#include<conio.h>

#include<iostream>

#include<fstream>

#include<string>

using namespace std;

void merge(int [],int [],int ,int);

void combine(int [],int [],int,int,int);

void main()

{

int a[10],b[10];

ifstream infile;

infile.open("in.txt");

for(int i=0;i<10;i++)

infile>>a[i];

merge(a,b,0,9);

for(int i=0;i<10;i++)

cout<<a[i]<<" ";

cout<<endl;

getch();

infile.close();

} //

void merge(int a[],int b[],int first ,int last)

{

if(first==last)

return;

int middle=(first+last)/2;

merge(a,b,first,middle);

merge(a,b,middle+1,last);

combine(a,b,first,middle,last);

} //

void combine(int a[],int b[],int first,int middle,int last)

{

int j=first;

int k=middle+1;

int i=first;

while((j<=middle)&&(k<=last))

{

if((a[j]>a[k]))

{

//cout<<"if((a[j]>a[k])):"<<endl;

b[i]=a[k];

i++;

k++;

}

else

{

b[i]=a[j];

j++;

i++;

}

}

while(j<=middle)

{

b[i]=a[j];

i++;

j++;

}

while(k<=last)

{

b[i]=a[k];

i++;

k++;

}

for(int i=first;i<=last;i++)

{

a[i]=b[i];

//cout<<"a[i]:"<<a[i]<<endl;

}

}