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Arkavidia 9.0 - Penyisihan CP > F

Submission #4248449

Arkavidia 9.0 - Penyisihan CP / [F. Fondasi Tembok Ajaib](#)Accepted • [ByeWorld](#) • C++20 • September 2, 2025 at 09:00:58 [Sample Test Data Results](#) [Test Data Results](#)

Your score

not attempted

Spoilers

 Show difficulty Show tagssolved by **12 / 12**

Top users by time

#	User	Time
1	ByeWorld	82 ms
3	Arman10	129 ms
4	Todoroki_Shouto	227 ms
5	albertnugroho128	244 ms

Top users by memory

#	User	Memory
1	albertnugroho128	1100 KB
2	takeonicky	1352 KB
3	llcxmn	1352 KB
4	Angustavia	1356 KB

```
1 #include <bits/stdc++.h>
2 #pragma GCC optimize("O3", "unroll-loops")
3 #define ll long long
4 #define int long long
5 #define pb push_back
6 #define fi first
7 #define se second
8 #define lf ((id<<1))
9 #define rg ((id<<1)|1)
10 #define md ((l+r)>>1)
11 #define ld long double
12 using namespace std;
13 typedef pair<ll, ll> pii;
14 const int MOD = 1e9+7;
15 const int INF = 1e17;
16 int sum(int a, int b){ return (a+MOD+b)%MOD; }
17 void chsum(int &a, int b){ a = sum(a,b); }
18 int mul(int a, int b){ return (a*b)%MOD; }
19 void chmul(int &a, int b){ a = (a*b)%MOD; }
20 int expo(int a, int b){
21     if(b==0) return 1;
22     int te = expo(a, b/2); te = mul(te, te);
23     return (b%2 ? mul(te, a) : te);
24 }
25 void chmn(auto &a, auto b){ a = min(a, b); }
26 void chmx(auto &a, auto b){ a = max(a, b); }
27
28 int n, sta, x;
29 string s, t;
30 int val[MAXN], ans[MAXN];
31
32 struct seg {
33     int st[4*MAXN], add[4*MAXN], tim[4*MAXN];
34     void bnc(int id, int l, int r){
35         if(tim[id] != 1){
36             int v = tim[id];
37             tim[lf] *= v; add[lf] *= v; st[lf] *= v;
38             tim[rg] *= v; add[rg] *= v; st[rg] *= v;
39             tim[id] = 1;
40         }
41         ... addirj += v; st[rg] += v;
42         add[id] = 0;
43     }
44     void bd(int id,int l,int r){
45         tim[id] = 1;
46         if(l==r) return;
47         bd(lf,l,md); bd(rg,md+1,r);
48     }
49     int que(int id, int l, int r, int x, int y){
50         if(x<=l && r<=y) return st[id];
51         if(r<x || y<l) return -INF;
52         bnc(id,l,r);
53         return max(que(lf,l,md,x,y), que(rg,md+1,r,x,y));
54     }
55     void TIM(int id, int l, int r, int x, int y, int v){
56         if(x<=l && r<=y){
57             tim[id] *= v; add[id] *= v; st[id] *= v;
58             return;
59         }
60         if(r<x || y<l) return;
61         bnc(id,l,r);
62         TIM(lf,l,md,x,y,v); TIM(rg,md+1,r,x,y,v);
63         st[id] = max(st[lf], st[rg]);
64     }
65     void ADD(int id, int l, int r, int x, int y, int v){
66         if(x<=l && r<=y){
67             if(r<x || y<l) return;
68             bnc(id,l,r);
69             ADD(lf,l,md,x,y,v); ADD(rg,md+1,r,x,y,v);
70             st[id] = max(st[lf], st[rg]);
71         }
72     }
73     signed main(){
74         ios_base::sync_with_stdio(0);cin.tie(0);cout.tie(0);
75         cin>>n>>sta>>x;
76         cin>>s; s='.'+s;
77         cin>>t; t='.'+t;
78         val[0] = sta;
79         for(int i=1; i<=n; i++){
80             ans[i] = -1;
81             val[i] = val[i-1]+x;
82             if(s[i]==t[i]){
83                 if(s[i]=='#'){
84                     val[i] -= 3*x;
85                 }
86             }
87         }
88     }
89 }
```

```
98         } else {
99             val[i] /= 2;
100        }
101    // cout << i << ' ' << val[i] << " val\n";
102}
103for(int i=1; i<=n; i++){
104    if(val[i]<=0){
105        for(int i=i+1; i<=n; i++)
106    }
107
108    A.bd(1,1,n);
109    for(int i=n; i>=1; i--){
110        if(i+1<=n){
111            if(s[i+1]==t[i+1]){
112                if(s[i+1]=='#'){
113                    A.ADD(1,1,n,i+1,n,3*x);
114                } else {
115                    A.TIM(1,1,n,i+1,n,2); A.ADD(1,1,n,i+1,n,1);
116                }
117            }
118            A.ADD(1,1,n,i+1,n,-x);
119        }
120        // if(i==2){
121        //     // cout << "kena\n";
122        //     for(int j=i; j<=n; j++) cout << A.que(1,1,n,j,j) << " pp\n";
123        // }
124
125        int p = val[i-1]*x;
126        if(s[i]=='#' && t[i]=='.') p -= 3*x;
127        if(s[i]=='.' && t[i]=='#') p /= 2;
128
129        // if(i==2) cout << p << " pp\n";
130        if(p<=0){
131            ans[i] = i; continue;
132        }
133        int l=i+1, r=n, mid=0, cnt=-1;
134        while(l<=r){
135            mid = md;
136            if(A.que(1,1,n,i+1,mid) >= p){
137                cnt = mid; r = mid-1;
138            } else l = mid+1;
139        }
140        ans[i] = cnt;
141    }
142
143    for(int i=1; i<=n; i++)
144        cout << ans[i] << " \n"[i==n];
145}
146
147
148
149
150
151 }
```