#include<iostream>

using namespace std;

bool input(int Ref[][2],int A[],int count)

{

int counterone;

for(int a=0;a<count;a++)

{

for(int b=0;b<2;b++)

{

if(Ref[a][b]==A[a])

{

counterone++;

}

}

}

if(counterone>0)

{

cout<<"Values in set"<<endl;

return true;

}

else

{

cout<<"Values not found"<<endl;

return false;

}

}

void Reflexive(int Ref[][2],int A[],int count)

{

int countertwo=0,k=1;

for(int a=0;a<count;a++)

{

for(int b=0;b<1;b++)

{

if(Ref[a][b]==A[a] && Ref[a][k]==A[a])

{

countertwo++;

}

else

{

cout<<"Tuples that does not lead to symmetry"<<endl;

cout<<"("<<Ref[a][b]<<","<<Ref[a][k]<<")"<<endl;

}

}

k=1;

}

if(count==countertwo)

{

cout<<"Reflexive";

}

else

{

cout<<"Not Reflexive ";

}

}

int main ()

{

bool Check;

int count,counterthree,k=1;

cout<<"Tupels that are present ";

cin>>count;

int Ref[count][2];

cout<<"Enter touples:";

for(int a=0;a<count;a++)

{

for(int b=0;b<2;b++)

{

cin>>Ref[a][b];

}

k=1;

}

for(int a=0; a<count;a++)

{

for(int b=0;b<1;b++)

{

cout<<"("<<Ref[a][b]<<","<<Ref[a][k]<<")";

}

cout<<endl;

}

cout<<"Numbers present in set: ";

cin>>counterthree;

int A[counterthree];

cout<<"Enter your set :";

for(int a=0;a<counterthree;a++)

{

cin>>A[a];

}

Check=input(Ref,A,count);

if(Check==true)

{

cout<<"proceed."<<endl;

Reflexive(Ref,A,count);

}

else

{

cout<<"Do not proceed."<<endl;

}

return 0;

}