//PROBLEM 1(WEEK 10)

#include<bits/stdc++.h>

using namespace std;

int main()

{

int n;

cin>>n;

int i,s[n],f[n];

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

cin>>s[i];

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

cin>>f[i];

vector<vector<int>> a;

vector<int> act;

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

a.push\_back({f[i],s[i],i+1});

sort(a.begin(),a.end());

int e=INT\_MIN,c=0;

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

{

if(a[i][1]>=e)

{

e=a[i][0];

c++;

act.push\_back(a[i][2]);

}

}

cout<<"No. of non-conflicting activities : "<<c<<endl;

cout<<"List of selected activities : ";

for(i=0;i<act.size();i++)

cout<<act[i]<<",";

return 0;

}

***OUTPUT***

10

3 7 2 6 4 5 1 9 0 8

7 8 45 61 9 0 5 13 8 7

No. of non-conflicting activities : 5

List of selected activities : 6,7,10,2,8,

//PROBLEM 2(WEEK 10)

#include<bits/stdc++.h>

using namespace std;

int main()

{

int n;

cin>>n;

int i,t[n],f[n];

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

cin>>t[i];

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

cin>>f[i];

vector<vector<int>> a;

vector<int> act;

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

a.push\_back({f[i],f[i]-t[i],i+1});

sort(a.begin(),a.end());

int e=INT\_MIN,c=0;

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

{

if(a[i][1]>=e)

{

e=a[i][0];

c++;

act.push\_back(a[i][2]);

}

}

sort(act.begin(),act.end());

cout<<"Max number of tasks : "<<c<<endl;

cout<<"Selected task Numbers : ";

for(i=0;i<act.size();i++)

cout<<act[i]<<",";

return 0;

}

***OUTPUT***

10

3 7 9 5 0 3 3 5 7 8

0 8 3 1 7 3 9 6 5 2

Max number of tasks : 3

Selected task Numbers : 1,5,6,

//PROBLEM 3(WEEK 10)

#include<bits/stdc++.h>

using namespace std;

int main()

{

int n;

cin>>n;

int i,a[n],c,j;

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

cin>>a[i];

bool f=0;

sort(a,a+n);

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

{

c=1;

j=i+1;

while(j<n && a[j++]==a[i])

c++;

if(c>n/2)

{

cout<<"yes\n";

f=1;

break;

}

i=j-1;

}

if(f==0)

cout<<"no\n";

if(n%2!=0)

cout<<a[n/2];

else

cout<<((float)a[n/2]+a[n/2-1])/2;

return 0;

}

***OUTPUT***

8

0 7 5 3 8 3 2 8

no

4