

杂题混练

人员

穆鹏宇、程晟泰、胡赫轩、崔嘉睿、窦浩轩、蔡云翔 到课

上周作业检查

Begin: 2025-01-25 08:30 CST

☆👥 2025-0125 ~ 0126 三队上课

End: 2025-05-30 08:30 CST

Elapsed: 14:00:03:35

Running

Remaining: 110:23:56:24

Overview

Problem

Status

Rank (14:00:03:33)

Discuss

Setting

Clone

Update

Delete

Rank	Team	Score	Penalty	A	B	C
				4 / 11	2 / 32	3 / 3
1	☆👤 syzxiangyuhan (梁钰...)	3	3688	0:39:02	1:04:49:48 (-3)	1:06:59:23
2	☆🇩🇪 ssine233 (穆鹏宇)	3	15182	0:52:11 (-4)	5:12:10:16 (-19)	4:16:19:57
3	☆👤 Cst_AK_IOI (程晟泰)	2	19233	0:53:18 (-3)	(-4)	13:06:40:10
4	☆🇩🇪 James00123 (杨洋)	1	1768	1:05:28:49	(-4)	

作业

https://vjudge.net/contest/691785

课堂表现

同学们课上做题, 有些细节问题把握不好, 以后要注意细节问题。

课堂内容

Gym - 102769E

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

using namespace std;

typedef long long LL;
const int maxn = 2e5 + 5;
struct node {
    int value, id;
    bool operator < (const node& p) const { return value < p.value; }
} w[maxn*2];

int solve() {
    int n, p; cin >> n >> p;
    for (int i = 1; i <= n; ++i) {
```

```

    int a, b; cin >> a >> b;
    w[i] = {a, i}, w[n+i] = {b, i};
}
sort(w+1, w+2*n+1);

map<int, int> mp1, mp2;
int res = 0, cnt = 0;
for (int i = 1, j = 1; j <= 2*n; ++j) {
    mp1[w[j].id]++, mp2[w[j].id]++;
    if (mp2[w[j].id] == 1) ++cnt;
    while (i <= j && (LL)w[i].value*100 < (LL)w[j].value*p) {
        mp1[w[i].id]--;
        if (mp1[w[i].id] == 0) mp1.erase(w[i].id);
        ++i;
    }
    if (cnt >= n) res = max(res, (int)mp1.size());
}
return res;
}

int main()
{
    ios::sync_with_stdio(false);
    cin.tie(0);
    int T; cin >> T;
    for (int i = 1; i <= T; ++i) cout << "Case #" << i << ": " << solve() << "\n";
    return 0;
}

```

CF335B Palindrome

```

#include <bits/stdc++.h>

using namespace std;

const int N = 5e4 + 5, M = 2600 + 5;
char s[N];
int f[M][M];

string dfs(int l, int r, int len) {
    if (len == 0) return "";
    if (len == 1) { string t; t += s[l]; return t; }

    if (s[l] == s[r] && f[l][r] == f[l+1][r-1] + 2) return s[l] + dfs(l+1, r-1, len-2) + s[r];
    if (f[l][r] == f[l][r-1]) return dfs(l, r-1, len);
    return dfs(l+1, r, len);
}

int main()

```

```

{
    cin >> (s+1);
    int n = strlen(s+1);
    if (n >= 2600) {
        map<char, int> mp;
        for (int i = 1; i <= n; ++i) mp[s[i]]++;
        for (char i = 'a'; i <= 'z'; ++i) {
            if (mp[i] >= 100) {
                for (int j = 1; j <= 100; ++j) cout << i;
                cout << endl;
                return 0;
            }
        }
    }
}

for (int i = 1; i <= n; ++i) f[i][i] = 1;
for (int len = 2; len <= n; ++len) {
    for (int i = 1; i+len-1 <= n; ++i) {
        int j = i + len - 1;
        f[i][j] = max(f[i][j-1], f[i+1][j]);
        if (s[i] == s[j]) f[i][j] = max(f[i][j], f[i+1][j-1]+2);
    }
}

cout << dfs(1, n, min(100, f[1][n])) << endl;
return 0;
}

```

CF1630B Range and Partition

```

#include <bits/stdc++.h>

using namespace std;

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

void solve() {
    int n, k; cin >> n >> k;
    for (int i = 1; i <= n; ++i) cin >> w[i], a[i] = w[i];
    sort(w+1, w+n+1);

    int res = 1e9, resl = -1, resr = -1;
    for (int i = 1, j = 1; j <= n; ++j) {
        int len1 = j-i+1;
        int len2 = n - len1;
        if (len1 - len2 >= k) {
            if (w[j] - w[i] < res) {
                res = w[j] - w[i], resl = w[i], resr = w[j];
            }
        }
        ++i;
    }
}

```

```
    }  
}  
  
cout << resl << " " << resr << endl;  
if (k == 1) { cout << 1 << " " << n << endl; return; }  
  
int sum1 = 0, sum2 = 0, last = 1;  
for (int i = 1; i <= n; ++i) {  
    if (a[i]>=resl && a[i]<=resr) ++sum1;  
    else ++sum2;  
  
    if (k>=2 && sum1>sum2) {  
        cout << last << " " << i << endl;  
        last = i+1, sum1 = 0, sum2 = 0;  
        --k;  
        if (k == 1) {  
            cout << i+1 << " " << n << endl;  
            return;  
        }  
    }  
}  
}  
  
int main()  
{  
    int T; cin >> T;  
    while (T -- ) solve();  
    return 0;  
}
```