<https://www.e-olymp.com/uk/problems/555>

#include <iostream>

#include <math.h>

#include <set>

using namespace std;

long a[100000];

set <long> s;

int main()

{long n;

 cin>>n;

 for(long i=1;i<=n;i++)

 {cin>>a[i];

 s.insert(a[i]);}

long nmin=2000000000,old=-20000000000,x,y;

 for(set<long>::const\_iterator it = s.begin();

 it != s.end(); it++)

 {

 if(fabs(old-\*it)<nmin){nmin=fabs(old-\*it);x=old;y=\*it;}

 old=\*it;

}

cout << nmin<<endl;

 for(long i=1;i<=n;i++)

 if(x==a[i] || y==a[i]){cout<<i<<" ";}

 return 0;

}

#include <iostream>

#include <string>

#include <map>

#include <fstream>

using namespace std;

int main()

 {

 map <string,int> words;

 ifstream in;

 in.open("in.txt");

 string word;

 while (in>>word)

 {

 words[word]++;

 }

 ofstream out;

 out.open("out.txt");

 int count = 0;

 map <string,int>::iterator cur;

 out<<"Words count:"<<endl;

 for (cur=words.begin();cur!=words.end();cur++)

 {

 out<<(\*cur).first<<": "<<(\*cur).second<<endl;

 count+=(\*cur).second;

 }

 out<<"Words percenc:"<<endl;

 for (cur=words.begin();cur!=words.end();cur++)

 {

 out<<(\*cur).first<<": "<<(float)((float)(\*cur).second/(float)count)\*100<<"%"<<endl;

 }

 return 0;

}

<https://www.e-olymp.com/uk/problems/2661>

#include <iostream>

#include <math.h>

#include <set>

using namespace std;

set <long> s;

int main()

{long n,a;

 cin>>n;

 for(long i=1;i<=n;i++)

 {cin>>a;

 s.insert(a);}

 cin>>n;

 for(long i=1;i<=n;i++)

 {cin>>a;

 s.insert(a);}

 for(set<long>::const\_iterator it = s.begin();it != s.end(); it++)

 cout<<\*it<<" ";

 return 0;

}

<https://www.e-olymp.com/uk/problems/3004>

#include <iostream>

#include <math.h>

#include <set>

using namespace std;

long a[100000];

int main()

{long n,k,mmin,nmin,temp;

 cin>>n>>k;

 for(long i=1;i<=k;i++)

 {cin>>a[i];}

 for(long i=k+1;i<=n;i++)

 {cin>>temp;

 mmin=a[1];nmin=1;

 for(long j=2;j<=k;j++)

 if(a[j]<mmin){mmin=a[j];nmin=j;}

 a[nmin]+=temp;

 }

mmin=a[1];

 for(long i=2;i<=k;i++)

 if(a[i]>mmin){mmin=a[i];}

 cout<<mmin<<endl;

 return 0;

}

<https://www.e-olymp.com/uk/problems/1872>

#include <iostream>

#include <math.h>

#include <set>

using namespace std;

long a[200000],m[200000];

int main()

{long n,t,M,s=0;

 cin>>n;

 for(long i=1;i<=n;i++)

 {cin>>t>>M;

 if (M==0){ a[i]=a[t]-m[t];}

 else {a[i]=a[t]+M; m[i]=M;}

 }

s=0;

 for(long i=1;i<=n;i++)

 s=s+a[i];

 cout<<s<<endl;

 return 0;

}

<https://www.e-olymp.com/uk/problems/2040>

#include <fstream>

#include <string.h>

#include <set>

#include <deque>

#include <algorithm>

#include <iterator>

using namespace std;

multiset <char> s1;

set <char> s2;

set <char> s3;

char a[1000],b[1000];

ifstream cin("input.txt");

ofstream cout("output.txt");

int main()

{long n,temp;

while(!cin.eof())

{

 cin>>a;

 for(long i=0;i<strlen(a);i++)

 s1.insert(a[i]);

 cin>>b;

 for(long i=0;i<strlen(b);i++)

 s2.insert(b[i]);

//cout<<a<<endl;

//cout<<b<<endl;

 set\_intersection(s1.begin(),s1.end(),s2.begin(),s2.end(),inserter(s3, s3.begin()));

 for(set<char>::const\_iterator it = s3.begin();it != s3.end(); it++)

 cout<<\*it;

 cout<<endl;

 s1.clear();

 s2.clear();

 s3.clear();

}

 return 0;

}

<https://www.e-olymp.com/uk/problems/1228>

#include <iostream>

#include <algorithm>

using namespace std;

long long a[100000];

int main()

{long n;

 cin>>n;

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

 cin>>a[i];

 sort(a,a+n);

 long i=1, s=0,j;

 while (i<n)

 {

 a[i]=a[i]+a[i-1];

 s=s+a[i];

 sort(a,a+n);

 //j=i+1;

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

// swap(a[i],a[j-1]);

 i++;

 //for(long i=0;i<n;i++) cout<<a[i]<<" ";cout<<endl;

 }

cout<<s<<endl;

 return 0;

}

#include <iostream>

#include <algorithm>

using namespace std;

long long a[200000];

int main()

{long n;

 cin>>n;

 for(long i=0;i<n;i++) cin>>a[i];

 sort(a,a+n);

 long i=1, s=0,j;

 while (i<n)

 {

 a[i]=a[i]+a[i-1];

 s=s+a[i];

 // sort(a,a+n);

 j=i+1;

 while (a[j-1]>=a[j] && j<n){

 swap(a[j-1],a[j]);j++;}

 i++;

for(long i=0;i<n;i++) cout<<a[i]<<" ";cout<<endl;

 }

cout<<s<<endl;

 return 0;

}

<https://www.e-olymp.com/uk/problems/1226>

#include <fstream>

#include <algorithm>

using namespace std;

ifstream cin("input.txt");

ofstream cout("output.txt");

int a[1000][1000];

int main()

{int k,n,x,y;

cin>>k;

 for(int r=0;r<k;r++)

 {

 cin>>n;

 for(int i=0;i<1000;i++)

 for(int j=0;j<1000;j++)a[i][j]=0;

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

 {cin>>x>>y;

 a[x][y]++;}

 int f=1;

 for(int i=0;i<1000;i++)

 for(int j=i;j<1000;j++)

 if (a[i][j]!=a[j][i]){f=0;break;}

 if(f)cout<<"YES"<<endl;else cout<<"NO"<<endl;

 }

 return 0;

}

1226 91%

#include <fstream>

#include <algorithm>

using namespace std;

ifstream cin("input.txt");

ofstream cout("output.txt");

int a[1000000];

int m=1000000;

int main()

{int k,n,x,y;

cin>>k;

 for(int r=0;r<k;r++)

 {

for(int i=0;i<m;i++)a[i]=0;

 cin>>n;

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

 {cin>>x>>y;

 if (x>y)a[(x+y)%m]++;else a[(x+y)%m]--;

 }

 int f=1;

 for(int i=0;i<m;i++)

 if (a[i]!=0){f=0;break;}

 if(f)cout<<"YES"<<endl;else cout<<"NO"<<endl;

 }

 return 0;

}