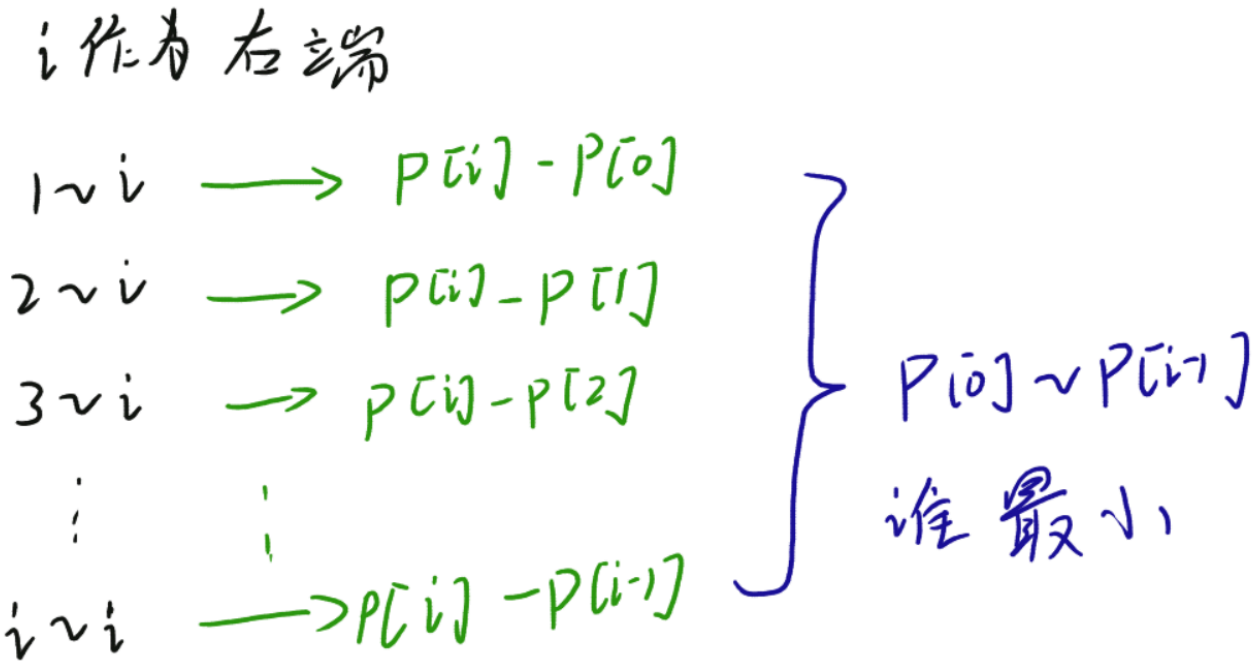
U545755 积水面积2

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

using namespace std;

typedef long long LL;
const int maxn = 1e6 + 5;
int w[maxn];
int p_maxx[maxn], s_maxx[maxn];

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

    for (int i = 1; i <= n; ++i) p_maxx[i] = max(p_maxx[i-1], w[i]);
    for (int i = n; i >= 1; --i) s_maxx[i] = max(s_maxx[i+1], w[i]);

    LL res = 0;
    for (int i = 2; i <= n-1; ++i) {
        int lmaxx = p_maxx[i-1], rmaxx = s_maxx[i+1];
        res += max(min(lmaxx,rmaxx)-w[i], 0);
    }
    cout << res << endl;
    return 0;
}
```

U545760 找两数之差的最小值

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

using namespace std;

const int maxn = 1e6 + 5;
int w[maxn], p_minn[maxn];

int main()
{
    int n; cin >> n;
    for (int i = 1; i <= n; ++i) cin >> w[i];
    p_minn[1] = w[1];
    for (int i = 2; i <= n; ++i) p_minn[i] = min(p_minn[i-1], w[i]);

    int res = -2e9-10;
    for (int i = 2; i <= n; ++i) res = max(res, w[i]-p_minn[i-1]);
    cout << res << endl;
    return 0;
}
```

P1115 最大子段和




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

using namespace std;

const int maxn = 2e5 + 5;
int w[maxn], p[maxn];
int p_min[maxn];
```

```
int main()
{
  int n; cin >> n;
  int res = -1000;
  for (int i = 1; i <= n; ++i) {
    cin >> w[i], p[i] = p[i-1] + w[i];
    p_min[i] = min(p_min[i-1], p[i]);
    res = max(res, p[i] - p_min[i-1]);
  }
  cout << res << endl;
  return 0;
}
```