

Problem: 10783-odd Sum (Uva) -19'page

Submission date:2022-03-23 19:12:10

```
#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
#define For(i, n) for (ll i = 0; i < n; i++)
#define rr return 0
inline void solve();
#define fast ios_base::sync_with_stdio(false);cin.tie(0);cout.tie(0);
int main(){
    fast;solve();rr;
}
inline void solve(){
    ll t;
    cin>>t;
    For(i,t){
        ll a,b,sum=0,p=1;
        cin>>a>>b;
        for(ll i=a;i<=b;i++)if(i%2!=0)sum+=i;
        cout << "Case " << i+1 << ": " << sum << nl;
    }
}
```

Problem: 10696 - f91 (Uva) -19page

Submission date:2022-03-18 13:52:09

```
#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
#define For(i, n) for (ll i = 0; i < n; i++)
inline void solve();
#define fast ios_base::sync_with_stdio(false);cin.tie(0);cout.tie(0);
int main(){
    //fast; solve();
}
void solve(){
    ll n;
    while(cin>>n){
        if(n==0) break;
        if(n<=100)cout<<"f91("<<n<<" ) = "<<91<<nl;
        if(n>=101)cout<<"f91("<<n<<" ) = "<<n-10<<nl;
    }
}
```

Problem: 10699 - Count the factors (Uva) -20'page

Submission date:2022-03-17 16:28:54

```
#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
#define For(i, n) for (ll i = 0; i < n; i++)
inline void solve();
int main(){
    solve();
}
inline void solve(){
    ll n;
    while (cin >> n){
        if (n == 0)break;
        cout << n << " : ";
        ll ans = 0;
        for (ll i = 2; i <= sqrt(n); i++){
            if (n % i == 0)ans++;
            while (n % i == 0)n = n / i;
        }
        if (n != 1)ans++;
        cout << ans << nl;
    }
}
```

Problem: 12289 – One-two-three (Uva)-20page

Submission date:2022-03-23 03:24:26

```
#include <bits/stdc++.h>
using namespace std;
int main(){
    int t;cin>>t;
    while(t--){
        string str; cin >> str;
        int one = 0, two = 0;
        if (str.size() == 5)
            cout << 3 << nl;
        else{
            for (int i = 0; i < str.size(); i++){
                if (str[0] == 'o' || str[i] == 'n'
|| str[i] == 'e')one++;
                if (str[i] == 't' || str[i] == 'w'
|| str[i] == 'o')two++;
            }
            if (one > two)cout << 1 << nl;
            else cout << 2 << nl;
        }
    }
}
```

Problem: 10591 - Happy Number (Uva)-21' page

Submission date:2022-03-16 12:24:06

```
#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    ll t; cin>>t;
    while(t--){
        ll n, m, p = 1;    cin >> n;
        m = n;
        set<ll> Set;
        while (1){
            Set.insert(m);
            ll sum = 0;
            while (m){
                sum += (m % 10) * (m % 10);
                m = m / 10;}
            if (sum == 1){
                printf("Case #d: %d is a Happy number.\n", t, n);
                t++; break;}
            if (Set.find(sum) != Set.end()){
                printf("Case #d: %d is an Unhappy number.\n", t, n);
                t++; break; }
            m = sum;}
    }
```

Problem: 10469-To Carry or not to carry (Uva)-21

page. Submission date:2022-03-16 11:42:31

```
#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    ll n,m;
    while(cin>>n>>m){
        ll c=n^m;
        cout<<c<<nl;
    }
}
```

Problem: 10370-Above Average (Uva)-22' page.

Submission date:2022-03-23 17:35:03

```
#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    ll n,m;
    double sum,average,avobe,a[1000],count;
    while(scanf("%d",&n)==1){
        for(ll i=0;i<n;i++){
```

```

        sum=0;
        scanf("%d",&m);
        for(ll j=0;j<m;j++){
            scanf("%lf",&a[j]);
            sum+=a[j];
        }
        average=(double)(sum/m),count=0;
        for(ll j=0;j<m;j++)if(average<a[j])count++;
        avobe=(double)(100*count/m);
        printf("%.3lf%",avobe);
        cout<<"%\n";
    }
}
}

```

Problem: 10346-Peter's Smokes (Uva)-22 page.

Submission date:2022-02-22 20:10:14

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    ll n,k;
    ll ans,r,d;
    while(scanf("%lld%lld",&n,&k)==2){

```

```

        ans=n;
        for(;n>=k;){
            d=n/k;
            r=n%k;
            ans=ans+d;
            n=d+r;
        }
        cout<<ans<<endl;
    }
}

```

Problem: 10327-Flip Sort (Uva)-24' page.

Submission date:2022-02-21 16:09:35

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    int n,arr[1000];
    while(scanf("%d",&n)==1){
        for(int i = 0;i<n;++i)cin>>arr[i];
        ll cunt= 0;
        for(int i = 1;i<n;++i)
            for(int j = 0;j<i;++j)
                if(arr[j]>arr[i])cunt++;
    }
}

```



```

        cout<<"Minimum exchange operations : "<<cunt<<nl;
    }
}

```

Problem: 10235-Simply Emirp (Uva)-24 page.

Submission date:2022-02-20 09:59:46

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
bool prime(ll n){
    if(n<2) return false;
    for(ll i=2; i*i<=n; i++)
        if(n%i==0) return false;
    return true;
}
ll rev(ll n){
    ll b=0;
    while(n!=0){
        b = b*10 + n%10;
        n/=10;
    }
    return b;
}
int main(){

```

```

    ll n;
    while(cin>>n){
        if(prime(n)==false) cout<<n<<" is not prime.\n";
        else{
            if(prime(rev(n))==true && rev(n)!=n) cout<<n<<"
is emirp.\n";
            else cout<<n<<" is prime.\n";
        }
    }
}

```

Problem: 10222-Decode the mad man (Uva)-25'

page. Submission date:2022-02-18 12:08:27

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main()
{
    string str;
    char aa[47] = {'q', 'w', 'e', 'r', 't', 'y', 'u', 'i',
'o', 'p', 91, 93, 92,
                'a', 's', 'd', 'f', 'g', 'h', 'j', 'k',
'l', 59, 39,
                'z', 'x', 'c', 'v', 'b', 'n', 'm', 44,
46, 47,

```

```

        '1', '2', '3', '4', '5', '6', '7',
        '8', '9', '0', 45, 61};
    while (getline(cin, str)){
        ll len = str.size();
        for (int i = 0; i < len; i++){
            if (str[i] >= 65 && str[i] <= 90)
                str[i] = tolower(str[i]);
        }
        for (int i = 0; i < len; i++){
            if (str[i] == ' ' || str[i] == '\n')
                cout << str[i];
            else{
                for (int j = 1; j < 47; j++){
                    if (str[i] == aa[j]){
                        cout << aa[j - 2];
                        break;
                    }
                }
            }
        }
        cout << nl;
    }
}

```

Problem: 10082-WERTYU (Uva)-25 page.

Submission date:2022-02-17 12:59:00

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'

```

```
typedef long long int ll;
char solve(char c){
    switch (c){
        case '1':
            return '`';
        case '2':
            return '1';
        case '3':
            return '2';
        case '4':
            return '3';
        case '5':
            return '4';
        case '6':
            return '5';
        case '7':
            return '6';
        case '8':
            return '7';
        case '9':
            return '8';
        case '0':
            return '9';
        case '-':
            return '0';
        case '=':
            return '-';
        case 'W':
            return 'Q';
        case 'E':
```

```
        return 'W';
    case 'R':
        return 'E';
    case 'T':
        return 'R';
    case 'Y':
        return 'T';
    case 'U':
        return 'Y';
    case 'I':
        return 'U';
    case 'O':
        return 'I';
    case 'P':
        return 'O';
    case '[':
        return 'P';
    case ']':
        return '[';
    case '\\':
        return ']';
    case 'S':
        return 'A';
    case 'D':
        return 'S';
    case 'F':
        return 'D';
    case 'G':
        return 'F';
    case 'H':
```

```
        return 'G';
case 'J':
    return 'H';
case 'K':
    return 'J';
case 'L':
    return 'K';
case ';':
    return 'L';
case '\\':
    return ';';
case 'X':
    return 'Z';
case 'C':
    return 'X';
case 'V':
    return 'C';
case 'B':
    return 'V';
case 'N':
    return 'B';
case 'M':
    return 'N';
case ',':
    return 'M';
case '.':
    return ',';
case '/':
    return '.';
case ' ':
    return ' ';
```

```

        return ' ';
    case '\n':
        return '\n';
    }
    return ' ';
}
int main(){
    char c;
    while (scanf("%c", &c) != EOF){
        printf("%c", solve(c));
    }
}

```

Problem: 100-The 3n+1 Problem (Uva)-26' page.

Submission date:2022-03-22 16:58:01

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    int n,m,j,cunt,ans;
    while(scanf("%d %d", &n, &m)!=EOF){
        ans=0;
        cout<<n<<" "<<m<<" ";
        if(n>m) swap(n,m);
    }
}

```

```

        for(int i=n; i<=m; i++){
            cunt=1,j=i;
            while(j > 1){
                if(j % 2==0)j = j/2;
                else j = (3*j)+1;
                cunt++;
            }
            if(cunt>=ans) ans=cunt;
        }
        cout<<ans<<endl;
    }
}

```

Problem: 12578-10:6:2 (Uva)-26 page.

Submission date:2022-04-12 17:38:32

```

#include <stdio.h>
int main(){
    int t;
    scanf("%d", &t);
    while (t--){
        int l;
        scanf("%d", &l);
        double red = (3.14159265358979323846264 * l * l) /
25.0;

```



```
double green = ((6 * 1 * 1) / 10.0) - red;
printf("%.2lf %.2lf\n", red, green);
}
}
```

Problem: 10071-Back to High School Physics (Uva)-
27' page. Submission date:2022-02-17 12:42:40

```
#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    ll v, t;
    while (cin >> v >> t){
        cout << 2 * v * t << nl;
    }
}
```

Problem: 10038-Jolly Jumpers (Uva)-27 page.
Submission date:2022-02-17 11:06:25

```
#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
```

```

typedef long long int ll;
int main(){
    int n, arr[3001];
    while(cin>>n) {
        for(int i = 0; i < n; i++)cin>>arr[i];
        int m[3001] = {0}, p = 0;
        for(int i = 1; i < n; i++) {
            if(abs(arr[i] - arr[i-1]) < n)
                m[abs(arr[i] - arr[i-1])]++;
        }
        for(int i = 1; i < n; i++)
            if(m[i] == 0) p = 1;
        if(p!=0)cout<<"Not jolly\n";
        else cout<<"Jolly\n";
    }
}

```

Problem: 10035-Primary Arithmetic (Uva)-28' page.

Submission date:2022-02-16 17:22:18

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){

```

```

    ll a, b;
    while (cin >> a >> b){
        if (a == 0 && b == 0)
            return 0;
        ll sum = 0, cunt = 0;
        while (a != 0 || b != 0){
            sum = (a % 10 + b % 10 + sum) / 10;
            a = a / 10;
            b = b / 10;
            if (sum != 0)
                cunt++;
        }
        if (cunt == 0) cout << "No carry operation.\n";
        else if (cunt == 1) cout << cunt << " carry
operation.\n";
        else cout << cunt << " carry operations.\n";
    }
}

```

Problem: 913-Joana and the odd Numbers (Uva)-
 28 page.

Submission date:2022-02-16 09:07:11

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'

```

```

typedef long long int ll;
int main(){
    ll n;
    while(cin>>n){
        n=n/2+1;
        n=n*n;
        ll ans=6*n-9;
        cout<<ans<<nl;
    }
}

```

Problem: 900-Brick wall patterns (Uva)-29' page.

Submission date:2022-02-15 17:11:04

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    ll cunt[51];
    cunt[0] = 1;
    cunt[1] = 2;
    for (int i = 2; i < 50; i++)
        cunt[i] = cunt[i - 1] + cunt[i - 2];
    ll n;
    while (cin >> n && n != 0)
        cout << cunt[n - 1] << '\n';
}

```

Problem: 729-The Hamming Distance Problem (Uva)-29 page.

Submission date:2022-02-15 09:27:06

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    ll t;
    cin>>t;
    while(t--){
        ll n,one;
        cin>>n>>one;
        ll arr[n];
        for(int i=0; i<n-one; i++)arr[i]=0;
        for(int i=n-one; i<n; i++)arr[i]=1;
        do{
            for(int i=0; i<n; i++)cout<<arr[i];
            cout<<nl;
        }
        while(next_permutation(arr, arr+n));
        if(t > 0)cout<<nl;
    }
}

```

Problem: 579-Clock Hands (Uva)-30' page.

Submission date:2022-02-13 16:05:18

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    ll h,m;
    while(cin>>h && h!=0){
        char c;
        cin>>c;
    }
}

```

```

        cin>>m;
        h=h*60;
        m=m*11;
        double ans=abs(h-m);
        ans=ans/2;
        if(ans>180)ans=360-ans;
        cout<<fixed<<setprecision(3)<<ans<<nl;
    }
}

```

Problem: 575-Skew Binary (Uva)-30 page.

Submission date:2022-02-12 15:35:30

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    string str;
    while(cin>>str && str!="0"){
        ll len=str.size();
        ll b=1,ans=0;
        for(ll i=len-1;i>=0;i--){
            ans=ans+(str[i]-'0')*(pow(2,b)-1);
            b++;
        }
        cout<<ans<<nl;
    }
}

```

Problem: 541-Errorr Correction (Uva)-31' page.

Submission date:2022-02-11 16:55:09

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    ll n;
    while (1){
        cin >> n;
        if (n == 0)return 0;
        ll max[n][n];
        for (ll i = 0; i < n; i++)
            for (ll j = 0; j < n; j++)
                cin >> max[i][j];
        ll sum = 0, r = 0, c = 0;
        ll row, col;
        for (ll i = 0; i < n; i++){
            sum = 0;
            for (ll j = 0; j < n; j++)sum += max[i][j];
            if (sum % 2 != 0){
                r++;
                row = i;
            }
        }
        for (ll j = 0; j < n; j++){
            sum = 0;
            for (ll i = 0; i < n; i++)
                sum += max[i][j];
            if (sum % 2 != 0){
                c++;
                col = j;
            }
        }
        if (r == 0 && c == 0)
            cout << "OK" << endl;
        if (r == 1 && c == 1)

```

```

        cout << "Change bit (" << row + 1 << ", " <<
col + 1 << ")" << nl;
        if (r > 1 || c > 1)
            cout << "Corrupt" << nl;
    }
}

```

Problem: 490-Rotating Sentences (Uva)-31 page.

Submission date:2022-02-10 15:38:06

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    string str[105];
    ll p = 0, k = 0;
    while (getline(cin, str[p])){
        if (str[p].size() > k) k = str[p].size();
        p++;
    }
    for (int j = 0; j < k; j++){
        for (int i = p - 1; i >= 0; i--){
            if (str[i].size() > j) cout << str[i][j];
            else cout << ' ';
        }
        cout << nl;
    }
}

```

Problem: 488-Triangle Wave (Uva)-32' page.

Submission date:2022-02-09 8:39:13


```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main() {
    ll t, f, a;
    cin>>t;
    while (t--) {
        cin>>a>>f;
        for (int i = 0; i < f; i++) {
            for (int j = 1; j <= a; j++) {
                for (int k = 0; k < j; k++)cout<<j;
                cout<<nl;
            }
            for (int j = a - 1; j >= 1; j--) {
                for (int k = 0; k < j; k++)cout<<j;
                cout<<nl;
            }
            if (i != f - 1)cout<<nl;
        }
        if(t)cout<<nl;
    }
}

```

Problem: 458-The Decoder (Uva)-32 page.

Submission date:2022-02-08 08:48:51

```

#include<stdio.h>
int main(){
    char s[1000];
    int i;
    while(gets(s)) {
        for(i = 0; s[i]; i++)printf("%c", s[i]-7);
        puts("");
    }
}

```

```
}  
    return 0;  
}
```

**Problem: 446- Kibbles "n" Bits "n" Bits "n" Bits
(Uva)-33' page.**

Submission date:2022-02-08 07:19:15

```
#include <bits/stdc++.h>  
using namespace std;  
#define nl '\n'  
typedef long long int ll;  
int main(){  
    ll t, hex1, hex2, ans;  
    char c;  
    cin >> t;  
    while (t--){  
        cin >> hex1 >> c >> hex2;  
        if (c == '+') ans = hex1 + hex2;  
        else ans = hex1 - hex2;  
        cout << bitset<13>(hex1) << " " << c << " " <<  
        bitset<13>(hex2) << " = " << ans << nl;  
    }  
}
```

Problem: 440-Eeny Meeny Moo (Uva)-33 page.

Submission date:2022-02-06 07:21:15

```
#include <bits/stdc++.h>  
using namespace std;
```

```

#define nl '\n'
typedef long long int ll;
int abc(int n,int m){
    ll cunt=0;
    for(int i=2;i<n;i++){
        cunt=(cunt+m)%i;
    }
    return cunt;
}
int main(){
    ll n;
    while(cin>>n){
        if(n==0)return 0;
        for(int i=1;;i++){
            if(abc(n,i)==0){
                cout<<i<<nl;
                break;
            }
        }
    }
}

```

Problem: 401-Palindromes (Uva)-34' page.

Submission date:2022-02-03 11:23:39

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    string s="ABCDEFGHIJKLMNOPQRSTUVWXYZ123456789";
    string c="A 3 HIL JM O 2TUVWXY51SE Z 8 ";
}

```

```

map<char, char>mp;
for(int i=0;i<s.size();i++)
    mp[s[i]]=c[i];
string str;
while(cin>>str){
    string b="";
    string rev = string(str.rbegin(),str.rend());
    for(int i=0;i<rev.size();i++)b=b+mp[rev[i]];
    if(b==str && rev==str)
        cout<<str<<" -- is a mirrored
palindrome."<<nl<<nl;
    else if(b==str)
        cout<<str<<" -- is a mirrored string."<<nl<<nl;
    else if(rev==str)
        cout<<str<<" -- is a regular
palindrome."<<nl<<nl;
    else cout<<str<<" -- is not a palindrome."<<nl<<nl;
}
}

```

Problem: 146-ID Codes (Uva)-34 page.

Submission date:2022-02-02 17:29:12

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    string str;
    while(cin>>str){
        if(str=="#")return 0;
        ll len=str.size();
    }
}

```

```

        if(next_permutation(str.begin(),str.end()))
            cout<<str<<nl;
        else cout<<"No Successor\n";
    }
}

```

Problem: 136-Ugly Number (Uva)-35' page.

Submission date:2022-02-02 17:09:47

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
int main(){
    cout<<"The 1500'th ugly number is 859963392.\n";
}

```

Problem: 119-Greedy Gift Givers (Uva)-35 page.

Submission date:2022-02-02 10:34:10

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
#define pb(x) push_back(x)
int main(){
    ll n, money, a;
    string name, frnd;
    vector<string> vec;
    ll cunt = 0;
    while (cin >> n){
        vec.clear();
        map<string, ll> mp;
    }
}

```

```

    for (ll i = 0; i < n; i++){
        cin >> name;
        mp[name] = 0;
        vec.pb(name);
    }
    for (ll i = 0; i < n; i++){
        cin >> name >> money >> a;
        if (a > 0){
            mp[name] = mp[name] + money % a;
            mp[name] = mp[name] - money;
            for (ll j = 0; j < a; j++){
                cin >> frnd;
                mp[frnd] = mp[frnd] + money / a;
            }
        }
    }
    if (cunt > 0) cout << endl;
    for (int i = 0; i < vec.size(); i++)
        cout << vec[i] << " " << mp[vec[i]] <<nl;
    cunt++;
}
}

```

Problem: 113-Power of Cryptography (Uva)-36'

page. Submission date:2022-01-31 14:03:10

```

#include <bits/stdc++.h>
using namespace std;
#include<stdio.h>
int main(){
    double a,b;
    while(cin>>a>>b){

```

```

        double c=pow(b,(1/a));
        printf("%.0lf\n",c);
    }
}

```

Problem: 10110-Light, more-Light (Uva)-36 page.

Submission date:2022-04-14 16:11:21

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    ll n = 1;
    while (cin >> n && n != 0){
        ll sq = sqrt(n);
        cout << (sq * sq == n ? "yes\n" : "no\n");
    }
}

```

Problem: 10420-List of Conquests (Uva)-37' page.

Submission date:2022-01-22 06:25:30

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    ll n;

```

```

cin>>n;
string str[n];
for(int i=0;i<n;i++){
    cin>>str[i];
    string name;
    getline(cin,name);
}
sort(str,str+n);
ll cunt=1;
for(int i=0;i<n;i++){
    if(str[i]!=str[i+1]){
        cout<<str[i]<<" "<<cunt<<nl;
        cunt=1;
        continue;
    }
    cunt++;
}
}

```

Problem: 494-Kindergartent Counting Game (Uva)-
37 page. Submission date:2022-01-27 06:00:08

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;

```



```

int main(){
    ll cunt=0;
    string str;
    while(getline(cin,str)){
        for(int i=0;i<str.size();i++)
            if(isalpha(str[i]) && !isalpha(str[i+1]))cunt++;
        cout<<cunt<<endl;
        cunt=0;
    }
}

```

Problem: 272-Tex Quotes (Uva)-38 page.

Submission date:2022-01-26 14:08:41

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    char ch;
    ll cunt = 0;
    while(scanf("%c",&ch) == 1){
        if(ch == '"'){
            cunt++;
            if(cunt%2!=0)cout<<"`";
            else cout<<"'";
        }
    }
}

```

```

    }
    else printf("%c",ch);
}
}

```

Problem: 11498-Division of Nlogonia (Uva)-38

page. Submission date:2022-01-26 13:48:04

```

#include <bits/stdc++.h>
using namespace std;
#define nl '\n'
typedef long long int ll;
int main(){
    ll t;
    while(cin>>t && t!=0){
        ll a,b;
        cin>>a>>b;
        while(t--){
            ll x,y;
            cin>>x>>y;
            if(x==a||y==b)cout<<"divisa"<<nl;
            else if(x>a && y>b)cout<<"NE"<<nl;
            else if(x<a && y>b)cout<<"NO"<<nl;
            else if(x<a && y<b)cout<<"SO"<<nl;
            else if(x>a && y<b)cout<<"SE"<<nl;
        }
    }
}

```

```
}  
}
```