

Corona Attack!

locked

Problem	Submissions	Leaderboard	Discussions
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Submitted 4 hours ago • Score: 100.00

Status: Accepted

✓	Test Case #0	✓	Test Case #1	✓	Test Case #2
✓	Test Case #3				

Submitted Code

Language: C++20

Open in editor

```
1 // HEADERS AND NAMESPACE
2 #include <bits/stdc++.h>
3 using namespace std;
4
5 // CONSTANTS
6 const int mod = 1000000007;
7 // const int mod = 998244353;
8
9 // COMMONLY USED TYPES
10 typedef long long ll;
11 typedef long double ld;
12 typedef vector<int> vi;
13 typedef vector<ll> vll;
14 typedef pair<int, int> pi;
15 typedef pair<ll, ll> pl;
16 typedef vector<pi> vpi;
17 typedef vector<pl> vpl;
18
19 // LOOPS
20 #define FOR(i, l, r) for (ll i = l; i <= (r); i++)
21 #define FOR(i, n) for (ll i = 0; i < (n); i++)
22 #define FORd(i, a, b) for (ll i = (b)-1; i >= a; i--)
23 #define FORd(i, a) for (ll i = (a); i >= 0; i--)
24 #define trav(x, a) for (auto &x : a)
25
26 // SHORT HAND
27 #define pb push_back
28 #define mp make_pair
29 #define fi first
30 #define se second
31 #define sz(a) int((a).size())
32 #define fill(x, y) memset(x, y, sizeof(y))
33 #define all(x) (x).begin(), (x).end() // Forward traversal
34 #define endl "\n"
35 #define max(a, b) (a < b ? b : a)
36 #define min(a, b) ((a > b) ? b : a)
37
38 ll gcd(ll a, ll b)
39 {
40     return b ? gcd(b, a % b) : a;
41 }
42
43 #define watch(x) cout << (#x) << " is : " << (x) << "\n"
```

```

44 #define watch2(x, y) cout << (#x) << " is " << (x) << " and " << (#y) << " is " << (y) << "\n"
45
46 // First Variable Needs to be Ans like ans = max(ans,xyz)
47 template <class T>
48 bool ckmin(T &a, const T &b)
49 {
50     return b < a ? a = b, 1 : 0;
51 }
52 template <class T>
53 bool ckmax(T &a, const T &b)
54 {
55     return a < b ? a = b, 1 : 0;
56 }
57 // BE COOL AND FOCUS ON ACCURATE & SIMPLE CODE!
58 // -----TEMPLATE ENDS-----
59
60 // All Variables Here
61
62 // All Functions Here
63
64 // https://math.stackexchange.com/questions/3270282/chess-board-knight-distance
65
66 ll mv(ll x, ll y)
67 {
68
69     if (x + y == 0)
70         return 0;
71     if (x + y == 1)
72         return 3;
73     if (x == 2 && y == 2)
74         return 4;
75
76     double v1 = (x * 1.0) / 2;
77     double v2 = (y * 1.0) / 2;
78     double v3 = (x * 1.0 + y * 1.0) / 3;
79
80     double gmax = max(v1, v2);
81     gmax = max(gmax, v3);
82
83     ll m2 = ceil(gmax);
84
85     return m2 + ((m2 + x + y) % 2);
86 }
87
88 void solve()
89 {
90     ll n;
91     cin >> n;
92
93     while (n--)
94     {
95         ll x, y;
96         cin >> x >> y;
97         cout << mv(x, y) << endl;
98     }
99
100     return;
101 }
102
103 int main()
104 {
105     ios_base::sync_with_stdio(false);
106     cin.tie(0);
107     // If No Test Case, Then Comment it!
108     int tc = 1;
109     // cin >> tc;
110     while (tc--)
111     {
112         solve();
113     }
114     return 0;
115 }

```

