#include <stdio.h>

void setOperation(int arr1[], int arr2[]);

int check(int arr3[], int num);

int main()

{

int arr1[]={1,2,3,4,5};

int arr2[]={3,4,5,6,7};

int n=5;

setOperation(arr1,arr2);

return 0;

}

int check(int arr3[], int num)

{

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

{

if(arr3[i]==num)

return 0;

}

return 1;

}

void setOperation(int arr1[], int arr2[])

{

int uni[10];

int intersection[10];

for(int i=0;i<5;i++)

{

uni[i]=arr1[i];

}

int j=5;

int intersectionSize=0;

for(int i=0;i<5;i++)

{

if(check(uni,arr2[i])==1)

{

uni[j]=arr2[i];

j++;

}

else

{

intersection[intersectionSize]=arr2[i];

intersectionSize++;

}

}

printf("\n Union of given set is : ");

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

{

printf("%d",uni[i]);

}

printf("\nIntersection of given set is : ");

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

{

printf("%d",intersection[i]);

}

int x;

printf("\nDifference of given set is :");

for(int i=0;i<5;i++)

{

x=0;

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

{

if(arr1[i]==intersection[k])

x=0;

else

x++;

}

if(x==intersectionSize)

printf("%d",arr1[i]);

}

printf("\n Symmetric Difference of given set is :");

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

{

x=0;

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

{

if(uni[i]==intersection[k])

x=0;

else

x++;

}

if(x==intersectionSize)

printf("%d",uni[i]);

}

}