program Kruskal3;

type matrice=array[1..14,1..14] of integer;

var a,b :matrice;

k,min,nod,p,q,i,j,n,p1,max :integer;

repeta,este :boolean;

procedure citire(var a:matrice;var n:integer);

var i,j,r:integer;

t:text;

begin

assign (t,'date1.txt');

reset(t);

readln(t,n);

while (not eof(t)) do

begin

readln(t,i,j,r);

a[i,j]:=r;a[j,i]:=r;

end;

close(t);

end;

procedure init(var a:matrice;n:integer);

var i,j:integer;

begin

for i:=1 to n do

for j:=1 to n do

a[i,j]:=0;

end;

procedure afla(a:matrice;n,nod,nu:integer);

var k:integer;

pr:boolean;

begin

pr:=false;

if nod=i then

begin

pr:=true; este:=true;

p:=i; p1:=i;

end;

for k:=1 to n do

begin

if (not este) then

if (a[nod,k]<>0)and(k<>nu) then afla(a,n,k,nod);

if este then

begin

if (not pr) then

begin

if b[p1,nod]>max then

begin

q:=p1; p:=nod;

p1:=nod; max:=b[q,p];

end

else p1:=nod;

end

end;

end

end;

begin

citire(a,n);

init(b,n);

for i:=1 to n do

for j:=1 to n do

if a[i,j]<>0 then

begin

b[i,j]:=a[i,j]; b[j,i]:=a[j,i];

repeta:=true;

while repeta do

begin

repeta:=false;

este:=false;

p:=0; q:=0;

max:=0;

for k:=1 to n do

if (b[i,k]<>0)and(not este) then

begin

afla(b,n,k,i);

if este then if b[i,k]>max then

begin

p:=i; q:=k;

end;

end;

if este then

begin

repeta:=true;

b[p,q]:=0; b[q,p]:=0;

a[p,q]:=0; a[q,p]:=0;

end;

end;

end;

min:=0;

for i:=1 to n do

for j:=i to n do

min:=min+b[i,j];

writeln('Valoarea minima este:',min);

end.