/\*array union & intersection\*/

#include<stdio.h>

void printunion(int a[],int n,int b[],int m);

void printintersection(int a[],int n,int b[],int m);

int main()

{

int i,j,n,m;

printf("enter the size of 1st array\n");

scanf("%d",&n);

printf("enter the size of 2nd array\n");

scanf("%d",&m);

int a[n],b[m];

printf("enter the 1st array elements\n");

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

{

scanf("%d",&a[i]);

}

printf("enter the 2nd array elements\n");

for(j=0;j<m;j++)

{

scanf("%d",&b[j]);

}

printunion(a,n,b,m);

printintersection(a,n,b,m);

}

void printunion(int a[],int n,int b[],int m)

{

printf("new array elements are\n");

int i=0,j=0;

while(i<n && j<m)

{

if(a[i]<b[j])

{

printf("%d\n",a[i]);

i++;

}

else if(a[i]>b[j])

{

printf("%d\n",b[j]);

j++;

}

else

{

printf("%d\n",a[i]);

i++;

j++;

}

}

while(i<n)

{

printf("%d\n",a[i]);

i++;

}

while(j<m)

{

printf("%d\n",b[j]);

j++;

}

}

void printintersection(int a[],int n,int b[],int m)

{

int i,j,k=0,count=0;

int c[k];

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

{

for(j=0;j<m;j++)

{

if(a[i]==b[j])

{

c[k]=a[i];

k++;

count++;

}

}

}

printf("the result of intersection is\n");

for(k=0;k<count;k++)

{

printf("%d\n",c[k]);

}

}

