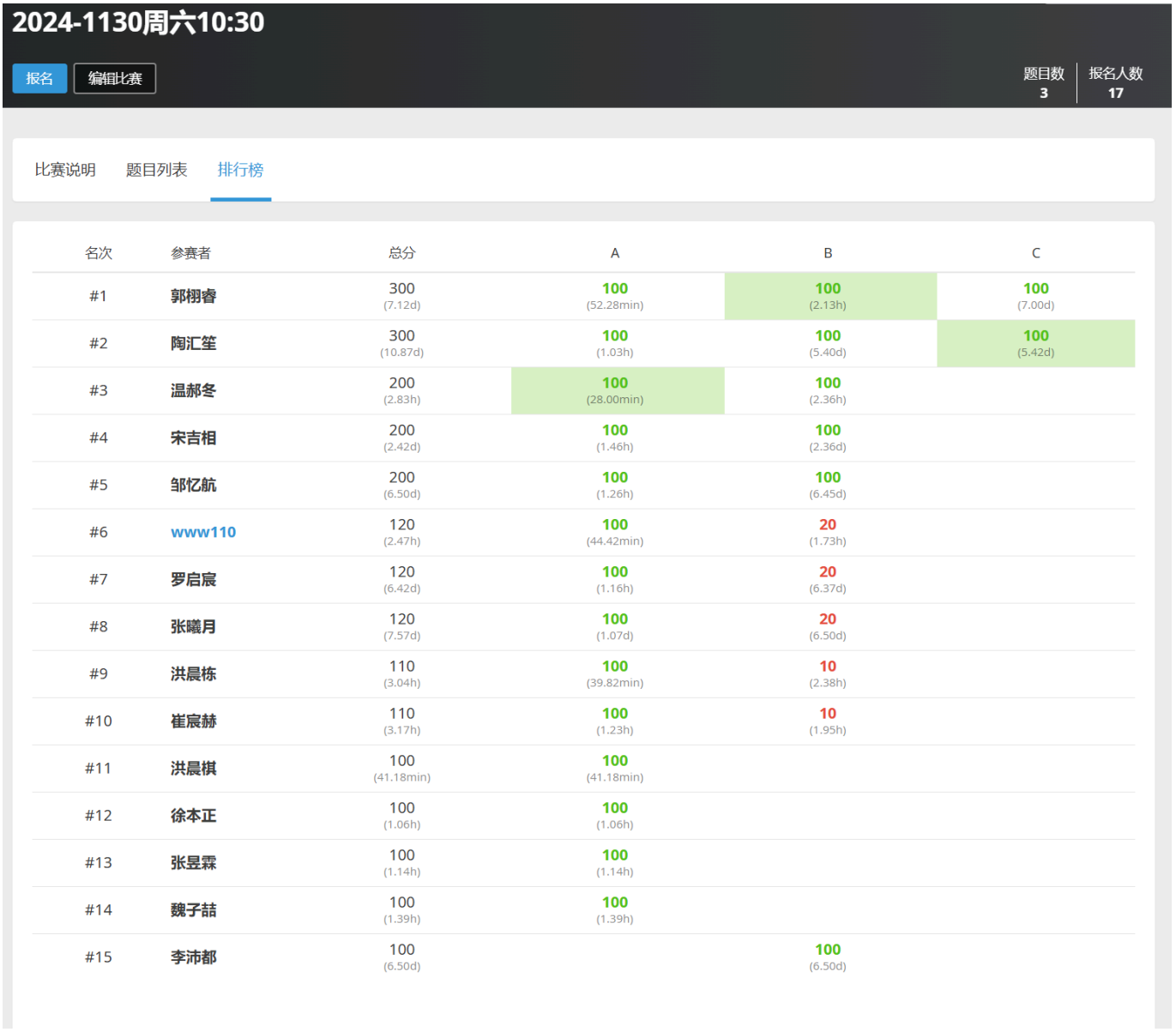
开关灯问题

人员

陶汇笙、邹忆航、郭栩睿、温郝冬、洪晨栋、洪晨棋、徐本正、王静嘉、罗启宸、张曦月、郭恩名、李沛都 到课

作业检查

上周作业链接: https://www.luogu.com.cn/contest/217306



2024-1130周六10:30

报名 编辑比赛

题目数 3 | 报名人数 17

比赛说明 题目列表 排行榜

名次	参赛者	总分	A	B	C
#1	郭栩睿	300 (7.12d)	100 (52.28min)	100 (2.13h)	100 (7.00d)
#2	陶汇笙	300 (10.87d)	100 (1.03h)	100 (5.40d)	100 (5.42d)
#3	温郝冬	200 (2.83h)	100 (28.00min)	100 (2.36h)	
#4	宋吉相	200 (2.42d)	100 (1.46h)	100 (2.36d)	
#5	邹忆航	200 (6.50d)	100 (1.26h)	100 (6.45d)	
#6	www110	120 (2.47h)	100 (44.42min)	20 (1.73h)	
#7	罗启宸	120 (6.42d)	100 (1.16h)	20 (6.37d)	
#8	张曦月	120 (7.57d)	100 (1.07d)	20 (6.50d)	
#9	洪晨栋	110 (3.04h)	100 (39.82min)	10 (2.38h)	
#10	崔宸赫	110 (3.17h)	100 (1.23h)	10 (1.95h)	
#11	洪晨棋	100 (41.18min)	100 (41.18min)		
#12	徐本正	100 (1.06h)	100 (1.06h)		
#13	张昱霖	100 (1.14h)	100 (1.14h)		
#14	魏子喆	100 (1.39h)	100 (1.39h)		
#15	李沛都	100 (6.50d)		100 (6.50d)	

作业

https://www.luogu.com.cn/contest/218652

课堂表现

今天课上用 OI 赛制让同学们做题, 很多同学不太熟悉这个赛制, 主要目的是要提高同学们的细心程度, 以后做题时要足够细心, 考虑全所有情况

课堂内容

U512584 competition

1. a b c
2. 先看 a, 再看 b, 再看 c

   看a:

   ```
   1. 要么第一名  ->  a>=b && a>=c
   2. 要么第二名  ->
   3. 要么第三名  ->  a<b && a<c
   ```

```cpp
// 方法一
#include <bits/stdc++.h>

using namespace std;

int main()
{
    int a, b, c;
    cin >> a >> b >> c;
    int jl;
    cin >> jl;
    int suma = 0, sumb = 0, sumc = 0;

    if (a>=b && a>=c) suma = 4;
    else if (a<b && a<c) suma = 1;
    else suma = 2;

    if (b>=a && b>=c) sumb = 4;
    else if (b<a && b<c) sumb = 1;
    else sumb = 2;

    if (c>=a && c>=b) sumc = 4;
    else if (c<a && c<b) sumc = 1;
    else sumc = 2;

    if (a > jl) suma *= 2;
    if (b > jl) sumb *= 2;
    if (c > jl) sumc *= 2;

    cout << suma << " " << sumb << " " << sumc << endl;
```

```
    return 0;
}

/*
10 10 10
5
8 8 8


10 10 10
10
4 4 4


10 10 5
8
8 8 1


10 5 5
8
8 2 2


10 9 8
9
8 2 1
*/
```

```
// 方法二
#include <bits/stdc++.h>

using namespace std;

int a[10], c[10];

int main()
{
    for (int i = 1; i <= 3; i++) cin >> a[i];
    int jl;
    cin >> jl;

    a[4] = a[1], a[5] = a[2];
    for (int i = 1; i <= 3; i++) {
        // a[i]: a[i+1], a[i+2]
        if (a[i]>=a[i+1] && a[i]>=a[i+2]) c[i] = 4;
        else if (a[i]<a[i+1] && a[i]<a[i+2]) c[i] = 1;
        else c[i] = 2;

        if (a[i] > jl) c[i] *= 2;
    }
```

```
    for (int i = 1; i <= 3; i++) cout << c[i] << " ";
    cout << endl;
    return 0;
}
```

U512585 b

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

using namespace std;

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

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

  sort(w+1, w+n+1);

  for (int i = 2; i <= n; ++i) a[i-1] = (w[i] - w[i-1] - 1);
  sort(a+1, a+n);

  int res = n;
  for (int i = 1; i <= n-k; ++i) {
    res += a[i];
  }

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

AT_abc223_c Doukasen

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

using namespace std;

const int N = 1e5 + 10;

int a[N],b[N];

int main() {
    int n;
    cin >> n;
    double sum = 0;
    for (int i=1;i<=n;i++) {
```

```
        cin >> a[i] >> b[i];
        sum += 1.0 * a[i] / b[i];
    }

    sum /= 2;
    double ans = 0;
    for (int i=1;i<=n;i++) {
        if (1.0 * a[i] / b[i] <= sum) {
            ans += a[i], sum -= 1.0*a[i]/b[i];
        } else {
            ans += b[i]*sum;
            break;
        }
    }

    printf("%.15lf",ans);
    return 0;
}
```