

change

人员

李瑞涵、李知朔、温郝冬、田心一、王馨琪、刘子轩、柳力玮、燕润石、谢梓轩、宋云朗、初锦阳 到课, 董岱诚 线上

上周作业检查

上周作业链接: <https://www.luogu.com.cn/contest/228372>

名次	参赛者	总分	A	B	C	D	E	F
#1	李瑞涵	600 (17.89h)	100 (1.92h)	100 (2.18h)	100 (3.22h)	100 (3.32h)	100 (3.54h)	100 (3.71h)
#2	田心一	600 (24.86d)	100 (1.77h)	100 (2.19h)	100 (13.07d)	100 (3.32h)	100 (3.58h)	100 (13.01d)
#3	赵牧之	600 (24.86d)	100 (4.32d)	100 (4.32d)	100 (6.33d)	100 (5.95d)	100 (5.96d)	100 (5.97d)
#4	柳力玮	600 (24.86d)	100 (6.85d)	100 (6.86d)	100 (9.31d)	100 (9.30d)	100 (9.31d)	100 (9.32d)
#5	李知朔	520 (17.70d)	100 (1.92h)	100 (2.30h)	100 (8.16d)	100 (3.45h)	100 (3.59h)	20 (9.07d)
#6	王馨琪	500 (13.97h)	100 (1.90h)	100 (2.31h)	100 (2.93h)	100 (3.32h)	100 (3.51h)	
#7	温郝冬	480 (14.40h)	100 (1.95h)	100 (2.20h)	100 (3.17h)	100 (3.47h)	80 (3.61h)	
#8	韩昱辰	430 (14.51h)	100 (1.96h)	100 (2.25h)	30 (3.18h)	100 (3.49h)	100 (3.63h)	
#9	周沁言	310 (10.85h)	100 (1.95h)	100 (2.28h)	10 (3.12h)	100 (3.50h)		
#10	董岱诚	300 (7.26h)		100 (2.11h)	100 (2.56h)	100 (2.59h)		
#11	苑钊	280 (14.83d)	100 (2.82d)			80 (2.82d)	100 (9.19d)	
#12	刘子轩	250 (6.96h)	100 (1.93h)	100 (2.20h)	50 (2.82h)			
#13	纪博涵	200 (23.67d)	100 (11.83d)			100 (11.84d)		

作业

<https://www.luogu.com.cn/contest/230039> (课上讲了 A~D 4 个题, 课后作业是 E 题)

课堂表现

同学们今天课上做题表现整体还不错, 希望同学们继续保持。

课堂内容

P1138 第 k 小整数

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

using namespace std;
```

```

int w[10005];

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

    int cnt = 0;
    for (int i = 1; i <= n; i++) {
        if (w[i] != w[i-1]) {
            cnt++;
            if (cnt == k) {
                cout << w[i] << endl;
                return 0;
            }
        }
    }

    cout << "NO RESULT" << endl;
    return 0;
}

```

B3674 [语言月赛202210] 标题修改

判断小写: islower()
 判断大写: isupper()
 判断数字: isdigit()
 判断字母: isalpha() == islower() || isupper()
 转小写: tolower()
 转大写: toupper()

```

#include <bits/stdc++.h>

using namespace std;

int main()
{
    string s;
    while (cin >> s) {
        int n = s.size();
        for (int i = 0; i < n; i += 2) {
            if (s[i] >= 'a' && s[i] <= 'z') {
                s[i] = s[i] - 'a' + 'A';
            }
        }
    }
}

```

```

        for (int i = 1; i < n; i += 2) {
            if (s[i] >= 'A' && s[i] <= 'Z') {
                s[i] = s[i] - 'A' + 'a';
            }
        }
        cout << s << " ";
    }
    return 0;
}

```

```

// 方法二
#include <bits/stdc++.h>

using namespace std;

int main()
{
    string s;
    while (cin >> s) {
        int n = s.size();
        for (int i = 0; i < n; i += 2) {
            s[i] = toupper(s[i]);
        }
        for (int i = 1; i < n; i += 2) {
            s[i] = tolower(s[i]);
        }
        cout << s << " ";
    }
    return 0;
}

```

P1459 [USACO2.1] 三值的排序 Sorting a Three-Valued Sequence

- 统计 1/2/3 的数量
cnt1, cnt2, cnt3
- 要看 1~cnt1 中有几个不是 1 的 -> 说明要交换几次
看一下这里面有几个 2, 几个 3
这些 2/3 需要跟后面的 1 进行交换
2 尽量往前放, 3 尽量往后放
- 再看 cnt1~cnt2 中有几个不是 2 的

```

#include <bits/stdc++.h>

using namespace std;

```

```
int a[1005];

int main()
{
    int n; cin >> n;
    int cnt1 = 0, cnt2 = 0, cnt3 = 0;
    for (int i = 1; i <= n; i++) {
        cin >> a[i];
        if (a[i] == 1) cnt1++;
        else if (a[i] == 2) cnt2++;
        else cnt3++;
    }

    int res = 0, c2 = 0, c3 = 0;
    for (int i = 1; i <= cnt1; i++) {
        if (a[i] == 2) res++, c2++;
        else if (a[i] == 3) res++, c3++;
    }

    for (int i = cnt1+1; i <= n; i++) {
        if (a[i] == 1) {
            if (c2 > 0) {
                a[i] = 2;
                c2--;
            } else {
                a[i] = 3;
            }
        }
    }

    for (int i = cnt1+1; i <= cnt1+cnt2; i++) {
        if (a[i] != 2) {
            res++;
        }
    }
    cout << res << endl;
    return 0;
}
```

U516883 change

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

using namespace std;

char s[500005];
int op[500005], x[500005];
char c[500005];

int main()
{
```

```
int n; cin >> n;
cin >> (s+1);
int m; cin >> m;
for (int i = 1; i <= m; i++) {
    cin >> op[i] >> x[i] >> c[i];
}

int id = 0;
for (int i = m; i >= 1; i--) {
    if (op[i]==2 || op[i]==3) {
        id = i;
        break;
    }
}

for (int i = 1; i <= m; i++) {
    if (op[i] == 1) s[x[i]] = c[i];
    else {
        if (i == id) {
            if (op[i] == 2) {
                for (int j = 1; j <= n; j++) {
                    s[j] = tolower(s[j]);
                }
            } else {
                for (int j = 1; j <= n; j++) {
                    s[j] = toupper(s[j]);
                }
            }
        }
    }
}

cout << (s+1) << endl;
return 0;
}
```