

```
1 #include<bits/stdc++.h>
2 using namespace std;
3 #define ll long long
4 const ll mod = 1000000007;
5 int x[1005],y[1005];
6 int main(){
7     ios::sync_with_stdio(false); cin.tie(0);
8     int n,m; cin>>n>>m;
9     string s[n+5];
10    for(int i=0; i<n; i++){
11        cin>>s[i];
12    }
13
14    int a[n+5][m+5];
15    ll dp[n+5][m+5], mp[n+5][m+5];
16    for(int i=0; i<=n+2; i++){
17        for(int j=0; j<=m+2; j++){
18            dp[i][j]=mp[i][j]=a[i][j]=0;
19        }
20    }
21
22    for(int i=0; i<n; i++){
23        for(int j=0; j<m; j++){
24            if(s[i][j]=='#')a[i+1][j+1]=1;
25            else a[i+1][j+1]=0;
26        }
27    }
28
29    dp[1][1] = 1;
30    for(int i=1; i<=n; i++){
31        for(int j=1; j<=m; j++){
32            if(i==1&&j==1)continue;
33            if(a[i][j]==0)dp[i][j]=0;
34            else{
35                dp[i][j] = dp[i-1][j]+dp[i][j-1];
36                dp[i][j] %= mod;
37            }
38        }
39    }
40
41    mp[n][m]=1;
42    for(int i=n; i>=1; i--){
43        for(int j=m; j>=1; j--){
44            if(i==n&&j==m)continue;
45            if(a[i][j]==0)mp[i][j]=0;
46            else{
47                mp[i][j] = mp[i][j+1]+mp[i+1][j];
48                mp[i][j] %= mod;
49            }
50        }
51    }
52
53    int q; cin>>q;
54    while(q--)
55    {
56        int p; cin>>p;
57        for(int k=1; k<=p; k++){
58            cin>>x[k]>>y[k];
59        }
60
61        ll ans = 0;
62        for(int k=1; k<=p; k++){
63            ans += (dp[x[k]][y[k]]*mp[x[k]][y[k]])%mod;
64            ans %= mod;
65        }
66        cout << ans << endl;
67    }
68
69    return 0;
70 }
```