Day 51

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Code- #include <iostream>

#include <bits/stdc++.h>

#define ll long long

using namespace std;

const int M = 1e9+7;

ll mod(ll x){

return (x%M + M)%M;

}

ll mul(ll a, ll b){

return mod((mod(a)\*mod(b)));

}

void solve(){

int n;

cin>>n;

vector<ll>a(n),b(n);

for(int i=0;i<n;i++) cin>>a[i];

for(int i=0;i<n;i++) cin>>b[i];

ll ans=0;

ll maxi;

for(int i=0;i<n;i++) ans+=a[i]\*b[i];

maxi=ans;

for(int i=0;i<n;i++){

ll total=ans;

int l=i-1;

int r=i+1;

while(l>=0 && r<n){

total-=(a[l]\*b[l] + a[r]\*b[r]);

total+=(a[l]\*b[r] + a[r]\*b[l]);

maxi=max(maxi,total);

l--;

r++;

}

}

for(int i=0;i<n;i++){

ll total=ans;

int l=i;

int r=i+1;

while(l>=0 && r<n){

total-=(a[l]\*b[l] + a[r]\*b[r]);

total+=(a[l]\*b[r] + a[r]\*b[l]);

maxi=max(maxi,total);

l--;

r++;

}

}

cout<<maxi;

}

int main(){

ios::sync\_with\_stdio(0);

cin.tie(0);

cout.tie(0);

cout<<fixed;

cout<<setprecision(10);

// freopen("timber\_input.txt", "r", stdin);

// freopen("timber\_output.txt", "w", stdout);

int t=1;

// cin>>t;

for(int i=1;i<=t;i++){

// cout<<"Case #"<<i<<": ";

solve();

}

return 0;

}

Time complexity-O(n\*Log(m))

Space complexity-O(n)

