Algorithm Template\Personal Habit.cpp

```
/**
 1
    * cf中不要轻易使用memset,尽量使用 for(int i = 0; i < n; ++i) 重置
 2
           t = 1e5 n 永远等于 1 -> G
 3
4
 5
    * n * m 等,如果n和m不相同等情况,多加考虑n和m,按n/m考虑
 6
 7
    * https://www.cnblogs.com/lipoicyclic/p/12311394.html
8
9
    * fast OI 超级快读
10
   */
   #include <iostream>
11
   #include <vector>
12
   #include <string>
13
14 #include <cstring>
15 | #include <set>
16
   #include <map>
   #include <unordered map>
17
18
   #include <queue>
19
   #include <ctime>
20
   #include <random>
   #include <bitset> // 是由int型拼接的, e.g. 1000位bitset 操作时间复杂度 O( 1000 / (大于等于
21
   32))
22
   #include <sstream>
23
   #include <numeric>
   #include <stdio.h>
24
25
   #include <algorithm>
   using namespace std;
26
       /**
27
        * 浮点数读入:
28
               double, 少用float
29
30
               scanf("%.1f",&d);
               printf("%.f",d);
31
                   --- 语句说的 2023年8月4日
32
33
       */
34
35
   // #define Multiple groups of examples
36
   #define dbgnb(a) std::cout << #a << " = " << a << '\n';
   #define IOS std::cout.tie(0);std::cin.tie(0)->sync with stdio(false);
37
   #define dbgtt cout<<" !!!test!!! "<<endl;</pre>
38
39
   #define rep(i,x,n) for(int i = x; i \le n; i++)
40
41
   #define all(x) (x).begin(),(x).end()
   #define vf first
42
43
   #define vs second
44
   typedef long long LL;
45
46
   // #define int long long // 需要在LL定义之后
   typedef pair<int,int> PII;
47
48
49
   const int INF = 0x3f3f3f3f;
50
   const int N = 2e5 + 21;
51
   const int MOD = 1e9 + 7;
   /**
52
53
    * 注意取模要注意,容易犯错,保险一点: (a + b % MOD) % MOD ==> ( (a + b % MOD) % MOD +
   MOD) % MOD
    * 这是因为 如果 -b > a 的话取模是负数,再次取模即可
```

```
55
      * e.g. ( -5 % 3 + 3) % 3 == 1
 56
                 -2 + 3 ==> 1 % 3 == 1
 57
      */
 58
 59
     // 当输入数据大于 1e6 时用快读
 60
 61
     inline int fread() // 快读
 62
 63
         int x = 0, f = 1; char ch = getchar();
         while(ch < '0' || ch > '9') {if (ch == '-') f = -1; ch = getchar(); }
64
         while(ch >= '0' && ch <= '9') {
 65
             x = x * 10 + (ch - '0');
 66
 67
             ch = getchar();
 68
69
         return x * f;
 70
71
     namespace fast_IO {
 72
         inline char read() {
 73
             return getchar();
 74
             static const int IN LEN = 1000000;
 75
             static char buf[IN_LEN], *s, *t;
             if (s == t) {
 76
 77
                 t = (s = buf) + fread(buf, 1, IN_LEN, stdin);
 78
                 if (s == t) return -1;
 79
 80
             return *s++;
 81
 82
         template<class T>
         inline void read(T &x) {
 83
             static bool iosig;
 84
 85
             static char c;
 86
             for (iosig = false, c = read(); !isdigit(c); c = read()) {
 87
                 if (c == '-') iosig = true;
                 if (c == -1) return;
 88
 89
 90
             for (x = 0; isdigit(c); c = read())
 91
                 x = ((x + (x << 2)) << 1) + (c ^ '0');
             if (iosig) x = -x;
 92
 93
         const int OUT_LEN = 10000000;
94
95
         char obuf[OUT LEN], *ooh = obuf;
96
         inline void print(char c) {
97
             if (ooh == obuf + OUT_LEN) fwrite(obuf, 1, OUT_LEN, stdout), ooh = obuf;
98
             *ooh++ = c;
99
         template<class T>
100
101
         inline void print(T x) {
             static int buf[30], cnt;
102
103
             if (x == 0) {
                 print('0');
104
105
             else {
106
                 if (x < 0) print('-'), x = -x;
107
108
                 for (cnt = 0; x; x \neq 10) buf[++cnt] = x \% 10 + 48;
109
                 while (cnt) print((char)buf[cnt--]);
             }
110
111
112
         inline void flush() {
             fwrite(obuf, 1, ooh - obuf, stdout);
113
114
```

```
115
116
    void numeric() { // 数学
        LL k = 1e17;
117
        // cmath库里的数学尽量先乘个 1.0
118
        double d = sqrt(k * k); // × 会爆 原因: k*k 计算完转double, 但是LL超了, 因此是计算错误
119
        double d = sqrt(1.0 * k * k); // \/
120
        // 同理LL
121
        int ik = 3;
122
        LL 1 = (LL)ik * ik; // 麻烦
123
        LL l = 1LL * ik * ik; // 敲代码好敲些
124
125
    }
126
127
    void inpfile();
    void solve() {
128
129
130
        map<int,int> mii;
131
        unordered_map<int,int> umii;
        set<int> si;
132
133
134
        int n; cin>>n;
135
        vector<int> vi(n);
136
        vector<PII> vpi(n);
        vector<vector<int>> f(n, vector<int>(2,0)); // c++14 auto dfs中用vector数组不行, (或者
137
     我现在的编译器不支持
138
        // lambda表达式
139
140
        auto lam = [&](int a, int b) -> int {
            return a > b ? a : b;
141
        }; // 注意 逗号
142
143
    int main() // signed main()
144
145
146
        #ifdef Multiple_groups_of_examples
147
        int T; cin>>T;
148
        while(T--)
149
        #endif
150
        solve();
151
        return 0;
152
    }
153
    void inpfile() {
154
        #define mytest
155
        #ifdef mytest
        freopen("ANSWER.txt", "w",stdout);
156
157
        #endif
158 }
```