***Normalized form:***

***void solve( char a, char b, char c )***

***{***

***S.pop();***

***if ( c=='|' ) {***

***if ( a=='T' || b=='T' ) S.push('T');***

***else S.push('F'); }***

***else {***

***if ( a=='F' || b=='F' ) S.push('F');***

***else S.push('T'); } }***

***int main() {***

***string line; bool check; char c;***

***int count,rem\_and,ccase=1,num;***

***while ( cin>>line ) {***

***if ( line=="()" ) break;***

***cout<<ccase<<". ";***

***ccase++; count=0; num=0; int depth=0;***

***for ( int i=0 ; i<line.length() ; i++ ) {***

***if(line[i]=='(' ) { count++;***

***if ( depth<count ) depth=count; }***

***else if ( line[i]==')' ) count--; }***

***rem\_and=depth%2; count=0;***

***for ( int i=0 ; i<line.length() ; i++ ) {***

***if ( line[i]=='T' || line[i]=='F' ) {***

***if ( check ) {***

***if ( count%2==rem\_and ) solve(S.top(),line[i] , '&' );***

***else solve(S.top(),line[i] , '|' ); }***

***else S.push(line[i]);***

***check=true; }***

***else { if ( line[i]==')' )***

***{ count--;***

***if ( S.size()>1 ) {***

***c=S.top(); S.pop();***

***if ( count%2==rem\_and ) solve( S.top(),c ,'&' );***

***else solve( S.top(),c ,'|' ); }***

***check=true; }***

***else {***

***count++; check=false; } } }***

***if( S.top()=='T' ) cout<<"true\n";***

***else cout<<"false\n";***

***while ( ! S.empty() ) S.pop(); } }***

***The number which gives max reminder among some numbers :***

***for ( int i=0 ; i<x ; i++ )***

***for ( int j=i+1 ; j<x ; j++ )***

***ans=gcd(max(ans,abs(arr[j]-arr[i])),min(ans,abs(arr[j]-arr[i])));***

***cout<<ans<<endl;***