

```

1      /**
2      * H:\Dropbox\Code\SPOJ\20150221\IM21F.cpp
3      * Created on: 2015-02-21-23.45.35, Saturday
4      * Verdict: Solved
5      * Author: Enamul Hassan
6      */
7
8      #include <bits/stdc++.h>
9      #define _ ios_base::sync_with_stdio(0);cin.tie(0);
10
11     #define sz 200005
12     #define pb(a) push_back(a)
13     #define pp pop_back()
14     #define all(a) a.begin(),a.end()
15     #define ll long long
16     #define cntbit(mask) __builtin_popcount(mask)
17     #define unify(a)
18     stable_sort(a.begin(),a.end());a.resize(distance(a.begin(),unique(all(a))));
19     #define fread freopen("input.txt","r",stdin)
20     #define fwrite freopen("output.txt","w",stdout)
21     #define inf (1e18)
22     #define chng(a,b) a^=b^=a^=b;
23     #define clr(abc,z) memset(abc,z,sizeof(abc))
24     #define PI acos(-1)
25     #define pi 3.14159265358979323846264338327950288419716939937510
26     #define fr(i,a,b) for(i=a;i<=b;i++)
27     #define print1(a) cout<<a<<endl
28     #define print2(a,b) cout<<a<<" "<<b<<endl
29     #define print3(a,b,c) cout<<a<<" "<<b<<" "<<c<<endl
30     #define mod 1000000007LL
31     ll bigmod(ll sonkha,ll ghat,ll vag_const){ll vag_shesh=1;while(ghat>0){if(ghat%2==1)
32     ){vag_shesh=(vag_shesh*sonkha)%vag_const;}ghat/=2;sonkha=(sonkha*sonkha)%vag_const;}
33     return vag_shesh;}
34     ll inverse_mod(ll bivajok, ll vag_const){return bigmod(bivajok,vag_const-2,
35     vag_const);}
36
37     using namespace std;
38     char line[105];
39     int n;
40     pair<ll,ll> dp[105][11][2];
41
42     pair<ll,ll> rec(int pos, int pre, bool flag)
43     {
44         if(pos==n) return make_pair(0,1);
45         pair<ll,ll> &ret = dp[pos][pre][flag];
46         if(ret.first!=-1) return ret;
47
48         ret = make_pair(0,0);
49
50         int en = (flag?line[pos]:'9')-'0';
51         pair<ll,ll> temp;
52         for (int i = 0; i<=en; i++)
53         {
54             temp = rec(pos+1,i,flag&& i==en);
55             ret.first+=temp.first;
56             ret.first%=mod;
57             ret.second+=temp.second;
58             ret.second%=mod;
59             if(i==1&&pre==2) ret.first+=temp.second;
60             ret.first%=mod;
61         }
62         return ret;
63     }

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```

63 int main()
64 {
65 #ifdef ENAM
66 //      fread;
67 //      fwrite;
68 #endif // ENAM
69     int t, m, cas=1;
70     //      clock_t begin, end;
71     //      double time_spent;
72     //      begin = clock();
73     ll ans;
74     scanf("%d", &t);
75
76     while(t--)
77     {
78         scanf("%s", line);
79         n = strlen(line);
80         for (int i = n-1; i>=0; i--)
81         {
82             if(line[i] == '0') line[i] = '9';
83             else
84             {
85                 line[i]--;
86                 break;
87             }
88         }
89         clr(dp,-1);
90         ans = rec(0,0,1).first;
91         //      cout<<line<<"LLLLLL\n";
92         clr(dp,-1);
93         scanf("%s", line);
94         n = strlen(line);
95         ans=rec(0,0,1).first-ans;
96         //      cout<<ans<<"LLLLLL\n";
97         ans%=mod;
98         printf("%lld\n", (ans+mod)%mod);
99     }
100 }
101
102
103 //      end = clock();
104 //      time_spent = (double)(end - begin) / CLOCKS_PER_SEC;
105 //      cerr<<"Time spent = "<<time_spent<<endl;
106
107     return 0;
108 }

```