综合混练
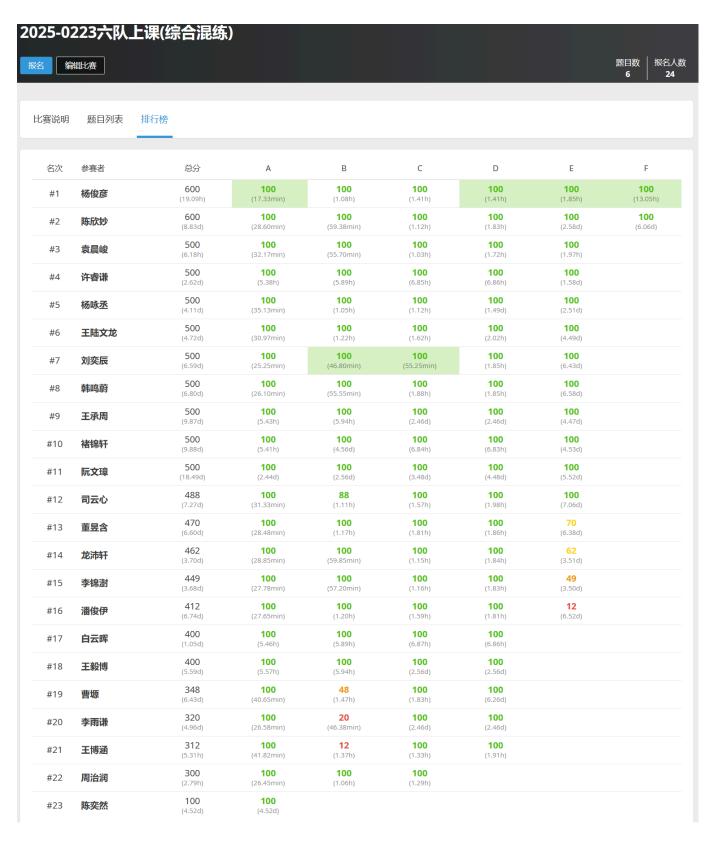
人员

杨咏丞、李雨谦、韩鸣蔚、王博涵、陈欣妙、刘奕辰、曹塬、董昱含、杨俊彦、龙沛轩、王陆文龙、李锦澍、周治润、潘俊伊、袁晨峻 到课, 司云心 线上

上周作业检查

https://www.luogu.com.cn/contest/232369

2025-0223六队上课(综合混练)

报名 编辑比赛

题目数 **6** 报名人数 **24**

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	杨俊彦	600 (19.09h)	100 (17.33min)	100 (1.08h)	100 (1.41h)	100 (1.41h)	100 (1.85h)	100 (13.05h)
#2	陈欣妙	600 (8.83d)	100 (28.60min)	100 (59.38min)	100 (1.12h)	100 (1.83h)	100 (2.58d)	100 (6.06d)
#3	袁晨峻	500 (6.18h)	100 (32.17min)	100 (55.70min)	100 (1.03h)	100 (1.72h)	100 (1.97h)	
#4	许睿谦	500 (2.62d)	100 (5.38h)	100 (5.89h)	100 (6.85h)	100 (6.86h)	100 (1.58d)	
#5	杨咏丞	500 (4.11d)	100 (35.13min)	100 (1.05h)	100 (1.12h)	100 (1.49d)	100 (2.51d)	
#6	王陆文龙	500 (4.72d)	100 (30.97min)	100 (1.22h)	100 (1.62h)	100 (2.02h)	100 (4.49d)	
#7	刘奕辰	500 (6.59d)	100 (25.25min)	100 (46.80min)	100 (55.25min)	100 (1.85h)	100 (6.43d)	
#8	韩鸣蔚	500 (6.80d)	100 (26.10min)	100 (55.55min)	100 (1.88h)	100 (1.85h)	100 (6.58d)	
#9	王承周	500 (9.87d)	100 (5.43h)	100 (5.94h)	100 (2.46d)	100 (2.46d)	100 (4.47d)	
#10	褚锦轩	500 (9.88d)	100 (5.41h)	100 (4.56d)	100 (6.84h)	100 (6.83h)	100 (4.53d)	
#11	阮文璋	500 (18.49d)	100 (2.44d)	100 (2.56d)	100 (3.48d)	100 (4.48d)	100 (5.52d)	
#12	司云心	488 (7.27d)	100 (31.33min)	88 (1.11h)	100 (1.57h)	100 (1.98h)	100 (7.06d)	
#13	董昱含	470 (6.60d)	100 (28.48min)	100 (1.17h)	100 (1.81h)	100 (1.86h)	70 (6.38d)	
#14	龙沛轩	462 (3.70d)	100 (28.85min)	100 (59.85min)	100 (1.15h)	100 (1.84h)	62 (3.51d)	
#15	李锦澍	449 (3.68d)	100 (27.78min)	100 (57.20min)	100 (1.16h)	100 (1.83h)	49 (3.50d)	
#16	潘俊伊	412 (6.74d)	100 (27.65min)	100 (1.20h)	100 (1.59h)	100 (1.81h)	12 (6.52d)	
#17	白云晖	400 (1.05d)	100 (5.46h)	100 (5.89h)	100 (6.87h)	100 (6.86h)		
#18	王毅博	400 (5.59d)	100 (5.57h)	100 (5.94h)	100 (2.56d)	100 (2.56d)		
#19	曹塬	348 (6.43d)	100 (40.65min)	48 (1.47h)	100 (1.83h)	100 (6.26d)		
#20	李雨谦	320 (4.96d)	100 (26.58min)	20 (46.38min)	100 (2.46d)	100 (2.46d)		
#21	王博涵	312 (5.31h)	100 (41.82min)	12 (1.37h)	100 (1.33h)	100 (1.91h)		
#22	周治润	300 (2.79h)	100 (26.45min)	100 (1.06h)	100 (1.29h)			
#23	陈奕然	100 (4.52d)	100 (4.52d)					

作业

https://www.luogu.com.cn/contest/233685 (课上讲了 A~D 题, 课后作业是 E、F 题)

课堂表现

今天课上绝大部分同学听讲做题都很认真, 只有几位同学讲话有点多, 以后要进行改正。

课堂内容

U532369 transmit

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

using namespace std;

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

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

    int id = 1;
    for (long long i = 1; i <= k; i++) {
        id = w[id];
        if (p[id] != 0) {
            int t = i - p[id];
            k -= i;
            k %= t;
            for (int j = 1; j <= k; j++) {
                id = w[id];
            }
            cout << id << endl;
            return 0;
        } else {
            p[id] = i;
        }
    }
    cout << id << endl;
    return 0;
}
```

U516880 palindrome

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

using namespace std;

typedef long long LL;

int calc(string t) {
    int cnt = 0;
    for (int i = 0, j = t.size()-1; i<j; i++, j--) {
        if (t[i] != t[j]) cnt++;
    }
    return cnt;
```

```
}

int main()
{
    LL n, a, b; cin >> n >> a >> b;
    string s; cin >> s;

    LL minn = 1e18;
    for (int i = 0; i < n; i++) {
        string t = s.substr(i) + s.substr(0, i);
        int len = calc(t);
        long long c = i*a + len*b;
        minn = min(minn, c);
    }
    cout << minn << endl;
    return 0;
}
```

U536903 replace

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

using namespace std;

int main()
{
  long long n, k; cin >> n >> k;
  cout << min(n%k, k-n%k) << endl;
  return 0;
}
```

U534223 variable

```
#include <bits/stdc++.h>
using namespace std;
typedef long long LL;

int calc(int x) {
    int cnt = 0;
    for (int i = 1; i*i <= x; i++) {
        if (x%i == 0) {
            if (i*i == x) cnt++;
            else cnt += 2;
        }
    }
    return cnt;
}
```

```cpp
int main() {
    int n; cin >> n;
    LL res = 0;
    for (int i = 1; i <= n-1; i++) {
        int j = n-i;
        res += (LL)calc(i) * calc(j);
    }
    cout << res << endl;
    return 0;
}
```

P8649 [蓝桥杯 2017 省 B] k 倍区间

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

using namespace std;

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

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

    f[0] = 1;
    for (int i = 1; i <= n; ++i) {
        int t = p[i] % k;
        f[t]++;
    }

    long long cnt = 0;
    for (int i = 0; i < k; ++i) cnt += (long long)f[i]*(f[i]-1)/2;
    cout << cnt << endl;
    return 0;
}
```

U516892 flip

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

using namespace std;

int main()
{
```

```cpp
    int T; cin >> T;
    for (int i = 1; i <= T; i++) {
        int n; string s;
        cin >> n >> s;
        int cnt = 0;
        for (int j = 0; j < n; j++) {
            if (s[j] == '1') cnt++;
        }

        if (cnt%2 == 1) cout << -1 << endl;
        else {
            if (cnt != 2) cout << cnt/2 << endl;
            else {
                int l = s.find("1"), r = s.rfind("1");
                if (l+1 != r) cout << 1 << endl;
                else {
                    if (s=="011" || s=="110") cout << -1 << endl;
                    else if (s == "0110") cout << 3 << endl;
                    else cout << 2 << endl;
                }
            }
        }
    }
    return 0;
}
```